



## PD/PM SERIES

Paralel Şaft Montajlı Redüktör  
Parallel Shaft Mounted Gear Units  
Flachgetriebemotoren

IE2 | IE3



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**PGR<sup>®</sup>**  
**DRIVE TECHNOLOGIES**



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## TR KALİTE POLİTİKAMIZ

Polat Group Redüktör San. ve Tic. A.Ş., en iyiyi yakalamak için; İş Sağlığı ve Güvenliği, Çevre Güvenliği ve Kalite Yönetim Sistemi uygulamalarını, Üretim ve Hizmet sürecinin vazgeçilmez bir unsuru olarak değerlendirmekte ve uygulamaktadır.

Bu doğrultuda;

- Yayınlanmış ulusal/uluslararası yasal şartlar ve diğer şartlara uymak ve güncelliğini takip etmeyi;
- Atıkları kaynağında azaltmak ve teknolojik imkanlar ile çevre etkilerini kontrol altında tutmayı;
- Bünyemizde uygulanan yönetim sistemlerinin performansının değerlendirmek ve sürekli iyileştirmeyi;
- Eğitimlerle çalışanlarımızı çevre, iş sağlığı ve güvenliği ve Kalite yönetim sistemleri konusunda bilinçlendirmeyi;
- Çalışan sağlığının ve çevrenin korunması için çalışmalarını güncel tutmayı;
- Sektöründeki teknolojik gelişmeleri takip etmeyi, pazar payındaki istikrarını sürdürmek için müşterilerinin istek ve beklentilerine eksiksiz ve zamanında cevap vererek sürekli artan müşteri memnuniyetini sağlamayı, eğitimli çalışanlarının performansını, huzurlu bir çalışma ortamı sağlayarak artırmayı;

Şirket politikası olarak benimsemiştir.

## VİZYONUMUZ

Müşteri ve çalışan memnuniyetini en üst düzeyde tutan, gelişmeleri izleyen değil yaratan bir dünya şirketi olmaktır.

## MİSYONUMUZ

Müşterilerimizin ihtiyaçlarını karşılayacak çözümleri bilgi teknolojilerini kullanarak en verimli ve kaliteli şekilde sunmaktır.

Polat Group Redüktör olarak birçok farklı ürün yelpazesi ile, müşteri ihtiyacını maksimum seviyede karşılamak için eş zamanlı mühendislik yöntemlerini kullanarak çalışmalarını sürdürmektedir. Tasarım faaliyetleri, ürün geliştirme programları ve bilgisayar destekli çalışmalarımız sürekli gelişen bir grafik çizmektedir. Rekabetçi ve güçlü kalite politikamız müşteri yelpazemizi genişletmektedir.

## EN OUR QUALITY POLICY

Polat Group Redüktör San. ve Tic. A.Ş., considers and applies Occupational Health and Safety, Environmental Safety and Quality Management System as the inseparable part of Production and Service process.

In line with this, our company adopts:

- Complying with published national/international legal provisions and other conditions and following up-to-datedness thereof;
- Reducing wastes in resources and keeping environmental impacts under control with technological opportunities;
- Assessing and constantly improving performance of management systems applied within our company;
- Raising awareness of our employees about occupational health and safety and quality management systems through trainings;
- Keeping our activities up-to-dated to protect personnel health and environmental protection;
- Following technological developments in the sector, ensuring ever-increasing customer satisfaction by responding to requests and expectations of customers completely and duly to sustain stability in the market share and increasing performance of trained employees by providing a peaceful working environment;

as the company policy.

## OUR VISION

Our vision is to become a world company which meets and surpasses the customer satisfaction and which not only follows the development but also creates the development itself.

## OUR MISSION

Our mission is to provide the solutions to our customers in the most efficient and qualified way by making use of the information technologies.

Our reducer group carries out its work using simultaneous engineering methods in order to meet the demands of our customers by presenting several different product ranges. Design and planning activities, product development programmes and computer supporting work show a continuously growing chart. Our competitive and strong quality policy is to develop our customer spectrum.

## DE UNSERE QUALITÄTSPOLITIK

Polat Group Redüktör San. ve Tic. A.Ş., um an das Beste zu gelangen; es bewertet und implementiert die Praktiken des Arbeitsschutz-, Umweltsicherheits- und Qualitätsmanagementsystems als unverzichtbares Element des Produktions- und Serviceprozesses.

In diese Richtung;

- Einhaltung und Befolgung der aktualisierten nationalen / internationalen gesetzlichen und sonstigen Anforderungen;
- Abfall an seiner Quelle zu reduzieren und technologische Möglichkeiten und Umweltauswirkungen unter Kontrolle zu halten;
- Bewertung und kontinuierliche Verbesserung der Leistung der in unserer Struktur implementierten Managementsysteme;
- Sensibilisierung unserer Mitarbeiter für Umwelt-, Arbeitsschutz- und Qualitätsmanagementsysteme durch Schulungen;
- Um unsere Arbeit zum Schutz der Gesundheit und der Umwelt der Mitarbeiter auf dem neuesten Stand zu halten;
- Verfolgung der technologischen Entwicklungen in der Branche, Gewährleistung der stetig steigenden Kundenzufriedenheit durch vollständige und pünktliche Reaktion auf die Anforderungen und Erwartungen ihrer Kunden, um ihre Marktanteilstabilität zu erhalten, Steigerung der Leistung ihrer geschulten Mitarbeiter durch Schaffung eines friedlichen Arbeitsumfelds;

hat sie als Unternehmenspolitik übernommen.

## UNSERE VISION

Unsere Vision ist ein Weltunternehmen zu erschaffen, das die Kunden - und Mitarbeiterzufriedenheit ständig im höchsten Zustand haltet und die Entwicklungen nicht nur verfolgt, sondern auch gestaltet.

## UNSER ZIEL

Unser Ziel ist unseren Kunden die Produkte, Qualitäts- und Dienstleistungen sowie Lösungen, die die Kundenerwartungen übertreffen und im besten und leistungsfähigsten Zustand mit Hilfe der neuesten Informationstechnologien zu bieten.

Polat Group Redüktör GmbH führt sämtliche Tätigkeiten des Ingenieurwesens gleichzeitig weiter, um die Kundenerwartungen an alle unsere Produkte aus verschiedenen Produktpaletten im höchsten Zustand zu übertreffen. Unsere Entwurfstätigkeiten und Produktentwicklungsprogramme und EDV unterstützten Arbeitsprozesse zeigen eine steigende Grafik. Unsere wettbewerbsfähige und kräftige Qualitätspolitik vergrößert unseren Kundenumfang weiter.

## Redüktör Seçimi

Bir redüktör seçilirken, PGR üç fazlı asenkron AC motorları ve tek fazlı AC motorları kullanıldığını öngörür. Bu aynı zamanda teknik olarak karşılaştırılabilen tüm motorlar için de geçerlidir. Herhangi başka bir motor kullanımı halinde PGR'ye danışınız. Dişli ünitesinin seçimi yapılırken aşağıda belirtilen ana esaslara bağlı kalınmaz ise ünite de istenmeyen aşırı yüklenme durumları açığa çıkabilir. Bu durumda tarafımızdan verilen tüm garantiler kapsam dışına çıkar. Kullanılacak redüktörden yüksek verim alabilmenin ilk adımı size uygun olan doğru ürünü seçebilmektir.

Redüktör seçimi yapılırken aşağıdaki kritik hususlara dikkat edilmelidir. Bunlar Mekanik kontrol, termal limit kontrolü, redüktör mili üzerine gelebilecek radyal ve eksenel yük kontrolleri ve servis faktörü kontrolüdür.

Hangi redüktörün sizin makinanız için uygun olduğuna, makinanızın çalışma şartlarına göre gerekli giriş gücü, istenilen tahvil oranı ve servis faktörü değerlerinin belirlenmesinden sonra karar verilmelidir. Optimum çalışma şartları sağlanacak redüktördeki aşırı yüklenmeden kaynaklı tüm problemlerin oluşması engellenmelidir.

Seçim yapılırken dikkat edilmesi gereken önemli unsurlardan biri de kullanılan harici yedek parçalar, giriş ve çıkış aksesuarlarıdır. PGR'nin önerdiği ürünler haricinde ekipman kullanımı veya redüktörün zarar görebileceği şüpheli durumlarda PGR satış departmanı ile irtibata geçilmeli, teknik veriler ve tasarım tekrar kontrol edilmelidir.

Firmadan habersiz yapılan uygulama ve yanlış seçimler sonucunda redüktör ile ilgili yaşanan problemlerde tarafımızdan verilen tüm garantiler kapsam dışına çıkar.

## Redüktör Seçim Kriterleri

### 1.Mekanik kontrol:

İlk olarak makinanızın çalışma şartlarının bilinmesi gerekir. Bunlar günlük çalışma süresi, saatteki start-stop sayısı ve makineden gelecek yükün hangi yük sınıfı içerisinde olduğunun belirlenmesidir.

Yük sınıfı ise motor miline indirgenmiş toplam dış atalet momentinin, motor atalet momentine oranından elde edilen sayıya (maf) göre belirlenir.  $maf \leq 0.25$  ise düzgün çalışma yük sınıfı (U),  $0.25 < maf \leq 3$  ise orta darbeli yük sınıfı (M) ve  $3 < maf \leq 10$  ise çalışmanın ağır darbeli yük sınıfında (H) olduğu anlamına gelir.

Günlük çalışma süresi ve saatteki start-stop sayısı makinanın çalışma şartlarından kolayca belirlenir. Sonrasında sayfa 5'deki diyagram 1 kullanılarak mekanik yönden gerekli servis faktörü değeri bulunur.

### 2.Termal Limit Kontrolü

Redüktörde bazı çalışma koşullarında aşırı ısınma gözlemlenir. Termal sınırlar kataloglardaki termal yönden müsaade edilen motor güç değerlerine bakılarak kontrol edilmelidir. Termal güç değerlerinin yeterli olmadığı durumlarda çalışma koşullarına göre verilecek ilave soğutucularla (fan, serpantin, eşanjör, radyatör vb.) termal güç değerlerini arttırmak mümkündür.

Redüktörün aşırı ısınmaması için güç transferi sürelerinin belirlenen çalışma zamanının aşılması gereklidir. Termal olarak transfer edilebilen güç süresi (3saat) sadece PA/PF 62, PD/PM 62, PKD 6390 ve daha büyük gövdeler için olası bir sınırı temsil eder.

## Gearbox Selection

When selecting gear unit , PGR assumes that three-phase AC motor or single phase AC motor are used. This is also valid for technically comperable motors. If you intend to use a motor other than PGR, please contact with PGR. If you do not obey the main instructions which are given below, you may have some problems like overloading. In these situations, our all guarantees will be invalid. If you want get high efficiency from our products, the main step is choosing right product.

At reducer choosing step, you should be careful about following points like mechanical control, thermal limit control, the radial and axial loads control which is on reducer shaft and service factor.

After deciding input power, desired ratio number and service factor, you should decide which reducer is suitable for your machines. If you want to ensure optimal working conditions, all problems caused by overloading should be prevented.

At choosing step, external spare parts, input and output accessories has also importance. When using equipments which are not advised by PGR and under suspecious situation which can harm reducer, please consult to PGR sales office department which is responsible for giving technical information to you.

Applications which are done without information of us and wrong selections are out of guarantee.

## The conditions of selecting gear unit are as the following:

### 1.Mechanical control:

Firstly, you should know working conditions of your machine. These are daily working time,revolution per hours and loads which are applied from driven machine to gear unit should be known in which load classification.

Load Classification can be determined from ratio between external moment of inertia and motor moment of inertia(maf) If  $maf \leq 0.25$  it is Uniform application(U)  $0.25 < maf \leq 3$  it is Moderate impact application(M)  $3 < maf \leq 10$  it is Heavy impact application(H)

You can easily decide to daily working time, revolution per hours from working conditions of machine. After that, you can choose service factor from diagram at page 5 on mechanical way.

### 2.Thermal Limit Control

Overheating may happen in gearbox under some operating conditions. Thermal limits should be checked by looking at the thermally permissible motor power values at catalogues. If thermal power values are not enough, it will be possible to increase the thermal power values with additional coolers like fan, coil, heat exchanger, radiator, etc.,and they should be given according to the operating conditions.

For the gearbox does not to be overheated, the power transfer times must not exceed the specified operating time. Thermally transferable power time (3hour) shows a possible limit only for PA/PF 62, PD/PM 62, PKD 6390 and larger cases.

## Getriebeauswahl

Bei der Getriebeauswahl prognostiziert PGR den Einsatz von Drehstrom-Asynchronmotoren und Einphasen-Wechselstrommotoren. Dies gilt auch für alle technisch vergleichbaren Motoren. Wenden Sie sich an PGR, wenn ein anderer Motor verwendet wird. Unerwünschte Überlastsituationen im Aggregat können auftreten, wenn bei der Auswahl des Getriebes folgende Hauptprinzipien nicht beachtet werden. In diesem Fall erlöschen alle von uns gegebenen Garantien. Der erste Schritt, um eine hohe Effizienz des zu verwendenden Reduzierstücks zu erzielen, besteht darin, das richtige Produkt auszuwählen, das zu Ihnen passt.

Bei der Auswahl des Reduzierstücks sollten die folgenden kritischen Punkte berücksichtigt werden. Dies sind mechanische Kontrolle, thermische Grenzkontrolle, quer und axiale Lastkontrolle an der Getriebewelle und Betriebsfaktorkontrolle.

Welches Getriebe für Ihre Maschine geeignet ist, sollte nach Ermittlung der erforderlichen Eingangsleistung, des gewünschten Übersetzungsverhältnisses und der Betriebsfaktorwerte entsprechend den Arbeitsbedingungen Ihrer Maschine entschieden werden. Es sollen optimale Arbeitsbedingungen geschaffen werden und alle Probleme durch Überlastung im Getriebe sollen vermieden werden.

Einer der wichtigsten Faktoren, die bei der Auswahl zu berücksichtigen sind, sind die externen Ersatzteile sowie das Eingangs- und Ausgangszubehör. Wenn andere Geräte als die von PGR empfohlenen Produkte verwendet werden oder der Verdacht auf eine Beschädigung des Getriebes besteht, sollte der PGR-Vertrieb kontaktiert und die technischen Daten und das Design erneut überprüft werden.

Alle von uns gegebenen Garantien erlöschen im Falle von Problemen im Zusammenhang mit dem Reduzierstück aufgrund der Anwendung und falscher Entscheidungen, die ohne Wissen des Unternehmens getroffen wurden.

## Auswahlkriterien für Getriebe

### 1.Mechanische Kontrolle:

Zunächst sollten die Arbeitsbedingungen Ihrer Maschine bekannt sein. Dies sind die tägliche Arbeitszeit, die Anzahl der Starts-Stopps pro Stunde und die Ermittlung der Belastungsklasse der Maschine.

Der Stoßgrad ergibt sich aus der Gleichmäßigkeit des Betriebes und aus dem Massenbeschleunigungsfaktor (maf). Bei  $maf \leq 0,25$  gleichmäßiger Betrieb (U), bei  $0,25 < maf \leq 3$  ungleichmäßiger Betrieb (M) und bei  $3 < maf \leq 10$  stark ungleichmäßiger Betrieb (H).

Die tägliche Arbeitszeit und die Anzahl der Starts-Stopps pro Stunde lassen sich leicht aus den Arbeitsbedingungen der Maschine ermitteln. Anschließend wird anhand von Diagramm 1 auf Seite 5 der mechanisch erforderliche Betriebsfaktor-Wert ermittelt.

### 2. Thermische Limitkontrolle

Unter bestimmten Betriebsbedingungen kann eine Überhitzung des Getriebes beobachtet werden. Thermische Grenzen sollten anhand der thermisch zulässigen Motorleistungswerte in den Katalogen überprüft werden. In Fällen, in denen die thermischen Leistungswerte nicht ausreichen, ist es möglich, die thermischen Leistungswerte mit zusätzlichen Kühlern (Lüfter, Serpentin-Kühler, Wärmetauscher, Öl/Wasserkühler usw.) entsprechend den Betriebsbedingungen zu erhöhen.

Damit das Getriebe nicht überhitzt, dürfen die Kraftübertragungszeiten die angegebene Betriebszeit nicht überschreiten.

Die thermisch übertragbare Leistungszeit beträgt (3h) und stellt nur bei PA/PF 62, PD/PM 62, PKD 6390 und größeren Körpern eine mögliche Grenze dar.

TR

## TEKNİK BİLGİLER

Aşağıdaki maddelerden iki veya daha fazlasının geçerli olması durumunda redüktörün belirli operasyonel durumu kontrol edilmelidir. PGR ile iletişime geçmenizi öneririz.

- Ortam sıcaklığı 40 °C fazla ise
- Dönme hızı n1 1500 min-1 üzerinde ise
- Motor gücü P1 100 kW ve üzeri ise
- W, IEC ve PAM adaptör bağlı redüktör söz konusu ise
- Dik olarak montaj söz konusu ise (M2 – M4)
- Tahvil oranı itop < 20 (Konik dişliler için itop < 40)

Redüktörün korunup sağlıklı çalışması için, ısı radyasyonu yoğun alanda çalışma, dar alanda çalışma, kapalı alanda çalışma gibi özel çevresel montaj koşullarının olduğu durumlarda PGR'ye danışınız.

### 3. Giriş gücü ve servis faktörü

Her bir uygulama için gerekli olan giriş gücü, hesaplama ile belirlenir. Motor anma gücü (P1), bu giriş gücünden sonra seçilir. Motor anma gücü istenilen güç değerinden biraz daha yüksektir. Bunun sebebi çalışma koşullarının standart dışı özel olabilesidir.

Montajı yapılacak 3 fazlı bir AC motorunun anma gücünü seçerken kısa aralıklı seyrek tork tesirini hesaplamaya gerek yoktur. İlave faktörler belirli bir frekans invertöründe çalışan 3 fazlı bir AC motor için anma gücünün seçimini etkiler. Dişli ünitesinin seçimini AC motorun aksine kısa aralıklı seyrek tork tesirleri etkiler. Dişli ünitesinin yük sınıfı belirlenirken bu kısa aralıklı seyrek tork tesirleri göz önünde bulundurulmalıdır. Redüktör servis faktörü fB bunu ve redüktör üzerindeki diğer etkileri yeterli doğrulukta hesaba katar.

5. Sayfadaki diyagram 1 günlük çalışma süresi, yük sınıflandırması, saatteki start-stop sayısı ile servis faktörü arasındaki ilişkiyi göstermektedir.

EN

## TECHNICAL INFORMATION

If the two or more of below items are valid, the specific operational condition of the reducer should be checked. Please kindly contact with PGR.

- If the ambient temperature is above 40°
- If the rotation speed n1 is over 1500 min-1
- If the motor power P1 is 100 kW and above
- If there is W, IEC ve PAM adaptor connected gearbox
- In case of vertical mounting preferred (M2 – M4)
- The ratio itop < 20 (For bevel gears itop < 40)

Please kindly consult to PGR, in case of work in heat radiation-intensive area, work in narrow space, work in confined space to be prevented and worked healthier gearboxes.

### 3.Input power and service factor

For every application, the requiring input power should be calculated. Motor rated power (P1) should be selected after choosing input power. The motor rated power is slightly higher than the desired power value. The reason for this situation is working conditions are non-standart, they are special

It is not necessary to calculate the short-range rare torque effect when choosing the rated power of a 3-phase AC motor to be mounted. Additional factors affect the choice of rated power for a 3-phase AC motor operating in a particular frequency inverter. Unlike the AC motor, short-range infrequent torque effects affect the choice of gear unit. These short-range infrequent torque effects should be taken into account when determining the load class of the gear unit. The gear unit service factor fB takes this and other effects on the gear unit into account with sufficient accuracy.

Diagram 1 which is shown on page 5, presents relation between types of load, revolution per hour and minimum service factor depend on operation hours or day.

DE

## TECHNISCHE INFORMATION

Wenn zwei oder mehr der folgenden Punkte zutreffen, sollte der spezifische Betriebszustand des Getriebes überprüft werden. Wir empfehlen Ihnen, sich an PGR zu wenden.

- Wenn die Umgebungstemperatur mehr als 40 °C beträgt
- Wenn die Drehzahl n1 über 1500 min-1 . liegt
- Wenn die Motorleistung P1 100 kW und mehr beträgt
- Bei W-, IEC- und PAM-Adapter angeschlossenem Getriebe
- Bei vertikaler Montage (M2 – M4)
- Bindungsverhältnis itop < 20 (itop < 40 für Kegelräder)

Wenden Sie sich an PGR in Fällen, in denen besondere Umgebungsbedingungen für die Montage herrschen, wie z. B. Arbeiten in einem wärmestrahlungsintensiven Bereich, Arbeiten in einem engen Bereich, Arbeiten in einem geschlossenen Bereich, zum Schutz und zum gesunden Betrieb des Getriebes.

### 3. Eingangsleistung und Servicefaktor

Die für jede Anwendung benötigte Eingangsleistung wird rechnerisch ermittelt. Die Motornennleistung (P1) wird nach dieser Eingangsleistung gewählt.

Die Motornennleistung könnte etwas höher sein als der gewünschte Leistungswert. Dies liegt daran, dass die Arbeitsbedingungen vom Standard abweichen können.

Bei der Auswahl der Nennleistung eines zu installierenden 3-Phasen-Wechselstrommotors muss der kurzzeitige seltene Drehmomenteffekt nicht berechnet werden. Zusätzliche Faktoren beeinflussen die Wahl der Nennleistung für einen 3-Phasen-Wechselstrommotor, der in einem bestimmten Frequenzrichter betrieben wird. Im Gegensatz zum Wechselstrommotor beeinflussen seltene Drehmomenteffekte im Nahbereich die Wahl des Getriebes. Diese kurzreichweitigen seltenen Drehmomenteffekte sollten bei der Bestimmung der Belastungsklasse des Getriebes berücksichtigt werden. Der Getriebebetriebsfaktor fB berücksichtigt diese und weitere Auswirkungen auf das Getriebe mit ausreichender Genauigkeit

Das Diagramm auf Seite 5 zeigt den Zusammenhang zwischen 1-Tages-Betriebszeit, Lastklassifizierung, Anzahl Starts-Stops pro Stunde und Betriebsfaktor.

TR

SERVİS FAKTÖRÜ

EN

SERVICE FACTOR

DE

SERVICEFAKTOR

Diyagram 1 günlük çalışma zamanına (saat), saatteki start sayısına ve uygulanan yük tipi sınıflandırmasına "U", "M", "H" göre gerekli servis faktörünü gösterir. Çalışma düzgünlüğüne ve kütle hız faktörüne (maf) bağlı olarak, üç yük sınıflandırması belirlenmiştir. Hareket ettirilen mekanizmaya gelen dış etkiler çalışma düzgünlüğü sınıflamasını tanımlarken kütleli ivme faktörüne bağlı olarak 3 farklı yük sınıflandırması belirlenir. Diagram 1 kullanılarak belirlenen servis faktörü, motorlu seçim tablolarında verilen servis faktörüne eşit ya da küçük olmalıdır.

**Not :** Elde edilen servis faktörü  $f_B$  kullanılan sürücü (tahrik) tipine göre "k" katsayısı ile çarpılır.

k = 1 ; elektrik motoru veya hidromotor,  
k = 1.25 ; çok silindirli içten yanmalı motor,  
k = 1.50 ; tek silindirli içten yanmalı motor

The diagram 1 shows the required service factor according to daily working time (hours), revolution per hours, and the applied load type "U", "M", "H". Three load classifications are determined, and they are depending on the working regularity and the mass acceleration factor (maf). While the external effects on the driven mechanism define the working smoothness classification, 3 different load classifications are determined depending on the mass acceleration factor. Service factor which is determined by using Diagram 1 must be less than or equal to the service factor given in the motor selection tables.

**Note :** Service factor  $f_B$  which is obtained, should be multiplied with factor "k" which depends on drive type.

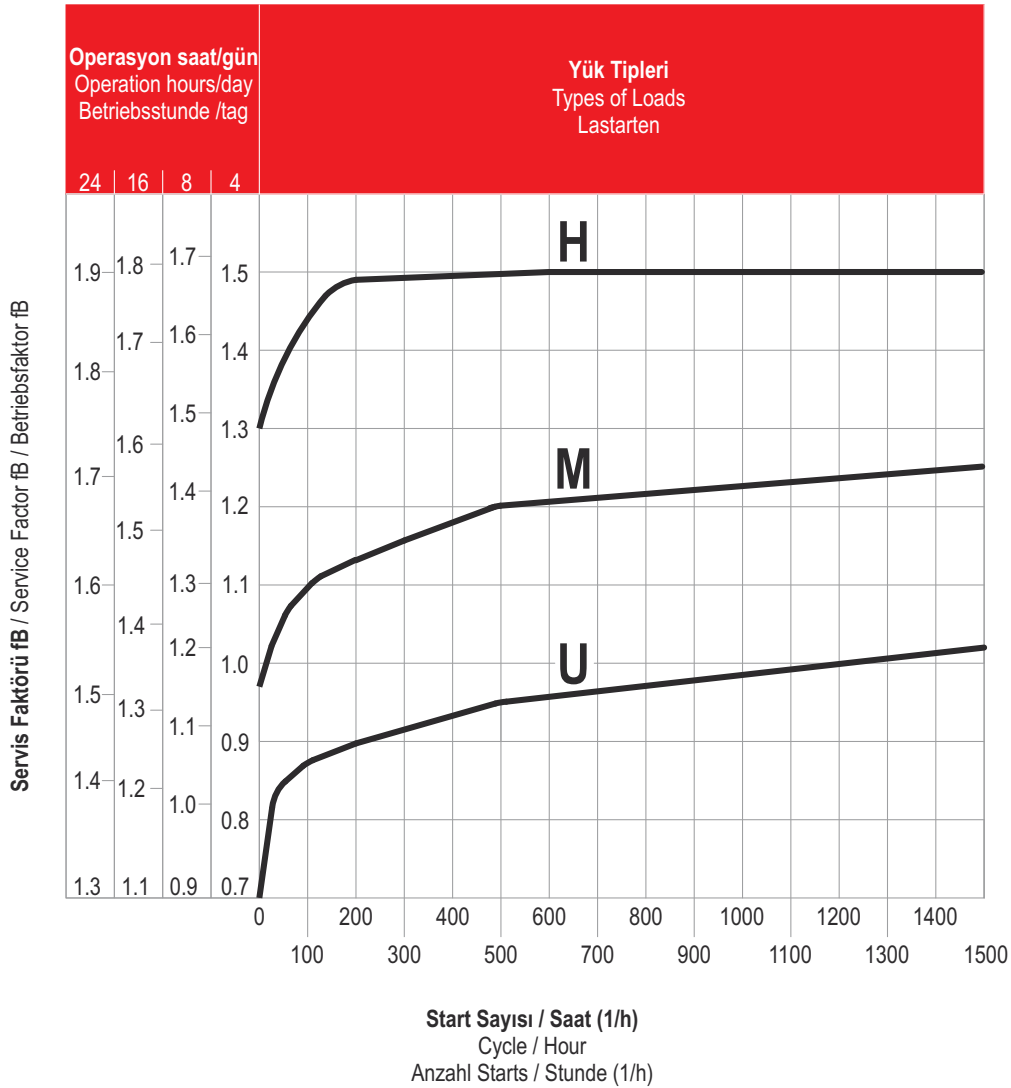
k = 1 ; hydraulic motor and electrical motor  
k = 1.25 ; multi-cylinder engine  
k = 1.50 ; single-cylinder engine

Das Diagramm zeigt den erforderlichen Betriebsfaktor entsprechend der 1-Tages-Betriebszeit (Stunden), der Anzahl der Starts pro Stunde und der angewendeten Lastartenklassifizierung "U", "M", "H". Auf Basis der Laufruhe und des Massengeschwindigkeitsfaktors (maf) wurden drei Belastungsklassen ermittelt. Während die äußeren Einwirkungen auf den angetriebenen Mechanismus die Laufruheklasse bestimmen, werden in Abhängigkeit vom Massenbeschleunigungsfaktor 3 verschiedene Lastklassen bestimmt. Der nach Diagramm 1 ermittelte Betriebsfaktor muss kleiner oder gleich dem in den Motorauswahltabellen angegebenen Betriebsfaktor sein.

**Hinweis:** Der resultierende Betriebsfaktor  $f_B$  wird mit dem Koeffizienten "k" entsprechend der verwendeten Antriebsart (Antrieb) multipliziert.

k = 1 ; Elektromotor oder Hydromotor  
k = 1,25 ; Mehrzylinder-Verbrennungsmotor  
k = 1,50 ; Einzylinder-Verbrennungsmotor

### Diyagram / Diagram / Diagramm - 1





**Yük Sınıfının Belirlenmesi:****U ) Düzgün çalışma**

Küçük karıştırıcılar, asansörler, konveyörler, montaj bantları, doldurma makinaları, bantlı konveyörler, temizleme makinaları, fanlar, test makinaları, santrifüj pompalar (ince sıvı pompalar).

**M ) Yumuşak şoklar, düzgün olmayan çalışma**

Ağır yük konveyör bantları, değirmenler, ahır gübre makinaları, vinç hareket mekanizmaları, bükme makinaları, çimento karıştırıcılar, ahşap işleme makinaları için tahrik mekanizmaları, vinçler, kayar kapılar, balans makinaları, paketleme makinaları, dişli pompalar, santrifüj pompalar (yarı sıvı pompalar), vana döndürme dişlileri, dokuma tezgahları, hallaç makinaları, harman makinaları, taneleme (debegat) tekneleri, kolenderler, agidatörler, kurutma merdaneleri.

**H ) Ağır şoklar, aşırı düzgün olmayan çalışma**

Taş kırıcılar, eksantrik presler, doğrayıcılar, presler, taşlama milleri, çekiçli kırıcılar, kağıt öğütücüler, ağır yük karıştırıcılar, delme makinaları, katlama makinaları, dönen tezgahlar, yatay karıştırıcılar, kesiciler, vibratörler, santrifüj makinaları, döner tablalar, ağır yük vinç ve asansörler, plaka-silindir-soğuk haddeleme makinaları, hız ayarlı sabit silindirler, kağıt hamur makinaları, kurutma silindirleri, perdelama silindirleri.

Yük sınıfı (çalışma düzgünlüğü) aşağıdaki tabloya göre kütle hız faktörü (maf) den belirlenir. Eğer çalışma düzgünlüğü ile hesap ettiğimiz maf birbirleriyle uyumlu değilse (Örneğin: yumuşak geçişli düzgün olmayan çalışma koşulu ve maf:0,2 için gerekli yük sınıfımız "M" olmalıdır ya da düzgün çalışma koşulu ve maf: 0,28 için gerekli yük sınıfımız yine M olmalıdır.) daha ağır çalışma sınıfı gurubuna giren geçerlidir.

**Determination of Load Class:****U ) Regular operation**

Small agitator, elevators, conveyors, mounting belt, filling machines, belt conveyors, cleaning machines, fans, testing machines, centrifugal pumps (fine liquid pumps).

**M ) Moderate shocks, non-uniform application**

Heavy conveyor belts, mills, barn manure machine, crane motion mechanisms, bending machines, cement mixer, driving gear mechanisms for wood processing machines, cranes, sliding door, balancing machines, packaging machines, gear pumps, centrifugal pumps, valve turning gears, weaving looms, carding-machines, treshing machines, granulation vats, corianders, agitators, drying rollers.

**H ) Heavy shocks, non-uniform application**

Stone crushers, eccentric press machines, choppers, press machines, grindingmills, hammer mills, shredders, heavy mixers, boring machines, folding machines, turning looms, horizontal mixers, cutters, vibrators, centrifugal machines, heavy cranes and elevators, plate-cylinder-cold extrusion machines, fixed cylinder with regulated velocity, sluch machines, drying cylinders, polishing cylinders,

The load classification is determined from the mass velocity factor (maf) according to the below table. If the working regularity and the mass acceleration factor we calculated are not compatible with each other (For example: our required load class should be "M" for moderate shocks, non-uniform application and maf:0,2, or our required load class for regular application and maf: 0,28 is still M. It should be valid), the heavier running classification is valid.

**Bestimmung der Belastungsklasse:****U ) gleichmäßiger Betrieb**

Kleinmischer, Elevatoren, Förderer, Montagebänder, Abfüllmaschinen, Bandförderer, Reinigungsmaschinen, Ventilatoren, Prüfmaschinen, Kreiselpumpen (Feinflüssigkeitspumpen).

**M ) Weiche Stöße, ungleichmäßiger Betrieb**

Schwerlastförderbänder, Mühlen, Stallmistmaschinen, Kranantriebe, Biegemaschinen, Betonmischer, Antriebe für Holzbearbeitungsmaschinen, Kräne, Schiebetüren, Auswuchtmaschinen, Verpackungsmaschinen, Zahnradschneidemaschinen, Kreiselpumpen (Halbflüssigkeitspumpen), Ventilatorvorrichtungen, Webstühle, Putzereimaschinen, Dreschmaschinen, Granulier-(Debegat-) Behälter, Siebe, Rührwerke, Trockenwalzen.

**H ) Starke Stöße, stark ungleichmäßiger Betrieb**

Steinbrecher, Exzenterpressen, Häcksler, Pressen, Mahlspeindeln, Hammerbrecher, Aktenvernichter, Hochleistungsmischer, Stanzmaschinen, Abkantmaschinen, Rundtische, Horizontalmischer, Schneidgeräte, Vibratoren, Zentrifugen, Rundtische, Schwerlastkräne und Aufzüge, Plattenzylinder - Kaltwalzmaschinen, geschwindigkeitsregulierbare Festwalzen, Auflösemaschinen, Trockenwalzen, Kalandarwalzen.

Klassifizierung der Gleichmäßigkeit des Betriebes: Der Stoßgrad ergibt sich aus der Gleichmäßigkeit des Betriebes und aus dem Massenbeschleunigungsfaktor 'maf' gemäß der folgenden Tabelle. Hierbei gilt jeweils der größere Stoßgrad aus Betrieb und Massenbeschleunigungsfaktor. (Beispiel: ungleichmäßiger Betrieb und maf = 0,2 ergibt Stoßgrad "M".)

| Yük Sınıfı<br>Load Classification<br>Stoßgrad | Çalışma<br>Operation<br>Betrieb                                                                | Kütle hız faktörü<br>Mass Acceleration Factor<br>Massenbeschleunigungs-faktor |
|-----------------------------------------------|------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------|
| U                                             | Düzgün çalışma / Uniform application / gleichmäßiger Betrieb                                   | maf ≤ 0,25                                                                    |
| M                                             | Düzgün olmayan çalışma / Non-uniform application / ungleichmäßiger Betrieb                     | 0,25 < maf ≤ 3                                                                |
| H                                             | Aşırı düzgün olmayan çalışma / Extreme non-uniform application / stark ungleichmäßiger Betrieb | 3 < maf ≤ 10                                                                  |

$$m_{af} = \frac{J_{ex.red}}{J_{mot}} = \frac{J_{ex}}{J_{mot}} \times \left( \frac{1}{i_{ges}} \right)^2$$

$i_{ges}$  = Tahvil oranı

$J_{ex.red}$  = Tahrik motoru üzerindeki azaltılmış dış kütle atalet momentleri toplamı

$J_{ex}$  = Dış kütle atalet momentleri toplamı

$J_{mot}$  = Motorun kütle atalet momenti toplamı

$i_{ges}$  = Total gear unit ratio

$J_{ex.red}$  = All external mass moment of inertia on the drive motor, reduced

$J_{ex}$  = All external mass moment of inertia

$J_{mot}$  = Mass moment of inertia of the motors

$i_{ges}$  = Getriebeübersetzung

$J_{ex.red}$  = alle externen Massenträgheitsmomente auf Antriebsmotor reduziert

$J_{ex}$  = alle externen Massenträgheitsmomente

$J_{mot}$  = Massenträgheitsmoment des Motors

Kütle hız faktörü maf, çıkış tarafındaki dış kütleler ile giriş tarafındaki yüksek hızlı kütlelerin arasındaki ilişkiyi gösterir.

Kütle hız faktörünün dişli ünitesinin tork tesir seviyesine önemli ölçüde sistem başlatma, frenleme ve titreşim üzerindeki etkisi vardır.

Örneğin bir bantlı konveyör sistemini ele alalım. Burada dış kütle atalet momentini konveyör bant üzerinde taşınan malzemenin kütle hız faktörü oluşturur. Eğer maf >10 ise transfer elemanlarında büyük deplasman (yük değişimi) var ise ya da yük sınıflandırmamızda bir belirsizlik var ise PGR'ye danışınız. Bu ve benzeri hususlarla belirli şüpheleriniz var ise PGR'ye danışınız.

The mass acceleration factor (maf) shows the relationship between the outer masses on the output side and the high speed masses on the input side.

The mass acceleration factor has an important effect on the torque effect level of the gear unit through system starting, braking and vibration

Take, for example, a belt conveyor system. Here, the mass load of the material carried on the conveyor belt creates the external mass moment of inertia. If maf is >10, there is a large displacement (load change) in the transfer elements or if there is an uncertainty in our load classification, consult PGR. If you have certain doubts about these and similar issues, consult PGR.

Der Massenbeschleunigungsfaktor maf stellt das Verhältnis von externen abtriebsseitigen und schnellaufenden antriebsseitigen Massen dar. Der Massenbeschleunigungsfaktor hat wesentlichen Einfluss auf die Höhe der Drehmomentstöße im Getriebe bei Anlauf- und Bremsvorgängen und Schwingungen. Die externen Massenträgheitsmomente beinhalten auch die Last wie z.B. das Fördergut und Transportbändern. Bei maf >10 bei großem Spiel in Übertragungselementen, Schwingungen im System, bei Unklarheiten zum Stoßgrad oder in Zweifelsfällen bitten wir Sie um Rücksprache mit PGR.



TR

TEKNİK BİLGİLER

Redüktörümüzün servis faktörü  $f_B$ 'dir. Redüktörümüz için geçerli maksimum çıkış momenti  $M_{amax}$ 'dir. Motor gücümüz  $P_1$ 'dir. Redüktör çıkış devrimiz  $n_2$ 'dir. Redüktörümüzün operasyonel çıkış momenti  $M_2$ 'dir.

Sistemimiz mekanik bir sistem olduğu için sistem ünitemizde kayıplarımız mevcuttur. Giriş gücümüz %100 kayıpsız olarak çıkışa iletilmez. Bu sebeple yüzde cinsinden verimliliği göz önünde bulundurmakta ve bunu hesaplarımızdaki formüllere eklemekteyiz. Redüktör verimliliği:  $\eta$ 'dir

$$M_2 = \frac{9550 \cdot P_1 \cdot \eta}{n_2} \quad [Nm] \quad P_1 [kW], n_2 [min^{-1}]$$

$$f_B = \frac{M_{amax}}{M_2}$$

$$P_1 = \frac{M_2 \cdot n_2}{9550} \cdot \eta \quad [kW] \quad M_2 [Nm], n_2 [min^{-1}]$$

Redüktörümüzün doğru seçimi, motorlu seçim tablolarımızda mevcut olan  $f_B$  Servis faktörü değerinin Diyagram 1'den bulduğumuz minimum servis faktörümüz  $f_{Bmin}$  değerlerinden büyük veya eşit olması durumunda mümkündür.

Selection of gear unit is correctly done if service factor which is taken from selection of gear motors table must be greater than or equal to minimum service factor  $f_{Bmin}$  which is taken from diagram-1

$$f_B \geq f_{Bmin}$$

Helisel dişli redüktörler, Paralel shaft montajlı redüktörler ve Helisel konik dişli redüktörler her bir kademede çok yüksek verime sahiptir (kademe başına yaklaşık %96 - %98 veya  $\eta = 0,96 - 0,98$ ). Bu yüzden hesaplamalarda verim  $\eta = 1,0$  alınması yeterli ve doğru sonuçlara ulaşılmasına yardımcı olur. Helisel sonsuz dişli redüktörlerin verimliliği ( $\eta$ ), her bir çıkış hızı ( $n_2$ ) için oranlar W, IEC, PAM Seçim tablolarında belirtilmiştir. W kovani montajlı (serbest hareket mili) redüktörde çıkış gücü aşağıdaki formülden hesaplanır.

Helical gear reducers has higher efficiencies than Parallel shaft mounted gear units and Helical bevel gear reducers. (approx. 96% - 98% per step or  $\eta = 0.96 - 0.98$ ). Therefore, taking efficiency  $\eta = 1.0$  in calculations helps to achieve sufficient and correct results. For efficiency ( $\eta$ ) of helical worm gear units, the ratio of each output speed ( $n_2$ ) are specified in the W, IEC, PAM selection tables. Output power is calculated from the below formula for the W (free input shaft) gear unit.

$$P_1 = \frac{M_{amax} \cdot n_2}{9550 \cdot f_{Bmin}} \cdot \eta \quad [kW] \quad M_{amax} [Nm], n_2 [min^{-1}]$$

Redüktörümüzün güvenli ve verimli bir şekilde çalışması için maksimum tahrik gücü  $P_{1max}$ 'in aşılması gerekir.

For the safe and efficient operation of our gearbox, the maximum drive power  $P_{1max}$  must not be exceeded.

$$P_1 \leq P_{1max}$$

W, IEC, PAM bağlantılı redüktörler için W, IEC, PAM seçim tablolarında her bir çıkış devri ( $n_2$ ) ve maksimum çıkış momenti ( $M_{amax}$ ) için  $P_{1max}$  değerleri tablo halinde listelenmiştir.

For gear units with W, IEC, PAM connection,  $P_{1max}$  values for each output speed ( $n_2$ ) and maximum output torque ( $M_{amax}$ ) are listed in the W, IEC, PAM selection tables.

Tahrik tarafına fren bağlanmış (Örn: frenli motorlar) redüktörlerin seçimi yapılırken fren momenti de göz önüne alınmalıdır. Dış kütle atalet momentinin yüksek olduğu ( $maf > 2$ ) uygulamalarda (örn; çember dişlilerde, döner tablalarda, karıştırıcılarda, yüzey havalandırıcılarında veya kapı sistemlerinin tahriklerinde) fren torkunun nominal anma momentinin 1,2 katından büyük olmaması, bu değer aşılması tavsiye edilir. Belirtilen değerlerden daha yüksek fren torku kullanılacak ise bu durum redüktör seçimi yapılırken göz önünde bulundurulmalıdır. Lütfen istenmeyen durumları engellemek için PGR'ye başvurunuz.

The braking torque must also be taken into account when selecting gear units with brakes on the drive side (eg brake motors). In applications in which the external mass moment of inertia is high ( $maf > 2$ ) (e.g. ring gears, rotary trays, mixers, surface aerators or drives of door systems), it is recommended that the braking torque should not be greater than 1.2 times the rated torque, so it can not exceed this value. If specified value is higher than braking torque, this should be taken into account while selecting the gear unit. Please contact PGR to prevent undesirable situations.

Der Betriebsfaktor des Getriebes ( $f_B$ ). Das gültige maximale Abtriebsdrehmoment für Getriebe ( $M_{amax}$ .) Motorleistung ( $P_1$ ) Abtriebsdrehzahl ( $n_2$ ) Abtriebsdrehmoment ( $M_2$ )

Da unser System ein mechanisches System ist, haben wir Verluste in unserer Systemeinheit. Unsere Eingangsleistung kann nicht 100% verlustfrei auf den Ausgang übertragen werden. Aus diesem Grund betrachten wir den Wirkungsgrad in Prozent und fügen ihn in unseren Berechnungen zu den Formeln hinzu. Getriebewirkungsgrad:  $\eta$

Die richtige Auswahl unseres Getriebes ist möglich, wenn der in unseren Motorauswahltabellen verfügbare Wert  $f_B$  Servicefaktor größer oder gleich unserem minimalen Servicefaktor  $f_{Bmin}$  ist, den wir aus Diagramm 1 gefunden haben.

Stirnradgetriebe, Flachgetriebe und Kegelradgetriebe haben einen sehr hohen Wirkungsgrad (ca. 96% - 98% je Getriebe-stufe oder  $\eta = 0,96 - 0,98$ ). Daher führt der vereinfachte Getriebewirkungsgrad  $\eta = 1,0$  in der Regel zu hinreichend und korrekte Ergebnissen. Bei Stirnrad-schneckengetrieben ist der Getriebewirkungsgrad ( $\eta$ ) der Schneckengetriebe in den Leistungs- und Übersetzungstabellen (W, IEC, PAM) für die jeweilige Abtriebsdrehzahl ( $n_2$ ) aufgeführt. Bei Getrieben mit freier Antriebswelle Typ W darf die installierte Antriebsleistung  $P_1$  höchstens betragen:

Hierbei darf die maximale Antriebsleistung  $P_{1max}$  nicht überschritten werden.

$P_1 \leq P_{1max}$  Die Leistungs- und Übersetzungstabellen (W, IEC, PAM) führen die jeweiligen Abtriebsdrehzahl  $n_2$  das maximale Getriebeabtriebsdrehmoment  $M_{amax}$  und die maximale Motorleistung  $P_{1max}$  auf.

Bei angebauten antriebsseitigen Bremsen, wie z.B. bei Bremsmotoren ist bei der Getriebeauswahl auch das Bremsmoment zu beachten. Bei Anwendungen mit relativ hohen externen Massenträgheitsmomenten ( $maf < 2$ ) wie z.B. häufig bei Fahrtriebwerken, Drehwerken, Drehtischen, Torantrieben, Rührwerken und Oberflächenbelüftern wird empfohlen, ein Bremsmoment zu wählen, dass nicht größer als das 1,2-fache Motornennmoment ist. Wenn höhere Bremsmomente zum Einsatz kommen sollen, ist dies bei der Getriebeauswahl zu berücksichtigen. Wir bitten dann um Ihre Anfrage.

### Radyal ve Eksenel Kuvvetler

Motorlu seçim tablolarında, çıkış mili üzerine müsaade edilebilir radyal kuvvetler (FR) ve eksenel kuvvetler (FA) ile listelenmiştir. Opsiyonel olarak birçok redüktör tipimizde güçlendirilmiş çıkış mili yataklarımız mevcuttur.

Motorlu seçim tablolarında güçlendirilmiş yataklara etki eden radyal kuvvetler (FRGR) ve eksenel kuvvetler (FAGR) olarak değerleri belirtilmiştir. Tablolarda belirtilen radyal ve eksenel kuvvetler, ayak montajlı ve flanş montajlı dişli ünitelerinin dolu mil çıkışlı montajları için geçerlidir. Verilen bu eksenel ve radyal kuvvetlerin aynı anda çıkış miline etkilememesi koşulluna dayanmaktadır.

Ayrıca motorlu seçim tablolarında yer alan radyal ve eksenel kuvvet değerleri sistemin servis faktörünün ( $f_B=1$ ) bire eşit olduğu durum için verilmiştir. Darbeli yükler, darbeli tekrarlı yükler, uzun süreli çalışmalı (>8 saat/gün) gibi uygulamalarda servis faktörünün ( $f_B>1$ ) birden büyük olduğu duruma karşılık gelen radyal ve eksenel kuvvetler dikkate alınmalıdır. İzin verilen FA ve FR kuvvetleri buna göre azaltılır.

Motorlu seçim tablolarında verilen radyal ve eksenel kuvvet değerleri milin orta noktasına etkiyen bir kuvveti ifade eder. İzin verilen radyal ve eksenel kuvvetler belirlenirken uygulanan kuvvetin uygulama istikameti ve dönüş yönünün en elverişsiz olması durumu varsayılmıştır.

Daha yüksek radyal ve eksenel kuvvetler potansiyel olarak kuvvet yönünün uygulama doğrultusuna ve dönüş yönüne göre mümkündür. Kesin bir hesaplama için bu tip uygulamalar söz konusu ise operasyonel kuvvet yönünü, dönüş yönünü ayrıca istenilen servis süresini (gerekli olan) detaylı olarak PGR'ye iletiniz.

Çıkış miline ilave transfer elemanı takılırsa, mile etkiyen radyal kuvvetin belirlenmesinde aşağıdaki tablodan bulunacak olan fz faktörü de dikkate alınmalıdır.

### fz için Tablo

| Transfer Elemanları    | Faktör fz | Açıklama        |
|------------------------|-----------|-----------------|
| Dişliler               | 1.1       | $z \leq 17$ diş |
| Zincir Dişliler        | 1.4       | $z \leq 13$ diş |
| Zincir Dişliler        | 1.2       | $z \leq 20$ diş |
| Dar V-Kayış Kasnakları | 1.7       | ön gerilim      |
| Düz kayış Kasnakları   | 2.5       | kuvveti         |
| Dişli Kayış Kasnakları | 1.5       |                 |

### Radial and Axial Forces

In the motor selection tables, allowable radial forces (FR) and axial forces (FA) for over output shaft are listed. Optionally, we have reinforced output shaft bearings in many gearbox types.

They are given as a radial forces (FRGR) and axial forces (FAGR) acting on the reinforced bearings in the motor selection tables. The radial and axial forces indicated in the tables are valid for solid shaft output mountings of foot-mounted and flange-mounted gear units. This is valid on the condition that axial and radial forces do not affect the output shaft at the same time.

In addition, the radial and axial force values in the selection tables with motor are valid for the case where the service factor of the system ( $f_B=1$ ) is equal to one. In applications such as shock loads, pulsed repetitive loads, long-term operation (>8 hours/day), you should take into account radial and axial forces corresponding to the case where the service factor ( $f_B>1$ ) is greater than one. The allowable FA and FR forces are reduced accordingly.

The radial and axial force values which is given in the motor selection tables represent a force acting on the midpoint of the shaft. While determining the allowable radial and axial forces, we assumed the application direction of the applied force and the most unfavorable rotation direction.

Higher radial and axial forces are potentially possible with respect to the direction of application and the direction of rotation of the force direction. For an exact calculation, if such applications are in calculation, please inform PGR in detail the operational force direction, the direction of rotation, and the required service time (required).

If an additional transfer element is attached to the output shaft, the fz factor from the table below should also be taken into account in determining the radial force acting on the shaft.

### fz values are shown at table

| Transfer Elements     | Factor fz | Explanation       |
|-----------------------|-----------|-------------------|
| Gears                 | 1.1       | $z \leq 17$ teeth |
| Chain Sprockets       | 1.4       | $z \leq 13$ teeth |
| Chain Sprockets       | 1.2       | $z \leq 20$ teeth |
| Narrow V-belt pulleys | 1.7       | by                |
| Flat belt pulleys     | 2.5       | pretension force  |
| Gear belt pulleys     | 1.5       |                   |

### Quer- und Axialkräfte

In den Tabellen der Leistungs- und Drehzahlübersichten sind die zulässigen Querkräfte (FR) und Axialkräfte (FA) die auf den äußeren Zapfen der Abtriebswelle wirken dürfen aufgeführt.

Für vielen Getriebetypen sind optional verstärkte Abtriebswellenlager lieferbar. Die Werte der auf die verstärkten Lager wirkenden Querkräfte (FRGR) und Axialkräfte (FAGR) sind in den Motorauswahltabellen angegeben. Die in den Tabellen angegebenen Quer- und Axialkräfte gelten für Fuß- und Flanschgetrieben mit Vollwelle. Die Kraftangaben beziehen sich auf den Fall, dass Quer- und Axialkraft nicht gleichzeitig vorliegen.

Außerdem liegt den Kraftangaben in den Tabellen der Leistungs- und Drehzahlübersicht ein Betriebsfaktor für Quer- und Axialkräfte ( $f_B=1$ ) zugrunde. Bei stoßartigen Kräften und längeren Laufzeiten > 8 Stunden/Tag ist auch für die Quer- und Axialkräfte ein entsprechender Betriebsfaktor ( $f_B>1$ ) zu berücksichtigen. Die zulässigen Querkräfte FA- und FR- werden entsprechend reduziert.

Die Querkräfteangaben beziehen sich auf Kraftangriff in der Mitte des Wellenendes. Bei der Ermittlung der zulässigen Quer- und Axialkräfte wurde die ungünstigste Kraftangriffsrichtung und Drehrichtung angenommen.

Höhere Quer- und Axialkräfte sind eventuell möglich. Wenn solche Anwendungen in Frage kommen, teilen Sie PGR bitte detailliert für eine genaue Berechnung, die Angaben der tatsächlichen Kraft- und Drehrichtung sowie der erforderlichen Lebensdauer mit.

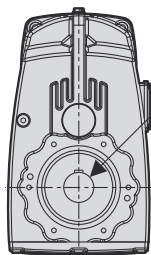
Werden auf der Abtriebswelle Übertragungselemente aufgesetzt, so ist bei der Ermittlung der auftretenden Querkräfte ein entsprechender Faktor (fz) zu beachten.

### Querkräfte-Faktor fz

| Übertragungselemente     | Faktor fz | Hinweise          |
|--------------------------|-----------|-------------------|
| Zahnräder                | 1.1       | $z \leq 17$ Zähne |
| Kettenräder              | 1.4       | $z \leq 13$ Zähne |
| Kettenräder              | 1.2       | $z \leq 20$ Zähne |
| Schmalkeilriemenscheiben | 1.7       | durch             |
| Flachriemenscheiben      | 2.5       | Vorspannkraft     |
| Zahnriemenscheiben       | 1.5       |                   |

### Kuvvet uygulama noktası :

Kuvvet uygulama noktası aşağıdaki şekillere göre tanımlanır.

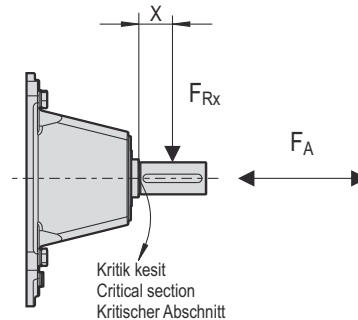


$\alpha$  : Kuvvet uygulama açısı  
force application angle  
Kraftangriffswinkel

0°

### Definition of force application point:

The point of force application is defined according to the following figure.



### Definition des Kraftangriffs

Der Kraftangriff wird gemäß dem folgenden Bild definiert

$F_{R_x}$  : "X" Uygulama noktasındaki müsaade edilen radyal kuvvet [N]

$F_A$  : Müsaade edilen eksenel kuvvet [N]

$F_{R_x}$  : Permitted overhung load at point [N]

$F_A$  : Permitted axial force [N]

$F_{R_x}$  : zulässige Querkräfte bei Abstand [N]

$F_A$  : zulässige Axialkräfte [N]

**TR** TEKNİK BİLGİLER

Mil üzerinde ortaya çıkan radyal kuvvet, aşağıdaki formül kullanılarak hesaplanmıştır.

$$F_{R\text{vorth}} = \frac{2 \cdot M_a}{d_0} \cdot f_z \leq F_R$$

- $M_2$  : Redüktör çıkış momenti [Nm]  
 $f_z$  : Tablodaki radyal kuvvet faktörü  
 $d_0$  : Etkin daire çapı [mm]  
 $F_R$  : Seçim tablolarından alınan müsaade edilebilir radyal kuvvet [kN]  
 $F_{R\text{vorth}}$  : Mil üzerindeki radyal kuvvet [kN]

Eğer kuvvet mil ortasına uygulanmazsa kuvvetin etki ettiği herhangi bir "x" noktasındaki müsaade edilen radyal kuvvet değeri aşağıdaki formül 1 ve formül 2 kullanılarak hesaplanır.

**EN** TECHNICAL INFORMATION

The radial force on the shaft was calculated using the formula below.

$$F_{R\text{vorth}} = \frac{2 \cdot M_a}{d_0} \cdot f_z \leq F_R$$

- $M_2$  : Output torque of gear unit [Nm]  
 $f_z$  : Factor which is taken from table  
 $d_0$  : Effective circular diameter [mm]  
 $F_R$  : Permitted radial force which is taken from the speed and output moment tables. [kN]  
 $F_{R\text{vorth}}$  : Radial force on the gear unit shaft [kN]

Formula 1 and formula 2 is used when force is not acting on the middle of shaft, by this way you can calculate permissible radial force value at any "x" point where the force acts

**Formül / Formula / Gleichung - I**

$$F_{RXL} = F_R \cdot \frac{z}{y + x}$$

**Formül / Formula / Gleichung - II**

$$F_{RXW} = \frac{c}{(f + x) \cdot 1000}$$

- $X$  : mil faturasından (kritik kesitinden) kuvvet uygulama noktasına olan uzaklık [mm]  
 $F_{RXW}$  : x noktasına etkiyen müsaade edilebilir radyal kuvvet (Mil dayanımına göre)  
 $F_R$  : Motorlu seçim tablolarından gelen milin ortasına etkiyen radyal kuvvet [kN]  
 $F_{RXL}$  : x noktasına etkiyen müsaade edilebilir radyal kuvvet (yataklama, rulman servis ömrüne göre)  
 $z, y, f$  : Radyal yük dönüşümü için dişli ünitesi sabitleri  
 $c$  : Radyal yük dönüşümü için dişli ünitesi sabiti

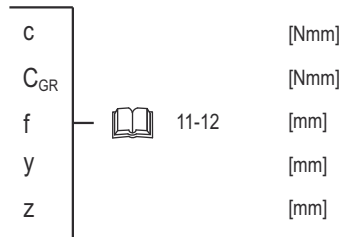
- $X$  : distance from the shaft collar to the point of force application [mm]  
 $F_{RXW}$  : permitted overhung force point X - shaft stability  
 $F_R$  : overhung force from the speed and output tables, force applied at the middle of the shaft [kN] point X - bearing service life  
 $F_{RXL}$  : permitted radial force acting on point X (according to bearing service life)  
 $z, y, f$  : Gear unit constants for radial load conversion  
 $c$  : Gear unit constant for radial load conversion

**DE** TECHNISCHE INFORMATION

Die auftretende Querkraft an der Getriebewelle wird wie folgt bestimmt:

- $M_2$  : (Nm) Abtriebsmoment des Getriebes  
 $f_z$  : Querkraft-Faktor aus Tabelle  
 $d_0$  : (mm) Wirkkreisdurchmesser  
 $F_R$  : (kN) zulässige Querkraft nach Drehzahl und Leistungstabellen  
 $F_{R\text{vorth}}$  : (kN) vorhandene Querkraft an der Getriebewelle

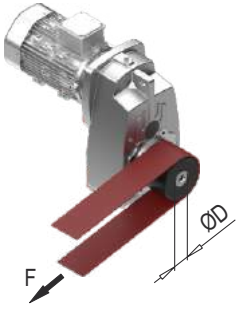
Ist der Kraftangriff nicht auf Wellenmitte, so kann die zulässige Querkraft mit Hilfe der Gleichungen 1 und 2 auf jede beliebige Stelle "x" umgerechnet werden.



Burada hesaplamalarda formül 1'in yatak servis ömrüyle formül 2'nin mil dayanımıyla bağlantılı olduğu unutulmamalıdır. Yatak servis ömrüyle alakalı hesaplamalarda formül 1'den gelen sonuç, mil dayanımı ile alakalı hesaplamalarda formül 2'den gelen sonuç kullanılmalıdır.

It should be noted here that in calculations, formula 1 is related to service life and formula 2 is related to shaft stability. The result from formula 1 should be used in calculations related to service life, and the result from formula 2 should be used in calculations related to shaft stability.

Hierbei ist zu beachten, dass grundsätzlich nach Gleichung 1 (Lebensdauer) und Gleichung 2 (Wellenfestigkeit) gerechnet wird, wobei der kleinere Wert als zulässig anzugeben ist.

**TR RADYAL YÜK HESABI**
**EN CALCULATION OF RADIAL LOADS**
**DE BERECHNUNG VON QUERKRAFT**

**RADYAL YÜKLERİN HESABI**

Radyal yük F(N)'nin hesaplanmasında gerekli tahrik momenti M (Nm), kasnak veya dişli çapı D (mm) olmak üzere aşağıdaki formüller kullanılır.

**CALCULATION OF OVERHUNG LOADS**

Radial load F (N) is calculated with the following formulas where required moment M (Nm) and hoop or gear diameter D (mm) is used.

**BERECHNUNG VON QUERKRAFT**

Radiallast F (N) Berechnung erforderlich Antriebsmoment M (Nm), Durchmesser der Riemenscheibe oder des Gewindes D (mm) die folgenden Formeln es wird verwendet.


**1 - Elastik Kaplin**

Çalışma sırasında oluşan sapmalar kaplinin güvenlik sınırları içerisinde ise kuvvetler ihmal edilebilir.

**1 - Elastik Coupling**

If elastic coupling is working in its reliable working area, the overhung loads can be neglected.

**1 - Elastische Kupplung**

Abweichungen im Betrieb gewährleisten die Sicherheit der Kupplung. Kräfte können vernachlässigt werden.


**2 - Düz Dişli (20° kavrama açılı)**
**2 - For Spur Gear (Pressure angle 20°)**
**2 - Stirnrad (20° Kupplungswinkel)**

$$F_R = \frac{2100 \times M_2}{D}$$


**3 - Küçük Hızlarda Zincir Dişli (Z < 17)**
**3 - For Chain Drive With Low Speed (Z < 17)**
**3 - Kettenrad bei kleinen Geschwindigkeiten (Z < 17)**

$$F_R = \frac{2100 \times M_2}{D}$$


**4 - Triger Kayış**
**4 - For Trigger Belt**
**4 - Zahnriemen**

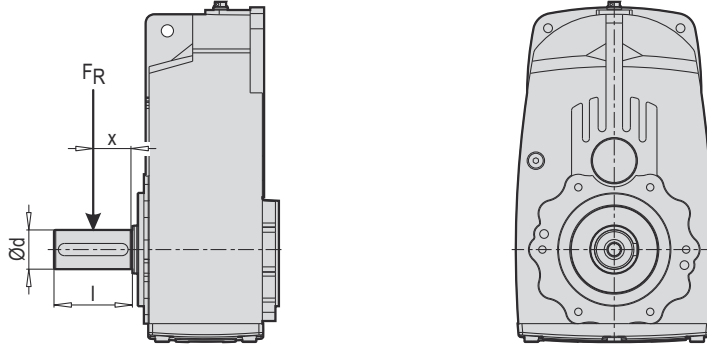
$$F_R = \frac{2500 \times M_2}{D}$$


**5 - V Kayış**
**5 - For V Belt**
**5 - Keilriemen**

$$F_R = \frac{5000 \times M_2}{D}$$


**6 - Gerdirme Makaralı Kayış**
**6 - Flat Belt With Spanning Puley**
**6 - Spannrollenriemen**

$$F_R = \frac{5000 \times M_2}{D}$$

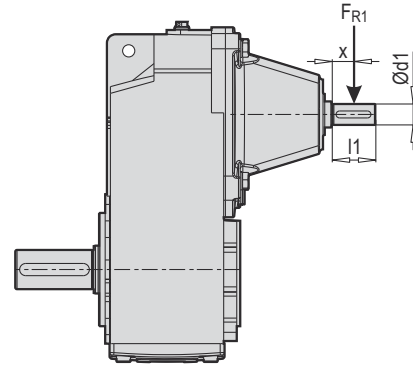
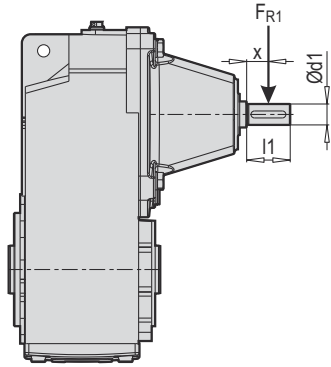


**ÇIKIŞ ŞAFTINDAKİ RADYAL VE EKSENEL YÜK HESAPLAMALARI İÇİN DEĞERLER**  
VALUE TABLE FOR RADIAL AND AXIAL LOADS AT OUTPUT SHAFT  
WERTE FÜR QUER UND AXIALKRAFT AN DER AUSGANGSWELLE

| Redüktör Tipi<br>Gearbox Type<br>Reduzierertyp | y<br>(mm) | z<br>(mm) | c<br>Normal<br>Normal<br>(Nmm) | CGR<br>Güçlendirilmiş /<br>Reinforced / Verstärkt<br>(Nmm) | f<br>(mm) | d<br>(mm) | l<br>(mm) |
|------------------------------------------------|-----------|-----------|--------------------------------|------------------------------------------------------------|-----------|-----------|-----------|
| PM A02                                         | 80.0      | 104.5     | 0.13 X 10 <sup>6</sup>         | 0.18 X 10 <sup>6</sup>                                     | 0         | 25        | 50        |
| PM B02                                         | 112.0     | 138.0     | 0.12 X 10 <sup>6</sup>         | 0.17 X 10 <sup>6</sup>                                     | 0         | 25        | 50        |
| PM C13                                         | 145.0     | 176.0     | 0.16 X 10 <sup>6</sup>         | 0.26 X 10 <sup>6</sup>                                     | 0         | 30        | 60        |
| PM 12 - PM 13                                  | 95.1      | 125.1     | 0.18 X 10 <sup>6</sup>         | 0.27 X 10 <sup>6</sup>                                     | 0         | 30        | 60        |
| PM 22 - PM 23                                  | 109.6     | 144.6     | 0.27 X 10 <sup>6</sup>         | 0.44 X 10 <sup>6</sup>                                     | 0         | 35        | 70        |
| PM 32 - PM 33                                  | 135.6     | 180.6     | 0.61 X 10 <sup>6</sup>         | 0.94 X 10 <sup>6</sup>                                     | 0         | 45        | 90        |
| PM 42 - PM 43                                  | 158.1     | 213.1     | 0.90 X 10 <sup>6</sup>         | 1.48 X 10 <sup>6</sup>                                     | 0         | 55        | 110       |
| PM 52 - PM 53                                  | 179.6     | 244.6     | 1.63 X 10 <sup>6</sup>         | 2.60 X 10 <sup>6</sup>                                     | 0         | 65        | 130       |
| PM 62 - PM 63                                  | 235.6     | 305.6     | 1.82 X 10 <sup>6</sup>         | 3.42 X 10 <sup>6</sup>                                     | 0         | 75        | 140       |
| PM 72 - PM 73                                  | 253.0     | 338.0     | 3.81 X 10 <sup>6</sup>         | 6.19 X 10 <sup>6</sup>                                     | 0         | 90        | 170       |
| PM 82 - PM 83                                  | 300.0     | 405.0     | 8.31 X 10 <sup>6</sup>         | 12.79 X 10 <sup>6</sup>                                    | 0         | 110       | 210       |
| PM 92 - PM 93                                  | 353.6     | 478.6     | 16.32 X 10 <sup>6</sup>        | 24.92 X 10 <sup>6</sup>                                    | 0         | 140       | 250       |
| PM 102 - PM 103                                | 425.0     | 575.0     | -                              | 18.95 X 10 <sup>6</sup>                                    | 0         | 160       | 300       |
| PM 112 - PM 113                                | 453.0     | 603.0     | -                              | 19.15 X 10 <sup>6</sup>                                    | 0         | 180       | 300       |
| PM 123                                         | 453.0     | 603.0     | -                              | 20.30 X 10 <sup>6</sup>                                    | 0         | 180       | 300       |

y-z-c-CGR-f 9

- W ADAPTÖR  
 - W ADAPTER



GİRİŞ ŞAFTINDAKİ RADYAL VE EKSENEL YÜK HESAPLAMALARI İÇİN DEĞERLER  
 VALUE TABLE FOR RADIAL AND AXIAL LOADS AT INPUT SHAFT  
 WERTE FÜR QUER UND AXIALKRAFT AN DER EINGANGSWELLE

f=0

| Redüktör Tipi<br>Gearbox Type<br>Reduzierertyp                        | y<br>(mm) | z<br>(mm) | c<br>(Nmm)              | d1<br>(mm) | l1<br>(mm) |
|-----------------------------------------------------------------------|-----------|-----------|-------------------------|------------|------------|
| PD/PM A02<br>PD/PM B02                                                | 58.5      | 78.5      | 0.027 x 10 <sup>6</sup> | 14         | 40         |
| PD/PM C13                                                             | 58.5      | 78.5      | 0.037 x 10 <sup>6</sup> | 16         | 40         |
| PD/PM 12<br>PD/PM 13<br>PD/PM 23<br>PD/PM 33                          | 70.0      | 90.0      | 3.64 x 10 <sup>4</sup>  | 16         | 40         |
| PD/PM 22<br>PD/PM 32<br>PD/PM 43<br>PD/PM 53                          | 96.5      | 121.5     | 1.07 x 10 <sup>5</sup>  | 24         | 50         |
| PD/PM 42<br>PD/PM 52<br>PD/PM 63                                      | 110.5     | 150.5     | 4.70 x 10 <sup>5</sup>  | 38         | 80         |
| PD/PM 62<br>PD/PM 72<br>PD/PM 63*<br>PD/PM 73<br>PD/PM 83<br>PD/PM 93 | 149.5     | 204.5     | 4.60 x 10 <sup>5</sup>  | 42         | 110        |
| PD/PM 82<br>PD/PM 92<br>PD/PM 83*<br>PD/PM 93*                        | 207.5     | 277.5     | 1.82 x 10 <sup>6</sup>  | 65         | 140        |
| PD/PM 102<br>PD/PM 103<br>PD/PM 112<br>PD/PM 113<br>PD/PM 123         | 413.0     | 482.0     | -                       | 70         | 140        |

\* Simgesi güçlendirilmiş W adaptörleri için verilen değerleri gösterir.

\* Sign shows that value which is given on table, for reinforced W adapter.

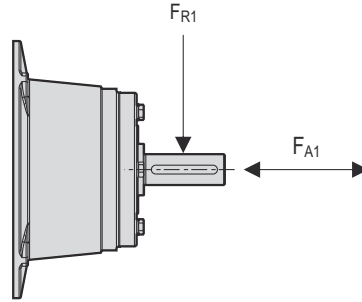
Das \*-Symbol zeigt die Werte für verstärkte W-Ausführungen an.

TR RADYAL YÜK HESABI

EN CALCULATION OF RADIAL LOADS

DE BERECHNUNG VON QUERKRAFT

- W ADAPTÖR  
- W ADAPTER



| Tip<br>Type<br>Typ  | PD/PM A02<br>PD/PM B02 |                 | PD/PM C13       |                 | PD/PM 12<br>PD/PM 13<br>PD/PM 23<br>PD/PM 33 |                 | PD/PM 22<br>PD/PM 32<br>PD/PM 43<br>PD/PM 53 |                 | PD/PM 42<br>PD/PM 52<br>PD/PM 63 |                 | PD/PM 62<br>PD/PM 72<br>PD/PM 63*<br>PD/PM 73<br>PD/PM 83<br>PD/PM 93 |                 | PD/PM 82<br>PD/PM 92<br>PD/PM 83*<br>PD/PM 93* |                 | PD/PM 102<br>PD/PM 103<br>PD/PM 113<br>PD/PM 123 |                 |
|---------------------|------------------------|-----------------|-----------------|-----------------|----------------------------------------------|-----------------|----------------------------------------------|-----------------|----------------------------------|-----------------|-----------------------------------------------------------------------|-----------------|------------------------------------------------|-----------------|--------------------------------------------------|-----------------|
|                     | [kN]                   | [kN]            | [kN]            | [kN]            | [kN]                                         | [kN]            | [kN]                                         | [kN]            | [kN]                             | [kN]            | [kN]                                                                  | [kN]            | [kN]                                           | [kN]            | [kN]                                             | [kN]            |
| P <sub>1</sub> (kW) | F <sub>A1</sub>        | F <sub>R1</sub> | F <sub>A1</sub> | F <sub>R1</sub> | F <sub>A1</sub>                              | F <sub>R1</sub> | F <sub>A1</sub>                              | F <sub>R1</sub> | F <sub>A1</sub>                  | F <sub>R1</sub> | F <sub>A1</sub>                                                       | F <sub>R1</sub> | F <sub>A1</sub>                                | F <sub>R1</sub> | F <sub>A1</sub>                                  | F <sub>R1</sub> |
| 0.12                | 1.2                    | 0.55            | 1.2             | 0.85            | 1.2                                          | 0.85            | 2.9                                          | 2.1             | -                                | -               | -                                                                     | -               | -                                              | -               | -                                                | -               |
| 0.18                | 1.1                    | 0.54            | 1.1             | 0.82            | 1.1                                          | 0.82            | 2.9                                          | 2.1             | -                                | -               | -                                                                     | -               | -                                              | -               | -                                                | -               |
| 0.25                | 1.0                    | 0.53            | 1.0             | 0.78            | 1.0                                          | 0.78            | 2.8                                          | 2.1             | -                                | -               | -                                                                     | -               | -                                              | -               | -                                                | -               |
| 0.37                | 0.89                   | 0.50            | 0.89            | 0.75            | 0.89                                         | 0.75            | 2.6                                          | 2.1             | 4.1                              | 2.1             | -                                                                     | -               | -                                              | -               | -                                                | -               |
| 0.55                | 0.77                   | 0.47            | 0.77            | 0.72            | 0.77                                         | 0.72            | 2.5                                          | 2.0             | 3.9                              | 2.8             | -                                                                     | -               | -                                              | -               | -                                                | -               |
| 0.75                | 0.58                   | 0.44            | 0.58            | 0.70            | 0.58                                         | 0.70            | 2.3                                          | 1.9             | 3.8                              | 2.4             | 6.1                                                                   | 4.4             | -                                              | -               | -                                                | -               |
| 1.10                | 0.35                   | 0.37            | 0.35            | 0.61            | 0.35                                         | 0.61            | 2.1                                          | 1.8             | 3.5                              | 2.7             | 5.9                                                                   | 4.3             | -                                              | -               | -                                                | -               |
| 1.50                | 0.29                   | 0.30            | 0.29            | 0.43            | 0.29                                         | 0.43            | 2.0                                          | 1.8             | 3.3                              | 2.6             | 5.8                                                                   | 4.2             | -                                              | -               | -                                                | -               |
| 2.20                | -                      | -               | 0.20            | 0.42            | 0.20                                         | 0.42            | 1.7                                          | 1.7             | 2.7                              | 2.4             | 5.5                                                                   | 4.1             | -                                              | -               | -                                                | -               |
| 3.00                | -                      | -               | 0.15            | 0.23            | 0.15                                         | 0.23            | 1.5                                          | 1.6             | 2.5                              | 2.3             | 5.2                                                                   | 3.9             | 4.3                                            | 11.0            | -                                                | -               |
| 4.00                | -                      | -               | -               | -               | -                                            | -               | 0.98                                         | 1.1             | 2.3                              | 2.1             | 4.9                                                                   | 3.7             | 4.2                                            | 10.9            | -                                                | -               |
| 5.50                | -                      | -               | -               | -               | -                                            | -               | 0.65                                         | 1.0             | 1.6                              | 1.8             | 4.4                                                                   | 3.4             | 4.1                                            | 10.8            | -                                                | -               |
| 7.50                | -                      | -               | -               | -               | -                                            | -               | 0.27                                         | 1.0             | 1.4                              | 1.3             | 4.3                                                                   | 3.4             | 3.8                                            | 10.4            | -                                                | -               |
| 9.20                | -                      | -               | -               | -               | -                                            | -               | -                                            | -               | 1.0                              | 0.98            | 3.9                                                                   | 3.1             | 3.6                                            | 10.1            | -                                                | -               |
| 11.0                | -                      | -               | -               | -               | -                                            | -               | -                                            | -               | 0.59                             | 0.47            | 3.3                                                                   | 2.7             | 3.4                                            | 9.9             | 13.4                                             | 17.3            |
| 15.0                | -                      | -               | -               | -               | -                                            | -               | -                                            | -               | -                                | -               | 3.3                                                                   | 2.7             | 3.1                                            | 9.5             | 13.7                                             | 17.1            |
| 18.5                | -                      | -               | -               | -               | -                                            | -               | -                                            | -               | -                                | -               | 2.7                                                                   | 2.3             | 3.0                                            | 9.3             | 13.4                                             | 16.9            |
| 22.0                | -                      | -               | -               | -               | -                                            | -               | -                                            | -               | -                                | -               | 2.2                                                                   | 1.8             | 2.9                                            | 9.3             | 13.1                                             | 11.7            |
| 30.0                | -                      | -               | -               | -               | -                                            | -               | -                                            | -               | -                                | -               | 1.1                                                                   | 1.2             | 2.3                                            | 8.4             | 12.5                                             | 16.1            |
| 37.0                | -                      | -               | -               | -               | -                                            | -               | -                                            | -               | -                                | -               | 0.74                                                                  | 0.87            | 2.0                                            | 8.1             | 12.0                                             | 15.7            |
| 45.0                | -                      | -               | -               | -               | -                                            | -               | -                                            | -               | -                                | -               | -                                                                     | -               | 2.2                                            | 8.3             | 11.7                                             | 15.2            |
| 55.0                | -                      | -               | -               | -               | -                                            | -               | -                                            | -               | -                                | -               | -                                                                     | -               | 1.5                                            | 7.4             | 11.0                                             | 14.5            |
| 75.0                | -                      | -               | -               | -               | -                                            | -               | -                                            | -               | -                                | -               | -                                                                     | -               | 0.78                                           | 4.6             | 9.6                                              | 13.2            |
| 90.0                | -                      | -               | -               | -               | -                                            | -               | -                                            | -               | -                                | -               | -                                                                     | -               | 0.24                                           | 5.2             | 8.5                                              | 12.1            |
| 110                 | -                      | -               | -               | -               | -                                            | -               | -                                            | -               | -                                | -               | -                                                                     | -               | -                                              | -               | 7.2                                              | 10.7            |
| 132                 | -                      | -               | -               | -               | -                                            | -               | -                                            | -               | -                                | -               | -                                                                     | -               | -                                              | -               | 6.8                                              | 9.0             |
| 160                 | -                      | -               | -               | -               | -                                            | -               | -                                            | -               | -                                | -               | -                                                                     | -               | -                                              | -               | 5.0                                              | 6.9             |
| 200                 | -                      | -               | -               | -               | -                                            | -               | -                                            | -               | -                                | -               | -                                                                     | -               | -                                              | -               | 2.6                                              | 3.6             |

\* Simgesi güçlendirilmiş W adaptörleri için verilen değerleri gösterir.

\* Sign shows that value which is given on table, for reinforced W adapter.

Das \*-Symbol zeigt die Werte für verstärkte W-Ausführungen an.

F<sub>A1</sub> → F<sub>R1</sub>=0

F<sub>R1</sub> → F<sub>A1</sub>=0



9

| TR                  | KISALTMALAR                                                                            | EN                 | ABBREVIATIONS                                                                               | DE                 | ABKÜRZUNGEN                                                                      |
|---------------------|----------------------------------------------------------------------------------------|--------------------|---------------------------------------------------------------------------------------------|--------------------|----------------------------------------------------------------------------------|
| $f_B$               | = Servis Faktörü (Mamax / Ma)                                                          | $f_B$              | = Service factor (Mamax / Ma)                                                               | $f_B$              | = Betriebsfaktor (Mamax / Ma)                                                    |
| $F_A$               | = Çıkış tarafındaki müsaade edilebilir eksenel yük [ kN ]                              | $F_A$              | = Permissible axial load at the output side [ kN ]                                          | $F_A$              | = zulässige axiale Belastung auf der Abtriebsseite [ kN ]                        |
| $F_R$               | = Çıkış tarafındaki, milin orta noktasına etkiyen müsaade edilebilir radyal yük [ kN ] | $F_R$              | = Permissible overhung load at the output side, force acting at the shaft's midpoint [ kN ] | $F_R$              | = Querkraft aus Drehzahl- Leistungstabellen, Kraftangriff auf Wellenmitte [ kN ] |
| $F_D$               | = Reaksiyon yükü [ kN ]                                                                | $F_D$              | = Reaction [ kN ]                                                                           | $F_D$              | = Reaktionsbelastung [ kN ]                                                      |
| $i_{\text{toplam}}$ | = Dişli ünitesindeki toplam tahvil oranı                                               | $i_{\text{total}}$ | = Gear units total ratio                                                                    | $i_{\text{total}}$ | = Gesamtübersetzungsverhältnis                                                   |
| $i_{\text{ges}}$    | = Tahvil oranı                                                                         | $i_{\text{ges}}$   | = Reduction ratio                                                                           | $i_{\text{ges}}$   | = Übersetzungsverhältnis                                                         |
| $M_2$               | = Çıkış momenti [Nm]                                                                   | $M_2$              | = Output torque [Nm]                                                                        | $M_2$              | = Abtriebsdrehmoment [Nm]                                                        |
| $M_{\text{amax}}$   | = Müsaade edilebilir maksimum çıkış momenti [Nm]                                       | $M_{\text{amax}}$  | = Max. permissible output torque [Nm]                                                       | $M_{\text{amax}}$  | = zul. Maximale Drehmoment [Nm]                                                  |
| $n_2$               | = Çıkış devri [ d/dk ]                                                                 | $n_2$              | = Output speed [min <sup>-1</sup> ]                                                         | $n_2$              | = Abtriebsdrehzahl [min <sup>-1</sup> ]                                          |
| $P_e$               | = Mamax referans alınarak hesaplanan güç [kW]                                          | $P_e$              | = Calculated power [kW] with reference to Mamax                                             | $P_e$              | = Mit der Referenz Mamax berechnete Leistung [kW]                                |
| $P_n$               | = Motor güç oranı [kW]                                                                 | $P_n$              | = Rated power of motor [kW]                                                                 | $P_n$              | = Motorleistung [kW]                                                             |
| $\eta$              | = Verim [ % ]                                                                          | $\eta$             | = Efficiency [ % ]                                                                          | $\eta$             | = Leistung [ % ]                                                                 |
| $kg$                | = Redüktörün ağırlığı                                                                  | $kg$               | = Weight of the geared motor                                                                | $kg$               | = Gewicht des Getriebes                                                          |

1) 4 ve 5 kademeli redüktörlerin 0,75 kW'a kadar olan 4 kutuplu motorlarında kayıp yaklaşık 40 W olarak hesaplanmıştır. Kayıp, motor hızına bağlı olarak o oranda değişir.

1) Gear units or gear motors which have 4 and 5 stage reduction 4 pole motor up to 0,75 kW losses are calculated nearly 40 W, losses are dependent motor speed.

1) Bei vier-, fünfstufigen Getrieben gibt es aufgrund der vielen sich drehenden Teile und der relativ kleinen Antriebsleistungen relevanten Leerlaufverluste. Daher wird hier bei 4-poligen Motoren bis 0,75 kW eine Leerlaufverlustleistung von ca. 40 Watt (W) in den Tabellen berücksichtigt.



TR

PD/PM TANITIMI

## PARALEL ŞAFT MONTAJLI REDÜKTÖRLER (PD/PM)

Polat Group Redüktör ürünü olan Paralel şaft montajlı (PD/PM) serisi 26 farklı gövde büyüklüğü ile hizmete sunulmaktadır.

Redüktörler;

- PD/PM A02...52 arası 2 kademeli,
- PD/PM 12...52 arası 2 kademeli redüktörlere indirgeyici gövde montajlanarak 3 kademeli (PD/PM 13...53),
- PD/PM 62...112 ve PD/PM 63...123 arası redüktörler aynı tip gövdede 2 veya 3 kademeli olarak sunulmaktadır
- Yüksek tahvil oranları için 4, 5 ve 6 kademeli redüktörlerimiz de mevcuttur.

Her bir gövde büyüklüğü için çıkış olarak, mil çıkışlı veya delik milli opsiyonlarımız mevcuttur. PD/PM serisi redüktörlerimiz giriş ve çıkış yönü paralel eksenli gövde yapısıyla dar alanlarda uygulama kolaylığı ve ağır çalışma şartlarına uygun tasarımı ile tercih edilmektedir. Delik milli redüktörler uygulanma alanındaki sisteme direk olarak montajlanabilir.

Yeni nesil PGR dişli ünitelerimiz UNICASE ilkesine göre geliştirilmiştir. Redüktörlerimiz bu prensibe göre yekpare olarak tasarlanmıştır. Yekpare gövdemiz tüm rulmanların entegre edildiği tek bir muhafazadır. Yekpare gövdemizin son ölçülerine getirilmesi güncel ve son teknoloji CNC ünitelerimizde gerçekleştirilir. Unicase konsepti en yüksek düzeyde hassasiyet, rijitlik ve dayanıklılık sağlar. Eksenel kuvvetlere ve torqa maruz kalabilen redüktör gövdemizin üzerinde ayrı bağlantı elemanı yoktur. Unicase prensibi şaft eksenlerinin kademeli olmasına izin verir, bu da daha uzun bir çalışma ömrünü garanti etmek için daha büyük yataklama elemanı (rulman) kullanma olanağı sunar. Unicase prensibinin getirdiği hassas mil (şaft) hizalaması ve yüksek yüklem kapasitesi, uzun hizmet ömrü ve düşük gürültü sağlar. Dişliler, yataklar, miller DIN 3990 DIN ISO 281 uluslararası normlara göre hesaplanmıştır. Çıkış tarafı ile giriş arasında eksen kaçıklığına neden olabilecek çıkıntı veya tork yüklerine maruz kalan herhangi bir bağlantı elemanı (vida vb) yoktur. PİK / sfero veya alüminyum gövdeler için gövdeden sağlanan montaj kolaylığı ile vibrasyon salınım etkisi en aza indirilir.

Her bir dişli kademesi için ayrı olarak 0,96...0,98 arasında yüksek bir verimlilikle (her bir kademenin bağımsız olarak verimliliği bu değerler arasındadır) dişli ünitelerimizce sunulmaktadır.

Fabrikamızda bulunan son sistem CNC tezgahlarında açılan dişliler yüksek ve geniş yelpazeli imalat toleransı ile günümüz uluslararası standartlarının tamamını karşılamaktadır. Redüktör gövdelerimiz GG 25-30, GGG 50-60 ya da alüminyum yapılmıştır.

Yataklar ve dişliler tribolojinin kurallarına göre optimize edilmiş bir yağ banyosunda çalışır.

Dişli ünitelerimizin sızdırmazlığında NBR keçe kullanılır. Opsiyonel olarak viton (FKM) keçe kullanımımız da mevcuttur. Dövme malzemeden yapılan dişlilerimiz gerekli ısıtma işlemi, sementasyon, honlama, gibi proseslerden geçirilerek redüktörümüzün sorunsuz çalışması sağlanır. Dişli dizaynındaki doğru oluşturulan geometri ve doğru malzeme seçimi, çalışan dişlilerimizin daha sessiz, daha hafif ve daha yüksek hızlarda daha fazla yük taşıırken daha az ısı üretmesini mümkün kılmaktadır. Redüktörlerimiz sessiz, yüksek dayanımlı ve servis ömrü uzun çalışma sağlamaktadır. Bu da zorlu çalışma koşullarında güvenli çalışmayı beraberinde getirir. PD/PM serisi redüktörlerimiz her türlü endüstriyel uygulamada kullanılabilir.

EN

DESCRIPTION OF PD\PM

## PARALLEL SHAFT MOUNTED GEAR UNITS (PD/PM)

The series of Parallel Shaft Mounted Gear Units of PGR has 26 different case dimensions.

Gear Units;

- Gear units from PD/PM A02 to 52 have 2 stage
- Gear units from PD/PM 12 to 52 can be made 3 stage (From PD/PM 13 to 53) by using reductive case.,
- Gear units from PD/PM 62 to 112 and from PD/PM 63 to 123 are come out as a 2 or 3 stages in the same kind of case.
- We have 4,5 and 6 stage reducers for high ratio numbers.

We have hollow shaft and solid shaft versions for every case dimensions. PD/PM series are suitable for heavy working conditions and ease of usage at narrow place since they has parallel axis case design between input and output. Hollow shaft reducers can be connected to the system of application area easily.

Our new generation PGR gear units have been developed according to the UNICASE principle. Our gear units are designed as a one-piece according to this principle. Our one-piece body is a single housing in which all bearings are integrated. Bringing our one-piece body to its final dimensions is carried out in our updated technology CNC units. The Unicase concept provides the highest level of precision, rigidity and durability. We do not have different connection element on our gear unit body, which can be exposed to axial forces and torque. The Unicase principle allows the shaft axes to have stages, which allows the possibility to use larger bearings (bearings) to guarantee a longer durability. The precise shaft alignment and high loading capacity which is provided by Unicase principle ensure durability and low noise. Gears, bearings, shafts are calculated according to DIN 3990 DIN ISO 281 international norms. There are no connector (screws, etc.) that are exposed to protrusion or torque loads that may cause axial misalignment between the output side and the input side. Vibration oscillation effect is minimized with the ease of mount provided from the body for ductile iron or aluminum bodies.

By our offered gear units with a high efficiency of 0.96...0.98 for each gear stage separately (the efficiency of each stage independently is between these values).

The gears produced on the cutting-edge technology system CNC machines in our factory encounter provides all today's international standards with high and wide range with manufacturing tolerances. Our gear unit bodies are made of GG 25-30, GGG 50-60 or aluminum.

Bearings and gears work in an optimized oil bath according to the rules of tribology.

NBR seal is used in the leakproofing of our gear units. We have viton seal (FKM) as optional. Our gear units, which are made of forged material, are passed through the necessary processes such as heat treatment, cementation, honing. After that, our gear units is ensured working without problem. Correctly created geometry and correct material selection in gear design make it possible for our working gears to be quiet, lighter and they can generate less heat while carrying more loads at higher velocity. Our gear units provide quiet working and durability. This situation brings safe working in hard working conditions. Our PD/PM series gear units can be used in all kinds of industrial applications.

DE

PD/PM-EINFÜHRUNG

## FLACHGETRIEBE (PD/PM)

Die Flachgetriebe (PD/PM) von PGR werden in 26 verschiedenen Gehäusegrößen angeboten.

Getriebe:

- 2-stufig zwischen A02 und A52
- durch Montage von Reduziergehäuse an 2-stufige Getriebe zwischen PD/PM 12 und PD/PM 52, 3-stufig zwischen PD/PM 13 und 53
- Zwischen PD/PM 62 und PD/PM 112 und PD/PM 63 und PD/PM 123 bei gleichen Gehäusen 2- oder 3-stufig lieferbar.
- Für hohe Untersetzungsverhältnisse sind 4-, 5- und 6-stufige Getriebe vorhanden.

Für alle Gehäusegrößen sind Optionen mit Vollwelle oder Hohlwelle vorhanden. Unsere Getriebe der PD/PM-Serie werden bevorzugt mit ihrer parallelen Antriebs- und Abtriebswelle und ihrer dadurch einfachen Anwendung in engen Bereichen und ihrem Design, das für schwere Arbeitsbedingungen geeignet ist. Getriebe mit Hohlwellen können direkt an das System im Anwendungsbereich angeschlossen werden.

Unsere PGR-Getriebe der neuen Generation wurden nach dem UNICASE-Prinzip entwickelt. Unsere Reduzierstücke werden nach diesem Prinzip als Einzelstück konstruiert. Unser solider Körper ist ein einziges Gehäuse, in dem alle Lager integriert sind. In unseren aktuellen und hochmodernen CNC-Anlagen wird unser Massivkörper auf Endmaß gebracht. Das Unicase-Konzept bietet ein Höchstmaß an Präzision, Festigkeit und Widerstandsfähigkeit. An unserem Reduzierkörper befindet sich kein separates Verbindungselement, das axialen Kräften und Drehmomenten ausgesetzt werden kann. Durch das Unicase-Prinzip können die Wellenachsen versetzt werden, was die Möglichkeit bietet, größere Lager zu verwenden, um eine längere Lebensdauer zu gewährleisten. Präzise Wellenausrichtung und hohe Belastbarkeit durch das Unicase-Prinzip sorgen für lange Lebensdauer und geringe Geräuschentwicklung. Zahnräder, Lager, Wellen werden nach den internationalen Normen DIN 3990 DIN ISO 281 berechnet. Es gibt keine Befestigungselemente (Schrauben usw.) zwischen der Abtriebsseite und dem Eingang, die Überstands- oder Drehmomentbelastungen ausgesetzt sind, die eine axiale Fehlausrichtung verursachen könnten. Der Schwingungseffekt wird durch die einfache Montage des Gehäuses für Guss-/Sphäroguss- oder Aluminiumkörper minimiert. Wird von unseren Getrieben mit einem hohen Wirkungsgrad zwischen 0,96...0,98 für jede Getriebestufe separat angeboten. (der Wirkungsgrad jeder Stufe liegt unabhängig zwischen diesen Werten).

Die in unserem Werk auf modernsten System - CNC-Maschinen geöffneten Verzahnungen erfüllen alle heutigen internationalen Standards mit hohen und weiten Fertigungstoleranzen. Unsere Reduzierkörper werden aus GG 25-30, GGG 50-60 oder Aluminium gefertigt.

Lager und Getriebe arbeiten in einem optimierten Ölbad nach den Regeln der Tribologie. Zur Abdichtung unserer Getriebe wird NBR-Filz verwendet. Optional ist auch Viton (FKM)-Filz erhältlich. Unsere Zahnräder aus geschmiedetem Material durchlaufen die notwendigen Prozesse wie Wärmebehandlung, Zementieren, Honen und sorgen für einen reibungslosen Betrieb unseres Getriebes. Eine richtig erstellte Geometrie und die richtige Materialauswahl in der Zahnradkonstruktion machen es möglich, dass unsere Zahnräder leiser, leichter und weniger Wärme erzeugen und gleichzeitig mehr Lasten bei höheren Geschwindigkeiten tragen. Unsere Getriebe zeichnen sich durch leiser Betrieb, hohe Festigkeit und lange Lebensdauer aus. Dies bringt sicheres Arbeiten unter schwierigen Arbeitsbedingungen mit sich. Unsere Getriebe der Baureihe PKD können in allen Arten von Industrieanwendungen eingesetzt werden.

TR

PD/PM TANITIMI

Motorlu ya da motorsuz seçeneklerde, W kovanlı, PAM ve IEC adaptörlü giriş opsiyonlu olarak ürettiğimiz Paralel şaft montajlı redüktörlerde standart olarak sunduğumuz çıkış opsiyonlarımız;

·Delik milli  
·Çıkış milli  
·Konik sıkırtma, delik milli

#### Aksesuarlarımız,

·Lastik Takoz  
·B5 / B14 flanşlı  
·Çektirmeli  
·Konik sıkırtmalı  
·Kilitli  
·Koruma kapaklı  
·Ayak montajlı (sadece PD/PM A02... C13 ile PD/PM 92 ve üst gövde boyutları için) tasarımlarımız mevcuttur.

#### Paralel Şaft Montajlı Redüktörler :

0.12 kW dan 200 kW'ya kadar değişen güçleri ile maksimum 94000 Nm'ye kadar çıkış momenti sağlayabilmektedir.

EN

DESCRIPTION OF PD\PM

For motor and without motor versions, we have input options of free input shaft, with PAM, IEC adaptors. The standart output options for them,

Hollow Shaft  
Solid Shaft  
Shrink disc,hollow shaft

#### Accessories,

Rubber Buffer  
B5/B14 flange  
Fixing element  
Shrink disc  
With backstop  
Protection cover  
Foot mounted designs (only for between PD/PM A02 and PD/PM C13 and upper than PD/PM 92 cases)

#### Parallel Shaft Mounted gear units;

with various power ranging between 0,12 kW and 200 kW, supplies at most 94000 Nm output moment.

DE

PD/PM-EINFÜHRUNG

Bei Auswahlmöglichkeiten mit oder ohne Motor gibt es Antriebsoptionen mit freier Antriebswelle, PAM- und IEC-Adapter. Bei diesen Getrieben sind die Standard-Abtriebsoptionen wie folgt:

·Hohlwelle  
·Abtriebswelle  
·Schrumpfscheibe, Hohlwelle

#### Unzer Zubehör,

·Gummipuffer  
·B5- / B14- Flansch  
·Abziehscheibe  
·Schrumpfscheibe  
·Rücklaufperre  
·Schutzklappe  
·Fußbefestigung verfügbar (nur Gehäusegrößen PD/PM A02... C13 und ab PD/PM 92).

#### Flachgetriebe:

Bieten ein Abtriebsmoment von max. 94000 Nm bei einer Leistung zwischen 0,12 kW und 200 kW.

**MAX. MÜSAADE EDİLEBİLİR ÇIKIŞ MOMENTİ  $M_a$  max.**  
MAX. PERMISSIBLE OUTPUT TORQUES  $M_a$  max.  
MAX. ZULÄSSIGE AUSGANGSMOMENTE  $M_a$  max.

245 - 267

**İki ve Üç kademeli paralel şaftlı redüktör**  
Parallel shaft gear units, double and triple stage reduction  
Zwei und dreistufiges, Flachgetriebemotoren

| Tip / Type / Typ | $M_a$ max. (Nm) | Tip / Type / Typ | $M_a$ max. (Nm) | Tip / Type / Typ | $M_a$ max. (Nm) | Tip / Type / Typ | $M_a$ max. (Nm) | Tip / Type / Typ | $M_a$ max. (Nm) |
|------------------|-----------------|------------------|-----------------|------------------|-----------------|------------------|-----------------|------------------|-----------------|
|                  | 120             |                  | 300             |                  | 270             |                  | 4540            |                  | 17930           |
|                  | 170             |                  | 560             |                  | 560             |                  | 6470            |                  | 32000           |
|                  | 370             |                  | 1020            |                  | 1040            |                  | 10620           |                  | 42000           |
|                  |                 |                  | 2000            |                  | 2080            |                  | 6000            |                  | 25400           |
|                  |                 |                  | 3240            |                  | 3200            |                  | 8300            |                  | 37200           |
|                  |                 |                  |                 |                  |                 |                  | 13200           |                  | 69000           |
|                  |                 |                  |                 |                  |                 |                  |                 |                  | 90000           |

TR

## W, IEC VE PAM ADAPTÖRÜ

W kovanlı (serbest giriş millî) redüktörler için geçerli maksimum tahrik gücü, uygun tahvil oranı ve çıkış devrine göre (min-1) W, IEC, PAM seçim tablolarında belirlenmiştir. IEC'li ve PAM'lı redüktörlerde her bir gövde büyüklüğü için DIN EN 50347 standardına göre standart güçler verilir. Ancak maksimum çıkış gücü, tahvil oranlarına göre tablolarda verilmiştir. Eğer W, IEC, PAM seçim tablolarındaki listelenen P1 güç değerlerinden daha fazla bir güç istenirse özel hesaplamalar gerekmektedir. Bu durumda lütfen firmamıza danışınız.

W kovanlı redüktörlerin giriş mili yatakları (rulmanları) düzenli olarak yağlanmalıdır. PA/PF 62-63, PD/PM 62-63, PKD 6390 ve üst gövdeler için her 4000 çalışma saatine göre yaklaşık 20-25 gr gres ile otomatik yağlayıcılar ya da gresölük kullanılarak giriş şaftı yatakları düzenli olarak yağlanmalıdır. Yağlayıcı olarak Petamo GHY 133N önerilir. W kovanlı redüktörlerde yağlamanın yanı sıra redüktörün soğutulmasını iyileştirmek için harici bir fan talep üzerine yapılabilir. Lütfen böyle bir istek için tarafımıza danışınız.

Otomatik yağlayıcı ünitesini IEC adaptör girişli redüktörlerimiz için PA/PF 62-63, PD/PM 62-63, PKD 6390 ve üstü gövde büyüklüklerine bağlanabilmektedir. Otomatik yağlama ünitesi giriş mili üzerindeki rulmanlara kalıcı bir yağlama sağlamaktadır. Redüktör devreye alınmadan önce otomatik yağlayıcı aktive edilmeli ve her 12 ay periyodunda değiştirilmelidir. Bu süre ortalama günlük çalışma süresinin ≤ 8 saat olduğu durumlarda geçerlidir. Günlük çalışma süresi 8 saatin üzerindeki tüm durumlarda otomatik yağlayıcı 6 ayda bir değiştirilmelidir.

Otomatik yağlayıcı içindeki gres 0°C...40° arasındaki ortam sıcaklığında çalışmaya göre tasarlanmıştır. Eğer ortam sıcaklığı belirtilen standart değerlerden (0°C...40°) çok uzun süre farklı kalıyorsa özel yağlayıcılar kullanılmalıdır. Bunun gibi durumlar için firmamıza danışınız.

Otomatik yağlayıcı, motor gövde büyüklüğü 160 ve üzeri IEC adaptörlü redüktörlerde, motorun dikey olarak durduğu montaj pozisyonları tarafımızca önerilmez. Bu tarz durumlarda doğrudan motor montajı tavsiye edilir. Eğer redüktör, motor gövde büyüklüğü 160 ve üzeri IEC adaptörlü ve dikey montaj pozisyonu (M4) kullanılması gerekiyorsa, gerçek çalışma koşulları ile tarafımızca kontrol edilmeli ve onaylanmalıdır.

Montaj pozisyonu M2 olduğu dikey çalışma koşullarında, redüktör üzerindeki bazı sızdırmazlık elemanlarının ömrü azalabilir. Bu gibi durumlarda bakım aralıklarının daha kısa olması öneriyoruz. PA/PF 52, PD/PM 52 PKD 5390'a kadar olan gövde büyüklüğündeki IEC adaptörlü redüktörlerimiz, çalışma ömürleri boyunca özel sızdırmazlığa sahip yağlanmış rulmanlar içerir. Bu rulmanların yağlanması için herhangi bir ilave yağlama ünitesine gerek duyulmaz. Bu gövdeler için önerilen bakım süreleri kullanım kılavuzunda belirtilmiştir.

Motor gövde büyüklüğü 63'den 180'e kadar olan IEC adaptörlerin kaplinleri arızaya karşı emniyetli değildir. Ancak motor gövde büyüklüğü 160 ve 180 olan IEC adaptörlerinin kaplinleri otomatik yağlayıcı kullanılıyor ise arızalara karşı emniyetlidir. Motor gövde büyüklüğü 200 olan IEC adaptörlerin kaplinleri arızalara karşı emniyetli değildir. Kaldırıcılar, asansörler ve yaralanmalar vs. gibi kazalara sebep olabilecek özel durumlar için özel önlemler ve özel hesaplamalar gerekebilir. Bu durumlar için PGR'ye danışınız.

Doğrudan monte edilen akuple motorla karşılaştırıldığında IEC adaptöründe ek bir şaft kaplini ve ek rulman yatakları bulunur. Doğrudan monte edilen akuple motorla karşılaştırıldığında IEC bağlantılı redüktörlerde yük kayıpları seviyesi çok daha yüksektir. Sadece teknik avantajlar değil ayrıca fiyat avantajı da sunduğu için PGR olarak akuple motor montajı önerilmektedir.

EN

## W, IEC AND PAM ADAPTER

For gear units with W cylinder (with free input shaft), the maximum drive power, proper ratio rate, and output speed (min-1) is given at W, IEC, PAM selection tables. In gear units with IEC and PAM, standard powers are given for each body size according to DIN EN 50347 standard. However, the maximum output power is given in the tables according to the reduction ratio. Special calculations are required if more power is required than the P1 power values which is listed in the W, IEC, PAM selection tables. In this case, please kindly consult our company.

Input shaft bearings of gear units with W cylinder (free input shaft) must be lubricated regularly. Input shaft bearings of PA/PF 62-63, PD/PM 62-63, PKD 6390 and upper cases should be lubricated regularly with 20-25 gr grease using automatic lubricators or a grease fitting for approximately per 4000 operation hours. Petamo GHY 133N is recommended as a lubricant. For gear units with W (free input shaft), an external fan is available on request to improve the cooling of the gear unit. Please consult us for such a request.

The automatic lubricator unit can be connected to with IEC adapter input cases of PA/PF 62-63, PD/PM 62-63, PKD 6390 and upper cases. The automatic lubrication unit provides permanent lubrication to the bearings on the input shaft. Before the gear unit is used, the automatic lubricator must be activated and changed every 12 months. This period is valid when the average daily working time is ≤ 8 hours. In all cases with a daily operating time of more than 8 hours, the automatic lubricator have to be replaced every 6 months.

The grease which is in the automatic lubricator is designed for operation at ambient temperatures between 0°C...40°. If the ambient temperature differs from the specified standard values (0°C...40°) for too long time, special lubricants have to be used. For such cases, consult our company.

We do not recommend vertical mounting positions for gear units with automatic lubricator, motor body size 160 and above with IEC adapter. In such cases, direct motor mounting is recommended.

If motor body size 160 and above, with IEC adapter and vertical mounting position (M4) must be used, it have to be checked and approved by our company with the actual operating conditions.

In vertical operating conditions where the mounting position is M2, the life of some leakproofing elements on the gear unit may be reduced. In such cases, we recommend shorter maintenance time. Our cases up to PA/PF 52, PD/PM 52 and PKD 5390 with IEC adapter contain bearings which is lubricated and these bearings have special leakproofing for their working life. Additional lubrication unit is not required for the lubrication of these bearings. Recommended maintenance times for these bodies are specified in the user manual.

Couplings of IEC adapters from motor frame sizes 63 to 180 are not fail-safe, they are not safe for faults. However, couplings of IEC adapters with motor body sizes 160 and 180 are fail-safe if automatic lubricator is used. Couplings of IEC adapters with motor body size 200 are not fail-safe. For situations which can lead to accidents like lifters, lifts and injuries etc, you should make special calculations and precautions. For such cases, consult our company. Compared to a directly mounted coupled motor, the IEC adapter has an additional shaft coupling and additional bearings. Compared to a directly mounted coupled motor, the level of load losses is much higher in gear units with IEC connection. Coupled engine installation is recommended as PGR, as it offers not only technical advantages but also price advantage.

DE

## W, IEC UND PAM ADAPTER

Bei Getrieben mit freier Antriebswelle, Typ W, gilt die in den Leistungs- und Übersetzungstabellen angegebene maximale Antriebsleistung. Bei Getrieben mit IEC-Anbau, gilt die Normleistung der jeweiligen Baugröße nach DIN EN 50347, maximale jedoch die in den Leistungs- und Übersetzungstabellen angegebene Antriebsleistung. Bei höheren Drehzahlen, als in den Leistungs- und Übersetzungstabellen angegeben, sind eventuell Sondermaßnahmen erforderlich, wir bitten um Anfrage.

Bei Getrieben mit freier Antriebswelle, Typ W, muss die Antriebswellenlagerung ab Größe PA/PF 62-63, PD/PM 62-63, PKD 6390 regelmäßig nachgeschmiert werden. Wir empfehlen, über den vorgesehenen Schmiermippel, das äußere Wälzlager der Antriebswelle ca. pro 4000 Betriebsstunden mit ca. 20-25 g Fett nachzuschmieren. Empfohlene Fettsorte: Petamo GHY 133N. Auf Wunsch ist auch ein Lüfter auf der Antriebswelle zu besseren Getriebekühlung lieferbar. Wir bitten um Anfrage.

Getriebe mit IEC-Adapter ab Größe PA/PF 62-63, PD/PM 62-63, PKD 6390 können standardmäßig einen automatischen Schmierstoffgeber, der das äußere Wälzlager der Antriebswelle mit Schmierstoff versorgt haben. Der Schmierstoffgeber fördert permanent Schmierstoff zum Lager. Vor Inbetriebnahme des Getriebes ist der automatische Schmierstoffgeber zu aktivieren und dann alle 12 Monate auszutauschen. Dies gilt für eine durchschnittliche Laufzeit ≤ 8 Stunden/Tag. Bei längeren Laufzeiten verkürzt sich der Wechsellintervall auf 6 Monate.

Der Schmierstoffgeber ist ausgelegt für normalen Einsatz bei 0°C bis 40°C Umgebungstemperatur. Weicht die Umgebungstemperatur über längere Zeiträume von dem genannten Richtwert ab, sind Sonderschmierstoffgeber zu verwenden, wir bitten um Anfrage.

Der IEC-Adapter bei Motorgröße ≥ 160 mit dem automatischen Schmierstoffgeber ist unter bestimmten Betriebsbedingungen serienmäßig nicht geeignet für senkrechte Anordnungen, bei denen der Motor senkrecht nach oben steht. Hier ist unbedingt Direktanbau des Motors zu empfehlen!

Der senkrechte IEC-Adapter bei Motorbaugröße ≥ 160 (Einbaulage M4) muss durch PGR unter Bekanntgabe der Betriebsbedingungen geprüft und freigegeben werden. Wir bitten um Beachtung.

Bei senkrechten Anordnungen bei denen der Motor nach unten hängt (Einbaulage M2), kann sich die Lebensdauer der Abdichtung verringern. Hier empfehlen wir kürzere Wartungsintervalle. Die kleineren Getriebe mit IEC-Adapter bis PA/PF 52, PD/PM 52 PKD 5390 Getrieben haben speziell abgedichtete, lebensdauer geschmierte Lager, die keine Wartung benötigen.

Die Kupplung des IEC-Adapters für die Motorbaugrößen 63 bis 180 ist nicht durchschlagsicher. (Ausnahme: Bei den IEC Motorbaugrößen 160 und 180, wenn der automatische Schmierstoffgeber vorhanden ist. Ab IEC 200 sind die verwendeten Kupplungen durchschlagsicher). Bei Hubwerken, Aufzügen und anderen Einsatzfällen mit Personengefährdung sind Sondermaßnahmen erforderlich, hier bitten wir um Anfrage.

Der IEC-Adapter hat gegenüber dem Direktanbau des Motors eine zusätzliche Wellenkupplung und zusätzliche Lagerstellen. Hierdurch entstehen gegenüber dem Direktanbau, des Motors höhere Leerlaufverluste. Wir empfehlen den Direktanbau des Motors, da er nicht nur technische Vorteile, sondern auch zusätzlich noch Preisvorteile bietet.

| TR | UYGULAMA ALANLARI                                                                                                                                                                                                                                               | EN | APPLICATION AREAS                                                                                                                                                                                                                      | DE | EINSATZBEREICHE                                                                                                                                                                                                                                                                 |
|----|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|    | <b>UYGULAMALAR</b>                                                                                                                                                                                                                                              |    | <b>APPLICATIONS</b>                                                                                                                                                                                                                    |    | <b>ANWENDUNGEN</b>                                                                                                                                                                                                                                                              |
|    | <b>KARIŞTIRICILAR</b>                                                                                                                                                                                                                                           |    | <b>AGITATORS (MIXERS)</b>                                                                                                                                                                                                              |    | <b>MISCHER</b>                                                                                                                                                                                                                                                                  |
|    | <ul style="list-style-type: none"> <li>* Saf Sıvılar</li> <li>* Sıvılar ve Katılar</li> <li>* Değişken Yoğunluklu Sıvılar</li> </ul>                                                                                                                            |    | <ul style="list-style-type: none"> <li>* Pure Liquids</li> <li>* Liquids and Solids</li> <li>* Liquids - Variable Density</li> </ul>                                                                                                   |    | <ul style="list-style-type: none"> <li>* Reine Flüssigkeiten</li> <li>* Flüssigkeiten und Feststoffe</li> <li>* Flüssigkeiten mit variabler Dichte</li> </ul>                                                                                                                   |
|    | <b>HAVALANDIRMA TERTİBATLARI</b>                                                                                                                                                                                                                                |    | <b>BLOWERS</b>                                                                                                                                                                                                                         |    | <b>BELÜFTUNGSVORRICHTUNGEN</b>                                                                                                                                                                                                                                                  |
|    | <ul style="list-style-type: none"> <li>* Santrifüj</li> <li>* Lob</li> <li>* Pervane</li> </ul>                                                                                                                                                                 |    | <ul style="list-style-type: none"> <li>* Centrifugal</li> <li>* Lobe</li> <li>* Vane</li> </ul>                                                                                                                                        |    | <ul style="list-style-type: none"> <li>* Zentrifuge</li> <li>* Lob</li> <li>* Propeller</li> </ul>                                                                                                                                                                              |
|    | <b>MAYALAMA VE DAMITMA</b>                                                                                                                                                                                                                                      |    | <b>BREWING AND DISTILLING</b>                                                                                                                                                                                                          |    | <b>GÄREN UND DESTILLIEREN</b>                                                                                                                                                                                                                                                   |
|    | <ul style="list-style-type: none"> <li>* Şişeleme Mekanizması</li> <li>* Mayalama Kazanları - Kesintisiz İş</li> <li>* Fırınlr, Ocaklar - Kesintisiz İş</li> <li>* Ezme, Karışım Kazanları - Kesintisiz İş</li> <li>* Ölçü Haznesi - Sık Sık Başlama</li> </ul> |    | <ul style="list-style-type: none"> <li>* Bottling Machinery</li> <li>* Brew Kettles - Continuous Duty</li> <li>* Cookers - Continuous Duty</li> <li>* Mash Tubs - Continuous Duty</li> <li>* Scale Hopper - Frequent Starts</li> </ul> |    | <ul style="list-style-type: none"> <li>* Abfüllmechanismus</li> <li>* Gärkessel - Ununterbrochene Arbeit</li> <li>* Öfen, Herde - Ununterbrochener Betrieb</li> <li>* Zerkleinern, Mischkesseln - Ununterbrochenes Arbeiten</li> <li>* Messbehälter - Häufiger Start</li> </ul> |
|    | <b>TOPRAK İŞLEME MAKİNELERİ</b>                                                                                                                                                                                                                                 |    | <b>CLAY WORKING MACHINERY</b>                                                                                                                                                                                                          |    | <b>BODENBEARBEITUNGSMASCHINEN</b>                                                                                                                                                                                                                                               |
|    | <ul style="list-style-type: none"> <li>* Tuğla Presi</li> <li>* Briket Makinesi</li> <li>* Çamur Karma Makinesi</li> </ul>                                                                                                                                      |    | <ul style="list-style-type: none"> <li>* Brick Press</li> <li>* Briquette Machine</li> <li>* Pug Mill</li> </ul>                                                                                                                       |    | <ul style="list-style-type: none"> <li>* Ziegelpresse</li> <li>* Briketmaschine</li> <li>* Schlammischer</li> </ul>                                                                                                                                                             |
|    | <b>KOMPRESÖRLER</b>                                                                                                                                                                                                                                             |    | <b>COMPRESSORS</b>                                                                                                                                                                                                                     |    | <b>KOMPRESSOREN</b>                                                                                                                                                                                                                                                             |
|    | <ul style="list-style-type: none"> <li>* Santrifüj</li> <li>* Lob</li> <li>* Çok Pistonlu</li> <li>* Tek Pistonlu</li> </ul>                                                                                                                                    |    | <ul style="list-style-type: none"> <li>* Centrifugal</li> <li>* Lobe</li> <li>* Reciprocating, Multi-Cylinder</li> <li>* Reciprocating, Single-Cylinder</li> </ul>                                                                     |    | <ul style="list-style-type: none"> <li>* Zentrifuge</li> <li>* Lob</li> <li>* Mehrkolben</li> <li>* Einzelkolben</li> </ul>                                                                                                                                                     |
|    | <b>KONVEYÖRLER - GENEL MAKSATLI</b>                                                                                                                                                                                                                             |    | <b>CONVEYORS - GENERAL PURPOSE</b>                                                                                                                                                                                                     |    | <b>FÖRDERER - ALLGEMEINE ZWECKE</b>                                                                                                                                                                                                                                             |
|    | <ul style="list-style-type: none"> <li>* Ünlform Yüklü</li> <li>* Ünlform Yüklü Olmayan</li> <li>* Pistonlu veya Karıştırıcı</li> </ul>                                                                                                                         |    | <ul style="list-style-type: none"> <li>* Uniformly Loaded or Fed</li> <li>* Not Uniformly fed</li> <li>* Reciprocating Or Shaker</li> </ul>                                                                                            |    | <ul style="list-style-type: none"> <li>* Uniform geladen</li> <li>* Nicht einheitlich belastet</li> <li>* Mit Kolben oder Mischer</li> </ul>                                                                                                                                    |
|    | <b>VİNÇLER</b>                                                                                                                                                                                                                                                  |    | <b>CRANES</b>                                                                                                                                                                                                                          |    | <b>KRÄNE</b>                                                                                                                                                                                                                                                                    |
|    | <ul style="list-style-type: none"> <li>* Kuru Havuz</li> <li>Ana Kaldırma vinci</li> <li>Yardımcı Vinç</li> <li>Direkli Vinç</li> <li>Döndürme İşi</li> <li>Çekme İşi</li> <li>* Endüstriyel İşi</li> <li>Ana Kaldırma Vinci</li> </ul>                         |    | <ul style="list-style-type: none"> <li>* Dry Dock</li> <li>Main Hoist</li> <li>Auxiliary Hoist</li> <li>Boom Hoist</li> <li>Slewing Drive</li> <li>Traction Drive</li> <li>* Industrial Duty</li> <li>Main Hoist</li> </ul>            |    | <ul style="list-style-type: none"> <li>* Trockenbecken</li> <li>Haupthebekran</li> <li>Hilfskran</li> <li>Mastkran</li> <li>Rotationsarbeit</li> <li>Zieharbeit</li> <li>* Industrielle</li> <li>Haupthebwinde</li> </ul>                                                       |
|    | <b>ASANSÖRLER</b>                                                                                                                                                                                                                                               |    | <b>ELEVATORS</b>                                                                                                                                                                                                                       |    | <b>AUFZÜGE</b>                                                                                                                                                                                                                                                                  |
|    | <ul style="list-style-type: none"> <li>* Kova</li> <li>* Santrifuj Boşaltma</li> <li>* Yürüyen Merdiven</li> <li>* Taşıma, Nakliye</li> <li>* Yerçekimi Boşaltım</li> </ul>                                                                                     |    | <ul style="list-style-type: none"> <li>* Bucket</li> <li>* Centrifugal Discharge</li> <li>* Escalators</li> <li>* Freight</li> <li>* Gravity Discharge</li> </ul>                                                                      |    | <ul style="list-style-type: none"> <li>* Eimer</li> <li>* Zentrifugalentladung</li> <li>* Rolltreppe</li> <li>* Abwicklung, Versand</li> <li>* Schwerkraftentladung</li> </ul>                                                                                                  |
|    | <b>KIRMA MAKİNELERİ</b>                                                                                                                                                                                                                                         |    | <b>CRUSHER</b>                                                                                                                                                                                                                         |    | <b>ZERKLEINERUNGSMASCHINEN</b>                                                                                                                                                                                                                                                  |
|    | <ul style="list-style-type: none"> <li>* Taş ya da Maden</li> </ul>                                                                                                                                                                                             |    | <ul style="list-style-type: none"> <li>* Stone or Ore</li> </ul>                                                                                                                                                                       |    | <ul style="list-style-type: none"> <li>* Stein oder Mine</li> </ul>                                                                                                                                                                                                             |

| TR | UYGULAMA ALANLARI                                                                                                                                                                                                                                                                  | EN | APPLICATION AREAS                                                                                                                                                                                                                                                                        | DE | EINSATZBEREICHE                                                                                                                                                                                                                                                                                      |
|----|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|    | <b>UYGULAMALAR</b>                                                                                                                                                                                                                                                                 |    | <b>APPLICATIONS</b>                                                                                                                                                                                                                                                                      |    | <b>ANWENDUNGEN</b>                                                                                                                                                                                                                                                                                   |
|    | <b>TARAMA MAKİNELERİ</b>                                                                                                                                                                                                                                                           |    | <b>DREDGES</b>                                                                                                                                                                                                                                                                           |    | <b>SIEBMASCHINEN</b>                                                                                                                                                                                                                                                                                 |
|    | <ul style="list-style-type: none"> <li>* Kablo Bobinleri</li> <li>* Konveyörler</li> <li>* Pompalar</li> <li>* İstifleme Makineleri</li> <li>* Vinçler</li> </ul>                                                                                                                  |    | <ul style="list-style-type: none"> <li>* Cable Reels</li> <li>* Conveyors</li> <li>* Pumps</li> <li>* Stackers</li> <li>* Winches</li> </ul>                                                                                                                                             |    | <ul style="list-style-type: none"> <li>* Kabelspulen</li> <li>* Förderer</li> <li>* Pumpen</li> <li>* Stapelmaschinen</li> <li>* Kräne</li> </ul>                                                                                                                                                    |
|    | <b>EKSTRUDERLER</b>                                                                                                                                                                                                                                                                |    | <b>EXTRUDERS</b>                                                                                                                                                                                                                                                                         |    | <b>EXTRUDER</b>                                                                                                                                                                                                                                                                                      |
|    | <ul style="list-style-type: none"> <li>* Genel</li> <li>* Plastikler</li> <li>Değişken Hızlı Tahrik</li> <li>Sabit Hızlı Tahrik</li> <li>* Kauçuk, Lastik</li> <li>Kesintisiz Vida İşlemleri</li> <li>Kesintili Vida İşlemleri</li> </ul>                                          |    | <ul style="list-style-type: none"> <li>* General</li> <li>* Plastics</li> <li>Variable Speed Drive</li> <li>Fixed Speed Drive</li> <li>*Rubber</li> <li>Continuous Screw Operation</li> <li>Intermittent Screw Operation</li> </ul>                                                      |    | <ul style="list-style-type: none"> <li>Allgemeines</li> <li>* Kunststoffe</li> <li>Antrieb mit variabler Geschwindigkeit</li> <li>Antrieb mit konstanter Geschwindigkeit</li> <li>* Gummi, Kautschuk</li> <li>Kontinuierlicher Schraubetrieb</li> <li>Intermittierende Schrauboperationen</li> </ul> |
|    | <b>FANLAR</b>                                                                                                                                                                                                                                                                      |    | <b>FANS</b>                                                                                                                                                                                                                                                                              |    | <b>LÜFTER</b>                                                                                                                                                                                                                                                                                        |
|    | <ul style="list-style-type: none"> <li>* Santrifüj</li> <li>* Yüksek Emişli</li> <li>* İndüklenmiş Çekiş</li> <li>* Endüstriyel ve Maden Ocağı</li> </ul>                                                                                                                          |    | <ul style="list-style-type: none"> <li>* Centrifugal</li> <li>* Forced Draft</li> <li>* Induced Draft</li> <li>* Industrial and Mine</li> </ul>                                                                                                                                          |    | <ul style="list-style-type: none"> <li>* Zentrifuge</li> <li>* Starke Saugleistung</li> <li>* Induzierte Traktion</li> <li>* Industrie und Bergbau</li> </ul>                                                                                                                                        |
|    | <b>BESLEME ÜNİTELERİ</b>                                                                                                                                                                                                                                                           |    | <b>FEEDERS</b>                                                                                                                                                                                                                                                                           |    | <b>FÜTTERUNGSMASCHINEN</b>                                                                                                                                                                                                                                                                           |
|    | <ul style="list-style-type: none"> <li>* Palet</li> <li>* Bant</li> <li>* Disk</li> <li>* Pistonlu</li> <li>* Vida</li> </ul>                                                                                                                                                      |    | <ul style="list-style-type: none"> <li>* Apron</li> <li>* Belt</li> <li>* Disc</li> <li>* Reciprocating</li> <li>* Screw</li> </ul>                                                                                                                                                      |    | <ul style="list-style-type: none"> <li>* Palette</li> <li>* Band</li> <li>* Scheibe</li> <li>* Kolben</li> <li>* Schrauben</li> </ul>                                                                                                                                                                |
|    | <b>GIDA ENDÜSTRİSİ</b>                                                                                                                                                                                                                                                             |    | <b>FOOD INDUSTRY</b>                                                                                                                                                                                                                                                                     |    | <b>NAHRUNGSMITTELINDUSTRIE</b>                                                                                                                                                                                                                                                                       |
|    | <ul style="list-style-type: none"> <li>* Hububat Fırını</li> <li>* Hamur Karıştırıcı</li> <li>* Kıyma Makinesi</li> <li>* Dilimleyici</li> </ul>                                                                                                                                   |    | <ul style="list-style-type: none"> <li>* Cereal Cooker</li> <li>* Dough Mixer</li> <li>* Meat Grinder</li> <li>* Slicer</li> </ul>                                                                                                                                                       |    | <ul style="list-style-type: none"> <li>* Getreideofen</li> <li>* Knetmaschine</li> <li>* Fleischwolf</li> <li>* Schneidemaschine</li> </ul>                                                                                                                                                          |
|    | <b>METAL İŞLEMELERİ</b>                                                                                                                                                                                                                                                            |    | <b>METAL MILLS</b>                                                                                                                                                                                                                                                                       |    | <b>METALL VERARBEITUNG</b>                                                                                                                                                                                                                                                                           |
|    | <ul style="list-style-type: none"> <li>* Çekme Makinesi Taşıma ve Ana Tahrik</li> <li>* Hammadde İtici</li> <li>* Makaslar</li> <li>* Tel Çekme</li> <li>* Tel Sargı Makinesi</li> <li>* Salgı Tezgahı</li> <li>Geri Dönmesiz</li> <li>Tek Tahrik</li> <li>Grup Tahriki</li> </ul> |    | <ul style="list-style-type: none"> <li>* Draw Bench Carriage and Main Drive</li> <li>* Slab Pushers</li> <li>* Shears</li> <li>* Wire Drawing</li> <li>* Wire Winding Machine</li> <li>* Runout Table</li> <li>Non-Reversing</li> <li>Individual Drives</li> <li>Group Drives</li> </ul> |    | <ul style="list-style-type: none"> <li>* Traktionsmaschinen-Förderung und Hauptantrieb</li> <li>* Rohstoffschieber</li> <li>* Schere</li> <li>* Drahtziehen</li> <li>* Drahtwickelmaschine</li> <li>* Sekretbank</li> <li>Einzelantrieb ohne Rückkehr</li> <li>Gruppenablage</li> </ul>              |
|    | <b>DÖNER İŞLEMELER</b>                                                                                                                                                                                                                                                             |    | <b>MILLS (ROTARY TYPE)</b>                                                                                                                                                                                                                                                               |    | <b>DREHARBEITEN</b>                                                                                                                                                                                                                                                                                  |
|    | <ul style="list-style-type: none"> <li>* Küresel ve Çubuk</li> <li>Düz Halka Dişli</li> <li>Helisel Halka Dişli</li> <li>Doğrudan Bağlı</li> <li>* Çimento Fırını</li> <li>* Kurutucular ve Soğutucular</li> </ul>                                                                 |    | <ul style="list-style-type: none"> <li>* Ball and Rod</li> <li>Spur Ring Gear</li> <li>Helical Ring Gear</li> <li>Direct Connected</li> <li>* Cement Kilns</li> <li>* Dryers and Coolers</li> </ul>                                                                                      |    | <ul style="list-style-type: none"> <li>* Sphärisch und Stab</li> <li>Flachringgetriebe</li> <li>Schrägverzahntes Hohlrad</li> <li>Direkter Anschluss</li> <li>* Zementofen</li> <li>* Trockner und Kühler</li> </ul>                                                                                 |



## UYGULAMALAR

## APPLICATIONS

## ANWENDUNGEN

KERESTE ENDÜSTRİSİLUMBER INDUSTRYHOLZINDUSTRIE

- \* Kabuk Soyucular
  - Besleme Tamburu
  - Ana Tahrık
- \* Konveyörler
  - Brülör
  - Ana Yük veya Ağır Yük
  - Ana Kütük
  - Hızar ve Taşıma Bandı
  - Kalın Dilim
  - Taşıma
- \* Kesme Testereleeri
  - Zincir
  - Sürükleme
- \* İndirme Boşaltma Tamburları
- \* Uzun Deste
- \* Tomruk Çekme-Eğme
- \* Kütük Döndürme Aygıtları
- \* Sıralama Tablası
- \* Taşıma
  - Zincir
  - Kreynyolu
- \* Tabla Tahrıki

- \* Barkers
  - Spindle Feed
  - Main Drive
- \* Conveyors
  - Burner
  - Main or Heavy Duty
  - Main Log
  - Re-saw, Merry-Go-Round
  - Slab
  - Transfer
- \* Cut-Off Saws
  - Chain
  - Drag
- \* Debarking Drums
- \* Long Deck
- \* Log Hauls - Incline
- \* Log Turning Devices
- \* Sorting Table
- \* Transfers
  - Chain
  - Causeway
- \* Tray Drives

- \* Schalenschäler
  - Zuführtrommel
  - Hauptantrieb
- \* Förderer
  - Brenner
  - Hauptlast oder Schwerlast
  - Baumstumpf
  - Sägwerk und Förderband
  - Platte
  - Transport
- \* Trennsägen
  - Kette
  - Schleppen
- \* Entladetrommeln
- \* Langes Deck
- \* Kloben ziehen und abbiegen
- \* Drehvorrichtungen für Baumstufpe
- \* Sortiertabelle
- \* Transport
  - Kette
  - Kranbahn
- \* Tischlaufwerk

KAĞIT İŞLEMELERİPAPER MILLSPAPIERFÜHRUNG

- \* Karıştırıcı
- \* Saf çözeltiler için Karıştırıcı
- \* Kabuk Soyma Tromelleri
- \* Mekanik Kabuk Soyucu
- \* Dövücü - Öğütücü
- \* Düzleştirme Makinesi
- \* Kalenderleme
- \* Yüzey Pürüzlendirici
- \* Çentik Besleyici
- \* Kaplama Merdanesi
- \* Konveyörler
  - Çentik, Kabuk, Kimyasal
  - Kalın Dilimler İçeren Kütükler
- \* Kesici
- \* Silindir Kalıpları
- \* Kurutucu
  - Kağıt Makinesi
  - Konveyör Tıp
- \* Kabartmalı Basıcı
- \* Ekstrüder
- \* Kağıt Merdaneleri
- \* Presler
- \* Küspe Makinesi
- \* Pompalar

- \* Agitator (Mixer)
- \* Agitator for Pure Liquors
- \* Barking Drums
- \* Mechanical Barkers
- \* Beater
- \* Breaker Stack
- \* Calender
- \* Chipper
- \* Chip Feeder
- \* Coating Rolls
- \* Conveyors
  - Chip, Bark, Chemical
  - Log (including Slab)
- \* Cutter
- \* Cylinder Molds
- \* Dryer
  - Paper Machine
  - Conveyor Type
- \* Embosser
- \* Extruder
- \* Paper Rolls
- \* Presses
- \* Pulper
- \* Pumps

- \* Rührgerät
- \* Mischer für reine Lösungen
- \* Peeling Tromels
- \* Mechanischer Schäler
- \* Schlag - Mahlwerk
- \* Richtmaschine
- \* Kalandrieren
- \* Oberflächenaufrauung
- \* Kerbzuführung
- \* Beschichtungswalze
- \* Förderer
  - Kerbe, Schale, Chemisch
  - Stämme mit dicken Scheiben
- \* Schneider
- \* Zylinderformen
- \* Trockner
  - Papiermaschine
  - Förderertyp
- \* Geprägter Presser
- \* Extruder
- \* Papierrollen
- \* Pressen
- \* Teigmacher
- \* Pumpen

FİLTRELERSCREENSFILTER

- \* Havalı Yıkama
- \* Döner - Taş veya Çakıl
- \* Hareketli Su Girişi

- \* Air Washing
- \* Rotary - Stone or Gravel
- \* Traveling Water Intake

- \* Luftwäsche
- \* Rotierer - Stein oder Kies
- \* Beweglicher Wassereinlass

| TR | UYGULAMA ALANLARI                                                                                                                                                                                                                                                                                                                                                       | EN | APPLICATION AREAS                                                                                                                                                                                                                                                                                                                  | DE | EINSATZBEREICHE                                                                                                                                                                                                                                                                                                                                   |
|----|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|    | <b>UYGULAMALAR</b>                                                                                                                                                                                                                                                                                                                                                      |    | <b>APPLICATIONS</b>                                                                                                                                                                                                                                                                                                                |    | <b>ANWENDUNGEN</b>                                                                                                                                                                                                                                                                                                                                |
|    | <b>PLASTİK ENDÜSTRİSİ</b><br><b>İLK İŞLEMLER</b>                                                                                                                                                                                                                                                                                                                        |    | <b>PLASTIC INDUSTRY</b><br><b>PRIMARY PROCESSING</b>                                                                                                                                                                                                                                                                               |    | <b>KUNSTSTOFFINDUSTRIE</b><br><b>ERSTE AKTIONEN</b>                                                                                                                                                                                                                                                                                               |
|    | * Yoğun İç Karıştırıcılar<br>Harmanlayıcı<br>Kesintisiz Karıştırıcı                                                                                                                                                                                                                                                                                                     |    | * Intensive Internal Mixers<br>Batch Mixers<br>Continuous Mixers                                                                                                                                                                                                                                                                   |    | * Intensive interne Mixer<br>Mixer<br>Kontinuierlicher Mischer                                                                                                                                                                                                                                                                                    |
|    | <b>PLASTİK ENDÜSTRİSİ</b><br><b>İKİNCİL İŞLEMLER</b>                                                                                                                                                                                                                                                                                                                    |    | <b>PLASTIC INDUSTRY</b><br><b>SECONDARY PROCESSING</b>                                                                                                                                                                                                                                                                             |    | <b>KUNSTSTOFFINDUSTRIE</b><br><b>SEKUNDÄRE PROZESSE</b>                                                                                                                                                                                                                                                                                           |
|    | * Hacim Kalıpları<br>* Kaplama<br>* Tabaka<br>* Boru<br>* Ön Plastikleştirme<br>* Rot<br>* Saç, Plaka<br>* Borular                                                                                                                                                                                                                                                      |    | * Blow Molders<br>* Coating<br>* Film<br>* Pipe<br>* Pre-Plasticizers<br>* Rods<br>* Sheet<br>* Tubing                                                                                                                                                                                                                             |    | * Volumenformer<br>* Glasur<br>* Schicht<br>* Rohr<br>* Vorplastifizieren<br>* Auswuchten<br>* Haare, Platte<br>* Rohre                                                                                                                                                                                                                           |
|    | <b>POMPALAR</b>                                                                                                                                                                                                                                                                                                                                                         |    | <b>PUMPS</b>                                                                                                                                                                                                                                                                                                                       |    | <b>PUMPEN</b>                                                                                                                                                                                                                                                                                                                                     |
|    | * Santrifüj<br>* Oranlama<br>* Pistonlu<br>Tek Tesirli - 3 veya daha fazla Silindir<br>Çift Tesirli - 2 veya daha fazla Silindir<br>* Döner<br>Şanzuman Tipi<br>Lob<br>Pervane                                                                                                                                                                                          |    | * Centrifugal<br>* Proportioning<br>* Reciprocating<br>Single Acting - 3 or more cylinders<br>Double Acting - 2 or more cylinders<br>* Rotary<br>Gear Type<br>Lobe<br>Vane                                                                                                                                                         |    | * Zentrifuge<br>* Bewertung<br>* Kolben<br>Einfachwirkend - 3 oder mehr Zylinder<br>Doppelwirkend - 2 oder mehr Zylinder<br>* rotierend<br>Übertragungsart<br>Lob<br>Propeller                                                                                                                                                                    |
|    | <b>KAUÇUK - LASTİK ENDÜSTRİSİ</b>                                                                                                                                                                                                                                                                                                                                       |    | <b>RUBBER INDUSTRY</b>                                                                                                                                                                                                                                                                                                             |    | <b>KAUTSCHUK - REIFENINDUSTRIE</b>                                                                                                                                                                                                                                                                                                                |
|    | * Yoğun İç Karıştırıcılar<br>Harmanlayıcılar<br>Kesintisiz Karıştırıcılar<br>* Karıştırma İşlemi<br>2 Yumuşak Merdane<br>1 veya 2 Oluklu Merdane<br>* Toplu İşleme - 2 Yumuşak Silindir<br>* Kırıcı ve Isıtıcı - 2 Merdane, 1 Oluklu Merdane<br>* Kırıcı - 2 Oluklu Merdane<br>* Tutma, Besleme, Karıştırma İşlemi - 2 Merdane<br>* Artıcı - 2 Merdane<br>* Kalenderler |    | * Intensive Internal Mixers<br>Batch Mixers<br>Continuous Mixers<br>* Mixing Mill<br>2 Smooth Rolls<br>1 or 2 corrugated Rolls<br>* Batch Drop Mill - 2 Smooth Rolls<br>* Cracker Warmer-2 Rolls, 1 Corr. Roll<br>* Cracker - 2 Corrugated Rolls<br>* Holding, Feed and Blend Mill - 2 Rolls<br>* Refiner - 2 Rolls<br>* Calenders |    | * Intensive interne Mixer<br>Mixer<br>Kontinuierliche Mischer<br>* Mischprozess<br>2 weiche Rollen<br>1 oder 2 gerillte Rollen<br>* Stapelverarbeitung - 2 weiche Walzen<br>* Brecher und Heizung - 2 Walzen, 1 Wellwalze<br>* Brecher - 2 Wellwalzen<br>* Halte-, Fütterungs-, Mischprozess - 2 Rollen<br>* Refiner - 2 Walzen<br>* Kalendrieren |
|    | <b>ATIK SU BOŞALTIM EKİPMANLARI</b>                                                                                                                                                                                                                                                                                                                                     |    | <b>SEWAGE DISPOSAL EQUIPMENT</b>                                                                                                                                                                                                                                                                                                   |    | <b>AUSRÜSTUNG FÜR ABWASSERENTLEERUNG</b>                                                                                                                                                                                                                                                                                                          |
|    | * Çubuklu Elek<br>* Kimyasal Besleme Üniteleri<br>* Su Boşaltma Eleği<br>* Köpük Kesici<br>* Yavaş veya Hızlı Karıştırıcılar<br>* Tortu Toplayıcı<br>* Koyulaştırıcı<br>* Vakumlu Filtre                                                                                                                                                                                |    | * Bar Screens<br>* Chemical Feeders<br>* Dewatering Screen<br>* Scum Breaker<br>* Slow or Rapid Mixers<br>* Sludge Collector<br>* Thickener<br>* Vacuum Filter                                                                                                                                                                     |    | * Stick Sieb<br>* Chemikalienezufuhrreinheiten<br>* Wasserablaufsieb<br>* Schaumschneider<br>* Langsame oder schnelle Mixer<br>* Sedimentsammler<br>* Verdickungsmittel<br>* Vakuumfilter                                                                                                                                                         |
|    | <b>KOMPAKTÖRLER</b>                                                                                                                                                                                                                                                                                                                                                     |    | <b>COMPACTORS</b>                                                                                                                                                                                                                                                                                                                  |    | <b>VERDICHTER</b>                                                                                                                                                                                                                                                                                                                                 |
|    | <b>ÇEKTİRMELER - YAVAŞ VE KUVVETLİ</b>                                                                                                                                                                                                                                                                                                                                  |    | <b>PULLERS - BARGE HAUL</b>                                                                                                                                                                                                                                                                                                        |    | <b>AUFZIEHVORRICHTUNGEN - LANGSAM<br/>UND STARK</b>                                                                                                                                                                                                                                                                                               |

| TR | UYGULAMA ALANLARI                                                                                                                                                                                                                                                                                                                                                                                                                                                              | EN | APPLICATION AREAS                                                                                                                                                                                                                                                                                                                                | DE | EINSATZBEREICHE                                                                                                                                                                                                                                                                                                                                                                                                                           |
|----|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|    | <b>UYGULAMALAR</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                             |    | <b>APPLICATIONS</b>                                                                                                                                                                                                                                                                                                                              |    | <b>ANWENDUNGEN</b>                                                                                                                                                                                                                                                                                                                                                                                                                        |
|    | <b><u>ŞEKER ENDÜSTRİSİ</u></b>                                                                                                                                                                                                                                                                                                                                                                                                                                                 |    | <b><u>SUGAR INDUSTRY</u></b>                                                                                                                                                                                                                                                                                                                     |    | <b><u>ZUCKERINDUSTRIE</u></b>                                                                                                                                                                                                                                                                                                                                                                                                             |
|    | <ul style="list-style-type: none"> <li>* Pancar Dilimleme Aleti</li> <li>* Kamış Bıçakları</li> <li>* Kırma Makineleri</li> </ul>                                                                                                                                                                                                                                                                                                                                              |    | <ul style="list-style-type: none"> <li>* Beet Slicer</li> <li>* Cane Knives</li> <li>* Crushers</li> </ul>                                                                                                                                                                                                                                       |    | <ul style="list-style-type: none"> <li>* Rübenschneider</li> <li>* Schilfklingen</li> <li>* Zerkleinerungsmaschinen</li> </ul>                                                                                                                                                                                                                                                                                                            |
|    | <b><u>TEKSTİL ENDÜSTRİSİ</u></b>                                                                                                                                                                                                                                                                                                                                                                                                                                               |    | <b><u>TEXTILE INDUSTRY</u></b>                                                                                                                                                                                                                                                                                                                   |    | <b><u>TEXTILINDUSTRIE</u></b>                                                                                                                                                                                                                                                                                                                                                                                                             |
|    | <ul style="list-style-type: none"> <li>* Harman Ölçer</li> <li>* Kalenderler</li> <li>* Şablonlar</li> <li>* Kuru Konserveler</li> <li>* Boyama Makinesi</li> <li>* Dokuma Tezgahları</li> <li>* Çamaşır Sıkma Makinesi - Merdane</li> <li>* Kaplama</li> <li>* Doldurma Makinesi</li> <li>* Haşıl Makinesi</li> <li>* Halat Yıkama Makinesi</li> <li>* Eğirme Makinesi</li> <li>* Germe Kurutma Makineleri</li> <li>* Yıkama Makineleri</li> <li>* Masura Sarıcısı</li> </ul> |    | <ul style="list-style-type: none"> <li>* Batcher</li> <li>* Calenders</li> <li>* Cards</li> <li>* Dry Cans</li> <li>* Dyeing Machinery</li> <li>* Looms</li> <li>* Mangle</li> <li>* Napper</li> <li>* Pads</li> <li>* Siashers</li> <li>* Soapers</li> <li>* Spinners</li> <li>* Tenter Frames</li> <li>* Washers</li> <li>* Winders</li> </ul> |    | <ul style="list-style-type: none"> <li>* Dreschmesser</li> <li>* Kalendrieren</li> <li>* Vorlagen</li> <li>* Trockenkonserven</li> <li>* Färbemaschine</li> <li>* Webstühle</li> <li>* Waschmaschine - Roller</li> <li>* Glasur</li> <li>* Abfüllmaschine</li> <li>* Kalibriemaschine</li> <li>* Seilwaschmaschine</li> <li>* Spinnmaschine</li> <li>* Stretch-Trocknungsmaschinen</li> <li>* Waschmaschinen</li> <li>* Spuler</li> </ul> |
|    | <b><u>DAMPERLİ ARAÇLAR</u></b>                                                                                                                                                                                                                                                                                                                                                                                                                                                 |    | <b><u>CAR DUMPERS</u></b>                                                                                                                                                                                                                                                                                                                        |    | <b><u>DIPPER FAHRZEUGE</u></b>                                                                                                                                                                                                                                                                                                                                                                                                            |
|    | <b><u>ÇEKİCİ ARAÇLAR</u></b>                                                                                                                                                                                                                                                                                                                                                                                                                                                   |    | <b><u>CAR PULLERS</u></b>                                                                                                                                                                                                                                                                                                                        |    | <b><u>TURMFahrZEUGE</u></b>                                                                                                                                                                                                                                                                                                                                                                                                               |
|    | <b><u>ARITICILAR</u></b>                                                                                                                                                                                                                                                                                                                                                                                                                                                       |    | <b><u>CLARIFIERS</u></b>                                                                                                                                                                                                                                                                                                                         |    | <b><u>REINIGUNGSMASCHINEN</u></b>                                                                                                                                                                                                                                                                                                                                                                                                         |
|    | <b><u>KONSERVE DOLUM MAKİNELERİ</u></b>                                                                                                                                                                                                                                                                                                                                                                                                                                        |    | <b><u>CAN FILLING MACHINES</u></b>                                                                                                                                                                                                                                                                                                               |    | <b><u>DOSENFÜLLMASCHINEN</u></b>                                                                                                                                                                                                                                                                                                                                                                                                          |

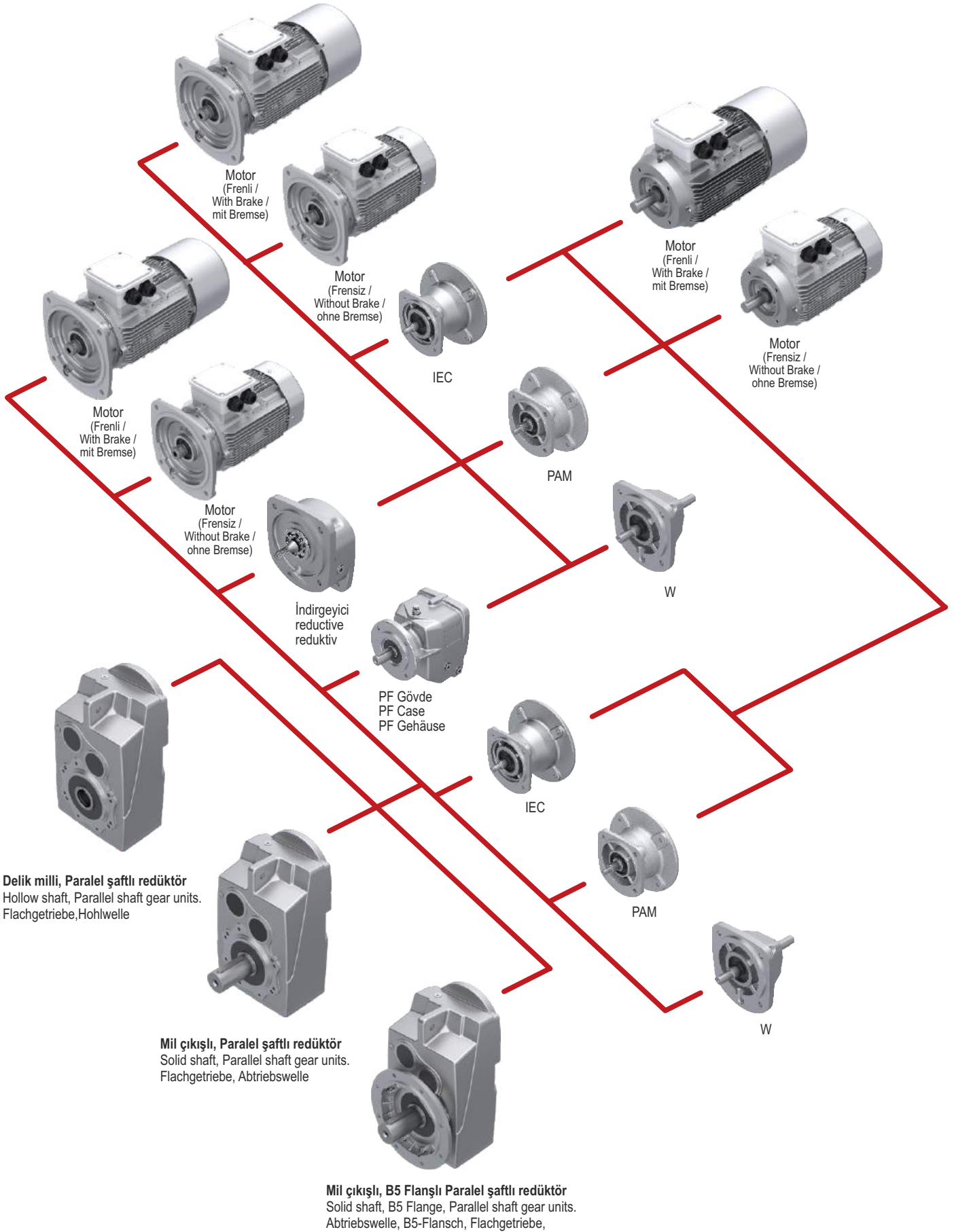


TR KULLANILAN TERİMLER EN NOMENCLATURE DE BEGRIFFE

| REDÜKTÖR TİPİ / GEAR TYPE / GETRIEBETYP                                                           |                                                                                                                                |
|---------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------|
| <b>Delik Milli Seri (PD Serisi)</b><br>Hollow Shaft Series (PD Series)<br>Hohlwelle (PD-Serie)    |                                                                                                                                |
| PD A02 ... PD 112                                                                                 | = İki kademeli, paralel şaftlı redüktör<br>Double reduction, parallel shaft gear unit series<br>Zweistufiges Flachgetriebe     |
| PD C13 ... PD 123                                                                                 | = Üç kademeli, paralel şaftlı redüktör<br>Triple reduction, parallel shaft gear unit series<br>Dreistufiges Flachgetriebe      |
| PD 12/02 ... PD 52/12                                                                             | = Dört kademeli, paralel şaftlı redüktör<br>Quadruple reduction, parallel shaft gear unit series<br>Vierstufiges Flachgetriebe |
| PD 63/22 ... PD 113/52                                                                            | = Beş kademeli, paralel şaftlı redüktör<br>Quintuple reduction, parallel shaft gear unit series<br>Fünfstufiges Flachgetriebe  |
| <b>Çıkış Milli Seri (PM Serisi)</b><br>Solid Shaft Series (PM Series)<br>Abtriebswelle (PM-Serie) |                                                                                                                                |
| PM A02 ... PM 112                                                                                 | = İki kademeli, paralel şaftlı redüktör<br>Double reduction, parallel shaft gear unit series<br>Zweistufiges Flachgetriebe     |
| PM C13 ... PM 123                                                                                 | = Üç kademeli, paralel şaftlı redüktör<br>Triple reduction, parallel shaft gear unit series<br>Dreistufiges Flachgetriebe      |
| PM 12/02 ... PM 52/12                                                                             | = Dört kademeli, paralel şaftlı redüktör<br>Quadruple reduction, parallel shaft gear unit series<br>Vierstufiges Flachgetriebe |
| PM 63/22 ... PM 113/52                                                                            | = Beş kademeli, paralel şaftlı redüktör<br>Quintuple reduction, parallel shaft gear unit series<br>Fünfstufiges Flachgetriebe  |

| REDÜKTÖR DİZAYNI / GEAR DESIGN / GETRIEBE - KURZZEICHEN |                                                                                                                                                      |
|---------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------|
| PD...                                                   | = Delik milli<br>Hollow shaft<br>Hohlwelle                                                                                                           |
| PM...                                                   | = Mil çıkışlı<br>Solid shaft<br>Vollwelle                                                                                                            |
| PD... LT                                                | = Delik milli, Lastik takozlu<br>Hollow shaft, Rubber buffer<br>Hohlwelle, Gummipuffer                                                               |
| PM... LT                                                | = Mil çıkışlı, Lastik takozlu<br>Solid shaft, Rubber buffer<br>Vollwelle, Gummipuffer                                                                |
| PD... Ç                                                 | = Delik milli, Çektirmeli<br>Hollow shaft with fixing element<br>Hohlwelle, mit Aufziehvorrichtung                                                   |
| PD... Ç/LT                                              | = Delik milli, Çektirmeli, Lastik takozlu<br>Hollow shaft with fixing element, Rubber buffer<br>Hohlwelle, Aufziehvorrichtung, Gummipuffer           |
| PD... KS                                                | = Delik milli, Konik sıkırtmalı<br>Hollow shaft with shrink disc connector<br>Hohlwelle, Schrumpfscheibe                                             |
| PD... KS/LT                                             | = Delik milli, Konik sıkırtmalı, Lastik takozlu<br>Hollow shaft with shrink disc connector, Rubber buffer<br>Hohlwelle, Schrumpfscheibe, Gummipuffer |
| PD... B14                                               | = Delik milli, B14 flanşlı<br>Hollow shaft, B14 flange<br>Hohlwelle, B14-Flansch                                                                     |
| PD... B5                                                | = Delik milli, B5 flanşlı<br>Hollow shaft, B5 flange<br>Hohlwelle, B5-Flansch                                                                        |
| PM... B14                                               | = Mil çıkışlı, B14 flanşlı<br>Solid shaft, B14 flange<br>mit Vollwelle, B14-Flansch                                                                  |
| PM... B5                                                | = Mil çıkışlı, B5 flanşlı<br>Solid shaft, B5 flange<br>mit Vollwelle, B5-Flansch                                                                     |
| PD... Ç/B5                                              | = Delik milli, Çektirmeli, B5 flanşlı<br>Hollow shaft with fixing element, B5 flange<br>Hohlwelle, mit Aufziehvorrichtung, mit B5-Flansch            |
| PD... Ç/B14                                             | = Delik milli, Çektirmeli, B14 flanşlı<br>Hollow shaft with fixing element, B14 flange<br>Hohlwelle, Aufziehvorrichtung, B14 Flansch                 |
| PD... KS/B14                                            | = Delik milli, Konik sıkırtmalı, B14 flanşlı<br>Hollow shaft with shrink disc connector, B14 flange<br>Hohlwelle, Schrumpfscheibe, Flansch B14       |
| PD... KS/B5                                             | = Delik milli, Konik sıkırtmalı, B5 flanşlı<br>Hollow shaft with shrink disc connector, B5 flange<br>Hohlwelle, Schrumpfscheibe, Flansch B5          |

| Giriş Aksamları<br>Input Options<br>Eingabeoptionen                                                                                                                                                                                   | Motor<br>Motor<br>Motor                                                                                                                                                                      | Kutup Numarası<br>Number of Poles<br>Anzahl der Pole                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Motor Seçenekleri<br>Motor Options<br>Motoroptionen                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p><b>W = Motorsuz girişli redüktörler için aksam</b></p> <p>With free input shaft</p> <p>Bei Getrieben mit freier Antriebswelle</p>                                                                                                  | <p><b>Üç fazlı motor</b><br/><b>Motor boyutu 63 - 315</b></p> <p>Three phase motor<br/>Motor size 63 - 315</p> <p>Drehstrommotor<br/>Motorgröße 63 - 315</p>                                 | <p><b>2 = 2 Kutuplu</b><br/>2 Poles<br/>2 Pole</p> <p><b>4 = 4 Kutuplu</b><br/>4 Poles<br/>4 Pole</p> <p><b>6 = 6 Kutuplu</b><br/>6 Poles<br/>6 Pole</p> <p><b>4 - 2 = 1:2 oranında hız değiştirici dahlander bağlantısı</b><br/>Pole changing 1:2<br/>Dahlander connection<br/>Geschwindigkeitswechsler<br/>DAHLANDER</p> <p><b>8 - 2 = 1:4 oranında hız değiştirici ayrılmış sarmal dizilişli</b><br/>Pole changing 1:4<br/>Separate windings<br/>Geschwindigkeitswechsler-<br/>getrennte spiralförmige<br/>Anordnung</p> <p><b>Diğer kutup kombinasyonları istendiğinde karşılanacaktır</b></p> <p>Other pole combinations on request</p> <p>Andere Polkombinationen sind auf Anfrage erhältlich</p> | <p><b>BRE = Frenli</b><br/>With brake<br/>Mit Bremse</p> <p><b>EF = Tek fazlı, fanlı</b><br/>Single phase, Separate fan<br/>Einphasig, mit Lüfter</p> <p><b>ZF = Çift fazlı, fanlı</b><br/>Double phase, Separate fan,<br/>Zweiphasig, mit Lüfter</p> <p><b>DF = Üç fazlı, fanlı</b><br/>Separate fan, three phase<br/>Dreiphasig, mit Lüfter</p> <p><b>IG = Enkoderli</b><br/>With encoder<br/>Mit encoder</p> <p><b>KK/FK = Debriyajlı</b><br/>With clutches<br/>Mit Kupplung</p> <p><b>SR = Toza karşı korumalı fren</b><br/>Brake dust - proof<br/>Staubgeschützte Bremse</p> <p><b>TF = Termistörlü</b><br/>Thermistor<br/>Mit Thermistor</p> <p><b>RG = Korozyon korumalı frenli</b><br/>Brake corrosion protected<br/>Mit Korrosionsschutzbremse</p> <p><b>WU = Yumuşak kalkışlı rotor</b><br/>Soft start rotor<br/>Sanftanlaufrotor</p> <p><b>RLS = Geri dönmeye karşı kilitli</b><br/>Backstop<br/>Rücklaufsperr</p> <p><b>TW = Isıya duyarlı</b><br/>Thermal trip<br/>Wärmeempfindliche</p> <p><b>HL = Manuel frenli motor</b><br/>Brake motor with hand release<br/>Motor mit Handbremse</p> <p><b>F = Extra Fan</b><br/>Auxiliary Fan<br/>Fremdlüfter</p> |
| <p><b>IEC = DIN 42677'ye göre standart motorlar için aksamlar</b></p> <p>For assembly with IEC standard motors acc. to DIN 42677</p> <p>Bei Getrieben mit IEC-Anbau gilt die Normleistung der jeweiligen Baugröße nach DIN 42677,</p> | <p><b>EExell = Patlamaya karşı güvenliği artırılmış üç fazlı motor</b></p> <p>Explosion proof three phase motor increased safety</p> <p>Drehstrommotor mit erhöhter Explosionssicherheit</p> |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| <p><b>PAM = DIN 42677'ye göre standart motorlar için aksamlar</b></p> <p>For assembly with PAM standard motors acc. to DIN 42677</p> <p>Bei Getrieben mit PAM-Anbau gilt die Normleistung der jeweiligen Baugröße nach DIN 42677,</p> |                                                                                                                                                                                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| <p><b>T = Turbo kaplin</b></p> <p>Turbo coupling</p> <p>Turbokupplung</p>                                                                                                                                                             |                                                                                                                                                                                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |



## TR MEVCUT DİZAYNLARA GENEL BAKIŞ

## EN OVERVIEW TO AVAILABLE DESIGNS

## DE ÜBERSICHT AKTUELLE DESIGNS

| Kısaltmalar<br>Abbrev.<br>Abkürzungen | Anlamı<br>Meaning<br>Bedeutung                                                                                                         | Paralel Şaftlı Redüktör<br>Parallel Shaft Gear Units<br>Stirnradgetriebe |
|---------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------|
| D                                     | Delik milli / Hollow shaft / Hohlwelle,                                                                                                | ✓                                                                        |
| M                                     | Mil çıkışlı / Solid shaft / Vollwelle                                                                                                  | ✓                                                                        |
| B5                                    | B5 Flanş / Flange B5 / B5-Flansch                                                                                                      | ✓                                                                        |
| B14                                   | B14 Flanş / Flange B14 / B14-Flansch                                                                                                   | ✓                                                                        |
| Ç                                     | Çektirme Kiti / Puller Kit / Befestigungsbausatz                                                                                       | ✓                                                                        |
| LT                                    | Lastik takoz / Rubber buffer for torque arm / Gummipuffer                                                                              | ✓                                                                        |
| KS                                    | Konik sıkırma / Shrink disc connector / Schrumpfscheibe                                                                                | ✓                                                                        |
| DIN 5480                              | Kayıcı delik milli DIN 5480 / Splined hollow shaft, DIN 5480 / Hohlwelle mit DIN 5480                                                  | ✓ (2)                                                                    |
| KK                                    | Koruma kapağı / Cover as a touch guard / Mit Schutzdeckel                                                                              | ✓                                                                        |
| IEC                                   | IEC Adaptörü / Adapter for mounting standard motors to gear unit / IEC-Adapter                                                         | ✓                                                                        |
| W                                     | W Kovanı / Free input shaft / W-Adapter                                                                                                | ✓                                                                        |
| B                                     | Kilit / Integrated Backstop / Rücklaufsperr                                                                                            | ✓                                                                        |
| GR                                    | Güçlendirilmiş rulman / Reinforced bearing / Verstärktes Lager                                                                         | ✓                                                                        |
| WB                                    | W Kilidi / Backstop in W adapter / W-Sperre                                                                                            | ✓                                                                        |
| GKS                                   | Güçlendirilmiş konik sıkırma / Hollow shaft with reinforced shrink disc connector / Verstärkte Schrumpfscheibe                         | ✓                                                                        |
| GB5                                   | Güçlendirilmiş B5 Flanş / Agitator design / Verstärkter B5-Flansch                                                                     | ✓                                                                        |
| PD A - B - C                          | Delik milli, ayak montajlı / Hollow shaft, foot mounted / Hohlwelle, Fußbefestigung,                                                   | ✓ (1)                                                                    |
| PM A - B - C                          | Mil çıkışlı, ayak montajlı / Solid shaft, foot mounted / Vollwelle, Fußbefestigung,                                                    | ✓ (1)                                                                    |
| PD... B5                              | Delik milli, B5 Flanş / Hollow shaft, Flange B5 / Hohlwelle, B5-Flansch                                                                | ✓                                                                        |
| PD... B14                             | Delik milli, B14 Flanş / Hollow shaft, Flange B14 / Hohlwelle, B14-Flansch                                                             | ✓                                                                        |
| PM... B5                              | Mil çıkışlı, B5 Flanş / Solid shaft, Flange B5 / Vollwelle, B5-Flansch                                                                 | ✓                                                                        |
| Ç-LT                                  | Çektirme Kiti, Lastik takozlu / Puller Kit, Rubber buffer / Befestigungsbausatz, Gummipuffer                                           | ✓                                                                        |
| KS-LT                                 | Konik sıkırmalı, Lastik takozlu / Hollow shaft with shrink disc connector, Rubber buffer for torque arm / Schrumpfscheibe, Gummipuffer | ✓                                                                        |
| Ç-B5                                  | Çektirmeli, B5 Flanş / Puller Kit, Flange B5 / Befestigungsbausatz, B5-Flansch                                                         | ✓                                                                        |
| Ç-B14                                 | Çektirmeli, B14 Flanş / Puller Kit, Flange B14 / Befestigungsbausatz, B14-Flansch                                                      | ✓                                                                        |
| KS-B5                                 | Konik sıkırmalı, B5 Flanş / Hollow shaft with shrink disc connector, Flange B5 / Schrumpfscheibe, B5-Flansch                           | ✓                                                                        |
| KS-B14                                | Konik sıkırmalı, B14 Flanş / Hollow shaft with shrink disc connector, Flange B14 / Schrumpfscheibe, B14-Flansch                        | ✓                                                                        |
| PAM                                   | PAM adaptörü / PAM Adapter / PAM Adapter                                                                                               | ✓                                                                        |

✓ Mevcut tasarımlar onay işareti ile belirtilmiştir.

✓ Sign is presented which designs are existed for gear units.

✓ Vorhandene Designs sind mit einem Häkchen gekennzeichnet.

1-) PD/PM A02 - B02 - C13 redüktör tipleri ayak montajı opsiyonu içermektedir.

1-) PD/PM A02 - B02 - C13 gear unit series include foot mounted option

1-) PD/PM A02 - B02 - C13 Getriebetypen beinhalten eine Fußbefestigungsoption.

2-) DIN 5480 opsiyonu PD A02 - B02 - C13 ile PD 102 dahil ve üst gövdeler için mevcut değildir.

2-) DIN 5480 option is not available for PD A02 - B02 - C13 and PD 102 inclusive and higher gear unit types.

2-) Die Option DIN 5480 ist nicht verfügbar für größere Gehäuse einschließlich PD A02 - B02 - C13 und PD 102.

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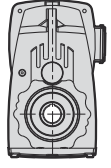
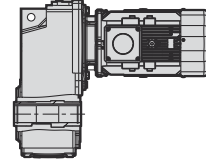
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UNSERE PRODUKTE

1) PD 32... - 80M/4A

**Delik milli, İki kademeli, Paralel şaftlı, Motorlu redüktör**

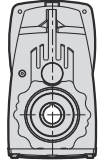
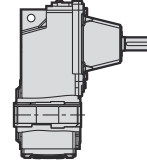
Hollow shaft, Double reduction, Parallel shaft gear unit, With motor  
Hohlwelle, Zweistufig, Stirnradgetriebe, Mit Motor



PD 32... - W

**Delik milli, İki kademeli, Paralel şaftlı, W kovanlı redüktör**

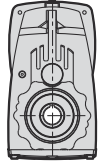
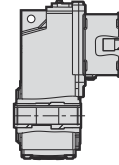
Hollow shaft, Double reduction, Parallel shaft gear unit, With W adapter  
Hohlwelle, Zweistufig, Stirnradgetriebe, Mit W-adapter



PD 32... - IEC 90

**Delik milli, İki kademeli, Paralel şaftlı, IEC adaptörlü redüktör**

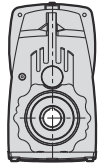
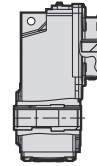
Hollow shaft, Double reduction, Parallel shaft gear unit, With IEC adapter  
Hohlwelle, Zweistufig, Stirnradgetriebe, Mit IEC-Adapter



PD 32... - PAM 90

**Delik milli, İki kademeli, Paralel şaftlı, PAM adaptörlü redüktör**

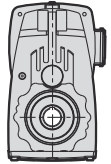
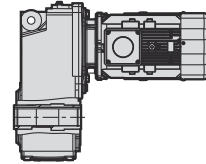
Hollow shaft, Double reduction, Parallel shaft gear unit, With PAM adapter  
Hohlwelle, Zweistufig, Stirnradgetriebe, Mit PAM adapter



2) PD 32... **LT** - 80M/4A

**Delik milli, İki kademeli, Paralel şaftlı, Lastik takozlu, Motorlu redüktör**

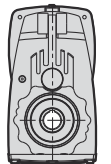
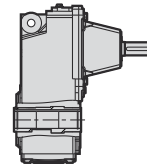
Hollow shaft, Double reduction, Parallel shaft gear unit, rubber buffer, With Motor  
Hohlwelle, Zweistufig, Stirnradgetriebe, Gummipuffer, Mit Motor



PD 32... **LT** - W

**Delik milli, İki kademeli, Paralel şaftlı, Lastik takozlu, W kovanlı redüktör**

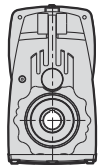
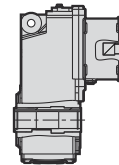
Hollow shaft, Double reduction, Parallel shaft gear unit, rubber buffer, With W adapter  
Hohlwelle, Zweistufig, Stirnradgetriebe, Gummipuffer, Mit W-adapter



PD 32... **LT** - IEC 90

**Delik milli, İki kademeli, Paralel şaftlı, Lastik takozlu, IEC adaptörlü redüktör**

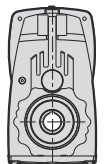
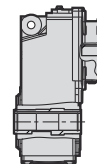
Hollow shaft, Double reduction, Parallel shaft gear unit, rubber buffer, With IEC adapter  
Hohlwelle, Zweistufig, Stirnradgetriebe, Gummipuffer, Mit IEC-Adapter



PD 32... **LT** - PAM 90

**Delik milli, İki kademeli, Paralel şaftlı, Lastik takozlu, PAM adaptörlü redüktör**

Hollow shaft, Double reduction, Parallel shaft gear unit, rubber buffer, With PAM adapter  
Hohlwelle, Zweistufig, Stirnradgetriebe, Gummipuffer, Mit PAM adapter



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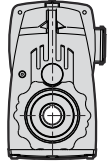
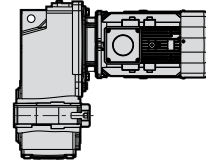
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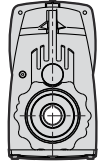
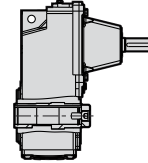
## 3) PD 32... Ç - 80M/4A

**Delik milli, İki kademeli, Paralel şaftlı, Çektirmeli, Motorlu redüktör**  
Hollow shaft, Double reduction, Parallel shaft gear unit, fixing element, With motor  
Hohlwelle, Zweistufig, Stirnradgetriebe, Befestigungsbausatz, Mit Motor



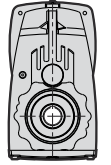
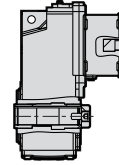
## PD 32... Ç - W

**Delik milli, İki kademeli, Paralel şaftlı, Çektirmeli, W kovanlı redüktör**  
Hollow shaft, Double reduction, Parallel shaft gear unit, fixing element, With W adapter  
Hohlwelle, Zweistufig, Stirnradgetriebe, Befestigungsbausatz, Mit W-adapter



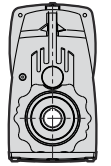
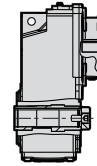
## PD 32... Ç - IEC 90

**Delik milli, İki kademeli, Paralel şaftlı, Çektirmeli, IEC adaptörlü redüktör**  
Hollow shaft, Double reduction, Parallel shaft gear unit, fixing elements, With IEC adapter  
Hohlwelle, Zweistufig, Stirnradgetriebe, Befestigungsbausatz, Mit IEC-Adapter



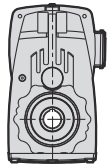
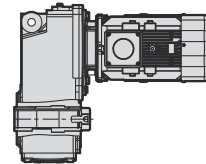
## PD 32... Ç - PAM 90

**Delik milli, İki kademeli, Paralel şaftlı, Çektirmeli, PAM adaptörlü redüktör**  
Hollow shaft, Double reduction, Parallel shaft gear unit, fixing elements, With PAM adapter  
Hohlwelle, Zweistufig, Stirnradgetriebe, Befestigungsbausatz, Mit PAM-Adapter



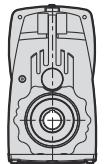
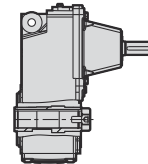
## 4) PD 32... Ç / LT - 80M/4A

**Delik milli, İki kademeli, Paralel şaftlı, Çektirmeli, Lastik takozlu, Motorlu redüktör**  
Hollow shaft, Double reduction, Parallel shaft gear unit, With fixing element, rubber buffer, With motor  
Hohlwelle, Zweistufig, Stirnradgetriebe, Befestigungsbausatz, Gummipuffer, Mit Motor



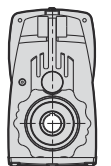
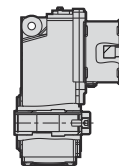
## PD 32... Ç / LT - W

**Delik milli, İki kademeli, Paralel şaftlı, Çektirmeli, Lastik takozlu, W kovanlı redüktör.**  
Hollow shaft, Double reduction, Parallel shaft gear unit, With fixing element, rubber buffer, With W adapter  
Hohlwelle, Zweistufig, Stirnradgetriebe, Befestigungsbausatz, Gummipuffer, Mit W-adapter



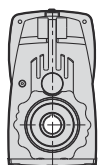
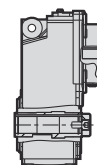
## PD 32... Ç / LT - IEC 90

**Delik milli, İki kademeli, Paralel şaftlı, Çektirmeli, Lastik takozlu, IEC adaptörlü redüktör**  
Hollow shaft, Double reduction, Parallel shaft gear unit, With fixing element, rubber buffer, With IEC adapter  
Hohlwelle, Zweistufig, Stirnradgetriebe, Befestigungsbausatz, Gummipuffer, Mit IEC adapter



## PD 32... Ç / LT - PAM 90

**Delik milli, İki kademeli, Paralel şaftlı, Çektirmeli, Lastik takozlu, IEC adaptörlü redüktör**  
Hollow shaft, Double reduction, Parallel shaft gear unit, With fixing element, rubber buffer, With PAM adapter  
Hohlwelle, Zweistufig, Stirnradgetriebe, Befestigungsbausatz, Gummipuffer, Mit PAM adapter





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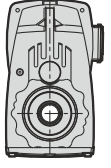
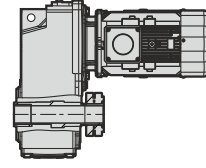
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5) PD 32... **KS** - 80M/4A

**Delik milli, İki kademeli, Paralel şaftlı, Konik sıkırtırmalı, Motorlu redüktör**

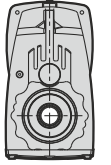
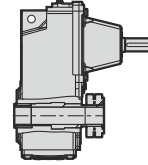
Hollow shaft with shrink disc connector, Double reduction, Parallel shaft gear unit, With motor  
Hohlwelle, Zweistufig, Stirnradgetriebe, Schrumpfscheibe, Mit Motor



PD 32... **KS** - W

**Delik milli, İki kademeli, Paralel şaftlı, Konik sıkırtırmalı, W kovanlı redüktör**

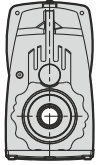
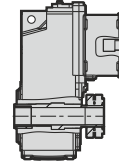
Hollow shaft with shrink disc connector, Double reduction, Parallel shaft gear unit, With W adapter  
Hohlwelle, Zweistufig, Stirnradgetriebe, Schrumpfscheibe, Mit W-adapter



PD 32... **KS** - IEC 90

**Delik milli, İki kademeli, Paralel şaftlı, Konik sıkırtırmalı, IEC adaptörlü redüktör**

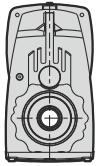
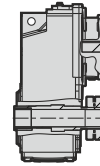
Hollow shaft with shrink disc connector, Double reduction, Parallel shaft gear unit, With IEC adapter  
Hohlwelle, Zweistufig, Stirnradgetriebe, Schrumpfscheibe, Mit IEC-Adapter



PD 32... **KS** - PAM 90

**Delik milli, İki kademeli, Paralel şaftlı, Konik sıkırtırmalı, PAM adaptörlü redüktör**

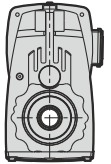
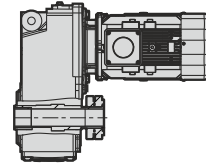
Hollow shaft with shrink disc connector, Double reduction, Parallel shaft gear unit, With PAM adapter  
Hohlwelle, Zweistufig, Stirnradgetriebe, Schrumpfscheibe, Mit PAM-Adapter



6) PD 32... **KS / LT** - 80M/4A

**Delik milli, İki kademeli, Paralel şaftlı, Konik sıkırtırmalı, Lastik takozlu, Motorlu redüktör**

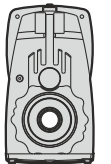
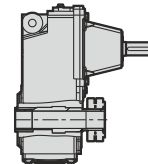
Hollow shaft with shrink disc connector, Double reduction, Parallel shaft gear unit, rubber buffer, With motor  
Hohlwelle, Zweistufig, Stirnradgetriebe, Schrumpfscheibe, Gummipuffer, Mit Motor



PD 32... **KS / LT** - W

**Delik milli, İki kademeli, Paralel şaftlı, Konik sıkırtırmalı, Lastik takozlu, W kovanlı redüktör**

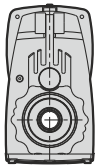
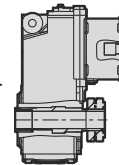
Hollow shaft with shrink disc connector, Double reduction, Parallel shaft gear unit, rubber buffer, With W adapter  
Hohlwelle, Zweistufig, Stirnradgetriebe, Schrumpfscheibe, Gummipuffer, Mit W-adapter



PD 32... **KS / LT** - IEC 90

**Delik milli, İki kademeli, Paralel şaftlı, Konik sıkırtırmalı, Lastik takozlu, IEC adaptörlü redüktör**

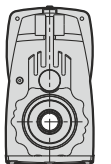
Hollow shaft with shrink disc connector, Double reduction, Parallel shaft gear unit, rubber buffer, With IEC adapter  
Hohlwelle, Zweistufig, Stirnradgetriebe, Schrumpfscheibe, Gummipuffer, Mit IEC-Adapter



PD 32... **KS / LT** - PAM 90

**Delik milli, İki kademeli, Paralel şaftlı, Konik sıkırtırmalı, Lastik takozlu, PAM adaptörlü redüktör**

Hollow shaft with shrink disc connector, Double reduction, Parallel shaft gear unit, rubber buffer, With PAM adapter  
Hohlwelle, Zweistufig, Stirnradgetriebe, Schrumpfscheibe, Gummipuffer, Mit PAM-Adapter



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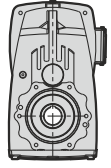
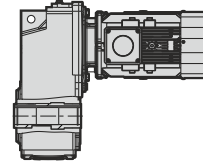
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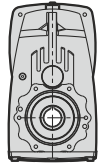
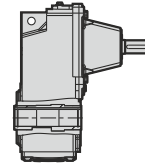
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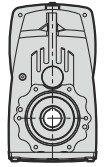
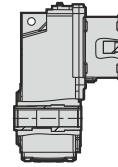
## 7) PD 32... B14 - 80M/4A

**Delik millî, İki kademeli, Paralel şaftlı, B14 Flanşlı, Motorlu redüktör**Hollow shaft, Double reduction, Parallel shaft gear unit, With B14 flange, With motor  
Hohlwelle, Zweistufig, Stirnradgetriebe, B14-Flansch, Mit Motor

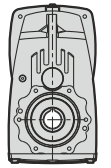
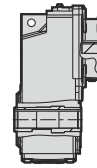
## PD 32... B14 - W

**Delik millî, İki kademeli, Paralel şaftlı, B14 Flanşlı, W kovanlı redüktör**Hollow shaft, Double reduction, Parallel shaft gear unit, B14 flange, With W adapter  
Hohlwelle, Zweistufig, Stirnradgetriebe, B14-Flansch, Mit W-adapter

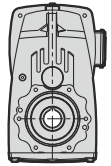
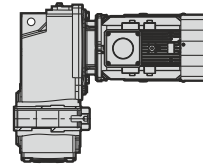
## PD 32... B14 - IEC 90

**Delik millî, İki kademeli, Paralel şaftlı, B14 Flanşlı, IEC adaptörlü redüktör**Hollow shaft, Double reduction, Parallel shaft gear unit, B14 flange, With IEC adapter  
Hohlwelle, Zweistufig, Stirnradgetriebe, B14-Flansch, Mit IEC-Adapter

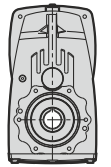
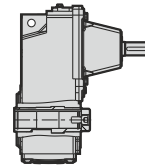
## PD 32... B14 - PAM 90

**Delik millî, İki kademeli, Paralel şaftlı, B14 Flanşlı, PAM adaptörlü redüktör**Hollow shaft, Double reduction, Parallel shaft gear unit, B14 flange, With PAM adapter  
Hohlwelle, Zweistufig, Stirnradgetriebe, B14-Flansch, Mit PAM-Adapter

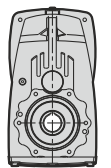
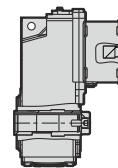
## 8) PD 32... Ç / B14 - 80M/4A

**Delik millî, İki kademeli, Paralel şaftlı, Çektirmeli, B14 Flanşlı, Motorlu redüktör**Hollow shaft, Double reduction, Parallel shaft gear unit, With fixing element, B14 flange, With motor  
Hohlwelle, Zweistufig, Stirnradgetriebe, Befestigungsbausatz, B14-Flansch, Mit Motor

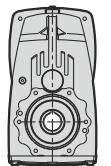
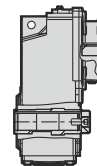
## PD 32... Ç / B14 - W

**Delik millî, İki kademeli, Paralel şaftlı, Çektirmeli, B14 Flanşlı, W kovanlı redüktör**Hollow shaft, Double reduction, Parallel shaft gear unit, With fixing element, B14 flange, With W adapter  
Hohlwelle, Zweistufig, Stirnradgetriebe, Befestigungsbausatz, B14-Flansch, Mit W-adapter

## PD 32... Ç / B14 - IEC 90

**Delik millî, İki kademeli, Paralel şaftlı, Çektirmeli, B14 Flanşlı, IEC adaptörlü redüktör**Hollow shaft, Double reduction, Parallel shaft gear unit, With fixing element, B14 flange, With IEC adapter  
Hohlwelle, Zweistufig, Stirnradgetriebe, Befestigungsbausatz, B14-Flansch, Mit IEC-Adapter

## PD 32... Ç / B14 - PAM 90

**Delik millî, İki kademeli, Paralel şaftlı, Çektirmeli, B14 Flanşlı, PAM adaptörlü redüktör**Hollow shaft, Double reduction, Parallel shaft gear unit, With fixing element, B14 flange and PAM adapter  
Hohlwelle, Zweistufig, Stirnradgetriebe, Befestigungsbausatz, B14-Flansch, Mit PAM-Adapter



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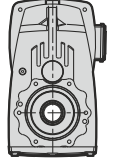
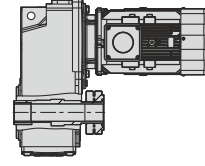
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9) PD 32... **KS / B14** - 80M/4A

**Delik milli, İki kademeli, Paralel şaftlı, Konik sıkırtmalı, B14 Flanşlı, Motorlu redüktör**

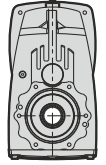
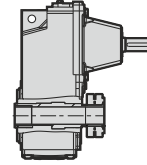
Hollow shaft with shrink disc connector, Double reduction, Parallel shaft gear unit, B14 flange, With motor  
Hohlwelle, Zweistufig, Stirnradgetriebe, Schrumpfscheibe, B14-Flansch, Mit Motor



PD 32... **KS / B14** - W

**Delik milli, İki kademeli, Paralel şaftlı, Konik sıkırtmalı, B14 Flanşlı, W kovanlı redüktör.**

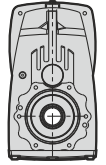
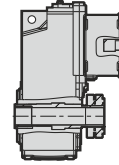
Hollow shaft with shrink disc connector, Double reduction, Parallel shaft gear unit, B14 flange, With W adapter  
Hohlwelle, Zweistufig, Stirnradgetriebe, Schrumpfscheibe, B14-Flansch, Mit W-adapter



PD 32... **KS / B14** - IEC 90

**Delik milli, İki kademeli, Paralel şaftlı, Konik sıkırtmalı, B14 Flanşlı, IEC adaptörlü redüktör**

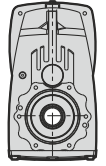
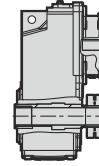
Hollow shaft with shrink disc connector, Double reduction, Parallel shaft gear unit, B14 flange, With IEC adapter  
Hohlwelle, Zweistufig, Stirnradgetriebe, Schrumpfscheibe, B14-Flansch, Mit IEC-Adapter



PD 32... **KS / B14** - PAM 90

**Delik milli, İki kademeli, Paralel şaftlı, Konik sıkırtmalı, B14 Flanşlı, PAM adaptörlü redüktör**

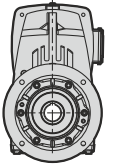
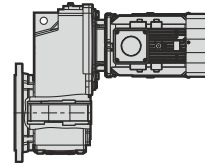
Hollow shaft with shrink disc connector, Double reduction, Parallel shaft gear unit, B14 flange, With PAM adapter  
Hohlwelle, Zweistufig, Stirnradgetriebe, Schrumpfscheibe, B14-Flansch, Mit PAM-Adapter



10) PD 32... **B5** - 80M/4A

**Delik milli, İki kademeli, Paralel şaftlı, B5 Flanşlı, Motorlu redüktör**

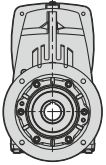
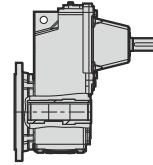
Hollow shaft, Double reduction, Parallel shaft gear unit, B5 flange, With motor  
Hohlwelle, Zweistufig, Stirnradgetriebe, B5-Flansch, Mit Motor



PD 32... **B5** - W

**Delik milli, İki kademeli, Paralel şaftlı, B5 Flanşlı, W kovanlı redüktör**

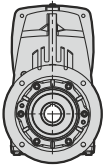
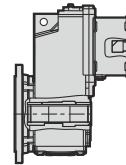
Hollow shaft, Double reduction, Parallel shaft gear unit, B5 flange, With W adapter  
Hohlwelle, Zweistufig, Stirnradgetriebe, B5-Flansch, Mit W-adapter



PD 32... **B5** - IEC 90

**Delik milli, İki kademeli, Paralel şaftlı, B5 Flanşlı, IEC adaptörlü redüktör**

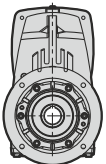
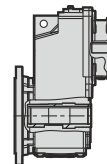
Hollow shaft, Double reduction, Parallel shaft gear unit, B5 flange, With IEC adapter  
Hohlwelle, Zweistufig, Stirnradgetriebe, B5-Flansch, Mit IEC-Adapter



PD 32... **B5** - PAM 90

**Delik milli, İki kademeli, Paralel şaftlı, B5 Flanşlı, PAM adaptörlü redüktör**

Hollow shaft, Double reduction, Parallel shaft gear unit, B5 flange, With PAM adapter  
Hohlwelle, Zweistufig, Stirnradgetriebe, B5-Flansch, Mit PAM-Adapter



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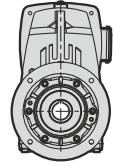
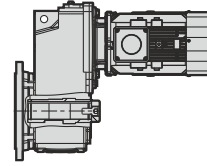
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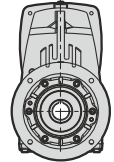
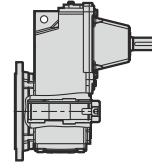
## 11) PD 32... Ç / B5 - 80M/4A

**Delik milli, İki kademeli, Paralel şaftlı, Çektirmeli, B5 Flanşlı, Motorlu redüktör**  
Hollow shaft, Double reduction, Parallel shaft gear unit, fixing element, B5 flange, With motor  
Hohlwelle, Zweistufig, Stirnradgetriebe, Befestigungsbausatz, B5-Flansch, Mit Motor



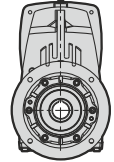
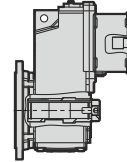
## PD 32... Ç / B5 - W

**Delik milli, İki kademeli, Paralel şaftlı, Çektirmeli, B5 Flanşlı, W kovanlı redüktör.**  
Hollow shaft, Double reduction, parallel shaft gear unit, With fixing element, B5 flange, With W adapter  
Hohlwelle, Zweistufig, Stirnradgetriebe, Befestigungsbausatz, B5-Flansch, Mit W-adapter



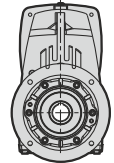
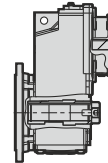
## PD 32... Ç / B5 - IEC 90

**Delik milli, İki kademeli, Paralel şaftlı, Çektirmeli, B5 Flanşlı, IEC adaptörlü redüktör**  
Hollow shaft, Double reduction, Parallel shaft gear unit, With fixing element, B5 flange and IEC adapter  
Hohlwelle, Zweistufig, Stirnradgetriebe, Befestigungsbausatz, B5-Flansch, Mit IEC-Adapter



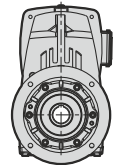
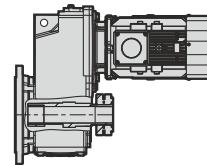
## PD 32... Ç / B5 - PAM 90

**Delik milli, İki kademeli, Paralel şaftlı, Çektirmeli, B5 Flanşlı, PAM adaptörlü redüktör**  
Hollow shaft, Double reduction, Parallel shaft gear unit, With fixing element, B5 flange and PAM adapter  
Hohlwelle, Zweistufig, Stirnradgetriebe, Befestigungsbausatz, B5-Flansch, Mit PAM-Adapter



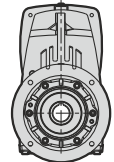
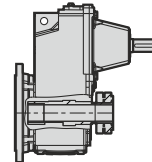
## 12) PD 32... KS / B5 - 80M/4A

**Delik milli, İki kademeli, Paralel şaftlı, Konik sıkırmalı, B5 Flanşlı, Motorlu redüktör**  
Hollow shaft with shrink disc connector, Double reduction, Parallel shaft gear unit, With B5 flange and motor  
Hohlwelle, Zweistufig, Stirnradgetriebe, Schrumpfscheibe, B5-Flansch, Mit Motor



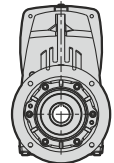
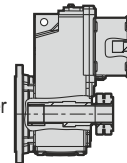
## PD 32... KS / B5 - W

**Delik milli, İki kademeli, Paralel şaftlı, Konik sıkırmalı, B5 Flanşlı, W kovanlı redüktör**  
Hollow shaft with shrink disc connector, Double reduction, Parallel shaft gear unit, B5 flange, With W adapter  
Hohlwelle, Zweistufig, Stirnradgetriebe, Schrumpfscheibe, B5-Flansch, Mit W-adapter



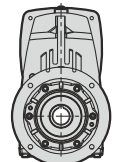
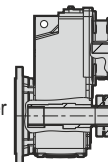
## PD 32... KS / B5 - IEC 90

**Delik milli, İki kademeli, Paralel şaftlı, Konik sıkırmalı, B5 Flanşlı, IEC adaptörlü redüktör**  
Hollow shaft with shrink disc connector, Double reduction, Parallel shaft gear unit, With B5 flange and IEC adapter  
Hohlwelle, Zweistufig, Stirnradgetriebe, Schrumpfscheibe, B5-Flansch, Mit IEC-Adapter



## PD 32... KS / B5 - IEC 90

**Delik milli, İki kademeli, Paralel şaftlı, Konik sıkırmalı, B5 Flanşlı, IEC adaptörlü redüktör**  
Hollow shaft with shrink disc connector, Double reduction, Parallel shaft gear unit, With B5 flange and IEC adapter  
Hohlwelle, Zweistufig, Stirnradgetriebe, Schrumpfscheibe, B5-Flansch, Mit PAM-Adapter



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OUR PRODUCTS

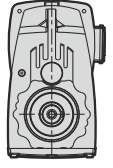
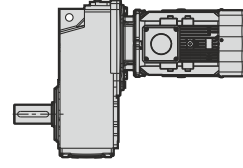
DE

UNSERE PRODUKTE

1) **PM 32... - 80M/4A**

**Mil çıkışlı, İki kademeli, Paralel şaftlı, Motorlu redüktör**

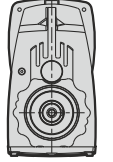
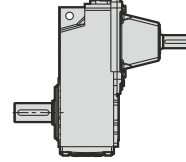
Solid shaft, Double reduction, Parallel shaft gear unit, With motor  
Vollwelle, Zweistufig, Stirnradgetriebe, Mit Motor



**PM 32... - W**

**Mil çıkışlı, İki kademeli, Paralel şaftlı, W kovanlı redüktör.**

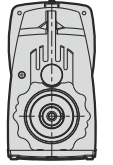
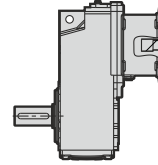
Solid shaft, Double reduction, Parallel shaft gear unit, With W adapter  
Vollwelle, Zweistufig, Stirnradgetriebe, Mit W-adapter



**PM 32... - IEC 90**

**Mil çıkışlı, İki kademeli, Paralel şaftlı, IEC adaptörlü redüktör**

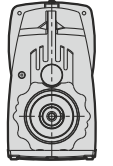
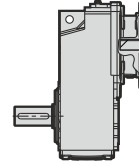
Solid shaft, Double reduction, Parallel shaft gear unit, With IEC adapter  
Vollwelle, Zweistufig, Stirnradgetriebe, Mit IEC-Adapter



**PM 32... - IEC 90**

**Mil çıkışlı, İki kademeli, Paralel şaftlı, IEC adaptörlü redüktör**

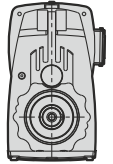
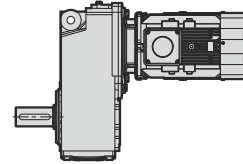
Solid shaft, Double reduction, Parallel shaft gear unit, With IEC adapter  
Vollwelle, Zweistufig, Stirnradgetriebe, Mit PAM adapter



2) **PM 32... LT - 80M/4A**

**Mil çıkışlı, İki kademeli, Paralel şaftlı, Lastik takozlu, Motorlu redüktör**

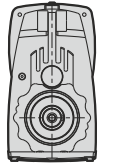
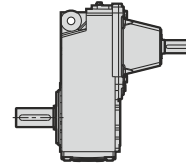
Solid shaft, Double reduction, Parallel shaft gear unit, rubber buffer, Mit Motor  
Vollwelle, Zweistufig, Stirnradgetriebe, Gummipuffer, Mit Motor



**PM 32... LT - W**

**Mil çıkışlı, İki kademeli, Paralel şaftlı, Lastik takozlu, W kovanlı redüktör**

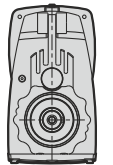
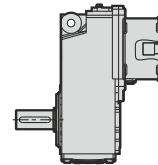
Solid shaft, Double reduction, Parallel shaft gear unit, rubber buffer, With W adapter  
Vollwelle, Zweistufig, Stirnradgetriebe, Gummipuffer, Mit W-adapter



**PM 32... LT - IEC 90**

**Mil çıkışlı, İki kademeli, Paralel şaftlı, Lastik takozlu, IEC adaptörlü redüktör**

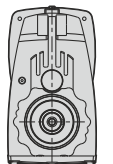
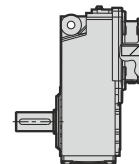
Solid shaft, Double reduction, Parallel shaft gear unit, rubber buffer, With IEC adapter  
Vollwelle, Zweistufig, Stirnradgetriebe, Gummipuffer, Mit IEC-Adapter



**PM 32... LT - PAM 90**

**Mil çıkışlı, İki kademeli, Paralel şaftlı, Lastik takozlu, PAM adaptörlü redüktör**

Solid shaft, Double reduction, Parallel shaft gear unit, rubber buffer, With PAM adapter  
Vollwelle, Zweistufig, Stirnradgetriebe, Gummipuffer, Mit PAM adapter



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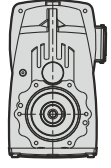
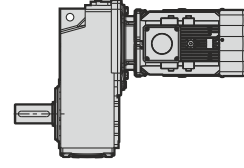
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UNSERE PRODUKTE

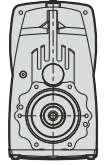
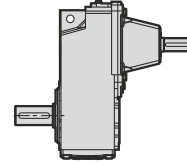
## 3) PM 32... B14 - 80M/4A

**Mil çıkışlı, İki kademeli, Paralel şaftlı, B14 Flanşlı, Motorlu redüktör**  
Solid shaft, Double reduction, Parallel shaft gear unit, B14 flange, With motor  
Vollwelle, Zweistufig, Stirnradgetriebe, B14-Flansch, Mit Motor



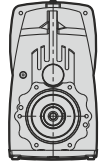
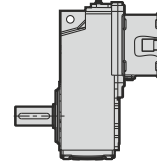
## PM 32... B14 - W

**Mil çıkışlı, İki kademeli, Paralel şaftlı, B14 Flanşlı, W kovanlı redüktör.**  
Solid shaft, Double reduction, Parallel shaft gear unit, B14 flange, With W adapter  
Vollwelle, Zweistufig, Stirnradgetriebe, B14-Flansch, Mit W-adapter



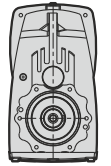
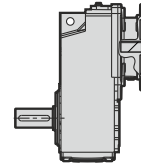
## PM 32... B14 - IEC 90

**Mil çıkışlı, İki kademeli, Paralel şaftlı, B14 Flanşlı, IEC adaptörlü redüktör**  
Solid shaft, Double reduction, Parallel shaft gear unit, With B14 flange and IEC adapter  
Vollwelle, Zweistufig, Stirnradgetriebe, B14-Flansch, Mit IEC-Adapter



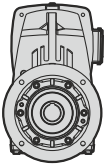
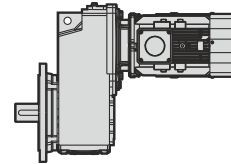
## PM 32... B14 - PAM 90

**Mil çıkışlı, İki kademeli, Paralel şaftlı, B14 Flanşlı, PAM adaptörlü redüktör**  
Solid shaft, Double reduction, Parallel shaft gear unit, With B14 flange and PAM adapter  
Vollwelle, Zweistufig, Stirnradgetriebe, B14-Flansch, Mit PAM adapter



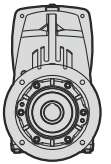
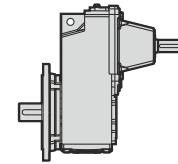
## 4) PM 32... B5 - 80M/4A

**Mil çıkışlı, İki kademeli, Paralel şaftlı, B5 Flanşlı, Motorlu redüktör**  
Solid shaft, Double reduction, Parallel shaft gear unit, B5 flange, With motor  
Vollwelle, Zweistufig, Stirnradgetriebe, B5-Flansch, Mit Motor



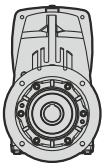
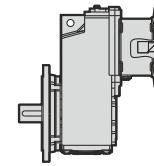
## PM 32... B5 - W

**Mil çıkışlı, İki kademeli, Paralel şaftlı, B5 Flanşlı, W kovanlı redüktör**  
Solid shaft, Double reduction, Parallel shaft gear unit, B5 flange, With W adapter  
Vollwelle, Zweistufig, Stirnradgetriebe, B5-Flansch, Mit W-adapter



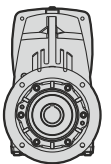
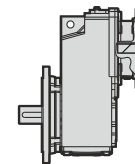
## PM 32... B5 - IEC 90

**Mil çıkışlı, İki kademeli, Paralel şaftlı, B5 Flanşlı, IEC adaptörlü redüktör**  
Solid shaft, Double reduction, Parallel shaft gear unit, With B5 flange and IEC adapter  
Vollwelle, Zweistufig, Stirnradgetriebe, B5-Flansch, Mit IEC-Adapter



## PM 32... B5 - PAM 90

**Mil çıkışlı, İki kademeli, Paralel şaftlı, B5 Flanşlı, PAM adaptörlü redüktör**  
Solid shaft, Double reduction, Parallel shaft gear unit, With B5 flange and PAM adapter  
Vollwelle, Zweistufig, Stirnradgetriebe, B5-Flansch, Mit PAM adapter



TR REDÜKTÖR SEÇİM FORMU

**1- REDÜKTÖR**

Kullanılacak Sektör: .....

Uygulama Yeri:.....

Günlük Çalışma Saati:

<4 [ ] 4-8 [ ] 8-16 [ ] >16 [ ]

Saatteki Dur-Kalk Sayısı:

0-50 [ ] 50-100 [ ] 100-200 [ ] 200-300 [ ]  
300-500 [ ] 500-700 [ ] 700-1000 [ ] >1000 [ ]

Giriş Seçeneği: Motorlu [ ] Motorsuz [ ]

Talep Edilen Motor Gücü:.....kW

Talep Edilen Motor Devri:.....d/dak

Talep Edilen Çıkış Devri:.....d/dak

**2 - GİRİŞ - ÇIKIŞ**

Tahrik Tipi:

AC Motor [ ] AC Motor + Invertör [ ] Servo Motor [ ]  
Hidro Motor [ ] Serbest Giriş Mili [ ] Diğer [ ]

Motor Bağlantı Flanşı (Elektirik Motorlu ise):

Akuple [ ] IEC B5 [ ] PAM B5 [ ]  
PAM B14 [ ] NEMA [ ]

Giriş Mili Özelliği ( Serbest Giriş Milli ise):

Kamalı [ ] Diğer.....

Giriş Mili Tahrik Tipi ( Serbest Giriş Milli ise):

Elastik Kaplin [ ] Hidrolik Kaplin [ ] Küçük Hızlarda Zincir Dişli [ ] Düz Dişli [ ]  
Triger Kayış [ ] V Kayış [ ] Gergirme Makaralı Kayış [ ]

Giriş Mili Yük Durumu ( Serbest Giriş Milli ise):

Radyal yük.....N  
Eksenel Yük.....N / Çeki [ ] Bası [ ]

Çıkış Mili Özelliği ( Serbest Giriş Milli ise):

Mil Çıkışlı [ ] Delik Milli [ ] Konik Sıkırtma Şaftlı [ ]  
Diğer.....

Çıkış Mili Tahrik Tipi:

Direkt [ ] Elastik Kaplin [ ] Hidrolik Kaplin [ ] Küçük Hızlarda Zincir Dişli [ ]  
Düz Dişli [ ] Triger Kayış [ ] V Kayış [ ] Gerdirme Makaralı Kayış [ ]

Çıkış Mili Yük Durumu :

Radyal yük.....N  
Eksenel Yük.....N / Çeki [ ] Bası [ ]

**3 - MONTAJ**

Montaj Pozisyonu:

M1 [ ] M2 [ ] M3 [ ] M4 [ ] M5 [ ] M6 [ ]

Kilit Durumu:

Var [ ] Yok [ ]

Deniz Seviyesinden Yükseklik:

0-1000 [ ] 1000-2000 [ ] 2000-3000 [ ] 3000-4000 [ ] 4000-5000 [ ]

Ortam Durumu:

Açık (1,25 m/sn) [ ] Kapalı (4 m/sn) [ ]

Ortam Şartları:

Normal [ ] Tozlu [ ] Nemli [ ] Kuru [ ]

Diğer.....

Ortam Sıcaklığı:.....°C

**4 - MOTOR**

Elektiriksel Değer:

Voltaj.....V

Frekans.....Hz

Koruma Sınıfı:

IP55 [ ] IP65 [ ] Exproof [ ]

Diğer IP.....

Terminal Kutusu Yönü:

1 [ ] 2 [ ] 3 [ ] 4 [ ]

Termistör:

Var [ ] Yok [ ]

Fren Durumu:

Var [ ] Yok [ ]

Atex:

2G [ ] 2D [ ] Yok [ ]

Diğer.....

Diğer Notlar:

.....  
.....  
.....  
.....  
.....  
.....  
.....  
.....

Lütfen doğru redüktör seçimi yapabilmek için gerekli bilgileri doldurunuz!

**EN GEARBOX SELECTION FORM**

**1- GEAR UNIT**

Sector for which will be used: .....

Application area:.....

Daily working hour:  
 <4 [ ]    4-8 [ ]    8-16 [ ]    >16 [ ]

Revolution per hours:  
 0-50 [ ]    50-100 [ ]    100-200 [ ]    200-300 [ ]  
 300-500 [ ]    500-700 [ ]    700-1000 [ ]    >1000 [ ]

Input option: With motor [ ]    Without motor [ ]

Requested Motor Power:.....kW

Requested Motor Rotation:.....min<sup>-1</sup>

Requested Output Rotation:.....min<sup>-1</sup>

**2 - INPUT - OUTPUT**

Drive type:  
 AC Motor [ ]    AC Motor + Invertor [ ]    Servo Motor [ ]  
 Hydromotor [ ]    Free Input Shaft [ ]    Diđer [ ]

Motor Connection Flange (With Electric Motor):  
 Direct [ ]    IEC B5 [ ]    PAM B5 [ ]  
 PAM B14 [ ]    NEMA [ ]

Property of Input Shaft ( with free input shaft ):  
 With Key [ ]    Other.....

Driving type of Input Shaft( with free input shaft ):  
 Elastic Coupling [ ]    Hydraulic Coupling [ ]    For Chain Drive With Low Speed [ ]  
 For Spur Gear [ ]    For Trigger Belt [ ]    For V belt [ ]    Flat Belt With Spanning Pulley [ ]

Input Shaft Load case (with free input shaft):  
 Radial Load.....N  
 Axial Load.....N / Draw [ ]    Impression [ ]

Property of Output Shaft (with free input shaft):  
 Solid Shaft [ ]    Hollow shaft [ ]    Shaft for Shrink Disc [ ]  
 Other.....

Output Shaft Drive type:  
 Direct [ ]    Elastic Coupling [ ]    Hydraulic Coupling [ ]    Chain Drive With Low Speed [ ]  
 Spur Gear [ ]    Trigger Belt [ ]    V Belt [ ]    Flat Belt With Spanning Pulley [ ]

Output Shaft Load case:  
 Radial Load.....N  
 Axial Load.....N / Draw [ ]    Impression [ ]

**3 - MOUNTING**

Mounting Position:  
 M1 [ ]    M2 [ ]    M3 [ ]    M4 [ ]    M5 [ ]    M6 [ ]

Backstop Situation:  
 Yes [ ]    No [ ]

Altitude above sea level:  
 0-1000 [ ]    1000-2000 [ ]    2000-3000 [ ]    3000-4000 [ ]    4000-5000 [ ]

Ambient Situation:  
 Open (1,25 m/sn) [ ]    Close (4 m/sn) [ ]

Ambient Conditions:  
 Normal [ ]    Dusty [ ]    Humid [ ]    Dry [ ]  
 Other.....

Ambient Temperature : .....°C

**4 - MOTOR**

Elektrical Value:  
 Voltage.....V  
 Frequency.....Hz

Protection Class :  
 IP55 [ ]    IP65 [ ]    Exproof [ ]  
 Other IP.....

Terminal Box Position:  
 1 [ ]    2 [ ]    3 [ ]    4 [ ]

Thermistor :  
 Yes [ ]    No [ ]

Brake Situation:  
 Yes [ ]    No [ ]

Atex:  
 2G [ ]    2D [ ]    Yok [ ]  
 Other.....

Other Notes:  
 .....  
 .....  
 .....  
 .....  
 .....  
 .....  
 .....  
 .....  
 .....  
 .....

Please give required informations for selecting correct reducer!

DE FORMULAR FÜR GETRIEBEAUSWAHL

**1- GETRIEBE**

Sektor : .....

Anwendungsbereich:.....

Betriebsstunden/Tag:

<4 [ ]    4-8 [ ]    8-16 [ ]    >16 [ ]

Anlauf pro Stunde:

0-50 [ ]    50-100 [ ]    100-200 [ ]    200-300 [ ]  
300-500 [ ]    500-700 [ ]    700-1000 [ ]    >1000 [ ]

Antriebsoption: mit Motor [ ]    ohne Motor [ ]

Geforderte Motorleistung:.....kW

Angeforderte Motordrehzahl:.....min<sup>-1</sup>

Angeforderter Abtriebsdrehzahl:.....min<sup>-1</sup>

**2 - ANTRIEB - ABTRIEB**

Antriebstyp:

Wechselstrommotor [ ]    Wechselstrommotor + Wechselrichter [ ]    Servomotor [ ]  
Hydromotor [ ]    Freie Antriebswelle [ ]    Sonstiges [ ]

Motoranschlussflansch (bei Elektromotor):

Gekoppelt [ ]    IEC B5 [ ]    PAM B5 [ ]  
PAM B14 [ ]    NEMA [ ]

Antriebswelleneigenschaft (bei freier Antriebswelle):

mit Passfeder [ ]    Sonstiges.....

Antriebsart der Antriebswelle (bei freier Antriebswelle):

Elastische Kupplung [ ]    Hydraulische Kupplung [ ]    Kettenrad bei kleinen Drehzahlen [ ]  
Stirnrad [ ]    Zahnriemen [ ]    Keilriemen [ ]    Spannrollenriemen [ ]

Belastungsart der Antriebswelle (bei freier Antriebswelle):

Radiale Belastung .....N  
Axiale Belastung.....N / Zug [ ]    Druck [ ]

Abtriebswelleneigenschaft (bei freier Antriebswelle):

Vollwelle [ ]    Hohlwelle [ ]    Welle mit Schrumpfscheibe [ ]  
Sonstiges.....

Antriebsart der Abtriebswelle:

Direkt [ ]    Elastische Kupplung [ ]    Hydraulische Kupplung [ ]    Stirnrad [ ]    Keilriemen [ ]  
Kettenrad bei kleinen Drehzahlen [ ]    Zahnriemen [ ]    Spannrollenriemen [ ]

Belastungsart der Abtriebswelle:

Radiale Belastung .....N  
Axiale Belastung.....N / Zug [ ]    Druck [ ]

**3 - MONTAGE**

Einbaulage:

M1 [ ]    M2 [ ]    M3 [ ]    M4 [ ]    M5 [ ]    M6 [ ]

Rücklaufsperre:

Ja [ ]    Nein [ ]

Höhe über dem Meeresspiegel:

0-1000 [ ]    1000-2000 [ ]    2000-3000 [ ]    3000-4000 [ ]    4000-5000 [ ]

Umgebungsbedingungen:

Ein (1,25 m/sn) [ ]    Aus (4 m/sn) [ ]

Umweltbedingungen:

Normal [ ]    staubig [ ]    feucht [ ]    trocken [ ]

Sonstiges.....

Umgebungstemperatur:.....°C

**4 - MOTOR**

Elektrischer Wert:

Stromspannung.....V  
Frequenz.....Hz

Schutzklasse:

IP55 [ ]    IP65 [ ]    Ex-geschützt [ ]

Andere IP.....

Ausrichtung des Klemmenkastens:

1 [ ]    2 [ ]    3 [ ]    4 [ ]

Thermistor:

Ja [ ]    Nein [ ]

Bremse:

Ja [ ]    Nein [ ]

Atex:

2G [ ]    2D [ ]    Nein [ ]

Sonstiges.....

Andere Notizen:

.....  
.....  
.....  
.....  
.....  
.....  
.....  
.....

Bitte geben Sie die notwendigen Informationen an, um das richtige Getriebe auswählen zu können!



TR

SİPARİŞ ÖRNEĞİ

EN

EXAMPLE FOR ORDERING

DE

BEISPIEL BESTELLBESCHREIBUNG

PD - PM

93 / 52

410.49

B5

PAM 132 - B5

132M / 4 BRE



PAM B5

PAM B14

IEC

W

AKUPLE

|     |
|-----|
| 63  |
| 71  |
| 80  |
| 90  |
| 100 |
| 112 |
| 132 |
| 160 |
| 180 |
| 200 |
| 225 |
| 250 |
| 280 |
| 315 |

|     |
|-----|
| 63  |
| 71  |
| 80  |
| 90  |
| 100 |
| 112 |
| 132 |

|     |
|-----|
| 63  |
| 71  |
| 80  |
| 90  |
| 100 |
| 112 |
| 132 |
| 160 |
| 180 |
| 200 |
| 225 |
| 250 |
| 280 |
| 315 |

|     |
|-----|
| 109 |
| 122 |
| 172 |
| 213 |
| 288 |
| 397 |

İges: Tahvil Oranı  
İges: Reduction Ratio  
İges: Verkleinerungsfaktor  
77 - 183

Standart Ürünler (B5 Flanşlı)  
Available standard products (B5: B5 Flange)  
Standardprodukte (Flansch B5)

| LT  | Ç*     | Ç/LT* | KS*    | KS/LT*  | B5      |
|-----|--------|-------|--------|---------|---------|
| B14 | Ç/B14* | Ç/B5* | KS/B5* | KS/B14* | 27 - 34 |

\* İşareti ile belirtilen opsiyonlar sadece Polat Delik Milli serisi için geçerlidir.  
\* Sign shows that this option is acceptable only for Polat Hollow Shaft gear unit series.  
\* Markierte Optionen nur für PGR Serie mit Hohlwelle gültig.

Motor Gövde  
Büyüklüğü  
Case Width  
Kistenweite

|           |
|-----------|
| 63 M      |
| 71 M      |
| 80 M      |
| 90 S/L    |
| 100 L     |
| 112 M     |
| 132 S/M   |
| 160 M/L   |
| 180 M/L   |
| 200 L     |
| 225 S/M   |
| 250 S/M/L |
| 280 S/M/L |
| 315 S/M/L |

Kutup Sayısı  
Number of Poles  
Anzahl der Pole

|       |
|-------|
| 2     |
| 4     |
| 6     |
| 2 - 4 |
| 2 - 8 |

Diğer Kutup kombinasyonları istendiğinde karşılanacaktır.  
Other pole combinations on request  
Sonstige Polkombinationen auf Wunsch

Motor Aksesuarları  
Motor Accessories  
Motorzubehör

|       |
|-------|
| BRE   |
| RG    |
| SR    |
| HL    |
| TF    |
| TW    |
| WU    |
| EF    |
| ZF    |
| DF    |
| IG    |
| KK/FK |
| RLS   |

24

9  
Gövde Büyüküğü  
Case Width  
Kistenweite

|    |
|----|
| A0 |
| B0 |
| C1 |
| 1  |
| 2  |
| 3  |
| 4  |
| 5  |
| 6  |
| 7  |
| 8  |
| 9  |
| 10 |
| 11 |
| 12 |

185 - 243

3  
Kademe  
Reduction  
Übersetzungstufen

|   |
|---|
| 2 |
| 3 |

PF GÖVDE  
PF CASE  
PF GEHÄUSE

5  
Gövde Büyüküğü  
Case Width  
Kistenweite

|   |
|---|
| 0 |
| 1 |
| 2 |
| 3 |
| 4 |
| 5 |

245 - 267

2  
Kademe  
Reduction  
Übersetzungstufen

|   |
|---|
| 2 |
|---|

Tip: PD (Delik Milli Redüktör / Hollow Shaft Gear Unit / Hohlwelle )  
PM (Mil Çıkışlı Redüktör / Solid Shaft Gear Unit / Vollwelle )

Not: Redüktör tiplerinden PD/PM A02, PD/PM B02 dişli üniteleri 2 kademeli, PD/PM C13 dişli ünitesi 3 kademeli olup A0, B0 ve C1 gövde büyüklüğünü göstermektedir.

Not: Gear units which are PD/PM A02, PD/PM B02 and PD/PM C13 are, 2 and 3 stage reduction respectively, but A0, B0 and C1 codes in this gear unit type determine case width.

Hinweis: Getriebe PD/PM A02, PD/PM B02 sind 2-stufige Getriebe, PD/PM C13 Getriebe sind 3-stufig und die Baugrößen A0, B0 und C1 werden angezeigt.

TR

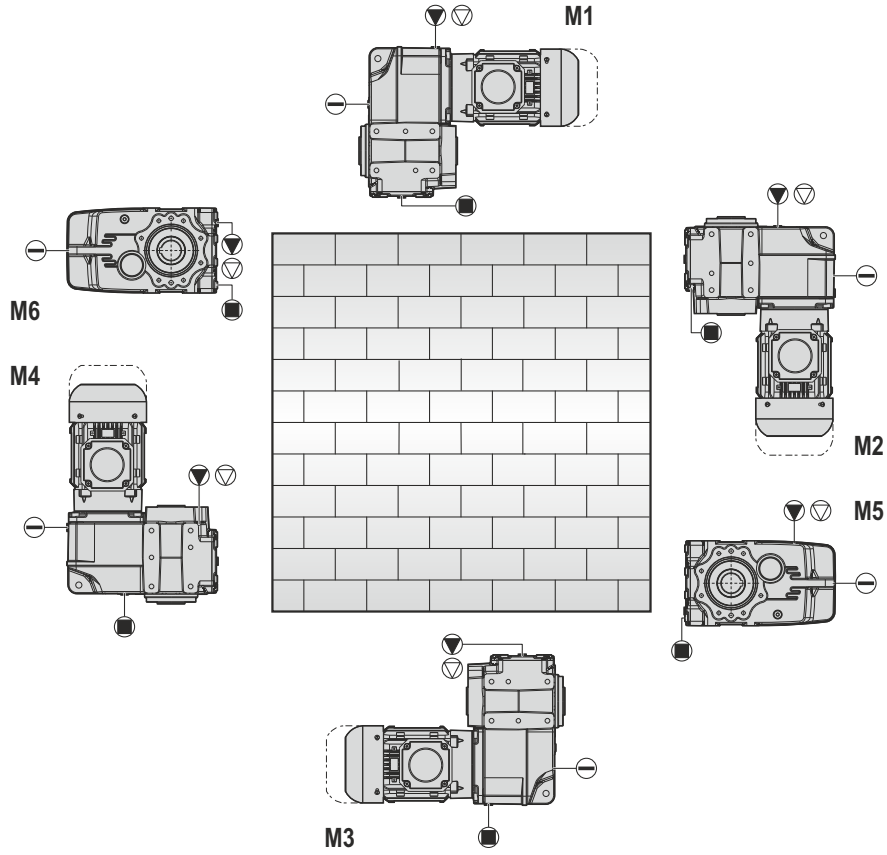
MONTAJ POZİSYONLARI

EN

MOUNTING POSITIONS

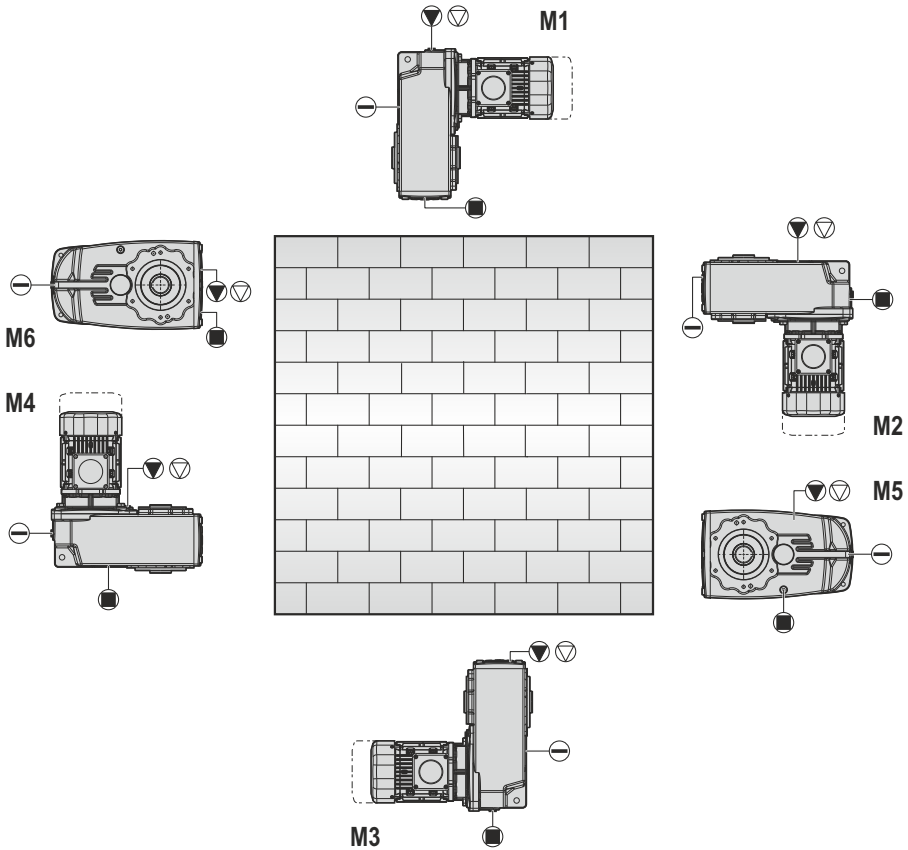
DE

MONTAGEPOSITIONEN



PD A02  
PD B02  
PD C13

PD 12  
PD 22  
PD 32  
PD 42  
PD 52  
PD 13  
PD 23  
PD 33  
PD 43  
PD 53



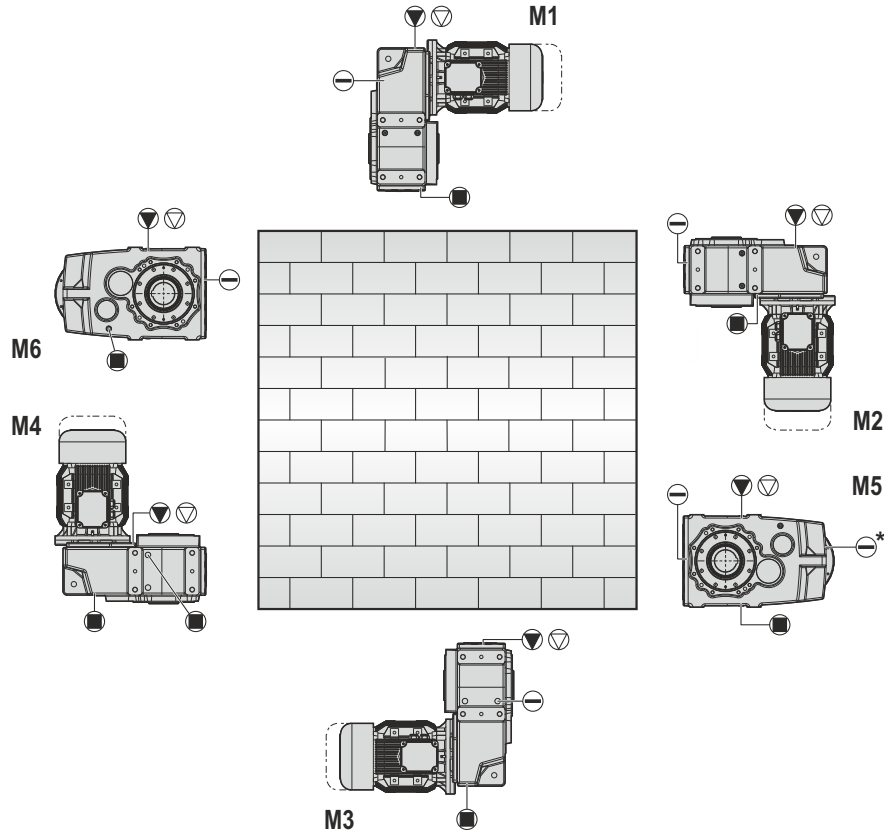
▽ Havalandırma tapası /  
Vent plug / Entlüftung

● Doldurma tapası /  
Filling plug / Einfüllstopfen

○ Yağ Seviye tapası /  
Oil level / Ölstand

■ Boşaltma tapası /  
Drain plug / Ölablass

## TR MONTAJ POZİSYONLARI EN MOUNTING POSITIONS DE MONTAGEPOSITIONEN


 PD 62  
 PD 72  
 PD 82  
 PD 92  
 PD 102  
 PD 112  
 PD 63  
 PD 73  
 PD 83  
 PD 93  
 PD 103  
 PD 113  
 PD 123

\* işareti PD 63...123' e kadar olan redüktörler için yağ seviye tapası kullanım yerini gösterir.

\* sign shows that position of oil level plug for gear units which are from PD 63 to PD 123.

Das \*-Zeichen kennzeichnet den Einsatzort der Ölstandsschraube für Getriebe zwischen PD 63...123.

▽ Havalandırma tapası /  
Vent plug / Entlüftung

● Doldurma tapası /  
Filling plug / Einfüllstopfen

⊖ Yağ Seviye tapası /  
Oil level / Ölstand

● Boşaltma tapası /  
Drain plug / Ölablass

TR

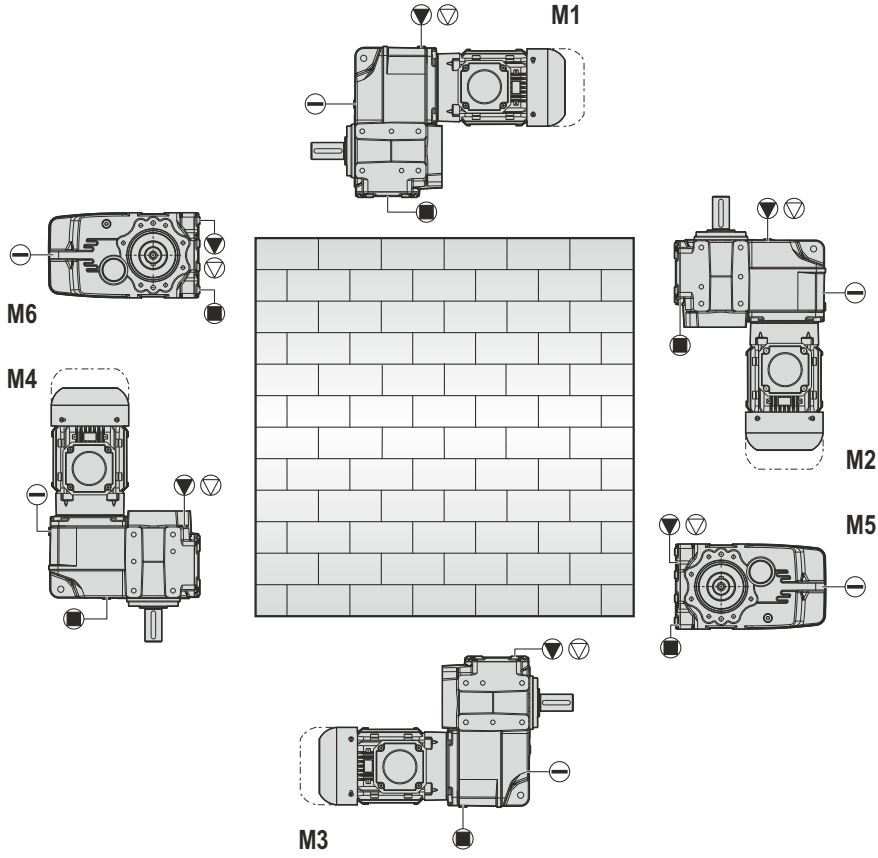
MONTAJ POZİSYONLARI

EN

MOUNTING POSITIONS

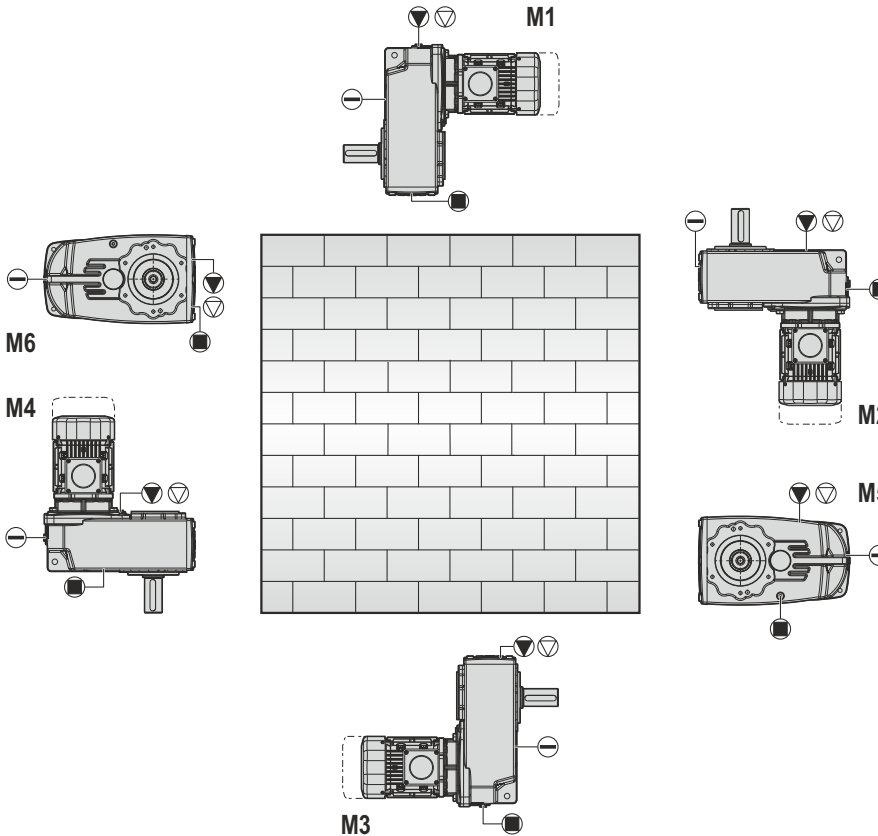
DE

MONTAGEPOSITIONEN



PM A02  
PM B02  
PM C13

PM 12  
PM 22  
PM 32  
PM 42  
PM 52  
PM 13  
PM 23  
PM 33  
PM 43  
PM 53



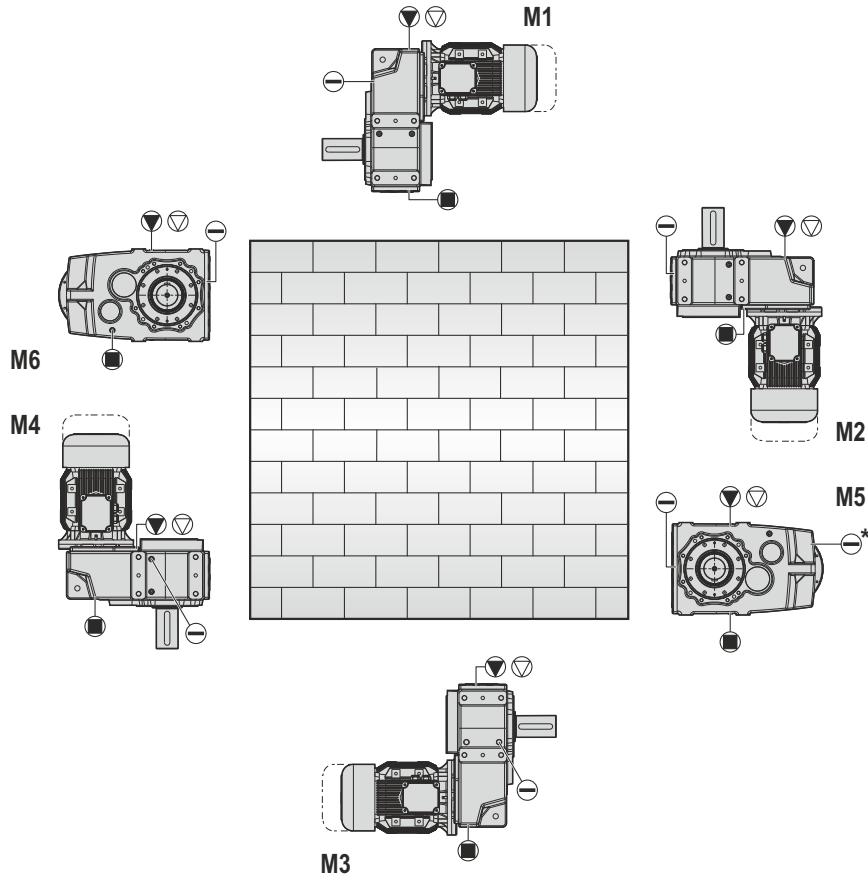
▽ Havalandırma tapası /  
Vent plug / Entlüftung

● Doldurma tapası /  
Filling plug / Einfüllstopfen

○ Yağ Seviye tapası /  
Oil level / Ölstand

■ Boşaltma tapası /  
Drain plug / Ölablass

## TR MONTAJ POZİSYONLARI EN MOUNTING POSITIONS DE MONTAGEPOSITIONEN


 PM 62  
 PM 72  
 PM 82  
 PM 92  
 PM 102  
 PM 112  
 PM 63  
 PM 73  
 PM 83  
 PM 93  
 PM 103  
 PM 113  
 PM 123

\* işareti PM 63...123' e kadar olan redüktörler için yağ seviye tapası kullanım yerini gösterir.

\* sign shows that position of oil level plug for gear units which are from PM 63 to PD 123.

Das \*-Zeichen kennzeichnet den Einsatzort der Ölstandsschraube für Getriebe zwischen PM 63...123.

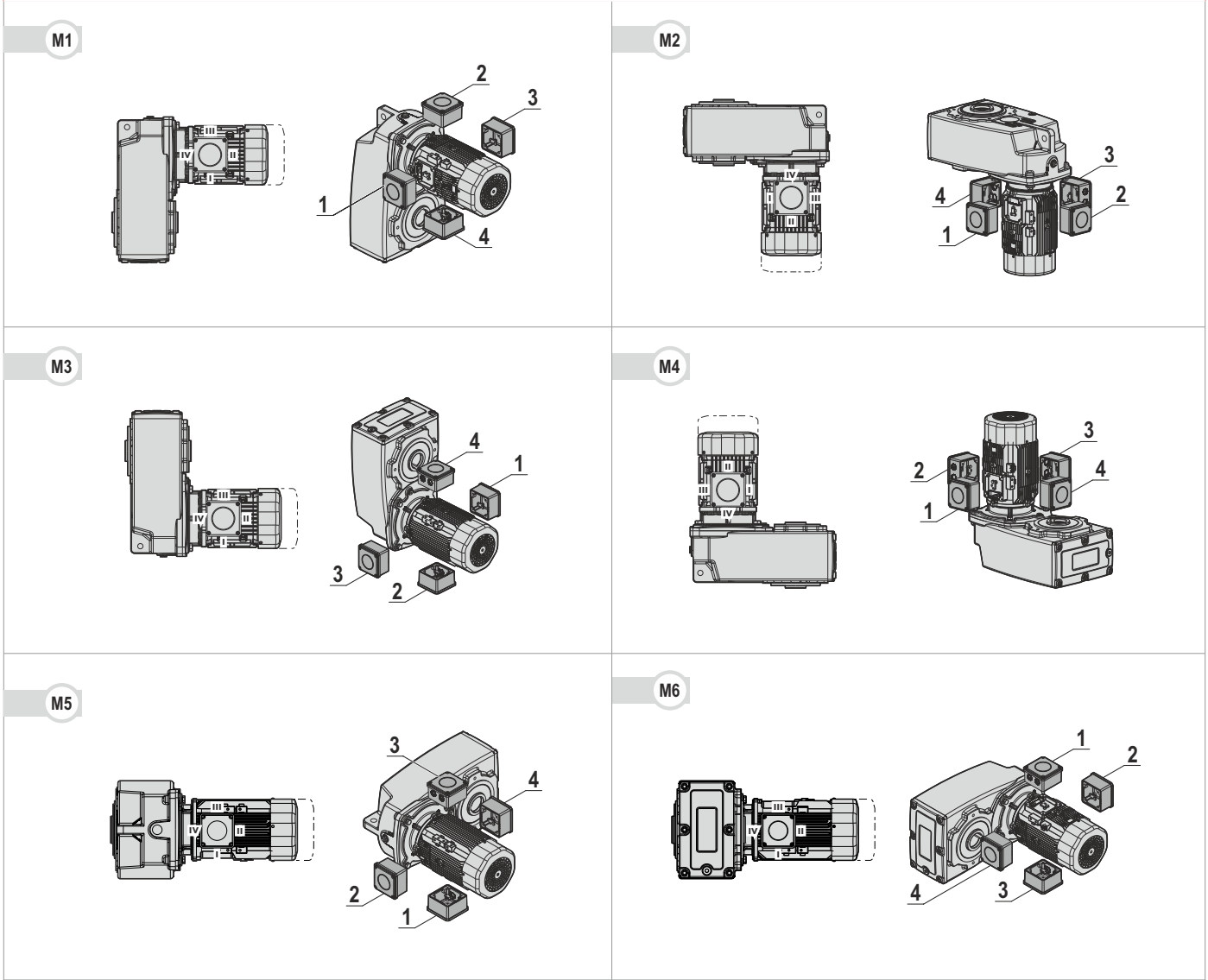
○ Havalandırma tapası /  
Vent plug / Entlüftung

● Doldurma tapası /  
Filling plug / Einfüllstopfen

⊖ Yağ Seviye tapası /  
Oil level / Ölstand

● Boşaltma tapası /  
Drain plug / Ölabblass

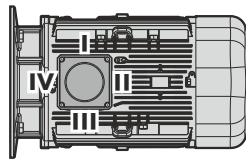
**PD** TERMİNAL KUTUSU VE KABLO GİRİŞ YÖNLERİ / POSITION OF TERMINAL BOX AND CABLE ENTRY / KLEMMENKASTENLAGE UND KABELNMFÜHRUNG



\* 1 - 2 - 3 - 4 : Terminal kutusu yönlerini gösterir.  
\* I - II - III - IV: Kablo giriş yönlerini gösterir.

\* 1 - 2 - 3 - 4 : Shows terminal box position  
\* I - II - III - IV: Shows cable entry position

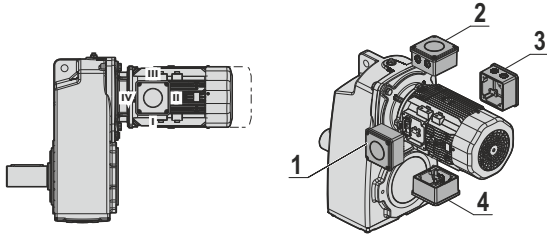
\* 1 - 2 - 3 - 4 : Zeigt die Position des Klemmkastens an  
\* I - II - III - IV: Zeigt die kabeleinführungsposition an



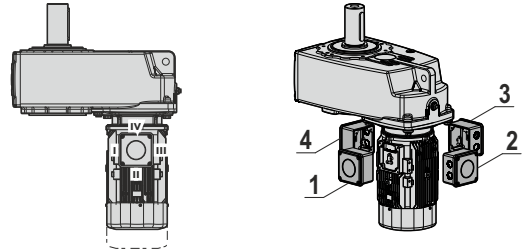
PM

**TERMİNAL KUTUSU VE KABLO GİRİŞ YÖNLERİ / POSITION OF TERMINAL BOX AND CABLE ENTRY /  
 KLEMMENKASTENLAGE UND KABELNİFÜHRUNG**

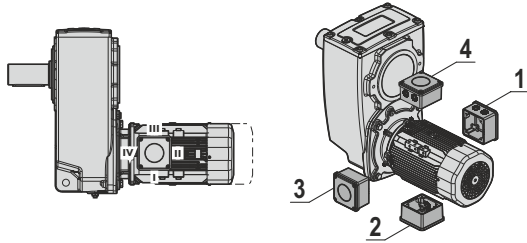
M1



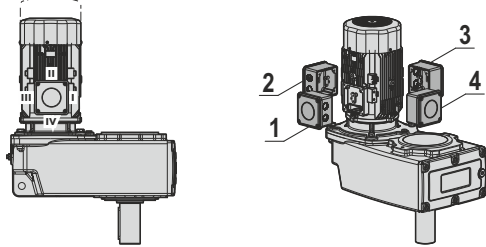
M2



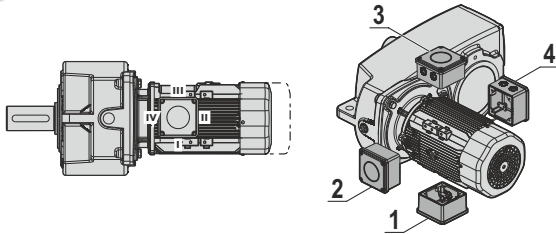
M3



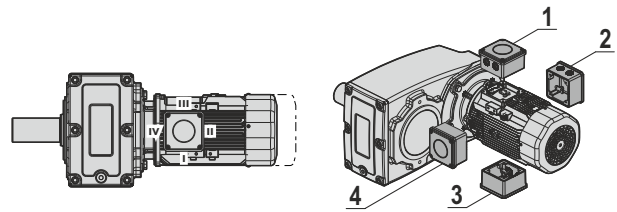
M4



M5



M6



\* 1 - 2 - 3 - 4 : Terminal kutusu yönlerini gösterir.

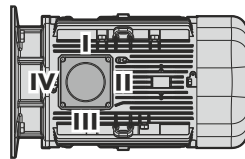
\* I - II - III - IV: Kablo giriş yönlerini gösterir.

\* 1 - 2 - 3 - 4 : Shows terminal box position

\* I - II - III - IV: Shows cable entry position

\* 1 - 2 - 3 - 4 : Zeigt die Position des Klemmkastens an

\* I - II - III - IV: Zeigt die kabeleinführungsposition an





TR

MONTAJ POZİSYONLARI

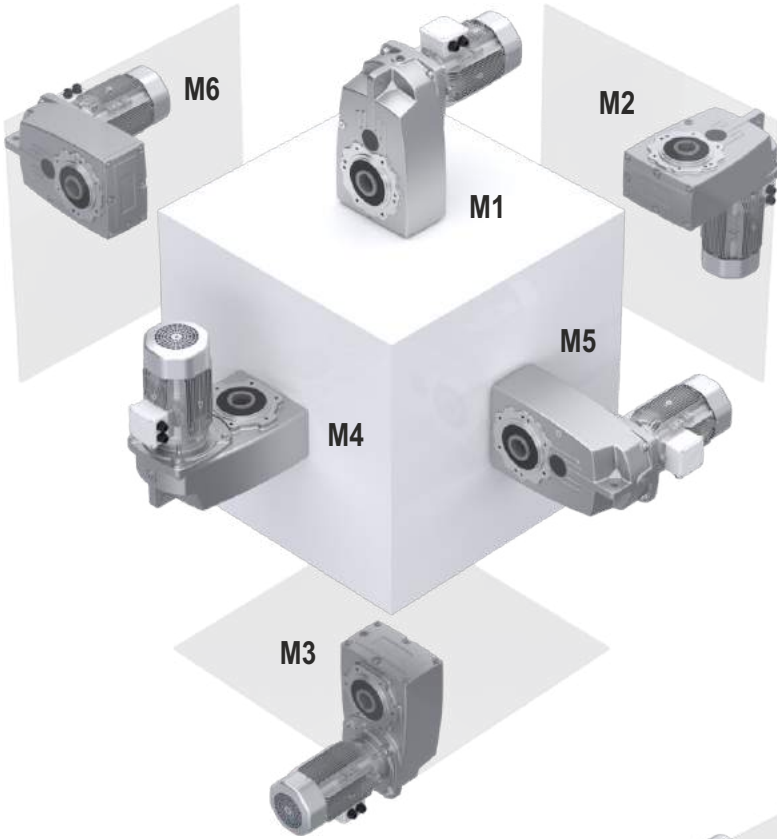
EN

MOUNTING POSITIONS

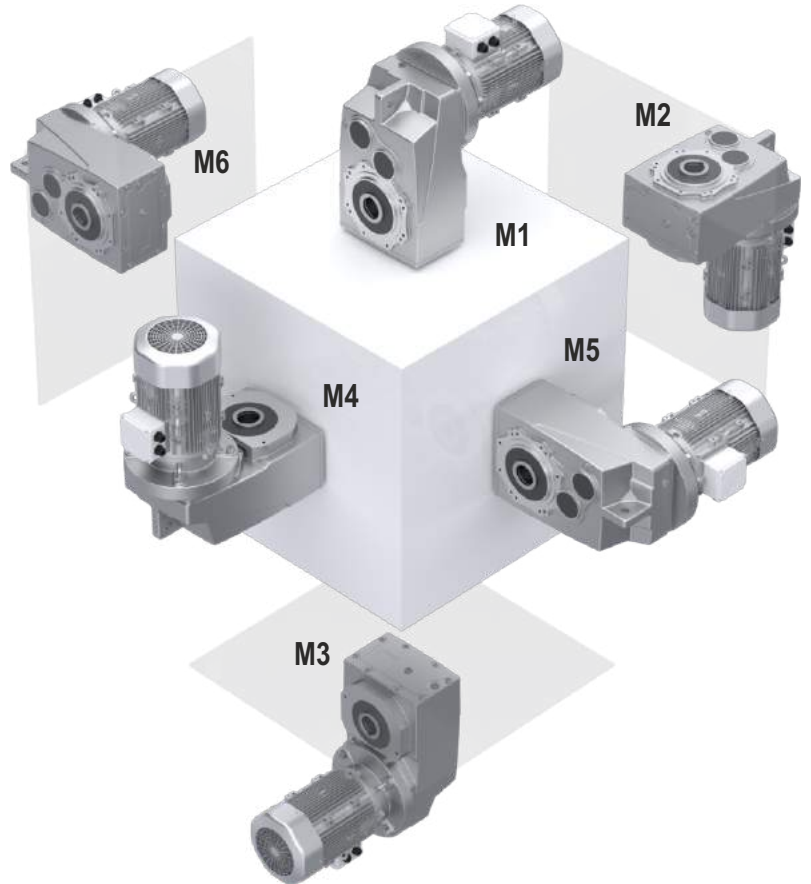
DE

MONTAGEPOSITIONEN

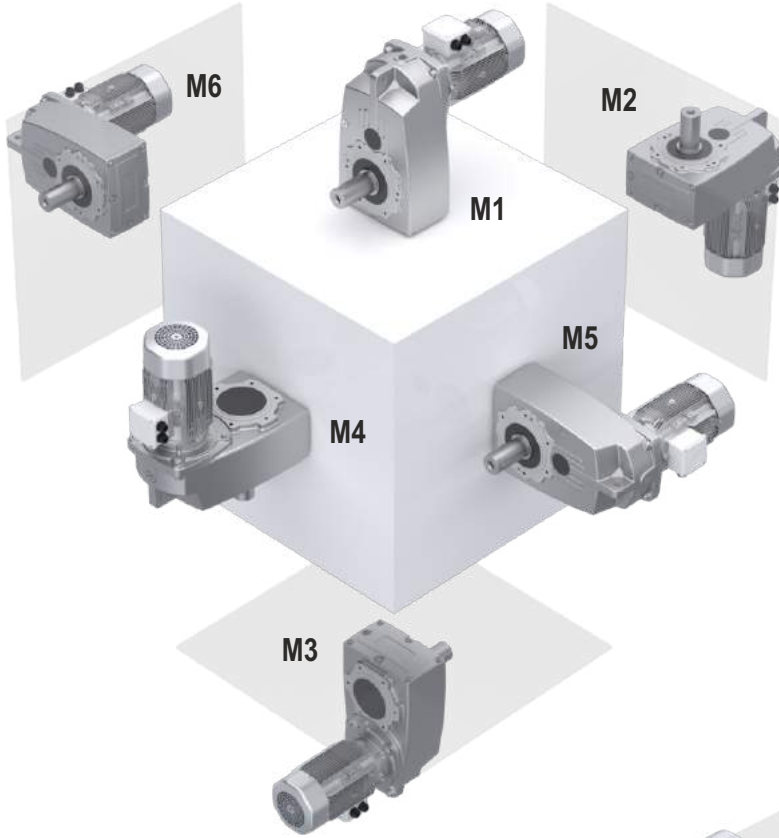
PD A02 - PD 52  
PD C13 - PD 53



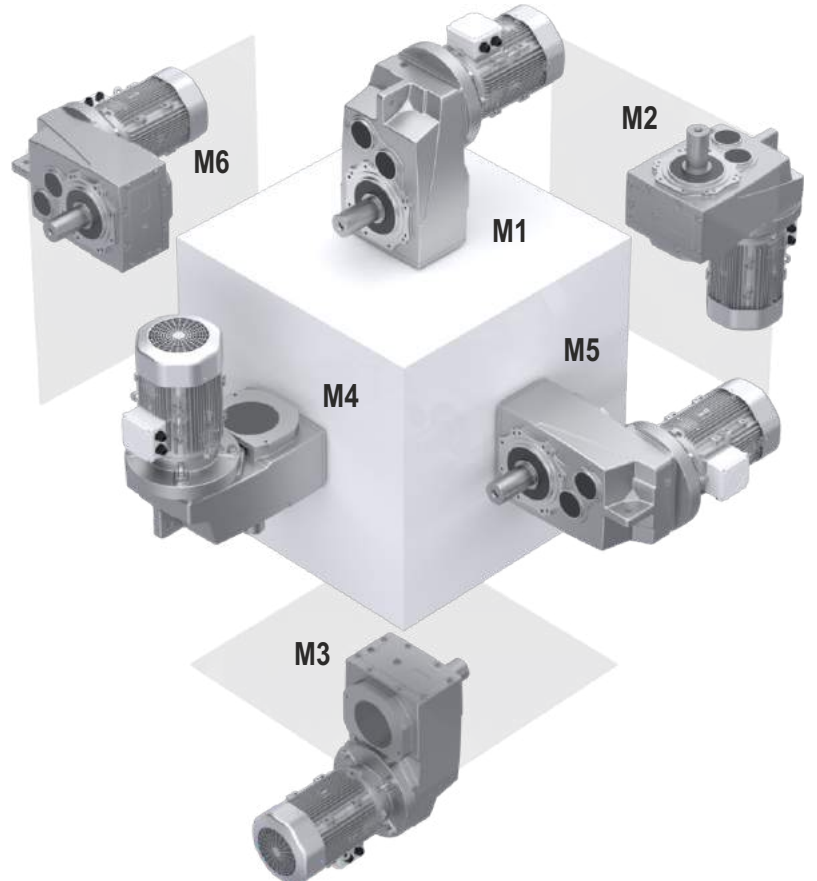
PD 62 - PD 112  
PD 63 - PD 123



PM A02 - PM 52  
PM C13 - PM 53



PM 62 - PM 112  
PM 63 - PM 123



TR

YAĞLAMA

EN

LUBRICATION

DE

SCHMIERUNG

Redüktör içerisindeki yağın basıncının artması yağ sızıntılarına neden olabilmektedir. Bunu önlemek için çalıştırılmadan ya da uzun süreli depolama yapılmadan önce havalandırma tapasının kapağı sökülmelidir.

Montaj aşamasında redüktörlerimiz en uygun mineral yağ ile yağlama prosesini en iyi yapacak şekilde doldurur ve sevkiyatta bu şekilde gönderilir. Yapılan bu ilk doldurma, aşağıdaki tablodan uygun ortam sıcaklığına karşılık gelen (normal tasarım) uygun yağlayıcı ile yapılır. Bunlar dışındaki ortam sıcaklıkları için uygun yağlayıcılar ek bir ücret karşılığında tarafımızca temin edilebilir.

Redüktöre doldurulan yağlayıcı (mineral yağ) her 10000 saat çalışma süresi ya da 2 yıl içinde değiştirilmelidir. Eğer sentetik yağlayıcı kullanılır ise bu süreler 2 katına çıkarılabilir. Yani her 20000 saat veya 4 yılda bir değişim sağlanabilir. Çalışma süresi saat cinsinden belirtilen süreye gelmiş ise yağ değişimi için çalışma yılının dolması beklenmez. Yağ değişiminin daha sık aralıklarla yapılması tavsiye edilir. Bu gibi durumlarda yağ değişiminin yanı sıra kapsamlı bir temizlik de yapılmalıdır.

Yağ değişimi sonrasında özellikle ilk dolulmadan sonra ilk birkaç saatlik çalışma esnasında yağ seviyesinde azalmalar gözlemlenebilir. Bu azalma tolerans dahilinde de öngörülen bir azalmadır.

Müşterinin açık talebi üzerine ek bir ücret karşılığında yağ seviyesi gösterge tapası takabilmekteyiz. Yağ seviyesi gösterge tapası kullanarak müşterinin yağ seviyesini gözlemlemesi ve yaklaşık olarak seviye düzeltilmesini yapmasını tavsiye ederiz. İki saatlik bir operasyonel çalışmanın ardından redüktör stabil bir hale gelir ve soğur. Bu süre zarfında yağ seviyesi gösterge tapasından gerekli kontrol yapılır ve gerekli yağ seviye düzeltilmesi yapılabilir.

Redüktör normal olarak mineral yağ ile dolu olarak gelmektedir. Extra ücretlendirme ile sentetik yağ talep edilebilir.

# -30°C nin altında ve 60°C nin üzerindeki ortam sıcaklıkları için shaft üzerinde kullanılan tüm sızdırmazlık elemanları özel kalite malzeme olmalıdır.

If the pressure of oil within reducer increases, there may be leakage. To prevent this, before working or storage for a long time, the cover of ventilation plug should be removed.

At montage step, reducers are filling with more suitable mineral oil and this oil makes lubrication process the best. Products are sent to shipment in this way. This initial filling is done with suitable lubricant corresponding to the appropriate ambient temperature (normal design) from the table below. Lubricants which are suitable for temperatures other than these ambient temperatures can be supplied by us with an additional cost.

The lubricant (mineral oil) which is filled to the reducer should be changed every 10000 hours of operation or at most two years period. If synthetic oil is used, these times could be twice. That is, it can be replaced every 20000 hours of operation or 4 years period. If the working time has reached the specified time in hours, it is not necessary to wait finish working year. It is advised that you should change lubricant more frequently. In this case, addition to lubrication change, you should clean it comprehensively. After changing lubrication, especially for first time, you can see decrease at lubrication level. This decrease is in our tolerance.

If our customer has request from us for oil level plug, we can deliver it with additional costs. We advice to customer that they should check oil level by oil level plug, and correct oil level. After operational working 2 hours, the reducer will be stable and cool. In this time period, you can check oil level from the window of oil level plug and correct oil level.

Normally, reducer will come with mineral oil but, with extra price, you can obtain synthetic oil.

# Different materials should be used for sealings at operation temperature where temperature is below -30 °C and above 60 °C

Vor Inbetriebnahme und längerem Lagern ist der Verschleiß der Entlüftungsschraube zu entfernen, um einen Überdruck im Getriebe und eine damit verbundene mögliche Undichtigkeit zu vermeiden.

Getriebe sind bei der Auslieferung, betriebsfertig mit geeignetem Mineralöl befüllt. Die Erstbefüllung erfolgt mit geeignetem Schmierstoff entsprechend der geeigneten Umgebungstemperatur (Normalausführung) aus der folgenden Tabelle. Für andere Umgebungstemperaturen sind die entsprechenden Schmierstoffe gegen Mehrpreis erhältlich. Bei Befüllung mit Mineralöl sollte ein Schmierstoffwechsel alle 10.000 Betriebsstunden oder nach zwei Jahren durchgeführt werden. Bei synthetischem Öl verdoppeln sich diese Laufzeiten. Ein Wechsel kann somit alle 20.000 Stunden oder 4 Jahre durchgeführt werden. Wenn die Betriebszeit die angegebene Zeit in Stunden erreicht hat, ist das Betriebsjahr für den Ölwechsel nicht abzuwarten. Kürzere Intervalle für den Ölwechsel werden empfohlen. Es ist empfehlenswert, den Schmierstoffwechsel mit gründlicher Reinigung des Getriebes zu verbinden. Nach einem Schmierstoffwechsel und insbesondere nach der Erstfüllung kann sich der Ölstand in den ersten Betriebsstunden geringfügig ändern, da sich Ölkanäle und Hohlräume erst im Betrieb langsam füllen. Der Ölstand liegt dann immer noch in der zulässigen Toleranz.

Falls auf ausdrücklichen Kundenwunsch gegen Mehrpreis ein Ölschauglas eingebaut wird, empfehlen wir kundenseitig den Ölstand zu beobachten und diesen ungefähr zu korrigieren. Nach zwei Stunden Betriebszeit stabilisiert sich das Getriebe und kühlt ab. Während dieser Zeit erfolgt die notwendige Kontrolle über das Ölschauglas und die notwendige Ölstandskorrektur kann vorgenommen werden. Die Normalbefüllung der Getriebe ist Mineralöl. Synthetisches Öl ist gegen Mehrpreis lieferbar.

Bei Umgebungstemperaturen unterhalb -30°C und oberhalb 60°C sind alle an der Welle verwendeten Dichtelemente in besonderer Werkstoffqualität einzusetzen.

**Not: Sentetik ve mineral yağlayıcılar birbirine karıştırılmamalıdır.**

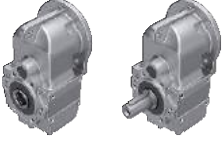
Note: It is important that different kinds of oil (synthetic and mineral oil) should not be mixed.

Bemerkung: Synthetische und mineralische Schmierstoffe dürfen nicht gemischt werden.

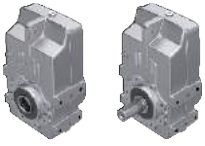
| Redüktör Tipi<br>Type of gearbox<br>Getriebetyp | Yağ Tipi<br>Type of Lubricant<br>Schmierstoffsorte                               | Ortam Sıcaklığı / Ambient Temp. °C / Umgebungs-temperatur                    | ISO viskozite sınıfı<br>viscosity class<br>Viskositäts-klasse | SHELL                       | MOBİL                                      | BP                     | ESSO                               | DEA                                     | ARAL                                           | CASTROL                                       | TRIBOL                                                       | KLÜBER                                                |
|-------------------------------------------------|----------------------------------------------------------------------------------|------------------------------------------------------------------------------|---------------------------------------------------------------|-----------------------------|--------------------------------------------|------------------------|------------------------------------|-----------------------------------------|------------------------------------------------|-----------------------------------------------|--------------------------------------------------------------|-------------------------------------------------------|
| Helisel Dişli Redüktör<br>Helical Gearboxes     | Mineral yağ<br>Mineral oil<br>Mineralöl                                          | - 5...40<br>Normal                                                           | ISO VG 220                                                    | Shell Omala Oel 220         | Mobilgear 600 XP 220                       | Energol GR-XP 220      | Spartan EP 220                     | Deagear DX SAE 85W-90<br>Falcon CLP 220 | Degol BG 220                                   | Alpha SP 220<br>Alpha MW 220<br>Alpha MAX 220 | Tribol 1100/220                                              | Klüberoil GEM 1-220                                   |
|                                                 |                                                                                  | -15...25                                                                     | ISO VG 100                                                    | Shell omala Oel 100         | Mobilgear 600 XP 150                       | Energol GR-XP 100      | Spartan EP 100                     | Deagear DX SAE 80W<br>Falcon CLP 150    | Degol BG 100                                   | Alpha SP 100<br>Alpha MW 100<br>Alpha MAX 220 | Tribol 1100/100                                              | Klüberoil GEM 1-100                                   |
|                                                 | # - 50...-15                                                                     | ISO VG 15                                                                    | Shell Tellus Oel T 15                                         | Mobil DTE 10<br>Excel 15    | Bartran HV 15                              | Univis J 13            | Alkraft Hydraulic Oil 15           | Vitamol 1010                            | Hyspin SP 15<br>Hyspin ZZ 15                   | Tribol 770                                    | Isoflex MT 30 rot                                            |                                                       |
| Stirradgetriebe                                 | Sentetik yağ<br>Synthetic oil<br>Synthetisches Öl                                | - 25...80                                                                    | ISO VG 220                                                    | Shell Tivela Oel WB         | Mobil Glygoyle 30                          | Enersyn SG-XP 220      | ESSO Glycolube 220                 | Polydea PGLP 220                        | Degol GS 220                                   | Alphasyn PG 220                               | Tribol 800/220                                               | Klübersynth GH 6 - 220                                |
|                                                 |                                                                                  | Biyolojik Sentetik yağ<br>Biodegradable oil<br>Biologisches Synthetisches Öl | - 25...80                                                     | ISO VG 220                  |                                            |                        |                                    | Plantogear 220 S                        | Bio-Degol S 220                                | Carelube GES 220                              | Tribol Bio Top1418/220                                       | Klüber - Bio GM 2 - 220                               |
|                                                 | Gıda yağları<br>Food - grade oil<br>Lebensmittelle                               | - 25...80                                                                    | ISO VG 220                                                    | Cassida 220                 | Mobil SHC Cibus 220                        |                        | GEAR OIL FM 220                    | Renolin 220                             | Degol FG 220                                   | OPTIMOL optileb GE 220                        | Tribol Food Proof 1810/220                                   | Klüberoil 4UH1 - 220                                  |
| Rulmanlar Bearings Lager                        | Akışkan sentetik gres<br>Synthetic fluid grease<br>Fließendes synthetisches Fett | - 35...60                                                                    |                                                               | Shell Tivela compound A     | Mobil SHC Polyrex 005                      | Enersyn GSF            | Fliessfett S 420                   | Glissando 6833 EP 00                    | Aralub SKA 00                                  | Alpha Gel 00                                  | Tribol 800/1000                                              | Klübersynth GE 46 - 1200                              |
|                                                 |                                                                                  | Mineral yağlı gres<br>Mineral oil grease<br>Mineralölfett                    | - 30...60<br>Normal<br># 50...110                             |                             | Alvania Fett R 3 oder<br>Alvania Fett RL 3 | Mobilux 3<br>Mobilux 2 | Energrease LS 3<br>Energrease LS 2 | Beacon 3<br>Beacon 2                    | Glissando 30<br>Glissando 20<br>Glissando FT 3 | Aralub HL 3<br>Aralub HL 2<br>Aralub BAB EP 2 | Spheerol AP 3<br>Spheerol AP 2<br>LZV - EP<br>Spheerol EPL 2 | Tribol 3030/100-2<br>Tribol 4020/220-2<br>Tribol 3785 |
|                                                 | Sentetik gres<br>Synthetic grease<br>synthetisches Fett                          | # - 50...110                                                                 |                                                               | Aero Shell Grease 16 oder 7 | Mobiltemp SHC 32                           |                        | Beacon 325                         | Discor 8 - EP 2                         | Aralub SKL 2                                   | Product 783/46                                | Tribol 3499                                                  | Isoflex Topas NB52                                    |

İki KADEME / DOUBLE STAGE / ZWEISTUFIG


## Yağ Miktarı - Litre (L)

|  | Tip / Type<br>Typ | M1   | M2   | M3   | M4   | M5   | M6   |
|-----------------------------------------------------------------------------------|-------------------|------|------|------|------|------|------|
|                                                                                   | PD/PM A02         | 0.50 | 0.70 | 0.50 | 0.60 | 0.35 | 0.35 |

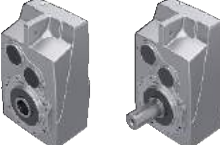
## Yağ Miktarı - Litre (L)

|  | Tip / Type<br>Typ | M1   | M2   | M3   | M4   | M5   | M6   |
|-----------------------------------------------------------------------------------|-------------------|------|------|------|------|------|------|
|                                                                                   | PD/PM B02         | 0.80 | 1.10 | 0.90 | 1.20 | 0.75 | 0.75 |

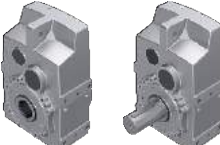
## Yağ Miktarı - Litre (L)

|  | Tip / Type<br>Typ | M1   | M2   | M3   | M4   | M5   | M6   |
|-------------------------------------------------------------------------------------|-------------------|------|------|------|------|------|------|
|                                                                                     | PD/PM 12          | 0.90 | 1.40 | 1.00 | 1.30 | 0.90 | 0.90 |
|                                                                                     | PD/PM 22          | 1.70 | 2.50 | 2.10 | 2.10 | 1.50 | 1.50 |
|                                                                                     | PD/PM 32          | 3.20 | 4.20 | 3.70 | 4.20 | 2.70 | 2.70 |
|                                                                                     | PD/PM 42          | 4.80 | 6.60 | 5.40 | 5.50 | 4.20 | 4.20 |
|                                                                                     | PD/PM 52          | 7.60 | 9.00 | 8.50 | 9.50 | 6.60 | 6.60 |

## Yağ Miktarı - Litre (L)

|  | Tip / Type<br>Typ | M1    | M2    | M3    | M4    | M5    | M6    |
|-------------------------------------------------------------------------------------|-------------------|-------|-------|-------|-------|-------|-------|
|                                                                                     | PD/PM 62          | 16.00 | 17.50 | 15.50 | 17.60 | 10.10 | 13.50 |
|                                                                                     | PD/PM 72          | 24.00 | 25.00 | 21.00 | 27.10 | 16.10 | 20.00 |
|                                                                                     | PD/PM 82          | 35.00 | 40.00 | 33.50 | 41.50 | 28.50 | 30.50 |

## Yağ Miktarı - Litre (L)

|  | Tip / Type<br>Typ | M1     | M2     | M3     | M4     | M5     | M6     |
|-------------------------------------------------------------------------------------|-------------------|--------|--------|--------|--------|--------|--------|
|                                                                                     | PD/PM 92          | 68.00  | 77.00  | 55.50  | 75.00  | 50.00  | 56.00  |
|                                                                                     | PD/PM 102         | 90.10  | 90.10  | 40.10  | 90.10  | 60.10  | 82.10  |
|                                                                                     | PD/PM 112         | 166.00 | 161.00 | 146.00 | 196.00 | 101.00 | 141.00 |

TR

YAĞ MİKTAR TABLOSU

EN

LUBRICATION LEVELS

DE

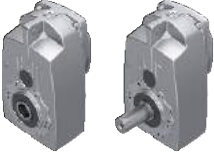
SCHMIERSTOFFTABELLE

ÜÇ KADEME / TRIPLE STAGE / DREISTUFIG

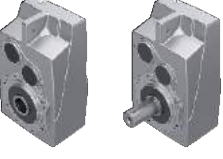
Yağ Miktarı - Litre (L)

|                                                                                   |  | Tip / Type<br>Typ | M1   | M2   | M3   | M4   | M5   | M6   |
|-----------------------------------------------------------------------------------|--|-------------------|------|------|------|------|------|------|
|  |  | PD/PM C13         | 1.40 | 2.40 | 1.50 | 2.20 | 1.80 | 1.80 |

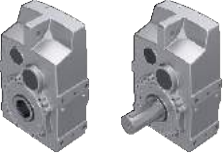
Yağ Miktarı - Litre (L)

|                                                                                   |  | Tip / Type<br>Typ | M1    | M2    | M3   | M4    | M5   | M6   |
|-----------------------------------------------------------------------------------|--|-------------------|-------|-------|------|-------|------|------|
|  |  | PD/PM 13          | 1.50  | 1.70  | 1.50 | 1.80  | 1.10 | 1.10 |
|                                                                                   |  | PD/PM 23          | 1.80  | 2.70  | 2.00 | 3.10  | 1.60 | 1.60 |
|                                                                                   |  | PD/PM 33          | 4.20  | 4.20  | 3.40 | 5.50  | 3.00 | 3.00 |
|                                                                                   |  | PD/PM 43          | 6.00  | 7.80  | 5.00 | 8.70  | 4.70 | 4.70 |
|                                                                                   |  | PD/PM 53          | 11.50 | 12.00 | 6.80 | 13.50 | 7.00 | 7.00 |

Yağ Miktarı - Litre (L)

|                                                                                     |  | Tip / Type<br>Typ | M1    | M2    | M3    | M4    | M5    | M6    |
|-------------------------------------------------------------------------------------|--|-------------------|-------|-------|-------|-------|-------|-------|
|  |  | PD/PM 63          | 16.00 | 17.50 | 10.50 | 18.10 | 14.50 | 12.50 |
|                                                                                     |  | PD/PM 73          | 22.10 | 20.10 | 16.10 | 26.00 | 22.00 | 18.50 |
|                                                                                     |  | PD/PM 83          | 33.80 | 37.50 | 25.10 | 38.50 | 34.00 | 29.00 |

Yağ Miktarı - Litre (L)

|                                                                                     |  | Tip / Type<br>Typ | M1     | M2     | M3     | M4     | M5     | M6     |
|-------------------------------------------------------------------------------------|--|-------------------|--------|--------|--------|--------|--------|--------|
|  |  | PD/PM 93          | 70.00  | 73.00  | 45.10  | 74.10  | 62.50  | 54.00  |
|                                                                                     |  | PD/PM 103         | 84.50  | 97.50  | 74.00  | 101.00 | 74.00  | 66.00  |
|                                                                                     |  | PD/PM 113         | 161.00 | 156.00 | 141.00 | 211.00 | 156.00 | 136.00 |
|                                                                                     |  | PD/PM 123         | 161.00 | 156.00 | 141.00 | 211.00 | 156.00 | 136.00 |

TR

KİLİT

Opsiyonel olarak redüktörlerimize kilit sistemi koymaktayız. Kilit sistemimiz yalnızca tek bir dönüş yönüne müsaade vermektedir (saat yönü ya da saatin tersi yönü). Aksi yönde dönüş, kilit sistemi tarafından engellenmektedir.

Üç fazlı motor gövde büyüklüğü 80 ve üzeri AC motorlar ve W (serbest giriş mili) kovanları yağlaması yapılmış kilit sistemi ile donatılabilir.

Kilit sistemi istenildiğinde çıkartılabilir. Kilit sistemi merkezkaç kuvveti tarafından kontrol edilir ve dönüş hızı  $n1 > 900$  dev/dk ise yağlanma ile aşınmasız çalışır.

Dönüş yönünün tanımlanması her zaman çıkış şaftına ya da miline göre olur. Konik sıkırtma kullanılan redüktörlerde konik sıkırtma diski, kullanılan konik sıkırtma şaftının aksi tarafında bulunur. Konik sıkırtmalı redüktörler için dönüş yönü, konik sıkırtmalı şafta göre belirlenir.

**Dikkat:** Sistemi devreye almadan önce motorun ve redüktörün dönüş yönleri kontrol edilmelidir. Redüktör üzerindeki oklar size dönüş yönünü gösterecektir.

**CW** : Saat yönü

**CCW** : Saat yönü tersi

EN

BACKSTOP

Our reducers includes backstop system optionally. Backstop system permits only one direction of rotation (clockwise or counterclockwise). Opposite direction of rotation is prevented by backstop system.

Motors which are three phase and case dimensions upper than 80 and free input shafts can be used with lubricated backstop systems.

You can remove backstop system when you want. Backstop system is controlled by centrifugal force and works without corrosion if the rotation speed upper than  $900 \text{ min}^{-1}$ .

Rotation direction is decided according to output shaft. For reducers with shrink disc, it is at opposite direction of tip of output shaft which includes shrink disc connector.

**Caution:** Before starting, the direction of rotation of the gear unit and motor must be checked to avoid the risk of a breakage.

**CW** : Clockwise

**CCW** : Counterclockwise

DE

RÜCKLAUFSPERRE

Optional bieten wir für unsere Getriebe Rücklaufsperran. Rücklaufsperran ermöglichen den Lauf in nur eine Drehrichtung (im Uhrzeigersinn oder gegen den Uhrzeigersinn). Drehung in die entgegengesetzte Richtung wird durch die Rücklaufsperran verhindert.

Drehstrommotoren ab Baugröße 80, Wechselstrommotoren und W-Adapter (freie Antriebswelle) können mit geschmierten Rücklaufsperran ausgestattet werden.

Die Rücklaufsperran kann auf Wunsch entfernt werden. Die Rücklaufsperran ist fliehkraftgesteuert und läuft bei einer Drehzahl  $n1 > 900 \text{ U/min}$  mit Ölung verschleißfrei.

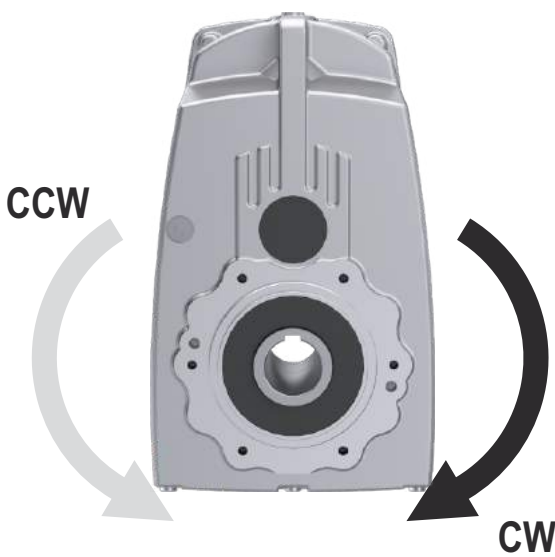
Die Drehrichtung wird immer mit Blick auf die Abtriebs-Hohlwelle oder -Vollwelle angegeben. Bei Getrieben mit Schrumpfscheibe befindet sich die Schrumpfscheibe gegenüber dem Abtriebswellenende. Die Drehrichtung für Getriebe mit Schrumpfscheibe wird auch nach diesem Abtriebswellenende bestimmt.

**Achtung:** Vor Inbetriebnahme der Anlage die Drehrichtung des Motors und des Getriebes prüfen. Pfeile auf dem Getriebe zeigen die Drehrichtung an.

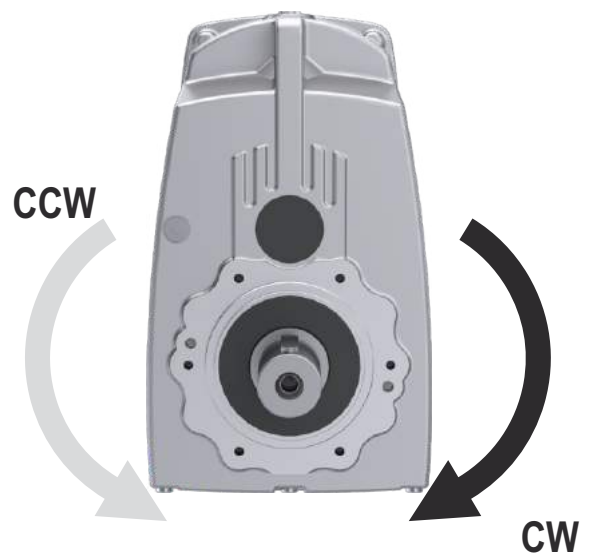
**CW:** Im Uhrzeigersinn

**CCW:** Gegen den Uhrzeigersinn

PD



PM



TR

TOLERANSLAR

**MOTOR VE REDÜKTÖRLERDE BOYUT - ÇİZİM BİLGİLERİ**

Motor ölçüleri istenen opsiyona göre değişebilir.

**DELİK MİLLİLER**

Delik mil çapı toleransı için ( DIN 748 ) ISO H7.  
Müşteri mili çap toleransı ISO h6.  
"H" yüklemeye tipi bulunuyorsa ISO k6.

**IEC - ADAPTÖR**


Flanş merkezi çap toleransı için ISO H7

**GİRİŞ VE ÇIKIŞ ŞAFTLARI**

Mil çapı toleransı ( DIN 748 ) :

Ø 14 ile Ø 50 mm arası için ISO k6,  
Ø 50 mm üzeri için ISO m6

Şaftta diş çekilmiş delikler için DIN 332/2 ye göre;

|                |     |                                                                                               |
|----------------|-----|-----------------------------------------------------------------------------------------------|
| = Ø 13 - Ø 16  | M5  |                                                                                               |
| > Ø 16 - Ø 21  | M6  |                                                                                               |
| > Ø 21 - Ø 24  | M8  |                                                                                               |
| > Ø 24 - Ø 30  | M10 |  185 - 243 |
| > Ø 30 - Ø 38  | M12 |                                                                                               |
| > Ø 38 - Ø 50  | M16 |                                                                                               |
| > Ø 50 - Ø 85  | M20 |                                                                                               |
| > Ø 85 - Ø 130 | M24 |                                                                                               |

Kama yatakları DIN 6885  
Şaft boyu "h" DIN 747

**FLANŞLAR**

Flanş merkezi çap toleransı ( DIN 42948 );  
≤ Ø 230 mm' ye kadar ISO j6,  
> Ø 230 mm üzeri için ISO h6

EN

TOLERANCES

**DIMENSION - DRAWINGS**

Motor dimension could be changed according to customer purchase.

**HOLLOW SHAFTS**

Tolerance of hollow shaft (DIN 748) ISO H7.  
Tolerance of customer's solid shaft which is used for hollow shaft ISO h6.  
With type of load classification 'H' which is heavyshock operation ISO k6.

**IEC - ADAPTER**


Diameter tolerance of flange centering is machined according to ISO H7.

**INPUT AND OUTPUT SHAFT**

Tolerances of solid shaft ( DIN 748 ) :

between Ø 14 - Ø 50 mm to ISO k6,  
greater than Ø 50 mm to ISO m6.

Tapped center hole is machined according to DIN 332, sheet 2 ;

|                |     |                                                                                               |
|----------------|-----|-----------------------------------------------------------------------------------------------|
| = Ø 13 - Ø 16  | M5  |                                                                                               |
| > Ø 16 - Ø 21  | M6  |                                                                                               |
| > Ø 21 - Ø 24  | M8  |                                                                                               |
| > Ø 24 - Ø 30  | M10 |  185 - 243 |
| > Ø 30 - Ø 38  | M12 |                                                                                               |
| > Ø 38 - Ø 50  | M16 |                                                                                               |
| > Ø 50 - Ø 85  | M20 |                                                                                               |
| > Ø 85 - Ø 130 | M24 |                                                                                               |

Keyways are machined according to DIN 6885, sheet 1  
Shaft heights are machined according to "h" to DIN 747

**FLANGES**

Diameter tolerance of flange centering is machined according to (DIN 42948);  
≤ Ø 230 mm to ISO j6,  
> Ø 230 mm to ISO h6

DE

TOLERANZEN

**ABMESSUNGEN - ZEICHNUNGSMITTELMEN  
MOTOR UND GETRIEBE**

Die Abmessungen des Motors können je nach gewünschter Option geändert werden.

**HOHLWELLEN**

Toleranz der Hohlwellen-Durchmesser ( DIN 748 ) nach ISO H7.  
Toleranz der kundenseitigen Welle nach ISO h6,  
bei Lastgrad "H" nach ISO k6

**IEC - ADAPTER**


Toleranz der Flanschzentrierung nach ISO H7

**EIN- UND AUSGANGSWELLE**

Toleranz der Wellen-Durchmesser (DIN 748):

Ø 14 bis Ø 50 mm= ISO k6  
> Ø 50 mm= ISO m6

Gewindebohrungen nach DIN 332/2

|                |     |                                                                                                 |
|----------------|-----|-------------------------------------------------------------------------------------------------|
| = Ø 13 - Ø 16  | M5  |                                                                                                 |
| > Ø 16 - Ø 21  | M6  |                                                                                                 |
| > Ø 21 - Ø 24  | M8  |                                                                                                 |
| > Ø 24 - Ø 30  | M10 |  185 - 243 |
| > Ø 30 - Ø 38  | M12 |                                                                                                 |
| > Ø 38 - Ø 50  | M16 |                                                                                                 |
| > Ø 50 - Ø 85  | M20 |                                                                                                 |
| > Ø 85 - Ø 130 | M24 |                                                                                                 |

Paßfedern nach DIN 6885  
Achshöhe "h" nach DIN 747

**FLANSCHEN**

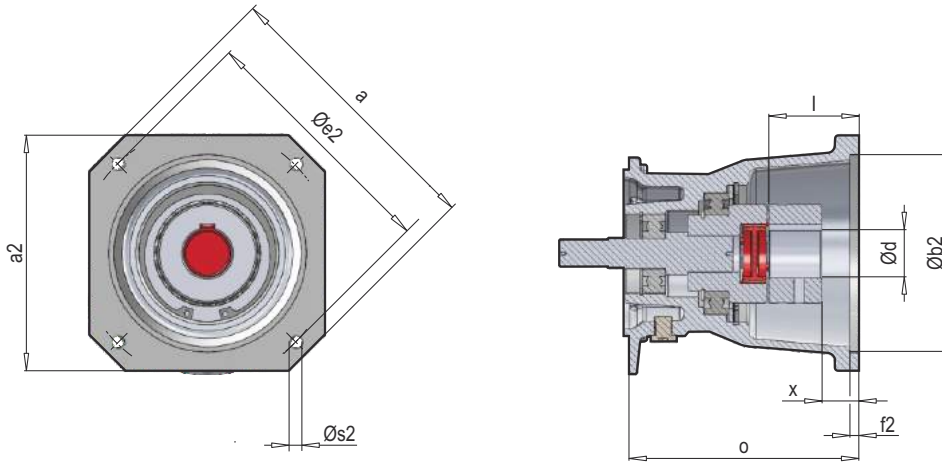
Toleranz der Flanschzentrierung ( DIN 42948 );  
≤ Ø 230 mm nach ISO j6  
> Ø 230 mm nach ISO h6



## TR SERVOMOTOR ADAPTÖRÜ

## EN SERVOMOTOR ADAPTERS

## DE ADAPTER ZUM ANBAU VON SERVOMOTOREN



| Redüktör Tipi<br>Gear Unit Type<br>Getriebetyp | Motor Büyüklüğü / Motor Size /<br>Motorbaumaße |     |     |     |    |     |    | Shaft Ebatı<br>Shaft Size<br>Wellenmaße |    | Silindir<br>Cylinder<br>Zylinder | M <sub>knom</sub><br>[Nm] | Adaptör tipi<br>Adapter type<br>Adaptertyp |
|------------------------------------------------|------------------------------------------------|-----|-----|-----|----|-----|----|-----------------------------------------|----|----------------------------------|---------------------------|--------------------------------------------|
|                                                | a                                              | a2  | b2  | e2  | f2 | s2  | x  | d                                       | l  |                                  |                           |                                            |
| PD/PM 12                                       | 120                                            | 96  | 80  | 100 | 4  | M6  | 15 | 19                                      | 40 | 124                              | 10                        | Servo 100 / 160 S                          |
| PD/PM 12                                       | 165                                            | 126 | 110 | 130 | 4  | M8  | 20 | 24                                      | 50 | 136                              | 35                        | Servo 130 / 160 S                          |
| PD/PM 22 , PD/PM 32                            | 155                                            | 126 | 110 | 130 | 4  | M8  | 20 | 24                                      | 50 | 150                              | 35                        | Servo 130 / 250 S                          |
| PD/PM 12                                       | 186                                            | 155 | 130 | 165 | 5  | M10 | 23 | 32                                      | 58 | 151                              | 95                        | Servo 165 / 160 S                          |
| PD/PM 22 , PD/PM 32                            | 186                                            | 155 | 130 | 165 | 5  | M10 | 23 | 32                                      | 58 | 166                              | 95                        | Servo 165 / 250 S                          |
| PD/PM 22 , PD/PM 32                            | 240                                            | 192 | 180 | 215 | 5  | M12 | 45 | 38                                      | 80 | 187                              | 95                        | Servo 215/ 250 S                           |
| PD/PM 42 , PD/PM 52                            | 240                                            | 192 | 180 | 215 | 5  | M12 | 24 | 38                                      | 80 | 229                              | 310                       | Servo 215/ 300 S                           |
| PD/PM 42 , PD/PM 52                            | 350                                            | 260 | 250 | 300 | 5  | M16 | 26 | 48                                      | 82 | 231                              | 310                       | Servo 300/ 300 S                           |
| PD/PM 62 , PD/PM 72<br>PD/PM 82 , PD/PM 92     | 350                                            | 260 | 250 | 300 | 5  | M16 | 26 | 48                                      | 82 | 249                              | 310                       | Servo 300/ 350 S                           |

SEP tipi servo motor bağlantı adaptörünün bağlantısı kamalı olarak yapılmaktadır. SEK tiplerinde ise servo motor adaptörünün bağlantısı setuskur civata sıkırtması ile yapılmaktadır. Servo motor bağlantı adaptörünün bağlantı flanşının farklı olması durumunda yüksek adetli siparişler üretime alınır.

For connecting SEP adapter which is shown above, servo motor's output shaft is designed with locking key. For connecting SEK type adapter, connecting is supplied with a clamp coupling sleeve. An intermediate flange is required when other servo motor types are used with IEC adapter. Offers are manufactured gladly by PGR.

Der Anschluss des Servomotor-Anschlussadapters Typ SEP erfolgt mit Paßfeder. Bei den SEK-Typen erfolgt der Anschluss des Servomotoradapters durch Anziehen der Anschluss des Servomotoradapters durch Anziehen der Gewindestifte. Bei abweichendem Anschlussflansch des Servomotor-Anschlussadapters werden Aufträge in hoher Stückzahl in Produktion genommen.

TR

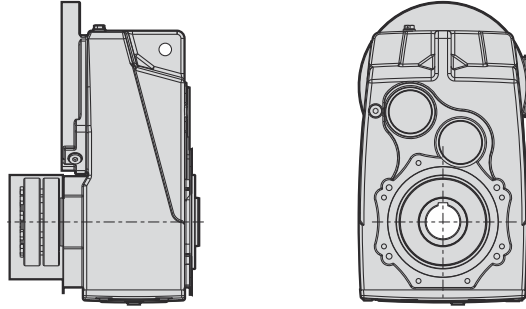
KONİK SIKTIRMA

EN

SHRINK DISC

DE

SCHRUMPFSCHEIBE



| Redüktör Tipi<br>Gear Unit Type<br>Getriebetyp | Konik Sıktırma<br>Shrink Disc<br>Schrumpfscheibe |                          |                 |                 | Altıköşe Başlı Civata<br>Hexagonal Screw<br>Sechskantschraube<br>DIN 931 / DIN 933* 10.9Vz |    |                        |
|------------------------------------------------|--------------------------------------------------|--------------------------|-----------------|-----------------|--------------------------------------------------------------------------------------------|----|------------------------|
|                                                | Tip<br>Type<br>Typ                               | M <sub>max</sub><br>[Nm] | s <sub>h6</sub> | s <sub>f6</sub> | d x l                                                                                      | Zs | M <sub>A</sub><br>[Nm] |
| PD B02 KS-KK                                   | KS 30 / 40                                       | 165                      | 5.9             | 5.2             | M6 X 35*                                                                                   | 8  | 12                     |
| PD C13 KS-KK                                   | KS 35 / 46                                       | 370                      | 3.8             | 3.4             | M6 X 35*                                                                                   | 10 | 12                     |
| PD 12 KS-KK                                    | KS 30 / 40                                       | 296                      | 3.3             | 2.9             | M6 X 35*                                                                                   | 8  | 12                     |
| PD 22 KS-KK                                    | KS 35 / 46                                       | 563                      | 2.6             | 2.2             | M6 X 35*                                                                                   | 10 | 12                     |
| PD 32 KS-KK                                    | KS 40 / 55                                       | 1039                     | 2.3             | 2.0             | M8 X 40                                                                                    | 8  | 30                     |
| PD 42 KS-KK                                    | KS 50 / 62                                       | 2000                     | 2.2             | 2.0             | M8 X 40                                                                                    | 10 | 30                     |
| PD 52 KS-KK                                    | KS 60 / 76                                       | 3235                     | 2.5             | 2.3             | M10 X 50                                                                                   | 10 | 59                     |
| PD 62 KS-KK                                    | KS 70 / 90                                       | 6000                     | 2.3             | 2.2             | M12 X 70*                                                                                  | 10 | 100                    |
| PD 72 KS-KK                                    | KS 80 / 108                                      | 8300                     | 2.5             | 2.4             | M12 X 70*                                                                                  | 14 | 100                    |
| PD 82 KS-KK                                    | KS 100 / 128                                     | 13200                    | 2.3             | 2.2             | M16 X 80*                                                                                  | 8  | 250                    |
| PD 92 KS-KK                                    | KS 125 / 158                                     | 25400                    | 2.3             | 2.2             | M16 X 80*                                                                                  | 12 | 250                    |
| PD 102 KS-KK                                   | KS 160 / 210                                     | 37200                    | 3.6             | 3.4             | M20 X 100                                                                                  | 14 | 490                    |
| PD 112 KS-KK                                   | KS 180 / 230                                     | 69000                    | 1.9             | 1.8             | M20 X 100*                                                                                 | 12 | 490                    |
| PD 122 KS-KK                                   | KS 180 / 230                                     | 90000                    | 4.5             | 4.4             | M30 X 200                                                                                  | 16 | 1700                   |

Aşağıda verilen değerler güçlendirilmiş konik sıktırma ölçüleridir / The values given below is for reinforced shrink disc / Die unten angegebenen Werte sind Maße für verstärkte Schrumpfscheiben.

|               |               |       |      |      |           |    |     |
|---------------|---------------|-------|------|------|-----------|----|-----|
| PD 72 GKS-KK  | GKS 85 / 108  | 8300  | 3.90 | 3.65 | M16 X 90  | 10 | 250 |
| PD 82 GKS-KK  | GKS 100 / 128 | 13200 | 3.57 | 3.35 | M20 X 100 | 8  | 490 |
| PD 92 GKS-KK  | GKS 130 / 158 | 25400 | 3.89 | 3.71 | M20 X 130 | 12 | 490 |
| PD 112 GKS-KK | GKS 180 / 230 | 69000 | 3.69 | 3.57 | M24 X 150 | 16 | 840 |

Daha iyi ve kolay montaj ve demontaj için konik sıktırma tavsiye edilebilir. Hs ölçüsü, civata sıkılmadan önceki ölçüsüdür. Konik sıktırma genellikle kullanıcının mili kullandığı yönün karşısına montaj edilmelidir. Kullanıcı mil uzunluğu ile shaft uzunluğu (mH) uyusmalıdır. Shaft çapı ISO h6 veya f6'ya göre imal edilmelidir. (f6= Kolay montaj)

S = h6 veya f6 ile konik sıktırmanın güvenilirliği.  
MA = Civatayı sıkmak için gerekli olan tork  
Zs = Vida miktarı  
Mamax = max. izin verilebilir çıkış momenti

Yukarıdaki bütün ölçüler W kovanlı, IEC ve PAM adaptörlü helisel konik dişli redüktörler için de geçerlidir.

PGR recommends to use shrink disc for easier installation and disassembly Hs values show dimension before tightening screw. When customer shaft is installed to the gear unit, shrink disc should be mounted on opposite side of it. Consider that, customer shaft must be equal 'mH' dimension which is length of hollow shaft and customer diameter shaft should be machined according to ISO h6 or f6 tolerances.

S = Assurance of shrink disc (with h6 and f6 tolerance)  
MA = Screw torque for tightening  
Zs = Amount of screw  
Mamax = maximum allowable output moment

All of the above dimensions are also valid for helical bevel gear units with free input shaft, IEC and PAM adaptor.

Zur besseren und einfacheren Montage und Demontage kann eine Schrumpfscheibe empfohlen werden. Hs ist die Größe vor dem Anziehen der Schraube. Die Schrumpfscheibe sollten grundsätzlich entgegen der Antriebsrichtung der Kundenwelle montiert werden. Die Länge der Kundenwelle muss der Hohlwelle (mH) entsprechen. Der Durchmesser der Hohlwelle sollte nach ISO h6 oder f6 gefertigt werden. (f6= einfache Montage)

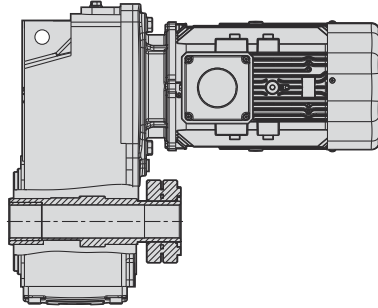
Zuverlässigkeit der Schrumpfscheibe mit S = h6 oder f6.  
MA= Erforderliches Drehmoment zum Anziehen der Schraube  
Zs = Schraubenanzahl  
Mamax = max. zulässiges Abtriebsdrehmoment

Alle oben genannten Maße gelten auch für Kegelradgetriebe mit freier Antriebswelle, IEC- und PAM-Adapter.

TR

## KONİK SIKTIRMA

Motorlu redüktör üniteleri için mevcut konik sıkırtmalı tasarımlar. Tüm çok kademeli motorlu redüktörler için konik sıkırtmalı tasarım mevcuttur.



EN

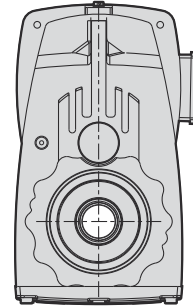
## SHRINK DISC

Parallel shaft geared motor with obtainable shrink disc design. Shrink disc design is obtainable for all multi-stage parallel shaft geared motor.

DE

## SCHRUMPFSCHEIBE

Vorhandene Schrumpfscheibenausführungen für Motor-Getriebe-Einheiten. Schrumpfscheibenausführung für alle mehrstufigen Getriebemotoren erhältlich.



| Redüktör Tipi<br>Gear Unit Type<br>Getriebetyp | 63 M | 71 M | 80 M | 90 S/L | 100 L | 112 M | 132 S/M | 160 S/M | 180 M/L | 200 L | 225 S/M | 250 M | 280 S/M/L | 315 S/M/L |
|------------------------------------------------|------|------|------|--------|-------|-------|---------|---------|---------|-------|---------|-------|-----------|-----------|
| PD B02 KS                                      | ✓    |      |      |        |       |       |         |         |         |       |         |       |           |           |
| PD C13 KS                                      | ✓    |      |      |        |       |       |         |         |         |       |         |       |           |           |
| PD 12 KS                                       | ✓    | ✓    | ✓    |        |       |       |         |         |         |       |         |       |           |           |
| PD 22 KS                                       |      | ✓    | ✓    | ✓      | ✓     |       |         |         |         |       |         |       |           |           |
| PD 32 KS                                       |      | ✓    | ✓    | ✓      | ✓     |       |         |         |         |       |         |       |           |           |
| PD 33 KS                                       |      |      | ✓    | ✓      |       |       |         |         |         |       |         |       |           |           |
| PD 42 KS                                       |      |      |      | ✓      | ✓     | ✓     | ✓       |         |         |       |         |       |           |           |
| PD 52 KS                                       |      |      |      | ✓      | ✓     | ✓     | ✓       | ✓       | *       |       |         |       |           |           |
| PD 62 KS                                       |      |      |      |        | ✓     | ✓     | ✓       | ✓       | ✓       |       |         |       |           |           |
| PD 63 KS                                       |      |      |      | ✓      | ✓     | ✓     | ✓       | ✓       | ✓       |       |         |       |           |           |
| PD 72 KS                                       |      |      |      |        |       |       | ✓       | ✓       | ✓       | ✓     | *       |       |           |           |
| PD 73 KS                                       |      |      |      |        | ✓     | ✓     | ✓       | ✓       | ✓       | ✓     | *       |       |           |           |
| PD 82 KS                                       |      |      |      |        |       |       | ✓       | ✓       | ✓       | ✓     | ✓       |       |           |           |
| PD 83 KS                                       |      |      |      |        | ✓     | ✓     | ✓       | ✓       | ✓       | ✓     | ✓       |       |           |           |
| PD 92 KS                                       |      |      |      |        |       |       |         |         |         | ✓     | ✓       | ✓     | ✓         |           |
| PD 93 KS                                       |      |      |      |        |       |       | ✓       | ✓       | ✓       | ✓     | ✓       | ✓     | ✓         |           |
| PD 102 KS                                      |      |      |      |        |       |       |         |         |         |       |         |       | ✓         | ✓         |
| PD 103 KS                                      |      |      |      |        |       |       |         | ✓       | ✓       | ✓     | ✓       | ✓     | ✓         | ✓         |
| PD 112 KS                                      |      |      |      |        |       |       |         |         |         |       |         |       | ✓         | ✓         |
| PD 113 KS                                      |      |      |      |        |       |       |         | ✓       | ✓       | ✓     | ✓       | ✓     | ✓         | ✓         |
| PD 123 KS                                      |      |      |      |        |       |       |         |         |         | ✓     | ✓       | ✓     | ✓         | ✓         |

Aşağıda verilen bilgiler güçlendirilmiş konik sıkırtma içindir / The information given below is for reinforced shrink disc. / Die folgenden Informationen gelten für eine verstärkte Schrumpfscheibe

|            |  |  |  |  |   |   |   |   |   |   |   |   |   |   |
|------------|--|--|--|--|---|---|---|---|---|---|---|---|---|---|
| PD 72 GKS  |  |  |  |  |   |   | ✓ | ✓ | ✓ |   |   |   |   |   |
| PD 73 GKS  |  |  |  |  | ✓ | ✓ | ✓ | ✓ | ✓ |   |   |   |   |   |
| PD 82 GKS  |  |  |  |  |   |   | ✓ | ✓ | ✓ | ✓ | * |   |   |   |
| PD 83 GKS  |  |  |  |  | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | * |   |   |   |
| PD 92 GKS  |  |  |  |  |   |   |   |   |   | ✓ | ✓ | ✓ | ✓ |   |
| PD 93 GKS  |  |  |  |  |   |   |   | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |   |
| PD 112 GKS |  |  |  |  |   |   |   |   |   |   |   |   | ✓ | ✓ |
| PD 113 GKS |  |  |  |  |   |   |   | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |

\* İşareti talep doğrultusunda temin edilebileceğini gösterir. Lütfen PGR'ye danışınız.

\* Sign shows that it could be provided on your demand. Please, consult PGR.

Das \*-Zeichen zeigt an, dass diese auf Anfrage erhältlich ist. Bitte wenden Sie sich an PGR.

TR

KONİK SIKTIRMA

EN

SHRINK DISC

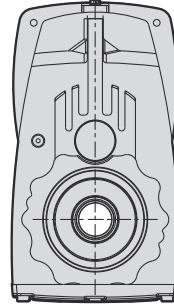
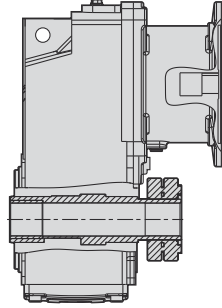
DE

SCHRUMPFSCHEIBE

IEC adaptörlü redüktör üniteleri için mevcut konik sıkırtmalı tasarımlar. Tüm çok kademeli IEC adaptörlü redüktörler için konik sıkırtmalı tasarım mevcuttur.

Parallel shaft gear unit with IEC adapter and obtainable shrink disc designs. Shrink disc design is obtainable for all multi-stage parallel shaft gear unit with IEC adapter.

Vorhandene Schrumpfscheibenausführungen für Getriebe mit IEC-Adapter Schrumpfscheibenausführung für alle mehrstufigen Getriebe mit IEC-Adapter erhältlich.



| Redüktör Tipi<br>Type of Gear Unit<br>Getriebetyp | IEC 63 | IEC 71 | IEC 80 | IEC 90 | IEC 100 | IEC 112 | IEC 132 | IEC 160 | IEC 180 | IEC 200 | IEC 225 | IEC 250 | IEC 280 | IEC 315 |
|---------------------------------------------------|--------|--------|--------|--------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| PD B02 KS                                         | ✓      | ✓      | ✓      | ✓      |         |         |         |         |         |         |         |         |         |         |
| PD C13 KS                                         | ✓      | ✓      | ✓      | ✓      |         |         |         |         |         |         |         |         |         |         |
| PD 12 KS                                          | ✓      | ✓      | ✓      | ✓      |         |         |         |         |         |         |         |         |         |         |
| PD 22 KS                                          |        | ✓      | ✓      | ✓      | ✓       | ✓       |         |         |         |         |         |         |         |         |
| PD 32 KS                                          |        | ✓      | ✓      | ✓      | ✓       | ✓       | ✓       |         |         |         |         |         |         |         |
| PD 33 KS                                          | ✓      | ✓      | ✓      | ✓      |         |         |         |         |         |         |         |         |         |         |
| PD 42 KS                                          |        |        |        | ✓      | ✓       | ✓       | ✓       | ✓       |         |         |         |         |         |         |
| PD 52 KS                                          |        |        |        | ✓      | ✓       | ✓       | ✓       | ✓       | ✓       |         |         |         |         |         |
| PD 62 KS                                          |        |        |        |        | ✓       | ✓       | ✓       | ✓       | ✓       | ✓       | ✓       |         |         |         |
| PD 63 KS                                          |        |        |        | ✓      | ✓       | ✓       | ✓       | ✓       | ✓       |         |         |         |         |         |
| PD 72 KS                                          |        |        |        |        |         |         | ✓       | ✓       | ✓       | ✓       | ✓       |         |         |         |
| PD 73 KS                                          |        |        |        |        | ✓       | ✓       | ✓       | ✓       | ✓       | ✓       | ✓       |         |         |         |
| PD 82 KS                                          |        |        |        |        |         |         | ✓       | ✓       | ✓       | ✓       | ✓       | ✓       | ✓       |         |
| PD 83 KS                                          |        |        |        |        | ✓       | ✓       | ✓       | ✓       | ✓       | ✓       | ✓       |         |         |         |
| PD 92 KS                                          |        |        |        |        |         |         |         |         | ✓       | ✓       | ✓       | ✓       | ✓       | ✓       |
| PD 93 KS                                          |        |        |        |        |         |         | ✓       | ✓       | ✓       | ✓       | ✓       | ✓       | ✓       | ✓       |
| PD 102 KS                                         |        |        |        |        |         |         |         |         |         |         |         | ✓       | ✓       | ✓       |
| PD 103 KS                                         |        |        |        |        |         |         |         | ✓       | ✓       | ✓       | ✓       | ✓       | ✓       | ✓       |
| PD 112 KS                                         |        |        |        |        |         |         |         |         |         |         |         | ✓       | ✓       | ✓       |
| PD 113 KS                                         |        |        |        |        |         |         |         | ✓       | ✓       | ✓       | ✓       | ✓       | ✓       | ✓       |
| PD 123 KS                                         |        |        |        |        |         |         |         | ✓       | ✓       | ✓       | ✓       | ✓       | ✓       | ✓       |

Aşağıda verilen bilgiler güçlendirilmiş konik sıkırtma içindir / The information given below is for reinforced shrink disc. /

Die folgenden Informationen gelten für eine verstärkte Schrumpfscheibe

|            |  |  |  |  |   |   |   |   |   |   |   |   |   |   |
|------------|--|--|--|--|---|---|---|---|---|---|---|---|---|---|
| PD 72 GKS  |  |  |  |  |   |   | ✓ | ✓ | ✓ | ✓ | ✓ |   |   |   |
| PD 73 GKS  |  |  |  |  | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |   |   |   |
| PD 82 GKS  |  |  |  |  |   |   | ✓ | ✓ | ✓ | ✓ | ✓ |   |   |   |
| PD 83 GKS  |  |  |  |  | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |   |   |   |
| PD 92 GKS  |  |  |  |  |   |   |   | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| PD 93 GKS  |  |  |  |  |   |   | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| PD 112 GKS |  |  |  |  |   |   |   |   |   |   |   | ✓ | ✓ | ✓ |
| PD 113 GKS |  |  |  |  |   |   |   | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |

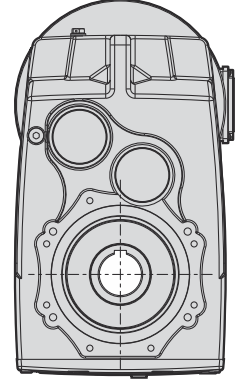
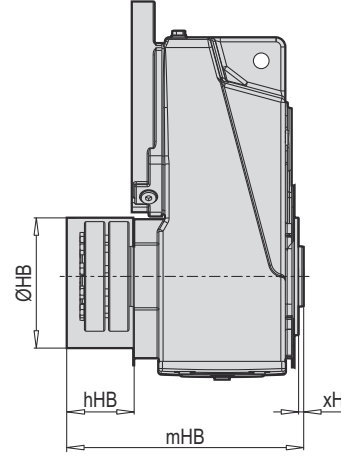
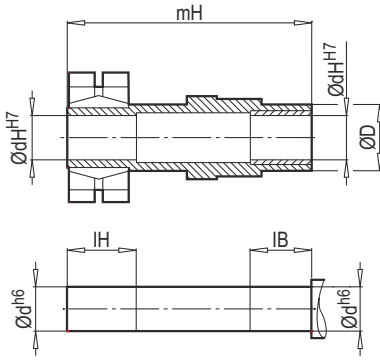
TR

 GÜÇLENDİRİLMİŞ  
 KONİK ŞİKTİRMA KAPAĞI

EN

COVER OF REINFORCED SHRINK DISC

DE

 SCHUTZDECKEL FÜR VERSTÄRKTE  
 SCHRUMPFSCHEIBE


| Tip / Type / Typ                   | ØD  | ØdH <sup>H7</sup> | Ød <sup>h6</sup> | IB    | IH  | mH  | xH   | hHB | HB  | mHB |
|------------------------------------|-----|-------------------|------------------|-------|-----|-----|------|-----|-----|-----|
| PD 72 GKS - KK<br>PD 73 GKS - KK   | 110 | 85                | 85               | 56    | 120 | 429 | 6.0  | 149 | 260 | 448 |
| PD 82 GKS - KK<br>PD 83 GKS - KK   | 130 | 100               | 100              | 71.5  | 149 | 510 | 7.0  | 200 | 308 | 546 |
| PD 92 GKS - KK<br>PD 93 GKS - KK   | 160 | 130               | 130              | 82    | 182 | 607 | 10.0 | 238 | 367 | 634 |
| PD 112 GKS - KK<br>PD 113 GKS - KK | 240 | 180               | 180              | 101.5 | 195 | 755 | 10.0 | 258 | 458 | 786 |

TR

PD/PM B14 FLANŞLI

EN

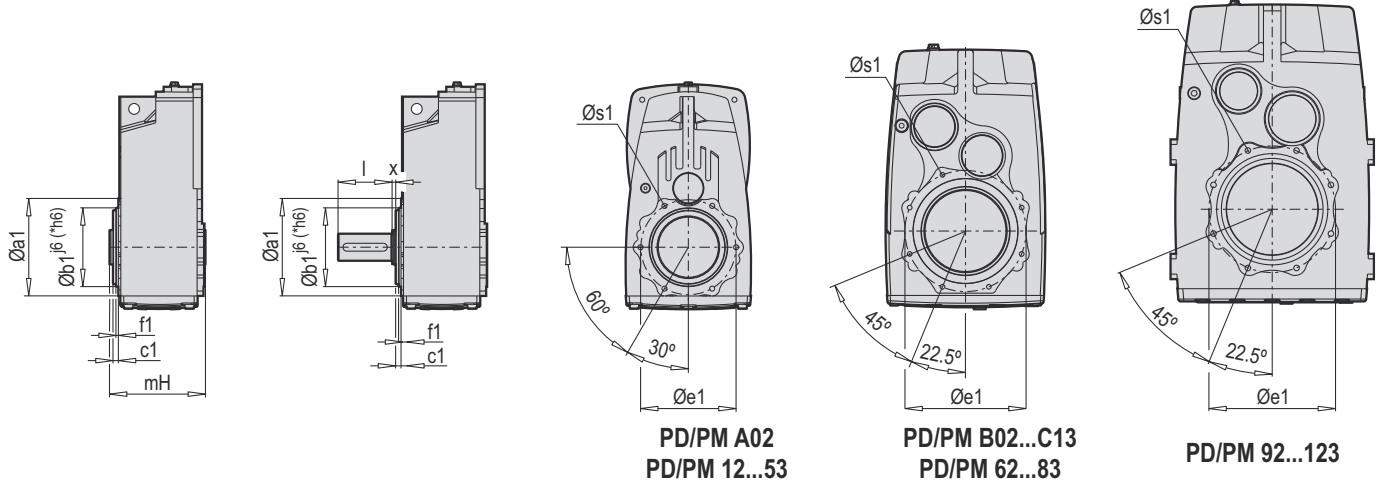
PD/PM WITH B14 FLANGE

DE

PD/PM B14 FLANSCH

**PD/PM B14 FLANŞLI ÖLÇÜ TABLOSU**

DIMENSION TABLE OF PD/PM WITH B14 FLANGE / PD/PM B14 FLANSCH ABMESSUNGSTABELLE



**PD/PM A02  
PD/PM 12...53**

**PD/PM B02...C13  
PD/PM 62...83**

**PD/PM 92...123**

| Tip / Type / Typ                    | Øa1 | Øb1  | c1 | Øe1 | f1 | Øs1    | mH  | l   | x   |
|-------------------------------------|-----|------|----|-----|----|--------|-----|-----|-----|
| PD/PM A02 B14                       | 100 | 70   | -  | 85  | 3  | M8X14  | 100 | 50  | 3   |
| PD/PM B02 B14                       | 120 | 80   | -  | 100 | 3  | M6X10  | 122 | 50  | 3   |
| PD/PM C13 B14                       | 140 | 95   | -  | 115 | 6  | M8X13  | 176 | 60  | 3   |
| PD/PM 12 B14                        | 140 | 95   | 13 | 115 | 6  | M8X13  | 122 | 60  | 4   |
| PD/PM 13 B14                        |     |      |    |     |    |        |     |     |     |
| PD/PM 22 B14                        | 160 | 110  | 12 | 130 | 5  | M8X13  | 139 | 70  | 5   |
| PD/PM 23 B14                        |     |      |    |     |    |        |     |     |     |
| PD/PM 32 B14                        | 200 | 130  | -  | 165 | 7  | M10X16 | 174 | 90  | 6   |
| PD/PM 33 B14                        |     |      |    |     |    |        |     |     |     |
| PD/PM 42 B14                        | 230 | 160  | 11 | 194 | 5  | M12X20 | 195 | 110 | 7   |
| PD/PM 43 B14                        |     |      |    |     |    |        |     |     |     |
| PD/PM 52 B14                        | 250 | 180  | 9  | 215 | 5  | M12X20 | 230 | 130 | 7.5 |
| PD/PM 53 B14                        |     |      |    |     |    |        |     |     |     |
| PD/PM 62 B14                        | 300 | 230  | 11 | 265 | 4  | M12X20 | 290 | 140 | 8.5 |
| PD/PM 63 B14                        |     |      |    |     |    |        |     |     |     |
| PD/PM 72 B14                        | 350 | *250 | 11 | 300 | 5  | M16X25 | 310 | 170 | 6   |
| PD/PM 73 B14                        |     |      |    |     |    |        |     |     |     |
| PD/PM 82 B14                        | 400 | *300 | 13 | 350 | 5  | M16X25 | 366 | 210 | 7   |
| PD/PM 83 B14                        |     |      |    |     |    |        |     |     |     |
| PD/PM 92 B14                        | 450 | *350 | 14 | 400 | 5  | M20X30 | 430 | 250 | 10  |
| PD/PM 93 B14                        |     |      |    |     |    |        |     |     |     |
| PD 102-103 KS-B14<br>PM 102-103 B14 | 550 | *450 | -  | 500 | 8  | M24X36 | 660 | 300 | 10  |
| PD 112-113 KS-B14<br>PM 112-113 B14 | 550 | *450 | -  | 500 | 8  | M24X36 | 675 | 300 | 10  |
| PD 123 KS-B14<br>PM 123 B14         | 550 | *450 | 18 | 500 | 8  | M24X36 | 845 | 300 | 10  |

TR

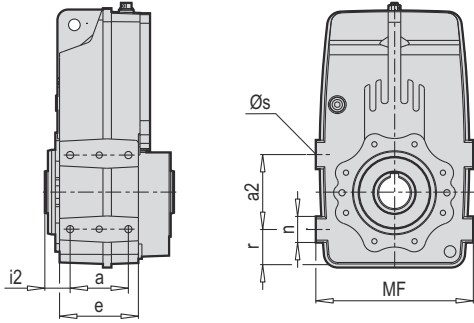
MONTAJ ÖLÇÜLERİ

EN

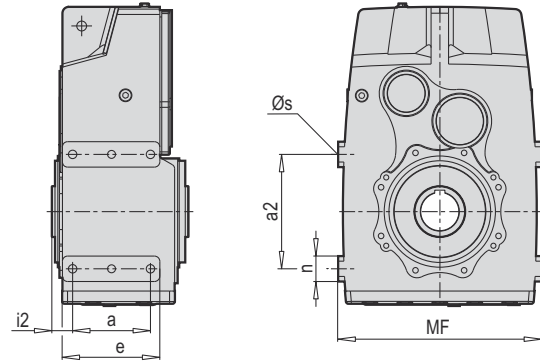
INSTALLATION DIMENSIONS

DE

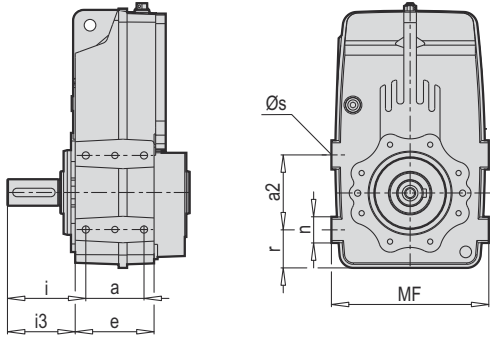
ABMESSUNGEN MONTAGE



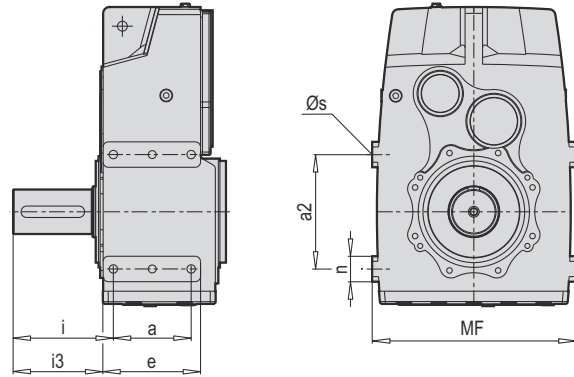
PD A02...C13



PD 92 - PD 93



PM A02...C13



PM 92 - PM 93

| Tip / Type / Typ                            | a                                                                        | e    | MF  | a2  | n  | Øs     | r  | i   | i2 | i3    |
|---------------------------------------------|--------------------------------------------------------------------------|------|-----|-----|----|--------|----|-----|----|-------|
| PD A02                                      | 64                                                                       | 78   | 110 | 50  | 16 | M6x12  | 27 | —   | 20 | —     |
| PM A02                                      | 64                                                                       | 78   | 110 | 50  | 16 | M6x12  | 27 | 70  | —  | 63    |
| PD B02                                      | 55                                                                       | 74.5 | 150 | 70  | 25 | M8x13  | 35 | —   | 24 | —     |
| PM B02                                      | 55                                                                       | 74.5 | 150 | 70  | 25 | M8x13  | 35 | 74  | —  | 64    |
| PD C13                                      | 100                                                                      | 126  | 152 | 70  | 30 | M10x13 | 42 | —   | 31 | —     |
| PM C13                                      | 100                                                                      | 126  | 152 | 70  | 30 | M10x13 | 42 | 91  | —  | 79    |
| PD 92<br>PD 93                              | 245                                                                      | 306  | 640 | 360 | 80 | M30x45 | —  | —   | 65 | —     |
| PM 92<br>PM 93                              | 245                                                                      | 306  | 640 | 360 | 80 | M30x45 | —  | 315 | —  | 283.5 |
| PD/PM 102-103<br>PD/PM 112-113<br>PD/PM 123 | Sayfa 228...237'ye bakınız / See page 228...237 / Siehe Seiten 228...237 |      |     |     |    |        |    |     |    |       |



TR

MERKEZLEME PİMİ

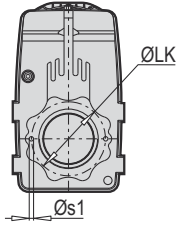
EN

CENTRING PINS

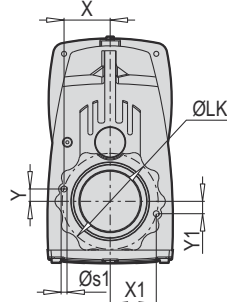
DE

ZENTRIERSTIFT

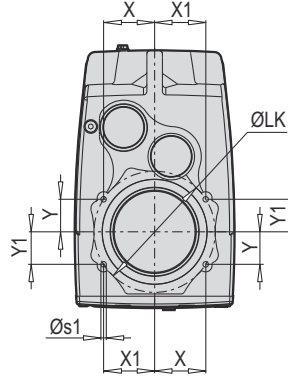
**MERKEZLEME PİMİ ÖLÇÜ TABLOSU /**  
DIMENSION TABLES OF CENTRING PINS / ABMESSUNGSTABELLE ZENTRIERSTIFT



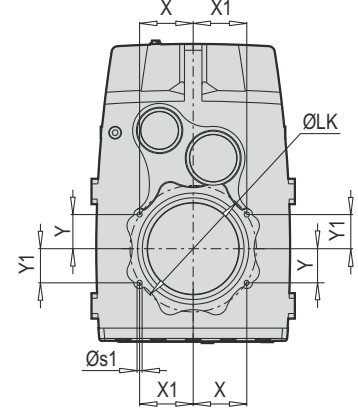
PD/PM B02  
PD/PM C13



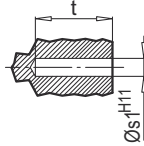
PD/PM A02  
PD/PM 12 - PD/PM 53



PD/PM 62 - PD/PM 83



PD/PM 92 - PD/PM 123

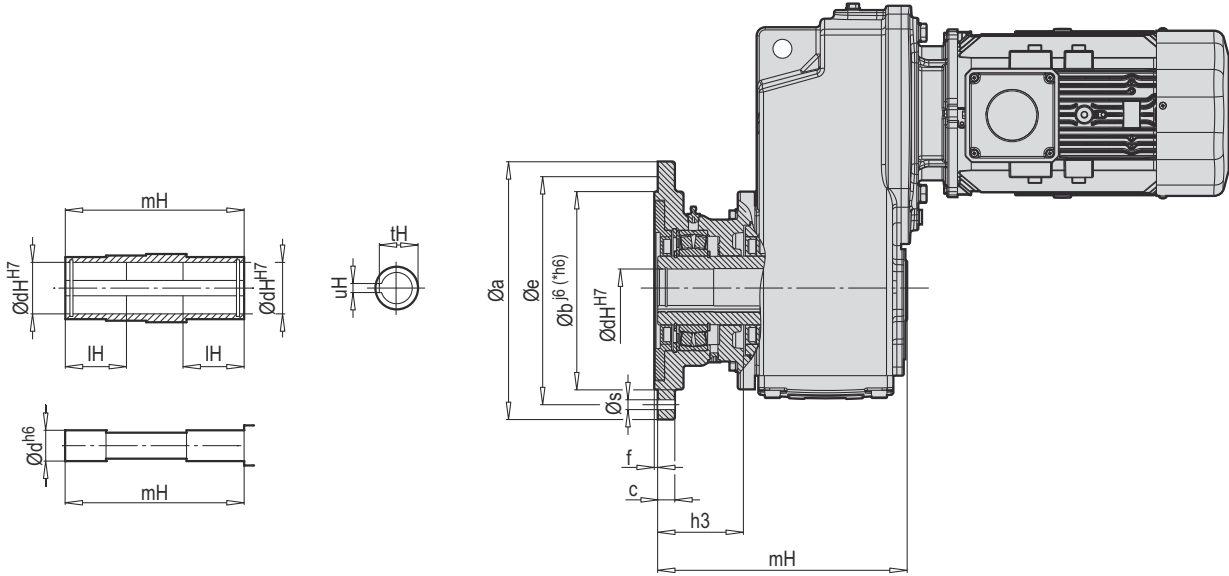


| Tip / Type / Typ               | Øs1 <sup>H11</sup> x t | ØLK | X      | X1     | Y      | Y1     |
|--------------------------------|------------------------|-----|--------|--------|--------|--------|
| PD/PM A02 B14                  | Ø 6 X 10               | 85  | 41.05  | -      | 11.00  | -      |
| PD/PM B02 B14                  | Ø 6 X 12               | 100 | -      | -      | -      | -      |
| PD/PM C13 B14                  | Ø 8 X 12               | 115 | -      | -      | -      | -      |
| PD/PM 12 B14<br>PD/PM 13 B14   | Ø 8 X 12               | 115 | 56.15  | 56.15  | 12.45  | 12.45  |
| PD/PM 22 B14<br>PD/PM 23 B14   | Ø 8 X 12               | 130 | 62.80  | 62.80  | 16.80  | 16.80  |
| PD/PM 32 B14<br>PD/PM 33 B14   | Ø 10 X 15              | 165 | 80.55  | 80.55  | 17.85  | 17.85  |
| PD/PM 42 B14<br>PD/PM 43 B14   | Ø 12 X 20              | 194 | 93.70  | 93.70  | 25.10  | 25.10  |
| PD/PM 52 B14<br>PD/PM 53 B14   | Ø 12 X 20              | 215 | 104.95 | 104.95 | 23.25  | 23.25  |
| PD/PM 62 B14<br>PD/PM 63 B14   | Ø 12 X 20              | 265 | 111.75 | 111.75 | 71.20  | 71.20  |
| PD/PM 72 B14<br>PD/PM 73 B14   | Ø 16 X 30              | 300 | 126.50 | 126.50 | 80.60  | 80.60  |
| PD/PM 82 B14<br>PD/PM 83 B14   | Ø 16 X 30              | 350 | 147.60 | 147.60 | 94.05  | 94.05  |
| PD/PM 92 B14<br>PD/PM 93 B14   | Ø 16 X 30              | 400 | 168.70 | 168.70 | 107.45 | 107.45 |
| PD/PM 102 B14<br>PD/PM 103 B14 | Ø 25 X 35              | 500 | 176.80 | 204.80 | 176.80 | 143.40 |
| PD/PM 112 B14<br>PD/PM 113 B14 | Ø 25 X 25              | 500 | 176.80 | 204.80 | 176.80 | 143.40 |
| PD/PM 123 B14                  | Ø 25 X 25              | 500 | 176.80 | 204.80 | 176.80 | 143.40 |

PD SERİSİ İÇİN  
 GÜÇLENDİRİLMİŞ B5 FLANŞI

 REINFORCED B5 FLANGE FOR  
 AGITATOR DESIGN AT PD SERIES

DE

 VERSTÄRKTER B5 FLANSCH  
 FÜR SERIE PD


| Tip / Type / Typ       | a   | b    | c  | e   | f   | h3  | Øs     | Ød <sup>h6</sup> | uH | tH    | mH  | ØdH <sup>H7</sup> | IH  |
|------------------------|-----|------|----|-----|-----|-----|--------|------------------|----|-------|-----|-------------------|-----|
| PD 12 GB5<br>PD 13 GB5 | 200 | 130  | 12 | 165 | 3.5 | 75  | 4 x 11 | 30               | 8  | 33.3  | 180 | 30                | 40  |
| PD 22 GB5<br>PD 23 GB5 | 250 | 180  | 16 | 215 | 4.0 | 86  | 4 x 14 | 35               | 10 | 38.3  | 208 | 35                | 50  |
| PD 32 GB5<br>PD 33 GB5 | 300 | 230  | 20 | 265 | 4.0 | 85  | 4 x 14 | 40               | 12 | 43.3  | 246 | 40                | 58  |
| PD 42 GB5<br>PD 43 GB5 | 300 | 230  | 20 | 265 | 4.0 | 113 | 4 x 14 | 50               | 14 | 53.8  | 290 | 50                | 65  |
| PD 52 GB5<br>PD 53 GB5 | 350 | *250 | 20 | 300 | 5.0 | 135 | 4 x 18 | 60               | 18 | 64.4  | 348 | 60                | 79  |
| PD 62 GB5<br>PD 63 GB5 | 400 | *300 | 22 | 350 | 5.0 | 166 | 4 x 18 | 70               | 20 | 74.9  | 437 | 70                | 120 |
| PD 72 GB5<br>PD 73 GB5 | 450 | *350 | 24 | 400 | 5.0 | 184 | 8 x 18 | 80               | 22 | 85.4  | 477 | 80                | 126 |
| PD 82 GB5<br>PD 83 GB5 | 550 | *450 | 28 | 500 | 5.0 | 210 | 8 x 18 | 100              | 28 | 106.4 | 556 | 100               | 154 |
| PD 92 GB5<br>PD 93 GB5 | 660 | *550 | 32 | 600 | 6.0 | 262 | 8 x 22 | 120              | 32 | 127.4 | 668 | 120               | 186 |

PGR, özellikle karıştırıcılarda kullanılması için shaft üzerindeki rulman mesafelerinin arttırıldığı ve güçlendirilmiş B5 flanşının kullanıldığı redüktörü kullanıma sunmaktadır.

Bu tasarım, daha uzun rulman ömrünün yanı sıra daha yüksek radyal ve aksel kuvvetlere karşı dayanım sağlar. Buradaki oynak makaralı rulman kullanımı özellikle (uzun karıştırıcı millerinde ya da shaftlarında) oluşan eksen kaçıklıklarının karşılanması için idealdir.

PGR makes available reducers with longer dimension bearings which is over the shaft for usage of agitators.

This design enables, besides more durable bearings, more durability for higher radial and axial forces. The usage of spherical roller bearing absorbs the misalignments especially for long shaft agitators.

Insbesondere für Rührwerke hat PGR den Lagerabstand der Welle durch die Verwendung des verstärkten B5-Flansches vergrößert.

Dieses Design ermöglicht die Aufnahme hoher radialer und axialer Kräfte bei erhöhter Lagerlebensdauer. Die Pendelrollenlagerung eignet sich besonders für längere Rührwerkswellen, da Fluchtungsfehler ausgeglichen werden.

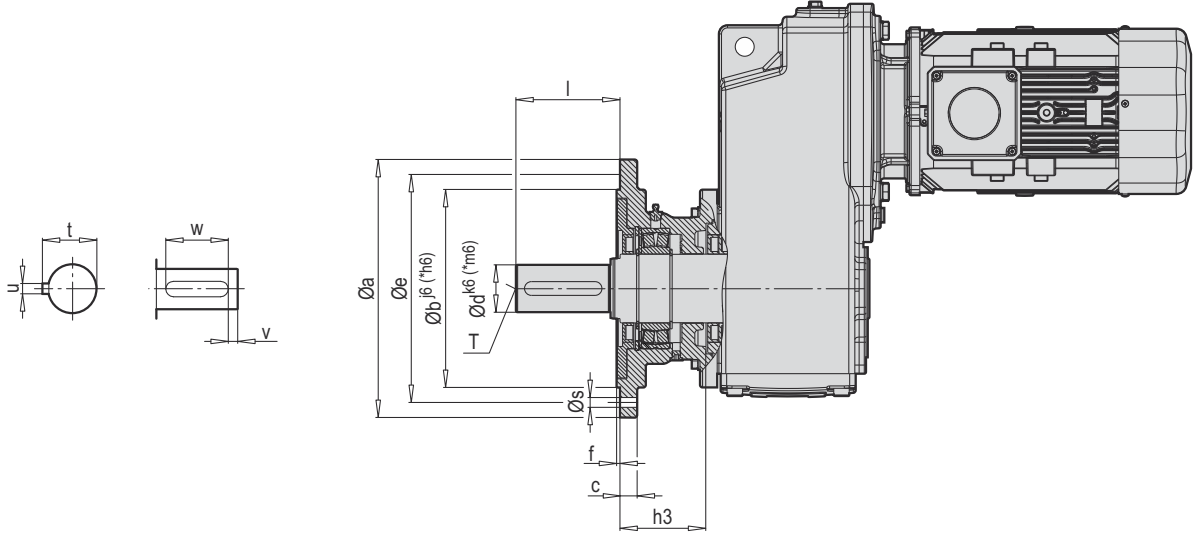
TR

PM SERİSİ İÇİN  
GÜÇLENDİRİLMİŞ B5 FLANŞI

REINFORCED B5 FLANGE FOR  
AGITATOR DESIGN AT PM SERIES

DE

VERSTÄRKTER B5 FLANSCH FÜR  
PM-SERIE



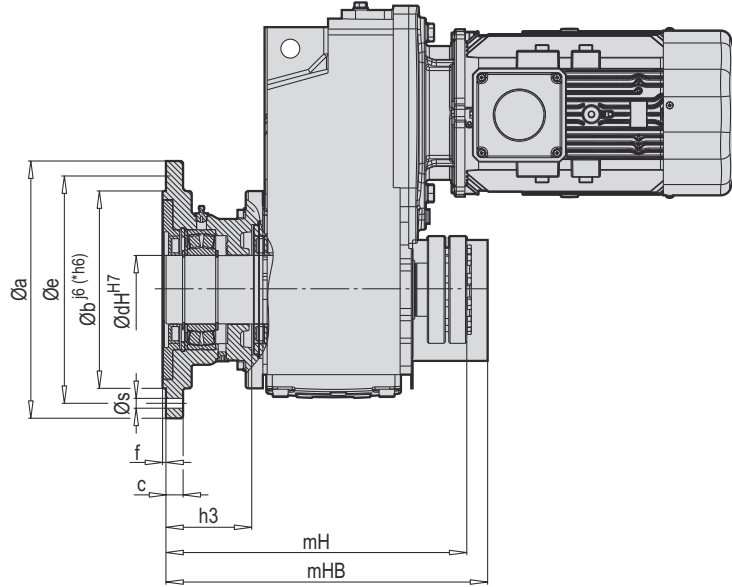
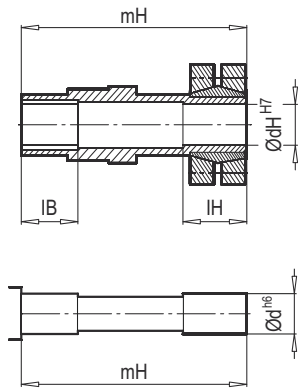
| Tip / Type / Typ         | a   | b    | c  | e   | f   | h3  | Øs     | Ød   | l   | t     | u  | v   | w   | T   |
|--------------------------|-----|------|----|-----|-----|-----|--------|------|-----|-------|----|-----|-----|-----|
| PM 12 GB5<br>PM 13 GB5   | 200 | 130  | 12 | 165 | 3.5 | 75  | 4 x 11 | 30   | 60  | 33.0  | 8  | 5   | 50  | M10 |
| PM 22 GB5<br>PM 23 GB5   | 250 | 180  | 16 | 215 | 4.0 | 86  | 4 x 14 | 35   | 70  | 38.0  | 10 | 5   | 60  | M12 |
| PM 32 GB5<br>PM 33 GB5   | 300 | 230  | 20 | 265 | 4.0 | 85  | 4 x 14 | 45   | 90  | 48.5  | 14 | 5   | 80  | M16 |
| PM 42 GB5<br>PM 43 GB5   | 300 | 230  | 20 | 265 | 4.0 | 113 | 4 x 14 | *55  | 110 | 59.0  | 16 | 10  | 90  | M20 |
| PM 52 GB5<br>PM 53 GB5   | 350 | *250 | 20 | 300 | 5.0 | 135 | 4 x 18 | *65  | 130 | 69.0  | 18 | 15  | 100 | M20 |
| PM 62 GB5<br>PM 63 GB5   | 400 | *300 | 22 | 350 | 5.0 | 166 | 4 x 18 | *75  | 140 | 79.5  | 20 | 7.5 | 125 | M20 |
| PM 72 GB5<br>PM 73 GB5   | 450 | *350 | 24 | 400 | 5.0 | 184 | 8 x 18 | *90  | 170 | 95.0  | 25 | 15  | 140 | M24 |
| PM 82 GB5<br>PM 83 GB5   | 550 | *450 | 28 | 500 | 5.0 | 210 | 8 x 18 | *110 | 210 | 116.0 | 28 | 15  | 180 | M24 |
| PM 92 GB5<br>PM 93 GB5   | 660 | *550 | 32 | 600 | 6.0 | 262 | 8 x 22 | *140 | 250 | 148.0 | 36 | 25  | 200 | M24 |
| PM 102 GB5<br>PM 103 GB5 | 660 | *550 | 35 | 600 | 8.0 | 302 | 8 x 26 | *160 | 300 | 169.0 | 40 | 25  | 250 | M24 |
| PM 112 GB5<br>PM 113 GB5 | 660 | *550 | 35 | 600 | 8.0 | 302 | 8 x 26 | *180 | 300 | 190.0 | 45 | 25  | 250 | M24 |
| PM 123 GB5               | 660 | *550 | 35 | 600 | 8.0 | 302 | 8 x 26 | *180 | 300 | 190.0 | 45 | 25  | 250 | M24 |

KONİK SIKTIRMALI  
 GÜÇLENDİRİLMİŞ B5 FLANŞLI

EN

 WITH REINFORCED B5 FLANGE  
 AND SHRINK DISC

DE

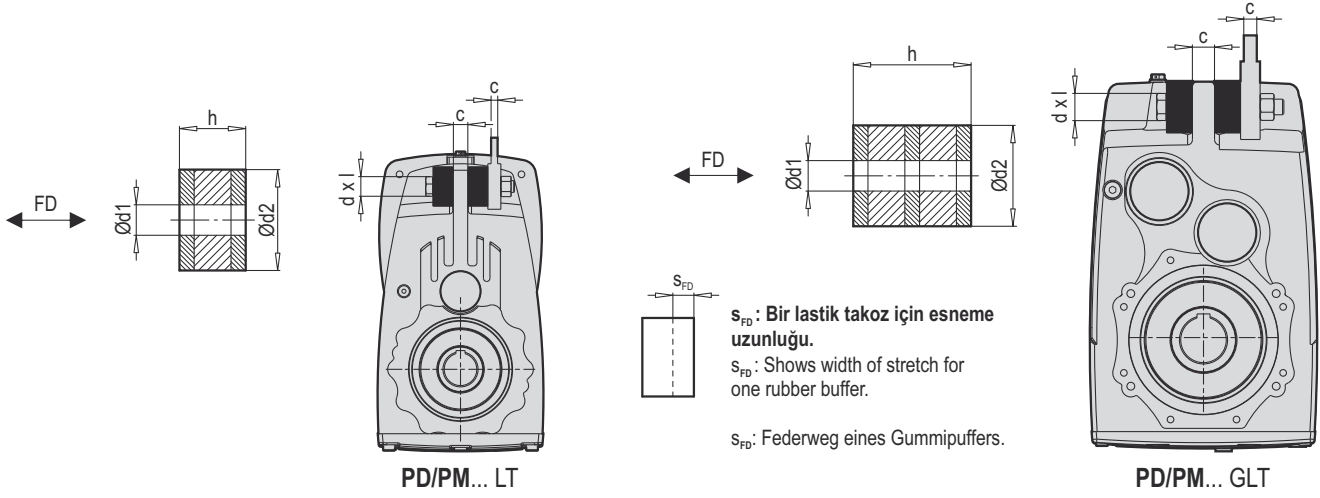
 VERSTÄRKTER B5 FLANSCH MIT  
 SCHRUMPFSCHEIBE


| Tip / Type / Typ               | a   | b    | c  | e   | f   | h3  | Øs     | ØdH <sup>H7</sup> | mH   | mHB  | IB  | IH  | Ød <sup>h6</sup> |
|--------------------------------|-----|------|----|-----|-----|-----|--------|-------------------|------|------|-----|-----|------------------|
| PD 12 KS-GB5<br>PD 13 KS-GB5   | 200 | 130  | 12 | 165 | 3.5 | 75  | 4 X 11 | 30                | 220  | 233  | 31  | 40  | 30               |
| PD 22 KS-GB5                   | 250 | 180  | 16 | 215 | 4.0 | 86  | 4 X 14 | 35                | 264  | 284  | 41  | 45  | 35               |
| PD 32 KS-GB5<br>PD 33 KS-GB5   | 300 | 230  | 20 | 265 | 4.0 | 85  | 4 X 14 | 40                | 297  | 317  | 41  | 55  | 40               |
| PD 42 KS-GB5                   | 300 | 230  | 20 | 265 | 4.0 | 113 | 4 X 14 | 50                | 356  | 329  | 51  | 55  | 50               |
| PD 52 KS-GB5                   | 350 | *250 | 20 | 300 | 5.0 | 135 | 4 X 18 | 60                | 413  | 437  | 60  | 70  | 60               |
| PD 62 KS-GB5<br>PD 63 KS-GB5   | 400 | *300 | 22 | 350 | 5.0 | 166 | 4 X 18 | 70                | 517  | 540  | 71  | 85  | 70               |
| PD 72 KS-GB5<br>PD 73 KS-GB5   | 450 | *350 | 24 | 400 | 5.0 | 184 | 4 X 18 | 80                | 562  | 582  | 81  | 90  | 80               |
| PD 82 KS-GB5<br>PD 83 KS-GB5   | 550 | *450 | 28 | 500 | 5.0 | 210 | 8 X 18 | 100               | 645  | 672  | 71  | 95  | 100              |
| PD 92 KS-GB5<br>PD 93 KS-GB5   | 660 | *550 | 32 | 600 | 6.0 | 262 | 8 X 22 | 125               | 773  | 797  | 82  | 110 | 125              |
| PD 102 KS-GB5<br>PD 103 KS-GB5 | 660 | *550 | 35 | 600 | 8.0 | 302 | 8 X 26 | 160               | 944  | 970  | 122 | 130 | 160              |
| PD 112 KS-GB5<br>PD 113 KS-GB5 | 660 | *550 | 35 | 600 | 8.0 | 302 | 8 X 26 | 180               | 958  | 1000 | 101 | 110 | 180              |
| PD 123 KS-GB5                  | 660 | *550 | 35 | 600 | 8.0 | 302 | 8 X 26 | 180               | 1129 | 1169 | 101 | 269 | 180              |

**TR** NORMAL VE GÜÇLENDİRİLMİŞ  
LASTİK TAKOZ TAŞARIMI (LT/GLT)

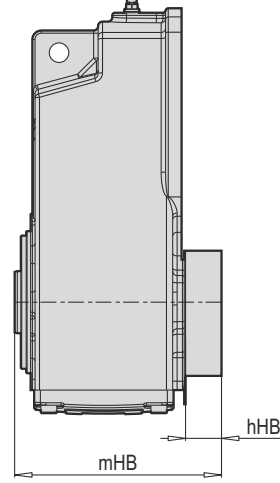
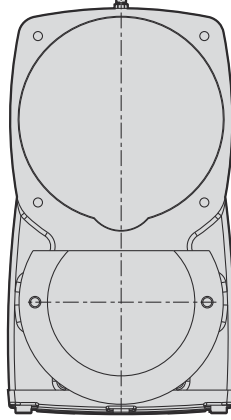
**EN** NORMAL AND REINFORCED DESIGN  
OF RUBBER BUFFER (LT/GLT)

**DE** DESIGN FÜR NORMALE UND  
VERSTÄRKTE GUMMIPUFFER- (LT/GLT)



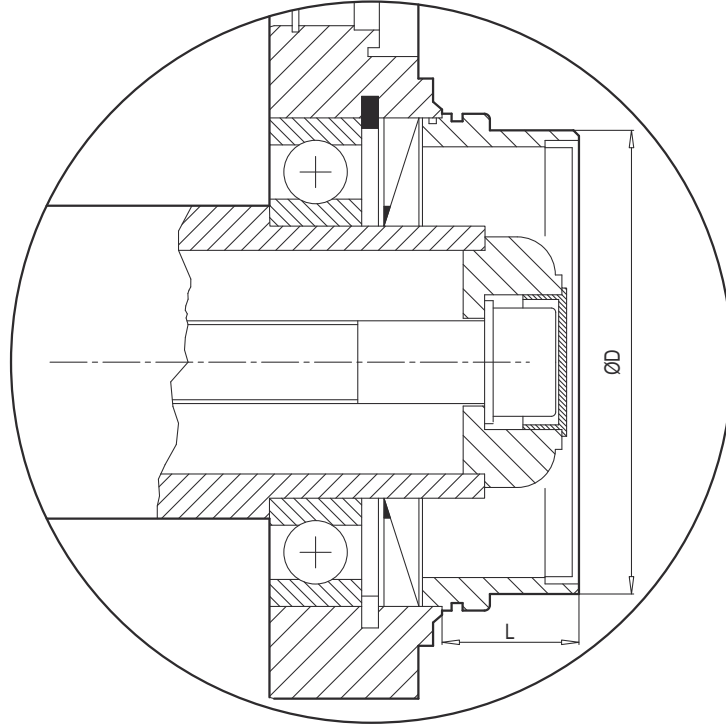
| Tip / Type / Typ           | Ød1   | Ød2 | h  | c  | d x l     | FD [kN] | s <sub>FD</sub> [mm] |
|----------------------------|-------|-----|----|----|-----------|---------|----------------------|
| PD/PM A02 LT               | 10.70 | 30  | 15 | 12 | M10 x 70  | 0.95    | 1.5                  |
| PD/PM B02 LT               | 10.70 | 30  | 15 | 14 | M10 x 70  | 1.05    | 1.7                  |
| PD/PM C13 LT               | 10.70 | 30  | 15 | 16 | M10 x 80  | 2.25    | 3.6                  |
| PD/PM 12 LT<br>PD/PM 13 LT | 10.70 | 30  | 15 | 15 | M10 x 80  | 1.80    | 2.8                  |
| PD/PM 22 LT<br>PD/PM 23 LT | 12.60 | 40  | 15 | 17 | M12 x 90  | 2.65    | 1.8                  |
| PD/PM 32 LT<br>PD/PM 33 LT | 12.60 | 40  | 15 | 19 | M12 x 90  | 4.15    | 2.9                  |
| PD/PM 42 LT<br>PD/PM 43 LT | 21.60 | 60  | 30 | 24 | M20 x 150 | 7.40    | 7.3                  |
| PD/PM 52 LT<br>PD/PM 53 LT | 21.60 | 60  | 30 | 28 | M20 x 150 | 9.50    | 9.4                  |
| PD/PM 62 LT<br>PD/PM 63 LT | 25.30 | 80  | 40 | 35 | M24 x 190 | 16.80   | 9.2                  |
| PD/PM 72 LT<br>PD/PM 73 LT | 25.30 | 80  | 40 | 40 | M24 x 200 | 20.80   | 11.4                 |
| PD/PM 82 LT<br>PD/PM 83 LT | 30.80 | 100 | 50 | 50 | M30 x 260 | 28.40   | 16.3                 |
| PD/PM 92 LT<br>PD/PM 93 LT | 30.80 | 100 | 50 | 55 | M30 x 260 | 43.50   | 24.9                 |

| Tip / Type                     | Ød1  | Ød2 | h   | c  | d x l     | FD [kN] | s <sub>FD</sub> [mm] |
|--------------------------------|------|-----|-----|----|-----------|---------|----------------------|
| PD/PM 72 GLT<br>PD/PM 73 GLT   | 25.0 | 85  | 60  | 40 | M24 x 240 | 20.80   | 12.2                 |
| PD/PM 82 GLT<br>PD/PM 83 GLT   | 31.0 | 110 | 90  | 50 | M30 x 340 | 28.40   | 19.3                 |
| PD/PM 92 GLT<br>PD/PM 93 GLT   | 31.0 | 140 | 110 | 55 | M30 x 380 | 43.50   | 21.2                 |
| PD/PM 102 GLT<br>PD/PM 103 GLT | 31.0 | 140 | 110 | 80 | M30 x 430 | 56.35   | 27.4                 |
| PD/PM 112 GLT<br>PD/PM 113 GLT | 49.0 | 180 | 150 | 90 | M48 x 550 | 80.90   | 38.5                 |
| PD/PM 123 GLT                  | 49.0 | 180 | 150 | 90 | M48 x 550 | 105.50  | 50.2                 |

ŞAFT KORUMA KAPAĞI ÖLÇÜ TABLOSU  
 DIMENSION TABLE OF SHAFT COVER / MASSTABELLE FÜR WELLENSCHUTZDECKEL


| Tip<br>Type<br>Typ                                   | Montaj ve Ana Ölçüleri<br>Outline and Mounting Dimensions<br>Montage und Hauptabmessungen |     |
|------------------------------------------------------|-------------------------------------------------------------------------------------------|-----|
|                                                      | hHB                                                                                       | mHB |
| PD A02 KK<br>PD A02 B14-KK                           | 26                                                                                        | 123 |
| PD B02 KK<br>PD B02 B14-KK                           | 32                                                                                        | 151 |
| PD C13 KK<br>PD C13 B14-KK                           | 37                                                                                        | 210 |
| PD 12 KK<br>PD 12 B14-KK<br>PD 13 KK<br>PD 13 B14-KK | 32                                                                                        | 152 |
| PD 22 KK<br>PD 22 B14-KK<br>PD 23 KK<br>PD 23 B14-KK | 44                                                                                        | 176 |
| PD 32 KK<br>PD 32 B14-KK<br>PD 33 KK<br>PD 33 B14-KK | 46                                                                                        | 215 |
| PD 42 KK<br>PD 42 B14-KK<br>PD 43 KK<br>PD 43 B14-KK | 46                                                                                        | 235 |

| Tip<br>Type<br>Typ                                   | Montaj ve Ana Ölçüleri<br>Outline and Mounting Dimensions<br>Montage und Hauptabmessungen |     |
|------------------------------------------------------|-------------------------------------------------------------------------------------------|-----|
|                                                      | hHB                                                                                       | mHB |
| PD 52 KK<br>PD 52 B14-KK<br>PD 53 KK<br>PD 53 B14-KK | 54                                                                                        | 278 |
| PD 62 KK<br>PD 62 B14-KK<br>PD 63 KK<br>PD 63 B14-KK | 55                                                                                        | 337 |
| PD 72 KK<br>PD 72 B14-KK<br>PD 73 KK<br>PD 73 B14-KK | 55                                                                                        | 359 |
| PD 82 KK<br>PD 82 B14-KK<br>PD 83 KK<br>PD 83 B14-KK | 59                                                                                        | 418 |
| PD 92 KK<br>PD 92 B14-KK<br>PD 93 KK<br>PD 93 B14-KK | 62                                                                                        | 482 |



| Tip / Type / Typ               | ØD  | L  |
|--------------------------------|-----|----|
| PD 12 KK 66<br>PD 12 B14/KK 66 | 81  | 25 |
| PD 22 KK 66<br>PD 22 B14/KK 66 | 57  | 38 |
| PD 32 KK 66<br>PD 32 B14/KK 66 | 105 | 35 |
| PD 42 KK 66<br>PD 42 B14/KK 66 | 105 | 34 |
| PD 52 KK 66<br>PD 52 B14/KK 66 | 155 | 38 |
| PD 62 KK 66<br>PD 62 B14/KK 66 | 189 | 44 |
| PD 72 KK 66<br>PD 72 B14/KK 66 | 216 | 35 |
| PD 82 KK 66<br>PD 82 B14/KK 66 | 246 | 50 |



TR

SU SOĞUTMALI

Helisel konik dişli ve Paralel şaft montajlı redüktörler için opsiyonel olarak entegre edilmiş bir ısı eşanjörü mevcuttur. Redüktörü soğutan soğutma suyu eşanjörün içinden akar. PGR redüktör sıcaklığının ve soğutma suyunun akışının izlenmesini önerir. Bunun sebebi soğutma serpantinini herhangi bir yağ haznesinde bulunmamasıdır. Bu soğutma aynı zamanda patlama potansiyeli olan atmosferlere (ATEX) sahip uygulamalar için de uygundur. Düşük sıcaklıklarda ısı eşanjörü aynı zamanda redüktöre ısı sağlayabilir.

EN

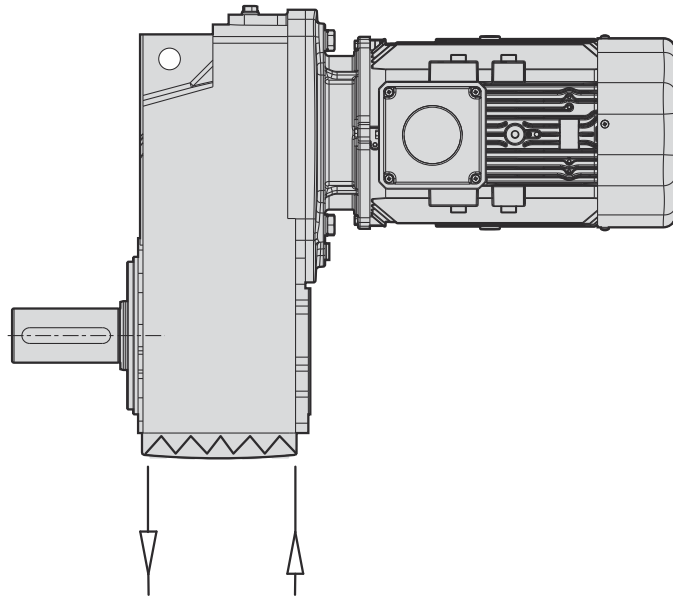
WATER COOLING

The heat exchanger is available for helical bevel gear units and parallel shaft mounted reducers optionally. The coolant which cool reducer flows inside exchanger. PGR advice you to follow flowing of coolant. The reason for this is cooling serpentine is not inside any oil tube. This cooler is also suitable for implementations which has risk of explosion. (ATEX) At low temperature, heat exchanger may provide heat to reducer.

DE

MIT WASSERKÜHLUNG

Bei Flachgetrieben und Kegelradgetrieben ist optional ein integrierter Wärmetauscher möglich. Der Wärmetauscher wird vom Kühlwasser durchströmt, welches das Getriebe kühlt. PGR empfiehlt eine Temperaturüberwachung oder Kühlwasserdurchflußüberwachung. Denn die Kühltülle liegt nicht im Ölraum. Diese Kühlung ist auch für Anwendungen in explosionsgefährdeten Bereichen (ATEX) geeignet. Bei niedrigen Temperaturen kann der Wärmetauscher auch das Getriebe mit Wärme versorgen.



#### Su soğutma ünitesinin kullanılabileceği montaj pozisyonları

Table shows that suitability of water cooling for which mounting positions  
Mögliche Einbaulagen bei Wasserkühlung

| Tip / Type / Typ      | Montaj Pozisyonları / Mounting Positions / Montagepositionen |    |    |    |    |    |
|-----------------------|--------------------------------------------------------------|----|----|----|----|----|
|                       | M1                                                           | M2 | M3 | M4 | M5 | M6 |
| PD/PM 62 - PD/PM 63   | ✓                                                            | ✓  | —  | ✓  | ✓  | ✓  |
| PD/PM 72 - PD/PM 73   | ✓                                                            | ✓  | —  | ✓  | ✓  | ✓  |
| PD/PM 82 - PD/PM 83   | ✓                                                            | ✓  | —  | ✓  | ✓  | ✓  |
| PD/PM 92 - PD/PM 93   | ✓                                                            | ✓  | —  | ✓  | ✓  | ✓  |
| PD/PM 102 - PD/PM 103 | ✓                                                            | ✓  | —  | ✓  | ✓  | ✓  |
| PD/PM 112 - PD/PM 113 | ✓                                                            | ✓  | —  | ✓  | ✓  | ✓  |
| PD/PM 123             | ✓                                                            | ✓  | —  | ✓  | ✓  | ✓  |

**TR** M4 MONTAJ POZİSYONU İÇİN İLAVE YAĞ HACMİ VE YAĞ TANKI

Motorlu ve mil girişli dikey olarak monte edilmiş redüktörlerde 1. Kademenin yağlanması için yağ seviyesi yüksektir. Dikey montaj pozisyonu olan M4 pozisyonunda isteğe bağlı olarak ilave yağ hacim ünitesinin kullanılması, yağın köpürme yaptığı durumlarda extra bir hacim sağlayarak havalandırma tapasından yağ sızmasını önler.

PGR tahvil oranının 20'den küçük olduğu ve PA/PF 42, PD/PM 42, PKD 4390 dan büyük, gövdelerin dikey montajlarında ilave yağ hacim ünitesinin kullanımı kesinlikle önerilir. Aksi kullanım durumunda PGR ürünü garanti kapsamına almamaktadır.

PGR ayrıca tahvil oranının 20'den küçük ve motor dönüş hızının 1800 d/dk'den büyük olduğu küçük gövdeli redüktörler için de ilave yağ hacim ünitesinin kullanımını önemle tavsiye eder.

**EN** ADDITIONAL LUBRICANT VOLUME AND OIL TANK FOR MOUNTING POSITION M4

Reducers which are with motor, solid shaft and vertical mounting position has high oil level for lubricating first stage. The usage of additional lubricant tube at M4 mounting position upon request prevents leakage when oil is foamed by providing extra volume.

PGR strictly recommends usage of additional oil tube when the ratio number is less than 20, larger than PA/PF 42, PD/PM 42, PKD 4390 cases and vertical mounting positions. Otherwise, the reducer is at out of guarantee.

In addition to this, PGR strictly recommends usage of additional oil tube when the ratio number is less than 20, motor rotation speed is bigger than 1800 min<sup>-1</sup> and smaller cases.

**DE** ZUSÄTZLICHES ÖLVOLUMEN FÜR M4 EINBAUPOSITION

Bei Getrieben mit Motor- und Wellenantrieb, die vertikal eingebaut sind, ist zur Schmierung der 1. Stufe der Ölstand höher. Der optionale Einsatz eines zusätzlichen Ölausgleichsbehälters bei der vertikalen Einbaulage M4 verhindert Ölaustritt am Entlüftungsstopfen durch zusätzliches Volumen bei eventueller Ölschaumbildung. PGR empfiehlt daher dringend bei Übersetzungen  $i_{ges} < 20$  und bei Gehäusen ab PA/PF 42, PD/PM 42, PKD 4390 Ölausgleichsbehälter bei der vertikalen Einbaulage einzusetzen. Andernfalls ist das Getriebe von der Garantie ausgenommen.

PGR empfiehlt außerdem dringend die Verwendung eines zusätzlichen Ölausgleichsbehälters für kleinere Getriebe mit einem Übersetzungsverhältnis von weniger als 20 und einer Motordrehzahl von mehr als 1800 U/min.



39 - 46



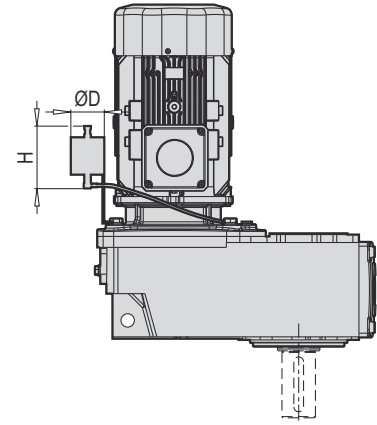
39 - 46



39 - 46

İLAVE YAĞ HACMİ / ADDITIONAL LUBRICANT VOLUME / ZUSÄTZLICHES ÖLVOLUMEN

| Tip<br>Type<br>Typ  | Boyut<br>Size | Ø D<br>[mm] | H<br>[mm] | [kg] |
|---------------------|---------------|-------------|-----------|------|
| PD/PM 42 - PD/PM 43 | I             | 100         | 180       | 6    |
| PD/PM 52 - PD/PM 53 |               |             |           |      |
| PD/PM 63            |               |             |           |      |
| PD/PM 62            | II            | 150         | 300       | 7    |
| PD/PM 72 - PD/PM 73 |               |             |           |      |
| PD/PM 82 - PD/PM 83 | III           | 180         | 300       | 8    |



PD/PM 42...83

YAĞ TANKI

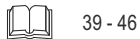
Yağ tankları ek havalandırma tüpü içerdiği için ilave yağ hacmi ünitesine göre daha büyüktür. Yağ tankındaki yağ seviyesi sürekli olarak kontrol edilmelidir. PGR PD/PM 92...123 arasındaki büyük gövdelerin M4 dikey montaj pozisyonlarında yağ tankının kullanımı önerir. PGR M4 montaj pozisyonunda yağ tankı kullanılmayan uygulamalarda oluşabilecek problemlerden sorumlu değildir.

OIL TANK

If we compare oil tank and additional lubricant volume, oil tank has large volume than additional lubricant volume because there are two tubes which one of them is vent tube and the other one is oil tube. Oil level must be checked all the time. PGR suggests that, oil tanks should be used at M4 vertical mounting positions for large cases of parallel shaft gear units which are from PD/PM 92 to PD/PM 123. PGR is not responsible for any problem that may occur while oil tank is not used at M4 vertical mounting position for large cases of parallel shaft gear unit.

ÖLSTANDBEHÄLTER

Ölstandsbehälter sind aufgrund der zusätzlichen Entlüftungslleitung größer als Ölausgleichsbehälter. Der Ölstand im Ölstandsbehälter ist zu kontrollieren. PGR empfiehlt zwischen PD/PM 92 und 123 in der vertikalen Einbaulage M4 Ölstandsbehälter einzusetzen. Bei Anwendungen, bei denen in der Einbaulage M4 kein Ölstandsbehälter verwendet wird, übernimmt PGR für eventuelle Probleme keine Gewährleistung.



39 - 46

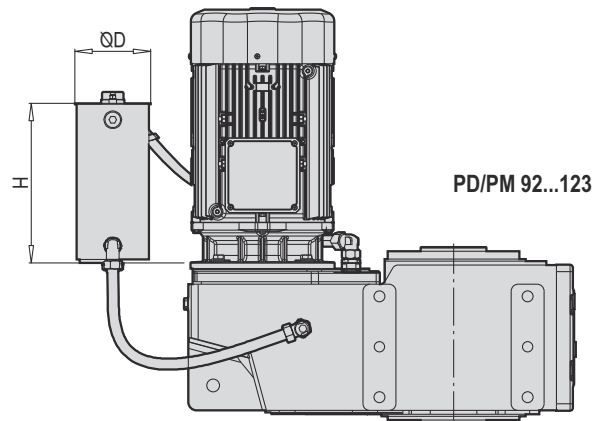


39 - 46



39 - 46

| Tip<br>Type<br>Typ    | Boyut<br>Size | Ø D<br>[mm] | H<br>[mm] |
|-----------------------|---------------|-------------|-----------|
| PD/PM 92 - PD/PM 93   | A             | 185         | 390       |
| PD/PM 102 - PD/PM 103 |               |             |           |
| PD/PM 112 - PD/PM 113 | B             | 320         | 390       |
| PD/PM 123             |               |             |           |



PD/PM 92...123

TR

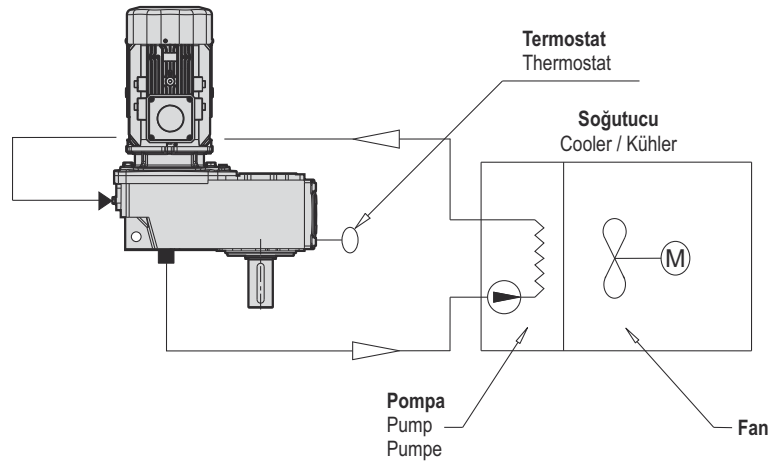
YAĞ SOĞUTMALI

EN

OIL COOLING

DE

ÖLKÜHLER



■ Çıkış = Emme hattı

■ Output = Suction line

■ Ablass = Saugleitung

▼ Yağ seviyesi = Basınç hattı

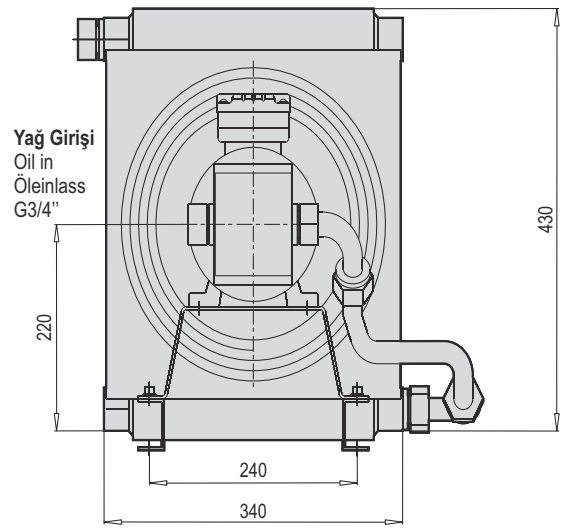
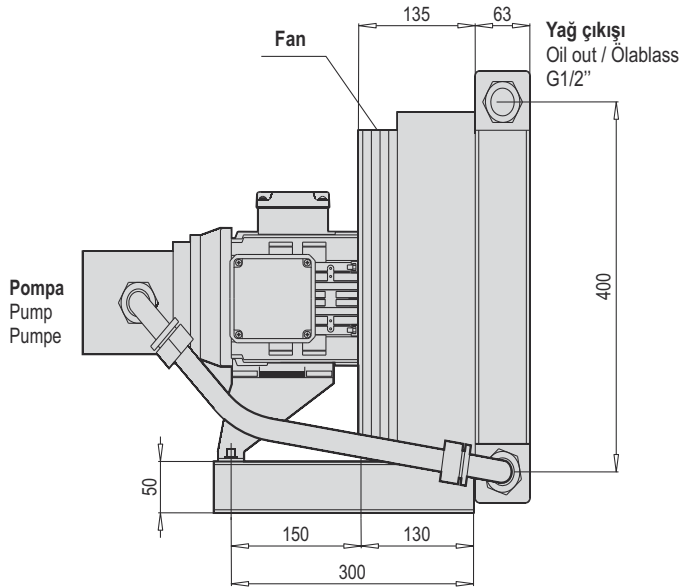
▼ Oil level = Pressure line

▼ Ölstand = Druckleitung

Redüktör içerisindeki yağ bir pompa vasıtası ile çekilir ve bu yağ bir ısı eşanjöründen geçer. Yağ, bir fan tarafından oluşturulan hava akımı ile soğutulur. Yağ ısı eşanjöründen dışarıya taşınır ve redüktöre geri gönderilir. Sıcaklık bir termostat ile kontrol edilir. PGR bu sıcaklığın izlenmesini önerir.

Picture which is above on this page shows cycle of the cooling unit. There is a thermostat on the gear unit for checking oil temperature. Oil flows from suction line to pressure line which is provided by a pump. In this way, oil temperature is cooled down by a fan which is supplying air flow of oil. Then, oil flows to the house of gear unit.

Das Getriebeöl wird von einer Pumpe angesaugt und durchströmt einen Wärmetauscher. Durch einen von einem Ventilator erzeugten Luftstrom erfolgt die Ölkühlung. Aus dem Wärmetauscher wird das Öl wieder in das Gehäuse zurückgefördert. Die Temperaturregelung erfolgt über einen Thermostaten. Eine Temperaturüberwachung wird empfohlen.



\* Potansiyel patlayıcı atmosferli alanlar için uygun değildir.

\* Not suited for areas with potentially explosive atmospheres

\*Nicht geeignet für Bereiche mit explosionsgefährdeter Atmosphäre.

**Dizayn**

|                 |                         |
|-----------------|-------------------------|
| Soğutucu        | : TFS/A 8,5-400-F-03-11 |
| Düşürme         | : Dış 1/2" / iç 3/4"    |
| Motorlar        | : Spannung 3x400 V      |
| Çıkış gücü      | : 0,55 kW               |
| Akım            | : 1,7 A                 |
| Hız             | : 1350 d/dk             |
| Koruma sınıfı   | : IP 55                 |
| Yalıtım sınıfı  | : F                     |
| Sıcaklık sınıfı | : B                     |

Aşağıdaki özelliklerde mevcuttur:

- Özel voltaj 60 HZ - Özel motor
- Ağırlık : 35 kg

**Design**

|                   |                         |
|-------------------|-------------------------|
| Cooler            | : TFS/A 8,5-400-F-03-11 |
| Reduction         | : Out 1/2" / in 3/4"    |
| Motors            | : Spannung 3x400 V      |
| Output Power      | : 0,55 kW               |
| Rated Current     | : 1,7 A                 |
| Speed             | : 1350 rpm              |
| Protection Class  | : IP 55                 |
| Insulation Class  | : F                     |
| Temperature Class | : B                     |

Available with:

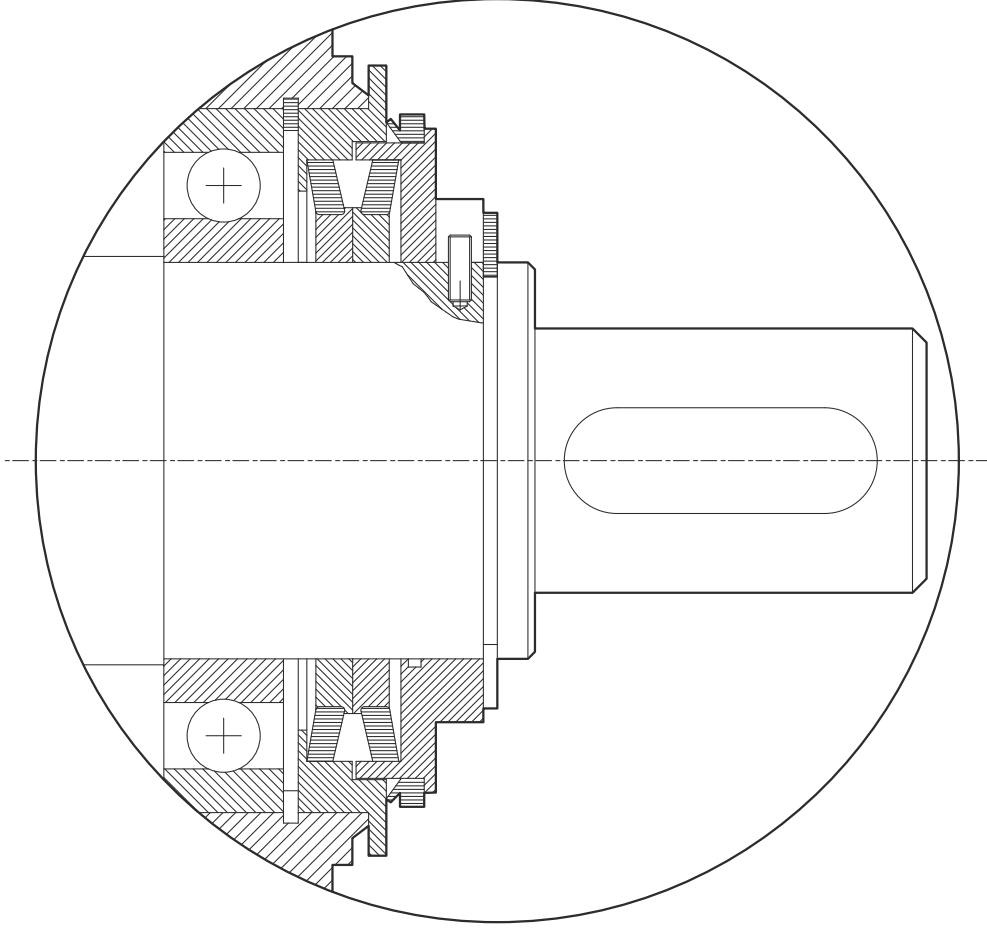
- Special voltage 60 HZ - Special motor
- Weight : 35 kg

**Entwurf**

|                  |                         |
|------------------|-------------------------|
| Kühler           | : TFS/A 8,5-400-F-03-11 |
| Reduzierung      | : Aus 1/2" / in 3/4"    |
| Motoren          | : Spannung 3x400 V      |
| Leistung         | : 0,55 kW               |
| Strom            | : 1,7 A                 |
| Drehzahl         | : 1350 min              |
| Schutzklasse     | : IP 55                 |
| Isolationsklasse | : F                     |
| Temperaturklasse | : B                     |

Lieferbar mit

- Spezialspannung 60 Hz - Sondermotor
- Gewicht : 32 kg



Mekanik keçe kullanımı özellikle uzun süreli maruz kalınan kötü çalışma koşullarına uygundur. Sıvı yoğunluğunun çok olduğu daldırılmalı çalışma ortamlarında maximum seviye sızdırmazlık sağlar. Bu keçe tipi birçok olumsuz dış çevre koşullarından (Aşırı tozlu, sulu) yüksek seviyede koruma sağlar.

The use of mechanical seals is especially suitable for long-term poor working conditions. It provides maximum level of leakproofing for working areas which is immersion and high density of liquid. This type of seal provides a high level of protection from many unfavorable external environmental conditions (extreme dust, water).

Der Einsatz von Gleitringdichtungen eignen sich besonders bei langfristiger Belastung durch schlechte Arbeitsbedingungen. Diese bieten maximale Undurchlässigkeit in Arbeitsumgebungen unter Wasser mit hoher Feuchtigkeit. Dieser Dichtungstyp bietet einen hohen Schutz vor vielen schädlichen Umwelteinwirkungen (extremer Staub, Wasser).

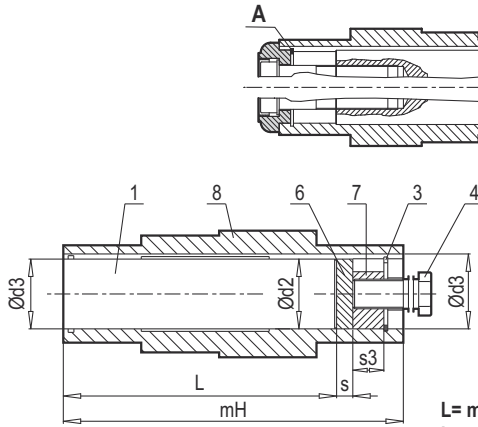
TR

**ÇEKTİRME KİTİ**
**Çektirme Kiti**

Değişik gövde büyüklükleri için opsiyonel olarak çektirme kitlemiz şaft çıkışlı dizaynlarımızda mevcuttur.

**Çektirme kiti için kullanım gereksinimleri:**

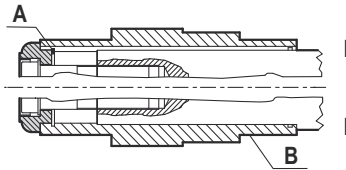
- Kullanılan müşteri milinin alın tarafının merkezinde DIN 332/2 standartlarına uygun bir delik olmalıdır.
- Müşteri mili, faturalı ya da faturasız olsa da çektirme kiti ile uyumludur.
- I numaralı montaj pozisyonu olması halinde, müşteri mili redüktör şaftının içinde bulunan segman ile tutturulur. (Parça A)
- II numaralı montaj pozisyonu olması halinde, müşteri milinin üzerinde bulunan fatura kullanılarak doğrudan redüktör şaftı üzerine tutturulur. (Parça B)


**DEMONTAJ / DISASSEMBLY**
**Puller Kit**

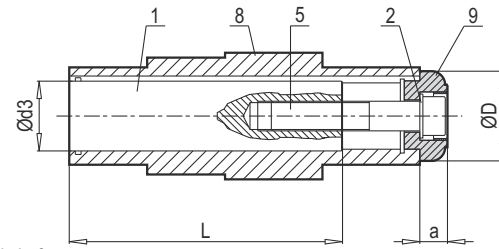
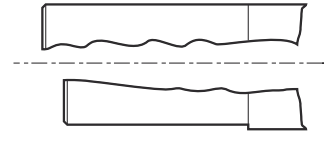
The puller kit is optionally available on shaft mounted gear units.

**Using conditions:**

- The centre hole must be DIN 332/2 for customer solid shaft.
- The customer shaft can be fixed with the puller kit (with shoulder or without shoulder)
- When the assembly in Fig. I is used, the customer shaft is fasten by the circlip in the gear unit shaft.(Track A)
- When the assembly in Fig. II is used, it is fasten directly to the gearbox shaft using the invoice on the customer shaft.



**L= max. kullanıcı şaft boyu**  
**L= maximum length of the solid shaft**  
**L= max. Kundenwellenlänge**


**MONTAJ / ASSEMBLY**

- 1) Müşteri mili
  - 2) Rondela DIN 127
  - 3) \* İç Segman DIN 472
  - 4) \* Çektirme civatası
  - 5) Alyan başlı civata DIN 912
  - 6) \* Yaylı rondela
  - 7) \* Somun
  - 8) Redüktör şaftı
  - 9) Çektirme rondelası
- \*PGR tarafından temin edilmez.

**DEMONTAJ:**

- 1) Alyan başlı civata sökülmalıdır. (5)
- 2) Çektirme rondelası takılmalıdır. (9)
- 3) Yaylı rondela takılmalıdır. (6)
- 4) Somun yerleştirilmelidir. (7)
- 5) Segman takılmalıdır. (8)
- 6) Çektirme civatası gevşetilerek müşteri mili şafttan ayrılmalıdır. (4)

**MONTAJ:**

- 1) Müşteri mili, redüktör şaftının içine yerleştirilmelidir. (8)
- 2) Çektirme rondelası redüktör şaftının içine yerleştirilmelidir. (9)
- 3) Çektirme rondelası ile alyan başlı civata ve rondela birbirine sabitlenmelidir. (9-5-2)

**Kullanım Koşulları (Montaj için):**

- Müşteri milinin merkezinde DIN 332/2 standartlarına dışı açılmış delik bulunmalıdır.
- Müşteri milinin boyu "L" uzunluğundan büyük olmamalıdır. Aksi halde çektirme elemanlarını kullanmak mümkün olmayacaktır. (3-6-7)

**Kullanım Koşulları (Demontaj için):**

- Demontaj ölçüleri fabrika standartlarından yararlanılarak alınabilir.
- Demontaj işlemi yalnızca boyutu "L" yi aşmayan delik mile geçecek dolu miller için geçerlidir.

- 1) Customer's shaft
  - 2) Washer DIN 127
  - 3) \* Circlip DIN 472
  - 4) \* Puller screw
  - 5) Socket head screw DIN 912
  - 6) \* Thrust washer
  - 7) \* Nut
  - 8) Hollow shaft
  - 9) Puller washer
- \*Star signs are shown this item are not provided by PGR

**DISASSEMBLING:**

- 1) Loosen the socket head screw (5)
- 2) Remove puller washer (9)
- 3) Install spring washer (6)
- 4) Install nut(7)
- 5) Install circlip (3)
- 6) Remove solid shaft from hollow shaft with using puller screw (4)

**ASSEMBLING:**

- 1) The customer shaft must be mounted inside the gear units shaft. (8)
- 2) The puller washer must be mounted inside the gear units shaft. (9)
- 3) The bolt and washer must be fixed with the puller washer. (9-5-2)

**Usage Conditions (Assembling):**

- The user shaft must be threaded to the center according to DIN 332/2.
- The customer shaft must not exceed the "L" length, otherwise the puller cannot be applied. (pos. 3,6,7)

**Usage Conditions (for disassembly):**

- Disassembly dimensions can be taken by using factory standards.
- The disassembly procedure is only valid for solid shafts which will be connected to solid shaft and dimension does not exceed "L".

**Aufziehvorrichtung**

Für verschiedene Gehäusegrößen sind optional Abziehvorrichtungen für Ausführungen mit Hohlwellenabtrieb erhältlich.

**Nutzungsanforderungen für die Abziehvorrichtung:**

- In der Stirnmitte der Kundenwelle sollte eine Bohrung nach DIN 332/2 vorhanden sein.
- Die Kundenwelle ist mit der Abziehvorrichtung kompatibel, mit oder ohne Wellenabsatz.
- Bei Bauform I wird die Kundenwelle mit dem Sicherungsring in der Getriebewelle befestigt. (Teil A)
- Bei Einbaulage II wird die Kundenwelle am Wellenabsatz direkt auf der Getriebewelle befestigt (Teil B)

- 1) Kundenwelle
  - 2) Federring DIN 127
  - 3) \* Sicherungsring DIN 472
  - 4) \* Abziehschraube
  - 5) Innensechskantschraube DIN 912
  - 6) \* Federscheibe
  - 7) \* Schraubenmutter
  - 8) Getriebewelle
  - 9) Abziehscheibe
- \*wird Nicht von PGR bereitgestellt.

**DEMONTAGE:**

- 1) Innensechskantschraube muss entfernt werden. (5)
- 2) Die Abziehscheibe muss entfernt werden. (9)
- 3) Federscheibe muss eingelegt sein. (6)
- 4) Die Schraubenmutter muss eingesetzt werden. (7)
- 5) Der Sicherungsring muss montiert sein. (3)
- 6) Die Kundenwelle sollte durch Lösen der Abziehschraube von der Welle getrennt werden. (4)

**MONTAGE:**

- 1) Die Kundenwelle muss in der Getriebewelle befestigt werden. (8)
- 2) Die Abziehscheibe muss in die Getriebewelle eingelegt werden. (9)
- 3) Die Abziehscheibe und die Sechskantschraube und der Federring müssen miteinander befestigt werden. (9-5-2)

**Nutzungsbedingungen (für Montage):**

- In der Mitte der Kundenwelle muss eine Gewindebohrung nach DIN 332/2 vorhanden sein.
- Die Länge der Kundenwelle darf die Länge „L“ nicht überschreiten. Andernfalls können die Abziehelemente nicht verwendet werden. (3, 6,7)

**Nutzungsbedingungen (für Demontage):**

- Demontagemasse können anhand von Werksnormen übernommen werden.
- Das Demontageverfahren gilt nur für Vollwellen, deren Abmessung „L“ nicht überschreitet.

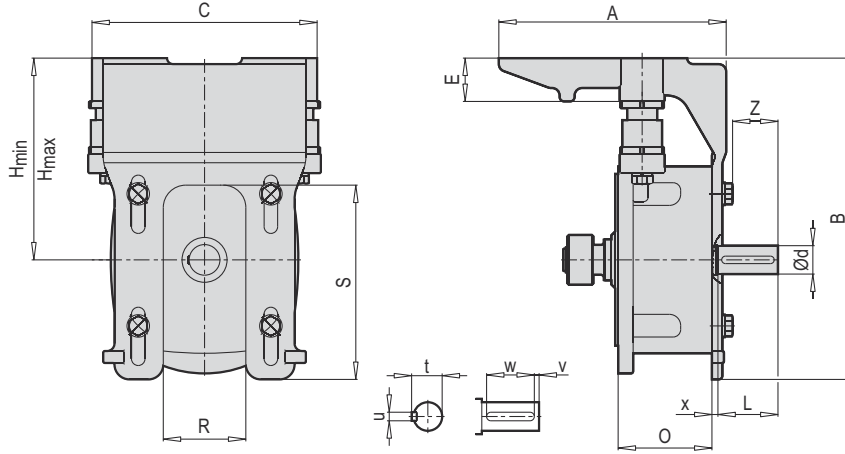
| Tip / Type / Typ | 1   | 2   | 3          | 4   | 5         | 6     |    | 7     |    | 8      | 9         |      |     |
|------------------|-----|-----|------------|-----|-----------|-------|----|-------|----|--------|-----------|------|-----|
|                  | L   |     |            |     |           | d2    | s  | d3    | s3 | d x mH | a         | D    |     |
| PD A02 Ç         | 79  | A10 | 125 x 1.5  | M10 | M10 X 45  | 24.9  | 3  | 24.9  | 12 | M10    | 25 X 100  | 20   | 38  |
| PD B02 Ç         | 100 | A10 | 130 x 1.5  | M12 | M10 X 45  | 29.9  | 3  | 29.9  | 12 | M12    | 30 X 122  | 20   | 40  |
| PD C13 Ç         | 149 | A12 | 135 x 1.75 | M16 | M12 X 55  | 34.9  | 3  | 34.9  | 16 | M16    | 35 X 176  | 24.5 | 45  |
| PD 12 Ç          | 100 | A10 | 130 x 1.2  | M12 | M10 X 45  | 29.9  | 3  | 29.9  | 12 | M12    | 30 X 122  | 20   | 40  |
| PD 22 Ç          | 110 | A12 | 135 x 1.5  | M16 | M12 X 55  | 34.9  | 3  | 34.9  | 16 | M16    | 35 X 139  | 24.5 | 45  |
| PD 32 Ç          | 140 | A16 | 140 x 1.75 | M16 | M16 X 70  | 39.9  | 4  | 39.9  | 16 | M16    | 40 X 174  | 24.7 | 55  |
| PD 42 Ç          | 160 | A16 | 150 x 2.0  | M20 | M16 X 70  | 49.9  | 4  | 49.9  | 20 | M20    | 50 X 195  | 25.7 | 65  |
| PD 52 Ç          | 185 | A20 | 160 x 2.0  | M24 | M20 X 90  | 59.9  | 5  | 59.9  | 24 | M24    | 60 X 230  | 30   | 75  |
| PD 62 Ç          | 245 | A20 | 170 x 2.5  | M24 | M20 X 90  | 69.9  | 5  | 69.9  | 24 | M24    | 70 X 290  | 31.3 | 95  |
| PD 72 Ç          | 250 | A20 | 180 x 2.5  | M30 | M20 X 100 | 79.9  | 8  | 79.9  | 30 | M30    | 80 X 310  | 31   | 102 |
| PD 82 Ç          | 310 | A24 | 1100 x 3.0 | M30 | M24 X 110 | 99.9  | 8  | 99.9  | 30 | M30    | 100 X 366 | 36.5 | 120 |
| PD 92 Ç          | 370 | A24 | 1120 x 4.0 | M36 | M24 X 110 | 119.9 | 10 | 119.9 | 32 | M36    | 120 X 430 | 36.5 | 150 |

Tabloda belirtilen numaralar Sayfa 70' de açıklanmaktadır.

The numbers which are specified at table are explained on Page 70

Die in der Tabelle angegebenen Nummern werden auf Seite 70 erklärt.

**Motor Platformu Ölçüleri /**  
Motor Platform Dimensions / Abmessungen der Motorkonsole



| Tip<br>Type<br>Typ    | Bağlantı boyutları ve platform ölçüleri<br>Connection and Platform dimensions<br>Anschlussmaße und Motorkonsolenmaße |     |     |     |     |     |          |          |     |       |           | Mil Ölçüleri<br>Shaft size<br>Wellenmaße |           |    |       | Flanş<br>Flange<br>Flansch |
|-----------------------|----------------------------------------------------------------------------------------------------------------------|-----|-----|-----|-----|-----|----------|----------|-----|-------|-----------|------------------------------------------|-----------|----|-------|----------------------------|
|                       | A                                                                                                                    | B   | C   | E   | R   | S   | H<br>min | H<br>max | Z   | O     | d<br>l    | t<br>u                                   | v<br>w    | x  |       |                            |
| MK I 63 M - 100 L     | 224                                                                                                                  | 253 | 206 | 45  | 60  | 140 | 153      | 173      | 41  | 121.5 | 24<br>50  | 27<br>8                                  | 5<br>40   | 8  | 160 S |                            |
| MK II 80 M - 112 M    | 238                                                                                                                  | 320 | 252 | 50  | 66  | 145 | 199      | 224      | 48  | 115.5 | 28<br>60  | 31<br>8                                  | 5<br>50   | 9  | 250 S |                            |
| MK III-A 90 S - 132 M | 305                                                                                                                  | 430 | 302 | 58  | 110 | 260 | 254      | 286      | 61  | 127   | 38<br>80  | 41<br>10                                 | 5<br>70   | 8  | 300 S |                            |
| MK III-B 90 S - 132 M | 305                                                                                                                  | 430 | 302 | 58  | 110 | 260 | 254      | 286      | 91  | 172   | 42<br>110 | 45<br>12                                 | 10<br>90  | 8  | Ø250  |                            |
| MK IV 112 M - 200 L   | 478                                                                                                                  | 530 | 402 | 75  | 130 | 315 | 315      | 355      | 116 | 254   | 65<br>140 | 69<br>18                                 | 15<br>110 | 8  | Ø350  |                            |
| MK V 200 L - 250 M    | 664                                                                                                                  | 690 | 572 | 105 | 382 | 369 | 465      | 515      | 119 | 247   | 65<br>140 | 69<br>18                                 | 15<br>110 | 12 | Ø450  |                            |

#### Motor Platform Montajı

Müşteri motor platformunu kullanarak farklı makina ve sistem tasarlarken çok fazla yapıcı olanaklar elde edilebilir.

Motor platform tasarımı PGR monoblok dişli ünitesi serileri için tüm montaj pozisyonlarında kullanılabilir. 5 çeşit motor platformu tüm motor-redüktör montaj kombinasyonlarını kapsar. Çok kademeli redüktör tasarımları için de yine seçim tablolarından motor platformu seçimi yapılabilir.

#### PGR motor platformu kullanımının müşteriye sağladığı avantajlar;

- \* Hafif ve değişken titreşimleri etkileyen yapı
- \* Korozyona dayanıklı sabitleme elemanları
- \* Tüm montaj pozisyonlarında kullanılabilirlik
- \* Optimum kayış gerginliğini yakalamak adına ayarlanabilir yükseklik ayarı
- \* Birçok motor ve gövde büyüklüğü için motor platformu üzerinde bulunduğu bağlantı delikleri
- \* 90° her yöne döndürülebilir yapı
- \* Seçim tablolarından tahvil oranının  $i=1$ 'e eşit olduğu durumlar için önerilir.

#### Assembling of Motor Platform

By using motor platform, you may have a lot of facility for designing different machines and systems.

Motor platform design may be used at all mounting positions for monoblock gear units. 5 types of motor platform covers all motor-reducer mounting combinations. For multi stage gear units, you can also select motor platform from selection tables.

#### The advantages of using motor platform to customer

- \* Structure that affects light and variable vibrations
- \* Fixing elements resistive for corrosion.
- \* Usability at all mounting positions
- \* Adjustable height adjustment to achieve optimum belt tension
- \* Connection holes over motor platform for a lot of motor and motor case dimension
- \* 90° rotation all direction
- \* It is recommended for situations where the ratio is equal to  $i=1$  from the selection tables

#### MOTORKONSOLE MONTAGE

Durch den Einsatz der Motorkonsole stehen dem Planer weitere konstruktive Möglichkeiten bei der Auslegung von Maschinen und Anlagen zur Verfügung. Die Motorkonsole ist so ausgelegt, dass sie in Verbindung mit allen PGR-Blokgehäusegetrieben in allen Bauformen kombiniert werden kann. Fünf Baugrößen decken alle Motor-Getriebekombinationen ab. Die jeweils möglichen Zuordnungen entnehmen Sie den Auswahl tabellen, die auch für die entsprechenden mehrstufigen Getriebeausführung Gültigkeit haben.

#### - Vorteile der PGR-Motorkonsole für den Anwender;

- \* Leichte und variable Vibrationen dämpfende Konstruktion
- \* Korrosionssichere Befestigungselemente
- \* In allen Einbaupositionen einsetzbar
- \* Leicht zu handhabende Höhenverstellung für optimale Riemenspannung
- \* Motorkonsole mit Bohrungen für mehrere Motorbaugrößen
- \* In alle Richtungen um 90° schwenkbar
- \* Empfohlen für Situationen, in denen gemäß Auswahltable Übersetzungen  $i=1,0$  sind



| Tip<br>Type<br>Typ | PD/PM 12 | PD/PM 22<br>PD/PM 32 | PD/PM 42<br>PD/PM 52<br>PD/PM 63 | PD/PM 62<br>PD/PM 72<br>PD/PM 73<br>PD/PM 83<br>PD/PM 93 | PD/PM 82<br>PD/PM 92<br>PD/PM 103 | PD/PM 93    | PD/PM 113<br>PD/PM 123 |
|--------------------|----------|----------------------|----------------------------------|----------------------------------------------------------|-----------------------------------|-------------|------------------------|
| Motor              | W III    | W II                 | W III                            | W III<br>W IV                                            | W V<br>W IV                       | W V<br>W IV | W IV                   |
| 63 M               | MK I     |                      |                                  |                                                          |                                   |             |                        |
| 71 M               | MK I     |                      |                                  |                                                          |                                   |             |                        |
| 80 M               | MK I     | MK II                |                                  |                                                          |                                   |             |                        |
| 90 S<br>90 L       | MK I     | MK II                | MK III - A                       | MK III - B                                               |                                   |             |                        |
| 100 L              | MK I     | MK II                | MK III - A                       | MK III - B                                               |                                   |             |                        |
| 112 M              |          | MK II                | MK III - A                       | MK III - B                                               | MK IV                             |             |                        |
| 132 S<br>132 M     |          |                      | MK III - A                       | MK III - B                                               | MK IV                             |             |                        |
| 160 M<br>160 L     |          |                      |                                  | MK IV                                                    | MK IV                             |             |                        |
| 180 M<br>180 L     |          |                      |                                  | MK IV                                                    | MK IV                             |             |                        |
| 200 L              |          |                      |                                  | MK IV                                                    | MK IV                             |             | MK V                   |
| 225 S<br>225 M     |          |                      |                                  |                                                          | MK V                              | MK V        | MK V                   |
| 250 M              |          |                      |                                  |                                                          | MK V                              | MK V        | MK V                   |

**Motor platformu seçim örneği:**

Öncelikle gerekli çıkış hız veya gerekli çıkış gücü ihtiyacına bağlı olarak kullanacağımız temel redüktör tipini belirlemeliyiz. Motorlu seçim tablolarında motor çıkış gücü ve tahvil oranına göre redüktör seçimi yapınız.

0.25 kW, 13.3 d/dk,  $i = 109.45 \rightarrow$  PD 12 - 71 M

Redüktör tipinin seçilmesinin ardından motor gövde büyüklüğü ve redüktör tipine bağlı tabloyu kullanarak motor platformu tipini (MK) tespit ediniz (Sayfa 74).

71 M  $\rightarrow$  PD 12  $\rightarrow$  MK1

MK1 tipi platforma göre motor gövde büyüklüğü satırını göz önüne alarak kayış tipi, ayar aralığı, kayış uzunluğu, 2 mil arası eksen mesafesi ve kayış sayısı bilgileri elde edilebilir. (Sayfa 74)

**Example of motor platform selection:**

First of all, we must determine the basic gearbox type we will use depending on the required output speed or the required output power requirement. In the motor selection tables, select the reducer according to the motor output power and bond ratio.

0.25 kW, 13.3 min<sup>-1</sup>,  $i = 109.45 \rightarrow$  PD 12 - 71 M

After selecting the gearbox type, determine the motor platform type (MK) using the table depending on the motor body size and gearbox type (Page 74).

71 M  $\rightarrow$  PD 12  $\rightarrow$  MK1

Belt type, adjustment range, belt length, axis distance between 2 shafts and number of belts can be obtained by considering the motor body size line according to the MK1 type platform. (Page 74)

**Beispiel für die Auswahl der Motorkonsole:**

Zunächst ist je nach geforderter Abtriebsdrehzahl bzw. geforderter Abtriebsleistung der zu verwendende Getriebetyp zu bestimmen. Wählen Sie in den Auswahltabellen für Motoren das Getriebe entsprechend der Abtriebsleistung und dem Übersetzungsverhältnis.

0.25 kW, 13.3 min<sup>-1</sup>,  $i = 109.45 \rightarrow$  PD 12 - 71 M

Nach Auswahl des Getriebetyps ermitteln Sie den Motorkonsolentyp (MK) anhand der Tabelle in Abhängigkeit von Motorbaugröße und Getriebetyp (Seite 74).

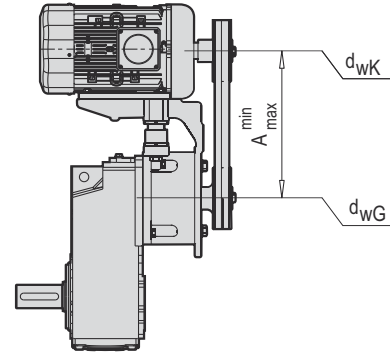
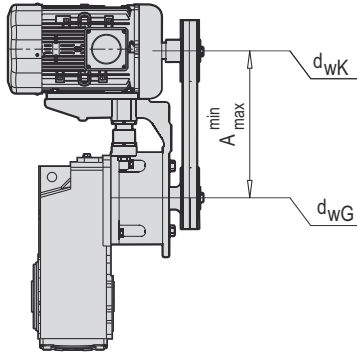
71 M  $\rightarrow$  PD 12  $\rightarrow$  MK1

Informationen zu Riementyp, Verstellbereich, Riemenlänge, Achsabstand zwischen 2 Wellen und Anzahl der Riemen können unter Berücksichtigung der Zeile für die Motorgröße gemäß dem MK1- Motorkonsolentyp ermittelt werden. (Seite 74)

## TR V KAYIŞ VE KAYIŞ KASNAK SEÇİMİ

## EN V BELT AND BELT PULLEY SELECTION

## DE AUSWAHL VON V RIEMEN UND RIEMENSCHLEIBE



|                                                            | Motor    | Çıkış<br>Output<br>Abtrieb<br>(kW) | Ayar aralığı<br>Adjustment range<br>Einstellbereich |      | Kayış uzunluğu<br>Belt length<br>Riemenlänge | Mil merkezi uzaklığı<br>Shaft centre distance<br>Wellenmittenabstand<br>A | Kayış sayısı<br>Number of belts<br>Anzahl Riemen |
|------------------------------------------------------------|----------|------------------------------------|-----------------------------------------------------|------|----------------------------------------------|---------------------------------------------------------------------------|--------------------------------------------------|
|                                                            |          |                                    | Amin                                                | Amax |                                              |                                                                           |                                                  |
| MK I<br>Kayış Tipi SPZ<br>Belt type SPZ<br>Riementyp SPZ   | 63 M/4A  | 0.12                               | 216                                                 | 236  | (d <sub>wG</sub> = 80) (i = 1) Lw<br>697     | 223                                                                       | 1                                                |
|                                                            | 63 M/4B  | 0.18                               | 216                                                 | 236  | 697                                          | 223                                                                       | 1                                                |
|                                                            | 71 M/4A  | 0.25                               | 224                                                 | 244  | 710                                          | 229                                                                       | 1                                                |
|                                                            | 71 M/4B  | 0.37                               | 224                                                 | 244  | 710                                          | 229                                                                       | 1                                                |
|                                                            | 80 M/4A  | 0.55                               | 233                                                 | 253  | 737                                          | 243                                                                       | 1                                                |
|                                                            | 80 M/4B  | 0.75                               | 233                                                 | 253  | 737                                          | 243                                                                       | 1                                                |
|                                                            | 90 S/4A  | 1.10                               | 243                                                 | 263  | 750                                          | 249                                                                       | 1                                                |
|                                                            | 90 L/4A  | 1.50                               | 243                                                 | 263  | 750                                          | 249                                                                       | 2                                                |
|                                                            | 100 L/4A | 2.20                               | 253                                                 | 273  | 772                                          | 260                                                                       | 2                                                |
|                                                            | 100 L/4B | 3.00                               | 253                                                 | 273  | 772                                          | 260                                                                       | 3                                                |
| MK II<br>Kayış Tipi XPZ<br>Belt type XPZ<br>Riementyp SPZ  | 80 M/4A  | 0.55                               | 279                                                 | 304  | (d <sub>wG</sub> = 112) (i = 1) Lw<br>930    | 289                                                                       | 1                                                |
|                                                            | 80 M/4B  | 0.75                               | 279                                                 | 304  | 930                                          | 289                                                                       | 1                                                |
|                                                            | 90 S/4A  | 1.10                               | 289                                                 | 314  | 950                                          | 299                                                                       | 1                                                |
|                                                            | 90 L/4A  | 1.50                               | 289                                                 | 314  | 950                                          | 299                                                                       | 1                                                |
|                                                            | 100 L/4A | 2.20                               | 299                                                 | 324  | 980                                          | 314                                                                       | 1                                                |
|                                                            | 100 L/4B | 3.00                               | 299                                                 | 324  | 980                                          | 314                                                                       | 2                                                |
|                                                            | 112 M/4B | 4.00                               | 311                                                 | 336  | 1000                                         | 324                                                                       | 2                                                |
| MK III<br>Kayış Tipi SPZ<br>Belt type SPZ<br>Riementyp SPZ | 90 S/4A  | 1.10                               | 344                                                 | 376  | (d <sub>wG</sub> = 160) (i = 1) Lw<br>1222   | 360                                                                       | 1                                                |
|                                                            | 90 L/4B  | 1.50                               | 344                                                 | 376  | 1222                                         | 360                                                                       | 1                                                |
|                                                            | 100 L/4A | 2.20                               | 354                                                 | 386  | 1250                                         | 374                                                                       | 1                                                |
|                                                            | 100 L/4B | 3.00                               | 354                                                 | 386  | 1250                                         | 374                                                                       | 1                                                |
|                                                            | 112 M/4B | 4.00                               | 366                                                 | 398  | 1262                                         | 380                                                                       | 2                                                |
|                                                            | 132 S/4C | 5.50                               | 386                                                 | 418  | 1312                                         | 405                                                                       | 2                                                |
|                                                            | 132 M/4B | 7.50                               | 386                                                 | 418  | 1312                                         | 405                                                                       | 3                                                |
| 132 M/4                                                    | 9.20     | 386                                | 418                                                 | 1312 | 405                                          | 3                                                                         |                                                  |
| MK IV<br>Kayış Tipi XPA<br>Belt type XPA<br>Riementyp SPA  | 112 M/4B | 4.00                               | 427                                                 | 467  | (d <sub>wG</sub> = 200) (i = 1) Lw<br>1500   | 436                                                                       | 1                                                |
|                                                            | 132 S/4C | 5.50                               | 447                                                 | 487  | 1550                                         | 461                                                                       | 1                                                |
|                                                            | 132 M/4B | 7.50                               | 447                                                 | 487  | 1550                                         | 461                                                                       | 2                                                |
|                                                            | 132 M/4  | 9.20                               | 447                                                 | 487  | 1550                                         | 461                                                                       | 2                                                |
|                                                            | 160 M/4B | 11.0                               | 475                                                 | 515  | 1600                                         | 486                                                                       | 2                                                |
|                                                            | 160 L/4A | 15.0                               | 475                                                 | 515  | 1600                                         | 486                                                                       | 3                                                |
|                                                            | 180 M/4B | 18.5                               | 495                                                 | 535  | 1650                                         | 511                                                                       | 3                                                |
|                                                            | 180 L/4B | 22.0                               | 495                                                 | 535  | 1650                                         | 511                                                                       | 4                                                |
| 200 L/4C                                                   | 30.0     | 515                                | 555                                                 | 1700 | 536                                          | 4                                                                         |                                                  |
| MK V<br>Kayış Tipi SPA<br>Belt type SPA<br>Riementyp SPA   | 200 L/4C | 30.0                               | 665                                                 | 715  | (d <sub>wG</sub> = 250) (i = 1) Lw<br>2182   | 698                                                                       | 4                                                |
|                                                            | 225 S/4A | 37.0                               | 690                                                 | 740  | 2207                                         | 710                                                                       | 4                                                |
|                                                            | 225 M/4C | 45.0                               | 690                                                 | 740  | 2207                                         | 710                                                                       | 5                                                |
| MK V<br>Kayış Tipi SPB<br>Belt type SPB<br>Riementyp SPB   | 250 M/4C | 55.0                               | 715                                                 | 765  | (d <sub>wG</sub> = 250) (i = 1) Lw<br>2240   | 727                                                                       | 4                                                |

\* Kayış kasnak aksesuarları PGR tarafından temin edilmemektedir.

\*Belt pulley accessories are not provided by PGR.

\*Riemenscheibenzubehör wird nicht von PGR geliefert.



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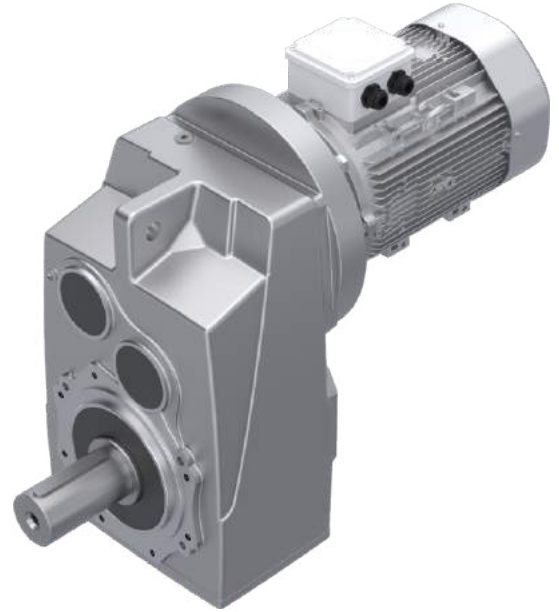
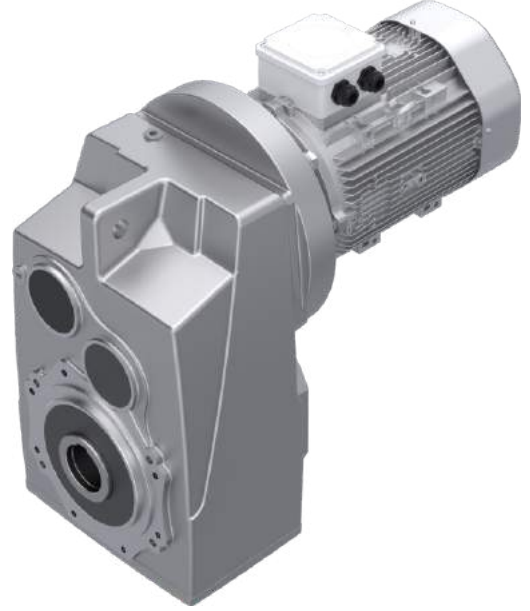


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## Motorlu Seçim Tabloları

Selection Tables of  
Geared motors

Auswahltabellen der  
Getriebemotoren



**PD / PM**

**0.37 kW**
**Redüktör motor gücü**  
 Gear unit motor power  
 Getriebemotorleistung

**Motor gücü**

 Rated motor power  
 Motornennleistung

**Çıkış devri**

 Output speed  
 Leistungsgeschwindigkeit

**Çıkış momenti**

 Output torque  
 Abtriebsdrehmoment

**Servis faktörü**

 Service factor  
 Betriebsfaktor

**Tahvil oranı**

 Reduction ratio  
 Übersetzungsverhältnis

**Ölçü sayfaları**  
 Drawing pages  
 Zeichnungsseite

**Ağırlık**

 Weight  
 Gewicht

**Redüktör tipi**

 Gear unit motor type  
 Getriebetyp

| P <sub>1</sub><br>[kW] | n <sub>2</sub><br>[Min <sup>-1</sup> ] | M <sub>2</sub><br>[Nm] | f <sub>B</sub> | i <sub>ges</sub> | F <sub>R</sub><br>[N] | F <sub>A</sub><br>[N] | F <sub>R GR</sub><br>[N] | F <sub>A GR</sub><br>[N] | Tip / Type / Typ<br>IE2 / IE3     | Kg | mm  |
|------------------------|----------------------------------------|------------------------|----------------|------------------|-----------------------|-----------------------|--------------------------|--------------------------|-----------------------------------|----|-----|
| <b>0.37</b>            | 1.8                                    | 1856                   | 0.8            | 782.28           | 20.0                  | 22.0                  | 29.0                     | 30.0                     | <b>PD/PM 43<br/>71M4B / 71M4C</b> | 78 | 205 |
|                        | 2.1                                    | 1551                   | 0.8            | 653.66           | 21.0                  | 22.0                  | 30.0                     | 30.0                     |                                   |    |     |
|                        | 2.6                                    | 1264                   | 1.6            | 532.76           | 20.0                  | 22.0                  | 29.0                     | 30.0                     |                                   |    |     |
|                        | 3.1                                    | 1056                   | 1.6            | 445.16           | 21.0                  | 22.0                  | 30.0                     | 30.0                     |                                   |    |     |
|                        | 3.6                                    | 928                    | 2.2            | 391.14           | 21.0                  | 22.0                  | 30.0                     | 30.0                     |                                   |    |     |
|                        | 4.3                                    | 775                    | 2.4            | 326.83           | 21.0                  | 22.0                  | 30.0                     | 30.0                     |                                   |    |     |
|                        | 5.1                                    | 646                    | 2.4            | 272.49           | 22.0                  | 22.0                  | 30.0                     | 30.0                     |                                   |    |     |

**Müsaade edilebilir radyal yükler**  
 Normal rulmanlarda  
 FR için listelenmiş değerlerde  
 FA = 0 (N) olarak hesaplanmıştır

Permissible radial force or load on output shaft while normal bearings are used. For this load FA is assumed equal zero. FA = 0 (N)

Die aufgeführten Werte für zulässige Radiallasten FR für Normallager werden mit FA = 0 (N) berechnet.

**Müsaade edilebilir eksenel yükler**  
 Normal rulmanlarda  
 FA için listelenmiş değerlerde  
 FR = 0 (N) olarak hesaplanmıştır

Permissible axial force or load on output shaft while normal bearings are used. For this load FR is assumed equal zero. FR = 0 (N)

Die aufgeführten Werte für zulässige Axiallasten FA für Normallager werden mit FR = 0 (N) berechnet.

**Müsaade edilebilir eksenel yükler**  
 Güçlendirilmiş rulmanlarda  
 FA için listelenmiş değerlerde  
 FR = 0 (N) olarak hesaplanmıştır



Permissible axial force on output shaft while reinforced bearings are used. For this load FR is assumed equal to zero. FR = 0 (N)

Die aufgeführten Werte für zulässige Axiallasten FA für verstärkte Lager werden mit FR = 0 (N) berechnet.



**Müsaade edilebilir radyal yükler**  
 Güçlendirilmiş rulmanlarda  
 FR için listelenmiş değerlerde  
 FA = 0 (N) olarak hesaplanmıştır



Permissible radial force or load on output shaft while reinforced bearings are used. For this load FA is assumed equal to zero. FA = 0 (N)



Die aufgeführten Werte für zulässige Radiallasten FR für verstärkte Lager werden mit FA = 0 (N) berechnet



| $P_1$<br>[kW] | $n_2$<br>[Min <sup>-1</sup> ] | $M_2$<br>[Nm] | $f_B$   | $i_{ges}$ | $F_R$<br>[N] | $F_A$<br>[N] | $F_{RGR}$<br>[N] | $F_{AGR}$<br>[N]                  | Tip / Type / Typ<br>IE2 / IE3        |  Kg |  mm |
|---------------|-------------------------------|---------------|---------|-----------|--------------|--------------|------------------|-----------------------------------|--------------------------------------|----------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------|
| <b>0.12</b>   | 0.3                           | 3320          | 0.9     | 2769.78   | 31.0         | 32.0         | -                | -                                 | <b>PD/PM 52/12<br/>63M6C / 63M6B</b> | 106                                                                                    | 238                                                                                    |
|               | 0.4                           | 2656          | 1.2     | 2215.83   | 31.0         | 32.0         | -                | -                                 |                                      |                                                                                        |                                                                                        |
|               | 0.5                           | 2161          | 1.5     | 1802.82   | 31.0         | 32.0         | -                | -                                 |                                      |                                                                                        |                                                                                        |
|               | 0.8                           | 1312          | 2.4     | 1094.40   | 31.0         | 32.0         | 44.0             | 40.0                              |                                      |                                                                                        |                                                                                        |
|               | 0.5                           | 2086          | 1.4     | 2769.78   | -            | -            | -                | -                                 | <b>PD/PM 52/12<br/>63M4A</b>         | 106                                                                                    | 238                                                                                    |
|               | 0.6                           | 1669          | 1.8     | 2215.83   | -            | -            | -                | -                                 |                                      |                                                                                        |                                                                                        |
|               | 0.8                           | 1358          | 2.2     | 1802.82   | -            | -            | -                | -                                 |                                      |                                                                                        |                                                                                        |
|               | 1.0                           | 1056          | 2.2     | 2769.78   | 31.0         | 32.0         | -                | -                                 | <b>PD/PM 52/12<br/>63M2K</b>         | 106                                                                                    | 238                                                                                    |
|               | 1.3                           | 845           | 2.7     | 2215.83   | 31.0         | 32.0         | -                | -                                 |                                      |                                                                                        |                                                                                        |
|               | 0.5                           | 2194          | 0.9     | 1830.33   | 21.0         | 22.0         | -                | -                                 | <b>PD/PM 42/12<br/>63M6C / 63M6B</b> | 70                                                                                     | 238                                                                                    |
|               | 0.7                           | 1611          | 1.2     | 1343.79   | 21.0         | 22.0         | 30.0             | 30.0                              |                                      |                                                                                        |                                                                                        |
|               | 0.8                           | 1332          | 1.4     | 1111.10   | 22.0         | 22.0         | 30.0             | 30.0                              |                                      |                                                                                        |                                                                                        |
|               | 1.0                           | 1048          | 1.8     | 874.48    | 22.0         | 22.0         | 31.0             | 30.0                              |                                      |                                                                                        |                                                                                        |
|               | 1.3                           | 839           | 2.3     | 699.58    | 6.0          | 10.0         | 31.0             | 30.0                              |                                      |                                                                                        |                                                                                        |
|               | 1.6                           | 669           | 2.8     | 557.93    | 6.0          | 10.0         | 31.0             | 30.0                              |                                      |                                                                                        |                                                                                        |
|               | 0.5                           | 2097          | 0.9     | 2783.90   | -            | -            | -                | -                                 | <b>PD/PM 42/12<br/>63M4A</b>         | 70                                                                                     | 238                                                                                    |
|               | 0.6                           | 1694          | 1.1     | 2249.64   | -            | -            | -                | -                                 |                                      |                                                                                        |                                                                                        |
|               | 0.8                           | 1378          | 1.3     | 1830.33   | -            | -            | -                | -                                 |                                      |                                                                                        |                                                                                        |
|               | 1.0                           | 1012          | 1.8     | 1343.79   | 21.0         | 22.0         | 30.0             | 30.0                              |                                      |                                                                                        |                                                                                        |
|               | 1.3                           | 837           | 2.2     | 1111.10   | 22.0         | 22.0         | 30.0             | 30.0                              |                                      |                                                                                        |                                                                                        |
|               | 1.6                           | 659           | 2.7     | 874.48    | 22.0         | 22.0         | 31.0             | 30.0                              |                                      |                                                                                        |                                                                                        |
|               | 1.0                           | 988           | 1.4     | 2783.90   | 21.0         | 22.0         | -                | -                                 | <b>PD/PM 42/12<br/>63M2K</b>         | 70                                                                                     | 238                                                                                    |
|               | 1.2                           | 798           | 1.7     | 2249.64   | 21.0         | 22.0         | -                | -                                 |                                      |                                                                                        |                                                                                        |
|               | 1.5                           | 650           | 2.1     | 1830.33   | 21.0         | 22.0         | -                | -                                 |                                      |                                                                                        |                                                                                        |
|               | 2.1                           | 477           | 2.9     | 1343.79   | 21.0         | 22.0         | 30.0             | 30.0                              |                                      |                                                                                        |                                                                                        |
|               | 1.1                           | 1021          | 0.9     | 851.83    | 13.0         | 15.0         | -                | -                                 | <b>PD/PM 32/12<br/>63M6C / 63M6B</b> | 55                                                                                     | 238                                                                                    |
|               | 1.3                           | 821           | 1.2     | 684.80    | 13.0         | 15.0         | -                | -                                 |                                      |                                                                                        |                                                                                        |
|               | 1.7                           | 624           | 1.5     | 521.00    | 13.0         | 15.0         | -                | -                                 |                                      |                                                                                        |                                                                                        |
|               | 2.0                           | 553           | 1.7     | 461.30    | 13.0         | 15.0         | -                | -                                 |                                      |                                                                                        |                                                                                        |
|               | 2.5                           | 429           | 2.2     | 358.19    | 4.0          | 7.0          | -                | -                                 |                                      |                                                                                        |                                                                                        |
|               | 3.3                           | 324           | 2.9     | 270.47    | 4.0          | 7.0          | -                | -                                 |                                      |                                                                                        |                                                                                        |
|               | 1.0                           | 1005          | 0.9     | 1335.13   | -            | -            | -                | -                                 | <b>PD/PM 32/12<br/>63M4A</b>         | 55                                                                                     | 238                                                                                    |
|               | 1.3                           | 804           | 1.1     | 1068.11   | -            | -            | -                | -                                 |                                      |                                                                                        |                                                                                        |
|               | 1.6                           | 642           | 1.4     | 851.83    | -            | -            | -                | -                                 |                                      |                                                                                        |                                                                                        |
|               | 2.0                           | 516           | 1.7     | 684.80    | -            | -            | -                | -                                 |                                      |                                                                                        |                                                                                        |
|               | 2.7                           | 392           | 2.3     | 521.00    | -            | -            | -                | -                                 |                                      |                                                                                        |                                                                                        |
|               | 3.0                           | 347           | 2.6     | 461.30    | 13.0         | 15.0         | -                | -                                 |                                      |                                                                                        |                                                                                        |
|               | 1.2                           | 797           | 0.9     | 2246.56   | 13.0         | 15.0         | -                | -                                 | <b>PD/PM 32/12<br/>63M2K</b>         | 55                                                                                     | 238                                                                                    |
|               | 1.7                           | 602           | 1.1     | 1696.40   | 13.0         | 15.0         | -                | -                                 |                                      |                                                                                        |                                                                                        |
|               | 2.1                           | 474           | 1.4     | 1335.13   | 13.0         | 15.0         | -                | -                                 |                                      |                                                                                        |                                                                                        |
| 2.6           | 379                           | 1.8           | 1068.11 | 13.0      | 15.0         | 21.0         | 20.0             |                                   |                                      |                                                                                        |                                                                                        |
| 3.3           | 302                           | 2.3           | 851.83  | 13.0      | 15.0         | -            | -                |                                   |                                      |                                                                                        |                                                                                        |
| 4.1           | 243                           | 2.8           | 684.80  | 13.0      | 15.0         | -            | -                |                                   |                                      |                                                                                        |                                                                                        |
| 1.0           | 1118                          | 0.8           | 918.90  | 15.0      | 15.0         | 22.0         | 20.0             | <b>PD/PM 33<br/>63M6C / 63M6B</b> | 53                                   | 201                                                                                    |                                                                                        |
| 1.1           | 984                           | 1.1           | 808.52  | 15.0      | 15.0         | 22.0         | 20.0             |                                   |                                      |                                                                                        |                                                                                        |
| 1.2           | 884                           | 1.1           | 726.57  | 15.0      | 15.0         | 22.0         | 20.0             |                                   |                                      |                                                                                        |                                                                                        |
| 1.5           | 711                           | 1.5           | 584.11  | 16.0      | 15.0         | 22.0         | 20.0             |                                   |                                      |                                                                                        |                                                                                        |
| 1.9           | 587                           | 1.5           | 482.75  | 16.0      | 15.0         | 23.0         | 20.0             |                                   |                                      |                                                                                        |                                                                                        |
| 2.2           | 497                           | 1.7           | 408.52  | 16.0      | 15.0         | 23.0         | 20.0             |                                   |                                      |                                                                                        |                                                                                        |
| 3.1           | 349                           | 2.8           | 287.08  | 11.0      | 15.0         | 23.0         | 20.0             |                                   |                                      |                                                                                        |                                                                                        |
| 1.4           | 787                           | 1.0           | 1022.54 | 15.0      | 15.0         | 22.0         | 20.0             | <b>PD/PM 33<br/>63M4A</b>         | 53                                   | 201                                                                                    |                                                                                        |
| 1.5           | 707                           | 1.2           | 918.90  | 15.0      | 15.0         | 22.0         | 20.0             |                                   |                                      |                                                                                        |                                                                                        |
| 1.7           | 622                           | 1.7           | 808.52  | 15.0      | 15.0         | 22.0         | 20.0             |                                   |                                      |                                                                                        |                                                                                        |
| 1.9           | 559                           | 1.7           | 726.57  | 15.0      | 15.0         | 22.0         | 20.0             |                                   |                                      |                                                                                        |                                                                                        |
| 2.4           | 449                           | 2.2           | 584.11  | 16.0      | 15.0         | 22.0         | 20.0             |                                   |                                      |                                                                                        |                                                                                        |
| 2.9           | 371                           | 2.3           | 482.75  | 16.0      | 15.0         | 23.0         | 20.0             |                                   |                                      |                                                                                        |                                                                                        |
| 3.4           | 314                           | 2.5           | 408.42  | 16.0      | 15.0         | 23.0         | 20.0             |                                   |                                      |                                                                                        |                                                                                        |
| 2.7           | 376                           | 1.6           | 1022.54 | 15.0      | 15.0         | 22.0         | 20.0             | <b>PD/PM 33<br/>63M2K</b>         | 53                                   | 201                                                                                    |                                                                                        |
| 3.0           | 338                           | 1.8           | 918.90  | 15.0      | 15.0         | 22.0         | 20.0             |                                   |                                      |                                                                                        |                                                                                        |
| 3.5           | 297                           | 2.7           | 808.52  | 15.0      | 15.0         | 22.0         | 20.0             |                                   |                                      |                                                                                        |                                                                                        |
| 3.9           | 267                           | 2.7           | 726.57  | 15.0      | 15.0         | 22.0         | 20.0             |                                   |                                      |                                                                                        |                                                                                        |
|               |                               |               |         |           |              |              |                  |                                   |                                      |                                                                                        |                                                                                        |







| $P_1$<br>[kW] | $n_2$<br>[Min <sup>-1</sup> ] | $M_2$<br>[Nm] | $f_B$  | $i_{ges}$ | $F_R$<br>[N] | $F_A$<br>[N] | $F_{RGR}$<br>[N] | $F_{AGR}$<br>[N]          | Tip / Type / Typ<br>IE2 / IE3 |  |  |
|---------------|-------------------------------|---------------|--------|-----------|--------------|--------------|------------------|---------------------------|-------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| 0.12          | 1.8                           | 616           | 0.9    | 514.10    | 8.0          | 12.0         | 13.0             | 15.0                      | PD/PM 22/02<br>63M6C / 63M6B  | 38                                                                                  | 238                                                                                 |
|               | 2.1                           | 508           | 1.1    | 424.03    | 7.0          | 12.0         | 12.0             | 15.0                      |                               |                                                                                     |                                                                                     |
|               | 2.5                           | 427           | 1.3    | 356.48    | 7.0          | 12.0         | -                | -                         |                               |                                                                                     |                                                                                     |
|               | 3.1                           | 345           | 1.6    | 288.06    | 7.0          | 12.0         | -                | -                         |                               |                                                                                     |                                                                                     |
|               | 4.2                           | 260           | 2.1    | 216.66    | 5.0          | 10.0         | -                | -                         |                               |                                                                                     |                                                                                     |
|               | 5.1                           | 210           | 2.6    | 175.52    | 5.0          | 10.0         | -                | -                         | PD/PM 22/02<br>63M4A          | 38                                                                                  | 238                                                                                 |
|               | 1.7                           | 621           | 0.8    | 825.15    | -            | -            | -                | -                         |                               |                                                                                     |                                                                                     |
|               | 2.1                           | 499           | 1.0    | 662.62    | -            | -            | 12.0             | 15.0                      |                               |                                                                                     |                                                                                     |
|               | 2.7                           | 387           | 1.3    | 514.10    | 8.0          | 12.0         | 13.0             | 15.0                      |                               |                                                                                     |                                                                                     |
|               | 3.3                           | 319           | 1.6    | 424.03    | 7.0          | 12.0         | 12.0             | 15.0                      |                               |                                                                                     |                                                                                     |
|               | 3.9                           | 268           | 1.9    | 356.48    | -            | -            | -                | -                         | PD/PM 22/02<br>63M2K          | 38                                                                                  | 238                                                                                 |
|               | 4.9                           | 217           | 2.4    | 288.06    | 7.0          | 12.0         | -                | -                         |                               |                                                                                     |                                                                                     |
|               | 2.0                           | 505           | 0.8    | 1423.90   | 8.0          | 12.0         | 12.0             | 15.0                      |                               |                                                                                     |                                                                                     |
|               | 2.6                           | 378           | 1.0    | 1065.19   | 8.0          | 12.0         | -                | -                         |                               |                                                                                     |                                                                                     |
|               | 3.4                           | 293           | 1.3    | 825.15    | 8.0          | 12.0         | -                | -                         |                               |                                                                                     |                                                                                     |
|               | 4.2                           | 235           | 1.7    | 662.62    | 8.0          | 12.0         | 12.0             | 15.0                      | PD/PM 23<br>63M6C / 63M6B     | 37                                                                                  | 197                                                                                 |
|               | 5.4                           | 182           | 2.2    | 514.10    | 8.0          | 12.0         | 13.0             | 15.0                      |                               |                                                                                     |                                                                                     |
|               | 6.6                           | 150           | 2.6    | 424.03    | 7.0          | 12.0         | 12.0             | 15.0                      |                               |                                                                                     |                                                                                     |
|               | 1.9                           | 587           | 0.9    | 482.49    | 9.0          | 12.0         | 12.0             | 15.0                      |                               |                                                                                     |                                                                                     |
|               | 2.3                           | 476           | 1.2    | 390.87    | 9.0          | 12.0         | 13.0             | 15.0                      |                               |                                                                                     |                                                                                     |
|               | 2.7                           | 402           | 1.5    | 330.43    | 10.0         | 12.0         | 13.0             | 15.0                      | PD/PM 23<br>63M4A             | 37                                                                                  | 197                                                                                 |
|               | 3.3                           | 336           | 1.7    | 276.32    | 10.0         | 12.0         | 14.0             | 15.0                      |                               |                                                                                     |                                                                                     |
|               | 3.8                           | 287           | 1.7    | 235.73    | 10.0         | 12.0         | 14.0             | 15.0                      |                               |                                                                                     |                                                                                     |
|               | 4.9                           | 225           | 2.4    | 185.19    | 7.0          | 12.0         | 14.0             | 15.0                      |                               |                                                                                     |                                                                                     |
|               | 6.0                           | 183           | 3.0    | 150.03    | 7.0          | 12.0         | -                | -                         |                               |                                                                                     |                                                                                     |
|               | 2.2                           | 479           | 1.1    | 622.96    | 8.0          | 12.0         | 13.0             | 15.0                      | PD/PM 23<br>63M2K             | 37                                                                                  | 197                                                                                 |
|               | 2.9                           | 371           | 1.4    | 482.49    | 9.0          | 12.0         | 13.0             | 15.0                      |                               |                                                                                     |                                                                                     |
|               | 3.6                           | 301           | 1.7    | 390.87    | 9.0          | 12.0         | 14.0             | 15.0                      |                               |                                                                                     |                                                                                     |
|               | 4.2                           | 254           | 2.2    | 330.43    | 10.0         | 12.0         | 14.0             | 15.0                      |                               |                                                                                     |                                                                                     |
|               | 5.1                           | 213           | 2.6    | 276.32    | 10.0         | 12.0         | 14.0             | 15.0                      |                               |                                                                                     |                                                                                     |
|               | 5.9                           | 181           | 2.6    | 235.73    | 10.0         | 12.0         | 14.0             | 15.0                      | PD/PM 23<br>63M4A             | 37                                                                                  | 197                                                                                 |
|               | 3.7                           | 281           | 1.2    | 762.96    | 8.0          | 12.0         | 13.0             | 15.0                      |                               |                                                                                     |                                                                                     |
|               | 4.5                           | 229           | 1.7    | 622.96    | 8.0          | 12.0         | 13.0             | 15.0                      |                               |                                                                                     |                                                                                     |
|               | 5.8                           | 177           | 2.2    | 482.49    | 9.0          | 12.0         | 13.0             | 15.0                      |                               |                                                                                     |                                                                                     |
|               | 7.2                           | 144           | 2.8    | 390.87    | 9.0          | 12.0         | 14.0             | 15.0                      |                               |                                                                                     |                                                                                     |
|               | 2.7                           | 393           | 0.8    | 328.02    | 6.0          | 7.0          | -                | -                         | PD/PM 12/02<br>63M6C / 63M6B  | 27                                                                                  | 238                                                                                 |
|               | 3.2                           | 340           | 0.9    | 284.03    | 6.0          | 7.0          | -                | -                         |                               |                                                                                     |                                                                                     |
|               | 3.9                           | 275           | 1.1    | 229.52    | 6.0          | 7.0          | -                | -                         |                               |                                                                                     |                                                                                     |
|               | 3.4                           | 306           | 0.9    | 405.92    | 6.0          | 7.0          | 9.0              | 7.0                       | PD/PM 12/02<br>63M4A          | 27                                                                                  | 238                                                                                 |
|               | 4.3                           | 247           | 1.2    | 328.02    | -            | -            | 9.0              | 7.0                       |                               |                                                                                     |                                                                                     |
|               | 4.9                           | 214           | 1.4    | 284.03    | 6.0          | 7.0          | 9.0              | 7.0                       |                               |                                                                                     |                                                                                     |
|               | 6.1                           | 173           | 1.7    | 229.52    | 6.0          | 7.0          | 9.0              | 7.0                       |                               |                                                                                     |                                                                                     |
|               | 3.4                           | 293           | 0.8    | 824.73    | 6.0          | 7.0          | 8.0              | 7.0                       |                               |                                                                                     |                                                                                     |
|               | 4.2                           | 235           | 0.9    | 662.28    | 6.0          | 7.0          | 8.0              | 7.0                       |                               |                                                                                     |                                                                                     |
|               | 5.1                           | 194           | 1.1    | 546.25    | 6.0          | 7.0          | 9.0              | 7.0                       |                               |                                                                                     |                                                                                     |
| 6.9           | 144                           | 1.5           | 405.92 | 6.0       | 7.0          | 9.0          | 7.0              |                           |                               |                                                                                     |                                                                                     |
| 8.5           | 116                           | 1.9           | 328.02 | 6.0       | 7.0          | 9.0          | 7.0              |                           |                               |                                                                                     |                                                                                     |
| 9.9           | 101                           | 2.2           | 284.03 | 6.0       | 7.0          | 9.0          | 7.0              |                           |                               |                                                                                     |                                                                                     |
| 12.2          | 81                            | 2.7           | 229.52 | 6.0       | 7.0          | 9.0          | 7.0              |                           |                               |                                                                                     |                                                                                     |
| 3.0           | 336                           | 0.8           | 301.08 | 6.0       | 7.0          | -            | -                | PD/PM 13<br>63M6C / 63M6B | 23                            | 193                                                                                 |                                                                                     |
| 3.6           | 306                           | 0.9           | 251.58 | 6.0       | 7.0          | -            | -                |                           |                               |                                                                                     |                                                                                     |
| 4.3           | 255                           | 1.0           | 209.76 | 7.0       | 7.0          | -            | -                |                           |                               |                                                                                     |                                                                                     |
| 5.5           | 199                           | 1.2           | 163.92 | 6.0       | 7.0          | -            | -                |                           |                               |                                                                                     |                                                                                     |
| 7.0           | 157                           | 1.5           | 129.01 | 6.0       | 7.0          | -            | -                |                           |                               |                                                                                     |                                                                                     |
| 8.5           | 128                           | 2.2           | 105.32 | 6.0       | 7.0          | -            | -                |                           |                               |                                                                                     |                                                                                     |
| 10.2          | 107                           | 2.7           | 88.00  | 6.0       | 7.0          | -            | -                |                           |                               |                                                                                     |                                                                                     |
| 3.8           | 284                           | 0.8           | 368.83 | 6.0       | 7.0          | -            | -                | PD/PM 13<br>63M4A         | 23                            | 193                                                                                 |                                                                                     |
| 4.6           | 232                           | 1.2           | 301.08 | 6.0       | 7.0          | -            | -                |                           |                               |                                                                                     |                                                                                     |
| 5.6           | 194                           | 1.4           | 251.58 | 6.0       | 7.0          | -            | -                |                           |                               |                                                                                     |                                                                                     |
| 6.7           | 161                           | 1.5           | 209.76 | 7.0       | 7.0          | -            | -                |                           |                               |                                                                                     |                                                                                     |
| 8.5           | 126                           | 1.8           | 163.92 | 6.0       | 7.0          | -            | -                |                           |                               |                                                                                     |                                                                                     |
| 10.9          | 99                            | 2.3           | 129.01 | -         | -            | -            | -                |                           |                               |                                                                                     |                                                                                     |
|               |                               |               |        |           |              |              |                  |                           |                               |                                                                                     |                                                                                     |



| $P_1$<br>[kW] | $n_2$<br>[Min <sup>-1</sup> ] | $M_2$<br>[Nm] | $f_B$   | $i_{ges}$ | $F_R$<br>[N] | $F_A$<br>[N] | $F_{RGR}$<br>[N] | $F_{AGR}$<br>[N]                   | Tip / Type / Typ<br>IE2 / IE3        |  Kg |  mm |
|---------------|-------------------------------|---------------|---------|-----------|--------------|--------------|------------------|------------------------------------|--------------------------------------|----------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------|
| <b>0.12</b>   | 5.0                           | 205           | 0.8     | 556.59    | 6.0          | 7.0          | -                | -                                  | <b>PD/PM 13<br/>63M2K</b>            | 23                                                                                     | 193                                                                                    |
|               | 5.9                           | 174           | 1.0     | 472.42    | 6.0          | 7.0          | -                | -                                  |                                      |                                                                                        |                                                                                        |
|               | 6.7                           | 153           | 1.1     | 414.87    | 6.0          | 7.0          | -                | -                                  |                                      |                                                                                        |                                                                                        |
|               | 7.6                           | 136           | 1.3     | 368.83    | 6.0          | 7.0          | -                | -                                  |                                      |                                                                                        |                                                                                        |
|               | 9.3                           | 111           | 1.9     | 301.08    | 6.0          | 7.0          | -                | -                                  |                                      |                                                                                        |                                                                                        |
|               | 11.1                          | 93            | 2.3     | 251.58    | 6.0          | 7.0          | -                | -                                  |                                      |                                                                                        |                                                                                        |
|               | 13.3                          | 77            | 2.3     | 209.76    | 7.0          | 7.0          | -                | -                                  |                                      |                                                                                        |                                                                                        |
|               | 17.1                          | 60            | 2.8     | 163.92    | 6.0          | 7.0          | -                | -                                  |                                      |                                                                                        |                                                                                        |
|               | 8.2                           | 135           | 1.6     | 109.45    | 7.0          | 7.0          | 10.0             | 7.0                                | <b>PD/PM 12<br/>63M6C / 63M6B</b>    | 19                                                                                     | 192                                                                                    |
|               | 9.7                           | 114           | 2.1     | 92.43     | 4.0          | 7.0          | 10.0             | 7.0                                |                                      |                                                                                        |                                                                                        |
|               | 12.8                          | 86            | 2.4     | 109.45    | 7.0          | 7.0          | 10.0             | 7.0                                | <b>PD/PM 12<br/>63M4A</b>            | 19                                                                                     | 192                                                                                    |
|               | 2.4                           | 463           | 0.8     | 380.81    | 6.0          | 7.0          | 8.0              | 11.0                               | <b>PD/PM C13<br/>63M6C / 63M6B</b>   | 25                                                                                     | 190                                                                                    |
|               | 3.0                           | 367           | 1.1     | 301.44    | 6.0          | 7.0          | 8.0              | 11.0                               |                                      |                                                                                        |                                                                                        |
|               | 3.5                           | 313           | 1.2     | 257.36    | 7.0          | 7.0          | 8.0              | 11.0                               |                                      |                                                                                        |                                                                                        |
|               | 4.4                           | 248           | 1.6     | 203.72    | 7.0          | 7.0          | 8.0              | 11.0                               |                                      |                                                                                        |                                                                                        |
|               | 5.7                           | 193           | 2.0     | 158.21    | 7.0          | 7.0          | 8.0              | 11.0                               |                                      |                                                                                        |                                                                                        |
|               | 6.6                           | 166           | 2.3     | 136.54    | 3.0          | 5.0          | 8.0              | 11.0                               |                                      |                                                                                        |                                                                                        |
|               | 7.6                           | 144           | 2.7     | 118.07    | 3.0          | 5.0          | 8.0              | 11.0                               |                                      |                                                                                        |                                                                                        |
|               | 8.5                           | 129           | 3.0     | 106.03    | 3.0          | 5.0          | 8.0              | 11.0                               |                                      |                                                                                        |                                                                                        |
|               | 3.7                           | 293           | 1.3     | 380.81    | 6.0          | 7.0          | 8.0              | 11.0                               | <b>PD/PM C13<br/>63M4A</b>           | 25                                                                                     | 190                                                                                    |
|               | 4.6                           | 232           | 1.6     | 301.44    | 6.0          | 7.0          | 8.0              | 11.0                               |                                      |                                                                                        |                                                                                        |
|               | 5.4                           | 198           | 1.9     | 257.36    | 7.0          | 7.0          | 8.0              | 11.0                               |                                      |                                                                                        |                                                                                        |
|               | 6.9                           | 157           | 2.4     | 203.72    | 7.0          | 7.0          | 8.0              | 11.0                               |                                      |                                                                                        |                                                                                        |
|               | 8.8                           | 122           | 3.0     | 158.21    | 7.0          | 7.0          | 8.0              | 11.0                               |                                      |                                                                                        |                                                                                        |
|               | 7.4                           | 140           | 2.0     | 380.81    | 6.0          | 7.0          | 8.0              | 11.0                               | <b>PD/PM C13<br/>63M2K</b>           | 25                                                                                     | 190                                                                                    |
|               | 9.3                           | 111           | 2.5     | 301.44    | 6.0          | 7.0          | 8.0              | 11.0                               |                                      |                                                                                        |                                                                                        |
|               | 10.9                          | 95            | 3.0     | 257.36    | 7.0          | 7.0          | 8.0              | 11.0                               |                                      |                                                                                        |                                                                                        |
|               | 8.7                           | 128           | 1.1     | 103.90    | 5.0          | 5.0          | 7.0              | 5.0                                | <b>PD/PM B02<br/>63M6C / 63M6B</b>   | 13                                                                                     | 188                                                                                    |
|               | 10.5                          | 106           | 1.4     | 85.67     | 5.0          | 5.0          | 7.0              | 5.0                                |                                      |                                                                                        |                                                                                        |
|               | 11.3                          | 98            | 1.4     | 79.42     | 5.0          | 5.0          | 7.0              | 5.0                                |                                      |                                                                                        |                                                                                        |
|               | 13.6                          | 82            | 1.8     | 66.00     | 5.0          | 5.0          | 7.0              | 5.0                                |                                      |                                                                                        |                                                                                        |
|               | 15.9                          | 70            | 2.4     | 56.55     | 3.0          | 5.0          | 7.0              | 5.0                                |                                      |                                                                                        |                                                                                        |
| 17.4          | 64                            | 2.4           | 51.60   | 3.0       | 5.0          | 7.0          | 5.0              |                                    |                                      |                                                                                        |                                                                                        |
| 10.1          | 109                           | 1.0           | 139.15  | 5.0       | 5.0          | 7.0          | 5.0              | <b>PD/PM B02<br/>63M4A</b>         | 13                                   | 188                                                                                    |                                                                                        |
| 13.5          | 82                            | 1.6           | 103.09  | 5.0       | 5.0          | 7.0          | 5.0              |                                    |                                      |                                                                                        |                                                                                        |
| 16.3          | 67                            | 2.1           | 85.67   | 5.0       | 5.0          | 7.0          | 5.0              |                                    |                                      |                                                                                        |                                                                                        |
| 17.6          | 62                            | 2.1           | 79.42   | 5.0       | 5.0          | 7.0          | 5.0              |                                    |                                      |                                                                                        |                                                                                        |
| 21.2          | 52                            | 2.7           | 66.00   | 5.0       | 5.0          | 7.0          | 5.0              |                                    |                                      |                                                                                        |                                                                                        |
| 20.1          | 53                            | 1.6           | 139.15  | 5.0       | 5.0          | 7.0          | 5.0              | <b>PD/PM B02<br/>63M2K</b>         | 13                                   | 188                                                                                    |                                                                                        |
| 27.2          | 39                            | 2.5           | 103.09  | 5.0       | 5.0          | 7.0          | 5.0              |                                    |                                      |                                                                                        |                                                                                        |
| 15.2          | 73                            | 1.6           | 59.32   | 5.0       | 5.0          | 5.0          | 8.0              | <b>PD/PM A02<br/>63M6C / 63M6B</b> | 9                                    | 186                                                                                    |                                                                                        |
| 18.1          | 61                            | 1.7           | 49.62   | 5.0       | 5.0          | 5.0          | 8.0              |                                    |                                      |                                                                                        |                                                                                        |
| 21.5          | 52                            | 1.7           | 41.88   | 5.0       | 5.0          | 5.0          | 8.0              |                                    |                                      |                                                                                        |                                                                                        |
| 23.9          | 47                            | 2.3           | 37.71   | 5.0       | 5.0          | 5.0          | 8.0              |                                    |                                      |                                                                                        |                                                                                        |
| 25.9          | 43                            | 2.5           | 34.80   | 5.0       | 5.0          | 5.0          | 8.0              |                                    |                                      |                                                                                        |                                                                                        |
| 28.3          | 39                            | 2.5           | 31.83   | 5.0       | 5.0          | 5.0          | 8.0              |                                    |                                      |                                                                                        |                                                                                        |
| 17.1          | 64                            | 1.0           | 81.73   | 5.0       | 5.0          | 5.0          | 8.0              | <b>PD/PM A02<br/>63M4A</b>         | 9                                    | 186                                                                                    |                                                                                        |
| 23.6          | 47                            | 2.4           | 59.32   | 5.0       | 5.0          | 5.0          | 8.0              |                                    |                                      |                                                                                        |                                                                                        |
| 28.2          | 39                            | 2.6           | 49.62   | 5.0       | 5.0          | 5.0          | 8.0              |                                    |                                      |                                                                                        |                                                                                        |
| 33.4          | 33                            | 2.6           | 41.88   | 5.0       | 5.0          | 5.0          | 8.0              |                                    |                                      |                                                                                        |                                                                                        |
| 34.3          | 31                            | 1.6           | 81.73   | 5.0       | 5.0          | 5.0          | 8.0              | <b>PD/PM A02<br/>63M2K</b>         | 9                                    | 186                                                                                    |                                                                                        |
| <b>0.18</b>   | 0.1                           | 11691         | 1.1     | 6601.35   | 21.0         | 36.0         | -                | -                                  | <b>PD/PM 83/32<br/>71M6B / 71M6A</b> | 408                                                                                    | 240                                                                                    |
|               | 0.2                           | 9748          | 1.3     | 5504.36   | 21.0         | 36.0         | -                | -                                  |                                      |                                                                                        |                                                                                        |
|               | 0.2                           | 8660          | 0.9     | 4889.70   | 16.0         | 26.0         | -                | -                                  | <b>PD/PM 73/22<br/>71M6B / 71M6A</b> | 272                                                                                    | 240                                                                                    |
|               | 0.4                           | 3650          | 2.0     | 2061.26   | 16.0         | 26.0         | -                | -                                  |                                      |                                                                                        |                                                                                        |
|               | 0.5                           | 3199          | 2.3     | 1806.13   | 16.0         | 26.0         | -                | -                                  |                                      |                                                                                        |                                                                                        |
|               | 0.3                           | 6121          | 0.9     | 3456.44   | 16.0         | 26.0         | -                | -                                  | <b>PD/PM 63/22<br/>71M6B / 71M6A</b> | 199                                                                                    | 240                                                                                    |
|               | 0.3                           | 4849          | 1.0     | 2738.15   | 16.0         | 26.0         | -                | -                                  |                                      |                                                                                        |                                                                                        |
|               | 0.7                           | 2233          | 2.5     | 1260.77   | 16.0         | 26.0         | 57.0             | 60.0                               |                                      |                                                                                        |                                                                                        |
| 0.8           | 1956                          | 2.9           | 1104.71 | 16.0      | 26.0         | 57.0         | 60.0             |                                    |                                      |                                                                                        |                                                                                        |



| $P_1$<br>[kW] | $n_2$<br>[Min <sup>-1</sup> ] | $M_2$<br>[Nm] | $f_B$   | $i_{ges}$ | $F_R$<br>[N] | $F_A$<br>[N] | $F_{RGR}$<br>[N] | $F_{AGR}$<br>[N]          | Tip / Type / Typ<br>IE2 / IE3 |  |  |
|---------------|-------------------------------|---------------|---------|-----------|--------------|--------------|------------------|---------------------------|-------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| 0.18          | 0.4                           | 3984          | 0.8     | 2215.83   | 31.0         | 32.0         | -                | -                         | PD/PM 52/12<br>71M6B / 71M6A  | 109                                                                                 | 238                                                                                 |
|               | 0.5                           | 3241          | 1.0     | 1802.82   | 31.0         | 32.0         | -                | -                         |                               |                                                                                     |                                                                                     |
|               | 0.7                           | 2398          | 1.3     | 1333.49   | 31.0         | 32.0         | 40.0             | 40.0                      |                               |                                                                                     |                                                                                     |
|               | 0.8                           | 1968          | 1.6     | 1094.40   | 31.0         | 32.0         | 44.0             | 40.0                      |                               |                                                                                     |                                                                                     |
|               | 1.0                           | 1549          | 2.0     | 861.34    | 31.0         | 32.0         | 44.0             | 40.0                      |                               |                                                                                     |                                                                                     |
|               | 1.3                           | 1239          | 2.5     | 689.07    | 31.0         | 32.0         | 44.0             | 40.0                      | PD/PM 52/12<br>63M4B          | 106                                                                                 | 238                                                                                 |
|               | 0.5                           | 3129          | 1.0     | 2769.78   | -            | -            | -                | -                         |                               |                                                                                     |                                                                                     |
|               | 0.6                           | 2503          | 1.2     | 2215.83   | -            | -            | -                | -                         |                               |                                                                                     |                                                                                     |
|               | 0.8                           | 2037          | 1.5     | 1802.82   | -            | -            | -                | -                         |                               |                                                                                     |                                                                                     |
|               | 1.3                           | 1236          | 2.4     | 1094.40   | 31.0         | 32.0         | 44.0             | 40.0                      | PD/PM 52/12<br>63M2A          | 106                                                                                 | 238                                                                                 |
|               | 1.0                           | 1475          | 1.5     | 2769.78   | 31.0         | 32.0         | -                | -                         |                               |                                                                                     |                                                                                     |
|               | 1.3                           | 1180          | 1.9     | 2215.83   | 31.0         | 32.0         | -                | -                         |                               |                                                                                     |                                                                                     |
|               | 1.6                           | 960           | 2.4     | 1802.82   | 31.0         | 32.0         | -                | -                         | PD/PM 42/12<br>71M6B / 71M6A  | 73                                                                                  | 238                                                                                 |
|               | 0.7                           | 2416          | 0.8     | 1343.79   | 20.0         | 22.0         | 29.0             | 30.0                      |                               |                                                                                     |                                                                                     |
|               | 0.8                           | 1998          | 0.9     | 1111.10   | 21.0         | 22.0         | 30.0             | 30.0                      |                               |                                                                                     |                                                                                     |
|               | 1.0                           | 1572          | 1.2     | 874.48    | 21.0         | 22.0         | 30.0             | 30.0                      |                               |                                                                                     |                                                                                     |
|               | 1.3                           | 1258          | 1.5     | 699.58    | 22.0         | 22.0         | 30.0             | 30.0                      |                               |                                                                                     |                                                                                     |
|               | 1.6                           | 1003          | 1.9     | 557.93    | 22.0         | 22.0         | 31.0             | 30.0                      |                               |                                                                                     |                                                                                     |
|               | 2.2                           | 736           | 2.6     | 409.62    | 21.0         | 22.0         | 31.0             | 30.0                      |                               |                                                                                     |                                                                                     |
|               | 0.8                           | 2068          | 0.9     | 1830.33   | -            | -            | -                | -                         |                               |                                                                                     |                                                                                     |
|               | 1.0                           | 1518          | 1.2     | 1343.79   | 20.0         | 22.0         | 29.0             | 30.0                      |                               |                                                                                     |                                                                                     |
|               | 1.3                           | 1255          | 1.4     | 1111.10   | 21.0         | 22.0         | 30.0             | 30.0                      |                               |                                                                                     |                                                                                     |
|               | 1.6                           | 988           | 1.8     | 874.48    | 21.0         | 22.0         | 30.0             | 30.0                      |                               |                                                                                     |                                                                                     |
|               | 2.0                           | 790           | 2.3     | 699.58    | 22.0         | 22.0         | 30.0             | 30.0                      |                               |                                                                                     |                                                                                     |
|               | 2.5                           | 630           | 2.9     | 557.93    | 22.0         | 22.0         | 31.0             | 30.0                      | PD/PM 42/12<br>63M2A          | 70                                                                                  | 238                                                                                 |
|               | 1.0                           | 1482          | 0.9     | 2783.90   | 20.0         | 22.0         | -                | -                         |                               |                                                                                     |                                                                                     |
|               | 1.2                           | 1198          | 1.1     | 2249.64   | 20.0         | 22.0         | -                | -                         |                               |                                                                                     |                                                                                     |
|               | 1.5                           | 974           | 1.4     | 1830.33   | 20.0         | 22.0         | -                | -                         |                               |                                                                                     |                                                                                     |
|               | 2.1                           | 715           | 1.9     | 1343.79   | 20.0         | 22.0         | 29.0             | 30.0                      |                               |                                                                                     |                                                                                     |
|               | 2.5                           | 592           | 2.3     | 1111.10   | 21.0         | 22.0         | 30.0             | 30.0                      |                               |                                                                                     |                                                                                     |
|               | 3.2                           | 466           | 2.9     | 874.48    | 21.0         | 22.0         | 30.0             | 30.0                      | PD/PM 43<br>71M6B / 71M6A     | 78                                                                                  | 205                                                                                 |
|               | 0.8                           | 2062          | 0.8     | 1129.42   | 16.0         | 22.0         | 27.0             | 30.0                      |                               |                                                                                     |                                                                                     |
|               | 1.2                           | 1428          | 1.1     | 782.28    | 16.0         | 22.0         | 29.0             | 30.0                      |                               |                                                                                     |                                                                                     |
|               | 1.4                           | 1193          | 1.1     | 653.66    | 16.0         | 22.0         | 30.0             | 30.0                      |                               |                                                                                     |                                                                                     |
|               | 1.7                           | 972           | 2.2     | 532.76    | 16.0         | 22.0         | 30.0             | 30.0                      |                               |                                                                                     |                                                                                     |
|               | 2.0                           | 813           | 2.2     | 445.16    | 16.0         | 22.0         | 30.0             | 30.0                      |                               |                                                                                     |                                                                                     |
|               | 2.3                           | 714           | 2.9     | 391.14    | 16.0         | 22.0         | 30.0             | 30.0                      | PD/PM 32/12<br>71M6B / 71M6A  | 58                                                                                  | 238                                                                                 |
|               | 1.3                           | 1231          | 0.8     | 684.80    | 13.0         | 15.0         | -                | -                         |                               |                                                                                     |                                                                                     |
|               | 1.7                           | 937           | 1.0     | 521.00    | 13.0         | 15.0         | -                | -                         |                               |                                                                                     |                                                                                     |
|               | 2.0                           | 829           | 1.1     | 461.30    | 13.0         | 15.0         | 21.0             | 20.0                      |                               |                                                                                     |                                                                                     |
|               | 2.5                           | 644           | 1.5     | 358.19    | 13.0         | 15.0         | 22.0             | 20.0                      |                               |                                                                                     |                                                                                     |
|               | 3.3                           | 486           | 1.9     | 270.47    | 13.0         | 15.0         | -                | -                         |                               |                                                                                     |                                                                                     |
|               | 4.1                           | 391           | 2.4     | 217.44    | 13.0         | 15.0         | -                | -                         |                               |                                                                                     |                                                                                     |
|               | 5.0                           | 323           | 2.9     | 179.71    | 13.0         | 15.0         | -                | -                         | PD/PM 32/12<br>63M4B          | 55                                                                                  | 238                                                                                 |
|               | 1.6                           | 962           | 0.9     | 851.83    | -            | -            | -                | -                         |                               |                                                                                     |                                                                                     |
|               | 2.0                           | 774           | 1.2     | 684.80    | -            | -            | -                | -                         |                               |                                                                                     |                                                                                     |
|               | 2.7                           | 589           | 1.5     | 521.00    | -            | -            | -                | -                         |                               |                                                                                     |                                                                                     |
| 3.0           | 521                           | 1.7           | 461.30  | 13.0      | 15.0         | 21.0         | 20.0             |                           |                               |                                                                                     |                                                                                     |
| 3.9           | 405                           | 2.2           | 358.19  | 15.0      | 15.0         | 22.0         | 20.0             |                           |                               |                                                                                     |                                                                                     |
| 5.2           | 306                           | 2.9           | 270.47  | -         | -            | -            | -                | PD/PM 32/12<br>63M2A      | 55                            | 238                                                                                 |                                                                                     |
| 1.7           | 903                           | 0.8           | 1696.40 | 13.0      | 15.0         | -            | -                |                           |                               |                                                                                     |                                                                                     |
| 2.1           | 711                           | 1.0           | 1335.13 | 13.0      | 15.0         | -            | -                |                           |                               |                                                                                     |                                                                                     |
| 2.6           | 569                           | 1.2           | 1068.11 | 13.0      | 15.0         | 21.0         | 20.0             |                           |                               |                                                                                     |                                                                                     |
| 3.3           | 454                           | 1.5           | 851.83  | 13.0      | 15.0         | -            | -                |                           |                               |                                                                                     |                                                                                     |
| 4.1           | 365                           | 1.9           | 684.80  | 13.0      | 15.0         | -            | -                |                           |                               |                                                                                     |                                                                                     |
| 5.4           | 277                           | 2.5           | 521.00  | 13.0      | 15.0         | -            | -                |                           |                               |                                                                                     |                                                                                     |
| 6.1           | 246                           | 2.8           | 461.30  | 13.0      | 15.0         | 21.0         | 20.0             | PD/PM 33<br>71M6B / 71M6A | 56                            | 201                                                                                 |                                                                                     |
| 1.5           | 1066                          | 1.0           | 584.11  | 15.0      | 15.0         | 22.0         | 20.0             |                           |                               |                                                                                     |                                                                                     |
| 1.9           | 881                           | 1.0           | 482.75  | 15.0      | 15.0         | 22.0         | 20.0             |                           |                               |                                                                                     |                                                                                     |
| 2.2           | 746                           | 1.1           | 408.52  | 16.0      | 15.0         | 22.0         | 20.0             |                           |                               |                                                                                     |                                                                                     |
| 3.1           | 524                           | 1.9           | 287.08  | 16.0      | 15.0         | 23.0         | 20.0             |                           |                               |                                                                                     |                                                                                     |
| 3.9           | 421                           | 2.5           | 230.79  | 15.0      | 15.0         | 23.0         | 20.0             |                           |                               |                                                                                     |                                                                                     |
| 4.7           | 348                           | 2.6           | 190.74  | 15.0      | 15.0         | 23.0         | 20.0             |                           |                               |                                                                                     |                                                                                     |
| 5.6           | 295                           | 2.8           | 161.38  | 15.0      | 15.0         | -            | -                |                           |                               |                                                                                     |                                                                                     |

| $P_1$<br>[kW] | $n_2$<br>[Min <sup>-1</sup> ] | $M_2$<br>[Nm] | $f_B$  | $i_{ges}$ | $F_R$<br>[N] | $F_A$<br>[N] | $F_{RGR}$<br>[N] | $F_{AGR}$<br>[N]          | Tip / Type / Typ<br>IE2 / IE3 |  Kg |  mm |                   |    |     |
|---------------|-------------------------------|---------------|--------|-----------|--------------|--------------|------------------|---------------------------|-------------------------------|----------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------|-------------------|----|-----|
| <b>0.18</b>   | 1.5                           | 1061          | 0.8    | 918.90    | 15.0         | 15.0         | 22.0             | 20.0                      | PD/PM 33<br>63M4B             | 53                                                                                     | 201                                                                                    |                   |    |     |
|               | 1.7                           | 933           | 1.1    | 808.52    | 13.0         | 15.0         | 21.0             | 20.0                      |                               |                                                                                        |                                                                                        |                   |    |     |
|               | 1.9                           | 839           | 1.1    | 726.57    | 14.0         | 15.0         | 21.0             | 20.0                      |                               |                                                                                        |                                                                                        |                   |    |     |
|               | 2.4                           | 674           | 1.5    | 584.11    | 15.0         | 15.0         | 22.0             | 20.0                      |                               |                                                                                        |                                                                                        |                   |    |     |
|               | 2.9                           | 557           | 1.6    | 482.75    | 15.0         | 15.0         | 22.0             | 20.0                      |                               |                                                                                        |                                                                                        |                   |    |     |
|               | 3.4                           | 472           | 1.7    | 408.42    | 16.0         | 15.0         | 22.0             | 20.0                      |                               |                                                                                        |                                                                                        |                   |    |     |
|               | 4.9                           | 331           | 2.8    | 287.08    | 16.0         | 15.0         | 23.0             | 20.0                      |                               |                                                                                        |                                                                                        |                   |    |     |
|               | 2.7                           | 564           | 1.1    | 1022.54   | 15.0         | 15.0         | 22.0             | 20.0                      | PD/PM 33<br>63M2A             | 53                                                                                     | 201                                                                                    |                   |    |     |
|               | 3.0                           | 507           | 1.2    | 918.90    | 15.0         | 15.0         | 22.0             | 20.0                      |                               |                                                                                        |                                                                                        |                   |    |     |
|               | 3.5                           | 446           | 1.8    | 808.52    | 13.0         | 15.0         | 21.0             | 20.0                      |                               |                                                                                        |                                                                                        |                   |    |     |
|               | 3.9                           | 401           | 1.8    | 726.57    | 14.0         | 15.0         | 21.0             | 20.0                      |                               |                                                                                        |                                                                                        |                   |    |     |
|               | 4.8                           | 322           | 2.4    | 584.11    | 15.0         | 15.0         | 22.0             | 20.0                      |                               |                                                                                        |                                                                                        |                   |    |     |
|               | 5.8                           | 266           | 2.5    | 482.75    | 15.0         | 15.0         | 22.0             | 20.0                      |                               |                                                                                        |                                                                                        |                   |    |     |
|               | 6.9                           | 225           | 2.7    | 408.52    | 16.0         | 15.0         | 22.0             | 20.0                      |                               |                                                                                        |                                                                                        |                   |    |     |
|               | 2.5                           | 641           | 0.9    | 356.48    | 7.0          | 12.0         | -                | -                         | PD/PM 22/02<br>71M6B / 71M6A  | 41                                                                                     | 238                                                                                    |                   |    |     |
|               | 3.1                           | 518           | 1.1    | 288.06    | 7.0          | 12.0         | -                | -                         |                               |                                                                                        |                                                                                        |                   |    |     |
|               | 4.2                           | 390           | 1.4    | 216.66    | 7.0          | 12.0         | -                | -                         |                               |                                                                                        |                                                                                        |                   |    |     |
|               | 5.1                           | 316           | 1.7    | 175.52    | 7.0          | 12.0         | -                | -                         |                               |                                                                                        |                                                                                        |                   |    |     |
|               | 2.7                           | 581           | 0.9    | 514.10    | 8.0          | 12.0         | 13.0             | 15.0                      | PD/PM 22/02<br>63M4B          | 38                                                                                     | 238                                                                                    |                   |    |     |
|               | 3.3                           | 479           | 1.1    | 424.03    | 7.0          | 12.0         | 12.0             | 15.0                      |                               |                                                                                        |                                                                                        |                   |    |     |
|               | 3.9                           | 403           | 1.3    | 356.48    | -            | -            | -                | -                         |                               |                                                                                        |                                                                                        |                   |    |     |
|               | 4.9                           | 325           | 1.6    | 288.06    | 7.0          | 12.0         | 12.0             | 15.0                      |                               |                                                                                        |                                                                                        |                   |    |     |
|               | 6.5                           | 245           | 2.1    | 216.66    | -            | -            | -                | -                         |                               |                                                                                        |                                                                                        |                   |    |     |
|               | 8.0                           | 198           | 2.6    | 175.52    | 7.0          | 12.0         | 12.0             | 15.0                      |                               |                                                                                        |                                                                                        |                   |    |     |
|               | 3.4                           | 439           | 0.9    | 825.15    | 8.0          | 12.0         | -                | -                         | PD/PM 22/02<br>63M2A          | 38                                                                                     | 238                                                                                    |                   |    |     |
|               | 4.2                           | 353           | 1.1    | 662.62    | 8.0          | 12.0         | 12.0             | 15.0                      |                               |                                                                                        |                                                                                        |                   |    |     |
|               | 5.4                           | 274           | 1.4    | 514.10    | 8.0          | 12.0         | 13.0             | 15.0                      |                               |                                                                                        |                                                                                        |                   |    |     |
|               | 6.6                           | 226           | 1.8    | 424.03    | 7.0          | 12.0         | 12.0             | 15.0                      |                               |                                                                                        |                                                                                        |                   |    |     |
|               | 7.9                           | 190           | 2.1    | 356.48    | 7.0          | 12.0         | -                | -                         |                               |                                                                                        |                                                                                        |                   |    |     |
|               | 9.7                           | 153           | 2.6    | 288.06    | 7.0          | 12.0         | 12.0             | 15.0                      |                               |                                                                                        |                                                                                        |                   |    |     |
|               | 2.3                           | 713           | 0.8    | 390.87    | 8.0          | 12.0         | 13.0             | 15.0                      | PD/PM 23<br>71M6B / 71M6A     | 40                                                                                     | 197                                                                                    |                   |    |     |
|               | 2.7                           | 603           | 1.0    | 330.43    | 9.0          | 12.0         | 13.0             | 15.0                      |                               |                                                                                        |                                                                                        |                   |    |     |
|               | 3.3                           | 504           | 1.2    | 276.32    | 9.0          | 12.0         | 14.0             | 15.0                      |                               |                                                                                        |                                                                                        |                   |    |     |
|               | 3.8                           | 430           | 1.2    | 235.73    | 10.0         | 12.0         | 14.0             | 15.0                      |                               |                                                                                        |                                                                                        |                   |    |     |
|               | 4.9                           | 338           | 1.6    | 185.19    | 10.0         | 12.0         | 14.0             | 15.0                      |                               |                                                                                        |                                                                                        |                   |    |     |
|               | 6.0                           | 274           | 2.0    | 150.03    | 8.0          | 12.0         | -                | -                         |                               |                                                                                        |                                                                                        |                   |    |     |
|               | 6.8                           | 240           | 2.3    | 131.68    | 9.0          | 12.0         | -                | -                         |                               |                                                                                        |                                                                                        |                   |    |     |
|               | 7.7                           | 212           | 2.6    | 116.40    | 9.0          | 12.0         | -                | -                         |                               |                                                                                        |                                                                                        |                   |    |     |
|               | 2.9                           | 557           | 0.9    | 482.49    | 7.0          | 12.0         | 13.0             | 15.0                      |                               |                                                                                        |                                                                                        | PD/PM 23<br>63M4B | 37 | 197 |
|               | 3.6                           | 451           | 1.2    | 390.87    | 8.0          | 12.0         | 14.0             | 15.0                      |                               |                                                                                        |                                                                                        |                   |    |     |
|               | 4.2                           | 381           | 1.5    | 330.43    | 9.0          | 12.0         | 14.0             | 15.0                      |                               |                                                                                        |                                                                                        |                   |    |     |
|               | 5.1                           | 319           | 1.7    | 276.32    | 9.0          | 12.0         | 14.0             | 15.0                      |                               |                                                                                        |                                                                                        |                   |    |     |
|               | 5.9                           | 272           | 1.7    | 235.73    | 10.0         | 12.0         | 14.0             | 15.0                      |                               |                                                                                        |                                                                                        |                   |    |     |
|               | 7.6                           | 214           | 2.4    | 185.19    | 10.0         | 12.0         | 14.0             | 15.0                      |                               |                                                                                        |                                                                                        |                   |    |     |
|               | 9.3                           | 173           | 3.0    | 150.03    | -            | -            | -                | -                         |                               |                                                                                        |                                                                                        |                   |    |     |
|               | 3.7                           | 421           | 0.8    | 762.96    | 7.0          | 12.0         | 13.0             | 15.0                      | PD/PM 23<br>63M2A             | 37                                                                                     | 197                                                                                    |                   |    |     |
|               | 4.5                           | 344           | 1.2    | 622.96    | 7.0          | 12.0         | 13.0             | 15.0                      |                               |                                                                                        |                                                                                        |                   |    |     |
| 5.8           | 266                           | 1.5           | 482.49 | 7.0       | 12.0         | 12.0         | 15.0             |                           |                               |                                                                                        |                                                                                        |                   |    |     |
| 7.2           | 216                           | 1.8           | 390.87 | 8.0       | 12.0         | 13.0         | 15.0             |                           |                               |                                                                                        |                                                                                        |                   |    |     |
| 8.5           | 182                           | 2.3           | 330.43 | 9.0       | 12.0         | 13.0         | 15.0             |                           |                               |                                                                                        |                                                                                        |                   |    |     |
| 10.1          | 152                           | 2.8           | 276.32 | 9.0       | 12.0         | 14.0         | 15.0             |                           |                               |                                                                                        |                                                                                        |                   |    |     |
| 11.9          | 130                           | 2.8           | 235.73 | 10.0      | 12.0         | 14.0         | 15.0             |                           |                               |                                                                                        |                                                                                        |                   |    |     |
| 7.1           | 236                           | 1.7           | 127.46 | 6.0       | 7.0          | 14.0         | 15.0             | PD/PM 22<br>71M6B / 71M6A | 33                            | 196                                                                                    |                                                                                        |                   |    |     |
| 8.6           | 193                           | 2.2           | 104.07 | 6.0       | 7.0          | 14.0         | 15.0             |                           |                               |                                                                                        |                                                                                        |                   |    |     |
| 8.9           | 187                           | 2.5           | 100.98 | 6.0       | 7.0          | 14.0         | 15.0             |                           |                               |                                                                                        |                                                                                        |                   |    |     |
| 4.3           | 371                           | 0.8           | 328.02 | 6.0       | 7.0          | 9.0          | 7.0              | PD/PM 12/02<br>63M4B      | 27                            | 238                                                                                    |                                                                                        |                   |    |     |
| 4.9           | 321                           | 0.9           | 284.03 | 6.0       | 7.0          | 9.0          | 7.0              |                           |                               |                                                                                        |                                                                                        |                   |    |     |
| 6.1           | 259                           | 1.1           | 229.52 | 6.0       | 7.0          | 9.0          | 7.0              |                           |                               |                                                                                        |                                                                                        |                   |    |     |
| 5.1           | 291                           | 0.8           | 546.25 | 6.0       | 7.0          | 9.0          | 7.0              | PD/PM 12/02<br>63M2A      | 27                            | 238                                                                                    |                                                                                        |                   |    |     |
| 6.9           | 216                           | 1.0           | 405.92 | 6.0       | 7.0          | 9.0          | 7.0              |                           |                               |                                                                                        |                                                                                        |                   |    |     |
| 8.5           | 175                           | 1.3           | 328.02 | 6.0       | 7.0          | 9.0          | 7.0              |                           |                               |                                                                                        |                                                                                        |                   |    |     |
| 9.9           | 151                           | 1.5           | 284.03 | 6.0       | 7.0          | 9.0          | 7.0              |                           |                               |                                                                                        |                                                                                        |                   |    |     |
| 12.2          | 122                           | 1.8           | 229.52 | 6.0       | 7.0          | 9.0          | 7.0              |                           |                               |                                                                                        |                                                                                        |                   |    |     |
|               |                               |               |        |           |              |              |                  |                           |                               |                                                                                        |                                                                                        |                   |    |     |



| $P_1$<br>[kW] | $n_2$<br>[Min <sup>-1</sup> ] | $M_2$<br>[Nm] | $f_B$  | $i_{ges}$ | $F_R$<br>[N] | $F_A$<br>[N] | $F_{RGR}$<br>[N] | $F_{AGR}$<br>[N] | Tip / Type / Typ<br>IE2 / IE3     |  |  |
|---------------|-------------------------------|---------------|--------|-----------|--------------|--------------|------------------|------------------|-----------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| <b>0.18</b>   | 5.5                           | 299           | 0.8    | 163.92    | 6.0          | 7.0          | -                | -                | <b>PD/PM 13</b><br>71M6B / 71M6A  | 26                                                                                  | 193                                                                                 |
|               | 7.0                           | 235           | 1.0    | 129.01    | 6.0          | 7.0          | -                | -                |                                   |                                                                                     |                                                                                     |
|               | 8.5                           | 192           | 1.5    | 105.32    | 6.0          | 7.0          | -                | -                |                                   |                                                                                     |                                                                                     |
|               | 10.2                          | 161           | 1.8    | 88.00     | 6.0          | 7.0          | -                | -                |                                   |                                                                                     |                                                                                     |
|               | 4.6                           | 348           | 0.8    | 301.08    | 6.0          | 7.0          | -                | -                | <b>PD/PM 13</b><br>63M4B          | 23                                                                                  | 193                                                                                 |
|               | 5.6                           | 290           | 0.9    | 251.58    | 6.0          | 7.0          | -                | -                |                                   |                                                                                     |                                                                                     |
|               | 6.7                           | 242           | 1.0    | 209.76    | 6.0          | 7.0          | -                | -                |                                   |                                                                                     |                                                                                     |
|               | 8.5                           | 189           | 1.2    | 163.92    | 6.0          | 7.0          | -                | -                |                                   |                                                                                     |                                                                                     |
|               | 10.9                          | 149           | 1.5    | 129.01    | -            | -            | -                | -                |                                   |                                                                                     |                                                                                     |
|               | 13.3                          | 122           | 2.2    | 105.32    | 6.0          | 7.0          | -                | -                |                                   |                                                                                     |                                                                                     |
|               | 15.9                          | 102           | 2.7    | 88.00     | -            | -            | -                | -                |                                   |                                                                                     |                                                                                     |
|               | 7.6                           | 203           | 0.8    | 368.83    | 6.0          | 7.0          | -                | -                | <b>PD/PM 13</b><br>63M2A          | 23                                                                                  | 193                                                                                 |
|               | 9.3                           | 166           | 1.2    | 301.08    | 6.0          | 7.0          | -                | -                |                                   |                                                                                     |                                                                                     |
|               | 11.1                          | 139           | 1.5    | 251.58    | 6.0          | 7.0          | -                | -                |                                   |                                                                                     |                                                                                     |
|               | 13.3                          | 116           | 1.5    | 209.76    | 6.0          | 7.0          | -                | -                |                                   |                                                                                     |                                                                                     |
|               | 17.1                          | 90            | 1.9    | 163.92    | 6.0          | 7.0          | -                | -                |                                   |                                                                                     |                                                                                     |
|               | 21.7                          | 71            | 2.4    | 129.01    | 6.0          | 7.0          | -                | -                |                                   |                                                                                     |                                                                                     |
|               | 8.2                           | 203           | 1.1    | 109.45    | 7.0          | 7.0          | 10.0             | 7.0              | <b>PD/PM 12</b><br>71M6B / 71M6A  | 22                                                                                  | 192                                                                                 |
|               | 9.7                           | 171           | 1.4    | 92.43     | 7.0          | 7.0          | 10.0             | 7.0              |                                   |                                                                                     |                                                                                     |
|               | 11.1                          | 150           | 2.1    | 81.17     | 7.0          | 7.0          | 10.0             | 7.0              |                                   |                                                                                     |                                                                                     |
|               | 12.5                          | 134           | 2.3    | 72.16     | 7.0          | 7.0          | 9.0              | 7.0              |                                   |                                                                                     |                                                                                     |
|               | 13.6                          | 123           | 2.3    | 66.26     | 7.0          | 7.0          | 10.0             | 7.0              |                                   |                                                                                     |                                                                                     |
|               | 15.3                          | 109           | 2.7    | 58.91     | 7.0          | 7.0          | 10.0             | 7.0              |                                   |                                                                                     |                                                                                     |
|               | 16.3                          | 103           | 2.4    | 55.37     | 7.0          | 7.0          | 10.0             | 7.0              |                                   |                                                                                     |                                                                                     |
|               | 18.3                          | 91            | 3.0    | 49.22     | 7.0          | 7.0          | 10.0             | 7.0              |                                   |                                                                                     |                                                                                     |
|               | 19.5                          | 86            | 2.4    | 46.16     | 7.0          | 7.0          | 10.0             | 7.0              |                                   |                                                                                     |                                                                                     |
|               | 21.9                          | 76            | 3.0    | 41.04     | 7.0          | 7.0          | 10.0             | 7.0              |                                   |                                                                                     |                                                                                     |
|               | 12.8                          | 129           | 1.6    | 109.45    | 7.0          | 7.0          | 10.0             | 7.0              | <b>PD/PM 12</b><br>63M4B          | 19                                                                                  | 192                                                                                 |
|               | 15.1                          | 109           | 2.1    | 92.43     | 7.0          | 7.0          | 10.0             | 7.0              |                                   |                                                                                     |                                                                                     |
|               | 25.6                          | 63            | 2.5    | 109.45    | 7.0          | 7.0          | 9.0              | 7.0              | <b>PD/PM 12</b><br>63M2A          | 19                                                                                  | 192                                                                                 |
|               | 3.5                           | 470           | 0.8    | 257.36    | 6.0          | 7.0          | 8.0              | 11.0             | <b>PD/PM C13</b><br>71M6B / 71M6A | 28                                                                                  | 190                                                                                 |
|               | 4.4                           | 372           | 1.0    | 203.72    | 6.0          | 7.0          | 8.0              | 11.0             |                                   |                                                                                     |                                                                                     |
|               | 5.7                           | 289           | 1.3    | 158.21    | 7.0          | 7.0          | 8.0              | 11.0             |                                   |                                                                                     |                                                                                     |
|               | 6.6                           | 249           | 1.6    | 136.54    | 7.0          | 7.0          | 8.0              | 11.0             |                                   |                                                                                     |                                                                                     |
|               | 7.6                           | 216           | 1.8    | 118.07    | 7.0          | 7.0          | 8.0              | 11.0             |                                   |                                                                                     |                                                                                     |
|               | 8.5                           | 194           | 2.0    | 106.03    | 7.0          | 7.0          | 8.0              | 11.0             |                                   |                                                                                     |                                                                                     |
|               | 8.9                           | 184           | 2.1    | 101.01    | 6.0          | 7.0          | 8.0              | 11.0             |                                   |                                                                                     |                                                                                     |
|               | 10.1                          | 162           | 2.4    | 88.92     | 6.0          | 7.0          | 8.0              | 11.0             |                                   |                                                                                     |                                                                                     |
| 11.4          | 144                           | 2.7           | 78.83  | 6.0       | 7.0          | 8.0          | 11.0             |                  |                                   |                                                                                     |                                                                                     |
|               | 3.7                           | 440           | 0.8    | 380.81    | 4.0          | 7.0          | 8.0              | 11.0             | <b>PD/PM C13</b><br>63M4B         | 25                                                                                  | 190                                                                                 |
|               | 4.6                           | 348           | 1.1    | 301.44    | 5.0          | 7.0          | 8.0              | 11.0             |                                   |                                                                                     |                                                                                     |
|               | 5.4                           | 297           | 1.2    | 257.36    | 6.0          | 7.0          | 8.0              | 11.0             |                                   |                                                                                     |                                                                                     |
|               | 6.9                           | 235           | 1.6    | 203.72    | 6.0          | 7.0          | 8.0              | 11.0             |                                   |                                                                                     |                                                                                     |
|               | 8.8                           | 183           | 2.0    | 158.21    | 7.0          | 7.0          | 8.0              | 11.0             |                                   |                                                                                     |                                                                                     |
|               | 10.3                          | 158           | 2.3    | 136.54    | 7.0          | 7.0          | 8.0              | 11.0             |                                   |                                                                                     |                                                                                     |
|               | 11.9                          | 136           | 2.7    | 118.07    | 7.0          | 7.0          | 8.0              | 11.0             |                                   |                                                                                     |                                                                                     |
| 13.2          | 122                           | 3.0           | 106.03 | 7.0       | 7.0          | 8.0          | 11.0             |                  |                                   |                                                                                     |                                                                                     |
|               | 7.4                           | 210           | 1.3    | 380.81    | 4.0          | 7.0          | 8.0              | 11.0             | <b>PD/PM C13</b><br>63M2A         | 25                                                                                  | 190                                                                                 |
|               | 9.3                           | 166           | 1.7    | 301.44    | 5.0          | 7.0          | 8.0              | 11.0             |                                   |                                                                                     |                                                                                     |
|               | 10.9                          | 142           | 2.0    | 257.36    | 6.0          | 7.0          | 8.0              | 11.0             |                                   |                                                                                     |                                                                                     |
|               | 13.7                          | 112           | 2.5    | 203.72    | 6.0          | 7.0          | 8.0              | 11.0             |                                   |                                                                                     |                                                                                     |
|               | 10.5                          | 159           | 0.9    | 85.67     | 5.0          | 5.0          | 7.0              | 5.0              | <b>PD/PM B02</b><br>71M6B / 71M6A | 16                                                                                  | 188                                                                                 |
|               | 11.3                          | 147           | 0.9    | 79.42     | 5.0          | 5.0          | 7.0              | 5.0              |                                   |                                                                                     |                                                                                     |
|               | 13.6                          | 122           | 1.2    | 66.00     | 5.0          | 5.0          | 7.0              | 5.0              |                                   |                                                                                     |                                                                                     |
|               | 15.9                          | 105           | 1.6    | 56.55     | 5.0          | 5.0          | 7.0              | 5.0              |                                   |                                                                                     |                                                                                     |
|               | 17.4                          | 96            | 1.6    | 51.60     | 5.0          | 5.0          | 7.0              | 5.0              |                                   |                                                                                     |                                                                                     |
|               | 20.3                          | 82            | 2.1    | 44.23     | 5.0          | 5.0          | 7.0              | 5.0              |                                   |                                                                                     |                                                                                     |
|               | 22.3                          | 75            | 2.3    | 40.35     | 5.0          | 5.0          | 7.0              | 5.0              |                                   |                                                                                     |                                                                                     |
|               | 26.3                          | 63            | 2.5    | 34.16     | 5.0          | 5.0          | 7.0              | 5.0              |                                   |                                                                                     |                                                                                     |
|               | 29.9                          | 56            | 2.4    | 30.08     | 5.0          | 5.0          | 7.0              | 5.0              |                                   |                                                                                     |                                                                                     |
|               | 34.7                          | 48            | 2.8    | 25.96     | 5.0          | 5.0          | 7.0              | 5.0              |                                   |                                                                                     |                                                                                     |
|               |                               |               |        |           |              |              |                  |                  |                                   |                                                                                     |                                                                                     |



| $P_1$<br>[kW] | $n_2$<br>[Min <sup>-1</sup> ] | $M_2$<br>[Nm] | $f_B$   | $i_{ges}$ | $F_R$<br>[N] | $F_A$<br>[N] | $F_{RGR}$<br>[N] | $F_{AGR}$<br>[N]                     | Tip / Type / Typ<br>IE2 / IE3        |  |  |
|---------------|-------------------------------|---------------|---------|-----------|--------------|--------------|------------------|--------------------------------------|--------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| <b>0.18</b>   | 13.5                          | 122           | 1.1     | 103.09    | 5.0          | 5.0          | 7.0              | 5.0                                  | <b>PD/PM B02<br/>63M4B</b>           | 13                                                                                  | 188                                                                                 |
|               | 16.3                          | 101           | 1.4     | 85.67     | 5.0          | 5.0          | 7.0              | 5.0                                  |                                      |                                                                                     |                                                                                     |
|               | 17.6                          | 94            | 1.4     | 79.42     | 5.0          | 5.0          | 7.0              | 5.0                                  |                                      |                                                                                     |                                                                                     |
|               | 21.2                          | 78            | 1.8     | 66.00     | 5.0          | 5.0          | 7.0              | 5.0                                  |                                      |                                                                                     |                                                                                     |
|               | 24.8                          | 67            | 2.4     | 56.55     | 5.0          | 5.0          | 7.0              | 5.0                                  |                                      |                                                                                     |                                                                                     |
|               | 27.1                          | 61            | 2.4     | 51.60     | 5.0          | 5.0          | 7.0              | 5.0                                  |                                      |                                                                                     |                                                                                     |
|               | 20.1                          | 80            | 1.1     | 139.15    | 5.0          | 5.0          | 7.0              | 5.0                                  | <b>PD/PM B02<br/>63M2A</b>           | 13                                                                                  | 188                                                                                 |
|               | 27.2                          | 59            | 1.7     | 103.90    | 5.0          | 5.0          | 7.0              | 5.0                                  |                                      |                                                                                     |                                                                                     |
|               | 32.7                          | 49            | 2.2     | 85.67     | 5.0          | 5.0          | 7.0              | 5.0                                  |                                      |                                                                                     |                                                                                     |
|               | 35.3                          | 45            | 2.2     | 79.42     | 5.0          | 5.0          | 7.0              | 5.0                                  |                                      |                                                                                     |                                                                                     |
|               | 42.4                          | 38            | 2.8     | 66.00     | 5.0          | 5.0          | 7.0              | 5.0                                  |                                      |                                                                                     |                                                                                     |
|               | 15.2                          | 110           | 1.1     | 59.32     | 5.0          | 5.0          | 5.0              | 8.0                                  | <b>PD/PM A02<br/>71M6B / 71M6A</b>   | 12                                                                                  | 186                                                                                 |
|               | 18.1                          | 92            | 1.1     | 49.62     | 5.0          | 5.0          | 5.0              | 8.0                                  |                                      |                                                                                     |                                                                                     |
|               | 21.5                          | 78            | 1.1     | 41.88     | 5.0          | 5.0          | 5.0              | 8.0                                  |                                      |                                                                                     |                                                                                     |
|               | 23.9                          | 70            | 1.5     | 37.71     | 5.0          | 5.0          | 5.0              | 8.0                                  |                                      |                                                                                     |                                                                                     |
|               | 25.9                          | 64            | 1.7     | 34.80     | 5.0          | 5.0          | 5.0              | 8.0                                  |                                      |                                                                                     |                                                                                     |
|               | 28.3                          | 59            | 1.7     | 31.83     | 5.0          | 5.0          | 5.0              | 8.0                                  |                                      |                                                                                     |                                                                                     |
|               | 30.9                          | 54            | 2.1     | 29.11     | 5.0          | 5.0          | 5.0              | 8.0                                  |                                      |                                                                                     |                                                                                     |
|               | 36.6                          | 46            | 2.7     | 24.57     | 5.0          | 5.0          | 5.0              | 8.0                                  |                                      |                                                                                     |                                                                                     |
|               | 40.3                          | 41            | 2.8     | 22.34     | 5.0          | 5.0          | 5.0              | 8.0                                  |                                      |                                                                                     |                                                                                     |
|               | 47.9                          | 35            | 2.9     | 18.77     | 5.0          | 5.0          | 5.0              | 8.0                                  |                                      |                                                                                     |                                                                                     |
|               | 60.4                          | 28            | 2.9     | 14.91     | 5.0          | 5.0          | 5.0              | 8.0                                  |                                      |                                                                                     |                                                                                     |
|               | 23.6                          | 70            | 1.6     | 59.32     | 5.0          | 5.0          | 5.0              | 8.0                                  | <b>PD/PM A02<br/>63M4B</b>           | 9                                                                                   | 186                                                                                 |
|               | 28.2                          | 58            | 1.7     | 49.62     | 5.0          | 5.0          | 5.0              | 8.0                                  |                                      |                                                                                     |                                                                                     |
| 33.4          | 49                            | 1.7           | 41.88   | 5.0       | 5.0          | 5.0          | 8.0              |                                      |                                      |                                                                                     |                                                                                     |
| 37.1          | 44                            | 2.2           | 37.71   | 5.0       | 5.0          | 5.0          | 8.0              |                                      |                                      |                                                                                     |                                                                                     |
| 40.2          | 41                            | 2.5           | 34.80   | 5.0       | 5.0          | 5.0          | 8.0              |                                      |                                      |                                                                                     |                                                                                     |
| 44.0          | 38                            | 2.5           | 31.83   | 5.0       | 5.0          | 5.0          | 8.0              |                                      |                                      |                                                                                     |                                                                                     |
| 34.3          | 47                            | 1.1           | 81.73   | 5.0       | 5.0          | 5.0          | 8.0              | <b>PD/PM A02<br/>63M2A</b>           | 9                                    | 186                                                                                 |                                                                                     |
| 47.2          | 34                            | 2.5           | 59.32   | 5.0       | 5.0          | 5.0          | 8.0              |                                      |                                      |                                                                                     |                                                                                     |
| 56.4          | 28                            | 2.7           | 49.62   | 5.0       | 5.0          | 5.0          | 8.0              |                                      |                                      |                                                                                     |                                                                                     |
| 66.9          | 24                            | 2.7           | 41.88   | 5.0       | 5.0          | 5.0          | 8.0              |                                      |                                      |                                                                                     |                                                                                     |
| <b>0.25</b>   | 0.1                           | 16237         | 0.8     | 6601.35   | 92.0         | 73.0         | -                | -                                    | <b>PD/PM 83/32<br/>71M6C / 71M6D</b> | 408                                                                                 | 240                                                                                 |
|               | 0.2                           | 13539         | 0.9     | 5504.36   | 92.0         | 73.0         | -                | -                                    |                                      |                                                                                     |                                                                                     |
|               | 0.2                           | 10132         | 1.2     | 6601.35   | -            | -            | -                | -                                    | <b>PD/PM 83/32<br/>71M4A / 71M4B</b> | 408                                                                                 | 240                                                                                 |
|               | 0.3                           | 8448          | 1.4     | 5504.36   | -            | -            | -                | -                                    |                                      |                                                                                     |                                                                                     |
|               | 0.4                           | 5070          | 1.5     | 2061.26   | 57.0         | 58.0         | -                | -                                    | <b>PD/PM 73/22<br/>71M6C / 71M6D</b> | 272                                                                                 | 240                                                                                 |
|               | 0.5                           | 4443          | 1.7     | 1806.13   | 57.0         | 58.0         | -                | -                                    |                                      |                                                                                     |                                                                                     |
|               | 0.7                           | 3302          | 2.3     | 1342.44   | 16.0         | 26.0         | 81.0             | 80.0                                 |                                      |                                                                                     |                                                                                     |
|               | 0.9                           | 2563          | 2.9     | 1042.00   | 16.0         | 26.0         | 81.0             | 80.0                                 |                                      |                                                                                     |                                                                                     |
|               | 0.2                           | 8673          | 0.8     | 5651.03   | -            | -            | -                | -                                    | <b>PD/PM 73/22<br/>71M4A / 71M4B</b> | 272                                                                                 | 240                                                                                 |
|               | 0.3                           | 7505          | 0.9     | 4889.70   | -            | -            | -                | -                                    |                                      |                                                                                     |                                                                                     |
|               | 0.7                           | 3164          | 2.2     | 2061.26   | -            | -            | -                | -                                    |                                      |                                                                                     |                                                                                     |
|               | 0.8                           | 2772          | 2.6     | 1806.13   | -            | -            | -                | -                                    |                                      |                                                                                     |                                                                                     |
|               | 0.7                           | 3101          | 1.8     | 1260.77   | 16.0         | 27.0         | 57.0             | 60.0                                 | <b>PD/PM 63/22<br/>71M6C / 71M6D</b> | 199                                                                                 | 240                                                                                 |
|               | 0.8                           | 2717          | 2.1     | 1104.71   | 16.0         | 27.0         | 57.0             | 60.0                                 |                                      |                                                                                     |                                                                                     |
|               | 1.1                           | 2020          | 2.8     | 821.10    | 16.0         | 27.0         | 58.0             | 60.0                                 |                                      |                                                                                     |                                                                                     |
|               | 0.4                           | 5305          | 1.0     | 3456.44   | -            | -            | -                | -                                    | <b>PD/PM 63/22<br/>71M4A / 71M4B</b> | 199                                                                                 | 240                                                                                 |
|               | 0.5                           | 4203          | 1.1     | 2738.15   | -            | -            | -                | -                                    |                                      |                                                                                     |                                                                                     |
|               | 1.1                           | 1935          | 2.8     | 1260.77   | 39.0         | 47.0         | 57.0             | 60.0                                 |                                      |                                                                                     |                                                                                     |
|               | 0.7                           | 3330          | 0.9     | 1333.49   | 25.0         | 32.0         | 40.0             | 40.0                                 | <b>PD/PM 52/12<br/>71M6C / 71M6D</b> | 109                                                                                 | 238                                                                                 |
|               | 0.8                           | 2733          | 1.2     | 1094.40   | 31.0         | 32.0         | 44.0             | 40.0                                 |                                      |                                                                                     |                                                                                     |
| 1.0           | 2151                          | 1.5           | 861.34  | 31.0      | 32.0         | 44.0         | 40.0             |                                      |                                      |                                                                                     |                                                                                     |
| 1.3           | 1721                          | 1.8           | 689.07  | 31.0      | 32.0         | 44.0         | 40.0             |                                      |                                      |                                                                                     |                                                                                     |
| 1.6           | 1372                          | 2.3           | 549.54  | 31.0      | 32.0         | -            | -                |                                      |                                      |                                                                                     |                                                                                     |
| 2.0           | 1119                          | 2.8           | 448.15  | 31.0      | 32.0         | -            | -                |                                      |                                      |                                                                                     |                                                                                     |
| 0.6           | 3476                          | 0.9           | 2215.83 | -         | -            | -            | -                | <b>PD/PM 52/12<br/>71M4A / 71M4B</b> | 109                                  | 238                                                                                 |                                                                                     |
| 0.8           | 2828                          | 1.1           | 1802.82 | -         | -            | -            | -                |                                      |                                      |                                                                                     |                                                                                     |
| 1.0           | 2092                          | 1.4           | 1333.49 | 25.0      | 32.0         | 40.0         | 40.0             |                                      |                                      |                                                                                     |                                                                                     |
| 1.3           | 1717                          | 1.7           | 1094.40 | 31.0      | 32.0         | 44.0         | 40.0             |                                      |                                      |                                                                                     |                                                                                     |
| 1.6           | 1351                          | 2.2           | 861.34  | 31.0      | 32.0         | 44.0         | 40.0             |                                      |                                      |                                                                                     |                                                                                     |
| 2.0           | 1081                          | 2.8           | 689.07  | 31.0      | 32.0         | 44.0         | 40.0             |                                      |                                      |                                                                                     |                                                                                     |
|               |                               |               |         |           |              |              |                  |                                      |                                      |                                                                                     |                                                                                     |



| $P_1$<br>[kW] | $n_2$<br>[Min <sup>-1</sup> ] | $M_2$<br>[Nm] | $f_B$  | $i_{ges}$ | $F_R$<br>[N] | $F_A$<br>[N] | $F_{R GR}$<br>[N] | $F_{A GR}$<br>[N]         | Tip / Type / Typ<br>IE2 / IE3 |  |  |
|---------------|-------------------------------|---------------|--------|-----------|--------------|--------------|-------------------|---------------------------|-------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| <b>0.25</b>   | 1.0                           | 2048          | 1.1    | 2769.78   | 25.0         | 32.0         | -                 | -                         | PD/PM 52/12<br>63M2B          | 106                                                                                 | 238                                                                                 |
|               | 1.3                           | 1638          | 1.4    | 2215.83   | 25.0         | 32.0         | -                 | -                         |                               |                                                                                     |                                                                                     |
|               | 1.6                           | 1333          | 1.7    | 1802.82   | 25.0         | 32.0         | -                 | -                         |                               |                                                                                     |                                                                                     |
|               | 2.6                           | 809           | 2.8    | 1094.40   | 31.0         | 32.0         | 44.0              | 40.0                      |                               |                                                                                     |                                                                                     |
|               | 1.0                           | 2184          | 0.9    | 874.48    | 20.0         | 22.0         | 30.0              | 30.0                      | PD/PM 42/12<br>71M6C / 71M6D  | 73                                                                                  | 238                                                                                 |
|               | 1.3                           | 1747          | 1.1    | 699.58    | 21.0         | 22.0         | 30.0              | 30.0                      |                               |                                                                                     |                                                                                     |
|               | 1.6                           | 1393          | 1.4    | 557.93    | 21.0         | 22.0         | 30.0              | 30.0                      |                               |                                                                                     |                                                                                     |
|               | 2.2                           | 1023          | 1.8    | 409.62    | 22.0         | 22.0         | 31.0              | 30.0                      |                               |                                                                                     |                                                                                     |
|               | 2.6                           | 852           | 2.2    | 341.25    | 20.0         | 22.0         | 31.0              | 30.0                      |                               |                                                                                     |                                                                                     |
|               | 3.0                           | 754           | 2.5    | 302.14    | 20.0         | 22.0         | 31.0              | 30.0                      |                               |                                                                                     |                                                                                     |
|               | 1.0                           | 2108          | 0.9    | 1343.79   | 17.0         | 22.0         | 27.0              | 30.0                      | PD/PM 42/12<br>71M4A / 71M4B  | 73                                                                                  | 238                                                                                 |
|               | 1.3                           | 1743          | 1.0    | 1111.10   | 19.0         | 22.0         | 28.0              | 30.0                      |                               |                                                                                     |                                                                                     |
|               | 1.6                           | 1372          | 1.3    | 874.48    | 20.0         | 22.0         | 30.0              | 30.0                      |                               |                                                                                     |                                                                                     |
|               | 2.0                           | 1098          | 1.6    | 699.58    | 21.0         | 22.0         | 30.0              | 30.0                      |                               |                                                                                     |                                                                                     |
|               | 2.5                           | 875           | 2.1    | 557.93    | 21.0         | 22.0         | 30.0              | 30.0                      |                               |                                                                                     |                                                                                     |
|               | 3.4                           | 643           | 2.8    | 409.62    | 22.0         | 22.0         | 31.0              | 30.0                      |                               |                                                                                     |                                                                                     |
|               | 1.2                           | 1663          | 0.8    | 2249.64   | 17.0         | 22.0         | -                 | -                         | PD/PM 42/12<br>63M2B          | 70                                                                                  | 238                                                                                 |
|               | 1.5                           | 1353          | 1.0    | 1830.33   | 17.0         | 22.0         | -                 | -                         |                               |                                                                                     |                                                                                     |
|               | 2.1                           | 994           | 1.4    | 1343.79   | 17.0         | 22.0         | 27.0              | 30.0                      |                               |                                                                                     |                                                                                     |
|               | 2.5                           | 822           | 1.7    | 1111.10   | 19.0         | 22.0         | 28.0              | 30.0                      |                               |                                                                                     |                                                                                     |
|               | 3.2                           | 647           | 2.1    | 874.48    | 20.0         | 22.0         | 30.0              | 30.0                      |                               |                                                                                     |                                                                                     |
|               | 4.0                           | 517           | 2.6    | 699.58    | 21.0         | 22.0         | 30.0              | 30.0                      |                               |                                                                                     |                                                                                     |
|               | 1.2                           | 1983          | 0.8    | 782.28    | 20.0         | 22.0         | 29.0              | 30.0                      | PD/PM 43<br>71M6C / 71M6D     | 78                                                                                  | 205                                                                                 |
|               | 1.4                           | 1657          | 0.8    | 653.66    | 21.0         | 22.0         | 30.0              | 30.0                      |                               |                                                                                     |                                                                                     |
|               | 1.7                           | 1351          | 1.6    | 532.76    | 21.0         | 22.0         | 30.0              | 30.0                      |                               |                                                                                     |                                                                                     |
|               | 2.0                           | 1129          | 1.6    | 445.16    | 22.0         | 22.0         | 30.0              | 30.0                      |                               |                                                                                     |                                                                                     |
|               | 2.3                           | 992           | 2.1    | 391.14    | 16.0         | 22.0         | 30.0              | 30.0                      |                               |                                                                                     |                                                                                     |
|               | 2.8                           | 829           | 2.4    | 326.83    | 16.0         | 22.0         | 31.0              | 30.0                      |                               |                                                                                     |                                                                                     |
|               | 3.3                           | 691           | 2.4    | 272.49    | 16.0         | 22.0         | 31.0              | 30.0                      |                               |                                                                                     |                                                                                     |
|               | 1.2                           | 1811          | 0.9    | 1129.42   | 17.0         | 22.0         | 27.0              | 30.0                      | PD/PM 43<br>71M4A / 71M4B     | 78                                                                                  | 205                                                                                 |
|               | 1.8                           | 1254          | 1.2    | 782.28    | 20.0         | 22.0         | 29.0              | 30.0                      |                               |                                                                                     |                                                                                     |
|               | 2.1                           | 1048          | 1.2    | 653.66    | 21.0         | 22.0         | 30.0              | 30.0                      |                               |                                                                                     |                                                                                     |
|               | 2.6                           | 854           | 2.3    | 532.76    | 21.0         | 22.0         | 30.0              | 30.0                      |                               |                                                                                     |                                                                                     |
|               | 3.1                           | 714           | 2.3    | 445.16    | 22.0         | 22.0         | 30.0              | 30.0                      |                               |                                                                                     |                                                                                     |
|               | 2.0                           | 1152          | 0.8    | 461.30    | 13.0         | 15.0         | 21.0              | 20.0                      |                               |                                                                                     |                                                                                     |
|               | 2.5                           | 894           | 1.1    | 358.19    | 15.0         | 15.0         | 22.0              | 20.0                      |                               |                                                                                     |                                                                                     |
|               | 3.3                           | 675           | 1.4    | 270.47    | 13.0         | 15.0         | -                 | -                         |                               |                                                                                     |                                                                                     |
|               | 4.1                           | 543           | 1.7    | 217.44    | 13.0         | 15.0         | -                 | -                         |                               |                                                                                     |                                                                                     |
|               | 5.0                           | 449           | 2.1    | 179.71    | 13.0         | 15.0         | -                 | -                         |                               |                                                                                     |                                                                                     |
|               | 6.4                           | 353           | 2.7    | 141.42    | 13.0         | 15.0         | -                 | -                         |                               |                                                                                     |                                                                                     |
|               | 2.0                           | 1074          | 0.8    | 684.80    | -            | -            | -                 | -                         | PD/PM 32/12<br>71M4A / 71M4B  | 58                                                                                  | 238                                                                                 |
|               | 2.7                           | 817           | 1.1    | 521.00    | -            | -            | -                 | -                         |                               |                                                                                     |                                                                                     |
|               | 3.0                           | 724           | 1.2    | 461.30    | 13.0         | 15.0         | 21.0              | 20.0                      |                               |                                                                                     |                                                                                     |
|               | 3.9                           | 562           | 1.6    | 358.19    | 15.0         | 15.0         | 22.0              | 20.0                      |                               |                                                                                     |                                                                                     |
|               | 5.2                           | 424           | 2.1    | 270.47    | -            | -            | -                 | -                         |                               |                                                                                     |                                                                                     |
|               | 6.4                           | 341           | 2.6    | 217.44    | -            | -            | -                 | -                         |                               |                                                                                     |                                                                                     |
|               | 2.6                           | 790           | 0.9    | 1068.11   | 13.0         | 15.0         | 21.0              | 20.0                      | PD/PM 32/12<br>63M2B          | 55                                                                                  | 238                                                                                 |
|               | 3.3                           | 630           | 1.1    | 851.83    | 13.0         | 15.0         | -                 | -                         |                               |                                                                                     |                                                                                     |
| 4.1           | 506                           | 1.4           | 684.80 | 13.0      | 15.0         | -            | -                 |                           |                               |                                                                                     |                                                                                     |
| 5.4           | 385                           | 1.8           | 521.00 | 13.0      | 15.0         | -            | -                 |                           |                               |                                                                                     |                                                                                     |
| 6.1           | 341                           | 2.0           | 461.30 | 13.0      | 15.0         | 21.0         | 20.0              |                           |                               |                                                                                     |                                                                                     |
| 7.8           | 265                           | 2.6           | 358.19 | 15.0      | 15.0         | 22.0         | 20.0              |                           |                               |                                                                                     |                                                                                     |
| 2.2           | 1036                          | 0.8           | 408.52 | 15.0      | 15.0         | 22.0         | 20.0              | PD/PM 33<br>71M6C / 71M6D | 56                            | 201                                                                                 |                                                                                     |
| 3.1           | 728                           | 1.4           | 287.08 | 16.0      | 15.0         | 23.0         | 20.0              |                           |                               |                                                                                     |                                                                                     |
| 3.9           | 585                           | 1.8           | 230.79 | 16.0      | 15.0         | 23.0         | 20.0              |                           |                               |                                                                                     |                                                                                     |
| 4.7           | 484                           | 1.9           | 190.74 | 16.0      | 15.0         | 23.0         | 20.0              |                           |                               |                                                                                     |                                                                                     |
| 5.6           | 409                           | 2.0           | 161.38 | 15.0      | 15.0         | -            | -                 |                           |                               |                                                                                     |                                                                                     |
| 7.1           | 322                           | 2.5           | 127.01 | 15.0      | 15.0         | -            | -                 |                           |                               |                                                                                     |                                                                                     |
| 8.7           | 263                           | 2.9           | 103.92 | 15.0      | 15.0         | -            | -                 |                           |                               |                                                                                     |                                                                                     |
| 10.1          | 227                           | 2.9           | 89.45  | 15.0      | 15.0         | -            | -                 |                           |                               |                                                                                     |                                                                                     |
|               |                               |               |        |           |              |              |                   |                           |                               |                                                                                     |                                                                                     |



| $P_1$<br>[kW] | $n_2$<br>[Min <sup>-1</sup> ] | $M_2$<br>[Nm] | $f_B$  | $i_{ges}$ | $F_R$<br>[N] | $F_A$<br>[N] | $F_{RGR}$<br>[N] | $F_{AGR}$<br>[N]                     | Tip / Type / Typ<br>IE2 / IE3        |  Kg |  mm |                                   |    |
|---------------|-------------------------------|---------------|--------|-----------|--------------|--------------|------------------|--------------------------------------|--------------------------------------|----------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------|-----------------------------------|----|
| <b>0.25</b>   | 1.7                           | 1296          | 0.8    | 808.52    | 13.0         | 15.0         | 21.0             | 20.0                                 | <b>PD/PM 33<br/>71M4A / 71M4B</b>    | 56                                                                                     | 201                                                                                    |                                   |    |
|               | 1.9                           | 1165          | 0.8    | 726.57    | 12.0         | 15.0         | 20.0             | 20.0                                 |                                      |                                                                                        |                                                                                        |                                   |    |
|               | 2.4                           | 936           | 1.1    | 584.11    | 14.0         | 15.0         | 21.0             | 20.0                                 |                                      |                                                                                        |                                                                                        |                                   |    |
|               | 2.9                           | 774           | 1.1    | 482.75    | 15.0         | 15.0         | 22.0             | 20.0                                 |                                      |                                                                                        |                                                                                        |                                   |    |
|               | 3.4                           | 655           | 1.2    | 408.42    | 15.0         | 15.0         | 22.0             | 20.0                                 |                                      |                                                                                        |                                                                                        |                                   |    |
|               | 4.9                           | 460           | 2.0    | 287.08    | 16.0         | 15.0         | 23.0             | 20.0                                 |                                      |                                                                                        |                                                                                        |                                   |    |
|               | 6.1                           | 370           | 2.7    | 230.79    | 16.0         | 15.0         | 23.0             | 20.0                                 |                                      |                                                                                        |                                                                                        |                                   |    |
|               | 7.3                           | 306           | 2.8    | 190.74    | 16.0         | 15.0         | 23.0             | 20.0                                 |                                      |                                                                                        |                                                                                        |                                   |    |
|               | 8.7                           | 259           | 3.0    | 161.38    | -            | -            | -                | -                                    |                                      |                                                                                        |                                                                                        |                                   |    |
|               | 2.7                           | 784           | 0.8    | 1022.54   | 13.0         | 15.0         | -                | -                                    | <b>PD/PM 33<br/>63M2B</b>            | 53                                                                                     | 201                                                                                    |                                   |    |
|               | 3.0                           | 704           | 0.9    | 918.90    | 13.0         | 15.0         | -                | -                                    |                                      |                                                                                        |                                                                                        |                                   |    |
|               | 3.5                           | 620           | 1.3    | 808.52    | 13.0         | 15.0         | 21.0             | 20.0                                 |                                      |                                                                                        |                                                                                        |                                   |    |
|               | 3.9                           | 557           | 1.3    | 726.57    | 12.0         | 15.0         | 20.0             | 20.0                                 |                                      |                                                                                        |                                                                                        |                                   |    |
|               | 4.8                           | 448           | 1.7    | 584.11    | 14.0         | 15.0         | 21.0             | 20.0                                 |                                      |                                                                                        |                                                                                        |                                   |    |
|               | 5.8                           | 370           | 1.8    | 482.75    | 15.0         | 15.0         | 22.0             | 20.0                                 |                                      |                                                                                        |                                                                                        |                                   |    |
|               | 6.9                           | 313           | 1.9    | 408.52    | 16.0         | 15.0         | 22.0             | 20.0                                 |                                      |                                                                                        |                                                                                        |                                   |    |
|               | 8.0                           | 289           | 2.8    | 112.23    | 5.0          | 12.0         | 23.0             | 20.0                                 | <b>PD/PM 32<br/>71M6C / 71M6D</b>    | 48                                                                                     | 200                                                                                    |                                   |    |
|               | 5.1                           | 438           | 1.2    | 175.52    | 7.0          | 12.0         | 12.0             | 15.0                                 | <b>PD/PM 22/02<br/>71M6C / 71M6D</b> | 41                                                                                     | 238                                                                                    |                                   |    |
|               | 4.2                           | 541           | 1.0    | 216.66    | 7.0          | 12.0         | -                | -                                    |                                      |                                                                                        |                                                                                        |                                   |    |
|               | 5.1                           | 719           | 0.8    | 288.06    | 7.0          | 12.0         | -                | -                                    |                                      |                                                                                        |                                                                                        |                                   |    |
|               | 3.3                           | 665           | 0.8    | 424.03    | 7.0          | 12.0         | 12.0             | 15.0                                 | <b>PD/PM 22/02<br/>71M4A / 71M4B</b> | 41                                                                                     | 238                                                                                    |                                   |    |
|               | 3.9                           | 559           | 0.9    | 356.48    | -            | -            | -                | -                                    |                                      |                                                                                        |                                                                                        |                                   |    |
|               | 4.9                           | 452           | 1.2    | 288.06    | 7.0          | 12.0         | 12.0             | 15.0                                 |                                      |                                                                                        |                                                                                        |                                   |    |
|               | 6.5                           | 340           | 1.5    | 216.66    | -            | -            | -                | -                                    |                                      |                                                                                        |                                                                                        |                                   |    |
|               | 8.0                           | 275           | 1.9    | 175.52    | 7.0          | 12.0         | 12.0             | 15.0                                 |                                      |                                                                                        |                                                                                        |                                   |    |
|               | 4.2                           | 490           | 0.8    | 662.62    | 7.0          | 12.0         | -                | -                                    | <b>PD/PM 22/02<br/>63M2B</b>         | 38                                                                                     | 238                                                                                    |                                   |    |
|               | 5.4                           | 380           | 1.0    | 514.10    | 7.0          | 12.0         | -                | -                                    |                                      |                                                                                        |                                                                                        |                                   |    |
|               | 6.6                           | 314           | 1.3    | 424.03    | 7.0          | 12.0         | -                | -                                    |                                      |                                                                                        |                                                                                        |                                   |    |
|               | 7.9                           | 264           | 1.5    | 356.48    | 7.0          | 12.0         | -                | -                                    |                                      |                                                                                        |                                                                                        |                                   |    |
|               | 9.7                           | 213           | 1.9    | 288.06    | 7.0          | 12.0         | 12.0             | 15.0                                 |                                      |                                                                                        |                                                                                        |                                   |    |
|               | 12.9                          | 160           | 2.5    | 216.66    | 7.0          | 12.0         | -                | -                                    |                                      |                                                                                        |                                                                                        |                                   |    |
|               | 16.0                          | 130           | 3.0    | 175.52    | 7.0          | 12.0         | 12.0             | 15.0                                 |                                      |                                                                                        |                                                                                        |                                   |    |
|               | 3.3                           | 701           | 0.8    | 276.32    | 9.0          | 12.0         | 13.0             | 15.0                                 | <b>PD/PM 23<br/>71M6C / 71M6D</b>    | 40                                                                                     | 197                                                                                    |                                   |    |
|               | 3.8                           | 598           | 0.8    | 235.73    | 9.0          | 12.0         | 13.0             | 15.0                                 |                                      |                                                                                        |                                                                                        |                                   |    |
|               | 4.9                           | 469           | 1.2    | 185.19    | 10.0         | 12.0         | 14.0             | 15.0                                 |                                      |                                                                                        |                                                                                        |                                   |    |
|               | 6.0                           | 380           | 1.4    | 150.03    | 8.0          | 12.0         | -                | -                                    |                                      |                                                                                        |                                                                                        |                                   |    |
|               | 6.8                           | 334           | 1.6    | 131.68    | 8.0          | 12.0         | -                | -                                    |                                      |                                                                                        |                                                                                        |                                   |    |
|               | 7.7                           | 295           | 1.9    | 116.40    | 8.0          | 12.0         | -                | -                                    |                                      |                                                                                        |                                                                                        |                                   |    |
|               | 9.1                           | 249           | 2.4    | 98.40     | 8.0          | 12.0         | -                | -                                    |                                      |                                                                                        |                                                                                        |                                   |    |
|               | 10.9                          | 209           | 2.8    | 82.29     | 8.0          | 12.0         | -                | -                                    |                                      |                                                                                        |                                                                                        |                                   |    |
|               | 3.6                           | 627           | 0.8    | 390.87    | 7.0          | 12.0         | 12.0             | 15.0                                 |                                      |                                                                                        |                                                                                        | <b>PD/PM 23<br/>71M4A / 71M4B</b> | 40 |
|               | 4.2                           | 530           | 1.1    | 330.43    | 8.0          | 12.0         | 13.0             | 15.0                                 |                                      |                                                                                        |                                                                                        |                                   |    |
|               | 5.1                           | 443           | 1.2    | 276.32    | 9.0          | 12.0         | 13.0             | 15.0                                 |                                      |                                                                                        |                                                                                        |                                   |    |
|               | 5.9                           | 378           | 1.3    | 235.73    | 9.0          | 12.0         | 13.0             | 15.0                                 |                                      |                                                                                        |                                                                                        |                                   |    |
|               | 7.6                           | 297           | 1.8    | 185.19    | 10.0         | 12.0         | 14.0             | 15.0                                 |                                      |                                                                                        |                                                                                        |                                   |    |
|               | 9.3                           | 241           | 2.2    | 150.03    | -            | -            | -                | -                                    |                                      |                                                                                        |                                                                                        |                                   |    |
|               | 10.6                          | 211           | 2.5    | 131.68    | -            | -            | -                | -                                    |                                      |                                                                                        |                                                                                        |                                   |    |
| 12.0          | 187                           | 2.8           | 116.40 | 8.0       | 12.0         | 12.0         | 15.0             |                                      |                                      |                                                                                        |                                                                                        |                                   |    |
| 4.5           | 477                           | 0.8           | 622.96 | 7.0       | 12.0         | -            | -                | <b>PD/PM 23<br/>63M2B</b>            | 37                                   | 197                                                                                    |                                                                                        |                                   |    |
| 5.8           | 370                           | 1.1           | 482.49 | 7.0       | 12.0         | 12.0         | 15.0             |                                      |                                      |                                                                                        |                                                                                        |                                   |    |
| 7.2           | 300                           | 1.3           | 390.87 | 7.0       | 12.0         | 12.0         | 15.0             |                                      |                                      |                                                                                        |                                                                                        |                                   |    |
| 8.5           | 253                           | 1.7           | 330.43 | 8.0       | 12.0         | 13.0         | 15.0             |                                      |                                      |                                                                                        |                                                                                        |                                   |    |
| 10.1          | 212                           | 2.0           | 276.32 | 9.0       | 12.0         | 13.0         | 15.0             |                                      |                                      |                                                                                        |                                                                                        |                                   |    |
| 11.9          | 181                           | 2.0           | 235.73 | 9.0       | 12.0         | 13.0         | 15.0             |                                      |                                      |                                                                                        |                                                                                        |                                   |    |
| 15.1          | 142                           | 2.8           | 185.19 | 10.0      | 12.0         | 14.0         | 15.0             |                                      |                                      |                                                                                        |                                                                                        |                                   |    |
| 7.1           | 328                           | 1.2           | 127.46 | 10.0      | 12.0         | 14.0         | 15.0             | <b>PD/PM 22<br/>71M6C / 71M6D</b>    | 33                                   | 196                                                                                    |                                                                                        |                                   |    |
| 8.6           | 268                           | 1.6           | 104.07 | 9.0       | 12.0         | 14.0         | 15.0             |                                      |                                      |                                                                                        |                                                                                        |                                   |    |
| 8.9           | 260                           | 1.8           | 100.98 | 10.0      | 12.0         | 14.0         | 15.0             |                                      |                                      |                                                                                        |                                                                                        |                                   |    |
| 10.9          | 212                           | 2.4           | 82.45  | 6.0       | 7.0          | 14.0         | 15.0             |                                      |                                      |                                                                                        |                                                                                        |                                   |    |
| 12.9          | 179                           | 2.6           | 69.70  | 6.0       | 7.0          | 14.0         | 15.0             |                                      |                                      |                                                                                        |                                                                                        |                                   |    |
| 11.0          | 209                           | 1.8           | 127.46 | 10.0      | 12.0         | 14.0         | 15.0             | <b>PD/PM 22<br/>71M4A / 71M4B</b>    | 33                                   | 196                                                                                    |                                                                                        |                                   |    |
| 13.5          | 170                           | 2.3           | 104.07 | 9.0       | 12.0         | 13.0         | 15.0             |                                      |                                      |                                                                                        |                                                                                        |                                   |    |
| 13.9          | 165                           | 2.7           | 100.98 | 10.0      | 12.0         | 13.0         | 15.0             |                                      |                                      |                                                                                        |                                                                                        |                                   |    |
| 6.1           | 360                           | 0.8           | 229.52 | 6.0       | 7.0          | 9.0          | 7.0              | <b>PD/PM 12/02<br/>71M4A / 71M4B</b> | 30                                   | 238                                                                                    |                                                                                        |                                   |    |







| $P_1$<br>[kW] | $n_2$<br>[Min <sup>-1</sup> ]                                                      | $M_2$<br>[Nm]                                                             | $f_B$                                                                     | $i_{ges}$                                                                                             | $F_R$<br>[N]                                                              | $F_A$<br>[N]                                                              | $F_{RGR}$<br>[N]                                                              | $F_{AGR}$<br>[N]                                                                     | Tip / Type / Typ<br>IE2 / IE3 |  Kg |  mm |  |
|---------------|------------------------------------------------------------------------------------|---------------------------------------------------------------------------|---------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------|---------------------------------------------------------------------------|-------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|-------------------------------|----------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------|--|
| <b>0.25</b>   | 8.5<br>9.9<br>12.2                                                                 | 243<br>210<br>170                                                         | 0.9<br>1.0<br>1.3                                                         | 328.02<br>284.03<br>229.52                                                                            | 6.0<br>6.0<br>6.0                                                         | 7.0<br>7.0<br>7.0                                                         | 9.0<br>9.0<br>9.0                                                             | 7.0<br>7.0<br>7.0                                                                    | PD/PM 12/02<br>63M2B          | 27                                                                                     | 238                                                                                    |  |
|               | 8.5<br>10.2                                                                        | 267<br>223                                                                | 1.1<br>1.3                                                                | 105.32<br>88.00                                                                                       | 6.0<br>6.0                                                                | 7.0<br>7.0                                                                | -<br>-                                                                        | -<br>-                                                                               | PD/PM 13<br>71M6C / 71M6D     | 26                                                                                     | 193                                                                                    |  |
|               | 8.5<br>10.9<br>13.3<br>15.9                                                        | 263<br>207<br>169<br>141                                                  | 0.9<br>1.1<br>1.6<br>1.9                                                  | 163.92<br>129.01<br>105.32<br>88.00                                                                   | 6.0<br>-<br>-<br>-                                                        | 7.0<br>-<br>-<br>-                                                        | -<br>-<br>-<br>-                                                              | -<br>-<br>-<br>-                                                                     | PD/PM 13<br>71M4A / 71M4B     | 26                                                                                     | 193                                                                                    |  |
|               | 9.3<br>11.1<br>13.3<br>17.1<br>21.7<br>26.6                                        | 231<br>193<br>161<br>126<br>99<br>81                                      | 0.9<br>1.1<br>1.1<br>1.4<br>1.7<br>2.5                                    | 301.08<br>251.58<br>209.76<br>163.92<br>129.01<br>105.32                                              | 6.0<br>6.0<br>6.0<br>6.0<br>6.0<br>6.0                                    | 7.0<br>7.0<br>7.0<br>7.0<br>7.0<br>7.0                                    | -<br>-<br>-<br>-<br>-<br>-                                                    | -<br>-<br>-<br>-<br>-<br>-                                                           | PD/PM 13<br>63M2B             | 23                                                                                     | 193                                                                                    |  |
|               | 8.2<br>9.7<br>11.1<br>12.5<br>13.6<br>15.3<br>16.3<br>18.3<br>19.5<br>21.9<br>28.1 | 282<br>238<br>209<br>186<br>171<br>152<br>143<br>127<br>119<br>106<br>83  | 0.8<br>1.0<br>1.5<br>1.7<br>1.7<br>2.0<br>1.7<br>2.2<br>1.7<br>2.2<br>2.9 | 109.45<br>92.43<br>81.17<br>72.16<br>66.26<br>58.91<br>55.37<br>49.22<br>46.16<br>41.04<br>32.07      | 7.0<br>7.0<br>6.0<br>6.0<br>6.0<br>6.0<br>6.0<br>6.0<br>6.0<br>7.0<br>7.0 | 7.0<br>7.0<br>7.0<br>7.0<br>7.0<br>7.0<br>7.0<br>7.0<br>7.0<br>7.0<br>7.0 | -<br>9.0<br>9.0<br>9.0<br>9.0<br>10.0<br>10.0<br>10.0<br>10.0<br>10.0<br>10.0 | -<br>7.0<br>7.0<br>7.0<br>7.0<br>7.0<br>7.0<br>7.0<br>7.0<br>7.0<br>7.0              | PD/PM 12<br>71M6C / 71M6D     | 22                                                                                     | 192                                                                                    |  |
|               | 12.8<br>15.1<br>17.2<br>19.4<br>21.1<br>23.8<br>25.3<br>30.3                       | 179<br>151<br>133<br>118<br>108<br>96<br>91<br>76                         | 1.2<br>1.5<br>2.2<br>2.5<br>2.5<br>2.9<br>2.6<br>2.6                      | 109.45<br>92.43<br>81.17<br>72.16<br>66.26<br>58.91<br>55.37<br>46.16                                 | 7.0<br>7.0<br>6.0<br>6.0<br>6.0<br>6.0<br>6.0<br>6.0                      | 7.0<br>7.0<br>7.0<br>7.0<br>7.0<br>7.0<br>7.0<br>7.0                      | 9.0<br>9.0<br>10.0<br>9.0<br>10.0<br>10.0<br>10.0<br>10.0                     | 7.0<br>7.0<br>7.0<br>7.0<br>7.0<br>7.0<br>7.0<br>7.0                                 | PD/PM 12<br>71M4A / 71M4B     | 22                                                                                     | 192                                                                                    |  |
|               | 25.6<br>30.3                                                                       | 87<br>73                                                                  | 1.8<br>2.4                                                                | 109.45<br>92.43                                                                                       | 7.0<br>7.0                                                                | 7.0<br>7.0                                                                | 9.0<br>9.0                                                                    | 7.0<br>7.0                                                                           | PD/PM 12<br>63M2B             | 19                                                                                     | 192                                                                                    |  |
|               | 4.4<br>5.7<br>6.6<br>7.6<br>8.5<br>8.9<br>10.1<br>11.4<br>13.2<br>15.0<br>16.9     | 516<br>401<br>346<br>299<br>269<br>256<br>225<br>200<br>173<br>152<br>135 | 0.8<br>1.0<br>1.1<br>1.3<br>1.4<br>1.5<br>1.7<br>1.9<br>2.2<br>2.6<br>2.8 | 203.72<br>158.21<br>136.54<br>118.07<br>106.03<br>101.01<br>88.92<br>78.83<br>68.27<br>60.09<br>53.28 | 6.0<br>6.0<br>7.0<br>7.0<br>7.0<br>7.0<br>7.0<br>7.0<br>6.0<br>6.0<br>6.0 | 7.0<br>7.0<br>7.0<br>7.0<br>7.0<br>7.0<br>7.0<br>7.0<br>7.0<br>7.0<br>7.0 | 8.0<br>8.0<br>8.0<br>8.0<br>8.0<br>8.0<br>8.0<br>8.0<br>8.0<br>8.0<br>8.0     | 11.0<br>11.0<br>11.0<br>11.0<br>11.0<br>11.0<br>11.0<br>11.0<br>11.0<br>11.0<br>11.0 | PD/PM C13<br>71M6C / 71M6D    | 28                                                                                     | 190                                                                                    |  |
|               | 4.6<br>5.4<br>6.9<br>8.8<br>10.3<br>11.9<br>13.2<br>13.9<br>15.7<br>17.8           | 483<br>413<br>327<br>254<br>219<br>189<br>170<br>162<br>143<br>126        | 0.8<br>0.9<br>1.1<br>1.5<br>1.7<br>2.0<br>2.2<br>2.3<br>2.6<br>2.9        | 301.44<br>257.36<br>203.72<br>158.21<br>136.54<br>118.07<br>106.03<br>101.01<br>88.92<br>78.83        | 5.0<br>5.0<br>6.0<br>6.0<br>7.0<br>7.0<br>7.0<br>7.0<br>7.0<br>7.0        | 7.0<br>7.0<br>7.0<br>7.0<br>7.0<br>7.0<br>7.0<br>7.0<br>7.0<br>7.0        | 8.0<br>8.0<br>8.0<br>8.0<br>8.0<br>8.0<br>8.0<br>8.0<br>8.0<br>8.0            | 11.0<br>11.0<br>11.0<br>11.0<br>11.0<br>11.0<br>11.0<br>11.0<br>11.0<br>11.0         | PD/PM C13<br>71M4A / 71M4B    | 28                                                                                     | 190                                                                                    |  |
|               | 7.4<br>9.3<br>10.9<br>13.7<br>17.7<br>20.5                                         | 292<br>231<br>197<br>156<br>121<br>105                                    | 1.0<br>1.2<br>1.4<br>1.8<br>2.3<br>2.7                                    | 380.81<br>301.44<br>257.36<br>203.72<br>158.21<br>136.54                                              | 5.0<br>5.0<br>5.0<br>6.0<br>6.0<br>7.0                                    | 7.0<br>7.0<br>7.0<br>7.0<br>7.0<br>7.0                                    | 8.0<br>8.0<br>8.0<br>8.0<br>8.0<br>8.0                                        | 11.0<br>11.0<br>11.0<br>11.0<br>11.0<br>11.0                                         | PD/PM C13<br>63M2B            | 25                                                                                     | 190                                                                                    |  |
|               |                                                                                    |                                                                           |                                                                           |                                                                                                       |                                                                           |                                                                           |                                                                               |                                                                                      |                               |                                                                                        |                                                                                        |  |



| $P_1$<br>[kW] | $n_2$<br>[Min <sup>-1</sup> ] | $M_2$<br>[Nm] | $f_B$   | $i_{ges}$ | $F_R$<br>[N] | $F_A$<br>[N] | $F_{RGR}$<br>[N] | $F_{AGR}$<br>[N]                   | Tip / Type / Typ<br>IE2 / IE3        |  Kg |  mm |
|---------------|-------------------------------|---------------|---------|-----------|--------------|--------------|------------------|------------------------------------|--------------------------------------|----------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------|
| <b>0.25</b>   | 13.6                          | 170           | 0.9     | 66.00     | 5.0          | 5.0          | 7.0              | 5.0                                | <b>PD/PM B02<br/>71M6C / 71M6D</b>   | 16                                                                                     | 188                                                                                    |
|               | 15.9                          | 146           | 1.2     | 56.55     | 5.0          | 5.0          | 7.0              | 5.0                                |                                      |                                                                                        |                                                                                        |
|               | 17.4                          | 133           | 1.2     | 51.60     | 5.0          | 5.0          | 7.0              | 5.0                                |                                      |                                                                                        |                                                                                        |
|               | 20.3                          | 114           | 1.5     | 44.23     | 5.0          | 5.0          | 7.0              | 5.0                                |                                      |                                                                                        |                                                                                        |
|               | 22.3                          | 104           | 1.7     | 40.35     | 5.0          | 5.0          | 7.0              | 5.0                                |                                      |                                                                                        |                                                                                        |
|               | 26.3                          | 88            | 1.8     | 34.16     | 5.0          | 5.0          | 7.0              | 5.0                                |                                      |                                                                                        |                                                                                        |
|               | 29.9                          | 77            | 1.7     | 30.08     | 4.0          | 5.0          | 7.0              | 5.0                                |                                      |                                                                                        |                                                                                        |
|               | 34.7                          | 67            | 2.0     | 25.96     | 4.0          | 5.0          | 7.0              | 5.0                                |                                      |                                                                                        |                                                                                        |
|               | 39.7                          | 58            | 2.3     | 22.68     | 5.0          | 5.0          | 7.0              | 5.0                                |                                      |                                                                                        |                                                                                        |
|               | 41.7                          | 56            | 2.6     | 21.58     | 5.0          | 5.0          | 7.0              | 5.0                                |                                      |                                                                                        |                                                                                        |
|               | 45.1                          | 51            | 2.6     | 19.94     | 5.0          | 5.0          | 7.0              | 5.0                                |                                      |                                                                                        |                                                                                        |
|               | 51.1                          | 45            | 3.0     | 17.62     | 5.0          | 5.0          | 7.0              | 5.0                                |                                      |                                                                                        |                                                                                        |
|               | 13.5                          | 170           | 0.8     | 103.90    | 5.0          | 5.0          | 7.0              | 5.0                                | <b>PD/PM B02<br/>71M4A / 71M4B</b>   | 16                                                                                     | 188                                                                                    |
|               | 16.3                          | 140           | 1.0     | 85.67     | 5.0          | 5.0          | 7.0              | 5.0                                |                                      |                                                                                        |                                                                                        |
|               | 17.6                          | 130           | 1.0     | 79.42     | 5.0          | 5.0          | 7.0              | 5.0                                |                                      |                                                                                        |                                                                                        |
|               | 21.2                          | 108           | 1.3     | 66.00     | 5.0          | 5.0          | 7.0              | 5.0                                |                                      |                                                                                        |                                                                                        |
|               | 24.8                          | 93            | 1.7     | 56.55     | 5.0          | 5.0          | 7.0              | 5.0                                |                                      |                                                                                        |                                                                                        |
|               | 27.1                          | 84            | 1.7     | 51.60     | 5.0          | 5.0          | 7.0              | 5.0                                |                                      |                                                                                        |                                                                                        |
|               | 31.7                          | 72            | 2.3     | 44.23     | 5.0          | 5.0          | 7.0              | 5.0                                |                                      |                                                                                        |                                                                                        |
|               | 34.7                          | 66            | 2.5     | 40.35     | 5.0          | 5.0          | 7.0              | 5.0                                |                                      |                                                                                        |                                                                                        |
|               | 41.0                          | 56            | 2.7     | 34.16     | 5.0          | 5.0          | 7.0              | 5.0                                |                                      |                                                                                        |                                                                                        |
|               | 46.5                          | 49            | 2.6     | 30.08     | 4.0          | 5.0          | 7.0              | 5.0                                |                                      |                                                                                        |                                                                                        |
|               | 56.9                          | 43            | 3.0     | 25.96     | 4.0          | 5.0          | 7.0              | 5.0                                |                                      |                                                                                        |                                                                                        |
|               | 20.1                          | 110           | 0.8     | 139.15    | 5.0          | 5.0          | 7.0              | 5.0                                |                                      |                                                                                        |                                                                                        |
|               | 27.2                          | 82            | 1.2     | 103.09    | 5.0          | 5.0          | 7.0              | 5.0                                |                                      |                                                                                        |                                                                                        |
|               | 32.7                          | 68            | 1.6     | 85.67     | 5.0          | 5.0          | 7.0              | 5.0                                |                                      |                                                                                        |                                                                                        |
|               | 35.3                          | 63            | 1.6     | 79.42     | 5.0          | 5.0          | 7.0              | 5.0                                |                                      |                                                                                        |                                                                                        |
|               | 42.4                          | 52            | 2.0     | 66.00     | 5.0          | 5.0          | 7.0              | 5.0                                |                                      |                                                                                        |                                                                                        |
|               | 49.5                          | 45            | 2.7     | 56.55     | 5.0          | 5.0          | 7.0              | 5.0                                |                                      |                                                                                        |                                                                                        |
|               | 54.3                          | 41            | 2.7     | 51.60     | 5.0          | 5.0          | 7.0              | 5.0                                |                                      |                                                                                        |                                                                                        |
|               | 15.2                          | 153           | 0.8     | 59.32     | 5.0          | 5.0          | 5.0              | 8.0                                | <b>PD/PM A02<br/>71M6C / 71M6D</b>   | 12                                                                                     | 186                                                                                    |
|               | 18.1                          | 128           | 0.8     | 49.62     | 5.0          | 5.0          | 5.0              | 8.0                                |                                      |                                                                                        |                                                                                        |
|               | 21.5                          | 108           | 0.8     | 41.88     | 5.0          | 5.0          | 5.0              | 8.0                                |                                      |                                                                                        |                                                                                        |
|               | 23.9                          | 97            | 1.1     | 37.71     | 5.0          | 5.0          | 5.0              | 8.0                                |                                      |                                                                                        |                                                                                        |
|               | 25.9                          | 90            | 1.2     | 34.80     | 5.0          | 5.0          | 5.0              | 8.0                                |                                      |                                                                                        |                                                                                        |
|               | 28.3                          | 82            | 1.2     | 31.83     | 4.0          | 5.0          | 5.0              | 8.0                                |                                      |                                                                                        |                                                                                        |
| 30.9          | 75                            | 1.5           | 29.11   | 4.0       | 5.0          | 5.0          | 8.0              |                                    |                                      |                                                                                        |                                                                                        |
| 36.6          | 63                            | 1.9           | 24.57   | 4.0       | 5.0          | 5.0          | 8.0              |                                    |                                      |                                                                                        |                                                                                        |
| 40.3          | 57                            | 2.0           | 22.34   | 4.0       | 5.0          | 5.0          | 8.0              |                                    |                                      |                                                                                        |                                                                                        |
| 47.9          | 48                            | 2.1           | 18.77   | 5.0       | 5.0          | 5.0          | 8.0              |                                    |                                      |                                                                                        |                                                                                        |
| 54.4          | 43                            | 2.5           | 16.54   | 5.0       | 5.0          | 5.0          | 8.0              |                                    |                                      |                                                                                        |                                                                                        |
| 60.4          | 38                            | 2.1           | 14.91   | 5.0       | 5.0          | 5.0          | 8.0              |                                    |                                      |                                                                                        |                                                                                        |
| 23.6          | 97                            | 1.1           | 59.32   | 5.0       | 5.0          | 5.0          | 8.0              | <b>PD/PM A02<br/>71M4A / 71M4B</b> | 12                                   | 186                                                                                    |                                                                                        |
| 28.2          | 81                            | 1.2           | 49.62   | 5.0       | 5.0          | 5.0          | 8.0              |                                    |                                      |                                                                                        |                                                                                        |
| 33.4          | 69                            | 1.2           | 41.88   | 5.0       | 5.0          | 5.0          | 8.0              |                                    |                                      |                                                                                        |                                                                                        |
| 37.1          | 62                            | 1.6           | 37.71   | 5.0       | 5.0          | 5.0          | 8.0              |                                    |                                      |                                                                                        |                                                                                        |
| 40.2          | 57                            | 1.8           | 34.80   | 5.0       | 5.0          | 5.0          | 8.0              |                                    |                                      |                                                                                        |                                                                                        |
| 44.0          | 52                            | 1.8           | 31.83   | 4.0       | 5.0          | 5.0          | 8.0              |                                    |                                      |                                                                                        |                                                                                        |
| 48.1          | 48                            | 2.3           | 29.11   | 4.0       | 5.0          | 5.0          | 8.0              |                                    |                                      |                                                                                        |                                                                                        |
| 57.0          | 40                            | 2.9           | 24.57   | 4.0       | 5.0          | 5.0          | 8.0              |                                    |                                      |                                                                                        |                                                                                        |
| 62.7          | 37                            | 3.0           | 22.34   | 4.0       | 5.0          | 5.0          | 8.0              |                                    |                                      |                                                                                        |                                                                                        |
| 34.3          | 65                            | 0.8           | 81.73   | 5.0       | 5.0          | 5.0          | 8.0              | <b>PD/PM A02<br/>63M2B</b>         | 9                                    | 186                                                                                    |                                                                                        |
| 47.2          | 47                            | 1.8           | 59.32   | 5.0       | 5.0          | 5.0          | 8.0              |                                    |                                      |                                                                                        |                                                                                        |
| 56.4          | 39                            | 1.9           | 49.62   | 5.0       | 5.0          | 5.0          | 8.0              |                                    |                                      |                                                                                        |                                                                                        |
| 66.9          | 33                            | 1.9           | 41.88   | 5.0       | 5.0          | 5.0          | 8.0              |                                    |                                      |                                                                                        |                                                                                        |
| 74.3          | 30                            | 2.5           | 37.71   | 5.0       | 5.0          | 5.0          | 8.0              |                                    |                                      |                                                                                        |                                                                                        |
| 80.5          | 28                            | 2.8           | 34.80   | 5.0       | 5.0          | 5.0          | 8.0              |                                    |                                      |                                                                                        |                                                                                        |
| 88.0          | 25                            | 2.9           | 31.83   | 4.0       | 5.0          | 5.0          | 8.0              |                                    |                                      |                                                                                        |                                                                                        |
| <b>0.37</b>   | 0.2                           | 15300         | 0.8     | 4202.93   | 92.0         | 73.0         | -                |                                    |                                      |                                                                                        | -                                                                                      |
|               | 0.3                           | 12811         | 1.0     | 3519.07   | 92.0         | 73.0         | -                | -                                  |                                      |                                                                                        |                                                                                        |
|               | 0.3                           | 10907         | 1.2     | 2996.11   | 92.0         | 73.0         | -                | -                                  |                                      |                                                                                        |                                                                                        |
|               | 0.4                           | 8768          | 1.4     | 2408.64   | 92.0         | 73.0         | -                | -                                  |                                      |                                                                                        |                                                                                        |
|               | 0.5                           | 6162          | 2.1     | 1692.65   | 92.0         | 73.0         | -                | -                                  |                                      |                                                                                        |                                                                                        |
|               | 0.7                           | 4962          | 2.6     | 1362.94   | 92.0         | 73.0         | 100.0            | 100.0                              |                                      |                                                                                        |                                                                                        |
|               | 0.2                           | 14995         | 0.8     | 6601.35   | -            | -            | -                | -                                  | <b>PD/PM 83/32<br/>71M4B / 71M4C</b> | 408                                                                                    | 240                                                                                    |
|               | 0.3                           | 12503         | 1.0     | 5504.36   | -            | -            | -                | -                                  |                                      |                                                                                        |                                                                                        |
|               | 0.4                           | 6971          | 1.3     | 6601.35   | 92.0         | 73.0         | -                | -                                  | <b>PD/PM 83/32<br/>71M2A</b>         | 408                                                                                    | 240                                                                                    |
| 0.5           | 5813                          | 1.6           | 5504.36 | 92.0      | 73.0         | -            | -                |                                    |                                      |                                                                                        |                                                                                        |



| $P_1$<br>[kW] | $n_2$<br>[Min <sup>-1</sup> ] | $M_2$<br>[Nm] | $f_B$  | $i_{ges}$ | $F_R$<br>[N] | $F_A$<br>[N] | $F_{R GR}$<br>[N] | $F_{A GR}$<br>[N]            | Tip / Type / Typ<br>IE2 / IE3 |  |  |
|---------------|-------------------------------|---------------|--------|-----------|--------------|--------------|-------------------|------------------------------|-------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| <b>0.37</b>   | 0.3                           | 9574          | 0.8    | 2629.95   | 57.0         | 58.0         | -                 | -                            | PD/PM 73/22<br>80M6A          | 274                                                                                 | 240                                                                                 |
|               | 0.4                           | 7504          | 1.0    | 2061.26   | 57.0         | 58.0         | -                 | -                            |                               |                                                                                     |                                                                                     |
|               | 0.5                           | 6575          | 1.1    | 1806.13   | 57.0         | 58.0         | -                 | -                            |                               |                                                                                     |                                                                                     |
|               | 0.7                           | 4887          | 1.5    | 1342.44   | 57.0         | 58.0         | 81.0              | 80.0                         |                               |                                                                                     |                                                                                     |
|               | 0.9                           | 3793          | 2.0    | 1042.00   | 57.0         | 58.0         | 81.0              | 80.0                         |                               |                                                                                     |                                                                                     |
|               | 1.0                           | 3394          | 2.2    | 932.25    | 57.0         | 58.0         | 81.0              | 80.0                         |                               |                                                                                     |                                                                                     |
|               | 1.3                           | 2586          | 2.9    | 710.29    | 57.0         | 58.0         | 82.0              | 80.0                         |                               |                                                                                     |                                                                                     |
|               | 0.7                           | 4682          | 1.5    | 2061.26   | -            | -            | -                 | -                            | PD/PM 73/22<br>71M4B / 71M4C  | 272                                                                                 | 240                                                                                 |
|               | 0.8                           | 4103          | 1.7    | 1806.13   | -            | -            | -                 | -                            |                               |                                                                                     |                                                                                     |
|               | 1.0                           | 3049          | 2.3    | 1342.44   | 57.0         | 58.0         | 81.0              | 80.0                         |                               |                                                                                     |                                                                                     |
|               | 1.3                           | 2367          | 3.0    | 1042.00   | 57.0         | 58.0         | 81.0              | 80.0                         |                               |                                                                                     |                                                                                     |
|               | 0.5                           | 5968          | 0.9    | 5651.03   | 57.0         | 58.0         | -                 | -                            | PD/PM 73/22<br>71M2A          | 272                                                                                 | 240                                                                                 |
|               | 0.6                           | 5164          | 1.0    | 4889.70   | 57.0         | 58.0         | -                 | -                            |                               |                                                                                     |                                                                                     |
|               | 1.4                           | 2177          | 2.5    | 2061.26   | 57.0         | 58.0         | -                 | -                            |                               |                                                                                     |                                                                                     |
|               | 1.6                           | 1907          | 2.8    | 1806.13   | 57.0         | 58.0         | -                 | -                            |                               |                                                                                     |                                                                                     |
|               | 0.5                           | 6768          | 0.8    | 1859.06   | 39.0         | 47.0         | -                 | -                            | PD/PM 63/22<br>80M6A          | 201                                                                                 | 240                                                                                 |
|               | 0.7                           | 4590          | 1.2    | 1260.77   | 39.0         | 47.0         | 57.0              | 60.0                         |                               |                                                                                     |                                                                                     |
|               | 0.8                           | 4022          | 1.4    | 1104.71   | 40.0         | 47.0         | 57.0              | 60.0                         |                               |                                                                                     |                                                                                     |
|               | 1.1                           | 2989          | 1.9    | 821.10    | 41.0         | 47.0         | 58.0              | 60.0                         |                               |                                                                                     |                                                                                     |
|               | 1.4                           | 2320          | 2.4    | 637.34    | 16.0         | 27.0         | 58.0              | 60.0                         |                               |                                                                                     |                                                                                     |
|               | 1.6                           | 2076          | 2.7    | 570.21    | 16.0         | 27.0         | 58.0              | 60.0                         |                               |                                                                                     |                                                                                     |
|               | 0.5                           | 6220          | 0.8    | 2738.15   | -            | -            | -                 | -                            | PD/PM 63/22<br>71M4B / 71M4C  | 199                                                                                 | 240                                                                                 |
|               | 1.1                           | 2864          | 1.9    | 1260.77   | 39.0         | 47.0         | 57.0              | 60.0                         |                               |                                                                                     |                                                                                     |
|               | 1.3                           | 2509          | 2.2    | 1104.71   | 40.0         | 47.0         | 57.0              | 60.0                         |                               |                                                                                     |                                                                                     |
|               | 1.7                           | 1865          | 2.9    | 821.10    | 41.0         | 47.0         | 58.0              | 60.0                         |                               |                                                                                     |                                                                                     |
|               | 0.7                           | 4393          | 0.8    | 4160.29   | 39.0         | 47.0         | -                 | -                            | PD/PM 63/22<br>71M2A          | 199                                                                                 | 240                                                                                 |
|               | 0.8                           | 3650          | 1.1    | 3456.44   | 39.0         | 47.0         | -                 | -                            |                               |                                                                                     |                                                                                     |
|               | 1.0                           | 2892          | 1.3    | 2738.15   | 39.0         | 47.0         | -                 | -                            |                               |                                                                                     |                                                                                     |
|               | 0.8                           | 4045          | 0.8    | 1094.40   | 28.0         | 32.0         | 40.0              | 40.0                         | PD/PM 52/12<br>80M6A          | 111                                                                                 | 238                                                                                 |
|               | 1.0                           | 3183          | 1.0    | 861.34    | 31.0         | 32.0         | -                 | -                            |                               |                                                                                     |                                                                                     |
|               | 1.3                           | 2547          | 1.2    | 689.07    | 31.0         | 32.0         | -                 | -                            |                               |                                                                                     |                                                                                     |
|               | 1.6                           | 2031          | 1.6    | 549.54    | 25.0         | 32.0         | -                 | -                            |                               |                                                                                     |                                                                                     |
|               | 2.0                           | 1656          | 1.9    | 448.15    | 25.0         | 32.0         | -                 | -                            |                               |                                                                                     |                                                                                     |
|               | 2.7                           | 1251          | 2.5    | 338.40    | 25.0         | 32.0         | -                 | -                            |                               |                                                                                     |                                                                                     |
|               | 1.0                           | 3096          | 1.0    | 1333.49   | 25.0         | 32.0         | 40.0              | 40.0                         | PD/PM 52/12<br>71M4B / 71M4C  | 109                                                                                 | 238                                                                                 |
|               | 1.3                           | 2541          | 1.2    | 1094.40   | 28.0         | 32.0         | 42.0              | 40.0                         |                               |                                                                                     |                                                                                     |
|               | 1.6                           | 2000          | 1.5    | 861.34    | 31.0         | 32.0         | 44.0              | 40.0                         |                               |                                                                                     |                                                                                     |
|               | 2.0                           | 1600          | 1.9    | 689.07    | 31.0         | 32.0         | 44.0              | 40.0                         |                               |                                                                                     |                                                                                     |
|               | 2.5                           | 1276          | 2.4    | 549.54    | -            | -            | -                 | -                            |                               |                                                                                     |                                                                                     |
|               | 3.1                           | 1041          | 2.9    | 448.15    | -            | -            | -                 | -                            |                               |                                                                                     |                                                                                     |
|               | 1.0                           | 3031          | 0.8    | 2769.78   | 25.0         | 32.0         | -                 | -                            | PD/PM 52/12<br>71M2A          | 109                                                                                 | 238                                                                                 |
|               | 1.3                           | 2425          | 0.9    | 2215.83   | 25.0         | 32.0         | -                 | -                            |                               |                                                                                     |                                                                                     |
|               | 1.6                           | 1973          | 1.2    | 1802.82   | 25.0         | 32.0         | -                 | -                            |                               |                                                                                     |                                                                                     |
|               | 2.1                           | 1459          | 1.6    | 1333.49   | 25.0         | 32.0         | 40.0              | 40.0                         |                               |                                                                                     |                                                                                     |
|               | 2.6                           | 1198          | 1.9    | 1094.40   | 28.0         | 32.0         | 42.0              | 40.0                         |                               |                                                                                     |                                                                                     |
|               | 3.3                           | 943           | 2.4    | 861.34    | 31.0         | 32.0         | 44.0              | 40.0                         |                               |                                                                                     |                                                                                     |
|               | 1.0                           | 3514          | 0.8    | 936.55    | 21.0         | 32.0         | 39.0              | 40.0                         | PD/PM 53<br>80M6A             | 120                                                                                 | 209                                                                                 |
|               | 1.3                           | 2625          | 1.3    | 699.67    | 21.0         | 32.0         | 42.0              | 40.0                         |                               |                                                                                     |                                                                                     |
| 1.6           | 2141                          | 1.4           | 570.63 | 21.0      | 32.0         | 43.0         | 40.0              |                              |                               |                                                                                     |                                                                                     |
| 1.7           | 1969                          | 1.7           | 524.75 | 21.0      | 32.0         | 43.0         | 40.0              |                              |                               |                                                                                     |                                                                                     |
| 2.1           | 1606                          | 2.1           | 427.97 | 21.0      | 32.0         | 44.0         | 40.0              |                              |                               |                                                                                     |                                                                                     |
| 2.5           | 1357                          | 2.2           | 361.64 | 21.0      | 32.0         | 44.0         | 40.0              |                              |                               |                                                                                     |                                                                                     |
| 2.7           | 1244                          | 2.7           | 331.54 | 21.0      | 32.0         | 44.0         | 40.0              |                              |                               |                                                                                     |                                                                                     |
| 3.3           | 1015                          | 2.8           | 270.40 | 21.0      | 32.0         | 44.0         | 40.0              |                              |                               |                                                                                     |                                                                                     |
| 1.6           | 2062                          | 0.9           | 557.93 | 17.0      | 22.0         | 28.0         | 30.0              | PD/PM 42/12<br>80M6A         | 75                            | 238                                                                                 |                                                                                     |
| 2.2           | 1514                          | 1.2           | 409.62 | 22.0      | 22.0         | -            | -                 |                              |                               |                                                                                     |                                                                                     |
| 2.6           | 1261                          | 1.5           | 341.25 | 22.0      | 22.0         | -            | -                 |                              |                               |                                                                                     |                                                                                     |
| 3.0           | 1117                          | 1.7           | 302.14 | 22.0      | 22.0         | -            | -                 |                              |                               |                                                                                     |                                                                                     |
| 3.8           | 867                           | 2.2           | 234.61 | 20.0      | 22.0         | -            | -                 |                              |                               |                                                                                     |                                                                                     |
| 5.1           | 655                           | 2.9           | 177.15 | 20.0      | 22.0         | -            | -                 |                              |                               |                                                                                     |                                                                                     |
| 1.6           | 2031                          | 0.9           | 874.48 | 17.0      | 22.0         | 27.0         | 30.0              | PD/PM 42/12<br>71M4B / 71M4C | 73                            | 238                                                                                 |                                                                                     |
| 2.0           | 1624                          | 1.1           | 699.58 | 21.0      | 22.0         | 30.0         | 30.0              |                              |                               |                                                                                     |                                                                                     |
| 2.5           | 1296                          | 1.4           | 557.93 | 17.0      | 22.0         | 28.0         | 30.0              |                              |                               |                                                                                     |                                                                                     |
| 3.4           | 951                           | 1.9           | 409.62 | 22.0      | 22.0         | 31.0         | 30.0              |                              |                               |                                                                                     |                                                                                     |
| 4.1           | 792                           | 2.3           | 341.25 | 22.0      | 22.0         | 31.0         | 30.0              |                              |                               |                                                                                     |                                                                                     |
| 4.6           | 702                           | 2.6           | 302.14 | 22.0      | 22.0         | 31.0         | 30.0              |                              |                               |                                                                                     |                                                                                     |

| $P_1$<br>[kW] | $n_2$<br>[Min <sup>-1</sup> ] | $M_2$<br>[Nm] | $f_B$  | $i_{ges}$ | $F_R$<br>[N] | $F_A$<br>[N] | $F_{RGR}$<br>[N] | $F_{AGR}$<br>[N]          | Tip / Type / Typ<br>IE2 / IE3 |  Kg |  mm |
|---------------|-------------------------------|---------------|--------|-----------|--------------|--------------|------------------|---------------------------|-------------------------------|----------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------|
| 0.37          | 2.1                           | 1471          | 0.9    | 1343.79   | 17.0         | 22.0         | 27.0             | 30.0                      | PD/PM 42/12<br>71M2A          | 73                                                                                     | 238                                                                                    |
|               | 2.5                           | 1216          | 1.1    | 1111.10   | 17.0         | 22.0         | 28.0             | 30.0                      |                               |                                                                                        |                                                                                        |
|               | 3.2                           | 957           | 1.4    | 874.48    | 17.0         | 22.0         | 27.0             | 30.0                      |                               |                                                                                        |                                                                                        |
|               | 4.0                           | 766           | 1.8    | 699.58    | 21.0         | 22.0         | 30.0             | 30.0                      |                               |                                                                                        |                                                                                        |
|               | 5.0                           | 611           | 2.2    | 557.93    | 17.0         | 22.0         | 28.0             | 30.0                      |                               |                                                                                        |                                                                                        |
|               | 1.7                           | 1999          | 1.1    | 532.76    | 20.0         | 22.0         | 29.0             | 30.0                      | PD/PM 43<br>80M6A             | 80                                                                                     | 205                                                                                    |
|               | 2.0                           | 1670          | 1.0    | 445.16    | 21.0         | 22.0         | 30.0             | 30.0                      |                               |                                                                                        |                                                                                        |
|               | 2.2                           | 1548          | 1.3    | 412.63    | 21.0         | 22.0         | 29.0             | 30.0                      |                               |                                                                                        |                                                                                        |
|               | 2.3                           | 1468          | 1.4    | 391.14    | 21.0         | 22.0         | 30.0             | 30.0                      |                               |                                                                                        |                                                                                        |
|               | 2.6                           | 1294          | 1.3    | 344.78    | 22.0         | 22.0         | 29.0             | 30.0                      |                               |                                                                                        |                                                                                        |
|               | 2.8                           | 1226          | 1.6    | 326.83    | 21.0         | 22.0         | 30.0             | 30.0                      |                               |                                                                                        |                                                                                        |
|               | 3.0                           | 1137          | 1.9    | 302.94    | 22.0         | 22.0         | 30.0             | 30.0                      |                               |                                                                                        |                                                                                        |
|               | 3.3                           | 1022          | 1.6    | 272.49    | 22.0         | 22.0         | 30.0             | 30.0                      |                               |                                                                                        |                                                                                        |
|               | 3.6                           | 950           | 2.2    | 253.13    | 20.0         | 22.0         | 30.0             | 30.0                      |                               |                                                                                        |                                                                                        |
|               | 4.3                           | 792           | 2.2    | 211.05    | 20.0         | 22.0         | 30.0             | 30.0                      |                               |                                                                                        |                                                                                        |
|               | 4.7                           | 719           | 2.9    | 191.52    | 20.0         | 22.0         | 31.0             | 30.0                      |                               |                                                                                        |                                                                                        |
|               | 5.6                           | 600           | 2.9    | 160.03    | 20.0         | 22.0         | 31.0             | 30.0                      |                               |                                                                                        |                                                                                        |
|               | 1.8                           | 1856          | 0.8    | 782.28    | 20.0         | 22.0         | 29.0             | 30.0                      | PD/PM 43<br>71M4B / 71M4C     | 78                                                                                     | 205                                                                                    |
|               | 2.1                           | 1551          | 0.8    | 653.66    | 21.0         | 22.0         | 30.0             | 30.0                      |                               |                                                                                        |                                                                                        |
|               | 2.6                           | 1264          | 1.6    | 532.76    | 20.0         | 22.0         | 29.0             | 30.0                      |                               |                                                                                        |                                                                                        |
|               | 3.1                           | 1056          | 1.6    | 445.16    | 21.0         | 22.0         | 30.0             | 30.0                      |                               |                                                                                        |                                                                                        |
|               | 3.6                           | 928           | 2.2    | 391.14    | 21.0         | 22.0         | 30.0             | 30.0                      |                               |                                                                                        |                                                                                        |
|               | 4.3                           | 775           | 2.4    | 326.83    | 21.0         | 22.0         | 30.0             | 30.0                      |                               |                                                                                        |                                                                                        |
|               | 5.1                           | 646           | 2.4    | 272.49    | 22.0         | 22.0         | 30.0             | 30.0                      |                               |                                                                                        |                                                                                        |
|               | 2.5                           | 1281          | 0.9    | 1129.42   | 20.0         | 22.0         | 27.0             | 30.0                      | PD/PM 43<br>71M2A             | 78                                                                                     | 205                                                                                    |
|               | 3.6                           | 887           | 1.3    | 782.28    | 20.0         | 22.0         | 29.0             | 30.0                      |                               |                                                                                        |                                                                                        |
|               | 4.3                           | 741           | 1.3    | 653.66    | 21.0         | 22.0         | 30.0             | 30.0                      |                               |                                                                                        |                                                                                        |
|               | 5.3                           | 604           | 2.5    | 532.76    | 20.0         | 22.0         | 29.0             | 30.0                      |                               |                                                                                        |                                                                                        |
|               | 6.3                           | 505           | 2.5    | 445.16    | 21.0         | 22.0         | 30.0             | 30.0                      |                               |                                                                                        |                                                                                        |
|               | 3.3                           | 1000          | 0.9    | 270.47    | 13.0         | 15.0         | -                | -                         | PD/PM 32/12<br>80M6A          | 60                                                                                     | 238                                                                                    |
|               | 4.1                           | 804           | 1.2    | 217.44    | 13.0         | 15.0         | -                | -                         |                               |                                                                                        |                                                                                        |
|               | 5.0                           | 664           | 1.4    | 179.71    | 13.0         | 15.0         | -                | -                         |                               |                                                                                        |                                                                                        |
|               | 6.4                           | 523           | 1.8    | 141.42    | 13.0         | 15.0         | -                | -                         |                               |                                                                                        |                                                                                        |
|               | 7.9                           | 421           | 2.2    | 114.01    | 13.0         | 15.0         | -                | -                         |                               |                                                                                        |                                                                                        |
|               | 10.3                          | 324           | 2.9    | 87.71     | 13.0         | 15.0         | -                | -                         |                               |                                                                                        |                                                                                        |
|               | 3.0                           | 1071          | 0.8    | 461.30    | 13.0         | 15.0         | 21.0             | 20.0                      | PD/PM 32/12<br>71M4B / 71M4C  | 58                                                                                     | 238                                                                                    |
|               | 3.9                           | 832           | 1.1    | 358.19    | 15.0         | 15.0         | 22.0             | 20.0                      |                               |                                                                                        |                                                                                        |
|               | 5.2                           | 628           | 1.4    | 270.47    | -            | -            | -                | -                         |                               |                                                                                        |                                                                                        |
|               | 6.4                           | 505           | 1.8    | 217.44    | -            | -            | -                | -                         |                               |                                                                                        |                                                                                        |
|               | 7.8                           | 417           | 2.2    | 179.71    | -            | -            | -                | -                         |                               |                                                                                        |                                                                                        |
|               | 9.9                           | 328           | 2.7    | 141.42    | 13.0         | 15.0         | 21.0             | 20.0                      |                               |                                                                                        |                                                                                        |
|               | 4.1                           | 749           | 0.9    | 684.80    | 13.0         | 15.0         | -                | -                         | PD/PM 32/12<br>71M2A          | 58                                                                                     | 238                                                                                    |
|               | 5.4                           | 570           | 1.2    | 521.00    | 13.0         | 15.0         | -                | -                         |                               |                                                                                        |                                                                                        |
|               | 6.1                           | 505           | 1.4    | 461.30    | 13.0         | 15.0         | 21.0             | 20.0                      |                               |                                                                                        |                                                                                        |
|               | 7.8                           | 392           | 1.7    | 358.19    | 15.0         | 15.0         | 22.0             | 20.0                      |                               |                                                                                        |                                                                                        |
|               | 10.4                          | 296           | 2.3    | 270.47    | 13.0         | 15.0         | -                | -                         |                               |                                                                                        |                                                                                        |
|               | 12.9                          | 238           | 2.9    | 217.44    | 13.0         | 15.0         | -                | -                         |                               |                                                                                        |                                                                                        |
| 3.1           | 1077                          | 0.9           | 287.08 | 15.0      | 15.0         | 22.0         | 20.0             | PD/PM 33<br>80M6A         | 58                            | 201                                                                                    |                                                                                        |
| 3.9           | 866                           | 1.2           | 230.79 | 16.0      | 15.0         | 22.0         | 20.0             |                           |                               |                                                                                        |                                                                                        |
| 4.7           | 716                           | 1.3           | 190.74 | 16.0      | 15.0         | 23.0         | 20.0             |                           |                               |                                                                                        |                                                                                        |
| 5.6           | 606                           | 1.4           | 161.38 | 13.0      | 15.0         | -            | -                |                           |                               |                                                                                        |                                                                                        |
| 7.1           | 477                           | 1.7           | 127.01 | 13.0      | 15.0         | -            | -                |                           |                               |                                                                                        |                                                                                        |
| 8.7           | 390                           | 2.0           | 103.92 | 13.0      | 15.0         | -            | -                |                           |                               |                                                                                        |                                                                                        |
| 10.1          | 336                           | 1.9           | 89.45  | 13.0      | 15.0         | -            | -                |                           |                               |                                                                                        |                                                                                        |
| 2.9           | 1145                          | 0.8           | 482.75 | 15.0      | 15.0         | 22.0         | 20.0             | PD/PM 33<br>71M4B / 71M4C | 56                            | 201                                                                                    |                                                                                        |
| 3.4           | 969                           | 0.8           | 408.42 | 15.0      | 15.0         | 22.0         | 20.0             |                           |                               |                                                                                        |                                                                                        |
| 4.9           | 681                           | 1.4           | 287.08 | 15.0      | 15.0         | 22.0         | 20.0             |                           |                               |                                                                                        |                                                                                        |
| 6.1           | 548                           | 1.8           | 230.79 | 16.0      | 15.0         | 22.0         | 20.0             |                           |                               |                                                                                        |                                                                                        |
| 7.3           | 453                           | 1.9           | 190.74 | 16.0      | 15.0         | 23.0         | 20.0             |                           |                               |                                                                                        |                                                                                        |
| 8.7           | 383                           | 2.1           | 161.38 | -         | -            | -            | -                |                           |                               |                                                                                        |                                                                                        |
| 11.0          | 301                           | 2.6           | 127.01 | -         | -            | -            | -                |                           |                               |                                                                                        |                                                                                        |
| 13.5          | 247                           | 3.0           | 103.92 | -         | -            | -            | -                |                           |                               |                                                                                        |                                                                                        |
| 15.7          | 212                           | 2.9           | 89.45  | -         | -            | -            | -                |                           |                               |                                                                                        |                                                                                        |
|               |                               |               |        |           |              |              |                  |                           |                               |                                                                                        |                                                                                        |



| $P_1$<br>[kW] | $n_2$<br>[Min <sup>-1</sup> ] | $M_2$<br>[Nm] | $f_B$  | $i_{ges}$ | $F_R$<br>[N] | $F_A$<br>[N] | $F_{RGR}$<br>[N] | $F_{AGR}$<br>[N]          | Tip / Type / Typ<br>IE2 / IE3 |  Kg |  mm |
|---------------|-------------------------------|---------------|--------|-----------|--------------|--------------|------------------|---------------------------|-------------------------------|----------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------|
| <b>0.37</b>   | 3.5                           | 917           | 0.9    | 808.52    | 15.0         | 15.0         | 21.0             | 20.0                      | PD/PM 33<br>71M2A             | 56                                                                                     | 201                                                                                    |
|               | 3.9                           | 824           | 0.9    | 726.57    | 15.0         | 15.0         | 20.0             | 20.0                      |                               |                                                                                        |                                                                                        |
|               | 4.8                           | 662           | 1.1    | 584.11    | 15.0         | 15.0         | 21.0             | 20.0                      |                               |                                                                                        |                                                                                        |
|               | 5.8                           | 547           | 1.2    | 482.75    | 15.0         | 15.0         | 22.0             | 20.0                      |                               |                                                                                        |                                                                                        |
|               | 6.9                           | 463           | 1.3    | 408.52    | 15.0         | 15.0         | 22.0             | 20.0                      |                               |                                                                                        |                                                                                        |
|               | 9.8                           | 326           | 2.2    | 287.08    | 15.0         | 15.0         | 22.0             | 20.0                      |                               |                                                                                        |                                                                                        |
|               | 12.1                          | 262           | 2.9    | 230.79    | 16.0         | 15.0         | 22.0             | 20.0                      |                               |                                                                                        |                                                                                        |
|               | 14.7                          | 216           | 3.0    | 190.74    | 16.0         | 15.0         | 23.0             | 20.0                      |                               |                                                                                        |                                                                                        |
|               | 8.0                           | 428           | 1.9    | 112.23    | 15.0         | 15.0         | 23.0             | 20.0                      | PD/PM 32<br>80M6A             | 50                                                                                     | 200                                                                                    |
|               | 8.9                           | 384           | 2.2    | 100.85    | 5.0          | 12.0         | 23.0             | 20.0                      |                               |                                                                                        |                                                                                        |
|               | 10.1                          | 338           | 2.9    | 88.74     | 5.0          | 12.0         | 22.0             | 20.0                      |                               |                                                                                        |                                                                                        |
|               | 11.3                          | 304           | 2.9    | 79.75     | 5.0          | 12.0         | 23.0             | 20.0                      |                               |                                                                                        |                                                                                        |
|               | 12.8                          | 269           | 2.2    | 70.52     | 5.0          | 12.0         | -                | -                         |                               |                                                                                        |                                                                                        |
|               | 12.5                          | 272           | 2.8    | 112.23    | 15.0         | 15.0         | 23.0             | 20.0                      | PD/PM 32<br>71M4B / 71M4C     | 48                                                                                     | 200                                                                                    |
|               | 5.1                           | 649           | 0.8    | 175.52    | 7.0          | 12.0         | -                | -                         | PD/PM 22/02<br>80M6A          | 43                                                                                     | 238                                                                                    |
|               | 4.9                           | 669           | 0.8    | 288.06    | 7.0          | 12.0         | 12.0             | 15.0                      | PD/PM 22/02<br>71M4B / 71M4C  | 41                                                                                     | 238                                                                                    |
|               | 6.5                           | 503           | 1.0    | 216.66    | -            | -            | -                | -                         |                               |                                                                                        |                                                                                        |
|               | 8.0                           | 408           | 1.3    | 175.52    | 7.0          | 12.0         | 12.0             | 15.0                      |                               |                                                                                        |                                                                                        |
|               | 6.6                           | 464           | 0.9    | 424.03    | 7.0          | 12.0         | -                | -                         | PD/PM 22/02<br>71M2A          | 41                                                                                     | 238                                                                                    |
|               | 7.9                           | 390           | 1.0    | 356.48    | 7.0          | 12.0         | -                | -                         |                               |                                                                                        |                                                                                        |
|               | 9.7                           | 315           | 1.3    | 288.06    | 7.0          | 12.0         | -                | -                         |                               |                                                                                        |                                                                                        |
|               | 12.9                          | 237           | 1.7    | 216.66    | 7.0          | 12.0         | -                | -                         |                               |                                                                                        |                                                                                        |
|               | 16.0                          | 192           | 2.1    | 175.52    | 7.0          | 12.0         | 12.0             | 15.0                      |                               |                                                                                        |                                                                                        |
|               | 4.9                           | 695           | 0.8    | 185.19    | 10.0         | 12.0         | 14.0             | 15.0                      | PD/PM 23<br>80M6A             | 42                                                                                     | 197                                                                                    |
|               | 6.0                           | 563           | 1.0    | 150.03    | 8.0          | 12.0         | -                | -                         |                               |                                                                                        |                                                                                        |
|               | 6.8                           | 494           | 1.1    | 131.68    | 8.0          | 12.0         | -                | -                         |                               |                                                                                        |                                                                                        |
|               | 7.7                           | 437           | 1.3    | 116.40    | 8.0          | 12.0         | 12.0             | 15.0                      |                               |                                                                                        |                                                                                        |
|               | 9.1                           | 369           | 1.6    | 98.40     | 5.0          | 12.0         | -                | -                         |                               |                                                                                        |                                                                                        |
|               | 10.9                          | 309           | 1.9    | 82.29     | 7.0          | 12.0         | -                | -                         |                               |                                                                                        |                                                                                        |
|               | 5.1                           | 656           | 0.8    | 276.32    | 6.0          | 12.0         | 11.0             | 15.0                      | PD/PM 23<br>71M4B / 71M4C     | 40                                                                                     | 197                                                                                    |
|               | 5.9                           | 559           | 0.8    | 235.73    | 7.0          | 12.0         | 12.0             | 15.0                      |                               |                                                                                        |                                                                                        |
|               | 7.6                           | 439           | 1.2    | 185.19    | 10.0         | 12.0         | 14.0             | 15.0                      |                               |                                                                                        |                                                                                        |
|               | 9.3                           | 356           | 1.5    | 150.03    | -            | -            | -                | -                         |                               |                                                                                        |                                                                                        |
|               | 10.6                          | 312           | 1.7    | 131.68    | -            | -            | -                | -                         |                               |                                                                                        |                                                                                        |
|               | 12.0                          | 276           | 1.9    | 116.40    | 8.0          | 12.0         | 12.0             | 15.0                      |                               |                                                                                        |                                                                                        |
|               | 14.2                          | 233           | 2.4    | 98.40     | 5.0          | 12.0         | 11.0             | 15.0                      |                               |                                                                                        |                                                                                        |
|               | 17.0                          | 195           | 2.9    | 82.29     | -            | -            | -                | -                         |                               |                                                                                        |                                                                                        |
|               | 7.2                           | 443           | 0.9    | 390.87    | 6.0          | 12.0         | 12.0             | 15.0                      | PD/PM 23<br>71M2A             | 40                                                                                     | 197                                                                                    |
|               | 8.5                           | 375           | 1.1    | 330.43    | 6.0          | 12.0         | 13.0             | 15.0                      |                               |                                                                                        |                                                                                        |
|               | 10.1                          | 313           | 1.3    | 276.32    | 6.0          | 12.0         | 11.0             | 15.0                      |                               |                                                                                        |                                                                                        |
|               | 11.9                          | 267           | 1.3    | 235.73    | 7.0          | 12.0         | 12.0             | 15.0                      |                               |                                                                                        |                                                                                        |
|               | 15.1                          | 210           | 1.9    | 185.19    | 10.0         | 12.0         | 14.0             | 15.0                      |                               |                                                                                        |                                                                                        |
|               | 18.7                          | 170           | 2.3    | 150.03    | 8.0          | 12.0         | -                | -                         |                               |                                                                                        |                                                                                        |
|               | 21.3                          | 149           | 2.7    | 131.68    | 8.0          | 12.0         | -                | -                         |                               |                                                                                        |                                                                                        |
|               | 24.1                          | 132           | 3.0    | 116.40    | 8.0          | 12.0         | 12.0             | 15.0                      |                               |                                                                                        |                                                                                        |
|               | 7.1                           | 486           | 0.8    | 127.46    | 9.0          | 12.0         | 14.0             | 15.0                      | PD/PM 22<br>80M6A             | 35                                                                                     | 196                                                                                    |
|               | 8.6                           | 396           | 1.1    | 104.07    | 9.0          | 12.0         | 13.0             | 15.0                      |                               |                                                                                        |                                                                                        |
|               | 8.9                           | 385           | 1.2    | 100.98    | 10.0         | 12.0         | 14.0             | 15.0                      |                               |                                                                                        |                                                                                        |
| 10.9          | 314                           | 1.6           | 82.45  | 10.0      | 12.0         | 14.0         | 15.0             |                           |                               |                                                                                        |                                                                                        |
| 12.9          | 266                           | 1.8           | 69.70  | 10.0      | 12.0         | 14.0         | 15.0             |                           |                               |                                                                                        |                                                                                        |
| 14.1          | 243                           | 2.2           | 63.86  | 10.0      | 12.0         | 14.0         | 15.0             |                           |                               |                                                                                        |                                                                                        |
| 16.7          | 206                           | 2.6           | 53.98  | 10.0      | 12.0         | 14.0         | 15.0             |                           |                               |                                                                                        |                                                                                        |
| 17.4          | 197                           | 2.8           | 51.73  | 10.0      | 12.0         | -            | -                |                           |                               |                                                                                        |                                                                                        |
| 19.9          | 172                           | 2.7           | 45.14  | 10.0      | 12.0         | 14.0         | 15.0             |                           |                               |                                                                                        |                                                                                        |
| 11.0          | 309                           | 1.2           | 127.46 | 9.0       | 12.0         | 14.0         | 15.0             | PD/PM 22<br>71M4B / 71M4C | 33                            | 196                                                                                    |                                                                                        |
| 13.5          | 252                           | 1.6           | 104.07 | 9.0       | 12.0         | 13.0         | 15.0             |                           |                               |                                                                                        |                                                                                        |
| 13.9          | 245                           | 1.8           | 100.98 | 10.0      | 12.0         | 14.0         | 15.0             |                           |                               |                                                                                        |                                                                                        |
| 17.0          | 200                           | 2.4           | 82.45  | 10.0      | 12.0         | 14.0         | 15.0             |                           |                               |                                                                                        |                                                                                        |
| 20.1          | 169                           | 2.6           | 69.70  | 10.0      | 12.0         | 14.0         | 15.0             |                           |                               |                                                                                        |                                                                                        |
| 22.0          | 150                           | 1.9           | 127.46 | 9.0       | 12.0         | 13.0         | 15.0             | PD/PM 22<br>71M2A         | 33                            | 196                                                                                    |                                                                                        |
| 26.9          | 122                           | 2.5           | 104.07 | 9.0       | 12.0         | 13.0         | 15.0             |                           |                               |                                                                                        |                                                                                        |
| 27.7          | 119                           | 2.8           | 100.98 | 10.0      | 12.0         | 13.0         | 15.0             |                           |                               |                                                                                        |                                                                                        |



| $P_1$<br>[kW] | $n_2$<br>[Min <sup>-1</sup> ]                                                                            | $M_2$<br>[Nm]                                                                                 | $f_B$                                                                                          | $i_{ges}$                                                                                                                      | $F_R$<br>[N]                                                                                   | $F_A$<br>[N]                                                                                   | $F_{RGR}$<br>[N]                                                                               | $F_{AGR}$<br>[N]                                                                                             | Tip / Type / Typ<br>IE2 / IE3 |  Kg |  mm |
|---------------|----------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------|-------------------------------|----------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------|
| <b>0.37</b>   | 12.2                                                                                                     | 251                                                                                           | 0.9                                                                                            | 229.52                                                                                                                         | 6.0                                                                                            | 7.0                                                                                            | -                                                                                              | -                                                                                                            | PD/PM 12/02<br>71M2A          | 30                                                                                     | 238                                                                                    |
|               | 13.3<br>15.9                                                                                             | 250<br>209                                                                                    | 1.1<br>1.3                                                                                     | 105.32<br>88.00                                                                                                                | 6.0<br>-                                                                                       | 7.0<br>-                                                                                       | -<br>-                                                                                         | -<br>-                                                                                                       | PD/PM 13<br>71M4B / 71M4C     | 26                                                                                     | 193                                                                                    |
|               | 13.3<br>17.1<br>21.7<br>26.6<br>31.8                                                                     | 238<br>186<br>146<br>119<br>100                                                               | 0.8<br>0.9<br>1.2<br>1.7<br>2.1                                                                | 209.76<br>163.92<br>129.01<br>105.32<br>88.00                                                                                  | 6.0<br>6.0<br>6.0<br>6.0<br>6.0                                                                | 7.0<br>7.0<br>7.0<br>7.0<br>7.0                                                                | -<br>-<br>-<br>-<br>-                                                                          | -<br>-<br>-<br>-<br>-                                                                                        | PD/PM 13<br>71M2A             | 26                                                                                     | 193                                                                                    |
|               | 12.5<br>15.3<br>18.3<br>21.9<br>28.1<br>31.7<br>35.7                                                     | 275<br>224<br>187<br>156<br>122<br>108<br>96                                                  | 1.1<br>1.3<br>1.5<br>1.5<br>2.0<br>2.2<br>2.5                                                  | 72.16<br>58.91<br>49.22<br>41.04<br>32.07<br>28.35<br>25.24                                                                    | 6.0<br>6.0<br>5.0<br>5.0<br>5.0<br>7.0<br>7.0                                                  | 7.0<br>7.0<br>7.0<br>7.0<br>7.0<br>7.0<br>7.0                                                  | 9.0<br>10.0<br>10.0<br>10.0<br>10.0<br>10.0<br>10.0                                            | 7.0<br>7.0<br>7.0<br>7.0<br>7.0<br>7.0<br>7.0                                                                | PD/PM 12<br>80M6A             | 24                                                                                     | 192                                                                                    |
|               | 12.8<br>15.1<br>17.2<br>19.4<br>21.1<br>23.8<br>25.3<br>28.4<br>30.3<br>34.1<br>43.7                     | 265<br>224<br>197<br>175<br>161<br>143<br>134<br>119<br>112<br>99<br>78                       | 0.8<br>1.0<br>1.5<br>1.7<br>1.7<br>2.0<br>1.8<br>2.2<br>1.8<br>2.2<br>3.0                      | 109.45<br>92.43<br>81.17<br>72.16<br>66.26<br>58.91<br>55.37<br>49.22<br>46.16<br>41.04<br>32.07                               | 7.0<br>6.0<br>6.0<br>6.0<br>6.0<br>6.0<br>6.0<br>5.0<br>5.0<br>5.0<br>5.0                      | 7.0<br>7.0<br>7.0<br>7.0<br>7.0<br>7.0<br>7.0<br>7.0<br>7.0<br>7.0<br>7.0                      | 9.0<br>9.0<br>9.0<br>9.0<br>9.0<br>10.0<br>10.0<br>10.0<br>10.0<br>10.0<br>10.0                | 7.0<br>7.0<br>7.0<br>7.0<br>7.0<br>7.0<br>7.0<br>7.0<br>7.0<br>7.0<br>7.0                                    | PD/PM 12<br>71M4B / 71M4C     | 22                                                                                     | 192                                                                                    |
|               | 25.6<br>30.3<br>34.5<br>38.8<br>42.3<br>50.6<br>60.7                                                     | 129<br>109<br>95<br>85<br>78<br>65<br>54                                                      | 1.2<br>1.6<br>2.4<br>2.7<br>2.6<br>2.7<br>2.7                                                  | 109.45<br>92.43<br>81.17<br>72.16<br>66.26<br>55.37<br>46.16                                                                   | 7.0<br>6.0<br>6.0<br>6.0<br>6.0<br>6.0<br>5.0                                                  | 7.0<br>7.0<br>7.0<br>7.0<br>7.0<br>7.0<br>7.0                                                  | 9.0<br>9.0<br>9.0<br>9.0<br>9.0<br>10.0<br>10.0                                                | 7.0<br>7.0<br>7.0<br>7.0<br>7.0<br>7.0<br>7.0                                                                | PD/PM 12<br>71M2A             | 22                                                                                     | 192                                                                                    |
|               | 6.6<br>7.6<br>8.5<br>8.9<br>10.1<br>11.4<br>13.2<br>15.0<br>16.9<br>20.3<br>23.2<br>25.2<br>30.3<br>34.6 | 512<br>443<br>398<br>379<br>334<br>296<br>256<br>225<br>200<br>166<br>146<br>134<br>111<br>98 | 0.8<br>0.9<br>1.0<br>1.0<br>1.2<br>1.3<br>1.5<br>1.7<br>1.9<br>2.1<br>2.3<br>2.4<br>2.7<br>2.9 | 136.54<br>118.07<br>106.03<br>101.01<br>88.92<br>78.83<br>68.27<br>60.09<br>53.28<br>44.33<br>38.83<br>35.71<br>29.71<br>26.02 | 6.0<br>6.0<br>5.0<br>6.0<br>7.0<br>7.0<br>7.0<br>7.0<br>7.0<br>6.0<br>6.0<br>6.0<br>6.0<br>6.0 | 7.0<br>7.0<br>7.0<br>7.0<br>7.0<br>7.0<br>7.0<br>7.0<br>7.0<br>7.0<br>7.0<br>7.0<br>7.0<br>7.0 | 8.0<br>8.0<br>8.0<br>8.0<br>8.0<br>8.0<br>8.0<br>8.0<br>8.0<br>8.0<br>8.0<br>8.0<br>8.0<br>8.0 | 11.0<br>11.0<br>11.0<br>11.0<br>11.0<br>11.0<br>11.0<br>11.0<br>11.0<br>11.0<br>11.0<br>11.0<br>11.0<br>11.0 | PD/PM C13<br>80M6A            | 30                                                                                     | 190                                                                                    |
|               | 6.9<br>8.8<br>10.3<br>11.9<br>13.2<br>13.9<br>15.7<br>17.8<br>20.5<br>23.3<br>26.3                       | 483<br>375<br>324<br>280<br>252<br>240<br>211<br>187<br>162<br>143<br>126                     | 0.8<br>1.0<br>1.1<br>1.3<br>1.5<br>1.5<br>1.8<br>2.0<br>2.3<br>2.6<br>2.8                      | 203.72<br>158.21<br>136.54<br>118.07<br>106.03<br>101.01<br>88.92<br>78.83<br>68.27<br>60.09<br>53.28                          | 6.0<br>5.0<br>6.0<br>6.0<br>5.0<br>6.0<br>7.0<br>7.0<br>7.0<br>7.0<br>7.0                      | 7.0<br>7.0<br>7.0<br>7.0<br>7.0<br>7.0<br>7.0<br>7.0<br>7.0<br>7.0<br>7.0                      | 8.0<br>8.0<br>8.0<br>8.0<br>8.0<br>8.0<br>8.0<br>8.0<br>8.0<br>8.0<br>8.0                      | 11.0<br>11.0<br>11.0<br>11.0<br>11.0<br>11.0<br>11.0<br>11.0<br>11.0<br>11.0<br>11.0                         | PD/PM C13<br>71M4B / 71M4C    | 28                                                                                     | 190                                                                                    |
|               | 9.3<br>10.9<br>13.7<br>17.7<br>20.5<br>23.7<br>26.4<br>27.7<br>31.5                                      | 342<br>292<br>231<br>179<br>155<br>134<br>120<br>115<br>101                                   | 0.8<br>1.0<br>1.2<br>1.6<br>1.8<br>2.1<br>2.3<br>2.5<br>2.8                                    | 301.44<br>257.36<br>203.72<br>158.21<br>136.54<br>118.07<br>106.03<br>101.01<br>88.92                                          | 6.0<br>6.0<br>6.0<br>5.0<br>6.0<br>6.0<br>5.0<br>6.0<br>7.0                                    | 7.0<br>7.0<br>7.0<br>7.0<br>7.0<br>7.0<br>7.0<br>7.0<br>7.0                                    | 8.0<br>8.0<br>8.0<br>8.0<br>8.0<br>8.0<br>8.0<br>8.0<br>8.0                                    | 11.0<br>11.0<br>11.0<br>11.0<br>11.0<br>11.0<br>11.0<br>11.0<br>11.0                                         | PD/PM C13<br>71M2A            | 28                                                                                     | 190                                                                                    |



| <b>P<sub>1</sub></b><br>[kW] | <b>n<sub>2</sub></b><br>[Min <sup>-1</sup> ] | <b>M<sub>2</sub></b><br>[Nm] | <b>f<sub>B</sub></b> | <b>i<sub>ges</sub></b> | <b>F<sub>R</sub></b><br>[N] | <b>F<sub>A</sub></b><br>[N] | <b>F<sub>R GR</sub></b><br>[N] | <b>F<sub>A GR</sub></b><br>[N] | Tip / Type / Typ<br>IE2 / IE3      |  Kg |  mm |                                    |     |     |
|------------------------------|----------------------------------------------|------------------------------|----------------------|------------------------|-----------------------------|-----------------------------|--------------------------------|--------------------------------|------------------------------------|----------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------|------------------------------------|-----|-----|
| <b>0.37</b>                  | 15.9                                         | 215                          | 0.8                  | 56.55                  | 5.0                         | 5.0                         | 7.0                            | 5.0                            | <b>PD/PM B02<br/>80M6A</b>         | 18                                                                                     | 188                                                                                    |                                    |     |     |
|                              | 17.4                                         | 197                          | 0.8                  | 51.60                  | 5.0                         | 5.0                         | 7.0                            | 5.0                            |                                    |                                                                                        |                                                                                        |                                    |     |     |
|                              | 20.3                                         | 168                          | 1.0                  | 44.23                  | 5.0                         | 5.0                         | 7.0                            | 5.0                            |                                    |                                                                                        |                                                                                        |                                    |     |     |
|                              | 22.3                                         | 154                          | 1.1                  | 40.35                  | 4.0                         | 5.0                         | 7.0                            | 5.0                            |                                    |                                                                                        |                                                                                        |                                    |     |     |
|                              | 26.3                                         | 130                          | 1.2                  | 34.16                  | 4.0                         | 5.0                         | 7.0                            | 5.0                            |                                    |                                                                                        |                                                                                        |                                    |     |     |
|                              | 29.9                                         | 115                          | 1.2                  | 30.08                  | 4.0                         | 5.0                         | 7.0                            | 5.0                            |                                    |                                                                                        |                                                                                        |                                    |     |     |
|                              | 34.7                                         | 99                           | 1.4                  | 25.96                  | 4.0                         | 5.0                         | 7.0                            | 5.0                            |                                    |                                                                                        |                                                                                        |                                    |     |     |
|                              | 39.7                                         | 86                           | 1.6                  | 22.68                  | 4.0                         | 5.0                         | 7.0                            | 5.0                            |                                    |                                                                                        |                                                                                        |                                    |     |     |
|                              | 41.7                                         | 82                           | 1.8                  | 21.58                  | 4.0                         | 5.0                         | 7.0                            | 5.0                            |                                    |                                                                                        |                                                                                        |                                    |     |     |
|                              | 45.1                                         | 76                           | 1.8                  | 19.94                  | 4.0                         | 5.0                         | 7.0                            | 5.0                            |                                    |                                                                                        |                                                                                        |                                    |     |     |
|                              | 51.1                                         | 67                           | 2.0                  | 17.62                  | 4.0                         | 5.0                         | 7.0                            | 5.0                            |                                    |                                                                                        |                                                                                        |                                    |     |     |
|                              | 54.3                                         | 63                           | 2.3                  | 16.57                  | 5.0                         | 5.0                         | 7.0                            | 5.0                            |                                    |                                                                                        |                                                                                        |                                    |     |     |
|                              | 21.2                                         | 160                          | 0.9                  | 66.00                  | 5.0                         | 5.0                         | 7.0                            | 5.0                            |                                    |                                                                                        |                                                                                        | <b>PD/PM B02<br/>71M4B / 71M4C</b> | 16  | 188 |
|                              | 24.8                                         | 137                          | 1.2                  | 56.55                  | 5.0                         | 5.0                         | 7.0                            | 5.0                            |                                    |                                                                                        |                                                                                        |                                    |     |     |
|                              | 27.1                                         | 125                          | 1.2                  | 51.60                  | 5.0                         | 5.0                         | 7.0                            | 5.0                            |                                    |                                                                                        |                                                                                        |                                    |     |     |
|                              | 31.7                                         | 107                          | 1.5                  | 44.23                  | 5.0                         | 5.0                         | 7.0                            | 5.0                            |                                    |                                                                                        |                                                                                        |                                    |     |     |
|                              | 34.7                                         | 98                           | 1.7                  | 40.35                  | 4.0                         | 5.0                         | 7.0                            | 5.0                            |                                    |                                                                                        |                                                                                        |                                    |     |     |
|                              | 41.0                                         | 83                           | 1.8                  | 34.16                  | 4.0                         | 5.0                         | 7.0                            | 5.0                            |                                    |                                                                                        |                                                                                        |                                    |     |     |
|                              | 46.5                                         | 73                           | 1.8                  | 30.08                  | 4.0                         | 5.0                         | 7.0                            | 5.0                            |                                    |                                                                                        |                                                                                        |                                    |     |     |
|                              | 53.9                                         | 63                           | 2.1                  | 25.96                  | 4.0                         | 5.0                         | 7.0                            | 5.0                            |                                    |                                                                                        |                                                                                        |                                    |     |     |
|                              | 61.7                                         | 55                           | 2.3                  | 22.68                  | 4.0                         | 5.0                         | 7.0                            | 5.0                            |                                    |                                                                                        |                                                                                        |                                    |     |     |
|                              | 64.9                                         | 52                           | 2.7                  | 21.58                  | 4.0                         | 5.0                         | 7.0                            | 5.0                            |                                    |                                                                                        |                                                                                        |                                    |     |     |
|                              | 70.2                                         | 48                           | 2.7                  | 19.94                  | 4.0                         | 5.0                         | 7.0                            | 5.0                            |                                    |                                                                                        |                                                                                        |                                    |     |     |
|                              | 79.5                                         | 43                           | 3.0                  | 17.62                  | 4.0                         | 5.0                         | 7.0                            | 5.0                            |                                    |                                                                                        |                                                                                        |                                    |     |     |
|                              | 27.2                                         | 121                          | 0.8                  | 103.09                 | 5.0                         | 5.0                         | 7.0                            | 5.0                            | <b>PD/PM B02<br/>71M2A</b>         | 16                                                                                     | 188                                                                                    |                                    |     |     |
|                              | 32.7                                         | 101                          | 1.1                  | 85.67                  | 5.0                         | 5.0                         | 7.0                            | 5.0                            |                                    |                                                                                        |                                                                                        |                                    |     |     |
|                              | 35.3                                         | 93                           | 1.1                  | 79.42                  | 5.0                         | 5.0                         | 7.0                            | 5.0                            |                                    |                                                                                        |                                                                                        |                                    |     |     |
|                              | 42.4                                         | 78                           | 1.4                  | 66.00                  | 5.0                         | 5.0                         | 7.0                            | 5.0                            |                                    |                                                                                        |                                                                                        |                                    |     |     |
|                              | 49.5                                         | 66                           | 1.8                  | 56.55                  | 5.0                         | 5.0                         | 7.0                            | 5.0                            |                                    |                                                                                        |                                                                                        |                                    |     |     |
|                              | 54.3                                         | 61                           | 1.8                  | 51.60                  | 5.0                         | 5.0                         | 7.0                            | 5.0                            |                                    |                                                                                        |                                                                                        |                                    |     |     |
|                              | 63.3                                         | 52                           | 2.4                  | 44.23                  | 5.0                         | 5.0                         | 7.0                            | 5.0                            |                                    |                                                                                        |                                                                                        |                                    |     |     |
|                              | 69.4                                         | 47                           | 2.6                  | 40.35                  | 4.0                         | 5.0                         | 7.0                            | 5.0                            |                                    |                                                                                        |                                                                                        |                                    |     |     |
|                              | 82.0                                         | 40                           | 2.9                  | 34.16                  | 4.0                         | 5.0                         | 7.0                            | 5.0                            |                                    |                                                                                        |                                                                                        |                                    |     |     |
|                              | 93.1                                         | 35                           | 2.8                  | 30.08                  | 4.0                         | 5.0                         | 7.0                            | 5.0                            |                                    |                                                                                        |                                                                                        |                                    |     |     |
|                              | 25.9                                         | 133                          | 0.8                  | 34.80                  | 4.0                         | 5.0                         | 5.0                            | 8.0                            | <b>PD/PM A02<br/>80M6A</b>         | 14                                                                                     | 186                                                                                    |                                    |     |     |
|                              | 28.3                                         | 121                          | 0.8                  | 31.83                  | 4.0                         | 5.0                         | 5.0                            | 8.0                            |                                    |                                                                                        |                                                                                        |                                    |     |     |
|                              | 30.9                                         | 111                          | 1.0                  | 29.11                  | 4.0                         | 5.0                         | 5.0                            | 8.0                            |                                    |                                                                                        |                                                                                        |                                    |     |     |
|                              | 36.6                                         | 94                           | 1.3                  | 24.57                  | 4.0                         | 5.0                         | 5.0                            | 8.0                            |                                    |                                                                                        |                                                                                        |                                    |     |     |
|                              | 40.3                                         | 85                           | 1.3                  | 22.34                  | 4.0                         | 5.0                         | 5.0                            | 8.0                            |                                    |                                                                                        |                                                                                        |                                    |     |     |
|                              | 47.9                                         | 71                           | 1.4                  | 18.77                  | 4.0                         | 5.0                         | 5.0                            | 8.0                            |                                    |                                                                                        |                                                                                        |                                    |     |     |
|                              | 54.4                                         | 63                           | 1.7                  | 16.54                  | 4.0                         | 5.0                         | 5.0                            | 8.0                            |                                    |                                                                                        |                                                                                        |                                    |     |     |
|                              | 60.4                                         | 57                           | 1.4                  | 14.91                  | 3.0                         | 5.0                         | 5.0                            | 8.0                            |                                    |                                                                                        |                                                                                        |                                    |     |     |
|                              | 65.1                                         | 53                           | 2.2                  | 13.83                  | 5.0                         | 5.0                         | 5.0                            | 8.0                            |                                    |                                                                                        |                                                                                        |                                    |     |     |
|                              | 77.1                                         | 44                           | 2.6                  | 11.67                  | 5.0                         | 5.0                         | 5.0                            | 8.0                            |                                    |                                                                                        |                                                                                        |                                    |     |     |
|                              | 23.6                                         | 144                          | 0.8                  | 59.32                  | 5.0                         | 5.0                         | 5.0                            | 8.0                            | <b>PD/PM A02<br/>71M4B / 71M4C</b> | 12                                                                                     | 186                                                                                    |                                    |     |     |
| 28.2                         | 120                                          | 0.8                          | 49.62                | 5.0                    | 5.0                         | 5.0                         | 8.0                            |                                |                                    |                                                                                        |                                                                                        |                                    |     |     |
| 33.4                         | 101                                          | 0.8                          | 41.88                | 4.0                    | 5.0                         | 5.0                         | 8.0                            |                                |                                    |                                                                                        |                                                                                        |                                    |     |     |
| 37.1                         | 91                                           | 1.1                          | 37.71                | 4.0                    | 5.0                         | 5.0                         | 8.0                            |                                |                                    |                                                                                        |                                                                                        |                                    |     |     |
| 40.2                         | 84                                           | 1.2                          | 34.80                | 4.0                    | 5.0                         | 5.0                         | 8.0                            |                                |                                    |                                                                                        |                                                                                        |                                    |     |     |
| 44.0                         | 77                                           | 1.2                          | 31.83                | 4.0                    | 5.0                         | 5.0                         | 8.0                            |                                |                                    |                                                                                        |                                                                                        |                                    |     |     |
| 48.1                         | 71                                           | 1.6                          | 29.11                | 4.0                    | 5.0                         | 5.0                         | 8.0                            |                                |                                    |                                                                                        |                                                                                        |                                    |     |     |
| 57.0                         | 60                                           | 1.9                          | 24.57                | 4.0                    | 5.0                         | 5.0                         | 8.0                            |                                |                                    |                                                                                        |                                                                                        |                                    |     |     |
| 62.7                         | 54                                           | 2.0                          | 22.34                | 4.0                    | 5.0                         | 5.0                         | 8.0                            |                                |                                    |                                                                                        |                                                                                        |                                    |     |     |
| 74.6                         | 45                                           | 2.1                          | 18.77                | 4.0                    | 5.0                         | 5.0                         | 8.0                            |                                |                                    |                                                                                        |                                                                                        |                                    |     |     |
| 84.6                         | 40                                           | 2.5                          | 16.54                | 4.0                    | 5.0                         | 5.0                         | 8.0                            |                                |                                    |                                                                                        |                                                                                        |                                    |     |     |
| 93.9                         | 36                                           | 2.1                          | 14.91                | 3.0                    | 5.0                         | 5.0                         | 8.0                            |                                |                                    |                                                                                        |                                                                                        |                                    |     |     |
| 47.2                         | 70                                           | 1.2                          | 59.32                | 5.0                    | 5.0                         | 5.0                         | 8.0                            | <b>PD/PM A02<br/>71M2A</b>     |                                    |                                                                                        |                                                                                        | 12                                 | 186 |     |
| 56.4                         | 58                                           | 1.3                          | 49.62                | 5.0                    | 5.0                         | 5.0                         | 8.0                            |                                |                                    |                                                                                        |                                                                                        |                                    |     |     |
| 66.9                         | 49                                           | 1.3                          | 41.88                | 4.0                    | 5.0                         | 5.0                         | 8.0                            |                                |                                    |                                                                                        |                                                                                        |                                    |     |     |
| 74.3                         | 44                                           | 1.7                          | 37.71                | 4.0                    | 5.0                         | 5.0                         | 8.0                            |                                |                                    |                                                                                        |                                                                                        |                                    |     |     |
| 80.5                         | 41                                           | 1.9                          | 34.80                | 4.0                    | 5.0                         | 5.0                         | 8.0                            |                                |                                    |                                                                                        |                                                                                        |                                    |     |     |
| 88.0                         | 37                                           | 1.9                          | 31.83                | 4.0                    | 5.0                         | 5.0                         | 8.0                            |                                |                                    |                                                                                        |                                                                                        |                                    |     |     |
| 96.2                         | 34                                           | 2.4                          | 29.11                | 4.0                    | 5.0                         | 5.0                         | 8.0                            |                                |                                    |                                                                                        |                                                                                        |                                    |     |     |
| <b>0.55</b>                  | 0.3                                          | 16213                        | 0.8                  | 2996.11                | 92.0                        | 73.0                        | -                              | -                              | <b>PD/PM 83/32<br/>80M6B</b>       | 410                                                                                    | 240                                                                                    |                                    |     |     |
|                              | 0.4                                          | 13034                        | 1.0                  | 2408.64                | 92.0                        | 73.0                        | -                              | -                              |                                    |                                                                                        |                                                                                        |                                    |     |     |
|                              | 0.5                                          | 9160                         | 1.4                  | 1692.65                | 92.0                        | 73.0                        | -                              | -                              |                                    |                                                                                        |                                                                                        |                                    |     |     |
|                              | 0.7                                          | 7375                         | 1.7                  | 1362.94                | 92.0                        | 73.0                        | 100.0                          | 100.0                          |                                    |                                                                                        |                                                                                        |                                    |     |     |
|                              | 0.8                                          | 5746                         | 2.2                  | 1061.83                | 92.0                        | 73.0                        | 100.0                          | 100.0                          |                                    |                                                                                        |                                                                                        |                                    |     |     |
|                              | 1.0                                          | 4811                         | 2.6                  | 889.06                 | 92.0                        | 73.0                        | 100.0                          | 100.0                          |                                    |                                                                                        |                                                                                        |                                    |     |     |



| $P_1$<br>[kW] | $n_2$<br>[Min <sup>-1</sup> ] | $M_2$<br>[Nm] | $f_B$   | $i_{ges}$ | $F_R$<br>[N] | $F_A$<br>[N] | $F_{RGR}$<br>[N] | $F_{AGR}$<br>[N]             | Tip / Type / Typ<br>IE2 / IE3 |  Kg |  mm |
|---------------|-------------------------------|---------------|---------|-----------|--------------|--------------|------------------|------------------------------|-------------------------------|----------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------|
| 0.55          | 0.3                           | 14192         | 0.9     | 4202.93   | -            | -            | -                | -                            | PD/PM 83/32<br>80M4B / 80M4C  | 410                                                                                    | 240                                                                                    |
|               | 0.4                           | 11883         | 1.0     | 3519.07   | -            | -            | -                | -                            |                               |                                                                                        |                                                                                        |
|               | 0.5                           | 10117         | 1.2     | 2996.11   | -            | -            | -                | -                            |                               |                                                                                        |                                                                                        |
|               | 0.6                           | 8133          | 1.5     | 2408.64   | -            | -            | -                | -                            |                               |                                                                                        |                                                                                        |
|               | 0.8                           | 5715          | 2.1     | 1692.65   | -            | -            | -                | -                            |                               |                                                                                        |                                                                                        |
|               | 1.0                           | 4602          | 2.6     | 1362.94   | 92.0         | 73.0         | 100.0            | 100.0                        |                               |                                                                                        |                                                                                        |
|               | 0.4                           | 10363         | 0.9     | 6601.35   | 92.0         | 73.0         | -                | -                            | PD/PM 83/32<br>71M2B          | 408                                                                                    | 240                                                                                    |
|               | 0.5                           | 8641          | 1.1     | 5504.36   | 92.0         | 73.0         | -                | -                            |                               |                                                                                        |                                                                                        |
|               | 0.5                           | 9774          | 0.8     | 1806.13   | 55.0         | 58.0         | -                | -                            | PD/PM 73/22<br>80M6B          | 274                                                                                    | 240                                                                                    |
|               | 0.7                           | 7264          | 1.0     | 1342.44   | 55.0         | 58.0         | 80.0             | 80.0                         |                               |                                                                                        |                                                                                        |
|               | 0.9                           | 5639          | 1.3     | 1042.00   | 57.0         | 58.0         | 81.0             | 80.0                         |                               |                                                                                        |                                                                                        |
|               | 1.0                           | 5045          | 1.5     | 932.25    | 57.0         | 58.0         | 81.0             | 80.0                         |                               |                                                                                        |                                                                                        |
|               | 1.3                           | 3844          | 1.9     | 710.29    | 58.0         | 58.0         | 82.0             | 80.0                         |                               |                                                                                        |                                                                                        |
|               | 1.6                           | 3088          | 2.4     | 570.70    | 57.0         | 58.0         | 82.0             | 80.0                         |                               |                                                                                        |                                                                                        |
|               | 0.5                           | 8880          | 0.8     | 2629.95   | -            | -            | -                | -                            | PD/PM 73/22<br>80M4B / 80M4C  | 274                                                                                    | 240                                                                                    |
|               | 0.7                           | 6960          | 1.0     | 2061.26   | -            | -            | -                | -                            |                               |                                                                                        |                                                                                        |
|               | 0.8                           | 6099          | 1.2     | 1806.13   | -            | -            | -                | -                            |                               |                                                                                        |                                                                                        |
|               | 1.0                           | 4533          | 1.6     | 1342.44   | 55.0         | 58.0         | 80.0             | 80.0                         |                               |                                                                                        |                                                                                        |
|               | 1.3                           | 3518          | 2.0     | 1042.00   | 57.0         | 58.0         | 81.0             | 80.0                         |                               |                                                                                        |                                                                                        |
|               | 1.5                           | 3148          | 2.2     | 932.25    | 57.0         | 58.0         | 81.0             | 80.0                         |                               |                                                                                        |                                                                                        |
|               | 2.0                           | 2398          | 3.0     | 710.29    | 58.0         | 58.0         | 82.0             | 80.0                         |                               |                                                                                        |                                                                                        |
|               | 1.4                           | 3236          | 1.7     | 2061.26   | 55.0         | 58.0         | -                | -                            | PD/PM 73/22<br>71M2B          | 272                                                                                    | 240                                                                                    |
|               | 1.6                           | 2835          | 1.9     | 1806.13   | 55.0         | 58.0         | -                | -                            |                               |                                                                                        |                                                                                        |
|               | 2.1                           | 2107          | 2.6     | 1342.44   | 55.0         | 58.0         | 80.0             | 80.0                         |                               |                                                                                        |                                                                                        |
|               | 0.7                           | 6822          | 0.8     | 1260.77   | 34.0         | 47.0         | 54.0             | 60.0                         | PD/PM 63/22<br>80M6B          | 201                                                                                    | 240                                                                                    |
|               | 0.8                           | 5978          | 0.9     | 1104.71   | 36.0         | 47.0         | 54.0             | 60.0                         |                               |                                                                                        |                                                                                        |
|               | 1.1                           | 4443          | 1.3     | 821.10    | 39.0         | 47.0         | 57.0             | 60.0                         |                               |                                                                                        |                                                                                        |
|               | 1.4                           | 3449          | 1.6     | 637.34    | 40.0         | 47.0         | 58.0             | 60.0                         |                               |                                                                                        |                                                                                        |
|               | 1.6                           | 3086          | 1.8     | 570.21    | 41.0         | 47.0         | 58.0             | 60.0                         |                               |                                                                                        |                                                                                        |
|               | 2.1                           | 2351          | 2.4     | 434.44    | 39.0         | 47.0         | 58.0             | 60.0                         |                               |                                                                                        |                                                                                        |
|               | 2.6                           | 1889          | 3.0     | 349.07    | 39.0         | 47.0         | -                | -                            |                               |                                                                                        |                                                                                        |
|               | 0.8                           | 6277          | 0.9     | 1859.06   | -            | -            | -                | -                            |                               |                                                                                        |                                                                                        |
|               | 1.1                           | 4257          | 1.3     | 1260.77   | 34.0         | 47.0         | 54.0             | 60.0                         |                               |                                                                                        |                                                                                        |
|               | 1.3                           | 3730          | 1.4     | 1104.71   | 36.0         | 47.0         | 54.0             | 60.0                         |                               |                                                                                        |                                                                                        |
|               | 1.7                           | 2773          | 1.9     | 821.10    | 39.0         | 47.0         | 57.0             | 60.0                         |                               |                                                                                        |                                                                                        |
|               | 2.2                           | 2152          | 2.5     | 637.34    | 40.0         | 47.0         | 58.0             | 60.0                         |                               |                                                                                        |                                                                                        |
|               | 2.5                           | 1925          | 2.8     | 570.21    | 41.0         | 47.0         | 58.0             | 60.0                         |                               |                                                                                        |                                                                                        |
|               | 0.8                           | 5426          | 0.8     | 3456.44   | 34.0         | 47.0         | -                | -                            | PD/PM 63/22<br>71M2B          | 199                                                                                    | 240                                                                                    |
|               | 1.0                           | 4298          | 0.8     | 2738.15   | 34.0         | 47.0         | -                | -                            |                               |                                                                                        |                                                                                        |
|               | 2.2                           | 1979          | 2.1     | 1260.77   | 34.0         | 47.0         | 54.0             | 60.0                         |                               |                                                                                        |                                                                                        |
|               | 2.5                           | 1734          | 2.4     | 1104.71   | 36.0         | 47.0         | 54.0             | 60.0                         |                               |                                                                                        |                                                                                        |
|               | 1.3                           | 3786          | 0.8     | 689.07    | 31.0         | 32.0         | -                | -                            | PD/PM 52/12<br>80M6B          | 111                                                                                    | 238                                                                                    |
| 1.6           | 3019                          | 1.0           | 549.54  | 25.0      | 32.0         | -            | -                |                              |                               |                                                                                        |                                                                                        |
| 2.0           | 2462                          | 1.3           | 448.15  | 25.0      | 32.0         | -            | -                |                              |                               |                                                                                        |                                                                                        |
| 2.7           | 1859                          | 1.7           | 338.40  | 25.0      | 32.0         | -            | -                |                              |                               |                                                                                        |                                                                                        |
| 3.3           | 1499                          | 2.1           | 272.80  | 28.0      | 32.0         | -            | -                |                              |                               |                                                                                        |                                                                                        |
| 3.9           | 1278                          | 2.5           | 232.65  | 28.0      | 32.0         | -            | -                |                              |                               |                                                                                        |                                                                                        |
| 1.3           | 3777                          | 0.8           | 1094.40 | 28.0      | 32.0         | 42.0         | 40.0             | PD/PM 52/12<br>80M4B / 80M4C | 111                           | 238                                                                                    |                                                                                        |
| 1.6           | 2973                          | 1.0           | 861.34  | 31.0      | 32.0         | 44.0         | 40.0             |                              |                               |                                                                                        |                                                                                        |
| 2.0           | 2378                          | 1.3           | 689.07  | 31.0      | 32.0         | 44.0         | 40.0             |                              |                               |                                                                                        |                                                                                        |
| 2.5           | 1897                          | 1.6           | 549.54  | -         | -            | -            | -                |                              |                               |                                                                                        |                                                                                        |
| 3.1           | 1547                          | 1.9           | 448.15  | -         | -            | -            | -                |                              |                               |                                                                                        |                                                                                        |
| 4.1           | 1168                          | 2.6           | 338.40  | -         | -            | -            | -                |                              |                               |                                                                                        |                                                                                        |
| 1.6           | 2933                          | 0.8           | 1802.82 | 28.0      | 32.0         | -            | -                | PD/PM 52/12<br>71M2B         | 109                           | 238                                                                                    |                                                                                        |
| 2.1           | 2169                          | 1.1           | 1333.49 | 28.0      | 32.0         | 40.0         | 40.0             |                              |                               |                                                                                        |                                                                                        |
| 2.6           | 1780                          | 1.3           | 1094.40 | 28.0      | 32.0         | 42.0         | 40.0             |                              |                               |                                                                                        |                                                                                        |
| 3.3           | 1401                          | 1.6           | 861.34  | 31.0      | 32.0         | 44.0         | 40.0             |                              |                               |                                                                                        |                                                                                        |
| 4.1           | 1121                          | 2.0           | 689.07  | 31.0      | 32.0         | 44.0         | 40.0             |                              |                               |                                                                                        |                                                                                        |
| 5.1           | 894                           | 2.6           | 549.54  | 25.0      | 32.0         | -            | -                |                              |                               |                                                                                        |                                                                                        |







| $P_1$<br>[kW] | $n_2$<br>[Min <sup>-1</sup> ] | $M_2$<br>[Nm] | $f_B$  | $i_{ges}$ | $F_R$<br>[N] | $F_A$<br>[N] | $F_{RGR}$<br>[N] | $F_{AGR}$<br>[N]          | Tip / Type / Typ<br>IE2 / IE3 |  |  |
|---------------|-------------------------------|---------------|--------|-----------|--------------|--------------|------------------|---------------------------|-------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| <b>0.55</b>   | 1.3                           | 3902          | 0.9    | 699.67    | 28.0         | 32.0         | 37.0             | 40.0                      | PD/PM 53<br>80M6B             | 120                                                                                 | 209                                                                                 |
|               | 1.6                           | 3183          | 0.9    | 570.63    | 29.0         | 32.0         | 43.0             | 40.0                      |                               |                                                                                     |                                                                                     |
|               | 1.7                           | 2927          | 1.1    | 524.75    | 29.0         | 32.0         | 38.0             | 40.0                      |                               |                                                                                     |                                                                                     |
|               | 2.1                           | 2387          | 1.4    | 427.97    | 30.0         | 32.0         | 40.0             | 40.0                      |                               |                                                                                     |                                                                                     |
|               | 2.5                           | 2017          | 1.5    | 361.64    | 31.0         | 32.0         | 42.0             | 40.0                      |                               |                                                                                     |                                                                                     |
|               | 2.7                           | 1849          | 1.8    | 331.54    | 31.0         | 32.0         | 42.0             | 40.0                      |                               |                                                                                     |                                                                                     |
|               | 3.3                           | 1508          | 1.9    | 270.40    | 31.0         | 32.0         | 43.0             | 40.0                      |                               |                                                                                     |                                                                                     |
|               | 3.6                           | 1387          | 2.4    | 248.66    | 21.0         | 32.0         | 43.0             | 40.0                      |                               |                                                                                     |                                                                                     |
|               | 4.4                           | 1131          | 3.0    | 202.80    | 21.0         | 32.0         | -                | -                         |                               |                                                                                     |                                                                                     |
|               | 1.5                           | 3303          | 0.8    | 936.55    | 24.0         | 32.0         | 39.0             | 40.0                      | PD/PM 53<br>80M4B / 80M4C     | 120                                                                                 | 209                                                                                 |
|               | 2.0                           | 2468          | 1.3    | 699.67    | 28.0         | 32.0         | 42.0             | 40.0                      |                               |                                                                                     |                                                                                     |
|               | 2.5                           | 2012          | 1.4    | 570.63    | 29.0         | 32.0         | 43.0             | 40.0                      |                               |                                                                                     |                                                                                     |
|               | 2.7                           | 1851          | 1.7    | 524.75    | 29.0         | 32.0         | 43.0             | 40.0                      |                               |                                                                                     |                                                                                     |
|               | 3.3                           | 1509          | 2.1    | 427.97    | 30.0         | 32.0         | 43.0             | 40.0                      |                               |                                                                                     |                                                                                     |
|               | 3.9                           | 1275          | 2.2    | 361.64    | 31.0         | 32.0         | 44.0             | 40.0                      |                               |                                                                                     |                                                                                     |
|               | 4.2                           | 1169          | 2.7    | 331.54    | 31.0         | 32.0         | 44.0             | 40.0                      |                               |                                                                                     |                                                                                     |
|               | 5.2                           | 954           | 2.8    | 270.40    | 31.0         | 32.0         | 44.0             | 40.0                      |                               |                                                                                     |                                                                                     |
|               | 2.2                           | 2250          | 0.8    | 409.62    | 22.0         | 22.0         | -                | -                         | PD/PM 42/12<br>80M6B          | 75                                                                                  | 238                                                                                 |
|               | 2.6                           | 1875          | 1.0    | 341.25    | 22.0         | 22.0         | -                | -                         |                               |                                                                                     |                                                                                     |
|               | 3.0                           | 1660          | 1.1    | 302.14    | 22.0         | 22.0         | -                | -                         |                               |                                                                                     |                                                                                     |
|               | 3.8                           | 1289          | 1.5    | 234.61    | 17.0         | 22.0         | -                | -                         |                               |                                                                                     |                                                                                     |
|               | 5.1                           | 973           | 1.9    | 177.15    | 17.0         | 22.0         | -                | -                         |                               |                                                                                     |                                                                                     |
|               | 5.9                           | 838           | 2.3    | 152.50    | 17.0         | 22.0         | -                | -                         |                               |                                                                                     |                                                                                     |
|               | 7.1                           | 700           | 2.7    | 127.43    | 17.0         | 22.0         | -                | -                         |                               |                                                                                     |                                                                                     |
|               | 2.5                           | 1926          | 0.9    | 557.93    | 17.0         | 22.0         | 28.0             | 30.0                      | PD/PM 42/12<br>80M4B / 80M4C  | 75                                                                                  | 238                                                                                 |
|               | 3.4                           | 1414          | 1.3    | 409.62    | 22.0         | 22.0         | 31.0             | 30.0                      |                               |                                                                                     |                                                                                     |
|               | 4.1                           | 1178          | 1.5    | 341.25    | 22.0         | 22.0         | 31.0             | 30.0                      |                               |                                                                                     |                                                                                     |
|               | 4.6                           | 1043          | 1.7    | 302.14    | 22.0         | 22.0         | 31.0             | 30.0                      |                               |                                                                                     |                                                                                     |
|               | 6.0                           | 810           | 2.2    | 234.61    | -            | -            | -                | -                         |                               |                                                                                     |                                                                                     |
|               | 7.9                           | 611           | 2.9    | 177.15    | -            | -            | -                | -                         |                               |                                                                                     |                                                                                     |
|               | 2.5                           | 1807          | 0.8    | 1111.10   | 17.0         | 22.0         | 28.0             | 30.0                      |                               |                                                                                     |                                                                                     |
|               | 3.2                           | 1423          | 1.0    | 874.48    | 17.0         | 22.0         | 27.0             | 30.0                      |                               |                                                                                     |                                                                                     |
|               | 4.0                           | 1138          | 1.2    | 699.58    | 17.0         | 22.0         | 30.0             | 30.0                      |                               |                                                                                     |                                                                                     |
|               | 5.0                           | 908           | 1.5    | 557.93    | 17.0         | 22.0         | 28.0             | 30.0                      |                               |                                                                                     |                                                                                     |
|               | 6.8                           | 666           | 2.1    | 409.62    | 22.0         | 22.0         | -                | -                         |                               |                                                                                     |                                                                                     |
|               | 8.2                           | 555           | 2.5    | 341.25    | 22.0         | 22.0         | -                | -                         |                               |                                                                                     |                                                                                     |
|               | 9.3                           | 492           | 2.8    | 302.14    | 22.0         | 22.0         | -                | -                         |                               |                                                                                     |                                                                                     |
|               | 2.2                           | 2301          | 0.9    | 412.63    | 19.0         | 22.0         | 29.0             | 30.0                      | PD/PM 43<br>80M6B             | 80                                                                                  | 205                                                                                 |
|               | 2.3                           | 2182          | 1.0    | 391.14    | 19.0         | 22.0         | 29.0             | 30.0                      |                               |                                                                                     |                                                                                     |
|               | 2.6                           | 1923          | 0.9    | 344.78    | 20.0         | 22.0         | 29.0             | 30.0                      |                               |                                                                                     |                                                                                     |
|               | 2.8                           | 1823          | 1.1    | 326.83    | 20.0         | 22.0         | 30.0             | 30.0                      |                               |                                                                                     |                                                                                     |
|               | 3.0                           | 1690          | 1.3    | 302.94    | 21.0         | 22.0         | 30.0             | 30.0                      |                               |                                                                                     |                                                                                     |
|               | 3.3                           | 1520          | 1.1    | 272.49    | 21.0         | 22.0         | 30.0             | 30.0                      |                               |                                                                                     |                                                                                     |
|               | 3.6                           | 1412          | 1.5    | 253.13    | 21.0         | 22.0         | 30.0             | 30.0                      |                               |                                                                                     |                                                                                     |
|               | 4.3                           | 1177          | 1.5    | 211.05    | 21.0         | 22.0         | 30.0             | 30.0                      |                               |                                                                                     |                                                                                     |
|               | 4.7                           | 1068          | 2.0    | 191.52    | 22.0         | 22.0         | 30.0             | 30.0                      |                               |                                                                                     |                                                                                     |
|               | 5.6                           | 893           | 1.9    | 160.03    | 22.0         | 22.0         | 31.0             | 30.0                      |                               |                                                                                     |                                                                                     |
|               | 6.4                           | 784           | 2.7    | 140.61    | 20.0         | 22.0         | 31.0             | 30.0                      |                               |                                                                                     |                                                                                     |
| 2.6           | 1879                          | 1.1           | 532.76 | 17.0      | 22.0         | 27.0         | 30.0             | PD/PM 43<br>80M4B / 80M4C | 80                            | 205                                                                                 |                                                                                     |
| 3.1           | 1570                          | 1.1           | 445.16 | 19.0      | 22.0         | 28.0         | 30.0             |                           |                               |                                                                                     |                                                                                     |
| 3.4           | 1455                          | 1.4           | 412.63 | 19.0      | 22.0         | 29.0         | 30.0             |                           |                               |                                                                                     |                                                                                     |
| 3.6           | 1379                          | 1.4           | 391.14 | 19.0      | 22.0         | 29.0         | 30.0             |                           |                               |                                                                                     |                                                                                     |
| 4.1           | 1216                          | 1.4           | 344.78 | 20.0      | 22.0         | 29.0         | 30.0             |                           |                               |                                                                                     |                                                                                     |
| 4.3           | 1153                          | 1.6           | 326.83 | 20.0      | 22.0         | 30.0         | 30.0             |                           |                               |                                                                                     |                                                                                     |
| 4.6           | 1068                          | 1.9           | 302.94 | 21.0      | 22.0         | 30.0         | 30.0             |                           |                               |                                                                                     |                                                                                     |
| 5.1           | 961                           | 1.6           | 272.49 | 21.0      | 22.0         | 30.0         | 30.0             |                           |                               |                                                                                     |                                                                                     |
| 5.5           | 893                           | 2.2           | 253.13 | 21.0      | 22.0         | 30.0         | 30.0             |                           |                               |                                                                                     |                                                                                     |
| 6.6           | 744                           | 2.2           | 211.05 | 21.0      | 22.0         | 30.0         | 30.0             |                           |                               |                                                                                     |                                                                                     |
| 7.3           | 675                           | 2.9           | 191.52 | 22.0      | 22.0         | 30.0         | 30.0             |                           |                               |                                                                                     |                                                                                     |
| 8.7           | 564                           | 2.9           | 160.03 | 22.0      | 22.0         | 31.0         | 30.0             |                           |                               |                                                                                     |                                                                                     |
| 3.6           | 1319                          | 0.9           | 782.28 | 17.0      | 22.0         | 29.0         | 30.0             | PD/PM 43<br>71M2B         | 78                            | 205                                                                                 |                                                                                     |
| 4.3           | 1102                          | 0.9           | 653.66 | 17.0      | 22.0         | 30.0         | 30.0             |                           |                               |                                                                                     |                                                                                     |
| 5.3           | 898                           | 1.7           | 532.76 | 17.0      | 22.0         | 27.0         | 30.0             |                           |                               |                                                                                     |                                                                                     |
| 6.3           | 750                           | 1.7           | 445.16 | 19.0      | 22.0         | 28.0         | 30.0             |                           |                               |                                                                                     |                                                                                     |
| 7.2           | 659                           | 2.3           | 391.14 | 19.0      | 22.0         | 29.0         | 30.0             |                           |                               |                                                                                     |                                                                                     |
| 8.6           | 551                           | 2.6           | 326.83 | 20.0      | 22.0         | 29.0         | 30.0             |                           |                               |                                                                                     |                                                                                     |
| 10.3          | 459                           | 2.6           | 272.49 | 21.0      | 22.0         | 30.0         | 30.0             |                           |                               |                                                                                     |                                                                                     |
|               |                               |               |        |           |              |              |                  |                           |                               |                                                                                     |                                                                                     |



| $P_1$<br>[kW] | $n_2$<br>[Min <sup>-1</sup> ] | $M_2$<br>[Nm] | $f_B$  | $i_{ges}$ | $F_R$<br>[N] | $F_A$<br>[N] | $F_{RGR}$<br>[N] | $F_{AGR}$<br>[N]             | Tip / Type / Typ<br>IE2 / IE3 |  Kg |  mm |                   |    |
|---------------|-------------------------------|---------------|--------|-----------|--------------|--------------|------------------|------------------------------|-------------------------------|----------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------|-------------------|----|
| <b>0.55</b>   | 4.1                           | 1195          | 0.8    | 217.44    | 13.0         | 15.0         | -                | -                            | PD/PM 32/12<br>80M6B          | 60                                                                                     | 238                                                                                    |                   |    |
|               | 5.0                           | 987           | 1.0    | 179.71    | 13.0         | 15.0         | -                | -                            |                               |                                                                                        |                                                                                        |                   |    |
|               | 6.4                           | 777           | 1.2    | 141.42    | 13.0         | 15.0         | 21.0             | 20.0                         |                               |                                                                                        |                                                                                        |                   |    |
|               | 7.9                           | 626           | 1.5    | 114.01    | 11.0         | 15.0         | -                | -                            |                               |                                                                                        |                                                                                        |                   |    |
|               | 10.3                          | 482           | 2.0    | 87.71     | 13.0         | 15.0         | -                | -                            |                               |                                                                                        |                                                                                        |                   |    |
|               | 5.2                           | 934           | 1.0    | 270.47    | -            | -            | -                | -                            | PD/PM 32/12<br>80M4B / 80M4C  | 60                                                                                     | 238                                                                                    |                   |    |
|               | 6.4                           | 751           | 1.2    | 217.44    | -            | -            | -                | -                            |                               |                                                                                        |                                                                                        |                   |    |
|               | 7.8                           | 620           | 1.5    | 179.71    | -            | -            | -                | -                            |                               |                                                                                        |                                                                                        |                   |    |
|               | 9.9                           | 488           | 1.8    | 141.42    | 13.0         | 15.0         | 21.0             | 20.0                         |                               |                                                                                        |                                                                                        |                   |    |
|               | 12.3                          | 394           | 2.3    | 114.01    | 11.0         | 15.0         | 21.0             | 20.0                         |                               |                                                                                        |                                                                                        |                   |    |
|               | 16.0                          | 303           | 3.0    | 87.71     | -            | -            | -                | -                            |                               |                                                                                        |                                                                                        |                   |    |
|               | 5.4                           | 848           | 0.8    | 521.00    | 13.0         | 15.0         | -                | -                            | PD/PM 32/12<br>71M2B          | 58                                                                                     | 238                                                                                    |                   |    |
|               | 6.1                           | 750           | 0.9    | 461.30    | 13.0         | 15.0         | 21.0             | 20.0                         |                               |                                                                                        |                                                                                        |                   |    |
|               | 7.8                           | 583           | 1.2    | 358.19    | 13.0         | 15.0         | 22.0             | 20.0                         |                               |                                                                                        |                                                                                        |                   |    |
|               | 10.4                          | 440           | 1.6    | 270.47    | 13.0         | 15.0         | -                | -                            |                               |                                                                                        |                                                                                        |                   |    |
|               | 12.9                          | 354           | 1.9    | 217.44    | 13.0         | 15.0         | -                | -                            |                               |                                                                                        |                                                                                        |                   |    |
|               | 15.6                          | 292           | 2.3    | 179.71    | 13.0         | 15.0         | -                | -                            |                               |                                                                                        |                                                                                        |                   |    |
|               | 19.8                          | 230           | 3.0    | 141.42    | 13.0         | 15.0         | -                | -                            |                               |                                                                                        |                                                                                        |                   |    |
|               | 3.9                           | 1287          | 0.8    | 230.79    | 15.0         | 15.0         | 22.0             | 20.0                         |                               |                                                                                        |                                                                                        | PD/PM 33<br>80M6B | 58 |
|               | 4.7                           | 1064          | 0.9    | 190.74    | 15.0         | 15.0         | 22.0             | 20.0                         |                               |                                                                                        |                                                                                        |                   |    |
|               | 5.6                           | 900           | 0.9    | 161.38    | 15.0         | 15.0         | -                | -                            |                               |                                                                                        |                                                                                        |                   |    |
|               | 7.1                           | 708           | 1.1    | 127.01    | 15.0         | 15.0         | -                | -                            |                               |                                                                                        |                                                                                        |                   |    |
|               | 8.7                           | 580           | 1.3    | 103.92    | 15.0         | 15.0         | -                | -                            |                               |                                                                                        |                                                                                        |                   |    |
|               | 10.1                          | 499           | 1.3    | 89.45     | 15.0         | 15.0         | -                | -                            |                               |                                                                                        |                                                                                        |                   |    |
|               | 4.9                           | 1012          | 0.9    | 287.08    | 13.0         | 15.0         | 21.0             | 20.0                         | PD/PM 33<br>80M4B / 80M4C     | 58                                                                                     | 201                                                                                    |                   |    |
|               | 6.1                           | 814           | 1.2    | 230.79    | 15.0         | 15.0         | 22.0             | 20.0                         |                               |                                                                                        |                                                                                        |                   |    |
|               | 7.3                           | 673           | 1.3    | 190.74    | 15.0         | 15.0         | 22.0             | 20.0                         |                               |                                                                                        |                                                                                        |                   |    |
|               | 8.7                           | 569           | 1.4    | 161.38    | -            | -            | -                | -                            |                               |                                                                                        |                                                                                        |                   |    |
|               | 11.0                          | 448           | 1.7    | 127.01    | -            | -            | -                | -                            |                               |                                                                                        |                                                                                        |                   |    |
|               | 13.5                          | 366           | 2.0    | 103.92    | -            | -            | -                | -                            |                               |                                                                                        |                                                                                        |                   |    |
|               | 15.7                          | 315           | 2.0    | 89.45     | -            | -            | -                | -                            |                               |                                                                                        |                                                                                        |                   |    |
|               | 4.8                           | 985           | 0.8    | 584.11    | 13.0         | 15.0         | -                | -                            |                               |                                                                                        |                                                                                        | PD/PM 33<br>71M2B | 56 |
|               | 5.8                           | 814           | 0.8    | 482.75    | 13.0         | 15.0         | -                | -                            |                               |                                                                                        |                                                                                        |                   |    |
|               | 6.9                           | 689           | 0.9    | 408.52    | 13.0         | 15.0         | -                | -                            |                               |                                                                                        |                                                                                        |                   |    |
|               | 9.8                           | 484           | 1.5    | 287.08    | 13.0         | 15.0         | 21.0             | 20.0                         |                               |                                                                                        |                                                                                        |                   |    |
|               | 12.1                          | 389           | 2.0    | 230.79    | 15.0         | 15.0         | 22.0             | 20.0                         |                               |                                                                                        |                                                                                        |                   |    |
|               | 14.7                          | 322           | 2.0    | 190.74    | 15.0         | 15.0         | 22.0             | 20.0                         |                               |                                                                                        |                                                                                        |                   |    |
|               | 17.4                          | 272           | 2.2    | 161.38    | 15.0         | 15.0         | -                | -                            |                               |                                                                                        |                                                                                        |                   |    |
|               | 22.0                          | 214           | 2.7    | 127.01    | 15.0         | 15.0         | -                | -                            |                               |                                                                                        |                                                                                        |                   |    |
|               | 8.0                           | 635           | 1.3    | 112.23    | 15.0         | 15.0         | 23.0             | 20.0                         | PD/PM 32<br>80M6B             | 50                                                                                     | 200                                                                                    |                   |    |
| 8.9           | 571                           | 1.5           | 100.85 | 14.0      | 15.0         | 23.0         | 20.0             |                              |                               |                                                                                        |                                                                                        |                   |    |
| 10.1          | 502                           | 2.0           | 88.74  | 14.0      | 15.0         | 23.0         | 20.0             |                              |                               |                                                                                        |                                                                                        |                   |    |
| 11.3          | 452                           | 2.0           | 79.75  | 13.0      | 15.0         | 23.0         | 20.0             |                              |                               |                                                                                        |                                                                                        |                   |    |
| 12.8          | 399                           | 1.5           | 70.52  | 13.0      | 15.0         | 23.0         | 20.0             |                              |                               |                                                                                        |                                                                                        |                   |    |
| 13.7          | 373                           | 2.1           | 65.91  | 15.0      | 15.0         | 23.0         | 20.0             |                              |                               |                                                                                        |                                                                                        |                   |    |
| 14.0          | 363                           | 2.9           | 64.11  | 15.0      | 15.0         | 23.0         | 20.0             |                              |                               |                                                                                        |                                                                                        |                   |    |
| 16.1          | 316                           | 2.1           | 55.76  | 15.0      | 15.0         | 23.0         | 20.0             |                              |                               |                                                                                        |                                                                                        |                   |    |
| 17.0          | 300                           | 3.0           | 52.98  | 15.0      | 15.0         | 22.0         | 20.0             |                              |                               |                                                                                        |                                                                                        |                   |    |
| 18.8          | 272                           | 2.1           | 48.00  | 15.0      | 15.0         | 22.0         | 20.0             |                              |                               |                                                                                        |                                                                                        |                   |    |
| 20.1          | 254                           | 3.0           | 44.83  | 15.0      | 15.0         | 21.0         | 20.0             |                              |                               |                                                                                        |                                                                                        |                   |    |
| 23.3          | 219                           | 3.0           | 38.59  | 15.0      | 15.0         | 20.0         | 20.0             |                              |                               |                                                                                        |                                                                                        |                   |    |
| 12.5          | 404                           | 1.9           | 112.23 | 15.0      | 15.0         | 23.0         | 20.0             | PD/PM 32<br>80M4B / 80M4C    | 50                            | 200                                                                                    |                                                                                        |                   |    |
| 13.9          | 363                           | 2.2           | 100.85 | 14.0      | 15.0         | 23.0         | 20.0             |                              |                               |                                                                                        |                                                                                        |                   |    |
| 15.8          | 320                           | 3.0           | 88.74  | 14.0      | 15.0         | 23.0         | 20.0             |                              |                               |                                                                                        |                                                                                        |                   |    |
| 17.6          | 287                           | 3.0           | 79.75  | 13.0      | 15.0         | 23.0         | 20.0             |                              |                               |                                                                                        |                                                                                        |                   |    |
| 19.9          | 254                           | 2.2           | 70.52  | 13.0      | 15.0         | 23.0         | 20.0             |                              |                               |                                                                                        |                                                                                        |                   |    |
| 24.9          | 196                           | 3.0           | 112.23 | 15.0      | 15.0         | 23.0         | 20.0             | PD/PM 32<br>71M2B            | 48                            | 200                                                                                    |                                                                                        |                   |    |
| 8.0           | 606                           | 0.9           | 175.52 | 7.0       | 12.0         | 12.0         | 15.0             | PD/PM 22/02<br>80M4B / 80M4C | 43                            | 238                                                                                    |                                                                                        |                   |    |
| 9.7           | 469                           | 0.8           | 288.06 | 7.0       | 12.0         | 12.0         | 15.0             | PD/PM 22/02<br>71M2B         | 41                            | 238                                                                                    |                                                                                        |                   |    |
| 12.9          | 352                           | 1.1           | 216.66 | 7.0       | 12.0         | -            | -                |                              |                               |                                                                                        |                                                                                        |                   |    |
| 16.0          | 286                           | 1.4           | 175.52 | 7.0       | 12.0         | 12.0         | 15.0             |                              |                               |                                                                                        |                                                                                        |                   |    |
| 7.7           | 649                           | 0.8           | 116.40 | 8.0       | 12.0         | 12.0         | 15.0             | PD/PM 23<br>80M6B            | 42                            | 197                                                                                    |                                                                                        |                   |    |
| 9.1           | 549                           | 1.1           | 98.40  | 5.0       | 12.0         | 11.0         | 15.0             |                              |                               |                                                                                        |                                                                                        |                   |    |
| 10.9          | 459                           | 1.3           | 82.29  | 6.0       | 12.0         | -            | -                |                              |                               |                                                                                        |                                                                                        |                   |    |



| $P_1$<br>[kW] | $n_2$<br>[Min <sup>-1</sup> ] | $M_2$<br>[Nm] | $f_B$ | $i_{ges}$ | $F_R$<br>[N] | $F_A$<br>[N] | $F_{R GR}$<br>[N] | $F_{A GR}$<br>[N]                 | Tip / Type / Typ<br>IE2 / IE3     |  Kg |  mm |                           |    |     |
|---------------|-------------------------------|---------------|-------|-----------|--------------|--------------|-------------------|-----------------------------------|-----------------------------------|----------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------|---------------------------|----|-----|
| <b>0.55</b>   | 7.6                           | 653           | 0.8   | 185.19    | 10.0         | 12.0         | 14.0              | 15.0                              | <b>PD/PM 23<br/>80M4B / 80M4C</b> | 42                                                                                     | 197                                                                                    |                           |    |     |
|               | 9.3                           | 529           | 1.0   | 150.03    | -            | -            | -                 | -                                 |                                   |                                                                                        |                                                                                        |                           |    |     |
|               | 10.6                          | 464           | 1.1   | 131.68    | -            | -            | -                 | -                                 |                                   |                                                                                        |                                                                                        |                           |    |     |
|               | 12.0                          | 411           | 1.3   | 116.40    | 8.0          | 12.0         | 12.0              | 15.0                              |                                   |                                                                                        |                                                                                        |                           |    |     |
|               | 14.2                          | 347           | 1.6   | 98.40     | 5.0          | 12.0         | 11.0              | 15.0                              |                                   |                                                                                        |                                                                                        |                           |    |     |
|               | 17.0                          | 290           | 1.9   | 82.29     | -            | -            | -                 | -                                 |                                   |                                                                                        |                                                                                        |                           |    |     |
|               | 8.5                           | 557           | 0.8   | 330.43    | 10.0         | 12.0         | 13.0              | 15.0                              |                                   |                                                                                        |                                                                                        | <b>PD/PM 23<br/>71M2B</b> | 40 | 197 |
|               | 10.1                          | 466           | 0.9   | 276.32    | 10.0         | 12.0         | 11.0              | 15.0                              |                                   |                                                                                        |                                                                                        |                           |    |     |
|               | 11.9                          | 397           | 0.9   | 235.73    | 10.0         | 12.0         | 12.0              | 15.0                              |                                   |                                                                                        |                                                                                        |                           |    |     |
|               | 15.1                          | 312           | 1.3   | 185.19    | 10.0         | 12.0         | -                 | -                                 |                                   |                                                                                        |                                                                                        |                           |    |     |
|               | 18.7                          | 253           | 1.6   | 150.03    | 8.0          | 12.0         | -                 | -                                 |                                   |                                                                                        |                                                                                        |                           |    |     |
|               | 21.3                          | 222           | 1.8   | 131.68    | 8.0          | 12.0         | -                 | -                                 |                                   |                                                                                        |                                                                                        |                           |    |     |
|               | 24.1                          | 196           | 2.0   | 116.40    | 8.0          | 12.0         | 12.0              | 15.0                              |                                   |                                                                                        |                                                                                        |                           |    |     |
|               | 28.5                          | 166           | 2.6   | 98.40     | 5.0          | 12.0         | 11.0              | 15.0                              |                                   |                                                                                        |                                                                                        |                           |    |     |
|               | 8.9                           | 572           | 0.8   | 100.98    | 9.0          | 12.0         | 12.0              | 15.0                              | <b>PD/PM 22<br/>80M6B</b>         | 35                                                                                     | 196                                                                                    |                           |    |     |
|               | 10.9                          | 467           | 1.1   | 82.45     | 10.0         | 12.0         | 13.0              | 15.0                              |                                   |                                                                                        |                                                                                        |                           |    |     |
|               | 12.9                          | 395           | 1.2   | 69.70     | 10.0         | 12.0         | 14.0              | 15.0                              |                                   |                                                                                        |                                                                                        |                           |    |     |
|               | 14.1                          | 362           | 1.5   | 63.86     | 10.0         | 12.0         | 14.0              | 15.0                              |                                   |                                                                                        |                                                                                        |                           |    |     |
|               | 16.7                          | 306           | 1.7   | 53.98     | 10.0         | 12.0         | 14.0              | 15.0                              |                                   |                                                                                        |                                                                                        |                           |    |     |
|               | 17.4                          | 293           | 1.9   | 51.73     | 9.0          | 12.0         | 13.0              | 15.0                              |                                   |                                                                                        |                                                                                        |                           |    |     |
|               | 19.9                          | 256           | 1.8   | 45.14     | 10.0         | 12.0         | 14.0              | 15.0                              |                                   |                                                                                        |                                                                                        |                           |    |     |
|               | 20.6                          | 248           | 2.4   | 43.73     | 9.0          | 12.0         | 14.0              | 15.0                              |                                   |                                                                                        |                                                                                        |                           |    |     |
|               | 24.2                          | 211           | 2.3   | 37.18     | 9.0          | 12.0         | 14.0              | 15.0                              |                                   |                                                                                        |                                                                                        |                           |    |     |
|               | 24.6                          | 207           | 2.5   | 36.57     | 9.0          | 12.0         | 14.0              | 15.0                              |                                   |                                                                                        |                                                                                        |                           |    |     |
|               | 28.8                          | 177           | 2.6   | 31.20     | 9.0          | 12.0         | 14.0              | 15.0                              |                                   |                                                                                        |                                                                                        |                           |    |     |
|               | 33.6                          | 152           | 3.0   | 26.81     | 9.0          | 12.0         | 14.0              | 15.0                              |                                   |                                                                                        |                                                                                        |                           |    |     |
|               | 11.0                          | 459           | 0.8   | 127.46    | 9.0          | 12.0         | 13.0              | 15.0                              | <b>PD/PM 22<br/>80M4B / 80M4C</b> | 35                                                                                     | 196                                                                                    |                           |    |     |
|               | 13.5                          | 375           | 1.1   | 104.07    | 9.0          | 12.0         | 13.0              | 15.0                              |                                   |                                                                                        |                                                                                        |                           |    |     |
|               | 13.9                          | 364           | 1.2   | 100.98    | 9.0          | 12.0         | 13.0              | 15.0                              |                                   |                                                                                        |                                                                                        |                           |    |     |
|               | 17.0                          | 297           | 1.6   | 82.45     | 10.0         | 12.0         | 14.0              | 15.0                              |                                   |                                                                                        |                                                                                        |                           |    |     |
|               | 20.1                          | 251           | 1.8   | 69.70     | 10.0         | 12.0         | 14.0              | 15.0                              |                                   |                                                                                        |                                                                                        |                           |    |     |
|               | 21.9                          | 230           | 2.3   | 63.86     | 10.0         | 12.0         | 14.0              | 15.0                              |                                   |                                                                                        |                                                                                        |                           |    |     |
|               | 25.9                          | 194           | 2.6   | 53.98     | 10.0         | 12.0         | 14.0              | 15.0                              |                                   |                                                                                        |                                                                                        |                           |    |     |
|               | 27.1                          | 186           | 2.8   | 51.73     | 9.0          | 12.0         | 13.0              | 15.0                              |                                   |                                                                                        |                                                                                        |                           |    |     |
|               | 31.0                          | 163           | 2.8   | 45.14     | 10.0         | 12.0         | 14.0              | 15.0                              |                                   |                                                                                        |                                                                                        |                           |    |     |
|               | 22.0                          | 223           | 1.3   | 127.46    | 9.0          | 12.0         | 13.0              | 15.0                              | <b>PD/PM 22<br/>71M2B</b>         | 33                                                                                     | 196                                                                                    |                           |    |     |
|               | 26.9                          | 182           | 1.7   | 104.07    | 9.0          | 12.0         | 13.0              | 15.0                              |                                   |                                                                                        |                                                                                        |                           |    |     |
|               | 27.7                          | 176           | 1.9   | 100.98    | 9.0          | 12.0         | 13.0              | 15.0                              |                                   |                                                                                        |                                                                                        |                           |    |     |
|               | 34.0                          | 144           | 2.5   | 82.45     | 10.0         | 12.0         | 14.0              | 15.0                              |                                   |                                                                                        |                                                                                        |                           |    |     |
|               | 40.2                          | 122           | 2.8   | 69.70     | 10.0         | 12.0         | 14.0              | 15.0                              |                                   |                                                                                        |                                                                                        |                           |    |     |
|               | 21.7                          | 217           | 0.8   | 129.01    | 6.0          | 7.0          | -                 | -                                 | <b>PD/PM 13<br/>71M2B</b>         | 26                                                                                     | 196                                                                                    |                           |    |     |
|               | 26.6                          | 178           | 1.2   | 105.32    | 6.0          | 7.0          | -                 | -                                 |                                   |                                                                                        |                                                                                        |                           |    |     |
|               | 31.8                          | 148           | 1.4   | 88.00     | 6.0          | 7.0          | -                 | -                                 |                                   |                                                                                        |                                                                                        |                           |    |     |
|               | 12.5                          | 409           | 0.8   | 72.16     | 5.0          | 7.0          | 9.0               | 7.0                               | <b>PD/PM 12<br/>80M6B</b>         | 24                                                                                     | 192                                                                                    |                           |    |     |
|               | 15.3                          | 334           | 0.9   | 58.91     | 5.0          | 7.0          | 9.0               | 7.0                               |                                   |                                                                                        |                                                                                        |                           |    |     |
|               | 18.3                          | 279           | 1.0   | 49.22     | 5.0          | 7.0          | 9.0               | 7.0                               |                                   |                                                                                        |                                                                                        |                           |    |     |
|               | 21.9                          | 232           | 1.0   | 41.04     | 5.0          | 7.0          | 9.0               | 7.0                               |                                   |                                                                                        |                                                                                        |                           |    |     |
|               | 28.1                          | 182           | 1.3   | 32.07     | 5.0          | 7.0          | 10.0              | 7.0                               |                                   |                                                                                        |                                                                                        |                           |    |     |
| 31.7          | 161                           | 1.5           | 28.35 | 5.0       | 7.0          | 10.0         | 7.0               |                                   |                                   |                                                                                        |                                                                                        |                           |    |     |
| 35.7          | 143                           | 1.7           | 25.24 | 4.0       | 7.0          | 10.0         | 7.0               |                                   |                                   |                                                                                        |                                                                                        |                           |    |     |
| 43.7          | 117                           | 2.0           | 20.61 | 4.0       | 7.0          | 10.0         | 7.0               |                                   |                                   |                                                                                        |                                                                                        |                           |    |     |
| 52.3          | 98                            | 2.4           | 17.22 | 6.0       | 7.0          | 10.0         | 7.0               |                                   |                                   |                                                                                        |                                                                                        |                           |    |     |
| 63.9          | 80                            | 2.8           | 14.09 | 6.0       | 7.0          | 10.0         | 7.0               |                                   |                                   |                                                                                        |                                                                                        |                           |    |     |
| 19.4          | 260                           | 1.1           | 72.16 | 5.0       | 7.0          | 9.0          | 7.0               | <b>PD/PM 12<br/>80M4B / 80M4C</b> | 24                                | 192                                                                                    |                                                                                        |                           |    |     |
| 23.8          | 212                           | 1.3           | 58.91 | 5.0       | 7.0          | 9.0          | 7.0               |                                   |                                   |                                                                                        |                                                                                        |                           |    |     |
| 28.4          | 177                           | 1.5           | 49.22 | 5.0       | 7.0          | 9.0          | 7.0               |                                   |                                   |                                                                                        |                                                                                        |                           |    |     |
| 34.1          | 148                           | 1.5           | 41.04 | 5.0       | 7.0          | 9.0          | 7.0               |                                   |                                   |                                                                                        |                                                                                        |                           |    |     |
| 43.7          | 116                           | 2.0           | 32.07 | 5.0       | 7.0          | 10.0         | 7.0               |                                   |                                   |                                                                                        |                                                                                        |                           |    |     |
| 49.4          | 102                           | 2.2           | 28.35 | 5.0       | 7.0          | 10.0         | 7.0               |                                   |                                   |                                                                                        |                                                                                        |                           |    |     |
| 55.5          | 91                            | 2.5           | 25.24 | 4.0       | 7.0          | 10.0         | 7.0               |                                   |                                   |                                                                                        |                                                                                        |                           |    |     |
| 67.9          | 74                            | 3.0           | 20.61 | 4.0       | 7.0          | 10.0         | 7.0               |                                   |                                   |                                                                                        |                                                                                        |                           |    |     |

| <b>P<sub>1</sub></b><br>[kW] | <b>n<sub>2</sub></b><br>[Min <sup>-1</sup> ] | <b>M<sub>2</sub></b><br>[Nm] | <b>f<sub>B</sub></b> | <b>i<sub>ges</sub></b> | <b>F<sub>R</sub></b><br>[N] | <b>F<sub>A</sub></b><br>[N] | <b>F<sub>R GR</sub></b><br>[N] | <b>F<sub>A GR</sub></b><br>[N] | Tip / Type / Typ<br>IE2 / IE3      |  Kg |  mm |
|------------------------------|----------------------------------------------|------------------------------|----------------------|------------------------|-----------------------------|-----------------------------|--------------------------------|--------------------------------|------------------------------------|----------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------|
| <b>0.55</b>                  | 25.6                                         | 191                          | 0.8                  | 109.45                 | 5.0                         | 7.0                         | 9.0                            | 7.0                            | <b>PD/PM 12<br/>71M2B</b>          | 22                                                                                     | 192                                                                                    |
|                              | 30.3                                         | 161                          | 1.1                  | 92.43                  | 5.0                         | 7.0                         | 9.0                            | 7.0                            |                                    |                                                                                        |                                                                                        |
|                              | 34.5                                         | 142                          | 1.6                  | 81.17                  | 5.0                         | 7.0                         | 9.0                            | 7.0                            |                                    |                                                                                        |                                                                                        |
|                              | 38.8                                         | 126                          | 1.8                  | 72.16                  | 5.0                         | 7.0                         | 9.0                            | 7.0                            |                                    |                                                                                        |                                                                                        |
|                              | 42.3                                         | 116                          | 1.8                  | 66.26                  | 5.0                         | 7.0                         | 9.0                            | 7.0                            |                                    |                                                                                        |                                                                                        |
|                              | 47.5                                         | 103                          | 2.1                  | 58.91                  | 5.0                         | 7.0                         | 9.0                            | 7.0                            |                                    |                                                                                        |                                                                                        |
|                              | 50.6                                         | 97                           | 1.8                  | 55.37                  | 5.0                         | 7.0                         | 10.0                           | 7.0                            |                                    |                                                                                        |                                                                                        |
|                              | 56.9                                         | 86                           | 2.3                  | 49.22                  | 5.0                         | 7.0                         | 9.0                            | 7.0                            |                                    |                                                                                        |                                                                                        |
|                              | 60.7                                         | 81                           | 1.8                  | 46.16                  | 5.0                         | 7.0                         | 10.0                           | 7.0                            |                                    |                                                                                        |                                                                                        |
|                              | 68.2                                         | 72                           | 2.3                  | 41.04                  | 5.0                         | 7.0                         | 9.0                            | 7.0                            |                                    |                                                                                        |                                                                                        |
|                              | 10.1                                         | 496                          | 0.8                  | 88.92                  | 6.0                         | 7.0                         | 8.0                            | 11.0                           | <b>PD/PM C13<br/>80M6B</b>         | 30                                                                                     | 190                                                                                    |
|                              | 11.4                                         | 440                          | 0.9                  | 78.83                  | 6.0                         | 7.0                         | 8.0                            | 11.0                           |                                    |                                                                                        |                                                                                        |
|                              | 13.2                                         | 381                          | 1.0                  | 68.27                  | 6.0                         | 7.0                         | 8.0                            | 11.0                           |                                    |                                                                                        |                                                                                        |
|                              | 15.0                                         | 335                          | 1.2                  | 60.09                  | 7.0                         | 7.0                         | 8.0                            | 11.0                           |                                    |                                                                                        |                                                                                        |
|                              | 16.9                                         | 297                          | 1.3                  | 53.28                  | 6.0                         | 7.0                         | 8.0                            | 11.0                           |                                    |                                                                                        |                                                                                        |
|                              | 20.3                                         | 247                          | 1.4                  | 44.33                  | 6.0                         | 7.0                         | 8.0                            | 11.0                           |                                    |                                                                                        |                                                                                        |
|                              | 23.2                                         | 217                          | 1.6                  | 38.83                  | 6.0                         | 7.0                         | 8.0                            | 11.0                           |                                    |                                                                                        |                                                                                        |
|                              | 25.2                                         | 199                          | 1.6                  | 35.71                  | 6.0                         | 7.0                         | 8.0                            | 11.0                           |                                    |                                                                                        |                                                                                        |
|                              | 30.3                                         | 166                          | 1.8                  | 29.71                  | 6.0                         | 7.0                         | 8.0                            | 11.0                           |                                    |                                                                                        |                                                                                        |
|                              | 34.6                                         | 145                          | 2.0                  | 26.02                  | 5.0                         | 7.0                         | 8.0                            | 11.0                           |                                    |                                                                                        |                                                                                        |
|                              | 37.2                                         | 135                          | 2.2                  | 24.17                  | 6.0                         | 7.0                         | 8.0                            | 11.0                           |                                    |                                                                                        |                                                                                        |
|                              | 48.0                                         | 105                          | 2.4                  | 18.76                  | 6.0                         | 7.0                         | 8.0                            | 11.0                           |                                    |                                                                                        |                                                                                        |
|                              | 55.6                                         | 90                           | 2.7                  | 16.20                  | 6.0                         | 7.0                         | 8.0                            | 11.0                           |                                    |                                                                                        |                                                                                        |
|                              | 10.3                                         | 482                          | 0.8                  | 136.54                 | 6.0                         | 7.0                         | 8.0                            | 11.0                           | <b>PD/PM C13<br/>80M4B / 80M4C</b> | 30                                                                                     | 190                                                                                    |
|                              | 11.9                                         | 416                          | 0.9                  | 118.07                 | 5.0                         | 7.0                         | 8.0                            | 11.0                           |                                    |                                                                                        |                                                                                        |
|                              | 13.2                                         | 374                          | 1.0                  | 106.03                 | 5.0                         | 7.0                         | 8.0                            | 11.0                           |                                    |                                                                                        |                                                                                        |
|                              | 13.9                                         | 356                          | 1.0                  | 101.01                 | 5.0                         | 7.0                         | 8.0                            | 11.0                           |                                    |                                                                                        |                                                                                        |
|                              | 15.7                                         | 314                          | 1.2                  | 88.92                  | 6.0                         | 7.0                         | 8.0                            | 11.0                           |                                    |                                                                                        |                                                                                        |
|                              | 17.8                                         | 278                          | 1.3                  | 78.83                  | 6.0                         | 7.0                         | 8.0                            | 11.0                           |                                    |                                                                                        |                                                                                        |
|                              | 20.5                                         | 241                          | 1.5                  | 68.27                  | 6.0                         | 7.0                         | 8.0                            | 11.0                           |                                    |                                                                                        |                                                                                        |
|                              | 23.3                                         | 212                          | 1.7                  | 60.09                  | 7.0                         | 7.0                         | 8.0                            | 11.0                           |                                    |                                                                                        |                                                                                        |
|                              | 26.3                                         | 188                          | 1.9                  | 53.28                  | 6.0                         | 7.0                         | 8.0                            | 11.0                           |                                    |                                                                                        |                                                                                        |
|                              | 31.6                                         | 156                          | 2.2                  | 44.33                  | 6.0                         | 7.0                         | 8.0                            | 11.0                           |                                    |                                                                                        |                                                                                        |
|                              | 36.1                                         | 137                          | 2.4                  | 38.83                  | 6.0                         | 7.0                         | 8.0                            | 11.0                           |                                    |                                                                                        |                                                                                        |
|                              | 39.2                                         | 126                          | 2.4                  | 35.71                  | 6.0                         | 7.0                         | 8.0                            | 11.0                           |                                    |                                                                                        |                                                                                        |
|                              | 47.1                                         | 105                          | 2.7                  | 29.71                  | 6.0                         | 7.0                         | 8.0                            | 11.0                           |                                    |                                                                                        |                                                                                        |
|                              | 53.8                                         | 92                           | 3.0                  | 26.02                  | 5.0                         | 7.0                         | 8.0                            | 11.0                           |                                    |                                                                                        |                                                                                        |
|                              | 13.7                                         | 343                          | 0.8                  | 203.72                 | 6.0                         | 7.0                         | 8.0                            | 11.0                           | <b>PD/PM C13<br/>71M2B</b>         | 28                                                                                     | 190                                                                                    |
|                              | 17.7                                         | 267                          | 1.1                  | 158.21                 | 6.0                         | 7.0                         | 8.0                            | 11.0                           |                                    |                                                                                        |                                                                                        |
|                              | 20.5                                         | 230                          | 1.2                  | 136.54                 | 6.0                         | 7.0                         | 8.0                            | 11.0                           |                                    |                                                                                        |                                                                                        |
|                              | 23.7                                         | 199                          | 1.4                  | 118.07                 | 5.0                         | 7.0                         | 8.0                            | 11.0                           |                                    |                                                                                        |                                                                                        |
|                              | 26.4                                         | 179                          | 1.6                  | 106.03                 | 5.0                         | 7.0                         | 8.0                            | 11.0                           |                                    |                                                                                        |                                                                                        |
|                              | 27.7                                         | 170                          | 1.7                  | 101.01                 | 5.0                         | 7.0                         | 8.0                            | 11.0                           |                                    |                                                                                        |                                                                                        |
|                              | 31.5                                         | 150                          | 1.9                  | 88.92                  | 6.0                         | 7.0                         | 8.0                            | 11.0                           |                                    |                                                                                        |                                                                                        |
|                              | 35.5                                         | 133                          | 2.1                  | 78.83                  | 6.0                         | 7.0                         | 8.0                            | 11.0                           |                                    |                                                                                        |                                                                                        |
|                              | 41.0                                         | 115                          | 2.4                  | 68.27                  | 6.0                         | 7.0                         | 8.0                            | 11.0                           |                                    |                                                                                        |                                                                                        |
|                              | 46.6                                         | 101                          | 2.8                  | 60.09                  | 7.0                         | 7.0                         | 8.0                            | 11.0                           |                                    |                                                                                        |                                                                                        |
|                              | 52.6                                         | 90                           | 3.0                  | 53.28                  | 6.0                         | 7.0                         | 8.0                            | 11.0                           |                                    |                                                                                        |                                                                                        |
|                              | 22.3                                         | 228                          | 0.8                  | 40.35                  | 4.0                         | 5.0                         | 7.0                            | 5.0                            | <b>PD/PM B02<br/>80M6B</b>         | 18                                                                                     | 188                                                                                    |
|                              | 26.3                                         | 193                          | 0.8                  | 34.16                  | 4.0                         | 5.0                         | 7.0                            | 5.0                            |                                    |                                                                                        |                                                                                        |
| 29.9                         | 170                                          | 0.8                          | 30.08                | 4.0                    | 5.0                         | 7.0                         | 5.0                            |                                |                                    |                                                                                        |                                                                                        |
| 34.7                         | 147                                          | 0.9                          | 25.96                | 4.0                    | 5.0                         | 7.0                         | 5.0                            |                                |                                    |                                                                                        |                                                                                        |
| 39.7                         | 128                                          | 1.1                          | 22.68                | 4.0                    | 5.0                         | 7.0                         | 5.0                            |                                |                                    |                                                                                        |                                                                                        |
| 41.7                         | 122                                          | 1.2                          | 21.58                | 4.0                    | 5.0                         | 7.0                         | 5.0                            |                                |                                    |                                                                                        |                                                                                        |
| 45.1                         | 113                                          | 1.2                          | 19.94                | 4.0                    | 5.0                         | 7.0                         | 5.0                            |                                |                                    |                                                                                        |                                                                                        |
| 51.1                         | 100                                          | 1.4                          | 17.62                | 4.0                    | 5.0                         | 7.0                         | 5.0                            |                                |                                    |                                                                                        |                                                                                        |
| 54.3                         | 94                                           | 1.6                          | 16.57                | 3.0                    | 5.0                         | 7.0                         | 5.0                            |                                |                                    |                                                                                        |                                                                                        |
| 63.4                         | 80                                           | 2.1                          | 14.20                | 5.0                    | 5.0                         | 7.0                         | 5.0                            |                                |                                    |                                                                                        |                                                                                        |
| 69.4                         | 73                                           | 2.3                          | 12.96                | 5.0                    | 5.0                         | 7.0                         | 5.0                            |                                |                                    |                                                                                        |                                                                                        |
| 79.8                         | 64                                           | 2.3                          | 11.28                | 5.0                    | 5.0                         | 7.0                         | 5.0                            |                                |                                    |                                                                                        |                                                                                        |
| 82.0                         | 62                                           | 2.6                          | 10.97                | 5.0                    | 5.0                         | 7.0                         | 5.0                            |                                |                                    |                                                                                        |                                                                                        |
| 93.1                         | 55                                           | 2.7                          | 9.67                 | 5.0                    | 5.0                         | 7.0                         | 5.0                            |                                |                                    |                                                                                        |                                                                                        |
| 102.0                        | 50                                           | 2.9                          | 8.82                 | 5.0                    | 5.0                         | 7.0                         | 5.0                            |                                |                                    |                                                                                        |                                                                                        |
|                              |                                              |                              |                      |                        |                             |                             |                                |                                |                                    |                                                                                        |                                                                                        |



| <b>P<sub>1</sub></b><br>[kW] | <b>n<sub>2</sub></b><br>[Min <sup>-1</sup> ] | <b>M<sub>2</sub></b><br>[Nm] | <b>f<sub>B</sub></b> | <b>i<sub>ges</sub></b> | <b>F<sub>R</sub></b><br>[N] | <b>F<sub>A</sub></b><br>[N] | <b>F<sub>R GR</sub></b><br>[N] | <b>F<sub>A GR</sub></b><br>[N] | Tip / Type / Typ<br>IE2 / IE3         |  Kg |  mm |                            |    |     |
|------------------------------|----------------------------------------------|------------------------------|----------------------|------------------------|-----------------------------|-----------------------------|--------------------------------|--------------------------------|---------------------------------------|----------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------|----------------------------|----|-----|
| <b>0.55</b>                  | 24.8                                         | 204                          | 0.8                  | 56.55                  | 5.0                         | 5.0                         | 7.0                            | 5.0                            | <b>PD/PM B02<br/>80M4B / 80M4C</b>    | 18                                                                                     | 188                                                                                    |                            |    |     |
|                              | 27.1                                         | 186                          | 0.8                  | 51.60                  | 4.0                         | 5.0                         | 7.0                            | 5.0                            |                                       |                                                                                        |                                                                                        |                            |    |     |
|                              | 31.7                                         | 159                          | 1.0                  | 44.23                  | 4.0                         | 5.0                         | 7.0                            | 5.0                            |                                       |                                                                                        |                                                                                        |                            |    |     |
|                              | 34.7                                         | 145                          | 1.1                  | 40.35                  | 4.0                         | 5.0                         | 7.0                            | 5.0                            |                                       |                                                                                        |                                                                                        |                            |    |     |
|                              | 41.0                                         | 123                          | 1.2                  | 34.16                  | 4.0                         | 5.0                         | 7.0                            | 5.0                            |                                       |                                                                                        |                                                                                        |                            |    |     |
|                              | 46.5                                         | 108                          | 1.2                  | 30.08                  | 4.0                         | 5.0                         | 7.0                            | 5.0                            |                                       |                                                                                        |                                                                                        |                            |    |     |
|                              | 53.9                                         | 94                           | 1.4                  | 25.96                  | 4.0                         | 5.0                         | 7.0                            | 5.0                            |                                       |                                                                                        |                                                                                        |                            |    |     |
|                              | 61.7                                         | 82                           | 1.6                  | 22.68                  | 4.0                         | 5.0                         | 7.0                            | 5.0                            |                                       |                                                                                        |                                                                                        |                            |    |     |
|                              | 64.9                                         | 78                           | 1.8                  | 21.58                  | 4.0                         | 5.0                         | 7.0                            | 5.0                            |                                       |                                                                                        |                                                                                        |                            |    |     |
|                              | 70.2                                         | 72                           | 1.8                  | 19.94                  | 4.0                         | 5.0                         | 7.0                            | 5.0                            |                                       |                                                                                        |                                                                                        |                            |    |     |
|                              | 79.5                                         | 63                           | 2.0                  | 17.62                  | 4.0                         | 5.0                         | 7.0                            | 5.0                            |                                       |                                                                                        |                                                                                        |                            |    |     |
|                              | 84.5                                         | 60                           | 2.3                  | 16.57                  | 3.0                         | 5.0                         | 7.0                            | 5.0                            |                                       |                                                                                        |                                                                                        |                            |    |     |
|                              | 42.4                                         | 115                          | 0.9                  | 66.00                  | 5.0                         | 5.0                         | 7.0                            | 5.0                            | <b>PD/PM B02<br/>71M2B</b>            | 16                                                                                     | 188                                                                                    |                            |    |     |
|                              | 49.5                                         | 99                           | 1.2                  | 56.55                  | 5.0                         | 5.0                         | 7.0                            | 5.0                            |                                       |                                                                                        |                                                                                        |                            |    |     |
|                              | 54.3                                         | 90                           | 1.2                  | 51.60                  | 4.0                         | 5.0                         | 7.0                            | 5.0                            |                                       |                                                                                        |                                                                                        |                            |    |     |
|                              | 63.3                                         | 77                           | 1.6                  | 44.23                  | 4.0                         | 5.0                         | 7.0                            | 5.0                            |                                       |                                                                                        |                                                                                        |                            |    |     |
|                              | 69.4                                         | 70                           | 1.8                  | 40.35                  | 4.0                         | 5.0                         | 7.0                            | 5.0                            |                                       |                                                                                        |                                                                                        |                            |    |     |
|                              | 82.0                                         | 60                           | 1.9                  | 34.16                  | 4.0                         | 5.0                         | 7.0                            | 5.0                            |                                       |                                                                                        |                                                                                        |                            |    |     |
|                              | 93.1                                         | 53                           | 1.9                  | 30.08                  | 4.0                         | 5.0                         | 7.0                            | 5.0                            |                                       |                                                                                        |                                                                                        |                            |    |     |
|                              | 107.9                                        | 45                           | 2.2                  | 25.96                  | 4.0                         | 5.0                         | 7.0                            | 5.0                            |                                       |                                                                                        |                                                                                        |                            |    |     |
|                              | 123.5                                        | 40                           | 2.5                  | 22.68                  | 4.0                         | 5.0                         | 7.0                            | 5.0                            |                                       |                                                                                        |                                                                                        |                            |    |     |
|                              | 129.7                                        | 38                           | 2.8                  | 21.58                  | 4.0                         | 5.0                         | 7.0                            | 5.0                            |                                       |                                                                                        |                                                                                        |                            |    |     |
|                              | 140.4                                        | 35                           | 2.8                  | 19.94                  | 4.0                         | 5.0                         | 7.0                            | 5.0                            |                                       |                                                                                        |                                                                                        |                            |    |     |
|                              | 36.6                                         | 139                          | 0.9                  | 24.57                  | 4.0                         | 5.0                         | 5.0                            | 8.0                            |                                       |                                                                                        |                                                                                        | <b>PD/PM A02<br/>80M6B</b> | 14 | 186 |
|                              | 40.3                                         | 126                          | 0.9                  | 22.34                  | 4.0                         | 5.0                         | 5.0                            | 8.0                            |                                       |                                                                                        |                                                                                        |                            |    |     |
|                              | 47.9                                         | 106                          | 0.9                  | 18.77                  | 3.0                         | 5.0                         | 5.0                            | 8.0                            |                                       |                                                                                        |                                                                                        |                            |    |     |
|                              | 54.4                                         | 94                           | 1.1                  | 16.54                  | 3.0                         | 5.0                         | 5.0                            | 8.0                            |                                       |                                                                                        |                                                                                        |                            |    |     |
|                              | 60.4                                         | 84                           | 0.9                  | 14.91                  | 3.0                         | 5.0                         | 5.0                            | 8.0                            |                                       |                                                                                        |                                                                                        |                            |    |     |
|                              | 65.1                                         | 78                           | 1.5                  | 13.83                  | 3.0                         | 5.0                         | 5.0                            | 8.0                            |                                       |                                                                                        |                                                                                        |                            |    |     |
|                              | 77.1                                         | 66                           | 1.7                  | 11.67                  | 3.0                         | 5.0                         | 5.0                            | 8.0                            |                                       |                                                                                        |                                                                                        |                            |    |     |
|                              | 94.8                                         | 54                           | 2.1                  | 9.49                   | 4.0                         | 5.0                         | 5.0                            | 8.0                            |                                       |                                                                                        |                                                                                        |                            |    |     |
|                              | 104.3                                        | 49                           | 2.4                  | 8.63                   | 4.0                         | 5.0                         | 5.0                            | 8.0                            |                                       |                                                                                        |                                                                                        |                            |    |     |
|                              | 124.1                                        | 41                           | 2.9                  | 7.25                   | 4.0                         | 5.0                         | 5.0                            | 8.0                            |                                       |                                                                                        |                                                                                        |                            |    |     |
|                              | 40.2                                         | 125                          | 0.8                  | 34.80                  | 4.0                         | 5.0                         | 5.0                            | 8.0                            | <b>PD/PM A02<br/>80M4B / 80M4C</b>    | 14                                                                                     | 186                                                                                    |                            |    |     |
|                              | 44.0                                         | 115                          | 0.8                  | 31.83                  | 4.0                         | 5.0                         | 5.0                            | 8.0                            |                                       |                                                                                        |                                                                                        |                            |    |     |
|                              | 48.1                                         | 105                          | 1.0                  | 29.11                  | 4.0                         | 5.0                         | 5.0                            | 8.0                            |                                       |                                                                                        |                                                                                        |                            |    |     |
|                              | 57.0                                         | 88                           | 1.3                  | 24.57                  | 4.0                         | 5.0                         | 5.0                            | 8.0                            |                                       |                                                                                        |                                                                                        |                            |    |     |
|                              | 62.7                                         | 80                           | 1.4                  | 22.34                  | 4.0                         | 5.0                         | 5.0                            | 8.0                            |                                       |                                                                                        |                                                                                        |                            |    |     |
|                              | 74.6                                         | 68                           | 1.4                  | 18.77                  | 3.0                         | 5.0                         | 5.0                            | 8.0                            |                                       |                                                                                        |                                                                                        |                            |    |     |
|                              | 84.6                                         | 60                           | 1.7                  | 16.54                  | 3.0                         | 5.0                         | 5.0                            | 8.0                            |                                       |                                                                                        |                                                                                        |                            |    |     |
|                              | 93.9                                         | 54                           | 1.4                  | 14.91                  | 3.0                         | 5.0                         | 5.0                            | 8.0                            |                                       |                                                                                        |                                                                                        |                            |    |     |
|                              | 101.2                                        | 50                           | 2.2                  | 13.83                  | 3.0                         | 5.0                         | 5.0                            | 8.0                            |                                       |                                                                                        |                                                                                        |                            |    |     |
|                              | 120.0                                        | 42                           | 2.6                  | 11.67                  | 3.0                         | 5.0                         | 5.0                            | 8.0                            |                                       |                                                                                        |                                                                                        |                            |    |     |
|                              | 47.2                                         | 104                          | 0.8                  | 59.32                  | 4.0                         | 5.0                         | 5.0                            | 8.0                            |                                       |                                                                                        |                                                                                        | <b>PD/PM A02<br/>71M2B</b> | 12 | 186 |
|                              | 56.4                                         | 87                           | 0.9                  | 49.62                  | 4.0                         | 5.0                         | 5.0                            | 8.0                            |                                       |                                                                                        |                                                                                        |                            |    |     |
|                              | 66.9                                         | 73                           | 0.9                  | 41.88                  | 4.0                         | 5.0                         | 5.0                            | 8.0                            |                                       |                                                                                        |                                                                                        |                            |    |     |
|                              | 74.3                                         | 66                           | 1.2                  | 37.71                  | 4.0                         | 5.0                         | 5.0                            | 8.0                            |                                       |                                                                                        |                                                                                        |                            |    |     |
|                              | 80.5                                         | 61                           | 1.3                  | 34.80                  | 4.0                         | 5.0                         | 5.0                            | 8.0                            |                                       |                                                                                        |                                                                                        |                            |    |     |
| 88.0                         | 56                                           | 1.3                          | 31.83                | 4.0                    | 5.0                         | 5.0                         | 8.0                            |                                |                                       |                                                                                        |                                                                                        |                            |    |     |
| 96.2                         | 51                                           | 1.6                          | 29.11                | 4.0                    | 5.0                         | 5.0                         | 8.0                            |                                |                                       |                                                                                        |                                                                                        |                            |    |     |
| 114.0                        | 43                                           | 2.1                          | 24.57                | 4.0                    | 5.0                         | 5.0                         | 8.0                            |                                |                                       |                                                                                        |                                                                                        |                            |    |     |
| 125.3                        | 39                                           | 2.1                          | 22.34                | 4.0                    | 5.0                         | 5.0                         | 8.0                            |                                |                                       |                                                                                        |                                                                                        |                            |    |     |
| 149.2                        | 33                                           | 2.2                          | 18.77                | 3.0                    | 5.0                         | 5.0                         | 8.0                            |                                |                                       |                                                                                        |                                                                                        |                            |    |     |
| 169.3                        | 29                                           | 2.6                          | 16.54                | 3.0                    | 5.0                         | 5.0                         | 8.0                            |                                |                                       |                                                                                        |                                                                                        |                            |    |     |
| 187.8                        | 26                                           | 2.2                          | 14.91                | 3.0                    | 5.0                         | 5.0                         | 8.0                            |                                |                                       |                                                                                        |                                                                                        |                            |    |     |
| <b>0.75</b>                  | 0.2                                          | 29526                        | 2.1                  | 4001.34                | -                           | -                           | -                              | -                              | <b>PD/PM 113/52<br/>90S6B / 90L6C</b> | 1132                                                                                   | 242                                                                                    |                            |    |     |
|                              | 0.2                                          | 27472                        | 2.3                  | 3722.96                | -                           | -                           | -                              | -                              |                                       |                                                                                        |                                                                                        |                            |    |     |
|                              | 0.3                                          | 22600                        | 2.8                  | 3062.69                | -                           | -                           | -                              | -                              |                                       |                                                                                        |                                                                                        |                            |    |     |
|                              | 0.2                                          | 34514                        | 1.1                  | 4677.24                | -                           | -                           | -                              | -                              | <b>PD/PM 103/52<br/>90S6B / 90L6C</b> | 1324                                                                                   | 242                                                                                    |                            |    |     |
|                              | 0.4                                          | 17958                        | 1.4                  | 2433.68                | 34.0                        | 64.0                        | -                              | -                              | <b>PD/PM 93/42<br/>90S6B / 90L6C</b>  | 731                                                                                    | 242                                                                                    |                            |    |     |
|                              | 0.4                                          | 16255                        | 1.6                  | 2202.85                | 34.0                        | 64.0                        | -                              | -                              |                                       |                                                                                        |                                                                                        |                            |    |     |
|                              | 0.5                                          | 12875                        | 2.0                  | 1744.83                | 34.0                        | 64.0                        | -                              | -                              |                                       |                                                                                        |                                                                                        |                            |    |     |
|                              | 0.6                                          | 10461                        | 2.4                  | 1417.68                | 34.0                        | 64.0                        | 120.0                          | 130.0                          |                                       |                                                                                        |                                                                                        |                            |    |     |
|                              | 0.8                                          | 8688                         | 2.9                  | 1177.36                | 34.0                        | 64.0                        | 120.0                          | 130.0                          |                                       |                                                                                        |                                                                                        |                            |    |     |



| $P_1$<br>[kW] | $n_2$<br>[Min <sup>-1</sup> ] | $M_2$<br>[Nm] | $f_B$   | $i_{ges}$ | $F_R$<br>[N] | $F_A$<br>[N] | $F_{RGR}$<br>[N] | $F_{AGR}$<br>[N]                     | Tip / Type / Typ<br>IE2 / IE3        |  Kg |  mm |
|---------------|-------------------------------|---------------|---------|-----------|--------------|--------------|------------------|--------------------------------------|--------------------------------------|----------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------|
| <b>0.75</b>   | 0.5                           | 12490         | 1.0     | 1692.65   | 92.0         | 73.0         | -                | -                                    | <b>PD/PM 83/32<br/>90S6B / 90L6C</b> | 414                                                                                    | 240                                                                                    |
|               | 0.7                           | 10057         | 1.3     | 1362.94   | 90.0         | 73.0         | 100.0            | 100.0                                |                                      |                                                                                        |                                                                                        |
|               | 0.8                           | 7835          | 1.6     | 1061.83   | 92.0         | 73.0         | 100.0            | 100.0                                |                                      |                                                                                        |                                                                                        |
|               | 1.0                           | 6560          | 1.9     | 889.06    | 92.0         | 73.0         | 100.0            | 100.0                                |                                      |                                                                                        |                                                                                        |
|               | 1.3                           | 5287          | 2.4     | 716.55    | 92.0         | 73.0         | 100.0            | 100.0                                |                                      |                                                                                        |                                                                                        |
|               | 1.5                           | 4502          | 2.8     | 610.07    | 92.0         | 73.0         | 100.0            | 100.0                                |                                      |                                                                                        |                                                                                        |
|               | 0.5                           | 13795         | 0.9     | 2996.11   | -            | -            | -                | -                                    | <b>PD/PM 83/32<br/>80M4C / 80M4D</b> | 410                                                                                    | 240                                                                                    |
|               | 0.6                           | 11090         | 1.1     | 2408.64   | -            | -            | -                | -                                    |                                      |                                                                                        |                                                                                        |
|               | 0.8                           | 7794          | 1.6     | 1692.65   | -            | -            | -                | -                                    |                                      |                                                                                        |                                                                                        |
|               | 1.0                           | 6276          | 1.9     | 1362.94   | 90.0         | 73.0         | 100.0            | 100.0                                |                                      |                                                                                        |                                                                                        |
|               | 1.3                           | 4889          | 2.5     | 1061.83   | 92.0         | 73.0         | 100.0            | 100.0                                |                                      |                                                                                        |                                                                                        |
|               | 1.6                           | 4094          | 3.0     | 889.06    | 92.0         | 73.0         | 100.0            | 100.0                                |                                      |                                                                                        |                                                                                        |
|               | 0.5                           | 11783         | 0.8     | 5504.36   | 92.0         | 73.0         | -                | -                                    | <b>PD/PM 83/32<br/>80M2B / 80M2C</b> | 410                                                                                    | 240                                                                                    |
|               | 0.7                           | 8997          | 1.0     | 4202.93   | 92.0         | 73.0         | -                | -                                    |                                      |                                                                                        |                                                                                        |
|               | 0.8                           | 7533          | 1.2     | 3519.07   | 92.0         | 73.0         | -                | -                                    |                                      |                                                                                        |                                                                                        |
|               | 0.9                           | 6414          | 1.4     | 2996.11   | 92.0         | 73.0         | -                | -                                    |                                      |                                                                                        |                                                                                        |
|               | 1.2                           | 5156          | 1.8     | 2408.64   | 92.0         | 73.0         | -                | -                                    |                                      |                                                                                        |                                                                                        |
|               | 1.7                           | 3623          | 2.5     | 1692.65   | 92.0         | 73.0         | -                | -                                    |                                      |                                                                                        |                                                                                        |
|               | 0.7                           | 9906          | 0.8     | 1342.44   | 50.0         | 58.0         | 77.0             | 80.0                                 | <b>PD/PM 73/22<br/>90S6B / 90L6C</b> | 278                                                                                    | 240                                                                                    |
|               | 0.9                           | 7689          | 1.0     | 1042.00   | 54.0         | 58.0         | 79.0             | 80.0                                 |                                      |                                                                                        |                                                                                        |
|               | 1.0                           | 6879          | 1.1     | 932.25    | 55.0         | 58.0         | 80.0             | 80.0                                 |                                      |                                                                                        |                                                                                        |
|               | 1.3                           | 5241          | 1.4     | 710.29    | 57.0         | 58.0         | 81.0             | 80.0                                 |                                      |                                                                                        |                                                                                        |
|               | 1.6                           | 4211          | 1.8     | 570.70    | 58.0         | 58.0         | 82.0             | 80.0                                 |                                      |                                                                                        |                                                                                        |
|               | 2.1                           | 3209          | 2.3     | 434.82    | 55.0         | 58.0         | 81.0             | 80.0                                 |                                      |                                                                                        |                                                                                        |
|               | 2.4                           | 2776          | 2.7     | 376.24    | 55.0         | 58.0         | 81.0             | 80.0                                 |                                      |                                                                                        |                                                                                        |
|               | 0.8                           | 8316          | 0.9     | 1806.13   | -            | -            | -                | -                                    | <b>PD/PM 73/22<br/>80M4C / 80M4D</b> | 274                                                                                    | 240                                                                                    |
|               | 1.0                           | 6181          | 1.1     | 1342.44   | 50.0         | 58.0         | 77.0             | 80.0                                 |                                      |                                                                                        |                                                                                        |
|               | 1.3                           | 4798          | 1.5     | 1042.00   | 54.0         | 58.0         | 79.0             | 80.0                                 |                                      |                                                                                        |                                                                                        |
|               | 1.5                           | 4293          | 1.6     | 932.25    | 55.0         | 58.0         | 80.0             | 80.0                                 |                                      |                                                                                        |                                                                                        |
|               | 2.0                           | 3271          | 2.2     | 710.29    | 57.0         | 58.0         | 81.0             | 80.0                                 |                                      |                                                                                        |                                                                                        |
|               | 2.5                           | 2628          | 2.7     | 570.70    | 58.0         | 58.0         | 82.0             | 80.0                                 |                                      |                                                                                        |                                                                                        |
|               | 1.1                           | 5630          | 1.0     | 2629.95   | 50.0         | 58.0         | -                | -                                    | <b>PD/PM 73/22<br/>80M2B / 80M2C</b> | 274                                                                                    | 240                                                                                    |
|               | 1.4                           | 4412          | 1.2     | 2061.26   | 50.0         | 58.0         | -                | -                                    |                                      |                                                                                        |                                                                                        |
|               | 1.6                           | 3866          | 1.4     | 1806.13   | 50.0         | 58.0         | -                | -                                    |                                      |                                                                                        |                                                                                        |
|               | 2.1                           | 2874          | 1.9     | 1342.44   | 50.0         | 58.0         | 77.0             | 80.0                                 |                                      |                                                                                        |                                                                                        |
|               | 2.7                           | 2231          | 2.4     | 1042.00   | 54.0         | 58.0         | 79.0             | 80.0                                 |                                      |                                                                                        |                                                                                        |
|               | 3.0                           | 1996          | 2.7     | 932.25    | 55.0         | 58.0         | 80.0             | 80.0                                 |                                      |                                                                                        |                                                                                        |
|               | 4.0                           | 1649          | 3.0     | 223.50    | -            | -            | -                | -                                    | <b>PD/PM 63/32<br/>90S6B / 90L6C</b> | 216                                                                                    | 240                                                                                    |
|               | 1.1                           | 6059          | 0.9     | 821.10    | 39.0         | 47.0         | 57.0             | 60.0                                 | <b>PD/PM 63/22<br/>90S6B / 90L6C</b> | 205                                                                                    | 240                                                                                    |
|               | 1.4                           | 4703          | 1.2     | 637.34    | 22.0         | 47.0         | 47.0             | 60.0                                 |                                      |                                                                                        |                                                                                        |
|               | 1.6                           | 4208          | 1.3     | 570.21    | 41.0         | 47.0         | 58.0             | 60.0                                 |                                      |                                                                                        |                                                                                        |
|               | 2.1                           | 3206          | 1.8     | 434.44    | 23.0         | 47.0         | 58.0             | 60.0                                 |                                      |                                                                                        |                                                                                        |
|               | 2.6                           | 2576          | 2.2     | 349.07    | 34.0         | 47.0         | -                | -                                    |                                      |                                                                                        |                                                                                        |
|               | 3.0                           | 2215          | 2.6     | 300.12    | 34.0         | 47.0         | -                | -                                    |                                      |                                                                                        |                                                                                        |
|               | 1.1                           | 5805          | 0.9     | 1260.77   | 25.0         | 47.0         | 48.0             | 60.0                                 | <b>PD/PM 63/22<br/>80M4C / 80M4D</b> | 201                                                                                    | 240                                                                                    |
|               | 1.3                           | 5087          | 1.1     | 1104.71   | 28.0         | 47.0         | 50.0             | 60.0                                 |                                      |                                                                                        |                                                                                        |
|               | 1.7                           | 3781          | 1.4     | 821.10    | 39.0         | 47.0         | 57.0             | 60.0                                 |                                      |                                                                                        |                                                                                        |
|               | 2.2                           | 2935          | 1.8     | 637.34    | 22.0         | 47.0         | 47.0             | 60.0                                 |                                      |                                                                                        |                                                                                        |
| 2.5           | 2626                          | 2.1           | 570.21  | 41.0      | 47.0         | 58.0         | 60.0             |                                      |                                      |                                                                                        |                                                                                        |
| 3.2           | 2000                          | 2.7           | 434.44  | 23.0      | 47.0         | 47.0         | 60.0             |                                      |                                      |                                                                                        |                                                                                        |
| 1.3           | 4730                          | 0.9           | 2209.62 | 25.0      | 47.0         | -            | -                | <b>PD/PM 63/22<br/>80M2B / 80M2C</b> | 201                                  | 240                                                                                    |                                                                                        |
| 1.5           | 3980                          | 1.0           | 1859.06 | 25.0      | 47.0         | -            | -                |                                      |                                      |                                                                                        |                                                                                        |
| 2.2           | 2699                          | 1.5           | 1260.77 | 25.0      | 47.0         | 48.0         | 60.0             |                                      |                                      |                                                                                        |                                                                                        |
| 2.5           | 2365                          | 1.7           | 1104.71 | 28.0      | 47.0         | 50.0         | 60.0             |                                      |                                      |                                                                                        |                                                                                        |
| 3.4           | 1758                          | 2.3           | 821.10  | 39.0      | 47.0         | 57.0         | 60.0             |                                      |                                      |                                                                                        |                                                                                        |
| 4.4           | 1364                          | 3.0           | 637.34  | 22.0      | 47.0         | 47.0         | 60.0             |                                      |                                      |                                                                                        |                                                                                        |
| 1.6           | 4199                          | 1.3           | 552.15  | 14.0      | 22.0         | 54.0         | 60.0             | <b>PD/PM 63<br/>90S6B / 90L6C</b>    | 186                                  | 213                                                                                    |                                                                                        |
| 2.0           | 3391                          | 1.3           | 445.80  | 14.0      | 22.0         | 56.0         | 60.0             |                                      |                                      |                                                                                        |                                                                                        |
| 2.3           | 2992                          | 2.1           | 393.43  | 14.0      | 22.0         | 57.0         | 60.0             |                                      |                                      |                                                                                        |                                                                                        |
| 2.8           | 2416                          | 2.5           | 317.64  | 14.0      | 22.0         | 57.0         | 60.0             |                                      |                                      |                                                                                        |                                                                                        |
| 3.6           | 1914                          | 2.5           | 251.63  | 14.0      | 22.0         | 58.0         | 60.0             |                                      |                                      |                                                                                        |                                                                                        |
| 4.0           | 1718                          | 2.5           | 225.83  | 14.0      | 22.0         | 58.0         | 60.0             |                                      |                                      |                                                                                        |                                                                                        |

| $P_1$<br>[kW] | $n_2$<br>[Min <sup>-1</sup> ] | $M_2$<br>[Nm] | $f_B$  | $i_{ges}$ | $F_R$<br>[N] | $F_A$<br>[N] | $F_{RGR}$<br>[N] | $F_{AGR}$<br>[N]             | Tip / Type / Typ<br>IE2 / IE3 |  |  |
|---------------|-------------------------------|---------------|--------|-----------|--------------|--------------|------------------|------------------------------|-------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| <b>0.75</b>   | 1.6                           | 4117          | 0.8    | 549.54    | 21.0         | 32.0         | -                | -                            | PD/PM 52/12<br>90S6B / 90L6C  | 115                                                                                 | 238                                                                                 |
|               | 2.0                           | 3357          | 0.9    | 448.15    | 21.0         | 32.0         | -                | -                            |                               |                                                                                     |                                                                                     |
|               | 2.7                           | 2535          | 1.2    | 338.40    | 21.0         | 32.0         | -                | -                            |                               |                                                                                     |                                                                                     |
|               | 3.3                           | 2044          | 1.5    | 272.80    | 21.0         | 32.0         | -                | -                            |                               |                                                                                     |                                                                                     |
|               | 3.9                           | 1743          | 1.8    | 232.65    | 28.0         | 32.0         | -                | -                            |                               |                                                                                     |                                                                                     |
|               | 5.2                           | 1307          | 2.4    | 174.49    | 31.0         | 32.0         | -                | -                            |                               |                                                                                     |                                                                                     |
|               | 6.3                           | 1066          | 3.0    | 142.31    | 31.0         | 32.0         | -                | -                            |                               |                                                                                     |                                                                                     |
|               | 2.0                           | 3243          | 0.9    | 689.07    | 31.0         | 32.0         | 44.0             | 40.0                         | PD/PM 52/12<br>80M4C / 80M4D  | 111                                                                                 | 238                                                                                 |
|               | 2.5                           | 2587          | 1.2    | 549.54    | -            | -            | -                | -                            |                               |                                                                                     |                                                                                     |
|               | 3.1                           | 2109          | 1.4    | 448.15    | -            | -            | -                | -                            |                               |                                                                                     |                                                                                     |
|               | 4.1                           | 1593          | 1.9    | 338.40    | -            | -            | -                | -                            |                               |                                                                                     |                                                                                     |
|               | 5.1                           | 1284          | 2.3    | 272.80    | 21.0         | 32.0         | 38.0             | 40.0                         |                               |                                                                                     |                                                                                     |
|               | 6.0                           | 1095          | 2.7    | 232.65    | -            | -            | -                | -                            |                               |                                                                                     |                                                                                     |
|               | 2.1                           | 2958          | 0.8    | 1333.49   | 31.0         | 32.0         | 40.0             | 40.0                         | PD/PM 52/12<br>80M2B / 80M2C  | 111                                                                                 | 238                                                                                 |
|               | 2.6                           | 2428          | 0.9    | 1094.40   | 31.0         | 32.0         | 42.0             | 40.0                         |                               |                                                                                     |                                                                                     |
|               | 3.3                           | 1911          | 1.2    | 861.34    | 31.0         | 32.0         | -                | -                            |                               |                                                                                     |                                                                                     |
|               | 4.1                           | 1529          | 1.5    | 689.07    | 31.0         | 32.0         | -                | -                            |                               |                                                                                     |                                                                                     |
|               | 5.1                           | 1219          | 1.9    | 549.54    | 21.0         | 32.0         | -                | -                            |                               |                                                                                     |                                                                                     |
|               | 6.2                           | 994           | 2.3    | 448.15    | 21.0         | 32.0         | -                | -                            |                               |                                                                                     |                                                                                     |
|               | 8.3                           | 751           | 3.0    | 338.40    | 21.0         | 32.0         | -                | -                            |                               |                                                                                     |                                                                                     |
|               | 1.7                           | 3991          | 0.8    | 524.75    | 27.0         | 32.0         | 41.0             | 40.0                         | PD/PM 53<br>90S6B / 90L6C     | 124                                                                                 | 209                                                                                 |
|               | 2.1                           | 3255          | 1.0    | 427.97    | 29.0         | 32.0         | 43.0             | 40.0                         |                               |                                                                                     |                                                                                     |
|               | 2.5                           | 2750          | 1.1    | 361.64    | 30.0         | 32.0         | 43.0             | 40.0                         |                               |                                                                                     |                                                                                     |
|               | 2.7                           | 2522          | 1.3    | 331.54    | 30.0         | 32.0         | 43.0             | 40.0                         |                               |                                                                                     |                                                                                     |
|               | 3.3                           | 2057          | 1.4    | 270.40    | 31.0         | 32.0         | 44.0             | 40.0                         |                               |                                                                                     |                                                                                     |
|               | 3.6                           | 1891          | 1.8    | 248.66    | 31.0         | 32.0         | 44.0             | 40.0                         |                               |                                                                                     |                                                                                     |
|               | 4.4                           | 1542          | 2.2    | 202.80    | 28.0         | 32.0         | 43.0             | 40.0                         |                               |                                                                                     |                                                                                     |
|               | 5.3                           | 1303          | 2.3    | 171.36    | 28.0         | 32.0         | -                | -                            |                               |                                                                                     |                                                                                     |
|               | 5.8                           | 1170          | 2.9    | 153.85    | 28.0         | 32.0         | -                | -                            |                               |                                                                                     |                                                                                     |
|               | 2.0                           | 3365          | 1.0    | 699.67    | 23.0         | 32.0         | 39.0             | 40.0                         | PD/PM 53<br>80M4C / 80M4D     | 120                                                                                 | 209                                                                                 |
|               | 2.5                           | 2744          | 1.0    | 570.63    | 26.0         | 32.0         | 41.0             | 40.0                         |                               |                                                                                     |                                                                                     |
|               | 2.7                           | 2524          | 1.3    | 524.75    | 27.0         | 32.0         | 41.0             | 40.0                         |                               |                                                                                     |                                                                                     |
|               | 3.3                           | 2058          | 1.6    | 427.97    | 29.0         | 32.0         | 43.0             | 40.0                         |                               |                                                                                     |                                                                                     |
|               | 3.9                           | 1739          | 1.6    | 361.64    | 30.0         | 32.0         | 43.0             | 40.0                         |                               |                                                                                     |                                                                                     |
|               | 4.2                           | 1594          | 2.0    | 331.54    | 30.0         | 32.0         | 43.0             | 40.0                         |                               |                                                                                     |                                                                                     |
|               | 5.2                           | 1300          | 2.1    | 270.40    | 31.0         | 32.0         | 44.0             | 40.0                         |                               |                                                                                     |                                                                                     |
|               | 5.6                           | 1196          | 2.7    | 248.66    | 31.0         | 32.0         | 44.0             | 40.0                         |                               |                                                                                     |                                                                                     |
|               | 3.0                           | 2153          | 1.0    | 936.55    | 23.0         | 32.0         | 39.0             | 40.0                         | PD/PM 53<br>80M2B / 80M2C     | 120                                                                                 | 209                                                                                 |
|               | 4.0                           | 1608          | 1.5    | 699.67    | 23.0         | 32.0         | 42.0             | 40.0                         |                               |                                                                                     |                                                                                     |
|               | 4.9                           | 1312          | 1.6    | 570.63    | 26.0         | 32.0         | 43.0             | 40.0                         |                               |                                                                                     |                                                                                     |
|               | 5.3                           | 1206          | 2.0    | 524.75    | 27.0         | 32.0         | 38.0             | 40.0                         |                               |                                                                                     |                                                                                     |
|               | 6.5                           | 984           | 2.5    | 427.97    | 29.0         | 32.0         | 40.0             | 40.0                         |                               |                                                                                     |                                                                                     |
|               | 7.7                           | 831           | 2.6    | 361.64    | 30.0         | 32.0         | 42.0             | 40.0                         |                               |                                                                                     |                                                                                     |
|               | 6.7                           | 1035          | 2.7    | 134.05    | 31.0         | 32.0         | 44.0             | 40.0                         | PD/PM 52<br>90S6B / 90L6C     | 105                                                                                 | 208                                                                                 |
|               | 9.0                           | 773           | 3.0    | 100.15    | 12.0         | 22.0         | 44.0             | 40.0                         |                               |                                                                                     |                                                                                     |
|               | 11.0                          | 631           | 3.0    | 81.68     | 12.0         | 22.0         | 44.0             | 40.0                         |                               |                                                                                     |                                                                                     |
|               | 3.0                           | 2263          | 0.8    | 302.14    | 22.0         | 22.0         | -                | -                            | PD/PM 42/12<br>90S6B / 90L6C  | 79                                                                                  | 238                                                                                 |
|               | 3.8                           | 1758          | 1.1    | 234.61    | 16.0         | 22.0         | -                | -                            |                               |                                                                                     |                                                                                     |
| 5.1           | 1327                          | 1.4           | 177.15 | 16.0      | 22.0         | -            | -                |                              |                               |                                                                                     |                                                                                     |
| 5.9           | 1142                          | 1.7           | 152.50 | 16.0      | 22.0         | -            | -                |                              |                               |                                                                                     |                                                                                     |
| 7.1           | 955                           | 2.0           | 127.43 | 17.0      | 22.0         | -            | -                |                              |                               |                                                                                     |                                                                                     |
| 3.4           | 1928                          | 0.9           | 409.62 | 22.0      | 22.0         | 31.0         | 30.0             | PD/PM 42/12<br>80M4C / 80M4D | 75                            | 238                                                                                 |                                                                                     |
| 4.1           | 1606                          | 1.1           | 341.25 | 22.0      | 22.0         | 31.0         | 30.0             |                              |                               |                                                                                     |                                                                                     |
| 4.6           | 1422                          | 1.3           | 302.14 | 22.0      | 22.0         | 31.0         | 30.0             |                              |                               |                                                                                     |                                                                                     |
| 6.0           | 1104                          | 1.6           | 234.61 | -         | -            | -            | -                |                              |                               |                                                                                     |                                                                                     |
| 7.9           | 834                           | 2.2           | 177.15 | -         | -            | -            | -                |                              |                               |                                                                                     |                                                                                     |
| 9.2           | 718                           | 2.5           | 152.50 | 16.0      | 22.0         | 26.0         | 30.0             |                              |                               |                                                                                     |                                                                                     |
| 11.0          | 600                           | 3.0           | 127.43 | -         | -            | -            | -                |                              |                               |                                                                                     |                                                                                     |
| 4.0           | 1552                          | 0.9           | 699.58 | 22.0      | 22.0         | -            | -                | PD/PM 42/12<br>80M2B / 80M2C | 75                            | 238                                                                                 |                                                                                     |
| 5.0           | 1238                          | 1.1           | 557.93 | 22.0      | 22.0         | 28.0         | 30.0             |                              |                               |                                                                                     |                                                                                     |
| 6.8           | 909                           | 1.5           | 409.62 | 22.0      | 22.0         | -            | -                |                              |                               |                                                                                     |                                                                                     |
| 8.2           | 757                           | 1.8           | 341.25 | 22.0      | 22.0         | -            | -                |                              |                               |                                                                                     |                                                                                     |
| 9.3           | 670                           | 2.0           | 302.14 | 22.0      | 22.0         | -            | -                |                              |                               |                                                                                     |                                                                                     |
| 11.9          | 520                           | 2.6           | 234.61 | 16.0      | 22.0         | -            | -                |                              |                               |                                                                                     |                                                                                     |

| $P_1$<br>[kW] | $n_2$<br>[Min <sup>-1</sup> ] | $M_2$<br>[Nm] | $f_B$  | $i_{ges}$ | $F_R$<br>[N] | $F_A$<br>[N] | $F_{RGR}$<br>[N] | $F_{AGR}$<br>[N]             | Tip / Type / Typ<br>IE2 / IE3 |  Kg |  mm |                           |     |     |
|---------------|-------------------------------|---------------|--------|-----------|--------------|--------------|------------------|------------------------------|-------------------------------|----------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------|---------------------------|-----|-----|
| 0.75          | 2.8                           | 2486          | 0.8    | 326.83    | 19.0         | 22.0         | 28.0             | 30.0                         | PD/PM 43<br>90S6B / 90L6C     | 84                                                                                     | 205                                                                                    |                           |     |     |
|               | 3.0                           | 2304          | 0.9    | 302.94    | 19.0         | 22.0         | 29.0             | 30.0                         |                               |                                                                                        |                                                                                        |                           |     |     |
|               | 3.3                           | 2072          | 0.8    | 272.49    | 20.0         | 22.0         | 29.0             | 30.0                         |                               |                                                                                        |                                                                                        |                           |     |     |
|               | 3.6                           | 1925          | 1.1    | 253.13    | 20.0         | 22.0         | 29.0             | 30.0                         |                               |                                                                                        |                                                                                        |                           |     |     |
|               | 4.3                           | 1605          | 1.1    | 211.05    | 21.0         | 22.0         | 30.0             | 30.0                         |                               |                                                                                        |                                                                                        |                           |     |     |
|               | 4.7                           | 1457          | 1.4    | 191.52    | 21.0         | 22.0         | 30.0             | 30.0                         |                               |                                                                                        |                                                                                        |                           |     |     |
|               | 5.6                           | 1217          | 1.4    | 160.03    | 21.0         | 22.0         | 30.0             | 30.0                         |                               |                                                                                        |                                                                                        |                           |     |     |
|               | 6.4                           | 1069          | 2.0    | 140.61    | 22.0         | 22.0         | 30.0             | 30.0                         |                               |                                                                                        |                                                                                        |                           |     |     |
|               | 7.6                           | 901           | 2.3    | 118.53    | 19.0         | 22.0         | 31.0             | 30.0                         |                               |                                                                                        |                                                                                        |                           |     |     |
|               | 8.7                           | 790           | 2.7    | 103.86    | 19.0         | 22.0         | 31.0             | 30.0                         |                               |                                                                                        |                                                                                        |                           |     |     |
|               | 2.6                           | 2562          | 0.8    | 532.76    | 17.0         | 22.0         | 27.0             | 30.0                         |                               |                                                                                        |                                                                                        | PD/PM 43<br>80M4C / 80M4D | 80  | 205 |
|               | 3.1                           | 2141          | 0.8    | 445.16    | 19.0         | 22.0         | 28.0             | 30.0                         |                               |                                                                                        |                                                                                        |                           |     |     |
|               | 3.4                           | 1984          | 1.0    | 412.63    | 16.0         | 22.0         | 27.0             | 30.0                         |                               |                                                                                        |                                                                                        |                           |     |     |
|               | 3.6                           | 1881          | 1.1    | 391.14    | 17.0         | 22.0         | 27.0             | 30.0                         |                               |                                                                                        |                                                                                        |                           |     |     |
|               | 4.1                           | 1658          | 1.0    | 344.78    | 18.0         | 22.0         | 28.0             | 30.0                         |                               |                                                                                        |                                                                                        |                           |     |     |
|               | 4.3                           | 1572          | 1.2    | 326.83    | 19.0         | 22.0         | 28.0             | 30.0                         |                               |                                                                                        |                                                                                        |                           |     |     |
|               | 4.6                           | 1457          | 1.4    | 302.94    | 19.0         | 22.0         | 29.0             | 30.0                         |                               |                                                                                        |                                                                                        |                           |     |     |
|               | 5.1                           | 1310          | 1.2    | 272.49    | 20.0         | 22.0         | 29.0             | 30.0                         |                               |                                                                                        |                                                                                        |                           |     |     |
|               | 5.5                           | 1217          | 1.6    | 253.13    | 20.0         | 22.0         | 29.0             | 30.0                         |                               |                                                                                        |                                                                                        |                           |     |     |
|               | 6.6                           | 1015          | 1.6    | 211.05    | 21.0         | 22.0         | 30.0             | 30.0                         |                               |                                                                                        |                                                                                        |                           |     |     |
|               | 7.3                           | 921           | 2.2    | 191.52    | 21.0         | 22.0         | 30.0             | 30.0                         |                               |                                                                                        |                                                                                        |                           |     |     |
|               | 8.7                           | 770           | 2.2    | 160.03    | 21.0         | 22.0         | 30.0             | 30.0                         |                               |                                                                                        |                                                                                        |                           |     |     |
|               | 10.0                          | 676           | 3.0    | 140.61    | 22.0         | 22.0         | 30.0             | 30.0                         |                               |                                                                                        |                                                                                        |                           |     |     |
|               | 4.6                           | 1393          | 0.8    | 605.88    | 17.0         | 22.0         | -                | -                            | PD/PM 43<br>80M2B / 80M2C     | 80                                                                                     | 205                                                                                    |                           |     |     |
|               | 5.3                           | 1225          | 1.2    | 532.76    | 17.0         | 22.0         | 27.0             | 30.0                         |                               |                                                                                        |                                                                                        |                           |     |     |
|               | 6.3                           | 1023          | 1.2    | 445.16    | 19.0         | 22.0         | 28.0             | 30.0                         |                               |                                                                                        |                                                                                        |                           |     |     |
|               | 6.8                           | 949           | 1.6    | 412.63    | 16.0         | 22.0         | 27.0             | 30.0                         |                               |                                                                                        |                                                                                        |                           |     |     |
|               | 7.2                           | 899           | 1.7    | 391.14    | 17.0         | 22.0         | 27.0             | 30.0                         |                               |                                                                                        |                                                                                        |                           |     |     |
|               | 8.1                           | 793           | 1.6    | 344.78    | 18.0         | 22.0         | 28.0             | 30.0                         |                               |                                                                                        |                                                                                        |                           |     |     |
|               | 8.6                           | 751           | 1.9    | 326.83    | 19.0         | 22.0         | 28.0             | 30.0                         |                               |                                                                                        |                                                                                        |                           |     |     |
|               | 9.2                           | 696           | 2.3    | 302.94    | 19.0         | 22.0         | 29.0             | 30.0                         |                               |                                                                                        |                                                                                        |                           |     |     |
|               | 10.3                          | 626           | 1.9    | 272.49    | 20.0         | 22.0         | 29.0             | 30.0                         |                               |                                                                                        |                                                                                        |                           |     |     |
|               | 11.1                          | 582           | 2.6    | 253.13    | 20.0         | 22.0         | 29.0             | 30.0                         |                               |                                                                                        |                                                                                        |                           |     |     |
|               | 13.3                          | 485           | 2.6    | 211.05    | 21.0         | 22.0         | 30.0             | 30.0                         |                               |                                                                                        |                                                                                        |                           |     |     |
|               | 5.8                           | 1200          | 1.1    | 155.40    | 13.0         | 15.0         | 30.0             | 30.0                         |                               |                                                                                        |                                                                                        | PD/PM 42<br>90S6B / 90L6C | 69  | 204 |
|               | 8.1                           | 855           | 2.0    | 110.73    | 13.0         | 15.0         | 30.0             | 30.0                         |                               |                                                                                        |                                                                                        |                           |     |     |
|               | 9.9                           | 699           | 2.4    | 90.52     | 13.0         | 15.0         | 30.0             | 30.0                         |                               |                                                                                        |                                                                                        |                           |     |     |
|               | 6.4                           | 1059          | 0.9    | 141.42    | 13.0         | 15.0         | 21.0             | 20.0                         | PD/PM 32/12<br>90S6B / 90L6C  | 64                                                                                     | 238                                                                                    |                           |     |     |
|               | 7.9                           | 854           | 1.1    | 114.01    | 11.0         | 15.0         | 20.0             | 20.0                         |                               |                                                                                        |                                                                                        |                           |     |     |
|               | 10.3                          | 657           | 1.4    | 87.71     | 13.0         | 15.0         | -                | -                            |                               |                                                                                        |                                                                                        |                           |     |     |
|               | 6.4                           | 1023          | 0.9    | 217.44    | -            | -            | -                | -                            | PD/PM 32/12<br>80M4C / 80M4D  | 60                                                                                     | 238                                                                                    |                           |     |     |
|               | 7.8                           | 846           | 1.1    | 179.71    | -            | -            | -                | -                            |                               |                                                                                        |                                                                                        |                           |     |     |
| 9.9           | 666                           | 1.4           | 141.42 | 13.0      | 15.0         | 21.0         | 20.0             |                              |                               |                                                                                        |                                                                                        |                           |     |     |
| 12.3          | 537                           | 1.7           | 114.01 | 11.0      | 15.0         | 20.0         | 20.0             |                              |                               |                                                                                        |                                                                                        |                           |     |     |
| 16.0          | 413                           | 2.2           | 87.71  | -         | -            | -            | -                |                              |                               |                                                                                        |                                                                                        |                           |     |     |
| 7.8           | 795                           | 0.9           | 358.19 | 13.0      | 15.0         | 21.0         | 20.0             | PD/PM 32/12<br>80M2B / 80M2C |                               |                                                                                        |                                                                                        | 60                        | 238 |     |
| 10.4          | 600                           | 1.1           | 270.47 | 13.0      | 15.0         | -            | -                |                              |                               |                                                                                        |                                                                                        |                           |     |     |
| 12.9          | 482                           | 1.4           | 217.44 | 13.0      | 15.0         | -            | -                |                              |                               |                                                                                        |                                                                                        |                           |     |     |
| 15.6          | 399                           | 1.7           | 179.71 | 13.0      | 15.0         | -            | -                |                              |                               |                                                                                        |                                                                                        |                           |     |     |
| 19.8          | 314                           | 2.2           | 141.42 | 13.0      | 15.0         | 21.0         | 20.0             |                              |                               |                                                                                        |                                                                                        |                           |     |     |
| 24.6          | 253                           | 2.7           | 114.01 | 11.0      | 15.0         | 20.0         | 20.0             |                              |                               |                                                                                        |                                                                                        |                           |     |     |
| 7.1           | 966                           | 0.8           | 127.01 | 13.0      | 15.0         | -            | -                | PD/PM 33<br>90S6B / 90L6C    | 62                            | 201                                                                                    |                                                                                        |                           |     |     |
| 8.7           | 790                           | 1.0           | 103.92 | 13.0      | 15.0         | -            | -                |                              |                               |                                                                                        |                                                                                        |                           |     |     |
| 10.1          | 680                           | 1.0           | 89.45  | 13.0      | 15.0         | -            | -                |                              |                               |                                                                                        |                                                                                        |                           |     |     |
| 6.1           | 1110                          | 0.9           | 230.79 | 13.0      | 15.0         | 20.0         | 20.0             | PD/PM 33<br>80M4C / 80M4D    | 58                            | 201                                                                                    |                                                                                        |                           |     |     |
| 7.3           | 917                           | 0.9           | 190.74 | 14.0      | 15.0         | 21.0         | 20.0             |                              |                               |                                                                                        |                                                                                        |                           |     |     |
| 8.7           | 776                           | 1.0           | 161.38 | -         | -            | -            | -                |                              |                               |                                                                                        |                                                                                        |                           |     |     |
| 11.0          | 611                           | 1.3           | 127.01 | -         | -            | -            | -                |                              |                               |                                                                                        |                                                                                        |                           |     |     |
| 13.5          | 500                           | 1.5           | 103.92 | -         | -            | -            | -                |                              |                               |                                                                                        |                                                                                        |                           |     |     |
| 15.7          | 430                           | 1.4           | 89.45  | -         | -            | -            | -                |                              |                               |                                                                                        |                                                                                        |                           |     |     |
| 9.8           | 660                           | 1.1           | 287.08 | 13.0      | 15.0         | 21.0         | 20.0             | PD/PM 33<br>80M2B / 80M2C    | 58                            | 201                                                                                    |                                                                                        |                           |     |     |
| 12.1          | 531                           | 1.4           | 230.79 | 13.0      | 15.0         | 20.0         | 20.0             |                              |                               |                                                                                        |                                                                                        |                           |     |     |
| 14.7          | 438                           | 1.5           | 190.74 | 14.0      | 15.0         | 21.0         | 20.0             |                              |                               |                                                                                        |                                                                                        |                           |     |     |
| 17.4          | 371                           | 1.6           | 161.38 | 13.0      | 15.0         | -            | -                |                              |                               |                                                                                        |                                                                                        |                           |     |     |
| 22.0          | 292                           | 2.0           | 127.01 | 13.0      | 15.0         | -            | -                |                              |                               |                                                                                        |                                                                                        |                           |     |     |
| 26.9          | 239                           | 2.3           | 103.92 | 13.0      | 15.0         | -            | -                |                              |                               |                                                                                        |                                                                                        |                           |     |     |
| 31.3          | 206                           | 2.3           | 89.45  | 13.0      | 15.0         | -            | -                |                              |                               |                                                                                        |                                                                                        |                           |     |     |





| $P_1$<br>[kW] | $n_2$<br>[Min <sup>-1</sup> ] | $M_2$<br>[Nm] | $f_B$  | $i_{ges}$ | $F_R$<br>[N] | $F_A$<br>[N] | $F_{RGR}$<br>[N] | $F_{AGR}$<br>[N]                  | Tip / Type / Typ<br>IE2 / IE3        |  |  |  |  |
|---------------|-------------------------------|---------------|--------|-----------|--------------|--------------|------------------|-----------------------------------|--------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|--|--|
| <b>0.75</b>   | 8.0                           | 867           | 0.9    | 112.23    | 14.0         | 15.0         | 22.0             | 20.0                              | <b>PD/PM 32<br/>90S6B / 90L6C</b>    | 54                                                                                  | 200                                                                                 |  |  |
|               | 8.9                           | 779           | 1.1    | 100.85    | 14.0         | 15.0         | 22.0             | 20.0                              |                                      |                                                                                     |                                                                                     |  |  |
|               | 10.1                          | 685           | 1.4    | 88.74     | 13.0         | 15.0         | 23.0             | 20.0                              |                                      |                                                                                     |                                                                                     |  |  |
|               | 11.3                          | 616           | 1.4    | 79.75     | 13.0         | 15.0         | 23.0             | 20.0                              |                                      |                                                                                     |                                                                                     |  |  |
|               | 12.8                          | 545           | 1.1    | 70.52     | 13.0         | 15.0         | 23.0             | 20.0                              |                                      |                                                                                     |                                                                                     |  |  |
|               | 13.7                          | 509           | 1.6    | 65.91     | 12.0         | 15.0         | 23.0             | 20.0                              |                                      |                                                                                     |                                                                                     |  |  |
|               | 14.0                          | 495           | 2.2    | 64.11     | 12.0         | 15.0         | 23.0             | 20.0                              |                                      |                                                                                     |                                                                                     |  |  |
|               | 16.1                          | 431           | 1.6    | 55.76     | 12.0         | 15.0         | 23.0             | 20.0                              |                                      |                                                                                     |                                                                                     |  |  |
|               | 17.0                          | 409           | 2.2    | 52.98     | 11.0         | 15.0         | 22.0             | 20.0                              |                                      |                                                                                     |                                                                                     |  |  |
|               | 18.8                          | 371           | 1.6    | 48.00     | 11.0         | 15.0         | 22.0             | 20.0                              |                                      |                                                                                     |                                                                                     |  |  |
|               | 20.1                          | 346           | 2.2    | 44.83     | 15.0         | 15.0         | 21.0             | 20.0                              |                                      |                                                                                     |                                                                                     |  |  |
|               | 21.4                          | 325           | 3.0    | 42.05     | 15.0         | 15.0         | 21.0             | 20.0                              |                                      |                                                                                     |                                                                                     |  |  |
|               | 23.3                          | 298           | 2.2    | 38.59     | 15.0         | 15.0         | 20.0             | 20.0                              |                                      |                                                                                     |                                                                                     |  |  |
|               | 23.8                          | 292           | 3.0    | 37.79     | 15.0         | 15.0         | 21.0             | 20.0                              |                                      |                                                                                     |                                                                                     |  |  |
|               | 12.5                          | 551           | 1.4    | 112.23    | 14.0         | 15.0         | 22.0             | 20.0                              | <b>PD/PM 32<br/>80M4C / 80M4D</b>    | 50                                                                                  | 200                                                                                 |  |  |
|               | 13.9                          | 495           | 1.6    | 100.85    | 14.0         | 15.0         | 22.0             | 20.0                              |                                      |                                                                                     |                                                                                     |  |  |
|               | 15.8                          | 436           | 2.2    | 88.74     | 13.0         | 15.0         | 23.0             | 20.0                              |                                      |                                                                                     |                                                                                     |  |  |
|               | 17.6                          | 392           | 2.2    | 79.75     | 13.0         | 15.0         | 23.0             | 20.0                              |                                      |                                                                                     |                                                                                     |  |  |
|               | 19.9                          | 346           | 1.6    | 70.52     | 13.0         | 15.0         | 23.0             | 20.0                              |                                      |                                                                                     |                                                                                     |  |  |
|               | 21.2                          | 324           | 2.3    | 65.91     | 12.0         | 15.0         | 23.0             | 20.0                              |                                      |                                                                                     |                                                                                     |  |  |
|               | 25.1                          | 274           | 2.3    | 55.76     | 12.0         | 15.0         | 23.0             | 20.0                              |                                      |                                                                                     |                                                                                     |  |  |
|               | 29.2                          | 236           | 2.3    | 48.00     | 11.0         | 15.0         | 22.0             | 20.0                              |                                      |                                                                                     |                                                                                     |  |  |
|               | 24.9                          | 267           | 2.2    | 112.23    | 14.0         | 15.0         | 22.0             | 20.0                              | <b>PD/PM 32<br/>80M2B / 80M2C</b>    | 50                                                                                  | 200                                                                                 |  |  |
|               | 27.8                          | 240           | 2.6    | 100.85    | 14.0         | 15.0         | 22.0             | 20.0                              |                                      |                                                                                     |                                                                                     |  |  |
|               | 39.7                          | 168           | 2.6    | 70.52     | 13.0         | 15.0         | 23.0             | 20.0                              |                                      |                                                                                     |                                                                                     |  |  |
|               | 12.9                          | 481           | 0.8    | 216.66    | 7.0          | 12.0         | -                | -                                 | <b>PD/PM 22/02<br/>80M2B / 80M2C</b> | 43                                                                                  | 238                                                                                 |  |  |
|               | 16.0                          | 389           | 1.0    | 175.52    | 7.0          | 12.0         | 12.0             | 15.0                              |                                      |                                                                                     |                                                                                     |  |  |
|               | 9.1                           | 748           | 0.8    | 98.40     | 5.0          | 12.0         | 11.0             | 15.0                              | <b>PD/PM 23<br/>90S6B / 90L6C</b>    | 46                                                                                  | 197                                                                                 |  |  |
|               | 10.9                          | 626           | 0.9    | 82.29     | 10.0         | 12.0         | -                | -                                 |                                      |                                                                                     |                                                                                     |  |  |
|               | 10.6                          | 633           | 0.8    | 131.68    | -            | -            | -                | -                                 | <b>PD/PM 23<br/>80M4C / 80M4D</b>    | 42                                                                                  | 197                                                                                 |  |  |
|               | 12.0                          | 560           | 0.9    | 116.40    | 8.0          | 12.0         | 12.0             | 15.0                              |                                      |                                                                                     |                                                                                     |  |  |
|               | 14.2                          | 473           | 1.2    | 98.40     | 5.0          | 12.0         | 11.0             | 15.0                              |                                      |                                                                                     |                                                                                     |  |  |
|               | 17.0                          | 396           | 1.4    | 82.29     | -            | -            | -                | -                                 |                                      |                                                                                     |                                                                                     |  |  |
|               | 15.1                          | 426           | 0.9    | 185.19    | 8.0          | 12.0         | -                | -                                 | <b>PD/PM 23<br/>80M2B / 80M2C</b>    | 42                                                                                  | 197                                                                                 |  |  |
|               | 18.7                          | 345           | 1.1    | 150.03    | 8.0          | 12.0         | -                | -                                 |                                      |                                                                                     |                                                                                     |  |  |
|               | 21.3                          | 303           | 1.3    | 131.68    | 8.0          | 12.0         | -                | -                                 |                                      |                                                                                     |                                                                                     |  |  |
|               | 24.1                          | 268           | 1.5    | 116.40    | 8.0          | 12.0         | 12.0             | 15.0                              |                                      |                                                                                     |                                                                                     |  |  |
|               | 28.5                          | 226           | 1.9    | 98.40     | 5.0          | 12.0         | 11.0             | 15.0                              |                                      |                                                                                     |                                                                                     |  |  |
|               | 34.0                          | 189           | 2.3    | 82.29     | 10.0         | 12.0         | -                | -                                 |                                      |                                                                                     |                                                                                     |  |  |
|               | 10.9                          | 637           | 0.8    | 82.45     | 9.0          | 12.0         | 13.0             | 15.0                              | <b>PD/PM 22<br/>90S6B / 90L6C</b>    | 39                                                                                  | 196                                                                                 |  |  |
|               | 12.9                          | 538           | 0.9    | 69.70     | 9.0          | 12.0         | 14.0             | 15.0                              |                                      |                                                                                     |                                                                                     |  |  |
|               | 14.1                          | 493           | 1.1    | 63.86     | 9.0          | 12.0         | 14.0             | 15.0                              |                                      |                                                                                     |                                                                                     |  |  |
|               | 16.7                          | 417           | 1.3    | 53.98     | 10.0         | 12.0         | 14.0             | 15.0                              |                                      |                                                                                     |                                                                                     |  |  |
|               | 17.4                          | 399           | 1.4    | 51.73     | 9.0          | 12.0         | 13.0             | 15.0                              |                                      |                                                                                     |                                                                                     |  |  |
|               | 19.9                          | 349           | 1.4    | 45.14     | 10.0         | 12.0         | 14.0             | 15.0                              |                                      |                                                                                     |                                                                                     |  |  |
|               | 20.6                          | 338           | 1.8    | 43.73     | 9.0          | 12.0         | 14.0             | 15.0                              |                                      |                                                                                     |                                                                                     |  |  |
|               | 24.6                          | 282           | 1.9    | 36.57     | 9.0          | 12.0         | 14.0             | 15.0                              |                                      |                                                                                     |                                                                                     |  |  |
|               | 28.8                          | 241           | 1.9    | 31.20     | 9.0          | 12.0         | 14.0             | 15.0                              |                                      |                                                                                     |                                                                                     |  |  |
| 30.4          | 229                           | 2.3           | 29.64  | 9.0       | 12.0         | 14.0         | 15.0             |                                   |                                      |                                                                                     |                                                                                     |  |  |
| 33.6          | 207                           | 2.2           | 26.81  | 9.0       | 12.0         | 14.0         | 15.0             |                                   |                                      |                                                                                     |                                                                                     |  |  |
| 36.0          | 193                           | 2.7           | 24.98  | 9.0       | 12.0         | 14.0         | 15.0             |                                   |                                      |                                                                                     |                                                                                     |  |  |
| 37.5          | 185                           | 2.5           | 23.99  | 9.0       | 12.0         | 14.0         | 15.0             |                                   |                                      |                                                                                     |                                                                                     |  |  |
| 41.1          | 169                           | 3.0           | 21.89  | 9.0       | 12.0         | 14.0         | 15.0             |                                   |                                      |                                                                                     |                                                                                     |  |  |
| 13.5          | 511                           | 0.8           | 104.07 | 9.0       | 12.0         | 13.0         | 15.0             | <b>PD/PM 22<br/>80M4C / 80M4D</b> | 35                                   | 196                                                                                 |                                                                                     |  |  |
| 13.9          | 496                           | 0.9           | 100.98 | 8.0       | 12.0         | 13.0         | 15.0             |                                   |                                      |                                                                                     |                                                                                     |  |  |
| 17.0          | 405                           | 1.2           | 82.45  | 9.0       | 12.0         | 13.0         | 15.0             |                                   |                                      |                                                                                     |                                                                                     |  |  |
| 20.1          | 342                           | 1.3           | 69.70  | 9.0       | 12.0         | 14.0         | 15.0             |                                   |                                      |                                                                                     |                                                                                     |  |  |
| 21.9          | 314                           | 1.7           | 63.86  | 9.0       | 12.0         | 14.0         | 15.0             |                                   |                                      |                                                                                     |                                                                                     |  |  |
| 25.9          | 265                           | 1.9           | 53.98  | 10.0      | 12.0         | 14.0         | 15.0             |                                   |                                      |                                                                                     |                                                                                     |  |  |
| 27.1          | 254                           | 2.1           | 51.73  | 9.0       | 12.0         | 13.0         | 15.0             |                                   |                                      |                                                                                     |                                                                                     |  |  |
| 31.0          | 222                           | 2.0           | 45.14  | 10.0      | 12.0         | 14.0         | 15.0             |                                   |                                      |                                                                                     |                                                                                     |  |  |
| 32.0          | 215                           | 2.6           | 43.73  | 9.0       | 12.0         | 14.0         | 15.0             |                                   |                                      |                                                                                     |                                                                                     |  |  |
| 37.7          | 183                           | 2.5           | 37.18  | 9.0       | 12.0         | 14.0         | 15.0             |                                   |                                      |                                                                                     |                                                                                     |  |  |
| 38.3          | 180                           | 2.8           | 36.57  | 9.0       | 12.0         | 14.0         | 15.0             |                                   |                                      |                                                                                     |                                                                                     |  |  |
| 44.9          | 153                           | 2.9           | 31.20  | 9.0       | 12.0         | 14.0         | 15.0             |                                   |                                      |                                                                                     |                                                                                     |  |  |
|               |                               |               |        |           |              |              |                  |                                   |                                      |                                                                                     |                                                                                     |  |  |

| $P_1$<br>[kW] | $n_2$<br>[Min <sup>-1</sup> ] | $M_2$<br>[Nm] | $f_B$  | $i_{ges}$ | $F_R$<br>[N] | $F_A$<br>[N] | $F_{RGR}$<br>[N] | $F_{AGR}$<br>[N]                   | Tip / Type / Typ<br>IE2 / IE3      |  Kg |  mm |
|---------------|-------------------------------|---------------|--------|-----------|--------------|--------------|------------------|------------------------------------|------------------------------------|----------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------|
| <b>0.75</b>   | 22.0                          | 304           | 1.0    | 127.46    | 9.0          | 12.0         | 13.0             | 15.0                               | <b>PD/PM 22<br/>80M2B / 80M2C</b>  | 35                                                                                     | 196                                                                                    |
|               | 26.9                          | 248           | 1.2    | 104.07    | 9.0          | 12.0         | 13.0             | 15.0                               |                                    |                                                                                        |                                                                                        |
|               | 27.7                          | 241           | 1.4    | 100.98    | 8.0          | 12.0         | 13.0             | 15.0                               |                                    |                                                                                        |                                                                                        |
|               | 34.0                          | 196           | 1.8    | 82.45     | 9.0          | 12.0         | 13.0             | 15.0                               |                                    |                                                                                        |                                                                                        |
|               | 40.2                          | 166           | 2.0    | 69.70     | 9.0          | 12.0         | 14.0             | 15.0                               |                                    |                                                                                        |                                                                                        |
|               | 43.8                          | 152           | 2.6    | 63.86     | 9.0          | 12.0         | 14.0             | 15.0                               |                                    |                                                                                        |                                                                                        |
|               | 51.9                          | 129           | 3.0    | 53.98     | 10.0         | 12.0         | 14.0             | 15.0                               | <b>PD/PM 12<br/>90S6B / 90L6C</b>  | 28                                                                                     | 192                                                                                    |
|               | 28.1                          | 248           | 1.0    | 32.07     | 4.0          | 7.0          | 9.0              | 7.0                                |                                    |                                                                                        |                                                                                        |
|               | 31.7                          | 219           | 1.1    | 28.35     | 4.0          | 7.0          | 10.0             | 7.0                                |                                    |                                                                                        |                                                                                        |
|               | 35.7                          | 195           | 1.2    | 25.24     | 4.0          | 7.0          | 10.0             | 7.0                                |                                    |                                                                                        |                                                                                        |
|               | 43.7                          | 159           | 1.5    | 20.61     | 4.0          | 7.0          | 10.0             | 7.0                                |                                    |                                                                                        |                                                                                        |
|               | 52.3                          | 133           | 1.8    | 17.22     | 4.0          | 7.0          | 10.0             | 7.0                                |                                    |                                                                                        |                                                                                        |
|               | 63.9                          | 109           | 2.0    | 14.09     | 3.0          | 7.0          | 10.0             | 7.0                                |                                    |                                                                                        |                                                                                        |
|               | 76.6                          | 91            | 2.4    | 11.75     | 5.0          | 7.0          | 10.0             | 7.0                                |                                    |                                                                                        |                                                                                        |
|               | 87.0                          | 80            | 2.6    | 10.34     | 5.0          | 7.0          | 9.0              | 7.0                                |                                    |                                                                                        |                                                                                        |
|               | 98.3                          | 71            | 2.8    | 9.16      | 5.0          | 7.0          | 9.0              | 7.0                                |                                    |                                                                                        |                                                                                        |
|               | 110.0                         | 63            | 2.7    | 8.18      | 5.0          | 7.0          | 9.0              | 7.0                                | <b>PD/PM 12<br/>80M4C / 80M4D</b>  | 24                                                                                     | 192                                                                                    |
|               | 19.4                          | 354           | 0.8    | 72.16     | 5.0          | 7.0          | 8.0              | 7.0                                |                                    |                                                                                        |                                                                                        |
|               | 23.8                          | 289           | 1.0    | 58.91     | 5.0          | 7.0          | 9.0              | 7.0                                |                                    |                                                                                        |                                                                                        |
|               | 28.4                          | 242           | 1.1    | 49.22     | 5.0          | 7.0          | 9.0              | 7.0                                |                                    |                                                                                        |                                                                                        |
|               | 34.1                          | 202           | 1.1    | 41.04     | 5.0          | 7.0          | 9.0              | 7.0                                |                                    |                                                                                        |                                                                                        |
|               | 43.7                          | 158           | 1.5    | 32.07     | 4.0          | 7.0          | 9.0              | 7.0                                |                                    |                                                                                        |                                                                                        |
|               | 49.4                          | 139           | 1.6    | 28.35     | 4.0          | 7.0          | 9.0              | 7.0                                |                                    |                                                                                        |                                                                                        |
|               | 55.5                          | 124           | 1.8    | 25.24     | 4.0          | 7.0          | 10.0             | 7.0                                |                                    |                                                                                        |                                                                                        |
|               | 67.9                          | 101           | 2.2    | 20.61     | 4.0          | 7.0          | 10.0             | 7.0                                |                                    |                                                                                        |                                                                                        |
|               | 81.3                          | 85            | 2.6    | 17.22     | 4.0          | 7.0          | 10.0             | 7.0                                |                                    |                                                                                        |                                                                                        |
|               | 99.4                          | 69            | 3.0    | 14.09     | 3.0          | 7.0          | 10.0             | 7.0                                | <b>PD/PM 12<br/>80M2B / 80M2C</b>  | 24                                                                                     | 192                                                                                    |
|               | 38.8                          | 172           | 1.3    | 72.16     | 5.0          | 7.0          | 8.0              | 7.0                                |                                    |                                                                                        |                                                                                        |
|               | 47.5                          | 140           | 1.5    | 58.91     | 5.0          | 7.0          | 9.0              | 7.0                                |                                    |                                                                                        |                                                                                        |
|               | 56.9                          | 117           | 1.7    | 49.22     | 5.0          | 7.0          | 9.0              | 7.0                                |                                    |                                                                                        |                                                                                        |
|               | 68.2                          | 98            | 1.7    | 41.04     | 5.0          | 7.0          | 9.0              | 7.0                                |                                    |                                                                                        |                                                                                        |
|               | 87.3                          | 76            | 2.3    | 32.07     | 4.0          | 7.0          | 9.0              | 7.0                                |                                    |                                                                                        |                                                                                        |
|               | 98.8                          | 68            | 2.5    | 28.35     | 4.0          | 7.0          | 10.0             | 7.0                                | <b>PD/PM C13<br/>90S6B / 90L6C</b> | 34                                                                                     | 190                                                                                    |
|               | 110.9                         | 60            | 2.8    | 25.24     | 4.0          | 7.0          | 10.0             | 7.0                                |                                    |                                                                                        |                                                                                        |
|               | 15.0                          | 457           | 0.9    | 60.09     | 6.0          | 7.0          | 8.0              | 11.0                               |                                    |                                                                                        |                                                                                        |
|               | 16.9                          | 405           | 0.9    | 53.28     | 6.0          | 7.0          | 8.0              | 11.0                               |                                    |                                                                                        |                                                                                        |
|               | 20.3                          | 337           | 1.0    | 44.33     | 6.0          | 7.0          | 8.0              | 11.0                               |                                    |                                                                                        |                                                                                        |
|               | 23.2                          | 295           | 1.2    | 38.83     | 6.0          | 7.0          | 8.0              | 11.0                               |                                    |                                                                                        |                                                                                        |
|               | 25.2                          | 272           | 1.2    | 35.71     | 6.0          | 7.0          | 8.0              | 11.0                               |                                    |                                                                                        |                                                                                        |
|               | 30.3                          | 226           | 1.3    | 29.71     | 5.0          | 7.0          | 8.0              | 11.0                               |                                    |                                                                                        |                                                                                        |
|               | 34.6                          | 198           | 1.4    | 26.02     | 5.0          | 7.0          | 8.0              | 11.0                               |                                    |                                                                                        |                                                                                        |
|               | 37.2                          | 184           | 1.6    | 24.17     | 5.0          | 7.0          | 8.0              | 11.0                               |                                    |                                                                                        |                                                                                        |
|               | 48.0                          | 143           | 1.8    | 18.76     | 5.0          | 7.0          | 8.0              | 11.0                               |                                    |                                                                                        |                                                                                        |
|               | 55.6                          | 123           | 2.0    | 16.20     | 4.0          | 7.0          | 8.0              | 11.0                               | <b>PD/PM C13<br/>80M4C / 80M4D</b> | 30                                                                                     | 190                                                                                    |
|               | 13.9                          | 486           | 0.8    | 101.01    | 5.0          | 7.0          | 8.0              | 11.0                               |                                    |                                                                                        |                                                                                        |
|               | 15.7                          | 428           | 0.9    | 88.92     | 4.0          | 7.0          | 8.0              | 11.0                               |                                    |                                                                                        |                                                                                        |
|               | 17.8                          | 379           | 1.0    | 78.83     | 5.0          | 7.0          | 8.0              | 11.0                               |                                    |                                                                                        |                                                                                        |
|               | 20.5                          | 328           | 1.1    | 68.27     | 6.0          | 7.0          | 8.0              | 11.0                               |                                    |                                                                                        |                                                                                        |
| 23.3          | 289                           | 1.3           | 60.09  | 6.0       | 7.0          | 8.0          | 11.0             |                                    |                                    |                                                                                        |                                                                                        |
| 26.3          | 256                           | 1.4           | 53.28  | 6.0       | 7.0          | 8.0          | 11.0             |                                    |                                    |                                                                                        |                                                                                        |
| 31.6          | 213                           | 1.6           | 44.33  | 6.0       | 7.0          | 8.0          | 11.0             |                                    |                                    |                                                                                        |                                                                                        |
| 36.1          | 187                           | 1.7           | 38.83  | 6.0       | 7.0          | 8.0          | 11.0             |                                    |                                    |                                                                                        |                                                                                        |
| 39.2          | 172                           | 1.7           | 35.71  | 6.0       | 7.0          | 8.0          | 11.0             |                                    |                                    |                                                                                        |                                                                                        |
| 47.1          | 143                           | 2.0           | 29.71  | 5.0       | 7.0          | 8.0          | 11.0             |                                    |                                    |                                                                                        |                                                                                        |
| 53.8          | 125                           | 2.2           | 26.02  | 5.0       | 7.0          | 8.0          | 11.0             |                                    |                                    |                                                                                        |                                                                                        |
| 57.9          | 116                           | 2.4           | 24.17  | 5.0       | 7.0          | 8.0          | 11.0             |                                    |                                    |                                                                                        |                                                                                        |
| 74.6          | 90                            | 2.7           | 18.76  | 5.0       | 7.0          | 8.0          | 11.0             |                                    |                                    |                                                                                        |                                                                                        |
| 86.4          | 78                            | 3.0           | 16.20  | 4.0       | 7.0          | 8.0          | 11.0             |                                    |                                    |                                                                                        |                                                                                        |
| 17.7          | 364                           | 0.8           | 158.21 | 5.0       | 7.0          | 8.0          | 11.0             | <b>PD/PM C13<br/>80M2B / 80M2C</b> | 30                                 | 190                                                                                    |                                                                                        |
| 20.5          | 314                           | 0.9           | 136.54 | 5.0       | 7.0          | 8.0          | 11.0             |                                    |                                    |                                                                                        |                                                                                        |
| 23.7          | 271                           | 1.0           | 118.07 | 5.0       | 7.0          | 8.0          | 11.0             |                                    |                                    |                                                                                        |                                                                                        |
| 26.4          | 244                           | 1.2           | 106.03 | 5.0       | 7.0          | 8.0          | 11.0             |                                    |                                    |                                                                                        |                                                                                        |
| 27.7          | 232                           | 1.2           | 101.01 | 5.0       | 7.0          | 8.0          | 11.0             |                                    |                                    |                                                                                        |                                                                                        |
| 31.5          | 204                           | 1.4           | 88.92  | 4.0       | 7.0          | 8.0          | 11.0             |                                    |                                    |                                                                                        |                                                                                        |
| 35.5          | 181                           | 1.6           | 78.83  | 5.0       | 7.0          | 8.0          | 11.0             |                                    |                                    |                                                                                        |                                                                                        |
| 41.0          | 157                           | 1.8           | 68.27  | 6.0       | 7.0          | 8.0          | 11.0             |                                    |                                    |                                                                                        |                                                                                        |
| 46.6          | 138                           | 2.0           | 60.09  | 6.0       | 7.0          | 8.0          | 11.0             |                                    |                                    |                                                                                        |                                                                                        |
| 52.6          | 122                           | 2.2           | 53.28  | 6.0       | 7.0          | 8.0          | 11.0             |                                    |                                    |                                                                                        |                                                                                        |
| 63.2          | 102                           | 2.5           | 44.33  | 6.0       | 7.0          | 8.0          | 11.0             |                                    |                                    |                                                                                        |                                                                                        |
| 72.1          | 89                            | 2.8           | 38.83  | 6.0       | 7.0          | 8.0          | 11.0             |                                    |                                    |                                                                                        |                                                                                        |
| 78.4          | 82                            | 2.8           | 35.71  | 6.0       | 7.0          | 8.0          | 11.0             |                                    |                                    |                                                                                        |                                                                                        |



| $P_1$<br>[kW] | $n_2$<br>[Min <sup>-1</sup> ] | $M_2$<br>[Nm] | $f_B$ | $i_{ges}$ | $F_R$<br>[N] | $F_A$<br>[N] | $F_{RGR}$<br>[N] | $F_{AGR}$<br>[N] | Tip / Type / Typ<br>IE2 / IE3      |    |     |
|---------------|-------------------------------|---------------|-------|-----------|--------------|--------------|------------------|------------------|------------------------------------|----|-----|
| <b>0.75</b>   | 39.7                          | 175           | 0.8   | 22.68     | 4.0          | 5.0          | 7.0              | 5.0              | <b>PD/PM B02<br/>90S6B / 90L6C</b> | 22 | 188 |
|               | 41.7                          | 167           | 0.9   | 21.58     | 3.0          | 5.0          | 7.0              | 5.0              |                                    |    |     |
|               | 45.1                          | 154           | 0.9   | 19.94     | 3.0          | 5.0          | 7.0              | 5.0              |                                    |    |     |
|               | 51.1                          | 136           | 1.0   | 17.62     | 3.0          | 5.0          | 7.0              | 5.0              |                                    |    |     |
|               | 54.3                          | 128           | 1.1   | 16.57     | 3.0          | 5.0          | 7.0              | 5.0              |                                    |    |     |
|               | 63.4                          | 110           | 1.6   | 14.20     | 3.0          | 5.0          | 7.0              | 5.0              |                                    |    |     |
|               | 69.4                          | 100           | 1.7   | 12.96     | 3.0          | 5.0          | 7.0              | 5.0              |                                    |    |     |
|               | 79.8                          | 87            | 1.7   | 11.28     | 3.0          | 5.0          | 7.0              | 5.0              |                                    |    |     |
|               | 82.0                          | 85            | 1.9   | 10.97     | 3.0          | 5.0          | 7.0              | 5.0              |                                    |    |     |
|               | 93.1                          | 75            | 2.0   | 9.67      | 3.0          | 5.0          | 7.0              | 5.0              |                                    |    |     |
|               | 102.0                         | 68            | 2.1   | 8.82      | 4.0          | 5.0          | 7.0              | 5.0              |                                    |    |     |
|               | 120.5                         | 58            | 2.4   | 7.47      | 4.0          | 5.0          | 7.0              | 5.0              |                                    |    |     |
|               | 140.0                         | 50            | 2.6   | 6.43      | 4.0          | 5.0          | -                | -                |                                    |    |     |
|               | 150.0                         | 46            | 2.7   | 6.00      | 4.0          | 5.0          | -                | -                |                                    |    |     |
|               | 174.1                         | 40            | 3.0   | 5.17      | 4.0          | 5.0          | -                | -                |                                    |    |     |
|               | 31.7                          | 217           | 0.8   | 44.23     | 4.0          | 5.0          | 7.0              | 5.0              | <b>PD/PM B02<br/>80M4C / 80M4D</b> | 18 | 188 |
|               | 34.7                          | 198           | 0.8   | 40.35     | 4.0          | 5.0          | 7.0              | 5.0              |                                    |    |     |
|               | 41.0                          | 168           | 0.9   | 34.16     | 4.0          | 5.0          | 7.0              | 5.0              |                                    |    |     |
|               | 46.5                          | 148           | 0.9   | 30.08     | 4.0          | 5.0          | 7.0              | 5.0              |                                    |    |     |
|               | 53.9                          | 128           | 1.0   | 25.96     | 4.0          | 5.0          | 7.0              | 5.0              |                                    |    |     |
|               | 61.7                          | 111           | 1.2   | 22.68     | 4.0          | 5.0          | 7.0              | 5.0              |                                    |    |     |
|               | 64.9                          | 106           | 1.3   | 21.58     | 3.0          | 5.0          | 7.0              | 5.0              |                                    |    |     |
|               | 70.2                          | 98            | 1.3   | 19.94     | 3.0          | 5.0          | 7.0              | 5.0              |                                    |    |     |
|               | 79.5                          | 87            | 1.5   | 17.62     | 3.0          | 5.0          | 7.0              | 5.0              |                                    |    |     |
|               | 84.5                          | 81            | 1.7   | 16.57     | 3.0          | 5.0          | 7.0              | 5.0              |                                    |    |     |
|               | 98.6                          | 70            | 2.3   | 14.20     | 3.0          | 5.0          | 7.0              | 5.0              |                                    |    |     |
|               | 108.0                         | 64            | 2.5   | 12.96     | 3.0          | 5.0          | 7.0              | 5.0              |                                    |    |     |
|               | 124.1                         | 55            | 2.5   | 11.28     | 3.0          | 5.0          | 7.0              | 5.0              |                                    |    |     |
|               | 127.6                         | 54            | 2.8   | 10.97     | 3.0          | 5.0          | 7.0              | 5.0              |                                    |    |     |
|               | 144.8                         | 47            | 3.0   | 9.67      | 3.0          | 5.0          | 7.0              | 5.0              |                                    |    |     |
|               | 49.5                          | 135           | 0.9   | 56.55     | 4.0          | 5.0          | 7.0              | 5.0              | <b>PD/PM B02<br/>80M2B / 80M2C</b> | 18 | 188 |
|               | 54.3                          | 123           | 0.9   | 51.60     | 4.0          | 5.0          | 7.0              | 5.0              |                                    |    |     |
|               | 63.3                          | 105           | 1.2   | 44.23     | 4.0          | 5.0          | 7.0              | 5.0              |                                    |    |     |
|               | 69.4                          | 96            | 1.3   | 40.35     | 4.0          | 5.0          | 7.0              | 5.0              |                                    |    |     |
|               | 82.0                          | 81            | 1.4   | 34.16     | 4.0          | 5.0          | 7.0              | 5.0              |                                    |    |     |
|               | 93.1                          | 72            | 1.4   | 30.08     | 4.0          | 5.0          | 7.0              | 5.0              |                                    |    |     |
|               | 107.9                         | 62            | 1.6   | 25.96     | 4.0          | 5.0          | 7.0              | 5.0              |                                    |    |     |
|               | 123.5                         | 54            | 1.8   | 22.68     | 4.0          | 5.0          | 7.0              | 5.0              |                                    |    |     |
|               | 129.7                         | 51            | 2.1   | 21.58     | 3.0          | 5.0          | 7.0              | 5.0              |                                    |    |     |
|               | 140.4                         | 47            | 2.1   | 19.94     | 3.0          | 5.0          | 7.0              | 5.0              |                                    |    |     |
|               | 158.9                         | 42            | 2.3   | 17.62     | 3.0          | 5.0          | 7.0              | 5.0              |                                    |    |     |
|               | 169.0                         | 39            | 2.7   | 16.57     | 3.0          | 5.0          | 7.0              | 5.0              |                                    |    |     |
|               | 54.4                          | 128           | 0.8   | 16.54     | 3.0          | 5.0          | 5.0              | 8.0              | <b>PD/PM A02<br/>90S6B / 90L6C</b> | 18 | 186 |
|               | 65.1                          | 107           | 1.1   | 13.83     | 3.0          | 5.0          | 5.0              | 8.0              |                                    |    |     |
|               | 77.1                          | 90            | 1.3   | 11.67     | 3.0          | 5.0          | 5.0              | 8.0              |                                    |    |     |
|               | 94.8                          | 73            | 1.6   | 9.49      | 3.0          | 5.0          | 5.0              | 8.0              |                                    |    |     |
|               | 104.3                         | 67            | 1.8   | 8.63      | 3.0          | 5.0          | 5.0              | 8.0              |                                    |    |     |
|               | 124.1                         | 56            | 2.1   | 7.25      | 4.0          | 5.0          | 5.0              | 8.0              |                                    |    |     |
|               | 141.7                         | 49            | 2.4   | 6.35      | 4.0          | 5.0          | 5.0              | 8.0              |                                    |    |     |
|               | 168.9                         | 41            | 2.3   | 5.33      | 4.0          | 5.0          | 5.0              | 8.0              |                                    |    |     |
|               | 212.3                         | 33            | 2.3   | 4.24      | 4.0          | 5.0          | 5.0              | 8.0              |                                    |    |     |
|               |                               | 48.1          | 143   | 0.8       | 29.11        | 4.0          | 5.0              | 5.0              |                                    |    |     |
| 57.0          |                               | 121           | 1.0   | 24.57     | 3.0          | 5.0          | 5.0              | 8.0              |                                    |    |     |
| 62.7          |                               | 110           | 1.0   | 22.34     | 3.0          | 5.0          | 5.0              | 8.0              |                                    |    |     |
| 74.6          |                               | 92            | 1.0   | 18.77     | 3.0          | 5.0          | 5.0              | 8.0              |                                    |    |     |
| 84.6          |                               | 81            | 1.2   | 16.54     | 3.0          | 5.0          | 5.0              | 8.0              |                                    |    |     |
| 93.9          |                               | 73            | 1.0   | 14.91     | 3.0          | 5.0          | 5.0              | 8.0              |                                    |    |     |
| 101.2         |                               | 68            | 1.6   | 13.83     | 3.0          | 5.0          | 5.0              | 8.0              |                                    |    |     |
| 120.0         |                               | 57            | 1.9   | 11.67     | 3.0          | 5.0          | 5.0              | 8.0              |                                    |    |     |
| 147.5         |                               | 47            | 2.4   | 9.49      | 3.0          | 5.0          | 5.0              | 8.0              |                                    |    |     |
| 162.2         |                               | 42            | 2.7   | 8.63      | 3.0          | 5.0          | 5.0              | 8.0              |                                    |    |     |

| <b>P<sub>1</sub></b><br>[kW] | <b>n<sub>2</sub></b><br>[Min <sup>-1</sup> ] | <b>M<sub>2</sub></b><br>[Nm] | <b>f<sub>B</sub></b> | <b>i<sub>ges</sub></b> | <b>F<sub>R</sub></b><br>[N] | <b>F<sub>A</sub></b><br>[N] | <b>F<sub>R GR</sub></b><br>[N] | <b>F<sub>A GR</sub></b><br>[N]             | <b>Tip / Type / Typ</b><br><b>IE2 / IE3</b> | <b>Kg</b> | <b>mm</b> |
|------------------------------|----------------------------------------------|------------------------------|----------------------|------------------------|-----------------------------|-----------------------------|--------------------------------|--------------------------------------------|---------------------------------------------|-----------|-----------|
| <b>0.75</b>                  | 74.3                                         | 90                           | 0.8                  | 37.71                  | 4.0                         | 5.0                         | 5.0                            | 8.0                                        | <b>PD/PM A02</b><br><b>80M2B / 80M2C</b>    | 14        | 186       |
|                              | 80.5                                         | 83                           | 0.9                  | 34.80                  | 4.0                         | 5.0                         | 5.0                            | 8.0                                        |                                             |           |           |
|                              | 88.0                                         | 76                           | 1.0                  | 31.83                  | 4.0                         | 5.0                         | 5.0                            | 8.0                                        |                                             |           |           |
|                              | 96.2                                         | 69                           | 1.2                  | 29.11                  | 4.0                         | 5.0                         | 5.0                            | 8.0                                        |                                             |           |           |
|                              | 114.0                                        | 59                           | 1.5                  | 24.57                  | 3.0                         | 5.0                         | 5.0                            | 8.0                                        |                                             |           |           |
|                              | 125.3                                        | 53                           | 1.6                  | 22.34                  | 3.0                         | 5.0                         | 5.0                            | 8.0                                        |                                             |           |           |
|                              | 149.2                                        | 45                           | 1.6                  | 18.77                  | 3.0                         | 5.0                         | 5.0                            | 8.0                                        |                                             |           |           |
|                              | 169.3                                        | 39                           | 1.9                  | 16.54                  | 3.0                         | 5.0                         | 5.0                            | 8.0                                        |                                             |           |           |
|                              | 187.8                                        | 36                           | 1.6                  | 14.91                  | 3.0                         | 5.0                         | 5.0                            | 8.0                                        |                                             |           |           |
|                              | 202.5                                        | 33                           | 2.5                  | 13.83                  | 3.0                         | 5.0                         | 5.0                            | 8.0                                        |                                             |           |           |
| 239.9                        | 28                                           | 3.0                          | 11.67                | 3.0                    | 5.0                         | 5.0                         | 8.0                            |                                            |                                             |           |           |
| <b>1.10</b>                  | 0.2                                          | 43305                        | 1.5                  | 4001.34                | -                           | -                           | -                              | -                                          | <b>PD/PM 113/52</b><br><b>90L6C / 90L6D</b> | 1132      | 242       |
|                              | 0.2                                          | 40292                        | 1.6                  | 3722.96                | -                           | -                           | -                              | -                                          |                                             |           |           |
|                              | 0.3                                          | 33147                        | 1.9                  | 3062.69                | -                           | -                           | -                              | -                                          |                                             |           |           |
|                              | 0.4                                          | 25200                        | 2.5                  | 2328.41                | -                           | -                           | -                              | -                                          |                                             |           |           |
|                              | 0.3                                          | 27022                        | 2.2                  | 4001.34                | -                           | -                           | -                              | -                                          | <b>PD/PM 113/52</b><br><b>90L4B / 90L4C</b> | 1132      | 242       |
|                              | 0.4                                          | 25142                        | 2.4                  | 3722.96                | -                           | -                           | -                              | -                                          |                                             |           |           |
|                              | 0.5                                          | 20683                        | 2.9                  | 3062.69                | -                           | -                           | -                              | -                                          |                                             |           |           |
|                              | 0.6                                          | 15335                        | 2.4                  | 1416.90                | -                           | -                           | 127.0                          | 150.0                                      | <b>PD/PM 103/52</b><br><b>90L6C / 90L6D</b> | 1324      | 242       |
|                              | 0.8                                          | 12615                        | 2.9                  | 1165.61                | -                           | -                           | 130.0                          | 150.0                                      |                                             |           |           |
|                              | 0.3                                          | 31586                        | 1.1                  | 4677.24                | -                           | -                           | -                              | -                                          | <b>PD/PM 103/52</b><br><b>90L4B / 90L4C</b> | 1324      | 242       |
|                              | 0.6                                          | 16226                        | 2.2                  | 2404.69                | -                           | -                           | -                              | -                                          |                                             |           |           |
|                              | 0.4                                          | 26339                        | 1.0                  | 2433.68                | 120.0                       | 102.0                       | -                              | -                                          | <b>PD/PM 93/42</b><br><b>90L6C / 90L6D</b>  | 731       | 242       |
|                              | 0.4                                          | 23841                        | 1.1                  | 2202.85                | 120.0                       | 102.0                       | -                              | -                                          |                                             |           |           |
|                              | 0.5                                          | 18884                        | 1.3                  | 1744.83                | 120.0                       | 102.0                       | -                              | -                                          |                                             |           |           |
|                              | 0.6                                          | 15343                        | 1.6                  | 1417.68                | 120.0                       | 102.0                       | 120.0                          | 130.0                                      |                                             |           |           |
|                              | 0.8                                          | 12742                        | 2.0                  | 1177.36                | 120.0                       | 102.0                       | 120.0                          | 130.0                                      |                                             |           |           |
|                              | 1.0                                          | 9585                         | 2.6                  | 885.67                 | 34.0                        | 64.0                        | 120.0                          | 130.0                                      |                                             |           |           |
|                              | 0.6                                          | 16435                        | 1.5                  | 2433.68                | -                           | -                           | -                              | -                                          | <b>PD/PM 93/42</b><br><b>90L4B / 90L4C</b>  | 731       | 242       |
|                              | 0.6                                          | 14876                        | 1.6                  | 2202.85                | -                           | -                           | -                              | -                                          |                                             |           |           |
|                              | 0.8                                          | 11783                        | 2.0                  | 1744.83                | -                           | -                           | -                              | -                                          |                                             |           |           |
|                              | 1.0                                          | 9574                         | 2.5                  | 1417.68                | 120.0                       | 102.0                       | 120.0                          | 130.0                                      |                                             |           |           |
|                              | 1.2                                          | 7951                         | 3.0                  | 1177.36                | 120.0                       | 102.0                       | 120.0                          | 130.0                                      |                                             |           |           |
|                              | 1.6                                          | 5956                         | 2.1                  | 550.29                 | 84.0                        | 73.0                        | 100.0                          | 100.0                                      | <b>PD/PM 83/42</b><br><b>90L6C / 90L6D</b>  | 429       | 242       |
|                              | 1.9                                          | 5074                         | 2.5                  | 468.82                 | 84.0                        | 73.0                        | 100.0                          | 100.0                                      |                                             |           |           |
|                              | 0.7                                          | 14751                        | 0.9                  | 1362.94                | 85.0                        | 73.0                        | 100.0                          | 100.0                                      | <b>PD/PM 83/32</b><br><b>90L6C / 90L6D</b>  | 414       | 240       |
|                              | 0.8                                          | 11492                        | 1.1                  | 1061.83                | 89.0                        | 73.0                        | 100.0                          | 100.0                                      |                                             |           |           |
|                              | 1.0                                          | 9622                         | 1.3                  | 889.06                 | 90.0                        | 73.0                        | 100.0                          | 100.0                                      |                                             |           |           |
|                              | 1.3                                          | 7755                         | 1.6                  | 716.55                 | 91.0                        | 73.0                        | 100.0                          | 100.0                                      |                                             |           |           |
|                              | 1.5                                          | 6603                         | 1.9                  | 610.07                 | 92.0                        | 73.0                        | 100.0                          | 100.0                                      |                                             |           |           |
|                              | 0.8                                          | 11431                        | 1.1                  | 1692.65                | -                           | -                           | -                              | -                                          | <b>PD/PM 83/32</b><br><b>90L4B / 90L4C</b>  | 414       | 240       |
|                              | 1.0                                          | 9204                         | 1.3                  | 1362.94                | 85.0                        | 73.0                        | 100.0                          | 100.0                                      |                                             |           |           |
|                              | 1.3                                          | 7171                         | 1.7                  | 1061.83                | 89.0                        | 73.0                        | 100.0                          | 100.0                                      |                                             |           |           |
| 1.6                          | 6004                                         | 2.0                          | 889.06               | 90.0                   | 73.0                        | 100.0                       | 100.0                          |                                            |                                             |           |           |
| 2.0                          | 4839                                         | 2.5                          | 716.55               | 91.0                   | 73.0                        | 100.0                       | 100.0                          |                                            |                                             |           |           |
| 2.3                          | 4120                                         | 2.9                          | 610.07               | 92.0                   | 73.0                        | 100.0                       | 100.0                          |                                            |                                             |           |           |
| 0.8                          | 11048                                        | 0.8                          | 3519.07              | 92.0                   | 73.0                        | -                           | -                              |                                            |                                             |           |           |
| 0.9                          | 9407                                         | 1.0                          | 2996.11              | 92.0                   | 73.0                        | -                           | -                              |                                            |                                             |           |           |
| 1.2                          | 7562                                         | 1.2                          | 2408.64              | 92.0                   | 73.0                        | -                           | -                              | <b>PD/PM 83/32</b><br><b>80M2C / 80M2D</b> | 410                                         | 240       |           |
| 1.7                          | 5314                                         | 1.7                          | 1692.65              | 92.0                   | 73.0                        | -                           | -                              |                                            |                                             |           |           |
| 2.1                          | 4279                                         | 2.1                          | 1362.94              | 85.0                   | 73.0                        | 100.0                       | 100.0                          |                                            |                                             |           |           |
| 2.6                          | 3334                                         | 2.8                          | 1061.83              | 89.0                   | 73.0                        | 100.0                       | 100.0                          |                                            |                                             |           |           |
| 3.1                          | 3193                                         | 2.3                          | 295.06               | 51.0                   | 58.0                        | 81.0                        | 80.0                           | <b>PD/PM 73/32</b><br><b>90L6C / 90L6D</b> | 289                                         | 240       |           |
| 1.3                          | 7687                                         | 1.0                          | 710.29               | 54.0                   | 58.0                        | 79.0                        | 80.0                           | <b>PD/PM 73/22</b><br><b>90L6C / 90L6D</b> | 278                                         | 240       |           |
| 1.6                          | 6177                                         | 1.2                          | 570.70               | 56.0                   | 58.0                        | 80.0                        | 80.0                           |                                            |                                             |           |           |
| 2.1                          | 4706                                         | 1.6                          | 434.82               | 57.0                   | 58.0                        | 81.0                        | 80.0                           |                                            |                                             |           |           |
| 2.4                          | 4072                                         | 1.8                          | 376.24               | 56.0                   | 58.0                        | 81.0                        | 80.0                           |                                            |                                             |           |           |
| 1.0                          | 9066                                         | 0.8                          | 1342.44              | 50.0                   | 58.0                        | 77.0                        | 80.0                           | <b>PD/PM 73/22</b><br><b>90L4B / 90L4C</b> | 278                                         | 240       |           |
| 1.3                          | 7037                                         | 1.0                          | 1042.00              | 46.0                   | 58.0                        | 74.0                        | 80.0                           |                                            |                                             |           |           |
| 1.5                          | 6296                                         | 1.1                          | 932.25               | 50.0                   | 58.0                        | 76.0                        | 80.0                           |                                            |                                             |           |           |
| 2.0                          | 4797                                         | 1.5                          | 710.29               | 54.0                   | 58.0                        | 79.0                        | 80.0                           |                                            |                                             |           |           |
| 2.5                          | 3854                                         | 1.8                          | 570.70               | 56.0                   | 58.0                        | 80.0                        | 80.0                           |                                            |                                             |           |           |
| 3.2                          | 2936                                         | 2.4                          | 434.82               | 57.0                   | 58.0                        | 81.0                        | 80.0                           |                                            |                                             |           |           |
| 3.7                          | 2541                                         | 2.8                          | 376.24               | 56.0                   | 58.0                        | 81.0                        | 60.0                           |                                            |                                             |           |           |

| P <sub>1</sub><br>[kW] | n <sub>2</sub><br>[Min <sup>-1</sup> ] | M <sub>2</sub><br>[Nm] | f <sub>B</sub> | i <sub>ges</sub> | F <sub>R</sub><br>[N] | F <sub>A</sub><br>[N] | F <sub>R GR</sub><br>[N] | F <sub>A GR</sub><br>[N]     | Tip / Type / Typ<br>IE2 / IE3 |     |     |
|------------------------|----------------------------------------|------------------------|----------------|------------------|-----------------------|-----------------------|--------------------------|------------------------------|-------------------------------|-----|-----|
| 1.10                   | 1.4                                    | 6472                   | 0.8            | 2061.26          | 50.0                  | 58.0                  | -                        | -                            | PD/PM 73/22<br>80M2C / 80M2D  | 274 | 240 |
|                        | 1.6                                    | 5671                   | 0.9            | 1806.13          | 50.0                  | 58.0                  | -                        | -                            |                               |     |     |
|                        | 2.1                                    | 4215                   | 1.3            | 1342.44          | 50.0                  | 58.0                  | 77.0                     | 80.0                         |                               |     |     |
|                        | 2.7                                    | 3271                   | 1.6            | 1042.00          | 46.0                  | 58.0                  | 74.0                     | 80.0                         |                               |     |     |
|                        | 3.0                                    | 2927                   | 1.8            | 932.25           | 50.0                  | 58.0                  | 76.0                     | 80.0                         |                               |     |     |
|                        | 3.9                                    | 2230                   | 2.4            | 710.29           | 54.0                  | 58.0                  | 79.0                     | 80.0                         |                               |     |     |
|                        | 4.9                                    | 1792                   | 3.0            | 570.70           | 56.0                  | 58.0                  | 80.0                     | 80.0                         |                               |     |     |
|                        | 4.0                                    | 2419                   | 2.1            | 223.50           | -                     | -                     | -                        | -                            | PD/PM 63/32<br>90L6C / 90L6D  | 216 | 240 |
|                        | 4.7                                    | 2069                   | 2.4            | 191.13           | -                     | -                     | -                        | -                            |                               |     |     |
|                        | 5.7                                    | 1720                   | 2.9            | 158.90           | -                     | -                     | -                        | -                            |                               |     |     |
|                        | 1.4                                    | 6898                   | 0.8            | 637.34           | 22.0                  | 47.0                  | 47.0                     | 60.0                         | PD/PM 63/22<br>90L6C / 90L6D  | 205 | 240 |
|                        | 1.6                                    | 6171                   | 0.9            | 570.21           | 41.0                  | 47.0                  | 58.0                     | 60.0                         |                               |     |     |
|                        | 2.1                                    | 4702                   | 1.2            | 434.44           | 23.0                  | 47.0                  | 47.0                     | 60.0                         |                               |     |     |
|                        | 2.6                                    | 3778                   | 1.5            | 349.07           | 16.0                  | 47.0                  | -                        | -                            |                               |     |     |
|                        | 3.0                                    | 3248                   | 1.7            | 300.12           | 25.0                  | 47.0                  | -                        | -                            |                               |     |     |
|                        | 1.7                                    | 5545                   | 1.0            | 821.10           | 39.0                  | 47.0                  | 57.0                     | 60.0                         | PD/PM 63/22<br>90L4B / 90L4C  | 205 | 240 |
|                        | 2.2                                    | 4304                   | 1.3            | 637.34           | 22.0                  | 47.0                  | 47.0                     | 60.0                         |                               |     |     |
|                        | 2.5                                    | 3851                   | 1.4            | 570.21           | 41.0                  | 47.0                  | 58.0                     | 60.0                         |                               |     |     |
|                        | 3.2                                    | 2934                   | 1.8            | 434.44           | 23.0                  | 47.0                  | 58.0                     | 60.0                         |                               |     |     |
|                        | 4.0                                    | 2357                   | 2.3            | 349.07           | 16.0                  | 47.0                  | 44.0                     | 60.0                         |                               |     |     |
|                        | 4.7                                    | 2027                   | 2.7            | 300.12           | -                     | -                     | -                        | -                            |                               |     |     |
|                        | 2.2                                    | 3958                   | 1.0            | 1260.77          | 39.0                  | 47.0                  | 48.0                     | 60.0                         |                               |     |     |
|                        | 2.5                                    | 3468                   | 1.2            | 1104.71          | 39.0                  | 47.0                  | 50.0                     | 60.0                         | PD/PM 63/22<br>80M2C / 80M2D  | 201 | 240 |
|                        | 3.4                                    | 2578                   | 1.6            | 821.10           | 39.0                  | 47.0                  | 57.0                     | 60.0                         |                               |     |     |
|                        | 4.4                                    | 2001                   | 2.1            | 637.34           | 22.0                  | 47.0                  | 47.0                     | 60.0                         |                               |     |     |
|                        | 4.9                                    | 1790                   | 2.3            | 570.21           | 41.0                  | 47.0                  | 58.0                     | 60.0                         |                               |     |     |
|                        | 6.4                                    | 1364                   | 3.0            | 434.44           | 23.0                  | 47.0                  | 47.0                     | 60.0                         |                               |     |     |
|                        | 1.6                                    | 6159                   | 0.9            | 552.15           | 35.0                  | 47.0                  | 54.0                     | 60.0                         | PD/PM 63<br>90L6C / 90L6D     | 186 | 213 |
|                        | 2.0                                    | 4973                   | 0.9            | 445.80           | 38.0                  | 47.0                  | 56.0                     | 60.0                         |                               |     |     |
|                        | 2.3                                    | 4389                   | 1.4            | 393.43           | 39.0                  | 47.0                  | 57.0                     | 60.0                         |                               |     |     |
|                        | 2.8                                    | 3543                   | 1.7            | 317.64           | 40.0                  | 47.0                  | 57.0                     | 60.0                         |                               |     |     |
|                        | 3.6                                    | 2807                   | 1.7            | 251.63           | 41.0                  | 47.0                  | 58.0                     | 60.0                         |                               |     |     |
|                        | 4.0                                    | 2519                   | 1.7            | 225.83           | 41.0                  | 47.0                  | 58.0                     | 60.0                         |                               |     |     |
|                        | 2.5                                    | 3895                   | 1.3            | 552.15           | 35.0                  | 47.0                  | 54.0                     | 60.0                         | PD/PM 63<br>90L4B / 90L4C     | 186 | 213 |
|                        | 3.1                                    | 3144                   | 1.3            | 445.80           | 38.0                  | 47.0                  | 56.0                     | 60.0                         |                               |     |     |
|                        | 3.6                                    | 2775                   | 2.1            | 393.43           | 39.0                  | 47.0                  | 57.0                     | 60.0                         |                               |     |     |
|                        | 4.4                                    | 2240                   | 2.5            | 317.64           | 40.0                  | 47.0                  | 57.0                     | 60.0                         |                               |     |     |
|                        | 5.6                                    | 1775                   | 2.5            | 251.63           | 41.0                  | 47.0                  | 58.0                     | 60.0                         |                               |     |     |
|                        | 6.2                                    | 1593                   | 2.5            | 225.83           | 41.0                  | 47.0                  | 58.0                     | 60.0                         |                               |     |     |
|                        | 2.7                                    | 3718                   | 0.8            | 338.40           | 21.0                  | 32.0                  | -                        | -                            | PD/PM 52/12<br>90L6C / 90L6D  | 115 | 238 |
|                        | 3.3                                    | 2997                   | 1.1            | 272.80           | 21.0                  | 32.0                  | 38.0                     | 40.0                         |                               |     |     |
|                        | 3.9                                    | 2556                   | 1.2            | 232.65           | 31.0                  | 32.0                  | -                        | -                            |                               |     |     |
|                        | 5.2                                    | 1917                   | 1.6            | 174.49           | 31.0                  | 32.0                  | -                        | -                            |                               |     |     |
|                        | 6.3                                    | 1564                   | 2.0            | 142.31           | 21.0                  | 32.0                  | -                        | -                            |                               |     |     |
|                        | 2.5                                    | 3794                   | 0.8            | 549.54           | -                     | -                     | -                        | -                            | PD/PM 52/12<br>90L4B / 90L4C  | 115 | 238 |
|                        | 3.1                                    | 3094                   | 1.0            | 448.15           | -                     | -                     | -                        | -                            |                               |     |     |
|                        | 4.1                                    | 2336                   | 1.3            | 338.40           | -                     | -                     | -                        | -                            |                               |     |     |
| 5.1                    | 1883                                   | 1.6                    | 272.80         | 21.0             | 32.0                  | 38.0                  | 40.0                     |                              |                               |     |     |
| 6.0                    | 1606                                   | 1.9                    | 232.65         | -                | -                     | -                     | -                        |                              |                               |     |     |
| 8.0                    | 1205                                   | 2.5                    | 174.49         | -                | -                     | -                     | -                        |                              |                               |     |     |
| 3.3                    | 2802                                   | 0.8                    | 861.34         | 21.0             | 32.0                  | -                     | -                        | PD/PM 52/12<br>80M2C / 80M2D | 111                           | 238 |     |
| 4.1                    | 2242                                   | 1.0                    | 689.07         | 21.0             | 32.0                  | -                     | -                        |                              |                               |     |     |
| 5.1                    | 1788                                   | 1.3                    | 549.54         | 21.0             | 32.0                  | -                     | -                        |                              |                               |     |     |
| 6.2                    | 1458                                   | 1.6                    | 448.15         | 21.0             | 32.0                  | -                     | -                        |                              |                               |     |     |
| 8.3                    | 1101                                   | 2.1                    | 338.40         | 21.0             | 32.0                  | -                     | -                        |                              |                               |     |     |
| 10.3                   | 888                                    | 2.6                    | 272.80         | 21.0             | 32.0                  | 38.0                  | 40.0                     |                              |                               |     |     |
| 12.0                   | 757                                    | 3.0                    | 323.65         | 31.0             | 32.0                  | -                     | -                        |                              |                               |     |     |
| 2.7                    | 3698                                   | 0.9                    | 331.54         | 28.0             | 32.0                  | 42.0                  | 40.0                     | PD/PM 53<br>90L6C / 90L6D    | 124                           | 209 |     |
| 3.3                    | 3016                                   | 0.9                    | 270.40         | 29.0             | 32.0                  | 43.0                  | 40.0                     |                              |                               |     |     |
| 3.6                    | 2774                                   | 1.2                    | 248.66         | 30.0             | 32.0                  | 43.0                  | 40.0                     |                              |                               |     |     |
| 4.4                    | 2262                                   | 1.5                    | 202.80         | 29.0             | 32.0                  | 43.0                  | 40.0                     |                              |                               |     |     |
| 5.3                    | 1911                                   | 1.5                    | 171.36         | 28.0             | 32.0                  | 42.0                  | 40.0                     |                              |                               |     |     |
| 5.8                    | 1716                                   | 2.0                    | 153.85         | 28.0             | 32.0                  | 43.0                  | 40.0                     |                              |                               |     |     |
| 6.5                    | 1548                                   | 2.2                    | 138.78         | 27.0             | 32.0                  | 43.0                  | 40.0                     |                              |                               |     |     |
| 7.7                    | 1308                                   | 2.2                    | 117.27         | 27.0             | 32.0                  | -                     | -                        |                              |                               |     |     |
| 9.8                    | 1021                                   | 3.0                    | 91.51          | 27.0             | 32.0                  | -                     | -                        |                              |                               |     |     |



| $P_1$<br>[kW] | $n_2$<br>[Min <sup>-1</sup> ] | $M_2$<br>[Nm] | $f_B$  | $i_{ges}$ | $F_R$<br>[N] | $F_A$<br>[N] | $F_{RGR}$<br>[N] | $F_{AGR}$<br>[N]                  | Tip / Type / Typ<br>IE2 / IE3        |  Kg |  mm |
|---------------|-------------------------------|---------------|--------|-----------|--------------|--------------|------------------|-----------------------------------|--------------------------------------|----------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------|
| <b>1.10</b>   | 2.7                           | 3701          | 0.9    | 524.75    | 21.0         | 32.0         | 38.0             | 40.0                              | <b>PD/PM 53<br/>90L4B / 90L4C</b>    | 124                                                                                    | 209                                                                                    |
|               | 3.3                           | 3019          | 1.1    | 427.97    | 25.0         | 32.0         | 40.0             | 40.0                              |                                      |                                                                                        |                                                                                        |
|               | 3.9                           | 2551          | 1.1    | 361.64    | 27.0         | 32.0         | 42.0             | 40.0                              |                                      |                                                                                        |                                                                                        |
|               | 4.2                           | 2338          | 1.4    | 331.54    | 28.0         | 32.0         | 42.0             | 40.0                              |                                      |                                                                                        |                                                                                        |
|               | 5.2                           | 1907          | 1.4    | 270.40    | 29.0         | 32.0         | 43.0             | 40.0                              |                                      |                                                                                        |                                                                                        |
|               | 5.6                           | 1754          | 1.8    | 248.66    | 30.0         | 32.0         | 43.0             | 40.0                              |                                      |                                                                                        |                                                                                        |
|               | 6.9                           | 1430          | 2.2    | 202.80    | 29.0         | 32.0         | 43.0             | 40.0                              |                                      |                                                                                        |                                                                                        |
|               | 8.2                           | 1209          | 2.3    | 171.36    | 28.0         | 32.0         | 42.0             | 40.0                              |                                      |                                                                                        |                                                                                        |
|               | 9.1                           | 1085          | 2.9    | 153.85    | 28.0         | 32.0         | 43.0             | 40.0                              |                                      |                                                                                        |                                                                                        |
|               | 4.0                           | 2359          | 1.0    | 699.67    | 21.0         | 32.0         | 39.0             | 40.0                              | <b>PD/PM 53<br/>80M2C / 80M2D</b>    | 120                                                                                    | 209                                                                                    |
|               | 4.9                           | 1924          | 1.1    | 570.63    | 21.0         | 32.0         | 41.0             | 40.0                              |                                      |                                                                                        |                                                                                        |
|               | 5.3                           | 1769          | 1.4    | 524.75    | 21.0         | 32.0         | 38.0             | 40.0                              |                                      |                                                                                        |                                                                                        |
|               | 6.5                           | 1443          | 1.7    | 427.97    | 25.0         | 32.0         | 40.0             | 40.0                              |                                      |                                                                                        |                                                                                        |
|               | 7.7                           | 1219          | 1.7    | 361.64    | 27.0         | 32.0         | 42.0             | 40.0                              |                                      |                                                                                        |                                                                                        |
|               | 8.4                           | 1118          | 2.2    | 331.54    | 28.0         | 32.0         | 42.0             | 40.0                              |                                      |                                                                                        |                                                                                        |
|               | 10.4                          | 912           | 2.3    | 270.40    | 29.0         | 32.0         | 43.0             | 40.0                              |                                      |                                                                                        |                                                                                        |
|               | 11.3                          | 838           | 2.9    | 248.66    | 30.0         | 32.0         | 43.0             | 40.0                              |                                      |                                                                                        |                                                                                        |
|               | 6.7                           | 1518          | 1.8    | 134.05    | 31.0         | 32.0         | 44.0             | 40.0                              | <b>PD/PM 52<br/>90L6C / 90L6D</b>    | 105                                                                                    | 208                                                                                    |
|               | 9.0                           | 1134          | 2.1    | 100.15    | 12.0         | 22.0         | 44.0             | 40.0                              |                                      |                                                                                        |                                                                                        |
|               | 11.0                          | 925           | 2.1    | 81.68     | 12.0         | 22.0         | 44.0             | 40.0                              |                                      |                                                                                        |                                                                                        |
|               | 10.4                          | 966           | 2.7    | 134.05    | 31.0         | 32.0         | 44.0             | 40.0                              | <b>PD/PM 52<br/>90L4B / 90L4C</b>    | 105                                                                                    | 208                                                                                    |
|               | 5.1                           | 1946          | 1.0    | 177.15    | 16.0         | 22.0         | -                | -                                 | <b>PD/PM 42/12<br/>90L6C / 90L6D</b> | 79                                                                                     | 238                                                                                    |
|               | 5.9                           | 1676          | 1.1    | 152.50    | 16.0         | 22.0         | 26.0             | 30.0                              |                                      |                                                                                        |                                                                                        |
|               | 7.1                           | 1400          | 1.3    | 127.43    | 22.0         | 22.0         | -                | -                                 |                                      |                                                                                        |                                                                                        |
|               | 4.1                           | 2356          | 0.8    | 341.25    | 22.0         | 22.0         | 31.0             | 30.0                              | <b>PD/PM 42/12<br/>90L4B / 90L4C</b> | 79                                                                                     | 238                                                                                    |
|               | 4.6                           | 2086          | 0.9    | 302.14    | 22.0         | 22.0         | 31.0             | 30.0                              |                                      |                                                                                        |                                                                                        |
|               | 6.0                           | 1620          | 1.1    | 234.61    | -            | -            | -                | -                                 |                                      |                                                                                        |                                                                                        |
|               | 7.9                           | 1223          | 1.5    | 177.15    | -            | -            | -                | -                                 |                                      |                                                                                        |                                                                                        |
|               | 9.2                           | 1053          | 1.7    | 152.50    | 16.0         | 22.0         | 26.0             | 30.0                              |                                      |                                                                                        |                                                                                        |
|               | 11.0                          | 880           | 2.0    | 127.43    | -            | -            | -                | -                                 |                                      |                                                                                        |                                                                                        |
|               | 5.0                           | 1815          | 0.8    | 557.93    | 22.0         | 22.0         | 28.0             | 30.0                              | <b>PD/PM 42/12<br/>80M2C / 80M2D</b> | 75                                                                                     | 238                                                                                    |
|               | 6.8                           | 1333          | 1.0    | 409.62    | 22.0         | 22.0         | -                | -                                 |                                      |                                                                                        |                                                                                        |
|               | 8.2                           | 1110          | 1.2    | 341.25    | 22.0         | 22.0         | -                | -                                 |                                      |                                                                                        |                                                                                        |
|               | 9.3                           | 983           | 1.4    | 302.14    | 22.0         | 22.0         | -                | -                                 |                                      |                                                                                        |                                                                                        |
|               | 11.9                          | 763           | 1.8    | 234.61    | 16.0         | 22.0         | -                | -                                 |                                      |                                                                                        |                                                                                        |
|               | 15.8                          | 576           | 2.4    | 177.15    | 16.0         | 22.0         | -                | -                                 |                                      |                                                                                        |                                                                                        |
|               | 18.4                          | 496           | 2.8    | 152.50    | 16.0         | 22.0         | 26.0             | 30.0                              |                                      |                                                                                        |                                                                                        |
|               | 4.7                           | 2136          | 1.0    | 191.52    | 17.0         | 22.0         | 28.0             | 30.0                              | <b>PD/PM 43<br/>90L6C / 90L6D</b>    | 84                                                                                     | 205                                                                                    |
|               | 5.6                           | 1785          | 1.0    | 160.03    | 21.0         | 22.0         | 30.0             | 30.0                              |                                      |                                                                                        |                                                                                        |
|               | 6.4                           | 1568          | 1.3    | 140.61    | 16.0         | 22.0         | 27.0             | 30.0                              |                                      |                                                                                        |                                                                                        |
|               | 7.6                           | 1322          | 1.6    | 118.53    | 17.0         | 22.0         | 28.0             | 30.0                              |                                      |                                                                                        |                                                                                        |
|               | 8.7                           | 1159          | 1.8    | 103.86    | 15.0         | 22.0         | 31.0             | 30.0                              |                                      |                                                                                        |                                                                                        |
|               | 10.4                          | 968           | 2.1    | 86.78     | 19.0         | 22.0         | -                | -                                 |                                      |                                                                                        |                                                                                        |
|               | 4.3                           | 2305          | 0.8    | 326.83    | 14.0         | 22.0         | 25.0             | 30.0                              | <b>PD/PM 43<br/>90L4B / 90L4C</b>    | 84                                                                                     | 205                                                                                    |
|               | 4.6                           | 2137          | 1.0    | 302.94    | 15.0         | 22.0         | 26.0             | 30.0                              |                                      |                                                                                        |                                                                                        |
|               | 5.1                           | 1922          | 0.8    | 272.49    | 17.0         | 22.0         | 27.0             | 30.0                              |                                      |                                                                                        |                                                                                        |
|               | 5.5                           | 1785          | 1.1    | 253.13    | 18.0         | 22.0         | 28.0             | 30.0                              |                                      |                                                                                        |                                                                                        |
|               | 6.6                           | 1489          | 1.1    | 211.05    | 16.0         | 22.0         | 27.0             | 30.0                              |                                      |                                                                                        |                                                                                        |
| 7.3           | 1351                          | 1.5           | 191.52 | 17.0      | 22.0         | 28.0         | 30.0             |                                   |                                      |                                                                                        |                                                                                        |
| 8.7           | 1129                          | 1.5           | 160.03 | 21.0      | 22.0         | 30.0         | 30.0             |                                   |                                      |                                                                                        |                                                                                        |
| 10.0          | 992                           | 2.0           | 140.61 | 16.0      | 22.0         | 27.0         | 30.0             |                                   |                                      |                                                                                        |                                                                                        |
| 11.8          | 836                           | 2.4           | 118.53 | 17.0      | 22.0         | 28.0         | 30.0             |                                   |                                      |                                                                                        |                                                                                        |
| 13.5          | 733                           | 2.7           | 103.86 | 15.0      | 22.0         | 27.0         | 30.0             |                                   |                                      |                                                                                        |                                                                                        |
| 5.3           | 1796                          | 0.8           | 532.76 | 14.0      | 22.0         | 27.0         | 30.0             | <b>PD/PM 43<br/>80M2C / 80M2D</b> |                                      |                                                                                        |                                                                                        |
| 6.3           | 1501                          | 0.8           | 445.16 | 14.0      | 22.0         | 28.0         | 30.0             |                                   |                                      |                                                                                        |                                                                                        |
| 6.8           | 1391                          | 1.1           | 412.63 | 14.0      | 22.0         | 27.0         | 30.0             |                                   |                                      |                                                                                        |                                                                                        |
| 7.2           | 1319                          | 1.2           | 391.14 | 14.0      | 22.0         | 27.0         | 30.0             |                                   |                                      |                                                                                        |                                                                                        |
| 8.1           | 1162                          | 1.1           | 344.78 | 14.0      | 22.0         | 28.0         | 30.0             |                                   |                                      |                                                                                        |                                                                                        |
| 8.6           | 1102                          | 1.3           | 326.83 | 14.0      | 22.0         | 25.0         | 30.0             |                                   |                                      |                                                                                        |                                                                                        |
| 9.2           | 1021                          | 1.5           | 302.94 | 15.0      | 22.0         | 26.0         | 30.0             |                                   |                                      |                                                                                        |                                                                                        |
| 10.3          | 919                           | 1.3           | 272.49 | 17.0      | 22.0         | 27.0         | 30.0             |                                   |                                      |                                                                                        |                                                                                        |
| 11.1          | 853                           | 1.7           | 253.13 | 18.0      | 22.0         | 28.0         | 30.0             |                                   |                                      |                                                                                        |                                                                                        |
| 13.3          | 712                           | 1.7           | 211.05 | 16.0      | 22.0         | 27.0         | 30.0             |                                   |                                      |                                                                                        |                                                                                        |
| 14.6          | 646                           | 2.3           | 191.52 | 17.0      | 22.0         | 28.0         | 30.0             |                                   |                                      |                                                                                        |                                                                                        |
| 17.5          | 540                           | 2.3           | 160.03 | 21.0      | 22.0         | 30.0         | 30.0             |                                   |                                      |                                                                                        |                                                                                        |

| $P_1$<br>[kW] | $n_2$<br>[Min <sup>-1</sup> ] | $M_2$<br>[Nm] | $f_B$  | $i_{ges}$ | $F_R$<br>[N] | $F_A$<br>[N] | $F_{RGR}$<br>[N] | $F_{AGR}$<br>[N]                  | Tip / Type / Typ<br>IE2 / IE3        |     |     |
|---------------|-------------------------------|---------------|--------|-----------|--------------|--------------|------------------|-----------------------------------|--------------------------------------|-----|-----|
| <b>1.10</b>   | 5.8                           | 1760          | 0.8    | 155.40    | 21.0         | 22.0         | 30.0             | 30.0                              | <b>PD/PM 42<br/>90L6C / 90L6D</b>    | 69  | 204 |
|               | 8.1                           | 1254          | 1.3    | 110.73    | 20.0         | 22.0         | 30.0             | 30.0                              |                                      |     |     |
|               | 9.9                           | 1025          | 1.6    | 90.52     | 19.0         | 22.0         | 30.0             | 30.0                              |                                      |     |     |
|               | 9.0                           | 1119          | 1.1    | 155.40    | 21.0         | 22.0         | 30.0             | 30.0                              | <b>PD/PM 42<br/>90L4B / 90L4C</b>    | 69  | 204 |
|               | 12.6                          | 798           | 2.0    | 110.73    | 20.0         | 22.0         | 30.0             | 30.0                              |                                      |     |     |
|               | 15.5                          | 652           | 2.5    | 90.52     | 19.0         | 22.0         | 30.0             | 30.0                              |                                      |     |     |
|               | 7.9                           | 1253          | 0.8    | 114.01    | 11.0         | 15.0         | 20.0             | 20.0                              | <b>PD/PM 32/12<br/>90L6C / 90L6D</b> | 64  | 238 |
|               | 10.3                          | 964           | 1.0    | 87.71     | 13.0         | 15.0         | -                | -                                 |                                      |     |     |
|               | 9.9                           | 976           | 0.9    | 141.42    | 13.0         | 15.0         | 21.0             | 20.0                              | <b>PD/PM 32/12<br/>90L4B / 90L4C</b> | 64  | 238 |
|               | 12.3                          | 787           | 1.1    | 114.01    | 11.0         | 15.0         | 20.0             | 20.0                              |                                      |     |     |
|               | 16.0                          | 605           | 1.5    | 87.71     | -            | -            | -                | -                                 |                                      |     |     |
|               | 10.4                          | 880           | 0.8    | 270.47    | 13.0         | 15.0         | -                | -                                 | <b>PD/PM 32/12<br/>80M2C / 80M2D</b> | 60  | 238 |
|               | 12.9                          | 707           | 1.0    | 217.44    | 13.0         | 15.0         | -                | -                                 |                                      |     |     |
|               | 15.6                          | 585           | 1.2    | 179.71    | 13.0         | 15.0         | -                | -                                 |                                      |     |     |
|               | 19.8                          | 460           | 1.5    | 141.42    | 13.0         | 15.0         | 21.0             | 20.0                              |                                      |     |     |
|               | 24.6                          | 371           | 1.8    | 114.01    | 11.0         | 15.0         | 20.0             | 20.0                              |                                      |     |     |
|               | 31.9                          | 285           | 2.4    | 87.71     | 13.0         | 15.0         | -                | -                                 |                                      |     |     |
|               | 11.0                          | 896           | 0.9    | 127.01    | -            | -            | -                | -                                 | <b>PD/PM 33<br/>90L4B / 90L4C</b>    | 62  | 201 |
|               | 13.5                          | 733           | 1.0    | 103.92    | -            | -            | -                | -                                 |                                      |     |     |
|               | 15.7                          | 631           | 1.0    | 89.45     | -            | -            | -                | -                                 |                                      |     |     |
|               | 12.1                          | 778           | 1.0    | 230.79    | 13.0         | 15.0         | 20.0             | 20.0                              | <b>PD/PM 33<br/>80M2C / 80M2D</b>    | 58  | 201 |
|               | 14.7                          | 643           | 1.0    | 190.74    | 13.0         | 15.0         | 21.0             | 20.0                              |                                      |     |     |
|               | 17.4                          | 544           | 1.1    | 161.38    | 13.0         | 15.0         | -                | -                                 |                                      |     |     |
|               | 22.0                          | 428           | 1.4    | 127.01    | 13.0         | 15.0         | -                | -                                 |                                      |     |     |
|               | 26.9                          | 350           | 1.6    | 103.92    | 13.0         | 15.0         | -                | -                                 |                                      |     |     |
|               | 31.3                          | 302           | 1.6    | 89.45     | 13.0         | 15.0         | -                | -                                 |                                      |     |     |
|               | 10.1                          | 1005          | 1.0    | 88.74     | 12.0         | 15.0         | 22.0             | 20.0                              | <b>PD/PM 32<br/>90L6C / 90L6D</b>    | 54  | 200 |
|               | 11.3                          | 903           | 1.0    | 79.75     | 12.0         | 15.0         | 22.0             | 20.0                              |                                      |     |     |
| 13.7          | 746                           | 1.1           | 65.91  | 12.0      | 15.0         | 23.0         | 20.0             |                                   |                                      |     |     |
| 14.0          | 726                           | 1.5           | 64.11  | 12.0      | 15.0         | 23.0         | 20.0             |                                   |                                      |     |     |
| 16.1          | 631                           | 1.1           | 55.76  | 11.0      | 15.0         | 22.0         | 20.0             |                                   |                                      |     |     |
| 17.0          | 600                           | 1.5           | 52.98  | 11.0      | 15.0         | 22.0         | 20.0             |                                   |                                      |     |     |
| 18.8          | 544                           | 1.1           | 48.00  | 11.0      | 15.0         | 21.0         | 20.0             |                                   |                                      |     |     |
| 20.1          | 508                           | 1.5           | 44.83  | 11.0      | 15.0         | 21.0         | 20.0             |                                   |                                      |     |     |
| 21.4          | 476                           | 2.0           | 42.05  | 10.0      | 15.0         | 21.0         | 20.0             |                                   |                                      |     |     |
| 23.3          | 437                           | 1.5           | 38.59  | 10.0      | 15.0         | 20.0         | 20.0             |                                   |                                      |     |     |
| 23.8          | 428                           | 2.0           | 37.79  | 14.0      | 15.0         | 20.0         | 20.0             |                                   |                                      |     |     |
| 28.2          | 361                           | 2.5           | 31.90  | 14.0      | 15.0         | 19.0         | 20.0             |                                   |                                      |     |     |
| 31.4          | 325                           | 2.8           | 28.67  | 14.0      | 15.0         | 18.0         | 20.0             |                                   |                                      |     |     |
| 34.8          | 293                           | 3.0           | 25.86  | 14.0      | 15.0         | 17.0         | 20.0             |                                   |                                      |     |     |
| 12.5          | 808                           | 1.0           | 112.23 | 13.0      | 15.0         | 22.0         | 20.0             | <b>PD/PM 32<br/>90L4B / 90L4C</b> |                                      |     |     |
| 13.9          | 726                           | 1.1           | 100.85 | 13.0      | 15.0         | 22.0         | 20.0             |                                   |                                      |     |     |
| 15.8          | 639                           | 1.5           | 88.74  | 12.0      | 15.0         | 22.0         | 20.0             |                                   |                                      |     |     |
| 17.6          | 574                           | 1.5           | 79.75  | 12.0      | 15.0         | 22.0         | 20.0             |                                   |                                      |     |     |
| 19.9          | 508                           | 1.1           | 70.52  | 12.0      | 15.0         | 22.0         | 20.0             |                                   |                                      |     |     |
| 21.2          | 475                           | 1.6           | 65.91  | 12.0      | 15.0         | 23.0         | 20.0             |                                   |                                      |     |     |
| 21.8          | 462                           | 2.2           | 64.11  | 12.0      | 15.0         | 23.0         | 20.0             |                                   |                                      |     |     |
| 25.1          | 402                           | 1.6           | 55.76  | 11.0      | 15.0         | 22.0         | 20.0             |                                   |                                      |     |     |
| 26.4          | 382                           | 2.2           | 52.98  | 11.0      | 15.0         | 22.0         | 20.0             |                                   |                                      |     |     |
| 29.2          | 346                           | 1.6           | 48.00  | 11.0      | 15.0         | 21.0         | 20.0             |                                   |                                      |     |     |
| 31.2          | 323                           | 2.3           | 44.83  | 11.0      | 15.0         | 21.0         | 20.0             |                                   |                                      |     |     |
| 36.3          | 278                           | 2.3           | 38.59  | 10.0      | 15.0         | 20.0         | 20.0             |                                   |                                      |     |     |
| 24.9          | 392                           | 1.5           | 112.23 | 13.0      | 15.0         | 22.0         | 20.0             | <b>PD/PM 32<br/>80M2C / 80M2D</b> | 50                                   | 200 |     |
| 27.8          | 352                           | 1.7           | 100.85 | 13.0      | 15.0         | 22.0         | 20.0             |                                   |                                      |     |     |
| 31.6          | 310                           | 2.3           | 88.74  | 12.0      | 15.0         | 22.0         | 20.0             |                                   |                                      |     |     |
| 35.1          | 279                           | 2.3           | 79.75  | 12.0      | 15.0         | 22.0         | 20.0             |                                   |                                      |     |     |
| 39.7          | 246                           | 1.7           | 70.52  | 12.0      | 15.0         | 22.0         | 20.0             |                                   |                                      |     |     |
| 42.5          | 230                           | 2.5           | 65.91  | 12.0      | 15.0         | 23.0         | 20.0             |                                   |                                      |     |     |
| 50.2          | 195                           | 2.5           | 55.76  | 11.0      | 15.0         | 22.0         | 20.0             |                                   |                                      |     |     |
| 58.3          | 168                           | 2.5           | 48.00  | 11.0      | 15.0         | 21.0         | 20.0             |                                   |                                      |     |     |
| 14.2          | 694                           | 0.8           | 98.40  | 5.0       | 12.0         | 11.0         | 15.0             | <b>PD/PM 23<br/>90L4B / 90L4C</b> | 46                                   | 197 |     |
| 17.0          | 580                           | 1.0           | 82.29  | -         | -            | -            | -                |                                   |                                      |     |     |



| $P_1$<br>[kW] | $n_2$<br>[Min <sup>-1</sup> ] | $M_2$<br>[Nm] | $f_B$ | $i_{ges}$ | $F_R$<br>[N] | $F_A$<br>[N] | $F_{RGR}$<br>[N] | $F_{AGR}$<br>[N]                  | Tip / Type / Typ<br>IE2 / IE3     |  Kg |  mm |    |     |
|---------------|-------------------------------|---------------|-------|-----------|--------------|--------------|------------------|-----------------------------------|-----------------------------------|----------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------|----|-----|
| <b>1.10</b>   | 18.7                          | 506           | 0.8   | 150.03    | 5.0          | 12.0         | -                | -                                 | <b>PD/PM 23<br/>80M2C / 80M2D</b> | 42                                                                                     | 197                                                                                    |    |     |
|               | 21.3                          | 444           | 0.9   | 131.68    | 5.0          | 12.0         | -                | -                                 |                                   |                                                                                        |                                                                                        |    |     |
|               | 24.1                          | 392           | 1.0   | 116.40    | 5.0          | 12.0         | 12.0             | 15.0                              |                                   |                                                                                        |                                                                                        |    |     |
|               | 28.5                          | 332           | 1.3   | 98.40     | 5.0          | 12.0         | 11.0             | 15.0                              |                                   |                                                                                        |                                                                                        |    |     |
|               | 34.0                          | 277           | 1.5   | 82.29     | 8.0          | 12.0         | -                | -                                 |                                   |                                                                                        |                                                                                        |    |     |
|               | 14.1                          | 723           | 0.8   | 63.86     | 9.0          | 12.0         | 13.0             | 15.0                              | <b>PD/PM 22<br/>90L6C / 90L6D</b> | 39                                                                                     | 196                                                                                    |    |     |
|               | 16.7                          | 611           | 0.9   | 53.98     | 9.0          | 12.0         | 13.0             | 15.0                              |                                   |                                                                                        |                                                                                        |    |     |
|               | 17.4                          | 586           | 0.9   | 51.73     | 9.0          | 12.0         | 13.0             | 15.0                              |                                   |                                                                                        |                                                                                        |    |     |
|               | 19.9                          | 511           | 0.9   | 45.14     | 9.0          | 12.0         | 14.0             | 15.0                              |                                   |                                                                                        |                                                                                        |    |     |
|               | 20.6                          | 495           | 1.2   | 43.73     | 9.0          | 12.0         | 14.0             | 15.0                              |                                   |                                                                                        |                                                                                        |    |     |
|               | 24.6                          | 414           | 1.3   | 36.57     | 9.0          | 12.0         | 14.0             | 15.0                              |                                   |                                                                                        |                                                                                        |    |     |
|               | 28.8                          | 353           | 1.3   | 31.20     | 9.0          | 12.0         | 14.0             | 15.0                              |                                   |                                                                                        |                                                                                        |    |     |
|               | 30.4                          | 336           | 1.6   | 29.64     | 9.0          | 12.0         | 14.0             | 15.0                              |                                   |                                                                                        |                                                                                        |    |     |
|               | 33.6                          | 304           | 1.5   | 26.81     | 8.0          | 12.0         | 14.0             | 15.0                              |                                   |                                                                                        |                                                                                        |    |     |
|               | 36.0                          | 283           | 1.8   | 24.98     | 8.0          | 12.0         | 14.0             | 15.0                              |                                   |                                                                                        |                                                                                        |    |     |
|               | 37.5                          | 272           | 1.7   | 23.99     | 8.0          | 12.0         | 14.0             | 15.0                              |                                   |                                                                                        |                                                                                        |    |     |
|               | 41.1                          | 248           | 2.0   | 21.89     | 8.0          | 12.0         | 14.0             | 15.0                              |                                   |                                                                                        |                                                                                        |    |     |
|               | 48.6                          | 210           | 2.4   | 18.51     | 9.0          | 12.0         | 14.0             | 15.0                              |                                   |                                                                                        |                                                                                        |    |     |
|               | 54.3                          | 188           | 2.6   | 16.56     | 9.0          | 12.0         | 14.0             | 15.0                              |                                   |                                                                                        |                                                                                        |    |     |
|               | 68.2                          | 149           | 2.8   | 13.20     | 9.0          | 12.0         | 13.0             | 15.0                              |                                   |                                                                                        |                                                                                        |    |     |
|               | 76.2                          | 134           | 3.0   | 11.81     | 9.0          | 12.0         | 13.0             | 15.0                              |                                   |                                                                                        |                                                                                        |    |     |
|               | 107.7                         | 95            | 2.8   | 8.36      | 9.0          | 12.0         | 11.0             | 15.0                              |                                   |                                                                                        |                                                                                        |    |     |
|               | 120.3                         | 85            | 3.0   | 7.48      | 9.0          | 12.0         | 11.0             | 15.0                              |                                   |                                                                                        |                                                                                        |    |     |
|               | 17.0                          | 594           | 0.8   | 82.45     | 7.0          | 12.0         | 12.0             | 15.0                              | <b>PD/PM 22<br/>90L4B / 90L4C</b> | 39                                                                                     | 196                                                                                    |    |     |
|               | 20.1                          | 502           | 0.9   | 69.70     | 8.0          | 12.0         | 13.0             | 15.0                              |                                   |                                                                                        |                                                                                        |    |     |
|               | 21.9                          | 460           | 1.1   | 63.86     | 9.0          | 12.0         | 13.0             | 15.0                              |                                   |                                                                                        |                                                                                        |    |     |
|               | 25.9                          | 389           | 1.3   | 53.98     | 9.0          | 12.0         | 13.0             | 15.0                              |                                   |                                                                                        |                                                                                        |    |     |
|               | 27.1                          | 373           | 1.4   | 51.73     | 9.0          | 12.0         | 13.0             | 15.0                              |                                   |                                                                                        |                                                                                        |    |     |
|               | 31.0                          | 325           | 1.4   | 45.14     | 9.0          | 12.0         | 14.0             | 15.0                              |                                   |                                                                                        |                                                                                        |    |     |
|               | 32.0                          | 315           | 1.8   | 43.73     | 9.0          | 12.0         | 14.0             | 15.0                              |                                   |                                                                                        |                                                                                        |    |     |
|               | 38.3                          | 263           | 1.9   | 36.57     | 9.0          | 12.0         | 14.0             | 15.0                              |                                   |                                                                                        |                                                                                        |    |     |
|               | 44.9                          | 225           | 2.0   | 31.20     | 9.0          | 12.0         | 14.0             | 15.0                              |                                   |                                                                                        |                                                                                        |    |     |
|               | 47.2                          | 214           | 2.3   | 29.64     | 9.0          | 12.0         | 14.0             | 15.0                              |                                   |                                                                                        |                                                                                        |    |     |
|               | 52.2                          | 193           | 2.3   | 26.81     | 8.0          | 12.0         | 14.0             | 15.0                              |                                   |                                                                                        |                                                                                        |    |     |
|               | 56.0                          | 180           | 2.7   | 24.98     | 8.0          | 12.0         | 14.0             | 15.0                              |                                   |                                                                                        |                                                                                        |    |     |
|               | 58.4                          | 173           | 2.5   | 23.99     | 8.0          | 12.0         | 14.0             | 15.0                              |                                   |                                                                                        |                                                                                        |    |     |
|               | 64.0                          | 158           | 3.0   | 21.89     | 8.0          | 12.0         | 14.0             | 15.0                              |                                   |                                                                                        |                                                                                        |    |     |
|               | 26.9                          | 364           | 0.8   | 104.07    | 7.0          | 12.0         | -                | -                                 | <b>PD/PM 22<br/>80M2C / 80M2D</b> | 35                                                                                     | 196                                                                                    |    |     |
|               | 27.7                          | 353           | 0.9   | 100.98    | 7.0          | 12.0         | -                | -                                 |                                   |                                                                                        |                                                                                        |    |     |
|               | 34.0                          | 288           | 1.3   | 82.45     | 7.0          | 12.0         | 12.0             | 15.0                              |                                   |                                                                                        |                                                                                        |    |     |
|               | 40.2                          | 244           | 1.4   | 69.70     | 8.0          | 12.0         | 13.0             | 15.0                              |                                   |                                                                                        |                                                                                        |    |     |
|               | 43.8                          | 223           | 1.8   | 63.86     | 9.0          | 12.0         | 13.0             | 15.0                              |                                   |                                                                                        |                                                                                        |    |     |
|               | 51.9                          | 189           | 2.0   | 53.98     | 9.0          | 12.0         | 13.0             | 15.0                              |                                   |                                                                                        |                                                                                        |    |     |
|               | 54.1                          | 181           | 2.2   | 51.73     | 9.0          | 12.0         | 13.0             | 15.0                              |                                   |                                                                                        |                                                                                        |    |     |
|               | 62.0                          | 158           | 2.2   | 45.14     | 9.0          | 12.0         | 14.0             | 15.0                              |                                   |                                                                                        |                                                                                        |    |     |
|               | 64.0                          | 153           | 2.8   | 43.73     | 9.0          | 12.0         | 14.0             | 15.0                              |                                   |                                                                                        |                                                                                        |    |     |
|               | 75.3                          | 130           | 2.7   | 37.18     | 9.0          | 12.0         | -                | -                                 |                                   |                                                                                        |                                                                                        |    |     |
| 76.6          | 128                           | 3.0           | 36.57 | 9.0       | 12.0         | 14.0         | 15.0             |                                   |                                   |                                                                                        |                                                                                        |    |     |
| 35.7          | 286                           | 0.8           | 25.24 | 4.0       | 7.0          | 9.0          | 7.0              | <b>PD/PM 12<br/>90L6C / 90L6D</b> | 28                                | 192                                                                                    |                                                                                        |    |     |
| 43.7          | 233                           | 1.0           | 20.61 | 4.0       | 7.0          | 10.0         | 7.0              |                                   |                                   |                                                                                        |                                                                                        |    |     |
| 52.3          | 195                           | 1.2           | 17.22 | 4.0       | 7.0          | 10.0         | 7.0              |                                   |                                   |                                                                                        |                                                                                        |    |     |
| 63.9          | 160                           | 1.4           | 14.09 | 3.0       | 7.0          | 10.0         | 7.0              |                                   |                                   |                                                                                        |                                                                                        |    |     |
| 76.6          | 133                           | 1.6           | 11.75 | 3.0       | 6.0          | 10.0         | 7.0              |                                   |                                   |                                                                                        |                                                                                        |    |     |
| 87.0          | 117                           | 1.8           | 10.34 | 3.0       | 6.0          | 9.0          | 7.0              |                                   |                                   |                                                                                        |                                                                                        |    |     |
| 98.3          | 104                           | 1.9           | 9.16  | 3.0       | 6.0          | 9.0          | 7.0              |                                   |                                   |                                                                                        |                                                                                        |    |     |
| 109.4         | 93                            | 2.2           | 8.23  | 3.0       | 5.0          | 9.0          | 7.0              |                                   |                                   |                                                                                        |                                                                                        |    |     |
| 110.0         | 93                            | 1.8           | 8.18  | 3.0       | 5.0          | 9.0          | 7.0              |                                   |                                   |                                                                                        |                                                                                        |    |     |
| 124.1         | 82                            | 2.4           | 7.25  | 4.0       | 7.0          | 8.0          | 7.0              |                                   |                                   |                                                                                        |                                                                                        |    |     |
| 140.2         | 73                            | 2.6           | 6.42  | 4.0       | 7.0          | 8.0          | 7.0              |                                   |                                   |                                                                                        |                                                                                        |    |     |
| 164.5         | 62                            | 2.9           | 5.47  | 4.0       | 7.0          | 7.0          | 7.0              |                                   |                                   |                                                                                        |                                                                                        |    |     |
| 188.3         | 54                            | 2.5           | 4.78  | 4.0       | 7.0          | 7.0          | 7.0              |                                   |                                   |                                                                                        |                                                                                        |    |     |
| 43.7          | 231                           | 1.0           | 32.07 | 4.0       | 7.0          | 9.0          | 7.0              |                                   |                                   |                                                                                        | <b>PD/PM 12<br/>90L4B / 90L4C</b>                                                      | 28 | 192 |
| 49.4          | 204                           | 1.1           | 28.35 | 4.0       | 7.0          | 9.0          | 7.0              |                                   |                                   |                                                                                        |                                                                                        |    |     |
| 55.5          | 182                           | 1.2           | 25.24 | 4.0       | 7.0          | 9.0          | 7.0              |                                   |                                   |                                                                                        |                                                                                        |    |     |
| 67.9          | 148                           | 1.5           | 20.61 | 4.0       | 7.0          | 10.0         | 7.0              |                                   |                                   |                                                                                        |                                                                                        |    |     |
| 81.3          | 124                           | 1.8           | 17.22 | 4.0       | 7.0          | 10.0         | 7.0              |                                   |                                   |                                                                                        |                                                                                        |    |     |
| 99.4          | 101                           | 2.1           | 14.09 | 3.0       | 7.0          | 10.0         | 7.0              |                                   |                                   |                                                                                        |                                                                                        |    |     |
| 119.1         | 85                            | 2.4           | 11.75 | 3.0       | 6.0          | 10.0         | 7.0              |                                   |                                   |                                                                                        |                                                                                        |    |     |
| 135.4         | 74                            | 2.6           | 10.34 | 3.0       | 6.0          | 9.0          | 7.0              |                                   |                                   |                                                                                        |                                                                                        |    |     |
| 152.8         | 66                            | 2.9           | 9.16  | 3.0       | 6.0          | 9.0          | 7.0              |                                   |                                   |                                                                                        |                                                                                        |    |     |
| 171.1         | 59                            | 2.7           | 8.18  | 3.0       | 5.0          | 9.0          | 7.0              |                                   |                                   |                                                                                        |                                                                                        |    |     |





| $P_1$<br>[kW] | $n_2$<br>[Min <sup>-1</sup> ] | $M_2$<br>[Nm] | $f_B$ | $i_{ges}$ | $F_R$<br>[N] | $F_A$<br>[N] | $F_{RGR}$<br>[N] | $F_{AGR}$<br>[N]                   | Tip / Type / Typ<br>IE2 / IE3      |    |     |
|---------------|-------------------------------|---------------|-------|-----------|--------------|--------------|------------------|------------------------------------|------------------------------------|----|-----|
| <b>1.10</b>   | 38.8                          | 252           | 0.9   | 72.16     | 4.0          | 7.0          | 8.0              | 7.0                                | <b>PD/PM 12<br/>80M2C / 80M2D</b>  | 24 | 192 |
|               | 47.5                          | 206           | 1.0   | 58.91     | 4.0          | 7.0          | 9.0              | 7.0                                |                                    |    |     |
|               | 56.9                          | 172           | 1.1   | 49.22     | 4.0          | 7.0          | 9.0              | 7.0                                |                                    |    |     |
|               | 68.2                          | 143           | 1.2   | 41.04     | 4.0          | 7.0          | 9.0              | 7.0                                |                                    |    |     |
|               | 87.3                          | 112           | 1.6   | 32.07     | 4.0          | 7.0          | 9.0              | 7.0                                |                                    |    |     |
|               | 98.8                          | 99            | 1.7   | 28.35     | 4.0          | 7.0          | 9.0              | 7.0                                |                                    |    |     |
|               | 110.9                         | 88            | 1.9   | 25.24     | 4.0          | 7.0          | 9.0              | 7.0                                |                                    |    |     |
|               | 135.9                         | 72            | 2.4   | 20.61     | 4.0          | 7.0          | 10.0             | 7.0                                |                                    |    |     |
|               | 162.6                         | 60            | 2.8   | 17.22     | 4.0          | 7.0          | 10.0             | 7.0                                |                                    |    |     |
|               | 23.2                          | 433           | 0.8   | 38.83     | 5.0          | 7.0          | 8.0              | 11.0                               | <b>PD/PM C13<br/>90L6C / 90L6D</b> | 34 | 190 |
|               | 25.2                          | 398           | 0.8   | 35.71     | 5.0          | 7.0          | 8.0              | 11.0                               |                                    |    |     |
|               | 30.3                          | 331           | 0.9   | 29.71     | 5.0          | 7.0          | 8.0              | 11.0                               |                                    |    |     |
|               | 34.6                          | 290           | 1.0   | 26.02     | 5.0          | 7.0          | 8.0              | 11.0                               |                                    |    |     |
|               | 37.2                          | 270           | 1.1   | 24.17     | 5.0          | 7.0          | 8.0              | 11.0                               |                                    |    |     |
|               | 48.0                          | 209           | 1.2   | 18.76     | 5.0          | 7.0          | 8.0              | 11.0                               |                                    |    |     |
|               | 55.6                          | 181           | 1.3   | 16.20     | 4.0          | 7.0          | 8.0              | 11.0                               |                                    |    |     |
|               | 20.5                          | 482           | 0.8   | 68.27     | 6.0          | 7.0          | 8.0              | 11.0                               | <b>PD/PM C13<br/>90L4B / 90L4C</b> | 34 | 190 |
|               | 23.3                          | 424           | 0.9   | 60.09     | 4.0          | 7.0          | 8.0              | 11.0                               |                                    |    |     |
|               | 26.3                          | 376           | 0.9   | 53.28     | 5.0          | 7.0          | 8.0              | 11.0                               |                                    |    |     |
|               | 31.6                          | 313           | 1.1   | 44.33     | 5.0          | 7.0          | 8.0              | 11.0                               |                                    |    |     |
|               | 36.1                          | 274           | 1.2   | 38.83     | 5.0          | 7.0          | 8.0              | 11.0                               |                                    |    |     |
|               | 39.2                          | 252           | 1.2   | 35.71     | 5.0          | 7.0          | 8.0              | 11.0                               |                                    |    |     |
|               | 47.1                          | 210           | 1.3   | 29.71     | 5.0          | 7.0          | 8.0              | 11.0                               |                                    |    |     |
|               | 53.8                          | 184           | 1.5   | 26.02     | 5.0          | 7.0          | 8.0              | 11.0                               |                                    |    |     |
|               | 57.9                          | 170           | 1.6   | 24.17     | 5.0          | 7.0          | 8.0              | 11.0                               |                                    |    |     |
|               | 74.6                          | 132           | 1.8   | 18.76     | 5.0          | 7.0          | 8.0              | 11.0                               |                                    |    |     |
|               | 86.4                          | 114           | 2.0   | 16.20     | 4.0          | 7.0          | 8.0              | 11.0                               |                                    |    |     |
|               | 26.4                          | 357           | 0.8   | 106.03    | 6.0          | 7.0          | 8.0              | 11.0                               | <b>PD/PM C13<br/>80M2C / 80M2D</b> | 30 | 190 |
|               | 27.7                          | 341           | 0.8   | 101.01    | 6.0          | 7.0          | 8.0              | 11.0                               |                                    |    |     |
|               | 31.5                          | 300           | 0.9   | 88.92     | 6.0          | 7.0          | 8.0              | 11.0                               |                                    |    |     |
|               | 35.5                          | 266           | 1.1   | 78.83     | 6.0          | 7.0          | 8.0              | 11.0                               |                                    |    |     |
|               | 41.0                          | 230           | 1.2   | 68.27     | 6.0          | 7.0          | 8.0              | 11.0                               |                                    |    |     |
|               | 46.6                          | 203           | 1.4   | 60.09     | 4.0          | 7.0          | 8.0              | 11.0                               |                                    |    |     |
|               | 52.6                          | 180           | 1.5   | 53.28     | 5.0          | 7.0          | 8.0              | 11.0                               |                                    |    |     |
|               | 63.2                          | 149           | 1.7   | 44.33     | 5.0          | 7.0          | 8.0              | 11.0                               |                                    |    |     |
|               | 72.1                          | 131           | 1.9   | 38.83     | 5.0          | 7.0          | 8.0              | 11.0                               |                                    |    |     |
|               | 78.4                          | 120           | 1.9   | 35.71     | 5.0          | 7.0          | 8.0              | 11.0                               |                                    |    |     |
|               | 94.2                          | 100           | 2.1   | 29.71     | 5.0          | 7.0          | 8.0              | 11.0                               |                                    |    |     |
|               | 107.6                         | 88            | 2.3   | 26.02     | 5.0          | 7.0          | 8.0              | 11.0                               |                                    |    |     |
|               | 115.8                         | 81            | 2.6   | 24.17     | 5.0          | 7.0          | 8.0              | 11.0                               |                                    |    |     |
|               | 149.3                         | 63            | 2.9   | 18.76     | 5.0          | 7.0          | 8.0              | 11.0                               |                                    |    |     |
|               | 54.3                          | 188           | 0.8   | 16.57     | 3.0          | 5.0          | 7.0              | 5.0                                | <b>PD/PM B02<br/>90L6C / 90L6D</b> | 22 | 188 |
|               | 63.4                          | 161           | 1.1   | 14.20     | 3.0          | 5.0          | 7.0              | 5.0                                |                                    |    |     |
|               | 69.4                          | 147           | 1.1   | 12.96     | 3.0          | 5.0          | 7.0              | 5.0                                |                                    |    |     |
|               | 79.8                          | 128           | 1.2   | 11.28     | 3.0          | 5.0          | 7.0              | 5.0                                |                                    |    |     |
|               | 82.0                          | 124           | 1.3   | 10.97     | 3.0          | 5.0          | 7.0              | 5.0                                |                                    |    |     |
|               | 93.1                          | 110           | 1.4   | 9.67      | 3.0          | 5.0          | 7.0              | 5.0                                |                                    |    |     |
|               | 102.0                         | 100           | 1.5   | 8.82      | 3.0          | 5.0          | 7.0              | 5.0                                |                                    |    |     |
| 120.5         | 85                            | 1.6           | 7.47  | 3.0       | 4.0          | 7.0          | 5.0              |                                    |                                    |    |     |
| 140.0         | 73                            | 1.8           | 6.43  | 2.0       | 4.0          | 7.0          | 5.0              |                                    |                                    |    |     |
| 150.0         | 68                            | 1.9           | 6.00  | 2.0       | 4.0          | 7.0          | 5.0              |                                    |                                    |    |     |
| 174.1         | 59                            | 2.0           | 5.17  | 4.0       | 5.0          | 7.0          | 5.0              |                                    |                                    |    |     |
| 192.7         | 53                            | 2.2           | 4.67  | 4.0       | 5.0          | 7.0          | 5.0              |                                    |                                    |    |     |
| 223.9         | 46                            | 2.4           | 4.02  | 4.0       | 5.0          | 7.0          | 5.0              |                                    |                                    |    |     |
| 61.7          | 163                           | 0.8           | 22.68 | 4.0       | 5.0          | 7.0          | 5.0              | <b>PD/PM B02<br/>90L4B / 90L4C</b> |                                    |    |     |
| 64.9          | 155                           | 0.9           | 21.58 | 3.0       | 5.0          | 7.0          | 5.0              |                                    |                                    |    |     |
| 70.2          | 144                           | 0.9           | 19.94 | 3.0       | 5.0          | 7.0          | 5.0              |                                    |                                    |    |     |
| 79.5          | 127                           | 1.0           | 17.62 | 3.0       | 5.0          | 7.0          | 5.0              |                                    |                                    |    |     |
| 84.5          | 119                           | 1.2           | 16.57 | 3.0       | 5.0          | 7.0          | 5.0              |                                    |                                    |    |     |
| 98.6          | 102                           | 1.6           | 14.20 | 3.0       | 5.0          | 7.0          | 5.0              |                                    |                                    |    |     |
| 108.0         | 93                            | 1.7           | 12.96 | 3.0       | 5.0          | 7.0          | 5.0              |                                    |                                    |    |     |
| 124.1         | 81                            | 1.7           | 11.28 | 3.0       | 5.0          | 7.0          | 5.0              |                                    |                                    |    |     |
| 127.6         | 79                            | 1.9           | 10.97 | 3.0       | 5.0          | 7.0          | 5.0              |                                    |                                    |    |     |
| 144.8         | 70                            | 2.0           | 9.67  | 3.0       | 5.0          | 7.0          | 5.0              |                                    |                                    |    |     |
| 158.7         | 64                            | 2.2           | 8.82  | 3.0       | 5.0          | 7.0          | 5.0              |                                    |                                    |    |     |
| 187.4         | 54                            | 2.4           | 7.47  | 3.0       | 4.0          | 7.0          | 5.0              |                                    |                                    |    |     |
| 217.7         | 46                            | 2.7           | 6.43  | 2.0       | 4.0          | 7.0          | 5.0              |                                    |                                    |    |     |
| 233.3         | 43                            | 2.8           | 6.00  | 2.0       | 4.0          | 7.0          | 5.0              |                                    |                                    |    |     |

| P <sub>1</sub><br>[kW] | n <sub>2</sub><br>[Min <sup>-1</sup> ] | M <sub>2</sub><br>[Nm] | f <sub>B</sub> | i <sub>ges</sub> | F <sub>R</sub><br>[N] | F <sub>A</sub><br>[N] | F <sub>R GR</sub><br>[N] | F <sub>A GR</sub><br>[N] | Tip / Type / Typ<br>IE2 / IE3           |  Kg |  mm |
|------------------------|----------------------------------------|------------------------|----------------|------------------|-----------------------|-----------------------|--------------------------|--------------------------|-----------------------------------------|----------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------|
| <b>1.10</b>            | 63.3                                   | 155                    | 0.8            | 44.23            | 4.0                   | 5.0                   | 7.0                      | 5.0                      | <b>PD/PM B02<br/>80M2C / 80M2D</b>      | 18                                                                                     | 188                                                                                    |
|                        | 69.4                                   | 141                    | 0.9            | 40.35            | 4.0                   | 5.0                   | 7.0                      | 5.0                      |                                         |                                                                                        |                                                                                        |
|                        | 82.0                                   | 119                    | 1.0            | 34.16            | 4.0                   | 5.0                   | 7.0                      | 5.0                      |                                         |                                                                                        |                                                                                        |
|                        | 93.1                                   | 105                    | 0.9            | 30.08            | 4.0                   | 5.0                   | 7.0                      | 5.0                      |                                         |                                                                                        |                                                                                        |
|                        | 107.9                                  | 91                     | 1.1            | 25.96            | 4.0                   | 5.0                   | 7.0                      | 5.0                      |                                         |                                                                                        |                                                                                        |
|                        | 123.5                                  | 79                     | 1.2            | 22.68            | 4.0                   | 5.0                   | 7.0                      | 5.0                      |                                         |                                                                                        |                                                                                        |
|                        | 129.7                                  | 75                     | 1.4            | 21.58            | 3.0                   | 5.0                   | 7.0                      | 5.0                      |                                         |                                                                                        |                                                                                        |
|                        | 140.4                                  | 70                     | 1.4            | 19.94            | 3.0                   | 5.0                   | 7.0                      | 5.0                      |                                         |                                                                                        |                                                                                        |
|                        | 158.9                                  | 62                     | 1.6            | 17.62            | 3.0                   | 5.0                   | 7.0                      | 5.0                      |                                         |                                                                                        |                                                                                        |
|                        | 169.0                                  | 58                     | 1.8            | 16.57            | 3.0                   | 5.0                   | 7.0                      | 5.0                      |                                         |                                                                                        |                                                                                        |
|                        | 197.2                                  | 50                     | 2.5            | 14.20            | 3.0                   | 5.0                   | 7.0                      | 5.0                      |                                         |                                                                                        |                                                                                        |
|                        | 216.0                                  | 45                     | 2.7            | 12.96            | 3.0                   | 5.0                   | 7.0                      | 5.0                      |                                         |                                                                                        |                                                                                        |
|                        | 248.2                                  | 39                     | 2.7            | 11.28            | 3.0                   | 5.0                   | 7.0                      | 5.0                      |                                         |                                                                                        |                                                                                        |
|                        | 255.2                                  | 38                     | 3.0            | 10.97            | 3.0                   | 5.0                   | 7.0                      | 5.0                      |                                         |                                                                                        |                                                                                        |
|                        | 77.1                                   | 132                    | 0.9            | 11.67            | 3.0                   | 5.0                   | 5.0                      | 8.0                      | <b>PD/PM A02<br/>90L6C / 90L6D</b>      | 18                                                                                     | 186                                                                                    |
|                        | 94.8                                   | 107                    | 1.1            | 9.49             | 3.0                   | 5.0                   | 5.0                      | 8.0                      |                                         |                                                                                        |                                                                                        |
|                        | 104.3                                  | 98                     | 1.2            | 8.63             | 3.0                   | 5.0                   | 5.0                      | 8.0                      |                                         |                                                                                        |                                                                                        |
|                        | 124.1                                  | 82                     | 1.4            | 7.25             | 3.0                   | 4.0                   | 5.0                      | 8.0                      |                                         |                                                                                        |                                                                                        |
|                        | 141.7                                  | 72                     | 1.6            | 6.35             | 3.0                   | 4.0                   | 5.0                      | 8.0                      |                                         |                                                                                        |                                                                                        |
|                        | 168.9                                  | 60                     | 1.6            | 5.33             | 2.0                   | 4.0                   | 5.0                      | 8.0                      |                                         |                                                                                        |                                                                                        |
|                        | 212.3                                  | 48                     | 1.6            | 4.24             | 2.0                   | 4.0                   | 5.0                      | 8.0                      |                                         |                                                                                        |                                                                                        |
|                        | 84.6                                   | 119                    | 0.8            | 16.54            | 3.0                   | 5.0                   | 5.0                      | 8.0                      | <b>PD/PM A02<br/>90L4B / 90L4C</b>      | 18                                                                                     | 186                                                                                    |
|                        | 101.2                                  | 100                    | 1.1            | 13.83            | 3.0                   | 5.0                   | 5.0                      | 8.0                      |                                         |                                                                                        |                                                                                        |
|                        | 120.0                                  | 84                     | 1.3            | 11.67            | 3.0                   | 5.0                   | 5.0                      | 8.0                      |                                         |                                                                                        |                                                                                        |
|                        | 147.5                                  | 68                     | 1.6            | 9.49             | 3.0                   | 5.0                   | 5.0                      | 8.0                      |                                         |                                                                                        |                                                                                        |
|                        | 162.2                                  | 62                     | 1.8            | 8.63             | 3.0                   | 5.0                   | 5.0                      | 8.0                      |                                         |                                                                                        |                                                                                        |
|                        | 193.1                                  | 52                     | 2.1            | 7.25             | 3.0                   | 4.0                   | 5.0                      | 8.0                      |                                         |                                                                                        |                                                                                        |
|                        | 220.5                                  | 46                     | 2.4            | 6.35             | 3.0                   | 4.0                   | 5.0                      | 8.0                      |                                         |                                                                                        |                                                                                        |
|                        | 262.7                                  | 38                     | 2.4            | 5.33             | 2.0                   | 4.0                   | 5.0                      | 8.0                      |                                         |                                                                                        |                                                                                        |
|                        | 330.2                                  | 31                     | 2.4            | 4.24             | 2.0                   | 4.0                   | 5.0                      | 8.0                      |                                         |                                                                                        |                                                                                        |
|                        | 96.2                                   | 102                    | 0.8            | 29.11            | 3.0                   | 5.0                   | 5.0                      | 8.0                      | <b>PD/PM A02<br/>80M2C / 80M2D</b>      | 14                                                                                     | 186                                                                                    |
|                        | 114.0                                  | 86                     | 1.0            | 24.57            | 3.0                   | 5.0                   | 5.0                      | 8.0                      |                                         |                                                                                        |                                                                                        |
|                        | 125.3                                  | 78                     | 1.1            | 22.34            | 3.0                   | 5.0                   | 5.0                      | 8.0                      |                                         |                                                                                        |                                                                                        |
|                        | 149.2                                  | 66                     | 1.1            | 18.77            | 3.0                   | 5.0                   | 5.0                      | 8.0                      |                                         |                                                                                        |                                                                                        |
|                        | 169.3                                  | 58                     | 1.3            | 16.54            | 3.0                   | 5.0                   | 5.0                      | 8.0                      |                                         |                                                                                        |                                                                                        |
|                        | 187.8                                  | 52                     | 1.1            | 14.91            | 3.0                   | 5.0                   | 5.0                      | 8.0                      |                                         |                                                                                        |                                                                                        |
| 202.5                  | 48                                     | 1.7                    | 13.83          | 3.0              | 5.0                   | 5.0                   | 8.0                      |                          |                                         |                                                                                        |                                                                                        |
| 239.9                  | 41                                     | 2.1                    | 11.67          | 3.0              | 5.0                   | 5.0                   | 8.0                      |                          |                                         |                                                                                        |                                                                                        |
| 295.0                  | 33                                     | 2.5                    | 9.49           | 3.0              | 5.0                   | 5.0                   | 8.0                      |                          |                                         |                                                                                        |                                                                                        |
| 324.4                  | 30                                     | 2.9                    | 8.63           | 3.0              | 5.0                   | 5.0                   | 8.0                      |                          |                                         |                                                                                        |                                                                                        |
| <b>1.50</b>            | 0.2                                    | 59053                  | 1.1            | 4001.34          | -                     | -                     | -                        | -                        | <b>PD/PM 113/52<br/>100L6C / 100L6D</b> | 2180                                                                                   | 242                                                                                    |
|                        | 0.2                                    | 54944                  | 1.1            | 3722.96          | -                     | -                     | -                        | -                        |                                         |                                                                                        |                                                                                        |
|                        | 0.3                                    | 45200                  | 1.4            | 3062.69          | -                     | -                     | -                        | -                        |                                         |                                                                                        |                                                                                        |
|                        | 0.4                                    | 34363                  | 1.8            | 2328.41          | -                     | -                     | -                        | -                        |                                         |                                                                                        |                                                                                        |
|                        | 0.5                                    | 27000                  | 2.3            | 1829.47          | -                     | -                     | -                        | -                        |                                         |                                                                                        |                                                                                        |
|                        | 0.3                                    | 36848                  | 1.6            | 4001.34          | -                     | -                     | -                        | -                        | <b>PD/PM 113/52<br/>90L4C / 90L4D</b>   | 1132                                                                                   | 242                                                                                    |
|                        | 0.4                                    | 34284                  | 1.8            | 3722.96          | -                     | -                     | -                        | -                        |                                         |                                                                                        |                                                                                        |
|                        | 0.5                                    | 28204                  | 2.1            | 3062.69          | -                     | -                     | -                        | -                        |                                         |                                                                                        |                                                                                        |
|                        | 0.6                                    | 21442                  | 2.8            | 2328.41          | -                     | -                     | -                        | -                        |                                         |                                                                                        |                                                                                        |
|                        | 0.7                                    | 17131                  | 2.7            | 4001.34          | -                     | -                     | -                        | -                        | <b>PD/PM 113/52<br/>90L2B / 90L2C</b>   | 1132                                                                                   | 242                                                                                    |
|                        | 0.8                                    | 15939                  | 2.9            | 3722.96          | -                     | -                     | -                        | -                        |                                         |                                                                                        |                                                                                        |
|                        | 0.3                                    | 41272                  | 0.9            | 2796.57          | -                     | -                     | -                        | -                        | <b>PD/PM 103/52<br/>100L6C / 100L6D</b> | 1334                                                                                   | 242                                                                                    |
|                        | 0.6                                    | 20911                  | 1.8            | 1416.90          | -                     | -                     | 127.0                    | 150.0                    |                                         |                                                                                        |                                                                                        |
|                        | 0.8                                    | 17202                  | 2.1            | 1165.61          | -                     | -                     | 130.0                    | 150.0                    |                                         |                                                                                        |                                                                                        |
|                        | 1.0                                    | 13516                  | 2.7            | 915.84           | -                     | -                     | 134.0                    | 150.0                    |                                         |                                                                                        |                                                                                        |
|                        | 0.3                                    | 43072                  | 0.8            | 4677.24          | -                     | -                     | -                        | -                        | <b>PD/PM 103/52<br/>90L4C / 90L4D</b>   | 1324                                                                                   | 242                                                                                    |
|                        | 0.6                                    | 22126                  | 1.6            | 2404.69          | -                     | -                     | -                        | -                        |                                         |                                                                                        |                                                                                        |
|                        | 1.0                                    | 13048                  | 2.7            | 1416.90          | -                     | -                     | -                        | -                        |                                         |                                                                                        |                                                                                        |
|                        | 0.6                                    | 20025                  | 1.3            | 4677.24          | -                     | -                     | -                        | -                        | <b>PD/PM 103/52<br/>90L2B / 90L2C</b>   | 1324                                                                                   | 242                                                                                    |
|                        | 0.4                                    | 32510                  | 0.8            | 2202.85          | 120.0                 | 102.0                 | -                        | -                        | <b>PD/PM 93/42<br/>100L6C / 100L6D</b>  | 741                                                                                    | 242                                                                                    |
|                        | 0.5                                    | 25751                  | 1.0            | 1744.83          | 120.0                 | 102.0                 | -                        | -                        |                                         |                                                                                        |                                                                                        |
|                        | 0.6                                    | 20922                  | 1.2            | 1417.68          | 120.0                 | 102.0                 | 120.0                    | 130.0                    |                                         |                                                                                        |                                                                                        |
|                        | 0.8                                    | 17376                  | 1.5            | 1177.36          | 119.0                 | 102.0                 | 120.0                    | 130.0                    |                                         |                                                                                        |                                                                                        |
|                        | 1.0                                    | 13071                  | 1.9            | 885.67           | 110.0                 | 102.0                 | 120.0                    | 130.0                    |                                         |                                                                                        |                                                                                        |
| 1.3                    | 10557                                  | 2.4                    | 715.36         | 120.0            | 102.0                 | 120.0                 | 130.0                    |                          |                                         |                                                                                        |                                                                                        |
| 1.5                    | 9133                                   | 2.8                    | 618.83         | 120.0            | 102.0                 | 120.0                 | 130.0                    |                          |                                         |                                                                                        |                                                                                        |



| P <sub>1</sub><br>[kW] | n <sub>2</sub><br>[Min <sup>-1</sup> ] | M <sub>2</sub><br>[Nm] | f <sub>B</sub> | i <sub>ges</sub> | F <sub>R</sub><br>[N] | F <sub>A</sub><br>[N] | F <sub>R GR</sub><br>[N] | F <sub>A GR</sub><br>[N]       | Tip / Type / Typ<br>IE2 / IE3  |     |     |
|------------------------|----------------------------------------|------------------------|----------------|------------------|-----------------------|-----------------------|--------------------------|--------------------------------|--------------------------------|-----|-----|
| 1.50                   | 0.6                                    | 22412                  | 1.1            | 2433.68          | -                     | -                     | -                        | -                              | PD/PM 93/42<br>90L4C / 90L4D   | 731 | 242 |
|                        | 0.6                                    | 20286                  | 1.2            | 2202.85          | -                     | -                     | -                        | -                              |                                |     |     |
|                        | 0.8                                    | 16068                  | 1.5            | 1744.83          | -                     | -                     | -                        | -                              |                                |     |     |
|                        | 1.0                                    | 13055                  | 1.8            | 1417.68          | 120.0                 | 102.0                 | 120.0                    | 130.0                          |                                |     |     |
|                        | 1.2                                    | 10842                  | 2.2            | 1177.36          | 119.0                 | 102.0                 | 120.0                    | 130.0                          |                                |     |     |
|                        | 1.6                                    | 8156                   | 2.9            | 885.67           | 110.0                 | 102.0                 | 120.0                    | 130.0                          |                                |     |     |
|                        | 1.2                                    | 10419                  | 1.8            | 2433.68          | 120.0                 | 102.0                 | -                        | -                              | PD/PM 93/42<br>90L2B / 90L2C   | 731 | 242 |
|                        | 1.3                                    | 9431                   | 1.9            | 2202.85          | 120.0                 | 102.0                 | -                        | -                              |                                |     |     |
|                        | 1.6                                    | 7470                   | 2.4            | 1744.83          | 120.0                 | 102.0                 | -                        | -                              |                                |     |     |
|                        | 2.0                                    | 6069                   | 3.0            | 1417.68          | 120.0                 | 102.0                 | 120.0                    | 130.0                          |                                |     |     |
|                        | 1.6                                    | 8121                   | 1.6            | 550.29           | 88.0                  | 73.0                  | 100.0                    | 100.0                          | PD/PM 83/42<br>100L6C / 100L6D | 439 | 242 |
|                        | 1.9                                    | 6919                   | 1.8            | 468.82           | 84.0                  | 73.0                  | 100.0                    | 100.0                          |                                |     |     |
|                        | 2.6                                    | 5118                   | 2.5            | 346.82           | 84.0                  | 73.0                  | 100.0                    | 100.0                          |                                |     |     |
|                        | 3.0                                    | 4361                   | 2.9            | 295.48           | 84.0                  | 73.0                  | -                        | -                              |                                |     |     |
|                        | 2.5                                    | 5068                   | 2.4            | 550.29           | 88.0                  | 73.0                  | 100.0                    | 100.0                          | PD/PM 83/42<br>90L4C / 90L4D   | 429 | 242 |
|                        | 3.0                                    | 4317                   | 2.8            | 468.82           | 84.0                  | 73.0                  | 100.0                    | 100.0                          |                                |     |     |
|                        | 0.8                                    | 15671                  | 0.8            | 1061.83          | 84.0                  | 73.0                  | 100.0                    | 100.0                          | PD/PM 83/32<br>100L6C / 100L6D | 424 | 240 |
|                        | 1.0                                    | 13121                  | 1.0            | 889.06           | 87.0                  | 73.0                  | 100.0                    | 100.0                          |                                |     |     |
|                        | 1.3                                    | 10575                  | 1.2            | 716.55           | 89.0                  | 73.0                  | 100.0                    | 100.0                          |                                |     |     |
|                        | 1.5                                    | 9004                   | 1.4            | 610.07           | 92.0                  | 73.0                  | 100.0                    | 100.0                          |                                |     |     |
|                        | 0.8                                    | 15587                  | 0.8            | 1692.65          | -                     | -                     | -                        | -                              | PD/PM 83/32<br>90L4C / 90L4D   | 414 | 240 |
|                        | 1.0                                    | 12551                  | 1.0            | 1362.94          | 76.0                  | 73.0                  | 100.0                    | 100.0                          |                                |     |     |
|                        | 1.3                                    | 9778                   | 1.2            | 1061.83          | 84.0                  | 73.0                  | 100.0                    | 100.0                          |                                |     |     |
|                        | 1.6                                    | 8187                   | 1.5            | 889.06           | 87.0                  | 73.0                  | 100.0                    | 100.0                          |                                |     |     |
|                        | 2.0                                    | 6599                   | 1.8            | 716.55           | 89.0                  | 73.0                  | 100.0                    | 100.0                          |                                |     |     |
|                        | 2.3                                    | 5618                   | 2.2            | 610.07           | 90.0                  | 73.0                  | 100.0                    | 100.0                          |                                |     |     |
|                        | 1.2                                    | 10312                  | 0.9            | 2408.64          | 76.0                  | 73.0                  | -                        | -                              | PD/PM 83/32<br>90L2B / 90L2C   | 414 | 240 |
|                        | 1.7                                    | 7247                   | 1.3            | 1692.65          | 76.0                  | 73.0                  | -                        | -                              |                                |     |     |
|                        | 2.1                                    | 5835                   | 1.6            | 1362.94          | 76.0                  | 73.0                  | 100.0                    | 100.0                          |                                |     |     |
|                        | 2.6                                    | 4546                   | 2.0            | 1061.83          | 84.0                  | 73.0                  | 100.0                    | 100.0                          |                                |     |     |
|                        | 3.1                                    | 3806                   | 2.4            | 889.06           | 87.0                  | 73.0                  | 100.0                    | 100.0                          |                                |     |     |
|                        | 3.9                                    | 3068                   | 3.0            | 716.55           | 89.0                  | 73.0                  | 100.0                    | 100.0                          |                                |     |     |
|                        | 2.3                                    | 5877                   | 2.3            | 386.39           | 28.0                  | 46.0                  | 100.0                    | 105.0                          | PD/PM 83<br>100L6C / 100L6D    | 394 | 221 |
|                        | 2.8                                    | 4839                   | 2.8            | 318.11           | 28.0                  | 46.0                  | 100.0                    | 105.0                          |                                |     |     |
|                        | 3.1                                    | 4355                   | 1.7            | 295.06           | 57.0                  | 58.0                  | 81.0                     | 80.0                           | PD/PM 73/32<br>100L6C / 100L6D | 299 | 240 |
|                        | 4.0                                    | 3291                   | 2.3            | 223.01           | 51.0                  | 58.0                  | 82.0                     | 80.0                           |                                |     |     |
|                        | 4.7                                    | 2717                   | 2.6            | 295.06           | 57.0                  | 58.0                  | 81.0                     | 80.0                           | PD/PM 73/32<br>90L4C / 90L4D   | 289 | 240 |
|                        | 1.6                                    | 8423                   | 0.9            | 570.70           | 52.0                  | 58.0                  | 78.0                     | 80.0                           | PD/PM 73/22<br>100L6C / 100L6D | 288 | 240 |
|                        | 2.1                                    | 6417                   | 1.2            | 434.82           | 55.0                  | 58.0                  | 80.0                     | 80.0                           |                                |     |     |
|                        | 2.4                                    | 5553                   | 1.3            | 376.24           | 56.0                  | 58.0                  | 81.0                     | 80.0                           |                                |     |     |
| 1.5                    | 8585                                   | 0.8                    | 932.25         | 50.0             | 58.0                  | 76.0                  | 80.0                     | PD/PM 73/22<br>90L4C / 90L4D   | 278                            | 240 |     |
| 2.0                    | 6541                                   | 1.1                    | 710.29         | 49.0             | 58.0                  | 76.0                  | 80.0                     |                                |                                |     |     |
| 2.5                    | 5256                                   | 1.3                    | 570.70         | 52.0             | 58.0                  | 78.0                  | 80.0                     |                                |                                |     |     |
| 3.2                    | 4004                                   | 1.8                    | 434.82         | 55.0             | 58.0                  | 80.0                  | 80.0                     |                                |                                |     |     |
| 3.7                    | 3465                                   | 2.0                    | 376.24         | 56.0             | 58.0                  | 81.0                  | 80.0                     |                                |                                |     |     |
| 2.1                    | 5747                                   | 0.9                    | 1342.44        | 50.0             | 58.0                  | 77.0                  | 80.0                     | PD/PM 73/22<br>90L2B / 90L2C   | 278                            | 240 |     |
| 2.7                    | 4461                                   | 1.2                    | 1042.00        | 50.0             | 58.0                  | 74.0                  | 80.0                     |                                |                                |     |     |
| 3.0                    | 3991                                   | 1.3                    | 932.25         | 50.0             | 58.0                  | 76.0                  | 80.0                     |                                |                                |     |     |
| 3.9                    | 3041                                   | 1.8                    | 710.29         | 49.0             | 58.0                  | 76.0                  | 80.0                     |                                |                                |     |     |
| 4.9                    | 2443                                   | 2.2                    | 570.70         | 52.0             | 58.0                  | 78.0                  | 80.0                     |                                |                                |     |     |
| 6.4                    | 1862                                   | 2.9                    | 434.82         | 55.0             | 58.0                  | 80.0                  | 80.0                     |                                |                                |     |     |
| 2.7                    | 5147                                   | 1.5                    | 338.37         | 17.0             | 28.0                  | 79.0                  | 80.0                     | PD/PM 73<br>100L6C / 100L6D    | 269                            | 217 |     |
| 3.3                    | 4157                                   | 1.9                    | 273.32         | 17.0             | 28.0                  | 80.0                  | 80.0                     |                                |                                |     |     |
| 4.2                    | 3292                                   | 2.6                    | 216.45         | 17.0             | 28.0                  | 81.0                  | 80.0                     |                                |                                |     |     |
| 4.4                    | 3114                                   | 2.5                    | 204.72         | 17.0             | 28.0                  | 81.0                  | 80.0                     |                                |                                |     |     |
| 5.6                    | 2466                                   | 2.7                    | 162.12         | 17.0             | 28.0                  | -                     | -                        |                                |                                |     |     |
| 4.0                    | 3298                                   | 1.5                    | 223.50         | -                | -                     | -                     | -                        | PD/PM 63/32<br>100L6C / 100L6D | 226                            | 240 |     |
| 4.7                    | 2821                                   | 1.8                    | 191.13         | -                | -                     | -                     | -                        |                                |                                |     |     |
| 5.7                    | 2345                                   | 2.1                    | 158.90         | -                | -                     | -                     | -                        |                                |                                |     |     |
| 6.3                    | 2058                                   | 2.3                    | 223.50         | -                | -                     | -                     | -                        | PD/PM 63/32<br>90L4C / 90L4D   | 216                            | 240 |     |
| 7.3                    | 1760                                   | 2.7                    | 191.13         | -                | -                     | -                     | -                        |                                |                                |     |     |

| $P_1$<br>[kW] | $n_2$<br>[Min <sup>-1</sup> ] | $M_2$<br>[Nm] | $f_B$  | $i_{ges}$ | $F_R$<br>[N] | $F_A$<br>[N] | $F_{R GR}$<br>[N] | $F_{A GR}$<br>[N]            | Tip / Type / Typ<br>IE2 / IE3  |  Kg |  mm |
|---------------|-------------------------------|---------------|--------|-----------|--------------|--------------|-------------------|------------------------------|--------------------------------|----------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------|
| <b>1.50</b>   | 2.1                           | 6412          | 0.9    | 434.44    | 23.0         | 47.0         | 47.0              | 60.0                         | PD/PM 63/22<br>100L6C / 100L6D | 215                                                                                    | 240                                                                                    |
|               | 2.6                           | 5152          | 1.1    | 349.07    | 16.0         | 47.0         | 44.0              | 60.0                         |                                |                                                                                        |                                                                                        |
|               | 3.0                           | 4429          | 1.3    | 300.12    | 39.0         | 47.0         | -                 | -                            |                                |                                                                                        |                                                                                        |
|               | 2.2                           | 5869          | 0.9    | 637.34    | 22.0         | 47.0         | 47.0              | 60.0                         | PD/PM 63/22<br>90L4C / 90L4D   | 205                                                                                    | 240                                                                                    |
|               | 2.5                           | 5251          | 1.0    | 570.21    | 41.0         | 47.0         | 58.0              | 60.0                         |                                |                                                                                        |                                                                                        |
|               | 3.2                           | 4001          | 1.3    | 434.44    | 23.0         | 47.0         | 47.0              | 60.0                         |                                |                                                                                        |                                                                                        |
|               | 4.0                           | 3215          | 1.7    | 349.07    | 16.0         | 47.0         | 44.0              | 60.0                         |                                |                                                                                        |                                                                                        |
|               | 4.7                           | 2764          | 2.0    | 300.12    | -            | -            | -                 | -                            |                                |                                                                                        |                                                                                        |
|               | 2.2                           | 5398          | 0.8    | 1260.77   | 22.0         | 47.0         | 48.0              | 60.0                         | PD/PM 63/22<br>90L2B / 90L2C   | 205                                                                                    | 240                                                                                    |
|               | 2.5                           | 4730          | 0.9    | 1104.71   | 22.0         | 47.0         | 50.0              | 60.0                         |                                |                                                                                        |                                                                                        |
|               | 3.4                           | 3515          | 1.2    | 821.10    | 22.0         | 47.0         | -                 | -                            |                                |                                                                                        |                                                                                        |
|               | 4.4                           | 2729          | 1.5    | 637.34    | 22.0         | 47.0         | 47.0              | 60.0                         |                                |                                                                                        |                                                                                        |
|               | 4.9                           | 2441          | 1.7    | 570.21    | 41.0         | 47.0         | -                 | -                            |                                |                                                                                        |                                                                                        |
|               | 6.4                           | 1860          | 2.2    | 434.44    | 23.0         | 47.0         | 47.0              | 60.0                         |                                |                                                                                        |                                                                                        |
|               | 8.0                           | 1494          | 2.7    | 349.07    | 16.0         | 47.0         | 44.0              | 60.0                         |                                |                                                                                        |                                                                                        |
|               | 2.3                           | 5985          | 1.0    | 393.43    | 36.0         | 47.0         | 54.0              | 60.0                         | PD/PM 63<br>100L6C / 100L6D    | 196                                                                                    | 213                                                                                    |
|               | 2.8                           | 4832          | 1.2    | 317.64    | 38.0         | 47.0         | 56.0              | 60.0                         |                                |                                                                                        |                                                                                        |
|               | 3.4                           | 4076          | 1.5    | 267.94    | 40.0         | 47.0         | 55.0              | 60.0                         |                                |                                                                                        |                                                                                        |
|               | 3.6                           | 3828          | 1.2    | 251.63    | 40.0         | 47.0         | 57.0              | 60.0                         |                                |                                                                                        |                                                                                        |
|               | 4.0                           | 3435          | 1.2    | 225.83    | 40.0         | 47.0         | 58.0              | 60.0                         |                                |                                                                                        |                                                                                        |
|               | 4.2                           | 3230          | 1.5    | 212.36    | 35.0         | 47.0         | 56.0              | 60.0                         |                                |                                                                                        |                                                                                        |
|               | 5.3                           | 2607          | 2.2    | 171.37    | 35.0         | 47.0         | 57.0              | 60.0                         |                                |                                                                                        |                                                                                        |
|               | 5.6                           | 2435          | 2.5    | 160.11    | 35.0         | 47.0         | 58.0              | 60.0                         |                                |                                                                                        |                                                                                        |
|               | 7.1                           | 1929          | 2.5    | 126.84    | 35.0         | 47.0         | 58.0              | 60.0                         |                                |                                                                                        |                                                                                        |
|               | 2.5                           | 5311          | 1.0    | 552.15    | 28.0         | 47.0         | 50.0              | 60.0                         | PD/PM 63<br>90L4C / 90L4D      | 186                                                                                    | 213                                                                                    |
|               | 3.1                           | 4288          | 1.0    | 445.80    | 34.0         | 47.0         | 53.0              | 60.0                         |                                |                                                                                        |                                                                                        |
|               | 3.6                           | 3784          | 1.6    | 393.43    | 36.0         | 47.0         | 54.0              | 60.0                         |                                |                                                                                        |                                                                                        |
|               | 4.4                           | 3055          | 1.8    | 317.64    | 38.0         | 47.0         | 56.0              | 60.0                         |                                |                                                                                        |                                                                                        |
|               | 5.6                           | 2420          | 1.9    | 251.63    | 40.0         | 47.0         | 57.0              | 60.0                         |                                |                                                                                        |                                                                                        |
|               | 6.2                           | 2172          | 1.9    | 225.83    | 40.0         | 47.0         | 58.0              | 60.0                         |                                |                                                                                        |                                                                                        |
|               | 5.1                           | 2538          | 1.5    | 552.15    | 28.0         | 47.0         | 50.0              | 60.0                         | PD/PM 63<br>90L2B / 90L2C      | 186                                                                                    | 213                                                                                    |
|               | 6.3                           | 2050          | 1.5    | 445.80    | 34.0         | 47.0         | 53.0              | 60.0                         |                                |                                                                                        |                                                                                        |
|               | 7.1                           | 1809          | 2.5    | 393.43    | 36.0         | 47.0         | 54.0              | 60.0                         |                                |                                                                                        |                                                                                        |
|               | 8.8                           | 1460          | 2.9    | 317.64    | 38.0         | 47.0         | 56.0              | 60.0                         |                                |                                                                                        |                                                                                        |
|               | 11.1                          | 1157          | 2.9    | 251.63    | 40.0         | 47.0         | 57.0              | 60.0                         |                                |                                                                                        |                                                                                        |
|               | 12.4                          | 1038          | 2.9    | 225.83    | 40.0         | 47.0         | 58.0              | 60.0                         |                                |                                                                                        |                                                                                        |
|               | 3.3                           | 4087          | 0.8    | 272.80    | 21.0         | 32.0         | 38.0              | 40.0                         | PD/PM 52/12<br>100L6C / 100L6D | 125                                                                                    | 238                                                                                    |
|               | 3.9                           | 3486          | 0.9    | 232.65    | 21.0         | 32.0         | -                 | -                            |                                |                                                                                        |                                                                                        |
|               | 5.2                           | 2614          | 1.2    | 174.49    | 21.0         | 32.0         | -                 | -                            |                                |                                                                                        |                                                                                        |
|               | 6.3                           | 2132          | 1.5    | 142.31    | 21.0         | 32.0         | -                 | -                            |                                |                                                                                        |                                                                                        |
|               | 4.1                           | 3186          | 0.9    | 338.40    | -            | -            | -                 | -                            | PD/PM 52/12<br>90L4C / 90L4D   | 115                                                                                    | 238                                                                                    |
|               | 5.1                           | 2568          | 1.2    | 272.80    | 21.0         | 32.0         | 38.0              | 40.0                         |                                |                                                                                        |                                                                                        |
| 6.0           | 2190                          | 1.4           | 232.65 | -         | -            | -            | -                 |                              |                                |                                                                                        |                                                                                        |
| 8.0           | 1643                          | 1.8           | 174.49 | -         | -            | -            | -                 |                              |                                |                                                                                        |                                                                                        |
| 9.8           | 1340                          | 2.2           | 142.31 | -         | -            | -            | -                 |                              |                                |                                                                                        |                                                                                        |
| 5.1           | 2438                          | 0.9           | 549.54 | 21.0      | 32.0         | -            | -                 | PD/PM 52/12<br>90L2B / 90L2C | 115                            | 238                                                                                    |                                                                                        |
| 6.2           | 1988                          | 1.1           | 448.15 | 21.0      | 32.0         | -            | -                 |                              |                                |                                                                                        |                                                                                        |
| 8.3           | 1501                          | 1.5           | 338.40 | 21.0      | 32.0         | -            | -                 |                              |                                |                                                                                        |                                                                                        |
| 10.3          | 1210                          | 1.9           | 272.80 | 21.0      | 32.0         | 38.0         | 40.0              |                              |                                |                                                                                        |                                                                                        |
| 12.0          | 1032                          | 2.2           | 232.65 | 21.0      | 32.0         | -            | -                 |                              |                                |                                                                                        |                                                                                        |
| 16.0          | 774                           | 2.9           | 174.49 | 21.0      | 32.0         | -            | -                 |                              |                                |                                                                                        |                                                                                        |
| 3.6           | 3782                          | 0.9           | 248.66 | 28.0      | 32.0         | 42.0         | 40.0              | PD/PM 53<br>100L6C / 100L6D  | 134                            | 209                                                                                    |                                                                                        |
| 4.4           | 3085                          | 1.1           | 202.80 | 29.0      | 32.0         | 43.0         | 40.0              |                              |                                |                                                                                        |                                                                                        |
| 5.3           | 2607                          | 1.1           | 171.36 | 28.0      | 32.0         | 42.0         | 40.0              |                              |                                |                                                                                        |                                                                                        |
| 5.8           | 2340                          | 1.4           | 153.85 | 28.0      | 32.0         | 43.0         | 40.0              |                              |                                |                                                                                        |                                                                                        |
| 6.5           | 2111                          | 1.6           | 138.78 | 28.0      | 32.0         | 43.0         | 40.0              |                              |                                |                                                                                        |                                                                                        |
| 7.7           | 1784                          | 1.6           | 117.27 | 22.0      | 32.0         | -            | -                 |                              |                                |                                                                                        |                                                                                        |
| 9.8           | 1392                          | 2.2           | 91.51  | 28.0      | 32.0         | -            | -                 |                              |                                |                                                                                        |                                                                                        |
| 10.9          | 1256                          | 2.3           | 82.55  | 28.0      | 32.0         | -            | -                 |                              |                                |                                                                                        |                                                                                        |
|               |                               |               |        |           |              |              |                   |                              |                                |                                                                                        |                                                                                        |



| $P_1$<br>[kW] | $n_2$<br>[Min <sup>-1</sup> ] | $M_2$<br>[Nm] | $f_B$  | $i_{ges}$ | $F_R$<br>[N] | $F_A$<br>[N] | $F_{RGR}$<br>[N] | $F_{AGR}$<br>[N]                  | Tip / Type / Typ<br>IE2 / IE3          |     |     |
|---------------|-------------------------------|---------------|--------|-----------|--------------|--------------|------------------|-----------------------------------|----------------------------------------|-----|-----|
| <b>1.50</b>   | 3.3                           | 4116          | 0.8    | 427.97    | 25.0         | 32.0         | 40.0             | 40.0                              | <b>PD/PM 53<br/>90L4C / 90L4D</b>      | 124 | 209 |
|               | 3.9                           | 3478          | 0.8    | 361.64    | 23.0         | 32.0         | 39.0             | 40.0                              |                                        |     |     |
|               | 4.2                           | 3189          | 1.0    | 331.54    | 24.0         | 32.0         | 40.0             | 40.0                              |                                        |     |     |
|               | 5.2                           | 2601          | 1.0    | 270.40    | 27.0         | 32.0         | 41.0             | 40.0                              |                                        |     |     |
|               | 5.6                           | 2392          | 1.3    | 248.66    | 28.0         | 32.0         | 42.0             | 40.0                              |                                        |     |     |
|               | 6.9                           | 1951          | 1.6    | 202.80    | 29.0         | 32.0         | 43.0             | 40.0                              |                                        |     |     |
|               | 8.2                           | 1648          | 1.7    | 171.36    | 28.0         | 32.0         | 42.0             | 40.0                              |                                        |     |     |
|               | 9.1                           | 1480          | 2.2    | 153.85    | 28.0         | 32.0         | 43.0             | 40.0                              |                                        |     |     |
|               | 10.1                          | 1335          | 2.4    | 138.78    | 28.0         | 32.0         | 43.0             | 40.0                              |                                        |     |     |
|               | 11.9                          | 1128          | 2.4    | 117.27    | 22.0         | 32.0         | 40.0             | 40.0                              |                                        |     |     |
|               | 4.0                           | 3217          | 0.8    | 699.67    | 25.0         | 32.0         | 39.0             | 40.0                              | <b>PD/PM 53<br/>90L2B / 90L2C</b>      | 124 | 209 |
|               | 4.9                           | 2623          | 0.8    | 570.63    | 25.0         | 32.0         | 41.0             | 40.0                              |                                        |     |     |
|               | 5.3                           | 2413          | 1.0    | 524.75    | 25.0         | 32.0         | 38.0             | 40.0                              |                                        |     |     |
|               | 6.5                           | 1968          | 1.2    | 427.97    | 25.0         | 32.0         | 43.0             | 40.0                              |                                        |     |     |
|               | 7.7                           | 1663          | 1.3    | 361.64    | 23.0         | 32.0         | 39.0             | 40.0                              |                                        |     |     |
|               | 8.4                           | 1524          | 1.6    | 331.54    | 24.0         | 32.0         | 40.0             | 40.0                              |                                        |     |     |
|               | 10.4                          | 1243          | 1.7    | 270.40    | 27.0         | 32.0         | 41.0             | 40.0                              |                                        |     |     |
|               | 11.3                          | 1143          | 2.1    | 248.66    | 28.0         | 32.0         | 42.0             | 40.0                              |                                        |     |     |
|               | 13.8                          | 932           | 2.6    | 202.80    | 29.0         | 32.0         | 43.0             | 40.0                              |                                        |     |     |
|               | 16.3                          | 788           | 2.7    | 171.36    | 28.0         | 32.0         | 42.0             | 40.0                              |                                        |     |     |
|               | 6.7                           | 2070          | 1.3    | 134.05    | 30.0         | 32.0         | 44.0             | 40.0                              | <b>PD/PM 52<br/>100L6C / 100L6D</b>    | 115 | 208 |
|               | 9.0                           | 1547          | 1.5    | 100.15    | 28.0         | 32.0         | 44.0             | 40.0                              |                                        |     |     |
|               | 9.8                           | 1418          | 2.0    | 91.82     | 31.0         | 32.0         | 44.0             | 40.0                              |                                        |     |     |
|               | 11.0                          | 1261          | 1.5    | 81.68     | 31.0         | 32.0         | 44.0             | 40.0                              |                                        |     |     |
|               | 13.1                          | 1059          | 2.9    | 68.60     | 31.0         | 32.0         | 44.0             | 40.0                              |                                        |     |     |
|               | 10.4                          | 1317          | 2.0    | 134.05    | 30.0         | 32.0         | 44.0             | 40.0                              | <b>PD/PM 52<br/>90L4C / 90L4D</b>      | 105 | 208 |
|               | 14.0                          | 984           | 2.3    | 100.15    | 28.0         | 32.0         | 44.0             | 40.0                              |                                        |     |     |
|               | 5.9                           | 2285          | 0.8    | 152.50    | 16.0         | 22.0         | 26.0             | 30.0                              | <b>PD/PM 42/12<br/>100L6C / 100L6D</b> | 89  | 238 |
|               | 7.1                           | 1909          | 1.0    | 127.43    | 22.0         | 22.0         | -                | -                                 |                                        |     |     |
|               | 6.0                           | 2209          | 0.8    | 234.61    | -            | -            | -                | -                                 | <b>PD/PM 42/12<br/>90L4C / 90L4D</b>   | 79  | 238 |
|               | 7.9                           | 1668          | 1.1    | 177.15    | -            | -            | -                | -                                 |                                        |     |     |
|               | 9.2                           | 1436          | 1.3    | 152.50    | 16.0         | 22.0         | 26.0             | 30.0                              |                                        |     |     |
|               | 11.0                          | 1200          | 1.5    | 127.43    | -            | -            | -                | -                                 |                                        |     |     |
|               | 6.8                           | 1817          | 0.8    | 409.62    | 16.0         | 22.0         | -                | -                                 | <b>PD/PM 42/12<br/>90L2B / 90L2C</b>   | 79  | 238 |
|               | 8.2                           | 1514          | 0.9    | 341.25    | 16.0         | 22.0         | -                | -                                 |                                        |     |     |
|               | 9.3                           | 1340          | 1.0    | 302.14    | 16.0         | 22.0         | -                | -                                 |                                        |     |     |
|               | 11.9                          | 1041          | 1.3    | 234.61    | 16.0         | 22.0         | -                | -                                 |                                        |     |     |
|               | 15.8                          | 786           | 1.7    | 177.15    | 16.0         | 22.0         | -                | -                                 |                                        |     |     |
|               | 18.4                          | 677           | 2.0    | 152.50    | 16.0         | 22.0         | 26.0             | 30.0                              |                                        |     |     |
|               | 22.0                          | 565           | 2.4    | 127.43    | 22.0         | 22.0         | -                | -                                 |                                        |     |     |
|               | 6.4                           | 2139          | 1.0    | 140.61    | 16.0         | 22.0         | 27.0             | 30.0                              | <b>PD/PM 43<br/>100L6C / 100L6D</b>    | 94  | 205 |
|               | 7.6                           | 1803          | 1.2    | 118.53    | 17.0         | 22.0         | 28.0             | 30.0                              |                                        |     |     |
|               | 8.7                           | 1580          | 1.3    | 103.86    | 15.0         | 22.0         | 27.0             | 30.0                              |                                        |     |     |
|               | 10.4                          | 1320          | 1.6    | 86.78     | 12.0         | 22.0         | -                | -                                 |                                        |     |     |
|               | 5.5                           | 2435          | 0.8    | 253.13    | 12.0         | 22.0         | 25.0             | 30.0                              | <b>PD/PM 43<br/>90L4C / 90L4D</b>      | 84  | 205 |
|               | 6.6                           | 2030          | 0.8    | 211.05    | 16.0         | 22.0         | 27.0             | 30.0                              |                                        |     |     |
|               | 7.3                           | 1842          | 1.1    | 191.52    | 17.0         | 22.0         | 28.0             | 30.0                              |                                        |     |     |
|               | 8.7                           | 1539          | 1.1    | 160.03    | 21.0         | 22.0         | 30.0             | 30.0                              |                                        |     |     |
| 10.0          | 1352                          | 1.5           | 140.61 | 16.0      | 22.0         | 27.0         | 30.0             |                                   |                                        |     |     |
| 11.8          | 1140                          | 1.8           | 118.53 | 17.0      | 22.0         | 28.0         | 30.0             |                                   |                                        |     |     |
| 13.5          | 999                           | 2.0           | 103.86 | 15.0      | 22.0         | 27.0         | 30.0             |                                   |                                        |     |     |
| 16.1          | 835                           | 2.4           | 86.78  | 12.0      | 22.0         | 26.0         | 30.0             |                                   |                                        |     |     |
| 6.8           | 1897                          | 0.8           | 412.63 | 12.0      | 22.0         | 27.0         | 30.0             | <b>PD/PM 43<br/>90L2B / 90L2C</b> | 84                                     | 205 |     |
| 7.2           | 1798                          | 0.8           | 391.14 | 12.0      | 22.0         | 27.0         | 30.0             |                                   |                                        |     |     |
| 8.1           | 1585                          | 0.8           | 344.78 | 12.0      | 22.0         | 28.0         | 30.0             |                                   |                                        |     |     |
| 8.6           | 1503                          | 1.0           | 326.83 | 12.0      | 22.0         | 25.0         | 30.0             |                                   |                                        |     |     |
| 9.2           | 1393                          | 1.1           | 302.94 | 12.0      | 22.0         | 26.0         | 30.0             |                                   |                                        |     |     |
| 10.3          | 1253                          | 1.0           | 272.49 | 12.0      | 22.0         | 27.0         | 30.0             |                                   |                                        |     |     |
| 11.1          | 1164                          | 1.3           | 253.13 | 12.0      | 22.0         | 25.0         | 30.0             |                                   |                                        |     |     |
| 13.3          | 970                           | 1.3           | 211.05 | 16.0      | 22.0         | 27.0         | 30.0             |                                   |                                        |     |     |
| 14.6          | 881                           | 1.7           | 191.52 | 17.0      | 22.0         | 28.0         | 30.0             |                                   |                                        |     |     |
| 17.5          | 736                           | 1.7           | 160.03 | 21.0      | 22.0         | 30.0         | 30.0             |                                   |                                        |     |     |
| 19.9          | 646                           | 2.4           | 140.61 | 16.0      | 22.0         | 27.0         | 30.0             |                                   |                                        |     |     |
| 23.6          | 545                           | 2.8           | 118.53 | 17.0      | 22.0         | 28.0         | 30.0             |                                   |                                        |     |     |



| $P_1$<br>[kW] | $n_2$<br>[Min <sup>-1</sup> ] | $M_2$<br>[Nm] | $f_B$  | $i_{ges}$ | $F_R$<br>[N] | $F_A$<br>[N] | $F_{RGR}$<br>[N] | $F_{AGR}$<br>[N]                  | Tip / Type / Typ<br>IE2 / IE3        |  Kg |  mm |                                   |     |     |
|---------------|-------------------------------|---------------|--------|-----------|--------------|--------------|------------------|-----------------------------------|--------------------------------------|----------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------|-----------------------------------|-----|-----|
| <b>1.50</b>   | 8.1                           | 1710          | 1.0    | 110.73    | 19.0         | 22.0         | 30.0             | 30.0                              | <b>PD/PM 42<br/>100L6C / 100L6D</b>  | 79                                                                                     | 204                                                                                    |                                   |     |     |
|               | 9.9                           | 1398          | 1.2    | 90.52     | 19.0         | 22.0         | 30.0             | 30.0                              |                                      |                                                                                        |                                                                                        |                                   |     |     |
|               | 11.9                          | 1165          | 1.4    | 75.41     | 21.0         | 22.0         | 30.0             | 30.0                              |                                      |                                                                                        |                                                                                        |                                   |     |     |
|               | 14.6                          | 952           | 2.0    | 61.64     | 21.0         | 22.0         | 30.0             | 30.0                              |                                      |                                                                                        |                                                                                        |                                   |     |     |
|               | 17.2                          | 807           | 2.4    | 52.23     | 21.0         | 22.0         | 30.0             | 30.0                              |                                      |                                                                                        |                                                                                        |                                   |     |     |
|               | 20.0                          | 696           | 2.4    | 45.06     | 21.0         | 22.0         | 30.0             | 30.0                              |                                      |                                                                                        |                                                                                        |                                   |     |     |
|               | 20.6                          | 674           | 2.5    | 43.64     | 21.0         | 22.0         | 29.0             | 30.0                              |                                      |                                                                                        |                                                                                        |                                   |     |     |
|               | 22.1                          | 630           | 2.6    | 40.79     | 21.0         | 22.0         | 29.0             | 30.0                              |                                      |                                                                                        |                                                                                        |                                   |     |     |
|               | 24.4                          | 569           | 2.6    | 36.84     | 21.0         | 22.0         | 28.0             | 30.0                              |                                      |                                                                                        |                                                                                        |                                   |     |     |
|               | 24.7                          | 562           | 2.6    | 36.39     | 21.0         | 22.0         | 28.0             | 30.0                              |                                      |                                                                                        |                                                                                        |                                   |     |     |
|               | 9.0                           | 1526          | 0.8    | 155.40    | 19.0         | 22.0         | 29.0             | 30.0                              |                                      |                                                                                        |                                                                                        | <b>PD/PM 42<br/>90L4C / 90L4D</b> | 69  | 204 |
|               | 12.6                          | 1088          | 1.5    | 110.73    | 19.0         | 22.0         | 30.0             | 30.0                              |                                      |                                                                                        |                                                                                        |                                   |     |     |
|               | 15.5                          | 889           | 1.8    | 90.52     | 19.0         | 22.0         | 30.0             | 30.0                              |                                      |                                                                                        |                                                                                        |                                   |     |     |
|               | 18.0                          | 740           | 1.3    | 155.40    | 19.0         | 22.0         | 29.0             | 30.0                              | <b>PD/PM 42<br/>90L2B / 90L2C</b>    | 69                                                                                     | 204                                                                                    |                                   |     |     |
|               | 25.3                          | 528           | 2.3    | 110.73    | 19.0         | 22.0         | 30.0             | 30.0                              |                                      |                                                                                        |                                                                                        |                                   |     |     |
|               | 30.9                          | 431           | 2.8    | 90.52     | 19.0         | 22.0         | 30.0             | 30.0                              |                                      |                                                                                        |                                                                                        |                                   |     |     |
|               | 12.3                          | 1073          | 0.8    | 114.01    | 11.0         | 15.0         | 20.0             | 20.0                              | <b>PD/PM 32/12<br/>90L4C / 90L4D</b> | 64                                                                                     | 238                                                                                    |                                   |     |     |
|               | 16.0                          | 826           | 1.1    | 87.71     | -            | -            | -                | -                                 |                                      |                                                                                        |                                                                                        |                                   |     |     |
|               | 15.6                          | 797           | 0.9    | 179.71    | 11.0         | 15.0         | -                | -                                 | <b>PD/PM 32/12<br/>90L2B / 90L2C</b> | 64                                                                                     | 238                                                                                    |                                   |     |     |
|               | 19.8                          | 627           | 1.1    | 141.42    | 11.0         | 15.0         | 21.0             | 20.0                              |                                      |                                                                                        |                                                                                        |                                   |     |     |
|               | 24.6                          | 506           | 1.4    | 114.01    | 11.0         | 15.0         | 20.0             | 20.0                              |                                      |                                                                                        |                                                                                        |                                   |     |     |
|               | 31.9                          | 389           | 1.8    | 87.71     | 13.0         | 15.0         | -                | -                                 |                                      |                                                                                        |                                                                                        |                                   |     |     |
|               | 14.7                          | 877           | 0.8    | 190.74    | 13.0         | 15.0         | 21.0             | 20.0                              | <b>PD/PM 33<br/>90L2B / 90L2C</b>    | 62                                                                                     | 201                                                                                    |                                   |     |     |
|               | 17.4                          | 742           | 0.8    | 161.38    | 13.0         | 15.0         | -                | -                                 |                                      |                                                                                        |                                                                                        |                                   |     |     |
|               | 22.0                          | 584           | 1.0    | 127.01    | 13.0         | 15.0         | -                | -                                 |                                      |                                                                                        |                                                                                        |                                   |     |     |
|               | 26.9                          | 478           | 1.2    | 103.92    | 13.0         | 15.0         | -                | -                                 |                                      |                                                                                        |                                                                                        |                                   |     |     |
|               | 31.3                          | 411           | 1.1    | 89.45     | 13.0         | 15.0         | -                | -                                 |                                      |                                                                                        |                                                                                        |                                   |     |     |
|               | 14.0                          | 990           | 1.1    | 64.11     | 11.0         | 15.0         | 22.0             | 20.0                              | <b>PD/PM 32<br/>100L6C / 100L6D</b>  | 64                                                                                     | 200                                                                                    |                                   |     |     |
|               | 17.0                          | 818           | 1.1    | 52.98     | 10.0         | 15.0         | 22.0             | 20.0                              |                                      |                                                                                        |                                                                                        |                                   |     |     |
|               | 20.1                          | 692           | 1.1    | 44.83     | 10.0         | 15.0         | 21.0             | 20.0                              |                                      |                                                                                        |                                                                                        |                                   |     |     |
|               | 21.4                          | 649           | 1.5    | 42.05     | 10.0         | 15.0         | 20.0             | 20.0                              |                                      |                                                                                        |                                                                                        |                                   |     |     |
|               | 23.3                          | 596           | 1.1    | 38.59     | 10.0         | 15.0         | 20.0             | 20.0                              |                                      |                                                                                        |                                                                                        |                                   |     |     |
|               | 23.8                          | 584           | 1.5    | 37.79     | 10.0         | 15.0         | 20.0             | 20.0                              |                                      |                                                                                        |                                                                                        |                                   |     |     |
|               | 28.2                          | 493           | 1.9    | 31.90     | 9.0          | 15.0         | 19.0             | 20.0                              |                                      |                                                                                        |                                                                                        |                                   |     |     |
|               | 31.4                          | 443           | 2.1    | 28.67     | 12.0         | 15.0         | 18.0             | 20.0                              |                                      |                                                                                        |                                                                                        |                                   |     |     |
|               | 34.8                          | 399           | 2.2    | 25.86     | 12.0         | 15.0         | 18.0             | 20.0                              |                                      |                                                                                        |                                                                                        |                                   |     |     |
|               | 38.0                          | 366           | 2.3    | 23.69     | 12.0         | 15.0         | 18.0             | 20.0                              |                                      |                                                                                        |                                                                                        |                                   |     |     |
|               | 40.1                          | 346           | 2.4    | 22.42     | 12.0         | 15.0         | 17.0             | 20.0                              |                                      |                                                                                        |                                                                                        |                                   |     |     |
|               | 42.1                          | 330           | 2.3    | 21.37     | 12.0         | 15.0         | 17.0             | 20.0                              |                                      |                                                                                        |                                                                                        |                                   |     |     |
|               | 44.7                          | 311           | 2.8    | 20.15     | 12.0         | 15.0         | 16.0             | 20.0                              |                                      |                                                                                        |                                                                                        |                                   |     |     |
|               | 13.9                          | 991           | 0.8    | 100.85    | 13.0         | 15.0         | 22.0             | 20.0                              | <b>PD/PM 32<br/>90L4C / 90L4D</b>    | 54                                                                                     | 200                                                                                    |                                   |     |     |
|               | 15.8                          | 872           | 1.1    | 88.74     | 11.0         | 15.0         | 22.0             | 20.0                              |                                      |                                                                                        |                                                                                        |                                   |     |     |
|               | 17.6                          | 783           | 1.1    | 79.75     | 11.0         | 15.0         | 22.0             | 20.0                              |                                      |                                                                                        |                                                                                        |                                   |     |     |
|               | 19.9                          | 693           | 0.8    | 70.52     | 12.0         | 15.0         | 22.0             | 20.0                              |                                      |                                                                                        |                                                                                        |                                   |     |     |
|               | 21.2                          | 647           | 1.2    | 65.91     | 11.0         | 15.0         | 22.0             | 20.0                              |                                      |                                                                                        |                                                                                        |                                   |     |     |
|               | 21.8                          | 630           | 1.6    | 64.11     | 11.0         | 15.0         | 22.0             | 20.0                              |                                      |                                                                                        |                                                                                        |                                   |     |     |
|               | 25.1                          | 548           | 1.2    | 55.76     | 10.0         | 15.0         | 22.0             | 20.0                              |                                      |                                                                                        |                                                                                        |                                   |     |     |
|               | 26.4                          | 520           | 1.6    | 52.98     | 10.0         | 15.0         | 22.0             | 20.0                              |                                      |                                                                                        |                                                                                        |                                   |     |     |
| 29.2          | 471                           | 1.2           | 48.00  | 10.0      | 15.0         | 21.0         | 20.0             |                                   |                                      |                                                                                        |                                                                                        |                                   |     |     |
| 31.2          | 440                           | 1.7           | 44.83  | 10.0      | 15.0         | 21.0         | 20.0             |                                   |                                      |                                                                                        |                                                                                        |                                   |     |     |
| 33.3          | 413                           | 2.2           | 42.05  | 10.0      | 15.0         | 20.0         | 20.0             |                                   |                                      |                                                                                        |                                                                                        |                                   |     |     |
| 36.3          | 379                           | 1.7           | 38.59  | 10.0      | 15.0         | 20.0         | 20.0             |                                   |                                      |                                                                                        |                                                                                        |                                   |     |     |
| 37.0          | 371                           | 2.2           | 37.79  | 10.0      | 15.0         | 20.0         | 20.0             |                                   |                                      |                                                                                        |                                                                                        |                                   |     |     |
| 43.9          | 313                           | 2.8           | 31.90  | 9.0       | 15.0         | 19.0         | 20.0             |                                   |                                      |                                                                                        |                                                                                        |                                   |     |     |
| 24.9          | 535                           | 1.1           | 112.23 | 13.0      | 15.0         | 22.0         | 20.0             | <b>PD/PM 32<br/>90L2B / 90L2C</b> |                                      |                                                                                        |                                                                                        | 54                                | 200 |     |
| 27.8          | 480                           | 1.3           | 100.85 | 13.0      | 15.0         | 22.0         | 20.0             |                                   |                                      |                                                                                        |                                                                                        |                                   |     |     |
| 31.6          | 423                           | 1.7           | 88.74  | 11.0      | 15.0         | 22.0         | 20.0             |                                   |                                      |                                                                                        |                                                                                        |                                   |     |     |
| 35.1          | 380                           | 1.7           | 79.75  | 11.0      | 15.0         | 22.0         | 20.0             |                                   |                                      |                                                                                        |                                                                                        |                                   |     |     |
| 39.7          | 336                           | 1.3           | 70.52  | 12.0      | 15.0         | 22.0         | 20.0             |                                   |                                      |                                                                                        |                                                                                        |                                   |     |     |
| 42.5          | 314                           | 1.8           | 65.91  | 11.0      | 15.0         | 22.0         | 20.0             |                                   |                                      |                                                                                        |                                                                                        |                                   |     |     |
| 43.7          | 305                           | 2.5           | 64.11  | 11.0      | 15.0         | 22.0         | 20.0             |                                   |                                      |                                                                                        |                                                                                        |                                   |     |     |
| 50.2          | 266                           | 1.8           | 55.76  | 10.0      | 15.0         | 22.0         | 20.0             |                                   |                                      |                                                                                        |                                                                                        |                                   |     |     |
| 52.9          | 252                           | 2.5           | 52.98  | 10.0      | 15.0         | 22.0         | 20.0             |                                   |                                      |                                                                                        |                                                                                        |                                   |     |     |
| 58.3          | 229                           | 1.8           | 48.00  | 10.0      | 15.0         | 21.0         | 20.0             |                                   |                                      |                                                                                        |                                                                                        |                                   |     |     |
| 62.5          | 214                           | 2.6           | 44.83  | 10.0      | 15.0         | 21.0         | 20.0             |                                   |                                      |                                                                                        |                                                                                        |                                   |     |     |
| 72.6          | 184                           | 2.6           | 38.59  | 10.0      | 15.0         | 20.0         | 20.0             |                                   |                                      |                                                                                        |                                                                                        |                                   |     |     |



| $P_1$<br>[kW] | $n_2$<br>[Min <sup>-1</sup> ] | $M_2$<br>[Nm] | $f_B$ | $i_{ges}$ | $F_R$<br>[N] | $F_A$<br>[N] | $F_{RGR}$<br>[N] | $F_{AGR}$<br>[N]                    | Tip / Type / Typ<br>IE2 / IE3       |     |     |
|---------------|-------------------------------|---------------|-------|-----------|--------------|--------------|------------------|-------------------------------------|-------------------------------------|-----|-----|
| <b>1.50</b>   | 28.5                          | 452           | 0.9   | 98.40     | 5.0          | 12.0         | 11.0             | 15.0                                | <b>PD/PM 23<br/>90L2B / 90L2C</b>   | 46  | 197 |
|               | 34.0                          | 378           | 1.1   | 82.29     | 5.0          | 12.0         | -                | -                                   |                                     |     |     |
|               | 20.6                          | 675           | 0.9   | 43.73     | 9.0          | 12.0         | 13.0             | 15.0                                |                                     |     |     |
|               | 24.6                          | 565           | 0.9   | 36.57     | 8.0          | 12.0         | 13.0             | 15.0                                |                                     |     |     |
|               | 28.8                          | 482           | 1.0   | 31.20     | 8.0          | 12.0         | 14.0             | 15.0                                |                                     |     |     |
|               | 30.4                          | 458           | 1.1   | 29.64     | 8.0          | 12.0         | 14.0             | 15.0                                |                                     |     |     |
|               | 33.6                          | 414           | 1.1   | 26.81     | 8.0          | 12.0         | 14.0             | 15.0                                |                                     |     |     |
|               | 36.0                          | 386           | 1.3   | 24.98     | 8.0          | 12.0         | 14.0             | 15.0                                |                                     |     |     |
|               | 37.5                          | 370           | 1.2   | 23.99     | 8.0          | 12.0         | 14.0             | 15.0                                |                                     |     |     |
|               | 41.1                          | 338           | 1.5   | 21.89     | 8.0          | 12.0         | 14.0             | 15.0                                |                                     |     |     |
| 48.6          | 286                           | 1.8           | 18.51 | 7.0       | 12.0         | 14.0         | 15.0             | <b>PD/PM 22<br/>100L6C / 100L6D</b> | 49                                  | 196 |     |
| 54.3          | 256                           | 1.9           | 16.56 | 7.0       | 12.0         | 14.0         | 15.0             |                                     |                                     |     |     |
| 68.2          | 204                           | 2.1           | 13.20 | 9.0       | 12.0         | 13.0         | 15.0             |                                     |                                     |     |     |
| 76.2          | 182                           | 2.2           | 11.81 | 9.0       | 12.0         | 13.0         | 15.0             |                                     |                                     |     |     |
| 88.6          | 157                           | 2.4           | 10.16 | 9.0       | 12.0         | 12.0         | 15.0             |                                     |                                     |     |     |
| 100.0         | 139                           | 2.5           | 9.00  | 9.0       | 12.0         | 11.0         | 15.0             |                                     |                                     |     |     |
| 107.7         | 129                           | 2.1           | 8.36  | 9.0       | 12.0         | 11.0         | 15.0             |                                     |                                     |     |     |
| 120.3         | 116                           | 2.2           | 7.48  | 9.0       | 12.0         | 11.0         | 15.0             |                                     |                                     |     |     |
| 140.0         | 99                            | 2.4           | 6.43  | 9.0       | 12.0         | 10.0         | 15.0             |                                     |                                     |     |     |
| 157.9         | 88                            | 2.5           | 5.70  | 9.0       | 12.0         | 10.0         | 15.0             |                                     |                                     |     |     |
| 199.6         | 70                            | 2.8           | 4.51  | 9.0       | 12.0         | 9.0          | 15.0             |                                     |                                     |     |     |
| <b>1.50</b>   | 21.9                          | 627           | 0.8   | 63.86     | 7.0          | 12.0         | 12.0             | 15.0                                | <b>PD/PM 22<br/>90L4C / 90L4D</b>   | 39  | 196 |
|               | 25.9                          | 530           | 1.0   | 53.98     | 8.0          | 12.0         | 13.0             | 15.0                                |                                     |     |     |
|               | 27.1                          | 508           | 1.0   | 51.73     | 8.0          | 12.0         | 13.0             | 15.0                                |                                     |     |     |
|               | 31.0                          | 443           | 1.0   | 45.14     | 9.0          | 12.0         | 13.0             | 15.0                                |                                     |     |     |
|               | 32.0                          | 430           | 1.3   | 43.73     | 9.0          | 12.0         | 13.0             | 15.0                                |                                     |     |     |
|               | 38.3                          | 359           | 1.4   | 36.57     | 8.0          | 12.0         | 13.0             | 15.0                                |                                     |     |     |
|               | 44.9                          | 306           | 1.5   | 31.20     | 8.0          | 12.0         | 14.0             | 15.0                                |                                     |     |     |
|               | 47.2                          | 291           | 1.7   | 29.64     | 8.0          | 12.0         | 14.0             | 15.0                                |                                     |     |     |
|               | 52.2                          | 263           | 1.7   | 26.81     | 8.0          | 12.0         | 14.0             | 15.0                                |                                     |     |     |
|               | 56.0                          | 245           | 2.0   | 24.98     | 8.0          | 12.0         | 14.0             | 15.0                                |                                     |     |     |
|               | 58.4                          | 236           | 1.8   | 23.99     | 8.0          | 12.0         | 14.0             | 15.0                                |                                     |     |     |
|               | 64.0                          | 215           | 2.2   | 21.89     | 8.0          | 12.0         | 14.0             | 15.0                                |                                     |     |     |
|               | 75.6                          | 182           | 2.7   | 18.51     | 7.0          | 12.0         | 14.0             | 15.0                                |                                     |     |     |
|               | 84.5                          | 163           | 2.9   | 16.56     | 7.0          | 12.0         | 14.0             | 15.0                                |                                     |     |     |
|               | <b>1.50</b>                   | 34.0          | 393   | 0.9       | 82.45        | 7.0          | 12.0             | 12.0                                |                                     |     |     |
| 40.2          |                               | 332           | 1.0   | 69.70     | 7.0          | 12.0         | 13.0             | 15.0                                |                                     |     |     |
| 43.8          |                               | 304           | 1.3   | 63.86     | 7.0          | 12.0         | 12.0             | 15.0                                |                                     |     |     |
| 51.9          |                               | 257           | 1.5   | 53.98     | 8.0          | 12.0         | 13.0             | 15.0                                |                                     |     |     |
| 54.1          |                               | 246           | 1.6   | 51.73     | 8.0          | 12.0         | 13.0             | 15.0                                |                                     |     |     |
| 62.0          |                               | 215           | 1.6   | 45.14     | 9.0          | 12.0         | 13.0             | 15.0                                |                                     |     |     |
| 64.0          |                               | 208           | 2.1   | 43.73     | 9.0          | 12.0         | 13.0             | 15.0                                |                                     |     |     |
| 76.6          |                               | 174           | 2.2   | 36.57     | 8.0          | 12.0         | 13.0             | 15.0                                |                                     |     |     |
| 89.7          |                               | 149           | 2.3   | 31.20     | 8.0          | 12.0         | 14.0             | 15.0                                |                                     |     |     |
| 94.5          |                               | 141           | 2.7   | 29.64     | 8.0          | 12.0         | 14.0             | 15.0                                |                                     |     |     |
| 104.4         | 128                           | 2.6           | 26.81 | 8.0       | 12.0         | 14.0         | 15.0             |                                     |                                     |     |     |
| 116.7         | 114                           | 2.9           | 23.99 | 8.0       | 12.0         | 14.0         | 15.0             |                                     |                                     |     |     |
| <b>1.50</b>   | 52.3                          | 266           | 0.9   | 17.22     | 3.0          | 6.0          | 9.0              | 7.0                                 | <b>PD/PM 12<br/>100L6C / 100L6D</b> | 38  | 192 |
|               | 63.9                          | 218           | 1.0   | 14.09     | 3.0          | 6.0          | 10.0             | 7.0                                 |                                     |     |     |
|               | 76.6                          | 181           | 1.2   | 11.75     | 3.0          | 6.0          | 9.0              | 7.0                                 |                                     |     |     |
|               | 87.0                          | 160           | 1.3   | 10.34     | 3.0          | 6.0          | 9.0              | 7.0                                 |                                     |     |     |
|               | 98.3                          | 141           | 1.4   | 9.16      | 3.0          | 6.0          | 9.0              | 7.0                                 |                                     |     |     |
|               | 109.4                         | 127           | 1.6   | 8.23      | 3.0          | 5.0          | 9.0              | 7.0                                 |                                     |     |     |
|               | 110.0                         | 126           | 1.3   | 8.18      | 3.0          | 5.0          | 9.0              | 7.0                                 |                                     |     |     |
|               | 124.1                         | 112           | 1.8   | 7.25      | 3.0          | 5.0          | 8.0              | 7.0                                 |                                     |     |     |
|               | 140.2                         | 99            | 1.9   | 6.42      | 3.0          | 5.0          | 8.0              | 7.0                                 |                                     |     |     |
|               | 164.5                         | 84            | 2.1   | 5.47      | 2.0          | 4.0          | 7.0              | 7.0                                 |                                     |     |     |
| 188.3         | 74                            | 1.8           | 4.78  | 2.0       | 4.0          | 7.0          | 7.0              |                                     |                                     |     |     |
| <b>1.50</b>   | 49.4                          | 278           | 0.8   | 28.35     | 3.0          | 7.0          | 9.0              | 7.0                                 | <b>PD/PM 12<br/>90L4C / 90L4D</b>   | 28  | 192 |
|               | 55.5                          | 248           | 0.9   | 25.24     | 3.0          | 7.0          | 9.0              | 7.0                                 |                                     |     |     |
|               | 67.9                          | 202           | 1.1   | 20.61     | 3.0          | 7.0          | 9.0              | 7.0                                 |                                     |     |     |
|               | 81.3                          | 169           | 1.3   | 17.22     | 3.0          | 6.0          | 9.0              | 7.0                                 |                                     |     |     |
|               | 99.4                          | 138           | 1.5   | 14.09     | 3.0          | 6.0          | 10.0             | 7.0                                 |                                     |     |     |
|               | 119.1                         | 115           | 1.8   | 11.75     | 3.0          | 6.0          | 9.0              | 7.0                                 |                                     |     |     |
|               | 135.4                         | 102           | 1.9   | 10.34     | 3.0          | 6.0          | 9.0              | 7.0                                 |                                     |     |     |
|               | 152.8                         | 90            | 2.1   | 9.16      | 3.0          | 6.0          | 9.0              | 7.0                                 |                                     |     |     |
|               | 170.1                         | 81            | 2.4   | 8.23      | 3.0          | 5.0          | 9.0              | 7.0                                 |                                     |     |     |
|               | 171.1                         | 80            | 2.0   | 8.18      | 3.0          | 5.0          | 9.0              | 7.0                                 |                                     |     |     |
|               | 193.1                         | 71            | 2.6   | 7.25      | 3.0          | 5.0          | 8.0              | 7.0                                 |                                     |     |     |
|               | 218.1                         | 63            | 2.9   | 6.42      | 3.0          | 5.0          | 8.0              | 7.0                                 |                                     |     |     |
|               | 292.9                         | 47            | 2.7   | 4.78      | 2.0          | 4.0          | 7.0              | 7.0                                 |                                     |     |     |



| $P_1$<br>[kW] | $n_2$<br>[Min <sup>-1</sup> ] | $M_2$<br>[Nm] | $f_B$ | $i_{ges}$ | $F_R$<br>[N] | $F_A$<br>[N] | $F_{RGR}$<br>[N] | $F_{AGR}$<br>[N]                   | Tip / Type / Typ<br>IE2 / IE3      |  |  |
|---------------|-------------------------------|---------------|-------|-----------|--------------|--------------|------------------|------------------------------------|------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| <b>1.50</b>   | 47.5                          | 281           | 0.8   | 58.91     | 3.0          | 7.0          | 9.0              | 7.0                                | <b>PD/PM 12<br/>90L2B / 90L2C</b>  | 28                                                                                  | 192                                                                                 |
|               | 56.9                          | 234           | 0.8   | 49.22     | 3.0          | 7.0          | 9.0              | 7.0                                |                                    |                                                                                     |                                                                                     |
|               | 68.2                          | 196           | 0.8   | 41.04     | 3.0          | 7.0          | 9.0              | 7.0                                |                                    |                                                                                     |                                                                                     |
|               | 87.3                          | 153           | 1.1   | 32.07     | 3.0          | 7.0          | 9.0              | 7.0                                |                                    |                                                                                     |                                                                                     |
|               | 98.8                          | 135           | 1.3   | 28.35     | 3.0          | 7.0          | 9.0              | 7.0                                |                                    |                                                                                     |                                                                                     |
|               | 110.9                         | 120           | 1.4   | 25.24     | 3.0          | 7.0          | 9.0              | 7.0                                |                                    |                                                                                     |                                                                                     |
|               | 135.9                         | 98            | 1.7   | 20.61     | 3.0          | 7.0          | 9.0              | 7.0                                |                                    |                                                                                     |                                                                                     |
|               | 162.6                         | 82            | 2.1   | 17.22     | 3.0          | 6.0          | 9.0              | 7.0                                |                                    |                                                                                     |                                                                                     |
|               | 198.7                         | 67            | 2.4   | 14.09     | 3.0          | 6.0          | 10.0             | 7.0                                |                                    |                                                                                     |                                                                                     |
|               | 238.3                         | 56            | 2.8   | 11.75     | 3.0          | 6.0          | 9.0              | 7.0                                |                                    |                                                                                     |                                                                                     |
|               | 270.8                         | 49            | 3.0   | 10.34     | 3.0          | 6.0          | 9.0              | 7.0                                |                                    |                                                                                     |                                                                                     |
|               | 37.2                          | 368           | 0.8   | 24.17     | 4.0          | 7.0          | 8.0              | 11.0                               |                                    |                                                                                     |                                                                                     |
|               | 48.0                          | 285           | 0.9   | 18.76     | 4.0          | 7.0          | 8.0              | 11.0                               |                                    |                                                                                     |                                                                                     |
|               | 55.6                          | 246           | 1.0   | 16.20     | 4.0          | 7.0          | 8.0              | 11.0                               |                                    |                                                                                     |                                                                                     |
|               | 31.6                          | 426           | 0.8   | 44.33     | -            | -            | 8.0              | 11.0                               | <b>PD/PM C13<br/>90L4C / 90L4D</b> | 34                                                                                  | 190                                                                                 |
|               | 36.1                          | 373           | 0.9   | 38.83     | 4.0          | 7.0          | 8.0              | 11.0                               |                                    |                                                                                     |                                                                                     |
|               | 39.2                          | 343           | 0.9   | 35.71     | 4.0          | 7.0          | 8.0              | 11.0                               |                                    |                                                                                     |                                                                                     |
|               | 47.1                          | 286           | 1.0   | 29.71     | 4.0          | 7.0          | 8.0              | 11.0                               |                                    |                                                                                     |                                                                                     |
|               | 53.8                          | 250           | 1.1   | 26.02     | 4.0          | 7.0          | 8.0              | 11.0                               |                                    |                                                                                     |                                                                                     |
|               | 57.9                          | 232           | 1.2   | 24.17     | 4.0          | 7.0          | 8.0              | 11.0                               |                                    |                                                                                     |                                                                                     |
|               | 74.6                          | 180           | 1.3   | 18.76     | 4.0          | 7.0          | 8.0              | 11.0                               |                                    |                                                                                     |                                                                                     |
|               | 86.4                          | 156           | 1.5   | 16.20     | 4.0          | 7.0          | 8.0              | 11.0                               |                                    |                                                                                     |                                                                                     |
|               | 35.5                          | 362           | 0.8   | 78.83     | 4.0          | 7.0          | 8.0              | 11.0                               | <b>PD/PM C13<br/>90L2B / 90L2C</b> | 34                                                                                  | 190                                                                                 |
|               | 41.0                          | 314           | 0.9   | 68.27     | 4.0          | 7.0          | 8.0              | 11.0                               |                                    |                                                                                     |                                                                                     |
|               | 46.6                          | 276           | 1.0   | 60.09     | 4.0          | 7.0          | 8.0              | 11.0                               |                                    |                                                                                     |                                                                                     |
|               | 52.6                          | 245           | 1.1   | 53.28     | 4.0          | 7.0          | 8.0              | 11.0                               |                                    |                                                                                     |                                                                                     |
|               | 63.2                          | 204           | 1.3   | 44.33     | 4.0          | 7.0          | 8.0              | 11.0                               |                                    |                                                                                     |                                                                                     |
|               | 72.1                          | 179           | 1.4   | 38.83     | 4.0          | 7.0          | 8.0              | 11.0                               |                                    |                                                                                     |                                                                                     |
|               | 78.4                          | 164           | 1.4   | 35.71     | 4.0          | 7.0          | 8.0              | 11.0                               |                                    |                                                                                     |                                                                                     |
|               | 94.2                          | 137           | 1.6   | 29.71     | 4.0          | 7.0          | 8.0              | 11.0                               |                                    |                                                                                     |                                                                                     |
|               | 107.6                         | 120           | 1.7   | 26.02     | 4.0          | 7.0          | 8.0              | 11.0                               |                                    |                                                                                     |                                                                                     |
|               | 115.8                         | 111           | 1.9   | 24.17     | 4.0          | 7.0          | 8.0              | 11.0                               |                                    |                                                                                     |                                                                                     |
|               | 149.3                         | 86            | 2.1   | 18.76     | 4.0          | 7.0          | 8.0              | 11.0                               |                                    |                                                                                     |                                                                                     |
|               | 172.8                         | 74            | 2.4   | 16.20     | 4.0          | 7.0          | 8.0              | 11.0                               |                                    |                                                                                     |                                                                                     |
|               | 84.5                          | 163           | 0.9   | 16.57     | 3.0          | 5.0          | 7.0              | 5.0                                | <b>PD/PM B02<br/>90L4C / 90L4D</b> | 22                                                                                  | 188                                                                                 |
|               | 98.6                          | 139           | 1.2   | 14.20     | 3.0          | 5.0          | 7.0              | 5.0                                |                                    |                                                                                     |                                                                                     |
|               | 108.0                         | 127           | 1.3   | 12.96     | 3.0          | 5.0          | 7.0              | 5.0                                |                                    |                                                                                     |                                                                                     |
|               | 124.1                         | 111           | 1.3   | 11.28     | 3.0          | 5.0          | 7.0              | 5.0                                |                                    |                                                                                     |                                                                                     |
|               | 127.6                         | 108           | 1.4   | 10.97     | 3.0          | 4.0          | 7.0              | 5.0                                |                                    |                                                                                     |                                                                                     |
|               | 144.8                         | 95            | 1.5   | 9.67      | 3.0          | 4.0          | 7.0              | 5.0                                |                                    |                                                                                     |                                                                                     |
|               | 158.7                         | 87            | 1.6   | 8.82      | 3.0          | 4.0          | 7.0              | 5.0                                |                                    |                                                                                     |                                                                                     |
|               | 187.4                         | 73            | 1.8   | 7.47      | 2.0          | 4.0          | 7.0              | 5.0                                |                                    |                                                                                     |                                                                                     |
|               | 217.7                         | 63            | 1.9   | 6.43      | 2.0          | 4.0          | 7.0              | 5.0                                |                                    |                                                                                     |                                                                                     |
|               | 233.3                         | 59            | 2.1   | 6.00      | 2.0          | 4.0          | 7.0              | 5.0                                |                                    |                                                                                     |                                                                                     |
|               | 270.8                         | 51            | 2.2   | 5.17      | 2.0          | 4.0          | 7.0              | 5.0                                |                                    |                                                                                     |                                                                                     |
|               | 299.8                         | 46            | 2.4   | 4.67      | 2.0          | 4.0          | 7.0              | 5.0                                |                                    |                                                                                     |                                                                                     |
|               | 348.3                         | 39            | 2.6   | 4.02      | 2.0          | 3.0          | 7.0              | 5.0                                |                                    |                                                                                     |                                                                                     |
|               | 107.9                         | 124           | 0.8   | 25.96     | 3.0          | 5.0          | 7.0              | 5.0                                | <b>PD/PM B02<br/>90L2B / 90L2C</b> | 22                                                                                  | 188                                                                                 |
| 123.5         | 108                           | 0.9           | 22.68 | 4.0       | 5.0          | 7.0          | 5.0              |                                    |                                    |                                                                                     |                                                                                     |
| 129.7         | 103                           | 1.0           | 21.58 | 3.0       | 5.0          | 7.0          | 5.0              |                                    |                                    |                                                                                     |                                                                                     |
| 140.4         | 95                            | 1.0           | 19.94 | 3.0       | 5.0          | 7.0          | 5.0              |                                    |                                    |                                                                                     |                                                                                     |
| 158.9         | 84                            | 1.2           | 17.62 | 3.0       | 5.0          | 7.0          | 5.0              |                                    |                                    |                                                                                     |                                                                                     |
| 169.0         | 79                            | 1.3           | 16.57 | 3.0       | 5.0          | 7.0          | 5.0              |                                    |                                    |                                                                                     |                                                                                     |
| 197.2         | 68                            | 1.8           | 14.20 | 3.0       | 5.0          | 7.0          | 5.0              |                                    |                                    |                                                                                     |                                                                                     |
| 216.0         | 62                            | 2.0           | 12.96 | 3.0       | 5.0          | 7.0          | 5.0              |                                    |                                    |                                                                                     |                                                                                     |
| 248.2         | 54                            | 2.0           | 11.28 | 3.0       | 5.0          | 7.0          | 5.0              |                                    |                                    |                                                                                     |                                                                                     |
| 255.2         | 52                            | 2.2           | 10.97 | 3.0       | 4.0          | 7.0          | 5.0              |                                    |                                    |                                                                                     |                                                                                     |
| 289.6         | 46                            | 2.3           | 9.67  | 3.0       | 4.0          | 7.0          | 5.0              |                                    |                                    |                                                                                     |                                                                                     |
| 317.5         | 42                            | 2.5           | 8.82  | 3.0       | 4.0          | 7.0          | 5.0              |                                    |                                    |                                                                                     |                                                                                     |
| 374.8         | 36                            | 2.8           | 7.47  | 2.0       | 4.0          | 7.0          | 5.0              |                                    |                                    |                                                                                     |                                                                                     |
| 101.2         | 136                           | 0.8           | 13.83 | 3.0       | 5.0          | 5.0          | 8.0              | <b>PD/PM A02<br/>90L4C / 90L4D</b> | 18                                 | 186                                                                                 |                                                                                     |
| 120.0         | 115                           | 1.0           | 11.67 | 3.0       | 5.0          | 5.0          | 8.0              |                                    |                                    |                                                                                     |                                                                                     |
| 147.5         | 93                            | 1.2           | 9.49  | 3.0       | 5.0          | 5.0          | 8.0              |                                    |                                    |                                                                                     |                                                                                     |
| 162.2         | 85                            | 1.3           | 8.63  | 3.0       | 5.0          | 5.0          | 8.0              |                                    |                                    |                                                                                     |                                                                                     |
| 193.1         | 71                            | 1.6           | 7.25  | 3.0       | 4.0          | 5.0          | 8.0              |                                    |                                    |                                                                                     |                                                                                     |
| 220.5         | 62                            | 1.8           | 6.35  | 3.0       | 4.0          | 5.0          | 8.0              |                                    |                                    |                                                                                     |                                                                                     |
| 262.7         | 52                            | 1.8           | 5.33  | 2.0       | 4.0          | 5.0          | 8.0              |                                    |                                    |                                                                                     |                                                                                     |
| 330.2         | 42                            | 1.8           | 4.24  | 2.0       | 4.0          | 5.0          | 8.0              |                                    |                                    |                                                                                     |                                                                                     |







| <b>P<sub>1</sub></b><br>[kW] | <b>n<sub>2</sub></b><br>[Min <sup>-1</sup> ] | <b>M<sub>2</sub></b><br>[Nm] | <b>f<sub>B</sub></b> | <b>i<sub>ges</sub></b> | <b>F<sub>R</sub></b><br>[N] | <b>F<sub>A</sub></b><br>[N] | <b>F<sub>R GR</sub></b><br>[N] | <b>F<sub>A GR</sub></b><br>[N]         | Tip / Type / Typ<br>IE2 / IE3           |  |  |
|------------------------------|----------------------------------------------|------------------------------|----------------------|------------------------|-----------------------------|-----------------------------|--------------------------------|----------------------------------------|-----------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| <b>1.50</b>                  | 169.3                                        | 79                           | 1.0                  | 16.54                  | 3.0                         | 5.0                         | 5.0                            | 8.0                                    | <b>PD/PM A02<br/>90L2B / 90L2C</b>      | 18                                                                                  | 186                                                                                 |
|                              | 202.5                                        | 66                           | 1.3                  | 13.83                  | 3.0                         | 5.0                         | 5.0                            | 8.0                                    |                                         |                                                                                     |                                                                                     |
|                              | 239.9                                        | 56                           | 1.5                  | 11.67                  | 3.0                         | 5.0                         | 5.0                            | 8.0                                    |                                         |                                                                                     |                                                                                     |
|                              | 295.0                                        | 45                           | 1.8                  | 9.49                   | 3.0                         | 5.0                         | 5.0                            | 8.0                                    |                                         |                                                                                     |                                                                                     |
|                              | 324.4                                        | 41                           | 2.1                  | 8.63                   | 3.0                         | 5.0                         | 5.0                            | 8.0                                    |                                         |                                                                                     |                                                                                     |
|                              | 386.2                                        | 35                           | 2.5                  | 7.25                   | 3.0                         | 4.0                         | 5.0                            | 8.0                                    |                                         |                                                                                     |                                                                                     |
|                              | 440.9                                        | 30                           | 2.8                  | 6.35                   | 3.0                         | 4.0                         | 5.0                            | 8.0                                    |                                         |                                                                                     |                                                                                     |
|                              | 525.3                                        | 25                           | 2.8                  | 5.33                   | 2.0                         | 4.0                         | 5.0                            | 8.0                                    |                                         |                                                                                     |                                                                                     |
| 660.4                        | 20                                           | 2.7                          | 4.24                 | 2.0                    | 4.0                         | 5.0                         | 8.0                            |                                        |                                         |                                                                                     |                                                                                     |
| <b>2.20</b>                  | 0.2                                          | 80585                        | 0.8                  | 3722.96                | -                           | -                           | -                              | -                                      | <b>PD/PM 113/52<br/>112M6C / 112M6D</b> | 2203                                                                                | 242                                                                                 |
|                              | 0.3                                          | 66293                        | 1.0                  | 3062.69                | -                           | -                           | -                              | -                                      |                                         |                                                                                     |                                                                                     |
|                              | 0.4                                          | 50399                        | 1.3                  | 2328.41                | -                           | -                           | -                              | -                                      |                                         |                                                                                     |                                                                                     |
|                              | 0.5                                          | 39600                        | 1.6                  | 1829.47                | -                           | -                           | -                              | -                                      |                                         |                                                                                     |                                                                                     |
|                              | 0.7                                          | 29930                        | 2.1                  | 1382.74                | -                           | -                           | 142.0                          | 170.0                                  |                                         |                                                                                     |                                                                                     |
|                              | 0.8                                          | 24996                        | 2.5                  | 1154.79                | -                           | -                           | 139.0                          | 170.0                                  |                                         |                                                                                     |                                                                                     |
|                              | 0.9                                          | 20826                        | 3.0                  | 962.15                 | -                           | -                           | 144.0                          | 170.0                                  |                                         |                                                                                     |                                                                                     |
|                              | 0.3                                          | 54044                        | 1.1                  | 4001.34                | -                           | -                           | -                              | -                                      | <b>PD/PM 113/52<br/>100L4B / 100L4C</b> | 2180                                                                                | 242                                                                                 |
|                              | 0.4                                          | 50284                        | 1.2                  | 3722.96                | -                           | -                           | -                              | -                                      |                                         |                                                                                     |                                                                                     |
|                              | 0.5                                          | 41366                        | 1.5                  | 3062.69                | -                           | -                           | -                              | -                                      |                                         |                                                                                     |                                                                                     |
|                              | 0.6                                          | 31449                        | 1.9                  | 2328.41                | -                           | -                           | -                              | -                                      |                                         |                                                                                     |                                                                                     |
|                              | 0.8                                          | 24710                        | 2.4                  | 1829.47                | -                           | -                           | -                              | -                                      |                                         |                                                                                     |                                                                                     |
|                              | 0.7                                          | 25125                        | 1.8                  | 4001.34                | -                           | -                           | -                              | -                                      | <b>PD/PM 113/52<br/>90L2D</b>           | 1132                                                                                | 242                                                                                 |
|                              | 0.8                                          | 23377                        | 2.0                  | 3722.96                | -                           | -                           | -                              | -                                      |                                         |                                                                                     |                                                                                     |
|                              | 0.9                                          | 19231                        | 2.4                  | 3062.69                | -                           | -                           | -                              | -                                      |                                         |                                                                                     |                                                                                     |
|                              | 0.6                                          | 30669                        | 1.2                  | 1416.90                | -                           | -                           | 127.0                          | 150.0                                  | <b>PD/PM 103/52<br/>112M6C / 112M6D</b> | 1342                                                                                | 242                                                                                 |
|                              | 0.8                                          | 25230                        | 1.5                  | 1165.61                | -                           | -                           | 130.0                          | 150.0                                  |                                         |                                                                                     |                                                                                     |
|                              | 1.0                                          | 19824                        | 1.9                  | 915.84                 | -                           | -                           | 134.0                          | 150.0                                  |                                         |                                                                                     |                                                                                     |
|                              | 1.3                                          | 14983                        | 2.5                  | 692.20                 | -                           | -                           | 133.0                          | 150.0                                  |                                         |                                                                                     |                                                                                     |
|                              | 1.6                                          | 12513                        | 2.9                  | 578.09                 | -                           | -                           | 134.0                          | 150.0                                  |                                         |                                                                                     |                                                                                     |
|                              | 0.5                                          | 37772                        | 0.9                  | 2796.57                | -                           | -                           | -                              | -                                      | <b>PD/PM 103/52<br/>100L4B / 100L4C</b> | 1334                                                                                | 242                                                                                 |
|                              | 0.6                                          | 32452                        | 1.1                  | 2404.69                | -                           | -                           | -                              | -                                      |                                         |                                                                                     |                                                                                     |
|                              | 1.0                                          | 19137                        | 1.8                  | 1416.90                | -                           | -                           | 127.0                          | 150.0                                  |                                         |                                                                                     |                                                                                     |
|                              | 1.2                                          | 15743                        | 2.2                  | 1165.61                | -                           | -                           | 130.0                          | 150.0                                  |                                         |                                                                                     |                                                                                     |
|                              | 1.5                                          | 12370                        | 2.8                  | 915.84                 | -                           | -                           | 134.0                          | 150.0                                  |                                         |                                                                                     |                                                                                     |
|                              | 0.6                                          | 29369                        | 0.9                  | 4677.24                | -                           | -                           | -                              | -                                      | <b>PD/PM 103/52<br/>90L2D</b>           | 1324                                                                                | 242                                                                                 |
|                              | 2.0                                          | 8897                         | 3.0                  | 1416.90                | -                           | -                           | 127.0                          | 150.0                                  |                                         |                                                                                     |                                                                                     |
|                              | 2.2                                          | 8885                         | 2.8                  | 410.49                 | 60.0                        | 102.0                       | 120.0                          | 130.0                                  | <b>PD/PM 93/52<br/>112M6C / 112M6D</b>  | 778                                                                                 | 242                                                                                 |
|                              | 0.6                                          | 30686                        | 0.8                  | 1417.68                | 111.0                       | 102.0                       | 120.0                          | 130.0                                  | <b>PD/PM 93/42<br/>112M6C / 112M6D</b>  | 749                                                                                 | 242                                                                                 |
|                              | 0.8                                          | 25484                        | 1.0                  | 1177.36                | 109.0                       | 102.0                       | 120.0                          | 130.0                                  |                                         |                                                                                     |                                                                                     |
|                              | 1.0                                          | 19171                        | 1.3                  | 885.67                 | 103.0                       | 102.0                       | 120.0                          | 130.0                                  |                                         |                                                                                     |                                                                                     |
|                              | 1.3                                          | 15484                        | 1.6                  | 715.36                 | 99.0                        | 102.0                       | 120.0                          | 130.0                                  |                                         |                                                                                     |                                                                                     |
| 1.5                          | 13395                                        | 1.9                          | 618.83               | 96.0                   | 102.0                       | 120.0                       | 130.0                          |                                        |                                         |                                                                                     |                                                                                     |
| 2.0                          | 9759                                         | 2.6                          | 450.86               | 120.0                  | 102.0                       | 120.0                       | 130.0                          |                                        |                                         |                                                                                     |                                                                                     |
| 0.6                          | 29753                                        | 0.8                          | 2202.85              | -                      | -                           | -                           | -                              | <b>PD/PM 93/42<br/>100L4B / 100L4C</b> | 741                                     | 242                                                                                 |                                                                                     |
| 0.8                          | 23566                                        | 1.0                          | 1744.83              | -                      | -                           | -                           | -                              |                                        |                                         |                                                                                     |                                                                                     |
| 1.0                          | 19148                                        | 1.3                          | 1417.68              | 111.0                  | 102.0                       | 120.0                       | 130.0                          |                                        |                                         |                                                                                     |                                                                                     |
| 1.2                          | 15902                                        | 1.5                          | 1177.36              | 109.0                  | 102.0                       | 120.0                       | 130.0                          |                                        |                                         |                                                                                     |                                                                                     |
| 1.6                          | 11962                                        | 2.0                          | 885.67               | 103.0                  | 102.0                       | 120.0                       | 130.0                          |                                        |                                         |                                                                                     |                                                                                     |
| 2.0                          | 9662                                         | 2.5                          | 715.36               | 99.0                   | 102.0                       | 120.0                       | 130.0                          |                                        |                                         |                                                                                     |                                                                                     |
| 2.3                          | 8358                                         | 2.9                          | 618.83               | 96.0                   | 102.0                       | 120.0                       | 130.0                          |                                        |                                         |                                                                                     |                                                                                     |
| 1.2                          | 15282                                        | 1.2                          | 2433.68              | 111.0                  | 102.0                       | -                           | -                              |                                        |                                         |                                                                                     |                                                                                     |
| 1.3                          | 13832                                        | 1.3                          | 2202.85              | 111.0                  | 102.0                       | -                           | -                              |                                        |                                         |                                                                                     |                                                                                     |
| 1.6                          | 10956                                        | 1.7                          | 1744.83              | 111.0                  | 102.0                       | -                           | -                              | <b>PD/PM 93/42<br/>90L2D</b>           | 731                                     | 242                                                                                 |                                                                                     |
| 2.0                          | 8902                                         | 2.0                          | 1417.68              | 111.0                  | 102.0                       | 120.0                       | 130.0                          |                                        |                                         |                                                                                     |                                                                                     |
| 2.4                          | 7393                                         | 2.5                          | 1177.36              | 109.0                  | 102.0                       | 120.0                       | 130.0                          |                                        |                                         |                                                                                     |                                                                                     |
| 1.6                          | 11911                                        | 1.1                          | 550.29               | 81.0                   | 73.0                        | 100.0                       | 100.0                          |                                        |                                         |                                                                                     | <b>PD/PM 83/42<br/>112M6C / 112M6D</b>                                              |
| 1.9                          | 10148                                        | 1.3                          | 468.82               | 78.0                   | 73.0                        | 100.0                       | 100.0                          |                                        |                                         |                                                                                     |                                                                                     |
| 2.6                          | 7507                                         | 1.7                          | 346.82               | 78.0                   | 73.0                        | 100.0                       | 100.0                          |                                        |                                         |                                                                                     |                                                                                     |
| 3.0                          | 6396                                         | 2.0                          | 295.48               | 88.0                   | 73.0                        | -                           | -                              |                                        |                                         |                                                                                     |                                                                                     |
| 4.0                          | 4842                                         | 2.6                          | 223.71               | 88.0                   | 73.0                        | -                           | -                              |                                        |                                         |                                                                                     |                                                                                     |
| 2.5                          | 7432                                         | 1.6                          | 550.29               | 81.0                   | 73.0                        | 100.0                       | 100.0                          | <b>PD/PM 83/42<br/>100L4B / 100L4C</b> | 439                                     | 242                                                                                 |                                                                                     |
| 3.0                          | 6332                                         | 1.9                          | 468.82               | 78.0                   | 73.0                        | 100.0                       | 100.0                          |                                        |                                         |                                                                                     |                                                                                     |
| 4.0                          | 4684                                         | 2.6                          | 346.82               | 78.0                   | 73.0                        | 100.0                       | 100.0                          |                                        |                                         |                                                                                     |                                                                                     |
| 4.7                          | 3991                                         | 3.0                          | 295.48               | -                      | -                           | -                           | -                              |                                        |                                         |                                                                                     |                                                                                     |
|                              |                                              |                              |                      |                        |                             |                             |                                |                                        |                                         |                                                                                     |                                                                                     |



| $P_1$<br>[kW] | $n_2$<br>[Min <sup>-1</sup> ]                 | $M_2$<br>[Nm]                                        | $f_B$                                         | $i_{ges}$                                                          | $F_R$<br>[N]                                         | $F_A$<br>[N]                                         | $F_{RGR}$<br>[N]                                     | $F_{AGR}$<br>[N]                                     | Tip / Type / Typ<br>IE2 / IE3  |  Kg |  mm |
|---------------|-----------------------------------------------|------------------------------------------------------|-----------------------------------------------|--------------------------------------------------------------------|------------------------------------------------------|------------------------------------------------------|------------------------------------------------------|------------------------------------------------------|--------------------------------|----------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------|
| <b>2.20</b>   | 5.1                                           | 3455                                                 | 2.7                                           | 550.29                                                             | 81.0                                                 | 73.0                                                 | 100.0                                                | 100.0                                                | PD/PM 83/42<br>90L2D           | 429                                                                                    | 242                                                                                    |
|               | 1.3<br>1.5                                    | 15510<br>13205                                       | 0.8<br>1.0                                    | 716.55<br>610.07                                                   | 84.0<br>82.0                                         | 73.0<br>73.0                                         | 100.0<br>100.0                                       | 100.0<br>100.0                                       | PD/PM 83/32<br>112M6C / 112M6D | 432                                                                                    | 240                                                                                    |
|               | 1.3<br>1.6<br>2.0<br>2.3                      | 14342<br>12008<br>9678<br>8240                       | 0.8<br>1.0<br>1.3<br>1.5                      | 1061.83<br>889.06<br>716.55<br>610.07                              | 84.0<br>79.0<br>84.0<br>82.0                         | 73.0<br>73.0<br>73.0<br>73.0                         | 100.0<br>100.0<br>100.0<br>100.0                     | 100.0<br>100.0<br>100.0<br>100.0                     | PD/PM 83/32<br>100L4B / 100L4C | 424                                                                                    | 240                                                                                    |
|               | 1.7<br>2.1<br>2.6<br>3.1<br>3.9<br>4.6        | 10628<br>8558<br>6667<br>5583<br>4499<br>3831        | 0.9<br>1.1<br>1.4<br>1.6<br>2.0<br>2.4        | 1692.65<br>1362.94<br>1061.83<br>889.06<br>716.55<br>610.07        | 84.0<br>84.0<br>84.0<br>79.0<br>84.0<br>82.0         | 73.0<br>73.0<br>73.0<br>73.0<br>73.0<br>73.0         | -<br>100.0<br>100.0<br>100.0<br>100.0<br>100.0       | -<br>100.0<br>100.0<br>100.0<br>100.0<br>100.0       | PD/PM 83/32<br>90L2D           | 414                                                                                    | 240                                                                                    |
|               | 2.3<br>2.8<br>4.5                             | 8620<br>7097<br>4480                                 | 1.5<br>1.9<br>2.5                             | 386.39<br>318.11<br>200.83                                         | 76.0<br>72.0<br>28.0                                 | 73.0<br>73.0<br>46.0                                 | 100.0<br>100.0<br>100.0                              | 105.0<br>105.0<br>105.0                              | PD/PM 83<br>112M6C / 112M6D    | 402                                                                                    | 221                                                                                    |
|               | 3.6<br>4.4                                    | 5451<br>4487                                         | 2.3<br>2.9                                    | 386.39<br>318.11                                                   | 76.0<br>72.0                                         | 73.0<br>73.0                                         | 100.0<br>100.0                                       | 105.0<br>105.0                                       | PD/PM 83<br>100L4B / 100L4C    | 394                                                                                    | 221                                                                                    |
|               | 3.1<br>4.0                                    | 6387<br>4827                                         | 1.2<br>1.5                                    | 295.06<br>223.01                                                   | 57.0<br>57.0                                         | 58.0<br>58.0                                         | 81.0<br>82.0                                         | 80.0<br>80.0                                         | PD/PM 73/32<br>112M6C / 112M6D | 307                                                                                    | 240                                                                                    |
|               | 4.7<br>6.3                                    | 3985<br>3012                                         | 1.8<br>2.3                                    | 295.06<br>223.01                                                   | 57.0<br>57.0                                         | 58.0<br>58.0                                         | 81.0<br>82.0                                         | 80.0<br>80.0                                         | PD/PM 73/32<br>100L4B / 100L4C | 299                                                                                    | 240                                                                                    |
|               | 9.5                                           | 1853                                                 | 2.9                                           | 295.06                                                             | 57.0                                                 | 58.0                                                 | -                                                    | -                                                    | PD/PM 73/32<br>90L2D           | 289                                                                                    | 240                                                                                    |
|               | 2.1<br>2.4                                    | 9412<br>8144                                         | 0.8<br>0.9                                    | 434.82<br>376.24                                                   | 51.0<br>53.0                                         | 58.0<br>58.0                                         | 77.0<br>79.0                                         | 80.0<br>80.0                                         | PD/PM 73/22<br>112M6C / 112M6D | 296                                                                                    | 240                                                                                    |
|               | 2.5<br>3.2<br>3.7                             | 7708<br>5873<br>5082                                 | 0.9<br>1.2<br>1.4                             | 570.70<br>434.82<br>376.24                                         | 45.0<br>51.0<br>53.0                                 | 58.0<br>58.0<br>58.0                                 | 73.0<br>77.0<br>79.0                                 | 80.0<br>80.0<br>80.0                                 | PD/PM 73/22<br>100L4B / 100L4C | 288                                                                                    | 240                                                                                    |
|               | 2.7<br>3.0<br>3.9<br>4.9<br>6.4<br>7.4        | 6543<br>5854<br>4460<br>3584<br>2730<br>2362         | 0.8<br>0.9<br>1.2<br>1.5<br>2.0<br>2.3        | 1042.00<br>932.25<br>710.29<br>570.70<br>434.82<br>376.24          | 45.0<br>45.0<br>45.0<br>45.0<br>51.0<br>53.0         | 58.0<br>58.0<br>58.0<br>58.0<br>58.0<br>58.0         | 74.0<br>76.0<br>76.0<br>73.0<br>77.0<br>79.0         | 80.0<br>80.0<br>80.0<br>80.0<br>80.0<br>80.0         | PD/PM 73/22<br>90L2D           | 278                                                                                    | 240                                                                                    |
|               | 2.7<br>3.3<br>4.2<br>4.4<br>5.6<br>6.0<br>7.3 | 7549<br>6098<br>4829<br>4567<br>3617<br>3354<br>2747 | 1.0<br>1.3<br>1.8<br>1.7<br>1.8<br>2.4<br>2.9 | 338.37<br>273.32<br>216.45<br>204.72<br>162.12<br>150.32<br>123.12 | 55.0<br>56.0<br>53.0<br>53.0<br>47.0<br>17.0<br>17.0 | 58.0<br>58.0<br>58.0<br>58.0<br>58.0<br>28.0<br>28.0 | 79.0<br>81.0<br>81.0<br>81.0<br>81.0<br>81.0<br>82.0 | 80.0<br>80.0<br>80.0<br>80.0<br>80.0<br>80.0<br>80.0 | PD/PM 73<br>112M6C / 112M6D    | 277                                                                                    | 217                                                                                    |
|               | 4.1<br>5.1<br>6.5<br>6.8<br>8.6               | 4773<br>3856<br>3053<br>2888<br>2287                 | 1.6<br>2.0<br>2.7<br>2.6<br>2.7               | 338.37<br>273.32<br>216.45<br>204.72<br>162.12                     | 55.0<br>56.0<br>53.0<br>53.0<br>47.0                 | 58.0<br>58.0<br>58.0<br>58.0<br>58.0                 | 79.0<br>81.0<br>81.0<br>81.0<br>-                    | 80.0<br>80.0<br>80.0<br>80.0<br>-                    | PD/PM 73<br>100L4B / 100L4C    | 269                                                                                    | 217                                                                                    |
|               | 4.0<br>4.7<br>5.7                             | 4838<br>4137<br>3439                                 | 1.0<br>1.2<br>1.5                             | 223.50<br>191.13<br>158.90                                         | -<br>-<br>-                                          | -<br>-<br>-                                          | -<br>-<br>-                                          | -<br>-<br>-                                          | PD/PM 63/32<br>112M6C / 112M6D | 234                                                                                    | 240                                                                                    |
|               | 6.3<br>7.3<br>8.8                             | 3019<br>2581<br>2146                                 | 1.6<br>1.9<br>2.2                             | 223.50<br>191.13<br>158.90                                         | -<br>-<br>-                                          | -<br>-<br>-                                          | -<br>-<br>-                                          | -<br>-<br>-                                          | PD/PM 63/32<br>100L4B / 100L4C | 226                                                                                    | 240                                                                                    |
|               | 12.5<br>14.6                                  | 1403<br>1200                                         | 2.6<br>3.0                                    | 223.50<br>191.13                                                   | -<br>-                                               | -<br>-                                               | -<br>-                                               | -<br>-                                               | PD/PM 63/32<br>90L2D           | 216                                                                                    | 240                                                                                    |
|               | 2.6<br>3.0                                    | 7556<br>6496                                         | 0.8<br>0.9                                    | 349.07<br>300.12                                                   | 16.0<br>22.0                                         | 47.0<br>47.0                                         | 44.0<br>-                                            | 60.0<br>-                                            | PD/PM 63/22<br>112M6C / 112M6D | 223                                                                                    | 240                                                                                    |
|               | 3.2<br>4.0<br>4.7                             | 5868<br>4715<br>4054                                 | 0.9<br>1.1<br>1.3                             | 434.44<br>349.07<br>300.12                                         | 23.0<br>16.0<br>-                                    | 47.0<br>47.0<br>-                                    | 47.0<br>44.0<br>-                                    | 60.0<br>60.0<br>-                                    | PD/PM 63/22<br>100L4B / 100L4C | 215                                                                                    | 240                                                                                    |



| $P_1$<br>[kW] | $n_2$<br>[Min <sup>-1</sup> ] | $M_2$<br>[Nm] | $f_B$  | $i_{ges}$ | $F_R$<br>[N] | $F_A$<br>[N] | $F_{RGR}$<br>[N] | $F_{AGR}$<br>[N]                    | Tip / Type / Typ<br>IE2 / IE3          |  Kg |  mm |        |      |        |        |      |                                     |      |                                     |                                        |      |     |        |      |        |        |      |      |      |     |        |      |        |        |      |                                        |      |      |                                        |      |        |        |      |      |        |      |        |      |        |        |      |      |        |      |                                        |      |        |                              |      |      |        |      |        |        |       |      |      |                                     |        |      |        |        |       |                                     |      |      |                              |      |        |      |      |        |        |      |        |      |                                        |      |      |                              |        |                           |        |        |        |        |      |        |        |                                     |        |        |      |        |      |                                        |       |      |      |        |      |        |      |        |                                     |      |      |        |      |        |        |        |      |      |      |        |      |        |        |        |                                     |      |      |      |      |        |        |        |      |        |                              |      |                                     |                                     |        |        |        |        |       |        |       |      |        |        |        |        |        |        |       |      |        |                                        |        |       |      |        |        |        |        |        |        |                                     |      |       |                           |        |      |        |        |        |                                        |       |      |      |                                     |     |        |      |        |        |        |                                     |      |      |                                     |      |        |        |      |        |        |        |        |      |        |        |      |        |        |        |        |      |        |        |      |                              |        |        |      |      |       |        |      |       |        |                                     |      |      |      |        |      |       |        |       |      |      |      |        |      |        |       |       |                                     |      |                                        |        |      |      |        |      |        |       |      |        |      |      |        |      |        |      |      |        |      |                                        |        |      |                                     |      |      |        |      |     |        |      |      |      |      |        |      |     |        |      |      |      |      |        |      |     |        |      |      |      |      |        |      |      |       |      |                              |     |     |      |      |     |        |      |      |   |   |      |      |     |        |      |      |      |      |                                     |      |     |        |      |      |        |      |      |      |      |        |      |      |        |      |      |      |      |        |      |      |        |      |      |      |      |        |      |      |        |      |                                     |      |      |      |      |     |        |      |      |      |      |      |      |     |        |      |      |      |      |      |      |     |        |      |      |      |      |     |      |     |       |      |      |   |   |      |      |     |       |      |      |   |   |     |      |     |        |      |      |      |      |                                     |     |     |     |      |     |        |      |      |      |      |     |      |     |        |      |      |      |      |     |      |     |        |      |      |      |      |      |      |     |        |      |      |      |      |      |      |     |        |      |      |      |      |      |      |     |       |   |   |   |   |      |      |     |       |   |   |   |   |
|---------------|-------------------------------|---------------|--------|-----------|--------------|--------------|------------------|-------------------------------------|----------------------------------------|----------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------|--------|------|--------|--------|------|-------------------------------------|------|-------------------------------------|----------------------------------------|------|-----|--------|------|--------|--------|------|------|------|-----|--------|------|--------|--------|------|----------------------------------------|------|------|----------------------------------------|------|--------|--------|------|------|--------|------|--------|------|--------|--------|------|------|--------|------|----------------------------------------|------|--------|------------------------------|------|------|--------|------|--------|--------|-------|------|------|-------------------------------------|--------|------|--------|--------|-------|-------------------------------------|------|------|------------------------------|------|--------|------|------|--------|--------|------|--------|------|----------------------------------------|------|------|------------------------------|--------|---------------------------|--------|--------|--------|--------|------|--------|--------|-------------------------------------|--------|--------|------|--------|------|----------------------------------------|-------|------|------|--------|------|--------|------|--------|-------------------------------------|------|------|--------|------|--------|--------|--------|------|------|------|--------|------|--------|--------|--------|-------------------------------------|------|------|------|------|--------|--------|--------|------|--------|------------------------------|------|-------------------------------------|-------------------------------------|--------|--------|--------|--------|-------|--------|-------|------|--------|--------|--------|--------|--------|--------|-------|------|--------|----------------------------------------|--------|-------|------|--------|--------|--------|--------|--------|--------|-------------------------------------|------|-------|---------------------------|--------|------|--------|--------|--------|----------------------------------------|-------|------|------|-------------------------------------|-----|--------|------|--------|--------|--------|-------------------------------------|------|------|-------------------------------------|------|--------|--------|------|--------|--------|--------|--------|------|--------|--------|------|--------|--------|--------|--------|------|--------|--------|------|------------------------------|--------|--------|------|------|-------|--------|------|-------|--------|-------------------------------------|------|------|------|--------|------|-------|--------|-------|------|------|------|--------|------|--------|-------|-------|-------------------------------------|------|----------------------------------------|--------|------|------|--------|------|--------|-------|------|--------|------|------|--------|------|--------|------|------|--------|------|----------------------------------------|--------|------|-------------------------------------|------|------|--------|------|-----|--------|------|------|------|------|--------|------|-----|--------|------|------|------|------|--------|------|-----|--------|------|------|------|------|--------|------|------|-------|------|------------------------------|-----|-----|------|------|-----|--------|------|------|---|---|------|------|-----|--------|------|------|------|------|-------------------------------------|------|-----|--------|------|------|--------|------|------|------|------|--------|------|------|--------|------|------|------|------|--------|------|------|--------|------|------|------|------|--------|------|------|--------|------|-------------------------------------|------|------|------|------|-----|--------|------|------|------|------|------|------|-----|--------|------|------|------|------|------|------|-----|--------|------|------|------|------|-----|------|-----|-------|------|------|---|---|------|------|-----|-------|------|------|---|---|-----|------|-----|--------|------|------|------|------|-------------------------------------|-----|-----|-----|------|-----|--------|------|------|------|------|-----|------|-----|--------|------|------|------|------|-----|------|-----|--------|------|------|------|------|------|------|-----|--------|------|------|------|------|------|------|-----|--------|------|------|------|------|------|------|-----|-------|---|---|---|---|------|------|-----|-------|---|---|---|---|
| <b>2.20</b>   | 3.4                           | 5156          | 0.8    | 821.10    | 23.0         | 47.0         | -                | -                                   | <b>PD/PM 63/22<br/>90L2D</b>           | 205                                                                                    | 240                                                                                    |        |      |        |        |      |                                     |      |                                     |                                        |      |     |        |      |        |        |      |      |      |     |        |      |        |        |      |                                        |      |      |                                        |      |        |        |      |      |        |      |        |      |        |        |      |      |        |      |                                        |      |        |                              |      |      |        |      |        |        |       |      |      |                                     |        |      |        |        |       |                                     |      |      |                              |      |        |      |      |        |        |      |        |      |                                        |      |      |                              |        |                           |        |        |        |        |      |        |        |                                     |        |        |      |        |      |                                        |       |      |      |        |      |        |      |        |                                     |      |      |        |      |        |        |        |      |      |      |        |      |        |        |        |                                     |      |      |      |      |        |        |        |      |        |                              |      |                                     |                                     |        |        |        |        |       |        |       |      |        |        |        |        |        |        |       |      |        |                                        |        |       |      |        |        |        |        |        |        |                                     |      |       |                           |        |      |        |        |        |                                        |       |      |      |                                     |     |        |      |        |        |        |                                     |      |      |                                     |      |        |        |      |        |        |        |        |      |        |        |      |        |        |        |        |      |        |        |      |                              |        |        |      |      |       |        |      |       |        |                                     |      |      |      |        |      |       |        |       |      |      |      |        |      |        |       |       |                                     |      |                                        |        |      |      |        |      |        |       |      |        |      |      |        |      |        |      |      |        |      |                                        |        |      |                                     |      |      |        |      |     |        |      |      |      |      |        |      |     |        |      |      |      |      |        |      |     |        |      |      |      |      |        |      |      |       |      |                              |     |     |      |      |     |        |      |      |   |   |      |      |     |        |      |      |      |      |                                     |      |     |        |      |      |        |      |      |      |      |        |      |      |        |      |      |      |      |        |      |      |        |      |      |      |      |        |      |      |        |      |                                     |      |      |      |      |     |        |      |      |      |      |      |      |     |        |      |      |      |      |      |      |     |        |      |      |      |      |     |      |     |       |      |      |   |   |      |      |     |       |      |      |   |   |     |      |     |        |      |      |      |      |                                     |     |     |     |      |     |        |      |      |      |      |     |      |     |        |      |      |      |      |     |      |     |        |      |      |      |      |      |      |     |        |      |      |      |      |      |      |     |        |      |      |      |      |      |      |     |       |   |   |   |   |      |      |     |       |   |   |   |   |
|               | 4.4                           | 4002          | 1.0    | 637.34    | 23.0         | 47.0         | 47.0             | 60.0                                |                                        |                                                                                        |                                                                                        |        |      |        |        |      |                                     |      |                                     |                                        |      |     |        |      |        |        |      |      |      |     |        |      |        |        |      |                                        |      |      |                                        |      |        |        |      |      |        |      |        |      |        |        |      |      |        |      |                                        |      |        |                              |      |      |        |      |        |        |       |      |      |                                     |        |      |        |        |       |                                     |      |      |                              |      |        |      |      |        |        |      |        |      |                                        |      |      |                              |        |                           |        |        |        |        |      |        |        |                                     |        |        |      |        |      |                                        |       |      |      |        |      |        |      |        |                                     |      |      |        |      |        |        |        |      |      |      |        |      |        |        |        |                                     |      |      |      |      |        |        |        |      |        |                              |      |                                     |                                     |        |        |        |        |       |        |       |      |        |        |        |        |        |        |       |      |        |                                        |        |       |      |        |        |        |        |        |        |                                     |      |       |                           |        |      |        |        |        |                                        |       |      |      |                                     |     |        |      |        |        |        |                                     |      |      |                                     |      |        |        |      |        |        |        |        |      |        |        |      |        |        |        |        |      |        |        |      |                              |        |        |      |      |       |        |      |       |        |                                     |      |      |      |        |      |       |        |       |      |      |      |        |      |        |       |       |                                     |      |                                        |        |      |      |        |      |        |       |      |        |      |      |        |      |        |      |      |        |      |                                        |        |      |                                     |      |      |        |      |     |        |      |      |      |      |        |      |     |        |      |      |      |      |        |      |     |        |      |      |      |      |        |      |      |       |      |                              |     |     |      |      |     |        |      |      |   |   |      |      |     |        |      |      |      |      |                                     |      |     |        |      |      |        |      |      |      |      |        |      |      |        |      |      |      |      |        |      |      |        |      |      |      |      |        |      |      |        |      |                                     |      |      |      |      |     |        |      |      |      |      |      |      |     |        |      |      |      |      |      |      |     |        |      |      |      |      |     |      |     |       |      |      |   |   |      |      |     |       |      |      |   |   |     |      |     |        |      |      |      |      |                                     |     |     |     |      |     |        |      |      |      |      |     |      |     |        |      |      |      |      |     |      |     |        |      |      |      |      |      |      |     |        |      |      |      |      |      |      |     |        |      |      |      |      |      |      |     |       |   |   |   |   |      |      |     |       |   |   |   |   |
|               | 4.9                           | 3580          | 1.1    | 570.21    | 23.0         | 47.0         | -                | -                                   |                                        |                                                                                        |                                                                                        |        |      |        |        |      |                                     |      |                                     |                                        |      |     |        |      |        |        |      |      |      |     |        |      |        |        |      |                                        |      |      |                                        |      |        |        |      |      |        |      |        |      |        |        |      |      |        |      |                                        |      |        |                              |      |      |        |      |        |        |       |      |      |                                     |        |      |        |        |       |                                     |      |      |                              |      |        |      |      |        |        |      |        |      |                                        |      |      |                              |        |                           |        |        |        |        |      |        |        |                                     |        |        |      |        |      |                                        |       |      |      |        |      |        |      |        |                                     |      |      |        |      |        |        |        |      |      |      |        |      |        |        |        |                                     |      |      |      |      |        |        |        |      |        |                              |      |                                     |                                     |        |        |        |        |       |        |       |      |        |        |        |        |        |        |       |      |        |                                        |        |       |      |        |        |        |        |        |        |                                     |      |       |                           |        |      |        |        |        |                                        |       |      |      |                                     |     |        |      |        |        |        |                                     |      |      |                                     |      |        |        |      |        |        |        |        |      |        |        |      |        |        |        |        |      |        |        |      |                              |        |        |      |      |       |        |      |       |        |                                     |      |      |      |        |      |       |        |       |      |      |      |        |      |        |       |       |                                     |      |                                        |        |      |      |        |      |        |       |      |        |      |      |        |      |        |      |      |        |      |                                        |        |      |                                     |      |      |        |      |     |        |      |      |      |      |        |      |     |        |      |      |      |      |        |      |     |        |      |      |      |      |        |      |      |       |      |                              |     |     |      |      |     |        |      |      |   |   |      |      |     |        |      |      |      |      |                                     |      |     |        |      |      |        |      |      |      |      |        |      |      |        |      |      |      |      |        |      |      |        |      |      |      |      |        |      |      |        |      |                                     |      |      |      |      |     |        |      |      |      |      |      |      |     |        |      |      |      |      |      |      |     |        |      |      |      |      |     |      |     |       |      |      |   |   |      |      |     |       |      |      |   |   |     |      |     |        |      |      |      |      |                                     |     |     |     |      |     |        |      |      |      |      |     |      |     |        |      |      |      |      |     |      |     |        |      |      |      |      |      |      |     |        |      |      |      |      |      |      |     |        |      |      |      |      |      |      |     |       |   |   |   |   |      |      |     |       |   |   |   |   |
|               | 6.4                           | 2728          | 1.5    | 434.44    | 23.0         | 47.0         | 47.0             | 60.0                                |                                        |                                                                                        |                                                                                        |        |      |        |        |      |                                     |      |                                     |                                        |      |     |        |      |        |        |      |      |      |     |        |      |        |        |      |                                        |      |      |                                        |      |        |        |      |      |        |      |        |      |        |        |      |      |        |      |                                        |      |        |                              |      |      |        |      |        |        |       |      |      |                                     |        |      |        |        |       |                                     |      |      |                              |      |        |      |      |        |        |      |        |      |                                        |      |      |                              |        |                           |        |        |        |        |      |        |        |                                     |        |        |      |        |      |                                        |       |      |      |        |      |        |      |        |                                     |      |      |        |      |        |        |        |      |      |      |        |      |        |        |        |                                     |      |      |      |      |        |        |        |      |        |                              |      |                                     |                                     |        |        |        |        |       |        |       |      |        |        |        |        |        |        |       |      |        |                                        |        |       |      |        |        |        |        |        |        |                                     |      |       |                           |        |      |        |        |        |                                        |       |      |      |                                     |     |        |      |        |        |        |                                     |      |      |                                     |      |        |        |      |        |        |        |        |      |        |        |      |        |        |        |        |      |        |        |      |                              |        |        |      |      |       |        |      |       |        |                                     |      |      |      |        |      |       |        |       |      |      |      |        |      |        |       |       |                                     |      |                                        |        |      |      |        |      |        |       |      |        |      |      |        |      |        |      |      |        |      |                                        |        |      |                                     |      |      |        |      |     |        |      |      |      |      |        |      |     |        |      |      |      |      |        |      |     |        |      |      |      |      |        |      |      |       |      |                              |     |     |      |      |     |        |      |      |   |   |      |      |     |        |      |      |      |      |                                     |      |     |        |      |      |        |      |      |      |      |        |      |      |        |      |      |      |      |        |      |      |        |      |      |      |      |        |      |      |        |      |                                     |      |      |      |      |     |        |      |      |      |      |      |      |     |        |      |      |      |      |      |      |     |        |      |      |      |      |     |      |     |       |      |      |   |   |      |      |     |       |      |      |   |   |     |      |     |        |      |      |      |      |                                     |     |     |     |      |     |        |      |      |      |      |     |      |     |        |      |      |      |      |     |      |     |        |      |      |      |      |      |      |     |        |      |      |      |      |      |      |     |        |      |      |      |      |      |      |     |       |   |   |   |   |      |      |     |       |   |   |   |   |
|               | 8.0                           | 2192          | 1.9    | 349.07    | 16.0         | 47.0         | -                | -                                   |                                        |                                                                                        |                                                                                        |        |      |        |        |      |                                     |      |                                     |                                        |      |     |        |      |        |        |      |      |      |     |        |      |        |        |      |                                        |      |      |                                        |      |        |        |      |      |        |      |        |      |        |        |      |      |        |      |                                        |      |        |                              |      |      |        |      |        |        |       |      |      |                                     |        |      |        |        |       |                                     |      |      |                              |      |        |      |      |        |        |      |        |      |                                        |      |      |                              |        |                           |        |        |        |        |      |        |        |                                     |        |        |      |        |      |                                        |       |      |      |        |      |        |      |        |                                     |      |      |        |      |        |        |        |      |      |      |        |      |        |        |        |                                     |      |      |      |      |        |        |        |      |        |                              |      |                                     |                                     |        |        |        |        |       |        |       |      |        |        |        |        |        |        |       |      |        |                                        |        |       |      |        |        |        |        |        |        |                                     |      |       |                           |        |      |        |        |        |                                        |       |      |      |                                     |     |        |      |        |        |        |                                     |      |      |                                     |      |        |        |      |        |        |        |        |      |        |        |      |        |        |        |        |      |        |        |      |                              |        |        |      |      |       |        |      |       |        |                                     |      |      |      |        |      |       |        |       |      |      |      |        |      |        |       |       |                                     |      |                                        |        |      |      |        |      |        |       |      |        |      |      |        |      |        |      |      |        |      |                                        |        |      |                                     |      |      |        |      |     |        |      |      |      |      |        |      |     |        |      |      |      |      |        |      |     |        |      |      |      |      |        |      |      |       |      |                              |     |     |      |      |     |        |      |      |   |   |      |      |     |        |      |      |      |      |                                     |      |     |        |      |      |        |      |      |      |      |        |      |      |        |      |      |      |      |        |      |      |        |      |      |      |      |        |      |      |        |      |                                     |      |      |      |      |     |        |      |      |      |      |      |      |     |        |      |      |      |      |      |      |     |        |      |      |      |      |     |      |     |       |      |      |   |   |      |      |     |       |      |      |   |   |     |      |     |        |      |      |      |      |                                     |     |     |     |      |     |        |      |      |      |      |     |      |     |        |      |      |      |      |     |      |     |        |      |      |      |      |      |      |     |        |      |      |      |      |      |      |     |        |      |      |      |      |      |      |     |       |   |   |   |   |      |      |     |       |   |   |   |   |
|               | 9.3                           | 1885          | 2.2    | 300.12    | 22.0         | 47.0         | -                | -                                   | 2.8                                    | 7086                                                                                   | 0.8                                                                                    | 317.64 | 33.0 | 47.0   | 53.0   | 60.0 | <b>PD/PM 63<br/>112M6C / 112M6D</b> | 204  | 213                                 | 3.4                                    | 5978 | 1.0 | 267.94 | 36.0 | 47.0   | 55.0   | 60.0 | 3.6  | 5614 | 0.8 | 251.63 | 37.0 | 47.0   | 55.0   | 60.0 | 4.0                                    | 5038 | 0.8  | 225.83                                 | 38.0 | 47.0   | 56.0   | 60.0 | 4.2  | 4738   | 1.0  | 212.36 | 39.0 | 47.0   | 56.0   | 60.0 | 5.3  | 3823   | 1.5  | 171.37                                 | 40.0 | 47.0   | 57.0                         | 60.0 | 5.6  | 3572   | 1.7  | 160.11 | 40.0   | 47.0  | 58.0 | 60.0 | 7.1                                 | 2830   | 1.7  | 126.84 | 41.0   | 47.0  | 58.0                                | 60.0 | 7.8  | 2561                         | 2.4  | 114.79 | 36.0 | 47.0 | 58.0   | 60.0   | 9.7  | 2068   | 3.0  | 92.68                                  | 36.0 | 47.0 | 59.0                         | 60.0   | 3.6                       | 5550   | 1.1    | 393.43 | 28.0   | 47.0 | 50.0   | 60.0   | <b>PD/PM 63<br/>100L4B / 100L4C</b> | 196    | 213    | 4.4  | 4481   | 1.3  | 317.64                                 | 33.0  | 47.0 | 53.0 | 60.0   | 5.2  | 3780   | 1.6  | 267.94 | 36.0                                | 47.0 | 55.0 | 60.0   | 5.6  | 3550   | 1.3    | 251.63 | 37.0 | 47.0 | 55.0 | 60.0   | 6.2  | 3186   | 1.3    | 225.83 | 38.0                                | 47.0 | 56.0 | 60.0 | 6.6  | 2996   | 1.6    | 212.36 | 39.0 | 47.0   | 56.0                         | 60.0 | 8.2                                 | 2417                                | 2.3    | 171.37 | 40.0   | 47.0   | 57.0  | 60.0   | 8.7   | 2259 | 2.6    | 160.11 | 40.0   | 47.0   | 58.0   | 60.0   | 11.0  | 1789 | 2.6    | 126.84                                 | 41.0   | 47.0  | 58.0 | 60.0   | 5.1    | 3723   | 1.1    | 552.15 | 28.0   | 47.0                                | 50.0 | 60.0  | <b>PD/PM 63<br/>90L2D</b> | 186    | 213  | 6.3    | 3006   | 1.1    | 445.80                                 | 34.0  | 47.0 | 53.0 | 60.0                                | 7.1 | 2653   | 1.7  | 393.43 | 28.0   | 47.0   | 50.0                                | 60.0 | 8.8  | 2142                                | 2.0  | 317.64 | 33.0   | 47.0 | 53.0   | 60.0   | 11.1   | 1697   | 2.0  | 251.63 | 37.0   | 47.0 | 55.0   | 60.0   | 12.4   | 1523   | 2.0  | 225.83 | 38.0   | 47.0 | 56.0                         | 60.0   | 11.2   | 1818 | 2.4  | 80.26 | 20.0   | 32.0 | 58.0  | 60.0   | <b>PD/PM 62<br/>112M6C / 112M6D</b> | 207  | 212  | 13.8 | 1482   | 2.4  | 65.45 | 20.0   | 32.0  | 58.0 | 60.0 | 5.2  | 3834   | 0.8  | 174.49 | 21.0  | 32.0  | -                                   | -    | <b>PD/PM 52/12<br/>112M6C / 112M6D</b> | 133    | 238  | 6.3  | 3127   | 1.0  | 142.31 | 21.0  | 32.0 | -      | -    | 5.1  | 3766   | 0.8  | 272.80 | 21.0 | 32.0 | 38.0   | 40.0 | <b>PD/PM 52/12<br/>100L4B / 100L4C</b> | 125    | 238  | 6.0                                 | 3212 | 0.9  | 232.65 | -    | -   | -      | -    | 8.0  | 2409 | 1.2  | 174.49 | -    | -   | -      | -    | 9.8  | 1965 | 1.5  | 142.31 | -    | -   | -      | -    | 6.2  | 2916 | 0.8  | 448.15 | 21.0 | 32.0 | -     | -    | <b>PD/PM 52/12<br/>90L2D</b> | 115 | 238 | 8.3  | 2202 | 1.0 | 338.40 | 21.0 | 32.0 | - | - | 10.3 | 1775 | 1.3 | 272.80 | 21.0 | 32.0 | 38.0 | 40.0 | 12.0                                | 1514 | 1.5 | 232.65 | 21.0 | 32.0 | -      | -    | 16.0 | 1135 | 2.0  | 174.49 | 21.0 | 32.0 | -      | -    | 19.7 | 926  | 2.5  | 142.31 | 21.0 | 32.0 | -      | -    | 5.3  | 3823 | 0.8  | 171.36 | 28.0 | 32.0 | 42.0   | 40.0 | <b>PD/PM 53<br/>112M6C / 112M6D</b> | 142  | 209  | 5.8  | 3432 | 1.0 | 153.85 | 28.0 | 32.0 | 43.0 | 40.0 | 6.5  | 3096 | 1.1 | 138.78 | 28.0 | 32.0 | 43.0 | 40.0 | 7.7  | 2616 | 1.1 | 117.27 | 22.0 | 32.0 | 40.0 | 40.0 | 9.8 | 2042 | 1.5 | 91.51 | 25.0 | 32.0 | - | - | 10.9 | 1842 | 1.6 | 82.55 | 25.0 | 32.0 | - | - | 5.6 | 3508 | 0.9 | 248.66 | 23.0 | 32.0 | 39.0 | 40.0 | <b>PD/PM 53<br/>100L4B / 100L4C</b> | 134 | 209 | 6.9 | 2861 | 1.1 | 202.80 | 26.0 | 32.0 | 41.0 | 40.0 | 8.2 | 2417 | 1.2 | 171.36 | 28.0 | 32.0 | 42.0 | 40.0 | 9.1 | 2170 | 1.5 | 153.85 | 28.0 | 32.0 | 43.0 | 40.0 | 10.1 | 1958 | 1.6 | 138.78 | 28.0 | 32.0 | 43.0 | 40.0 | 11.9 | 1654 | 1.7 | 117.27 | 22.0 | 32.0 | 40.0 | 40.0 | 15.3 | 1291 | 2.2 | 91.51 | - | - | - | - | 17.0 | 1165 | 2.4 | 82.55 | - | - | - | - |
|               | 2.8                           | 7086          | 0.8    | 317.64    | 33.0         | 47.0         | 53.0             | 60.0                                | <b>PD/PM 63<br/>112M6C / 112M6D</b>    | 204                                                                                    | 213                                                                                    |        |      |        |        |      |                                     |      |                                     |                                        |      |     |        |      |        |        |      |      |      |     |        |      |        |        |      |                                        |      |      |                                        |      |        |        |      |      |        |      |        |      |        |        |      |      |        |      |                                        |      |        |                              |      |      |        |      |        |        |       |      |      |                                     |        |      |        |        |       |                                     |      |      |                              |      |        |      |      |        |        |      |        |      |                                        |      |      |                              |        |                           |        |        |        |        |      |        |        |                                     |        |        |      |        |      |                                        |       |      |      |        |      |        |      |        |                                     |      |      |        |      |        |        |        |      |      |      |        |      |        |        |        |                                     |      |      |      |      |        |        |        |      |        |                              |      |                                     |                                     |        |        |        |        |       |        |       |      |        |        |        |        |        |        |       |      |        |                                        |        |       |      |        |        |        |        |        |        |                                     |      |       |                           |        |      |        |        |        |                                        |       |      |      |                                     |     |        |      |        |        |        |                                     |      |      |                                     |      |        |        |      |        |        |        |        |      |        |        |      |        |        |        |        |      |        |        |      |                              |        |        |      |      |       |        |      |       |        |                                     |      |      |      |        |      |       |        |       |      |      |      |        |      |        |       |       |                                     |      |                                        |        |      |      |        |      |        |       |      |        |      |      |        |      |        |      |      |        |      |                                        |        |      |                                     |      |      |        |      |     |        |      |      |      |      |        |      |     |        |      |      |      |      |        |      |     |        |      |      |      |      |        |      |      |       |      |                              |     |     |      |      |     |        |      |      |   |   |      |      |     |        |      |      |      |      |                                     |      |     |        |      |      |        |      |      |      |      |        |      |      |        |      |      |      |      |        |      |      |        |      |      |      |      |        |      |      |        |      |                                     |      |      |      |      |     |        |      |      |      |      |      |      |     |        |      |      |      |      |      |      |     |        |      |      |      |      |     |      |     |       |      |      |   |   |      |      |     |       |      |      |   |   |     |      |     |        |      |      |      |      |                                     |     |     |     |      |     |        |      |      |      |      |     |      |     |        |      |      |      |      |     |      |     |        |      |      |      |      |      |      |     |        |      |      |      |      |      |      |     |        |      |      |      |      |      |      |     |       |   |   |   |   |      |      |     |       |   |   |   |   |
|               | 3.4                           | 5978          | 1.0    | 267.94    | 36.0         | 47.0         | 55.0             | 60.0                                |                                        |                                                                                        |                                                                                        |        |      |        |        |      |                                     |      |                                     |                                        |      |     |        |      |        |        |      |      |      |     |        |      |        |        |      |                                        |      |      |                                        |      |        |        |      |      |        |      |        |      |        |        |      |      |        |      |                                        |      |        |                              |      |      |        |      |        |        |       |      |      |                                     |        |      |        |        |       |                                     |      |      |                              |      |        |      |      |        |        |      |        |      |                                        |      |      |                              |        |                           |        |        |        |        |      |        |        |                                     |        |        |      |        |      |                                        |       |      |      |        |      |        |      |        |                                     |      |      |        |      |        |        |        |      |      |      |        |      |        |        |        |                                     |      |      |      |      |        |        |        |      |        |                              |      |                                     |                                     |        |        |        |        |       |        |       |      |        |        |        |        |        |        |       |      |        |                                        |        |       |      |        |        |        |        |        |        |                                     |      |       |                           |        |      |        |        |        |                                        |       |      |      |                                     |     |        |      |        |        |        |                                     |      |      |                                     |      |        |        |      |        |        |        |        |      |        |        |      |        |        |        |        |      |        |        |      |                              |        |        |      |      |       |        |      |       |        |                                     |      |      |      |        |      |       |        |       |      |      |      |        |      |        |       |       |                                     |      |                                        |        |      |      |        |      |        |       |      |        |      |      |        |      |        |      |      |        |      |                                        |        |      |                                     |      |      |        |      |     |        |      |      |      |      |        |      |     |        |      |      |      |      |        |      |     |        |      |      |      |      |        |      |      |       |      |                              |     |     |      |      |     |        |      |      |   |   |      |      |     |        |      |      |      |      |                                     |      |     |        |      |      |        |      |      |      |      |        |      |      |        |      |      |      |      |        |      |      |        |      |      |      |      |        |      |      |        |      |                                     |      |      |      |      |     |        |      |      |      |      |      |      |     |        |      |      |      |      |      |      |     |        |      |      |      |      |     |      |     |       |      |      |   |   |      |      |     |       |      |      |   |   |     |      |     |        |      |      |      |      |                                     |     |     |     |      |     |        |      |      |      |      |     |      |     |        |      |      |      |      |     |      |     |        |      |      |      |      |      |      |     |        |      |      |      |      |      |      |     |        |      |      |      |      |      |      |     |       |   |   |   |   |      |      |     |       |   |   |   |   |
|               | 3.6                           | 5614          | 0.8    | 251.63    | 37.0         | 47.0         | 55.0             | 60.0                                |                                        |                                                                                        |                                                                                        |        |      |        |        |      |                                     |      |                                     |                                        |      |     |        |      |        |        |      |      |      |     |        |      |        |        |      |                                        |      |      |                                        |      |        |        |      |      |        |      |        |      |        |        |      |      |        |      |                                        |      |        |                              |      |      |        |      |        |        |       |      |      |                                     |        |      |        |        |       |                                     |      |      |                              |      |        |      |      |        |        |      |        |      |                                        |      |      |                              |        |                           |        |        |        |        |      |        |        |                                     |        |        |      |        |      |                                        |       |      |      |        |      |        |      |        |                                     |      |      |        |      |        |        |        |      |      |      |        |      |        |        |        |                                     |      |      |      |      |        |        |        |      |        |                              |      |                                     |                                     |        |        |        |        |       |        |       |      |        |        |        |        |        |        |       |      |        |                                        |        |       |      |        |        |        |        |        |        |                                     |      |       |                           |        |      |        |        |        |                                        |       |      |      |                                     |     |        |      |        |        |        |                                     |      |      |                                     |      |        |        |      |        |        |        |        |      |        |        |      |        |        |        |        |      |        |        |      |                              |        |        |      |      |       |        |      |       |        |                                     |      |      |      |        |      |       |        |       |      |      |      |        |      |        |       |       |                                     |      |                                        |        |      |      |        |      |        |       |      |        |      |      |        |      |        |      |      |        |      |                                        |        |      |                                     |      |      |        |      |     |        |      |      |      |      |        |      |     |        |      |      |      |      |        |      |     |        |      |      |      |      |        |      |      |       |      |                              |     |     |      |      |     |        |      |      |   |   |      |      |     |        |      |      |      |      |                                     |      |     |        |      |      |        |      |      |      |      |        |      |      |        |      |      |      |      |        |      |      |        |      |      |      |      |        |      |      |        |      |                                     |      |      |      |      |     |        |      |      |      |      |      |      |     |        |      |      |      |      |      |      |     |        |      |      |      |      |     |      |     |       |      |      |   |   |      |      |     |       |      |      |   |   |     |      |     |        |      |      |      |      |                                     |     |     |     |      |     |        |      |      |      |      |     |      |     |        |      |      |      |      |     |      |     |        |      |      |      |      |      |      |     |        |      |      |      |      |      |      |     |        |      |      |      |      |      |      |     |       |   |   |   |   |      |      |     |       |   |   |   |   |
|               | 4.0                           | 5038          | 0.8    | 225.83    | 38.0         | 47.0         | 56.0             | 60.0                                |                                        |                                                                                        |                                                                                        |        |      |        |        |      |                                     |      |                                     |                                        |      |     |        |      |        |        |      |      |      |     |        |      |        |        |      |                                        |      |      |                                        |      |        |        |      |      |        |      |        |      |        |        |      |      |        |      |                                        |      |        |                              |      |      |        |      |        |        |       |      |      |                                     |        |      |        |        |       |                                     |      |      |                              |      |        |      |      |        |        |      |        |      |                                        |      |      |                              |        |                           |        |        |        |        |      |        |        |                                     |        |        |      |        |      |                                        |       |      |      |        |      |        |      |        |                                     |      |      |        |      |        |        |        |      |      |      |        |      |        |        |        |                                     |      |      |      |      |        |        |        |      |        |                              |      |                                     |                                     |        |        |        |        |       |        |       |      |        |        |        |        |        |        |       |      |        |                                        |        |       |      |        |        |        |        |        |        |                                     |      |       |                           |        |      |        |        |        |                                        |       |      |      |                                     |     |        |      |        |        |        |                                     |      |      |                                     |      |        |        |      |        |        |        |        |      |        |        |      |        |        |        |        |      |        |        |      |                              |        |        |      |      |       |        |      |       |        |                                     |      |      |      |        |      |       |        |       |      |      |      |        |      |        |       |       |                                     |      |                                        |        |      |      |        |      |        |       |      |        |      |      |        |      |        |      |      |        |      |                                        |        |      |                                     |      |      |        |      |     |        |      |      |      |      |        |      |     |        |      |      |      |      |        |      |     |        |      |      |      |      |        |      |      |       |      |                              |     |     |      |      |     |        |      |      |   |   |      |      |     |        |      |      |      |      |                                     |      |     |        |      |      |        |      |      |      |      |        |      |      |        |      |      |      |      |        |      |      |        |      |      |      |      |        |      |      |        |      |                                     |      |      |      |      |     |        |      |      |      |      |      |      |     |        |      |      |      |      |      |      |     |        |      |      |      |      |     |      |     |       |      |      |   |   |      |      |     |       |      |      |   |   |     |      |     |        |      |      |      |      |                                     |     |     |     |      |     |        |      |      |      |      |     |      |     |        |      |      |      |      |     |      |     |        |      |      |      |      |      |      |     |        |      |      |      |      |      |      |     |        |      |      |      |      |      |      |     |       |   |   |   |   |      |      |     |       |   |   |   |   |
|               | 4.2                           | 4738          | 1.0    | 212.36    | 39.0         | 47.0         | 56.0             | 60.0                                |                                        |                                                                                        |                                                                                        |        |      |        |        |      |                                     |      |                                     |                                        |      |     |        |      |        |        |      |      |      |     |        |      |        |        |      |                                        |      |      |                                        |      |        |        |      |      |        |      |        |      |        |        |      |      |        |      |                                        |      |        |                              |      |      |        |      |        |        |       |      |      |                                     |        |      |        |        |       |                                     |      |      |                              |      |        |      |      |        |        |      |        |      |                                        |      |      |                              |        |                           |        |        |        |        |      |        |        |                                     |        |        |      |        |      |                                        |       |      |      |        |      |        |      |        |                                     |      |      |        |      |        |        |        |      |      |      |        |      |        |        |        |                                     |      |      |      |      |        |        |        |      |        |                              |      |                                     |                                     |        |        |        |        |       |        |       |      |        |        |        |        |        |        |       |      |        |                                        |        |       |      |        |        |        |        |        |        |                                     |      |       |                           |        |      |        |        |        |                                        |       |      |      |                                     |     |        |      |        |        |        |                                     |      |      |                                     |      |        |        |      |        |        |        |        |      |        |        |      |        |        |        |        |      |        |        |      |                              |        |        |      |      |       |        |      |       |        |                                     |      |      |      |        |      |       |        |       |      |      |      |        |      |        |       |       |                                     |      |                                        |        |      |      |        |      |        |       |      |        |      |      |        |      |        |      |      |        |      |                                        |        |      |                                     |      |      |        |      |     |        |      |      |      |      |        |      |     |        |      |      |      |      |        |      |     |        |      |      |      |      |        |      |      |       |      |                              |     |     |      |      |     |        |      |      |   |   |      |      |     |        |      |      |      |      |                                     |      |     |        |      |      |        |      |      |      |      |        |      |      |        |      |      |      |      |        |      |      |        |      |      |      |      |        |      |      |        |      |                                     |      |      |      |      |     |        |      |      |      |      |      |      |     |        |      |      |      |      |      |      |     |        |      |      |      |      |     |      |     |       |      |      |   |   |      |      |     |       |      |      |   |   |     |      |     |        |      |      |      |      |                                     |     |     |     |      |     |        |      |      |      |      |     |      |     |        |      |      |      |      |     |      |     |        |      |      |      |      |      |      |     |        |      |      |      |      |      |      |     |        |      |      |      |      |      |      |     |       |   |   |   |   |      |      |     |       |   |   |   |   |
|               | 5.3                           | 3823          | 1.5    | 171.37    | 40.0         | 47.0         | 57.0             | 60.0                                |                                        |                                                                                        |                                                                                        |        |      |        |        |      |                                     |      |                                     |                                        |      |     |        |      |        |        |      |      |      |     |        |      |        |        |      |                                        |      |      |                                        |      |        |        |      |      |        |      |        |      |        |        |      |      |        |      |                                        |      |        |                              |      |      |        |      |        |        |       |      |      |                                     |        |      |        |        |       |                                     |      |      |                              |      |        |      |      |        |        |      |        |      |                                        |      |      |                              |        |                           |        |        |        |        |      |        |        |                                     |        |        |      |        |      |                                        |       |      |      |        |      |        |      |        |                                     |      |      |        |      |        |        |        |      |      |      |        |      |        |        |        |                                     |      |      |      |      |        |        |        |      |        |                              |      |                                     |                                     |        |        |        |        |       |        |       |      |        |        |        |        |        |        |       |      |        |                                        |        |       |      |        |        |        |        |        |        |                                     |      |       |                           |        |      |        |        |        |                                        |       |      |      |                                     |     |        |      |        |        |        |                                     |      |      |                                     |      |        |        |      |        |        |        |        |      |        |        |      |        |        |        |        |      |        |        |      |                              |        |        |      |      |       |        |      |       |        |                                     |      |      |      |        |      |       |        |       |      |      |      |        |      |        |       |       |                                     |      |                                        |        |      |      |        |      |        |       |      |        |      |      |        |      |        |      |      |        |      |                                        |        |      |                                     |      |      |        |      |     |        |      |      |      |      |        |      |     |        |      |      |      |      |        |      |     |        |      |      |      |      |        |      |      |       |      |                              |     |     |      |      |     |        |      |      |   |   |      |      |     |        |      |      |      |      |                                     |      |     |        |      |      |        |      |      |      |      |        |      |      |        |      |      |      |      |        |      |      |        |      |      |      |      |        |      |      |        |      |                                     |      |      |      |      |     |        |      |      |      |      |      |      |     |        |      |      |      |      |      |      |     |        |      |      |      |      |     |      |     |       |      |      |   |   |      |      |     |       |      |      |   |   |     |      |     |        |      |      |      |      |                                     |     |     |     |      |     |        |      |      |      |      |     |      |     |        |      |      |      |      |     |      |     |        |      |      |      |      |      |      |     |        |      |      |      |      |      |      |     |        |      |      |      |      |      |      |     |       |   |   |   |   |      |      |     |       |   |   |   |   |
|               | 5.6                           | 3572          | 1.7    | 160.11    | 40.0         | 47.0         | 58.0             | 60.0                                |                                        |                                                                                        |                                                                                        |        |      |        |        |      |                                     |      |                                     |                                        |      |     |        |      |        |        |      |      |      |     |        |      |        |        |      |                                        |      |      |                                        |      |        |        |      |      |        |      |        |      |        |        |      |      |        |      |                                        |      |        |                              |      |      |        |      |        |        |       |      |      |                                     |        |      |        |        |       |                                     |      |      |                              |      |        |      |      |        |        |      |        |      |                                        |      |      |                              |        |                           |        |        |        |        |      |        |        |                                     |        |        |      |        |      |                                        |       |      |      |        |      |        |      |        |                                     |      |      |        |      |        |        |        |      |      |      |        |      |        |        |        |                                     |      |      |      |      |        |        |        |      |        |                              |      |                                     |                                     |        |        |        |        |       |        |       |      |        |        |        |        |        |        |       |      |        |                                        |        |       |      |        |        |        |        |        |        |                                     |      |       |                           |        |      |        |        |        |                                        |       |      |      |                                     |     |        |      |        |        |        |                                     |      |      |                                     |      |        |        |      |        |        |        |        |      |        |        |      |        |        |        |        |      |        |        |      |                              |        |        |      |      |       |        |      |       |        |                                     |      |      |      |        |      |       |        |       |      |      |      |        |      |        |       |       |                                     |      |                                        |        |      |      |        |      |        |       |      |        |      |      |        |      |        |      |      |        |      |                                        |        |      |                                     |      |      |        |      |     |        |      |      |      |      |        |      |     |        |      |      |      |      |        |      |     |        |      |      |      |      |        |      |      |       |      |                              |     |     |      |      |     |        |      |      |   |   |      |      |     |        |      |      |      |      |                                     |      |     |        |      |      |        |      |      |      |      |        |      |      |        |      |      |      |      |        |      |      |        |      |      |      |      |        |      |      |        |      |                                     |      |      |      |      |     |        |      |      |      |      |      |      |     |        |      |      |      |      |      |      |     |        |      |      |      |      |     |      |     |       |      |      |   |   |      |      |     |       |      |      |   |   |     |      |     |        |      |      |      |      |                                     |     |     |     |      |     |        |      |      |      |      |     |      |     |        |      |      |      |      |     |      |     |        |      |      |      |      |      |      |     |        |      |      |      |      |      |      |     |        |      |      |      |      |      |      |     |       |   |   |   |   |      |      |     |       |   |   |   |   |
|               | 7.1                           | 2830          | 1.7    | 126.84    | 41.0         | 47.0         | 58.0             | 60.0                                |                                        |                                                                                        |                                                                                        |        |      |        |        |      |                                     |      |                                     |                                        |      |     |        |      |        |        |      |      |      |     |        |      |        |        |      |                                        |      |      |                                        |      |        |        |      |      |        |      |        |      |        |        |      |      |        |      |                                        |      |        |                              |      |      |        |      |        |        |       |      |      |                                     |        |      |        |        |       |                                     |      |      |                              |      |        |      |      |        |        |      |        |      |                                        |      |      |                              |        |                           |        |        |        |        |      |        |        |                                     |        |        |      |        |      |                                        |       |      |      |        |      |        |      |        |                                     |      |      |        |      |        |        |        |      |      |      |        |      |        |        |        |                                     |      |      |      |      |        |        |        |      |        |                              |      |                                     |                                     |        |        |        |        |       |        |       |      |        |        |        |        |        |        |       |      |        |                                        |        |       |      |        |        |        |        |        |        |                                     |      |       |                           |        |      |        |        |        |                                        |       |      |      |                                     |     |        |      |        |        |        |                                     |      |      |                                     |      |        |        |      |        |        |        |        |      |        |        |      |        |        |        |        |      |        |        |      |                              |        |        |      |      |       |        |      |       |        |                                     |      |      |      |        |      |       |        |       |      |      |      |        |      |        |       |       |                                     |      |                                        |        |      |      |        |      |        |       |      |        |      |      |        |      |        |      |      |        |      |                                        |        |      |                                     |      |      |        |      |     |        |      |      |      |      |        |      |     |        |      |      |      |      |        |      |     |        |      |      |      |      |        |      |      |       |      |                              |     |     |      |      |     |        |      |      |   |   |      |      |     |        |      |      |      |      |                                     |      |     |        |      |      |        |      |      |      |      |        |      |      |        |      |      |      |      |        |      |      |        |      |      |      |      |        |      |      |        |      |                                     |      |      |      |      |     |        |      |      |      |      |      |      |     |        |      |      |      |      |      |      |     |        |      |      |      |      |     |      |     |       |      |      |   |   |      |      |     |       |      |      |   |   |     |      |     |        |      |      |      |      |                                     |     |     |     |      |     |        |      |      |      |      |     |      |     |        |      |      |      |      |     |      |     |        |      |      |      |      |      |      |     |        |      |      |      |      |      |      |     |        |      |      |      |      |      |      |     |       |   |   |   |   |      |      |     |       |   |   |   |   |
|               | 7.8                           | 2561          | 2.4    | 114.79    | 36.0         | 47.0         | 58.0             | 60.0                                |                                        |                                                                                        |                                                                                        |        |      |        |        |      |                                     |      |                                     |                                        |      |     |        |      |        |        |      |      |      |     |        |      |        |        |      |                                        |      |      |                                        |      |        |        |      |      |        |      |        |      |        |        |      |      |        |      |                                        |      |        |                              |      |      |        |      |        |        |       |      |      |                                     |        |      |        |        |       |                                     |      |      |                              |      |        |      |      |        |        |      |        |      |                                        |      |      |                              |        |                           |        |        |        |        |      |        |        |                                     |        |        |      |        |      |                                        |       |      |      |        |      |        |      |        |                                     |      |      |        |      |        |        |        |      |      |      |        |      |        |        |        |                                     |      |      |      |      |        |        |        |      |        |                              |      |                                     |                                     |        |        |        |        |       |        |       |      |        |        |        |        |        |        |       |      |        |                                        |        |       |      |        |        |        |        |        |        |                                     |      |       |                           |        |      |        |        |        |                                        |       |      |      |                                     |     |        |      |        |        |        |                                     |      |      |                                     |      |        |        |      |        |        |        |        |      |        |        |      |        |        |        |        |      |        |        |      |                              |        |        |      |      |       |        |      |       |        |                                     |      |      |      |        |      |       |        |       |      |      |      |        |      |        |       |       |                                     |      |                                        |        |      |      |        |      |        |       |      |        |      |      |        |      |        |      |      |        |      |                                        |        |      |                                     |      |      |        |      |     |        |      |      |      |      |        |      |     |        |      |      |      |      |        |      |     |        |      |      |      |      |        |      |      |       |      |                              |     |     |      |      |     |        |      |      |   |   |      |      |     |        |      |      |      |      |                                     |      |     |        |      |      |        |      |      |      |      |        |      |      |        |      |      |      |      |        |      |      |        |      |      |      |      |        |      |      |        |      |                                     |      |      |      |      |     |        |      |      |      |      |      |      |     |        |      |      |      |      |      |      |     |        |      |      |      |      |     |      |     |       |      |      |   |   |      |      |     |       |      |      |   |   |     |      |     |        |      |      |      |      |                                     |     |     |     |      |     |        |      |      |      |      |     |      |     |        |      |      |      |      |     |      |     |        |      |      |      |      |      |      |     |        |      |      |      |      |      |      |     |        |      |      |      |      |      |      |     |       |   |   |   |   |      |      |     |       |   |   |   |   |
|               | 9.7                           | 2068          | 3.0    | 92.68     | 36.0         | 47.0         | 59.0             | 60.0                                | 3.6                                    | 5550                                                                                   | 1.1                                                                                    | 393.43 | 28.0 | 47.0   | 50.0   | 60.0 | <b>PD/PM 63<br/>100L4B / 100L4C</b> | 196  | 213                                 | 4.4                                    | 4481 | 1.3 | 317.64 | 33.0 | 47.0   | 53.0   | 60.0 | 5.2  | 3780 | 1.6 | 267.94 | 36.0 | 47.0   | 55.0   | 60.0 | 5.6                                    | 3550 | 1.3  | 251.63                                 | 37.0 | 47.0   | 55.0   | 60.0 | 6.2  | 3186   | 1.3  | 225.83 | 38.0 | 47.0   | 56.0   | 60.0 | 6.6  | 2996   | 1.6  | 212.36                                 | 39.0 | 47.0   | 56.0                         | 60.0 | 8.2  | 2417   | 2.3  | 171.37 | 40.0   | 47.0  | 57.0 | 60.0 | 8.7                                 | 2259   | 2.6  | 160.11 | 40.0   | 47.0  | 58.0                                | 60.0 | 11.0 | 1789                         | 2.6  | 126.84 | 41.0 | 47.0 | 58.0   | 60.0   | 5.1  | 3723   | 1.1  | 552.15                                 | 28.0 | 47.0 | 50.0                         | 60.0   | <b>PD/PM 63<br/>90L2D</b> | 186    | 213    | 6.3    | 3006   | 1.1  | 445.80 | 34.0   | 47.0                                | 53.0   | 60.0   | 7.1  | 2653   | 1.7  | 393.43                                 | 28.0  | 47.0 | 50.0 | 60.0   | 8.8  | 2142   | 2.0  | 317.64 | 33.0                                | 47.0 | 53.0 | 60.0   | 11.1 | 1697   | 2.0    | 251.63 | 37.0 | 47.0 | 55.0 | 60.0   | 12.4 | 1523   | 2.0    | 225.83 | 38.0                                | 47.0 | 56.0 | 60.0 | 11.2 | 1818   | 2.4    | 80.26  | 20.0 | 32.0   | 58.0                         | 60.0 | <b>PD/PM 62<br/>112M6C / 112M6D</b> | 207                                 | 212    | 13.8   | 1482   | 2.4    | 65.45 | 20.0   | 32.0  | 58.0 | 60.0   | 5.2    | 3834   | 0.8    | 174.49 | 21.0   | 32.0  | -    | -      | <b>PD/PM 52/12<br/>112M6C / 112M6D</b> | 133    | 238   | 6.3  | 3127   | 1.0    | 142.31 | 21.0   | 32.0   | -      | -                                   | 5.1  | 3766  | 0.8                       | 272.80 | 21.0 | 32.0   | 38.0   | 40.0   | <b>PD/PM 52/12<br/>100L4B / 100L4C</b> | 125   | 238  | 6.0  | 3212                                | 0.9 | 232.65 | -    | -      | -      | -      | 8.0                                 | 2409 | 1.2  | 174.49                              | -    | -      | -      | -    | 9.8    | 1965   | 1.5    | 142.31 | -    | -      | -      | -    | 6.2    | 2916   | 0.8    | 448.15 | 21.0 | 32.0   | -      | -    | <b>PD/PM 52/12<br/>90L2D</b> | 115    | 238    | 8.3  | 2202 | 1.0   | 338.40 | 21.0 | 32.0  | -      | -                                   | 10.3 | 1775 | 1.3  | 272.80 | 21.0 | 32.0  | 38.0   | 40.0  | 12.0 | 1514 | 1.5  | 232.65 | 21.0 | 32.0   | -     | -     | 16.0                                | 1135 | 2.0                                    | 174.49 | 21.0 | 32.0 | -      | -    | 19.7   | 926   | 2.5  | 142.31 | 21.0 | 32.0 | -      | -    | 5.3    | 3823 | 0.8  | 171.36 | 28.0 | 32.0                                   | 42.0   | 40.0 | <b>PD/PM 53<br/>112M6C / 112M6D</b> | 142  | 209  | 5.8    | 3432 | 1.0 | 153.85 | 28.0 | 32.0 | 43.0 | 40.0 | 6.5    | 3096 | 1.1 | 138.78 | 28.0 | 32.0 | 43.0 | 40.0 | 7.7    | 2616 | 1.1 | 117.27 | 22.0 | 32.0 | 40.0 | 40.0 | 9.8    | 2042 | 1.5  | 91.51 | 25.0 | 32.0                         | -   | -   | 10.9 | 1842 | 1.6 | 82.55  | 25.0 | 32.0 | - | - | 5.6  | 3508 | 0.9 | 248.66 | 23.0 | 32.0 | 39.0 | 40.0 | <b>PD/PM 53<br/>100L4B / 100L4C</b> | 134  | 209 | 6.9    | 2861 | 1.1  | 202.80 | 26.0 | 32.0 | 41.0 | 40.0 | 8.2    | 2417 | 1.2  | 171.36 | 28.0 | 32.0 | 42.0 | 40.0 | 9.1    | 2170 | 1.5  | 153.85 | 28.0 | 32.0 | 43.0 | 40.0 | 10.1   | 1958 | 1.6  | 138.78 | 28.0 | 32.0                                | 43.0 | 40.0 | 11.9 | 1654 | 1.7 | 117.27 | 22.0 | 32.0 | 40.0 | 40.0 | 15.3 | 1291 | 2.2 | 91.51  | -    | -    | -    | -    | 17.0 | 1165 | 2.4 | 82.55  | -    | -    | -    | -    |     |      |     |       |      |      |   |   |      |      |     |       |      |      |   |   |     |      |     |        |      |      |      |      |                                     |     |     |     |      |     |        |      |      |      |      |     |      |     |        |      |      |      |      |     |      |     |        |      |      |      |      |      |      |     |        |      |      |      |      |      |      |     |        |      |      |      |      |      |      |     |       |   |   |   |   |      |      |     |       |   |   |   |   |
|               | 3.6                           | 5550          | 1.1    | 393.43    | 28.0         | 47.0         | 50.0             | 60.0                                | <b>PD/PM 63<br/>100L4B / 100L4C</b>    | 196                                                                                    | 213                                                                                    |        |      |        |        |      |                                     |      |                                     |                                        |      |     |        |      |        |        |      |      |      |     |        |      |        |        |      |                                        |      |      |                                        |      |        |        |      |      |        |      |        |      |        |        |      |      |        |      |                                        |      |        |                              |      |      |        |      |        |        |       |      |      |                                     |        |      |        |        |       |                                     |      |      |                              |      |        |      |      |        |        |      |        |      |                                        |      |      |                              |        |                           |        |        |        |        |      |        |        |                                     |        |        |      |        |      |                                        |       |      |      |        |      |        |      |        |                                     |      |      |        |      |        |        |        |      |      |      |        |      |        |        |        |                                     |      |      |      |      |        |        |        |      |        |                              |      |                                     |                                     |        |        |        |        |       |        |       |      |        |        |        |        |        |        |       |      |        |                                        |        |       |      |        |        |        |        |        |        |                                     |      |       |                           |        |      |        |        |        |                                        |       |      |      |                                     |     |        |      |        |        |        |                                     |      |      |                                     |      |        |        |      |        |        |        |        |      |        |        |      |        |        |        |        |      |        |        |      |                              |        |        |      |      |       |        |      |       |        |                                     |      |      |      |        |      |       |        |       |      |      |      |        |      |        |       |       |                                     |      |                                        |        |      |      |        |      |        |       |      |        |      |      |        |      |        |      |      |        |      |                                        |        |      |                                     |      |      |        |      |     |        |      |      |      |      |        |      |     |        |      |      |      |      |        |      |     |        |      |      |      |      |        |      |      |       |      |                              |     |     |      |      |     |        |      |      |   |   |      |      |     |        |      |      |      |      |                                     |      |     |        |      |      |        |      |      |      |      |        |      |      |        |      |      |      |      |        |      |      |        |      |      |      |      |        |      |      |        |      |                                     |      |      |      |      |     |        |      |      |      |      |      |      |     |        |      |      |      |      |      |      |     |        |      |      |      |      |     |      |     |       |      |      |   |   |      |      |     |       |      |      |   |   |     |      |     |        |      |      |      |      |                                     |     |     |     |      |     |        |      |      |      |      |     |      |     |        |      |      |      |      |     |      |     |        |      |      |      |      |      |      |     |        |      |      |      |      |      |      |     |        |      |      |      |      |      |      |     |       |   |   |   |   |      |      |     |       |   |   |   |   |
|               | 4.4                           | 4481          | 1.3    | 317.64    | 33.0         | 47.0         | 53.0             | 60.0                                |                                        |                                                                                        |                                                                                        |        |      |        |        |      |                                     |      |                                     |                                        |      |     |        |      |        |        |      |      |      |     |        |      |        |        |      |                                        |      |      |                                        |      |        |        |      |      |        |      |        |      |        |        |      |      |        |      |                                        |      |        |                              |      |      |        |      |        |        |       |      |      |                                     |        |      |        |        |       |                                     |      |      |                              |      |        |      |      |        |        |      |        |      |                                        |      |      |                              |        |                           |        |        |        |        |      |        |        |                                     |        |        |      |        |      |                                        |       |      |      |        |      |        |      |        |                                     |      |      |        |      |        |        |        |      |      |      |        |      |        |        |        |                                     |      |      |      |      |        |        |        |      |        |                              |      |                                     |                                     |        |        |        |        |       |        |       |      |        |        |        |        |        |        |       |      |        |                                        |        |       |      |        |        |        |        |        |        |                                     |      |       |                           |        |      |        |        |        |                                        |       |      |      |                                     |     |        |      |        |        |        |                                     |      |      |                                     |      |        |        |      |        |        |        |        |      |        |        |      |        |        |        |        |      |        |        |      |                              |        |        |      |      |       |        |      |       |        |                                     |      |      |      |        |      |       |        |       |      |      |      |        |      |        |       |       |                                     |      |                                        |        |      |      |        |      |        |       |      |        |      |      |        |      |        |      |      |        |      |                                        |        |      |                                     |      |      |        |      |     |        |      |      |      |      |        |      |     |        |      |      |      |      |        |      |     |        |      |      |      |      |        |      |      |       |      |                              |     |     |      |      |     |        |      |      |   |   |      |      |     |        |      |      |      |      |                                     |      |     |        |      |      |        |      |      |      |      |        |      |      |        |      |      |      |      |        |      |      |        |      |      |      |      |        |      |      |        |      |                                     |      |      |      |      |     |        |      |      |      |      |      |      |     |        |      |      |      |      |      |      |     |        |      |      |      |      |     |      |     |       |      |      |   |   |      |      |     |       |      |      |   |   |     |      |     |        |      |      |      |      |                                     |     |     |     |      |     |        |      |      |      |      |     |      |     |        |      |      |      |      |     |      |     |        |      |      |      |      |      |      |     |        |      |      |      |      |      |      |     |        |      |      |      |      |      |      |     |       |   |   |   |   |      |      |     |       |   |   |   |   |
|               | 5.2                           | 3780          | 1.6    | 267.94    | 36.0         | 47.0         | 55.0             | 60.0                                |                                        |                                                                                        |                                                                                        |        |      |        |        |      |                                     |      |                                     |                                        |      |     |        |      |        |        |      |      |      |     |        |      |        |        |      |                                        |      |      |                                        |      |        |        |      |      |        |      |        |      |        |        |      |      |        |      |                                        |      |        |                              |      |      |        |      |        |        |       |      |      |                                     |        |      |        |        |       |                                     |      |      |                              |      |        |      |      |        |        |      |        |      |                                        |      |      |                              |        |                           |        |        |        |        |      |        |        |                                     |        |        |      |        |      |                                        |       |      |      |        |      |        |      |        |                                     |      |      |        |      |        |        |        |      |      |      |        |      |        |        |        |                                     |      |      |      |      |        |        |        |      |        |                              |      |                                     |                                     |        |        |        |        |       |        |       |      |        |        |        |        |        |        |       |      |        |                                        |        |       |      |        |        |        |        |        |        |                                     |      |       |                           |        |      |        |        |        |                                        |       |      |      |                                     |     |        |      |        |        |        |                                     |      |      |                                     |      |        |        |      |        |        |        |        |      |        |        |      |        |        |        |        |      |        |        |      |                              |        |        |      |      |       |        |      |       |        |                                     |      |      |      |        |      |       |        |       |      |      |      |        |      |        |       |       |                                     |      |                                        |        |      |      |        |      |        |       |      |        |      |      |        |      |        |      |      |        |      |                                        |        |      |                                     |      |      |        |      |     |        |      |      |      |      |        |      |     |        |      |      |      |      |        |      |     |        |      |      |      |      |        |      |      |       |      |                              |     |     |      |      |     |        |      |      |   |   |      |      |     |        |      |      |      |      |                                     |      |     |        |      |      |        |      |      |      |      |        |      |      |        |      |      |      |      |        |      |      |        |      |      |      |      |        |      |      |        |      |                                     |      |      |      |      |     |        |      |      |      |      |      |      |     |        |      |      |      |      |      |      |     |        |      |      |      |      |     |      |     |       |      |      |   |   |      |      |     |       |      |      |   |   |     |      |     |        |      |      |      |      |                                     |     |     |     |      |     |        |      |      |      |      |     |      |     |        |      |      |      |      |     |      |     |        |      |      |      |      |      |      |     |        |      |      |      |      |      |      |     |        |      |      |      |      |      |      |     |       |   |   |   |   |      |      |     |       |   |   |   |   |
|               | 5.6                           | 3550          | 1.3    | 251.63    | 37.0         | 47.0         | 55.0             | 60.0                                |                                        |                                                                                        |                                                                                        |        |      |        |        |      |                                     |      |                                     |                                        |      |     |        |      |        |        |      |      |      |     |        |      |        |        |      |                                        |      |      |                                        |      |        |        |      |      |        |      |        |      |        |        |      |      |        |      |                                        |      |        |                              |      |      |        |      |        |        |       |      |      |                                     |        |      |        |        |       |                                     |      |      |                              |      |        |      |      |        |        |      |        |      |                                        |      |      |                              |        |                           |        |        |        |        |      |        |        |                                     |        |        |      |        |      |                                        |       |      |      |        |      |        |      |        |                                     |      |      |        |      |        |        |        |      |      |      |        |      |        |        |        |                                     |      |      |      |      |        |        |        |      |        |                              |      |                                     |                                     |        |        |        |        |       |        |       |      |        |        |        |        |        |        |       |      |        |                                        |        |       |      |        |        |        |        |        |        |                                     |      |       |                           |        |      |        |        |        |                                        |       |      |      |                                     |     |        |      |        |        |        |                                     |      |      |                                     |      |        |        |      |        |        |        |        |      |        |        |      |        |        |        |        |      |        |        |      |                              |        |        |      |      |       |        |      |       |        |                                     |      |      |      |        |      |       |        |       |      |      |      |        |      |        |       |       |                                     |      |                                        |        |      |      |        |      |        |       |      |        |      |      |        |      |        |      |      |        |      |                                        |        |      |                                     |      |      |        |      |     |        |      |      |      |      |        |      |     |        |      |      |      |      |        |      |     |        |      |      |      |      |        |      |      |       |      |                              |     |     |      |      |     |        |      |      |   |   |      |      |     |        |      |      |      |      |                                     |      |     |        |      |      |        |      |      |      |      |        |      |      |        |      |      |      |      |        |      |      |        |      |      |      |      |        |      |      |        |      |                                     |      |      |      |      |     |        |      |      |      |      |      |      |     |        |      |      |      |      |      |      |     |        |      |      |      |      |     |      |     |       |      |      |   |   |      |      |     |       |      |      |   |   |     |      |     |        |      |      |      |      |                                     |     |     |     |      |     |        |      |      |      |      |     |      |     |        |      |      |      |      |     |      |     |        |      |      |      |      |      |      |     |        |      |      |      |      |      |      |     |        |      |      |      |      |      |      |     |       |   |   |   |   |      |      |     |       |   |   |   |   |
|               | 6.2                           | 3186          | 1.3    | 225.83    | 38.0         | 47.0         | 56.0             | 60.0                                |                                        |                                                                                        |                                                                                        |        |      |        |        |      |                                     |      |                                     |                                        |      |     |        |      |        |        |      |      |      |     |        |      |        |        |      |                                        |      |      |                                        |      |        |        |      |      |        |      |        |      |        |        |      |      |        |      |                                        |      |        |                              |      |      |        |      |        |        |       |      |      |                                     |        |      |        |        |       |                                     |      |      |                              |      |        |      |      |        |        |      |        |      |                                        |      |      |                              |        |                           |        |        |        |        |      |        |        |                                     |        |        |      |        |      |                                        |       |      |      |        |      |        |      |        |                                     |      |      |        |      |        |        |        |      |      |      |        |      |        |        |        |                                     |      |      |      |      |        |        |        |      |        |                              |      |                                     |                                     |        |        |        |        |       |        |       |      |        |        |        |        |        |        |       |      |        |                                        |        |       |      |        |        |        |        |        |        |                                     |      |       |                           |        |      |        |        |        |                                        |       |      |      |                                     |     |        |      |        |        |        |                                     |      |      |                                     |      |        |        |      |        |        |        |        |      |        |        |      |        |        |        |        |      |        |        |      |                              |        |        |      |      |       |        |      |       |        |                                     |      |      |      |        |      |       |        |       |      |      |      |        |      |        |       |       |                                     |      |                                        |        |      |      |        |      |        |       |      |        |      |      |        |      |        |      |      |        |      |                                        |        |      |                                     |      |      |        |      |     |        |      |      |      |      |        |      |     |        |      |      |      |      |        |      |     |        |      |      |      |      |        |      |      |       |      |                              |     |     |      |      |     |        |      |      |   |   |      |      |     |        |      |      |      |      |                                     |      |     |        |      |      |        |      |      |      |      |        |      |      |        |      |      |      |      |        |      |      |        |      |      |      |      |        |      |      |        |      |                                     |      |      |      |      |     |        |      |      |      |      |      |      |     |        |      |      |      |      |      |      |     |        |      |      |      |      |     |      |     |       |      |      |   |   |      |      |     |       |      |      |   |   |     |      |     |        |      |      |      |      |                                     |     |     |     |      |     |        |      |      |      |      |     |      |     |        |      |      |      |      |     |      |     |        |      |      |      |      |      |      |     |        |      |      |      |      |      |      |     |        |      |      |      |      |      |      |     |       |   |   |   |   |      |      |     |       |   |   |   |   |
|               | 6.6                           | 2996          | 1.6    | 212.36    | 39.0         | 47.0         | 56.0             | 60.0                                |                                        |                                                                                        |                                                                                        |        |      |        |        |      |                                     |      |                                     |                                        |      |     |        |      |        |        |      |      |      |     |        |      |        |        |      |                                        |      |      |                                        |      |        |        |      |      |        |      |        |      |        |        |      |      |        |      |                                        |      |        |                              |      |      |        |      |        |        |       |      |      |                                     |        |      |        |        |       |                                     |      |      |                              |      |        |      |      |        |        |      |        |      |                                        |      |      |                              |        |                           |        |        |        |        |      |        |        |                                     |        |        |      |        |      |                                        |       |      |      |        |      |        |      |        |                                     |      |      |        |      |        |        |        |      |      |      |        |      |        |        |        |                                     |      |      |      |      |        |        |        |      |        |                              |      |                                     |                                     |        |        |        |        |       |        |       |      |        |        |        |        |        |        |       |      |        |                                        |        |       |      |        |        |        |        |        |        |                                     |      |       |                           |        |      |        |        |        |                                        |       |      |      |                                     |     |        |      |        |        |        |                                     |      |      |                                     |      |        |        |      |        |        |        |        |      |        |        |      |        |        |        |        |      |        |        |      |                              |        |        |      |      |       |        |      |       |        |                                     |      |      |      |        |      |       |        |       |      |      |      |        |      |        |       |       |                                     |      |                                        |        |      |      |        |      |        |       |      |        |      |      |        |      |        |      |      |        |      |                                        |        |      |                                     |      |      |        |      |     |        |      |      |      |      |        |      |     |        |      |      |      |      |        |      |     |        |      |      |      |      |        |      |      |       |      |                              |     |     |      |      |     |        |      |      |   |   |      |      |     |        |      |      |      |      |                                     |      |     |        |      |      |        |      |      |      |      |        |      |      |        |      |      |      |      |        |      |      |        |      |      |      |      |        |      |      |        |      |                                     |      |      |      |      |     |        |      |      |      |      |      |      |     |        |      |      |      |      |      |      |     |        |      |      |      |      |     |      |     |       |      |      |   |   |      |      |     |       |      |      |   |   |     |      |     |        |      |      |      |      |                                     |     |     |     |      |     |        |      |      |      |      |     |      |     |        |      |      |      |      |     |      |     |        |      |      |      |      |      |      |     |        |      |      |      |      |      |      |     |        |      |      |      |      |      |      |     |       |   |   |   |   |      |      |     |       |   |   |   |   |
|               | 8.2                           | 2417          | 2.3    | 171.37    | 40.0         | 47.0         | 57.0             | 60.0                                |                                        |                                                                                        |                                                                                        |        |      |        |        |      |                                     |      |                                     |                                        |      |     |        |      |        |        |      |      |      |     |        |      |        |        |      |                                        |      |      |                                        |      |        |        |      |      |        |      |        |      |        |        |      |      |        |      |                                        |      |        |                              |      |      |        |      |        |        |       |      |      |                                     |        |      |        |        |       |                                     |      |      |                              |      |        |      |      |        |        |      |        |      |                                        |      |      |                              |        |                           |        |        |        |        |      |        |        |                                     |        |        |      |        |      |                                        |       |      |      |        |      |        |      |        |                                     |      |      |        |      |        |        |        |      |      |      |        |      |        |        |        |                                     |      |      |      |      |        |        |        |      |        |                              |      |                                     |                                     |        |        |        |        |       |        |       |      |        |        |        |        |        |        |       |      |        |                                        |        |       |      |        |        |        |        |        |        |                                     |      |       |                           |        |      |        |        |        |                                        |       |      |      |                                     |     |        |      |        |        |        |                                     |      |      |                                     |      |        |        |      |        |        |        |        |      |        |        |      |        |        |        |        |      |        |        |      |                              |        |        |      |      |       |        |      |       |        |                                     |      |      |      |        |      |       |        |       |      |      |      |        |      |        |       |       |                                     |      |                                        |        |      |      |        |      |        |       |      |        |      |      |        |      |        |      |      |        |      |                                        |        |      |                                     |      |      |        |      |     |        |      |      |      |      |        |      |     |        |      |      |      |      |        |      |     |        |      |      |      |      |        |      |      |       |      |                              |     |     |      |      |     |        |      |      |   |   |      |      |     |        |      |      |      |      |                                     |      |     |        |      |      |        |      |      |      |      |        |      |      |        |      |      |      |      |        |      |      |        |      |      |      |      |        |      |      |        |      |                                     |      |      |      |      |     |        |      |      |      |      |      |      |     |        |      |      |      |      |      |      |     |        |      |      |      |      |     |      |     |       |      |      |   |   |      |      |     |       |      |      |   |   |     |      |     |        |      |      |      |      |                                     |     |     |     |      |     |        |      |      |      |      |     |      |     |        |      |      |      |      |     |      |     |        |      |      |      |      |      |      |     |        |      |      |      |      |      |      |     |        |      |      |      |      |      |      |     |       |   |   |   |   |      |      |     |       |   |   |   |   |
|               | 8.7                           | 2259          | 2.6    | 160.11    | 40.0         | 47.0         | 58.0             | 60.0                                |                                        |                                                                                        |                                                                                        |        |      |        |        |      |                                     |      |                                     |                                        |      |     |        |      |        |        |      |      |      |     |        |      |        |        |      |                                        |      |      |                                        |      |        |        |      |      |        |      |        |      |        |        |      |      |        |      |                                        |      |        |                              |      |      |        |      |        |        |       |      |      |                                     |        |      |        |        |       |                                     |      |      |                              |      |        |      |      |        |        |      |        |      |                                        |      |      |                              |        |                           |        |        |        |        |      |        |        |                                     |        |        |      |        |      |                                        |       |      |      |        |      |        |      |        |                                     |      |      |        |      |        |        |        |      |      |      |        |      |        |        |        |                                     |      |      |      |      |        |        |        |      |        |                              |      |                                     |                                     |        |        |        |        |       |        |       |      |        |        |        |        |        |        |       |      |        |                                        |        |       |      |        |        |        |        |        |        |                                     |      |       |                           |        |      |        |        |        |                                        |       |      |      |                                     |     |        |      |        |        |        |                                     |      |      |                                     |      |        |        |      |        |        |        |        |      |        |        |      |        |        |        |        |      |        |        |      |                              |        |        |      |      |       |        |      |       |        |                                     |      |      |      |        |      |       |        |       |      |      |      |        |      |        |       |       |                                     |      |                                        |        |      |      |        |      |        |       |      |        |      |      |        |      |        |      |      |        |      |                                        |        |      |                                     |      |      |        |      |     |        |      |      |      |      |        |      |     |        |      |      |      |      |        |      |     |        |      |      |      |      |        |      |      |       |      |                              |     |     |      |      |     |        |      |      |   |   |      |      |     |        |      |      |      |      |                                     |      |     |        |      |      |        |      |      |      |      |        |      |      |        |      |      |      |      |        |      |      |        |      |      |      |      |        |      |      |        |      |                                     |      |      |      |      |     |        |      |      |      |      |      |      |     |        |      |      |      |      |      |      |     |        |      |      |      |      |     |      |     |       |      |      |   |   |      |      |     |       |      |      |   |   |     |      |     |        |      |      |      |      |                                     |     |     |     |      |     |        |      |      |      |      |     |      |     |        |      |      |      |      |     |      |     |        |      |      |      |      |      |      |     |        |      |      |      |      |      |      |     |        |      |      |      |      |      |      |     |       |   |   |   |   |      |      |     |       |   |   |   |   |
|               | 11.0                          | 1789          | 2.6    | 126.84    | 41.0         | 47.0         | 58.0             | 60.0                                | 5.1                                    | 3723                                                                                   | 1.1                                                                                    | 552.15 | 28.0 | 47.0   | 50.0   | 60.0 | <b>PD/PM 63<br/>90L2D</b>           | 186  | 213                                 | 6.3                                    | 3006 | 1.1 | 445.80 | 34.0 | 47.0   | 53.0   | 60.0 | 7.1  | 2653 | 1.7 | 393.43 | 28.0 | 47.0   | 50.0   | 60.0 | 8.8                                    | 2142 | 2.0  | 317.64                                 | 33.0 | 47.0   | 53.0   | 60.0 | 11.1 | 1697   | 2.0  | 251.63 | 37.0 | 47.0   | 55.0   | 60.0 | 12.4 | 1523   | 2.0  | 225.83                                 | 38.0 | 47.0   | 56.0                         | 60.0 | 11.2 | 1818   | 2.4  | 80.26  | 20.0   | 32.0  | 58.0 | 60.0 | <b>PD/PM 62<br/>112M6C / 112M6D</b> | 207    | 212  | 13.8   | 1482   | 2.4   | 65.45                               | 20.0 | 32.0 | 58.0                         | 60.0 | 5.2    | 3834 | 0.8  | 174.49 | 21.0   | 32.0 | -      | -    | <b>PD/PM 52/12<br/>112M6C / 112M6D</b> | 133  | 238  | 6.3                          | 3127   | 1.0                       | 142.31 | 21.0   | 32.0   | -      | -    | 5.1    | 3766   | 0.8                                 | 272.80 | 21.0   | 32.0 | 38.0   | 40.0 | <b>PD/PM 52/12<br/>100L4B / 100L4C</b> | 125   | 238  | 6.0  | 3212   | 0.9  | 232.65 | -    | -      | -                                   | -    | 8.0  | 2409   | 1.2  | 174.49 | -      | -      | -    | -    | 9.8  | 1965   | 1.5  | 142.31 | -      | -      | -                                   | -    | 6.2  | 2916 | 0.8  | 448.15 | 21.0   | 32.0   | -    | -      | <b>PD/PM 52/12<br/>90L2D</b> | 115  | 238                                 | 8.3                                 | 2202   | 1.0    | 338.40 | 21.0   | 32.0  | -      | -     | 10.3 | 1775   | 1.3    | 272.80 | 21.0   | 32.0   | 38.0   | 40.0  | 12.0 | 1514   | 1.5                                    | 232.65 | 21.0  | 32.0 | -      | -      | 16.0   | 1135   | 2.0    | 174.49 | 21.0                                | 32.0 | -     | -                         | 19.7   | 926  | 2.5    | 142.31 | 21.0   | 32.0                                   | -     | -    | 5.3  | 3823                                | 0.8 | 171.36 | 28.0 | 32.0   | 42.0   | 40.0   | <b>PD/PM 53<br/>112M6C / 112M6D</b> | 142  | 209  | 5.8                                 | 3432 | 1.0    | 153.85 | 28.0 | 32.0   | 43.0   | 40.0   | 6.5    | 3096 | 1.1    | 138.78 | 28.0 | 32.0   | 43.0   | 40.0   | 7.7    | 2616 | 1.1    | 117.27 | 22.0 | 32.0                         | 40.0   | 40.0   | 9.8  | 2042 | 1.5   | 91.51  | 25.0 | 32.0  | -      | -                                   | 10.9 | 1842 | 1.6  | 82.55  | 25.0 | 32.0  | -      | -     | 5.6  | 3508 | 0.9  | 248.66 | 23.0 | 32.0   | 39.0  | 40.0  | <b>PD/PM 53<br/>100L4B / 100L4C</b> | 134  | 209                                    | 6.9    | 2861 | 1.1  | 202.80 | 26.0 | 32.0   | 41.0  | 40.0 | 8.2    | 2417 | 1.2  | 171.36 | 28.0 | 32.0   | 42.0 | 40.0 | 9.1    | 2170 | 1.5                                    | 153.85 | 28.0 | 32.0                                | 43.0 | 40.0 | 10.1   | 1958 | 1.6 | 138.78 | 28.0 | 32.0 | 43.0 | 40.0 | 11.9   | 1654 | 1.7 | 117.27 | 22.0 | 32.0 | 40.0 | 40.0 | 15.3   | 1291 | 2.2 | 91.51  | -    | -    | -    | -    | 17.0   | 1165 | 2.4  | 82.55 | -    | -                            | -   | -   |      |      |     |        |      |      |   |   |      |      |     |        |      |      |      |      |                                     |      |     |        |      |      |        |      |      |      |      |        |      |      |        |      |      |      |      |        |      |      |        |      |      |      |      |        |      |      |        |      |                                     |      |      |      |      |     |        |      |      |      |      |      |      |     |        |      |      |      |      |      |      |     |        |      |      |      |      |     |      |     |       |      |      |   |   |      |      |     |       |      |      |   |   |     |      |     |        |      |      |      |      |                                     |     |     |     |      |     |        |      |      |      |      |     |      |     |        |      |      |      |      |     |      |     |        |      |      |      |      |      |      |     |        |      |      |      |      |      |      |     |        |      |      |      |      |      |      |     |       |   |   |   |   |      |      |     |       |   |   |   |   |
|               | 5.1                           | 3723          | 1.1    | 552.15    | 28.0         | 47.0         | 50.0             | 60.0                                | <b>PD/PM 63<br/>90L2D</b>              | 186                                                                                    | 213                                                                                    |        |      |        |        |      |                                     |      |                                     |                                        |      |     |        |      |        |        |      |      |      |     |        |      |        |        |      |                                        |      |      |                                        |      |        |        |      |      |        |      |        |      |        |        |      |      |        |      |                                        |      |        |                              |      |      |        |      |        |        |       |      |      |                                     |        |      |        |        |       |                                     |      |      |                              |      |        |      |      |        |        |      |        |      |                                        |      |      |                              |        |                           |        |        |        |        |      |        |        |                                     |        |        |      |        |      |                                        |       |      |      |        |      |        |      |        |                                     |      |      |        |      |        |        |        |      |      |      |        |      |        |        |        |                                     |      |      |      |      |        |        |        |      |        |                              |      |                                     |                                     |        |        |        |        |       |        |       |      |        |        |        |        |        |        |       |      |        |                                        |        |       |      |        |        |        |        |        |        |                                     |      |       |                           |        |      |        |        |        |                                        |       |      |      |                                     |     |        |      |        |        |        |                                     |      |      |                                     |      |        |        |      |        |        |        |        |      |        |        |      |        |        |        |        |      |        |        |      |                              |        |        |      |      |       |        |      |       |        |                                     |      |      |      |        |      |       |        |       |      |      |      |        |      |        |       |       |                                     |      |                                        |        |      |      |        |      |        |       |      |        |      |      |        |      |        |      |      |        |      |                                        |        |      |                                     |      |      |        |      |     |        |      |      |      |      |        |      |     |        |      |      |      |      |        |      |     |        |      |      |      |      |        |      |      |       |      |                              |     |     |      |      |     |        |      |      |   |   |      |      |     |        |      |      |      |      |                                     |      |     |        |      |      |        |      |      |      |      |        |      |      |        |      |      |      |      |        |      |      |        |      |      |      |      |        |      |      |        |      |                                     |      |      |      |      |     |        |      |      |      |      |      |      |     |        |      |      |      |      |      |      |     |        |      |      |      |      |     |      |     |       |      |      |   |   |      |      |     |       |      |      |   |   |     |      |     |        |      |      |      |      |                                     |     |     |     |      |     |        |      |      |      |      |     |      |     |        |      |      |      |      |     |      |     |        |      |      |      |      |      |      |     |        |      |      |      |      |      |      |     |        |      |      |      |      |      |      |     |       |   |   |   |   |      |      |     |       |   |   |   |   |
|               | 6.3                           | 3006          | 1.1    | 445.80    | 34.0         | 47.0         | 53.0             | 60.0                                |                                        |                                                                                        |                                                                                        |        |      |        |        |      |                                     |      |                                     |                                        |      |     |        |      |        |        |      |      |      |     |        |      |        |        |      |                                        |      |      |                                        |      |        |        |      |      |        |      |        |      |        |        |      |      |        |      |                                        |      |        |                              |      |      |        |      |        |        |       |      |      |                                     |        |      |        |        |       |                                     |      |      |                              |      |        |      |      |        |        |      |        |      |                                        |      |      |                              |        |                           |        |        |        |        |      |        |        |                                     |        |        |      |        |      |                                        |       |      |      |        |      |        |      |        |                                     |      |      |        |      |        |        |        |      |      |      |        |      |        |        |        |                                     |      |      |      |      |        |        |        |      |        |                              |      |                                     |                                     |        |        |        |        |       |        |       |      |        |        |        |        |        |        |       |      |        |                                        |        |       |      |        |        |        |        |        |        |                                     |      |       |                           |        |      |        |        |        |                                        |       |      |      |                                     |     |        |      |        |        |        |                                     |      |      |                                     |      |        |        |      |        |        |        |        |      |        |        |      |        |        |        |        |      |        |        |      |                              |        |        |      |      |       |        |      |       |        |                                     |      |      |      |        |      |       |        |       |      |      |      |        |      |        |       |       |                                     |      |                                        |        |      |      |        |      |        |       |      |        |      |      |        |      |        |      |      |        |      |                                        |        |      |                                     |      |      |        |      |     |        |      |      |      |      |        |      |     |        |      |      |      |      |        |      |     |        |      |      |      |      |        |      |      |       |      |                              |     |     |      |      |     |        |      |      |   |   |      |      |     |        |      |      |      |      |                                     |      |     |        |      |      |        |      |      |      |      |        |      |      |        |      |      |      |      |        |      |      |        |      |      |      |      |        |      |      |        |      |                                     |      |      |      |      |     |        |      |      |      |      |      |      |     |        |      |      |      |      |      |      |     |        |      |      |      |      |     |      |     |       |      |      |   |   |      |      |     |       |      |      |   |   |     |      |     |        |      |      |      |      |                                     |     |     |     |      |     |        |      |      |      |      |     |      |     |        |      |      |      |      |     |      |     |        |      |      |      |      |      |      |     |        |      |      |      |      |      |      |     |        |      |      |      |      |      |      |     |       |   |   |   |   |      |      |     |       |   |   |   |   |
|               | 7.1                           | 2653          | 1.7    | 393.43    | 28.0         | 47.0         | 50.0             | 60.0                                |                                        |                                                                                        |                                                                                        |        |      |        |        |      |                                     |      |                                     |                                        |      |     |        |      |        |        |      |      |      |     |        |      |        |        |      |                                        |      |      |                                        |      |        |        |      |      |        |      |        |      |        |        |      |      |        |      |                                        |      |        |                              |      |      |        |      |        |        |       |      |      |                                     |        |      |        |        |       |                                     |      |      |                              |      |        |      |      |        |        |      |        |      |                                        |      |      |                              |        |                           |        |        |        |        |      |        |        |                                     |        |        |      |        |      |                                        |       |      |      |        |      |        |      |        |                                     |      |      |        |      |        |        |        |      |      |      |        |      |        |        |        |                                     |      |      |      |      |        |        |        |      |        |                              |      |                                     |                                     |        |        |        |        |       |        |       |      |        |        |        |        |        |        |       |      |        |                                        |        |       |      |        |        |        |        |        |        |                                     |      |       |                           |        |      |        |        |        |                                        |       |      |      |                                     |     |        |      |        |        |        |                                     |      |      |                                     |      |        |        |      |        |        |        |        |      |        |        |      |        |        |        |        |      |        |        |      |                              |        |        |      |      |       |        |      |       |        |                                     |      |      |      |        |      |       |        |       |      |      |      |        |      |        |       |       |                                     |      |                                        |        |      |      |        |      |        |       |      |        |      |      |        |      |        |      |      |        |      |                                        |        |      |                                     |      |      |        |      |     |        |      |      |      |      |        |      |     |        |      |      |      |      |        |      |     |        |      |      |      |      |        |      |      |       |      |                              |     |     |      |      |     |        |      |      |   |   |      |      |     |        |      |      |      |      |                                     |      |     |        |      |      |        |      |      |      |      |        |      |      |        |      |      |      |      |        |      |      |        |      |      |      |      |        |      |      |        |      |                                     |      |      |      |      |     |        |      |      |      |      |      |      |     |        |      |      |      |      |      |      |     |        |      |      |      |      |     |      |     |       |      |      |   |   |      |      |     |       |      |      |   |   |     |      |     |        |      |      |      |      |                                     |     |     |     |      |     |        |      |      |      |      |     |      |     |        |      |      |      |      |     |      |     |        |      |      |      |      |      |      |     |        |      |      |      |      |      |      |     |        |      |      |      |      |      |      |     |       |   |   |   |   |      |      |     |       |   |   |   |   |
|               | 8.8                           | 2142          | 2.0    | 317.64    | 33.0         | 47.0         | 53.0             | 60.0                                |                                        |                                                                                        |                                                                                        |        |      |        |        |      |                                     |      |                                     |                                        |      |     |        |      |        |        |      |      |      |     |        |      |        |        |      |                                        |      |      |                                        |      |        |        |      |      |        |      |        |      |        |        |      |      |        |      |                                        |      |        |                              |      |      |        |      |        |        |       |      |      |                                     |        |      |        |        |       |                                     |      |      |                              |      |        |      |      |        |        |      |        |      |                                        |      |      |                              |        |                           |        |        |        |        |      |        |        |                                     |        |        |      |        |      |                                        |       |      |      |        |      |        |      |        |                                     |      |      |        |      |        |        |        |      |      |      |        |      |        |        |        |                                     |      |      |      |      |        |        |        |      |        |                              |      |                                     |                                     |        |        |        |        |       |        |       |      |        |        |        |        |        |        |       |      |        |                                        |        |       |      |        |        |        |        |        |        |                                     |      |       |                           |        |      |        |        |        |                                        |       |      |      |                                     |     |        |      |        |        |        |                                     |      |      |                                     |      |        |        |      |        |        |        |        |      |        |        |      |        |        |        |        |      |        |        |      |                              |        |        |      |      |       |        |      |       |        |                                     |      |      |      |        |      |       |        |       |      |      |      |        |      |        |       |       |                                     |      |                                        |        |      |      |        |      |        |       |      |        |      |      |        |      |        |      |      |        |      |                                        |        |      |                                     |      |      |        |      |     |        |      |      |      |      |        |      |     |        |      |      |      |      |        |      |     |        |      |      |      |      |        |      |      |       |      |                              |     |     |      |      |     |        |      |      |   |   |      |      |     |        |      |      |      |      |                                     |      |     |        |      |      |        |      |      |      |      |        |      |      |        |      |      |      |      |        |      |      |        |      |      |      |      |        |      |      |        |      |                                     |      |      |      |      |     |        |      |      |      |      |      |      |     |        |      |      |      |      |      |      |     |        |      |      |      |      |     |      |     |       |      |      |   |   |      |      |     |       |      |      |   |   |     |      |     |        |      |      |      |      |                                     |     |     |     |      |     |        |      |      |      |      |     |      |     |        |      |      |      |      |     |      |     |        |      |      |      |      |      |      |     |        |      |      |      |      |      |      |     |        |      |      |      |      |      |      |     |       |   |   |   |   |      |      |     |       |   |   |   |   |
|               | 11.1                          | 1697          | 2.0    | 251.63    | 37.0         | 47.0         | 55.0             | 60.0                                |                                        |                                                                                        |                                                                                        |        |      |        |        |      |                                     |      |                                     |                                        |      |     |        |      |        |        |      |      |      |     |        |      |        |        |      |                                        |      |      |                                        |      |        |        |      |      |        |      |        |      |        |        |      |      |        |      |                                        |      |        |                              |      |      |        |      |        |        |       |      |      |                                     |        |      |        |        |       |                                     |      |      |                              |      |        |      |      |        |        |      |        |      |                                        |      |      |                              |        |                           |        |        |        |        |      |        |        |                                     |        |        |      |        |      |                                        |       |      |      |        |      |        |      |        |                                     |      |      |        |      |        |        |        |      |      |      |        |      |        |        |        |                                     |      |      |      |      |        |        |        |      |        |                              |      |                                     |                                     |        |        |        |        |       |        |       |      |        |        |        |        |        |        |       |      |        |                                        |        |       |      |        |        |        |        |        |        |                                     |      |       |                           |        |      |        |        |        |                                        |       |      |      |                                     |     |        |      |        |        |        |                                     |      |      |                                     |      |        |        |      |        |        |        |        |      |        |        |      |        |        |        |        |      |        |        |      |                              |        |        |      |      |       |        |      |       |        |                                     |      |      |      |        |      |       |        |       |      |      |      |        |      |        |       |       |                                     |      |                                        |        |      |      |        |      |        |       |      |        |      |      |        |      |        |      |      |        |      |                                        |        |      |                                     |      |      |        |      |     |        |      |      |      |      |        |      |     |        |      |      |      |      |        |      |     |        |      |      |      |      |        |      |      |       |      |                              |     |     |      |      |     |        |      |      |   |   |      |      |     |        |      |      |      |      |                                     |      |     |        |      |      |        |      |      |      |      |        |      |      |        |      |      |      |      |        |      |      |        |      |      |      |      |        |      |      |        |      |                                     |      |      |      |      |     |        |      |      |      |      |      |      |     |        |      |      |      |      |      |      |     |        |      |      |      |      |     |      |     |       |      |      |   |   |      |      |     |       |      |      |   |   |     |      |     |        |      |      |      |      |                                     |     |     |     |      |     |        |      |      |      |      |     |      |     |        |      |      |      |      |     |      |     |        |      |      |      |      |      |      |     |        |      |      |      |      |      |      |     |        |      |      |      |      |      |      |     |       |   |   |   |   |      |      |     |       |   |   |   |   |
|               | 12.4                          | 1523          | 2.0    | 225.83    | 38.0         | 47.0         | 56.0             | 60.0                                | 11.2                                   | 1818                                                                                   | 2.4                                                                                    | 80.26  | 20.0 | 32.0   | 58.0   | 60.0 | <b>PD/PM 62<br/>112M6C / 112M6D</b> | 207  | 212                                 | 13.8                                   | 1482 | 2.4 | 65.45  | 20.0 | 32.0   | 58.0   | 60.0 | 5.2  | 3834 | 0.8 | 174.49 | 21.0 | 32.0   | -      | -    | <b>PD/PM 52/12<br/>112M6C / 112M6D</b> | 133  | 238  | 6.3                                    | 3127 | 1.0    | 142.31 | 21.0 | 32.0 | -      | -    | 5.1    | 3766 | 0.8    | 272.80 | 21.0 | 32.0 | 38.0   | 40.0 | <b>PD/PM 52/12<br/>100L4B / 100L4C</b> | 125  | 238    | 6.0                          | 3212 | 0.9  | 232.65 | -    | -      | -      | -     | 8.0  | 2409 | 1.2                                 | 174.49 | -    | -      | -      | -     | 9.8                                 | 1965 | 1.5  | 142.31                       | -    | -      | -    | -    | 6.2    | 2916   | 0.8  | 448.15 | 21.0 | 32.0                                   | -    | -    | <b>PD/PM 52/12<br/>90L2D</b> | 115    | 238                       | 8.3    | 2202   | 1.0    | 338.40 | 21.0 | 32.0   | -      | -                                   | 10.3   | 1775   | 1.3  | 272.80 | 21.0 | 32.0                                   | 38.0  | 40.0 | 12.0 | 1514   | 1.5  | 232.65 | 21.0 | 32.0   | -                                   | -    | 16.0 | 1135   | 2.0  | 174.49 | 21.0   | 32.0   | -    | -    | 19.7 | 926    | 2.5  | 142.31 | 21.0   | 32.0   | -                                   | -    | 5.3  | 3823 | 0.8  | 171.36 | 28.0   | 32.0   | 42.0 | 40.0   |                              |      |                                     | <b>PD/PM 53<br/>112M6C / 112M6D</b> | 142    | 209    | 5.8    | 3432   | 1.0   | 153.85 | 28.0  | 32.0 | 43.0   | 40.0   | 6.5    | 3096   | 1.1    | 138.78 | 28.0  | 32.0 | 43.0   | 40.0                                   | 7.7    | 2616  | 1.1  | 117.27 | 22.0   | 32.0   | 40.0   | 40.0   | 9.8    | 2042                                | 1.5  | 91.51 | 25.0                      | 32.0   | -    | -      | 10.9   | 1842   | 1.6                                    | 82.55 | 25.0 | 32.0 | -                                   | -   | 5.6    | 3508 | 0.9    | 248.66 | 23.0   | 32.0                                | 39.0 | 40.0 | <b>PD/PM 53<br/>100L4B / 100L4C</b> | 134  | 209    | 6.9    | 2861 | 1.1    | 202.80 | 26.0   | 32.0   | 41.0 | 40.0   | 8.2    | 2417 | 1.2    | 171.36 | 28.0   | 32.0   | 42.0 | 40.0   | 9.1    | 2170 | 1.5                          | 153.85 | 28.0   | 32.0 | 43.0 | 40.0  | 10.1   | 1958 | 1.6   | 138.78 | 28.0                                | 32.0 | 43.0 | 40.0 | 11.9   | 1654 | 1.7   | 117.27 | 22.0  | 32.0 | 40.0 | 40.0 | 15.3   | 1291 | 2.2    | 91.51 | -     |                                     |      |                                        | -      | -    | -    | 17.0   | 1165 | 2.4    | 82.55 | -    | -      | -    | -    |        |      |        |      |      |        |      |                                        |        |      |                                     |      |      |        |      |     |        |      |      |      |      |        |      |     |        |      |      |      |      |        |      |     |        |      |      |      |      |        |      |      |       |      |                              |     |     |      |      |     |        |      |      |   |   |      |      |     |        |      |      |      |      |                                     |      |     |        |      |      |        |      |      |      |      |        |      |      |        |      |      |      |      |        |      |      |        |      |      |      |      |        |      |      |        |      |                                     |      |      |      |      |     |        |      |      |      |      |      |      |     |        |      |      |      |      |      |      |     |        |      |      |      |      |     |      |     |       |      |      |   |   |      |      |     |       |      |      |   |   |     |      |     |        |      |      |      |      |                                     |     |     |     |      |     |        |      |      |      |      |     |      |     |        |      |      |      |      |     |      |     |        |      |      |      |      |      |      |     |        |      |      |      |      |      |      |     |        |      |      |      |      |      |      |     |       |   |   |   |   |      |      |     |       |   |   |   |   |
|               | 11.2                          | 1818          | 2.4    | 80.26     | 20.0         | 32.0         | 58.0             | 60.0                                | <b>PD/PM 62<br/>112M6C / 112M6D</b>    | 207                                                                                    | 212                                                                                    |        |      |        |        |      |                                     |      |                                     |                                        |      |     |        |      |        |        |      |      |      |     |        |      |        |        |      |                                        |      |      |                                        |      |        |        |      |      |        |      |        |      |        |        |      |      |        |      |                                        |      |        |                              |      |      |        |      |        |        |       |      |      |                                     |        |      |        |        |       |                                     |      |      |                              |      |        |      |      |        |        |      |        |      |                                        |      |      |                              |        |                           |        |        |        |        |      |        |        |                                     |        |        |      |        |      |                                        |       |      |      |        |      |        |      |        |                                     |      |      |        |      |        |        |        |      |      |      |        |      |        |        |        |                                     |      |      |      |      |        |        |        |      |        |                              |      |                                     |                                     |        |        |        |        |       |        |       |      |        |        |        |        |        |        |       |      |        |                                        |        |       |      |        |        |        |        |        |        |                                     |      |       |                           |        |      |        |        |        |                                        |       |      |      |                                     |     |        |      |        |        |        |                                     |      |      |                                     |      |        |        |      |        |        |        |        |      |        |        |      |        |        |        |        |      |        |        |      |                              |        |        |      |      |       |        |      |       |        |                                     |      |      |      |        |      |       |        |       |      |      |      |        |      |        |       |       |                                     |      |                                        |        |      |      |        |      |        |       |      |        |      |      |        |      |        |      |      |        |      |                                        |        |      |                                     |      |      |        |      |     |        |      |      |      |      |        |      |     |        |      |      |      |      |        |      |     |        |      |      |      |      |        |      |      |       |      |                              |     |     |      |      |     |        |      |      |   |   |      |      |     |        |      |      |      |      |                                     |      |     |        |      |      |        |      |      |      |      |        |      |      |        |      |      |      |      |        |      |      |        |      |      |      |      |        |      |      |        |      |                                     |      |      |      |      |     |        |      |      |      |      |      |      |     |        |      |      |      |      |      |      |     |        |      |      |      |      |     |      |     |       |      |      |   |   |      |      |     |       |      |      |   |   |     |      |     |        |      |      |      |      |                                     |     |     |     |      |     |        |      |      |      |      |     |      |     |        |      |      |      |      |     |      |     |        |      |      |      |      |      |      |     |        |      |      |      |      |      |      |     |        |      |      |      |      |      |      |     |       |   |   |   |   |      |      |     |       |   |   |   |   |
|               | 13.8                          | 1482          | 2.4    | 65.45     | 20.0         | 32.0         | 58.0             | 60.0                                |                                        |                                                                                        |                                                                                        | 5.2    | 3834 | 0.8    | 174.49 | 21.0 | 32.0                                | -    | -                                   | <b>PD/PM 52/12<br/>112M6C / 112M6D</b> | 133  | 238 | 6.3    | 3127 | 1.0    | 142.31 | 21.0 | 32.0 | -    | -   | 5.1    | 3766 | 0.8    | 272.80 | 21.0 | 32.0                                   | 38.0 | 40.0 | <b>PD/PM 52/12<br/>100L4B / 100L4C</b> | 125  | 238    | 6.0    | 3212 | 0.9  | 232.65 | -    | -      | -    | -      | 8.0    | 2409 | 1.2  | 174.49 | -    |                                        |      |        | -                            | -    | -    | 9.8    | 1965 | 1.5    | 142.31 | -     | -    | -    | -                                   | 6.2    | 2916 | 0.8    | 448.15 | 21.0  | 32.0                                | -    | -    | <b>PD/PM 52/12<br/>90L2D</b> | 115  | 238    | 8.3  | 2202 | 1.0    | 338.40 | 21.0 | 32.0   | -    | -                                      | 10.3 | 1775 |                              |        |                           | 1.3    | 272.80 | 21.0   | 32.0   | 38.0 | 40.0   | 12.0   | 1514                                | 1.5    | 232.65 | 21.0 | 32.0   | -    | -                                      | 16.0  | 1135 | 2.0  | 174.49 | 21.0 | 32.0   | -    | -      | 19.7                                | 926  | 2.5  | 142.31 | 21.0 | 32.0   | -      | -      | 5.3  | 3823 | 0.8  | 171.36 | 28.0 | 32.0   | 42.0   | 40.0   | <b>PD/PM 53<br/>112M6C / 112M6D</b> | 142  | 209  | 5.8  | 3432 | 1.0    | 153.85 | 28.0   | 32.0 | 43.0   | 40.0                         | 6.5  | 3096                                |                                     |        |        | 1.1    | 138.78 | 28.0  | 32.0   | 43.0  | 40.0 | 7.7    | 2616   | 1.1    | 117.27 | 22.0   | 32.0   | 40.0  | 40.0 | 9.8    | 2042                                   | 1.5    | 91.51 | 25.0 | 32.0   | -      | -      | 10.9   | 1842   | 1.6    | 82.55                               | 25.0 | 32.0  | -                         | -      | 5.6  | 3508   | 0.9    | 248.66 | 23.0                                   | 32.0  | 39.0 | 40.0 | <b>PD/PM 53<br/>100L4B / 100L4C</b> | 134 | 209    | 6.9  | 2861   | 1.1    | 202.80 | 26.0                                | 32.0 | 41.0 |                                     |      |        | 40.0   | 8.2  | 2417   | 1.2    | 171.36 | 28.0   | 32.0 | 42.0   | 40.0   | 9.1  | 2170   | 1.5    | 153.85 | 28.0   | 32.0 | 43.0   | 40.0   | 10.1 | 1958                         | 1.6    | 138.78 | 28.0 | 32.0 | 43.0  | 40.0   | 11.9 | 1654  | 1.7    | 117.27                              | 22.0 | 32.0 | 40.0 | 40.0   | 15.3 | 1291  | 2.2    | 91.51 | -    | -    | -    | -      | 17.0 | 1165   | 2.4   | 82.55 | -                                   | -    | -                                      | -      |      |      |        |      |        |       |      |        |      |      |        |      |        |      |      |        |      |                                        |        |      |                                     |      |      |        |      |     |        |      |      |      |      |        |      |     |        |      |      |      |      |        |      |     |        |      |      |      |      |        |      |      |       |      |                              |     |     |      |      |     |        |      |      |   |   |      |      |     |        |      |      |      |      |                                     |      |     |        |      |      |        |      |      |      |      |        |      |      |        |      |      |      |      |        |      |      |        |      |      |      |      |        |      |      |        |      |                                     |      |      |      |      |     |        |      |      |      |      |      |      |     |        |      |      |      |      |      |      |     |        |      |      |      |      |     |      |     |       |      |      |   |   |      |      |     |       |      |      |   |   |     |      |     |        |      |      |      |      |                                     |     |     |     |      |     |        |      |      |      |      |     |      |     |        |      |      |      |      |     |      |     |        |      |      |      |      |      |      |     |        |      |      |      |      |      |      |     |        |      |      |      |      |      |      |     |       |   |   |   |   |      |      |     |       |   |   |   |   |
|               | 5.2                           | 3834          | 0.8    | 174.49    | 21.0         | 32.0         | -                | -                                   | <b>PD/PM 52/12<br/>112M6C / 112M6D</b> | 133                                                                                    | 238                                                                                    |        |      |        |        |      |                                     |      |                                     |                                        |      |     |        |      |        |        |      |      |      |     |        |      |        |        |      |                                        |      |      |                                        |      |        |        |      |      |        |      |        |      |        |        |      |      |        |      |                                        |      |        |                              |      |      |        |      |        |        |       |      |      |                                     |        |      |        |        |       |                                     |      |      |                              |      |        |      |      |        |        |      |        |      |                                        |      |      |                              |        |                           |        |        |        |        |      |        |        |                                     |        |        |      |        |      |                                        |       |      |      |        |      |        |      |        |                                     |      |      |        |      |        |        |        |      |      |      |        |      |        |        |        |                                     |      |      |      |      |        |        |        |      |        |                              |      |                                     |                                     |        |        |        |        |       |        |       |      |        |        |        |        |        |        |       |      |        |                                        |        |       |      |        |        |        |        |        |        |                                     |      |       |                           |        |      |        |        |        |                                        |       |      |      |                                     |     |        |      |        |        |        |                                     |      |      |                                     |      |        |        |      |        |        |        |        |      |        |        |      |        |        |        |        |      |        |        |      |                              |        |        |      |      |       |        |      |       |        |                                     |      |      |      |        |      |       |        |       |      |      |      |        |      |        |       |       |                                     |      |                                        |        |      |      |        |      |        |       |      |        |      |      |        |      |        |      |      |        |      |                                        |        |      |                                     |      |      |        |      |     |        |      |      |      |      |        |      |     |        |      |      |      |      |        |      |     |        |      |      |      |      |        |      |      |       |      |                              |     |     |      |      |     |        |      |      |   |   |      |      |     |        |      |      |      |      |                                     |      |     |        |      |      |        |      |      |      |      |        |      |      |        |      |      |      |      |        |      |      |        |      |      |      |      |        |      |      |        |      |                                     |      |      |      |      |     |        |      |      |      |      |      |      |     |        |      |      |      |      |      |      |     |        |      |      |      |      |     |      |     |       |      |      |   |   |      |      |     |       |      |      |   |   |     |      |     |        |      |      |      |      |                                     |     |     |     |      |     |        |      |      |      |      |     |      |     |        |      |      |      |      |     |      |     |        |      |      |      |      |      |      |     |        |      |      |      |      |      |      |     |        |      |      |      |      |      |      |     |       |   |   |   |   |      |      |     |       |   |   |   |   |
|               | 6.3                           | 3127          | 1.0    | 142.31    | 21.0         | 32.0         | -                | -                                   |                                        |                                                                                        |                                                                                        | 5.1    | 3766 | 0.8    | 272.80 | 21.0 | 32.0                                | 38.0 | 40.0                                | <b>PD/PM 52/12<br/>100L4B / 100L4C</b> | 125  | 238 | 6.0    | 3212 | 0.9    | 232.65 | -    | -    | -    | -   | 8.0    | 2409 | 1.2    | 174.49 | -    | -                                      | -    | -    |                                        |      |        | 9.8    | 1965 | 1.5  | 142.31 | -    | -      | -    | -      | 6.2    | 2916 | 0.8  | 448.15 | 21.0 | 32.0                                   | -    | -      | <b>PD/PM 52/12<br/>90L2D</b> | 115  | 238  | 8.3    | 2202 | 1.0    | 338.40 | 21.0  | 32.0 | -    | -                                   | 10.3   | 1775 | 1.3    | 272.80 | 21.0  | 32.0                                | 38.0 | 40.0 |                              |      |        | 12.0 | 1514 | 1.5    | 232.65 | 21.0 | 32.0   | -    | -                                      | 16.0 | 1135 |                              |        |                           | 2.0    | 174.49 | 21.0   | 32.0   | -    | -      | 19.7   | 926                                 | 2.5    | 142.31 | 21.0 | 32.0   | -    | -                                      | 5.3   | 3823 | 0.8  | 171.36 | 28.0 | 32.0   | 42.0 | 40.0   | <b>PD/PM 53<br/>112M6C / 112M6D</b> | 142  | 209  | 5.8    | 3432 | 1.0    | 153.85 | 28.0   | 32.0 | 43.0 | 40.0 | 6.5    | 3096 | 1.1    | 138.78 | 28.0   |                                     |      |      | 32.0 | 43.0 | 40.0   | 7.7    | 2616   | 1.1  | 117.27 | 22.0                         | 32.0 | 40.0                                |                                     |        |        | 40.0   | 9.8    | 2042  | 1.5    | 91.51 | 25.0 | 32.0   | -      | -      | 10.9   | 1842   | 1.6    | 82.55 | 25.0 | 32.0   | -                                      | -      | 5.6   | 3508 | 0.9    | 248.66 | 23.0   | 32.0   | 39.0   | 40.0   | <b>PD/PM 53<br/>100L4B / 100L4C</b> | 134  | 209   | 6.9                       | 2861   | 1.1  | 202.80 | 26.0   | 32.0   | 41.0                                   | 40.0  | 8.2  | 2417 |                                     |     |        | 1.2  | 171.36 | 28.0   | 32.0   | 42.0                                | 40.0 | 9.1  |                                     |      |        | 2170   | 1.5  | 153.85 | 28.0   | 32.0   | 43.0   | 40.0 | 10.1   | 1958   | 1.6  | 138.78 | 28.0   | 32.0   | 43.0   | 40.0 | 11.9   | 1654   | 1.7  | 117.27                       | 22.0   | 32.0   | 40.0 | 40.0 | 15.3  | 1291   | 2.2  | 91.51 | -      | -                                   | -    | -    | 17.0 | 1165   | 2.4  | 82.55 | -      | -     | -    | -    |      |        |      |        |       |       |                                     |      |                                        |        |      |      |        |      |        |       |      |        |      |      |        |      |        |      |      |        |      |                                        |        |      |                                     |      |      |        |      |     |        |      |      |      |      |        |      |     |        |      |      |      |      |        |      |     |        |      |      |      |      |        |      |      |       |      |                              |     |     |      |      |     |        |      |      |   |   |      |      |     |        |      |      |      |      |                                     |      |     |        |      |      |        |      |      |      |      |        |      |      |        |      |      |      |      |        |      |      |        |      |      |      |      |        |      |      |        |      |                                     |      |      |      |      |     |        |      |      |      |      |      |      |     |        |      |      |      |      |      |      |     |        |      |      |      |      |     |      |     |       |      |      |   |   |      |      |     |       |      |      |   |   |     |      |     |        |      |      |      |      |                                     |     |     |     |      |     |        |      |      |      |      |     |      |     |        |      |      |      |      |     |      |     |        |      |      |      |      |      |      |     |        |      |      |      |      |      |      |     |        |      |      |      |      |      |      |     |       |   |   |   |   |      |      |     |       |   |   |   |   |
|               | 5.1                           | 3766          | 0.8    | 272.80    | 21.0         | 32.0         | 38.0             | 40.0                                | <b>PD/PM 52/12<br/>100L4B / 100L4C</b> | 125                                                                                    | 238                                                                                    |        |      |        |        |      |                                     |      |                                     |                                        |      |     |        |      |        |        |      |      |      |     |        |      |        |        |      |                                        |      |      |                                        |      |        |        |      |      |        |      |        |      |        |        |      |      |        |      |                                        |      |        |                              |      |      |        |      |        |        |       |      |      |                                     |        |      |        |        |       |                                     |      |      |                              |      |        |      |      |        |        |      |        |      |                                        |      |      |                              |        |                           |        |        |        |        |      |        |        |                                     |        |        |      |        |      |                                        |       |      |      |        |      |        |      |        |                                     |      |      |        |      |        |        |        |      |      |      |        |      |        |        |        |                                     |      |      |      |      |        |        |        |      |        |                              |      |                                     |                                     |        |        |        |        |       |        |       |      |        |        |        |        |        |        |       |      |        |                                        |        |       |      |        |        |        |        |        |        |                                     |      |       |                           |        |      |        |        |        |                                        |       |      |      |                                     |     |        |      |        |        |        |                                     |      |      |                                     |      |        |        |      |        |        |        |        |      |        |        |      |        |        |        |        |      |        |        |      |                              |        |        |      |      |       |        |      |       |        |                                     |      |      |      |        |      |       |        |       |      |      |      |        |      |        |       |       |                                     |      |                                        |        |      |      |        |      |        |       |      |        |      |      |        |      |        |      |      |        |      |                                        |        |      |                                     |      |      |        |      |     |        |      |      |      |      |        |      |     |        |      |      |      |      |        |      |     |        |      |      |      |      |        |      |      |       |      |                              |     |     |      |      |     |        |      |      |   |   |      |      |     |        |      |      |      |      |                                     |      |     |        |      |      |        |      |      |      |      |        |      |      |        |      |      |      |      |        |      |      |        |      |      |      |      |        |      |      |        |      |                                     |      |      |      |      |     |        |      |      |      |      |      |      |     |        |      |      |      |      |      |      |     |        |      |      |      |      |     |      |     |       |      |      |   |   |      |      |     |       |      |      |   |   |     |      |     |        |      |      |      |      |                                     |     |     |     |      |     |        |      |      |      |      |     |      |     |        |      |      |      |      |     |      |     |        |      |      |      |      |      |      |     |        |      |      |      |      |      |      |     |        |      |      |      |      |      |      |     |       |   |   |   |   |      |      |     |       |   |   |   |   |
|               | 6.0                           | 3212          | 0.9    | 232.65    | -            | -            | -                | -                                   |                                        |                                                                                        |                                                                                        |        |      |        |        |      |                                     |      |                                     |                                        |      |     |        |      |        |        |      |      |      |     |        |      |        |        |      |                                        |      |      |                                        |      |        |        |      |      |        |      |        |      |        |        |      |      |        |      |                                        |      |        |                              |      |      |        |      |        |        |       |      |      |                                     |        |      |        |        |       |                                     |      |      |                              |      |        |      |      |        |        |      |        |      |                                        |      |      |                              |        |                           |        |        |        |        |      |        |        |                                     |        |        |      |        |      |                                        |       |      |      |        |      |        |      |        |                                     |      |      |        |      |        |        |        |      |      |      |        |      |        |        |        |                                     |      |      |      |      |        |        |        |      |        |                              |      |                                     |                                     |        |        |        |        |       |        |       |      |        |        |        |        |        |        |       |      |        |                                        |        |       |      |        |        |        |        |        |        |                                     |      |       |                           |        |      |        |        |        |                                        |       |      |      |                                     |     |        |      |        |        |        |                                     |      |      |                                     |      |        |        |      |        |        |        |        |      |        |        |      |        |        |        |        |      |        |        |      |                              |        |        |      |      |       |        |      |       |        |                                     |      |      |      |        |      |       |        |       |      |      |      |        |      |        |       |       |                                     |      |                                        |        |      |      |        |      |        |       |      |        |      |      |        |      |        |      |      |        |      |                                        |        |      |                                     |      |      |        |      |     |        |      |      |      |      |        |      |     |        |      |      |      |      |        |      |     |        |      |      |      |      |        |      |      |       |      |                              |     |     |      |      |     |        |      |      |   |   |      |      |     |        |      |      |      |      |                                     |      |     |        |      |      |        |      |      |      |      |        |      |      |        |      |      |      |      |        |      |      |        |      |      |      |      |        |      |      |        |      |                                     |      |      |      |      |     |        |      |      |      |      |      |      |     |        |      |      |      |      |      |      |     |        |      |      |      |      |     |      |     |       |      |      |   |   |      |      |     |       |      |      |   |   |     |      |     |        |      |      |      |      |                                     |     |     |     |      |     |        |      |      |      |      |     |      |     |        |      |      |      |      |     |      |     |        |      |      |      |      |      |      |     |        |      |      |      |      |      |      |     |        |      |      |      |      |      |      |     |       |   |   |   |   |      |      |     |       |   |   |   |   |
|               | 8.0                           | 2409          | 1.2    | 174.49    | -            | -            | -                | -                                   |                                        |                                                                                        |                                                                                        |        |      |        |        |      |                                     |      |                                     |                                        |      |     |        |      |        |        |      |      |      |     |        |      |        |        |      |                                        |      |      |                                        |      |        |        |      |      |        |      |        |      |        |        |      |      |        |      |                                        |      |        |                              |      |      |        |      |        |        |       |      |      |                                     |        |      |        |        |       |                                     |      |      |                              |      |        |      |      |        |        |      |        |      |                                        |      |      |                              |        |                           |        |        |        |        |      |        |        |                                     |        |        |      |        |      |                                        |       |      |      |        |      |        |      |        |                                     |      |      |        |      |        |        |        |      |      |      |        |      |        |        |        |                                     |      |      |      |      |        |        |        |      |        |                              |      |                                     |                                     |        |        |        |        |       |        |       |      |        |        |        |        |        |        |       |      |        |                                        |        |       |      |        |        |        |        |        |        |                                     |      |       |                           |        |      |        |        |        |                                        |       |      |      |                                     |     |        |      |        |        |        |                                     |      |      |                                     |      |        |        |      |        |        |        |        |      |        |        |      |        |        |        |        |      |        |        |      |                              |        |        |      |      |       |        |      |       |        |                                     |      |      |      |        |      |       |        |       |      |      |      |        |      |        |       |       |                                     |      |                                        |        |      |      |        |      |        |       |      |        |      |      |        |      |        |      |      |        |      |                                        |        |      |                                     |      |      |        |      |     |        |      |      |      |      |        |      |     |        |      |      |      |      |        |      |     |        |      |      |      |      |        |      |      |       |      |                              |     |     |      |      |     |        |      |      |   |   |      |      |     |        |      |      |      |      |                                     |      |     |        |      |      |        |      |      |      |      |        |      |      |        |      |      |      |      |        |      |      |        |      |      |      |      |        |      |      |        |      |                                     |      |      |      |      |     |        |      |      |      |      |      |      |     |        |      |      |      |      |      |      |     |        |      |      |      |      |     |      |     |       |      |      |   |   |      |      |     |       |      |      |   |   |     |      |     |        |      |      |      |      |                                     |     |     |     |      |     |        |      |      |      |      |     |      |     |        |      |      |      |      |     |      |     |        |      |      |      |      |      |      |     |        |      |      |      |      |      |      |     |        |      |      |      |      |      |      |     |       |   |   |   |   |      |      |     |       |   |   |   |   |
|               | 9.8                           | 1965          | 1.5    | 142.31    | -            | -            | -                | -                                   |                                        |                                                                                        |                                                                                        | 6.2    | 2916 | 0.8    | 448.15 | 21.0 | 32.0                                | -    | -                                   | <b>PD/PM 52/12<br/>90L2D</b>           | 115  | 238 | 8.3    | 2202 | 1.0    | 338.40 | 21.0 | 32.0 | -    | -   | 10.3   | 1775 | 1.3    | 272.80 | 21.0 | 32.0                                   | 38.0 | 40.0 | 12.0                                   | 1514 | 1.5    | 232.65 | 21.0 | 32.0 | -      | -    | 16.0   | 1135 | 2.0    | 174.49 | 21.0 | 32.0 | -      | -    | 19.7                                   | 926  | 2.5    |                              |      |      | 142.31 | 21.0 | 32.0   | -      | -     | 5.3  | 3823 | 0.8                                 | 171.36 | 28.0 | 32.0   | 42.0   | 40.0  | <b>PD/PM 53<br/>112M6C / 112M6D</b> | 142  | 209  |                              |      |        | 5.8  | 3432 | 1.0    | 153.85 | 28.0 | 32.0   | 43.0 | 40.0                                   | 6.5  | 3096 | 1.1                          | 138.78 | 28.0                      | 32.0   | 43.0   | 40.0   | 7.7    | 2616 | 1.1    | 117.27 | 22.0                                | 32.0   | 40.0   | 40.0 | 9.8    | 2042 | 1.5                                    | 91.51 | 25.0 | 32.0 | -      | -    | 10.9   | 1842 | 1.6    |                                     |      |      | 82.55  | 25.0 | 32.0   | -      | -      | 5.6  | 3508 | 0.9  | 248.66 | 23.0 | 32.0   | 39.0   | 40.0   | <b>PD/PM 53<br/>100L4B / 100L4C</b> | 134  | 209  | 6.9  | 2861 | 1.1    | 202.80 | 26.0   | 32.0 | 41.0   | 40.0                         | 8.2  | 2417                                | 1.2                                 | 171.36 | 28.0   | 32.0   | 42.0   | 40.0  | 9.1    | 2170  | 1.5  | 153.85 | 28.0   | 32.0   | 43.0   | 40.0   | 10.1   | 1958  | 1.6  | 138.78 | 28.0                                   | 32.0   | 43.0  | 40.0 | 11.9   | 1654   | 1.7    | 117.27 | 22.0   | 32.0   |                                     |      |       | 40.0                      | 40.0   | 15.3 | 1291   | 2.2    | 91.51  | -                                      | -     | -    | -    |                                     |     |        | 17.0 | 1165   | 2.4    | 82.55  | -                                   | -    | -    | -                                   |      |        |        |      |        |        |        |        |      |        |        |      |        |        |        |        |      |        |        |      |                              |        |        |      |      |       |        |      |       |        |                                     |      |      |      |        |      |       |        |       |      |      |      |        |      |        |       |       |                                     |      |                                        |        |      |      |        |      |        |       |      |        |      |      |        |      |        |      |      |        |      |                                        |        |      |                                     |      |      |        |      |     |        |      |      |      |      |        |      |     |        |      |      |      |      |        |      |     |        |      |      |      |      |        |      |      |       |      |                              |     |     |      |      |     |        |      |      |   |   |      |      |     |        |      |      |      |      |                                     |      |     |        |      |      |        |      |      |      |      |        |      |      |        |      |      |      |      |        |      |      |        |      |      |      |      |        |      |      |        |      |                                     |      |      |      |      |     |        |      |      |      |      |      |      |     |        |      |      |      |      |      |      |     |        |      |      |      |      |     |      |     |       |      |      |   |   |      |      |     |       |      |      |   |   |     |      |     |        |      |      |      |      |                                     |     |     |     |      |     |        |      |      |      |      |     |      |     |        |      |      |      |      |     |      |     |        |      |      |      |      |      |      |     |        |      |      |      |      |      |      |     |        |      |      |      |      |      |      |     |       |   |   |   |   |      |      |     |       |   |   |   |   |
|               | 6.2                           | 2916          | 0.8    | 448.15    | 21.0         | 32.0         | -                | -                                   | <b>PD/PM 52/12<br/>90L2D</b>           | 115                                                                                    | 238                                                                                    |        |      |        |        |      |                                     |      |                                     |                                        |      |     |        |      |        |        |      |      |      |     |        |      |        |        |      |                                        |      |      |                                        |      |        |        |      |      |        |      |        |      |        |        |      |      |        |      |                                        |      |        |                              |      |      |        |      |        |        |       |      |      |                                     |        |      |        |        |       |                                     |      |      |                              |      |        |      |      |        |        |      |        |      |                                        |      |      |                              |        |                           |        |        |        |        |      |        |        |                                     |        |        |      |        |      |                                        |       |      |      |        |      |        |      |        |                                     |      |      |        |      |        |        |        |      |      |      |        |      |        |        |        |                                     |      |      |      |      |        |        |        |      |        |                              |      |                                     |                                     |        |        |        |        |       |        |       |      |        |        |        |        |        |        |       |      |        |                                        |        |       |      |        |        |        |        |        |        |                                     |      |       |                           |        |      |        |        |        |                                        |       |      |      |                                     |     |        |      |        |        |        |                                     |      |      |                                     |      |        |        |      |        |        |        |        |      |        |        |      |        |        |        |        |      |        |        |      |                              |        |        |      |      |       |        |      |       |        |                                     |      |      |      |        |      |       |        |       |      |      |      |        |      |        |       |       |                                     |      |                                        |        |      |      |        |      |        |       |      |        |      |      |        |      |        |      |      |        |      |                                        |        |      |                                     |      |      |        |      |     |        |      |      |      |      |        |      |     |        |      |      |      |      |        |      |     |        |      |      |      |      |        |      |      |       |      |                              |     |     |      |      |     |        |      |      |   |   |      |      |     |        |      |      |      |      |                                     |      |     |        |      |      |        |      |      |      |      |        |      |      |        |      |      |      |      |        |      |      |        |      |      |      |      |        |      |      |        |      |                                     |      |      |      |      |     |        |      |      |      |      |      |      |     |        |      |      |      |      |      |      |     |        |      |      |      |      |     |      |     |       |      |      |   |   |      |      |     |       |      |      |   |   |     |      |     |        |      |      |      |      |                                     |     |     |     |      |     |        |      |      |      |      |     |      |     |        |      |      |      |      |     |      |     |        |      |      |      |      |      |      |     |        |      |      |      |      |      |      |     |        |      |      |      |      |      |      |     |       |   |   |   |   |      |      |     |       |   |   |   |   |
|               | 8.3                           | 2202          | 1.0    | 338.40    | 21.0         | 32.0         | -                | -                                   |                                        |                                                                                        |                                                                                        |        |      |        |        |      |                                     |      |                                     |                                        |      |     |        |      |        |        |      |      |      |     |        |      |        |        |      |                                        |      |      |                                        |      |        |        |      |      |        |      |        |      |        |        |      |      |        |      |                                        |      |        |                              |      |      |        |      |        |        |       |      |      |                                     |        |      |        |        |       |                                     |      |      |                              |      |        |      |      |        |        |      |        |      |                                        |      |      |                              |        |                           |        |        |        |        |      |        |        |                                     |        |        |      |        |      |                                        |       |      |      |        |      |        |      |        |                                     |      |      |        |      |        |        |        |      |      |      |        |      |        |        |        |                                     |      |      |      |      |        |        |        |      |        |                              |      |                                     |                                     |        |        |        |        |       |        |       |      |        |        |        |        |        |        |       |      |        |                                        |        |       |      |        |        |        |        |        |        |                                     |      |       |                           |        |      |        |        |        |                                        |       |      |      |                                     |     |        |      |        |        |        |                                     |      |      |                                     |      |        |        |      |        |        |        |        |      |        |        |      |        |        |        |        |      |        |        |      |                              |        |        |      |      |       |        |      |       |        |                                     |      |      |      |        |      |       |        |       |      |      |      |        |      |        |       |       |                                     |      |                                        |        |      |      |        |      |        |       |      |        |      |      |        |      |        |      |      |        |      |                                        |        |      |                                     |      |      |        |      |     |        |      |      |      |      |        |      |     |        |      |      |      |      |        |      |     |        |      |      |      |      |        |      |      |       |      |                              |     |     |      |      |     |        |      |      |   |   |      |      |     |        |      |      |      |      |                                     |      |     |        |      |      |        |      |      |      |      |        |      |      |        |      |      |      |      |        |      |      |        |      |      |      |      |        |      |      |        |      |                                     |      |      |      |      |     |        |      |      |      |      |      |      |     |        |      |      |      |      |      |      |     |        |      |      |      |      |     |      |     |       |      |      |   |   |      |      |     |       |      |      |   |   |     |      |     |        |      |      |      |      |                                     |     |     |     |      |     |        |      |      |      |      |     |      |     |        |      |      |      |      |     |      |     |        |      |      |      |      |      |      |     |        |      |      |      |      |      |      |     |        |      |      |      |      |      |      |     |       |   |   |   |   |      |      |     |       |   |   |   |   |
|               | 10.3                          | 1775          | 1.3    | 272.80    | 21.0         | 32.0         | 38.0             | 40.0                                |                                        |                                                                                        |                                                                                        |        |      |        |        |      |                                     |      |                                     |                                        |      |     |        |      |        |        |      |      |      |     |        |      |        |        |      |                                        |      |      |                                        |      |        |        |      |      |        |      |        |      |        |        |      |      |        |      |                                        |      |        |                              |      |      |        |      |        |        |       |      |      |                                     |        |      |        |        |       |                                     |      |      |                              |      |        |      |      |        |        |      |        |      |                                        |      |      |                              |        |                           |        |        |        |        |      |        |        |                                     |        |        |      |        |      |                                        |       |      |      |        |      |        |      |        |                                     |      |      |        |      |        |        |        |      |      |      |        |      |        |        |        |                                     |      |      |      |      |        |        |        |      |        |                              |      |                                     |                                     |        |        |        |        |       |        |       |      |        |        |        |        |        |        |       |      |        |                                        |        |       |      |        |        |        |        |        |        |                                     |      |       |                           |        |      |        |        |        |                                        |       |      |      |                                     |     |        |      |        |        |        |                                     |      |      |                                     |      |        |        |      |        |        |        |        |      |        |        |      |        |        |        |        |      |        |        |      |                              |        |        |      |      |       |        |      |       |        |                                     |      |      |      |        |      |       |        |       |      |      |      |        |      |        |       |       |                                     |      |                                        |        |      |      |        |      |        |       |      |        |      |      |        |      |        |      |      |        |      |                                        |        |      |                                     |      |      |        |      |     |        |      |      |      |      |        |      |     |        |      |      |      |      |        |      |     |        |      |      |      |      |        |      |      |       |      |                              |     |     |      |      |     |        |      |      |   |   |      |      |     |        |      |      |      |      |                                     |      |     |        |      |      |        |      |      |      |      |        |      |      |        |      |      |      |      |        |      |      |        |      |      |      |      |        |      |      |        |      |                                     |      |      |      |      |     |        |      |      |      |      |      |      |     |        |      |      |      |      |      |      |     |        |      |      |      |      |     |      |     |       |      |      |   |   |      |      |     |       |      |      |   |   |     |      |     |        |      |      |      |      |                                     |     |     |     |      |     |        |      |      |      |      |     |      |     |        |      |      |      |      |     |      |     |        |      |      |      |      |      |      |     |        |      |      |      |      |      |      |     |        |      |      |      |      |      |      |     |       |   |   |   |   |      |      |     |       |   |   |   |   |
|               | 12.0                          | 1514          | 1.5    | 232.65    | 21.0         | 32.0         | -                | -                                   |                                        |                                                                                        |                                                                                        |        |      |        |        |      |                                     |      |                                     |                                        |      |     |        |      |        |        |      |      |      |     |        |      |        |        |      |                                        |      |      |                                        |      |        |        |      |      |        |      |        |      |        |        |      |      |        |      |                                        |      |        |                              |      |      |        |      |        |        |       |      |      |                                     |        |      |        |        |       |                                     |      |      |                              |      |        |      |      |        |        |      |        |      |                                        |      |      |                              |        |                           |        |        |        |        |      |        |        |                                     |        |        |      |        |      |                                        |       |      |      |        |      |        |      |        |                                     |      |      |        |      |        |        |        |      |      |      |        |      |        |        |        |                                     |      |      |      |      |        |        |        |      |        |                              |      |                                     |                                     |        |        |        |        |       |        |       |      |        |        |        |        |        |        |       |      |        |                                        |        |       |      |        |        |        |        |        |        |                                     |      |       |                           |        |      |        |        |        |                                        |       |      |      |                                     |     |        |      |        |        |        |                                     |      |      |                                     |      |        |        |      |        |        |        |        |      |        |        |      |        |        |        |        |      |        |        |      |                              |        |        |      |      |       |        |      |       |        |                                     |      |      |      |        |      |       |        |       |      |      |      |        |      |        |       |       |                                     |      |                                        |        |      |      |        |      |        |       |      |        |      |      |        |      |        |      |      |        |      |                                        |        |      |                                     |      |      |        |      |     |        |      |      |      |      |        |      |     |        |      |      |      |      |        |      |     |        |      |      |      |      |        |      |      |       |      |                              |     |     |      |      |     |        |      |      |   |   |      |      |     |        |      |      |      |      |                                     |      |     |        |      |      |        |      |      |      |      |        |      |      |        |      |      |      |      |        |      |      |        |      |      |      |      |        |      |      |        |      |                                     |      |      |      |      |     |        |      |      |      |      |      |      |     |        |      |      |      |      |      |      |     |        |      |      |      |      |     |      |     |       |      |      |   |   |      |      |     |       |      |      |   |   |     |      |     |        |      |      |      |      |                                     |     |     |     |      |     |        |      |      |      |      |     |      |     |        |      |      |      |      |     |      |     |        |      |      |      |      |      |      |     |        |      |      |      |      |      |      |     |        |      |      |      |      |      |      |     |       |   |   |   |   |      |      |     |       |   |   |   |   |
|               | 16.0                          | 1135          | 2.0    | 174.49    | 21.0         | 32.0         | -                | -                                   |                                        |                                                                                        |                                                                                        |        |      |        |        |      |                                     |      |                                     |                                        |      |     |        |      |        |        |      |      |      |     |        |      |        |        |      |                                        |      |      |                                        |      |        |        |      |      |        |      |        |      |        |        |      |      |        |      |                                        |      |        |                              |      |      |        |      |        |        |       |      |      |                                     |        |      |        |        |       |                                     |      |      |                              |      |        |      |      |        |        |      |        |      |                                        |      |      |                              |        |                           |        |        |        |        |      |        |        |                                     |        |        |      |        |      |                                        |       |      |      |        |      |        |      |        |                                     |      |      |        |      |        |        |        |      |      |      |        |      |        |        |        |                                     |      |      |      |      |        |        |        |      |        |                              |      |                                     |                                     |        |        |        |        |       |        |       |      |        |        |        |        |        |        |       |      |        |                                        |        |       |      |        |        |        |        |        |        |                                     |      |       |                           |        |      |        |        |        |                                        |       |      |      |                                     |     |        |      |        |        |        |                                     |      |      |                                     |      |        |        |      |        |        |        |        |      |        |        |      |        |        |        |        |      |        |        |      |                              |        |        |      |      |       |        |      |       |        |                                     |      |      |      |        |      |       |        |       |      |      |      |        |      |        |       |       |                                     |      |                                        |        |      |      |        |      |        |       |      |        |      |      |        |      |        |      |      |        |      |                                        |        |      |                                     |      |      |        |      |     |        |      |      |      |      |        |      |     |        |      |      |      |      |        |      |     |        |      |      |      |      |        |      |      |       |      |                              |     |     |      |      |     |        |      |      |   |   |      |      |     |        |      |      |      |      |                                     |      |     |        |      |      |        |      |      |      |      |        |      |      |        |      |      |      |      |        |      |      |        |      |      |      |      |        |      |      |        |      |                                     |      |      |      |      |     |        |      |      |      |      |      |      |     |        |      |      |      |      |      |      |     |        |      |      |      |      |     |      |     |       |      |      |   |   |      |      |     |       |      |      |   |   |     |      |     |        |      |      |      |      |                                     |     |     |     |      |     |        |      |      |      |      |     |      |     |        |      |      |      |      |     |      |     |        |      |      |      |      |      |      |     |        |      |      |      |      |      |      |     |        |      |      |      |      |      |      |     |       |   |   |   |   |      |      |     |       |   |   |   |   |
|               | 19.7                          | 926           | 2.5    | 142.31    | 21.0         | 32.0         | -                | -                                   |                                        |                                                                                        |                                                                                        |        |      |        |        |      |                                     |      |                                     |                                        |      |     |        |      |        |        |      |      |      |     |        |      |        |        |      |                                        |      |      |                                        |      |        |        |      |      |        |      |        |      |        |        |      |      |        |      |                                        |      |        |                              |      |      |        |      |        |        |       |      |      |                                     |        |      |        |        |       |                                     |      |      |                              |      |        |      |      |        |        |      |        |      |                                        |      |      |                              |        |                           |        |        |        |        |      |        |        |                                     |        |        |      |        |      |                                        |       |      |      |        |      |        |      |        |                                     |      |      |        |      |        |        |        |      |      |      |        |      |        |        |        |                                     |      |      |      |      |        |        |        |      |        |                              |      |                                     |                                     |        |        |        |        |       |        |       |      |        |        |        |        |        |        |       |      |        |                                        |        |       |      |        |        |        |        |        |        |                                     |      |       |                           |        |      |        |        |        |                                        |       |      |      |                                     |     |        |      |        |        |        |                                     |      |      |                                     |      |        |        |      |        |        |        |        |      |        |        |      |        |        |        |        |      |        |        |      |                              |        |        |      |      |       |        |      |       |        |                                     |      |      |      |        |      |       |        |       |      |      |      |        |      |        |       |       |                                     |      |                                        |        |      |      |        |      |        |       |      |        |      |      |        |      |        |      |      |        |      |                                        |        |      |                                     |      |      |        |      |     |        |      |      |      |      |        |      |     |        |      |      |      |      |        |      |     |        |      |      |      |      |        |      |      |       |      |                              |     |     |      |      |     |        |      |      |   |   |      |      |     |        |      |      |      |      |                                     |      |     |        |      |      |        |      |      |      |      |        |      |      |        |      |      |      |      |        |      |      |        |      |      |      |      |        |      |      |        |      |                                     |      |      |      |      |     |        |      |      |      |      |      |      |     |        |      |      |      |      |      |      |     |        |      |      |      |      |     |      |     |       |      |      |   |   |      |      |     |       |      |      |   |   |     |      |     |        |      |      |      |      |                                     |     |     |     |      |     |        |      |      |      |      |     |      |     |        |      |      |      |      |     |      |     |        |      |      |      |      |      |      |     |        |      |      |      |      |      |      |     |        |      |      |      |      |      |      |     |       |   |   |   |   |      |      |     |       |   |   |   |   |
| 5.3           | 3823                          | 0.8           | 171.36 | 28.0      | 32.0         | 42.0         | 40.0             | <b>PD/PM 53<br/>112M6C / 112M6D</b> |                                        |                                                                                        |                                                                                        | 142    | 209  |        |        |      |                                     |      |                                     |                                        |      |     |        |      |        |        |      |      |      |     |        |      |        |        |      |                                        |      |      |                                        |      |        |        |      |      |        |      |        |      |        |        |      |      |        |      |                                        |      |        |                              |      |      |        |      |        |        |       |      |      |                                     |        |      |        |        |       |                                     |      |      |                              |      |        |      |      |        |        |      |        |      |                                        |      |      |                              |        |                           |        |        |        |        |      |        |        |                                     |        |        |      |        |      |                                        |       |      |      |        |      |        |      |        |                                     |      |      |        |      |        |        |        |      |      |      |        |      |        |        |        |                                     |      |      |      |      |        |        |        |      |        |                              |      |                                     |                                     |        |        |        |        |       |        |       |      |        |        |        |        |        |        |       |      |        |                                        |        |       |      |        |        |        |        |        |        |                                     |      |       |                           |        |      |        |        |        |                                        |       |      |      |                                     |     |        |      |        |        |        |                                     |      |      |                                     |      |        |        |      |        |        |        |        |      |        |        |      |        |        |        |        |      |        |        |      |                              |        |        |      |      |       |        |      |       |        |                                     |      |      |      |        |      |       |        |       |      |      |      |        |      |        |       |       |                                     |      |                                        |        |      |      |        |      |        |       |      |        |      |      |        |      |        |      |      |        |      |                                        |        |      |                                     |      |      |        |      |     |        |      |      |      |      |        |      |     |        |      |      |      |      |        |      |     |        |      |      |      |      |        |      |      |       |      |                              |     |     |      |      |     |        |      |      |   |   |      |      |     |        |      |      |      |      |                                     |      |     |        |      |      |        |      |      |      |      |        |      |      |        |      |      |      |      |        |      |      |        |      |      |      |      |        |      |      |        |      |                                     |      |      |      |      |     |        |      |      |      |      |      |      |     |        |      |      |      |      |      |      |     |        |      |      |      |      |     |      |     |       |      |      |   |   |      |      |     |       |      |      |   |   |     |      |     |        |      |      |      |      |                                     |     |     |     |      |     |        |      |      |      |      |     |      |     |        |      |      |      |      |     |      |     |        |      |      |      |      |      |      |     |        |      |      |      |      |      |      |     |        |      |      |      |      |      |      |     |       |   |   |   |   |      |      |     |       |   |   |   |   |
| 5.8           | 3432                          | 1.0           | 153.85 | 28.0      | 32.0         | 43.0         | 40.0             |                                     |                                        |                                                                                        |                                                                                        |        |      |        |        |      |                                     |      |                                     |                                        |      |     |        |      |        |        |      |      |      |     |        |      |        |        |      |                                        |      |      |                                        |      |        |        |      |      |        |      |        |      |        |        |      |      |        |      |                                        |      |        |                              |      |      |        |      |        |        |       |      |      |                                     |        |      |        |        |       |                                     |      |      |                              |      |        |      |      |        |        |      |        |      |                                        |      |      |                              |        |                           |        |        |        |        |      |        |        |                                     |        |        |      |        |      |                                        |       |      |      |        |      |        |      |        |                                     |      |      |        |      |        |        |        |      |      |      |        |      |        |        |        |                                     |      |      |      |      |        |        |        |      |        |                              |      |                                     |                                     |        |        |        |        |       |        |       |      |        |        |        |        |        |        |       |      |        |                                        |        |       |      |        |        |        |        |        |        |                                     |      |       |                           |        |      |        |        |        |                                        |       |      |      |                                     |     |        |      |        |        |        |                                     |      |      |                                     |      |        |        |      |        |        |        |        |      |        |        |      |        |        |        |        |      |        |        |      |                              |        |        |      |      |       |        |      |       |        |                                     |      |      |      |        |      |       |        |       |      |      |      |        |      |        |       |       |                                     |      |                                        |        |      |      |        |      |        |       |      |        |      |      |        |      |        |      |      |        |      |                                        |        |      |                                     |      |      |        |      |     |        |      |      |      |      |        |      |     |        |      |      |      |      |        |      |     |        |      |      |      |      |        |      |      |       |      |                              |     |     |      |      |     |        |      |      |   |   |      |      |     |        |      |      |      |      |                                     |      |     |        |      |      |        |      |      |      |      |        |      |      |        |      |      |      |      |        |      |      |        |      |      |      |      |        |      |      |        |      |                                     |      |      |      |      |     |        |      |      |      |      |      |      |     |        |      |      |      |      |      |      |     |        |      |      |      |      |     |      |     |       |      |      |   |   |      |      |     |       |      |      |   |   |     |      |     |        |      |      |      |      |                                     |     |     |     |      |     |        |      |      |      |      |     |      |     |        |      |      |      |      |     |      |     |        |      |      |      |      |      |      |     |        |      |      |      |      |      |      |     |        |      |      |      |      |      |      |     |       |   |   |   |   |      |      |     |       |   |   |   |   |
| 6.5           | 3096                          | 1.1           | 138.78 | 28.0      | 32.0         | 43.0         | 40.0             |                                     |                                        |                                                                                        |                                                                                        |        |      |        |        |      |                                     |      |                                     |                                        |      |     |        |      |        |        |      |      |      |     |        |      |        |        |      |                                        |      |      |                                        |      |        |        |      |      |        |      |        |      |        |        |      |      |        |      |                                        |      |        |                              |      |      |        |      |        |        |       |      |      |                                     |        |      |        |        |       |                                     |      |      |                              |      |        |      |      |        |        |      |        |      |                                        |      |      |                              |        |                           |        |        |        |        |      |        |        |                                     |        |        |      |        |      |                                        |       |      |      |        |      |        |      |        |                                     |      |      |        |      |        |        |        |      |      |      |        |      |        |        |        |                                     |      |      |      |      |        |        |        |      |        |                              |      |                                     |                                     |        |        |        |        |       |        |       |      |        |        |        |        |        |        |       |      |        |                                        |        |       |      |        |        |        |        |        |        |                                     |      |       |                           |        |      |        |        |        |                                        |       |      |      |                                     |     |        |      |        |        |        |                                     |      |      |                                     |      |        |        |      |        |        |        |        |      |        |        |      |        |        |        |        |      |        |        |      |                              |        |        |      |      |       |        |      |       |        |                                     |      |      |      |        |      |       |        |       |      |      |      |        |      |        |       |       |                                     |      |                                        |        |      |      |        |      |        |       |      |        |      |      |        |      |        |      |      |        |      |                                        |        |      |                                     |      |      |        |      |     |        |      |      |      |      |        |      |     |        |      |      |      |      |        |      |     |        |      |      |      |      |        |      |      |       |      |                              |     |     |      |      |     |        |      |      |   |   |      |      |     |        |      |      |      |      |                                     |      |     |        |      |      |        |      |      |      |      |        |      |      |        |      |      |      |      |        |      |      |        |      |      |      |      |        |      |      |        |      |                                     |      |      |      |      |     |        |      |      |      |      |      |      |     |        |      |      |      |      |      |      |     |        |      |      |      |      |     |      |     |       |      |      |   |   |      |      |     |       |      |      |   |   |     |      |     |        |      |      |      |      |                                     |     |     |     |      |     |        |      |      |      |      |     |      |     |        |      |      |      |      |     |      |     |        |      |      |      |      |      |      |     |        |      |      |      |      |      |      |     |        |      |      |      |      |      |      |     |       |   |   |   |   |      |      |     |       |   |   |   |   |
| 7.7           | 2616                          | 1.1           | 117.27 | 22.0      | 32.0         | 40.0         | 40.0             |                                     |                                        |                                                                                        |                                                                                        |        |      |        |        |      |                                     |      |                                     |                                        |      |     |        |      |        |        |      |      |      |     |        |      |        |        |      |                                        |      |      |                                        |      |        |        |      |      |        |      |        |      |        |        |      |      |        |      |                                        |      |        |                              |      |      |        |      |        |        |       |      |      |                                     |        |      |        |        |       |                                     |      |      |                              |      |        |      |      |        |        |      |        |      |                                        |      |      |                              |        |                           |        |        |        |        |      |        |        |                                     |        |        |      |        |      |                                        |       |      |      |        |      |        |      |        |                                     |      |      |        |      |        |        |        |      |      |      |        |      |        |        |        |                                     |      |      |      |      |        |        |        |      |        |                              |      |                                     |                                     |        |        |        |        |       |        |       |      |        |        |        |        |        |        |       |      |        |                                        |        |       |      |        |        |        |        |        |        |                                     |      |       |                           |        |      |        |        |        |                                        |       |      |      |                                     |     |        |      |        |        |        |                                     |      |      |                                     |      |        |        |      |        |        |        |        |      |        |        |      |        |        |        |        |      |        |        |      |                              |        |        |      |      |       |        |      |       |        |                                     |      |      |      |        |      |       |        |       |      |      |      |        |      |        |       |       |                                     |      |                                        |        |      |      |        |      |        |       |      |        |      |      |        |      |        |      |      |        |      |                                        |        |      |                                     |      |      |        |      |     |        |      |      |      |      |        |      |     |        |      |      |      |      |        |      |     |        |      |      |      |      |        |      |      |       |      |                              |     |     |      |      |     |        |      |      |   |   |      |      |     |        |      |      |      |      |                                     |      |     |        |      |      |        |      |      |      |      |        |      |      |        |      |      |      |      |        |      |      |        |      |      |      |      |        |      |      |        |      |                                     |      |      |      |      |     |        |      |      |      |      |      |      |     |        |      |      |      |      |      |      |     |        |      |      |      |      |     |      |     |       |      |      |   |   |      |      |     |       |      |      |   |   |     |      |     |        |      |      |      |      |                                     |     |     |     |      |     |        |      |      |      |      |     |      |     |        |      |      |      |      |     |      |     |        |      |      |      |      |      |      |     |        |      |      |      |      |      |      |     |        |      |      |      |      |      |      |     |       |   |   |   |   |      |      |     |       |   |   |   |   |
| 9.8           | 2042                          | 1.5           | 91.51  | 25.0      | 32.0         | -            | -                |                                     |                                        |                                                                                        |                                                                                        |        |      |        |        |      |                                     |      |                                     |                                        |      |     |        |      |        |        |      |      |      |     |        |      |        |        |      |                                        |      |      |                                        |      |        |        |      |      |        |      |        |      |        |        |      |      |        |      |                                        |      |        |                              |      |      |        |      |        |        |       |      |      |                                     |        |      |        |        |       |                                     |      |      |                              |      |        |      |      |        |        |      |        |      |                                        |      |      |                              |        |                           |        |        |        |        |      |        |        |                                     |        |        |      |        |      |                                        |       |      |      |        |      |        |      |        |                                     |      |      |        |      |        |        |        |      |      |      |        |      |        |        |        |                                     |      |      |      |      |        |        |        |      |        |                              |      |                                     |                                     |        |        |        |        |       |        |       |      |        |        |        |        |        |        |       |      |        |                                        |        |       |      |        |        |        |        |        |        |                                     |      |       |                           |        |      |        |        |        |                                        |       |      |      |                                     |     |        |      |        |        |        |                                     |      |      |                                     |      |        |        |      |        |        |        |        |      |        |        |      |        |        |        |        |      |        |        |      |                              |        |        |      |      |       |        |      |       |        |                                     |      |      |      |        |      |       |        |       |      |      |      |        |      |        |       |       |                                     |      |                                        |        |      |      |        |      |        |       |      |        |      |      |        |      |        |      |      |        |      |                                        |        |      |                                     |      |      |        |      |     |        |      |      |      |      |        |      |     |        |      |      |      |      |        |      |     |        |      |      |      |      |        |      |      |       |      |                              |     |     |      |      |     |        |      |      |   |   |      |      |     |        |      |      |      |      |                                     |      |     |        |      |      |        |      |      |      |      |        |      |      |        |      |      |      |      |        |      |      |        |      |      |      |      |        |      |      |        |      |                                     |      |      |      |      |     |        |      |      |      |      |      |      |     |        |      |      |      |      |      |      |     |        |      |      |      |      |     |      |     |       |      |      |   |   |      |      |     |       |      |      |   |   |     |      |     |        |      |      |      |      |                                     |     |     |     |      |     |        |      |      |      |      |     |      |     |        |      |      |      |      |     |      |     |        |      |      |      |      |      |      |     |        |      |      |      |      |      |      |     |        |      |      |      |      |      |      |     |       |   |   |   |   |      |      |     |       |   |   |   |   |
| 10.9          | 1842                          | 1.6           | 82.55  | 25.0      | 32.0         | -            | -                |                                     | 5.6                                    | 3508                                                                                   | 0.9                                                                                    |        |      | 248.66 | 23.0   | 32.0 | 39.0                                | 40.0 | <b>PD/PM 53<br/>100L4B / 100L4C</b> | 134                                    | 209  | 6.9 | 2861   | 1.1  | 202.80 | 26.0   | 32.0 | 41.0 | 40.0 | 8.2 | 2417   | 1.2  | 171.36 | 28.0   | 32.0 | 42.0                                   | 40.0 | 9.1  | 2170                                   | 1.5  | 153.85 | 28.0   | 32.0 | 43.0 | 40.0   | 10.1 | 1958   | 1.6  | 138.78 | 28.0   | 32.0 | 43.0 | 40.0   | 11.9 | 1654                                   | 1.7  | 117.27 | 22.0                         | 32.0 | 40.0 | 40.0   | 15.3 | 1291   | 2.2    | 91.51 | -    | -    | -                                   | -      | 17.0 | 1165   | 2.4    | 82.55 | -                                   | -    | -    | -                            |      |        |      |      |        |        |      |        |      |                                        |      |      |                              |        |                           |        |        |        |        |      |        |        |                                     |        |        |      |        |      |                                        |       |      |      |        |      |        |      |        |                                     |      |      |        |      |        |        |        |      |      |      |        |      |        |        |        |                                     |      |      |      |      |        |        |        |      |        |                              |      |                                     |                                     |        |        |        |        |       |        |       |      |        |        |        |        |        |        |       |      |        |                                        |        |       |      |        |        |        |        |        |        |                                     |      |       |                           |        |      |        |        |        |                                        |       |      |      |                                     |     |        |      |        |        |        |                                     |      |      |                                     |      |        |        |      |        |        |        |        |      |        |        |      |        |        |        |        |      |        |        |      |                              |        |        |      |      |       |        |      |       |        |                                     |      |      |      |        |      |       |        |       |      |      |      |        |      |        |       |       |                                     |      |                                        |        |      |      |        |      |        |       |      |        |      |      |        |      |        |      |      |        |      |                                        |        |      |                                     |      |      |        |      |     |        |      |      |      |      |        |      |     |        |      |      |      |      |        |      |     |        |      |      |      |      |        |      |      |       |      |                              |     |     |      |      |     |        |      |      |   |   |      |      |     |        |      |      |      |      |                                     |      |     |        |      |      |        |      |      |      |      |        |      |      |        |      |      |      |      |        |      |      |        |      |      |      |      |        |      |      |        |      |                                     |      |      |      |      |     |        |      |      |      |      |      |      |     |        |      |      |      |      |      |      |     |        |      |      |      |      |     |      |     |       |      |      |   |   |      |      |     |       |      |      |   |   |     |      |     |        |      |      |      |      |                                     |     |     |     |      |     |        |      |      |      |      |     |      |     |        |      |      |      |      |     |      |     |        |      |      |      |      |      |      |     |        |      |      |      |      |      |      |     |        |      |      |      |      |      |      |     |       |   |   |   |   |      |      |     |       |   |   |   |   |
| 5.6           | 3508                          | 0.9           | 248.66 | 23.0      | 32.0         | 39.0         | 40.0             | <b>PD/PM 53<br/>100L4B / 100L4C</b> | 134                                    | 209                                                                                    |                                                                                        |        |      |        |        |      |                                     |      |                                     |                                        |      |     |        |      |        |        |      |      |      |     |        |      |        |        |      |                                        |      |      |                                        |      |        |        |      |      |        |      |        |      |        |        |      |      |        |      |                                        |      |        |                              |      |      |        |      |        |        |       |      |      |                                     |        |      |        |        |       |                                     |      |      |                              |      |        |      |      |        |        |      |        |      |                                        |      |      |                              |        |                           |        |        |        |        |      |        |        |                                     |        |        |      |        |      |                                        |       |      |      |        |      |        |      |        |                                     |      |      |        |      |        |        |        |      |      |      |        |      |        |        |        |                                     |      |      |      |      |        |        |        |      |        |                              |      |                                     |                                     |        |        |        |        |       |        |       |      |        |        |        |        |        |        |       |      |        |                                        |        |       |      |        |        |        |        |        |        |                                     |      |       |                           |        |      |        |        |        |                                        |       |      |      |                                     |     |        |      |        |        |        |                                     |      |      |                                     |      |        |        |      |        |        |        |        |      |        |        |      |        |        |        |        |      |        |        |      |                              |        |        |      |      |       |        |      |       |        |                                     |      |      |      |        |      |       |        |       |      |      |      |        |      |        |       |       |                                     |      |                                        |        |      |      |        |      |        |       |      |        |      |      |        |      |        |      |      |        |      |                                        |        |      |                                     |      |      |        |      |     |        |      |      |      |      |        |      |     |        |      |      |      |      |        |      |     |        |      |      |      |      |        |      |      |       |      |                              |     |     |      |      |     |        |      |      |   |   |      |      |     |        |      |      |      |      |                                     |      |     |        |      |      |        |      |      |      |      |        |      |      |        |      |      |      |      |        |      |      |        |      |      |      |      |        |      |      |        |      |                                     |      |      |      |      |     |        |      |      |      |      |      |      |     |        |      |      |      |      |      |      |     |        |      |      |      |      |     |      |     |       |      |      |   |   |      |      |     |       |      |      |   |   |     |      |     |        |      |      |      |      |                                     |     |     |     |      |     |        |      |      |      |      |     |      |     |        |      |      |      |      |     |      |     |        |      |      |      |      |      |      |     |        |      |      |      |      |      |      |     |        |      |      |      |      |      |      |     |       |   |   |   |   |      |      |     |       |   |   |   |   |
| 6.9           | 2861                          | 1.1           | 202.80 | 26.0      | 32.0         | 41.0         | 40.0             |                                     |                                        |                                                                                        |                                                                                        |        |      |        |        |      |                                     |      |                                     |                                        |      |     |        |      |        |        |      |      |      |     |        |      |        |        |      |                                        |      |      |                                        |      |        |        |      |      |        |      |        |      |        |        |      |      |        |      |                                        |      |        |                              |      |      |        |      |        |        |       |      |      |                                     |        |      |        |        |       |                                     |      |      |                              |      |        |      |      |        |        |      |        |      |                                        |      |      |                              |        |                           |        |        |        |        |      |        |        |                                     |        |        |      |        |      |                                        |       |      |      |        |      |        |      |        |                                     |      |      |        |      |        |        |        |      |      |      |        |      |        |        |        |                                     |      |      |      |      |        |        |        |      |        |                              |      |                                     |                                     |        |        |        |        |       |        |       |      |        |        |        |        |        |        |       |      |        |                                        |        |       |      |        |        |        |        |        |        |                                     |      |       |                           |        |      |        |        |        |                                        |       |      |      |                                     |     |        |      |        |        |        |                                     |      |      |                                     |      |        |        |      |        |        |        |        |      |        |        |      |        |        |        |        |      |        |        |      |                              |        |        |      |      |       |        |      |       |        |                                     |      |      |      |        |      |       |        |       |      |      |      |        |      |        |       |       |                                     |      |                                        |        |      |      |        |      |        |       |      |        |      |      |        |      |        |      |      |        |      |                                        |        |      |                                     |      |      |        |      |     |        |      |      |      |      |        |      |     |        |      |      |      |      |        |      |     |        |      |      |      |      |        |      |      |       |      |                              |     |     |      |      |     |        |      |      |   |   |      |      |     |        |      |      |      |      |                                     |      |     |        |      |      |        |      |      |      |      |        |      |      |        |      |      |      |      |        |      |      |        |      |      |      |      |        |      |      |        |      |                                     |      |      |      |      |     |        |      |      |      |      |      |      |     |        |      |      |      |      |      |      |     |        |      |      |      |      |     |      |     |       |      |      |   |   |      |      |     |       |      |      |   |   |     |      |     |        |      |      |      |      |                                     |     |     |     |      |     |        |      |      |      |      |     |      |     |        |      |      |      |      |     |      |     |        |      |      |      |      |      |      |     |        |      |      |      |      |      |      |     |        |      |      |      |      |      |      |     |       |   |   |   |   |      |      |     |       |   |   |   |   |
| 8.2           | 2417                          | 1.2           | 171.36 | 28.0      | 32.0         | 42.0         | 40.0             |                                     |                                        |                                                                                        |                                                                                        |        |      |        |        |      |                                     |      |                                     |                                        |      |     |        |      |        |        |      |      |      |     |        |      |        |        |      |                                        |      |      |                                        |      |        |        |      |      |        |      |        |      |        |        |      |      |        |      |                                        |      |        |                              |      |      |        |      |        |        |       |      |      |                                     |        |      |        |        |       |                                     |      |      |                              |      |        |      |      |        |        |      |        |      |                                        |      |      |                              |        |                           |        |        |        |        |      |        |        |                                     |        |        |      |        |      |                                        |       |      |      |        |      |        |      |        |                                     |      |      |        |      |        |        |        |      |      |      |        |      |        |        |        |                                     |      |      |      |      |        |        |        |      |        |                              |      |                                     |                                     |        |        |        |        |       |        |       |      |        |        |        |        |        |        |       |      |        |                                        |        |       |      |        |        |        |        |        |        |                                     |      |       |                           |        |      |        |        |        |                                        |       |      |      |                                     |     |        |      |        |        |        |                                     |      |      |                                     |      |        |        |      |        |        |        |        |      |        |        |      |        |        |        |        |      |        |        |      |                              |        |        |      |      |       |        |      |       |        |                                     |      |      |      |        |      |       |        |       |      |      |      |        |      |        |       |       |                                     |      |                                        |        |      |      |        |      |        |       |      |        |      |      |        |      |        |      |      |        |      |                                        |        |      |                                     |      |      |        |      |     |        |      |      |      |      |        |      |     |        |      |      |      |      |        |      |     |        |      |      |      |      |        |      |      |       |      |                              |     |     |      |      |     |        |      |      |   |   |      |      |     |        |      |      |      |      |                                     |      |     |        |      |      |        |      |      |      |      |        |      |      |        |      |      |      |      |        |      |      |        |      |      |      |      |        |      |      |        |      |                                     |      |      |      |      |     |        |      |      |      |      |      |      |     |        |      |      |      |      |      |      |     |        |      |      |      |      |     |      |     |       |      |      |   |   |      |      |     |       |      |      |   |   |     |      |     |        |      |      |      |      |                                     |     |     |     |      |     |        |      |      |      |      |     |      |     |        |      |      |      |      |     |      |     |        |      |      |      |      |      |      |     |        |      |      |      |      |      |      |     |        |      |      |      |      |      |      |     |       |   |   |   |   |      |      |     |       |   |   |   |   |
| 9.1           | 2170                          | 1.5           | 153.85 | 28.0      | 32.0         | 43.0         | 40.0             |                                     |                                        |                                                                                        |                                                                                        |        |      |        |        |      |                                     |      |                                     |                                        |      |     |        |      |        |        |      |      |      |     |        |      |        |        |      |                                        |      |      |                                        |      |        |        |      |      |        |      |        |      |        |        |      |      |        |      |                                        |      |        |                              |      |      |        |      |        |        |       |      |      |                                     |        |      |        |        |       |                                     |      |      |                              |      |        |      |      |        |        |      |        |      |                                        |      |      |                              |        |                           |        |        |        |        |      |        |        |                                     |        |        |      |        |      |                                        |       |      |      |        |      |        |      |        |                                     |      |      |        |      |        |        |        |      |      |      |        |      |        |        |        |                                     |      |      |      |      |        |        |        |      |        |                              |      |                                     |                                     |        |        |        |        |       |        |       |      |        |        |        |        |        |        |       |      |        |                                        |        |       |      |        |        |        |        |        |        |                                     |      |       |                           |        |      |        |        |        |                                        |       |      |      |                                     |     |        |      |        |        |        |                                     |      |      |                                     |      |        |        |      |        |        |        |        |      |        |        |      |        |        |        |        |      |        |        |      |                              |        |        |      |      |       |        |      |       |        |                                     |      |      |      |        |      |       |        |       |      |      |      |        |      |        |       |       |                                     |      |                                        |        |      |      |        |      |        |       |      |        |      |      |        |      |        |      |      |        |      |                                        |        |      |                                     |      |      |        |      |     |        |      |      |      |      |        |      |     |        |      |      |      |      |        |      |     |        |      |      |      |      |        |      |      |       |      |                              |     |     |      |      |     |        |      |      |   |   |      |      |     |        |      |      |      |      |                                     |      |     |        |      |      |        |      |      |      |      |        |      |      |        |      |      |      |      |        |      |      |        |      |      |      |      |        |      |      |        |      |                                     |      |      |      |      |     |        |      |      |      |      |      |      |     |        |      |      |      |      |      |      |     |        |      |      |      |      |     |      |     |       |      |      |   |   |      |      |     |       |      |      |   |   |     |      |     |        |      |      |      |      |                                     |     |     |     |      |     |        |      |      |      |      |     |      |     |        |      |      |      |      |     |      |     |        |      |      |      |      |      |      |     |        |      |      |      |      |      |      |     |        |      |      |      |      |      |      |     |       |   |   |   |   |      |      |     |       |   |   |   |   |
| 10.1          | 1958                          | 1.6           | 138.78 | 28.0      | 32.0         | 43.0         | 40.0             |                                     |                                        |                                                                                        |                                                                                        |        |      |        |        |      |                                     |      |                                     |                                        |      |     |        |      |        |        |      |      |      |     |        |      |        |        |      |                                        |      |      |                                        |      |        |        |      |      |        |      |        |      |        |        |      |      |        |      |                                        |      |        |                              |      |      |        |      |        |        |       |      |      |                                     |        |      |        |        |       |                                     |      |      |                              |      |        |      |      |        |        |      |        |      |                                        |      |      |                              |        |                           |        |        |        |        |      |        |        |                                     |        |        |      |        |      |                                        |       |      |      |        |      |        |      |        |                                     |      |      |        |      |        |        |        |      |      |      |        |      |        |        |        |                                     |      |      |      |      |        |        |        |      |        |                              |      |                                     |                                     |        |        |        |        |       |        |       |      |        |        |        |        |        |        |       |      |        |                                        |        |       |      |        |        |        |        |        |        |                                     |      |       |                           |        |      |        |        |        |                                        |       |      |      |                                     |     |        |      |        |        |        |                                     |      |      |                                     |      |        |        |      |        |        |        |        |      |        |        |      |        |        |        |        |      |        |        |      |                              |        |        |      |      |       |        |      |       |        |                                     |      |      |      |        |      |       |        |       |      |      |      |        |      |        |       |       |                                     |      |                                        |        |      |      |        |      |        |       |      |        |      |      |        |      |        |      |      |        |      |                                        |        |      |                                     |      |      |        |      |     |        |      |      |      |      |        |      |     |        |      |      |      |      |        |      |     |        |      |      |      |      |        |      |      |       |      |                              |     |     |      |      |     |        |      |      |   |   |      |      |     |        |      |      |      |      |                                     |      |     |        |      |      |        |      |      |      |      |        |      |      |        |      |      |      |      |        |      |      |        |      |      |      |      |        |      |      |        |      |                                     |      |      |      |      |     |        |      |      |      |      |      |      |     |        |      |      |      |      |      |      |     |        |      |      |      |      |     |      |     |       |      |      |   |   |      |      |     |       |      |      |   |   |     |      |     |        |      |      |      |      |                                     |     |     |     |      |     |        |      |      |      |      |     |      |     |        |      |      |      |      |     |      |     |        |      |      |      |      |      |      |     |        |      |      |      |      |      |      |     |        |      |      |      |      |      |      |     |       |   |   |   |   |      |      |     |       |   |   |   |   |
| 11.9          | 1654                          | 1.7           | 117.27 | 22.0      | 32.0         | 40.0         | 40.0             |                                     |                                        |                                                                                        |                                                                                        |        |      |        |        |      |                                     |      |                                     |                                        |      |     |        |      |        |        |      |      |      |     |        |      |        |        |      |                                        |      |      |                                        |      |        |        |      |      |        |      |        |      |        |        |      |      |        |      |                                        |      |        |                              |      |      |        |      |        |        |       |      |      |                                     |        |      |        |        |       |                                     |      |      |                              |      |        |      |      |        |        |      |        |      |                                        |      |      |                              |        |                           |        |        |        |        |      |        |        |                                     |        |        |      |        |      |                                        |       |      |      |        |      |        |      |        |                                     |      |      |        |      |        |        |        |      |      |      |        |      |        |        |        |                                     |      |      |      |      |        |        |        |      |        |                              |      |                                     |                                     |        |        |        |        |       |        |       |      |        |        |        |        |        |        |       |      |        |                                        |        |       |      |        |        |        |        |        |        |                                     |      |       |                           |        |      |        |        |        |                                        |       |      |      |                                     |     |        |      |        |        |        |                                     |      |      |                                     |      |        |        |      |        |        |        |        |      |        |        |      |        |        |        |        |      |        |        |      |                              |        |        |      |      |       |        |      |       |        |                                     |      |      |      |        |      |       |        |       |      |      |      |        |      |        |       |       |                                     |      |                                        |        |      |      |        |      |        |       |      |        |      |      |        |      |        |      |      |        |      |                                        |        |      |                                     |      |      |        |      |     |        |      |      |      |      |        |      |     |        |      |      |      |      |        |      |     |        |      |      |      |      |        |      |      |       |      |                              |     |     |      |      |     |        |      |      |   |   |      |      |     |        |      |      |      |      |                                     |      |     |        |      |      |        |      |      |      |      |        |      |      |        |      |      |      |      |        |      |      |        |      |      |      |      |        |      |      |        |      |                                     |      |      |      |      |     |        |      |      |      |      |      |      |     |        |      |      |      |      |      |      |     |        |      |      |      |      |     |      |     |       |      |      |   |   |      |      |     |       |      |      |   |   |     |      |     |        |      |      |      |      |                                     |     |     |     |      |     |        |      |      |      |      |     |      |     |        |      |      |      |      |     |      |     |        |      |      |      |      |      |      |     |        |      |      |      |      |      |      |     |        |      |      |      |      |      |      |     |       |   |   |   |   |      |      |     |       |   |   |   |   |
| 15.3          | 1291                          | 2.2           | 91.51  | -         | -            | -            | -                |                                     |                                        |                                                                                        |                                                                                        |        |      |        |        |      |                                     |      |                                     |                                        |      |     |        |      |        |        |      |      |      |     |        |      |        |        |      |                                        |      |      |                                        |      |        |        |      |      |        |      |        |      |        |        |      |      |        |      |                                        |      |        |                              |      |      |        |      |        |        |       |      |      |                                     |        |      |        |        |       |                                     |      |      |                              |      |        |      |      |        |        |      |        |      |                                        |      |      |                              |        |                           |        |        |        |        |      |        |        |                                     |        |        |      |        |      |                                        |       |      |      |        |      |        |      |        |                                     |      |      |        |      |        |        |        |      |      |      |        |      |        |        |        |                                     |      |      |      |      |        |        |        |      |        |                              |      |                                     |                                     |        |        |        |        |       |        |       |      |        |        |        |        |        |        |       |      |        |                                        |        |       |      |        |        |        |        |        |        |                                     |      |       |                           |        |      |        |        |        |                                        |       |      |      |                                     |     |        |      |        |        |        |                                     |      |      |                                     |      |        |        |      |        |        |        |        |      |        |        |      |        |        |        |        |      |        |        |      |                              |        |        |      |      |       |        |      |       |        |                                     |      |      |      |        |      |       |        |       |      |      |      |        |      |        |       |       |                                     |      |                                        |        |      |      |        |      |        |       |      |        |      |      |        |      |        |      |      |        |      |                                        |        |      |                                     |      |      |        |      |     |        |      |      |      |      |        |      |     |        |      |      |      |      |        |      |     |        |      |      |      |      |        |      |      |       |      |                              |     |     |      |      |     |        |      |      |   |   |      |      |     |        |      |      |      |      |                                     |      |     |        |      |      |        |      |      |      |      |        |      |      |        |      |      |      |      |        |      |      |        |      |      |      |      |        |      |      |        |      |                                     |      |      |      |      |     |        |      |      |      |      |      |      |     |        |      |      |      |      |      |      |     |        |      |      |      |      |     |      |     |       |      |      |   |   |      |      |     |       |      |      |   |   |     |      |     |        |      |      |      |      |                                     |     |     |     |      |     |        |      |      |      |      |     |      |     |        |      |      |      |      |     |      |     |        |      |      |      |      |      |      |     |        |      |      |      |      |      |      |     |        |      |      |      |      |      |      |     |       |   |   |   |   |      |      |     |       |   |   |   |   |
| 17.0          | 1165                          | 2.4           | 82.55  | -         | -            | -            | -                |                                     |                                        |                                                                                        |                                                                                        |        |      |        |        |      |                                     |      |                                     |                                        |      |     |        |      |        |        |      |      |      |     |        |      |        |        |      |                                        |      |      |                                        |      |        |        |      |      |        |      |        |      |        |        |      |      |        |      |                                        |      |        |                              |      |      |        |      |        |        |       |      |      |                                     |        |      |        |        |       |                                     |      |      |                              |      |        |      |      |        |        |      |        |      |                                        |      |      |                              |        |                           |        |        |        |        |      |        |        |                                     |        |        |      |        |      |                                        |       |      |      |        |      |        |      |        |                                     |      |      |        |      |        |        |        |      |      |      |        |      |        |        |        |                                     |      |      |      |      |        |        |        |      |        |                              |      |                                     |                                     |        |        |        |        |       |        |       |      |        |        |        |        |        |        |       |      |        |                                        |        |       |      |        |        |        |        |        |        |                                     |      |       |                           |        |      |        |        |        |                                        |       |      |      |                                     |     |        |      |        |        |        |                                     |      |      |                                     |      |        |        |      |        |        |        |        |      |        |        |      |        |        |        |        |      |        |        |      |                              |        |        |      |      |       |        |      |       |        |                                     |      |      |      |        |      |       |        |       |      |      |      |        |      |        |       |       |                                     |      |                                        |        |      |      |        |      |        |       |      |        |      |      |        |      |        |      |      |        |      |                                        |        |      |                                     |      |      |        |      |     |        |      |      |      |      |        |      |     |        |      |      |      |      |        |      |     |        |      |      |      |      |        |      |      |       |      |                              |     |     |      |      |     |        |      |      |   |   |      |      |     |        |      |      |      |      |                                     |      |     |        |      |      |        |      |      |      |      |        |      |      |        |      |      |      |      |        |      |      |        |      |      |      |      |        |      |      |        |      |                                     |      |      |      |      |     |        |      |      |      |      |      |      |     |        |      |      |      |      |      |      |     |        |      |      |      |      |     |      |     |       |      |      |   |   |      |      |     |       |      |      |   |   |     |      |     |        |      |      |      |      |                                     |     |     |     |      |     |        |      |      |      |      |     |      |     |        |      |      |      |      |     |      |     |        |      |      |      |      |      |      |     |        |      |      |      |      |      |      |     |        |      |      |      |      |      |      |     |       |   |   |   |   |      |      |     |       |   |   |   |   |

| $P_1$<br>[kW] | $n_2$<br>[Min <sup>-1</sup> ] | $M_2$<br>[Nm] | $f_B$ | $i_{ges}$ | $F_R$<br>[N] | $F_A$<br>[N] | $F_{RGR}$<br>[N] | $F_{AGR}$<br>[N]                    | Tip / Type / Typ<br>IE2 / IE3          |  Kg |  mm |                                     |     |     |
|---------------|-------------------------------|---------------|-------|-----------|--------------|--------------|------------------|-------------------------------------|----------------------------------------|----------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------|-------------------------------------|-----|-----|
| <b>2.20</b>   | 6.5                           | 2886          | 0.8   | 427.97    | 23.0         | 32.0         | 40.0             | 40.0                                | <b>PD/PM 53<br/>90L2D</b>              | 124                                                                                    | 209                                                                                    |                                     |     |     |
|               | 7.7                           | 2439          | 0.9   | 361.64    | 23.0         | 32.0         | 39.0             | 40.0                                |                                        |                                                                                        |                                                                                        |                                     |     |     |
|               | 8.4                           | 2236          | 1.1   | 331.54    | 23.0         | 32.0         | 40.0             | 40.0                                |                                        |                                                                                        |                                                                                        |                                     |     |     |
|               | 10.4                          | 1823          | 1.1   | 270.40    | 23.0         | 32.0         | 41.0             | 40.0                                |                                        |                                                                                        |                                                                                        |                                     |     |     |
|               | 11.3                          | 1677          | 1.5   | 248.66    | 23.0         | 32.0         | 39.0             | 40.0                                |                                        |                                                                                        |                                                                                        |                                     |     |     |
|               | 13.8                          | 1367          | 1.8   | 202.80    | 26.0         | 32.0         | 41.0             | 40.0                                |                                        |                                                                                        |                                                                                        |                                     |     |     |
|               | 16.3                          | 1155          | 1.8   | 171.36    | 28.0         | 32.0         | 42.0             | 40.0                                |                                        |                                                                                        |                                                                                        |                                     |     |     |
|               | 18.2                          | 1037          | 2.3   | 153.85    | 28.0         | 32.0         | 43.0             | 40.0                                |                                        |                                                                                        |                                                                                        |                                     |     |     |
|               | 20.2                          | 936           | 2.6   | 138.78    | 28.0         | 32.0         | 43.0             | 40.0                                |                                        |                                                                                        |                                                                                        |                                     |     |     |
|               | 23.9                          | 791           | 2.6   | 117.27    | 22.0         | 32.0         | -                | -                                   |                                        |                                                                                        |                                                                                        |                                     |     |     |
|               | 6.7                           | 3036          | 0.9   | 134.05    | 28.0         | 32.0         | 43.0             | 40.0                                |                                        |                                                                                        |                                                                                        | <b>PD/PM 52<br/>112M6C / 112M6D</b> | 123 | 208 |
|               | 9.0                           | 2268          | 1.0   | 100.15    | 26.0         | 32.0         | 44.0             | 40.0                                |                                        |                                                                                        |                                                                                        |                                     |     |     |
|               | 9.8                           | 2080          | 1.4   | 91.82     | 26.0         | 32.0         | 44.0             | 40.0                                |                                        |                                                                                        |                                                                                        |                                     |     |     |
|               | 11.0                          | 1850          | 1.0   | 81.68     | 25.0         | 32.0         | 44.0             | 40.0                                |                                        |                                                                                        |                                                                                        |                                     |     |     |
|               | 13.1                          | 1554          | 2.0   | 68.60     | 24.0         | 32.0         | 44.0             | 40.0                                |                                        |                                                                                        |                                                                                        |                                     |     |     |
|               | 16.1                          | 1267          | 2.2   | 55.94     | 30.0         | 32.0         | 43.0             | 40.0                                |                                        |                                                                                        |                                                                                        |                                     |     |     |
|               | 16.2                          | 1258          | 2.1   | 55.55     | 30.0         | 32.0         | 45.0             | 40.0                                |                                        |                                                                                        |                                                                                        |                                     |     |     |
|               | 19.0                          | 1071          | 2.4   | 47.27     | 30.0         | 32.0         | 41.0             | 40.0                                |                                        |                                                                                        |                                                                                        |                                     |     |     |
|               | 22.1                          | 924           | 2.8   | 40.79     | 30.0         | 32.0         | 40.0             | 40.0                                |                                        |                                                                                        |                                                                                        |                                     |     |     |
|               | 10.4                          | 1931          | 1.4   | 134.05    | 28.0         | 32.0         | 43.0             | 40.0                                | <b>PD/PM 52<br/>100L4B / 100L4C</b>    | 115                                                                                    | 208                                                                                    |                                     |     |     |
|               | 14.0                          | 1443          | 1.6   | 100.15    | 26.0         | 32.0         | 44.0             | 40.0                                |                                        |                                                                                        |                                                                                        |                                     |     |     |
|               | 15.2                          | 1323          | 2.1   | 91.82     | 26.0         | 32.0         | 44.0             | 40.0                                |                                        |                                                                                        |                                                                                        |                                     |     |     |
|               | 17.1                          | 1177          | 2.4   | 81.68     | 25.0         | 32.0         | 44.0             | 40.0                                |                                        |                                                                                        |                                                                                        |                                     |     |     |
|               | 20.4                          | 988           | 3.0   | 68.60     | 24.0         | 32.0         | 44.0             | 40.0                                |                                        |                                                                                        |                                                                                        |                                     |     |     |
|               | 20.9                          | 937           | 2.2   | 134.05    | 28.0         | 32.0         | 43.0             | 40.0                                | <b>PD/PM 52<br/>90L2D</b>              | 105                                                                                    | 208                                                                                    |                                     |     |     |
|               | 28.0                          | 700           | 2.4   | 100.15    | 26.0         | 32.0         | 44.0             | 40.0                                |                                        |                                                                                        |                                                                                        |                                     |     |     |
|               | 34.3                          | 571           | 2.4   | 81.68     | 25.0         | 32.0         | 44.0             | 40.0                                |                                        |                                                                                        |                                                                                        |                                     |     |     |
|               | 9.2                           | 2106          | 0.9   | 152.50    | 16.0         | 22.0         | 26.0             | 30.0                                | <b>PD/PM 42/12<br/>100L4B / 100L4C</b> | 89                                                                                     | 238                                                                                    |                                     |     |     |
|               | 11.0                          | 1759          | 1.0   | 127.43    | -            | -            | -                | -                                   |                                        |                                                                                        |                                                                                        |                                     |     |     |
|               | 11.9                          | 1527          | 0.9   | 234.61    | 16.0         | 22.0         | -                | -                                   | <b>PD/PM 42/12<br/>90L2D</b>           | 79                                                                                     | 238                                                                                    |                                     |     |     |
|               | 15.8                          | 1153          | 1.2   | 177.15    | 16.0         | 22.0         | -                | -                                   |                                        |                                                                                        |                                                                                        |                                     |     |     |
|               | 18.4                          | 992           | 1.4   | 152.50    | 16.0         | 22.0         | 26.0             | 30.0                                |                                        |                                                                                        |                                                                                        |                                     |     |     |
|               | 22.0                          | 829           | 1.6   | 127.43    | 16.0         | 22.0         | -                | -                                   |                                        |                                                                                        |                                                                                        |                                     |     |     |
|               | 7.6                           | 2644          | 0.8   | 118.53    | 17.0         | 22.0         | 28.0             | 30.0                                | <b>PD/PM 43<br/>112M6C / 112M6D</b>    | 102                                                                                    | 205                                                                                    |                                     |     |     |
|               | 8.7                           | 2317          | 0.9   | 103.86    | 15.0         | 22.0         | 27.0             | 30.0                                |                                        |                                                                                        |                                                                                        |                                     |     |     |
|               | 10.4                          | 1936          | 1.1   | 86.78     | 12.0         | 22.0         | 26.0             | 30.0                                |                                        |                                                                                        |                                                                                        |                                     |     |     |
|               | 10.0                          | 1984          | 1.0   | 140.61    | 16.0         | 22.0         | 27.0             | 30.0                                | <b>PD/PM 43<br/>100L4B / 100L4C</b>    | 94                                                                                     | 205                                                                                    |                                     |     |     |
|               | 11.8                          | 1672          | 1.2   | 118.53    | 17.0         | 22.0         | 28.0             | 30.0                                |                                        |                                                                                        |                                                                                        |                                     |     |     |
|               | 13.5                          | 1465          | 1.4   | 103.86    | 15.0         | 22.0         | 27.0             | 30.0                                |                                        |                                                                                        |                                                                                        |                                     |     |     |
|               | 16.1                          | 1224          | 1.6   | 86.78     | 12.0         | 22.0         | 26.0             | 30.0                                |                                        |                                                                                        |                                                                                        |                                     |     |     |
|               | 9.2                           | 2043          | 0.8   | 302.94    | 16.0         | 22.0         | 26.0             | 30.0                                | <b>PD/PM 43<br/>90L2D</b>              | 84                                                                                     | 205                                                                                    |                                     |     |     |
|               | 11.1                          | 1707          | 0.9   | 253.13    | 16.0         | 22.0         | 25.0             | 30.0                                |                                        |                                                                                        |                                                                                        |                                     |     |     |
|               | 13.3                          | 1423          | 0.9   | 211.05    | 16.0         | 22.0         | 27.0             | 30.0                                |                                        |                                                                                        |                                                                                        |                                     |     |     |
|               | 14.6                          | 1291          | 1.2   | 191.52    | 16.0         | 22.0         | 28.0             | 30.0                                |                                        |                                                                                        |                                                                                        |                                     |     |     |
|               | 17.5                          | 1079          | 1.2   | 160.03    | 16.0         | 22.0         | -                | -                                   |                                        |                                                                                        |                                                                                        |                                     |     |     |
|               | 19.9                          | 948           | 1.6   | 140.61    | 16.0         | 22.0         | 27.0             | 30.0                                |                                        |                                                                                        |                                                                                        |                                     |     |     |
|               | 23.6                          | 799           | 1.9   | 118.53    | 17.0         | 22.0         | 28.0             | 30.0                                |                                        |                                                                                        |                                                                                        |                                     |     |     |
|               | 27.0                          | 700           | 2.2   | 103.86    | 15.0         | 22.0         | 27.0             | 30.0                                |                                        |                                                                                        |                                                                                        |                                     |     |     |
| 32.3          | 585                           | 2.6           | 86.78 | 12.0      | 22.0         | 26.0         | 30.0             |                                     |                                        |                                                                                        |                                                                                        |                                     |     |     |
| 9.9           | 2050                          | 0.8           | 90.52 | 17.0      | 22.0         | 29.0         | 30.0             | <b>PD/PM 42<br/>112M6C / 112M6D</b> |                                        |                                                                                        |                                                                                        | 87                                  | 204 |     |
| 11.9          | 1708                          | 1.0           | 75.41 | 16.0      | 22.0         | 30.0         | 30.0             |                                     |                                        |                                                                                        |                                                                                        |                                     |     |     |
| 14.6          | 1396                          | 1.3           | 61.64 | 16.0      | 22.0         | 30.0         | 30.0             |                                     |                                        |                                                                                        |                                                                                        |                                     |     |     |
| 17.2          | 1183                          | 1.6           | 52.23 | 15.0      | 22.0         | 30.0         | 30.0             |                                     |                                        |                                                                                        |                                                                                        |                                     |     |     |
| 20.0          | 1021                          | 1.6           | 45.06 | 15.0      | 22.0         | 29.0         | 30.0             |                                     |                                        |                                                                                        |                                                                                        |                                     |     |     |
| 20.6          | 988                           | 1.7           | 43.64 | 15.0      | 22.0         | 29.0         | 30.0             |                                     |                                        |                                                                                        |                                                                                        |                                     |     |     |
| 22.1          | 924                           | 1.8           | 40.79 | 14.0      | 22.0         | 29.0         | 30.0             |                                     |                                        |                                                                                        |                                                                                        |                                     |     |     |
| 24.4          | 834                           | 1.8           | 36.84 | 14.0      | 22.0         | 28.0         | 30.0             |                                     |                                        |                                                                                        |                                                                                        |                                     |     |     |
| 24.7          | 824                           | 1.8           | 36.39 | 14.0      | 22.0         | 28.0         | 30.0             |                                     |                                        |                                                                                        |                                                                                        |                                     |     |     |
| 27.9          | 732                           | 2.3           | 32.31 | 19.0      | 22.0         | 27.0         | 30.0             |                                     |                                        |                                                                                        |                                                                                        |                                     |     |     |
| 34.3          | 595                           | 2.8           | 26.25 | 19.0      | 22.0         | 25.0         | 30.0             |                                     |                                        |                                                                                        |                                                                                        |                                     |     |     |

| $P_1$<br>[kW] | $n_2$<br>[Min <sup>-1</sup> ] | $M_2$<br>[Nm] | $f_B$ | $i_{ges}$ | $F_R$<br>[N] | $F_A$<br>[N] | $F_{RGR}$<br>[N] | $F_{AGR}$<br>[N]          | Tip / Type / Typ<br>IE2 / IE3       |  Kg |  mm |                                     |     |     |
|---------------|-------------------------------|---------------|-------|-----------|--------------|--------------|------------------|---------------------------|-------------------------------------|----------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------|-------------------------------------|-----|-----|
| <b>2.20</b>   | 12.6                          | 1595          | 1.0   | 110.73    | 17.0         | 22.0         | 29.0             | 30.0                      | <b>PD/PM 42<br/>100L4B / 100L4C</b> | 79                                                                                     | 204                                                                                    |                                     |     |     |
|               | 15.5                          | 1304          | 1.2   | 90.52     | 17.0         | 22.0         | 29.0             | 30.0                      |                                     |                                                                                        |                                                                                        |                                     |     |     |
|               | 18.6                          | 1086          | 1.5   | 75.41     | 16.0         | 22.0         | 30.0             | 30.0                      |                                     |                                                                                        |                                                                                        |                                     |     |     |
|               | 22.7                          | 888           | 2.0   | 61.64     | 16.0         | 22.0         | 30.0             | 30.0                      |                                     |                                                                                        |                                                                                        |                                     |     |     |
|               | 26.8                          | 752           | 2.4   | 52.23     | 15.0         | 22.0         | 30.0             | 30.0                      |                                     |                                                                                        |                                                                                        |                                     |     |     |
|               | 31.1                          | 649           | 2.5   | 45.06     | 15.0         | 22.0         | 29.0             | 30.0                      |                                     |                                                                                        |                                                                                        |                                     |     |     |
|               | 32.1                          | 629           | 2.5   | 43.64     | 15.0         | 22.0         | 29.0             | 30.0                      |                                     |                                                                                        |                                                                                        |                                     |     |     |
|               | 34.3                          | 588           | 2.6   | 40.79     | 14.0         | 22.0         | 29.0             | 30.0                      |                                     |                                                                                        |                                                                                        |                                     |     |     |
|               | 38.0                          | 531           | 2.6   | 36.84     | 14.0         | 22.0         | 28.0             | 30.0                      |                                     |                                                                                        |                                                                                        |                                     |     |     |
|               | 38.5                          | 524           | 2.6   | 36.39     | 14.0         | 22.0         | 28.0             | 30.0                      |                                     |                                                                                        |                                                                                        |                                     |     |     |
|               | 18.0                          | 1086          | 0.9   | 155.40    | 17.0         | 22.0         | 29.0             | 30.0                      |                                     |                                                                                        |                                                                                        | <b>PD/PM 42<br/>90L2D</b>           | 69  | 204 |
|               | 25.3                          | 774           | 1.6   | 110.73    | 17.0         | 22.0         | 29.0             | 30.0                      |                                     |                                                                                        |                                                                                        |                                     |     |     |
|               | 30.9                          | 633           | 1.9   | 90.52     | 17.0         | 22.0         | 29.0             | 30.0                      |                                     |                                                                                        |                                                                                        |                                     |     |     |
|               | 24.6                          | 742           | 0.9   | 114.01    | 11.0         | 15.0         | 20.0             | 20.0                      | <b>PD/PM 32/12<br/>90L2D</b>        | 64                                                                                     | 238                                                                                    |                                     |     |     |
|               | 31.9                          | 571           | 1.2   | 87.71     | 11.0         | 15.0         | -                | -                         |                                     |                                                                                        |                                                                                        |                                     |     |     |
|               | 26.9                          | 701           | 0.8   | 103.92    | 13.0         | 15.0         | -                | -                         | <b>PD/PM 33<br/>90L2D</b>           | 62                                                                                     | 201                                                                                    |                                     |     |     |
|               | 31.3                          | 603           | 0.8   | 89.45     | 13.0         | 15.0         | -                | -                         |                                     |                                                                                        |                                                                                        |                                     |     |     |
|               | 20.1                          | 1015          | 0.8   | 44.83     | 9.0          | 15.0         | 20.0             | 20.0                      | <b>PD/PM 32<br/>112M6C / 112M6D</b> | 72                                                                                     | 200                                                                                    |                                     |     |     |
|               | 21.4                          | 952           | 1.0   | 42.05     | 9.0          | 15.0         | 20.0             | 20.0                      |                                     |                                                                                        |                                                                                        |                                     |     |     |
|               | 23.3                          | 874           | 0.8   | 38.59     | 9.0          | 15.0         | 19.0             | 20.0                      |                                     |                                                                                        |                                                                                        |                                     |     |     |
|               | 23.8                          | 856           | 1.0   | 37.79     | 9.0          | 15.0         | 19.0             | 20.0                      |                                     |                                                                                        |                                                                                        |                                     |     |     |
|               | 28.2                          | 723           | 1.3   | 31.90     | 9.0          | 15.0         | 18.0             | 20.0                      |                                     |                                                                                        |                                                                                        |                                     |     |     |
|               | 31.4                          | 649           | 1.4   | 28.67     | 9.0          | 15.0         | 18.0             | 20.0                      |                                     |                                                                                        |                                                                                        |                                     |     |     |
|               | 34.8                          | 586           | 1.5   | 25.86     | 8.0          | 15.0         | 17.0             | 20.0                      |                                     |                                                                                        |                                                                                        |                                     |     |     |
|               | 38.0                          | 537           | 1.6   | 23.69     | 8.0          | 15.0         | 17.0             | 20.0                      |                                     |                                                                                        |                                                                                        |                                     |     |     |
|               | 40.1                          | 508           | 1.7   | 22.42     | 8.0          | 15.0         | 17.0             | 20.0                      |                                     |                                                                                        |                                                                                        |                                     |     |     |
|               | 42.1                          | 484           | 1.6   | 21.37     | 8.0          | 15.0         | 17.0             | 20.0                      |                                     |                                                                                        |                                                                                        |                                     |     |     |
|               | 44.7                          | 456           | 1.9   | 20.15     | 8.0          | 15.0         | 16.0             | 20.0                      |                                     |                                                                                        |                                                                                        |                                     |     |     |
|               | 54.1                          | 377           | 2.3   | 16.65     | 11.0         | 15.0         | 16.0             | 20.0                      |                                     |                                                                                        |                                                                                        |                                     |     |     |
|               | 63.9                          | 319           | 2.8   | 14.09     | 11.0         | 15.0         | 15.0             | 20.0                      |                                     |                                                                                        |                                                                                        |                                     |     |     |
|               | 21.8                          | 924           | 1.1   | 64.11     | 9.0          | 15.0         | 21.0             | 20.0                      |                                     |                                                                                        |                                                                                        | <b>PD/PM 32<br/>100L4B / 100L4C</b> | 64  | 200 |
|               | 26.4                          | 763           | 1.1   | 52.98     | 9.0          | 15.0         | 20.0             | 20.0                      |                                     |                                                                                        |                                                                                        |                                     |     |     |
|               | 31.2                          | 646           | 1.1   | 44.83     | 9.0          | 15.0         | 20.0             | 20.0                      |                                     |                                                                                        |                                                                                        |                                     |     |     |
|               | 33.3                          | 606           | 1.5   | 42.05     | 9.0          | 15.0         | 20.0             | 20.0                      |                                     |                                                                                        |                                                                                        |                                     |     |     |
|               | 36.3                          | 556           | 1.1   | 38.59     | 9.0          | 15.0         | 19.0             | 20.0                      |                                     |                                                                                        |                                                                                        |                                     |     |     |
|               | 37.0                          | 544           | 1.5   | 37.79     | 9.0          | 15.0         | 19.0             | 20.0                      |                                     |                                                                                        |                                                                                        |                                     |     |     |
|               | 43.9                          | 460           | 1.9   | 31.90     | 9.0          | 15.0         | 18.0             | 20.0                      |                                     |                                                                                        |                                                                                        |                                     |     |     |
|               | 48.8                          | 413           | 2.1   | 28.67     | 9.0          | 15.0         | 18.0             | 20.0                      |                                     |                                                                                        |                                                                                        |                                     |     |     |
|               | 54.1                          | 373           | 2.3   | 25.86     | 8.0          | 15.0         | 17.0             | 20.0                      |                                     |                                                                                        |                                                                                        |                                     |     |     |
|               | 59.1                          | 341           | 2.4   | 23.69     | 8.0          | 15.0         | 17.0             | 20.0                      |                                     |                                                                                        |                                                                                        |                                     |     |     |
|               | 62.4                          | 323           | 2.5   | 22.42     | 8.0          | 15.0         | 17.0             | 20.0                      |                                     |                                                                                        |                                                                                        |                                     |     |     |
|               | 65.5                          | 308           | 2.3   | 21.37     | 8.0          | 15.0         | 17.0             | 20.0                      |                                     |                                                                                        |                                                                                        |                                     |     |     |
|               | 69.5                          | 290           | 2.8   | 20.15     | 8.0          | 15.0         | 16.0             | 20.0                      |                                     |                                                                                        |                                                                                        |                                     |     |     |
|               | 27.8                          | 705           | 0.9   | 100.85    | 9.0          | 15.0         | 22.0             | 20.0                      | <b>PD/PM 32<br/>90L2D</b>           | 54                                                                                     | 200                                                                                    |                                     |     |     |
|               | 31.6                          | 620           | 1.2   | 88.74     | 9.0          | 15.0         | 22.0             | 20.0                      |                                     |                                                                                        |                                                                                        |                                     |     |     |
|               | 35.1                          | 557           | 1.2   | 79.75     | 9.0          | 15.0         | 22.0             | 20.0                      |                                     |                                                                                        |                                                                                        |                                     |     |     |
|               | 39.7                          | 493           | 0.9   | 70.52     | 9.0          | 15.0         | 22.0             | 20.0                      |                                     |                                                                                        |                                                                                        |                                     |     |     |
| 42.5          | 461                           | 1.3           | 65.91 | 9.0       | 15.0         | 22.0         | 20.0             |                           |                                     |                                                                                        |                                                                                        |                                     |     |     |
| 43.7          | 448                           | 1.7           | 64.11 | 9.0       | 15.0         | 21.0         | 20.0             |                           |                                     |                                                                                        |                                                                                        |                                     |     |     |
| 50.2          | 390                           | 1.3           | 55.76 | 9.0       | 15.0         | 22.0         | 20.0             |                           |                                     |                                                                                        |                                                                                        |                                     |     |     |
| 52.9          | 370                           | 1.7           | 52.98 | 9.0       | 15.0         | 20.0         | 20.0             |                           |                                     |                                                                                        |                                                                                        |                                     |     |     |
| 58.3          | 335                           | 1.3           | 48.00 | 9.0       | 15.0         | 21.0         | 20.0             |                           |                                     |                                                                                        |                                                                                        |                                     |     |     |
| 62.5          | 313                           | 1.8           | 44.83 | 9.0       | 15.0         | 20.0         | 20.0             |                           |                                     |                                                                                        |                                                                                        |                                     |     |     |
| 66.6          | 294                           | 2.4           | 42.05 | 9.0       | 15.0         | 20.0         | 20.0             |                           |                                     |                                                                                        |                                                                                        |                                     |     |     |
| 72.6          | 270                           | 1.8           | 38.59 | 9.0       | 15.0         | 19.0         | 20.0             |                           |                                     |                                                                                        |                                                                                        |                                     |     |     |
| 74.1          | 264                           | 2.4           | 37.79 | 9.0       | 15.0         | 19.0         | 20.0             |                           |                                     |                                                                                        |                                                                                        |                                     |     |     |
| 87.8          | 223                           | 3.0           | 31.90 | 9.0       | 15.0         | 18.0         | 20.0             |                           |                                     |                                                                                        |                                                                                        |                                     |     |     |
| 34.0          | 555                           | 0.8           | 82.29 | 5.0       | 12.0         | -            | -                | <b>PD/PM 23<br/>90L2D</b> |                                     |                                                                                        |                                                                                        | 46                                  | 197 |     |



| $P_1$<br>[kW] | $n_2$<br>[Min <sup>-1</sup> ] | $M_2$<br>[Nm] | $f_B$ | $i_{ges}$ | $F_R$<br>[N] | $F_A$<br>[N] | $F_{RGR}$<br>[N] | $F_{AGR}$<br>[N] | Tip / Type / Typ<br>IE2 / IE3       |  Kg |  mm |     |
|---------------|-------------------------------|---------------|-------|-----------|--------------|--------------|------------------|------------------|-------------------------------------|----------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------|-----|
| <b>2.20</b>   | 30.4                          | 671           | 0.8   | 29.64     | 7.0          | 12.0         | 13.0             | 15.0             | <b>PD/PM 22<br/>112M6C / 112M6D</b> | 57                                                                                     | 196                                                                                    |     |
|               | 33.6                          | 607           | 0.8   | 26.81     | 7.0          | 12.0         | 13.0             | 15.0             |                                     |                                                                                        |                                                                                        |     |
|               | 36.0                          | 566           | 0.9   | 24.98     | 7.0          | 12.0         | 14.0             | 15.0             |                                     |                                                                                        |                                                                                        |     |
|               | 37.5                          | 543           | 0.8   | 23.99     | 7.0          | 12.0         | 14.0             | 15.0             |                                     |                                                                                        |                                                                                        |     |
|               | 41.1                          | 496           | 1.0   | 21.89     | 7.0          | 12.0         | 14.0             | 15.0             |                                     |                                                                                        |                                                                                        |     |
|               | 48.6                          | 419           | 1.2   | 18.51     | 7.0          | 12.0         | 14.0             | 15.0             |                                     |                                                                                        |                                                                                        |     |
|               | 54.3                          | 375           | 1.3   | 16.56     | 7.0          | 12.0         | 13.0             | 15.0             |                                     |                                                                                        |                                                                                        |     |
|               | 68.2                          | 299           | 1.4   | 13.20     | 6.0          | 12.0         | 13.0             | 15.0             |                                     |                                                                                        |                                                                                        |     |
|               | 76.2                          | 267           | 1.5   | 11.81     | 6.0          | 12.0         | 12.0             | 15.0             |                                     |                                                                                        |                                                                                        |     |
|               | 88.6                          | 230           | 1.6   | 10.16     | 6.0          | 11.0         | 12.0             | 15.0             |                                     |                                                                                        |                                                                                        |     |
|               | 100.0                         | 204           | 1.7   | 9.00      | 6.0          | 11.0         | 11.0             | 15.0             |                                     |                                                                                        |                                                                                        |     |
|               | 107.7                         | 189           | 1.4   | 8.36      | 6.0          | 11.0         | 11.0             | 15.0             |                                     |                                                                                        |                                                                                        |     |
|               | 120.3                         | 169           | 1.5   | 7.48      | 5.0          | 10.0         | 11.0             | 15.0             |                                     |                                                                                        |                                                                                        |     |
|               | 140.0                         | 146           | 1.6   | 6.43      | 5.0          | 10.0         | 10.0             | 15.0             |                                     |                                                                                        |                                                                                        |     |
|               | 157.9                         | 129           | 1.7   | 5.70      | 5.0          | 9.0          | 10.0             | 15.0             |                                     |                                                                                        |                                                                                        |     |
|               | 199.6                         | 102           | 1.9   | 4.51      | 5.0          | 8.0          | 9.0              | 15.0             |                                     |                                                                                        |                                                                                        |     |
|               |                               | 32.0          | 630   | 0.9       | 43.73        | 7.0          | 12.0             | 12.0             | 15.0                                | <b>PD/PM 22<br/>100L4B / 100L4C</b>                                                    | 49                                                                                     | 196 |
|               |                               | 38.3          | 527   | 1.0       | 36.57        | 8.0          | 12.0             | 13.0             | 15.0                                |                                                                                        |                                                                                        |     |
|               |                               | 44.9          | 449   | 1.0       | 31.20        | 7.0          | 12.0             | 13.0             | 15.0                                |                                                                                        |                                                                                        |     |
|               |                               | 47.2          | 427   | 1.2       | 29.64        | 7.0          | 12.0             | 13.0             | 15.0                                |                                                                                        |                                                                                        |     |
|               |                               | 52.2          | 386   | 1.1       | 26.81        | 7.0          | 12.0             | 13.0             | 15.0                                |                                                                                        |                                                                                        |     |
|               |                               | 56.0          | 360   | 1.4       | 24.98        | 7.0          | 12.0             | 14.0             | 15.0                                |                                                                                        |                                                                                        |     |
|               |                               | 58.4          | 346   | 1.3       | 23.99        | 7.0          | 12.0             | 14.0             | 15.0                                |                                                                                        |                                                                                        |     |
|               |                               | 64.0          | 315   | 1.5       | 21.89        | 7.0          | 12.0             | 14.0             | 15.0                                |                                                                                        |                                                                                        |     |
|               |                               | 75.6          | 267   | 1.8       | 18.51        | 7.0          | 12.0             | 14.0             | 15.0                                |                                                                                        |                                                                                        |     |
|               |                               | 84.5          | 239   | 2.0       | 16.56        | 7.0          | 12.0             | 13.0             | 15.0                                |                                                                                        |                                                                                        |     |
|               |                               | 106.1         | 190   | 2.1       | 13.20        | 6.0          | 12.0             | 13.0             | 15.0                                |                                                                                        |                                                                                        |     |
|               |                               | 118.5         | 170   | 2.3       | 11.81        | 6.0          | 12.0             | 12.0             | 15.0                                |                                                                                        |                                                                                        |     |
|               |                               | 137.8         | 146   | 2.4       | 10.16        | 6.0          | 11.0             | 12.0             | 15.0                                |                                                                                        |                                                                                        |     |
|               |                               | 155.6         | 130   | 2.6       | 9.00         | 6.0          | 11.0             | 11.0             | 15.0                                |                                                                                        |                                                                                        |     |
|               |                               | 167.5         | 120   | 2.1       | 8.36         | 6.0          | 11.0             | 11.0             | 15.0                                |                                                                                        |                                                                                        |     |
|               |                               | 187.2         | 108   | 2.3       | 7.48         | 5.0          | 10.0             | 11.0             | 15.0                                |                                                                                        |                                                                                        |     |
|               |                               | 217.7         | 93    | 2.4       | 6.43         | 5.0          | 10.0             | 10.0             | 15.0                                |                                                                                        |                                                                                        |     |
|               |                               | 245.6         | 82    | 2.6       | 5.70         | 5.0          | 9.0              | 10.0             | 15.0                                |                                                                                        |                                                                                        |     |
|               |                               | 310.4         | 65    | 2.9       | 4.51         | 5.0          | 8.0              | 9.0              | 15.0                                |                                                                                        |                                                                                        |     |
|               |                               | 43.8          | 446   | 0.9       | 63.86        | 7.0          | 12.0             | 12.0             | 15.0                                | <b>PD/PM 22<br/>90L2D</b>                                                              | 39                                                                                     | 196 |
|               |                               | 51.9          | 377   | 1.0       | 53.98        | 7.0          | 12.0             | 13.0             | 15.0                                |                                                                                        |                                                                                        |     |
|               |                               | 54.1          | 361   | 1.1       | 51.73        | 7.0          | 12.0             | 13.0             | 15.0                                |                                                                                        |                                                                                        |     |
|               |                               | 62.0          | 315   | 1.1       | 45.14        | 7.0          | 12.0             | 13.0             | 15.0                                |                                                                                        |                                                                                        |     |
|               |                               | 64.0          | 306   | 1.4       | 43.73        | 7.0          | 12.0             | 12.0             | 15.0                                |                                                                                        |                                                                                        |     |
|               |                               | 76.6          | 256   | 1.5       | 36.57        | 7.0          | 12.0             | 13.0             | 15.0                                |                                                                                        |                                                                                        |     |
|               |                               | 89.7          | 218   | 1.6       | 31.20        | 7.0          | 12.0             | 13.0             | 15.0                                |                                                                                        |                                                                                        |     |
|               |                               | 94.5          | 207   | 1.8       | 29.64        | 7.0          | 12.0             | 13.0             | 15.0                                |                                                                                        |                                                                                        |     |
|               |                               | 104.4         | 187   | 1.8       | 26.81        | 7.0          | 12.0             | 13.0             | 15.0                                |                                                                                        |                                                                                        |     |
|               |                               | 112.1         | 175   | 2.1       | 24.98        | 7.0          | 12.0             | 14.0             | 15.0                                |                                                                                        |                                                                                        |     |
|               | 116.7                         | 168           | 2.0   | 23.99     | 7.0          | 12.0         | 14.0             | 15.0             |                                     |                                                                                        |                                                                                        |     |
|               | 127.9                         | 153           | 2.4   | 21.89     | 7.0          | 12.0         | 14.0             | 15.0             |                                     |                                                                                        |                                                                                        |     |
|               | 151.3                         | 129           | 2.9   | 18.51     | 7.0          | 12.0         | 14.0             | 15.0             |                                     |                                                                                        |                                                                                        |     |
|               | 76.6                          | 266           | 0.8   | 11.75     | 3.0          | 5.0          | 9.0              | 7.0              | <b>PD/PM 12<br/>112M6C / 112M6D</b> | 46                                                                                     | 192                                                                                    |     |
|               | 87.0                          | 234           | 0.9   | 10.34     | 3.0          | 5.0          | 9.0              | 7.0              |                                     |                                                                                        |                                                                                        |     |
|               | 98.3                          | 207           | 1.0   | 9.16      | 3.0          | 5.0          | 9.0              | 7.0              |                                     |                                                                                        |                                                                                        |     |
|               | 109.4                         | 186           | 1.1   | 8.23      | 3.0          | 5.0          | 8.0              | 7.0              |                                     |                                                                                        |                                                                                        |     |
|               | 110.0                         | 185           | 0.9   | 8.18      | 3.0          | 5.0          | 9.0              | 7.0              |                                     |                                                                                        |                                                                                        |     |
|               | 124.1                         | 164           | 1.2   | 7.25      | 3.0          | 5.0          | 8.0              | 7.0              |                                     |                                                                                        |                                                                                        |     |
|               | 140.2                         | 145           | 1.3   | 6.42      | 2.0          | 4.0          | 8.0              | 7.0              |                                     |                                                                                        |                                                                                        |     |
|               | 164.5                         | 124           | 1.5   | 5.47      | 2.0          | 4.0          | 7.0              | 7.0              |                                     |                                                                                        |                                                                                        |     |
|               | 188.3                         | 108           | 1.2   | 4.78      | 2.0          | 4.0          | 7.0              | 7.0              |                                     |                                                                                        |                                                                                        |     |
|               | 67.9                          | 297           | 0.8   | 20.61     | -            | -            | 9.0              | 7.0              | <b>PD/PM 12<br/>100L4B / 100L4C</b> | 38                                                                                     | 192                                                                                    |     |
|               | 81.3                          | 248           | 0.9   | 17.22     | 3.0          | 5.0          | 9.0              | 7.0              |                                     |                                                                                        |                                                                                        |     |
|               | 99.4                          | 203           | 1.0   | 14.09     | 3.0          | 5.0          | 9.0              | 7.0              |                                     |                                                                                        |                                                                                        |     |
|               | 119.1                         | 169           | 1.2   | 11.75     | 3.0          | 5.0          | 9.0              | 7.0              |                                     |                                                                                        |                                                                                        |     |
|               | 135.4                         | 149           | 1.3   | 10.34     | 3.0          | 5.0          | 9.0              | 7.0              |                                     |                                                                                        |                                                                                        |     |
|               | 152.8                         | 132           | 1.4   | 9.16      | 3.0          | 5.0          | 9.0              | 7.0              |                                     |                                                                                        |                                                                                        |     |
|               | 170.1                         | 119           | 1.6   | 8.23      | 3.0          | 5.0          | 8.0              | 7.0              |                                     |                                                                                        |                                                                                        |     |
|               | 171.1                         | 118           | 1.4   | 8.18      | 3.0          | 5.0          | 9.0              | 7.0              |                                     |                                                                                        |                                                                                        |     |
|               | 193.1                         | 104           | 1.8   | 7.25      | 3.0          | 5.0          | 8.0              | 7.0              |                                     |                                                                                        |                                                                                        |     |
|               | 218.1                         | 92            | 2.0   | 6.42      | 2.0          | 4.0          | 8.0              | 7.0              |                                     |                                                                                        |                                                                                        |     |
|               | 255.9                         | 79            | 2.2   | 5.47      | 2.0          | 4.0          | 7.0              | 7.0              |                                     |                                                                                        |                                                                                        |     |
|               | 292.9                         | 69            | 1.9   | 4.78      | 2.0          | 4.0          | 7.0              | 7.0              |                                     |                                                                                        |                                                                                        |     |

| <b>P<sub>1</sub></b><br>[kW] | <b>n<sub>2</sub></b><br>[Min <sup>-1</sup> ] | <b>M<sub>2</sub></b><br>[Nm] | <b>f<sub>B</sub></b> | <b>i<sub>ges</sub></b> | <b>F<sub>R</sub></b><br>[N] | <b>F<sub>A</sub></b><br>[N] | <b>F<sub>R GR</sub></b><br>[N] | <b>F<sub>A GR</sub></b><br>[N] | Tip / Type / Typ<br>IE2 / IE3  |  Kg |  mm |      |                                      |    |     |
|------------------------------|----------------------------------------------|------------------------------|----------------------|------------------------|-----------------------------|-----------------------------|--------------------------------|--------------------------------|--------------------------------|----------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------|------|--------------------------------------|----|-----|
| <b>2.20</b>                  | 87.3                                         | 224                          | 0.8                  | 32.07                  | 3.0                         | 5.0                         | 9.0                            | 7.0                            | <b>PD/PM 12<br/>90L2D</b>      | 28                                                                                     | 192                                                                                    |      |                                      |    |     |
|                              | 98.8                                         | 198                          | 0.9                  | 28.35                  | 3.0                         | 5.0                         | 9.0                            | 7.0                            |                                |                                                                                        |                                                                                        |      |                                      |    |     |
|                              | 110.9                                        | 176                          | 1.0                  | 25.24                  | 3.0                         | 5.0                         | 9.0                            | 7.0                            |                                |                                                                                        |                                                                                        |      |                                      |    |     |
|                              | 135.9                                        | 144                          | 1.2                  | 20.61                  | 3.0                         | 5.0                         | 9.0                            | 7.0                            |                                |                                                                                        |                                                                                        |      |                                      |    |     |
|                              | 162.6                                        | 120                          | 1.4                  | 17.22                  | 3.0                         | 5.0                         | 9.0                            | 7.0                            |                                |                                                                                        |                                                                                        |      |                                      |    |     |
|                              | 198.7                                        | 98                           | 1.6                  | 14.09                  | 3.0                         | 5.0                         | 9.0                            | 7.0                            |                                |                                                                                        |                                                                                        |      |                                      |    |     |
|                              | 238.3                                        | 82                           | 1.9                  | 11.75                  | 3.0                         | 5.0                         | 9.0                            | 7.0                            |                                |                                                                                        |                                                                                        |      |                                      |    |     |
|                              | 270.8                                        | 72                           | 2.1                  | 10.34                  | 3.0                         | 5.0                         | 9.0                            | 7.0                            |                                |                                                                                        |                                                                                        |      |                                      |    |     |
|                              | 305.7                                        | 64                           | 2.2                  | 9.16                   | 3.0                         | 5.0                         | 9.0                            | 7.0                            |                                |                                                                                        |                                                                                        |      |                                      |    |     |
|                              | 340.2                                        | 58                           | 2.5                  | 8.23                   | 3.0                         | 5.0                         | 8.0                            | 7.0                            |                                |                                                                                        |                                                                                        |      |                                      |    |     |
|                              | 342.3                                        | 57                           | 2.1                  | 8.18                   | 3.0                         | 5.0                         | 9.0                            | 7.0                            |                                |                                                                                        |                                                                                        |      |                                      |    |     |
|                              | 386.2                                        | 51                           | 2.8                  | 7.25                   | 3.0                         | 5.0                         | 8.0                            | 7.0                            |                                |                                                                                        |                                                                                        |      |                                      |    |     |
|                              | 585.8                                        | 33                           | 2.9                  | 4.78                   | 2.0                         | 4.0                         | 7.0                            | 7.0                            |                                |                                                                                        |                                                                                        |      |                                      |    |     |
|                              | 57.9                                         | 74.6                         | 341                  | 0.8                    | 24.17                       | 4.0                         | 7.0                            | 8.0                            |                                |                                                                                        |                                                                                        | 11.0 | <b>PD/PM C13<br/>100L4B / 100L4C</b> | 44 | 190 |
|                              |                                              | 86.4                         | 265                  | 0.9                    | 18.76                       | 4.0                         | 7.0                            | 8.0                            |                                |                                                                                        |                                                                                        | 11.0 |                                      |    |     |
|                              |                                              | 229                          | 1.0                  | 16.20                  | 4.0                         | 7.0                         | 8.0                            | 11.0                           |                                |                                                                                        |                                                                                        |      |                                      |    |     |
| 52.6                         | 63.2                                         | 359                          | 0.8                  | 53.28                  | 4.0                         | 7.0                         | 8.0                            | 11.0                           | <b>PD/PM C13<br/>90L2D</b>     | 34                                                                                     | 190                                                                                    |      |                                      |    |     |
|                              | 72.1                                         | 299                          | 0.9                  | 44.33                  | 4.0                         | 7.0                         | 8.0                            | 11.0                           |                                |                                                                                        |                                                                                        |      |                                      |    |     |
|                              | 78.4                                         | 262                          | 0.9                  | 38.83                  | 4.0                         | 7.0                         | 8.0                            | 11.0                           |                                |                                                                                        |                                                                                        |      |                                      |    |     |
|                              | 94.2                                         | 241                          | 0.9                  | 35.71                  | 4.0                         | 7.0                         | 8.0                            | 11.0                           |                                |                                                                                        |                                                                                        |      |                                      |    |     |
|                              | 94.2                                         | 200                          | 1.1                  | 29.71                  | 4.0                         | 7.0                         | 8.0                            | 11.0                           |                                |                                                                                        |                                                                                        |      |                                      |    |     |
|                              | 107.6                                        | 175                          | 1.2                  | 26.02                  | 4.0                         | 7.0                         | 8.0                            | 11.0                           |                                |                                                                                        |                                                                                        |      |                                      |    |     |
|                              | 115.8                                        | 163                          | 1.3                  | 24.17                  | 4.0                         | 7.0                         | 8.0                            | 11.0                           |                                |                                                                                        |                                                                                        |      |                                      |    |     |
|                              | 149.3                                        | 126                          | 1.5                  | 18.76                  | 4.0                         | 7.0                         | 8.0                            | 11.0                           |                                |                                                                                        |                                                                                        |      |                                      |    |     |
|                              | 172.8                                        | 109                          | 1.6                  | 16.20                  | 4.0                         | 7.0                         | 8.0                            | 11.0                           |                                |                                                                                        |                                                                                        |      |                                      |    |     |
| 158.9                        | 169.0                                        | 123                          | 0.8                  | 17.62                  | 3.0                         | 5.0                         | 7.0                            | 5.0                            | <b>PD/PM B02<br/>90L2D</b>     | 22                                                                                     | 188                                                                                    |      |                                      |    |     |
|                              | 197.2                                        | 116                          | 0.9                  | 16.57                  | 3.0                         | 5.0                         | 7.0                            | 5.0                            |                                |                                                                                        |                                                                                        |      |                                      |    |     |
|                              | 216.0                                        | 99                           | 1.2                  | 14.20                  | 3.0                         | 5.0                         | 7.0                            | 5.0                            |                                |                                                                                        |                                                                                        |      |                                      |    |     |
|                              | 248.2                                        | 91                           | 1.3                  | 12.96                  | 3.0                         | 5.0                         | 7.0                            | 5.0                            |                                |                                                                                        |                                                                                        |      |                                      |    |     |
|                              | 248.2                                        | 79                           | 1.3                  | 11.28                  | 3.0                         | 5.0                         | 7.0                            | 5.0                            |                                |                                                                                        |                                                                                        |      |                                      |    |     |
|                              | 255.2                                        | 77                           | 1.5                  | 10.97                  | 3.0                         | 5.0                         | 7.0                            | 5.0                            |                                |                                                                                        |                                                                                        |      |                                      |    |     |
|                              | 289.6                                        | 68                           | 1.6                  | 9.67                   | 3.0                         | 5.0                         | 7.0                            | 5.0                            |                                |                                                                                        |                                                                                        |      |                                      |    |     |
|                              | 317.5                                        | 62                           | 1.7                  | 8.82                   | 3.0                         | 5.0                         | 7.0                            | 5.0                            |                                |                                                                                        |                                                                                        |      |                                      |    |     |
|                              | 374.8                                        | 52                           | 1.9                  | 7.47                   | 3.0                         | 5.0                         | 7.0                            | 5.0                            |                                |                                                                                        |                                                                                        |      |                                      |    |     |
|                              | 435.5                                        | 45                           | 2.1                  | 6.43                   | 3.0                         | 5.0                         | 7.0                            | 5.0                            |                                |                                                                                        |                                                                                        |      |                                      |    |     |
|                              | 466.7                                        | 42                           | 2.2                  | 6.00                   | 3.0                         | 5.0                         | 7.0                            | 5.0                            |                                |                                                                                        |                                                                                        |      |                                      |    |     |
|                              | 541.6                                        | 36                           | 2.4                  | 5.17                   | 3.0                         | 5.0                         | 7.0                            | 5.0                            |                                |                                                                                        |                                                                                        |      |                                      |    |     |
|                              | 599.6                                        | 33                           | 2.6                  | 4.67                   | 3.0                         | 5.0                         | 7.0                            | 5.0                            |                                |                                                                                        |                                                                                        |      |                                      |    |     |
|                              | 696.5                                        | 28                           | 2.8                  | 4.02                   | 3.0                         | 5.0                         | 7.0                            | 5.0                            |                                |                                                                                        |                                                                                        |      |                                      |    |     |
|                              | 202.5                                        | 239.9                        | 97                   | 0.9                    | 13.83                       | 3.0                         | 5.0                            | -                              |                                |                                                                                        |                                                                                        | -    | <b>PD/PM A02<br/>90L2D</b>           | 18 | 186 |
| 295.0                        |                                              | 82                           | 1.0                  | 11.67                  | 3.0                         | 5.0                         | -                              | -                              |                                |                                                                                        |                                                                                        |      |                                      |    |     |
| 324.4                        |                                              | 66                           | 1.3                  | 9.49                   | 3.0                         | 5.0                         | -                              | -                              |                                |                                                                                        |                                                                                        |      |                                      |    |     |
| 386.2                        |                                              | 60                           | 1.4                  | 8.63                   | 3.0                         | 5.0                         | -                              | -                              |                                |                                                                                        |                                                                                        |      |                                      |    |     |
| 440.9                        |                                              | 51                           | 1.7                  | 7.25                   | 3.0                         | 5.0                         | -                              | -                              |                                |                                                                                        |                                                                                        |      |                                      |    |     |
| 525.3                        |                                              | 44                           | 1.9                  | 6.35                   | 3.0                         | 5.0                         | -                              | -                              |                                |                                                                                        |                                                                                        |      |                                      |    |     |
| 660.4                        |                                              | 37                           | 1.9                  | 5.33                   | 3.0                         | 5.0                         | -                              | -                              |                                |                                                                                        |                                                                                        |      |                                      |    |     |
|                              |                                              | 30                           | 1.9                  | 4.24                   | 3.0                         | 5.0                         | -                              | -                              |                                |                                                                                        |                                                                                        |      |                                      |    |     |
| <b>3.00</b>                  | 0.4                                          | 68726                        | 0.9                  | 2328.41                | -                           | -                           | -                              | -                              | <b>PD/PM 113/52<br/>132S6A</b> | 2214                                                                                   | 242                                                                                    |      |                                      |    |     |
|                              | 0.5                                          | 53999                        | 1.2                  | 1829.47                | -                           | -                           | -                              | -                              |                                |                                                                                        |                                                                                        |      |                                      |    |     |
|                              | 0.7                                          | 40813                        | 1.5                  | 1382.74                | -                           | -                           | 134.0                          | 170.0                          |                                |                                                                                        |                                                                                        |      |                                      |    |     |
|                              | 0.8                                          | 34085                        | 1.8                  | 1154.79                | -                           | -                           | 139.0                          | 170.0                          |                                |                                                                                        |                                                                                        |      |                                      |    |     |
|                              | 0.9                                          | 28399                        | 2.2                  | 962.15                 | -                           | -                           | 144.0                          | 170.0                          |                                |                                                                                        |                                                                                        |      |                                      |    |     |
|                              | 1.2                                          | 21590                        | 2.9                  | 731.47                 | -                           | -                           | 147.0                          | 170.0                          |                                |                                                                                        |                                                                                        |      |                                      |    |     |
|                              | 0.3                                          | 0.4                          | 73696                | 0.8                    | 4001.34                     | -                           | -                              | -                              | -                              | <b>PD/PM 113/52<br/>100L4C / 100L4D</b>                                                | 2180                                                                                   | 242  |                                      |    |     |
|                              |                                              | 0.4                          | 68569                | 0.9                    | 3722.96                     | -                           | -                              | -                              | -                              |                                                                                        |                                                                                        |      |                                      |    |     |
|                              |                                              | 0.5                          | 56408                | 1.1                    | 3062.69                     | -                           | -                              | -                              | -                              |                                                                                        |                                                                                        |      |                                      |    |     |
|                              |                                              | 0.6                          | 42884                | 1.4                    | 2328.41                     | -                           | -                              | -                              | -                              |                                                                                        |                                                                                        |      |                                      |    |     |
|                              |                                              | 0.8                          | 33695                | 1.8                    | 1829.47                     | -                           | -                              | -                              | -                              |                                                                                        |                                                                                        |      |                                      |    |     |
|                              |                                              | 1.0                          | 25467                | 2.4                    | 1382.74                     | -                           | -                              | 134.0                          | 170.0                          |                                                                                        |                                                                                        |      |                                      |    |     |
|                              |                                              | 1.2                          | 21269                | 2.8                    | 1154.79                     | -                           | -                              | 139.0                          | 170.0                          |                                                                                        |                                                                                        |      |                                      |    |     |
|                              | 0.7                                          | 0.8                          | 34262                | 1.3                    | 4001.34                     | -                           | -                              | -                              | -                              | <b>PD/PM 113/52<br/>100L2C / 100L2D</b>                                                | 2180                                                                                   | 242  |                                      |    |     |
|                              |                                              | 0.8                          | 31878                | 1.4                    | 3722.96                     | -                           | -                              | -                              | -                              |                                                                                        |                                                                                        |      |                                      |    |     |
| 0.9                          |                                              | 26224                        | 1.7                  | 3062.69                | -                           | -                           | -                              | -                              |                                |                                                                                        |                                                                                        |      |                                      |    |     |
| 1.2                          |                                              | 19937                        | 2.3                  | 2328.41                | -                           | -                           | -                              | -                              |                                |                                                                                        |                                                                                        |      |                                      |    |     |
| 1.5                          |                                              | 15665                        | 2.9                  | 1829.47                | -                           | -                           | -                              | -                              |                                |                                                                                        |                                                                                        |      |                                      |    |     |
|                              |                                              |                              |                      |                        |                             |                             |                                |                                |                                |                                                                                        |                                                                                        |      |                                      |    |     |



| <b>P<sub>1</sub></b><br>[kW] | <b>n<sub>2</sub></b><br>[Min <sup>-1</sup> ] | <b>M<sub>2</sub></b><br>[Nm] | <b>f<sub>B</sub></b> | <b>i<sub>ges</sub></b> | <b>F<sub>R</sub></b><br>[N] | <b>F<sub>A</sub></b><br>[N] | <b>F<sub>R GR</sub></b><br>[N] | <b>F<sub>A GR</sub></b><br>[N]         | Tip / Type / Typ<br>IE2 / IE3           |  |  |  |  |
|------------------------------|----------------------------------------------|------------------------------|----------------------|------------------------|-----------------------------|-----------------------------|--------------------------------|----------------------------------------|-----------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|--|--|
| <b>3.00</b>                  | 0.6                                          | 41822                        | 0.9                  | 1416.90                | -                           | -                           | 117.0                          | 150.0                                  | <b>PD/PM 103/52<br/>132S6A</b>          | 1364                                                                                | 242                                                                                 |  |  |
|                              | 0.8                                          | 34405                        | 1.1                  | 1165.61                | -                           | -                           | 124.0                          | 150.0                                  |                                         |                                                                                     |                                                                                     |  |  |
|                              | 1.0                                          | 27032                        | 1.4                  | 915.84                 | -                           | -                           | 129.0                          | 150.0                                  |                                         |                                                                                     |                                                                                     |  |  |
|                              | 1.3                                          | 20431                        | 1.8                  | 692.20                 | -                           | -                           | 133.0                          | 150.0                                  |                                         |                                                                                     |                                                                                     |  |  |
|                              | 1.6                                          | 17063                        | 2.2                  | 578.09                 | -                           | -                           | 134.0                          | 150.0                                  |                                         |                                                                                     |                                                                                     |  |  |
|                              | 1.9                                          | 14077                        | 2.6                  | 476.93                 | -                           | -                           | 135.0                          | 150.0                                  |                                         |                                                                                     |                                                                                     |  |  |
|                              | 0.6                                          | 44252                        | 0.8                  | 2404.69                | -                           | -                           | -                              | -                                      | <b>PD/PM 103/52<br/>100L4C / 100L4D</b> | 1334                                                                                | 242                                                                                 |  |  |
|                              | 1.0                                          | 26096                        | 1.3                  | 1416.90                | -                           | -                           | 117.0                          | 150.0                                  |                                         |                                                                                     |                                                                                     |  |  |
|                              | 1.2                                          | 21468                        | 1.6                  | 1165.61                | -                           | -                           | 124.0                          | 150.0                                  |                                         |                                                                                     |                                                                                     |  |  |
|                              | 1.5                                          | 16868                        | 2.1                  | 915.84                 | -                           | -                           | 129.0                          | 150.0                                  |                                         |                                                                                     |                                                                                     |  |  |
|                              | 2.0                                          | 12749                        | 2.7                  | 692.20                 | -                           | -                           | 133.0                          | 150.0                                  |                                         |                                                                                     |                                                                                     |  |  |
|                              | 0.8                                          | 30141                        | 0.9                  | 3520.13                | -                           | -                           | -                              | -                                      | <b>PD/PM 103/52<br/>100L2C / 100L2D</b> | 1334                                                                                | 242                                                                                 |  |  |
|                              | 1.0                                          | 23946                        | 1.1                  | 2796.57                | -                           | -                           | -                              | -                                      |                                         |                                                                                     |                                                                                     |  |  |
|                              | 2.0                                          | 12132                        | 2.2                  | 1416.90                | -                           | -                           | 117.0                          | 150.0                                  |                                         |                                                                                     |                                                                                     |  |  |
|                              | 2.4                                          | 9981                         | 2.7                  | 1165.61                | -                           | -                           | 124.0                          | 150.0                                  |                                         |                                                                                     |                                                                                     |  |  |
|                              | 2.2                                          | 12116                        | 2.1                  | 410.49                 | 60.0                        | 102.0                       | 120.0                          | 130.0                                  |                                         |                                                                                     |                                                                                     |  |  |
|                              | 3.1                                          | 8683                         | 2.9                  | 294.19                 | 60.0                        | 102.0                       | 120.0                          | 130.0                                  | <b>PD/PM 93/52<br/>132S6A</b>           | 800                                                                                 | 242                                                                                 |  |  |
|                              | 1.0                                          | 26142                        | 1.0                  | 885.67                 | 94.0                        | 102.0                       | 120.0                          | 130.0                                  | <b>PD/PM 93/42<br/>132S6A</b>           | 771                                                                                 | 242                                                                                 |  |  |
|                              | 1.3                                          | 21115                        | 1.2                  | 715.36                 | 93.0                        | 102.0                       | 120.0                          | 130.0                                  |                                         |                                                                                     |                                                                                     |  |  |
|                              | 1.5                                          | 18266                        | 1.4                  | 618.83                 | 90.0                        | 102.0                       | 120.0                          | 130.0                                  |                                         |                                                                                     |                                                                                     |  |  |
|                              | 2.0                                          | 13308                        | 1.9                  | 450.86                 | 85.0                        | 102.0                       | 120.0                          | 130.0                                  |                                         |                                                                                     |                                                                                     |  |  |
|                              | 1.0                                          | 26111                        | 0.9                  | 1417.68                | 97.0                        | 102.0                       | 120.0                          | 130.0                                  | <b>PD/PM 93/42<br/>100L4C / 100L4D</b>  | 741                                                                                 | 242                                                                                 |  |  |
|                              | 1.2                                          | 21684                        | 1.1                  | 1177.36                | 97.0                        | 102.0                       | 120.0                          | 130.0                                  |                                         |                                                                                     |                                                                                     |  |  |
|                              | 1.6                                          | 16312                        | 1.5                  | 885.67                 | 94.0                        | 102.0                       | 120.0                          | 130.0                                  |                                         |                                                                                     |                                                                                     |  |  |
|                              | 2.0                                          | 13175                        | 1.8                  | 715.36                 | 93.0                        | 102.0                       | 120.0                          | 130.0                                  |                                         |                                                                                     |                                                                                     |  |  |
|                              | 2.3                                          | 11398                        | 2.1                  | 618.83                 | 90.0                        | 102.0                       | 120.0                          | 130.0                                  |                                         |                                                                                     |                                                                                     |  |  |
|                              | 3.1                                          | 8304                         | 2.9                  | 450.86                 | 85.0                        | 102.0                       | 120.0                          | 130.0                                  |                                         |                                                                                     |                                                                                     |  |  |
|                              | 1.2                                          | 20839                        | 0.9                  | 2433.68                | 97.0                        | 102.0                       | -                              | -                                      |                                         |                                                                                     |                                                                                     |  |  |
|                              | 1.3                                          | 18862                        | 1.0                  | 2202.85                | 97.0                        | 102.0                       | -                              | -                                      | <b>PD/PM 93/42<br/>100L2C / 100L2D</b>  | 741                                                                                 | 242                                                                                 |  |  |
|                              | 1.6                                          | 14940                        | 1.2                  | 1744.83                | 97.0                        | 102.0                       | -                              | -                                      |                                         |                                                                                     |                                                                                     |  |  |
|                              | 2.0                                          | 12139                        | 1.5                  | 1417.68                | 97.0                        | 102.0                       | 120.0                          | 130.0                                  |                                         |                                                                                     |                                                                                     |  |  |
|                              | 2.4                                          | 10081                        | 1.8                  | 1177.36                | 97.0                        | 102.0                       | 120.0                          | 130.0                                  |                                         |                                                                                     |                                                                                     |  |  |
|                              | 3.2                                          | 7584                         | 2.4                  | 885.67                 | 94.0                        | 102.0                       | 120.0                          | 130.0                                  |                                         |                                                                                     |                                                                                     |  |  |
|                              | 3.9                                          | 6125                         | 3.0                  | 715.36                 | 93.0                        | 102.0                       | 120.0                          | 130.0                                  |                                         |                                                                                     |                                                                                     |  |  |
|                              | 2.6                                          | 10713                        | 2.5                  | 352.16                 | 31.0                        | 46.0                        | -                              | -                                      |                                         |                                                                                     |                                                                                     |  |  |
|                              | 3.1                                          | 8851                         | 2.8                  | 290.94                 | 31.0                        | 46.0                        | -                              | -                                      | <b>PD/PM 93<br/>132S6A</b>              | 726                                                                                 | 225                                                                                 |  |  |
|                              | 1.6                                          | 16243                        | 0.8                  | 550.29                 | 74.0                        | 73.0                        | 100.0                          | 100.0                                  | <b>PD/PM 83/42<br/>132S6A</b>           | 469                                                                                 | 242                                                                                 |  |  |
|                              | 1.9                                          | 13838                        | 0.9                  | 468.82                 | 73.0                        | 73.0                        | 100.0                          | 100.0                                  |                                         |                                                                                     |                                                                                     |  |  |
|                              | 2.6                                          | 10237                        | 1.2                  | 346.82                 | 78.0                        | 73.0                        | -                              | -                                      |                                         |                                                                                     |                                                                                     |  |  |
|                              | 3.0                                          | 8722                         | 1.5                  | 295.48                 | 81.0                        | 73.0                        | -                              | -                                      |                                         |                                                                                     |                                                                                     |  |  |
|                              | 4.0                                          | 6603                         | 1.9                  | 223.71                 | 81.0                        | 73.0                        | -                              | -                                      |                                         |                                                                                     |                                                                                     |  |  |
|                              | 4.8                                          | 5506                         | 2.3                  | 186.54                 | 81.0                        | 73.0                        | -                              | -                                      |                                         |                                                                                     |                                                                                     |  |  |
| 2.5                          | 10135                                        | 1.2                          | 550.29               | 74.0                   | 73.0                        | 100.0                       | 100.0                          | <b>PD/PM 83/42<br/>100L4C / 100L4D</b> | 439                                     | 242                                                                                 |                                                                                     |  |  |
| 3.0                          | 8635                                         | 1.4                          | 468.82               | 73.0                   | 73.0                        | 100.0                       | 100.0                          |                                        |                                         |                                                                                     |                                                                                     |  |  |
| 4.0                          | 6388                                         | 1.9                          | 346.82               | 78.0                   | 73.0                        | 100.0                       | 100.0                          |                                        |                                         |                                                                                     |                                                                                     |  |  |
| 4.7                          | 5442                                         | 2.2                          | 295.48               | -                      | -                           | -                           | -                              |                                        |                                         |                                                                                     |                                                                                     |  |  |
| 6.3                          | 4120                                         | 2.9                          | 223.71               | -                      | -                           | -                           | -                              |                                        |                                         |                                                                                     |                                                                                     |  |  |
| 5.1                          | 4712                                         | 2.0                          | 550.29               | 74.0                   | 73.0                        | 100.0                       | 100.0                          |                                        |                                         |                                                                                     |                                                                                     |  |  |
| 6.0                          | 4014                                         | 2.3                          | 468.82               | 73.0                   | 73.0                        | 100.0                       | 100.0                          | <b>PD/PM 83/42<br/>100L2C / 100L2D</b> | 439                                     | 242                                                                                 |                                                                                     |  |  |
| 2.0                          | 13197                                        | 0.9                          | 716.55               | 74.0                   | 73.0                        | 100.0                       | 100.0                          | <b>PD/PM 83/32<br/>100L4C / 100L4D</b> | 424                                     | 240                                                                                 |                                                                                     |  |  |
| 2.3                          | 11236                                        | 1.1                          | 610.07               | 74.0                   | 73.0                        | 100.0                       | 100.0                          |                                        |                                         |                                                                                     |                                                                                     |  |  |
| 2.1                          | 11670                                        | 0.8                          | 1362.94              | 74.0                   | 73.0                        | 100.0                       | 100.0                          | <b>PD/PM 83/32<br/>100L2C / 100L2D</b> | 424                                     | 240                                                                                 |                                                                                     |  |  |
| 2.6                          | 9092                                         | 1.0                          | 1061.83              | 74.0                   | 73.0                        | 100.0                       | 100.0                          |                                        |                                         |                                                                                     |                                                                                     |  |  |
| 3.1                          | 7613                                         | 1.2                          | 889.06               | 74.0                   | 73.0                        | 100.0                       | 100.0                          |                                        |                                         |                                                                                     |                                                                                     |  |  |
| 3.9                          | 6135                                         | 1.5                          | 716.55               | 74.0                   | 73.0                        | 100.0                       | 100.0                          |                                        |                                         |                                                                                     |                                                                                     |  |  |
| 4.6                          | 5224                                         | 1.8                          | 610.07               | 74.0                   | 73.0                        | 100.0                       | 100.0                          |                                        |                                         |                                                                                     |                                                                                     |  |  |
| 2.3                          | 11755                                        | 1.1                          | 386.39               | 71.0                   | 73.0                        | 100.0                       | 105.0                          |                                        |                                         |                                                                                     |                                                                                     |  |  |
| 2.8                          | 9678                                         | 1.4                          | 318.11               | 68.0                   | 73.0                        | 100.0                       | 105.0                          | <b>PD/PM 83<br/>132S6A</b>             | 424                                     | 221                                                                                 |                                                                                     |  |  |
| 3.1                          | 8942                                         | 1.5                          | 293.92               | 62.0                   | 73.0                        | 100.0                       | 105.0                          |                                        |                                         |                                                                                     |                                                                                     |  |  |
| 3.7                          | 7362                                         | 1.9                          | 241.98               | 62.0                   | 73.0                        | 100.0                       | 105.0                          |                                        |                                         |                                                                                     |                                                                                     |  |  |
| 4.5                          | 6110                                         | 1.9                          | 200.83               | 62.0                   | 73.0                        | 100.0                       | 105.0                          |                                        |                                         |                                                                                     |                                                                                     |  |  |
| 4.9                          | 5645                                         | 2.4                          | 185.56               | 76.0                   | 73.0                        | 100.0                       | 105.0                          |                                        |                                         |                                                                                     |                                                                                     |  |  |
| 5.9                          | 4648                                         | 3.0                          | 152.77               | 76.0                   | 73.0                        | 100.0                       | 105.0                          |                                        |                                         |                                                                                     |                                                                                     |  |  |
| 6.3                          | 4378                                         | 3.0                          | 143.91               | 76.0                   | 73.0                        | 100.0                       | 105.0                          |                                        |                                         |                                                                                     |                                                                                     |  |  |
|                              |                                              |                              |                      |                        |                             |                             |                                |                                        |                                         |                                                                                     |                                                                                     |  |  |
|                              |                                              |                              |                      |                        |                             |                             |                                |                                        |                                         |                                                                                     |                                                                                     |  |  |





| P <sub>1</sub><br>[kW] | n <sub>2</sub><br>[Min <sup>-1</sup> ] | M <sub>2</sub><br>[Nm] | f <sub>B</sub> | i <sub>ges</sub> | F <sub>R</sub><br>[N] | F <sub>A</sub><br>[N] | F <sub>R GR</sub><br>[N] | F <sub>A GR</sub><br>[N]       | Tip / Type / Typ<br>IE2 / IE3  |     |     |
|------------------------|----------------------------------------|------------------------|----------------|------------------|-----------------------|-----------------------|--------------------------|--------------------------------|--------------------------------|-----|-----|
| 3.00                   | 3.6                                    | 7433                   | 1.7            | 386.39           | 71.0                  | 73.0                  | 100.0                    | 105.0                          | PD/PM 83<br>100L4C / 100L4D    | 394 | 221 |
|                        | 4.4                                    | 6119                   | 2.1            | 318.11           | 68.0                  | 73.0                  | 100.0                    | 105.0                          |                                |     |     |
|                        | 7.0                                    | 3863                   | 2.8            | 200.83           | 62.0                  | 73.0                  | 100.0                    | 105.0                          |                                |     |     |
|                        | 7.2                                    | 3553                   | 2.7            | 386.39           | 71.0                  | 73.0                  | 100.0                    | 105.0                          | PD/PM 83<br>100L2C / 100L2D    | 394 | 221 |
|                        | 3.1                                    | 8709                   | 0.9            | 295.06           | 57.0                  | 58.0                  | -                        | -                              | PD/PM 73/32<br>132S6A          | 329 | 240 |
|                        | 4.0                                    | 6582                   | 1.1            | 223.01           | 57.0                  | 58.0                  | -                        | -                              |                                |     |     |
|                        | 4.7                                    | 5434                   | 1.3            | 295.06           | 57.0                  | 58.0                  | 81.0                     | 80.0                           | PD/PM 73/32<br>100L4C / 100L4D | 299 | 240 |
|                        | 6.3                                    | 4107                   | 1.7            | 223.01           | 57.0                  | 58.0                  | 82.0                     | 80.0                           |                                |     |     |
|                        | 9.5                                    | 2526                   | 2.1            | 295.06           | 57.0                  | 58.0                  | 81.0                     | 80.0                           | PD/PM 73/32<br>100L2C / 100L2D | 299 | 240 |
|                        | 12.6                                   | 1910                   | 2.8            | 223.01           | 57.0                  | 58.0                  | 82.0                     | 80.0                           |                                |     |     |
|                        | 3.2                                    | 8008                   | 0.9            | 434.82           | 43.0                  | 58.0                  | 72.0                     | 80.0                           | PD/PM 73/22<br>100L4C / 100L4D | 288 | 240 |
|                        | 3.7                                    | 6930                   | 1.0            | 376.24           | 48.0                  | 58.0                  | 75.0                     | 80.0                           |                                |     |     |
|                        | 3.9                                    | 6082                   | 0.9            | 710.29           | 49.0                  | 58.0                  | 76.0                     | 80.0                           | PD/PM 73/22<br>100L2C / 100L2D | 288 | 240 |
|                        | 4.9                                    | 4887                   | 1.1            | 570.70           | 45.0                  | 58.0                  | 73.0                     | 80.0                           |                                |     |     |
|                        | 6.4                                    | 3723                   | 1.4            | 434.82           | 43.0                  | 58.0                  | 72.0                     | 80.0                           |                                |     |     |
|                        | 7.4                                    | 3222                   | 1.7            | 376.24           | 48.0                  | 58.0                  | 75.0                     | 80.0                           |                                |     |     |
|                        | 2.7                                    | 10294                  | 0.8            | 338.37           | 50.0                  | 58.0                  | 76.0                     | 80.0                           | PD/PM 73<br>132S6A             | 299 | 217 |
|                        | 3.3                                    | 8315                   | 1.0            | 273.32           | 52.0                  | 58.0                  | 79.0                     | 80.0                           |                                |     |     |
|                        | 4.2                                    | 6585                   | 1.3            | 216.45           | 50.0                  | 58.0                  | 80.0                     | 80.0                           |                                |     |     |
|                        | 4.4                                    | 6228                   | 1.3            | 204.72           | 50.0                  | 58.0                  | 80.0                     | 80.0                           |                                |     |     |
|                        | 5.6                                    | 4932                   | 1.3            | 162.12           | 47.0                  | 58.0                  | 81.0                     | 80.0                           |                                |     |     |
|                        | 6.0                                    | 4573                   | 1.7            | 150.32           | 47.0                  | 58.0                  | 81.0                     | 80.0                           |                                |     |     |
|                        | 7.3                                    | 3746                   | 2.1            | 123.12           | 55.0                  | 58.0                  | 82.0                     | 80.0                           |                                |     |     |
|                        | 8.4                                    | 3241                   | 2.4            | 106.53           | 55.0                  | 58.0                  | 82.0                     | 80.0                           |                                |     |     |
|                        | 9.7                                    | 2831                   | 2.8            | 93.05            | 55.0                  | 58.0                  | 82.0                     | 80.0                           |                                |     |     |
|                        | 4.1                                    | 6509                   | 1.2            | 338.37           | 50.0                  | 58.0                  | 76.0                     | 80.0                           | PD/PM 73<br>100L4C / 100L4D    | 269 | 217 |
|                        | 5.1                                    | 5258                   | 1.4            | 273.32           | 52.0                  | 58.0                  | 79.0                     | 80.0                           |                                |     |     |
|                        | 6.5                                    | 4164                   | 2.0            | 216.45           | 50.0                  | 58.0                  | 80.0                     | 80.0                           |                                |     |     |
|                        | 6.8                                    | 3938                   | 1.9            | 204.72           | 50.0                  | 58.0                  | 80.0                     | 80.0                           |                                |     |     |
|                        | 8.6                                    | 3119                   | 2.0            | 162.12           | 47.0                  | 58.0                  | 81.0                     | 80.0                           |                                |     |     |
|                        | 9.3                                    | 2892                   | 2.6            | 150.32           | 47.0                  | 58.0                  | 81.0                     | 80.0                           |                                |     |     |
|                        | 8.3                                    | 3111                   | 1.8            | 338.37           | 50.0                  | 58.0                  | 76.0                     | 80.0                           | PD/PM 73<br>100L2C / 100L2D    | 269 | 217 |
|                        | 10.2                                   | 2513                   | 2.3            | 273.32           | 52.0                  | 58.0                  | 79.0                     | 80.0                           |                                |     |     |
|                        | 13.7                                   | 1882                   | 3.0            | 204.72           | 50.0                  | 58.0                  | 80.0                     | 80.0                           |                                |     |     |
|                        | 12.9                                   | 2156                   | 2.8            | 69.80            | 29.0                  | 50.0                  | -                        | -                              | PD/PM 72<br>132S6A             | 292 | 216 |
|                        | 4.0                                    | 6597                   | 0.8            | 223.50           | -                     | -                     | -                        | -                              | PD/PM 63/32<br>132S6A          | 256 | 240 |
|                        | 4.7                                    | 5641                   | 0.9            | 191.13           | -                     | -                     | -                        | -                              |                                |     |     |
|                        | 5.7                                    | 4690                   | 1.1            | 158.90           | -                     | -                     | -                        | -                              |                                |     |     |
|                        | 6.3                                    | 4116                   | 1.2            | 223.50           | -                     | -                     | -                        | -                              | PD/PM 63/32<br>100L4C / 100L4D | 226 | 240 |
|                        | 7.3                                    | 3520                   | 1.4            | 191.13           | -                     | -                     | -                        | -                              |                                |     |     |
|                        | 8.8                                    | 2927                   | 1.6            | 158.90           | -                     | -                     | -                        | -                              |                                |     |     |
|                        | 12.5                                   | 1914                   | 1.9            | 223.50           | -                     | -                     | -                        | -                              | PD/PM 63/32<br>100L2C / 100L2D | 226 | 240 |
| 14.6                   | 1637                                   | 2.2                    | 191.13         | -                | -                     | -                     | -                        |                                |                                |     |     |
| 17.6                   | 1361                                   | 2.7                    | 158.90         | -                | -                     | -                     | -                        |                                |                                |     |     |
| 4.0                    | 6429                                   | 0.8                    | 349.07         | 16.0             | 47.0                  | 44.0                  | 60.0                     | PD/PM 63/22<br>100L4C / 100L4D | 215                            | 240 |     |
| 4.7                    | 5528                                   | 1.0                    | 300.12         | -                | -                     | -                     | -                        |                                |                                |     |     |
| 4.4                    | 5457                                   | 0.8                    | 637.34         | 16.0             | 47.0                  | -                     | -                        | PD/PM 63/22<br>100L2C / 100L2D | 215                            | 240 |     |
| 4.9                    | 4882                                   | 0.8                    | 570.21         | 16.0             | 47.0                  | -                     | -                        |                                |                                |     |     |
| 6.4                    | 3720                                   | 1.1                    | 434.44         | 16.0             | 47.0                  | 47.0                  | 60.0                     |                                |                                |     |     |
| 8.0                    | 2989                                   | 1.4                    | 349.07         | 16.0             | 47.0                  | 44.0                  | 60.0                     |                                |                                |     |     |
| 9.3                    | 2570                                   | 1.6                    | 300.12         | 23.0             | 47.0                  | -                     | -                        |                                |                                |     |     |
| 3.4                    | 8151                                   | 0.8                    | 267.94         | 30.0             | 47.0                  | 51.0                  | 60.0                     | PD/PM 63<br>132S6A             | 226                            | 213 |     |
| 4.2                    | 6460                                   | 0.8                    | 212.36         | 35.0             | 47.0                  | 54.0                  | 60.0                     |                                |                                |     |     |
| 5.3                    | 5213                                   | 1.1                    | 171.37         | 38.0             | 47.0                  | 56.0                  | 60.0                     |                                |                                |     |     |
| 5.6                    | 4871                                   | 1.2                    | 160.11         | 38.0             | 47.0                  | 56.0                  | 60.0                     |                                |                                |     |     |
| 7.1                    | 3859                                   | 1.2                    | 126.84         | 40.0             | 47.0                  | 57.0                  | 60.0                     |                                |                                |     |     |
| 7.8                    | 3492                                   | 1.8                    | 114.79         | 40.0             | 47.0                  | 57.0                  | 60.0                     |                                |                                |     |     |
| 9.7                    | 2820                                   | 2.2                    | 92.68          | 33.0             | 47.0                  | 58.0                  | 60.0                     |                                |                                |     |     |
| 12.0                   | 2291                                   | 2.8                    | 75.30          | 33.0             | 47.0                  | 58.0                  | 60.0                     |                                |                                |     |     |
| 12.3                   | 2234                                   | 2.6                    | 73.42          | 33.0             | 47.0                  | 58.0                  | 60.0                     |                                |                                |     |     |



| $P_1$<br>[kW] | $n_2$<br>[Min <sup>-1</sup> ] | $M_2$<br>[Nm] | $f_B$  | $i_{ges}$ | $F_R$<br>[N] | $F_A$<br>[N] | $F_{RGR}$<br>[N] | $F_{AGR}$<br>[N]           | Tip / Type / Typ<br>IE2 / IE3          |  Kg |  mm |                                     |     |     |
|---------------|-------------------------------|---------------|--------|-----------|--------------|--------------|------------------|----------------------------|----------------------------------------|----------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------|-------------------------------------|-----|-----|
| <b>3.00</b>   | 3.6                           | 7568          | 0.8    | 393.43    | 28.0         | 47.0         | 50.0             | 60.0                       | <b>PD/PM 63<br/>100L4C / 100L4D</b>    | 196                                                                                    | 213                                                                                    |                                     |     |     |
|               | 4.4                           | 6110          | 0.9    | 317.64    | 23.0         | 47.0         | 47.0             | 60.0                       |                                        |                                                                                        |                                                                                        |                                     |     |     |
|               | 5.2                           | 5154          | 1.1    | 267.94    | 30.0         | 47.0         | 51.0             | 60.0                       |                                        |                                                                                        |                                                                                        |                                     |     |     |
|               | 5.6                           | 4840          | 0.9    | 251.63    | 31.0         | 47.0         | 52.0             | 60.0                       |                                        |                                                                                        |                                                                                        |                                     |     |     |
|               | 6.2                           | 4344          | 0.9    | 225.83    | 34.0         | 47.0         | 53.0             | 60.0                       |                                        |                                                                                        |                                                                                        |                                     |     |     |
|               | 6.6                           | 4085          | 1.1    | 212.36    | 35.0         | 47.0         | 54.0             | 60.0                       |                                        |                                                                                        |                                                                                        |                                     |     |     |
|               | 8.2                           | 3297          | 1.7    | 171.37    | 38.0         | 47.0         | 56.0             | 60.0                       |                                        |                                                                                        |                                                                                        |                                     |     |     |
|               | 8.7                           | 3080          | 1.9    | 160.11    | 38.0         | 47.0         | 56.0             | 60.0                       |                                        |                                                                                        |                                                                                        |                                     |     |     |
|               | 11.0                          | 2440          | 1.9    | 126.84    | 40.0         | 47.0         | 57.0             | 60.0                       |                                        |                                                                                        |                                                                                        |                                     |     |     |
|               | 12.2                          | 2208          | 2.7    | 114.79    | 40.0         | 47.0         | 57.0             | 60.0                       |                                        |                                                                                        |                                                                                        |                                     |     |     |
|               | 7.1                           | 3618          | 1.2    | 393.43    | 28.0         | 47.0         | 50.0             | 60.0                       |                                        |                                                                                        |                                                                                        | <b>PD/PM 63<br/>100L2C / 100L2D</b> | 196 | 213 |
|               | 8.8                           | 2921          | 1.5    | 317.64    | 23.0         | 47.0         | 47.0             | 60.0                       |                                        |                                                                                        |                                                                                        |                                     |     |     |
|               | 10.5                          | 2464          | 1.8    | 267.94    | 30.0         | 47.0         | 51.0             | 60.0                       |                                        |                                                                                        |                                                                                        |                                     |     |     |
|               | 11.1                          | 2314          | 1.5    | 251.63    | 31.0         | 47.0         | 52.0             | 60.0                       |                                        |                                                                                        |                                                                                        |                                     |     |     |
|               | 12.4                          | 2076          | 1.5    | 225.83    | 34.0         | 47.0         | 53.0             | 60.0                       |                                        |                                                                                        |                                                                                        |                                     |     |     |
|               | 13.2                          | 1952          | 1.8    | 212.36    | 38.0         | 47.0         | 54.0             | 60.0                       |                                        |                                                                                        |                                                                                        |                                     |     |     |
|               | 16.3                          | 1576          | 2.7    | 171.37    | 38.0         | 47.0         | 56.0             | 60.0                       |                                        |                                                                                        |                                                                                        |                                     |     |     |
|               | 17.5                          | 1472          | 3.0    | 160.11    | 38.0         | 47.0         | 56.0             | 60.0                       |                                        |                                                                                        |                                                                                        |                                     |     |     |
|               | 22.1                          | 1166          | 3.0    | 126.84    | 40.0         | 47.0         | 57.0             | 60.0                       |                                        |                                                                                        |                                                                                        |                                     |     |     |
|               | 11.2                          | 2479          | 1.7    | 80.26     | 37.0         | 47.0         | 58.0             | 60.0                       | <b>PD/PM 62<br/>132S6A</b>             | 229                                                                                    | 212                                                                                    |                                     |     |     |
|               | 13.8                          | 2021          | 1.7    | 65.45     | 33.0         | 47.0         | 58.0             | 60.0                       |                                        |                                                                                        |                                                                                        |                                     |     |     |
|               | 14.7                          | 1886          | 2.5    | 61.05     | 20.0         | 32.0         | 58.0             | 60.0                       |                                        |                                                                                        |                                                                                        |                                     |     |     |
|               | 18.1                          | 1538          | 2.8    | 49.79     | 20.0         | 32.0         | 58.0             | 60.0                       |                                        |                                                                                        |                                                                                        |                                     |     |     |
|               | 22.8                          | 1218          | 2.8    | 39.44     | 20.0         | 32.0         | 56.0             | 60.0                       |                                        |                                                                                        |                                                                                        |                                     |     |     |
|               | 17.4                          | 1577          | 2.6    | 80.26     | 37.0         | 47.0         | 58.0             | 60.0                       | <b>PD/PM 62<br/>100L4C / 100L4D</b>    | 199                                                                                    | 212                                                                                    |                                     |     |     |
|               | 21.4                          | 1286          | 2.6    | 65.45     | 33.0         | 47.0         | 58.0             | 60.0                       |                                        |                                                                                        |                                                                                        |                                     |     |     |
|               | 8.0                           | 3285          | 0.9    | 174.49    | -            | -            | -                | -                          | <b>PD/PM 52/12<br/>100L4C / 100L4D</b> | 125                                                                                    | 238                                                                                    |                                     |     |     |
|               | 9.8                           | 2679          | 1.1    | 142.31    | -            | -            | -                | -                          |                                        |                                                                                        |                                                                                        |                                     |     |     |
|               | 8.3                           | 3003          | 0.8    | 338.40    | 21.0         | 32.0         | -                | -                          | <b>PD/PM 52/12<br/>100L2C / 100L2D</b> | 125                                                                                    | 238                                                                                    |                                     |     |     |
|               | 10.3                          | 2421          | 0.9    | 272.80    | 21.0         | 32.0         | 38.0             | 40.0                       |                                        |                                                                                        |                                                                                        |                                     |     |     |
|               | 12.0                          | 2064          | 1.1    | 232.65    | 21.0         | 32.0         | -                | -                          |                                        |                                                                                        |                                                                                        |                                     |     |     |
|               | 16.0                          | 1548          | 1.5    | 174.49    | 21.0         | 32.0         | -                | -                          |                                        |                                                                                        |                                                                                        |                                     |     |     |
|               | 19.7                          | 1263          | 1.8    | 142.31    | 21.0         | 32.0         | -                | -                          |                                        |                                                                                        |                                                                                        |                                     |     |     |
|               | 6.9                           | 3901          | 0.8    | 202.80    | 20.0         | 32.0         | 37.0             | 40.0                       | <b>PD/PM 53<br/>100L4C / 100L4D</b>    | 134                                                                                    | 209                                                                                    |                                     |     |     |
|               | 8.2                           | 3296          | 0.8    | 171.36    | 24.0         | 32.0         | 39.0             | 40.0                       |                                        |                                                                                        |                                                                                        |                                     |     |     |
|               | 9.1                           | 2960          | 1.1    | 153.85    | 26.0         | 32.0         | 40.0             | 40.0                       |                                        |                                                                                        |                                                                                        |                                     |     |     |
|               | 10.1                          | 2670          | 1.2    | 138.78    | 25.0         | 32.0         | 41.0             | 40.0                       |                                        |                                                                                        |                                                                                        |                                     |     |     |
|               | 11.9                          | 2256          | 1.2    | 117.27    | 22.0         | 32.0         | 40.0             | 40.0                       |                                        |                                                                                        |                                                                                        |                                     |     |     |
|               | 15.3                          | 1760          | 1.6    | 91.51     | -            | -            | -                | -                          |                                        |                                                                                        |                                                                                        |                                     |     |     |
|               | 17.0                          | 1588          | 1.8    | 82.55     | -            | -            | -                | -                          |                                        |                                                                                        |                                                                                        |                                     |     |     |
|               | 8.4                           | 3048          | 0.8    | 331.54    | 20.0         | 32.0         | 40.0             | 40.0                       |                                        |                                                                                        |                                                                                        | <b>PD/PM 53<br/>100L2C / 100L2D</b> | 134 | 209 |
|               | 10.4                          | 2486          | 0.8    | 270.40    | 20.0         | 32.0         | 41.0             | 40.0                       |                                        |                                                                                        |                                                                                        |                                     |     |     |
|               | 11.3                          | 2286          | 1.1    | 248.66    | 20.0         | 32.0         | 39.0             | 40.0                       |                                        |                                                                                        |                                                                                        |                                     |     |     |
|               | 13.8                          | 1865          | 1.3    | 202.80    | 20.0         | 32.0         | 37.0             | 40.0                       |                                        |                                                                                        |                                                                                        |                                     |     |     |
|               | 16.3                          | 1576          | 1.4    | 171.36    | 24.0         | 32.0         | 39.0             | 40.0                       |                                        |                                                                                        |                                                                                        |                                     |     |     |
|               | 18.2                          | 1415          | 1.7    | 153.85    | 26.0         | 32.0         | 40.0             | 40.0                       |                                        |                                                                                        |                                                                                        |                                     |     |     |
|               | 20.2                          | 1276          | 1.9    | 138.78    | 25.0         | 32.0         | 41.0             | 40.0                       |                                        |                                                                                        |                                                                                        |                                     |     |     |
|               | 23.9                          | 1078          | 1.9    | 117.27    | 22.0         | 32.0         | 40.0             | 40.0                       |                                        |                                                                                        |                                                                                        |                                     |     |     |
| 30.6          | 841                           | 2.6           | 91.51  | 23.0      | 32.0         | -            | -                |                            |                                        |                                                                                        |                                                                                        |                                     |     |     |
| 33.9          | 759                           | 2.8           | 82.55  | 23.0      | 32.0         | -            | -                |                            |                                        |                                                                                        |                                                                                        |                                     |     |     |
| 9.8           | 2836                          | 1.0           | 91.82  | 24.0      | 32.0         | 43.0         | 40.0             | <b>PD/PM 52<br/>132S6A</b> | 145                                    | 208                                                                                    |                                                                                        |                                     |     |     |
| 13.1          | 2119                          | 1.5           | 68.60  | 23.0      | 32.0         | 44.0         | 40.0             |                            |                                        |                                                                                        |                                                                                        |                                     |     |     |
| 16.1          | 1728                          | 1.6           | 55.94  | 22.0      | 32.0         | 43.0         | 40.0             |                            |                                        |                                                                                        |                                                                                        |                                     |     |     |
| 16.2          | 1716                          | 1.5           | 55.55  | 17.0      | 32.0         | 45.0         | 30.0             |                            |                                        |                                                                                        |                                                                                        |                                     |     |     |
| 17.5          | 1589                          | 2.1           | 51.45  | 21.0      | 32.0         | 40.0         | 40.0             |                            |                                        |                                                                                        |                                                                                        |                                     |     |     |
| 19.0          | 1460                          | 1.7           | 47.27  | 21.0      | 32.0         | 41.0         | 40.0             |                            |                                        |                                                                                        |                                                                                        |                                     |     |     |
| 21.4          | 1296                          | 2.6           | 41.96  | 28.0      | 32.0         | 38.0         | 40.0             |                            |                                        |                                                                                        |                                                                                        |                                     |     |     |
| 22.1          | 1260                          | 2.1           | 40.79  | 28.0      | 32.0         | 40.0         | 40.0             |                            |                                        |                                                                                        |                                                                                        |                                     |     |     |
| 25.4          | 1095                          | 2.6           | 35.45  | 28.0      | 32.0         | 37.0         | 40.0             |                            |                                        |                                                                                        |                                                                                        |                                     |     |     |
| 26.9          | 1032                          | 2.3           | 33.41  | 28.0      | 32.0         | 38.0         | 40.0             |                            |                                        |                                                                                        |                                                                                        |                                     |     |     |
| 10.4          | 2634                          | 1.0           | 134.05 | 26.0      | 32.0         | 42.0         | 40.0             |                            |                                        |                                                                                        | <b>PD/PM 52<br/>100L4C / 100L4D</b>                                                    | 115                                 | 208 |     |
| 14.0          | 1968                          | 1.1           | 100.15 | 25.0      | 32.0         | 43.0         | 40.0             |                            |                                        |                                                                                        |                                                                                        |                                     |     |     |
| 15.2          | 1804                          | 1.5           | 91.82  | 24.0      | 32.0         | 43.0         | 40.0             |                            |                                        |                                                                                        |                                                                                        |                                     |     |     |
| 17.1          | 1605                          | 1.8           | 81.68  | 24.0      | 32.0         | 44.0         | 40.0             |                            |                                        |                                                                                        |                                                                                        |                                     |     |     |
| 20.4          | 1348                          | 2.2           | 68.60  | 23.0      | 32.0         | 44.0         | 40.0             |                            |                                        |                                                                                        |                                                                                        |                                     |     |     |
| 25.0          | 1099                          | 2.4           | 55.94  | 22.0      | 32.0         | 43.0         | 40.0             |                            |                                        |                                                                                        |                                                                                        |                                     |     |     |
| 25.2          | 1091                          | 2.3           | 55.55  | 17.0      | 32.0         | 41.0         | 40.0             |                            |                                        |                                                                                        |                                                                                        |                                     |     |     |
| 29.6          | 929                           | 2.6           | 47.27  | 21.0      | 32.0         | 41.0         | 40.0             |                            |                                        |                                                                                        |                                                                                        |                                     |     |     |

| $P_1$<br>[kW] | $n_2$<br>[Min <sup>-1</sup> ] | $M_2$<br>[Nm] | $f_B$  | $i_{ges}$ | $F_R$<br>[N] | $F_A$<br>[N] | $F_{RGR}$<br>[N] | $F_{AGR}$<br>[N]                      | Tip / Type / Typ<br>IE2 / IE3         |     |     |
|---------------|-------------------------------|---------------|--------|-----------|--------------|--------------|------------------|---------------------------------------|---------------------------------------|-----|-----|
| <b>3.00</b>   | 20.9                          | 1277          | 1.6    | 134.05    | 26.0         | 32.0         | 42.0             | 40.0                                  | <b>PD/PM 52</b><br>100L2C / 100L2D    | 115 | 208 |
|               | 28.0                          | 954           | 1.8    | 100.15    | 25.0         | 32.0         | 43.0             | 40.0                                  |                                       |     |     |
|               | 30.5                          | 875           | 2.4    | 91.82     | 24.0         | 32.0         | 43.0             | 40.0                                  |                                       |     |     |
|               | 34.3                          | 778           | 1.8    | 81.68     | 24.0         | 32.0         | 44.0             | 40.0                                  |                                       |     |     |
|               | 11.0                          | 2399          | 0.8    | 127.43    | -            | -            | -                | -                                     | <b>PD/PM 42/12</b><br>100L4C / 100L4D | 89  | 238 |
|               | 15.8                          | 1572          | 0.9    | 177.15    | 16.0         | 22.0         | -                | -                                     | <b>PD/PM 42/12</b><br>100L2C / 100L2D | 89  | 238 |
|               | 18.4                          | 1353          | 1.0    | 152.50    | 16.0         | 22.0         | 26.0             | 30.0                                  |                                       |     |     |
|               | 22.0                          | 1131          | 1.2    | 127.43    | 16.0         | 22.0         | -                | -                                     |                                       |     |     |
|               | 11.8                          | 2280          | 0.9    | 118.53    | 14.0         | 22.0         | 26.0             | 30.0                                  | <b>PD/PM 43</b><br>100L4C / 100L4D    | 94  | 205 |
|               | 13.5                          | 1998          | 1.0    | 103.86    | 15.0         | 22.0         | 27.0             | 30.0                                  |                                       |     |     |
|               | 16.1                          | 1669          | 1.2    | 86.78     | 12.0         | 22.0         | 26.0             | 30.0                                  |                                       |     |     |
|               | 14.6                          | 1761          | 0.9    | 191.52    | 14.0         | 22.0         | 28.0             | 30.0                                  | <b>PD/PM 43</b><br>100L2C / 100L2D    | 94  | 205 |
|               | 17.5                          | 1471          | 0.9    | 160.03    | 14.0         | 22.0         | -                | -                                     |                                       |     |     |
|               | 19.9                          | 1293          | 1.2    | 140.61    | 14.0         | 22.0         | 27.0             | 30.0                                  |                                       |     |     |
|               | 23.6                          | 1090          | 1.4    | 118.53    | 14.0         | 22.0         | 26.0             | 30.0                                  |                                       |     |     |
|               | 27.0                          | 955           | 1.6    | 103.86    | 15.0         | 22.0         | 27.0             | 30.0                                  |                                       |     |     |
|               | 32.3                          | 798           | 1.9    | 86.78     | 12.0         | 22.0         | 26.0             | 30.0                                  |                                       |     |     |
|               | 14.6                          | 1904          | 1.0    | 61.64     | 15.0         | 22.0         | 30.0             | 30.0                                  |                                       |     |     |
|               | 17.2                          | 1613          | 1.2    | 52.23     | 14.0         | 22.0         | 30.0             | 30.0                                  |                                       |     |     |
|               | 20.0                          | 1392          | 1.2    | 45.06     | 14.0         | 22.0         | 29.0             | 30.0                                  |                                       |     |     |
|               | 20.6                          | 1348          | 1.2    | 43.64     | 14.0         | 22.0         | 28.0             | 30.0                                  |                                       |     |     |
|               | 22.1                          | 1260          | 1.3    | 40.79     | 14.0         | 22.0         | 28.0             | 30.0                                  |                                       |     |     |
|               | 23.5                          | 1184          | 1.8    | 38.35     | 13.0         | 22.0         | 25.0             | 30.0                                  |                                       |     |     |
|               | 24.4                          | 1138          | 1.3    | 36.84     | 13.0         | 22.0         | 27.0             | 30.0                                  |                                       |     |     |
|               | 24.7                          | 1124          | 1.3    | 36.39     | 13.0         | 22.0         | 27.0             | 30.0                                  |                                       |     |     |
|               | 27.9                          | 998           | 1.7    | 32.31     | 13.0         | 22.0         | 27.0             | 30.0                                  |                                       |     |     |
|               | 28.1                          | 990           | 1.9    | 32.04     | 17.0         | 22.0         | 25.0             | 30.0                                  |                                       |     |     |
|               | 33.7                          | 825           | 2.0    | 26.72     | 17.0         | 22.0         | 24.0             | 30.0                                  |                                       |     |     |
| 34.1          | 816                           | 2.3           | 26.41  | 17.0      | 22.0         | 25.0         | 30.0             |                                       |                                       |     |     |
| 34.3          | 811                           | 2.1           | 26.25  | 17.0      | 22.0         | 25.0         | 30.0             |                                       |                                       |     |     |
| 40.2          | 691                           | 2.6           | 22.38  | 17.0      | 22.0         | 24.0         | 30.0             |                                       |                                       |     |     |
| 41.9          | 663                           | 2.7           | 21.46  | 17.0      | 22.0         | 24.0         | 30.0             |                                       |                                       |     |     |
| 15.5          | 1778                          | 0.9           | 90.52  | 15.0      | 22.0         | 28.0         | 30.0             | <b>PD/PM 42</b><br>100L4C / 100L4D    | 79                                    | 204 |     |
| 18.6          | 1481                          | 1.1           | 75.41  | 15.0      | 22.0         | 29.0         | 30.0             |                                       |                                       |     |     |
| 22.7          | 1211                          | 1.5           | 61.64  | 15.0      | 22.0         | 30.0         | 30.0             |                                       |                                       |     |     |
| 26.8          | 1026                          | 1.8           | 52.23  | 14.0      | 22.0         | 30.0         | 30.0             |                                       |                                       |     |     |
| 31.1          | 885                           | 1.8           | 45.06  | 14.0      | 22.0         | 29.0         | 30.0             |                                       |                                       |     |     |
| 32.1          | 857                           | 1.9           | 43.64  | 14.0      | 22.0         | 28.0         | 30.0             |                                       |                                       |     |     |
| 34.3          | 801                           | 1.9           | 40.79  | 14.0      | 22.0         | 28.0         | 30.0             |                                       |                                       |     |     |
| 38.0          | 724                           | 1.9           | 36.84  | 13.0      | 22.0         | 27.0         | 30.0             |                                       |                                       |     |     |
| 38.5          | 715                           | 1.9           | 36.39  | 13.0      | 22.0         | 27.0         | 30.0             |                                       |                                       |     |     |
| 43.3          | 635                           | 2.6           | 32.31  | 13.0      | 22.0         | 27.0         | 30.0             |                                       |                                       |     |     |
| 25.3          | 1055                          | 1.2           | 110.73 | 15.0      | 22.0         | 29.0         | 30.0             | <b>PD/PM 42</b><br>100L2C / 100L2D    | 79                                    | 204 |     |
| 30.9          | 863                           | 1.4           | 90.52  | 15.0      | 22.0         | 28.0         | 30.0             |                                       |                                       |     |     |
| 37.1          | 719                           | 1.7           | 75.41  | 15.0      | 22.0         | 29.0         | 30.0             |                                       |                                       |     |     |
| 45.4          | 587                           | 2.3           | 61.64  | 15.0      | 22.0         | 30.0         | 30.0             |                                       |                                       |     |     |
| 53.6          | 498                           | 2.8           | 52.23  | 14.0      | 22.0         | 30.0         | 30.0             |                                       |                                       |     |     |
| 62.1          | 429                           | 2.8           | 45.06  | 14.0      | 22.0         | 29.0         | 30.0             |                                       |                                       |     |     |
| 64.2          | 416                           | 2.9           | 43.64  | 14.0      | 22.0         | 28.0         | 30.0             |                                       |                                       |     |     |
| 68.6          | 389                           | 3.0           | 40.79  | 14.0      | 22.0         | 28.0         | 30.0             |                                       |                                       |     |     |
| 76.0          | 351                           | 3.0           | 36.84  | 13.0      | 22.0         | 27.0         | 30.0             |                                       |                                       |     |     |
| 76.9          | 347                           | 3.0           | 36.39  | 13.0      | 22.0         | 27.0         | 30.0             |                                       |                                       |     |     |
| 31.9          | 778                           | 0.9           | 87.71  | 11.0      | 15.0         | -            | -                | <b>PD/PM 32/12</b><br>100L2C / 100L2D | 74                                    | 238 |     |
| 40.1          | 692                           | 1.2           | 22.42  | 8.0       | 14.0         | 16.0         | 20.0             | <b>PD/PM 32</b><br>132S6A             | 94                                    | 200 |     |
| 44.7          | 622                           | 1.4           | 20.15  | 8.0       | 14.0         | 16.0         | 20.0             |                                       |                                       |     |     |
| 54.1          | 514                           | 1.7           | 16.65  | 7.0       | 13.0         | 15.0         | 20.0             |                                       |                                       |     |     |
| 63.9          | 435                           | 2.1           | 14.09  | 9.0       | 15.0         | 15.0         | 20.0             |                                       |                                       |     |     |
| 79.3          | 351                           | 2.5           | 11.35  | 9.0       | 15.0         | 14.0         | 20.0             |                                       |                                       |     |     |
| 92.1          | 302                           | 2.9           | 9.77   | 9.0       | 15.0         | 13.0         | 20.0             |                                       |                                       |     |     |
| 108.6         | 256                           | 2.8           | 8.29   | 9.0       | 15.0         | 13.0         | 19.0             |                                       |                                       |     |     |



| $P_1$<br>[kW] | $n_2$<br>[Min <sup>-1</sup> ] | $M_2$<br>[Nm] | $f_B$ | $i_{ges}$ | $F_R$<br>[N] | $F_A$<br>[N] | $F_{RGR}$<br>[N] | $F_{AGR}$<br>[N]                    | Tip / Type / Typ<br>IE2 / IE3       |  Kg |  mm |
|---------------|-------------------------------|---------------|-------|-----------|--------------|--------------|------------------|-------------------------------------|-------------------------------------|----------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------|
| <b>3.00</b>   | 21.8                          | 1259          | 0.8   | 64.11     | 9.0          | 15.0         | 21.0             | 20.0                                | <b>PD/PM 32<br/>100L4C / 100L4D</b> | 64                                                                                     | 200                                                                                    |
|               | 26.4                          | 1041          | 0.8   | 52.98     | -            | -            | 20.0             | 20.0                                |                                     |                                                                                        |                                                                                        |
|               | 31.2                          | 881           | 0.8   | 44.83     | 9.0          | 15.0         | 20.0             | 20.0                                |                                     |                                                                                        |                                                                                        |
|               | 33.3                          | 826           | 1.1   | 42.05     | 8.0          | 15.0         | 19.0             | 20.0                                |                                     |                                                                                        |                                                                                        |
|               | 36.3                          | 758           | 0.8   | 38.59     | 9.0          | 15.0         | 19.0             | 20.0                                |                                     |                                                                                        |                                                                                        |
|               | 37.0                          | 742           | 1.1   | 37.79     | 8.0          | 18.0         | 18.0             | 20.0                                |                                     |                                                                                        |                                                                                        |
|               | 43.9                          | 627           | 1.4   | 31.90     | 8.0          | 15.0         | 18.0             | 20.0                                |                                     |                                                                                        |                                                                                        |
|               | 48.8                          | 563           | 1.5   | 28.67     | 8.0          | 15.0         | 17.0             | 20.0                                |                                     |                                                                                        |                                                                                        |
|               | 54.1                          | 508           | 1.7   | 25.86     | 8.0          | 15.0         | 17.0             | 20.0                                |                                     |                                                                                        |                                                                                        |
|               | 59.1                          | 465           | 1.7   | 23.69     | 8.0          | 14.0         | 17.0             | 20.0                                |                                     |                                                                                        |                                                                                        |
|               | 62.4                          | 440           | 1.8   | 22.42     | 8.0          | 14.0         | 16.0             | 20.0                                |                                     |                                                                                        |                                                                                        |
|               | 65.5                          | 420           | 1.7   | 21.37     | 8.0          | 14.0         | 16.0             | 20.0                                |                                     |                                                                                        |                                                                                        |
|               | 69.5                          | 396           | 2.1   | 20.15     | 8.0          | 14.0         | 16.0             | 20.0                                |                                     |                                                                                        |                                                                                        |
|               | 84.1                          | 327           | 2.6   | 16.65     | 7.0          | 13.0         | 15.0             | 20.0                                |                                     |                                                                                        |                                                                                        |
|               | 43.7                          | 611           | 1.3   | 64.11     | 9.0          | 15.0         | 21.0             | 20.0                                |                                     |                                                                                        |                                                                                        |
|               | 52.9                          | 505           | 1.3   | 52.98     | 9.0          | 15.0         | 20.0             | 20.0                                |                                     |                                                                                        |                                                                                        |
|               | 62.5                          | 427           | 1.3   | 44.83     | 9.0          | 15.0         | 20.0             | 20.0                                |                                     |                                                                                        |                                                                                        |
|               | 66.6                          | 401           | 1.8   | 42.05     | 8.0          | 15.0         | 19.0             | 20.0                                |                                     |                                                                                        |                                                                                        |
|               | 72.6                          | 368           | 1.3   | 38.59     | 9.0          | 15.0         | 19.0             | 20.0                                |                                     |                                                                                        |                                                                                        |
|               | 74.1                          | 360           | 1.8   | 37.79     | 8.0          | 18.0         | 18.0             | 20.0                                |                                     |                                                                                        |                                                                                        |
|               | 87.8                          | 304           | 2.2   | 31.90     | 8.0          | 15.0         | 18.0             | 20.0                                |                                     |                                                                                        |                                                                                        |
|               | 97.7                          | 273           | 2.4   | 28.67     | 8.0          | 15.0         | 17.0             | 20.0                                |                                     |                                                                                        |                                                                                        |
|               | 108.3                         | 246           | 2.6   | 25.86     | 8.0          | 15.0         | 17.0             | 20.0                                |                                     |                                                                                        |                                                                                        |
|               | 118.2                         | 226           | 2.7   | 23.69     | 8.0          | 14.0         | 17.0             | 20.0                                |                                     |                                                                                        |                                                                                        |
|               | 124.9                         | 214           | 2.8   | 22.42     | 8.0          | 14.0         | 16.0             | 20.0                                |                                     |                                                                                        |                                                                                        |
|               | 131.0                         | 204           | 2.7   | 21.37     | 8.0          | 14.0         | 16.0             | 20.0                                |                                     |                                                                                        |                                                                                        |
|               | 47.2                          | 582           | 0.9   | 29.64     | 7.0          | 12.0         | 12.0             | 15.0                                | <b>PD/PM 22<br/>100L4C / 100L4D</b> | 49                                                                                     | 196                                                                                    |
|               | 52.2                          | 527           | 0.8   | 26.81     | 7.0          | 12.0         | 13.0             | 15.0                                |                                     |                                                                                        |                                                                                        |
|               | 56.0                          | 491           | 1.0   | 24.98     | 7.0          | 12.0         | 13.0             | 15.0                                |                                     |                                                                                        |                                                                                        |
|               | 58.4                          | 471           | 0.9   | 23.99     | 7.0          | 12.0         | 13.0             | 15.0                                |                                     |                                                                                        |                                                                                        |
|               | 64.0                          | 430           | 1.1   | 21.89     | 7.0          | 12.0         | 13.0             | 15.0                                |                                     |                                                                                        |                                                                                        |
|               | 75.6                          | 364           | 1.3   | 18.51     | 6.0          | 12.0         | 13.0             | 15.0                                |                                     |                                                                                        |                                                                                        |
|               | 84.5                          | 325           | 1.4   | 16.56     | 6.0          | 12.0         | 13.0             | 15.0                                |                                     |                                                                                        |                                                                                        |
|               | 106.1                         | 259           | 1.6   | 13.20     | 6.0          | 12.0         | 12.0             | 15.0                                |                                     |                                                                                        |                                                                                        |
|               | 118.5                         | 232           | 1.7   | 11.81     | 6.0          | 11.0         | 12.0             | 15.0                                |                                     |                                                                                        |                                                                                        |
|               | 137.8                         | 200           | 1.8   | 10.16     | 6.0          | 11.0         | 12.0             | 15.0                                |                                     |                                                                                        |                                                                                        |
|               | 155.6                         | 177           | 1.9   | 9.00      | 6.0          | 10.0         | 11.0             | 15.0                                |                                     |                                                                                        |                                                                                        |
|               | 167.5                         | 164           | 1.6   | 8.36      | 5.0          | 10.0         | 11.0             | 15.0                                |                                     |                                                                                        |                                                                                        |
|               | 187.2                         | 147           | 1.7   | 7.48      | 5.0          | 10.0         | 11.0             | 15.0                                |                                     |                                                                                        |                                                                                        |
|               | 217.7                         | 126           | 1.8   | 6.43      | 5.0          | 9.0          | 10.0             | 15.0                                |                                     |                                                                                        |                                                                                        |
|               | 245.6                         | 112           | 1.9   | 5.70      | 5.0          | 9.0          | 10.0             | 15.0                                |                                     |                                                                                        |                                                                                        |
|               | 310.4                         | 89            | 2.1   | 4.51      | 5.0          | 8.0          | 9.0              | 15.0                                |                                     |                                                                                        |                                                                                        |
|               | 54.1                          | 493           | 0.8   | 51.73     | 7.0          | 12.0         | 13.0             | 15.0                                | <b>PD/PM 22<br/>100L2C / 100L2D</b> | 49                                                                                     | 196                                                                                    |
|               | 64.0                          | 417           | 1.0   | 43.73     | 7.0          | 12.0         | 12.0             | 15.0                                |                                     |                                                                                        |                                                                                        |
|               | 76.6                          | 348           | 1.1   | 36.57     | 7.0          | 12.0         | 13.0             | 15.0                                |                                     |                                                                                        |                                                                                        |
| 89.7          | 297                           | 1.1           | 31.20 | 7.0       | 12.0         | 13.0         | 15.0             |                                     |                                     |                                                                                        |                                                                                        |
| 94.5          | 282                           | 1.3           | 29.64 | 7.0       | 12.0         | 12.0         | 15.0             |                                     |                                     |                                                                                        |                                                                                        |
| 104.4         | 255                           | 1.3           | 26.81 | 7.0       | 12.0         | 13.0         | 15.0             |                                     |                                     |                                                                                        |                                                                                        |
| 112.1         | 238                           | 1.6           | 24.98 | 7.0       | 12.0         | 13.0         | 15.0             |                                     |                                     |                                                                                        |                                                                                        |
| 116.7         | 229                           | 1.4           | 23.99 | 7.0       | 12.0         | 13.0         | 15.0             |                                     |                                     |                                                                                        |                                                                                        |
| 127.9         | 209                           | 1.7           | 21.89 | 7.0       | 12.0         | 13.0         | 15.0             |                                     |                                     |                                                                                        |                                                                                        |
| 151.3         | 176                           | 2.1           | 18.51 | 6.0       | 12.0         | 13.0         | 15.0             |                                     |                                     |                                                                                        |                                                                                        |
| 169.1         | 158                           | 2.3           | 16.56 | 6.0       | 12.0         | 13.0         | 15.0             |                                     |                                     |                                                                                        |                                                                                        |
| 212.1         | 126                           | 2.4           | 13.20 | 6.0       | 12.0         | 12.0         | 15.0             |                                     |                                     |                                                                                        |                                                                                        |
| 237.1         | 113                           | 2.6           | 11.81 | 6.0       | 11.0         | 12.0         | 15.0             |                                     |                                     |                                                                                        |                                                                                        |
| 275.6         | 97                            | 2.8           | 10.16 | 6.0       | 11.0         | 12.0         | 15.0             |                                     |                                     |                                                                                        |                                                                                        |
| 311.1         | 86                            | 3.0           | 9.00  | 6.0       | 10.0         | 11.0         | 15.0             |                                     |                                     |                                                                                        |                                                                                        |
| 334.9         | 80                            | 2.4           | 8.36  | 5.0       | 10.0         | 11.0         | 15.0             |                                     |                                     |                                                                                        |                                                                                        |
| 374.3         | 71                            | 2.6           | 7.48  | 5.0       | 10.0         | 11.0         | 15.0             |                                     |                                     |                                                                                        |                                                                                        |
| 435.5         | 61                            | 2.8           | 6.43  | 5.0       | 9.0          | 10.0         | 15.0             |                                     |                                     |                                                                                        |                                                                                        |
| 491.2         | 54                            | 3.0           | 5.70  | 5.0       | 9.0          | 10.0         | 15.0             |                                     |                                     |                                                                                        |                                                                                        |
| 99.4          | 277                           | 0.8           | 14.09 | 3.0       | 5.0          | 9.0          | 7.0              | <b>PD/PM 12<br/>100L4C / 100L4D</b> | 38                                  | 192                                                                                    |                                                                                        |
| 119.1         | 231                           | 0.9           | 11.75 | 2.0       | 4.0          | 9.0          | 7.0              |                                     |                                     |                                                                                        |                                                                                        |
| 135.4         | 203                           | 1.0           | 10.34 | 2.0       | 4.0          | 9.0          | 7.0              |                                     |                                     |                                                                                        |                                                                                        |
| 152.8         | 180                           | 1.1           | 9.16  | 2.0       | 4.0          | 8.0          | 7.0              |                                     |                                     |                                                                                        |                                                                                        |
| 170.1         | 162                           | 1.2           | 8.23  | 2.0       | 4.0          | 8.0          | 7.0              |                                     |                                     |                                                                                        |                                                                                        |
| 171.1         | 161                           | 1.0           | 8.18  | 3.0       | 5.0          | 9.0          | 7.0              |                                     |                                     |                                                                                        |                                                                                        |
| 193.1         | 142                           | 1.3           | 7.25  | 2.0       | 4.0          | 8.0          | 7.0              |                                     |                                     |                                                                                        |                                                                                        |
| 218.1         | 126                           | 1.4           | 6.42  | 2.0       | 4.0          | 8.0          | 7.0              |                                     |                                     |                                                                                        |                                                                                        |
| 255.9         | 107                           | 1.6           | 5.47  | 2.0       | 4.0          | 7.0          | 7.0              |                                     |                                     |                                                                                        |                                                                                        |
| 292.9         | 94                            | 1.4           | 4.78  | 2.0       | 4.0          | 7.0          | 7.0              |                                     |                                     |                                                                                        |                                                                                        |

| <b>P<sub>1</sub></b><br>[kW] | <b>n<sub>2</sub></b><br>[Min <sup>-1</sup> ] | <b>M<sub>2</sub></b><br>[Nm] | <b>f<sub>B</sub></b> | <b>i<sub>ges</sub></b> | <b>F<sub>R</sub></b><br>[N] | <b>F<sub>A</sub></b><br>[N] | <b>F<sub>R GR</sub></b><br>[N] | <b>F<sub>A GR</sub></b><br>[N]         | Tip / Type / Typ<br>IE2 / IE3           |  Kg |  mm |                                      |    |     |
|------------------------------|----------------------------------------------|------------------------------|----------------------|------------------------|-----------------------------|-----------------------------|--------------------------------|----------------------------------------|-----------------------------------------|----------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------|--------------------------------------|----|-----|
| <b>3.00</b>                  | 135.9                                        | 196                          | 0.9                  | 20.61                  | 3.0                         | 5.0                         | 9.0                            | 7.0                                    | <b>PD/PM 12<br/>100L2C / 100L2D</b>     | 38                                                                                     | 192                                                                                    |                                      |    |     |
|                              | 162.6                                        | 164                          | 1.0                  | 17.22                  | 3.0                         | 5.0                         | 9.0                            | 7.0                                    |                                         |                                                                                        |                                                                                        |                                      |    |     |
|                              | 198.7                                        | 134                          | 1.2                  | 14.09                  | 3.0                         | 5.0                         | 9.0                            | 7.0                                    |                                         |                                                                                        |                                                                                        |                                      |    |     |
|                              | 238.3                                        | 112                          | 1.4                  | 11.75                  | 2.0                         | 4.0                         | 9.0                            | 7.0                                    |                                         |                                                                                        |                                                                                        |                                      |    |     |
|                              | 270.8                                        | 99                           | 1.5                  | 10.34                  | 2.0                         | 4.0                         | 9.0                            | 7.0                                    |                                         |                                                                                        |                                                                                        |                                      |    |     |
|                              | 305.7                                        | 87                           | 1.6                  | 9.16                   | 2.0                         | 4.0                         | 8.0                            | 7.0                                    |                                         |                                                                                        |                                                                                        |                                      |    |     |
|                              | 340.2                                        | 78                           | 1.9                  | 8.23                   | 2.0                         | 4.0                         | 8.0                            | 7.0                                    |                                         |                                                                                        |                                                                                        |                                      |    |     |
|                              | 342.3                                        | 78                           | 1.6                  | 8.18                   | 3.0                         | 5.0                         | 8.0                            | 7.0                                    |                                         |                                                                                        |                                                                                        |                                      |    |     |
|                              | 386.2                                        | 69                           | 2.1                  | 7.25                   | 2.0                         | 4.0                         | 8.0                            | 7.0                                    |                                         |                                                                                        |                                                                                        |                                      |    |     |
|                              | 436.1                                        | 61                           | 2.2                  | 6.42                   | 2.0                         | 4.0                         | 8.0                            | 7.0                                    |                                         |                                                                                        |                                                                                        |                                      |    |     |
|                              | 511.9                                        | 52                           | 2.5                  | 5.47                   | 2.0                         | 4.0                         | 7.0                            | 7.0                                    |                                         |                                                                                        |                                                                                        |                                      |    |     |
|                              | 585.8                                        | 46                           | 2.1                  | 4.78                   | 2.0                         | 4.0                         | 7.0                            | 7.0                                    |                                         |                                                                                        |                                                                                        |                                      |    |     |
|                              | 94.2                                         | 273                          | 0.8                  | 29.71                  | 4.0                         | 7.0                         | 8.0                            | 11.0                                   |                                         |                                                                                        |                                                                                        | <b>PD/PM C13<br/>100L2C / 100L2D</b> | 44 | 190 |
|                              | 107.6                                        | 239                          | 0.9                  | 26.02                  | 4.0                         | 7.0                         | 8.0                            | 11.0                                   |                                         |                                                                                        |                                                                                        |                                      |    |     |
| 115.8                        | 222                                          | 0.9                          | 24.17                | 4.0                    | 7.0                         | 8.0                         | 11.0                           |                                        |                                         |                                                                                        |                                                                                        |                                      |    |     |
| 149.3                        | 172                                          | 1.1                          | 18.76                | 4.0                    | 7.0                         | 8.0                         | 11.0                           |                                        |                                         |                                                                                        |                                                                                        |                                      |    |     |
| 172.8                        | 149                                          | 1.2                          | 16.20                | 4.0                    | 7.0                         | 8.0                         | 11.0                           |                                        |                                         |                                                                                        |                                                                                        |                                      |    |     |
| <b>4.00</b>                  | 0.5                                          | 71999                        | 0.9                  | 1829.47                | -                           | -                           | -                              | -                                      | <b>PD/PM 113/52<br/>132M6A</b>          | 2214                                                                                   | 242                                                                                    |                                      |    |     |
|                              | 0.7                                          | 54418                        | 1.2                  | 1382.74                | -                           | -                           | 118.0                          | 170.0                                  |                                         |                                                                                        |                                                                                        |                                      |    |     |
|                              | 0.8                                          | 45447                        | 1.4                  | 1154.79                | -                           | -                           | 133.0                          | 170.0                                  |                                         |                                                                                        |                                                                                        |                                      |    |     |
|                              | 0.9                                          | 37866                        | 1.7                  | 962.15                 | -                           | -                           | 138.0                          | 170.0                                  |                                         |                                                                                        |                                                                                        |                                      |    |     |
|                              | 1.2                                          | 28787                        | 2.2                  | 731.47                 | -                           | -                           | 144.0                          | 170.0                                  |                                         |                                                                                        |                                                                                        |                                      |    |     |
|                              | 1.5                                          | 23750                        | 2.7                  | 603.47                 | -                           | -                           | 146.0                          | 170.0                                  |                                         |                                                                                        |                                                                                        |                                      |    |     |
|                              | 0.5                                          | 75211                        | 0.8                  | 3062.69                | -                           | -                           | -                              | -                                      | <b>PD/PM 113/52<br/>112M4C / 112M4D</b> | 2203                                                                                   | 242                                                                                    |                                      |    |     |
|                              | 0.6                                          | 57179                        | 1.0                  | 2328.41                | -                           | -                           | -                              | -                                      |                                         |                                                                                        |                                                                                        |                                      |    |     |
|                              | 0.8                                          | 44927                        | 1.3                  | 1829.47                | -                           | -                           | -                              | -                                      |                                         |                                                                                        |                                                                                        |                                      |    |     |
|                              | 1.0                                          | 33956                        | 1.8                  | 1382.74                | -                           | -                           | 118.0                          | 170.0                                  |                                         |                                                                                        |                                                                                        |                                      |    |     |
|                              | 1.2                                          | 28358                        | 2.1                  | 1154.79                | -                           | -                           | 133.0                          | 170.0                                  |                                         |                                                                                        |                                                                                        |                                      |    |     |
|                              | 1.5                                          | 23628                        | 2.5                  | 962.15                 | -                           | -                           | 138.0                          | 170.0                                  |                                         |                                                                                        |                                                                                        |                                      |    |     |
|                              | 0.7                                          | 45682                        | 1.0                  | 4001.34                | -                           | -                           | -                              | -                                      | <b>PD/PM 113/52<br/>112M2B / 112M2C</b> | 2203                                                                                   | 242                                                                                    |                                      |    |     |
|                              | 0.8                                          | 42504                        | 1.1                  | 3722.96                | -                           | -                           | -                              | -                                      |                                         |                                                                                        |                                                                                        |                                      |    |     |
|                              | 0.9                                          | 34966                        | 1.3                  | 3062.69                | -                           | -                           | -                              | -                                      |                                         |                                                                                        |                                                                                        |                                      |    |     |
|                              | 1.2                                          | 26583                        | 1.7                  | 2328.41                | -                           | -                           | -                              | -                                      |                                         |                                                                                        |                                                                                        |                                      |    |     |
|                              | 1.5                                          | 20887                        | 2.2                  | 1829.47                | -                           | -                           | -                              | -                                      |                                         |                                                                                        |                                                                                        |                                      |    |     |
|                              | 2.0                                          | 15786                        | 2.9                  | 1382.74                | -                           | -                           | 118.0                          | 170.0                                  |                                         |                                                                                        |                                                                                        |                                      |    |     |
|                              | 0.8                                          | 45873                        | 0.8                  | 1165.61                | -                           | -                           | 111.0                          | 150.0                                  | <b>PD/PM 103/52<br/>132M6A</b>          | 1364                                                                                   | 242                                                                                    |                                      |    |     |
|                              | 1.0                                          | 36043                        | 1.0                  | 915.84                 | -                           | -                           | 124.0                          | 150.0                                  |                                         |                                                                                        |                                                                                        |                                      |    |     |
|                              | 1.3                                          | 27242                        | 1.3                  | 692.20                 | -                           | -                           | 130.0                          | 150.0                                  |                                         |                                                                                        |                                                                                        |                                      |    |     |
|                              | 1.6                                          | 22751                        | 1.6                  | 578.09                 | -                           | -                           | 132.0                          | 150.0                                  |                                         |                                                                                        |                                                                                        |                                      |    |     |
|                              | 1.9                                          | 18770                        | 2.0                  | 476.93                 | -                           | -                           | 134.0                          | 150.0                                  |                                         |                                                                                        |                                                                                        |                                      |    |     |
|                              | 2.5                                          | 14411                        | 2.6                  | 366.18                 | -                           | -                           | 133.0                          | 150.0                                  |                                         |                                                                                        |                                                                                        |                                      |    |     |
|                              | 1.0                                          | 34795                        | 1.0                  | 1416.90                | -                           | -                           | 98.0                           | 150.0                                  | <b>PD/PM 103/52<br/>112M4C / 112M4D</b> | 1342                                                                                   | 242                                                                                    |                                      |    |     |
|                              | 1.2                                          | 28624                        | 1.2                  | 1165.61                | -                           | -                           | 111.0                          | 150.0                                  |                                         |                                                                                        |                                                                                        |                                      |    |     |
|                              | 1.5                                          | 22490                        | 1.6                  | 915.84                 | -                           | -                           | 124.0                          | 150.0                                  |                                         |                                                                                        |                                                                                        |                                      |    |     |
|                              | 2.0                                          | 16998                        | 2.1                  | 692.20                 | -                           | -                           | 130.0                          | 150.0                                  |                                         |                                                                                        |                                                                                        |                                      |    |     |
|                              | 2.4                                          | 14196                        | 2.5                  | 578.09                 | -                           | -                           | 132.0                          | 150.0                                  |                                         |                                                                                        |                                                                                        |                                      |    |     |
|                              | 2.9                                          | 11712                        | 3.0                  | 476.93                 | -                           | -                           | 134.0                          | 150.0                                  |                                         |                                                                                        |                                                                                        |                                      |    |     |
|                              | 1.0                                          | 31928                        | 0.8                  | 2796.57                | -                           | -                           | -                              | -                                      | <b>PD/PM 103/52<br/>112M2B / 112M2C</b> | 1342                                                                                   | 242                                                                                    |                                      |    |     |
|                              | 2.0                                          | 16176                        | 1.6                  | 1416.90                | -                           | -                           | 98.0                           | 150.0                                  |                                         |                                                                                        |                                                                                        |                                      |    |     |
| 2.4                          | 13307                                        | 2.0                          | 1165.61              | -                      | -                           | 111.0                       | 150.0                          |                                        |                                         |                                                                                        |                                                                                        |                                      |    |     |
| 3.1                          | 10456                                        | 2.5                          | 915.84               | -                      | -                           | 124.0                       | 150.0                          |                                        |                                         |                                                                                        |                                                                                        |                                      |    |     |
| 2.2                          | 16155                                        | 1.6                          | 410.49               | 78.0                   | 102.0                       | 120.0                       | 130.0                          | <b>PD/PM 93/52<br/>132M6A</b>          | 800                                     | 242                                                                                    |                                                                                        |                                      |    |     |
| 3.1                          | 11578                                        | 2.2                          | 294.19               | 60.0                   | 102.0                       | 120.0                       | 130.0                          |                                        |                                         |                                                                                        |                                                                                        |                                      |    |     |
| 3.4                          | 10080                                        | 2.4                          | 410.49               | 78.0                   | 102.0                       | 120.0                       | 130.0                          | <b>PD/PM 93/52<br/>112M4C / 112M4D</b> | 778                                     | 242                                                                                    |                                                                                        |                                      |    |     |
| 1.3                          | 28153                                        | 0.9                          | 715.36               | 84.0                   | 102.0                       | 120.0                       | 130.0                          | <b>PD/PM 93/42<br/>132M6A</b>          | 771                                     | 242                                                                                    |                                                                                        |                                      |    |     |
| 1.5                          | 24354                                        | 1.0                          | 618.83               | 83.0                   | 102.0                       | 120.0                       | 130.0                          |                                        |                                         |                                                                                        |                                                                                        |                                      |    |     |
| 2.0                          | 17744                                        | 1.4                          | 450.86               | 79.0                   | 102.0                       | 120.0                       | 130.0                          |                                        |                                         |                                                                                        |                                                                                        |                                      |    |     |
| 1.2                          | 28913                                        | 0.8                          | 1177.36              | 82.0                   | 102.0                       | 120.0                       | 130.0                          | <b>PD/PM 93/42<br/>112M4C / 112M4D</b> | 749                                     | 242                                                                                    |                                                                                        |                                      |    |     |
| 1.6                          | 21750                                        | 1.1                          | 885.67               | 83.0                   | 102.0                       | 120.0                       | 130.0                          |                                        |                                         |                                                                                        |                                                                                        |                                      |    |     |
| 2.0                          | 17567                                        | 1.4                          | 715.36               | 84.0                   | 102.0                       | 120.0                       | 130.0                          |                                        |                                         |                                                                                        |                                                                                        |                                      |    |     |
| 2.3                          | 15197                                        | 1.6                          | 618.83               | 83.0                   | 102.0                       | 120.0                       | 130.0                          |                                        |                                         |                                                                                        |                                                                                        |                                      |    |     |
| 3.1                          | 11072                                        | 2.2                          | 450.86               | 79.0                   | 102.0                       | 120.0                       | 130.0                          |                                        |                                         |                                                                                        |                                                                                        |                                      |    |     |
|                              |                                              |                              |                      |                        |                             |                             |                                |                                        |                                         |                                                                                        |                                                                                        |                                      |    |     |



| $P_1$<br>[kW] | $n_2$<br>[Min <sup>-1</sup> ] | $M_2$<br>[Nm] | $f_B$  | $i_{ges}$ | $F_R$<br>[N] | $F_A$<br>[N] | $F_{RGR}$<br>[N] | $F_{AGR}$<br>[N]               | Tip / Type / Typ<br>IE2 / IE3  |  Kg |  mm |
|---------------|-------------------------------|---------------|--------|-----------|--------------|--------------|------------------|--------------------------------|--------------------------------|----------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------|
| 4.00          | 1.6                           | 19920         | 0.9    | 1744.83   | 82.0         | 102.0        | -                | -                              | PD/PM 93/42<br>112M2B / 112M2C | 749                                                                                    | 242                                                                                    |
|               | 2.0                           | 16185         | 1.1    | 1417.68   | 82.0         | 102.0        | 120.0            | 130.0                          |                                |                                                                                        |                                                                                        |
|               | 2.4                           | 13442         | 1.4    | 1177.36   | 82.0         | 102.0        | 120.0            | 130.0                          |                                |                                                                                        |                                                                                        |
|               | 3.2                           | 10111         | 1.8    | 885.67    | 83.0         | 102.0        | 120.0            | 130.0                          |                                |                                                                                        |                                                                                        |
|               | 3.9                           | 8167          | 2.2    | 715.36    | 84.0         | 102.0        | 120.0            | 130.0                          |                                |                                                                                        |                                                                                        |
|               | 4.5                           | 7065          | 2.6    | 618.83    | 83.0         | 102.0        | 120.0            | 130.0                          |                                |                                                                                        |                                                                                        |
|               | 2.6                           | 14285         | 1.9    | 352.16    | 31.0         | 46.0         | 120.0            | 130.0                          | PD/PM 93<br>132M6A             | 726                                                                                    | 225                                                                                    |
|               | 3.1                           | 11801         | 2.1    | 290.94    | 31.0         | 46.0         | 120.0            | 130.0                          |                                |                                                                                        |                                                                                        |
|               | 4.4                           | 8302          | 2.8    | 204.66    | 31.0         | 46.0         | 120.0            | 130.0                          |                                |                                                                                        |                                                                                        |
|               | 2.6                           | 13649         | 0.9    | 346.82    | 78.0         | 73.0         | -                | -                              | PD/PM 83/42<br>132M6A          | 469                                                                                    | 242                                                                                    |
|               | 3.0                           | 11629         | 1.1    | 295.48    | 74.0         | 73.0         | -                | -                              |                                |                                                                                        |                                                                                        |
|               | 4.0                           | 8804          | 1.4    | 223.71    | 74.0         | 73.0         | -                | -                              |                                |                                                                                        |                                                                                        |
|               | 4.8                           | 7341          | 1.7    | 186.54    | 74.0         | 73.0         | -                | -                              |                                |                                                                                        |                                                                                        |
|               | 2.5                           | 13514         | 0.9    | 550.29    | 64.0         | 73.0         | 100.0            | 100.0                          | PD/PM 83/42<br>112M4C / 112M4D | 447                                                                                    | 242                                                                                    |
|               | 3.0                           | 11513         | 1.1    | 468.82    | 64.0         | 73.0         | 100.0            | 100.0                          |                                |                                                                                        |                                                                                        |
|               | 4.0                           | 8517          | 1.4    | 346.82    | 78.0         | 73.0         | 100.0            | 100.0                          |                                |                                                                                        |                                                                                        |
|               | 4.7                           | 7256          | 1.7    | 295.48    | -            | -            | -                | -                              |                                |                                                                                        |                                                                                        |
|               | 6.3                           | 5494          | 2.2    | 223.71    | -            | -            | -                | -                              |                                |                                                                                        |                                                                                        |
|               | 7.5                           | 4581          | 2.6    | 186.54    | -            | -            | -                | -                              |                                |                                                                                        |                                                                                        |
|               | 5.1                           | 6283          | 1.5    | 550.29    | 64.0         | 73.0         | 100.0            | 100.0                          |                                |                                                                                        |                                                                                        |
|               | 6.0                           | 5352          | 1.7    | 468.82    | 64.0         | 73.0         | 100.0            | 100.0                          |                                |                                                                                        |                                                                                        |
|               | 8.1                           | 3960          | 2.3    | 346.82    | 78.0         | 73.0         | -                | -                              |                                |                                                                                        |                                                                                        |
|               | 9.5                           | 3373          | 2.7    | 295.48    | 74.0         | 73.0         | -                | -                              |                                |                                                                                        |                                                                                        |
|               | 2.3                           | 14982         | 0.8    | 610.07    | 64.0         | 73.0         | 100.0            | 100.0                          | PD/PM 83/32<br>112M4C / 112M4D | 432                                                                                    | 240                                                                                    |
|               | 2.6                           | 12123         | 0.8    | 1061.83   | 64.0         | 73.0         | -                | -                              | PD/PM 83/32<br>112M2B / 112M2C | 432                                                                                    | 240                                                                                    |
|               | 3.1                           | 10150         | 0.9    | 889.06    | 64.0         | 73.0         | -                | -                              |                                |                                                                                        |                                                                                        |
|               | 3.9                           | 8181          | 1.1    | 716.55    | 64.0         | 73.0         | 100.0            | 100.0                          |                                |                                                                                        |                                                                                        |
|               | 4.6                           | 6965          | 1.3    | 610.07    | 64.0         | 73.0         | 100.0            | 100.0                          |                                |                                                                                        |                                                                                        |
|               | 2.3                           | 15673         | 0.9    | 386.39    | 65.0         | 73.0         | 100.0            | 105.0                          | PD/PM 83<br>132M6A             | 424                                                                                    | 221                                                                                    |
|               | 2.8                           | 12903         | 1.1    | 318.11    | 63.0         | 73.0         | 100.0            | 105.0                          |                                |                                                                                        |                                                                                        |
|               | 3.1                           | 11922         | 1.1    | 293.92    | 59.0         | 73.0         | 100.0            | 105.0                          |                                |                                                                                        |                                                                                        |
|               | 3.7                           | 9815          | 1.4    | 241.98    | 59.0         | 73.0         | 100.0            | 105.0                          |                                |                                                                                        |                                                                                        |
| 4.5           | 8146                          | 1.4           | 200.83 | 59.0      | 73.0         | 100.0        | 105.0            |                                |                                |                                                                                        |                                                                                        |
| 4.9           | 7527                          | 1.8           | 185.56 | 71.0      | 73.0         | 100.0        | 105.0            |                                |                                |                                                                                        |                                                                                        |
| 5.9           | 6197                          | 2.2           | 152.77 | 71.0      | 73.0         | 100.0        | 105.0            |                                |                                |                                                                                        |                                                                                        |
| 6.3           | 5837                          | 2.2           | 143.91 | 71.0      | 73.0         | 100.0        | 105.0            |                                |                                |                                                                                        |                                                                                        |
| 7.2           | 5081                          | 2.5           | 125.27 | 71.0      | 73.0         | 100.0        | 105.0            |                                |                                |                                                                                        |                                                                                        |
| 7.6           | 4806                          | 2.7           | 118.48 | 71.0      | 73.0         | 100.0        | 105.0            |                                |                                |                                                                                        |                                                                                        |
| 8.7           | 4183                          | 3.0           | 103.13 | 71.0      | 73.0         | 100.0        | 105.0            |                                |                                |                                                                                        |                                                                                        |
| 3.6           | 9910                          | 1.3           | 386.39 | 65.0      | 73.0         | 100.0        | 105.0            | PD/PM 83<br>112M4C / 112M4D    | 402                            | 221                                                                                    |                                                                                        |
| 4.4           | 8159                          | 1.6           | 318.11 | 63.0      | 73.0         | 100.0        | 105.0            |                                |                                |                                                                                        |                                                                                        |
| 7.0           | 5151                          | 2.1           | 200.83 | 59.0      | 73.0         | 100.0        | 105.0            |                                |                                |                                                                                        |                                                                                        |
| 7.2           | 4737                          | 2.0           | 386.39 | 65.0      | 73.0         | 100.0        | 105.0            | PD/PM 83<br>112M2B / 112M2C    | 402                            | 221                                                                                    |                                                                                        |
| 8.8           | 3900                          | 2.5           | 318.11 | 63.0      | 73.0         | 100.0        | 105.0            |                                |                                |                                                                                        |                                                                                        |
| 12.5          | 2972                          | 2.8           | 72.17  | 57.0      | 58.0         | -            | -                | PD/PM 82<br>132M6A             | 420                            | 220                                                                                    |                                                                                        |
| 15.1          | 2447                          | 2.8           | 59.41  | 57.0      | 58.0         | -            | -                |                                |                                |                                                                                        |                                                                                        |
| 4.0           | 8777                          | 0.8           | 223.01 | 57.0      | 58.0         | -            | -                | PD/PM 73/32<br>132M6A          | 329                            | 240                                                                                    |                                                                                        |
| 4.7           | 7246                          | 1.0           | 295.06 | 57.0      | 58.0         | 81.0         | 80.0             | PD/PM 73/32<br>112M4C / 112M4D | 307                            | 240                                                                                    |                                                                                        |
| 6.3           | 5476                          | 1.3           | 223.01 | 57.0      | 58.0         | 82.0         | 80.0             |                                |                                |                                                                                        |                                                                                        |
| 9.5           | 3369                          | 1.6           | 295.06 | 57.0      | 58.0         | 81.0         | 80.0             | PD/PM 73/32<br>112M2B / 112M2C | 307                            | 240                                                                                    |                                                                                        |
| 12.6          | 2546                          | 2.1           | 223.01 | 57.0      | 58.0         | 82.0         | 80.0             |                                |                                |                                                                                        |                                                                                        |
| 3.7           | 9239                          | 0.8           | 376.24 | 48.0      | 58.0         | 75.0         | 80.0             | PD/PM 73/22<br>112M4C / 112M4D | 296                            | 240                                                                                    |                                                                                        |
| 4.9           | 6516                          | 0.8           | 570.70 | 48.0      | 58.0         | 73.0         | 80.0             | PD/PM 73/22<br>112M2B / 112M2C | 296                            | 240                                                                                    |                                                                                        |
| 6.4           | 4964                          | 1.1           | 434.82 | 48.0      | 58.0         | 72.0         | 80.0             |                                |                                |                                                                                        |                                                                                        |
| 7.4           | 4295                          | 1.3           | 376.24 | 48.0      | 58.0         | 75.0         | 80.0             |                                |                                |                                                                                        |                                                                                        |



| $P_1$<br>[kW] | $n_2$<br>[Min <sup>-1</sup> ] | $M_2$<br>[Nm] | $f_B$  | $i_{ges}$ | $F_R$<br>[N] | $F_A$<br>[N] | $F_{RGR}$<br>[N] | $F_{AGR}$<br>[N]            | Tip / Type / Typ<br>IE2 / IE3  |  |  |                             |     |     |
|---------------|-------------------------------|---------------|--------|-----------|--------------|--------------|------------------|-----------------------------|--------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-----------------------------|-----|-----|
| 4.00          | 4.2                           | 8780          | 1.0    | 216.45    | 46.0         | 58.0         | 78.0             | 80.0                        | PD/PM 73<br>132M6A             | 299                                                                                 | 217                                                                                 |                             |     |     |
|               | 4.4                           | 8304          | 1.0    | 204.72    | 46.0         | 58.0         | 79.0             | 80.0                        |                                |                                                                                     |                                                                                     |                             |     |     |
|               | 5.6                           | 6576          | 1.0    | 162.12    | 44.0         | 58.0         | 80.0             | 80.0                        |                                |                                                                                     |                                                                                     |                             |     |     |
|               | 6.0                           | 6097          | 1.3    | 150.32    | 44.0         | 58.0         | 81.0             | 80.0                        |                                |                                                                                     |                                                                                     |                             |     |     |
|               | 7.3                           | 4994          | 1.6    | 123.12    | 42.0         | 58.0         | 81.0             | 80.0                        |                                |                                                                                     |                                                                                     |                             |     |     |
|               | 8.4                           | 4321          | 1.8    | 106.53    | 41.0         | 58.0         | 82.0             | 80.0                        |                                |                                                                                     |                                                                                     |                             |     |     |
|               | 9.7                           | 3774          | 2.1    | 93.05     | 50.0         | 58.0         | 82.0             | 80.0                        |                                |                                                                                     |                                                                                     |                             |     |     |
|               | 11.4                          | 3194          | 2.4    | 78.75     | 50.0         | 58.0         | 82.0             | 80.0                        |                                |                                                                                     |                                                                                     |                             |     |     |
|               | 13.2                          | 2764          | 2.7    | 68.14     | 50.0         | 58.0         | 79.0             | 80.0                        |                                |                                                                                     |                                                                                     |                             |     |     |
|               | 4.1                           | 8679          | 0.9    | 338.37    | 43.0         | 58.0         | 72.0             | 80.0                        |                                |                                                                                     |                                                                                     | PD/PM 73<br>112M4C / 112M4D | 277 | 217 |
|               | 5.1                           | 7010          | 1.1    | 273.32    | 47.0         | 58.0         | 76.0             | 80.0                        |                                |                                                                                     |                                                                                     |                             |     |     |
|               | 6.5                           | 5552          | 1.5    | 216.45    | 46.0         | 58.0         | 78.0             | 80.0                        |                                |                                                                                     |                                                                                     |                             |     |     |
|               | 6.8                           | 5251          | 1.4    | 204.72    | 46.0         | 58.0         | 79.0             | 80.0                        |                                |                                                                                     |                                                                                     |                             |     |     |
|               | 8.6                           | 4158          | 1.5    | 162.12    | 44.0         | 58.0         | 80.0             | 80.0                        |                                |                                                                                     |                                                                                     |                             |     |     |
|               | 9.3                           | 3855          | 2.0    | 150.32    | 44.0         | 58.0         | 81.0             | 80.0                        |                                |                                                                                     |                                                                                     |                             |     |     |
|               | 11.4                          | 3158          | 2.4    | 123.12    | 42.0         | 58.0         | 81.0             | 80.0                        |                                |                                                                                     |                                                                                     |                             |     |     |
|               | 13.1                          | 2732          | 2.8    | 106.53    | 41.0         | 58.0         | 82.0             | 80.0                        |                                |                                                                                     |                                                                                     |                             |     |     |
|               | 8.3                           | 4148          | 1.4    | 338.37    | 43.0         | 58.0         | 72.0             | 80.0                        | PD/PM 73<br>112M2B / 112M2C    | 277                                                                                 | 217                                                                                 |                             |     |     |
|               | 10.2                          | 3351          | 1.7    | 273.32    | 47.0         | 58.0         | 76.0             | 80.0                        |                                |                                                                                     |                                                                                     |                             |     |     |
|               | 12.9                          | 2654          | 2.4    | 216.45    | 46.0         | 58.0         | 78.0             | 80.0                        |                                |                                                                                     |                                                                                     |                             |     |     |
|               | 13.7                          | 2510          | 2.3    | 204.72    | 46.0         | 58.0         | 79.0             | 80.0                        |                                |                                                                                     |                                                                                     |                             |     |     |
|               | 17.3                          | 1988          | 2.4    | 162.12    | 44.0         | 58.0         | 80.0             | 80.0                        |                                |                                                                                     |                                                                                     |                             |     |     |
|               | 12.9                          | 2874          | 2.1    | 69.80     | 29.0         | 50.0         | 76.0             | 80.0                        | PD/PM 72<br>132M6A             | 292                                                                                 | 216                                                                                 |                             |     |     |
|               | 15.8                          | 2343          | 2.5    | 56.90     | 29.0         | 50.0         | 73.0             | 80.0                        |                                |                                                                                     |                                                                                     |                             |     |     |
|               | 20.0                          | 1856          | 2.5    | 45.06     | 29.0         | 50.0         | -                | -                           |                                |                                                                                     |                                                                                     |                             |     |     |
|               | 5.7                           | 6254          | 0.8    | 158.90    | -            | -            | -                | -                           | PD/PM 63/32<br>132M6A          | 256                                                                                 | 240                                                                                 |                             |     |     |
|               | 6.3                           | 5489          | 0.9    | 223.50    | -            | -            | -                | -                           | PD/PM 63/32<br>112M4C / 112M4D | 234                                                                                 | 240                                                                                 |                             |     |     |
|               | 7.3                           | 4694          | 1.0    | 191.13    | -            | -            | -                | -                           |                                |                                                                                     |                                                                                     |                             |     |     |
|               | 8.8                           | 3902          | 1.2    | 158.90    | -            | -            | -                | -                           |                                |                                                                                     |                                                                                     |                             |     |     |
|               | 12.5                          | 2552          | 1.4    | 223.50    | -            | -            | -                | -                           | PD/PM 63/32<br>112M2B / 112M2C | 234                                                                                 | 240                                                                                 |                             |     |     |
|               | 14.6                          | 2182          | 1.7    | 191.13    | -            | -            | -                | -                           |                                |                                                                                     |                                                                                     |                             |     |     |
|               | 17.6                          | 1814          | 2.0    | 158.90    | -            | -            | -                | -                           |                                |                                                                                     |                                                                                     |                             |     |     |
|               | 6.4                           | 4960          | 0.8    | 434.44    | 16.0         | 47.0         | 47.0             | 60.0                        | PD/PM 63/22<br>112M2B / 112M2C | 223                                                                                 | 240                                                                                 |                             |     |     |
|               | 8.0                           | 3985          | 1.0    | 349.07    | 16.0         | 47.0         | 44.0             | 60.0                        |                                |                                                                                     |                                                                                     |                             |     |     |
|               | 9.3                           | 3426          | 1.2    | 300.12    | 16.0         | 47.0         | -                | -                           |                                |                                                                                     |                                                                                     |                             |     |     |
|               | 5.3                           | 6951          | 0.8    | 171.37    | 34.0         | 47.0         | 53.0             | 60.0                        | PD/PM 63<br>132M6A             | 226                                                                                 | 213                                                                                 |                             |     |     |
|               | 5.6                           | 6495          | 0.9    | 160.11    | 35.0         | 47.0         | 54.0             | 60.0                        |                                |                                                                                     |                                                                                     |                             |     |     |
|               | 7.1                           | 5145          | 0.9    | 126.84    | 38.0         | 47.0         | 56.0             | 60.0                        |                                |                                                                                     |                                                                                     |                             |     |     |
|               | 7.8                           | 4656          | 1.3    | 114.79    | 37.0         | 47.0         | 57.0             | 60.0                        |                                |                                                                                     |                                                                                     |                             |     |     |
|               | 9.7                           | 3759          | 1.7    | 92.68     | 36.0         | 47.0         | 57.0             | 60.0                        |                                |                                                                                     |                                                                                     |                             |     |     |
|               | 12.0                          | 3054          | 2.1    | 75.30     | 34.0         | 47.0         | 58.0             | 60.0                        |                                |                                                                                     |                                                                                     |                             |     |     |
|               | 12.3                          | 2978          | 2.0    | 73.42     | 34.0         | 47.0         | 58.0             | 60.0                        |                                |                                                                                     |                                                                                     |                             |     |     |
|               | 15.1                          | 2420          | 2.4    | 59.65     | 30.0         | 47.0         | 58.0             | 60.0                        |                                |                                                                                     |                                                                                     |                             |     |     |
|               | 17.6                          | 2069          | 2.6    | 51.01     | 30.0         | 47.0         | 58.0             | 60.0                        |                                |                                                                                     |                                                                                     |                             |     |     |
|               | 21.2                          | 1720          | 2.8    | 42.41     | 30.0         | 47.0         | 58.0             | 60.0                        |                                |                                                                                     |                                                                                     |                             |     |     |
|               | 5.2                           | 6872          | 0.9    | 267.94    | 15.0         | 47.0         | 44.0             | 60.0                        |                                |                                                                                     |                                                                                     | PD/PM 63<br>112M4C / 112M4D | 204 | 213 |
|               | 6.6                           | 5447          | 0.9    | 212.36    | 28.0         | 47.0         | 50.0             | 60.0                        |                                |                                                                                     |                                                                                     |                             |     |     |
|               | 8.2                           | 4395          | 1.3    | 171.37    | 34.0         | 47.0         | 53.0             | 60.0                        |                                |                                                                                     |                                                                                     |                             |     |     |
| 8.7           | 4107                          | 1.4           | 160.11 | 35.0      | 47.0         | 54.0         | 60.0             |                             |                                |                                                                                     |                                                                                     |                             |     |     |
| 11.0          | 3253                          | 1.4           | 126.84 | 38.0      | 47.0         | 56.0         | 60.0             |                             |                                |                                                                                     |                                                                                     |                             |     |     |
| 12.2          | 2944                          | 2.0           | 114.79 | 37.0      | 47.0         | 57.0         | 60.0             |                             |                                |                                                                                     |                                                                                     |                             |     |     |
| 15.1          | 2377                          | 2.5           | 92.68  | 36.0      | 47.0         | 57.0         | 60.0             |                             |                                |                                                                                     |                                                                                     |                             |     |     |
| 19.1          | 1883                          | 3.0           | 73.42  | 34.0      | 47.0         | 58.0         | 60.0             |                             |                                |                                                                                     |                                                                                     |                             |     |     |
| 7.1           | 4823                          | 0.9           | 393.43 | 15.0      | 47.0         | 50.0         | 60.0             | PD/PM 63<br>112M2B / 112M2C | 204                            | 213                                                                                 |                                                                                     |                             |     |     |
| 8.8           | 3894                          | 1.1           | 317.64 | 15.0      | 47.0         | 47.0         | 60.0             |                             |                                |                                                                                     |                                                                                     |                             |     |     |
| 10.5          | 3285                          | 1.4           | 267.94 | 15.0      | 47.0         | 44.0         | 60.0             |                             |                                |                                                                                     |                                                                                     |                             |     |     |
| 11.1          | 3085                          | 1.1           | 251.63 | 34.0      | 47.0         | 52.0         | 60.0             |                             |                                |                                                                                     |                                                                                     |                             |     |     |
| 12.4          | 2769                          | 1.1           | 225.83 | 34.0      | 47.0         | 53.0         | 60.0             |                             |                                |                                                                                     |                                                                                     |                             |     |     |
| 13.2          | 2604                          | 1.4           | 212.36 | 34.0      | 47.0         | 50.0         | 60.0             |                             |                                |                                                                                     |                                                                                     |                             |     |     |
| 16.3          | 2101                          | 2.0           | 171.37 | 34.0      | 47.0         | 53.0         | 60.0             |                             |                                |                                                                                     |                                                                                     |                             |     |     |
| 17.5          | 1963                          | 2.2           | 160.11 | 35.0      | 47.0         | 54.0         | 60.0             |                             |                                |                                                                                     |                                                                                     |                             |     |     |
| 22.1          | 1555                          | 2.2           | 126.84 | 38.0      | 47.0         | 56.0         | 60.0             |                             |                                |                                                                                     |                                                                                     |                             |     |     |
|               |                               |               |        |           |              |              |                  |                             |                                |                                                                                     |                                                                                     |                             |     |     |





| $P_1$<br>[kW] | $n_2$<br>[Min <sup>-1</sup> ] | $M_2$<br>[Nm] | $f_B$  | $i_{ges}$ | $F_R$<br>[N] | $F_A$<br>[N] | $F_{RGR}$<br>[N] | $F_{AGR}$<br>[N]                       | Tip / Type / Typ<br>IE2 / IE3          |  |  |
|---------------|-------------------------------|---------------|--------|-----------|--------------|--------------|------------------|----------------------------------------|----------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| <b>4.00</b>   | 11.2                          | 3305          | 1.3    | 80.26     | 35.0         | 47.0         | 58.0             | 60.0                                   | <b>PD/PM 62<br/>132M6A</b>             | 229                                                                                 | 212                                                                                 |
|               | 13.8                          | 2695          | 1.3    | 65.45     | 33.0         | 47.0         | 58.0             | 60.0                                   |                                        |                                                                                     |                                                                                     |
|               | 14.7                          | 2514          | 1.9    | 61.05     | 31.0         | 47.0         | 58.0             | 60.0                                   |                                        |                                                                                     |                                                                                     |
|               | 18.1                          | 2050          | 2.1    | 49.79     | 37.0         | 47.0         | 58.0             | 60.0                                   |                                        |                                                                                     |                                                                                     |
|               | 22.8                          | 1624          | 2.1    | 39.44     | 37.0         | 47.0         | 56.0             | 60.0                                   |                                        |                                                                                     |                                                                                     |
|               | 17.4                          | 2102          | 2.0    | 80.26     | 35.0         | 47.0         | 58.0             | 60.0                                   | <b>PD/PM 62<br/>112M4C / 112M4D</b>    | 207                                                                                 | 212                                                                                 |
|               | 21.4                          | 1714          | 2.0    | 65.45     | 33.0         | 47.0         | 58.0             | 60.0                                   |                                        |                                                                                     |                                                                                     |
|               | 22.9                          | 1599          | 2.8    | 61.05     | 31.0         | 47.0         | 58.0             | 60.0                                   |                                        |                                                                                     |                                                                                     |
|               | 9.8                           | 3572          | 0.8    | 142.31    | -            | -            | -                | -                                      | <b>PD/PM 52/12<br/>112M4C / 112M4D</b> | 133                                                                                 | 238                                                                                 |
|               | 12.0                          | 2752          | 0.8    | 232.65    | 21.0         | 32.0         | -                | -                                      | <b>PD/PM 52/12<br/>112M2B / 112M2C</b> | 133                                                                                 | 238                                                                                 |
|               | 16.0                          | 2064          | 1.1    | 174.49    | 21.0         | 32.0         | -                | -                                      |                                        |                                                                                     |                                                                                     |
|               | 19.7                          | 1684          | 1.4    | 142.31    | 21.0         | 32.0         | -                | -                                      |                                        |                                                                                     |                                                                                     |
|               | 9.1                           | 3946          | 0.8    | 153.85    | 20.0         | 32.0         | 37.0             | 40.0                                   | <b>PD/PM 53<br/>112M4C / 112M4D</b>    | 142                                                                                 | 209                                                                                 |
|               | 10.1                          | 3560          | 0.9    | 138.78    | 22.0         | 32.0         | 38.0             | 40.0                                   |                                        |                                                                                     |                                                                                     |
|               | 11.9                          | 3008          | 0.9    | 117.27    | 22.0         | 32.0         | 40.0             | 40.0                                   |                                        |                                                                                     |                                                                                     |
|               | 15.3                          | 2347          | 1.2    | 91.51     | -            | -            | -                | -                                      |                                        |                                                                                     |                                                                                     |
|               | 17.0                          | 2117          | 1.3    | 82.55     | -            | -            | -                | -                                      |                                        |                                                                                     |                                                                                     |
|               | 11.3                          | 3049          | 0.8    | 248.66    | 20.0         | 32.0         | 39.0             | 40.0                                   | <b>PD/PM 53<br/>112M2B / 112M2C</b>    | 142                                                                                 | 209                                                                                 |
|               | 13.8                          | 2486          | 1.0    | 202.80    | 20.0         | 32.0         | 37.0             | 40.0                                   |                                        |                                                                                     |                                                                                     |
|               | 16.3                          | 2101          | 1.0    | 171.36    | 20.0         | 32.0         | 39.0             | 40.0                                   |                                        |                                                                                     |                                                                                     |
|               | 18.2                          | 1886          | 1.3    | 153.85    | 20.0         | 32.0         | 37.0             | 40.0                                   |                                        |                                                                                     |                                                                                     |
|               | 20.2                          | 1701          | 1.4    | 138.78    | 22.0         | 32.0         | 38.0             | 40.0                                   |                                        |                                                                                     |                                                                                     |
|               | 23.9                          | 1438          | 1.5    | 117.27    | 22.0         | 32.0         | 40.0             | 40.0                                   |                                        |                                                                                     |                                                                                     |
|               | 30.6                          | 1122          | 2.0    | 91.51     | 20.0         | 32.0         | -                | -                                      |                                        |                                                                                     |                                                                                     |
|               | 33.9                          | 1012          | 2.1    | 82.55     | 20.0         | 32.0         | -                | -                                      |                                        |                                                                                     |                                                                                     |
|               | 9.8                           | 3781          | 0.8    | 91.82     | 22.0         | 32.0         | 42.0             | 40.0                                   | <b>PD/PM 52<br/>132M6A</b>             | 145                                                                                 | 208                                                                                 |
|               | 13.1                          | 2825          | 1.1    | 68.60     | 21.0         | 32.0         | 43.0             | 40.0                                   |                                        |                                                                                     |                                                                                     |
|               | 16.1                          | 2304          | 1.2    | 55.94     | 20.0         | 32.0         | 42.0             | 40.0                                   |                                        |                                                                                     |                                                                                     |
|               | 16.2                          | 2288          | 1.1    | 55.55     | 17.0         | 32.0         | 39.0             | 40.0                                   |                                        |                                                                                     |                                                                                     |
|               | 17.5                          | 2119          | 1.6    | 51.45     | 20.0         | 32.0         | 40.0             | 40.0                                   |                                        |                                                                                     |                                                                                     |
|               | 19.0                          | 1947          | 1.3    | 47.27     | 20.0         | 32.0         | 40.0             | 40.0                                   |                                        |                                                                                     |                                                                                     |
|               | 21.4                          | 1728          | 1.9    | 41.96     | 19.0         | 32.0         | 38.0             | 40.0                                   |                                        |                                                                                     |                                                                                     |
|               | 22.1                          | 1680          | 1.6    | 40.79     | 19.0         | 32.0         | 39.0             | 40.0                                   |                                        |                                                                                     |                                                                                     |
|               | 25.4                          | 1460          | 1.9    | 35.45     | 19.0         | 32.0         | 37.0             | 40.0                                   |                                        |                                                                                     |                                                                                     |
|               | 26.9                          | 1376          | 1.8    | 33.41     | 19.0         | 32.0         | 37.0             | 40.0                                   |                                        |                                                                                     |                                                                                     |
|               | 29.5                          | 1255          | 2.4    | 30.47     | 25.0         | 32.0         | 36.0             | 40.0                                   |                                        |                                                                                     |                                                                                     |
| 36.1          | 1028                          | 3.0           | 24.96  | 25.0      | 32.0         | 34.0         | 40.0             |                                        |                                        |                                                                                     |                                                                                     |
| 10.4          | 3511                          | 0.8           | 134.05 | -         | -            | 42.0         | 40.0             | <b>PD/PM 52<br/>112M4C / 112M4D</b>    | 123                                    | 208                                                                                 |                                                                                     |
| 14.0          | 2623                          | 0.9           | 100.15 | 25.0      | 32.0         | 43.0         | 40.0             |                                        |                                        |                                                                                     |                                                                                     |
| 15.2          | 2405                          | 1.1           | 91.82  | 22.0      | 32.0         | 42.0         | 40.0             |                                        |                                        |                                                                                     |                                                                                     |
| 17.1          | 2140                          | 1.3           | 81.68  | 22.0      | 32.0         | 43.0         | 40.0             |                                        |                                        |                                                                                     |                                                                                     |
| 20.4          | 1797                          | 1.7           | 68.60  | 21.0      | 32.0         | 43.0         | 40.0             |                                        |                                        |                                                                                     |                                                                                     |
| 25.0          | 1465                          | 1.8           | 55.94  | 20.0      | 32.0         | 42.0         | 40.0             |                                        |                                        |                                                                                     |                                                                                     |
| 25.2          | 1455                          | 1.7           | 55.55  | 17.0      | 32.0         | 45.0         | 40.0             |                                        |                                        |                                                                                     |                                                                                     |
| 29.6          | 1238                          | 1.9           | 47.27  | 20.0      | 32.0         | 40.0         | 40.0             |                                        |                                        |                                                                                     |                                                                                     |
| 34.3          | 1068                          | 2.3           | 40.79  | 19.0      | 32.0         | 39.0         | 40.0             |                                        |                                        |                                                                                     |                                                                                     |
| 41.9          | 875                           | 2.6           | 33.41  | 19.0      | 32.0         | 37.0         | 40.0             |                                        |                                        |                                                                                     |                                                                                     |
| 20.9          | 1703                          | 1.2           | 134.05 | -         | -            | 42.0         | 40.0             | <b>PD/PM 52<br/>112M2B / 112M2C</b>    | 123                                    | 208                                                                                 |                                                                                     |
| 28.0          | 1272                          | 1.3           | 100.15 | 25.0      | 32.0         | 43.0         | 40.0             |                                        |                                        |                                                                                     |                                                                                     |
| 30.5          | 1167                          | 1.8           | 91.82  | 22.0      | 32.0         | 42.0         | 40.0             |                                        |                                        |                                                                                     |                                                                                     |
| 34.3          | 1038                          | 1.3           | 81.68  | 22.0      | 32.0         | 43.0         | 40.0             |                                        |                                        |                                                                                     |                                                                                     |
| 40.8          | 872                           | 2.6           | 68.60  | 21.0      | 32.0         | 43.0         | 40.0             |                                        |                                        |                                                                                     |                                                                                     |
| 50.1          | 711                           | 2.8           | 55.94  | 20.0      | 32.0         | 42.0         | 40.0             |                                        |                                        |                                                                                     |                                                                                     |
| 50.4          | 706                           | 2.7           | 55.55  | 17.0      | 32.0         | 42.0         | 40.0             |                                        |                                        |                                                                                     |                                                                                     |
| 59.2          | 601                           | 3.0           | 47.27  | 20.0      | 32.0         | 40.0         | 40.0             |                                        |                                        |                                                                                     |                                                                                     |
| 18.4          | 1804                          | 0.8           | 152.50 | 16.0      | 22.0         | -            | -                | <b>PD/PM 42/12<br/>112M2B / 112M2C</b> | 97                                     | 238                                                                                 |                                                                                     |
| 22.0          | 1508                          | 0.9           | 127.43 | 16.0      | 22.0         | -            | -                |                                        |                                        |                                                                                     |                                                                                     |
| 13.5          | 2664                          | 0.8           | 103.86 | 15.0      | 22.0         | 27.0         | 30.0             | <b>PD/PM 43<br/>112M4C / 112M4D</b>    | 102                                    | 205                                                                                 |                                                                                     |
| 16.1          | 2226                          | 0.9           | 86.78  | 12.0      | 22.0         | 26.0         | 30.0             |                                        |                                        |                                                                                     |                                                                                     |
| 19.9          | 1724                          | 0.9           | 140.61 | 15.0      | 22.0         | 27.0         | 30.0             | <b>PD/PM 43<br/>112M2B / 112M2C</b>    | 102                                    | 205                                                                                 |                                                                                     |
| 23.6          | 1453                          | 1.0           | 118.53 | 15.0      | 22.0         | 26.0         | 30.0             |                                        |                                        |                                                                                     |                                                                                     |
| 27.0          | 1273                          | 1.2           | 103.86 | 15.0      | 22.0         | 27.0         | 30.0             |                                        |                                        |                                                                                     |                                                                                     |
| 32.3          | 1064                          | 1.4           | 86.78  | 12.0      | 22.0         | 26.0         | 30.0             |                                        |                                        |                                                                                     |                                                                                     |







| $P_1$<br>[kW] | $n_2$<br>[Min <sup>-1</sup> ] | $M_2$<br>[Nm] | $f_B$ | $i_{ges}$ | $F_R$<br>[N] | $F_A$<br>[N] | $F_{R GR}$<br>[N] | $F_{A GR}$<br>[N] | Tip / Type / Typ<br>IE2 / IE3       |  Kg |  mm |      |                                     |    |     |
|---------------|-------------------------------|---------------|-------|-----------|--------------|--------------|-------------------|-------------------|-------------------------------------|----------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------|------|-------------------------------------|----|-----|
| <b>4.00</b>   | 17.2                          | 2151          | 0.9   | 52.23     | 13.0         | 22.0         | 28.0              | 30.0              | <b>PD/PM 42<br/>132M6A</b>          | 109                                                                                    | 204                                                                                    |      |                                     |    |     |
|               | 20.0                          | 1856          | 0.9   | 45.06     | 13.0         | 22.0         | 28.0              | 30.0              |                                     |                                                                                        |                                                                                        |      |                                     |    |     |
|               | 20.6                          | 1797          | 0.9   | 43.64     | 13.0         | 22.0         | 27.0              | 30.0              |                                     |                                                                                        |                                                                                        |      |                                     |    |     |
|               | 22.1                          | 1680          | 1.0   | 40.79     | 13.0         | 22.0         | 27.0              | 30.0              |                                     |                                                                                        |                                                                                        |      |                                     |    |     |
|               | 23.5                          | 1579          | 1.3   | 38.35     | 12.0         | 22.0         | 25.0              | 30.0              |                                     |                                                                                        |                                                                                        |      |                                     |    |     |
|               | 24.4                          | 1517          | 1.0   | 36.84     | 12.0         | 22.0         | 27.0              | 30.0              |                                     |                                                                                        |                                                                                        |      |                                     |    |     |
|               | 24.7                          | 1499          | 1.0   | 36.39     | 12.0         | 22.0         | 26.0              | 30.0              |                                     |                                                                                        |                                                                                        |      |                                     |    |     |
|               | 27.9                          | 1331          | 1.3   | 32.31     | 12.0         | 22.0         | 26.0              | 30.0              |                                     |                                                                                        |                                                                                        |      |                                     |    |     |
|               | 28.1                          | 1319          | 1.4   | 32.04     | 12.0         | 22.0         | 25.0              | 30.0              |                                     |                                                                                        |                                                                                        |      |                                     |    |     |
|               | 33.7                          | 1100          | 1.5   | 26.72     | 12.0         | 22.0         | 24.0              | 30.0              |                                     |                                                                                        |                                                                                        |      |                                     |    |     |
|               | 34.1                          | 1088          | 1.7   | 26.41     | 12.0         | 22.0         | 25.0              | 30.0              |                                     |                                                                                        |                                                                                        |      |                                     |    |     |
|               | 34.3                          | 1081          | 1.6   | 26.25     | 11.0         | 21.0         | 25.0              | 30.0              |                                     |                                                                                        |                                                                                        |      |                                     |    |     |
|               | 40.2                          | 922           | 1.9   | 22.38     | 11.0         | 21.0         | 23.0              | 30.0              |                                     |                                                                                        |                                                                                        |      |                                     |    |     |
|               | 41.9                          | 884           | 2.0   | 21.46     | 11.0         | 21.0         | 23.0              | 30.0              |                                     |                                                                                        |                                                                                        |      |                                     |    |     |
|               | 49.5                          | 749           | 2.5   | 18.18     | 15.0         | 22.0         | 22.0              | 30.0              |                                     |                                                                                        |                                                                                        |      |                                     |    |     |
| 59.2          | 626                           | 3.0           | 15.19 | 15.0      | 22.0         | 21.0         | 30.0              |                   |                                     |                                                                                        |                                                                                        |      |                                     |    |     |
|               | 18.6                          | 1975          | 0.8   | 75.41     | 13.0         | 22.0         | 27.0              | 30.0              | <b>PD/PM 42<br/>112M4C / 112M4D</b> | 87                                                                                     | 204                                                                                    |      |                                     |    |     |
|               | 22.7                          | 1615          | 1.1   | 61.64     | 13.0         | 22.0         | 28.0              | 30.0              |                                     |                                                                                        |                                                                                        |      |                                     |    |     |
|               | 26.8                          | 1368          | 1.3   | 52.23     | 13.0         | 22.0         | 28.0              | 30.0              |                                     |                                                                                        |                                                                                        |      |                                     |    |     |
|               | 31.1                          | 1180          | 1.4   | 45.06     | 13.0         | 22.0         | 28.0              | 30.0              |                                     |                                                                                        |                                                                                        |      |                                     |    |     |
|               | 32.1                          | 1143          | 1.4   | 43.64     | 13.0         | 22.0         | 27.0              | 30.0              |                                     |                                                                                        |                                                                                        |      |                                     |    |     |
|               | 34.3                          | 1068          | 1.5   | 40.79     | 13.0         | 22.0         | 27.0              | 30.0              |                                     |                                                                                        |                                                                                        |      |                                     |    |     |
|               | 38.0                          | 965           | 1.5   | 36.84     | 12.0         | 22.0         | 27.0              | 30.0              |                                     |                                                                                        |                                                                                        |      |                                     |    |     |
|               | 38.5                          | 953           | 1.4   | 36.39     | 12.0         | 22.0         | 26.0              | 30.0              |                                     |                                                                                        |                                                                                        |      |                                     |    |     |
|               | 43.3                          | 846           | 1.9   | 32.31     | 12.0         | 22.0         | 26.0              | 30.0              |                                     |                                                                                        |                                                                                        |      |                                     |    |     |
|               | 53.0                          | 692           | 2.6   | 26.41     | 12.0         | 22.0         | 25.0              | 30.0              |                                     |                                                                                        |                                                                                        |      |                                     |    |     |
|               | 53.3                          | 688           | 2.3   | 26.25     | -            | -            | -                 | -                 |                                     |                                                                                        |                                                                                        |      |                                     |    |     |
|               | 62.6                          | 586           | 2.9   | 22.38     | 11.0         | 21.0         | 23.0              | 30.0              |                                     |                                                                                        |                                                                                        |      |                                     |    |     |
|               | 65.2                          | 562           | 3.0   | 21.46     | 11.0         | 21.0         | 23.0              | 30.0              |                                     |                                                                                        |                                                                                        |      |                                     |    |     |
|               |                               | 25.3          | 1407  | 0.9       | 110.73       | 13.0         | 22.0              | 29.0              |                                     |                                                                                        |                                                                                        | 30.0 | <b>PD/PM 42<br/>112M2B / 112M2C</b> | 87 | 204 |
|               |                               | 30.9          | 1150  | 1.1       | 90.52        | 13.0         | 22.0              | 28.0              |                                     |                                                                                        |                                                                                        | 30.0 |                                     |    |     |
| 37.1          |                               | 958           | 1.3   | 75.41     | 13.0         | 22.0         | 27.0              | 30.0              |                                     |                                                                                        |                                                                                        |      |                                     |    |     |
| 45.4          |                               | 783           | 1.7   | 61.64     | 13.0         | 22.0         | 28.0              | 30.0              |                                     |                                                                                        |                                                                                        |      |                                     |    |     |
| 53.6          |                               | 664           | 2.1   | 52.23     | 13.0         | 22.0         | 28.0              | 30.0              |                                     |                                                                                        |                                                                                        |      |                                     |    |     |
| 62.1          |                               | 572           | 2.1   | 45.06     | 13.0         | 22.0         | 28.0              | 30.0              |                                     |                                                                                        |                                                                                        |      |                                     |    |     |
| 64.2          |                               | 554           | 2.2   | 43.64     | 13.0         | 22.0         | 27.0              | 30.0              |                                     |                                                                                        |                                                                                        |      |                                     |    |     |
| 68.6          |                               | 518           | 2.3   | 40.79     | 13.0         | 22.0         | 27.0              | 30.0              |                                     |                                                                                        |                                                                                        |      |                                     |    |     |
| 76.0          |                               | 468           | 2.3   | 36.84     | 12.0         | 22.0         | 27.0              | 30.0              |                                     |                                                                                        |                                                                                        |      |                                     |    |     |
| 76.9          |                               | 462           | 2.3   | 36.39     | 12.0         | 22.0         | 26.0              | 30.0              |                                     |                                                                                        |                                                                                        |      |                                     |    |     |
| 86.7          |                               | 410           | 3.0   | 32.31     | 12.0         | 22.0         | 26.0              | 30.0              |                                     |                                                                                        |                                                                                        |      |                                     |    |     |
|               | 40.1                          | 923           | 0.9   | 22.42     | 7.0          | 13.0         | 16.0              | 20.0              | <b>PD/PM 32<br/>132M6A</b>          | 94                                                                                     | 200                                                                                    |      |                                     |    |     |
|               | 44.7                          | 830           | 1.0   | 20.15     | 7.0          | 13.0         | 15.0              | 20.0              |                                     |                                                                                        |                                                                                        |      |                                     |    |     |
|               | 54.1                          | 686           | 1.3   | 16.65     | 7.0          | 12.0         | 15.0              | 20.0              |                                     |                                                                                        |                                                                                        |      |                                     |    |     |
|               | 63.9                          | 580           | 1.6   | 14.09     | 7.0          | 12.0         | 14.0              | 20.0              |                                     |                                                                                        |                                                                                        |      |                                     |    |     |
|               | 79.3                          | 467           | 1.8   | 11.35     | 6.0          | 11.0         | 14.0              | 20.0              |                                     |                                                                                        |                                                                                        |      |                                     |    |     |
|               | 92.1                          | 402           | 2.2   | 9.77      | 8.0          | 15.0         | 13.0              | 20.0              |                                     |                                                                                        |                                                                                        |      |                                     |    |     |
|               | 108.6                         | 341           | 2.1   | 8.29      | 8.0          | 15.0         | 12.0              | 19.0              |                                     |                                                                                        |                                                                                        |      |                                     |    |     |
|               | 134.7                         | 275           | 2.3   | 6.68      | 8.0          | 15.0         | 12.0              | 18.0              |                                     |                                                                                        |                                                                                        |      |                                     |    |     |
|               | 159.0                         | 233           | 2.5   | 5.66      | 8.0          | 15.0         | 11.0              | 17.0              |                                     |                                                                                        |                                                                                        |      |                                     |    |     |
|               | 200.9                         | 184           | 2.6   | 4.48      | 8.0          | 15.0         | 10.0              | 16.0              |                                     |                                                                                        |                                                                                        |      |                                     |    |     |
|               |                               | 33.3          | 1101  | 0.8       | 42.05        | 7.0          | 13.0              | 18.0              |                                     |                                                                                        |                                                                                        | 20.0 | <b>PD/PM 32<br/>112M4C / 112M4D</b> | 72 | 200 |
| 37.0          |                               | 990           | 0.8   | 37.79     | 7.0          | 13.0         | 17.0              | 20.0              |                                     |                                                                                        |                                                                                        |      |                                     |    |     |
| 43.9          |                               | 836           | 1.0   | 31.90     | 7.0          | 13.0         | 17.0              | 20.0              |                                     |                                                                                        |                                                                                        |      |                                     |    |     |
| 48.8          |                               | 751           | 1.2   | 28.67     | 7.0          | 13.0         | 17.0              | 20.0              |                                     |                                                                                        |                                                                                        |      |                                     |    |     |
| 54.1          |                               | 677           | 1.2   | 25.86     | 7.0          | 13.0         | 16.0              | 20.0              |                                     |                                                                                        |                                                                                        |      |                                     |    |     |
| 59.1          |                               | 621           | 1.3   | 23.69     | 7.0          | 13.0         | 16.0              | 20.0              |                                     |                                                                                        |                                                                                        |      |                                     |    |     |
| 62.4          |                               | 587           | 1.4   | 22.42     | 7.0          | 13.0         | 16.0              | 20.0              |                                     |                                                                                        |                                                                                        |      |                                     |    |     |
| 65.5          |                               | 560           | 1.3   | 21.37     | 7.0          | 13.0         | 16.0              | 20.0              |                                     |                                                                                        |                                                                                        |      |                                     |    |     |
| 69.5          |                               | 528           | 1.6   | 20.15     | 7.0          | 13.0         | 15.0              | 20.0              |                                     |                                                                                        |                                                                                        |      |                                     |    |     |
| 84.1          |                               | 436           | 1.9   | 16.65     | 7.0          | 12.0         | 15.0              | 20.0              |                                     |                                                                                        |                                                                                        |      |                                     |    |     |
| 99.4          |                               | 369           | 2.3   | 14.09     | 7.0          | 12.0         | 14.0              | 20.0              |                                     |                                                                                        |                                                                                        |      |                                     |    |     |
| 123.3         |                               | 297           | 2.8   | 11.35     | 6.0          | 11.0         | 14.0              | 20.0              |                                     |                                                                                        |                                                                                        |      |                                     |    |     |



| P <sub>1</sub><br>[kW] | n <sub>2</sub><br>[Min <sup>-1</sup> ] | M <sub>2</sub><br>[Nm] | f <sub>B</sub> | i <sub>ges</sub> | F <sub>R</sub><br>[N] | F <sub>A</sub><br>[N] | F <sub>R GR</sub><br>[N] | F <sub>A GR</sub><br>[N]            | Tip / Type / Typ<br>IE2 / IE3       |  Kg |  mm |                                     |      |     |
|------------------------|----------------------------------------|------------------------|----------------|------------------|-----------------------|-----------------------|--------------------------|-------------------------------------|-------------------------------------|----------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------|-------------------------------------|------|-----|
| <b>4.00</b>            | 43.7                                   | 814                    | 0.9            | 64.11            | 7.0                   | 13.0                  | 21.0                     | 20.0                                | <b>PD/PM 32<br/>112M2B / 112M2C</b> | 72                                                                                     | 200                                                                                    |                                     |      |     |
|                        | 52.9                                   | 673                    | 1.0            | 52.98            | 7.0                   | 13.0                  | 20.0                     | 20.0                                |                                     |                                                                                        |                                                                                        |                                     |      |     |
|                        | 62.5                                   | 570                    | 1.0            | 44.83            | 7.0                   | 13.0                  | 20.0                     | 20.0                                |                                     |                                                                                        |                                                                                        |                                     |      |     |
|                        | 66.6                                   | 534                    | 1.3            | 42.05            | 7.0                   | 13.0                  | 18.0                     | 20.0                                |                                     |                                                                                        |                                                                                        |                                     |      |     |
|                        | 72.6                                   | 490                    | 1.0            | 38.59            | 9.0                   | 13.0                  | 19.0                     | 20.0                                |                                     |                                                                                        |                                                                                        |                                     |      |     |
|                        | 74.1                                   | 480                    | 1.3            | 37.79            | 7.0                   | 13.0                  | 17.0                     | 20.0                                |                                     |                                                                                        |                                                                                        |                                     |      |     |
|                        | 87.8                                   | 405                    | 1.6            | 31.90            | 7.0                   | 13.0                  | 17.0                     | 20.0                                |                                     |                                                                                        |                                                                                        |                                     |      |     |
|                        | 97.7                                   | 364                    | 1.8            | 28.67            | 7.0                   | 13.0                  | 17.0                     | 20.0                                |                                     |                                                                                        |                                                                                        |                                     |      |     |
|                        | 108.3                                  | 329                    | 2.0            | 25.86            | 7.0                   | 13.0                  | 16.0                     | 20.0                                |                                     |                                                                                        |                                                                                        |                                     |      |     |
|                        | 118.2                                  | 301                    | 2.0            | 23.69            | 7.0                   | 13.0                  | 16.0                     | 20.0                                |                                     |                                                                                        |                                                                                        |                                     |      |     |
|                        | 124.9                                  | 285                    | 2.1            | 22.42            | 7.0                   | 13.0                  | 16.0                     | 20.0                                |                                     |                                                                                        |                                                                                        |                                     |      |     |
|                        | 131.0                                  | 271                    | 2.0            | 21.37            | 7.0                   | 13.0                  | 16.0                     | 20.0                                |                                     |                                                                                        |                                                                                        |                                     |      |     |
|                        | 139.0                                  | 256                    | 2.4            | 20.15            | 7.0                   | 13.0                  | 15.0                     | 20.0                                |                                     |                                                                                        |                                                                                        |                                     |      |     |
|                        | 168.2                                  | 212                    | 3.0            | 16.65            | 7.0                   | 12.0                  | 15.0                     | 20.0                                |                                     |                                                                                        |                                                                                        |                                     |      |     |
|                        | 64.0                                   | 573                    | 0.8            | 21.89            | 6.0                   | 11.0                  | 12.0                     | 15.0                                |                                     |                                                                                        |                                                                                        | <b>PD/PM 22<br/>112M4C / 112M4D</b> | 57   | 196 |
|                        | 75.6                                   | 485                    | 1.0            | 18.51            | 6.0                   | 11.0                  | 13.0                     | 15.0                                |                                     |                                                                                        |                                                                                        |                                     |      |     |
|                        | 84.5                                   | 434                    | 1.1            | 16.56            | 6.0                   | 11.0                  | 13.0                     | 15.0                                |                                     |                                                                                        |                                                                                        |                                     |      |     |
|                        | 106.1                                  | 346                    | 1.2            | 13.20            | 5.0                   | 10.0                  | 12.0                     | 15.0                                |                                     |                                                                                        |                                                                                        |                                     |      |     |
|                        | 118.5                                  | 309                    | 1.2            | 11.81            | 5.0                   | 10.0                  | 12.0                     | 15.0                                |                                     |                                                                                        |                                                                                        |                                     |      |     |
|                        | 137.8                                  | 266                    | 1.3            | 10.16            | 5.0                   | 10.0                  | 11.0                     | 15.0                                |                                     |                                                                                        |                                                                                        |                                     |      |     |
|                        | 155.6                                  | 236                    | 1.4            | 9.00             | 5.0                   | 10.0                  | 11.0                     | 15.0                                |                                     |                                                                                        |                                                                                        |                                     |      |     |
|                        | 167.5                                  | 219                    | 1.2            | 8.36             | 5.0                   | 9.0                   | 11.0                     | 15.0                                |                                     |                                                                                        |                                                                                        |                                     |      |     |
|                        | 187.2                                  | 196                    | 1.2            | 7.48             | 5.0                   | 9.0                   | 10.0                     | 15.0                                |                                     |                                                                                        |                                                                                        |                                     |      |     |
|                        | 217.7                                  | 168                    | 1.3            | 6.43             | 5.0                   | 9.0                   | 10.0                     | 15.0                                |                                     |                                                                                        |                                                                                        |                                     |      |     |
|                        | 245.6                                  | 149                    | 1.4            | 5.70             | 5.0                   | 8.0                   | 10.0                     | 15.0                                |                                     |                                                                                        |                                                                                        |                                     |      |     |
|                        | 310.4                                  | 118                    | 1.6            | 4.51             | 4.0                   | 8.0                   | 9.0                      | 15.0                                |                                     |                                                                                        |                                                                                        |                                     |      |     |
|                        | 64.0                                   | 556                    | 0.8            | 43.73            | 6.0                   | 11.0                  | 12.0                     | 15.0                                | <b>PD/PM 22<br/>112M2B / 112M2C</b> | 57                                                                                     | 196                                                                                    |                                     |      |     |
|                        | 76.6                                   | 465                    | 0.8            | 36.57            | 6.0                   | 11.0                  | 13.0                     | 15.0                                |                                     |                                                                                        |                                                                                        |                                     |      |     |
|                        | 89.7                                   | 396                    | 0.9            | 31.20            | 6.0                   | 11.0                  | 13.0                     | 15.0                                |                                     |                                                                                        |                                                                                        |                                     |      |     |
|                        | 94.5                                   | 377                    | 1.0            | 29.64            | 6.0                   | 11.0                  | 12.0                     | 15.0                                |                                     |                                                                                        |                                                                                        |                                     |      |     |
|                        | 104.4                                  | 341                    | 1.0            | 26.81            | 6.0                   | 11.0                  | 13.0                     | 15.0                                |                                     |                                                                                        |                                                                                        |                                     |      |     |
|                        | 112.1                                  | 317                    | 1.2            | 24.98            | 6.0                   | 11.0                  | 13.0                     | 15.0                                |                                     |                                                                                        |                                                                                        |                                     |      |     |
|                        | 116.7                                  | 305                    | 1.1            | 23.99            | 6.0                   | 11.0                  | 13.0                     | 15.0                                |                                     |                                                                                        |                                                                                        |                                     |      |     |
|                        | 127.9                                  | 278                    | 1.3            | 21.89            | 6.0                   | 11.0                  | 12.0                     | 15.0                                |                                     |                                                                                        |                                                                                        |                                     |      |     |
|                        | 151.3                                  | 235                    | 1.6            | 18.51            | 6.0                   | 11.0                  | 13.0                     | 15.0                                |                                     |                                                                                        |                                                                                        |                                     |      |     |
|                        | 169.1                                  | 210                    | 1.7            | 16.56            | 6.0                   | 11.0                  | 13.0                     | 15.0                                |                                     |                                                                                        |                                                                                        |                                     |      |     |
|                        | 212.1                                  | 168                    | 1.8            | 13.20            | 5.0                   | 10.0                  | 12.0                     | 15.0                                |                                     |                                                                                        |                                                                                        |                                     |      |     |
|                        | 237.1                                  | 150                    | 1.9            | 11.81            | 5.0                   | 10.0                  | 12.0                     | 15.0                                |                                     |                                                                                        |                                                                                        |                                     |      |     |
|                        | 275.6                                  | 129                    | 2.1            | 10.16            | 5.0                   | 10.0                  | 11.0                     | 15.0                                |                                     |                                                                                        |                                                                                        |                                     |      |     |
|                        | 311.1                                  | 114                    | 2.2            | 9.00             | 5.0                   | 10.0                  | 11.0                     | 15.0                                |                                     |                                                                                        |                                                                                        |                                     |      |     |
|                        | 334.9                                  | 106                    | 1.8            | 8.36             | 5.0                   | 9.0                   | 11.0                     | 15.0                                |                                     |                                                                                        |                                                                                        |                                     |      |     |
|                        | 374.3                                  | 95                     | 1.9            | 7.48             | 5.0                   | 9.0                   | 10.0                     | 15.0                                |                                     |                                                                                        |                                                                                        |                                     |      |     |
|                        | 435.5                                  | 82                     | 2.1            | 6.43             | 5.0                   | 9.0                   | 10.0                     | 15.0                                |                                     |                                                                                        |                                                                                        |                                     |      |     |
|                        | 491.2                                  | 72                     | 2.2            | 5.70             | 5.0                   | 8.0                   | 10.0                     | 15.0                                |                                     |                                                                                        |                                                                                        |                                     |      |     |
|                        | 620.8                                  | 57                     | 2.5            | 4.51             | 4.0                   | 8.0                   | 9.0                      | 15.0                                |                                     |                                                                                        |                                                                                        |                                     |      |     |
|                        | 152.8                                  | 240                    | 0.8            | 9.16             | 2.0                   | 3.0                   | 8.0                      | 7.0                                 | <b>PD/PM 12<br/>112M4C / 112M4D</b> | 46                                                                                     | 192                                                                                    |                                     |      |     |
|                        | 170.1                                  | 216                    | 0.9            | 8.23             | 2.0                   | 3.0                   | 8.0                      | 7.0                                 |                                     |                                                                                        |                                                                                        |                                     |      |     |
|                        | 193.1                                  | 190                    | 1.0            | 7.25             | 2.0                   | 3.0                   | 8.0                      | 7.0                                 |                                     |                                                                                        |                                                                                        |                                     |      |     |
| 218.1                  | 168                                    | 1.1                    | 6.42           | 2.0              | 3.0                   | 7.0                   | 7.0                      |                                     |                                     |                                                                                        |                                                                                        |                                     |      |     |
| 255.9                  | 143                                    | 1.2                    | 5.47           | 2.0              | 3.0                   | 7.0                   | 7.0                      |                                     |                                     |                                                                                        |                                                                                        |                                     |      |     |
| 292.9                  | 125                                    | 1.0                    | 4.78           | 2.0              | 3.0                   | 7.0                   | 7.0                      |                                     |                                     |                                                                                        |                                                                                        |                                     |      |     |
| 162.6                  | 219                                    | 0.8                    | 17.22          | 2.0              | 3.0                   | 9.0                   | 7.0                      | <b>PD/PM 12<br/>112M2B / 112M2C</b> | 46                                  | 196                                                                                    |                                                                                        |                                     |      |     |
| 198.7                  | 179                                    | 0.9                    | 14.09          | 2.0              | 3.0                   | 9.0                   | 7.0                      |                                     |                                     |                                                                                        |                                                                                        |                                     |      |     |
| 238.3                  | 149                                    | 1.0                    | 11.75          | 2.0              | 3.0                   | 9.0                   | 7.0                      |                                     |                                     |                                                                                        |                                                                                        |                                     |      |     |
| 270.8                  | 131                                    | 1.1                    | 10.34          | 2.0              | 3.0                   | 9.0                   | 7.0                      |                                     |                                     |                                                                                        |                                                                                        |                                     |      |     |
| 305.7                  | 116                                    | 1.2                    | 9.16           | 2.0              | 3.0                   | 8.0                   | 7.0                      |                                     |                                     |                                                                                        |                                                                                        |                                     |      |     |
| 340.2                  | 105                                    | 1.4                    | 8.23           | 2.0              | 3.0                   | 8.0                   | 7.0                      |                                     |                                     |                                                                                        |                                                                                        |                                     |      |     |
| 342.3                  | 104                                    | 1.2                    | 8.18           | 2.0              | 3.0                   | 8.0                   | 7.0                      |                                     |                                     |                                                                                        |                                                                                        |                                     |      |     |
| 386.2                  | 92                                     | 1.5                    | 7.25           | 2.0              | 3.0                   | 8.0                   | 7.0                      |                                     |                                     |                                                                                        |                                                                                        |                                     |      |     |
| 436.1                  | 82                                     | 1.7                    | 6.42           | 2.0              | 3.0                   | 7.0                   | 7.0                      |                                     |                                     |                                                                                        |                                                                                        |                                     |      |     |
| 511.9                  | 69                                     | 1.9                    | 5.47           | 2.0              | 3.0                   | 7.0                   | 7.0                      |                                     |                                     |                                                                                        |                                                                                        |                                     |      |     |
| 585.8                  | 61                                     | 1.6                    | 4.78           | 2.0              | 3.0                   | 7.0                   | 7.0                      |                                     |                                     |                                                                                        |                                                                                        |                                     |      |     |
| <b>5.50</b>            | 0.7                                    | 74825                  | 0.8            | 1382.74          | -                     | -                     | 77.0                     |                                     |                                     |                                                                                        | 170.0                                                                                  | <b>PD/PM 113/52<br/>132M6B</b>      | 2214 | 242 |
|                        | 0.8                                    | 62490                  | 1.0            | 1154.79          | -                     | -                     | 113.0                    | 170.0                               |                                     |                                                                                        |                                                                                        |                                     |      |     |
|                        | 0.9                                    | 52065                  | 1.2            | 962.15           | -                     | -                     | 124.0                    | 170.0                               |                                     |                                                                                        |                                                                                        |                                     |      |     |
|                        | 1.2                                    | 39582                  | 1.6            | 731.47           | -                     | -                     | 137.0                    | 170.0                               |                                     |                                                                                        |                                                                                        |                                     |      |     |
|                        | 1.5                                    | 32656                  | 1.9            | 603.47           | -                     | -                     | 141.0                    | 170.0                               |                                     |                                                                                        |                                                                                        |                                     |      |     |
|                        |                                        |                        |                |                  |                       |                       |                          |                                     |                                     |                                                                                        |                                                                                        |                                     |      |     |

| $P_1$<br>[kW] | $n_2$<br>[Min <sup>-1</sup> ] | $M_2$<br>[Nm] | $f_B$  | $i_{ges}$ | $F_R$<br>[N] | $F_A$<br>[N] | $F_{RGR}$<br>[N] | $F_{AGR}$<br>[N]               | Tip / Type / Typ<br>IE2 / IE3   |      |     |
|---------------|-------------------------------|---------------|--------|-----------|--------------|--------------|------------------|--------------------------------|---------------------------------|------|-----|
| 5.50          | 0.6                           | 78621         | 0.8    | 2328.41   | -            | -            | -                | -                              | PD/PM 113/52<br>132S4A / 132S4B | 2214 | 242 |
|               | 0.8                           | 61774         | 1.0    | 1829.47   | -            | -            | -                | -                              |                                 |      |     |
|               | 1.0                           | 46690         | 1.3    | 1382.74   | -            | -            | 77.0             | 170.0                          |                                 |      |     |
|               | 1.2                           | 38993         | 1.5    | 1154.79   | -            | -            | 113.0            | 170.0                          |                                 |      |     |
|               | 1.5                           | 32488         | 1.8    | 962.15    | -            | -            | 124.0            | 170.0                          |                                 |      |     |
|               | 1.9                           | 24699         | 2.4    | 731.47    | -            | -            | 137.0            | 170.0                          |                                 |      |     |
|               | 2.3                           | 20377         | 2.9    | 603.47    | -            | -            | 141.0            | 170.0                          |                                 |      |     |
|               | 0.8                           | 58443         | 0.8    | 3722.96   | -            | -            | -                | -                              | PD/PM 113/52<br>132S2B / 132S2C | 2214 | 242 |
|               | 0.9                           | 48078         | 0.9    | 3062.69   | -            | -            | -                | -                              |                                 |      |     |
|               | 1.2                           | 36551         | 1.2    | 2328.41   | -            | -            | -                | -                              |                                 |      |     |
|               | 1.5                           | 28719         | 1.6    | 1829.47   | -            | -            | -                | -                              |                                 |      |     |
|               | 2.0                           | 21706         | 2.1    | 1382.74   | -            | -            | 77.0             | 170.0                          |                                 |      |     |
|               | 2.4                           | 18128         | 2.5    | 1154.79   | -            | -            | 113.0            | 170.0                          |                                 |      |     |
|               | 2.9                           | 15104         | 3.0    | 962.15    | -            | -            | 124.0            | 170.0                          |                                 |      |     |
|               | 1.3                           | 37457         | 1.0    | 692.20    | -            | -            | 122.0            | 150.0                          | PD/PM 103/52<br>132M6B          | 1364 | 242 |
|               | 1.6                           | 31282         | 1.2    | 578.09    | -            | -            | 127.0            | 150.0                          |                                 |      |     |
|               | 1.9                           | 25808         | 1.4    | 476.93    | -            | -            | 130.0            | 150.0                          |                                 |      |     |
|               | 2.5                           | 19815         | 1.9    | 366.18    | -            | -            | 133.0            | 150.0                          |                                 |      |     |
|               | 3.0                           | 16348         | 2.2    | 302.10    | -            | -            | -                | -                              |                                 |      |     |
|               | 1.2                           | 39358         | 0.9    | 1165.61   | -            | -            | 81.0             | 150.0                          | PD/PM 103/52<br>132S4A / 132S4B | 1364 | 242 |
|               | 1.5                           | 30924         | 1.1    | 915.84    | -            | -            | 109.0            | 150.0                          |                                 |      |     |
|               | 2.0                           | 23373         | 1.5    | 692.20    | -            | -            | 122.0            | 150.0                          |                                 |      |     |
|               | 2.4                           | 19520         | 1.8    | 578.09    | -            | -            | 127.0            | 150.0                          |                                 |      |     |
|               | 2.9                           | 16104         | 2.2    | 476.93    | -            | -            | 130.0            | 150.0                          |                                 |      |     |
|               | 3.8                           | 12364         | 2.8    | 366.18    | -            | -            | 133.0            | 150.0                          |                                 |      |     |
|               | 1.5                           | 29635         | 0.9    | 1887.83   | -            | -            | -                | -                              |                                 |      |     |
|               | 2.0                           | 22243         | 1.2    | 1416.90   | -            | -            | -                | -                              |                                 |      |     |
|               | 2.4                           | 18298         | 1.5    | 1165.61   | -            | -            | 81.0             | 150.0                          |                                 |      |     |
|               | 3.1                           | 14377         | 1.9    | 915.84    | -            | -            | 109.0            | 150.0                          |                                 |      |     |
|               | 4.0                           | 10866         | 2.4    | 692.20    | -            | -            | 122.0            | 150.0                          |                                 |      |     |
|               | 4.8                           | 9075          | 2.9    | 578.09    | -            | -            | 127.0            | 150.0                          |                                 |      |     |
|               | 2.2                           | 22213         | 1.1    | 410.49    | 71.0         | 102.0        | 120.0            | 130.0                          | PD/PM 93/52<br>132M6B           | 800  | 242 |
|               | 3.1                           | 15920         | 1.6    | 294.19    | 73.0         | 102.0        | 120.0            | 130.0                          |                                 |      |     |
|               | 3.4                           | 13861         | 1.7    | 410.49    | 71.0         | 102.0        | 120.0            | 130.0                          | PD/PM 93/52<br>132S4A / 132S4B  | 800  | 242 |
|               | 4.8                           | 9934          | 2.4    | 294.19    | 73.0         | 102.0        | 120.0            | 130.0                          |                                 |      |     |
|               | 6.8                           | 6444          | 2.8    | 410.49    | 71.0         | 102.0        | 120.0            | 130.0                          | PD/PM 93/52<br>132S2B / 132S2C  | 800  | 242 |
|               | 1.5                           | 33487         | 0.8    | 618.83    | 71.0         | 102.0        | 120.0            | 130.0                          | PD/PM 93/42<br>132M6B           | 771  | 242 |
|               | 2.0                           | 24398         | 1.0    | 450.86    | 71.0         | 102.0        | 120.0            | 130.0                          |                                 |      |     |
|               | 1.6                           | 29906         | 0.8    | 885.67    | 83.0         | 102.0        | 120.0            | 130.0                          | PD/PM 93/42<br>132S4A / 132S4B  | 771  | 242 |
|               | 2.0                           | 24155         | 1.0    | 715.36    | 70.0         | 102.0        | 120.0            | 130.0                          |                                 |      |     |
|               | 2.3                           | 20895         | 1.1    | 618.83    | 71.0         | 102.0        | 120.0            | 130.0                          |                                 |      |     |
|               | 3.1                           | 15224         | 1.6    | 450.86    | 71.0         | 102.0        | 120.0            | 130.0                          |                                 |      |     |
|               | 2.0                           | 22255         | 0.8    | 1417.68   | 83.0         | 102.0        | 120.0            | 130.0                          |                                 |      |     |
|               | 2.4                           | 18482         | 1.0    | 1177.36   | 83.0         | 102.0        | 120.0            | 130.0                          | PD/PM 93/42<br>132S2B / 132S2C  | 771  | 242 |
|               | 3.2                           | 13903         | 1.3    | 885.67    | 83.0         | 102.0        | 120.0            | 130.0                          |                                 |      |     |
|               | 3.9                           | 11230         | 1.6    | 715.36    | 70.0         | 102.0        | 120.0            | 130.0                          |                                 |      |     |
|               | 4.5                           | 9714          | 1.9    | 618.83    | 71.0         | 102.0        | 120.0            | 130.0                          |                                 |      |     |
| 6.2           | 7078                          | 2.6           | 450.86 | 71.0      | 102.0        | 120.0        | 130.0            |                                |                                 |      |     |
| 2.6           | 19641                         | 1.4           | 352.16 | 86.0      | 102.0        | 120.0        | 130.0            | PD/PM 93<br>132M6B             |                                 |      |     |
| 3.1           | 16227                         | 1.6           | 290.94 | 82.0      | 102.0        | 120.0        | 130.0            |                                |                                 |      |     |
| 4.4           | 11415                         | 2.0           | 204.66 | 77.0      | 102.0        | 120.0        | 130.0            |                                |                                 |      |     |
| 5.1           | 9762                          | 2.7           | 175.03 | 31.0      | 46.0         | 120.0        | 130.0            |                                |                                 |      |     |
| 4.0           | 12420                         | 2.0           | 352.16 | 86.0      | 102.0        | 120.0        | 130.0            |                                | PD/PM 93<br>132S4A / 132S4B     | 726  | 225 |
| 4.8           | 10261                         | 2.3           | 290.94 | 82.0      | 102.0        | 120.0        | 130.0            |                                |                                 |      |     |
| 6.8           | 7218                          | 3.0           | 204.66 | 77.0      | 102.0        | 120.0        | 130.0            |                                |                                 |      |     |
| 3.0           | 15989                         | 0.8           | 295.48 | 64.0      | 73.0         | -            | -                | PD/PM 83/42<br>132M6B          | 469                             | 242  |     |
| 4.0           | 12106                         | 1.0           | 223.71 | 64.0      | 73.0         | -            | -                |                                |                                 |      |     |
| 4.8           | 10094                         | 1.3           | 186.54 | 64.0      | 73.0         | -            | -                |                                |                                 |      |     |
| 3.0           | 15830                         | 0.8           | 468.82 | -         | -            | 100.0        | 100.0            | PD/PM 83/42<br>132S4A / 132S4B | 469                             | 242  |     |
| 4.0           | 11711                         | 1.0           | 346.82 | 78.0      | 73.0         | 100.0        | 100.0            |                                |                                 |      |     |
| 4.7           | 9977                          | 1.2           | 295.48 | -         | -            | -            | -                |                                |                                 |      |     |
| 6.3           | 7554                          | 1.6           | 223.71 | -         | -            | -            | -                |                                |                                 |      |     |
| 7.5           | 6299                          | 1.9           | 186.54 | -         | -            | -            | -                |                                |                                 |      |     |

| $P_1$<br>[kW] | $n_2$<br>[Min <sup>-1</sup> ] | $M_2$<br>[Nm] | $f_B$  | $i_{ges}$ | $F_R$<br>[N] | $F_A$<br>[N] | $F_{RGR}$<br>[N] | $F_{AGR}$<br>[N]                          | Tip / Type / Typ<br>IE2 / IE3                |  Kg |  mm |
|---------------|-------------------------------|---------------|--------|-----------|--------------|--------------|------------------|-------------------------------------------|----------------------------------------------|----------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------|
| <b>5.50</b>   | 5.1                           | 8638          | 1.1    | 550.29    | 78.0         | 73.0         | 100.0            | 100.0                                     | <b>PD/PM 83/42</b><br><b>132S2B / 132S2C</b> | 469                                                                                    | 242                                                                                    |
|               | 6.0                           | 7360          | 1.2    | 468.82    | 78.0         | 73.0         | 100.0            | 100.0                                     |                                              |                                                                                        |                                                                                        |
|               | 8.1                           | 5444          | 1.7    | 346.82    | 78.0         | 73.0         | -                | -                                         |                                              |                                                                                        |                                                                                        |
|               | 9.5                           | 4638          | 2.0    | 295.48    | 64.0         | 73.0         | -                | -                                         |                                              |                                                                                        |                                                                                        |
|               | 12.5                          | 3512          | 2.6    | 223.71    | 64.0         | 73.0         | -                | -                                         |                                              |                                                                                        |                                                                                        |
|               | 3.9                           | 11248         | 0.8    | 716.55    | 64.0         | 73.0         | 100.0            | 100.0                                     | <b>PD/PM 83/32</b><br><b>132S2B / 132S2C</b> | 454                                                                                    | 240                                                                                    |
|               | 4.6                           | 9577          | 1.0    | 610.07    | 64.0         | 73.0         | 100.0            | 100.0                                     |                                              |                                                                                        |                                                                                        |
|               | 2.8                           | 17742         | 0.8    | 318.11    | 55.0         | 73.0         | 100.0            | 105.0                                     | <b>PD/PM 83</b><br><b>132M6B</b>             | 424                                                                                    | 221                                                                                    |
|               | 3.1                           | 16393         | 0.8    | 293.92    | 56.0         | 73.0         | 100.0            | 105.0                                     |                                              |                                                                                        |                                                                                        |
|               | 3.7                           | 13496         | 1.0    | 241.98    | 55.0         | 73.0         | 100.0            | 105.0                                     |                                              |                                                                                        |                                                                                        |
|               | 4.5                           | 11201         | 1.0    | 200.83    | 54.0         | 73.0         | 100.0            | 105.0                                     |                                              |                                                                                        |                                                                                        |
|               | 4.9                           | 10349         | 1.3    | 185.56    | 54.0         | 73.0         | 100.0            | 105.0                                     |                                              |                                                                                        |                                                                                        |
|               | 5.9                           | 8521          | 1.6    | 152.77    | 52.0         | 73.0         | 100.0            | 105.0                                     |                                              |                                                                                        |                                                                                        |
|               | 6.3                           | 8026          | 1.6    | 143.91    | 52.0         | 73.0         | 100.0            | 105.0                                     |                                              |                                                                                        |                                                                                        |
|               | 7.2                           | 6987          | 1.8    | 125.27    | 50.0         | 73.0         | 100.0            | 105.0                                     |                                              |                                                                                        |                                                                                        |
|               | 7.6                           | 6608          | 2.0    | 118.48    | 46.0         | 73.0         | 100.0            | 105.0                                     |                                              |                                                                                        |                                                                                        |
|               | 8.7                           | 5752          | 2.2    | 103.13    | 65.0         | 73.0         | 97.0             | 105.0                                     |                                              |                                                                                        |                                                                                        |
|               | 9.9                           | 5064          | 2.5    | 90.79     | 65.0         | 73.0         | 95.0             | 105.0                                     |                                              |                                                                                        |                                                                                        |
|               | 11.9                          | 4222          | 3.0    | 75.70     | 65.0         | 73.0         | 91.0             | 105.0                                     |                                              |                                                                                        |                                                                                        |
|               | 3.6                           | 13627         | 0.9    | 386.39    | 55.0         | 73.0         | 100.0            | 105.0                                     | <b>PD/PM 83</b><br><b>132S4A / 132S4B</b>    | 424                                                                                    | 221                                                                                    |
|               | 4.4                           | 11219         | 1.2    | 318.11    | 55.0         | 73.0         | 100.0            | 105.0                                     |                                              |                                                                                        |                                                                                        |
|               | 4.8                           | 10366         | 1.2    | 293.92    | 56.0         | 73.0         | 100.0            | 105.0                                     |                                              |                                                                                        |                                                                                        |
|               | 5.8                           | 8534          | 1.5    | 241.98    | 55.0         | 73.0         | 100.0            | 105.0                                     |                                              |                                                                                        |                                                                                        |
|               | 7.0                           | 7083          | 1.5    | 200.83    | 54.0         | 73.0         | 100.0            | 105.0                                     |                                              |                                                                                        |                                                                                        |
|               | 7.5                           | 6544          | 1.9    | 185.56    | 54.0         | 73.0         | 100.0            | 105.0                                     |                                              |                                                                                        |                                                                                        |
|               | 9.2                           | 5388          | 2.5    | 152.77    | 52.0         | 73.0         | 100.0            | 105.0                                     |                                              |                                                                                        |                                                                                        |
|               | 9.7                           | 5075          | 2.5    | 143.91    | 52.0         | 73.0         | 100.0            | 105.0                                     |                                              |                                                                                        |                                                                                        |
|               | 11.2                          | 4418          | 2.8    | 125.27    | 50.0         | 73.0         | 100.0            | 105.0                                     |                                              |                                                                                        |                                                                                        |
|               | 11.8                          | 4178          | 3.0    | 118.48    | 46.0         | 73.0         | 100.0            | 105.0                                     |                                              |                                                                                        |                                                                                        |
|               | 7.2                           | 6514          | 1.5    | 386.39    | 55.0         | 73.0         | 100.0            | 105.0                                     | <b>PD/PM 83</b><br><b>132S2B / 132S2C</b>    | 424                                                                                    | 221                                                                                    |
|               | 8.8                           | 5362          | 1.8    | 318.11    | 55.0         | 73.0         | 100.0            | 105.0                                     |                                              |                                                                                        |                                                                                        |
|               | 9.5                           | 4955          | 1.9    | 293.92    | 56.0         | 73.0         | 100.0            | 105.0                                     |                                              |                                                                                        |                                                                                        |
|               | 11.6                          | 4079          | 2.4    | 241.98    | 55.0         | 73.0         | 100.0            | 105.0                                     |                                              |                                                                                        |                                                                                        |
|               | 13.9                          | 3385          | 2.4    | 200.83    | 54.0         | 73.0         | 100.0            | 105.0                                     |                                              |                                                                                        |                                                                                        |
|               | 12.5                          | 4087          | 2.0    | 72.17     | 43.0         | 73.0         | -                | -                                         | <b>PD/PM 82</b><br><b>132M6B</b>             | 420                                                                                    | 220                                                                                    |
|               | 15.1                          | 3364          | 2.0    | 59.41     | 39.0         | 66.0         | -                | -                                         |                                              |                                                                                        |                                                                                        |
|               | 19.4                          | 2599          | 3.0    | 72.17     | 43.0         | 73.0         | -                | -                                         | <b>PD/PM 82</b><br><b>132S4A / 132S4B</b>    | 420                                                                                    | 220                                                                                    |
|               | 23.6                          | 2140          | 3.0    | 59.41     | 39.0         | 66.0         | -                | -                                         |                                              |                                                                                        |                                                                                        |
|               | 6.3                           | 7530          | 0.9    | 223.01    | 57.0         | 58.0         | 82.0             | 80.0                                      | <b>PD/PM 73/32</b><br><b>132S4A / 132S4B</b> | 329                                                                                    | 240                                                                                    |
|               | 9.5                           | 4632          | 1.2    | 295.06    | 57.0         | 58.0         | -                | -                                         | <b>PD/PM 73/32</b><br><b>132S2B / 132S2C</b> | 329                                                                                    | 240                                                                                    |
|               | 12.6                          | 3501          | 1.5    | 223.01    | 57.0         | 58.0         | -                | -                                         |                                              |                                                                                        |                                                                                        |
|               | 6.0                           | 8384          | 0.9    | 150.32    | 40.0         | 58.0         | 79.0             | 80.0                                      | <b>PD/PM 73</b><br><b>132M6B</b>             | 299                                                                                    | 217                                                                                    |
|               | 7.3                           | 6867          | 1.2    | 123.12    | 39.0         | 58.0         | 80.0             | 80.0                                      |                                              |                                                                                        |                                                                                        |
|               | 8.4                           | 5942          | 1.3    | 106.53    | 38.0         | 58.0         | 81.0             | 80.0                                      |                                              |                                                                                        |                                                                                        |
| 9.7           | 5190                          | 1.5           | 93.05  | 37.0      | 58.0         | 81.0         | 80.0             |                                           |                                              |                                                                                        |                                                                                        |
| 11.4          | 4392                          | 1.8           | 78.75  | 36.0      | 58.0         | 81.0         | 80.0             |                                           |                                              |                                                                                        |                                                                                        |
| 13.2          | 3800                          | 2.0           | 68.14  | 33.0      | 58.0         | 76.0         | 80.0             |                                           |                                              |                                                                                        |                                                                                        |
| 15.1          | 3320                          | 2.2           | 59.52  | 46.0      | 58.0         | 73.0         | 80.0             |                                           |                                              |                                                                                        |                                                                                        |
| 16.8          | 2979                          | 2.5           | 53.42  | 46.0      | 58.0         | 71.0         | 80.0             |                                           |                                              |                                                                                        |                                                                                        |
| 19.3          | 2602                          | 2.9           | 46.66  | 46.0      | 58.0         | 68.0         | 80.0             |                                           |                                              |                                                                                        |                                                                                        |
| 5.1           | 9639                          | 0.8           | 273.32 | 38.0      | 58.0         | 69.0         | 80.0             | <b>PD/PM 73</b><br><b>132S4A / 132S4B</b> |                                              |                                                                                        |                                                                                        |
| 6.5           | 7633                          | 1.1           | 216.45 | 40.0      | 58.0         | 74.0         | 80.0             |                                           |                                              |                                                                                        |                                                                                        |
| 6.8           | 7220                          | 1.0           | 204.72 | 40.0      | 58.0         | 75.0         | 80.0             |                                           |                                              |                                                                                        |                                                                                        |
| 8.6           | 5717                          | 1.1           | 162.12 | 40.0      | 58.0         | 78.0         | 80.0             |                                           |                                              |                                                                                        |                                                                                        |
| 9.3           | 5301                          | 1.4           | 150.32 | 40.0      | 58.0         | 79.0         | 80.0             |                                           |                                              |                                                                                        |                                                                                        |
| 11.4          | 4342                          | 1.7           | 123.12 | 39.0      | 58.0         | 80.0         | 80.0             |                                           |                                              |                                                                                        |                                                                                        |
| 13.1          | 3757                          | 2.0           | 106.53 | 38.0      | 58.0         | 81.0         | 80.0             |                                           |                                              |                                                                                        |                                                                                        |
| 15.0          | 3282                          | 2.3           | 93.05  | 37.0      | 58.0         | 81.0         | 80.0             |                                           |                                              |                                                                                        |                                                                                        |
| 17.8          | 2777                          | 2.7           | 78.75  | 36.0      | 58.0         | 81.0         | 80.0             |                                           |                                              |                                                                                        |                                                                                        |
| 20.5          | 2403                          | 3.0           | 68.14  | 33.0      | 58.0         | 76.0         | 80.0             |                                           |                                              |                                                                                        |                                                                                        |



| $P_1$<br>[kW] | $n_2$<br>[Min <sup>-1</sup> ] | $M_2$<br>[Nm] | $f_B$  | $i_{ges}$ | $F_R$<br>[N] | $F_A$<br>[N] | $F_{R GR}$<br>[N] | $F_{A GR}$<br>[N]                   | Tip / Type / Typ<br>IE2 / IE3          |  |  |
|---------------|-------------------------------|---------------|--------|-----------|--------------|--------------|-------------------|-------------------------------------|----------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| <b>5.50</b>   | 8.3                           | 5704          | 1.0    | 338.37    | 38.0         | 58.0         | 72.0              | 80.0                                | <b>PD/PM 73<br/>132S2B / 132S2C</b>    | 299                                                                                 | 217                                                                                 |
|               | 10.2                          | 4607          | 1.2    | 273.32    | 38.0         | 58.0         | 69.0              | 80.0                                |                                        |                                                                                     |                                                                                     |
|               | 12.9                          | 3649          | 1.7    | 216.45    | 40.0         | 58.0         | 74.0              | 80.0                                |                                        |                                                                                     |                                                                                     |
|               | 13.7                          | 3451          | 1.7    | 204.72    | 40.0         | 58.0         | 75.0              | 80.0                                |                                        |                                                                                     |                                                                                     |
|               | 17.3                          | 2733          | 1.7    | 162.12    | 40.0         | 58.0         | 78.0              | 80.0                                |                                        |                                                                                     |                                                                                     |
|               | 18.6                          | 2534          | 2.3    | 150.32    | 40.0         | 58.0         | 79.0              | 80.0                                |                                        |                                                                                     |                                                                                     |
|               | 22.7                          | 2075          | 2.8    | 123.12    | 39.0         | 58.0         | 80.0              | 80.0                                |                                        |                                                                                     |                                                                                     |
|               | 12.9                          | 3952          | 1.5    | 69.80     | 33.0         | 58.0         | 76.0              | 80.0                                | <b>PD/PM 72<br/>132M6B</b>             | 292                                                                                 | 216                                                                                 |
|               | 15.8                          | 3222          | 1.8    | 56.90     | 32.0         | 56.0         | 73.0              | 80.0                                |                                        |                                                                                     |                                                                                     |
|               | 20.0                          | 2551          | 1.8    | 45.06     | 29.0         | 50.0         | 67.0              | 80.0                                |                                        |                                                                                     |                                                                                     |
|               | 20.1                          | 2514          | 2.3    | 69.80     | 33.0         | 58.0         | 76.0              | 80.0                                | <b>PD/PM 72<br/>132S4A / 132S4B</b>    | 292                                                                                 | 216                                                                                 |
|               | 24.6                          | 2049          | 2.7    | 56.90     | 32.0         | 56.0         | 73.0              | 80.0                                |                                        |                                                                                     |                                                                                     |
|               | 31.1                          | 1623          | 2.7    | 45.06     | 29.0         | 50.0         | 67.0              | 80.0                                |                                        |                                                                                     |                                                                                     |
|               | 8.8                           | 5365          | 0.9    | 158.90    | -            | -            | -                 | -                                   | <b>PD/PM 63/32<br/>132S4A / 132S4B</b> | 256                                                                                 | 240                                                                                 |
|               | 12.5                          | 3509          | 1.0    | 223.50    | -            | -            | -                 | -                                   | <b>PD/PM 63/32<br/>132S2B / 132S2C</b> | 256                                                                                 | 240                                                                                 |
|               | 14.6                          | 3000          | 1.2    | 191.13    | -            | -            | -                 | -                                   |                                        |                                                                                     |                                                                                     |
|               | 17.6                          | 2494          | 1.5    | 158.90    | -            | -            | -                 | -                                   |                                        |                                                                                     |                                                                                     |
|               | 7.8                           | 6402          | 1.0    | 114.79    | 34.0         | 47.0         | 55.0              | 60.0                                | <b>PD/PM 63<br/>132M6B</b>             | 226                                                                                 | 213                                                                                 |
|               | 9.7                           | 5169          | 1.2    | 92.68     | 33.0         | 47.0         | 56.0              | 60.0                                |                                        |                                                                                     |                                                                                     |
|               | 12.0                          | 4200          | 1.5    | 75.30     | 32.0         | 47.0         | 57.0              | 60.0                                |                                        |                                                                                     |                                                                                     |
|               | 12.3                          | 4095          | 1.4    | 73.42     | 32.0         | 47.0         | 57.0              | 60.0                                |                                        |                                                                                     |                                                                                     |
|               | 15.1                          | 3327          | 1.7    | 59.65     | 31.0         | 47.0         | 58.0              | 60.0                                |                                        |                                                                                     |                                                                                     |
|               | 17.6                          | 2845          | 1.9    | 51.01     | 30.0         | 47.0         | 58.0              | 60.0                                |                                        |                                                                                     |                                                                                     |
|               | 21.2                          | 2365          | 2.0    | 42.41     | 29.0         | 47.0         | 57.0              | 60.0                                |                                        |                                                                                     |                                                                                     |
|               | 24.8                          | 2023          | 2.4    | 36.27     | 34.0         | 47.0         | 55.0              | 60.0                                |                                        |                                                                                     |                                                                                     |
|               | 29.1                          | 1723          | 2.8    | 30.90     | 34.0         | 47.0         | 52.0              | 60.0                                |                                        |                                                                                     |                                                                                     |
|               | 31.4                          | 1598          | 3.0    | 28.66     | 34.0         | 47.0         | 51.0              | 60.0                                |                                        |                                                                                     |                                                                                     |
|               | 8.2                           | 6044          | 0.9    | 171.37    | 24.0         | 47.0         | 48.0              | 60.0                                |                                        |                                                                                     |                                                                                     |
|               | 8.7                           | 5647          | 1.0    | 160.11    | 27.0         | 47.0         | 49.0              | 60.0                                |                                        |                                                                                     |                                                                                     |
|               | 11.0                          | 4473          | 1.0    | 126.84    | 33.0         | 47.0         | 53.0              | 60.0                                |                                        |                                                                                     |                                                                                     |
|               | 12.2                          | 4048          | 1.5    | 114.79    | 34.0         | 47.0         | 55.0              | 60.0                                |                                        |                                                                                     |                                                                                     |
|               | 15.1                          | 3269          | 1.8    | 92.68     | 33.0         | 47.0         | 56.0              | 60.0                                |                                        |                                                                                     |                                                                                     |
|               | 18.6                          | 2656          | 2.3    | 75.30     | 32.0         | 47.0         | 57.0              | 60.0                                |                                        |                                                                                     |                                                                                     |
|               | 19.1                          | 2589          | 2.2    | 73.42     | 32.0         | 47.0         | 57.0              | 60.0                                |                                        |                                                                                     |                                                                                     |
|               | 23.5                          | 2104          | 2.6    | 59.65     | 31.0         | 47.0         | 58.0              | 60.0                                |                                        |                                                                                     |                                                                                     |
|               | 27.4                          | 1799          | 2.8    | 51.01     | 30.0         | 47.0         | 58.0              | 60.0                                |                                        |                                                                                     |                                                                                     |
| 33.0          | 1496                          | 3.0           | 42.41  | 29.0      | 47.0         | 57.0         | 60.0              |                                     |                                        |                                                                                     |                                                                                     |
| 10.5          | 4517                          | 1.0           | 267.94 | 24.0      | 47.0         | 44.0         | 60.0              | <b>PD/PM 63<br/>132S2B / 132S2C</b> | 226                                    | 213                                                                                 |                                                                                     |
| 13.2          | 3578                          | 1.0           | 212.36 | 24.0      | 47.0         | 50.0         | 60.0              |                                     |                                        |                                                                                     |                                                                                     |
| 16.3          | 2889                          | 1.5           | 171.37 | 24.0      | 47.0         | 48.0         | 60.0              |                                     |                                        |                                                                                     |                                                                                     |
| 17.5          | 2699                          | 1.6           | 160.11 | 27.0      | 47.0         | 49.0         | 60.0              |                                     |                                        |                                                                                     |                                                                                     |
| 22.1          | 2138                          | 1.6           | 126.84 | 33.0      | 47.0         | 53.0         | 60.0              |                                     |                                        |                                                                                     |                                                                                     |
| 24.4          | 1935                          | 2.3           | 114.79 | 34.0      | 47.0         | 55.0         | 60.0              |                                     |                                        |                                                                                     |                                                                                     |
| 30.2          | 1562                          | 2.9           | 92.68  | 33.0      | 47.0         | 55.0         | 60.0              |                                     |                                        |                                                                                     |                                                                                     |
| 11.2          | 4545                          | 1.0           | 80.26  | 33.0      | 47.0         | 57.0         | 60.0              | <b>PD/PM 62<br/>132M6B</b>          | 229                                    | 212                                                                                 |                                                                                     |
| 13.8          | 3706                          | 1.0           | 65.45  | 31.0      | 47.0         | 57.0         | 60.0              |                                     |                                        |                                                                                     |                                                                                     |
| 14.7          | 3457                          | 1.4           | 61.05  | 31.0      | 47.0         | 58.0         | 60.0              |                                     |                                        |                                                                                     |                                                                                     |
| 18.1          | 2819                          | 1.5           | 49.79  | 30.0      | 47.0         | 58.0         | 60.0              |                                     |                                        |                                                                                     |                                                                                     |
| 22.8          | 2233                          | 1.5           | 39.44  | 28.0      | 47.0         | 56.0         | 60.0              |                                     |                                        |                                                                                     |                                                                                     |
| 30.1          | 1692                          | 2.8           | 29.89  | 35.0      | 47.0         | 52.0         | 60.0              |                                     |                                        |                                                                                     |                                                                                     |
| 17.4          | 2891                          | 1.4           | 80.26  | 33.0      | 47.0         | 57.0         | 60.0              | <b>PD/PM 62<br/>132S4A / 132S4B</b> | 229                                    | 212                                                                                 |                                                                                     |
| 21.4          | 2357                          | 1.4           | 65.45  | 31.0      | 47.0         | 57.0         | 60.0              |                                     |                                        |                                                                                     |                                                                                     |
| 22.9          | 2199                          | 2.1           | 61.05  | 31.0      | 47.0         | 58.0         | 60.0              |                                     |                                        |                                                                                     |                                                                                     |
| 28.1          | 1793                          | 2.3           | 49.79  | 30.0      | 47.0         | 58.0         | 60.0              |                                     |                                        |                                                                                     |                                                                                     |
| 35.5          | 1421                          | 2.3           | 39.44  | 28.0      | 47.0         | 56.0         | 60.0              |                                     |                                        |                                                                                     |                                                                                     |
| 34.9          | 1402                          | 2.2           | 80.26  | 33.0      | 47.0         | 57.0         | 60.0              | <b>PD/PM 62<br/>132S2B / 132S2C</b> | 229                                    | 212                                                                                 |                                                                                     |
| 42.8          | 1143                          | 2.2           | 65.45  | 31.0      | 47.0         | 57.0         | 60.0              |                                     |                                        |                                                                                     |                                                                                     |



| $P_1$<br>[kW] | $n_2$<br>[Min <sup>-1</sup> ] | $M_2$<br>[Nm] | $f_B$ | $i_{ges}$ | $F_R$<br>[N] | $F_A$<br>[N] | $F_{RGR}$<br>[N] | $F_{AGR}$<br>[N] | Tip / Type / Typ<br>IE2 / IE3      |  Kg |  mm |      |
|---------------|-------------------------------|---------------|-------|-----------|--------------|--------------|------------------|------------------|------------------------------------|----------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------|------|
| <b>5.50</b>   | 13.1                          | 3884          | 0.8   | 68.60     | 19.0         | 32.0         | 42.0             | 40.0             | <b>PD/PM 52<br/>132M6B</b>         | 145                                                                                    | 208                                                                                    |      |
|               | 16.1                          | 3168          | 0.9   | 55.94     | 19.0         | 32.0         | 41.0             | 40.0             |                                    |                                                                                        |                                                                                        |      |
|               | 16.2                          | 3145          | 0.8   | 55.55     | 17.0         | 32.0         | 41.0             | 40.0             |                                    |                                                                                        |                                                                                        |      |
|               | 17.5                          | 2913          | 1.2   | 51.45     | 19.0         | 32.0         | 40.0             | 40.0             |                                    |                                                                                        |                                                                                        |      |
|               | 19.0                          | 2677          | 0.9   | 47.27     | 18.0         | 32.0         | 39.0             | 40.0             |                                    |                                                                                        |                                                                                        |      |
|               | 21.4                          | 2376          | 1.4   | 41.96     | 18.0         | 32.0         | 38.0             | 40.0             |                                    |                                                                                        |                                                                                        |      |
|               | 22.1                          | 2310          | 1.1   | 40.79     | 18.0         | 32.0         | 38.0             | 40.0             |                                    |                                                                                        |                                                                                        |      |
|               | 25.4                          | 2007          | 1.4   | 35.45     | 17.0         | 32.0         | 37.0             | 40.0             |                                    |                                                                                        |                                                                                        |      |
|               | 26.9                          | 1892          | 1.3   | 33.41     | 18.0         | 32.0         | 36.0             | 40.0             |                                    |                                                                                        |                                                                                        |      |
|               | 29.5                          | 1725          | 1.8   | 30.47     | 17.0         | 32.0         | 36.0             | 40.0             |                                    |                                                                                        |                                                                                        |      |
|               | 36.1                          | 1413          | 2.2   | 24.96     | 22.0         | 32.0         | 34.0             | 40.0             |                                    |                                                                                        |                                                                                        |      |
|               | 44.2                          | 1153          | 2.8   | 20.36     | 22.0         | 32.0         | 31.0             | 40.0             |                                    |                                                                                        |                                                                                        |      |
|               | 47.7                          | 1068          | 2.6   | 18.86     | 22.0         | 32.0         | 31.0             | 40.0             |                                    |                                                                                        |                                                                                        |      |
|               | 51.1                          | 997           | 2.9   | 17.61     | 22.0         | 32.0         | 30.0             | 40.0             |                                    |                                                                                        |                                                                                        |      |
|               |                               | 15.2          | 3307  | 0.8       | 91.82        | 19.0         | 32.0             | 40.0             |                                    |                                                                                        |                                                                                        | 40.0 |
|               |                               | 20.4          | 2471  | 1.2       | 68.60        | 19.0         | 32.0             | 42.0             | 40.0                               |                                                                                        |                                                                                        |      |
|               |                               | 25.0          | 2015  | 1.3       | 55.94        | 19.0         | 32.0             | 41.0             | 40.0                               |                                                                                        |                                                                                        |      |
|               |                               | 25.2          | 2001  | 1.2       | 55.55        | 17.0         | 32.0             | 39.0             | 40.0                               |                                                                                        |                                                                                        |      |
|               |                               | 27.2          | 1853  | 1.7       | 51.45        | 19.0         | 32.0             | 40.0             | 40.0                               |                                                                                        |                                                                                        |      |
|               |                               | 29.6          | 1703  | 1.4       | 47.27        | 18.0         | 32.0             | 39.0             | 40.0                               |                                                                                        |                                                                                        |      |
|               |                               | 33.4          | 1511  | 2.1       | 41.96        | 18.0         | 32.0             | 38.0             | 40.0                               |                                                                                        |                                                                                        |      |
|               |                               | 34.3          | 1469  | 1.7       | 40.79        | 18.0         | 32.0             | 38.0             | 40.0                               |                                                                                        |                                                                                        |      |
|               |                               | 39.5          | 1277  | 2.1       | 35.45        | 17.0         | 32.0             | 37.0             | 40.0                               |                                                                                        |                                                                                        |      |
|               |                               | 41.9          | 1203  | 1.9       | 33.41        | 18.0         | 32.0             | 36.0             | 40.0                               |                                                                                        |                                                                                        |      |
|               |                               | 45.9          | 1097  | 2.6       | 30.47        | 17.0         | 32.0             | 36.0             | 40.0                               |                                                                                        |                                                                                        |      |
|               |                               | 30.5          | 1604  | 1.3       | 91.82        | 19.0         | 32.0             | 40.0             | 40.0                               | <b>PD/PM 52<br/>132S2B /132S2C</b>                                                     | 145                                                                                    | 208  |
|               |                               | 40.8          | 1198  | 1.9       | 68.60        | 19.0         | 32.0             | 42.0             | 40.0                               |                                                                                        |                                                                                        |      |
|               |                               | 50.1          | 977   | 2.0       | 55.94        | 19.0         | 32.0             | 41.0             | 40.0                               |                                                                                        |                                                                                        |      |
|               |                               | 50.4          | 970   | 2.0       | 55.55        | 17.0         | 32.0             | 41.0             | 40.0                               |                                                                                        |                                                                                        |      |
|               |                               | 54.4          | 899   | 2.7       | 51.45        | 19.0         | 32.0             | 40.0             | 40.0                               |                                                                                        |                                                                                        |      |
|               |                               | 59.2          | 826   | 2.2       | 47.27        | 18.0         | 32.0             | 39.0             | 40.0                               |                                                                                        |                                                                                        |      |
|               |                               | 68.6          | 713   | 2.7       | 40.79        | 18.0         | 32.0             | 38.0             | 40.0                               |                                                                                        |                                                                                        |      |
|               |                               | 83.8          | 584   | 3.0       | 33.41        | 18.0         | 32.0             | 36.0             | 40.0                               |                                                                                        |                                                                                        |      |
|               |                               | 23.5          | 2172  | 1.0       | 38.35        | 11.0         | 21.0             | 25.0             | 30.0                               | <b>PD/PM 42<br/>132M6B</b>                                                             | 109                                                                                    | 204  |
|               |                               | 27.9          | 1830  | 0.9       | 32.31        | 12.0         | 22.0             | 26.0             | 30.0                               |                                                                                        |                                                                                        |      |
|               |                               | 28.1          | 1814  | 1.0       | 32.04        | 11.0         | 21.0             | 25.0             | 30.0                               |                                                                                        |                                                                                        |      |
|               |                               | 33.7          | 1513  | 1.1       | 26.72        | 11.0         | 20.0             | 24.0             | 30.0                               |                                                                                        |                                                                                        |      |
|               |                               | 34.1          | 1495  | 1.3       | 26.41        | 11.0         | 21.0             | 24.0             | 30.0                               |                                                                                        |                                                                                        |      |
|               |                               | 34.3          | 1486  | 1.1       | 26.25        | 11.0         | 21.0             | 25.0             | 30.0                               |                                                                                        |                                                                                        |      |
|               |                               | 40.2          | 1267  | 1.4       | 22.38        | 11.0         | 20.0             | 23.0             | 30.0                               |                                                                                        |                                                                                        |      |
|               |                               | 41.9          | 1215  | 1.5       | 21.46        | 11.0         | 20.0             | 23.0             | 30.0                               |                                                                                        |                                                                                        |      |
|               |                               | 49.5          | 1029  | 1.8       | 18.18        | 10.0         | 19.0             | 22.0             | 30.0                               |                                                                                        |                                                                                        |      |
|               |                               | 59.2          | 860   | 2.2       | 15.19        | 13.0         | 22.0             | 21.0             | 30.0                               |                                                                                        |                                                                                        |      |
|               |                               | 71.0          | 717   | 2.6       | 12.67        | 13.0         | 22.0             | 20.0             | 30.0                               |                                                                                        |                                                                                        |      |
|               |                               | 83.1          | 613   | 2.9       | 10.83        | 13.0         | 22.0             | 19.0             | 30.0                               |                                                                                        |                                                                                        |      |
|               | 108.0                         | 472           | 2.8   | 8.33      | 13.0         | 22.0         | 17.0             | 29.0             |                                    |                                                                                        |                                                                                        |      |
|               | 22.7                          | 2220          | 0.8   | 61.64     | 11.0         | 21.0         | 26.0             | 30.0             | <b>PD/PM 42<br/>132S4A /132S4B</b> |                                                                                        |                                                                                        |      |
|               | 26.8                          | 1881          | 1.0   | 52.23     | 11.0         | 21.0         | 27.0             | 30.0             |                                    |                                                                                        |                                                                                        |      |
|               | 31.1                          | 1623          | 1.0   | 45.06     | 11.0         | 22.0         | 26.0             | 30.0             |                                    |                                                                                        |                                                                                        |      |
|               | 32.1                          | 1572          | 1.0   | 43.64     | 11.0         | 21.0         | 26.0             | 30.0             |                                    |                                                                                        |                                                                                        |      |
|               | 34.3                          | 1469          | 1.1   | 40.79     | 11.0         | 22.0         | 26.0             | 30.0             |                                    |                                                                                        |                                                                                        |      |
|               | 36.5                          | 1381          | 1.4   | 38.35     | 11.0         | 21.0         | 25.0             | 30.0             |                                    |                                                                                        |                                                                                        |      |
|               | 38.0                          | 1327          | 1.1   | 36.84     | 11.0         | 22.0         | 25.0             | 30.0             |                                    |                                                                                        |                                                                                        |      |
|               | 38.5                          | 1311          | 1.0   | 36.39     | 11.0         | 21.0         | 25.0             | 30.0             |                                    |                                                                                        |                                                                                        |      |
|               | 43.3                          | 1164          | 1.4   | 32.31     | 12.0         | 22.0         | 26.0             | 30.0             |                                    |                                                                                        |                                                                                        |      |
|               | 43.7                          | 1154          | 1.5   | 32.04     | 11.0         | 21.0         | 25.0             | 30.0             |                                    |                                                                                        |                                                                                        |      |
|               | 52.4                          | 962           | 1.7   | 26.72     | 11.0         | 20.0         | 24.0             | 30.0             |                                    |                                                                                        |                                                                                        |      |
|               | 53.0                          | 951           | 1.9   | 26.41     | 11.0         | 21.0         | 24.0             | 30.0             |                                    |                                                                                        |                                                                                        |      |
|               | 53.3                          | 945           | 1.7   | 26.25     | -            | -            | -                | -                |                                    |                                                                                        |                                                                                        |      |
|               | 62.6                          | 806           | 2.1   | 22.38     | 11.0         | 20.0         | 23.0             | 30.0             |                                    |                                                                                        |                                                                                        |      |
|               | 65.2                          | 773           | 2.2   | 21.46     | 11.0         | 20.0         | 23.0             | 30.0             |                                    |                                                                                        |                                                                                        |      |
|               | 77.0                          | 655           | 2.7   | 18.18     | 10.0         | 19.0         | 22.0             | 30.0             |                                    |                                                                                        |                                                                                        |      |
|               |                               |               |       |           |              |              |                  |                  |                                    |                                                                                        |                                                                                        |      |

| <b>P<sub>1</sub></b><br>[kW] | <b>n<sub>2</sub></b><br>[Min <sup>-1</sup> ] | <b>M<sub>2</sub></b><br>[Nm] | <b>f<sub>B</sub></b> | <b>i<sub>ges</sub></b> | <b>F<sub>R</sub></b><br>[N] | <b>F<sub>A</sub></b><br>[N] | <b>F<sub>R GR</sub></b><br>[N] | <b>F<sub>A GR</sub></b><br>[N] | Tip / Type / Typ<br>IE2 / IE3           |  |  |                            |    |     |
|------------------------------|----------------------------------------------|------------------------------|----------------------|------------------------|-----------------------------|-----------------------------|--------------------------------|--------------------------------|-----------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|----------------------------|----|-----|
| <b>5.50</b>                  | 37.1                                         | 1317                         | 0.9                  | 75.41                  | 11.0                        | 21.0                        | -                              | -                              | <b>PD/PM 42<br/>132S2B /132S2C</b>      | 109                                                                                 | 204                                                                                 |                            |    |     |
|                              | 45.4                                         | 1077                         | 1.3                  | 61.64                  | 11.0                        | 21.0                        | 26.0                           | 30.0                           |                                         |                                                                                     |                                                                                     |                            |    |     |
|                              | 53.6                                         | 912                          | 1.5                  | 52.23                  | 11.0                        | 21.0                        | 27.0                           | 30.0                           |                                         |                                                                                     |                                                                                     |                            |    |     |
|                              | 62.1                                         | 787                          | 1.5                  | 45.06                  | 11.0                        | 22.0                        | 26.0                           | 30.0                           |                                         |                                                                                     |                                                                                     |                            |    |     |
|                              | 64.2                                         | 762                          | 1.6                  | 43.64                  | 11.0                        | 21.0                        | 26.0                           | 30.0                           |                                         |                                                                                     |                                                                                     |                            |    |     |
|                              | 68.6                                         | 713                          | 1.7                  | 40.79                  | 11.0                        | 22.0                        | 26.0                           | 30.0                           |                                         |                                                                                     |                                                                                     |                            |    |     |
|                              | 73.0                                         | 670                          | 2.3                  | 38.35                  | 11.0                        | 21.0                        | 25.0                           | 30.0                           |                                         |                                                                                     |                                                                                     |                            |    |     |
|                              | 76.0                                         | 644                          | 1.7                  | 36.84                  | 11.0                        | 22.0                        | 25.0                           | 30.0                           |                                         |                                                                                     |                                                                                     |                            |    |     |
|                              | 76.9                                         | 636                          | 1.6                  | 36.39                  | 11.0                        | 21.0                        | 25.0                           | 30.0                           |                                         |                                                                                     |                                                                                     |                            |    |     |
|                              | 86.7                                         | 564                          | 2.2                  | 32.31                  | 12.0                        | 22.0                        | 25.0                           | 30.0                           |                                         |                                                                                     |                                                                                     |                            |    |     |
|                              | 87.4                                         | 560                          | 2.4                  | 32.04                  | 11.0                        | 21.0                        | 25.0                           | 30.0                           |                                         |                                                                                     |                                                                                     |                            |    |     |
|                              | 104.8                                        | 467                          | 2.6                  | 26.72                  | 11.0                        | 20.0                        | 24.0                           | 30.0                           |                                         |                                                                                     |                                                                                     |                            |    |     |
|                              | 106.0                                        | 461                          | 2.9                  | 26.41                  | 11.0                        | 21.0                        | 24.0                           | 30.0                           |                                         |                                                                                     |                                                                                     |                            |    |     |
|                              | 106.7                                        | 459                          | 2.7                  | 26.25                  | 11.0                        | 21.0                        | 24.0                           | 30.0                           |                                         |                                                                                     |                                                                                     |                            |    |     |
|                              | 44.7                                         | 1141                         | 0.8                  | 20.15                  | 6.0                         | 11.0                        | 15.0                           | 20.0                           |                                         |                                                                                     |                                                                                     | <b>PD/PM 32<br/>132M6B</b> | 94 | 200 |
|                              | 54.1                                         | 943                          | 0.9                  | 16.65                  | 6.0                         | 11.0                        | 14.0                           | 20.0                           |                                         |                                                                                     |                                                                                     |                            |    |     |
|                              | 63.9                                         | 798                          | 1.1                  | 14.09                  | 6.0                         | 10.0                        | 14.0                           | 20.0                           |                                         |                                                                                     |                                                                                     |                            |    |     |
|                              | 79.3                                         | 643                          | 1.3                  | 11.35                  | 6.0                         | 10.0                        | 13.0                           | 19.0                           |                                         |                                                                                     |                                                                                     |                            |    |     |
|                              | 92.1                                         | 553                          | 1.6                  | 9.77                   | 6.0                         | 10.0                        | 13.0                           | 19.0                           |                                         |                                                                                     |                                                                                     |                            |    |     |
|                              | 108.6                                        | 469                          | 1.5                  | 8.29                   | 5.0                         | 9.0                         | 12.0                           | 18.0                           |                                         |                                                                                     |                                                                                     |                            |    |     |
|                              | 134.7                                        | 378                          | 1.7                  | 6.68                   | 5.0                         | 9.0                         | 11.0                           | 17.0                           |                                         |                                                                                     |                                                                                     |                            |    |     |
|                              | 159.0                                        | 320                          | 1.9                  | 5.66                   | 5.0                         | 8.0                         | 11.0                           | 17.0                           |                                         |                                                                                     |                                                                                     |                            |    |     |
|                              | 200.9                                        | 254                          | 1.9                  | 4.48                   | 5.0                         | 8.0                         | 10.0                           | 16.0                           |                                         |                                                                                     |                                                                                     |                            |    |     |
|                              | 62.4                                         | 808                          | 1.0                  | 22.42                  | 6.0                         | 11.0                        | 15.0                           | 20.0                           | <b>PD/PM 32<br/>132S4A /132S4B</b>      | 94                                                                                  | 200                                                                                 |                            |    |     |
|                              | 69.5                                         | 726                          | 1.1                  | 20.15                  | 6.0                         | 11.0                        | 15.0                           | 20.0                           |                                         |                                                                                     |                                                                                     |                            |    |     |
|                              | 84.1                                         | 600                          | 1.4                  | 16.65                  | 6.0                         | 11.0                        | 14.0                           | 20.0                           |                                         |                                                                                     |                                                                                     |                            |    |     |
|                              | 99.4                                         | 507                          | 1.7                  | 14.09                  | 6.0                         | 10.0                        | 14.0                           | 20.0                           |                                         |                                                                                     |                                                                                     |                            |    |     |
|                              | 123.3                                        | 409                          | 2.0                  | 11.35                  | 6.0                         | 10.0                        | 13.0                           | 19.0                           |                                         |                                                                                     |                                                                                     |                            |    |     |
|                              | 143.3                                        | 352                          | 2.4                  | 9.77                   | 6.0                         | 10.0                        | 13.0                           | 19.0                           |                                         |                                                                                     |                                                                                     |                            |    |     |
|                              | 168.9                                        | 299                          | 2.3                  | 8.29                   | 5.0                         | 9.0                         | 12.0                           | 18.0                           |                                         |                                                                                     |                                                                                     |                            |    |     |
|                              | 209.6                                        | 241                          | 2.5                  | 6.68                   | 5.0                         | 9.0                         | 11.0                           | 17.0                           |                                         |                                                                                     |                                                                                     |                            |    |     |
|                              | 247.3                                        | 204                          | 2.8                  | 5.66                   | 5.0                         | 8.0                         | 11.0                           | 17.0                           |                                         |                                                                                     |                                                                                     |                            |    |     |
|                              | 312.5                                        | 161                          | 2.9                  | 4.48                   | 5.0                         | 8.0                         | 10.0                           | 16.0                           |                                         |                                                                                     |                                                                                     |                            |    |     |
|                              | 124.9                                        | 392                          | 1.6                  | 22.42                  | 6.0                         | 11.0                        | 15.0                           | 20.0                           | <b>PD/PM 32<br/>132S2B /132S2C</b>      | 94                                                                                  | 200                                                                                 |                            |    |     |
|                              | 139.0                                        | 352                          | 1.8                  | 20.15                  | 6.0                         | 11.0                        | 15.0                           | 20.0                           |                                         |                                                                                     |                                                                                     |                            |    |     |
|                              | 168.2                                        | 291                          | 2.2                  | 16.65                  | 6.0                         | 11.0                        | 14.0                           | 20.0                           |                                         |                                                                                     |                                                                                     |                            |    |     |
| 198.7                        | 246                                          | 2.6                          | 14.09                | 6.0                    | 10.0                        | 14.0                        | 20.0                           |                                |                                         |                                                                                     |                                                                                     |                            |    |     |
| <b>7.50</b>                  | 0.9                                          | 70998                        | 0.9                  | 962.15                 | -                           | -                           | 94.0                           | 170.0                          | <b>PD/PM 113/52<br/>160M6B / 160M6C</b> | 2245                                                                                | 242                                                                                 |                            |    |     |
|                              | 1.2                                          | 53976                        | 1.2                  | 731.47                 | -                           | -                           | 122.0                          | 170.0                          |                                         |                                                                                     |                                                                                     |                            |    |     |
|                              | 1.5                                          | 44531                        | 1.4                  | 603.47                 | -                           | -                           | 132.0                          | 170.0                          |                                         |                                                                                     |                                                                                     |                            |    |     |
|                              | 1.9                                          | 35409                        | 1.8                  | 479.85                 | -                           | -                           | 133.0                          | 170.0                          |                                         |                                                                                     |                                                                                     |                            |    |     |
|                              | 2.5                                          | 26802                        | 2.0                  | 363.21                 | -                           | -                           | 141.0                          | 170.0                          |                                         |                                                                                     |                                                                                     |                            |    |     |
|                              | 2.9                                          | 23040                        | 2.3                  | 312.23                 | -                           | -                           | 144.0                          | 170.0                          |                                         |                                                                                     |                                                                                     |                            |    |     |
|                              | 1.0                                          | 63668                        | 0.9                  | 1382.74                | -                           | -                           | 36.0                           | 170.0                          | <b>PD/PM 113/52<br/>132M4C / 132M4D</b> | 2214                                                                                | 242                                                                                 |                            |    |     |
|                              | 1.2                                          | 53172                        | 1.1                  | 1154.79                | -                           | -                           | 65.0                           | 170.0                          |                                         |                                                                                     |                                                                                     |                            |    |     |
|                              | 1.5                                          | 44302                        | 1.4                  | 962.15                 | -                           | -                           | 94.0                           | 170.0                          |                                         |                                                                                     |                                                                                     |                            |    |     |
|                              | 1.9                                          | 33680                        | 1.8                  | 731.47                 | -                           | -                           | 122.0                          | 170.0                          |                                         |                                                                                     |                                                                                     |                            |    |     |
|                              | 2.3                                          | 27787                        | 2.2                  | 603.47                 | -                           | -                           | 132.0                          | 170.0                          |                                         |                                                                                     |                                                                                     |                            |    |     |
|                              | 1.2                                          | 49843                        | 0.9                  | 2328.41                | -                           | -                           | -                              | -                              | <b>PD/PM 113/52<br/>132S2C /132S2D</b>  | 2214                                                                                | 242                                                                                 |                            |    |     |
|                              | 1.5                                          | 39162                        | 1.2                  | 1829.47                | -                           | -                           | -                              | -                              |                                         |                                                                                     |                                                                                     |                            |    |     |
|                              | 2.0                                          | 29599                        | 1.5                  | 1382.74                | -                           | -                           | 36.0                           | 170.0                          |                                         |                                                                                     |                                                                                     |                            |    |     |
|                              | 2.4                                          | 24720                        | 1.8                  | 1154.79                | -                           | -                           | 65.0                           | 170.0                          |                                         |                                                                                     |                                                                                     |                            |    |     |
|                              | 2.9                                          | 20596                        | 2.2                  | 962.15                 | -                           | -                           | 94.0                           | 170.0                          |                                         |                                                                                     |                                                                                     |                            |    |     |
|                              | 3.8                                          | 15658                        | 2.9                  | 731.47                 | -                           | -                           | 122.0                          | 170.0                          |                                         |                                                                                     |                                                                                     |                            |    |     |
|                              | 1.6                                          | 42658                        | 0.9                  | 578.09                 | -                           | -                           | 117.0                          | 150.0                          | <b>PD/PM 103/52<br/>160M6B / 160M6C</b> | 1400                                                                                | 242                                                                                 |                            |    |     |
|                              | 1.9                                          | 35193                        | 1.0                  | 476.93                 | -                           | -                           | 124.0                          | 150.0                          |                                         |                                                                                     |                                                                                     |                            |    |     |
|                              | 2.5                                          | 27021                        | 1.4                  | 366.18                 | -                           | -                           | 129.0                          | 150.0                          |                                         |                                                                                     |                                                                                     |                            |    |     |
|                              | 3.0                                          | 22292                        | 1.6                  | 302.10                 | -                           | -                           | -                              | -                              |                                         |                                                                                     |                                                                                     |                            |    |     |
|                              | 1.5                                          | 42170                        | 0.8                  | 915.84                 | -                           | -                           | 77.0                           | 150.0                          | <b>PD/PM 103/52<br/>132M4C / 132M4D</b> | 1364                                                                                | 242                                                                                 |                            |    |     |
|                              | 2.0                                          | 31872                        | 1.1                  | 692.20                 | -                           | -                           | 107.0                          | 150.0                          |                                         |                                                                                     |                                                                                     |                            |    |     |
|                              | 2.4                                          | 26618                        | 1.3                  | 578.09                 | -                           | -                           | 117.0                          | 150.0                          |                                         |                                                                                     |                                                                                     |                            |    |     |
| 2.9                          | 21960                                        | 1.6                          | 476.93               | -                      | -                           | 124.0                       | 150.0                          |                                |                                         |                                                                                     |                                                                                     |                            |    |     |
| 3.8                          | 16861                                        | 2.1                          | 366.18               | -                      | -                           | 129.0                       | 150.0                          |                                |                                         |                                                                                     |                                                                                     |                            |    |     |
| 4.6                          | 13910                                        | 2.5                          | 302.10               | -                      | -                           | -                           | -                              |                                |                                         |                                                                                     |                                                                                     |                            |    |     |

| $P_1$<br>[kW] | $n_2$<br>[Min <sup>-1</sup> ] | $M_2$<br>[Nm] | $f_B$  | $i_{ges}$ | $F_R$<br>[N] | $F_A$<br>[N] | $F_{RGR}$<br>[N] | $F_{AGR}$<br>[N]                    | Tip / Type / Typ<br>IE2 / IE3           |  |  |                                     |     |
|---------------|-------------------------------|---------------|--------|-----------|--------------|--------------|------------------|-------------------------------------|-----------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------|-----|
| <b>7.50</b>   | 2.0                           | 30331         | 0.9    | 1416.90   | -            | -            | -                | -                                   | <b>PD/PM 103/52<br/>132S2C / 132S2D</b> | 1364                                                                                | 242                                                                                 |                                     |     |
|               | 2.4                           | 24951         | 1.1    | 1165.61   | -            | -            | 81.0             | 150.0                               |                                         |                                                                                     |                                                                                     |                                     |     |
|               | 3.1                           | 19605         | 1.4    | 915.84    | -            | -            | 77.0             | 150.0                               |                                         |                                                                                     |                                                                                     |                                     |     |
|               | 4.0                           | 14817         | 1.8    | 692.20    | -            | -            | 107.0            | 150.0                               |                                         |                                                                                     |                                                                                     |                                     |     |
|               | 4.8                           | 12375         | 2.1    | 578.09    | -            | -            | 117.0            | 150.0                               |                                         |                                                                                     |                                                                                     |                                     |     |
|               | 5.9                           | 10209         | 2.6    | 476.93    | -            | -            | 124.0            | 150.0                               | <b>PD/PM 103<br/>160M6B / 160M6C</b>    | 1326                                                                                | 229                                                                                 |                                     |     |
|               | 2.5                           | 27182         | 1.4    | 357.40    | -            | -            | 130.0            | 150.0                               |                                         |                                                                                     |                                                                                     |                                     |     |
|               | 2.7                           | 25299         | 1.5    | 332.64    | -            | -            | 131.0            | 150.0                               |                                         |                                                                                     |                                                                                     |                                     |     |
|               | 3.2                           | 21512         | 1.6    | 282.85    | -            | -            | 133.0            | 150.0                               |                                         |                                                                                     |                                                                                     |                                     |     |
|               | 3.4                           | 20022         | 1.7    | 263.25    | -            | -            | 134.0            | 150.0                               |                                         |                                                                                     |                                                                                     |                                     |     |
|               | 5.0                           | 13742         | 2.7    | 180.68    | -            | -            | 135.0            | 150.0                               | <b>PD/PM 93/52<br/>160M6B / 160M6C</b>  | 836                                                                                 | 242                                                                                 |                                     |     |
|               | 5.4                           | 12789         | 2.9    | 168.16    | -            | -            | -                | -                                   |                                         |                                                                                     |                                                                                     |                                     |     |
|               | 2.2                           | 30290         | 0.8    | 410.49    | 61.0         | 102.0        | 120.0            | 130.0                               |                                         |                                                                                     |                                                                                     |                                     |     |
|               | 3.1                           | 21709         | 1.2    | 294.19    | 73.0         | 102.0        | 120.0            | 130.0                               |                                         |                                                                                     |                                                                                     |                                     |     |
|               | 3.9                           | 17215         | 1.5    | 233.30    | 71.0         | 102.0        | -                | -                                   |                                         |                                                                                     |                                                                                     |                                     |     |
|               | 4.5                           | 14795         | 1.7    | 200.50    | 71.0         | 102.0        | -                | -                                   | <b>PD/PM 93/52<br/>132M4C / 132M4D</b>  | 800                                                                                 | 242                                                                                 |                                     |     |
|               | 3.4                           | 18901         | 1.3    | 410.49    | 61.0         | 102.0        | 120.0            | 130.0                               |                                         |                                                                                     |                                                                                     |                                     |     |
|               | 4.8                           | 13546         | 1.8    | 294.19    | 73.0         | 102.0        | 120.0            | 130.0                               | <b>PD/PM 93/52<br/>132S2C / 132S2D</b>  | 800                                                                                 | 242                                                                                 |                                     |     |
|               | 6.8                           | 8787          | 2.1    | 410.49    | 61.0         | 102.0        | 120.0            | 130.0                               |                                         |                                                                                     |                                                                                     |                                     |     |
|               | 9.5                           | 6298          | 2.9    | 294.19    | 73.0         | 102.0        | 120.0            | 130.0                               | <b>PD/PM 93/42<br/>160M6B / 160M6C</b>  | 807                                                                                 | 242                                                                                 |                                     |     |
|               | 2.0                           | 33269         | 0.8    | 450.86    | 60.0         | 102.0        | 120.0            | 130.0                               |                                         |                                                                                     |                                                                                     |                                     |     |
|               | 2.3                           | 28494         | 0.8    | 618.83    | 56.0         | 102.0        | 120.0            | 130.0                               | <b>PD/PM 93/42<br/>132M4C / 132M4D</b>  | 771                                                                                 | 242                                                                                 |                                     |     |
|               | 3.1                           | 20760         | 1.2    | 450.86    | 60.0         | 102.0        | 120.0            | 130.0                               |                                         |                                                                                     |                                                                                     |                                     |     |
|               | 3.2                           | 18959         | 1.0    | 885.67    | 56.0         | 102.0        | 120.0            | 130.0                               | <b>PD/PM 93/42<br/>132S2C / 132S2D</b>  | 771                                                                                 | 242                                                                                 |                                     |     |
|               | 3.9                           | 15313         | 1.2    | 715.36    | 56.0         | 102.0        | 120.0            | 130.0                               |                                         |                                                                                     |                                                                                     |                                     |     |
|               | 4.5                           | 13247         | 1.4    | 618.83    | 56.0         | 102.0        | 120.0            | 130.0                               |                                         |                                                                                     |                                                                                     |                                     |     |
|               | 6.2                           | 9651          | 1.9    | 450.86    | 60.0         | 102.0        | 120.0            | 130.0                               |                                         |                                                                                     |                                                                                     |                                     |     |
|               | 2.6                           | 26784         | 1.0    | 352.16    | 78.0         | 102.0        | 120.0            | 130.0                               |                                         |                                                                                     |                                                                                     | <b>PD/PM 93<br/>160M6B / 160M6C</b> | 762 |
|               | 3.1                           | 22128         | 1.1    | 290.94    | 75.0         | 102.0        | 120.0            | 130.0                               |                                         |                                                                                     |                                                                                     |                                     |     |
|               | 4.4                           | 15566         | 1.5    | 204.66    | 72.0         | 102.0        | 120.0            | 130.0                               |                                         |                                                                                     |                                                                                     |                                     |     |
|               | 5.1                           | 13312         | 2.0    | 175.03    | 70.0         | 102.0        | 120.0            | 130.0                               |                                         |                                                                                     |                                                                                     |                                     |     |
|               | 6.2                           | 10998         | 2.3    | 144.60    | 86.0         | 102.0        | 120.0            | 130.0                               |                                         |                                                                                     |                                                                                     |                                     |     |
|               | 6.6                           | 10318         | 2.6    | 135.66    | 86.0         | 102.0        | 120.0            | 130.0                               |                                         |                                                                                     |                                                                                     |                                     |     |
|               | 7.8                           | 8785          | 3.0    | 115.51    | 86.0         | 102.0        | 117.0            | 130.0                               |                                         |                                                                                     |                                                                                     |                                     |     |
|               | 4.0                           | 16936         | 1.5    | 352.16    | 78.0         | 102.0        | 120.0            | 130.0                               | <b>PD/PM 93<br/>132M4C / 132M4D</b>     | 726                                                                                 | 225                                                                                 |                                     |     |
|               | 4.8                           | 13992         | 1.7    | 290.94    | 75.0         | 102.0        | 120.0            | 130.0                               |                                         |                                                                                     |                                                                                     |                                     |     |
|               | 6.8                           | 9842          | 2.2    | 204.66    | 72.0         | 102.0        | 120.0            | 130.0                               |                                         |                                                                                     |                                                                                     |                                     |     |
|               | 8.0                           | 8417          | 3.0    | 175.03    | 70.0         | 102.0        | 120.0            | 130.0                               |                                         |                                                                                     |                                                                                     |                                     |     |
|               | 8.0                           | 8095          | 2.4    | 352.16    | 78.0         | 102.0        | 120.0            | 130.0                               | <b>PD/PM 93<br/>132S2C / 132S2D</b>     | 726                                                                                 | 225                                                                                 |                                     |     |
|               | 9.6                           | 6688          | 2.7    | 290.94    | 75.0         | 102.0        | 120.0            | 130.0                               |                                         |                                                                                     |                                                                                     |                                     |     |
|               | 4.0                           | 16508         | 0.8    | 223.71    | 78.0         | 73.0         | -                | -                                   | <b>PD/PM 83/42<br/>160M6B / 160M6C</b>  | 505                                                                                 | 242                                                                                 |                                     |     |
|               | 4.8                           | 13765         | 0.9    | 186.54    | -            | -            | -                | -                                   |                                         |                                                                                     |                                                                                     |                                     |     |
|               | 4.0                           | 15969         | 0.8    | 346.82    | 78.0         | 73.0         | 100.0            | 100.0                               | <b>PD/PM 83/42<br/>132M4C / 132M4D</b>  | 469                                                                                 | 242                                                                                 |                                     |     |
|               | 4.7                           | 13605         | 0.9    | 295.48    | -            | -            | -                | -                                   |                                         |                                                                                     |                                                                                     |                                     |     |
|               | 6.3                           | 10301         | 1.2    | 223.71    | -            | -            | -                | -                                   |                                         |                                                                                     |                                                                                     |                                     |     |
|               | 7.5                           | 8589          | 1.4    | 186.54    | -            | -            | -                | -                                   |                                         |                                                                                     |                                                                                     |                                     |     |
|               | 5.1                           | 11780         | 0.8    | 550.29    | 78.0         | 73.0         | 100.0            | 100.0                               | <b>PD/PM 83/42<br/>132S2C / 132S2D</b>  | 469                                                                                 | 242                                                                                 |                                     |     |
| 6.0           | 10036                         | 0.9           | 468.82 | 78.0      | 73.0         | 100.0        | 100.0            |                                     |                                         |                                                                                     |                                                                                     |                                     |     |
| 8.1           | 7424                          | 1.2           | 346.82 | 78.0      | 73.0         | -            | -                |                                     |                                         |                                                                                     |                                                                                     |                                     |     |
| 9.5           | 6325                          | 1.5           | 295.48 | 78.0      | 73.0         | -            | -                |                                     |                                         |                                                                                     |                                                                                     |                                     |     |
| 12.5          | 4789                          | 1.9           | 223.71 | 78.0      | 73.0         | -            | -                |                                     |                                         |                                                                                     |                                                                                     |                                     |     |
| 15.0          | 3993                          | 2.3           | 186.54 | 78.0      | 73.0         | -            | -                |                                     |                                         |                                                                                     |                                                                                     |                                     |     |
| 4.9           | 14113                         | 0.9           | 185.56 | 48.0      | 73.0         | 100.0        | 105.0            | <b>PD/PM 83<br/>160M6B / 160M6C</b> |                                         |                                                                                     |                                                                                     | 460                                 | 221 |
| 5.9           | 11619                         | 1.2           | 152.77 | 47.0      | 73.0         | 100.0        | 105.0            |                                     |                                         |                                                                                     |                                                                                     |                                     |     |
| 6.3           | 10945                         | 1.2           | 143.91 | 47.0      | 73.0         | 100.0        | 105.0            |                                     |                                         |                                                                                     |                                                                                     |                                     |     |
| 7.2           | 9527                          | 1.3           | 125.27 | 43.0      | 73.0         | 98.0         | 105.0            |                                     |                                         |                                                                                     |                                                                                     |                                     |     |
| 7.6           | 9011                          | 1.5           | 118.48 | 46.0      | 73.0         | 100.0        | 105.0            |                                     |                                         |                                                                                     |                                                                                     |                                     |     |
| 8.7           | 7844                          | 1.6           | 103.13 | 45.0      | 73.0         | 97.0         | 105.0            |                                     |                                         |                                                                                     |                                                                                     |                                     |     |
| 9.9           | 6905                          | 1.8           | 90.79  | 44.0      | 73.0         | 95.0         | 105.0            |                                     |                                         |                                                                                     |                                                                                     |                                     |     |
| 11.9          | 5757                          | 2.2           | 75.70  | 55.0      | 73.0         | 91.0         | 105.0            |                                     |                                         |                                                                                     |                                                                                     |                                     |     |
| 13.8          | 4956                          | 2.4           | 65.16  | 55.0      | 73.0         | 86.0         | 105.0            |                                     |                                         |                                                                                     |                                                                                     |                                     |     |
| 15.7          | 4360                          | 2.9           | 57.32  | 55.0      | 73.0         | 83.0         | 105.0            |                                     |                                         |                                                                                     |                                                                                     |                                     |     |
|               |                               |               |        |           |              |              |                  |                                     |                                         |                                                                                     |                                                                                     |                                     |     |





| $P_1$<br>[kW] | $n_2$<br>[Min <sup>-1</sup> ] | $M_2$<br>[Nm] | $f_B$ | $i_{ges}$ | $F_R$<br>[N] | $F_A$<br>[N] | $F_{RGR}$<br>[N] | $F_{AGR}$<br>[N] | Tip / Type / Typ<br>IE2 / IE3          |  |  |   |                                     |     |     |
|---------------|-------------------------------|---------------|-------|-----------|--------------|--------------|------------------|------------------|----------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|---|-------------------------------------|-----|-----|
| <b>7.50</b>   | 4.4                           | 15298         | 0.8   | 318.11    | 55.0         | 73.0         | 100.0            | 105.0            | <b>PD/PM 83<br/>132M4C / 132M4D</b>    | 424                                                                                 | 221                                                                                 |   |                                     |     |     |
|               | 4.8                           | 14135         | 0.9   | 293.92    | 46.0         | 73.0         | 100.0            | 105.0            |                                        |                                                                                     |                                                                                     |   |                                     |     |     |
|               | 5.8                           | 11637         | 1.1   | 241.98    | 47.0         | 73.0         | 100.0            | 105.0            |                                        |                                                                                     |                                                                                     |   |                                     |     |     |
|               | 7.0                           | 9658          | 1.1   | 200.83    | 54.0         | 73.0         | 100.0            | 105.0            |                                        |                                                                                     |                                                                                     |   |                                     |     |     |
|               | 7.5                           | 8924          | 1.4   | 185.56    | 48.0         | 73.0         | 100.0            | 105.0            |                                        |                                                                                     |                                                                                     |   |                                     |     |     |
|               | 9.2                           | 7347          | 1.8   | 152.77    | 47.0         | 73.0         | 100.0            | 105.0            |                                        |                                                                                     |                                                                                     |   |                                     |     |     |
|               | 9.7                           | 6921          | 1.8   | 143.91    | 47.0         | 73.0         | 100.0            | 105.0            |                                        |                                                                                     |                                                                                     |   |                                     |     |     |
|               | 11.2                          | 6024          | 2.0   | 125.27    | 43.0         | 73.0         | 100.0            | 105.0            |                                        |                                                                                     |                                                                                     |   |                                     |     |     |
|               | 11.8                          | 5698          | 2.2   | 118.48    | 46.0         | 73.0         | 100.0            | 105.0            |                                        |                                                                                     |                                                                                     |   |                                     |     |     |
|               | 13.6                          | 4960          | 2.4   | 103.13    | 45.0         | 73.0         | 97.0             | 105.0            |                                        |                                                                                     |                                                                                     |   |                                     |     |     |
| 15.4          | 4366                          | 2.8           | 90.79 | 44.0      | 73.0         | 95.0         | 105.0            |                  |                                        |                                                                                     |                                                                                     |   |                                     |     |     |
|               | 7.2                           | 8882          | 1.1   | 386.39    | 55.0         | 73.0         | 100.0            | 105.0            | <b>PD/PM 83<br/>132S2C / 132S2D</b>    | 424                                                                                 | 221                                                                                 |   |                                     |     |     |
|               | 8.8                           | 7312          | 1.4   | 318.11    | 55.0         | 73.0         | 100.0            | 105.0            |                                        |                                                                                     |                                                                                     |   |                                     |     |     |
|               | 9.5                           | 6756          | 1.4   | 293.92    | 46.0         | 73.0         | 100.0            | 105.0            |                                        |                                                                                     |                                                                                     |   |                                     |     |     |
|               | 11.6                          | 5562          | 1.8   | 241.98    | 47.0         | 73.0         | 100.0            | 105.0            |                                        |                                                                                     |                                                                                     |   |                                     |     |     |
|               | 13.9                          | 4617          | 1.8   | 200.83    | 54.0         | 73.0         | 100.0            | 105.0            |                                        |                                                                                     |                                                                                     |   |                                     |     |     |
|               | 15.1                          | 4266          | 2.3   | 185.56    | 48.0         | 73.0         | 100.0            | 105.0            |                                        |                                                                                     |                                                                                     |   |                                     |     |     |
|               | 18.3                          | 3512          | 2.9   | 152.77    | 47.0         | 73.0         | 100.0            | 105.0            |                                        |                                                                                     |                                                                                     |   |                                     |     |     |
|               | 19.5                          | 3308          | 2.9   | 143.91    | 47.0         | 73.0         | 100.0            | 105.0            |                                        |                                                                                     |                                                                                     |   |                                     |     |     |
|               |                               | 12.5          | 5573  | 1.5       | 72.17        | 43.0         | 73.0             | -                |                                        |                                                                                     |                                                                                     | - | <b>PD/PM 82<br/>160M6B / 160M6C</b> | 456 | 220 |
|               |                               | 15.1          | 4587  | 1.5       | 59.41        | 39.0         | 66.0             | -                |                                        |                                                                                     |                                                                                     | - |                                     |     |     |
| 18.9          |                               | 3668          | 3.0   | 47.51     | 43.0         | 73.0         | -                | -                |                                        |                                                                                     |                                                                                     |   |                                     |     |     |
|               | 19.4                          | 3545          | 2.2   | 72.17     | 43.0         | 73.0         | -                | -                | <b>PD/PM 82<br/>132M4C / 132M4D</b>    | 420                                                                                 | 220                                                                                 |   |                                     |     |     |
|               | 23.6                          | 2918          | 2.2   | 59.41     | 39.0         | 66.0         | -                | -                |                                        |                                                                                     |                                                                                     |   |                                     |     |     |
|               | 9.5                           | 6316          | 0.8   | 295.06    | 57.0         | 58.0         | -                | -                | <b>PD/PM 73/32<br/>132S2C / 132S2D</b> | 329                                                                                 | 240                                                                                 |   |                                     |     |     |
|               | 12.6                          | 4774          | 1.1   | 223.01    | 57.0         | 58.0         | -                | -                |                                        |                                                                                     |                                                                                     |   |                                     |     |     |
|               | 7.3                           | 9364          | 0.8   | 123.12    | 34.0         | 58.0         | 78.0             | 80.0             | <b>PD/PM 73<br/>160M6B / 160M6C</b>    | 335                                                                                 | 217                                                                                 |   |                                     |     |     |
|               | 8.4                           | 8102          | 1.0   | 106.53    | 34.0         | 58.0         | 79.0             | 80.0             |                                        |                                                                                     |                                                                                     |   |                                     |     |     |
|               | 9.7                           | 7077          | 1.1   | 93.05     | 34.0         | 58.0         | 80.0             | 80.0             |                                        |                                                                                     |                                                                                     |   |                                     |     |     |
|               | 11.4                          | 5989          | 1.3   | 78.75     | 33.0         | 58.0         | 78.0             | 80.0             |                                        |                                                                                     |                                                                                     |   |                                     |     |     |
|               | 13.2                          | 5182          | 1.5   | 68.14     | 33.0         | 58.0         | 76.0             | 80.0             |                                        |                                                                                     |                                                                                     |   |                                     |     |     |
|               | 15.1                          | 4527          | 1.6   | 59.52     | 32.0         | 57.0         | 73.0             | 80.0             |                                        |                                                                                     |                                                                                     |   |                                     |     |     |
|               | 16.8                          | 4063          | 1.8   | 53.42     | 32.0         | 55.0         | 71.0             | 80.0             |                                        |                                                                                     |                                                                                     |   |                                     |     |     |
|               | 19.3                          | 3549          | 2.1   | 46.66     | 40.0         | 58.0         | 68.0             | 80.0             |                                        |                                                                                     |                                                                                     |   |                                     |     |     |
|               | 24.4                          | 2810          | 2.5   | 36.95     | 40.0         | 58.0         | 64.0             | 80.0             |                                        |                                                                                     |                                                                                     |   |                                     |     |     |
|               | 29.5                          | 2319          | 3.0   | 30.49     | 40.0         | 58.0         | 60.0             | 80.0             |                                        |                                                                                     |                                                                                     |   |                                     |     |     |
|               | 6.5                           | 10409         | 0.8   | 216.45    | 40.0         | 58.0         | 74.0             | 80.0             | <b>PD/PM 73<br/>132M4C / 132M4D</b>    | 299                                                                                 | 217                                                                                 |   |                                     |     |     |
|               | 6.8                           | 9845          | 0.8   | 204.72    | 40.0         | 58.0         | 75.0             | 80.0             |                                        |                                                                                     |                                                                                     |   |                                     |     |     |
|               | 8.6                           | 7797          | 0.8   | 162.12    | 33.0         | 58.0         | 74.0             | 80.0             |                                        |                                                                                     |                                                                                     |   |                                     |     |     |
|               | 9.3                           | 7229          | 1.0   | 150.32    | 34.0         | 58.0         | 75.0             | 80.0             |                                        |                                                                                     |                                                                                     |   |                                     |     |     |
|               | 11.4                          | 5921          | 1.3   | 123.12    | 34.0         | 58.0         | 78.0             | 80.0             |                                        |                                                                                     |                                                                                     |   |                                     |     |     |
|               | 13.1                          | 5123          | 1.5   | 106.53    | 34.0         | 58.0         | 79.0             | 80.0             |                                        |                                                                                     |                                                                                     |   |                                     |     |     |
|               | 15.0                          | 4475          | 1.7   | 93.05     | 34.0         | 58.0         | 80.0             | 80.0             |                                        |                                                                                     |                                                                                     |   |                                     |     |     |
|               | 17.8                          | 3787          | 2.0   | 78.75     | 33.0         | 58.0         | 78.0             | 80.0             |                                        |                                                                                     |                                                                                     |   |                                     |     |     |
|               | 20.5                          | 3277          | 2.2   | 68.14     | 33.0         | 58.0         | 76.0             | 80.0             |                                        |                                                                                     |                                                                                     |   |                                     |     |     |
|               | 23.5                          | 2862          | 2.5   | 59.52     | 32.0         | 57.0         | 73.0             | 80.0             |                                        |                                                                                     |                                                                                     |   |                                     |     |     |
| 26.2          | 2569                          | 2.8           | 53.42 | 32.0      | 55.0         | 71.0         | 80.0             |                  |                                        |                                                                                     |                                                                                     |   |                                     |     |     |
|               | 10.2                          | 6283          | 0.9   | 273.32    | 40.0         | 58.0         | 69.0             | 80.0             | <b>PD/PM 73<br/>132S2C / 132S2D</b>    | 299                                                                                 | 217                                                                                 |   |                                     |     |     |
|               | 12.9                          | 4976          | 1.3   | 216.45    | 40.0         | 58.0         | 74.0             | 80.0             |                                        |                                                                                     |                                                                                     |   |                                     |     |     |
|               | 13.7                          | 4706          | 1.2   | 204.72    | 40.0         | 58.0         | 75.0             | 80.0             |                                        |                                                                                     |                                                                                     |   |                                     |     |     |
|               | 17.3                          | 3727          | 1.3   | 162.12    | 33.0         | 58.0         | 74.0             | 80.0             |                                        |                                                                                     |                                                                                     |   |                                     |     |     |
|               | 18.6                          | 3455          | 1.7   | 150.32    | 34.0         | 58.0         | 75.0             | 80.0             |                                        |                                                                                     |                                                                                     |   |                                     |     |     |
|               | 22.7                          | 2830          | 2.0   | 123.12    | 34.0         | 58.0         | 78.0             | 80.0             |                                        |                                                                                     |                                                                                     |   |                                     |     |     |
|               | 26.3                          | 2449          | 2.3   | 106.53    | 34.0         | 58.0         | 79.0             | 80.0             |                                        |                                                                                     |                                                                                     |   |                                     |     |     |
|               | 30.1                          | 2139          | 2.7   | 93.05     | 34.0         | 58.0         | 80.0             | 80.0             |                                        |                                                                                     |                                                                                     |   |                                     |     |     |
|               | 12.9                          | 5390          | 1.1   | 69.80     | 33.0         | 58.0         | 76.0             | 80.0             | <b>PD/PM 72<br/>160M6B / 160M6C</b>    | 328                                                                                 | 216                                                                                 |   |                                     |     |     |
|               | 15.8                          | 4393          | 1.3   | 56.90     | 32.0         | 56.0         | 73.0             | 80.0             |                                        |                                                                                     |                                                                                     |   |                                     |     |     |
|               | 19.7                          | 3526          | 1.7   | 45.66     | 29.0         | 50.0         | 67.0             | 80.0             |                                        |                                                                                     |                                                                                     |   |                                     |     |     |
|               | 20.0                          | 3479          | 1.3   | 45.06     | 29.0         | 50.0         | 67.0             | 80.0             |                                        |                                                                                     |                                                                                     |   |                                     |     |     |
|               | 24.2                          | 2874          | 2.4   | 37.22     | 33.0         | 58.0         | 63.0             | 80.0             |                                        |                                                                                     |                                                                                     |   |                                     |     |     |
|               | 25.9                          | 2679          | 2.3   | 34.69     | 33.0         | 58.0         | 62.0             | 80.0             |                                        |                                                                                     |                                                                                     |   |                                     |     |     |
| 33.5          | 2076                          | 2.9           | 26.89 | 33.0      | 58.0         | -            | -                |                  |                                        |                                                                                     |                                                                                     |   |                                     |     |     |
|               | 20.1                          | 3428          | 1.7   | 69.80     | 33.0         | 58.0         | 76.0             | 80.0             | <b>PD/PM 72<br/>132M4C / 132M4D</b>    | 292                                                                                 | 216                                                                                 |   |                                     |     |     |
|               | 24.6                          | 2795          | 2.0   | 56.90     | 32.0         | 56.0         | 73.0             | 80.0             |                                        |                                                                                     |                                                                                     |   |                                     |     |     |
|               | 31.1                          | 2213          | 2.0   | 45.06     | 29.0         | 50.0         | 67.0             | 80.0             |                                        |                                                                                     |                                                                                     |   |                                     |     |     |
|               |                               |               |       |           |              |              |                  |                  |                                        |                                                                                     |                                                                                     |   |                                     |     |     |

| $P_1$<br>[kW] | $n_2$<br>[Min <sup>-1</sup> ]                                               | $M_2$<br>[Nm]                                                                | $f_B$                                                              | $i_{ges}$                                                                              | $F_R$<br>[N]                                                                 | $F_A$<br>[N]                                                                 | $F_{RGR}$<br>[N]                                                             | $F_{AGR}$<br>[N]                                                             | Tip / Type / Typ<br>IE2 / IE3  |  |  |  |
|---------------|-----------------------------------------------------------------------------|------------------------------------------------------------------------------|--------------------------------------------------------------------|----------------------------------------------------------------------------------------|------------------------------------------------------------------------------|------------------------------------------------------------------------------|------------------------------------------------------------------------------|------------------------------------------------------------------------------|--------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|--|
| <b>7.50</b>   | 40.1                                                                        | 1663                                                                         | 2.7                                                                | 69.80                                                                                  | 33.0                                                                         | 58.0                                                                         | 76.0                                                                         | 80.0                                                                         | PD/PM 72<br>132S2C / 132S2D    | 292                                                                                 | 216                                                                                 |  |
|               | 12.5<br>14.6<br>17.6                                                        | 4784<br>4091<br>3401                                                         | 0.8<br>0.9<br>1.1                                                  | 223.50<br>191.13<br>158.90                                                             | -<br>-<br>-                                                                  | -<br>-<br>-                                                                  | -<br>-<br>-                                                                  | -<br>-<br>-                                                                  | PD/PM 63/32<br>132S2C / 132S2D | 256                                                                                 | 240                                                                                 |  |
|               | 9.7<br>12.0<br>12.3<br>15.1<br>17.6<br>21.2<br>24.8<br>29.1<br>31.4<br>36.9 | 7049<br>5727<br>5584<br>4537<br>3880<br>3226<br>2759<br>2350<br>2180<br>1857 | 0.9<br>1.1<br>1.0<br>1.3<br>1.4<br>1.5<br>1.7<br>2.0<br>2.2<br>2.7 | 92.68<br>75.30<br>73.42<br>59.65<br>51.01<br>42.41<br>36.27<br>30.90<br>28.66<br>24.42 | 29.0<br>29.0<br>29.0<br>28.0<br>26.0<br>27.0<br>26.0<br>34.0<br>34.0<br>34.0 | 47.0<br>47.0<br>47.0<br>47.0<br>45.0<br>46.0<br>44.0<br>47.0<br>47.0<br>47.0 | 53.0<br>55.0<br>56.0<br>57.0<br>57.0<br>56.0<br>54.0<br>52.0<br>51.0<br>48.0 | 60.0<br>60.0<br>60.0<br>60.0<br>60.0<br>60.0<br>60.0<br>60.0<br>60.0<br>60.0 | PD/PM 63<br>160M6B / 160M6C    | 262                                                                                 | 213                                                                                 |  |
|               | 11.0<br>12.2<br>15.1<br>18.6<br>19.1<br>23.5<br>27.4<br>33.0<br>38.6        | 6100<br>5520<br>4457<br>3621<br>3531<br>2869<br>2453<br>2040<br>1744         | 0.8<br>1.1<br>1.3<br>1.7<br>1.6<br>1.9<br>2.1<br>2.2<br>2.6        | 126.84<br>114.79<br>92.68<br>75.30<br>73.42<br>59.65<br>51.01<br>42.41<br>36.27        | 33.0<br>29.0<br>29.0<br>29.0<br>29.0<br>28.0<br>26.0<br>27.0<br>26.0         | 47.0<br>47.0<br>47.0<br>47.0<br>47.0<br>47.0<br>45.0<br>46.0<br>44.0         | 53.0<br>50.0<br>53.0<br>55.0<br>56.0<br>57.0<br>56.0<br>56.0<br>54.0         | 60.0<br>60.0<br>60.0<br>60.0<br>60.0<br>60.0<br>60.0<br>60.0<br>60.0         | PD/PM 63<br>132M4C / 132M4D    | 226                                                                                 | 213                                                                                 |  |
|               | 16.3<br>17.5<br>22.1<br>24.4<br>30.2<br>37.2<br>38.1<br>46.9                | 3939<br>3681<br>2916<br>2639<br>2130<br>1731<br>1688<br>1371                 | 1.1<br>1.2<br>1.2<br>1.7<br>2.1<br>2.6<br>2.5<br>3.0               | 171.37<br>160.11<br>126.84<br>114.79<br>92.68<br>75.30<br>73.42<br>59.65               | 33.0<br>33.0<br>33.0<br>29.0<br>29.0<br>29.0<br>29.0<br>28.0                 | 47.0<br>47.0<br>47.0<br>47.0<br>47.0<br>47.0<br>47.0<br>47.0                 | 48.0<br>49.0<br>53.0<br>50.0<br>50.0<br>55.0<br>56.0<br>57.0                 | 60.0<br>60.0<br>60.0<br>60.0<br>60.0<br>60.0<br>60.0<br>60.0                 | PD/PM 63<br>132S2C / 132S2D    | 226                                                                                 | 213                                                                                 |  |
|               | 14.7<br>18.1<br>22.8<br>30.1<br>34.6<br>39.3<br>84.6                        | 4714<br>3844<br>3045<br>2308<br>2009<br>1769<br>822                          | 1.0<br>1.1<br>1.1<br>2.1<br>2.4<br>2.7<br>2.6                      | 61.05<br>49.79<br>39.44<br>29.89<br>26.02<br>22.91<br>10.64                            | 29.0<br>28.0<br>26.0<br>33.0<br>33.0<br>33.0<br>33.0                         | 47.0<br>47.0<br>45.0<br>47.0<br>47.0<br>47.0<br>47.0                         | 57.0<br>57.0<br>55.0<br>52.0<br>50.0<br>48.0<br>-                            | 60.0<br>60.0<br>60.0<br>60.0<br>60.0<br>60.0<br>-                            | PD/PM 62<br>160M6B / 160M6C    | 265                                                                                 | 212                                                                                 |  |
|               | 17.4<br>21.4<br>22.9<br>28.1<br>35.5                                        | 3942<br>3215<br>2998<br>2445<br>1937                                         | 1.0<br>1.0<br>1.5<br>1.7<br>1.7                                    | 80.26<br>65.45<br>61.05<br>49.79<br>39.44                                              | 33.0<br>-<br>29.0<br>28.0<br>26.0                                            | 47.0<br>-<br>47.0<br>47.0<br>45.0                                            | 57.0<br>57.0<br>57.0<br>57.0<br>55.0                                         | 60.0<br>60.0<br>60.0<br>60.0<br>60.0                                         | PD/PM 62<br>132M4C / 132M4D    | 229                                                                                 | 212                                                                                 |  |
|               | 34.9<br>42.8<br>45.9<br>56.2<br>71.0                                        | 1912<br>1559<br>1454<br>1186<br>940                                          | 1.6<br>1.6<br>2.4<br>2.6<br>2.6                                    | 80.26<br>65.45<br>61.05<br>49.79<br>39.44                                              | 33.0<br>29.0<br>29.0<br>28.0<br>26.0                                         | 47.0<br>47.0<br>47.0<br>47.0<br>45.0                                         | 57.0<br>57.0<br>57.0<br>57.0<br>55.0                                         | 60.0<br>60.0<br>60.0<br>60.0<br>60.0                                         | PD/PM 62<br>132S2C / 132S2D    | 229                                                                                 | 212                                                                                 |  |
|               | 22.1<br>26.9<br>29.5<br>36.1<br>44.2<br>47.7<br>51.1<br>58.5<br>69.2        | 3150<br>2580<br>2353<br>1927<br>1572<br>1456<br>1360<br>1188<br>1004         | 0.8<br>0.9<br>1.3<br>1.6<br>2.1<br>1.9<br>2.1<br>2.3<br>2.8        | 40.79<br>33.41<br>30.47<br>24.96<br>20.36<br>18.86<br>17.61<br>15.38<br>13.00          | 17.0<br>16.0<br>16.0<br>15.0<br>15.0<br>15.0<br>19.0<br>19.0<br>19.0         | 31.0<br>30.0<br>31.0<br>29.0<br>27.0<br>27.0<br>32.0<br>32.0<br>32.0         | 37.0<br>35.0<br>35.0<br>33.0<br>31.0<br>31.0<br>30.0<br>29.0<br>27.0         | 40.0<br>40.0<br>40.0<br>40.0<br>40.0<br>40.0<br>40.0<br>40.0<br>40.0         | PD/PM 52<br>160M6B / 160M6C    | 181                                                                                 | 208                                                                                 |  |
|               |                                                                             |                                                                              |                                                                    |                                                                                        |                                                                              |                                                                              |                                                                              |                                                                              |                                |                                                                                     |                                                                                     |  |



| $P_1$<br>[kW] | $n_2$<br>[Min <sup>-1</sup> ] | $M_2$<br>[Nm] | $f_B$ | $i_{ges}$ | $F_R$<br>[N] | $F_A$<br>[N] | $F_{R GR}$<br>[N] | $F_{A GR}$<br>[N] | Tip / Type / Typ<br>IE2 / IE3       |     |     |
|---------------|-------------------------------|---------------|-------|-----------|--------------|--------------|-------------------|-------------------|-------------------------------------|-----|-----|
| <b>7.50</b>   | 20.4                          | 3369          | 0.9   | 68.60     | 21.0         | 32.0         | 43.0              | 40.0              | <b>PD/PM 52<br/>132M4C / 132M4D</b> | 145 | 208 |
|               | 25.0                          | 2747          | 0.9   | 55.94     | 19.0         | 32.0         | 41.0              | 40.0              |                                     |     |     |
|               | 25.2                          | 2728          | 0.9   | 55.55     | 17.0         | 32.0         | 39.0              | 40.0              |                                     |     |     |
|               | 27.2                          | 2527          | 1.3   | 51.45     | 17.0         | 32.0         | 38.0              | 40.0              |                                     |     |     |
|               | 29.6                          | 2322          | 1.0   | 47.27     | 18.0         | 32.0         | 39.0              | 40.0              |                                     |     |     |
|               | 33.4                          | 2061          | 1.6   | 41.96     | 16.0         | 32.0         | 37.0              | 40.0              |                                     |     |     |
|               | 34.3                          | 2003          | 1.2   | 40.79     | 17.0         | 31.0         | 37.0              | 40.0              |                                     |     |     |
|               | 39.5                          | 1741          | 1.6   | 35.45     | 16.0         | 31.0         | 35.0              | 40.0              |                                     |     |     |
|               | 41.9                          | 1641          | 1.4   | 33.41     | 16.0         | 30.0         | 35.0              | 40.0              |                                     |     |     |
|               | 45.9                          | 1497          | 1.9   | 30.47     | 16.0         | 31.0         | 35.0              | 40.0              |                                     |     |     |
| 56.1          | 1226                          | 2.4           | 24.96 | 15.0      | 29.0         | 33.0         | 40.0              |                   |                                     |     |     |
| 74.2          | 926                           | 2.8           | 18.86 | 15.0      | 27.0         | 31.0         | 40.0              |                   |                                     |     |     |
|               | 30.5                          | 2187          | 1.0   | 91.82     | 21.0         | 32.0         | 40.0              | 40.0              | <b>PD/PM 52<br/>132S2C / 132S2D</b> | 145 | 208 |
|               | 40.8                          | 1634          | 1.4   | 68.60     | 21.0         | 32.0         | 42.0              | 40.0              |                                     |     |     |
|               | 50.1                          | 1333          | 1.5   | 55.94     | 19.0         | 32.0         | 41.0              | 40.0              |                                     |     |     |
|               | 50.4                          | 1323          | 1.4   | 55.55     | 17.0         | 32.0         | 39.0              | 40.0              |                                     |     |     |
|               | 54.4                          | 1226          | 2.0   | 51.45     | 17.0         | 32.0         | 38.0              | 40.0              |                                     |     |     |
|               | 59.2                          | 1126          | 1.6   | 47.27     | 18.0         | 32.0         | 39.0              | 40.0              |                                     |     |     |
|               | 66.7                          | 1000          | 2.4   | 41.96     | 16.0         | 32.0         | 37.0              | 40.0              |                                     |     |     |
|               | 68.6                          | 972           | 2.0   | 40.79     | 17.0         | 31.0         | 37.0              | 40.0              |                                     |     |     |
|               | 79.0                          | 844           | 2.4   | 35.45     | 16.0         | 31.0         | 35.0              | 40.0              |                                     |     |     |
|               | 83.8                          | 796           | 2.2   | 33.41     | 16.0         | 30.0         | 35.0              | 40.0              |                                     |     |     |
| 91.9          | 726                           | 3.0           | 30.47 | 16.0      | 31.0         | 35.0         | 40.0              |                   |                                     |     |     |
|               | 34.1                          | 2039          | 0.9   | 26.41     | 10.0         | 18.0         | 23.0              | 30.0              | <b>PD/PM 42<br/>160M6B / 160M6C</b> | 145 | 204 |
|               | 34.3                          | 2027          | 0.8   | 26.25     | 9.0          | 17.0         | 21.0              | 30.0              |                                     |     |     |
|               | 40.2                          | 1728          | 1.0   | 22.38     | 9.0          | 17.0         | 22.0              | 30.0              |                                     |     |     |
|               | 41.9                          | 1657          | 1.1   | 21.46     | 10.0         | 17.0         | 22.0              | 30.0              |                                     |     |     |
|               | 49.5                          | 1404          | 1.3   | 18.18     | 9.0          | 17.0         | 21.0              | 30.0              |                                     |     |     |
|               | 59.2                          | 1173          | 1.6   | 15.19     | 9.0          | 16.0         | 20.0              | 30.0              |                                     |     |     |
|               | 71.0                          | 978           | 1.9   | 12.67     | 9.0          | 15.0         | 19.0              | 30.0              |                                     |     |     |
|               | 83.1                          | 836           | 2.1   | 10.83     | 11.0         | 21.0         | 19.0              | 30.0              |                                     |     |     |
|               | 97.5                          | 713           | 2.4   | 9.23      | 11.0         | 21.0         | 18.0              | 30.0              |                                     |     |     |
|               | 108.0                         | 643           | 2.1   | 8.33      | 11.0         | 21.0         | 17.0              | 29.0              |                                     |     |     |
|               | 126.2                         | 551           | 2.3   | 7.13      | 11.0         | 21.0         | 17.0              | 28.0              |                                     |     |     |
|               | 148.3                         | 469           | 2.7   | 6.07      | 11.0         | 21.0         | 16.0              | 27.0              |                                     |     |     |
|               | 165.4                         | 420           | 2.6   | 5.44      | 11.0         | 21.0         | 15.0              | 26.0              |                                     |     |     |
|               | 180.0                         | 386           | 2.8   | 5.00      | 11.0         | 21.0         | 15.0              | 25.0              |                                     |     |     |
| 191.9         | 362                           | 3.0           | 4.69  | 11.0      | 21.0         | 15.0         | 25.0              |                   |                                     |     |     |
|               | 34.3                          | 2003          | 0.8   | 40.79     | 9.0          | 17.0         | 24.0              | 30.0              | <b>PD/PM 42<br/>132M4C / 132M4D</b> | 109 | 204 |
|               | 36.5                          | 1884          | 1.1   | 38.35     | 9.0          | 17.0         | 24.0              | 30.0              |                                     |     |     |
|               | 38.0                          | 1809          | 0.8   | 36.84     | -            | -            | 27.0              | 30.0              |                                     |     |     |
|               | 38.5                          | 1787          | 0.8   | 36.39     | -            | -            | 26.0              | 30.0              |                                     |     |     |
|               | 43.3                          | 1587          | 1.0   | 32.31     | 12.0         | 22.0         | 26.0              | 30.0              |                                     |     |     |
|               | 43.7                          | 1574          | 1.1   | 32.04     | 9.0          | 17.0         | 23.0              | 30.0              |                                     |     |     |
|               | 52.4                          | 1312          | 1.2   | 26.72     | 9.0          | 17.0         | 22.0              | 30.0              |                                     |     |     |
|               | 53.0                          | 1297          | 1.4   | 26.41     | 10.0         | 18.0         | 23.0              | 30.0              |                                     |     |     |
|               | 53.3                          | 1289          | 1.2   | 26.25     | -            | -            | -                 | -                 |                                     |     |     |
|               | 62.6                          | 1099          | 1.5   | 22.38     | 9.0          | 17.0         | 22.0              | 30.0              |                                     |     |     |
|               | 65.2                          | 1054          | 1.6   | 21.46     | 10.0         | 17.0         | 22.0              | 30.0              |                                     |     |     |
|               | 77.0                          | 893           | 2.0   | 18.18     | 9.0          | 17.0         | 21.0              | 30.0              |                                     |     |     |
|               | 92.2                          | 746           | 2.4   | 15.19     | 9.0          | 16.0         | 20.0              | 30.0              |                                     |     |     |
|               | 110.5                         | 622           | 2.8   | 12.67     | 9.0          | 15.0         | 19.0              | 30.0              |                                     |     |     |
|               | 45.4                          | 1468          | 0.9   | 61.64     | 9.0          | 17.0         | 26.0              | 30.0              | <b>PD/PM 42<br/>132S2C / 132S2D</b> | 109 | 204 |
|               | 53.6                          | 1244          | 1.1   | 52.23     | 9.0          | 17.0         | 27.0              | 30.0              |                                     |     |     |
|               | 62.1                          | 1073          | 1.1   | 45.06     | 9.0          | 17.0         | 26.0              | 30.0              |                                     |     |     |
|               | 64.2                          | 1040          | 1.2   | 43.64     | 9.0          | 17.0         | 26.0              | 30.0              |                                     |     |     |
|               | 68.6                          | 972           | 1.2   | 40.79     | 9.0          | 17.0         | 24.0              | 30.0              |                                     |     |     |
|               | 73.0                          | 914           | 1.7   | 38.35     | 9.0          | 17.0         | 24.0              | 30.0              |                                     |     |     |
|               | 76.0                          | 878           | 1.2   | 36.84     | 12.0         | 22.0         | 25.0              | 30.0              |                                     |     |     |
|               | 76.9                          | 867           | 1.2   | 36.39     | 12.0         | 22.0         | 25.0              | 30.0              |                                     |     |     |
|               | 86.7                          | 770           | 1.6   | 32.31     | 12.0         | 22.0         | 25.0              | 30.0              |                                     |     |     |
|               | 87.4                          | 763           | 1.8   | 32.04     | 9.0          | 17.0         | 23.0              | 30.0              |                                     |     |     |
|               | 104.8                         | 636           | 1.9   | 26.72     | 9.0          | 17.0         | 22.0              | 30.0              |                                     |     |     |
|               | 106.0                         | 629           | 2.2   | 26.41     | 10.0         | 18.0         | 23.0              | 30.0              |                                     |     |     |
|               | 106.7                         | 625           | 2.0   | 26.25     | 9.0          | 17.0         | 23.0              | 30.0              |                                     |     |     |
|               | 125.1                         | 533           | 2.4   | 22.38     | 9.0          | 17.0         | 22.0              | 30.0              |                                     |     |     |
| 130.5         | 511                           | 2.5           | 21.46 | 10.0      | 17.0         | 22.0         | 30.0              |                   |                                     |     |     |

| <b>P<sub>1</sub></b><br>[kW] | <b>n<sub>2</sub></b><br>[Min <sup>-1</sup> ] | <b>M<sub>2</sub></b><br>[Nm] | <b>f<sub>B</sub></b> | <b>i<sub>ges</sub></b> | <b>F<sub>R</sub></b><br>[N] | <b>F<sub>A</sub></b><br>[N] | <b>F<sub>R GR</sub></b><br>[N] | <b>F<sub>A GR</sub></b><br>[N]     | <b>Tip / Type / Typ</b><br><b>IE2 / IE3</b> | <b>Kg</b> | <b>mm</b> |                                           |    |     |
|------------------------------|----------------------------------------------|------------------------------|----------------------|------------------------|-----------------------------|-----------------------------|--------------------------------|------------------------------------|---------------------------------------------|-----------|-----------|-------------------------------------------|----|-----|
| <b>7.50</b>                  | 69.5                                         | 990                          | 0.8                  | 20.15                  | 5.0                         | 8.0                         | 14.0                           | 19.0                               | <b>PD/PM 32</b><br><b>132M4C / 132M4D</b>   | 94        | 200       |                                           |    |     |
|                              | 84.1                                         | 818                          | 1.0                  | 16.65                  | 5.0                         | 8.0                         | 13.0                           | 19.0                               |                                             |           |           |                                           |    |     |
|                              | 99.4                                         | 692                          | 1.2                  | 14.09                  | 5.0                         | 8.0                         | 13.0                           | 19.0                               |                                             |           |           |                                           |    |     |
|                              | 123.3                                        | 557                          | 1.5                  | 11.35                  | 5.0                         | 8.0                         | 13.0                           | 18.0                               |                                             |           |           |                                           |    |     |
|                              | 143.3                                        | 480                          | 1.7                  | 9.77                   | 5.0                         | 8.0                         | 12.0                           | 18.0                               |                                             |           |           |                                           |    |     |
|                              | 168.9                                        | 407                          | 1.7                  | 8.29                   | 5.0                         | 8.0                         | 12.0                           | 17.0                               |                                             |           |           |                                           |    |     |
|                              | 209.6                                        | 328                          | 1.9                  | 6.68                   | 5.0                         | 8.0                         | 11.0                           | 17.0                               |                                             |           |           |                                           |    |     |
|                              | 247.3                                        | 278                          | 2.0                  | 5.66                   | 5.0                         | 7.0                         | 11.0                           | 16.0                               |                                             |           |           |                                           |    |     |
|                              | 312.5                                        | 220                          | 2.1                  | 4.48                   | 5.0                         | 7.0                         | 10.0                           | 15.0                               |                                             |           |           |                                           |    |     |
|                              | 124.9                                        | 534                          | 1.1                  | 22.42                  | 5.0                         | 8.0                         | 15.0                           | 20.0                               |                                             |           |           | <b>PD/PM 32</b><br><b>132S2C / 132S2D</b> | 94 | 200 |
|                              | 139.0                                        | 480                          | 1.3                  | 20.15                  | 5.0                         | 8.0                         | 14.0                           | 19.0                               |                                             |           |           |                                           |    |     |
|                              | 168.2                                        | 397                          | 1.6                  | 16.65                  | 5.0                         | 8.0                         | 13.0                           | 19.0                               |                                             |           |           |                                           |    |     |
|                              | 198.7                                        | 336                          | 1.9                  | 14.09                  | 5.0                         | 8.0                         | 13.0                           | 19.0                               |                                             |           |           |                                           |    |     |
|                              | 246.7                                        | 270                          | 2.3                  | 11.35                  | 5.0                         | 8.0                         | 13.0                           | 18.0                               |                                             |           |           |                                           |    |     |
|                              | 286.6                                        | 233                          | 2.7                  | 9.77                   | 5.0                         | 8.0                         | 12.0                           | 18.0                               |                                             |           |           |                                           |    |     |
|                              | 337.8                                        | 197                          | 2.6                  | 8.29                   | 5.0                         | 8.0                         | 12.0                           | 17.0                               |                                             |           |           |                                           |    |     |
|                              | 419.2                                        | 159                          | 2.9                  | 6.68                   | 5.0                         | 8.0                         | 11.0                           | 17.0                               |                                             |           |           |                                           |    |     |
|                              | <b>9.20</b>                                  | 1.2                          | 66210                | 1.0                    | 731.47                      | -                           | -                              | 105.0                              |                                             |           |           |                                           |    |     |
| 1.5                          |                                              | 54624                        | 1.2                  | 603.47                 | -                           | -                           | 121.0                          | 170.0                              |                                             |           |           |                                           |    |     |
| 1.9                          |                                              | 43435                        | 1.5                  | 479.85                 | -                           | -                           | 133.0                          | 170.0                              |                                             |           |           |                                           |    |     |
| 2.5                          |                                              | 32877                        | 1.6                  | 363.21                 | -                           | -                           | 141.0                          | 170.0                              |                                             |           |           |                                           |    |     |
| 2.9                          |                                              | 28262                        | 1.9                  | 312.23                 | -                           | -                           | 144.0                          | 170.0                              |                                             |           |           |                                           |    |     |
| 1.0                          |                                              | 78099                        | 0.8                  | 1382.74                | -                           | -                           | 36.0                           | 170.0                              | <b>PD/PM 113/52</b><br><b>132M4</b>         | 2214      | 242       |                                           |    |     |
| 1.2                          |                                              | 65224                        | 0.9                  | 1154.79                | -                           | -                           | 18.0                           | 170.0                              |                                             |           |           |                                           |    |     |
| 1.5                          |                                              | 54344                        | 1.1                  | 962.15                 | -                           | -                           | 42.0                           | 170.0                              |                                             |           |           |                                           |    |     |
| 1.9                          |                                              | 41314                        | 1.5                  | 731.47                 | -                           | -                           | 105.0                          | 170.0                              |                                             |           |           |                                           |    |     |
| 2.3                          |                                              | 34085                        | 1.8                  | 603.47                 | -                           | -                           | 121.0                          | 170.0                              |                                             |           |           |                                           |    |     |
| 1.5                          |                                              | 48039                        | 0.9                  | 1829.47                | -                           | -                           | -                              | -                                  | <b>PD/PM 113/52</b><br><b>132M2</b>         | 2214      | 242       |                                           |    |     |
| 2.0                          |                                              | 36309                        | 1.3                  | 1382.74                | -                           | -                           | 65.0                           | 170.0                              |                                             |           |           |                                           |    |     |
| 2.4                          |                                              | 30323                        | 1.5                  | 1154.79                | -                           | -                           | 18.0                           | 170.0                              |                                             |           |           |                                           |    |     |
| 2.9                          |                                              | 25265                        | 1.8                  | 962.15                 | -                           | -                           | 42.0                           | 170.0                              |                                             |           |           |                                           |    |     |
| 3.8                          |                                              | 19207                        | 2.4                  | 731.47                 | -                           | -                           | 105.0                          | 170.0                              |                                             |           |           |                                           |    |     |
| 4.6                          |                                              | 15846                        | 2.9                  | 603.47                 | -                           | -                           | 121.0                          | 170.0                              |                                             |           |           |                                           |    |     |
| 1.9                          |                                              | 43170                        | 0.9                  | 476.93                 | -                           | -                           | 116.0                          | 150.0                              | <b>PD/PM 103/52</b><br><b>160M6</b>         | 1400      | 242       |                                           |    |     |
| 2.5                          |                                              | 33145                        | 1.1                  | 366.18                 | -                           | -                           | 126.0                          | 150.0                              |                                             |           |           |                                           |    |     |
| 3.0                          |                                              | 27345                        | 1.3                  | 302.10                 | -                           | -                           | -                              | -                                  |                                             |           |           |                                           |    |     |
| 2.0                          |                                              | 39096                        | 0.9                  | 692.20                 | -                           | -                           | 87.0                           | 150.0                              | <b>PD/PM 103/52</b><br><b>132M4</b>         | 1364      | 242       |                                           |    |     |
| 2.4                          |                                              | 32651                        | 1.1                  | 578.09                 | -                           | -                           | 105.0                          | 150.0                              |                                             |           |           |                                           |    |     |
| 2.9                          |                                              | 26938                        | 1.3                  | 476.93                 | -                           | -                           | 116.0                          | 150.0                              |                                             |           |           |                                           |    |     |
| 3.8                          |                                              | 20682                        | 1.7                  | 366.18                 | -                           | -                           | 126.0                          | 150.0                              |                                             |           |           |                                           |    |     |
| 4.6                          |                                              | 17063                        | 2.1                  | 302.10                 | -                           | -                           | -                              | -                                  |                                             |           |           |                                           |    |     |
| 2.4                          |                                              | 30607                        | 0.9                  | 1165.61                | -                           | -                           | 81.0                           | 150.0                              | <b>PD/PM 103/52</b><br><b>132M2</b>         | 1364      | 242       |                                           |    |     |
| 3.1                          |                                              | 24049                        | 1.1                  | 915.84                 | -                           | -                           | 77.0                           | 150.0                              |                                             |           |           |                                           |    |     |
| 4.0                          |                                              | 18176                        | 1.5                  | 692.20                 | -                           | -                           | 87.0                           | 150.0                              |                                             |           |           |                                           |    |     |
| 4.8                          |                                              | 15180                        | 1.8                  | 578.09                 | -                           | -                           | 105.0                          | 150.0                              |                                             |           |           |                                           |    |     |
| 5.9                          |                                              | 12523                        | 2.1                  | 476.93                 | -                           | -                           | 116.0                          | 150.0                              |                                             |           |           |                                           |    |     |
| 7.6                          |                                              | 9615                         | 2.8                  | 366.18                 | -                           | -                           | 126.0                          | 150.0                              |                                             |           |           |                                           |    |     |
| 2.5                          | 33344                                        | 1.1                          | 357.40               | -                      | -                           | 126.0                       | 150.0                          | <b>PD/PM 103</b><br><b>160M6</b>   | 1326                                        | 229       |           |                                           |    |     |
| 2.7                          | 31034                                        | 1.3                          | 332.64               | -                      | -                           | 128.0                       | 150.0                          |                                    |                                             |           |           |                                           |    |     |
| 3.2                          | 26388                                        | 1.3                          | 282.85               | -                      | -                           | 130.0                       | 150.0                          |                                    |                                             |           |           |                                           |    |     |
| 3.4                          | 24560                                        | 1.4                          | 263.25               | -                      | -                           | 131.0                       | 150.0                          |                                    |                                             |           |           |                                           |    |     |
| 5.0                          | 16857                                        | 2.2                          | 180.68               | -                      | -                           | 135.0                       | 150.0                          |                                    |                                             |           |           |                                           |    |     |
| 5.4                          | 15688                                        | 2.3                          | 168.16               | -                      | -                           | 131.0                       | 150.0                          |                                    |                                             |           |           |                                           |    |     |
| 6.4                          | 13100                                        | 2.8                          | 140.41               | -                      | -                           | 133.0                       | 150.0                          |                                    |                                             |           |           |                                           |    |     |
| 3.1                          | 26629                                        | 0.9                          | 294.19               | 61.0                   | 102.0                       | -                           | -                              | <b>PD/PM 93/52</b><br><b>160M6</b> | 836                                         | 242       |           |                                           |    |     |
| 3.9                          | 21118                                        | 1.2                          | 233.30               | 61.0                   | 102.0                       | -                           | -                              |                                    |                                             |           |           |                                           |    |     |
| 4.5                          | 18149                                        | 1.4                          | 200.50               | 61.0                   | 102.0                       | -                           | -                              |                                    |                                             |           |           |                                           |    |     |
| 3.4                          | 23185                                        | 1.0                          | 410.49               | 52.0                   | 102.0                       | 120.0                       | 130.0                          | <b>PD/PM 93/52</b><br><b>132M4</b> | 800                                         | 242       |           |                                           |    |     |
| 4.8                          | 16616                                        | 1.4                          | 294.19               | -                      | -                           | -                           | -                              |                                    |                                             |           |           |                                           |    |     |
| 6.8                          | 10779                                        | 1.7                          | 410.49               | 52.0                   | 102.0                       | 120.0                       | 130.0                          | <b>PD/PM 93/52</b><br><b>132M2</b> | 800                                         | 242       |           |                                           |    |     |
| 9.5                          | 7725                                         | 2.4                          | 294.19               | 61.0                   | 102.0                       | -                           | -                              |                                    |                                             |           |           |                                           |    |     |
| 3.1                          | 25465                                        | 0.9                          | 450.86               | 51.0                   | 102.0                       | 120.0                       | 130.0                          | <b>PD/PM 93/42</b><br><b>132M4</b> | 771                                         | 242       |           |                                           |    |     |



| P <sub>1</sub><br>[kW] | n <sub>2</sub><br>[Min <sup>-1</sup> ] | M <sub>2</sub><br>[Nm] | f <sub>B</sub> | i <sub>ges</sub> | F <sub>R</sub><br>[N] | F <sub>A</sub><br>[N] | F <sub>R GR</sub><br>[N] | F <sub>A GR</sub><br>[N] | Tip / Type / Typ<br>IE2 / IE3 |     |     |                           |     |     |
|------------------------|----------------------------------------|------------------------|----------------|------------------|-----------------------|-----------------------|--------------------------|--------------------------|-------------------------------|-----|-----|---------------------------|-----|-----|
| <b>9.20</b>            | 3.2                                    | 23256                  | 0.8            | 885.67           | 51.0                  | 102.0                 | -                        | -                        | <b>PD/PM 93/42<br/>132M2</b>  | 771 | 242 |                           |     |     |
|                        | 3.9                                    | 18784                  | 1.0            | 715.36           | 51.0                  | 102.0                 | 120.0                    | 130.0                    |                               |     |     |                           |     |     |
|                        | 4.5                                    | 16250                  | 1.1            | 618.83           | 51.0                  | 102.0                 | 120.0                    | 130.0                    |                               |     |     |                           |     |     |
|                        | 6.2                                    | 11839                  | 1.5            | 450.86           | 51.0                  | 102.0                 | 120.0                    | 130.0                    |                               |     |     |                           |     |     |
|                        | 2.6                                    | 32855                  | 0.8            | 352.16           | 70.0                  | 102.0                 | 120.0                    | 130.0                    | <b>PD/PM 93<br/>160M6</b>     | 762 | 225 |                           |     |     |
|                        | 3.1                                    | 27143                  | 0.9            | 290.94           | 69.0                  | 102.0                 | 120.0                    | 130.0                    |                               |     |     |                           |     |     |
|                        | 4.4                                    | 19094                  | 1.2            | 204.66           | 68.0                  | 102.0                 | 120.0                    | 130.0                    |                               |     |     |                           |     |     |
|                        | 5.1                                    | 16329                  | 1.6            | 175.03           | 67.0                  | 102.0                 | 120.0                    | 130.0                    |                               |     |     |                           |     |     |
|                        | 6.2                                    | 13490                  | 1.9            | 144.60           | 64.0                  | 102.0                 | 120.0                    | 130.0                    |                               |     |     |                           |     |     |
|                        | 6.6                                    | 12656                  | 2.1            | 135.66           | 78.0                  | 102.0                 | 120.0                    | 130.0                    |                               |     |     |                           |     |     |
|                        | 7.8                                    | 10776                  | 2.5            | 115.51           | 78.0                  | 102.0                 | 117.0                    | 130.0                    |                               |     |     |                           |     |     |
|                        | 8.9                                    | 9395                   | 2.8            | 100.70           | 78.0                  | 102.0                 | 115.0                    | 130.0                    |                               |     |     |                           |     |     |
|                        | 4.0                                    | 20775                  | 1.2            | 352.16           | 70.0                  | 102.0                 | 120.0                    | 130.0                    | <b>PD/PM 93<br/>132M4</b>     | 726 | 225 |                           |     |     |
|                        | 4.8                                    | 17163                  | 1.4            | 290.94           | 69.0                  | 102.0                 | 120.0                    | 130.0                    |                               |     |     |                           |     |     |
|                        | 6.8                                    | 12073                  | 1.8            | 204.66           | 68.0                  | 102.0                 | 120.0                    | 130.0                    |                               |     |     |                           |     |     |
|                        | 8.0                                    | 10325                  | 2.5            | 175.03           | 67.0                  | 102.0                 | 120.0                    | 130.0                    |                               |     |     |                           |     |     |
|                        | 9.7                                    | 8530                   | 2.8            | 144.60           | 64.0                  | 102.0                 | 120.0                    | 130.0                    |                               |     |     |                           |     |     |
|                        | 8.0                                    | 9930                   | 1.9            | 352.16           | 70.0                  | 102.0                 | 120.0                    | 130.0                    | <b>PD/PM 93<br/>132M2</b>     | 726 | 225 |                           |     |     |
|                        | 9.6                                    | 8204                   | 2.2            | 290.94           | 69.0                  | 102.0                 | 120.0                    | 130.0                    |                               |     |     |                           |     |     |
|                        | 13.7                                   | 5771                   | 2.9            | 204.66           | 68.0                  | 102.0                 | 120.0                    | 130.0                    |                               |     |     |                           |     |     |
|                        | 4.8                                    | 16885                  | 0.8            | 186.54           | 78.0                  | 73.0                  | -                        | -                        | <b>PD/PM 83/42<br/>160M6</b>  | 505 | 242 |                           |     |     |
|                        | 6.3                                    | 12635                  | 1.0            | 223.71           | -                     | -                     | -                        | -                        | <b>PD/PM 83/42<br/>132M4</b>  | 469 | 242 |                           |     |     |
|                        | 7.5                                    | 10536                  | 1.1            | 186.54           | -                     | -                     | -                        | -                        |                               |     |     |                           |     |     |
|                        | 8.1                                    | 9107                   | 1.0            | 346.82           | 78.0                  | 73.0                  | -                        | -                        | <b>PD/PM 83/42<br/>132M2</b>  | 469 | 242 |                           |     |     |
|                        | 9.5                                    | 7759                   | 1.2            | 295.48           | 78.0                  | 73.0                  | -                        | -                        |                               |     |     |                           |     |     |
|                        | 12.5                                   | 5874                   | 1.6            | 223.71           | 78.0                  | 73.0                  | -                        | -                        |                               |     |     |                           |     |     |
|                        | 15.0                                   | 4898                   | 1.9            | 186.54           | 78.0                  | 73.0                  | -                        | -                        |                               |     |     |                           |     |     |
|                        | 4.9                                    | 17312                  | 0.8            | 185.56           | 42.0                  | 73.0                  | 100.0                    | 105.0                    |                               |     |     | <b>PD/PM 83<br/>160M6</b> | 460 | 221 |
|                        | 5.9                                    | 14253                  | 1.0            | 152.77           | 42.0                  | 73.0                  | 100.0                    | 105.0                    |                               |     |     |                           |     |     |
|                        | 6.3                                    | 13426                  | 1.0            | 143.91           | 43.0                  | 73.0                  | 100.0                    | 105.0                    |                               |     |     |                           |     |     |
|                        | 7.2                                    | 11687                  | 1.1            | 125.27           | 43.0                  | 73.0                  | 98.0                     | 105.0                    |                               |     |     |                           |     |     |
|                        | 7.6                                    | 11054                  | 1.2            | 118.48           | 42.0                  | 73.0                  | 95.0                     | 105.0                    |                               |     |     |                           |     |     |
|                        | 8.7                                    | 9621                   | 1.3            | 103.13           | 42.0                  | 73.0                  | 95.0                     | 105.0                    |                               |     |     |                           |     |     |
|                        | 9.9                                    | 8470                   | 1.5            | 90.79            | 41.0                  | 73.0                  | 92.0                     | 105.0                    |                               |     |     |                           |     |     |
|                        | 11.9                                   | 7062                   | 1.8            | 75.70            | 41.0                  | 70.0                  | 89.0                     | 105.0                    |                               |     |     |                           |     |     |
|                        | 13.8                                   | 6079                   | 2.0            | 65.16            | 40.0                  | 67.0                  | 86.0                     | 105.0                    |                               |     |     |                           |     |     |
|                        | 15.7                                   | 5348                   | 2.4            | 57.32            | 48.0                  | 73.0                  | 83.0                     | 105.0                    |                               |     |     |                           |     |     |
|                        | 18.8                                   | 4459                   | 2.8            | 47.79            | 48.0                  | 73.0                  | 76.0                     | 105.0                    |                               |     |     |                           |     |     |
|                        | 20.7                                   | 4060                   | 2.7            | 43.52            | 48.0                  | 73.0                  | 75.0                     | 105.0                    |                               |     |     |                           |     |     |
|                        | 5.8                                    | 14275                  | 0.9            | 241.98           | 39.0                  | 73.0                  | 100.0                    | 105.0                    | <b>PD/PM 83<br/>132M4</b>     | 424 | 221 |                           |     |     |
|                        | 7.0                                    | 11847                  | 0.9            | 200.83           | -                     | -                     | 100.0                    | 105.0                    |                               |     |     |                           |     |     |
|                        | 7.5                                    | 10947                  | 1.2            | 185.56           | 42.0                  | 73.0                  | 100.0                    | 105.0                    |                               |     |     |                           |     |     |
|                        | 9.2                                    | 9012                   | 1.5            | 152.77           | 42.0                  | 73.0                  | 100.0                    | 105.0                    |                               |     |     |                           |     |     |
|                        | 9.7                                    | 8489                   | 1.5            | 143.91           | 43.0                  | 73.0                  | 100.0                    | 105.0                    |                               |     |     |                           |     |     |
|                        | 11.2                                   | 7390                   | 1.6            | 125.27           | 43.0                  | 73.0                  | 98.0                     | 105.0                    |                               |     |     |                           |     |     |
|                        | 11.8                                   | 6989                   | 1.8            | 118.48           | -                     | -                     | 100.0                    | 105.0                    |                               |     |     |                           |     |     |
|                        | 13.6                                   | 6084                   | 2.0            | 103.13           | 42.0                  | 73.0                  | 95.0                     | 105.0                    |                               |     |     |                           |     |     |
|                        | 15.4                                   | 5356                   | 2.3            | 90.79            | 41.0                  | 73.0                  | 92.0                     | 105.0                    |                               |     |     |                           |     |     |
|                        | 18.5                                   | 4466                   | 2.7            | 75.70            | 41.0                  | 70.0                  | 89.0                     | 105.0                    |                               |     |     |                           |     |     |
|                        | 21.5                                   | 3844                   | 2.9            | 65.16            | 40.0                  | 67.0                  | 86.0                     | 105.0                    |                               |     |     |                           |     |     |
|                        | 7.2                                    | 10895                  | 0.9            | 386.39           | 39.0                  | 73.0                  | 100.0                    | 105.0                    | <b>PD/PM 83<br/>132M2</b>     | 424 | 221 |                           |     |     |
|                        | 8.8                                    | 8970                   | 1.1            | 318.11           | 39.0                  | 73.0                  | 100.0                    | 105.0                    |                               |     |     |                           |     |     |
|                        | 9.5                                    | 8288                   | 1.2            | 293.92           | 39.0                  | 73.0                  | 100.0                    | 105.0                    |                               |     |     |                           |     |     |
|                        | 11.6                                   | 6823                   | 1.5            | 241.98           | 39.0                  | 73.0                  | 100.0                    | 105.0                    |                               |     |     |                           |     |     |
|                        | 13.9                                   | 5663                   | 1.4            | 200.83           | 42.0                  | 73.0                  | 100.0                    | 105.0                    |                               |     |     |                           |     |     |
|                        | 15.1                                   | 5232                   | 1.8            | 185.56           | 42.0                  | 73.0                  | 100.0                    | 105.0                    |                               |     |     |                           |     |     |
|                        | 18.3                                   | 4308                   | 2.3            | 152.77           | 42.0                  | 73.0                  | 100.0                    | 105.0                    |                               |     |     |                           |     |     |
|                        | 19.5                                   | 4058                   | 2.3            | 143.91           | 43.0                  | 73.0                  | 100.0                    | 105.0                    |                               |     |     |                           |     |     |
|                        | 22.4                                   | 3532                   | 2.6            | 125.27           | 43.0                  | 73.0                  | 98.0                     | 105.0                    |                               |     |     |                           |     |     |
|                        | 23.6                                   | 3341                   | 2.8            | 118.48           | 42.0                  | 73.0                  | 95.0                     | 105.0                    |                               |     |     |                           |     |     |
|                        | 12.5                                   | 6836                   | 1.2            | 72.17            | 41.0                  | 70.0                  | -                        | -                        |                               |     |     | <b>PD/PM 82<br/>160M6</b> | 456 | 220 |
|                        | 15.1                                   | 5627                   | 1.2            | 59.41            | 39.0                  | 66.0                  | -                        | -                        |                               |     |     |                           |     |     |
|                        | 18.9                                   | 4500                   | 2.5            | 47.51            | 43.0                  | 73.0                  | -                        | -                        |                               |     |     |                           |     |     |
|                        | 23.0                                   | 3705                   | 2.6            | 39.12            | 43.0                  | 73.0                  | -                        | -                        |                               |     |     |                           |     |     |



| $P_1$<br>[kW] | $n_2$<br>[Min <sup>-1</sup> ]                                               | $M_2$<br>[Nm]                                                                | $f_B$                                                              | $i_{ges}$                                                                                 | $F_R$<br>[N]                                                                 | $F_A$<br>[N]                                                                 | $F_{RGR}$<br>[N]                                                             | $F_{AGR}$<br>[N]                                                             | Tip / Type / Typ<br>IE2 / IE3 |  Kg |  mm |
|---------------|-----------------------------------------------------------------------------|------------------------------------------------------------------------------|--------------------------------------------------------------------|-------------------------------------------------------------------------------------------|------------------------------------------------------------------------------|------------------------------------------------------------------------------|------------------------------------------------------------------------------|------------------------------------------------------------------------------|-------------------------------|----------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------|
| <b>9.20</b>   | 19.4<br>23.6                                                                | 4348<br>3579                                                                 | 1.8<br>1.8                                                         | 72.17<br>59.41                                                                            | 41.0<br>39.0                                                                 | 70.0<br>66.0                                                                 | -<br>-                                                                       | -<br>-                                                                       | <b>PD/PM 82<br/>132M4</b>     | 420                                                                                    | 220                                                                                    |
|               | 38.8<br>47.1                                                                | 2109<br>1736                                                                 | 2.8<br>2.8                                                         | 72.17<br>59.41                                                                            | 41.0<br>39.0                                                                 | 70.0<br>66.0                                                                 | -<br>-                                                                       | -<br>-                                                                       | <b>PD/PM 82<br/>132M2</b>     | 420                                                                                    | 220                                                                                    |
|               | 12.6                                                                        | 5856                                                                         | 0.9                                                                | 223.01                                                                                    | 57.0                                                                         | 58.0                                                                         | -                                                                            | -                                                                            | <b>PD/PM 73/32<br/>132M2</b>  | 329                                                                                    | 240                                                                                    |
|               | 8.4<br>9.7<br>11.4<br>13.2<br>15.1<br>16.8<br>19.3<br>24.4<br>29.5<br>33.4  | 9939<br>8681<br>7347<br>6357<br>5553<br>4984<br>4353<br>3447<br>2845<br>2511 | 0.8<br>0.9<br>1.1<br>1.2<br>1.3<br>1.5<br>1.7<br>2.0<br>2.4<br>2.8 | 106.53<br>93.05<br>78.75<br>68.14<br>59.52<br>53.42<br>46.66<br>36.95<br>30.49<br>26.92   | 31.0<br>31.0<br>31.0<br>31.0<br>30.0<br>30.0<br>29.0<br>28.0<br>34.0<br>34.0 | 58.0<br>58.0<br>56.0<br>55.0<br>53.0<br>52.0<br>50.0<br>47.0<br>58.0<br>58.0 | 77.0<br>78.0<br>76.0<br>74.0<br>72.0<br>70.0<br>68.0<br>64.0<br>60.0<br>58.0 | 80.0<br>80.0<br>80.0<br>80.0<br>80.0<br>80.0<br>80.0<br>80.0<br>80.0<br>80.0 | <b>PD/PM 73<br/>160M6</b>     | 335                                                                                    | 217                                                                                    |
|               | 9.3<br>11.4<br>13.1<br>15.0<br>17.8<br>20.5<br>23.5<br>26.2<br>30.0<br>37.9 | 8868<br>7263<br>6284<br>5489<br>4646<br>4020<br>3511<br>3151<br>2753<br>2180 | 0.9<br>1.0<br>1.2<br>1.4<br>1.6<br>1.8<br>2.0<br>2.2<br>2.6<br>3.0 | 150.32<br>123.12<br>106.53<br>93.05<br>78.75<br>68.14<br>59.52<br>53.42<br>46.66<br>36.95 | 29.0<br>31.0<br>31.0<br>31.0<br>31.0<br>31.0<br>30.0<br>30.0<br>29.0<br>28.0 | 58.0<br>58.0<br>58.0<br>58.0<br>56.0<br>55.0<br>53.0<br>52.0<br>50.0<br>47.0 | 71.0<br>75.0<br>77.0<br>78.0<br>76.0<br>74.0<br>72.0<br>70.0<br>68.0<br>64.0 | 80.0<br>80.0<br>80.0<br>80.0<br>80.0<br>80.0<br>80.0<br>80.0<br>80.0<br>80.0 | <b>PD/PM 73<br/>132M4</b>     | 299                                                                                    | 217                                                                                    |
|               | 12.9<br>13.7<br>17.3<br>18.6<br>22.7<br>26.3<br>30.1<br>35.6<br>41.1        | 6103<br>5773<br>4571<br>4239<br>3472<br>3004<br>2624<br>2221<br>1921         | 1.0<br>1.0<br>1.0<br>1.4<br>1.7<br>1.9<br>2.2<br>2.5<br>2.8        | 216.45<br>204.72<br>162.12<br>150.32<br>123.12<br>106.53<br>93.05<br>78.75<br>68.14       | 29.0<br>29.0<br>29.0<br>29.0<br>31.0<br>31.0<br>31.0<br>31.0<br>31.0         | 58.0<br>58.0<br>58.0<br>58.0<br>58.0<br>58.0<br>58.0<br>56.0<br>55.0         | 74.0<br>75.0<br>74.0<br>71.0<br>75.0<br>77.0<br>78.0<br>76.0<br>74.0         | 80.0<br>80.0<br>80.0<br>80.0<br>80.0<br>80.0<br>80.0<br>80.0<br>80.0         | <b>PD/PM 73<br/>132M2</b>     | 299                                                                                    | 217                                                                                    |
|               | 12.9<br>15.8<br>19.7<br>20.0<br>24.2<br>25.9<br>33.5<br>39.3                | 6611<br>5389<br>4325<br>4268<br>3525<br>3286<br>2547<br>2169                 | 0.9<br>1.1<br>1.4<br>1.1<br>1.9<br>1.9<br>2.4<br>2.8               | 69.80<br>56.90<br>45.66<br>45.06<br>37.22<br>34.69<br>26.89<br>22.90                      | 31.0<br>30.0<br>29.0<br>29.0<br>33.0<br>33.0<br>33.0<br>33.0                 | 56.0<br>53.0<br>50.0<br>50.0<br>58.0<br>58.0<br>58.0<br>58.0                 | 74.0<br>71.0<br>66.0<br>67.0<br>63.0<br>62.0<br>57.0<br>-                    | 80.0<br>80.0<br>80.0<br>80.0<br>80.0<br>80.0<br>80.0<br>-                    | <b>PD/PM 72<br/>160M6</b>     | 328                                                                                    | 216                                                                                    |
|               | 20.1<br>24.6<br>31.1<br>40.4                                                | 4205<br>3428<br>2715<br>2090                                                 | 1.4<br>1.6<br>1.6<br>2.8                                           | 69.80<br>56.90<br>45.06<br>34.69                                                          | 31.0<br>30.0<br>29.0<br>-                                                    | 56.0<br>53.0<br>50.0<br>-                                                    | 74.0<br>71.0<br>67.0<br>62.0                                                 | 80.0<br>80.0<br>80.0<br>80.0                                                 | <b>PD/PM 72<br/>132M4</b>     | 292                                                                                    | 216                                                                                    |
|               | 40.1<br>49.2<br>62.1                                                        | 2040<br>1663<br>1317                                                         | 2.2<br>2.5<br>2.5                                                  | 69.80<br>56.90<br>45.06                                                                   | 31.0<br>30.0<br>29.0                                                         | 56.0<br>53.0<br>50.0                                                         | 74.0<br>71.0<br>67.0                                                         | 80.0<br>80.0<br>80.0                                                         | <b>PD/PM 72<br/>132M2</b>     | 292                                                                                    | 216                                                                                    |
|               | 17.6                                                                        | 4172                                                                         | 0.9                                                                | 158.90                                                                                    | -                                                                            | -                                                                            | -                                                                            | -                                                                            | <b>PD/PM 63/32<br/>132M2</b>  | 256                                                                                    | 240                                                                                    |
|               | 12.0<br>12.3<br>15.1<br>17.6<br>21.2<br>24.8<br>29.1<br>31.4<br>36.9        | 7025<br>6850<br>5565<br>4759<br>3957<br>3384<br>2883<br>2674<br>2278         | 0.9<br>0.9<br>1.0<br>1.1<br>1.2<br>1.4<br>1.7<br>1.8<br>2.2        | 75.30<br>73.42<br>59.65<br>51.01<br>42.41<br>36.27<br>30.90<br>28.66<br>24.42             | 26.0<br>26.0<br>26.0<br>26.0<br>25.0<br>25.0<br>24.0<br>24.0<br>29.0         | 47.0<br>47.0<br>47.0<br>45.0<br>44.0<br>42.0<br>40.0<br>40.0<br>47.0         | 53.0<br>54.0<br>55.0<br>56.0<br>55.0<br>53.0<br>51.0<br>50.0<br>48.0         | 60.0<br>60.0<br>60.0<br>60.0<br>60.0<br>60.0<br>60.0<br>60.0<br>60.0         | <b>PD/PM 63<br/>160M6</b>     | 262                                                                                    | 213                                                                                    |

| $P_1$<br>[kW] | $n_2$<br>[Min <sup>-1</sup> ] | $M_2$<br>[Nm] | $f_B$ | $i_{ges}$ | $F_R$<br>[N] | $F_A$<br>[N] | $F_{R GR}$<br>[N] | $F_{A GR}$<br>[N]         | Tip / Type / Typ<br>IE2 / IE3 |     |     |                           |     |     |
|---------------|-------------------------------|---------------|-------|-----------|--------------|--------------|-------------------|---------------------------|-------------------------------|-----|-----|---------------------------|-----|-----|
| <b>9.20</b>   | 12.2                          | 6772          | 0.9   | 114.79    | 19.0         | 47.0         | 45.0              | 60.0                      | <b>PD/PM 63<br/>132M4</b>     | 226 | 213 |                           |     |     |
|               | 15.1                          | 5467          | 1.1   | 92.68     | 26.0         | 47.0         | 50.0              | 60.0                      |                               |     |     |                           |     |     |
|               | 18.6                          | 4442          | 1.4   | 75.30     | 26.0         | 47.0         | 53.0              | 60.0                      |                               |     |     |                           |     |     |
|               | 19.1                          | 4331          | 1.3   | 73.42     | 26.0         | 47.0         | 54.0              | 60.0                      |                               |     |     |                           |     |     |
|               | 23.5                          | 3519          | 1.6   | 59.65     | 26.0         | 47.0         | 55.0              | 60.0                      |                               |     |     |                           |     |     |
|               | 27.4                          | 3009          | 1.7   | 51.01     | 26.0         | 45.0         | 56.0              | 60.0                      |                               |     |     |                           |     |     |
|               | 33.0                          | 2502          | 1.8   | 42.41     | 25.0         | 44.0         | 55.0              | 60.0                      |                               |     |     |                           |     |     |
|               | 38.6                          | 2140          | 2.1   | 36.27     | 25.0         | 42.0         | 53.0              | 60.0                      |                               |     |     |                           |     |     |
|               | 45.3                          | 1823          | 2.5   | 30.90     | 24.0         | 40.0         | 51.0              | 60.0                      |                               |     |     |                           |     |     |
|               | 48.8                          | 1691          | 2.7   | 28.66     | 24.0         | 40.0         | 50.0              | 60.0                      |                               |     |     |                           |     |     |
|               | 16.3                          | 4832          | 0.9   | 171.37    | 19.0         | 47.0         | 48.0              | 60.0                      |                               |     |     | <b>PD/PM 63<br/>132M2</b> | 226 | 213 |
|               | 17.5                          | 4515          | 1.0   | 160.11    | 19.0         | 47.0         | 49.0              | 60.0                      |                               |     |     |                           |     |     |
|               | 22.1                          | 3577          | 1.0   | 126.84    | 19.0         | 47.0         | 53.0              | 60.0                      |                               |     |     |                           |     |     |
|               | 24.4                          | 3237          | 1.4   | 114.79    | 19.0         | 47.0         | 45.0              | 60.0                      |                               |     |     |                           |     |     |
|               | 30.2                          | 2613          | 1.7   | 92.68     | 26.0         | 47.0         | 50.0              | 60.0                      |                               |     |     |                           |     |     |
|               | 37.2                          | 2123          | 2.1   | 75.30     | 26.0         | 47.0         | 53.0              | 60.0                      |                               |     |     |                           |     |     |
|               | 38.1                          | 2070          | 2.0   | 73.42     | 26.0         | 47.0         | 54.0              | 60.0                      |                               |     |     |                           |     |     |
|               | 46.9                          | 1682          | 2.5   | 59.65     | 26.0         | 47.0         | 55.0              | 60.0                      |                               |     |     |                           |     |     |
|               | 54.9                          | 1438          | 2.7   | 51.01     | 26.0         | 45.0         | 56.0              | 60.0                      |                               |     |     |                           |     |     |
|               | 66.0                          | 1196          | 2.9   | 42.41     | 25.0         | 44.0         | 55.0              | 60.0                      |                               |     |     |                           |     |     |
|               | 14.7                          | 5782          | 0.8   | 61.05     | 27.0         | 47.0         | 55.0              | 60.0                      | <b>PD/PM 62<br/>160M6</b>     | 265 | 212 |                           |     |     |
|               | 18.1                          | 4716          | 0.9   | 49.79     | 26.0         | 46.0         | 56.0              | 60.0                      |                               |     |     |                           |     |     |
|               | 22.8                          | 3736          | 0.9   | 39.44     | 25.0         | 43.0         | 54.0              | 60.0                      |                               |     |     |                           |     |     |
|               | 30.1                          | 2831          | 1.7   | 29.89     | 24.0         | 40.0         | 51.0              | 60.0                      |                               |     |     |                           |     |     |
|               | 34.6                          | 2464          | 1.9   | 26.02     | 24.0         | 39.0         | 49.0              | 60.0                      |                               |     |     |                           |     |     |
|               | 39.3                          | 2170          | 2.2   | 22.91     | 29.0         | 47.0         | 48.0              | 60.0                      |                               |     |     |                           |     |     |
|               | 48.2                          | 1769          | 2.6   | 18.68     | 29.0         | 47.0         | -                 | -                         |                               |     |     |                           |     |     |
|               | 84.6                          | 1008          | 2.1   | 10.64     | 29.0         | 47.0         | -                 | -                         |                               |     |     |                           |     |     |
|               | 17.4                          | 4835          | 0.9   | 80.26     | -            | -            | 57.0              | 60.0                      | <b>PD/PM 62<br/>132M4</b>     | 229 | 212 |                           |     |     |
|               | 21.4                          | 3943          | 0.9   | 65.45     | -            | -            | 57.0              | 60.0                      |                               |     |     |                           |     |     |
|               | 22.9                          | 3678          | 1.2   | 61.05     | 27.0         | 47.0         | 55.0              | 60.0                      |                               |     |     |                           |     |     |
|               | 28.1                          | 3000          | 1.3   | 49.79     | 26.0         | 46.0         | 56.0              | 60.0                      |                               |     |     |                           |     |     |
|               | 35.5                          | 2376          | 1.3   | 39.44     | 25.0         | 43.0         | 54.0              | 60.0                      |                               |     |     |                           |     |     |
|               | 46.8                          | 1801          | 2.5   | 29.89     | 24.0         | 40.0         | 51.0              | 60.0                      |                               |     |     |                           |     |     |
|               | 48.8                          | 1728          | 2.6   | 28.68     | -            | -            | -                 | -                         |                               |     |     |                           |     |     |
|               | 53.8                          | 1568          | 2.9   | 26.02     | 24.0         | 39.0         | 49.0              | 60.0                      |                               |     |     |                           |     |     |
|               | 34.9                          | 2345          | 1.3   | 80.26     | 27.0         | 47.0         | 57.0              | 60.0                      |                               |     |     | <b>PD/PM 62<br/>132M2</b> | 229 | 212 |
|               | 42.8                          | 1912          | 1.3   | 65.45     | 27.0         | 47.0         | 57.0              | 60.0                      |                               |     |     |                           |     |     |
|               | 45.9                          | 1784          | 1.9   | 61.05     | 27.0         | 47.0         | 55.0              | 60.0                      |                               |     |     |                           |     |     |
|               | 56.2                          | 1455          | 2.1   | 49.79     | 26.0         | 46.0         | 56.0              | 60.0                      |                               |     |     |                           |     |     |
|               | 71.0                          | 1152          | 2.1   | 39.44     | 25.0         | 43.0         | 54.0              | 60.0                      |                               |     |     |                           |     |     |
|               | 26.9                          | 3164          | 0.8   | 33.41     | 15.0         | 27.0         | 34.0              | 40.0                      | <b>PD/PM 52<br/>160M6</b>     | 181 | 208 |                           |     |     |
|               | 29.5                          | 2886          | 1.1   | 30.47     | 15.0         | 28.0         | 33.0              | 40.0                      |                               |     |     |                           |     |     |
|               | 36.1                          | 2364          | 1.3   | 24.96     | 15.0         | 27.0         | 32.0              | 40.0                      |                               |     |     |                           |     |     |
|               | 44.2                          | 1928          | 1.7   | 20.36     | 14.0         | 26.0         | 31.0              | 40.0                      |                               |     |     |                           |     |     |
|               | 47.7                          | 1786          | 1.5   | 18.86     | 14.0         | 25.0         | 30.0              | 40.0                      |                               |     |     |                           |     |     |
|               | 51.1                          | 1668          | 1.7   | 17.61     | 14.0         | 25.0         | 30.0              | 40.0                      |                               |     |     |                           |     |     |
|               | 58.5                          | 1457          | 1.9   | 15.38     | 13.0         | 24.0         | 29.0              | 40.0                      |                               |     |     |                           |     |     |
| 69.2          | 1231                          | 2.2           | 13.00 | 17.0      | 32.0         | 27.0         | 40.0              |                           |                               |     |     |                           |     |     |
| 83.9          | 1016                          | 2.6           | 10.73 | 17.0      | 32.0         | 25.0         | 40.0              |                           |                               |     |     |                           |     |     |
| 95.0          | 897                           | 2.7           | 9.47  | 17.0      | 32.0         | 24.0         | 40.0              |                           |                               |     |     |                           |     |     |
| 103.6         | 823                           | 3.0           | 8.69  | 17.0      | 32.0         | 24.0         | 40.0              |                           |                               |     |     |                           |     |     |
| 25.0          | 3370                          | 0.8           | 55.94 | -         | -            | 41.0         | 40.0              | <b>PD/PM 52<br/>132M4</b> |                               |     |     | 145                       | 208 |     |
| 27.2          | 3100                          | 1.0           | 51.45 | 15.0      | 30.0         | 37.0         | 40.0              |                           |                               |     |     |                           |     |     |
| 29.6          | 2848                          | 0.8           | 47.27 | -         | -            | 39.0         | 40.0              |                           |                               |     |     |                           |     |     |
| 33.4          | 2528                          | 1.3           | 41.96 | 15.0      | 29.0         | 35.0         | 40.0              |                           |                               |     |     |                           |     |     |
| 34.3          | 2457                          | 1.0           | 40.79 | 15.0      | 28.0         | 36.0         | 40.0              |                           |                               |     |     |                           |     |     |
| 39.5          | 2136                          | 1.3           | 35.45 | 15.0      | 29.0         | 34.0         | 40.0              |                           |                               |     |     |                           |     |     |
| 41.9          | 2013                          | 1.1           | 33.41 | 15.0      | 27.0         | 34.0         | 40.0              |                           |                               |     |     |                           |     |     |
| 45.9          | 1836                          | 1.6           | 30.47 | 15.0      | 28.0         | 33.0         | 40.0              |                           |                               |     |     |                           |     |     |
| 56.1          | 1504                          | 1.9           | 24.96 | 15.0      | 27.0         | 32.0         | 40.0              |                           |                               |     |     |                           |     |     |
| 68.8          | 1227                          | 2.5           | 20.36 | 14.0      | 26.0         | 31.0         | 40.0              |                           |                               |     |     |                           |     |     |
| 74.2          | 1136                          | 2.3           | 18.86 | 14.0      | 25.0         | 30.0         | 40.0              |                           |                               |     |     |                           |     |     |
| 79.5          | 1061                          | 2.6           | 17.61 | 14.0      | 25.0         | 30.0         | 40.0              |                           |                               |     |     |                           |     |     |
| 91.0          | 927                           | 2.8           | 15.38 | 13.0      | 24.0         | 29.0         | 40.0              |                           |                               |     |     |                           |     |     |
|               |                               |               |       |           |              |              |                   |                           |                               |     |     |                           |     |     |



| $P_1$<br>[kW] | $n_2$<br>[Min <sup>-1</sup> ] | $M_2$<br>[Nm] | $f_B$ | $i_{ges}$ | $F_R$<br>[N] | $F_A$<br>[N] | $F_{RGR}$<br>[N] | $F_{AGR}$<br>[N] | Tip / Type / Typ<br>IE2 / IE3 |  Kg |  mm |
|---------------|-------------------------------|---------------|-------|-----------|--------------|--------------|------------------|------------------|-------------------------------|----------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------|
| <b>9.20</b>   | 30.5                          | 2683          | 0.8   | 91.82     | 15.0         | 30.0         | 40.0             | 40.0             | <b>PD/PM 52<br/>132M2</b>     | 145                                                                                    | 208                                                                                    |
|               | 40.8                          | 2005          | 1.1   | 68.60     | 15.0         | 30.0         | 42.0             | 40.0             |                               |                                                                                        |                                                                                        |
|               | 50.1                          | 1635          | 1.2   | 55.94     | 15.0         | 30.0         | 41.0             | 40.0             |                               |                                                                                        |                                                                                        |
|               | 50.4                          | 1623          | 1.2   | 55.55     | 15.0         | 30.0         | 39.0             | 40.0             |                               |                                                                                        |                                                                                        |
|               | 54.4                          | 1503          | 1.6   | 51.45     | 15.0         | 30.0         | 37.0             | 40.0             |                               |                                                                                        |                                                                                        |
|               | 59.2                          | 1381          | 1.3   | 47.27     | 15.0         | 29.0         | 39.0             | 40.0             |                               |                                                                                        |                                                                                        |
|               | 66.7                          | 1226          | 2.0   | 41.96     | 15.0         | 29.0         | 35.0             | 40.0             |                               |                                                                                        |                                                                                        |
|               | 68.6                          | 1192          | 1.6   | 40.79     | 15.0         | 28.0         | 36.0             | 40.0             |                               |                                                                                        |                                                                                        |
|               | 79.0                          | 1036          | 2.0   | 35.45     | 15.0         | 29.0         | 34.0             | 40.0             |                               |                                                                                        |                                                                                        |
|               | 83.8                          | 976           | 1.8   | 33.41     | 15.0         | 27.0         | 34.0             | 40.0             |                               |                                                                                        |                                                                                        |
| 91.9          | 890                           | 2.5           | 30.47 | 15.0      | 28.0         | 33.0         | 40.0             |                  |                               |                                                                                        |                                                                                        |
| 112.2         | 729                           | 3.0           | 24.96 | 15.0      | 27.0         | 32.0         | 40.0             |                  |                               |                                                                                        |                                                                                        |
|               | 34.1                          | 2501          | 0.8   | 26.41     | 8.0          | 15.0         | 22.0             | 30.0             | <b>PD/PM 42<br/>160M6</b>     | 145                                                                                    | 204                                                                                    |
|               | 40.2                          | 2120          | 0.8   | 22.38     | 8.0          | 15.0         | 21.0             | 30.0             |                               |                                                                                        |                                                                                        |
|               | 41.9                          | 2033          | 0.9   | 21.46     | 9.0          | 15.0         | 21.0             | 30.0             |                               |                                                                                        |                                                                                        |
|               | 49.5                          | 1722          | 1.1   | 18.18     | 9.0          | 15.0         | 20.0             | 30.0             |                               |                                                                                        |                                                                                        |
|               | 59.2                          | 1439          | 1.3   | 15.19     | 8.0          | 15.0         | 20.0             | 30.0             |                               |                                                                                        |                                                                                        |
|               | 71.0                          | 1200          | 1.5   | 12.67     | 8.0          | 14.0         | 19.0             | 30.0             |                               |                                                                                        |                                                                                        |
|               | 83.1                          | 1026          | 1.7   | 10.83     | 8.0          | 14.0         | 18.0             | 30.0             |                               |                                                                                        |                                                                                        |
|               | 97.5                          | 874           | 2.0   | 9.23      | 8.0          | 13.0         | 18.0             | 29.0             |                               |                                                                                        |                                                                                        |
|               | 108.0                         | 789           | 1.7   | 8.33      | 8.0          | 13.0         | 17.0             | 28.0             |                               |                                                                                        |                                                                                        |
|               | 126.2                         | 675           | 1.9   | 7.13      | 7.0          | 12.0         | 16.0             | 27.0             |                               |                                                                                        |                                                                                        |
|               | 148.3                         | 575           | 2.2   | 6.07      | 9.0          | 17.0         | 16.0             | 26.0             |                               |                                                                                        |                                                                                        |
|               | 165.4                         | 515           | 2.1   | 5.44      | 9.0          | 17.0         | 15.0             | 26.0             |                               |                                                                                        |                                                                                        |
|               | 180.0                         | 474           | 2.3   | 5.00      | 9.0          | 17.0         | 15.0             | 25.0             |                               |                                                                                        |                                                                                        |
|               | 191.9                         | 444           | 2.4   | 4.69      | 9.0          | 17.0         | 15.0             | 25.0             |                               |                                                                                        |                                                                                        |
|               | 36.5                          | 2310          | 0.9   | 38.35     | 7.0          | 14.0         | 22.0             | 30.0             | <b>PD/PM 42<br/>132M4</b>     | 109                                                                                    | 204                                                                                    |
|               | 43.3                          | 1947          | 0.8   | 32.31     | -            | -            | 22.0             | 30.0             |                               |                                                                                        |                                                                                        |
|               | 43.7                          | 1930          | 0.9   | 32.04     | 8.0          | 14.0         | 22.0             | 30.0             |                               |                                                                                        |                                                                                        |
|               | 52.4                          | 1610          | 1.0   | 26.72     | 8.0          | 14.0         | 21.0             | 30.0             |                               |                                                                                        |                                                                                        |
|               | 53.0                          | 1591          | 1.1   | 26.41     | 8.0          | 15.0         | 22.0             | 30.0             |                               |                                                                                        |                                                                                        |
|               | 53.3                          | 1581          | 1.0   | 26.25     | -            | -            | -                | -                |                               |                                                                                        |                                                                                        |
|               | 62.6                          | 1348          | 1.3   | 22.38     | 8.0          | 15.0         | 21.0             | 30.0             |                               |                                                                                        |                                                                                        |
|               | 65.2                          | 1293          | 1.3   | 21.46     | 9.0          | 15.0         | 21.0             | 30.0             |                               |                                                                                        |                                                                                        |
|               | 77.0                          | 1095          | 1.6   | 18.18     | 9.0          | 15.0         | 20.0             | 30.0             |                               |                                                                                        |                                                                                        |
|               | 92.2                          | 915           | 2.0   | 15.19     | 8.0          | 15.0         | 20.0             | 30.0             |                               |                                                                                        |                                                                                        |
|               | 110.5                         | 763           | 2.3   | 12.67     | 8.0          | 14.0         | 19.0             | 30.0             |                               |                                                                                        |                                                                                        |
|               | 129.3                         | 652           | 2.6   | 10.83     | 8.0          | 14.0         | 18.0             | 30.0             |                               |                                                                                        |                                                                                        |
|               | 151.7                         | 556           | 2.9   | 9.23      | 8.0          | 13.0         | 18.0             | 29.0             |                               |                                                                                        |                                                                                        |
|               | 168.1                         | 502           | 2.5   | 8.33      | 8.0          | 13.0         | 17.0             | 28.0             |                               |                                                                                        |                                                                                        |
| 196.4         | 430                           | 2.8           | 7.13  | 7.0       | 12.0         | 16.0         | 27.0             |                  |                               |                                                                                        |                                                                                        |
|               | 45.4                          | 1801          | 0.8   | 61.64     | 7.0          | 14.0         | 26.0             | 30.0             | <b>PD/PM 42<br/>132M2</b>     | 109                                                                                    | 204                                                                                    |
|               | 53.6                          | 1526          | 0.9   | 52.23     | 7.0          | 14.0         | 27.0             | 30.0             |                               |                                                                                        |                                                                                        |
|               | 62.1                          | 1317          | 0.9   | 45.06     | 7.0          | 14.0         | 26.0             | 30.0             |                               |                                                                                        |                                                                                        |
|               | 64.2                          | 1275          | 1.0   | 43.64     | 7.0          | 14.0         | 26.0             | 30.0             |                               |                                                                                        |                                                                                        |
|               | 68.6                          | 1192          | 1.0   | 40.79     | 7.0          | 14.0         | 24.0             | 30.0             |                               |                                                                                        |                                                                                        |
|               | 73.0                          | 1121          | 1.4   | 38.35     | 7.0          | 14.0         | 22.0             | 30.0             |                               |                                                                                        |                                                                                        |
|               | 76.0                          | 1076          | 1.0   | 36.84     | 8.0          | 14.0         | 25.0             | 30.0             |                               |                                                                                        |                                                                                        |
|               | 76.9                          | 1063          | 1.0   | 36.39     | 8.0          | 14.0         | 25.0             | 30.0             |                               |                                                                                        |                                                                                        |
|               | 86.7                          | 944           | 1.3   | 32.31     | 8.0          | 14.0         | 25.0             | 30.0             |                               |                                                                                        |                                                                                        |
|               | 87.4                          | 936           | 1.4   | 32.04     | 8.0          | 14.0         | 22.0             | 30.0             |                               |                                                                                        |                                                                                        |
|               | 104.8                         | 781           | 1.6   | 26.72     | 8.0          | 14.0         | 21.0             | 30.0             |                               |                                                                                        |                                                                                        |
|               | 106.0                         | 772           | 1.8   | 26.41     | 8.0          | 15.0         | 22.0             | 30.0             |                               |                                                                                        |                                                                                        |
|               | 106.7                         | 767           | 1.6   | 26.25     | 8.0          | 15.0         | 22.0             | 30.0             |                               |                                                                                        |                                                                                        |
|               | 125.1                         | 654           | 2.0   | 22.38     | 8.0          | 15.0         | 21.0             | 30.0             |                               |                                                                                        |                                                                                        |
| 130.5         | 627                           | 2.0           | 21.46 | 9.0       | 15.0         | 21.0         | 30.0             |                  |                               |                                                                                        |                                                                                        |
| 154.0         | 531                           | 2.6           | 18.18 | 9.0       | 15.0         | 20.0         | 30.0             |                  |                               |                                                                                        |                                                                                        |
|               | 84.1                          | 1003          | 0.8   | 16.65     | 4.0          | 7.0          | 13.0             | 18.0             | <b>PD/PM 32<br/>132M4</b>     | 94                                                                                     | 200                                                                                    |
|               | 99.4                          | 849           | 1.0   | 14.09     | 4.0          | 7.0          | 12.0             | 18.0             |                               |                                                                                        |                                                                                        |
|               | 123.3                         | 684           | 1.2   | 11.35     | 4.0          | 7.0          | 12.0             | 17.0             |                               |                                                                                        |                                                                                        |
|               | 143.3                         | 589           | 1.4   | 9.77      | 4.0          | 7.0          | 12.0             | 17.0             |                               |                                                                                        |                                                                                        |
|               | 168.9                         | 499           | 1.4   | 8.29      | 4.0          | 7.0          | 11.0             | 16.0             |                               |                                                                                        |                                                                                        |
|               | 209.6                         | 402           | 1.5   | 6.68      | 4.0          | 7.0          | 11.0             | 16.0             |                               |                                                                                        |                                                                                        |
|               | 247.3                         | 341           | 1.7   | 5.66      | 4.0          | 7.0          | 10.0             | 16.0             |                               |                                                                                        |                                                                                        |
|               | 312.5                         | 270           | 1.7   | 4.48      | 4.0          | 7.0          | 10.0             | 15.0             |                               |                                                                                        |                                                                                        |
|               |                               |               |       |           |              |              |                  |                  |                               |                                                                                        |                                                                                        |





| <b>P<sub>1</sub></b><br>[kW] | <b>n<sub>2</sub></b><br>[Min <sup>-1</sup> ] | <b>M<sub>2</sub></b><br>[Nm] | <b>f<sub>B</sub></b> | <b>i<sub>ges</sub></b> | <b>F<sub>R</sub></b><br>[N] | <b>F<sub>A</sub></b><br>[N] | <b>F<sub>R GR</sub></b><br>[N] | <b>F<sub>A GR</sub></b><br>[N]         | Tip / Type / Typ<br>IE2 / IE3           |  Kg |  mm |
|------------------------------|----------------------------------------------|------------------------------|----------------------|------------------------|-----------------------------|-----------------------------|--------------------------------|----------------------------------------|-----------------------------------------|----------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------|
| <b>9.20</b>                  | 124.9                                        | 655                          | 0.9                  | 22.42                  | 4.0                         | 7.0                         | 15.0                           | 20.0                                   | <b>PD/PM 32<br/>132M2</b>               | 94                                                                                     | 200                                                                                    |
|                              | 139.0                                        | 589                          | 1.1                  | 20.15                  | 4.0                         | 7.0                         | 14.0                           | 19.0                                   |                                         |                                                                                        |                                                                                        |
|                              | 168.2                                        | 487                          | 1.3                  | 16.65                  | 4.0                         | 7.0                         | 13.0                           | 18.0                                   |                                         |                                                                                        |                                                                                        |
|                              | 198.7                                        | 412                          | 1.6                  | 14.09                  | 4.0                         | 7.0                         | 12.0                           | 18.0                                   |                                         |                                                                                        |                                                                                        |
|                              | 246.7                                        | 332                          | 1.9                  | 11.35                  | 4.0                         | 7.0                         | 12.0                           | 17.0                                   |                                         |                                                                                        |                                                                                        |
|                              | 286.6                                        | 285                          | 2.2                  | 9.77                   | 4.0                         | 7.0                         | 12.0                           | 17.0                                   |                                         |                                                                                        |                                                                                        |
|                              | 337.8                                        | 242                          | 2.1                  | 8.29                   | 4.0                         | 7.0                         | 11.0                           | 16.0                                   |                                         |                                                                                        |                                                                                        |
|                              | 419.2                                        | 195                          | 2.4                  | 6.68                   | 4.0                         | 7.0                         | 11.0                           | 16.0                                   |                                         |                                                                                        |                                                                                        |
|                              | 494.7                                        | 165                          | 2.6                  | 5.66                   | 4.0                         | 7.0                         | 10.0                           | 16.0                                   |                                         |                                                                                        |                                                                                        |
| 625.0                        | 131                                          | 2.7                          | 4.48                 | 4.0                    | 7.0                         | 10.0                        | 15.0                           |                                        |                                         |                                                                                        |                                                                                        |
| <b>11.0</b>                  | 1.2                                          | 79165                        | 0.8                  | 731.47                 | -                           | -                           | 77.0                           | 170.0                                  | <b>PD/PM 113/52<br/>160L6B / 160L6D</b> | 2245                                                                                   | 242                                                                                    |
|                              | 1.5                                          | 65312                        | 1.0                  | 603.47                 | -                           | -                           | 105.0                          | 170.0                                  |                                         |                                                                                        |                                                                                        |
|                              | 1.9                                          | 51933                        | 1.2                  | 479.85                 | -                           | -                           | 124.0                          | 170.0                                  |                                         |                                                                                        |                                                                                        |
|                              | 2.5                                          | 39309                        | 1.3                  | 363.21                 | -                           | -                           | 137.0                          | 170.0                                  |                                         |                                                                                        |                                                                                        |
|                              | 2.9                                          | 33792                        | 1.6                  | 312.23                 | -                           | -                           | 141.0                          | 170.0                                  |                                         |                                                                                        |                                                                                        |
|                              | 1.2                                          | 77985                        | 0.8                  | 1154.79                | -                           | -                           | 18.0                           | 170.0                                  | <b>PD/PM 113/52<br/>160M4C</b>          | 2245                                                                                   | 242                                                                                    |
|                              | 1.5                                          | 64976                        | 0.9                  | 962.15                 | -                           | -                           | 21.0                           | 170.0                                  |                                         |                                                                                        |                                                                                        |
|                              | 1.9                                          | 49398                        | 1.2                  | 731.47                 | -                           | -                           | 77.0                           | 170.0                                  |                                         |                                                                                        |                                                                                        |
|                              | 2.3                                          | 40754                        | 1.5                  | 603.47                 | -                           | -                           | 105.0                          | 170.0                                  |                                         |                                                                                        |                                                                                        |
|                              | 2.9                                          | 32405                        | 1.9                  | 479.85                 | -                           | -                           | 124.0                          | 170.0                                  |                                         |                                                                                        |                                                                                        |
|                              | 3.9                                          | 24528                        | 2.0                  | 363.21                 | -                           | -                           | 137.0                          | 170.0                                  |                                         |                                                                                        |                                                                                        |
|                              | 4.5                                          | 21086                        | 2.4                  | 312.23                 | -                           | -                           | 141.0                          | 170.0                                  |                                         |                                                                                        |                                                                                        |
|                              | 1.5                                          | 57438                        | 0.8                  | 1829.47                | -                           | -                           | -                              | -                                      | <b>PD/PM 113/52<br/>160M2B / 160M2C</b> | 2245                                                                                   | 242                                                                                    |
|                              | 2.0                                          | 43413                        | 1.1                  | 1382.74                | -                           | -                           | 36.0                           | 170.0                                  |                                         |                                                                                        |                                                                                        |
|                              | 2.4                                          | 36256                        | 1.3                  | 1154.79                | -                           | -                           | 18.0                           | 170.0                                  |                                         |                                                                                        |                                                                                        |
|                              | 2.9                                          | 30208                        | 1.5                  | 962.15                 | -                           | -                           | 21.0                           | 170.0                                  |                                         |                                                                                        |                                                                                        |
|                              | 3.8                                          | 22965                        | 2.0                  | 731.47                 | -                           | -                           | 77.0                           | 170.0                                  |                                         |                                                                                        |                                                                                        |
|                              | 4.6                                          | 18947                        | 2.4                  | 603.47                 | -                           | -                           | 105.0                          | 170.0                                  |                                         |                                                                                        |                                                                                        |
|                              | 5.8                                          | 15065                        | 3.0                  | 479.85                 | -                           | -                           | 124.0                          | 170.0                                  |                                         |                                                                                        |                                                                                        |
|                              | 4.0                                          | 25072                        | 2.9                  | 224.76                 | -                           | -                           | 146.0                          | 170.0                                  | <b>PD/PM 113<br/>160L6B / 160L6D</b>    | 2171                                                                                   | 233                                                                                    |
|                              | 2.5                                          | 39630                        | 0.9                  | 366.18                 | -                           | -                           | 120.0                          | 150.0                                  | <b>PD/PM 103/52<br/>160L6B / 160L6D</b> | 1400                                                                                   | 242                                                                                    |
|                              | 3.0                                          | 32695                        | 1.1                  | 302.10                 | -                           | -                           | -                              | -                                      |                                         |                                                                                        |                                                                                        |
|                              | 2.4                                          | 39040                        | 0.9                  | 578.09                 | -                           | -                           | 87.0                           | 150.0                                  | <b>PD/PM 103/52<br/>160M4C</b>          | 1400                                                                                   | 242                                                                                    |
|                              | 2.9                                          | 32208                        | 1.1                  | 476.93                 | -                           | -                           | 107.0                          | 150.0                                  |                                         |                                                                                        |                                                                                        |
|                              | 3.8                                          | 24729                        | 1.4                  | 366.18                 | -                           | -                           | 120.0                          | 150.0                                  |                                         |                                                                                        |                                                                                        |
|                              | 4.6                                          | 20401                        | 1.7                  | 302.10                 | -                           | -                           | 101.0                          | 150.0                                  |                                         |                                                                                        |                                                                                        |
|                              | 3.1                                          | 28754                        | 0.9                  | 915.84                 | -                           | -                           | 77.0                           | 150.0                                  | <b>PD/PM 103/52<br/>160M2B / 160M2C</b> | 1400                                                                                   | 242                                                                                    |
|                              | 4.0                                          | 21732                        | 1.2                  | 692.20                 | -                           | -                           | 87.0                           | 150.0                                  |                                         |                                                                                        |                                                                                        |
|                              | 4.8                                          | 18150                        | 1.5                  | 578.09                 | -                           | -                           | 87.0                           | 150.0                                  |                                         |                                                                                        |                                                                                        |
|                              | 5.9                                          | 14974                        | 1.8                  | 476.93                 | -                           | -                           | 107.0                          | 150.0                                  |                                         |                                                                                        |                                                                                        |
|                              | 7.6                                          | 11497                        | 2.3                  | 366.18                 | -                           | -                           | 120.0                          | 150.0                                  |                                         |                                                                                        |                                                                                        |
|                              | 9.3                                          | 9485                         | 2.8                  | 302.10                 | -                           | -                           | 101.0                          | 150.0                                  |                                         |                                                                                        |                                                                                        |
|                              | 2.5                                          | 39867                        | 0.9                  | 357.40                 | -                           | -                           | 121.0                          | 150.0                                  | <b>PD/PM 103<br/>160L6B / 160L6D</b>    | 1326                                                                                   | 229                                                                                    |
|                              | 2.7                                          | 37105                        | 1.0                  | 332.64                 | -                           | -                           | 124.0                          | 150.0                                  |                                         |                                                                                        |                                                                                        |
|                              | 3.2                                          | 31551                        | 1.1                  | 282.85                 | -                           | -                           | 128.0                          | 150.0                                  |                                         |                                                                                        |                                                                                        |
|                              | 3.4                                          | 29365                        | 1.2                  | 263.25                 | -                           | -                           | 129.0                          | 150.0                                  |                                         |                                                                                        |                                                                                        |
| 5.0                          | 20155                                        | 1.8                          | 180.68               | -                      | -                           | 134.0                       | 150.0                          |                                        |                                         |                                                                                        |                                                                                        |
| 5.4                          | 18758                                        | 2.0                          | 168.16               | -                      | -                           | 131.0                       | 150.0                          |                                        |                                         |                                                                                        |                                                                                        |
| 6.4                          | 15662                                        | 2.4                          | 140.41               | -                      | -                           | 133.0                       | 150.0                          |                                        |                                         |                                                                                        |                                                                                        |
| 3.9                          | 25209                                        | 1.4                          | 357.40               | -                      | -                           | 121.0                       | 150.0                          | <b>PD/PM 103<br/>160M4C</b>            | 1326                                    | 229                                                                                    |                                                                                        |
| 4.2                          | 23462                                        | 1.6                          | 332.64               | -                      | -                           | 124.0                       | 150.0                          |                                        |                                         |                                                                                        |                                                                                        |
| 4.9                          | 19950                                        | 1.7                          | 282.85               | -                      | -                           | 128.0                       | 150.0                          |                                        |                                         |                                                                                        |                                                                                        |
| 5.3                          | 18568                                        | 1.8                          | 263.25               | -                      | -                           | 129.0                       | 150.0                          |                                        |                                         |                                                                                        |                                                                                        |
| 7.7                          | 12744                                        | 2.7                          | 180.68               | -                      | -                           | 134.0                       | 150.0                          |                                        |                                         |                                                                                        |                                                                                        |
| 8.3                          | 11861                                        | 3.0                          | 168.16               | -                      | -                           | 128.0                       | 150.0                          |                                        |                                         |                                                                                        |                                                                                        |
| 7.8                          | 12050                                        | 2.2                          | 357.40               | -                      | -                           | 121.0                       | 150.0                          | <b>PD/PM 103<br/>160M2B / 160M2C</b>   | 1326                                    | 229                                                                                    |                                                                                        |
| 8.4                          | 11215                                        | 2.5                          | 332.64               | -                      | -                           | 124.0                       | 150.0                          |                                        |                                         |                                                                                        |                                                                                        |
| 9.9                          | 9536                                         | 2.6                          | 282.85               | -                      | -                           | 128.0                       | 150.0                          |                                        |                                         |                                                                                        |                                                                                        |
| 10.6                         | 8875                                         | 2.8                          | 263.25               | -                      | -                           | 129.0                       | 150.0                          |                                        |                                         |                                                                                        |                                                                                        |
| 3.1                          | 31839                                        | 0.8                          | 294.19               | 73.0                   | 102.0                       | -                           | -                              | <b>PD/PM 93/52<br/>160L6B / 160L6D</b> | 836                                     | 242                                                                                    |                                                                                        |
| 3.9                          | 25249                                        | 1.0                          | 233.30               | 27.0                   | 57.0                        | 98.0                        | 123.0                          |                                        |                                         |                                                                                        |                                                                                        |
| 4.5                          | 21699                                        | 1.2                          | 200.50               | 30.0                   | 61.0                        | 98.0                        | 123.0                          |                                        |                                         |                                                                                        |                                                                                        |

| $P_1$<br>[kW] | $n_2$<br>[Min <sup>-1</sup> ] | $M_2$<br>[Nm] | $f_B$  | $i_{ges}$ | $F_R$<br>[N] | $F_A$<br>[N] | $F_{RGR}$<br>[N] | $F_{AGR}$<br>[N]           | Tip / Type / Typ<br>IE2 / IE3          |  Kg |  mm |
|---------------|-------------------------------|---------------|--------|-----------|--------------|--------------|------------------|----------------------------|----------------------------------------|----------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------|
| <b>11.0</b>   | 3.4                           | 27721         | 0.9    | 410.49    | 43.0         | 91.0         | 120.0            | 130.0                      | <b>PD/PM 93/52<br/>160M4C</b>          | 836                                                                                    | 242                                                                                    |
|               | 4.8                           | 19867         | 1.2    | 294.19    | 73.0         | 102.0        | 120.0            | 130.0                      |                                        |                                                                                        |                                                                                        |
|               | 6.0                           | 15755         | 1.5    | 233.30    | 27.0         | 57.0         | 98.0             | 123.0                      |                                        |                                                                                        |                                                                                        |
|               | 7.0                           | 13540         | 1.8    | 200.50    | 30.0         | 61.0         | 98.0             | 123.0                      |                                        |                                                                                        |                                                                                        |
|               | 6.8                           | 12888         | 1.4    | 410.49    | 43.0         | 91.0         | 120.0            | 130.0                      | <b>PD/PM 93/52<br/>160M2B / 160M2C</b> | 836                                                                                    | 242                                                                                    |
|               | 9.5                           | 9236          | 2.0    | 294.19    | 73.0         | 102.0        | -                | -                          |                                        |                                                                                        |                                                                                        |
|               | 12.0                          | 7325          | 2.5    | 233.30    | 27.0         | 57.0         | 98.0             | 123.0                      |                                        |                                                                                        |                                                                                        |
|               | 14.0                          | 6295          | 2.9    | 200.50    | 30.0         | 61.0         | 98.0             | 123.0                      |                                        |                                                                                        |                                                                                        |
|               | 3.1                           | 30448         | 0.8    | 450.86    | 51.0         | 102.0        | 120.0            | 130.0                      | <b>PD/PM 93/42<br/>160M4C</b>          | 807                                                                                    | 242                                                                                    |
|               | 3.9                           | 22459         | 0.8    | 715.36    | 51.0         | 102.0        | -                | -                          | <b>PD/PM 93/42<br/>160M2B / 160M2C</b> | 807                                                                                    | 242                                                                                    |
|               | 4.5                           | 19429         | 0.9    | 618.83    | 51.0         | 102.0        | 120.0            | 130.0                      |                                        |                                                                                        |                                                                                        |
|               | 6.2                           | 14155         | 1.3    | 450.86    | 51.0         | 102.0        | 120.0            | 130.0                      |                                        |                                                                                        |                                                                                        |
|               | 3.1                           | 32454         | 0.8    | 290.94    | 62.0         | 102.0        | 120.0            | 130.0                      | <b>PD/PM 93<br/>160L6B / 160L6D</b>    | 762                                                                                    | 225                                                                                    |
|               | 4.4                           | 22829         | 1.0    | 204.66    | 64.0         | 102.0        | 120.0            | 130.0                      |                                        |                                                                                        |                                                                                        |
|               | 5.1                           | 19524         | 1.4    | 175.03    | 63.0         | 102.0        | 120.0            | 130.0                      |                                        |                                                                                        |                                                                                        |
|               | 6.2                           | 16130         | 1.6    | 144.60    | 61.0         | 102.0        | 120.0            | 130.0                      |                                        |                                                                                        |                                                                                        |
|               | 6.6                           | 15133         | 1.8    | 135.66    | 61.0         | 102.0        | 120.0            | 130.0                      |                                        |                                                                                        |                                                                                        |
|               | 7.8                           | 12885         | 2.1    | 115.51    | 70.0         | 102.0        | 115.0            | 130.0                      |                                        |                                                                                        |                                                                                        |
|               | 8.9                           | 11233         | 2.4    | 100.70    | 70.0         | 102.0        | 113.0            | 130.0                      |                                        |                                                                                        |                                                                                        |
|               | 10.8                          | 9280          | 2.7    | 83.19     | 70.0         | 102.0        | 106.0            | 130.0                      |                                        |                                                                                        |                                                                                        |
|               | 4.0                           | 24839         | 1.0    | 352.16    | 62.0         | 102.0        | 120.0            | 130.0                      | <b>PD/PM 93<br/>160M4C</b>             | 762                                                                                    | 225                                                                                    |
|               | 4.8                           | 20521         | 1.2    | 290.94    | 62.0         | 102.0        | 120.0            | 130.0                      |                                        |                                                                                        |                                                                                        |
|               | 6.8                           | 14435         | 1.5    | 204.66    | 64.0         | 102.0        | 120.0            | 130.0                      |                                        |                                                                                        |                                                                                        |
|               | 8.0                           | 12345         | 2.1    | 175.03    | 63.0         | 102.0        | 120.0            | 130.0                      |                                        |                                                                                        |                                                                                        |
|               | 9.7                           | 10199         | 2.4    | 144.60    | 61.0         | 102.0        | 120.0            | 130.0                      |                                        |                                                                                        |                                                                                        |
|               | 10.3                          | 9569          | 2.7    | 135.66    | 61.0         | 102.0        | 120.0            | 130.0                      |                                        |                                                                                        |                                                                                        |
|               | 8.0                           | 11873         | 1.6    | 352.16    | 62.0         | 102.0        | 120.0            | 130.0                      | <b>PD/PM 93<br/>160M2B / 160M2C</b>    | 762                                                                                    | 225                                                                                    |
|               | 9.6                           | 9809          | 1.9    | 290.94    | 62.0         | 102.0        | 120.0            | 130.0                      |                                        |                                                                                        |                                                                                        |
|               | 13.7                          | 6900          | 2.4    | 204.66    | 64.0         | 102.0        | 120.0            | 130.0                      |                                        |                                                                                        |                                                                                        |
|               | 6.3                           | 15108         | 0.8    | 223.71    | -            | -            | -                | -                          | <b>PD/PM 83/42<br/>160M4C</b>          | 505                                                                                    | 242                                                                                    |
|               | 7.5                           | 12597         | 1.0    | 186.54    | -            | -            | -                | -                          |                                        |                                                                                        |                                                                                        |
|               | 8.1                           | 10889         | 0.8    | 346.82    | 78.0         | 73.0         | -                | -                          | <b>PD/PM 83/42<br/>160M2B / 160M2C</b> | 505                                                                                    | 242                                                                                    |
|               | 9.5                           | 9277          | 1.0    | 295.48    | 78.0         | 73.0         | -                | -                          |                                        |                                                                                        |                                                                                        |
|               | 12.5                          | 7024          | 1.3    | 223.71    | 78.0         | 73.0         | -                | -                          |                                        |                                                                                        |                                                                                        |
|               | 15.0                          | 5857          | 1.6    | 186.54    | 78.0         | 73.0         | -                | -                          |                                        |                                                                                        |                                                                                        |
|               | 5.9                           | 17041         | 0.8    | 152.77    | 38.0         | 72.0         | 98.0             | 105.0                      |                                        |                                                                                        |                                                                                        |
|               | 6.3                           | 16053         | 0.8    | 143.91    | 39.0         | 73.0         | 98.0             | 105.0                      |                                        |                                                                                        |                                                                                        |
|               | 7.2                           | 13974         | 0.9    | 125.27    | 43.0         | 73.0         | 98.0             | 105.0                      |                                        |                                                                                        |                                                                                        |
|               | 7.6                           | 13216         | 1.0    | 118.48    | 39.0         | 71.0         | 95.0             | 105.0                      |                                        |                                                                                        |                                                                                        |
|               | 8.7                           | 11504         | 1.1    | 103.13    | 39.0         | 70.0         | 92.0             | 105.0                      |                                        |                                                                                        |                                                                                        |
|               | 9.9                           | 10127         | 1.3    | 90.79     | 39.0         | 68.0         | 90.0             | 105.0                      |                                        |                                                                                        |                                                                                        |
|               | 11.9                          | 8444          | 1.5    | 75.70     | 38.0         | 66.0         | 87.0             | 105.0                      |                                        |                                                                                        |                                                                                        |
|               | 13.8                          | 7268          | 1.6    | 65.16     | 38.0         | 64.0         | 84.0             | 105.0                      |                                        |                                                                                        |                                                                                        |
|               | 15.7                          | 6394          | 2.0    | 57.32     | 37.0         | 62.0         | 82.0             | 105.0                      |                                        |                                                                                        |                                                                                        |
| 18.8          | 5331                          | 2.4           | 47.79  | 42.0      | 73.0         | 76.0         | 105.0            |                            |                                        |                                                                                        |                                                                                        |
| 20.7          | 4855                          | 2.3           | 43.52  | 42.0      | 73.0         | 75.0         | 105.0            |                            |                                        |                                                                                        |                                                                                        |
| 5.8           | 17068                         | 0.8           | 241.98 | 39.0      | 73.0         | 100.0        | 105.0            | <b>PD/PM 83<br/>160M4C</b> | 460                                    | 221                                                                                    |                                                                                        |
| 7.5           | 13088                         | 1.0           | 185.56 | 37.0      | 73.0         | 100.0        | 105.0            |                            |                                        |                                                                                        |                                                                                        |
| 9.2           | 10775                         | 1.2           | 152.77 | 38.0      | 72.0         | 98.0         | 105.0            |                            |                                        |                                                                                        |                                                                                        |
| 9.7           | 10150                         | 1.2           | 143.91 | 39.0      | 73.0         | 98.0         | 105.0            |                            |                                        |                                                                                        |                                                                                        |
| 11.2          | 8836                          | 1.4           | 125.27 | 43.0      | 73.0         | 98.0         | 105.0            |                            |                                        |                                                                                        |                                                                                        |
| 11.8          | 8357                          | 1.5           | 118.48 | 39.0      | 71.0         | 95.0         | 105.0            |                            |                                        |                                                                                        |                                                                                        |
| 13.6          | 7274                          | 1.7           | 103.13 | 39.0      | 70.0         | 92.0         | 105.0            |                            |                                        |                                                                                        |                                                                                        |
| 15.4          | 6404                          | 1.9           | 90.79  | 39.0      | 68.0         | 90.0         | 105.0            |                            |                                        |                                                                                        |                                                                                        |
| 18.5          | 5339                          | 2.3           | 75.70  | 38.0      | 66.0         | 87.0         | 105.0            |                            |                                        |                                                                                        |                                                                                        |
| 21.5          | 4596                          | 2.5           | 65.16  | 38.0      | 64.0         | 84.0         | 105.0            |                            |                                        |                                                                                        |                                                                                        |
| 24.4          | 4043                          | 3.0           | 57.32  | 37.0      | 62.0         | 82.0         | 105.0            |                            |                                        |                                                                                        |                                                                                        |
| 9.5           | 9909                          | 1.0           | 293.92 | 39.0      | 73.0         | 100.0        | 105.0            |                            |                                        |                                                                                        | <b>PD/PM 83<br/>160M2B / 160M2C</b>                                                    |
| 11.6          | 8158                          | 1.2           | 241.98 | 39.0      | 73.0         | 100.0        | 105.0            |                            |                                        |                                                                                        |                                                                                        |
| 15.1          | 6256                          | 1.5           | 185.56 | 37.0      | 73.0         | 100.0        | 105.0            |                            |                                        |                                                                                        |                                                                                        |
| 18.3          | 5151                          | 1.9           | 152.77 | 38.0      | 72.0         | 98.0         | 105.0            |                            |                                        |                                                                                        |                                                                                        |
| 19.5          | 4852                          | 2.0           | 143.91 | 39.0      | 73.0         | 98.0         | 105.0            |                            |                                        |                                                                                        |                                                                                        |
| 22.4          | 4223                          | 2.2           | 125.27 | 43.0      | 73.0         | 98.0         | 105.0            |                            |                                        |                                                                                        |                                                                                        |
| 23.6          | 3995                          | 2.4           | 118.48 | 39.0      | 71.0         | 95.0         | 105.0            |                            |                                        |                                                                                        |                                                                                        |
| 27.2          | 3477                          | 2.6           | 103.13 | 39.0      | 70.0         | 92.0         | 105.0            |                            |                                        |                                                                                        |                                                                                        |
| 30.8          | 3061                          | 3.0           | 90.79  | 39.0      | 68.0         | 90.0         | 105.0            |                            |                                        |                                                                                        |                                                                                        |

| $P_1$<br>[kW] | $n_2$<br>[Min <sup>-1</sup> ] | $M_2$<br>[Nm] | $f_B$  | $i_{ges}$ | $F_R$<br>[N] | $F_A$<br>[N] | $F_{RGR}$<br>[N] | $F_{AGR}$<br>[N]                    | Tip / Type / Typ<br>IE2 / IE3       |     |     |
|---------------|-------------------------------|---------------|--------|-----------|--------------|--------------|------------------|-------------------------------------|-------------------------------------|-----|-----|
| <b>11.0</b>   | 12.5                          | 8173          | 1.0    | 72.17     | 38.0         | 66.0         | -                | -                                   | <b>PD/PM 82<br/>160L6B / 160L6D</b> | 456 | 220 |
|               | 15.1                          | 6728          | 1.0    | 59.41     | 37.0         | 62.0         | -                | -                                   |                                     |     |     |
|               | 18.9                          | 5380          | 2.1    | 47.51     | 41.0         | 70.0         | -                | -                                   |                                     |     |     |
|               | 23.0                          | 4430          | 2.2    | 39.12     | 41.0         | 70.0         | -                | -                                   |                                     |     |     |
|               | 19.4                          | 5199          | 1.5    | 72.17     | 38.0         | 66.0         | -                | -                                   | <b>PD/PM 82<br/>160M4C</b>          | 456 | 220 |
|               | 23.6                          | 4280          | 1.5    | 59.41     | 37.0         | 62.0         | -                | -                                   |                                     |     |     |
|               | 38.8                          | 2521          | 2.4    | 72.17     | 38.0         | 66.0         | -                | -                                   | <b>PD/PM 82<br/>160M2B / 160M2C</b> | 456 | 220 |
|               | 47.1                          | 2076          | 2.4    | 59.41     | 37.0         | 62.0         | -                | -                                   |                                     |     |     |
|               | 9.7                           | 10380         | 0.8    | 93.05     | 28.0         | 53.0         | 75.0             | 80.0                                | <b>PD/PM 73<br/>160L6B / 160L6D</b> | 335 | 217 |
|               | 11.4                          | 8784          | 0.9    | 78.75     | 28.0         | 51.0         | 73.0             | 80.0                                |                                     |     |     |
|               | 13.2                          | 7601          | 1.0    | 68.14     | 28.0         | 51.0         | 72.0             | 80.0                                |                                     |     |     |
|               | 15.1                          | 6639          | 1.1    | 59.52     | 28.0         | 50.0         | 69.0             | 80.0                                |                                     |     |     |
|               | 16.8                          | 5959          | 1.2    | 53.42     | 28.0         | 49.0         | 69.0             | 80.0                                |                                     |     |     |
|               | 19.3                          | 5205          | 1.4    | 46.66     | 28.0         | 48.0         | 67.0             | 80.0                                |                                     |     |     |
|               | 24.4                          | 4122          | 1.7    | 36.95     | 27.0         | 45.0         | 63.0             | 80.0                                |                                     |     |     |
|               | 29.5                          | 3401          | 2.0    | 30.49     | 31.0         | 58.0         | 60.0             | 80.0                                |                                     |     |     |
|               | 33.4                          | 3003          | 2.3    | 26.92     | 31.0         | 58.0         | 58.0             | 80.0                                |                                     |     |     |
|               | 38.3                          | 2618          | 2.7    | 23.47     | 31.0         | 58.0         | 57.0             | 80.0                                |                                     |     |     |
|               | 11.4                          | 8684          | 0.9    | 123.12    | 26.0         | 53.0         | 72.0             | 80.0                                | <b>PD/PM 73<br/>160M4C</b>          | 335 | 217 |
|               | 13.1                          | 7514          | 1.0    | 106.53    | 28.0         | 53.0         | 75.0             | 80.0                                |                                     |     |     |
|               | 15.0                          | 6563          | 1.1    | 93.05     | 28.0         | 53.0         | 75.0             | 80.0                                |                                     |     |     |
|               | 17.8                          | 5555          | 1.3    | 78.75     | 28.0         | 51.0         | 73.0             | 80.0                                |                                     |     |     |
|               | 20.5                          | 4806          | 1.5    | 68.14     | 28.0         | 51.0         | 72.0             | 80.0                                |                                     |     |     |
|               | 23.5                          | 4198          | 1.7    | 59.52     | 28.0         | 50.0         | 69.0             | 80.0                                |                                     |     |     |
|               | 26.2                          | 3768          | 1.9    | 53.42     | 28.0         | 49.0         | 69.0             | 80.0                                |                                     |     |     |
|               | 30.0                          | 3291          | 2.2    | 46.66     | 28.0         | 48.0         | 67.0             | 80.0                                |                                     |     |     |
|               | 37.9                          | 2606          | 2.5    | 36.95     | 27.0         | 45.0         | 63.0             | 80.0                                |                                     |     |     |
|               | 22.7                          | 4151          | 1.4    | 123.12    | 26.0         | 53.0         | 72.0             | 80.0                                | <b>PD/PM 73<br/>160M2B / 160M2C</b> | 335 | 217 |
| 26.3          | 3592                          | 1.6           | 106.53 | 28.0      | 53.0         | 75.0         | 80.0             |                                     |                                     |     |     |
| 30.1          | 3137                          | 1.8           | 93.05  | 28.0      | 53.0         | 75.0         | 80.0             |                                     |                                     |     |     |
| 35.6          | 2655                          | 2.1           | 78.75  | 28.0      | 51.0         | 73.0         | 80.0             |                                     |                                     |     |     |
| 41.1          | 2297                          | 2.4           | 68.14  | 28.0      | 51.0         | 72.0         | 80.0             |                                     |                                     |     |     |
| 47.0          | 2007                          | 2.7           | 59.52  | 28.0      | 50.0         | 69.0         | 80.0             |                                     |                                     |     |     |
| 52.4          | 1801                          | 3.0           | 53.42  | 28.0      | 49.0         | 69.0         | 80.0             |                                     |                                     |     |     |
| 12.9          | 7905                          | 0.8           | 69.80  | 29.0      | 52.0         | 72.0         | 80.0             | <b>PD/PM 72<br/>160L6B / 160L6C</b> | 328                                 | 216 |     |
| 15.8          | 6444                          | 0.9           | 56.90  | 28.0      | 50.0         | 69.0         | 80.0             |                                     |                                     |     |     |
| 19.7          | 5171                          | 1.2           | 45.66  | 28.0      | 48.0         | 66.0         | 80.0             |                                     |                                     |     |     |
| 20.0          | 5103                          | 0.9           | 45.06  | 29.0      | 50.0         | 67.0         | 80.0             |                                     |                                     |     |     |
| 24.2          | 4215                          | 1.6           | 37.22  | 27.0      | 46.0         | 63.0         | 80.0             |                                     |                                     |     |     |
| 25.9          | 3929                          | 1.6           | 34.69  | 27.0      | 45.0         | 62.0         | 80.0             |                                     |                                     |     |     |
| 33.5          | 3045                          | 2.0           | 26.89  | 31.0      | 56.0         | 57.0         | 80.0             |                                     |                                     |     |     |
| 39.3          | 2593                          | 2.3           | 22.90  | 31.0      | 56.0         | 54.0         | 78.0             |                                     |                                     |     |     |
| 45.1          | 2260                          | 2.7           | 19.96  | 31.0      | 56.0         | 52.0         | 78.0             |                                     |                                     |     |     |
| 20.1          | 5028                          | 1.2           | 69.80  | 29.0      | 52.0         | 72.0         | 80.0             | <b>PD/PM 72<br/>160M4C</b>          | 328                                 | 216 |     |
| 24.6          | 4099                          | 1.4           | 56.90  | 28.0      | 50.0         | 69.0         | 80.0             |                                     |                                     |     |     |
| 30.7          | 3289                          | 1.8           | 45.66  | 28.0      | 48.0         | 66.0         | 80.0             |                                     |                                     |     |     |
| 31.1          | 3246                          | 1.4           | 45.06  | 29.0      | 50.0         | 67.0         | 80.0             |                                     |                                     |     |     |
| 37.6          | 2681                          | 2.4           | 37.22  | 27.0      | 46.0         | 63.0         | 80.0             |                                     |                                     |     |     |
| 40.4          | 2499                          | 2.3           | 34.69  | 27.0      | 45.0         | 62.0         | 80.0             |                                     |                                     |     |     |
| 52.1          | 1937                          | 3.0           | 26.89  | -         | -            | 57.0         | 80.0             |                                     |                                     |     |     |
| 40.1          | 2439                          | 1.8           | 69.80  | 29.0      | 52.0         | 72.0         | 80.0             | <b>PD/PM 72<br/>160M2B / 160M2C</b> | 328                                 | 216 |     |
| 49.2          | 1988                          | 2.1           | 56.90  | 28.0      | 50.0         | 69.0         | 80.0             |                                     |                                     |     |     |
| 61.3          | 1595                          | 2.8           | 45.66  | 28.0      | 48.0         | 66.0         | 80.0             |                                     |                                     |     |     |
| 62.1          | 1574                          | 2.1           | 45.06  | 29.0      | 50.0         | 67.0         | 80.0             |                                     |                                     |     |     |
| 12.0          | 8400                          | 0.8           | 75.30  | 23.0      | 44.0         | 50.0         | 60.0             | <b>PD/PM 63<br/>160L6B / 160L6D</b> | 262                                 | 213 |     |
| 15.1          | 6654                          | 0.9           | 59.65  | 24.0      | 43.0         | 54.0         | 60.0             |                                     |                                     |     |     |
| 17.6          | 5690                          | 0.9           | 51.01  | 24.0      | 42.0         | 55.0         | 60.0             |                                     |                                     |     |     |
| 21.2          | 4731                          | 1.0           | 42.41  | 24.0      | 41.0         | 53.0         | 60.0             |                                     |                                     |     |     |
| 24.8          | 4046                          | 1.2           | 36.27  | 23.0      | 40.0         | 51.0         | 60.0             |                                     |                                     |     |     |
| 29.1          | 3447                          | 1.4           | 30.90  | 23.0      | 38.0         | 50.0         | 60.0             |                                     |                                     |     |     |
| 31.4          | 3197                          | 1.5           | 28.66  | 23.0      | 38.0         | 49.0         | 60.0             |                                     |                                     |     |     |
| 36.9          | 2724                          | 1.8           | 24.42  | 22.0      | 36.0         | 47.0         | 60.0             |                                     |                                     |     |     |



| $P_1$<br>[kW] | $n_2$<br>[Min <sup>-1</sup> ] | $M_2$<br>[Nm] | $f_B$ | $i_{ges}$ | $F_R$<br>[N] | $F_A$<br>[N] | $F_{RGR}$<br>[N] | $F_{AGR}$<br>[N]           | Tip / Type / Typ<br>IE2 / IE3       |  Kg |  mm |                                     |     |     |
|---------------|-------------------------------|---------------|-------|-----------|--------------|--------------|------------------|----------------------------|-------------------------------------|----------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------|-------------------------------------|-----|-----|
| <b>11.0</b>   | 15.1                          | 6537          | 0.9   | 92.68     | 21.0         | 43.0         | 46.0             | 60.0                       | <b>PD/PM 63<br/>160M4C</b>          | 262                                                                                    | 213                                                                                    |                                     |     |     |
|               | 18.6                          | 5311          | 1.1   | 75.30     | 23.0         | 44.0         | 50.0             | 60.0                       |                                     |                                                                                        |                                                                                        |                                     |     |     |
|               | 19.1                          | 5179          | 1.1   | 73.42     | 23.0         | 43.0         | 51.0             | 60.0                       |                                     |                                                                                        |                                                                                        |                                     |     |     |
|               | 23.5                          | 4207          | 1.3   | 59.65     | 24.0         | 43.0         | 54.0             | 60.0                       |                                     |                                                                                        |                                                                                        |                                     |     |     |
|               | 27.4                          | 3598          | 1.4   | 51.01     | 24.0         | 42.0         | 55.0             | 60.0                       |                                     |                                                                                        |                                                                                        |                                     |     |     |
|               | 33.0                          | 2991          | 1.5   | 42.41     | 24.0         | 41.0         | 53.0             | 60.0                       |                                     |                                                                                        |                                                                                        |                                     |     |     |
|               | 38.6                          | 2558          | 1.8   | 36.27     | 23.0         | 40.0         | 51.0             | 60.0                       |                                     |                                                                                        |                                                                                        |                                     |     |     |
|               | 45.3                          | 2179          | 2.1   | 30.90     | 23.0         | 38.0         | 50.0             | 60.0                       |                                     |                                                                                        |                                                                                        |                                     |     |     |
|               | 48.8                          | 2021          | 2.3   | 28.66     | 23.0         | 38.0         | 49.0             | 60.0                       |                                     |                                                                                        |                                                                                        |                                     |     |     |
|               | 57.3                          | 1722          | 2.7   | 24.42     | 22.0         | 36.0         | 47.0             | 60.0                       |                                     |                                                                                        |                                                                                        |                                     |     |     |
|               | 24.4                          | 3870          | 1.2   | 114.79    | 21.0         | 43.0         | 45.0             | 60.0                       |                                     |                                                                                        |                                                                                        | <b>PD/PM 63<br/>160M2B / 160M2C</b> | 262 | 213 |
|               | 30.2                          | 3125          | 1.5   | 92.68     | 21.0         | 43.0         | 46.0             | 60.0                       |                                     |                                                                                        |                                                                                        |                                     |     |     |
|               | 37.2                          | 2539          | 1.8   | 75.30     | 23.0         | 44.0         | 50.0             | 60.0                       |                                     |                                                                                        |                                                                                        |                                     |     |     |
|               | 38.1                          | 2475          | 1.7   | 73.42     | 23.0         | 43.0         | 51.0             | 60.0                       |                                     |                                                                                        |                                                                                        |                                     |     |     |
|               | 46.9                          | 2011          | 2.1   | 59.65     | 24.0         | 43.0         | 54.0             | 60.0                       |                                     |                                                                                        |                                                                                        |                                     |     |     |
|               | 54.9                          | 1720          | 2.2   | 51.01     | 24.0         | 42.0         | 55.0             | 60.0                       |                                     |                                                                                        |                                                                                        |                                     |     |     |
|               | 66.0                          | 1430          | 2.4   | 42.41     | 24.0         | 41.0         | 53.0             | 60.0                       |                                     |                                                                                        |                                                                                        |                                     |     |     |
|               | 77.2                          | 1223          | 2.8   | 36.27     | 23.0         | 40.0         | 51.0             | 60.0                       |                                     |                                                                                        |                                                                                        |                                     |     |     |
|               | 18.1                          | 5639          | 0.8   | 49.79     | 24.0         | 42.0         | 55.0             | 60.0                       | <b>PD/PM 62<br/>160L6B / 160L6D</b> | 265                                                                                    | 212                                                                                    |                                     |     |     |
|               | 22.8                          | 4466          | 0.8   | 39.44     | 23.0         | 40.0         | 52.0             | 60.0                       |                                     |                                                                                        |                                                                                        |                                     |     |     |
|               | 30.1                          | 3385          | 1.4   | 29.89     | 23.0         | 38.0         | 50.0             | 60.0                       |                                     |                                                                                        |                                                                                        |                                     |     |     |
|               | 34.6                          | 2947          | 1.6   | 26.02     | 23.0         | 37.0         | 48.0             | 60.0                       |                                     |                                                                                        |                                                                                        |                                     |     |     |
|               | 39.3                          | 2594          | 1.8   | 22.91     | 22.0         | 36.0         | 47.0             | 60.0                       |                                     |                                                                                        |                                                                                        |                                     |     |     |
|               | 48.2                          | 2115          | 2.2   | 18.68     | 27.0         | 47.0         | 43.0             | 60.0                       |                                     |                                                                                        |                                                                                        |                                     |     |     |
|               | 60.8                          | 1676          | 2.8   | 14.80     | 27.0         | 47.0         | 41.0             | 59.0                       |                                     |                                                                                        |                                                                                        |                                     |     |     |
|               | 84.6                          | 1205          | 1.8   | 10.64     | 27.0         | 47.0         | -                | -                          |                                     |                                                                                        |                                                                                        |                                     |     |     |
|               | 96.1                          | 1061          | 2.7   | 9.37      | 27.0         | 47.0         | -                | -                          |                                     |                                                                                        |                                                                                        |                                     |     |     |
|               | 22.9                          | 4398          | 1.0   | 61.05     | 24.0         | 44.0         | 54.0             | 60.0                       |                                     |                                                                                        |                                                                                        | <b>PD/PM 62<br/>160M4C</b>          | 265 | 212 |
|               | 28.1                          | 3587          | 1.1   | 49.79     | 24.0         | 42.0         | 55.0             | 60.0                       |                                     |                                                                                        |                                                                                        |                                     |     |     |
|               | 35.5                          | 2841          | 1.1   | 39.44     | 23.0         | 40.0         | 52.0             | 60.0                       |                                     |                                                                                        |                                                                                        |                                     |     |     |
|               | 46.8                          | 2153          | 2.1   | 29.89     | 23.0         | 38.0         | 50.0             | 60.0                       |                                     |                                                                                        |                                                                                        |                                     |     |     |
|               | 48.8                          | 2066          | 2.1   | 28.68     | -            | -            | -                | -                          |                                     |                                                                                        |                                                                                        |                                     |     |     |
|               | 53.8                          | 1874          | 2.4   | 26.02     | 23.0         | 37.0         | 48.0             | 60.0                       |                                     |                                                                                        |                                                                                        |                                     |     |     |
|               | 61.1                          | 1650          | 2.7   | 22.91     | 22.0         | 36.0         | 47.0             | 60.0                       |                                     |                                                                                        |                                                                                        |                                     |     |     |
|               | 131.6                         | 766           | 2.6   | 10.64     | -            | -            | -                | -                          |                                     |                                                                                        |                                                                                        |                                     |     |     |
|               | 45.9                          | 2133          | 1.6   | 61.05     | 24.0         | 44.0         | 54.0             | 60.0                       | <b>PD/PM 62<br/>160M2B / 160M2C</b> | 265                                                                                    | 212                                                                                    |                                     |     |     |
|               | 56.2                          | 1740          | 1.8   | 49.79     | 24.0         | 42.0         | 55.0             | 60.0                       |                                     |                                                                                        |                                                                                        |                                     |     |     |
|               | 71.0                          | 1378          | 1.8   | 39.44     | 23.0         | 40.0         | 52.0             | 60.0                       |                                     |                                                                                        |                                                                                        |                                     |     |     |
|               | 29.5                          | 3451          | 0.9   | 30.47     | 14.0         | 26.0         | 33.0             | 40.0                       | <b>PD/PM 52<br/>160L6B / 160L6D</b> | 181                                                                                    | 208                                                                                    |                                     |     |     |
|               | 36.1                          | 2827          | 1.1   | 24.96     | 14.0         | 26.0         | 31.0             | 40.0                       |                                     |                                                                                        |                                                                                        |                                     |     |     |
|               | 44.2                          | 2306          | 1.4   | 20.36     | 13.0         | 24.0         | 30.0             | 40.0                       |                                     |                                                                                        |                                                                                        |                                     |     |     |
|               | 47.7                          | 2136          | 1.3   | 18.86     | 13.0         | 24.0         | 30.0             | 40.0                       |                                     |                                                                                        |                                                                                        |                                     |     |     |
|               | 51.1                          | 1994          | 1.4   | 17.61     | 13.0         | 24.0         | 29.0             | 40.0                       |                                     |                                                                                        |                                                                                        |                                     |     |     |
|               | 58.5                          | 1742          | 1.6   | 15.38     | 13.0         | 23.0         | 28.0             | 40.0                       |                                     |                                                                                        |                                                                                        |                                     |     |     |
|               | 69.2                          | 1472          | 1.9   | 13.00     | 12.0         | 22.0         | 27.0             | 40.0                       |                                     |                                                                                        |                                                                                        |                                     |     |     |
|               | 83.9                          | 1215          | 2.2   | 10.73     | 15.0         | 29.0         | 25.0             | 40.0                       |                                     |                                                                                        |                                                                                        |                                     |     |     |
|               | 95.0                          | 1072          | 2.3   | 9.47      | 15.0         | 29.0         | 24.0             | 40.0                       |                                     |                                                                                        |                                                                                        |                                     |     |     |
|               | 103.6                         | 984           | 2.5   | 8.69      | 15.0         | 29.0         | 24.0             | 40.0                       |                                     |                                                                                        |                                                                                        |                                     |     |     |
| 125.5         | 812                           | 2.8           | 7.17  | 15.0      | 29.0         | 23.0         | 38.0             |                            |                                     |                                                                                        |                                                                                        |                                     |     |     |
| 157.9         | 646                           | 2.9           | 5.70  | 15.0      | 29.0         | 22.0         | 36.0             |                            |                                     |                                                                                        |                                                                                        |                                     |     |     |
| 168.2         | 606                           | 3.0           | 5.35  | 15.0      | 29.0         | 21.0         | 35.0             |                            |                                     |                                                                                        |                                                                                        |                                     |     |     |
| 34.3          | 2938                          | 0.9           | 40.79 | 13.0      | 25.0         | 34.0         | 40.0             | <b>PD/PM 52<br/>160M4C</b> |                                     |                                                                                        |                                                                                        | 181                                 | 208 |     |
| 41.9          | 2407                          | 1.0           | 33.41 | 14.0      | 25.0         | 33.0         | 40.0             |                            |                                     |                                                                                        |                                                                                        |                                     |     |     |
| 45.9          | 2195                          | 1.3           | 30.47 | 14.0      | 26.0         | 33.0         | 40.0             |                            |                                     |                                                                                        |                                                                                        |                                     |     |     |
| 56.1          | 1798                          | 1.6           | 24.96 | 14.0      | 26.0         | 31.0         | 40.0             |                            |                                     |                                                                                        |                                                                                        |                                     |     |     |
| 68.8          | 1467                          | 2.1           | 20.36 | 13.0      | 24.0         | 30.0         | 40.0             |                            |                                     |                                                                                        |                                                                                        |                                     |     |     |
| 74.2          | 1359                          | 1.9           | 18.86 | 13.0      | 24.0         | 30.0         | 40.0             |                            |                                     |                                                                                        |                                                                                        |                                     |     |     |
| 79.5          | 1269                          | 2.2           | 17.61 | 13.0      | 24.0         | 29.0         | 40.0             |                            |                                     |                                                                                        |                                                                                        |                                     |     |     |
| 91.0          | 1108                          | 2.3           | 15.38 | 13.0      | 23.0         | 28.0         | 40.0             |                            |                                     |                                                                                        |                                                                                        |                                     |     |     |
| 107.7         | 936                           | 2.8           | 13.00 | 12.0      | 22.0         | 27.0         | 40.0             |                            |                                     |                                                                                        |                                                                                        |                                     |     |     |
| 68.6          | 1425                          | 1.3           | 40.79 | 13.0      | 25.0         | 34.0         | 40.0             |                            | <b>PD/PM 52<br/>160M2B / 160M2C</b> | 181                                                                                    | 208                                                                                    |                                     |     |     |
| 83.8          | 1167                          | 1.5           | 33.41 | 14.0      | 25.0         | 33.0         | 40.0             |                            |                                     |                                                                                        |                                                                                        |                                     |     |     |
| 91.9          | 1065                          | 2.1           | 30.47 | 14.0      | 26.0         | 33.0         | 40.0             |                            |                                     |                                                                                        |                                                                                        |                                     |     |     |
| 112.2         | 872                           | 2.5           | 24.96 | 14.0      | 26.0         | 31.0         | 40.0             |                            |                                     |                                                                                        |                                                                                        |                                     |     |     |
| 148.5         | 659                           | 3.0           | 18.86 | 13.0      | 24.0         | 30.0         | 40.0             |                            |                                     |                                                                                        |                                                                                        |                                     |     |     |

| <b>P<sub>1</sub></b><br>[kW] | <b>n<sub>2</sub></b><br>[Min <sup>-1</sup> ] | <b>M<sub>2</sub></b><br>[Nm] | <b>f<sub>B</sub></b> | <b>i<sub>ges</sub></b> | <b>F<sub>R</sub></b><br>[N] | <b>F<sub>A</sub></b><br>[N] | <b>F<sub>R GR</sub></b><br>[N] | <b>F<sub>A GR</sub></b><br>[N] | Tip / Type / Typ<br>IE2 / IE3           |  Kg |  mm |                            |
|------------------------------|----------------------------------------------|------------------------------|----------------------|------------------------|-----------------------------|-----------------------------|--------------------------------|--------------------------------|-----------------------------------------|----------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------|----------------------------|
| <b>11.0</b>                  | 49.5                                         | 2059                         | 0.9                  | 18.18                  | 8.0                         | 13.0                        | 20.0                           | 30.0                           | <b>PD/PM 42<br/>160L6B / 160L6D</b>     | 145                                                                                    | 204                                                                                    |                            |
|                              | 59.2                                         | 1720                         | 1.1                  | 15.19                  | 8.0                         | 13.0                        | 19.0                           | 30.0                           |                                         |                                                                                        |                                                                                        |                            |
|                              | 71.0                                         | 1435                         | 1.3                  | 12.67                  | 8.0                         | 13.0                        | 18.0                           | 30.0                           |                                         |                                                                                        |                                                                                        |                            |
|                              | 83.1                                         | 1226                         | 1.5                  | 10.83                  | 8.0                         | 13.0                        | 18.0                           | 29.0                           |                                         |                                                                                        |                                                                                        |                            |
|                              | 97.5                                         | 1045                         | 1.6                  | 9.23                   | 7.0                         | 13.0                        | 17.0                           | 28.0                           |                                         |                                                                                        |                                                                                        |                            |
|                              | 108.0                                        | 943                          | 1.4                  | 8.33                   | 7.0                         | 12.0                        | 17.0                           | 27.0                           |                                         |                                                                                        |                                                                                        |                            |
|                              | 126.2                                        | 807                          | 1.6                  | 7.13                   | 7.0                         | 12.0                        | 16.0                           | 27.0                           |                                         |                                                                                        |                                                                                        |                            |
|                              | 148.3                                        | 687                          | 1.8                  | 6.07                   | 7.0                         | 11.0                        | 16.0                           | 26.0                           |                                         |                                                                                        |                                                                                        |                            |
|                              | 165.4                                        | 616                          | 1.8                  | 5.44                   | 7.0                         | 11.0                        | 15.0                           | 25.0                           |                                         |                                                                                        |                                                                                        |                            |
|                              | 180.0                                        | 566                          | 1.9                  | 5.00                   | 7.0                         | 11.0                        | 15.0                           | 25.0                           |                                         |                                                                                        |                                                                                        |                            |
|                              | 191.9                                        | 531                          | 2.0                  | 4.69                   | 8.0                         | 15.0                        | 15.0                           | 24.0                           |                                         |                                                                                        |                                                                                        |                            |
|                              | 53.0                                         | 1902                         | 0.9                  | 26.41                  | 7.0                         | 13.0                        | 21.0                           | 30.0                           |                                         |                                                                                        |                                                                                        | <b>PD/PM 42<br/>160M4C</b> |
|                              | 53.3                                         | 1891                         | 0.9                  | 26.25                  | 7.0                         | 13.0                        | 21.0                           | 30.0                           |                                         |                                                                                        |                                                                                        |                            |
|                              | 62.6                                         | 1612                         | 1.1                  | 22.38                  | 7.0                         | 13.0                        | 20.0                           | 30.0                           |                                         |                                                                                        |                                                                                        |                            |
|                              | 65.2                                         | 1546                         | 1.1                  | 21.46                  | 8.0                         | 13.0                        | 20.0                           | 30.0                           |                                         |                                                                                        |                                                                                        |                            |
|                              | 77.0                                         | 1310                         | 1.4                  | 18.18                  | 8.0                         | 13.0                        | 20.0                           | 30.0                           |                                         |                                                                                        |                                                                                        |                            |
|                              | 92.2                                         | 1094                         | 1.6                  | 15.19                  | 8.0                         | 13.0                        | 19.0                           | 30.0                           |                                         |                                                                                        |                                                                                        |                            |
|                              | 110.5                                        | 913                          | 1.9                  | 12.67                  | 8.0                         | 13.0                        | 18.0                           | 30.0                           |                                         |                                                                                        |                                                                                        |                            |
|                              | 129.3                                        | 780                          | 2.2                  | 10.83                  | 8.0                         | 13.0                        | 18.0                           | 29.0                           |                                         |                                                                                        |                                                                                        |                            |
|                              | 151.7                                        | 665                          | 2.5                  | 9.23                   | 7.0                         | 13.0                        | 17.0                           | 28.0                           |                                         |                                                                                        |                                                                                        |                            |
|                              | 168.1                                        | 600                          | 2.1                  | 8.33                   | 7.0                         | 12.0                        | 17.0                           | 27.0                           |                                         |                                                                                        |                                                                                        |                            |
|                              | 196.4                                        | 514                          | 2.3                  | 7.13                   | 7.0                         | 12.0                        | 16.0                           | 27.0                           |                                         |                                                                                        |                                                                                        |                            |
|                              | 230.6                                        | 437                          | 2.7                  | 6.07                   | 7.0                         | 11.0                        | 16.0                           | 26.0                           |                                         |                                                                                        |                                                                                        |                            |
|                              | 257.4                                        | 392                          | 2.6                  | 5.44                   | 7.0                         | 11.0                        | 15.0                           | 25.0                           |                                         |                                                                                        |                                                                                        |                            |
|                              | 280.0                                        | 360                          | 2.9                  | 5.00                   | 7.0                         | 11.0                        | 15.0                           | 25.0                           |                                         |                                                                                        |                                                                                        |                            |
|                              | 86.7                                         | 1129                         | 1.1                  | 32.31                  | 7.0                         | 13.0                        | -                              | -                              | <b>PD/PM 42<br/>160M2B / 160M2C</b>     | 145                                                                                    | 204                                                                                    |                            |
|                              | 106.0                                        | 923                          | 1.5                  | 26.41                  | 7.0                         | 13.0                        | 21.0                           | 30.0                           |                                         |                                                                                        |                                                                                        |                            |
|                              | 106.7                                        | 917                          | 1.3                  | 26.25                  | 7.0                         | 13.0                        | 21.0                           | 30.0                           |                                         |                                                                                        |                                                                                        |                            |
|                              | 125.1                                        | 782                          | 1.7                  | 22.38                  | 7.0                         | 13.0                        | 20.0                           | 30.0                           |                                         |                                                                                        |                                                                                        |                            |
|                              | 130.5                                        | 750                          | 1.7                  | 21.46                  | 8.0                         | 13.0                        | 20.0                           | 30.0                           |                                         |                                                                                        |                                                                                        |                            |
|                              | 154.0                                        | 635                          | 2.2                  | 18.18                  | 8.0                         | 13.0                        | 20.0                           | 30.0                           |                                         |                                                                                        |                                                                                        |                            |
|                              | 184.3                                        | 531                          | 2.6                  | 15.19                  | 8.0                         | 13.0                        | 19.0                           | 30.0                           |                                         |                                                                                        |                                                                                        |                            |
|                              | 221.0                                        | 443                          | 3.0                  | 12.67                  | 8.0                         | 13.0                        | 18.0                           | 30.0                           |                                         |                                                                                        |                                                                                        |                            |
|                              | <b>15.0</b>                                  | 1.9                          | 70817                | 0.9                    | 479.85                      | -                           | -                              | 94.0                           | 170.0                                   | <b>PD/PM 113/52<br/>180L6A / 180L6B</b>                                                | 2290                                                                                   | 242                        |
|                              |                                              | 2.5                          | 53603                | 1.0                    | 363.21                      | -                           | -                              | 122.0                          | 170.0                                   |                                                                                        |                                                                                        |                            |
|                              |                                              | 2.9                          | 46080                | 1.1                    | 312.23                      | -                           | -                              | 131.0                          | 170.0                                   |                                                                                        |                                                                                        |                            |
| 1.9                          |                                              | 67361                        | 0.9                  | 731.47                 | -                           | -                           | 5.0                            | 170.0                          | <b>PD/PM 113/52<br/>160L4B</b>          | 2245                                                                                   | 242                                                                                    |                            |
| 2.3                          |                                              | 55573                        | 1.1                  | 603.47                 | -                           | -                           | 31.0                           | 170.0                          |                                         |                                                                                        |                                                                                        |                            |
| 2.9                          |                                              | 44189                        | 1.4                  | 479.85                 | -                           | -                           | 94.0                           | 170.0                          |                                         |                                                                                        |                                                                                        |                            |
| 3.9                          |                                              | 33448                        | 1.5                  | 363.21                 | -                           | -                           | 122.0                          | 170.0                          |                                         |                                                                                        |                                                                                        |                            |
| 4.5                          |                                              | 28753                        | 1.7                  | 312.23                 | -                           | -                           | 131.0                          | 170.0                          |                                         |                                                                                        |                                                                                        |                            |
| 2.0                          |                                              | 59199                        | 0.8                  | 1382.74                | -                           | -                           | -                              | -                              | <b>PD/PM 113/52<br/>160M2C / 160M2D</b> | 2245                                                                                   | 242                                                                                    |                            |
| 2.4                          |                                              | 49440                        | 0.9                  | 1154.79                | -                           | -                           | 18.0                           | 170.0                          |                                         |                                                                                        |                                                                                        |                            |
| 2.9                          |                                              | 41192                        | 1.1                  | 962.15                 | -                           | -                           | 42.0                           | 170.0                          |                                         |                                                                                        |                                                                                        |                            |
| 3.8                          |                                              | 31316                        | 1.5                  | 731.47                 | -                           | -                           | 5.0                            | 170.0                          |                                         |                                                                                        |                                                                                        |                            |
| 4.6                          |                                              | 25836                        | 1.8                  | 603.47                 | -                           | -                           | 31.0                           | 170.0                          |                                         |                                                                                        |                                                                                        |                            |
| 5.8                          |                                              | 20544                        | 2.2                  | 479.85                 | -                           | -                           | 94.0                           | 170.0                          |                                         |                                                                                        |                                                                                        |                            |
| 7.7                          |                                              | 15550                        | 2.4                  | 363.21                 | -                           | -                           | 122.0                          | 170.0                          |                                         |                                                                                        |                                                                                        |                            |
| 9.0                          |                                              | 13367                        | 2.8                  | 312.23                 | -                           | -                           | 131.0                          | 170.0                          |                                         |                                                                                        |                                                                                        |                            |
| 4.0                          |                                              | 34188                        | 2.1                  | 224.76                 | -                           | -                           | 141.0                          | 169.0                          | <b>PD/PM 113<br/>180L6A / 180L6B</b>    | 2220                                                                                   | 233                                                                                    |                            |
| 5.2                          |                                              | 26157                        | 2.8                  | 171.96                 | -                           | -                           | 142.0                          | 155.0                          |                                         |                                                                                        |                                                                                        |                            |
| 3.0                          |                                              | 44585                        | 0.8                  | 302.10                 | -                           | -                           | 101.0                          | 150.0                          | <b>PD/PM 103/52<br/>180L6A / 180L6B</b> | 1441                                                                                   | 242                                                                                    |                            |
| 2.9                          |                                              | 43920                        | 0.8                  | 476.93                 | -                           | -                           | 72.0                           | 150.0                          | <b>PD/PM 103/52<br/>160L4B</b>          | 1400                                                                                   | 242                                                                                    |                            |
| 3.8                          |                                              | 33721                        | 1.0                  | 366.18                 | -                           | -                           | 103.0                          | 150.0                          |                                         |                                                                                        |                                                                                        |                            |
| 4.6                          |                                              | 27820                        | 1.3                  | 302.10                 | -                           | -                           | 101.0                          | 150.0                          |                                         |                                                                                        |                                                                                        |                            |
| 4.0                          |                                              | 29635                        | 0.9                  | 692.20                 | -                           | -                           | 87.0                           | 150.0                          | <b>PD/PM 103/52<br/>160M2C / 160M2D</b> | 1400                                                                                   | 242                                                                                    |                            |
| 4.8                          |                                              | 24750                        | 1.1                  | 578.09                 | -                           | -                           | 87.0                           | 150.0                          |                                         |                                                                                        |                                                                                        |                            |
| 5.9                          | 20419                                        | 1.3                          | 476.93               | -                      | -                           | 72.0                        | 150.0                          |                                |                                         |                                                                                        |                                                                                        |                            |
| 7.6                          | 15677                                        | 1.7                          | 366.18               | -                      | -                           | 103.0                       | 150.0                          |                                |                                         |                                                                                        |                                                                                        |                            |
| 9.3                          | 12934                                        | 2.1                          | 302.10               | -                      | -                           | 101.0                       | 150.0                          |                                |                                         |                                                                                        |                                                                                        |                            |
|                              |                                              |                              |                      |                        |                             |                             |                                |                                |                                         |                                                                                        |                                                                                        |                            |



| <b>P<sub>1</sub></b><br>[kW] | <b>n<sub>2</sub></b><br>[Min <sup>-1</sup> ] | <b>M<sub>2</sub></b><br>[Nm] | <b>f<sub>B</sub></b> | <b>i<sub>ges</sub></b> | <b>F<sub>R</sub></b><br>[N] | <b>F<sub>A</sub></b><br>[N] | <b>F<sub>R GR</sub></b><br>[N] | <b>F<sub>A GR</sub></b><br>[N]               | Tip / Type / Typ<br>IE2 / IE3                |  Kg |  mm |                                   |      |     |
|------------------------------|----------------------------------------------|------------------------------|----------------------|------------------------|-----------------------------|-----------------------------|--------------------------------|----------------------------------------------|----------------------------------------------|----------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------|-----------------------------------|------|-----|
| <b>15.0</b>                  | 2.7                                          | 50598                        | 0.8                  | 332.64                 | -                           | -                           | 110.0                          | 150.0                                        | <b>PD/PM 103</b><br><b>180L6A / 180L6B</b>   | 1367                                                                                   | 229                                                                                    |                                   |      |     |
|                              | 3.2                                          | 43025                        | 0.8                  | 282.85                 | -                           | -                           | 118.0                          | 150.0                                        |                                              |                                                                                        |                                                                                        |                                   |      |     |
|                              | 3.4                                          | 40043                        | 0.9                  | 263.25                 | -                           | -                           | 121.0                          | 150.0                                        |                                              |                                                                                        |                                                                                        |                                   |      |     |
|                              | 5.0                                          | 27483                        | 1.3                  | 180.68                 | -                           | -                           | 130.0                          | 150.0                                        |                                              |                                                                                        |                                                                                        |                                   |      |     |
|                              | 5.4                                          | 25579                        | 1.4                  | 168.16                 | -                           | -                           | 131.0                          | 150.0                                        |                                              |                                                                                        |                                                                                        |                                   |      |     |
|                              | 6.4                                          | 21358                        | 1.7                  | 140.41                 | -                           | -                           | 133.0                          | 150.0                                        |                                              |                                                                                        |                                                                                        |                                   |      |     |
|                              | 8.6                                          | 15928                        | 2.3                  | 104.71                 | -                           | -                           | 132.0                          | 150.0                                        |                                              |                                                                                        |                                                                                        |                                   |      |     |
|                              | 9.9                                          | 13895                        | 2.7                  | 91.35                  | -                           | -                           | 134.0                          | 141.0                                        |                                              |                                                                                        |                                                                                        |                                   |      |     |
|                              | 3.9                                          | 34375                        | 1.0                  | 357.40                 | -                           | -                           | 105.0                          | 150.0                                        |                                              |                                                                                        |                                                                                        | <b>PD/PM 103</b><br><b>160L4B</b> | 1326 | 229 |
|                              | 4.2                                          | 31994                        | 1.2                  | 332.64                 | -                           | -                           | 110.0                          | 150.0                                        |                                              |                                                                                        |                                                                                        |                                   |      |     |
|                              | 4.9                                          | 27205                        | 1.2                  | 282.85                 | -                           | -                           | 118.0                          | 150.0                                        |                                              |                                                                                        |                                                                                        |                                   |      |     |
|                              | 5.3                                          | 25320                        | 1.3                  | 263.25                 | -                           | -                           | 121.0                          | 150.0                                        |                                              |                                                                                        |                                                                                        |                                   |      |     |
|                              | 7.7                                          | 17378                        | 2.0                  | 180.68                 | -                           | -                           | 130.0                          | 150.0                                        |                                              |                                                                                        |                                                                                        |                                   |      |     |
|                              | 8.3                                          | 16174                        | 2.2                  | 168.16                 | -                           | -                           | 131.0                          | 150.0                                        |                                              |                                                                                        |                                                                                        |                                   |      |     |
|                              | 10.0                                         | 13505                        | 2.6                  | 140.41                 | -                           | -                           | 133.0                          | 150.0                                        |                                              |                                                                                        |                                                                                        |                                   |      |     |
|                              | 7.8                                          | 16431                        | 1.6                  | 357.40                 | -                           | -                           | 105.0                          | 150.0                                        | <b>PD/PM 103</b><br><b>160M2C / 160M2D</b>   | 1326                                                                                   | 229                                                                                    |                                   |      |     |
|                              | 8.4                                          | 15293                        | 1.8                  | 332.64                 | -                           | -                           | 110.0                          | 150.0                                        |                                              |                                                                                        |                                                                                        |                                   |      |     |
|                              | 9.9                                          | 13004                        | 1.9                  | 282.85                 | -                           | -                           | 118.0                          | 150.0                                        |                                              |                                                                                        |                                                                                        |                                   |      |     |
|                              | 10.6                                         | 12103                        | 2.1                  | 263.25                 | -                           | -                           | 121.0                          | 150.0                                        |                                              |                                                                                        |                                                                                        |                                   |      |     |
|                              | 4.5                                          | 29590                        | 0.9                  | 200.50                 | 30.0                        | 61.0                        | 98.0                           | 123.0                                        | <b>PD/PM 93/52</b><br><b>180L6A / 180L6B</b> | 887                                                                                    | 242                                                                                    |                                   |      |     |
|                              | 4.8                                          | 27092                        | 0.9                  | 294.19                 | 73.0                        | 102.0                       | 120.0                          | 130.0                                        | <b>PD/PM 93/52</b><br><b>160L4B</b>          | 836                                                                                    | 242                                                                                    |                                   |      |     |
|                              | 6.0                                          | 21484                        | 1.1                  | 233.30                 | 27.0                        | 57.0                        | 98.0                           | 123.0                                        |                                              |                                                                                        |                                                                                        |                                   |      |     |
|                              | 7.0                                          | 18464                        | 1.3                  | 200.50                 | 30.0                        | 61.0                        | 98.0                           | 123.0                                        |                                              |                                                                                        |                                                                                        |                                   |      |     |
|                              | 6.8                                          | 17574                        | 1.0                  | 410.49                 | 73.0                        | 102.0                       | 120.0                          | 130.0                                        | <b>PD/PM 93/52</b><br><b>160M2C / 160M2D</b> | 836                                                                                    | 242                                                                                    |                                   |      |     |
|                              | 9.5                                          | 12595                        | 1.4                  | 294.19                 | 73.0                        | 102.0                       | -                              | -                                            |                                              |                                                                                        |                                                                                        |                                   |      |     |
|                              | 12.0                                         | 9988                         | 1.8                  | 233.30                 | 27.0                        | 57.0                        | 98.0                           | 123.0                                        |                                              |                                                                                        |                                                                                        |                                   |      |     |
|                              | 14.0                                         | 8584                         | 2.1                  | 200.50                 | 30.0                        | 61.0                        | 98.0                           | 123.0                                        |                                              |                                                                                        |                                                                                        |                                   |      |     |
|                              | 6.2                                          | 19303                        | 0.9                  | 450.86                 | 51.0                        | 102.0                       | 120.0                          | 130.0                                        | <b>PD/PM 93/42</b><br><b>160M2C / 160M2D</b> | 807                                                                                    | 242                                                                                    |                                   |      |     |
|                              | 5.1                                          | 26624                        | 1.0                  | 175.03                 | 55.0                        | 102.0                       | 120.0                          | 130.0                                        | <b>PD/PM 93</b><br><b>180L6A / 180L6B</b>    | 803                                                                                    | 225                                                                                    |                                   |      |     |
|                              | 6.2                                          | 21995                        | 1.1                  | 144.60                 | 54.0                        | 100.0                       | 117.0                          | 130.0                                        |                                              |                                                                                        |                                                                                        |                                   |      |     |
|                              | 6.6                                          | 20635                        | 1.3                  | 135.66                 | 55.0                        | 100.0                       | 116.0                          | 130.0                                        |                                              |                                                                                        |                                                                                        |                                   |      |     |
|                              | 7.8                                          | 17570                        | 1.5                  | 115.51                 | 54.0                        | 97.0                        | 112.0                          | 130.0                                        |                                              |                                                                                        |                                                                                        |                                   |      |     |
|                              | 8.9                                          | 15318                        | 1.7                  | 100.70                 | 54.0                        | 95.0                        | 110.0                          | 130.0                                        |                                              |                                                                                        |                                                                                        |                                   |      |     |
|                              | 10.8                                         | 12654                        | 2.0                  | 83.19                  | 52.0                        | 89.0                        | 103.0                          | 130.0                                        |                                              |                                                                                        |                                                                                        |                                   |      |     |
|                              | 12.5                                         | 10978                        | 2.3                  | 72.17                  | 62.0                        | 87.0                        | 101.0                          | 130.0                                        |                                              |                                                                                        |                                                                                        |                                   |      |     |
|                              | 13.8                                         | 9907                         | 2.6                  | 65.13                  | 62.0                        | 84.0                        | 99.0                           | 130.0                                        |                                              |                                                                                        |                                                                                        |                                   |      |     |
|                              | 16.2                                         | 8436                         | 3.0                  | 55.46                  | 62.0                        | 76.0                        | 93.0                           | 122.0                                        |                                              |                                                                                        |                                                                                        |                                   |      |     |
|                              | 4.8                                          | 27983                        | 0.9                  | 290.94                 | 47.0                        | 101.0                       | 120.0                          | 130.0                                        |                                              |                                                                                        |                                                                                        | <b>PD/PM 93</b><br><b>160L4B</b>  | 762  | 225 |
|                              | 6.8                                          | 19685                        | 1.1                  | 204.66                 | 54.0                        | 102.0                       | 120.0                          | 130.0                                        |                                              |                                                                                        |                                                                                        |                                   |      |     |
|                              | 8.0                                          | 16835                        | 1.5                  | 175.03                 | 55.0                        | 102.0                       | 120.0                          | 130.0                                        |                                              |                                                                                        |                                                                                        |                                   |      |     |
|                              | 9.7                                          | 13908                        | 1.7                  | 144.60                 | 54.0                        | 100.0                       | 117.0                          | 130.0                                        |                                              |                                                                                        |                                                                                        |                                   |      |     |
|                              | 10.3                                         | 13048                        | 1.9                  | 135.66                 | 55.0                        | 100.0                       | 116.0                          | 130.0                                        |                                              |                                                                                        |                                                                                        |                                   |      |     |
|                              | 12.1                                         | 11110                        | 2.3                  | 115.51                 | 54.0                        | 97.0                        | 112.0                          | 130.0                                        |                                              |                                                                                        |                                                                                        |                                   |      |     |
|                              | 13.9                                         | 9686                         | 2.6                  | 100.70                 | 54.0                        | 95.0                        | 110.0                          | 130.0                                        |                                              |                                                                                        |                                                                                        |                                   |      |     |
|                              | 16.8                                         | 8001                         | 3.0                  | 83.19                  | 52.0                        | 89.0                        | 103.0                          | 130.0                                        |                                              |                                                                                        |                                                                                        |                                   |      |     |
| 8.0                          | 16190                                        | 1.2                          | 352.16               | 47.0                   | 101.0                       | 120.0                       | 130.0                          | <b>PD/PM 93</b><br><b>160M2C / 160M2D</b>    | 762                                          | 225                                                                                    |                                                                                        |                                   |      |     |
| 9.6                          | 13376                                        | 1.4                          | 290.94               | 47.0                   | 101.0                       | 120.0                       | 130.0                          |                                              |                                              |                                                                                        |                                                                                        |                                   |      |     |
| 13.7                         | 9409                                         | 1.8                          | 204.66               | 54.0                   | 102.0                       | 120.0                       | 130.0                          |                                              |                                              |                                                                                        |                                                                                        |                                   |      |     |
| 16.0                         | 8047                                         | 2.4                          | 175.03               | 55.0                   | 102.0                       | 120.0                       | 130.0                          |                                              |                                              |                                                                                        |                                                                                        |                                   |      |     |
| 19.4                         | 6648                                         | 2.7                          | 144.60               | 54.0                   | 100.0                       | 117.0                       | 130.0                          |                                              |                                              |                                                                                        |                                                                                        |                                   |      |     |
| 12.5                         | 9578                                         | 1.0                          | 223.71               | 78.0                   | 73.0                        | -                           | -                              | <b>PD/PM 83/42</b><br><b>160M2C / 160M2D</b> | 505                                          | 242                                                                                    |                                                                                        |                                   |      |     |
| 15.0                         | 7986                                         | 1.2                          | 186.54               | 78.0                   | 73.0                        | -                           | -                              |                                              |                                              |                                                                                        |                                                                                        |                                   |      |     |
| 8.7                          | 15687                                        | 0.8                          | 103.13               | 32.0                   | 58.0                        | 86.0                        | 105.0                          | <b>PD/PM 83</b><br><b>180L6A / 180L6B</b>    | 501                                          | 221                                                                                    |                                                                                        |                                   |      |     |
| 9.9                          | 13810                                        | 0.9                          | 90.79                | 33.0                   | 58.0                        | 85.0                        | 105.0                          |                                              |                                              |                                                                                        |                                                                                        |                                   |      |     |
| 11.9                         | 11515                                        | 1.1                          | 75.70                | 33.0                   | 58.0                        | 83.0                        | 105.0                          |                                              |                                              |                                                                                        |                                                                                        |                                   |      |     |
| 13.8                         | 9912                                         | 1.2                          | 65.16                | 33.0                   | 57.0                        | 81.0                        | 105.0                          |                                              |                                              |                                                                                        |                                                                                        |                                   |      |     |
| 15.7                         | 8719                                         | 1.5                          | 57.32                | 33.0                   | 56.0                        | 79.0                        | 105.0                          |                                              |                                              |                                                                                        |                                                                                        |                                   |      |     |
| 18.8                         | 7269                                         | 1.7                          | 47.79                | 33.0                   | 54.0                        | 76.0                        | 105.0                          |                                              |                                              |                                                                                        |                                                                                        |                                   |      |     |
| 20.7                         | 6620                                         | 1.7                          | 43.52                | 33.0                   | 53.0                        | 75.0                        | 105.0                          |                                              |                                              |                                                                                        |                                                                                        |                                   |      |     |
| 25.1                         | 5450                                         | 2.3                          | 35.83                | 38.0                   | 72.0                        | 71.0                        | 102.0                          |                                              |                                              |                                                                                        |                                                                                        |                                   |      |     |
| 29.2                         | 4691                                         | 2.7                          | 30.84                | 38.0                   | 72.0                        | 69.0                        | 99.0                           |                                              |                                              |                                                                                        |                                                                                        |                                   |      |     |



| P <sub>1</sub><br>[kW] | n <sub>2</sub><br>[Min <sup>-1</sup> ] | M <sub>2</sub><br>[Nm] | f <sub>B</sub> | i <sub>ges</sub> | F <sub>R</sub><br>[N] | F <sub>A</sub><br>[N] | F <sub>R GR</sub><br>[N] | F <sub>A GR</sub><br>[N] | Tip / Type / Typ<br>IE2 / IE3       |     |     |
|------------------------|----------------------------------------|------------------------|----------------|------------------|-----------------------|-----------------------|--------------------------|--------------------------|-------------------------------------|-----|-----|
| <b>15.0</b>            | 9.2                                    | 14694                  | 0.9            | 152.77           | 27.0                  | 56.0                  | 89.0                     | 105.0                    | <b>PD/PM 83<br/>160L4B</b>          | 460 | 221 |
|                        | 9.7                                    | 13842                  | 0.9            | 143.91           | 29.0                  | 57.0                  | 90.0                     | 105.0                    |                                     |     |     |
|                        | 11.2                                   | 12049                  | 1.0            | 125.27           | 43.0                  | 73.0                  | 98.0                     | 105.0                    |                                     |     |     |
|                        | 11.8                                   | 11396                  | 1.1            | 118.48           | 30.0                  | 58.0                  | 88.0                     | 105.0                    |                                     |     |     |
|                        | 13.6                                   | 9919                   | 1.2            | 103.13           | 32.0                  | 58.0                  | 86.0                     | 105.0                    |                                     |     |     |
|                        | 15.4                                   | 8732                   | 1.4            | 90.79            | 33.0                  | 58.0                  | 85.0                     | 105.0                    |                                     |     |     |
|                        | 18.5                                   | 7281                   | 1.7            | 75.70            | 33.0                  | 58.0                  | 83.0                     | 105.0                    |                                     |     |     |
|                        | 21.5                                   | 6267                   | 1.8            | 65.16            | 33.0                  | 57.0                  | 81.0                     | 105.0                    |                                     |     |     |
|                        | 24.4                                   | 5513                   | 2.2            | 57.32            | 33.0                  | 56.0                  | 79.0                     | 105.0                    |                                     |     |     |
|                        | 29.3                                   | 4597                   | 2.6            | 47.79            | 33.0                  | 54.0                  | 76.0                     | 105.0                    |                                     |     |     |
| 32.2                   | 4186                                   | 2.5                    | 43.52          | 33.0             | 53.0                  | 75.0                  | 105.0                    |                          |                                     |     |     |
|                        | 11.6                                   | 11125                  | 0.9            | 241.98           | 27.0                  | 56.0                  | 100.0                    | 105.0                    | <b>PD/PM 83<br/>160M2C / 160M2D</b> | 460 | 221 |
|                        | 15.1                                   | 8531                   | 1.1            | 185.56           | 27.0                  | 56.0                  | 100.0                    | 105.0                    |                                     |     |     |
|                        | 18.3                                   | 7024                   | 1.4            | 152.77           | 27.0                  | 56.0                  | 89.0                     | 105.0                    |                                     |     |     |
|                        | 19.5                                   | 6616                   | 1.4            | 143.91           | 29.0                  | 57.0                  | 90.0                     | 105.0                    |                                     |     |     |
|                        | 22.4                                   | 5759                   | 1.6            | 125.27           | 43.0                  | 73.0                  | 98.0                     | 105.0                    |                                     |     |     |
|                        | 23.6                                   | 5447                   | 1.7            | 118.48           | 30.0                  | 58.0                  | 88.0                     | 105.0                    |                                     |     |     |
|                        | 27.2                                   | 4741                   | 1.9            | 103.13           | 32.0                  | 58.0                  | 86.0                     | 105.0                    |                                     |     |     |
|                        | 30.8                                   | 4174                   | 2.2            | 90.79            | 33.0                  | 58.0                  | 85.0                     | 105.0                    |                                     |     |     |
|                        | 37.0                                   | 3480                   | 2.6            | 75.70            | 33.0                  | 58.0                  | 83.0                     | 105.0                    |                                     |     |     |
|                        | 43.0                                   | 2996                   | 2.9            | 65.16            | 33.0                  | 57.0                  | 81.0                     | 105.0                    |                                     |     |     |
|                        | 18.9                                   | 7337                   | 1.5            | 47.51            | 33.0                  | 54.0                  | -                        | -                        | <b>PD/PM 82<br/>180L6A / 180L6B</b> | 497 | 220 |
|                        | 23.0                                   | 6041                   | 1.6            | 39.12            | 32.0                  | 52.0                  | -                        | -                        |                                     |     |     |
|                        | 31.7                                   | 4378                   | 2.4            | 28.35            | 28.0                  | 66.0                  | 66.0                     | 95.0                     |                                     |     |     |
|                        | 36.7                                   | 3785                   | 2.9            | 24.51            | 28.0                  | 66.0                  | -                        | -                        |                                     |     |     |
|                        | 19.4                                   | 7089                   | 1.1            | 72.17            | 34.0                  | 58.0                  | -                        | -                        | <b>PD/PM 82<br/>160L4B</b>          | 456 | 220 |
|                        | 23.6                                   | 5836                   | 1.1            | 59.41            | 33.0                  | 56.0                  | -                        | -                        |                                     |     |     |
|                        | 29.5                                   | 4667                   | 2.3            | 47.51            | 33.0                  | 54.0                  | -                        | -                        |                                     |     |     |
|                        | 35.8                                   | 3843                   | 2.4            | 39.12            | 32.0                  | 52.0                  | -                        | -                        |                                     |     |     |
|                        | 38.8                                   | 3438                   | 1.7            | 72.17            | 34.0                  | 58.0                  | -                        | -                        | <b>PD/PM 82<br/>160M2C / 160M2D</b> | 456 | 220 |
|                        | 47.1                                   | 2830                   | 1.7            | 59.41            | 33.0                  | 56.0                  | -                        | -                        |                                     |     |     |
|                        | 15.1                                   | 9054                   | 0.8            | 59.52            | 24.0                  | 42.0                  | 66.0                     | 80.0                     | <b>PD/PM 73<br/>180L6A / 180L6B</b> | 376 | 217 |
|                        | 16.8                                   | 8126                   | 0.9            | 53.42            | 24.0                  | 43.0                  | 65.0                     | 80.0                     |                                     |     |     |
|                        | 19.3                                   | 7098                   | 1.0            | 46.66            | 24.0                  | 42.0                  | 64.0                     | 80.0                     |                                     |     |     |
|                        | 24.4                                   | 5621                   | 1.2            | 36.95            | 24.0                  | 40.0                  | 60.0                     | 80.0                     |                                     |     |     |
|                        | 29.5                                   | 4638                   | 1.5            | 30.49            | 24.0                  | 39.0                  | 58.0                     | 80.0                     |                                     |     |     |
|                        | 33.4                                   | 4095                   | 1.7            | 26.92            | 23.0                  | 38.0                  | 57.0                     | 80.0                     |                                     |     |     |
|                        | 38.3                                   | 3570                   | 1.9            | 23.47            | 21.0                  | 34.0                  | 54.0                     | 78.0                     |                                     |     |     |
|                        | 15.0                                   | 8950                   | 0.8            | 93.05            | 21.0                  | 42.0                  | 70.0                     | 80.0                     |                                     |     |     |
| 17.8                   | 7574                                   | 1.0                    | 78.75          | 22.0             | 42.0                  | 68.0                  | 80.0                     |                          |                                     |     |     |
| 20.5                   | 6554                                   | 1.1                    | 68.14          | 23.0             | 42.0                  | 67.0                  | 80.0                     |                          |                                     |     |     |
| 23.5                   | 5725                                   | 1.2                    | 59.52          | 24.0             | 42.0                  | 66.0                  | 80.0                     |                          |                                     |     |     |
| 26.2                   | 5138                                   | 1.4                    | 53.42          | 24.0             | 43.0                  | 65.0                  | 80.0                     |                          |                                     |     |     |
| 30.0                   | 4488                                   | 1.6                    | 46.66          | 24.0             | 42.0                  | 64.0                  | 80.0                     |                          |                                     |     |     |
| 37.9                   | 3554                                   | 1.9                    | 36.95          | 24.0             | 40.0                  | 60.0                  | 80.0                     |                          |                                     |     |     |
| 45.9                   | 2933                                   | 2.3                    | 30.49          | 24.0             | 39.0                  | 58.0                  | 80.0                     |                          |                                     |     |     |
| 52.0                   | 2589                                   | 2.6                    | 26.92          | 23.0             | 38.0                  | 57.0                  | 80.0                     |                          |                                     |     |     |
| 59.7                   | 2257                                   | 2.9                    | 23.47          | 21.0             | 34.0                  | 54.0                  | 78.0                     |                          |                                     |     |     |
|                        | 22.7                                   | 5660                   | 1.0            | 123.12           | 21.0                  | 42.0                  | 72.0                     | 80.0                     | <b>PD/PM 73<br/>160M2C / 160M2D</b> | 335 | 217 |
|                        | 26.3                                   | 4898                   | 1.2            | 106.53           | 21.0                  | 42.0                  | 75.0                     | 80.0                     |                                     |     |     |
|                        | 30.1                                   | 4278                   | 1.3            | 93.05            | 21.0                  | 42.0                  | 70.0                     | 80.0                     |                                     |     |     |
|                        | 35.6                                   | 3621                   | 1.6            | 78.75            | 22.0                  | 42.0                  | 68.0                     | 80.0                     |                                     |     |     |
|                        | 41.1                                   | 3133                   | 1.7            | 68.14            | 23.0                  | 42.0                  | 67.0                     | 80.0                     |                                     |     |     |
|                        | 47.0                                   | 2736                   | 2.0            | 59.52            | 24.0                  | 42.0                  | 66.0                     | 80.0                     |                                     |     |     |
|                        | 52.4                                   | 2456                   | 2.2            | 53.42            | 24.0                  | 43.0                  | 65.0                     | 80.0                     |                                     |     |     |
|                        | 60.0                                   | 2145                   | 2.5            | 46.66            | 24.0                  | 42.0                  | 64.0                     | 80.0                     |                                     |     |     |
|                        | 75.8                                   | 1699                   | 3.0            | 36.95            | 24.0                  | 40.0                  | 60.0                     | 80.0                     |                                     |     |     |
|                        |                                        | 19.7                   | 7051           | 0.9              | 45.66                 | 25.0                  | 43.0                     | 64.0                     |                                     |     |     |
| 24.2                   |                                        | 5748                   | 1.2            | 37.22            | 24.0                  | 41.0                  | 61.0                     | 80.0                     |                                     |     |     |
| 25.9                   |                                        | 5357                   | 1.1            | 34.69            | 25.0                  | 41.0                  | 60.0                     | 80.0                     |                                     |     |     |
| 33.5                   |                                        | 4153                   | 1.5            | 26.89            | 24.0                  | 39.0                  | 57.0                     | 80.0                     |                                     |     |     |
| 39.3                   |                                        | 3536                   | 1.7            | 22.90            | 22.0                  | 35.0                  | 54.0                     | 78.0                     |                                     |     |     |
| 45.1                   |                                        | 3082                   | 2.0            | 19.96            | 22.0                  | 34.0                  | 52.0                     | 76.0                     |                                     |     |     |
| 55.3                   |                                        | 2513                   | 2.7            | 16.27            | 29.0                  | 52.0                  | 49.0                     | 71.0                     |                                     |     |     |
| 90.8                   |                                        | 1530                   | 2.9            | 9.91             | 29.0                  | 52.0                  | -                        | -                        |                                     |     |     |
|                        |                                        |                        |                |                  |                       |                       |                          |                          |                                     |     |     |





| $P_1$<br>[kW] | $n_2$<br>[Min <sup>-1</sup> ] | $M_2$<br>[Nm] | $f_B$ | $i_{ges}$ | $F_R$<br>[N] | $F_A$<br>[N] | $F_{RGR}$<br>[N] | $F_{AGR}$<br>[N]                    | Tip / Type / Typ<br>IE2 / IE3       |  Kg |  mm |                                     |     |     |
|---------------|-------------------------------|---------------|-------|-----------|--------------|--------------|------------------|-------------------------------------|-------------------------------------|----------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------|-------------------------------------|-----|-----|
| <b>15.0</b>   | 20.1                          | 6856          | 0.8   | 69.80     | 24.0         | 44.0         | 68.0             | 80.0                                | <b>PD/PM 72<br/>160L4B</b>          | 328                                                                                    | 216                                                                                    |                                     |     |     |
|               | 24.6                          | 5589          | 1.0   | 56.90     | 24.0         | 43.0         | 66.0             | 80.0                                |                                     |                                                                                        |                                                                                        |                                     |     |     |
|               | 30.7                          | 4485          | 1.3   | 45.66     | 25.0         | 43.0         | 64.0             | 80.0                                |                                     |                                                                                        |                                                                                        |                                     |     |     |
|               | 31.1                          | 4426          | 1.0   | 45.06     | -            | -            | 67.0             | 80.0                                |                                     |                                                                                        |                                                                                        |                                     |     |     |
|               | 37.6                          | 3656          | 1.8   | 37.22     | 24.0         | 41.0         | 61.0             | 80.0                                |                                     |                                                                                        |                                                                                        |                                     |     |     |
|               | 40.4                          | 3408          | 1.7   | 34.69     | 25.0         | 41.0         | 60.0             | 80.0                                |                                     |                                                                                        |                                                                                        |                                     |     |     |
|               | 52.1                          | 2641          | 2.2   | 26.89     | 24.0         | 39.0         | 57.0             | 80.0                                |                                     |                                                                                        |                                                                                        |                                     |     |     |
|               | 61.1                          | 2249          | 2.6   | 22.90     | 22.0         | 35.0         | 54.0             | 78.0                                |                                     |                                                                                        |                                                                                        |                                     |     |     |
|               | 70.1                          | 1961          | 3.0   | 19.96     | 22.0         | 34.0         | 52.0             | 76.0                                |                                     |                                                                                        |                                                                                        |                                     |     |     |
|               | 40.1                          | 3325          | 1.3   | 69.80     | 24.0         | 44.0         | 68.0             | 80.0                                |                                     |                                                                                        |                                                                                        | <b>PD/PM 72<br/>160M2C / 160M2D</b> | 328 | 216 |
|               | 49.2                          | 2711          | 1.6   | 56.90     | 24.0         | 43.0         | 66.0             | 80.0                                |                                     |                                                                                        |                                                                                        |                                     |     |     |
|               | 61.3                          | 2175          | 2.0   | 45.66     | 25.0         | 43.0         | 64.0             | 80.0                                |                                     |                                                                                        |                                                                                        |                                     |     |     |
|               | 62.1                          | 2147          | 1.6   | 45.06     | 24.0         | 41.0         | 67.0             | 80.0                                |                                     |                                                                                        |                                                                                        |                                     |     |     |
|               | 75.2                          | 1773          | 2.8   | 37.22     | 24.0         | 41.0         | 61.0             | 80.0                                |                                     |                                                                                        |                                                                                        |                                     |     |     |
|               | 80.7                          | 1653          | 2.7   | 34.69     | 25.0         | 41.0         | 60.0             | 80.0                                |                                     |                                                                                        |                                                                                        |                                     |     |     |
|               | 29.1                          | 4700          | 1.0   | 30.90     | 20.0         | 34.0         | 48.0             | 60.0                                | <b>PD/PM 63<br/>180L6A / 180L6B</b> | 303                                                                                    | 213                                                                                    |                                     |     |     |
|               | 31.4                          | 4360          | 1.1   | 28.66     | 20.0         | 34.0         | 47.0             | 60.0                                |                                     |                                                                                        |                                                                                        |                                     |     |     |
|               | 36.9                          | 3715          | 1.3   | 24.42     | 20.0         | 33.0         | 45.0             | 60.0                                |                                     |                                                                                        |                                                                                        |                                     |     |     |
|               | 18.6                          | 7243          | 0.8   | 75.30     | 5.0          | 33.0         | 41.0             | 60.0                                | <b>PD/PM 63<br/>160L4B</b>          | 262                                                                                    | 213                                                                                    |                                     |     |     |
|               | 19.1                          | 7062          | 0.8   | 73.42     | 14.0         | 33.0         | 43.0             | 60.0                                |                                     |                                                                                        |                                                                                        |                                     |     |     |
|               | 23.5                          | 5737          | 1.0   | 59.65     | 18.0         | 34.0         | 49.0             | 60.0                                |                                     |                                                                                        |                                                                                        |                                     |     |     |
|               | 27.4                          | 4906          | 1.0   | 51.01     | 19.0         | 35.0         | 51.0             | 60.0                                |                                     |                                                                                        |                                                                                        |                                     |     |     |
|               | 33.0                          | 4079          | 1.1   | 42.41     | 20.0         | 35.0         | 50.0             | 60.0                                |                                     |                                                                                        |                                                                                        |                                     |     |     |
|               | 38.6                          | 3489          | 1.3   | 36.27     | 20.0         | 35.0         | 49.0             | 60.0                                |                                     |                                                                                        |                                                                                        |                                     |     |     |
|               | 45.3                          | 2972          | 1.5   | 30.90     | 20.0         | 34.0         | 48.0             | 60.0                                |                                     |                                                                                        |                                                                                        |                                     |     |     |
|               | 48.8                          | 2757          | 1.7   | 28.66     | 20.0         | 34.0         | 47.0             | 60.0                                |                                     |                                                                                        |                                                                                        |                                     |     |     |
|               | 57.3                          | 2349          | 2.0   | 24.42     | 20.0         | 33.0         | 45.0             | 60.0                                |                                     |                                                                                        |                                                                                        |                                     |     |     |
|               | 24.4                          | 5277          | 0.8   | 114.79    | 5.0          | 33.0         | 45.0             | 60.0                                | <b>PD/PM 63<br/>160M2C / 160M2D</b> | 262                                                                                    | 213                                                                                    |                                     |     |     |
|               | 30.2                          | 4261          | 1.1   | 92.68     | 5.0          | 33.0         | 46.0             | 60.0                                |                                     |                                                                                        |                                                                                        |                                     |     |     |
|               | 37.2                          | 3462          | 1.3   | 75.30     | 5.0          | 33.0         | 41.0             | 60.0                                |                                     |                                                                                        |                                                                                        |                                     |     |     |
|               | 38.1                          | 3375          | 1.3   | 73.42     | 14.0         | 33.0         | 43.0             | 60.0                                |                                     |                                                                                        |                                                                                        |                                     |     |     |
|               | 46.9                          | 2742          | 1.5   | 59.65     | 18.0         | 34.0         | 49.0             | 60.0                                |                                     |                                                                                        |                                                                                        |                                     |     |     |
|               | 54.9                          | 2345          | 1.6   | 51.01     | 19.0         | 35.0         | 51.0             | 60.0                                |                                     |                                                                                        |                                                                                        |                                     |     |     |
|               | 66.0                          | 1950          | 1.8   | 42.41     | 20.0         | 35.0         | 50.0             | 60.0                                |                                     |                                                                                        |                                                                                        |                                     |     |     |
|               | 77.2                          | 1668          | 2.1   | 36.27     | 20.0         | 35.0         | 49.0             | 60.0                                |                                     |                                                                                        |                                                                                        |                                     |     |     |
|               | 90.6                          | 1421          | 2.4   | 30.90     | 20.0         | 34.0         | 48.0             | 60.0                                |                                     |                                                                                        |                                                                                        |                                     |     |     |
|               | 97.7                          | 1318          | 2.7   | 28.66     | 20.0         | 34.0         | 47.0             | 60.0                                |                                     |                                                                                        |                                                                                        |                                     |     |     |
|               | 30.1                          | 4616          | 1.0   | 29.89     | 21.0         | 35.0         | 48.0             | 60.0                                |                                     |                                                                                        |                                                                                        | <b>PD/PM 62<br/>180L6A / 180L6B</b> | 306 | 212 |
|               | 34.6                          | 4018          | 1.2   | 26.02     | 21.0         | 34.0         | 46.0             | 60.0                                |                                     |                                                                                        |                                                                                        |                                     |     |     |
|               | 39.3                          | 3538          | 1.3   | 22.91     | 20.0         | 33.0         | 45.0             | 60.0                                |                                     |                                                                                        |                                                                                        |                                     |     |     |
|               | 48.2                          | 2885          | 1.6   | 18.68     | 15.0         | 23.0         | 43.0             | 60.0                                |                                     |                                                                                        |                                                                                        |                                     |     |     |
|               | 60.8                          | 2286          | 2.1   | 14.80     | 15.0         | 23.0         | 41.0             | 59.0                                |                                     |                                                                                        |                                                                                        |                                     |     |     |
|               | 72.9                          | 1906          | 2.4   | 12.34     | 15.0         | 23.0         | 39.0             | 56.0                                |                                     |                                                                                        |                                                                                        |                                     |     |     |
|               | 84.6                          | 1643          | 1.3   | 10.64     | 15.0         | 23.0         | -                | -                                   |                                     |                                                                                        |                                                                                        |                                     |     |     |
|               | 84.7                          | 1640          | 2.8   | 10.62     | 15.0         | 23.0         | 37.0             | 53.0                                |                                     |                                                                                        |                                                                                        |                                     |     |     |
|               | 96.1                          | 1447          | 2.0   | 9.37      | 15.0         | 23.0         | 35.0             | 50.0                                |                                     |                                                                                        |                                                                                        |                                     |     |     |
|               | 115.2                         | 1206          | 2.3   | 7.81      | 24.0         | 42.0         | 34.0             | 48.0                                |                                     |                                                                                        |                                                                                        |                                     |     |     |
|               | 133.7                         | 1039          | 3.0   | 6.73      | 24.0         | 42.0         | -                | -                                   |                                     |                                                                                        |                                                                                        |                                     |     |     |
| 150.3         | 925                           | 2.7           | 5.99  | 24.0      | 42.0         | -            | -                |                                     |                                     |                                                                                        |                                                                                        |                                     |     |     |
| 155.7         | 893                           | 2.7           | 5.78  | 24.0      | 42.0         | -            | -                |                                     |                                     |                                                                                        |                                                                                        |                                     |     |     |
| 163.9         | 848                           | 2.8           | 5.49  | 24.0      | 42.0         | -            | -                |                                     |                                     |                                                                                        |                                                                                        |                                     |     |     |
| 183.7         | 757                           | 3.0           | 4.90  | 24.0      | 42.0         | -            | -                |                                     |                                     |                                                                                        |                                                                                        |                                     |     |     |
| 22.9          | 5997                          | 0.8           | 61.05 | 19.0      | 36.0         | 49.0         | 60.0             | <b>PD/PM 62<br/>160L4B</b>          | 265                                 | 212                                                                                    |                                                                                        |                                     |     |     |
| 28.1          | 4891                          | 0.8           | 49.79 | 20.0      | 35.0         | 52.0         | 60.0             |                                     |                                     |                                                                                        |                                                                                        |                                     |     |     |
| 35.5          | 3874                          | 0.8           | 39.44 | 20.0      | 35.0         | 49.0         | 60.0             |                                     |                                     |                                                                                        |                                                                                        |                                     |     |     |
| 46.8          | 2936                          | 1.5           | 29.89 | 21.0      | 35.0         | 48.0         | 60.0             |                                     |                                     |                                                                                        |                                                                                        |                                     |     |     |
| 48.8          | 2817                          | 1.6           | 28.68 | -         | -            | -            | -                |                                     |                                     |                                                                                        |                                                                                        |                                     |     |     |
| 53.8          | 2556                          | 1.8           | 26.02 | 21.0      | 34.0         | 46.0         | 60.0             |                                     |                                     |                                                                                        |                                                                                        |                                     |     |     |
| 61.1          | 2250                          | 2.0           | 22.91 | 20.0      | 33.0         | 45.0         | 60.0             |                                     |                                     |                                                                                        |                                                                                        |                                     |     |     |
| 131.6         | 1045                          | 1.9           | 10.64 | -         | -            | -            | -                |                                     |                                     |                                                                                        |                                                                                        |                                     |     |     |
| 149.4         | 920                           | 3.0           | 9.37  | 15.0      | 23.0         | 35.0         | 50.0             |                                     |                                     |                                                                                        |                                                                                        |                                     |     |     |
| 45.9          | 2909                          | 1.2           | 61.05 | 19.0      | 36.0         | 49.0         | 60.0             | <b>PD/PM 62<br/>160M2C / 160M2D</b> | 265                                 | 212                                                                                    |                                                                                        |                                     |     |     |
| 56.2          | 2372                          | 1.3           | 49.79 | 20.0      | 35.0         | 52.0         | 60.0             |                                     |                                     |                                                                                        |                                                                                        |                                     |     |     |
| 71.0          | 1879                          | 1.3           | 39.44 | 20.0      | 35.0         | 49.0         | 60.0             |                                     |                                     |                                                                                        |                                                                                        |                                     |     |     |
| 93.7          | 1424                          | 2.4           | 29.89 | 21.0      | 35.0         | 48.0         | 60.0             |                                     |                                     |                                                                                        |                                                                                        |                                     |     |     |
| 107.6         | 1240                          | 2.8           | 26.02 | 21.0      | 34.0         | 46.0         | 60.0             |                                     |                                     |                                                                                        |                                                                                        |                                     |     |     |
| 263.2         | 507                           | 3.0           | 10.64 | 15.0      | 23.0         | 37.0         | 53.0             |                                     |                                     |                                                                                        |                                                                                        |                                     |     |     |







| <b>P<sub>1</sub></b><br>[kW] | <b>n<sub>2</sub></b><br>[Min <sup>-1</sup> ] | <b>M<sub>2</sub></b><br>[Nm] | <b>f<sub>B</sub></b> | <b>i<sub>ges</sub></b> | <b>F<sub>R</sub></b><br>[N] | <b>F<sub>A</sub></b><br>[N] | <b>F<sub>R GR</sub></b><br>[N] | <b>F<sub>A GR</sub></b><br>[N] | Tip / Type / Typ<br>IE2 / IE3                 |  Kg |  mm |                                           |     |     |
|------------------------------|----------------------------------------------|------------------------------|----------------------|------------------------|-----------------------------|-----------------------------|--------------------------------|--------------------------------|-----------------------------------------------|----------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------|-------------------------------------------|-----|-----|
| <b>15.0</b>                  | 36.1                                         | 3855                         | 0.8                  | 24.96                  | 12.0                        | 22.0                        | 30.0                           | 40.0                           | <b>PD/PM 52</b><br><b>180L6A / 180L6B</b>     | 222                                                                                    | 208                                                                                    |                                           |     |     |
|                              | 44.2                                         | 3144                         | 1.0                  | 20.36                  | 12.0                        | 21.0                        | 28.0                           | 40.0                           |                                               |                                                                                        |                                                                                        |                                           |     |     |
|                              | 47.7                                         | 2913                         | 0.9                  | 18.86                  | 12.0                        | 21.0                        | 28.0                           | 40.0                           |                                               |                                                                                        |                                                                                        |                                           |     |     |
|                              | 51.1                                         | 2719                         | 1.1                  | 17.61                  | 12.0                        | 21.0                        | 28.0                           | 40.0                           |                                               |                                                                                        |                                                                                        |                                           |     |     |
|                              | 58.5                                         | 2375                         | 1.1                  | 15.38                  | 12.0                        | 21.0                        | 27.0                           | 40.0                           |                                               |                                                                                        |                                                                                        |                                           |     |     |
|                              | 69.2                                         | 2008                         | 1.4                  | 13.00                  | 11.0                        | 20.0                        | 26.0                           | 40.0                           |                                               |                                                                                        |                                                                                        |                                           |     |     |
|                              | 83.9                                         | 1657                         | 1.6                  | 10.73                  | 11.0                        | 19.0                        | 25.0                           | 40.0                           |                                               |                                                                                        |                                                                                        |                                           |     |     |
|                              | 95.0                                         | 1462                         | 1.7                  | 9.47                   | 11.0                        | 18.0                        | 24.0                           | 40.0                           |                                               |                                                                                        |                                                                                        |                                           |     |     |
|                              | 103.6                                        | 1342                         | 1.8                  | 8.69                   | 11.0                        | 18.0                        | 24.0                           | 40.0                           |                                               |                                                                                        |                                                                                        |                                           |     |     |
|                              | 125.5                                        | 1107                         | 2.0                  | 7.17                   | 14.0                        | 17.0                        | 23.0                           | 38.0                           |                                               |                                                                                        |                                                                                        |                                           |     |     |
|                              | 142.2                                        | 978                          | 2.3                  | 6.33                   | 14.0                        | 26.0                        | 22.0                           | 37.0                           |                                               |                                                                                        |                                                                                        |                                           |     |     |
|                              | 157.9                                        | 880                          | 2.1                  | 5.70                   | 14.0                        | 26.0                        | 22.0                           | 36.0                           |                                               |                                                                                        |                                                                                        |                                           |     |     |
|                              | 168.2                                        | 826                          | 2.2                  | 5.35                   | 14.0                        | 26.0                        | 21.0                           | 35.0                           |                                               |                                                                                        |                                                                                        |                                           |     |     |
|                              | 179.3                                        | 775                          | 2.3                  | 5.02                   | 14.0                        | 26.0                        | 20.0                           | 34.0                           |                                               |                                                                                        |                                                                                        |                                           |     |     |
|                              | 208.3                                        | 667                          | 2.4                  | 4.32                   | 14.0                        | 26.0                        | 20.0                           | 33.0                           |                                               |                                                                                        |                                                                                        |                                           |     |     |
|                              | 45.9                                         | 2993                         | 1.0                  | 30.47                  | 11.0                        | 22.0                        | 30.0                           | 40.0                           |                                               |                                                                                        |                                                                                        | <b>PD/PM 52</b><br><b>160L4B</b>          | 181 | 208 |
|                              | 56.1                                         | 2452                         | 1.2                  | 24.96                  | 12.0                        | 22.0                        | 30.0                           | 40.0                           |                                               |                                                                                        |                                                                                        |                                           |     |     |
|                              | 68.8                                         | 2000                         | 1.6                  | 20.36                  | 12.0                        | 21.0                        | 28.0                           | 40.0                           |                                               |                                                                                        |                                                                                        |                                           |     |     |
|                              | 74.2                                         | 1853                         | 1.4                  | 18.86                  | 12.0                        | 21.0                        | 28.0                           | 40.0                           |                                               |                                                                                        |                                                                                        |                                           |     |     |
|                              | 79.5                                         | 1730                         | 1.6                  | 17.61                  | 12.0                        | 21.0                        | 28.0                           | 40.0                           |                                               |                                                                                        |                                                                                        |                                           |     |     |
|                              | 91.0                                         | 1511                         | 1.7                  | 15.38                  | 12.0                        | 21.0                        | 27.0                           | 40.0                           |                                               |                                                                                        |                                                                                        |                                           |     |     |
|                              | 107.7                                        | 1277                         | 2.1                  | 13.00                  | 11.0                        | 20.0                        | 26.0                           | 40.0                           |                                               |                                                                                        |                                                                                        |                                           |     |     |
|                              | 130.5                                        | 1054                         | 2.4                  | 10.73                  | 11.0                        | 19.0                        | 25.0                           | 40.0                           |                                               |                                                                                        |                                                                                        |                                           |     |     |
|                              | 147.8                                        | 930                          | 2.5                  | 9.47                   | 11.0                        | 18.0                        | 24.0                           | 40.0                           |                                               |                                                                                        |                                                                                        |                                           |     |     |
|                              | 161.1                                        | 854                          | 2.8                  | 8.69                   | 11.0                        | 18.0                        | 24.0                           | 40.0                           |                                               |                                                                                        |                                                                                        |                                           |     |     |
|                              | 68.6                                         | 1943                         | 1.0                  | 40.79                  | 11.0                        | 22.0                        | 34.0                           | 40.0                           | <b>PD/PM 52</b><br><b>160M2C / 160M2D</b>     | 181                                                                                    | 208                                                                                    |                                           |     |     |
|                              | 83.8                                         | 1592                         | 1.1                  | 33.41                  | 11.0                        | 22.0                        | 33.0                           | 40.0                           |                                               |                                                                                        |                                                                                        |                                           |     |     |
|                              | 91.9                                         | 1452                         | 1.5                  | 30.47                  | 11.0                        | 22.0                        | 30.0                           | 40.0                           |                                               |                                                                                        |                                                                                        |                                           |     |     |
|                              | 112.2                                        | 1189                         | 1.9                  | 24.96                  | 12.0                        | 22.0                        | 30.0                           | 40.0                           |                                               |                                                                                        |                                                                                        |                                           |     |     |
|                              | 137.5                                        | 970                          | 2.4                  | 20.36                  | 12.0                        | 21.0                        | 28.0                           | 40.0                           |                                               |                                                                                        |                                                                                        |                                           |     |     |
|                              | 148.5                                        | 899                          | 2.2                  | 18.86                  | 12.0                        | 21.0                        | 28.0                           | 40.0                           |                                               |                                                                                        |                                                                                        |                                           |     |     |
|                              | 159.0                                        | 839                          | 2.5                  | 17.61                  | 12.0                        | 21.0                        | 28.0                           | 40.0                           |                                               |                                                                                        |                                                                                        |                                           |     |     |
|                              | 182.1                                        | 733                          | 2.7                  | 15.38                  | 12.0                        | 21.0                        | 27.0                           | 40.0                           |                                               |                                                                                        |                                                                                        |                                           |     |     |
|                              | 62.6                                         | 2198                         | 0.8                  | 22.38                  | 5.0                         | 8.0                         | 18.0                           | 28.0                           | <b>PD/PM 42</b><br><b>160L4B</b>              | 145                                                                                    | 204                                                                                    |                                           |     |     |
|                              | 65.2                                         | 2108                         | 0.8                  | 21.46                  | 5.0                         | 9.0                         | 18.0                           | 28.0                           |                                               |                                                                                        |                                                                                        |                                           |     |     |
|                              | 77.0                                         | 1786                         | 1.0                  | 18.18                  | 6.0                         | 10.0                        | 18.0                           | 28.0                           |                                               |                                                                                        |                                                                                        |                                           |     |     |
|                              | 92.2                                         | 1492                         | 1.2                  | 15.19                  | 6.0                         | 10.0                        | 18.0                           | 28.0                           |                                               |                                                                                        |                                                                                        |                                           |     |     |
|                              | 110.5                                        | 1245                         | 1.4                  | 12.67                  | 6.0                         | 10.0                        | 17.0                           | 27.0                           |                                               |                                                                                        |                                                                                        |                                           |     |     |
|                              | 129.3                                        | 1064                         | 1.6                  | 10.83                  | 6.0                         | 10.0                        | 17.0                           | 27.0                           |                                               |                                                                                        |                                                                                        |                                           |     |     |
|                              | 151.7                                        | 907                          | 1.8                  | 9.23                   | 7.0                         | 11.0                        | 16.0                           | 26.0                           |                                               |                                                                                        |                                                                                        |                                           |     |     |
|                              | 168.1                                        | 818                          | 1.6                  | 8.33                   | 6.0                         | 10.0                        | 16.0                           | 26.0                           |                                               |                                                                                        |                                                                                        |                                           |     |     |
|                              | 196.4                                        | 700                          | 1.7                  | 7.13                   | 6.0                         | 10.0                        | 15.0                           | 25.0                           |                                               |                                                                                        |                                                                                        |                                           |     |     |
|                              | 230.6                                        | 596                          | 2.0                  | 6.07                   | 6.0                         | 10.0                        | 15.0                           | 24.0                           |                                               |                                                                                        |                                                                                        |                                           |     |     |
|                              | 257.4                                        | 534                          | 1.9                  | 5.44                   | 6.0                         | 10.0                        | 15.0                           | 24.0                           |                                               |                                                                                        |                                                                                        |                                           |     |     |
|                              | 280.0                                        | 491                          | 2.1                  | 5.00                   | 6.0                         | 10.0                        | 14.0                           | 24.0                           |                                               |                                                                                        |                                                                                        |                                           |     |     |
|                              | 298.5                                        | 461                          | 2.2                  | 4.69                   | 6.0                         | 10.0                        | 14.0                           | 23.0                           |                                               |                                                                                        |                                                                                        |                                           |     |     |
|                              | 86.7                                         | 1539                         | 0.8                  | 32.31                  | 5.0                         | 8.0                         | 22.0                           | 30.0                           |                                               |                                                                                        |                                                                                        | <b>PD/PM 42</b><br><b>160M2C / 160M2D</b> | 145 | 204 |
|                              | 106.0                                        | 1258                         | 1.1                  | 26.41                  | 5.0                         | 8.0                         | 21.0                           | 30.0                           |                                               |                                                                                        |                                                                                        |                                           |     |     |
| 106.7                        | 1251                                         | 1.0                          | 26.25                | 5.0                    | 8.0                         | 21.0                        | 30.0                           |                                |                                               |                                                                                        |                                                                                        |                                           |     |     |
| 125.1                        | 1066                                         | 1.2                          | 22.38                | 5.0                    | 8.0                         | 18.0                        | 28.0                           |                                |                                               |                                                                                        |                                                                                        |                                           |     |     |
| 130.5                        | 1022                                         | 1.3                          | 21.46                | 5.0                    | 9.0                         | 18.0                        | 28.0                           |                                |                                               |                                                                                        |                                                                                        |                                           |     |     |
| 154.0                        | 866                                          | 1.6                          | 18.18                | 6.0                    | 10.0                        | 18.0                        | 28.0                           |                                |                                               |                                                                                        |                                                                                        |                                           |     |     |
| 184.3                        | 724                                          | 1.9                          | 15.19                | 6.0                    | 10.0                        | 18.0                        | 28.0                           |                                |                                               |                                                                                        |                                                                                        |                                           |     |     |
| 221.0                        | 604                                          | 2.2                          | 12.67                | 6.0                    | 10.0                        | 17.0                        | 27.0                           |                                |                                               |                                                                                        |                                                                                        |                                           |     |     |
| 258.5                        | 516                                          | 2.5                          | 10.83                | 6.0                    | 10.0                        | 17.0                        | 27.0                           |                                |                                               |                                                                                        |                                                                                        |                                           |     |     |
| 303.4                        | 440                                          | 2.8                          | 9.23                 | 7.0                    | 11.0                        | 16.0                        | 26.0                           |                                |                                               |                                                                                        |                                                                                        |                                           |     |     |
| 336.1                        | 397                                          | 2.4                          | 8.33                 | 6.0                    | 10.0                        | 16.0                        | 26.0                           |                                |                                               |                                                                                        |                                                                                        |                                           |     |     |
| 392.7                        | 340                                          | 2.7                          | 7.13                 | 6.0                    | 10.0                        | 15.0                        | 25.0                           |                                |                                               |                                                                                        |                                                                                        |                                           |     |     |
| 514.7                        | 259                                          | 3.0                          | 5.44                 | 6.0                    | 10.0                        | 15.0                        | 24.0                           |                                |                                               |                                                                                        |                                                                                        |                                           |     |     |
| <b>18.5</b>                  | 4.5                                          | 37849                        | 2.5                  | 201.75                 | -                           | -                           | 116.0                          | 136.0                          | <b>PD/PM 123</b><br><b>200L6B / 200L6C</b>    | 2391                                                                                   | 236                                                                                    |                                           |     |     |
|                              | 2.3                                          | 68540                        | 0.9                  | 603.47                 | -                           | -                           | 2.0                            | 170.0                          | <b>PD/PM 113/52</b><br><b>180M4A / 180M4B</b> | 2290                                                                                   | 242                                                                                    |                                           |     |     |
|                              | 2.9                                          | 54500                        | 1.1                  | 479.85                 | -                           | -                           | 39.0                           | 170.0                          |                                               |                                                                                        |                                                                                        |                                           |     |     |
|                              | 3.9                                          | 41252                        | 1.2                  | 363.21                 | -                           | -                           | 104.0                          | 170.0                          |                                               |                                                                                        |                                                                                        |                                           |     |     |
|                              | 4.5                                          | 35462                        | 1.4                  | 312.23                 | -                           | -                           | 119.0                          | 170.0                          |                                               |                                                                                        |                                                                                        |                                           |     |     |
|                              |                                              |                              |                      |                        |                             |                             |                                |                                |                                               |                                                                                        |                                                                                        |                                           |     |     |



| <b>P<sub>1</sub></b><br>[kW] | <b>n<sub>2</sub></b><br>[Min <sup>-1</sup> ] | <b>M<sub>2</sub></b><br>[Nm] | <b>f<sub>B</sub></b> | <b>i<sub>ges</sub></b> | <b>F<sub>R</sub></b><br>[N] | <b>F<sub>A</sub></b><br>[N] | <b>F<sub>R GR</sub></b><br>[N] | <b>F<sub>A GR</sub></b><br>[N]      | Tip / Type / Typ<br>IE2 / IE3           |  Kg |  mm |
|------------------------------|----------------------------------------------|------------------------------|----------------------|------------------------|-----------------------------|-----------------------------|--------------------------------|-------------------------------------|-----------------------------------------|----------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------|
| <b>18.5</b>                  | 2.9                                          | 50804                        | 0.9                  | 962.15                 | -                           | -                           | 21.0                           | 170.0                               | <b>PD/PM 113/52<br/>160M2D / 160L2C</b> | 2245                                                                                   | 242                                                                                    |
|                              | 3.8                                          | 38623                        | 1.2                  | 731.47                 | -                           | -                           | 5.0                            | 170.0                               |                                         |                                                                                        |                                                                                        |
|                              | 4.6                                          | 31865                        | 1.4                  | 603.47                 | -                           | -                           | 2.0                            | 170.0                               |                                         |                                                                                        |                                                                                        |
|                              | 5.8                                          | 25337                        | 1.8                  | 479.85                 | -                           | -                           | 39.0                           | 170.0                               |                                         |                                                                                        |                                                                                        |
|                              | 7.7                                          | 19178                        | 2.0                  | 363.21                 | -                           | -                           | 104.0                          | 170.0                               |                                         |                                                                                        |                                                                                        |
|                              | 9.0                                          | 16486                        | 2.3                  | 312.23                 | -                           | -                           | 119.0                          | 170.0                               |                                         |                                                                                        |                                                                                        |
|                              | 5.2                                          | 32260                        | 2.2                  | 171.96                 | -                           | -                           | 142.0                          | 155.0                               | <b>PD/PM 113<br/>200L6B / 200L6C</b>    | 2286                                                                                   | 233                                                                                    |
|                              | 5.9                                          | 28679                        | 2.5                  | 152.87                 | -                           | -                           | 144.0                          | 151.0                               |                                         |                                                                                        |                                                                                        |
|                              | 6.9                                          | 24525                        | 3.0                  | 130.73                 | -                           | -                           | 144.0                          | 144.0                               |                                         |                                                                                        |                                                                                        |
|                              | 6.2                                          | 26662                        | 2.6                  | 224.76                 | -                           | -                           | 135.0                          | 165.0                               | <b>PD/PM 113<br/>180M4A / 180M4B</b>    | 2220                                                                                   | 233                                                                                    |
|                              | 3.8                                          | 41590                        | 0.8                  | 366.18                 | -                           | -                           | 80.0                           | 150.0                               | <b>PD/PM 103/52<br/>180M4A / 180M4B</b> | 1441                                                                                   | 242                                                                                    |
|                              | 4.6                                          | 34312                        | 1.0                  | 302.10                 | -                           | -                           | 101.0                          | 150.0                               |                                         |                                                                                        |                                                                                        |
|                              | 4.8                                          | 30525                        | 0.9                  | 578.09                 | -                           | -                           | 87.0                           | 150.0                               | <b>PD/PM 103/52<br/>160M2D / 160L2C</b> | 1400                                                                                   | 242                                                                                    |
|                              | 5.9                                          | 25183                        | 1.1                  | 476.93                 | -                           | -                           | 72.0                           | 150.0                               |                                         |                                                                                        |                                                                                        |
|                              | 7.6                                          | 19335                        | 1.4                  | 366.18                 | -                           | -                           | 80.0                           | 150.0                               |                                         |                                                                                        |                                                                                        |
|                              | 9.3                                          | 15952                        | 1.7                  | 302.10                 | -                           | -                           | 101.0                          | 150.0                               |                                         |                                                                                        |                                                                                        |
|                              | 6.4                                          | 26341                        | 1.4                  | 140.41                 | -                           | -                           | 130.0                          | 150.0                               | <b>PD/PM 103<br/>200L6B / 200L6C</b>    | 1425                                                                                   | 229                                                                                    |
|                              | 8.6                                          | 19644                        | 1.9                  | 104.71                 | -                           | -                           | 132.0                          | 146.0                               |                                         |                                                                                        |                                                                                        |
|                              | 9.9                                          | 17138                        | 2.2                  | 91.35                  | -                           | -                           | 134.0                          | 141.0                               |                                         |                                                                                        |                                                                                        |
|                              | 12.4                                         | 13641                        | 2.9                  | 72.71                  | -                           | -                           | 133.0                          | 130.0                               |                                         |                                                                                        |                                                                                        |
|                              | 13.8                                         | 12277                        | 3.0                  | 65.44                  | -                           | -                           | 134.0                          | 128.0                               |                                         |                                                                                        |                                                                                        |
|                              | 3.9                                          | 42396                        | 0.8                  | 357.40                 | -                           | -                           | 105.0                          | 150.0                               | <b>PD/PM 103<br/>180M4A / 180M4B</b>    | 1367                                                                                   | 229                                                                                    |
|                              | 4.2                                          | 39459                        | 0.9                  | 332.64                 | -                           | -                           | 110.0                          | 150.0                               |                                         |                                                                                        |                                                                                        |
|                              | 4.9                                          | 33553                        | 1.0                  | 282.85                 | -                           | -                           | 118.0                          | 150.0                               |                                         |                                                                                        |                                                                                        |
|                              | 5.3                                          | 31228                        | 1.1                  | 263.25                 | -                           | -                           | 121.0                          | 150.0                               |                                         |                                                                                        |                                                                                        |
|                              | 7.7                                          | 21433                        | 1.6                  | 180.68                 | -                           | -                           | 126.0                          | 150.0                               |                                         |                                                                                        |                                                                                        |
|                              | 8.3                                          | 19948                        | 1.8                  | 168.16                 | -                           | -                           | 128.0                          | 150.0                               |                                         |                                                                                        |                                                                                        |
|                              | 10.0                                         | 16656                        | 2.1                  | 140.41                 | -                           | -                           | 130.0                          | 150.0                               |                                         |                                                                                        |                                                                                        |
|                              | 13.4                                         | 12421                        | 2.8                  | 104.71                 | -                           | -                           | 133.0                          | 150.0                               |                                         |                                                                                        |                                                                                        |
|                              | 7.8                                          | 20265                        | 1.3                  | 357.40                 | -                           | -                           | 105.0                          | 150.0                               | <b>PD/PM 103<br/>160M2D / 160L2C</b>    | 1326                                                                                   | 229                                                                                    |
|                              | 8.4                                          | 18861                        | 1.5                  | 332.64                 | -                           | -                           | 110.0                          | 150.0                               |                                         |                                                                                        |                                                                                        |
|                              | 9.9                                          | 16038                        | 1.6                  | 282.85                 | -                           | -                           | 118.0                          | 150.0                               |                                         |                                                                                        |                                                                                        |
|                              | 10.6                                         | 14927                        | 1.7                  | 263.25                 | -                           | -                           | 121.0                          | 150.0                               |                                         |                                                                                        |                                                                                        |
|                              | 15.5                                         | 10245                        | 2.6                  | 180.68                 | -                           | -                           | 126.0                          | 150.0                               |                                         |                                                                                        |                                                                                        |
|                              | 16.7                                         | 9535                         | 2.8                  | 168.16                 | -                           | -                           | 128.0                          | 150.0                               |                                         |                                                                                        |                                                                                        |
|                              | 6.0                                          | 26497                        | 0.9                  | 233.30                 | 27.0                        | 57.0                        | 98.0                           | 123.0                               | <b>PD/PM 93/52<br/>180M4A / 180M4B</b>  | 877                                                                                    | 242                                                                                    |
|                              | 7.0                                          | 22772                        | 1.1                  | 200.50                 | 30.0                        | 61.0                        | 98.0                           | 123.0                               |                                         |                                                                                        |                                                                                        |
|                              | 6.8                                          | 21675                        | 0.8                  | 410.49                 | 27.0                        | 57.0                        | 120.0                          | 130.0                               | <b>PD/PM 93/52<br/>160M2D / 160L2C</b>  | 836                                                                                    | 242                                                                                    |
|                              | 9.5                                          | 15534                        | 1.2                  | 294.19                 | 27.0                        | 57.0                        | -                              | -                                   |                                         |                                                                                        |                                                                                        |
|                              | 12.0                                         | 12319                        | 1.5                  | 233.30                 | 27.0                        | 57.0                        | 98.0                           | 123.0                               |                                         |                                                                                        |                                                                                        |
|                              | 14.0                                         | 10587                        | 1.7                  | 200.50                 | 30.0                        | 61.0                        | 98.0                           | 123.0                               |                                         |                                                                                        |                                                                                        |
|                              | 6.2                                          | 23806                        | 0.8                  | 450.86                 | 51.0                        | 102.0                       | -                              | -                                   | <b>PD/PM 93/42<br/>160M2D / 160L2C</b>  | 807                                                                                    | 242                                                                                    |
|                              | 6.6                                          | 25450                        | 1.0                  | 135.66                 | 49.0                        | 91.0                        | 112.0                          | 130.0                               | <b>PD/PM 93<br/>200L6B / 200L6C</b>     | 861                                                                                    | 225                                                                                    |
|                              | 7.8                                          | 21670                        | 1.2                  | 115.51                 | 50.0                        | 89.0                        | 108.0                          | 130.0                               |                                         |                                                                                        |                                                                                        |
|                              | 8.9                                          | 18892                        | 1.4                  | 100.70                 | 50.0                        | 88.0                        | 107.0                          | 130.0                               |                                         |                                                                                        |                                                                                        |
|                              | 10.8                                         | 15607                        | 1.6                  | 83.19                  | 48.0                        | 83.0                        | 101.0                          | 130.0                               |                                         |                                                                                        |                                                                                        |
|                              | 12.5                                         | 13539                        | 1.9                  | 72.17                  | 48.0                        | 82.0                        | 99.0                           | 129.0                               |                                         |                                                                                        |                                                                                        |
|                              | 13.8                                         | 12219                        | 2.1                  | 65.13                  | 55.0                        | 102.0                       | 97.0                           | 127.0                               |                                         |                                                                                        |                                                                                        |
| 16.2                         | 10404                                        | 2.4                          | 55.46                | 55.0                   | 102.0                       | 93.0                        | 122.0                          |                                     |                                         |                                                                                        |                                                                                        |
| 18.6                         | 9071                                         | 2.8                          | 48.35                | 55.0                   | 102.0                       | 90.0                        | 118.0                          |                                     |                                         |                                                                                        |                                                                                        |
| 6.8                          | 24278                                        | 0.9                          | 204.66               | 54.0                   | 102.0                       | 120.0                       | 130.0                          | <b>PD/PM 93<br/>180M4A / 180M4B</b> | 803                                     | 225                                                                                    |                                                                                        |
| 8.0                          | 20763                                        | 1.2                          | 175.03               | 47.0                   | 91.0                        | 117.0                       | 130.0                          |                                     |                                         |                                                                                        |                                                                                        |
| 9.7                          | 17153                                        | 1.4                          | 144.60               | 48.0                   | 89.0                        | 112.0                       | 130.0                          |                                     |                                         |                                                                                        |                                                                                        |
| 10.3                         | 16093                                        | 1.6                          | 135.66               | 49.0                   | 91.0                        | 112.0                       | 130.0                          |                                     |                                         |                                                                                        |                                                                                        |
| 12.1                         | 13702                                        | 1.9                          | 115.51               | 50.0                   | 89.0                        | 108.0                       | 130.0                          |                                     |                                         |                                                                                        |                                                                                        |
| 13.9                         | 11946                                        | 2.1                          | 100.70               | 50.0                   | 88.0                        | 107.0                       | 130.0                          |                                     |                                         |                                                                                        |                                                                                        |
| 16.8                         | 9868                                         | 2.4                          | 83.19                | 48.0                   | 83.0                        | 101.0                       | 130.0                          |                                     |                                         |                                                                                        |                                                                                        |
| 19.4                         | 8561                                         | 2.8                          | 72.17                | 48.0                   | 82.0                        | 99.0                        | 129.0                          |                                     |                                         |                                                                                        |                                                                                        |

| $P_1$<br>[kW] | $n_2$<br>[Min <sup>-1</sup> ] | $M_2$<br>[Nm] | $f_B$ | $i_{ges}$ | $F_R$<br>[N] | $F_A$<br>[N] | $F_{R GR}$<br>[N] | $F_{A GR}$<br>[N]                   | Tip / Type / Typ<br>IE2 / IE3          |     |     |
|---------------|-------------------------------|---------------|-------|-----------|--------------|--------------|-------------------|-------------------------------------|----------------------------------------|-----|-----|
| <b>18.5</b>   | 8.0                           | 19968         | 1.0   | 352.16    | 54.0         | 102.0        | -                 | -                                   | <b>PD/PM 93<br/>160M2D / 160L2C</b>    | 762 | 225 |
|               | 9.6                           | 16497         | 1.1   | 290.94    | 54.0         | 102.0        | 120.0             | 130.0                               |                                        |     |     |
|               | 13.7                          | 11605         | 1.4   | 204.66    | 54.0         | 102.0        | 120.0             | 130.0                               |                                        |     |     |
|               | 16.0                          | 9925          | 1.9   | 175.03    | 47.0         | 91.0         | 117.0             | 130.0                               |                                        |     |     |
|               | 19.4                          | 8199          | 2.2   | 144.60    | 48.0         | 89.0         | 112.0             | 130.0                               |                                        |     |     |
|               | 20.6                          | 7692          | 2.5   | 135.66    | 49.0         | 91.0         | 112.0             | 130.0                               |                                        |     |     |
|               | 24.2                          | 6550          | 2.9   | 115.51    | 50.0         | 89.0         | 108.0             | 130.0                               |                                        |     |     |
|               | 26.2                          | 6544          | 2.6   | 34.36     | 78.0         | 73.0         | 68.0              | 89.0                                | <b>PD/PM 92<br/>200L6B / 200L6C</b>    | 856 | 224 |
|               | 12.5                          | 11812         | 0.8   | 223.71    | 78.0         | 73.0         | -                 | -                                   | <b>PD/PM 83/42<br/>160M2D / 160L2C</b> | 505 | 242 |
|               | 15.0                          | 9850          | 0.9   | 186.54    | 78.0         | 73.0         | -                 | -                                   |                                        |     |     |
|               | 11.9                          | 14202         | 0.9   | 75.70     | 29.0         | 51.0         | 79.0              | 105.0                               | <b>PD/PM 83<br/>200L6B / 200L6C</b>    | 559 | 221 |
|               | 13.8                          | 12224         | 1.0   | 65.16     | 29.0         | 51.0         | 77.0              | 105.0                               |                                        |     |     |
|               | 15.7                          | 10753         | 1.2   | 57.32     | 30.0         | 51.0         | 76.0              | 105.0                               |                                        |     |     |
|               | 18.8                          | 8966          | 1.4   | 47.79     | 30.0         | 49.0         | 73.0              | 105.0                               |                                        |     |     |
|               | 20.7                          | 8165          | 1.4   | 43.52     | 30.0         | 49.0         | 73.0              | 104.0                               |                                        |     |     |
|               | 25.1                          | 6722          | 1.9   | 35.83     | 30.0         | 47.0         | 69.0              | 99.0                                |                                        |     |     |
|               | 29.2                          | 5786          | 2.2   | 30.84     | 29.0         | 58.0         | 67.0              | 97.0                                |                                        |     |     |
|               | 11.2                          | 14860         | 0.8   | 125.27    | 43.0         | 73.0         | 98.0              | 105.0                               | <b>PD/PM 83<br/>180M4A / 180M4B</b>    | 501 | 221 |
|               | 11.8                          | 14055         | 0.9   | 118.48    | 23.0         | 46.0         | 82.0              | 105.0                               |                                        |     |     |
|               | 13.6                          | 12234         | 1.0   | 103.13    | 25.0         | 49.0         | 81.0              | 105.0                               |                                        |     |     |
|               | 15.4                          | 10770         | 1.1   | 90.79     | 27.0         | 50.0         | 80.0              | 105.0                               |                                        |     |     |
|               | 18.5                          | 8980          | 1.3   | 75.70     | 29.0         | 51.0         | 79.0              | 105.0                               |                                        |     |     |
|               | 21.5                          | 7730          | 1.5   | 65.16     | 29.0         | 51.0         | 77.0              | 105.0                               |                                        |     |     |
|               | 24.4                          | 6800          | 1.8   | 57.32     | 30.0         | 51.0         | 76.0              | 105.0                               |                                        |     |     |
|               | 29.3                          | 5669          | 2.1   | 47.79     | 30.0         | 49.0         | 73.0              | 105.0                               |                                        |     |     |
|               | 32.2                          | 5163          | 2.1   | 43.52     | 30.0         | 49.0         | 73.0              | 104.0                               |                                        |     |     |
|               | 39.1                          | 4250          | 2.8   | 35.83     | 30.0         | 47.0         | 69.0              | 99.0                                |                                        |     |     |
|               | 15.1                          | 10522         | 0.9   | 185.56    | 43.0         | 73.0         | 100.0             | 105.0                               | <b>PD/PM 83<br/>160M2D / 160L2C</b>    | 460 | 221 |
|               | 18.3                          | 8662          | 1.2   | 152.77    | 43.0         | 73.0         | 89.0              | 105.0                               |                                        |     |     |
|               | 19.5                          | 8160          | 1.2   | 143.91    | 43.0         | 73.0         | 90.0              | 105.0                               |                                        |     |     |
|               | 22.4                          | 7103          | 1.3   | 125.27    | 43.0         | 73.0         | -                 | -                                   |                                        |     |     |
|               | 23.6                          | 6718          | 1.4   | 118.48    | 23.0         | 46.0         | 82.0              | 105.0                               |                                        |     |     |
|               | 27.2                          | 5848          | 1.6   | 103.13    | 25.0         | 49.0         | 81.0              | 105.0                               |                                        |     |     |
|               | 30.8                          | 5148          | 1.8   | 90.79     | 27.0         | 50.0         | 80.0              | 105.0                               |                                        |     |     |
|               | 37.0                          | 4292          | 2.1   | 75.70     | 29.0         | 51.0         | 79.0              | 105.0                               |                                        |     |     |
|               | 43.0                          | 3695          | 2.3   | 65.16     | 29.0         | 51.0         | 77.0              | 105.0                               |                                        |     |     |
|               | 48.8                          | 3250          | 2.8   | 57.32     | 30.0         | 51.0         | 76.0              | 105.0                               |                                        |     |     |
|               | 18.9                          | 9049          | 1.2   | 47.51     | 30.0         | 50.0         | -                 | -                                   | <b>PD/PM 82<br/>200L6B / 200L6C</b>    | 555 | 220 |
|               | 23.0                          | 7462          | 1.5   | 39.18     | 30.0         | 48.0         | -                 | -                                   |                                        |     |     |
|               | 23.0                          | 7451          | 1.3   | 39.12     | 30.0         | 48.0         | -                 | -                                   |                                        |     |     |
|               | 27.9                          | 6142          | 1.8   | 32.25     | 29.0         | 45.0         | -                 | -                                   |                                        |     |     |
|               | 31.7                          | 5400          | 1.9   | 28.35     | 29.0         | 45.0         | 66.0              | 95.0                                |                                        |     |     |
|               | 36.7                          | 4668          | 2.4   | 24.51     | 33.0         | 54.0         | 63.0              | 90.0                                |                                        |     |     |
|               | 42.6                          | 4026          | 2.8   | 21.14     | 33.0         | 54.0         | 58.0              | 84.0                                |                                        |     |     |
|               | 19.4                          | 8743          | 0.9   | 72.17     | 48.0         | 82.0         | -                 | -                                   | <b>PD/PM 82<br/>180M4A / 180M4B</b>    | 497 | 220 |
|               | 23.6                          | 7197          | 0.9   | 59.41     | 33.0         | 56.0         | -                 | -                                   |                                        |     |     |
|               | 29.5                          | 5756          | 1.8   | 47.51     | 30.0         | 50.0         | -                 | -                                   |                                        |     |     |
|               | 35.8                          | 4739          | 2.0   | 39.12     | 30.0         | 48.0         | -                 | -                                   |                                        |     |     |
| 49.4          | 3435                          | 2.9           | 28.35 | 29.0      | 45.0         | 66.0         | 95.0              |                                     |                                        |     |     |
| 38.8          | 4241                          | 1.4           | 72.17 | 48.0      | 82.0         | -            | -                 | <b>PD/PM 82<br/>160M2D / 160L2C</b> | 456                                    | 220 |     |
| 47.1          | 3491                          | 1.4           | 59.41 | 33.0      | 56.0         | -            | -                 |                                     |                                        |     |     |
| 58.9          | 2792                          | 2.9           | 47.51 | 30.0      | 50.0         | -            | -                 |                                     |                                        |     |     |
| 19.3          | 8754                          | 0.8           | 46.66 | 21.0      | 37.0         | 61.0         | 80.0              | <b>PD/PM 73<br/>200L6B / 200L6C</b> | 434                                    | 217 |     |
| 24.4          | 6932                          | 1.0           | 36.95 | 22.0      | 36.0         | 58.0         | 80.0              |                                     |                                        |     |     |
| 29.5          | 5720                          | 1.2           | 30.49 | 22.0      | 36.0         | 56.0         | 80.0              |                                     |                                        |     |     |
| 33.4          | 5050                          | 1.4           | 26.92 | 22.0      | 35.0         | 55.0         | 80.0              |                                     |                                        |     |     |
| 38.3          | 4403                          | 1.6           | 23.47 | 21.0      | 34.0         | 54.0         | 78.0              |                                     |                                        |     |     |
| 17.8          | 9342                          | 0.8           | 78.75 | 17.0      | 34.0         | 64.0         | 80.0              | <b>PD/PM 73<br/>180M4A / 180M4B</b> | 376                                    | 217 |     |
| 20.5          | 8083                          | 0.9           | 68.14 | 18.0      | 35.0         | 63.0         | 80.0              |                                     |                                        |     |     |
| 23.5          | 7061                          | 1.0           | 59.52 | 20.0      | 36.0         | 62.0         | 80.0              |                                     |                                        |     |     |
| 26.2          | 6337                          | 1.1           | 53.42 | 21.0      | 37.0         | 62.0         | 80.0              |                                     |                                        |     |     |
| 30.0          | 5535                          | 1.3           | 46.66 | 21.0      | 37.0         | 61.0         | 80.0              |                                     |                                        |     |     |
| 37.9          | 4383                          | 1.5           | 36.95 | 22.0      | 36.0         | 58.0         | 80.0              |                                     |                                        |     |     |
| 45.9          | 3617                          | 1.8           | 30.49 | 22.0      | 36.0         | 56.0         | 80.0              |                                     |                                        |     |     |
| 52.0          | 3193                          | 2.1           | 26.92 | 22.0      | 35.0         | 55.0         | 80.0              |                                     |                                        |     |     |
| 59.7          | 2784                          | 2.4           | 23.47 | 21.0      | 34.0         | 54.0         | 78.0              |                                     |                                        |     |     |



| $P_1$<br>[kW] | $n_2$<br>[Min <sup>-1</sup> ] | $M_2$<br>[Nm] | $f_B$ | $i_{ges}$ | $F_R$<br>[N] | $F_A$<br>[N] | $F_{RGR}$<br>[N] | $F_{AGR}$<br>[N]                    | Tip / Type / Typ<br>IE2 / IE3       |  Kg |  mm |                                     |     |     |
|---------------|-------------------------------|---------------|-------|-----------|--------------|--------------|------------------|-------------------------------------|-------------------------------------|----------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------|-------------------------------------|-----|-----|
| <b>18.5</b>   | 22.7                          | 6981          | 0.8   | 123.12    | 17.0         | 34.0         | 72.0             | 80.0                                | <b>PD/PM 73<br/>160M2D / 160L2C</b> | 335                                                                                    | 217                                                                                    |                                     |     |     |
|               | 26.3                          | 6040          | 0.9   | 106.53    | 17.0         | 34.0         | 75.0             | 80.0                                |                                     |                                                                                        |                                                                                        |                                     |     |     |
|               | 30.1                          | 5276          | 1.1   | 93.05     | 17.0         | 34.0         | 70.0             | 80.0                                |                                     |                                                                                        |                                                                                        |                                     |     |     |
|               | 35.6                          | 4465          | 1.3   | 78.75     | 17.0         | 34.0         | 64.0             | 80.0                                |                                     |                                                                                        |                                                                                        |                                     |     |     |
|               | 41.1                          | 3864          | 1.4   | 68.14     | 18.0         | 35.0         | 63.0             | 80.0                                |                                     |                                                                                        |                                                                                        |                                     |     |     |
|               | 47.0                          | 3375          | 1.6   | 59.52     | 20.0         | 36.0         | 62.0             | 80.0                                |                                     |                                                                                        |                                                                                        |                                     |     |     |
|               | 52.4                          | 3029          | 1.8   | 53.42     | 21.0         | 37.0         | 62.0             | 80.0                                |                                     |                                                                                        |                                                                                        |                                     |     |     |
|               | 60.0                          | 2646          | 2.0   | 46.66     | 21.0         | 37.0         | 61.0             | 80.0                                |                                     |                                                                                        |                                                                                        |                                     |     |     |
|               | 75.8                          | 2095          | 2.4   | 36.95     | 22.0         | 36.0         | 58.0             | 80.0                                |                                     |                                                                                        |                                                                                        |                                     |     |     |
|               | 91.8                          | 1729          | 2.9   | 30.49     | 22.0         | 36.0         | 56.0             | 80.0                                |                                     |                                                                                        |                                                                                        |                                     |     |     |
|               | 24.2                          | 7089          | 1.0   | 37.22     | 22.0         | 37.0         | 59.0             | 80.0                                |                                     |                                                                                        |                                                                                        | <b>PD/PM 72<br/>200L6B / 200L6C</b> | 427 | 216 |
|               | 33.5                          | 5121          | 1.2   | 26.89     | 22.0         | 36.0         | 56.0             | 80.0                                |                                     |                                                                                        |                                                                                        |                                     |     |     |
|               | 39.3                          | 4362          | 1.4   | 22.90     | 22.0         | 35.0         | 54.0             | 78.0                                |                                     |                                                                                        |                                                                                        |                                     |     |     |
|               | 45.1                          | 3802          | 1.6   | 19.96     | 22.0         | 34.0         | 52.0             | 76.0                                |                                     |                                                                                        |                                                                                        |                                     |     |     |
|               | 55.3                          | 3099          | 2.2   | 16.27     | 25.0         | 43.0         | 49.0             | 71.0                                |                                     |                                                                                        |                                                                                        |                                     |     |     |
|               | 69.8                          | 2455          | 2.5   | 12.89     | 25.0         | 43.0         | 44.0             | 65.0                                |                                     |                                                                                        |                                                                                        |                                     |     |     |
|               | 90.8                          | 1887          | 2.4   | 9.91      | 25.0         | 43.0         | 42.0             | 61.0                                |                                     |                                                                                        |                                                                                        |                                     |     |     |
|               | 104.2                         | 1646          | 2.7   | 8.64      | 25.0         | 43.0         | 40.0             | 59.0                                |                                     |                                                                                        |                                                                                        |                                     |     |     |
|               | 24.6                          | 6893          | 0.8   | 56.90     | 24.0         | 43.0         | 66.0             | 80.0                                | <b>PD/PM 72<br/>180M4A / 180M4B</b> | 369                                                                                    | 216                                                                                    |                                     |     |     |
|               | 30.7                          | 5532          | 1.1   | 45.66     | 22.0         | 38.0         | 61.0             | 80.0                                |                                     |                                                                                        |                                                                                        |                                     |     |     |
|               | 31.1                          | 5459          | 0.8   | 45.06     | -            | -            | 67.0             | 80.0                                |                                     |                                                                                        |                                                                                        |                                     |     |     |
|               | 37.6                          | 4509          | 1.4   | 37.22     | 22.0         | 37.0         | 59.0             | 80.0                                |                                     |                                                                                        |                                                                                        |                                     |     |     |
|               | 40.4                          | 4203          | 1.4   | 34.69     | 22.0         | 38.0         | 58.0             | 80.0                                |                                     |                                                                                        |                                                                                        |                                     |     |     |
|               | 52.1                          | 3258          | 1.8   | 26.89     | 22.0         | 36.0         | 56.0             | 80.0                                |                                     |                                                                                        |                                                                                        |                                     |     |     |
|               | 61.1                          | 2774          | 2.1   | 22.90     | 22.0         | 35.0         | 54.0             | 78.0                                |                                     |                                                                                        |                                                                                        |                                     |     |     |
|               | 70.1                          | 2418          | 2.4   | 19.96     | 22.0         | 34.0         | 52.0             | 76.0                                |                                     |                                                                                        |                                                                                        |                                     |     |     |
|               | 40.1                          | 4101          | 1.1   | 69.80     | 24.0         | 43.0         | 68.0             | 80.0                                | <b>PD/PM 72<br/>160M2D / 160L2C</b> | 328                                                                                    | 216                                                                                    |                                     |     |     |
|               | 49.2                          | 3343          | 1.3   | 56.90     | 24.0         | 43.0         | 66.0             | 80.0                                |                                     |                                                                                        |                                                                                        |                                     |     |     |
|               | 61.3                          | 2683          | 1.6   | 45.66     | 22.0         | 38.0         | 61.0             | 80.0                                |                                     |                                                                                        |                                                                                        |                                     |     |     |
|               | 62.1                          | 2648          | 1.3   | 45.06     | 22.0         | 37.0         | 61.0             | 80.0                                |                                     |                                                                                        |                                                                                        |                                     |     |     |
|               | 75.2                          | 2187          | 2.2   | 37.22     | 22.0         | 37.0         | 59.0             | 80.0                                |                                     |                                                                                        |                                                                                        |                                     |     |     |
|               | 80.7                          | 2038          | 2.2   | 34.69     | 22.0         | 38.0         | 58.0             | 80.0                                |                                     |                                                                                        |                                                                                        |                                     |     |     |
|               | 104.1                         | 1580          | 2.8   | 26.89     | 22.0         | 36.0         | 56.0             | 80.0                                |                                     |                                                                                        |                                                                                        |                                     |     |     |
|               | 45.3                          | 3666          | 1.2   | 30.90     | 18.0         | 30.0         | 46.0             | 60.0                                |                                     |                                                                                        |                                                                                        | <b>PD/PM 63<br/>180M4A / 180M4B</b> | 303 | 213 |
|               | 48.8                          | 3400          | 1.4   | 28.66     | 18.0         | 30.0         | 45.0             | 60.0                                |                                     |                                                                                        |                                                                                        |                                     |     |     |
|               | 57.3                          | 2897          | 1.6   | 24.42     | 18.0         | 30.0         | 44.0             | 60.0                                |                                     |                                                                                        |                                                                                        |                                     |     |     |
|               | 30.2                          | 5255          | 0.9   | 92.68     | 18.0         | 30.0         | 46.0             | 60.0                                | <b>PD/PM 63<br/>160M2D / 160L2C</b> | 262                                                                                    | 213                                                                                    |                                     |     |     |
|               | 37.2                          | 4270          | 1.1   | 75.30     | 18.0         | 30.0         | 41.0             | 60.0                                |                                     |                                                                                        |                                                                                        |                                     |     |     |
|               | 38.1                          | 4163          | 1.0   | 73.42     | 18.0         | 30.0         | 43.0             | 60.0                                |                                     |                                                                                        |                                                                                        |                                     |     |     |
|               | 46.9                          | 3382          | 1.2   | 59.65     | 18.0         | 30.0         | 49.0             | 60.0                                |                                     |                                                                                        |                                                                                        |                                     |     |     |
|               | 54.9                          | 2892          | 1.3   | 51.01     | 18.0         | 30.0         | 48.0             | 60.0                                |                                     |                                                                                        |                                                                                        |                                     |     |     |
|               | 66.0                          | 2405          | 1.4   | 42.41     | 18.0         | 30.0         | 47.0             | 60.0                                |                                     |                                                                                        |                                                                                        |                                     |     |     |
|               | 77.2                          | 2057          | 1.7   | 36.27     | 18.0         | 30.0         | 47.0             | 60.0                                |                                     |                                                                                        |                                                                                        |                                     |     |     |
|               | 90.6                          | 1752          | 2.0   | 30.90     | 18.0         | 30.0         | 46.0             | 60.0                                |                                     |                                                                                        |                                                                                        |                                     |     |     |
|               | 97.7                          | 1625          | 2.2   | 28.66     | 18.0         | 30.0         | 45.0             | 60.0                                |                                     |                                                                                        |                                                                                        |                                     |     |     |
|               | 114.7                         | 1385          | 2.6   | 24.42     | 18.0         | 30.0         | 44.0             | 60.0                                |                                     |                                                                                        |                                                                                        |                                     |     |     |
|               | 39.3                          | 4363          | 1.1   | 22.91     | 19.0         | 30.0         | 43.0             | 60.0                                |                                     |                                                                                        |                                                                                        | <b>PD/PM 62<br/>200L6B / 200L6C</b> | 364 | 212 |
|               | 48.2                          | 3558          | 1.3   | 18.68     | 18.0         | 27.0         | 41.0             | 58.0                                |                                     |                                                                                        |                                                                                        |                                     |     |     |
| 60.8          | 2819                          | 1.7           | 14.80 | 18.0      | 27.0         | 39.0         | 56.0             |                                     |                                     |                                                                                        |                                                                                        |                                     |     |     |
| 72.9          | 2350                          | 2.0           | 12.34 | 17.0      | 26.0         | 38.0         | 54.0             |                                     |                                     |                                                                                        |                                                                                        |                                     |     |     |
| 84.7          | 2023                          | 2.2           | 10.62 | 15.0      | 23.0         | 36.0         | 52.0             |                                     |                                     |                                                                                        |                                                                                        |                                     |     |     |
| 96.1          | 1785                          | 1.6           | 9.37  | 15.0      | 23.0         | 35.0         | 50.0             |                                     |                                     |                                                                                        |                                                                                        |                                     |     |     |
| 115.2         | 1487                          | 1.9           | 7.81  | 15.0      | 22.0         | 34.0         | 48.0             |                                     |                                     |                                                                                        |                                                                                        |                                     |     |     |
| 133.7         | 1282                          | 2.4           | 6.73  | 21.0      | 35.0         | 31.0         | 45.0             |                                     |                                     |                                                                                        |                                                                                        |                                     |     |     |
| 150.3         | 1141                          | 2.2           | 5.99  | 21.0      | 35.0         | 31.0         | 44.0             |                                     |                                     |                                                                                        |                                                                                        |                                     |     |     |
| 155.7         | 1101                          | 2.2           | 5.78  | 21.0      | 35.0         | 30.0         | 44.0             |                                     |                                     |                                                                                        |                                                                                        |                                     |     |     |
| 163.9         | 1046                          | 2.3           | 5.49  | 21.0      | 35.0         | 30.0         | 43.0             |                                     |                                     |                                                                                        |                                                                                        |                                     |     |     |
| 183.7         | 933                           | 2.4           | 4.90  | 21.0      | 35.0         | 29.0         | 42.0             |                                     |                                     |                                                                                        |                                                                                        |                                     |     |     |
| 205.5         | 834                           | 2.6           | 4.38  | 21.0      | 35.0         | 28.0         | 41.0             |                                     |                                     |                                                                                        |                                                                                        |                                     |     |     |
| 46.8          | 3621                          | 1.3           | 29.89 | 19.0      | 31.0         | 46.0         | 60.0             | <b>PD/PM 62<br/>180M4A / 180M4B</b> | 306                                 | 212                                                                                    |                                                                                        |                                     |     |     |
| 48.8          | 3475                          | 1.3           | 28.68 | -         | -            | -            | -                |                                     |                                     |                                                                                        |                                                                                        |                                     |     |     |
| 53.8          | 3152                          | 1.4           | 26.02 | 19.0      | 31.0         | 45.0         | 60.0             |                                     |                                     |                                                                                        |                                                                                        |                                     |     |     |
| 61.1          | 2776                          | 1.6           | 22.91 | 19.0      | 30.0         | 44.0         | 60.0             |                                     |                                     |                                                                                        |                                                                                        |                                     |     |     |
| 94.6          | 1793                          | 2.5           | 14.80 | 18.0      | 27.0         | 40.0         | 57.0             |                                     |                                     |                                                                                        |                                                                                        |                                     |     |     |
| 113.5         | 1495                          | 2.9           | 12.34 | 17.0      | 26.0         | 38.0         | 55.0             |                                     |                                     |                                                                                        |                                                                                        |                                     |     |     |
| 131.6         | 1289                          | 1.6           | 10.64 | -         | -            | -            | -                |                                     |                                     |                                                                                        |                                                                                        |                                     |     |     |
| 149.4         | 1135                          | 2.4           | 9.37  | 15.0      | 23.0         | 35.0         | 50.0             |                                     |                                     |                                                                                        |                                                                                        |                                     |     |     |
| 179.3         | 946                           | 2.8           | 7.81  | 15.0      | 22.0         | 34.0         | 48.0             |                                     |                                     |                                                                                        |                                                                                        |                                     |     |     |

| <b>P<sub>1</sub></b><br>[kW] | <b>n<sub>2</sub></b><br>[Min <sup>-1</sup> ] | <b>M<sub>2</sub></b><br>[Nm] | <b>f<sub>B</sub></b> | <b>i<sub>ges</sub></b> | <b>F<sub>R</sub></b><br>[N] | <b>F<sub>A</sub></b><br>[N] | <b>F<sub>R GR</sub></b><br>[N] | <b>F<sub>A GR</sub></b><br>[N]                | <b>Tip / Type / Typ</b><br><b>IE2 / IE3</b>   |  |  |
|------------------------------|----------------------------------------------|------------------------------|----------------------|------------------------|-----------------------------|-----------------------------|--------------------------------|-----------------------------------------------|-----------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| <b>18.5</b>                  | 45.9                                         | 3587                         | 1.0                  | 61.05                  | 19.0                        | 31.0                        | 49.0                           | 60.0                                          | <b>PD/PM 62</b><br><b>160M2D / 160L2C</b>     | 265                                                                                 | 212                                                                                 |
|                              | 56.2                                         | 2926                         | 1.0                  | 49.79                  | 19.0                        | 31.0                        | 52.0                           | 60.0                                          |                                               |                                                                                     |                                                                                     |
|                              | 71.0                                         | 2317                         | 1.0                  | 39.44                  | 19.0                        | 31.0                        | 49.0                           | 60.0                                          |                                               |                                                                                     |                                                                                     |
|                              | 93.7                                         | 1756                         | 2.0                  | 29.89                  | 19.0                        | 31.0                        | 46.0                           | 60.0                                          |                                               |                                                                                     |                                                                                     |
|                              | 107.6                                        | 1529                         | 2.3                  | 26.02                  | 19.0                        | 31.0                        | 45.0                           | 60.0                                          |                                               |                                                                                     |                                                                                     |
|                              | 122.2                                        | 1346                         | 2.6                  | 22.91                  | 19.0                        | 30.0                        | 44.0                           | 60.0                                          |                                               |                                                                                     |                                                                                     |
|                              | 263.2                                        | 625                          | 2.5                  | 10.64                  | 15.0                        | 23.0                        | 37.0                           | 63.0                                          |                                               |                                                                                     |                                                                                     |
|                              | 45.9                                         | 3691                         | 0.8                  | 30.47                  | -                           | -                           | 30.0                           | 40.0                                          | <b>PD/PM 52</b><br><b>180M4A / 180M4B</b>     | 222                                                                                 | 208                                                                                 |
|                              | 56.1                                         | 3024                         | 1.0                  | 24.96                  | 10.0                        | 19.0                        | 28.0                           | 40.0                                          |                                               |                                                                                     |                                                                                     |
|                              | 68.8                                         | 2467                         | 1.3                  | 20.36                  | 10.0                        | 19.0                        | 27.0                           | 40.0                                          |                                               |                                                                                     |                                                                                     |
|                              | 74.2                                         | 2285                         | 1.1                  | 18.86                  | 10.0                        | 19.0                        | 27.0                           | 40.0                                          |                                               |                                                                                     |                                                                                     |
|                              | 79.5                                         | 2133                         | 1.3                  | 17.61                  | 10.0                        | 19.0                        | 27.0                           | 40.0                                          |                                               |                                                                                     |                                                                                     |
|                              | 91.0                                         | 1863                         | 1.4                  | 15.38                  | 10.0                        | 19.0                        | 26.0                           | 40.0                                          |                                               |                                                                                     |                                                                                     |
|                              | 107.7                                        | 1575                         | 1.7                  | 13.00                  | 10.0                        | 18.0                        | 25.0                           | 40.0                                          |                                               |                                                                                     |                                                                                     |
|                              | 130.5                                        | 1300                         | 1.9                  | 10.73                  | 10.0                        | 18.0                        | 24.0                           | 40.0                                          |                                               |                                                                                     |                                                                                     |
|                              | 147.8                                        | 1147                         | 2.0                  | 9.47                   | 10.0                        | 17.0                        | 24.0                           | 40.0                                          |                                               |                                                                                     |                                                                                     |
|                              | 161.1                                        | 1053                         | 2.2                  | 8.69                   | 10.0                        | 17.0                        | 23.0                           | 39.0                                          |                                               |                                                                                     |                                                                                     |
|                              | 195.3                                        | 869                          | 2.5                  | 7.17                   | 10.0                        | 16.0                        | 22.0                           | 37.0                                          |                                               |                                                                                     |                                                                                     |
|                              | 221.2                                        | 767                          | 2.8                  | 6.33                   | 9.0                         | 15.0                        | 22.0                           | 36.0                                          |                                               |                                                                                     |                                                                                     |
|                              | 245.6                                        | 691                          | 2.6                  | 5.70                   | 9.0                         | 15.0                        | 21.0                           | 35.0                                          |                                               |                                                                                     |                                                                                     |
|                              | 261.7                                        | 648                          | 2.7                  | 5.35                   | 9.0                         | 15.0                        | 21.0                           | 35.0                                          |                                               |                                                                                     |                                                                                     |
|                              | 278.9                                        | 608                          | 2.8                  | 5.02                   | 9.0                         | 15.0                        | 20.0                           | 34.0                                          |                                               |                                                                                     |                                                                                     |
|                              | 324.1                                        | 523                          | 3.0                  | 4.32                   | 9.0                         | 14.0                        | 20.0                           | 33.0                                          |                                               |                                                                                     |                                                                                     |
|                              | 68.6                                         | 2397                         | 0.8                  | 40.79                  | 10.0                        | 19.0                        | 34.0                           | 40.0                                          | <b>PD/PM 52</b><br><b>160M2D / 160L2C</b>     | 181                                                                                 | 208                                                                                 |
|                              | 83.8                                         | 1963                         | 0.9                  | 33.41                  | 10.0                        | 19.0                        | 33.0                           | 40.0                                          |                                               |                                                                                     |                                                                                     |
|                              | 91.9                                         | 1790                         | 1.2                  | 30.47                  | 10.0                        | 19.0                        | 30.0                           | 40.0                                          |                                               |                                                                                     |                                                                                     |
|                              | 112.2                                        | 1467                         | 1.5                  | 24.96                  | 10.0                        | 19.0                        | 28.0                           | 40.0                                          |                                               |                                                                                     |                                                                                     |
|                              | 137.5                                        | 1196                         | 2.0                  | 20.36                  | 10.0                        | 19.0                        | 27.0                           | 40.0                                          |                                               |                                                                                     |                                                                                     |
|                              | 148.5                                        | 1108                         | 1.8                  | 18.86                  | 10.0                        | 19.0                        | 27.0                           | 40.0                                          |                                               |                                                                                     |                                                                                     |
|                              | 159.0                                        | 1035                         | 2.0                  | 17.61                  | 10.0                        | 19.0                        | 27.0                           | 40.0                                          |                                               |                                                                                     |                                                                                     |
|                              | 182.1                                        | 904                          | 2.2                  | 15.38                  | 10.0                        | 19.0                        | 26.0                           | 40.0                                          |                                               |                                                                                     |                                                                                     |
|                              | 215.4                                        | 764                          | 2.6                  | 13.00                  | 10.0                        | 18.0                        | 25.0                           | 40.0                                          |                                               |                                                                                     |                                                                                     |
|                              | 261.0                                        | 630                          | 3.0                  | 10.73                  | 10.0                        | 18.0                        | 24.0                           | 40.0                                          |                                               |                                                                                     |                                                                                     |
|                              | 106.0                                        | 1552                         | 0.9                  | 26.41                  | 5.0                         | 8.0                         | 21.0                           | 30.0                                          | <b>PD/PM 42</b><br><b>160M2D / 160L2C</b>     | 145                                                                                 | 204                                                                                 |
|                              | 106.7                                        | 1542                         | 0.8                  | 26.25                  | 5.0                         | 8.0                         | 21.0                           | 30.0                                          |                                               |                                                                                     |                                                                                     |
|                              | 125.1                                        | 1315                         | 1.0                  | 22.38                  | 5.0                         | 8.0                         | 18.0                           | 28.0                                          |                                               |                                                                                     |                                                                                     |
|                              | 130.5                                        | 1261                         | 1.0                  | 21.46                  | 5.0                         | 8.0                         | 18.0                           | 28.0                                          |                                               |                                                                                     |                                                                                     |
|                              | 154.0                                        | 1068                         | 1.3                  | 18.18                  | 5.0                         | 8.0                         | 18.0                           | 28.0                                          |                                               |                                                                                     |                                                                                     |
|                              | 184.3                                        | 893                          | 1.5                  | 15.19                  | 5.0                         | 8.0                         | 18.0                           | 28.0                                          |                                               |                                                                                     |                                                                                     |
|                              | 221.0                                        | 744                          | 1.8                  | 12.67                  | 5.0                         | 8.0                         | 17.0                           | 27.0                                          |                                               |                                                                                     |                                                                                     |
|                              | 258.5                                        | 636                          | 2.0                  | 10.83                  | 5.0                         | 8.0                         | 17.0                           | 27.0                                          |                                               |                                                                                     |                                                                                     |
|                              | 303.4                                        | 542                          | 2.3                  | 9.23                   | 5.0                         | 8.0                         | 16.0                           | 26.0                                          |                                               |                                                                                     |                                                                                     |
|                              | 336.1                                        | 489                          | 2.0                  | 8.33                   | 5.0                         | 8.0                         | 16.0                           | 26.0                                          |                                               |                                                                                     |                                                                                     |
|                              | 392.7                                        | 419                          | 2.2                  | 7.13                   | 5.0                         | 8.0                         | 15.0                           | 25.0                                          |                                               |                                                                                     |                                                                                     |
|                              | 461.3                                        | 357                          | 2.6                  | 6.07                   | 5.0                         | 8.0                         | 15.0                           | 24.0                                          |                                               |                                                                                     |                                                                                     |
| 514.7                        | 320                                          | 2.5                          | 5.44                 | 5.0                    | 8.0                         | 15.0                        | 24.0                           |                                               |                                               |                                                                                     |                                                                                     |
| 560.0                        | 294                                          | 2.7                          | 5.00                 | 5.0                    | 8.0                         | 14.0                        | 24.0                           |                                               |                                               |                                                                                     |                                                                                     |
| 597.0                        | 276                                          | 2.9                          | 4.69                 | 5.0                    | 8.0                         | 14.0                        | 23.0                           |                                               |                                               |                                                                                     |                                                                                     |
| <b>22.0</b>                  | 4.5                                          | 45010                        | 2.1                  | 201.75                 | -                           | -                           | 116.0                          | 136.0                                         | <b>PD/PM 123</b><br><b>200L6C / 200L6D</b>    | 2391                                                                                | 236                                                                                 |
|                              | 5.8                                          | 34435                        | 2.7                  | 154.35                 | -                           | -                           | 120.0                          | 125.0                                         |                                               |                                                                                     |                                                                                     |
|                              | 2.9                                          | 64811                        | 0.9                  | 479.85                 | -                           | -                           | 18.0                           | 170.0                                         | <b>PD/PM 113/52</b><br><b>180M4B / 180L4B</b> | 2290                                                                                | 242                                                                                 |
|                              | 3.9                                          | 49057                        | 1.0                  | 363.21                 | -                           | -                           | 77.0                           | 170.0                                         |                                               |                                                                                     |                                                                                     |
|                              | 4.5                                          | 42171                        | 1.2                  | 312.23                 | -                           | -                           | 100.0                          | 169.0                                         |                                               |                                                                                     |                                                                                     |
|                              | 2.9                                          | 60415                        | 0.8                  | 962.15                 | -                           | -                           | -                              | -                                             | <b>PD/PM 113/52</b><br><b>180M2A</b>          | 2290                                                                                | 242                                                                                 |
|                              | 3.8                                          | 45930                        | 1.0                  | 731.47                 | -                           | -                           | -                              | -                                             |                                               |                                                                                     |                                                                                     |
|                              | 4.6                                          | 37893                        | 1.2                  | 603.47                 | -                           | -                           | -                              | -                                             |                                               |                                                                                     |                                                                                     |
|                              | 5.8                                          | 30131                        | 1.5                  | 479.85                 | -                           | -                           | 18.0                           | 170.0                                         |                                               |                                                                                     |                                                                                     |
|                              | 7.7                                          | 22807                        | 1.7                  | 363.21                 | -                           | -                           | 77.0                           | 170.0                                         |                                               |                                                                                     |                                                                                     |
|                              | 9.0                                          | 19606                        | 1.9                  | 312.23                 | -                           | -                           | 100.0                          | 169.0                                         |                                               |                                                                                     |                                                                                     |
|                              | 5.2                                          | 38364                        | 1.9                  | 171.96                 | -                           | -                           | 138.0                          | 152.0                                         | <b>PD/PM 113</b><br><b>200L6C / 200L6D</b>    | 2286                                                                                | 233                                                                                 |
|                              | 5.9                                          | 34105                        | 2.1                  | 152.87                 | -                           | -                           | 141.0                          | 149.0                                         |                                               |                                                                                     |                                                                                     |
|                              | 6.9                                          | 29165                        | 2.5                  | 130.73                 | -                           | -                           | 144.0                          | 144.0                                         |                                               |                                                                                     |                                                                                     |
| 8.0                          | 25072                                        | 2.9                          | 112.38               | -                      | -                           | 146.0                       | 139.0                          |                                               |                                               |                                                                                     |                                                                                     |
| 6.2                          | 31706                                        | 2.2                          | 224.76               | -                      | -                           | 128.0                       | 160.0                          | <b>PD/PM 113</b><br><b>180M4B / 180L4B</b>    | 2220                                          | 233                                                                                 |                                                                                     |
| 8.1                          | 24258                                        | 2.8                          | 171.96               | -                      | -                           | 138.0                       | 152.0                          |                                               |                                               |                                                                                     |                                                                                     |
| 4.6                          | 40803                                        | 0.9                          | 302.10               | -                      | -                           | 81.0                        | 150.0                          | <b>PD/PM 103/52</b><br><b>180M4B / 180L4B</b> | 1441                                          | 242                                                                                 |                                                                                     |



| <b>P<sub>1</sub></b><br>[kW] | <b>n<sub>2</sub></b><br>[Min <sup>-1</sup> ] | <b>M<sub>2</sub></b><br>[Nm] | <b>f<sub>B</sub></b> | <b>i<sub>ges</sub></b> | <b>F<sub>R</sub></b><br>[N] | <b>F<sub>A</sub></b><br>[N] | <b>F<sub>R GR</sub></b><br>[N] | <b>F<sub>A GR</sub></b><br>[N]      | Tip / Type / Typ<br>IE2 / IE3          |  Kg |  mm |                                     |     |
|------------------------------|----------------------------------------------|------------------------------|----------------------|------------------------|-----------------------------|-----------------------------|--------------------------------|-------------------------------------|----------------------------------------|----------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------|-------------------------------------|-----|
| <b>22.0</b>                  | 5.9                                          | 29947                        | 0.9                  | 476.93                 | -                           | -                           | 72.0                           | 150.0                               | <b>PD/PM 103/52<br/>180M2A</b>         | 1441                                                                                   | 242                                                                                    |                                     |     |
|                              | 7.6                                          | 22993                        | 1.2                  | 366.18                 | -                           | -                           | 80.0                           | 150.0                               |                                        |                                                                                        |                                                                                        |                                     |     |
|                              | 9.3                                          | 18969                        | 1.4                  | 302.10                 | -                           | -                           | 81.0                           | 150.0                               |                                        |                                                                                        |                                                                                        |                                     |     |
|                              | 6.4                                          | 31325                        | 1.2                  | 140.41                 | -                           | -                           | 127.0                          | 150.0                               | <b>PD/PM 103<br/>200L6C / 200L6D</b>   | 1425                                                                                   | 229                                                                                    |                                     |     |
|                              | 8.6                                          | 23360                        | 1.6                  | 104.71                 | -                           | -                           | 132.0                          | 146.0                               |                                        |                                                                                        |                                                                                        |                                     |     |
|                              | 9.9                                          | 20380                        | 1.8                  | 91.35                  | -                           | -                           | 134.0                          | 141.0                               |                                        |                                                                                        |                                                                                        |                                     |     |
|                              | 12.4                                         | 16221                        | 2.4                  | 72.71                  | -                           | -                           | 133.0                          | 130.0                               |                                        |                                                                                        |                                                                                        |                                     |     |
|                              | 13.8                                         | 14599                        | 2.5                  | 65.44                  | -                           | -                           | 134.0                          | 128.0                               |                                        |                                                                                        |                                                                                        |                                     |     |
|                              | 15.9                                         | 12663                        | 2.9                  | 56.76                  | -                           | -                           | 133.0                          | 120.0                               |                                        |                                                                                        |                                                                                        |                                     |     |
|                              | 4.2                                          | 46925                        | 0.8                  | 332.64                 | -                           | -                           | 110.0                          | 150.0                               | <b>PD/PM 103<br/>180M4B / 180L4B</b>   | 1367                                                                                   | 229                                                                                    |                                     |     |
|                              | 4.9                                          | 39901                        | 0.8                  | 282.85                 | -                           | -                           | 118.0                          | 150.0                               |                                        |                                                                                        |                                                                                        |                                     |     |
|                              | 5.3                                          | 37136                        | 0.9                  | 263.25                 | -                           | -                           | 121.0                          | 150.0                               |                                        |                                                                                        |                                                                                        |                                     |     |
|                              | 7.7                                          | 25488                        | 1.4                  | 180.68                 | -                           | -                           | 120.0                          | 150.0                               |                                        |                                                                                        |                                                                                        |                                     |     |
|                              | 8.3                                          | 23722                        | 1.5                  | 168.16                 | -                           | -                           | 123.0                          | 150.0                               |                                        |                                                                                        |                                                                                        |                                     |     |
|                              | 10.0                                         | 19807                        | 1.8                  | 140.41                 | -                           | -                           | 127.0                          | 150.0                               |                                        |                                                                                        |                                                                                        |                                     |     |
|                              | 13.4                                         | 14771                        | 2.4                  | 104.71                 | -                           | -                           | 132.0                          | 146.0                               |                                        |                                                                                        |                                                                                        |                                     |     |
|                              | 15.3                                         | 12886                        | 2.7                  | 91.35                  | -                           | -                           | 134.0                          | 141.0                               |                                        |                                                                                        |                                                                                        |                                     |     |
|                              | 7.8                                          | 24099                        | 1.1                  | 357.40                 | -                           | -                           | 105.0                          | 150.0                               | <b>PD/PM 103<br/>180M2A</b>            | 1367                                                                                   | 229                                                                                    |                                     |     |
|                              | 8.4                                          | 22430                        | 1.3                  | 332.64                 | -                           | -                           | 110.0                          | 150.0                               |                                        |                                                                                        |                                                                                        |                                     |     |
|                              | 9.9                                          | 19072                        | 1.3                  | 282.85                 | -                           | -                           | 118.0                          | 150.0                               |                                        |                                                                                        |                                                                                        |                                     |     |
|                              | 10.6                                         | 17751                        | 1.4                  | 263.25                 | -                           | -                           | 121.0                          | 150.0                               |                                        |                                                                                        |                                                                                        |                                     |     |
|                              | 15.5                                         | 12183                        | 2.2                  | 180.68                 | -                           | -                           | 120.0                          | 150.0                               |                                        |                                                                                        |                                                                                        |                                     |     |
|                              | 16.7                                         | 11339                        | 2.3                  | 168.16                 | -                           | -                           | 123.0                          | 150.0                               |                                        |                                                                                        |                                                                                        |                                     |     |
|                              | 19.9                                         | 9468                         | 2.8                  | 140.41                 | -                           | -                           | 127.0                          | 150.0                               |                                        |                                                                                        |                                                                                        |                                     |     |
|                              | 6.0                                          | 31510                        | 0.8                  | 233.30                 | 27.0                        | 57.0                        | 98.0                           | 123.0                               | <b>PD/PM 93/52<br/>180M4B / 180L4B</b> | 887                                                                                    | 242                                                                                    |                                     |     |
|                              | 7.0                                          | 27080                        | 0.9                  | 200.50                 | 20.0                        | 46.0                        | 91.0                           | 113.0                               |                                        |                                                                                        |                                                                                        |                                     |     |
|                              | 9.5                                          | 18473                        | 1.0                  | 294.19                 | 27.0                        | 57.0                        | -                              | -                                   | <b>PD/PM 93/52<br/>180M2A</b>          | 877                                                                                    | 242                                                                                    |                                     |     |
|                              | 12.0                                         | 14649                        | 1.2                  | 233.30                 | 27.0                        | 57.0                        | 98.0                           | 123.0                               |                                        |                                                                                        |                                                                                        |                                     |     |
|                              | 14.0                                         | 12590                        | 1.4                  | 200.50                 | 20.0                        | 46.0                        | 91.0                           | 113.0                               |                                        |                                                                                        |                                                                                        |                                     |     |
|                              | 6.6                                          | 30265                        | 0.9                  | 135.66                 | 44.0                        | 82.0                        | 108.0                          | 130.0                               | <b>PD/PM 93<br/>200L6C / 200L6D</b>    | 861                                                                                    | 225                                                                                    |                                     |     |
|                              | 7.8                                          | 25770                        | 1.0                  | 115.51                 | 45.0                        | 81.0                        | 105.0                          | 130.0                               |                                        |                                                                                        |                                                                                        |                                     |     |
|                              | 8.9                                          | 22466                        | 1.2                  | 100.70                 | 45.0                        | 81.0                        | 104.0                          | 130.0                               |                                        |                                                                                        |                                                                                        |                                     |     |
|                              | 10.8                                         | 18559                        | 1.4                  | 83.19                  | 45.0                        | 78.0                        | 100.0                          | 129.0                               |                                        |                                                                                        |                                                                                        |                                     |     |
|                              | 12.5                                         | 16101                        | 1.6                  | 72.17                  | 45.0                        | 76.0                        | 97.0                           | 126.0                               |                                        |                                                                                        |                                                                                        |                                     |     |
|                              | 13.8                                         | 14530                        | 1.8                  | 65.13                  | 44.0                        | 75.0                        | 95.0                           | 124.0                               |                                        |                                                                                        |                                                                                        |                                     |     |
|                              | 16.2                                         | 12373                        | 2.0                  | 55.46                  | 47.0                        | 91.0                        | 91.0                           | 119.0                               |                                        |                                                                                        |                                                                                        |                                     |     |
|                              | 18.6                                         | 10787                        | 2.3                  | 48.35                  | 47.0                        | 91.0                        | 88.0                           | 116.0                               |                                        |                                                                                        |                                                                                        |                                     |     |
|                              | 21.5                                         | 9357                         | 2.7                  | 41.94                  | 47.0                        | 91.0                        | 85.0                           | 112.0                               |                                        |                                                                                        |                                                                                        |                                     |     |
|                              | 6.8                                          | 28871                        | 0.8                  | 204.66                 | 54.0                        | 102.0                       | 120.0                          | 130.0                               |                                        |                                                                                        |                                                                                        | <b>PD/PM 93<br/>180M4B / 180L4B</b> | 803 |
|                              | 8.0                                          | 24691                        | 1.0                  | 175.03                 | 39.0                        | 79.0                        | 111.0                          | 130.0                               |                                        |                                                                                        |                                                                                        |                                     |     |
|                              | 9.7                                          | 20398                        | 1.2                  | 144.60                 | 41.0                        | 79.0                        | 108.0                          | 130.0                               |                                        |                                                                                        |                                                                                        |                                     |     |
|                              | 10.3                                         | 19137                        | 1.3                  | 135.66                 | 44.0                        | 82.0                        | 108.0                          | 130.0                               |                                        |                                                                                        |                                                                                        |                                     |     |
| 12.1                         | 16295                                        | 1.6                          | 115.51               | 45.0                   | 81.0                        | 105.0                       | 130.0                          |                                     |                                        |                                                                                        |                                                                                        |                                     |     |
| 13.9                         | 14205                                        | 1.8                          | 100.70               | 45.0                   | 81.0                        | 104.0                       | 130.0                          |                                     |                                        |                                                                                        |                                                                                        |                                     |     |
| 16.8                         | 11735                                        | 2.0                          | 83.19                | 45.0                   | 78.0                        | 100.0                       | 129.0                          |                                     |                                        |                                                                                        |                                                                                        |                                     |     |
| 19.4                         | 10181                                        | 2.4                          | 72.17                | 45.0                   | 76.0                        | 97.0                        | 126.0                          |                                     |                                        |                                                                                        |                                                                                        |                                     |     |
| 21.5                         | 9188                                         | 2.6                          | 65.13                | 44.0                   | 75.0                        | 95.0                        | 124.0                          |                                     |                                        |                                                                                        |                                                                                        |                                     |     |
| 8.0                          | 23746                                        | 0.8                          | 352.16               | 54.0                   | 102.0                       | -                           | -                              | <b>PD/PM 93<br/>180M2A</b>          | 803                                    | 225                                                                                    |                                                                                        |                                     |     |
| 9.6                          | 19618                                        | 0.9                          | 290.94               | 54.0                   | 102.0                       | 120.0                       | 130.0                          |                                     |                                        |                                                                                        |                                                                                        |                                     |     |
| 13.7                         | 13800                                        | 1.2                          | 204.66               | 54.0                   | 102.0                       | 120.0                       | 130.0                          |                                     |                                        |                                                                                        |                                                                                        |                                     |     |
| 16.0                         | 11802                                        | 1.6                          | 175.03               | 39.0                   | 79.0                        | 111.0                       | 130.0                          |                                     |                                        |                                                                                        |                                                                                        |                                     |     |
| 19.4                         | 9750                                         | 1.9                          | 144.60               | 41.0                   | 79.0                        | 108.0                       | 130.0                          |                                     |                                        |                                                                                        |                                                                                        |                                     |     |
| 20.6                         | 9147                                         | 2.1                          | 135.66               | 44.0                   | 82.0                        | 108.0                       | 130.0                          |                                     |                                        |                                                                                        |                                                                                        |                                     |     |
| 24.2                         | 7789                                         | 2.5                          | 115.51               | 45.0                   | 81.0                        | 105.0                       | 130.0                          |                                     |                                        |                                                                                        |                                                                                        |                                     |     |
| 27.8                         | 6790                                         | 2.8                          | 100.70               | 45.0                   | 81.0                        | 104.0                       | 130.0                          |                                     |                                        |                                                                                        |                                                                                        |                                     |     |
| 26.2                         | 7782                                         | 2.2                          | 34.36                | 78.0                   | 73.0                        | 68.0                        | 89.0                           | <b>PD/PM 92<br/>200L6C / 200L6D</b> | 856                                    | 224                                                                                    |                                                                                        |                                     |     |
| 29.2                         | 6974                                         | 2.7                          | 30.79                | 78.0                   | 73.0                        | 64.0                        | 84.0                           |                                     |                                        |                                                                                        |                                                                                        |                                     |     |
| 33.5                         | 6081                                         | 3.0                          | 26.85                | 78.0                   | 73.0                        | 63.0                        | 82.0                           |                                     |                                        |                                                                                        |                                                                                        |                                     |     |
| 11.9                         | 16888                                        | 0.8                          | 75.70                | 24.0                   | 44.0                        | 75.0                        | 105.0                          | <b>PD/PM 83<br/>200L6C / 200L6D</b> | 559                                    | 221                                                                                    |                                                                                        |                                     |     |
| 13.8                         | 14537                                        | 0.8                          | 65.16                | 25.0                   | 45.0                        | 74.0                        | 105.0                          |                                     |                                        |                                                                                        |                                                                                        |                                     |     |
| 15.7                         | 12788                                        | 1.0                          | 57.32                | 26.0                   | 45.0                        | 73.0                        | 105.0                          |                                     |                                        |                                                                                        |                                                                                        |                                     |     |
| 18.8                         | 10662                                        | 1.2                          | 47.79                | 27.0                   | 45.0                        | 71.0                        | 102.0                          |                                     |                                        |                                                                                        |                                                                                        |                                     |     |
| 20.7                         | 9709                                         | 1.1                          | 43.52                | 28.0                   | 45.0                        | 71.0                        | 101.0                          |                                     |                                        |                                                                                        |                                                                                        |                                     |     |
| 25.1                         | 7994                                         | 1.6                          | 35.83                | 28.0                   | 44.0                        | 68.0                        | 97.0                           |                                     |                                        |                                                                                        |                                                                                        |                                     |     |
| 29.2                         | 6880                                         | 1.8                          | 30.84                | 27.0                   | 43.0                        | 66.0                        | 95.0                           |                                     |                                        |                                                                                        |                                                                                        |                                     |     |
|                              |                                              |                              |                      |                        |                             |                             |                                |                                     |                                        |                                                                                        |                                                                                        |                                     |     |



| $P_1$<br>[kW] | $n_2$<br>[Min <sup>-1</sup> ] | $M_2$<br>[Nm] | $f_B$ | $i_{ges}$ | $F_R$<br>[N] | $F_A$<br>[N] | $F_{R GR}$<br>[N] | $F_{A GR}$<br>[N] | Tip / Type / Typ<br>IE2 / IE3       |  |  |
|---------------|-------------------------------|---------------|-------|-----------|--------------|--------------|-------------------|-------------------|-------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| <b>22.0</b>   | 13.6                          | 14548         | 0.8   | 103.13    | 19.0         | 39.0         | 76.0              | 105.0             | <b>PD/PM 83<br/>180M4B / 180L4B</b> | 501                                                                                 | 221                                                                                 |
|               | 15.4                          | 12807         | 0.9   | 90.79     | 21.0         | 42.0         | 76.0              | 105.0             |                                     |                                                                                     |                                                                                     |
|               | 18.5                          | 10679         | 1.1   | 75.70     | 24.0         | 44.0         | 75.0              | 105.0             |                                     |                                                                                     |                                                                                     |
|               | 21.5                          | 9192          | 1.2   | 65.16     | 25.0         | 45.0         | 74.0              | 105.0             |                                     |                                                                                     |                                                                                     |
|               | 24.4                          | 8086          | 1.5   | 57.32     | 26.0         | 45.0         | 73.0              | 105.0             |                                     |                                                                                     |                                                                                     |
|               | 29.3                          | 6742          | 1.8   | 47.79     | 27.0         | 45.0         | 71.0              | 102.0             |                                     |                                                                                     |                                                                                     |
|               | 32.2                          | 6139          | 1.7   | 43.52     | 28.0         | 45.0         | 71.0              | 101.0             |                                     |                                                                                     |                                                                                     |
|               | 39.1                          | 5054          | 2.4   | 35.83     | 28.0         | 44.0         | 68.0              | 97.0              |                                     |                                                                                     |                                                                                     |
|               | 45.4                          | 4351          | 2.8   | 30.84     | 27.0         | 43.0         | 66.0              | 95.0              |                                     |                                                                                     |                                                                                     |
|               |                               | 15.1          | 12512 | 0.8       | 185.56       | 19.0         | 39.0              | -                 |                                     |                                                                                     |                                                                                     |
| 18.3          |                               | 10301         | 1.0   | 152.77    | 19.0         | 39.0         | 89.0              | 105.0             |                                     |                                                                                     |                                                                                     |
| 19.5          |                               | 9704          | 1.0   | 143.91    | 19.0         | 39.0         | 90.0              | 105.0             |                                     |                                                                                     |                                                                                     |
| 22.4          |                               | 8447          | 1.1   | 125.27    | 19.0         | 39.0         | -                 | -                 |                                     |                                                                                     |                                                                                     |
| 23.6          |                               | 7989          | 1.2   | 118.48    | 19.0         | 39.0         | 82.0              | 105.0             |                                     |                                                                                     |                                                                                     |
| 27.2          |                               | 6954          | 1.3   | 103.13    | 19.0         | 39.0         | 76.0              | 105.0             |                                     |                                                                                     |                                                                                     |
| 30.8          |                               | 6122          | 1.5   | 90.79     | 21.0         | 42.0         | 76.0              | 105.0             |                                     |                                                                                     |                                                                                     |
| 37.0          |                               | 5104          | 1.8   | 75.70     | 24.0         | 44.0         | 75.0              | 105.0             |                                     |                                                                                     |                                                                                     |
| 43.0          |                               | 4394          | 2.0   | 65.16     | 25.0         | 45.0         | 74.0              | 105.0             |                                     |                                                                                     |                                                                                     |
| 48.8          |                               | 3865          | 2.4   | 57.32     | 26.0         | 45.0         | 73.0              | 105.0             |                                     |                                                                                     |                                                                                     |
|               | 58.6                          | 3222          | 2.9   | 47.79     | 27.0         | 45.0         | 71.0              | 102.0             | <b>PD/PM 82<br/>200L6C / 200L6D</b> | 555                                                                                 | 220                                                                                 |
|               | 64.3                          | 2935          | 2.7   | 43.52     | 28.0         | 45.0         | 71.0              | 101.0             |                                     |                                                                                     |                                                                                     |
|               | 18.9                          | 10761         | 1.0   | 47.51     | 28.0         | 46.0         | -                 | -                 |                                     |                                                                                     |                                                                                     |
|               | 23.0                          | 8874          | 1.3   | 39.18     | 28.0         | 44.0         | -                 | -                 |                                     |                                                                                     |                                                                                     |
|               | 23.0                          | 8860          | 1.1   | 39.12     | 28.0         | 44.0         | -                 | -                 |                                     |                                                                                     |                                                                                     |
|               | 27.9                          | 7304          | 1.5   | 32.25     | 27.0         | 43.0         | -                 | -                 |                                     |                                                                                     |                                                                                     |
|               | 31.7                          | 6421          | 1.6   | 28.35     | 27.0         | 43.0         | 65.0              | 93.0              |                                     |                                                                                     |                                                                                     |
|               | 36.7                          | 5551          | 2.0   | 24.51     | 27.0         | 41.0         | 63.0              | 90.0              |                                     |                                                                                     |                                                                                     |
|               | 42.6                          | 4788          | 2.3   | 21.14     | 30.0         | 50.0         | 58.0              | 84.0              | <b>PD/PM 82<br/>180M4B / 180L4B</b> | 497                                                                                 | 220                                                                                 |
|               | 51.7                          | 3943          | 2.6   | 17.41     | 30.0         | 50.0         | 56.0              | 80.0              |                                     |                                                                                     |                                                                                     |
|               | 59.2                          | 3440          | 2.9   | 15.19     | 30.0         | 50.0         | 53.0              | 76.0              |                                     |                                                                                     |                                                                                     |
|               | 19.4                          | 10397         | 0.8   | 72.17     | 45.0         | 76.0         | -                 | -                 |                                     |                                                                                     |                                                                                     |
|               | 23.6                          | 8559          | 0.8   | 59.41     | 33.0         | 56.0         | -                 | -                 |                                     |                                                                                     |                                                                                     |
|               | 29.5                          | 6845          | 1.6   | 47.51     | 28.0         | 46.0         | -                 | -                 | <b>PD/PM 82<br/>180M2A</b>          | 497                                                                                 | 220                                                                                 |
|               | 35.8                          | 5636          | 1.7   | 39.12     | 28.0         | 44.0         | -                 | -                 |                                     |                                                                                     |                                                                                     |
|               | 49.4                          | 4084          | 2.4   | 28.35     | 27.0         | 43.0         | 65.0              | 93.0              |                                     |                                                                                     |                                                                                     |
|               | 57.1                          | 3531          | 3.0   | 24.51     | 27.0         | 41.0         | 63.0              | 90.0              | <b>PD/PM 82<br/>180M2A</b>          | 497                                                                                 | 220                                                                                 |
|               | 38.8                          | 5043          | 1.2   | 72.17     | 45.0         | 76.0         | -                 | -                 |                                     |                                                                                     |                                                                                     |
|               | 47.1                          | 4151          | 1.2   | 59.41     | 33.0         | 56.0         | -                 | -                 |                                     |                                                                                     |                                                                                     |
|               | 58.9                          | 3320          | 2.4   | 47.51     | 28.0         | 46.0         | -                 | -                 |                                     |                                                                                     |                                                                                     |
|               | 71.6                          | 2734          | 2.6   | 39.12     | 28.0         | 44.0         | -                 | -                 | <b>PD/PM 73<br/>200L6C / 200L6D</b> | 434                                                                                 | 217                                                                                 |
|               | 24.4                          | 8243          | 0.8   | 36.95     | 19.0         | 33.0         | 56.0              | 80.0              |                                     |                                                                                     |                                                                                     |
|               | 29.5                          | 6802          | 1.0   | 30.49     | 20.0         | 33.0         | 55.0              | 80.0              |                                     |                                                                                     |                                                                                     |
|               | 33.4                          | 6006          | 1.2   | 26.92     | 20.0         | 32.0         | 54.0              | 78.0              | <b>PD/PM 73<br/>180M4B / 180L4B</b> | 376                                                                                 | 217                                                                                 |
|               | 38.3                          | 5236          | 1.3   | 23.47     | 20.0         | 32.0         | 52.0              | 76.0              |                                     |                                                                                     |                                                                                     |
|               | 23.5                          | 8396          | 0.8   | 59.52     | 15.0         | 29.0         | 59.0              | 80.0              |                                     |                                                                                     |                                                                                     |
|               | 26.2                          | 7536          | 0.9   | 53.42     | 17.0         | 32.0         | 59.0              | 80.0              |                                     |                                                                                     |                                                                                     |
|               | 30.0                          | 6582          | 1.1   | 46.66     | 18.0         | 33.0         | 58.0              | 80.0              |                                     |                                                                                     |                                                                                     |
|               | 37.9                          | 5212          | 1.3   | 36.95     | 19.0         | 33.0         | 56.0              | 80.0              |                                     |                                                                                     |                                                                                     |
|               | 45.9                          | 4301          | 1.5   | 30.49     | 20.0         | 33.0         | 55.0              | 80.0              | <b>PD/PM 73<br/>180M2A</b>          | 376                                                                                 | 217                                                                                 |
|               | 52.0                          | 3798          | 1.7   | 26.92     | 20.0         | 32.0         | 54.0              | 78.0              |                                     |                                                                                     |                                                                                     |
|               | 59.7                          | 3311          | 2.0   | 23.47     | 20.0         | 32.0         | 52.0              | 76.0              |                                     |                                                                                     |                                                                                     |
|               | 26.3                          | 7183          | 0.8   | 106.53    | 15.0         | 29.0         | -                 | -                 |                                     |                                                                                     |                                                                                     |
|               | 30.1                          | 6274          | 0.9   | 93.05     | 15.0         | 29.0         | 70.0              | 80.0              |                                     |                                                                                     |                                                                                     |
|               | 35.6                          | 5310          | 1.1   | 78.75     | 15.0         | 29.0         | 64.0              | 80.0              |                                     |                                                                                     |                                                                                     |
|               | 41.1                          | 4595          | 1.2   | 68.14     | 15.0         | 29.0         | 63.0              | 80.0              |                                     |                                                                                     |                                                                                     |
|               | 47.0                          | 4013          | 1.3   | 59.52     | 15.0         | 29.0         | 59.0              | 80.0              |                                     |                                                                                     |                                                                                     |
|               | 52.4                          | 3602          | 1.5   | 53.42     | 17.0         | 32.0         | 59.0              | 80.0              |                                     |                                                                                     |                                                                                     |
|               | 60.0                          | 3146          | 1.7   | 46.66     | 18.0         | 33.0         | 58.0              | 80.0              |                                     |                                                                                     |                                                                                     |
|               | 75.8                          | 2492          | 2.0   | 36.95     | 19.0         | 33.0         | 56.0              | 80.0              | <b>PD/PM 73<br/>180M2A</b>          | 376                                                                                 | 217                                                                                 |
|               | 91.8                          | 2056          | 2.4   | 30.49     | 20.0         | 33.0         | 55.0              | 80.0              |                                     |                                                                                     |                                                                                     |
|               | 104.0                         | 1815          | 2.8   | 26.92     | 20.0         | 32.0         | 54.0              | 78.0              |                                     |                                                                                     |                                                                                     |
|               |                               |               |       |           |              |              |                   |                   |                                     |                                                                                     |                                                                                     |



| $P_1$<br>[kW] | $n_2$<br>[Min <sup>-1</sup> ] | $M_2$<br>[Nm] | $f_B$ | $i_{ges}$ | $F_R$<br>[N] | $F_A$<br>[N] | $F_{RGR}$<br>[N] | $F_{AGR}$<br>[N]           | Tip / Type / Typ<br>IE2 / IE3       |  Kg |  mm |                                     |     |     |
|---------------|-------------------------------|---------------|-------|-----------|--------------|--------------|------------------|----------------------------|-------------------------------------|----------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------|-------------------------------------|-----|-----|
| <b>22.0</b>   | 24.2                          | 8430          | 0.8   | 37.22     | 19.0         | 33.0         | 57.0             | 80.0                       | <b>PD/PM 72<br/>200L6C / 200L6D</b> | 427                                                                                    | 216                                                                                    |                                     |     |     |
|               | 33.5                          | 6090          | 1.0   | 26.89     | 21.0         | 33.0         | 54.0             | 79.0                       |                                     |                                                                                        |                                                                                        |                                     |     |     |
|               | 39.3                          | 5187          | 1.2   | 22.90     | 21.0         | 33.0         | 53.0             | 77.0                       |                                     |                                                                                        |                                                                                        |                                     |     |     |
|               | 45.1                          | 4521          | 1.3   | 19.96     | 20.0         | 32.0         | 51.0             | 75.0                       |                                     |                                                                                        |                                                                                        |                                     |     |     |
|               | 55.3                          | 3685          | 1.8   | 16.27     | 20.0         | 30.0         | 49.0             | 71.0                       |                                     |                                                                                        |                                                                                        |                                     |     |     |
|               | 69.8                          | 2920          | 2.1   | 12.89     | 16.0         | 24.0         | 44.0             | 65.0                       |                                     |                                                                                        |                                                                                        |                                     |     |     |
|               | 80.5                          | 2532          | 2.6   | 11.18     | 16.0         | 24.0         | 43.0             | 63.0                       |                                     |                                                                                        |                                                                                        |                                     |     |     |
|               | 90.8                          | 2245          | 2.0   | 9.91      | 16.0         | 24.0         | 42.0             | 61.0                       |                                     |                                                                                        |                                                                                        |                                     |     |     |
|               | 104.2                         | 1957          | 2.3   | 8.64      | 22.0         | 37.0         | 40.0             | 59.0                       |                                     |                                                                                        |                                                                                        |                                     |     |     |
|               | 120.0                         | 1699          | 2.8   | 7.50      | 22.0         | 37.0         | 39.0             | 57.0                       |                                     |                                                                                        |                                                                                        |                                     |     |     |
|               | 30.7                          | 6578          | 0.9   | 45.66     | 19.0         | 34.0         | 59.0             | 80.0                       |                                     |                                                                                        |                                                                                        | <b>PD/PM 72<br/>180M4B / 180L4B</b> | 369 | 216 |
|               | 37.6                          | 5362          | 1.2   | 37.22     | 19.0         | 33.0         | 57.0             | 80.0                       |                                     |                                                                                        |                                                                                        |                                     |     |     |
|               | 40.4                          | 4998          | 1.2   | 34.69     | 20.0         | 34.0         | 57.0             | 80.0                       |                                     |                                                                                        |                                                                                        |                                     |     |     |
|               | 52.1                          | 3874          | 1.5   | 26.89     | 21.0         | 33.0         | 54.0             | 79.0                       |                                     |                                                                                        |                                                                                        |                                     |     |     |
|               | 61.1                          | 3299          | 1.8   | 22.90     | 21.0         | 33.0         | 53.0             | 77.0                       |                                     |                                                                                        |                                                                                        |                                     |     |     |
|               | 70.1                          | 2876          | 2.0   | 19.96     | 20.0         | 32.0         | 51.0             | 75.0                       |                                     |                                                                                        |                                                                                        |                                     |     |     |
|               | 86.0                          | 2344          | 2.8   | 16.27     | 20.0         | 30.0         | 49.0             | 71.0                       |                                     |                                                                                        |                                                                                        |                                     |     |     |
|               | 141.3                         | 1428          | 3.0   | 9.91      | 16.0         | 24.0         | 42.0             | 61.0                       |                                     |                                                                                        |                                                                                        |                                     |     |     |
|               | 40.1                          | 4877          | 0.9   | 69.80     | 19.0         | 34.0         | 68.0             | 80.0                       | <b>PD/PM 72<br/>180M2A</b>          | 369                                                                                    | 216                                                                                    |                                     |     |     |
|               | 49.2                          | 3976          | 1.1   | 56.90     | 19.0         | 34.0         | 66.0             | 80.0                       |                                     |                                                                                        |                                                                                        |                                     |     |     |
|               | 61.3                          | 3190          | 1.4   | 45.66     | 19.0         | 34.0         | 59.0             | 80.0                       |                                     |                                                                                        |                                                                                        |                                     |     |     |
|               | 62.1                          | 3149          | 1.1   | 45.06     | 19.0         | 33.0         | 59.0             | 80.0                       |                                     |                                                                                        |                                                                                        |                                     |     |     |
|               | 75.2                          | 2601          | 1.9   | 37.22     | 19.0         | 33.0         | 57.0             | 80.0                       |                                     |                                                                                        |                                                                                        |                                     |     |     |
|               | 80.7                          | 2424          | 1.8   | 34.69     | 20.0         | 34.0         | 57.0             | 80.0                       |                                     |                                                                                        |                                                                                        |                                     |     |     |
|               | 104.1                         | 1879          | 2.3   | 26.89     | 21.0         | 33.0         | 54.0             | 79.0                       |                                     |                                                                                        |                                                                                        |                                     |     |     |
|               | 122.3                         | 1600          | 2.8   | 22.90     | 21.0         | 33.0         | 53.0             | 77.0                       |                                     |                                                                                        |                                                                                        |                                     |     |     |
|               | 45.3                          | 4359          | 1.0   | 30.90     | 15.0         | 27.0         | 44.0             | 60.0                       | <b>PD/PM 63<br/>180M4B / 180L4B</b> | 303                                                                                    | 213                                                                                    |                                     |     |     |
|               | 48.8                          | 4043          | 1.1   | 28.66     | 16.0         | 27.0         | 43.0             | 60.0                       |                                     |                                                                                        |                                                                                        |                                     |     |     |
|               | 57.3                          | 3445          | 1.4   | 24.42     | 16.0         | 27.0         | 42.0             | 60.0                       |                                     |                                                                                        |                                                                                        |                                     |     |     |
|               | 90.6                          | 2084          | 1.7   | 30.90     | 15.0         | 27.0         | 44.0             | 60.0                       | <b>PD/PM 63<br/>180M2A</b>          | 303                                                                                    | 213                                                                                    |                                     |     |     |
|               | 97.7                          | 1933          | 1.8   | 28.66     | 16.0         | 27.0         | 43.0             | 60.0                       |                                     |                                                                                        |                                                                                        |                                     |     |     |
|               | 114.7                         | 1647          | 2.2   | 24.42     | 16.0         | 27.0         | 42.0             | 60.0                       |                                     |                                                                                        |                                                                                        |                                     |     |     |
|               | 39.3                          | 5189          | 0.9   | 22.91     | 17.0         | 28.0         | 43.0             | 60.0                       | <b>PD/PM 62<br/>200L6C / 200L6D</b> | 364                                                                                    | 212                                                                                    |                                     |     |     |
|               | 48.2                          | 4231          | 1.1   | 18.68     | 17.0         | 27.0         | 41.0             | 58.0                       |                                     |                                                                                        |                                                                                        |                                     |     |     |
|               | 60.8                          | 3352          | 1.4   | 14.80     | 17.0         | 26.0         | 39.0             | 56.0                       |                                     |                                                                                        |                                                                                        |                                     |     |     |
|               | 72.9                          | 2795          | 1.6   | 12.34     | 16.0         | 25.0         | 38.0             | 54.0                       |                                     |                                                                                        |                                                                                        |                                     |     |     |
|               | 84.7                          | 2405          | 1.9   | 10.62     | 16.0         | 24.0         | 36.0             | 52.0                       |                                     |                                                                                        |                                                                                        |                                     |     |     |
|               | 96.1                          | 2122          | 1.4   | 9.37      | 15.0         | 23.0         | 35.0             | 50.0                       |                                     |                                                                                        |                                                                                        |                                     |     |     |
|               | 115.2                         | 1769          | 1.6   | 7.81      | 15.0         | 22.0         | 34.0             | 48.0                       |                                     |                                                                                        |                                                                                        |                                     |     |     |
|               | 133.7                         | 1524          | 2.1   | 6.73      | 13.0         | 19.0         | 31.0             | 45.0                       |                                     |                                                                                        |                                                                                        |                                     |     |     |
|               | 150.3                         | 1357          | 1.9   | 5.99      | 13.0         | 19.0         | 31.0             | 44.0                       |                                     |                                                                                        |                                                                                        |                                     |     |     |
|               | 155.7                         | 1309          | 1.9   | 5.78      | 13.0         | 18.0         | 30.0             | 44.0                       |                                     |                                                                                        |                                                                                        |                                     |     |     |
|               | 163.9                         | 1243          | 1.9   | 5.49      | 13.0         | 18.0         | 30.0             | 43.0                       |                                     |                                                                                        |                                                                                        |                                     |     |     |
|               | 183.7                         | 1110          | 2.0   | 4.90      | 31.0         | 18.0         | 29.0             | 42.0                       |                                     |                                                                                        |                                                                                        |                                     |     |     |
|               | 205.5                         | 992           | 2.2   | 4.38      | 31.0         | 17.0         | 28.0             | 41.0                       |                                     |                                                                                        |                                                                                        |                                     |     |     |
|               | 46.8                          | 4306          | 1.1   | 29.89     | 16.0         | 28.0         | 44.0             | 60.0                       |                                     |                                                                                        |                                                                                        | <b>PD/PM 62<br/>180M4B / 180L4B</b> | 306 | 212 |
|               | 48.8                          | 4132          | 1.1   | 28.68     | -            | -            | -                | -                          |                                     |                                                                                        |                                                                                        |                                     |     |     |
|               | 53.8                          | 3749          | 1.2   | 26.02     | 17.0         | 28.0         | 43.0             | 60.0                       |                                     |                                                                                        |                                                                                        |                                     |     |     |
| 61.1          | 3301                          | 1.4           | 22.91 | 17.0      | 28.0         | 43.0         | 60.0             |                            |                                     |                                                                                        |                                                                                        |                                     |     |     |
| 94.6          | 2132                          | 2.1           | 14.80 | 17.0      | 26.0         | 39.0         | 56.0             |                            |                                     |                                                                                        |                                                                                        |                                     |     |     |
| 113.5         | 1778                          | 2.5           | 12.34 | 16.0      | 25.0         | 38.0         | 54.0             |                            |                                     |                                                                                        |                                                                                        |                                     |     |     |
| 131.6         | 1533                          | 1.3           | 10.64 | -         | -            | -            | -                |                            |                                     |                                                                                        |                                                                                        |                                     |     |     |
| 131.8         | 1530                          | 2.8           | 10.62 | 16.0      | 24.0         | 36.0         | 52.0             |                            |                                     |                                                                                        |                                                                                        |                                     |     |     |
| 149.4         | 1350                          | 2.0           | 9.37  | 15.0      | 23.0         | 35.0         | 50.0             |                            |                                     |                                                                                        |                                                                                        |                                     |     |     |
| 179.3         | 1125                          | 2.4           | 7.81  | 15.0      | 22.0         | 34.0         | 48.0             |                            |                                     |                                                                                        |                                                                                        |                                     |     |     |
| 233.7         | 863                           | 2.8           | 5.99  | 13.0      | 19.0         | 31.0         | 44.0             |                            |                                     |                                                                                        |                                                                                        |                                     |     |     |
| 242.2         | 833                           | 2.8           | 5.78  | 13.0      | 18.0         | 30.0         | 44.0             |                            |                                     |                                                                                        |                                                                                        |                                     |     |     |
| 255.0         | 791                           | 2.9           | 5.49  | 13.0      | 18.0         | 30.0         | 43.0             |                            |                                     |                                                                                        |                                                                                        |                                     |     |     |
| 45.9          | 4266                          | 0.8           | 61.05 | 16.0      | 28.0         | 49.0         | 60.0             | <b>PD/PM 62<br/>180M2A</b> | 306                                 | 212                                                                                    |                                                                                        |                                     |     |     |
| 56.2          | 3479                          | 0.9           | 49.79 | 16.0      | 28.0         | 52.0         | 60.0             |                            |                                     |                                                                                        |                                                                                        |                                     |     |     |
| 71.0          | 2756                          | 0.9           | 39.44 | 16.0      | 28.0         | 49.0         | 60.0             |                            |                                     |                                                                                        |                                                                                        |                                     |     |     |
| 93.7          | 2089                          | 1.7           | 29.89 | 16.0      | 28.0         | 44.0         | 60.0             |                            |                                     |                                                                                        |                                                                                        |                                     |     |     |
| 107.6         | 1818                          | 1.9           | 26.02 | 17.0      | 28.0         | 43.0         | 60.0             |                            |                                     |                                                                                        |                                                                                        |                                     |     |     |
| 122.2         | 1601                          | 2.2           | 22.91 | 17.0      | 28.0         | 43.0         | 60.0             |                            |                                     |                                                                                        |                                                                                        |                                     |     |     |
| 149.9         | 1305                          | 2.6           | 18.68 | 17.0      | 26.0         | 41.0         | 58.0             |                            |                                     |                                                                                        |                                                                                        |                                     |     |     |
| 263.2         | 743                           | 2.1           | 10.64 | 16.0      | 24.0         | 36.0         | 52.0             |                            |                                     |                                                                                        |                                                                                        |                                     |     |     |
|               |                               |               |       |           |              |              |                  |                            |                                     |                                                                                        |                                                                                        |                                     |     |     |





| <b>P<sub>1</sub></b><br>[kW] | <b>n<sub>2</sub></b><br>[Min <sup>-1</sup> ] | <b>M<sub>2</sub></b><br>[Nm] | <b>f<sub>B</sub></b> | <b>i<sub>ges</sub></b> | <b>F<sub>R</sub></b><br>[N] | <b>F<sub>A</sub></b><br>[N] | <b>F<sub>R GR</sub></b><br>[N] | <b>F<sub>A GR</sub></b><br>[N]      | Tip / Type / Typ<br>IE2 / IE3        |  |  |                            |     |     |
|------------------------------|----------------------------------------------|------------------------------|----------------------|------------------------|-----------------------------|-----------------------------|--------------------------------|-------------------------------------|--------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|----------------------------|-----|-----|
| <b>22.0</b>                  | 56.1                                         | 3596                         | 0.8                  | 24.96                  | 8.0                         | 16.0                        | 27.0                           | 40.0                                | <b>PD/PM 52<br/>180M4B / 180L4B</b>  | 222                                                                                 | 208                                                                                 |                            |     |     |
|                              | 68.8                                         | 2933                         | 1.1                  | 20.36                  | 8.0                         | 16.0                        | 26.0                           | 40.0                                |                                      |                                                                                     |                                                                                     |                            |     |     |
|                              | 74.2                                         | 2717                         | 1.0                  | 18.86                  | 9.0                         | 17.0                        | 26.0                           | 40.0                                |                                      |                                                                                     |                                                                                     |                            |     |     |
|                              | 79.5                                         | 2537                         | 1.1                  | 17.61                  | 9.0                         | 16.0                        | 26.0                           | 40.0                                |                                      |                                                                                     |                                                                                     |                            |     |     |
|                              | 91.0                                         | 2216                         | 1.2                  | 15.38                  | 9.0                         | 17.0                        | 25.0                           | 40.0                                |                                      |                                                                                     |                                                                                     |                            |     |     |
|                              | 107.7                                        | 1873                         | 1.4                  | 13.00                  | 9.0                         | 16.0                        | 25.0                           | 40.0                                |                                      |                                                                                     |                                                                                     |                            |     |     |
|                              | 130.5                                        | 1546                         | 1.6                  | 10.73                  | 9.0                         | 16.0                        | 24.0                           | 39.0                                |                                      |                                                                                     |                                                                                     |                            |     |     |
|                              | 147.8                                        | 1364                         | 1.7                  | 9.47                   | 9.0                         | 16.0                        | 23.0                           | 39.0                                |                                      |                                                                                     |                                                                                     |                            |     |     |
|                              | 161.1                                        | 1252                         | 1.9                  | 8.69                   | 9.0                         | 15.0                        | 23.0                           | 38.0                                |                                      |                                                                                     |                                                                                     |                            |     |     |
|                              | 195.3                                        | 1033                         | 2.1                  | 7.17                   | 9.0                         | 15.0                        | 22.0                           | 36.0                                |                                      |                                                                                     |                                                                                     |                            |     |     |
|                              | 221.2                                        | 912                          | 2.3                  | 6.33                   | 9.0                         | 15.0                        | 21.0                           | 35.0                                |                                      |                                                                                     |                                                                                     |                            |     |     |
|                              | 245.6                                        | 821                          | 2.2                  | 5.70                   | 9.0                         | 14.0                        | 21.0                           | 35.0                                |                                      |                                                                                     |                                                                                     |                            |     |     |
|                              | 261.7                                        | 771                          | 2.3                  | 5.35                   | 9.0                         | 14.0                        | 20.0                           | 34.0                                |                                      |                                                                                     |                                                                                     |                            |     |     |
|                              | 278.9                                        | 723                          | 2.4                  | 5.02                   | 9.0                         | 14.0                        | 20.0                           | 34.0                                |                                      |                                                                                     |                                                                                     |                            |     |     |
|                              | 324.1                                        | 622                          | 2.5                  | 4.32                   | 9.0                         | 13.0                        | 19.0                           | 33.0                                |                                      |                                                                                     |                                                                                     |                            |     |     |
|                              | 91.9                                         | 2129                         | 1.0                  | 30.47                  | 8.0                         | 16.0                        | 30.0                           | 40.0                                |                                      |                                                                                     |                                                                                     | <b>PD/PM 52<br/>180M2A</b> | 222 | 208 |
|                              | 112.2                                        | 1744                         | 1.3                  | 24.96                  | 8.0                         | 16.0                        | 27.0                           | 40.0                                |                                      |                                                                                     |                                                                                     |                            |     |     |
|                              | 137.5                                        | 1423                         | 1.7                  | 20.36                  | 8.0                         | 16.0                        | 26.0                           | 40.0                                |                                      |                                                                                     |                                                                                     |                            |     |     |
|                              | 148.5                                        | 1318                         | 1.5                  | 18.86                  | 9.0                         | 17.0                        | 26.0                           | 40.0                                |                                      |                                                                                     |                                                                                     |                            |     |     |
|                              | 159.0                                        | 1231                         | 1.7                  | 17.61                  | 9.0                         | 16.0                        | 26.0                           | 40.0                                |                                      |                                                                                     |                                                                                     |                            |     |     |
| 182.1                        | 1075                                         | 1.8                          | 15.38                | 9.0                    | 17.0                        | 25.0                        | 40.0                           |                                     |                                      |                                                                                     |                                                                                     |                            |     |     |
| 215.4                        | 908                                          | 2.2                          | 13.00                | 9.0                    | 16.0                        | 25.0                        | 40.0                           |                                     |                                      |                                                                                     |                                                                                     |                            |     |     |
| 261.0                        | 750                                          | 2.5                          | 10.73                | 9.0                    | 16.0                        | 24.0                        | 39.0                           |                                     |                                      |                                                                                     |                                                                                     |                            |     |     |
| 295.7                        | 662                                          | 2.6                          | 9.47                 | 9.0                    | 16.0                        | 23.0                        | 39.0                           |                                     |                                      |                                                                                     |                                                                                     |                            |     |     |
| 322.2                        | 607                                          | 3.0                          | 8.69                 | 9.0                    | 15.0                        | 23.0                        | 38.0                           |                                     |                                      |                                                                                     |                                                                                     |                            |     |     |
| <b>30.0</b>                  | 4.5                                          | 61377                        | 1.5                  | 201.75                 | -                           | -                           | 116.0                          | 136.0                               | <b>PD/PM 123<br/>225M6B / 225M6C</b> | 2491                                                                                | 236                                                                                 |                            |     |     |
|                              | 5.8                                          | 46957                        | 2.0                  | 154.35                 | -                           | -                           | 120.0                          | 125.0                               |                                      |                                                                                     |                                                                                     |                            |     |     |
|                              | 6.6                                          | 41745                        | 2.3                  | 137.22                 | -                           | -                           | 116.0                          | 116.0                               |                                      |                                                                                     |                                                                                     |                            |     |     |
|                              | 7.7                                          | 35700                        | 2.6                  | 117.35                 | -                           | -                           | -                              | -                                   |                                      |                                                                                     |                                                                                     |                            |     |     |
|                              | 6.9                                          | 38809                        | 2.3                  | 201.75                 | -                           | -                           | 116.0                          | 136.0                               | <b>PD/PM 123<br/>200L4C / 200L4D</b> | 2391                                                                                | 236                                                                                 |                            |     |     |
|                              | 9.1                                          | 29691                        | 3.0                  | 154.35                 | -                           | -                           | 120.0                          | 125.0                               |                                      |                                                                                     |                                                                                     |                            |     |     |
|                              | 5.2                                          | 52314                        | 1.4                  | 171.96                 | -                           | -                           | 126.0                          | 145.0                               | <b>PD/PM 113<br/>225M6B / 225M6C</b> | 2386                                                                                | 233                                                                                 |                            |     |     |
|                              | 5.9                                          | 46506                        | 1.6                  | 152.87                 | -                           | -                           | 132.0                          | 142.0                               |                                      |                                                                                     |                                                                                     |                            |     |     |
|                              | 6.9                                          | 39771                        | 1.8                  | 130.73                 | -                           | -                           | 137.0                          | 138.0                               |                                      |                                                                                     |                                                                                     |                            |     |     |
|                              | 8.0                                          | 34188                        | 2.1                  | 112.38                 | -                           | -                           | 141.0                          | 134.0                               |                                      |                                                                                     |                                                                                     |                            |     |     |
|                              | 9.8                                          | 28010                        | 2.5                  | 92.07                  | -                           | -                           | 141.0                          | 124.0                               |                                      |                                                                                     |                                                                                     |                            |     |     |
|                              | 11.7                                         | 23428                        | 2.8                  | 77.01                  | -                           | -                           | 144.0                          | 120.0                               |                                      |                                                                                     |                                                                                     |                            |     |     |
|                              | 8.1                                          | 33079                        | 2.1                  | 171.96                 | -                           | -                           | 126.0                          | 145.0                               | <b>PD/PM 113<br/>200L4C / 200L4D</b> | 2286                                                                                | 233                                                                                 |                            |     |     |
|                              | 9.2                                          | 29407                        | 2.3                  | 152.87                 | -                           | -                           | -                              | -                                   |                                      |                                                                                     |                                                                                     |                            |     |     |
|                              | 10.7                                         | 25148                        | 2.7                  | 130.73                 | -                           | -                           | 137.0                          | 138.0                               |                                      |                                                                                     |                                                                                     |                            |     |     |
|                              | 6.4                                          | 42716                        | 0.9                  | 140.41                 | -                           | -                           | 117.0                          | 147.0                               | <b>PD/PM 103<br/>225M6B / 225M6C</b> | 1498                                                                                | 229                                                                                 |                            |     |     |
|                              | 8.6                                          | 31855                        | 1.2                  | 104.71                 | -                           | -                           | 127.0                          | 139.0                               |                                      |                                                                                     |                                                                                     |                            |     |     |
|                              | 9.9                                          | 27791                        | 1.3                  | 91.35                  | -                           | -                           | 130.0                          | 136.0                               |                                      |                                                                                     |                                                                                     |                            |     |     |
|                              | 12.4                                         | 22120                        | 1.8                  | 72.71                  | -                           | -                           | 133.0                          | 130.0                               |                                      |                                                                                     |                                                                                     |                            |     |     |
|                              | 13.8                                         | 19908                        | 1.9                  | 65.44                  | -                           | -                           | 134.0                          | 128.0                               |                                      |                                                                                     |                                                                                     |                            |     |     |
|                              | 15.9                                         | 17268                        | 2.1                  | 56.76                  | -                           | -                           | 133.0                          | 120.0                               |                                      |                                                                                     |                                                                                     |                            |     |     |
|                              | 18.8                                         | 14587                        | 2.5                  | 47.95                  | -                           | -                           | 135.0                          | 115.0                               |                                      |                                                                                     |                                                                                     |                            |     |     |
|                              | 22.0                                         | 12473                        | 2.9                  | 41.00                  | -                           | -                           | -                              | -                                   |                                      |                                                                                     |                                                                                     |                            |     |     |
|                              | 10.0                                         | 27010                        | 1.3                  | 140.41                 | -                           | -                           | 117.0                          | 147.0                               | <b>PD/PM 103<br/>200L4C / 200L4D</b> | 1425                                                                                | 229                                                                                 |                            |     |     |
|                              | 13.4                                         | 20142                        | 1.8                  | 104.71                 | -                           | -                           | 127.0                          | 139.0                               |                                      |                                                                                     |                                                                                     |                            |     |     |
|                              | 15.3                                         | 17572                        | 2.0                  | 91.35                  | -                           | -                           | 130.0                          | 136.0                               |                                      |                                                                                     |                                                                                     |                            |     |     |
|                              | 19.3                                         | 13987                        | 2.7                  | 72.71                  | -                           | -                           | 133.0                          | 130.0                               |                                      |                                                                                     |                                                                                     |                            |     |     |
|                              | 21.4                                         | 12588                        | 2.8                  | 65.44                  | -                           | -                           | 134.0                          | 128.0                               |                                      |                                                                                     |                                                                                     |                            |     |     |
|                              | 19.9                                         | 12911                        | 2.1                  | 140.41                 | -                           | -                           | 117.0                          | 147.0                               | <b>PD/PM 103<br/>200L2B / 200L2C</b> | 1425                                                                                | 229                                                                                 |                            |     |     |
|                              | 26.7                                         | 9628                         | 2.8                  | 104.71                 | -                           | -                           | 127.0                          | 139.0                               |                                      |                                                                                     |                                                                                     |                            |     |     |
| 7.8                          | 35141                                        | 0.8                          | 115.51               | 34.0                   | 64.0                        | 98.0                        | 124.0                          | <b>PD/PM 93<br/>225M6B / 225M6C</b> | 934                                  | 225                                                                                 |                                                                                     |                            |     |     |
| 8.9                          | 30635                                        | 0.9                          | 100.70               | 36.0                   | 65.0                        | 96.0                        | 122.0                          |                                     |                                      |                                                                                     |                                                                                     |                            |     |     |
| 10.8                         | 25308                                        | 1.0                          | 83.19                | 36.0                   | 65.0                        | 93.0                        | 119.0                          |                                     |                                      |                                                                                     |                                                                                     |                            |     |     |
| 12.5                         | 21956                                        | 1.1                          | 72.17                | 37.0                   | 65.0                        | 91.0                        | 118.0                          |                                     |                                      |                                                                                     |                                                                                     |                            |     |     |
| 13.8                         | 19814                                        | 1.3                          | 65.13                | 38.0                   | 65.0                        | 90.0                        | 116.0                          |                                     |                                      |                                                                                     |                                                                                     |                            |     |     |
| 16.2                         | 16872                                        | 1.5                          | 55.46                | 38.0                   | 64.0                        | 87.0                        | 113.0                          |                                     |                                      |                                                                                     |                                                                                     |                            |     |     |
| 18.6                         | 14709                                        | 1.7                          | 48.35                | 38.0                   | 63.0                        | 85.0                        | 111.0                          |                                     |                                      |                                                                                     |                                                                                     |                            |     |     |
| 21.5                         | 12759                                        | 2.0                          | 41.94                | 38.0                   | 61.0                        | 83.0                        | 108.0                          |                                     |                                      |                                                                                     |                                                                                     |                            |     |     |
| 25.4                         | 10797                                        | 2.3                          | 35.49                | 41.0                   | 79.0                        | 80.0                        | 104.0                          |                                     |                                      |                                                                                     |                                                                                     |                            |     |     |
|                              |                                              |                              |                      |                        |                             |                             |                                |                                     |                                      |                                                                                     |                                                                                     |                            |     |     |

| $P_1$<br>[kW] | $n_2$<br>[Min <sup>-1</sup> ] | $M_2$<br>[Nm] | $f_B$ | $i_{ges}$ | $F_R$<br>[N] | $F_A$<br>[N] | $F_{RGR}$<br>[N] | $F_{AGR}$<br>[N]                    | Tip / Type / Typ<br>IE2 / IE3       |  Kg |  mm |                                     |     |     |
|---------------|-------------------------------|---------------|-------|-----------|--------------|--------------|------------------|-------------------------------------|-------------------------------------|----------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------|-------------------------------------|-----|-----|
| <b>30.0</b>   | 10.3                          | 26096         | 1.0   | 135.66    | 30.0         | 61.0         | 99.0             | 124.0                               | <b>PD/PM 93<br/>200L4C / 200L4D</b> | 861                                                                                    | 225                                                                                    |                                     |     |     |
|               | 12.1                          | 22220         | 1.1   | 115.51    | 34.0         | 64.0         | 98.0             | 124.0                               |                                     |                                                                                        |                                                                                        |                                     |     |     |
|               | 13.9                          | 19371         | 1.3   | 100.70    | 36.0         | 65.0         | 96.0             | 122.0                               |                                     |                                                                                        |                                                                                        |                                     |     |     |
|               | 16.8                          | 16003         | 1.5   | 83.19     | 36.0         | 65.0         | 93.0             | 119.0                               |                                     |                                                                                        |                                                                                        |                                     |     |     |
|               | 19.4                          | 13883         | 1.7   | 72.17     | 37.0         | 65.0         | 91.0             | 118.0                               |                                     |                                                                                        |                                                                                        |                                     |     |     |
|               | 21.5                          | 12529         | 1.9   | 65.13     | 38.0         | 65.0         | 90.0             | 116.0                               |                                     |                                                                                        |                                                                                        |                                     |     |     |
|               | 25.2                          | 10669         | 2.2   | 55.46     | 38.0         | 64.0         | 87.0             | 113.0                               |                                     |                                                                                        |                                                                                        |                                     |     |     |
|               | 29.0                          | 9301          | 2.6   | 48.35     | 38.0         | 63.0         | 85.0             | 111.0                               |                                     |                                                                                        |                                                                                        |                                     |     |     |
|               | 33.4                          | 8068          | 3.0   | 41.94     | 38.0         | 61.0         | 83.0             | 108.0                               |                                     |                                                                                        |                                                                                        |                                     |     |     |
|               | 20.6                          | 12474         | 1.5   | 135.66    | 30.0         | 61.0         | 99.0             | 124.0                               |                                     |                                                                                        |                                                                                        | <b>PD/PM 93<br/>200L2B / 200L2C</b> | 861 | 225 |
|               | 24.2                          | 10621         | 1.8   | 115.51    | 34.0         | 64.0         | 98.0             | 124.0                               |                                     |                                                                                        |                                                                                        |                                     |     |     |
|               | 27.8                          | 9259          | 2.1   | 100.70    | 36.0         | 65.0         | 96.0             | 122.0                               |                                     |                                                                                        |                                                                                        |                                     |     |     |
|               | 33.7                          | 7649          | 2.4   | 83.19     | 36.0         | 65.0         | 93.0             | 119.0                               |                                     |                                                                                        |                                                                                        |                                     |     |     |
|               | 38.8                          | 6636          | 2.7   | 72.17     | 37.0         | 65.0         | 91.0             | 118.0                               |                                     |                                                                                        |                                                                                        |                                     |     |     |
|               | 26.2                          | 10612         | 1.6   | 34.36     | 31.0         | 46.0         | 68.0             | 89.0                                | <b>PD/PM 92<br/>225M6B / 225M6C</b> | 929                                                                                    | 224                                                                                    |                                     |     |     |
|               | 29.2                          | 9510          | 2.0   | 30.79     | 28.0         | 41.0         | 64.0             | 84.0                                |                                     |                                                                                        |                                                                                        |                                     |     |     |
|               | 33.5                          | 8293          | 2.2   | 26.85     | 28.0         | 41.0         | 63.0             | 82.0                                |                                     |                                                                                        |                                                                                        |                                     |     |     |
|               | 38.8                          | 7156          | 2.4   | 23.17     | 28.0         | 41.0         | 61.0             | 80.0                                |                                     |                                                                                        |                                                                                        |                                     |     |     |
|               | 44.8                          | 6205          | 2.7   | 20.09     | 28.0         | 41.0         | 57.0             | 75.0                                |                                     |                                                                                        |                                                                                        |                                     |     |     |
|               | 51.9                          | 5356          | 3.0   | 17.34     | 28.0         | 41.0         | 55.0             | 72.0                                |                                     |                                                                                        |                                                                                        |                                     |     |     |
|               | 40.7                          | 6750          | 2.4   | 34.36     | 31.0         | 46.0         | 68.0             | 89.0                                | <b>PD/PM 92<br/>200L4C / 200L4D</b> | 856                                                                                    | 224                                                                                    |                                     |     |     |
|               | 45.5                          | 6049          | 3.0   | 30.79     | 28.0         | 41.0         | 64.0             | 84.0                                |                                     |                                                                                        |                                                                                        |                                     |     |     |
|               | 18.8                          | 14539         | 0.9   | 47.79     | 21.0         | 36.0         | 65.0             | 94.0                                | <b>PD/PM 83<br/>225M6B / 225M6C</b> | 632                                                                                    | 221                                                                                    |                                     |     |     |
|               | 20.7                          | 13240         | 0.8   | 43.52     | 22.0         | 37.0         | 64.0             | 94.0                                |                                     |                                                                                        |                                                                                        |                                     |     |     |
|               | 25.1                          | 10900         | 1.2   | 35.83     | 23.0         | 37.0         | 64.0             | 91.0                                |                                     |                                                                                        |                                                                                        |                                     |     |     |
|               | 29.2                          | 9382          | 1.4   | 30.84     | 23.0         | 37.0         | 62.0             | 90.0                                |                                     |                                                                                        |                                                                                        |                                     |     |     |
|               | 18.5                          | 14562         | 0.8   | 75.70     | 13.0         | 28.0         | 66.0             | 96.0                                | <b>PD/PM 83<br/>200L4C / 200L4D</b> | 559                                                                                    | 221                                                                                    |                                     |     |     |
|               | 21.5                          | 12534         | 0.9   | 65.16     | 16.0         | 31.0         | 66.0             | 96.0                                |                                     |                                                                                        |                                                                                        |                                     |     |     |
|               | 24.4                          | 11026         | 1.1   | 57.32     | 19.0         | 34.0         | 66.0             | 95.0                                |                                     |                                                                                        |                                                                                        |                                     |     |     |
|               | 29.3                          | 9193          | 1.3   | 47.79     | 21.0         | 36.0         | 65.0             | 94.0                                |                                     |                                                                                        |                                                                                        |                                     |     |     |
|               | 32.2                          | 8372          | 1.3   | 43.52     | 22.0         | 37.0         | 65.0             | 94.0                                |                                     |                                                                                        |                                                                                        |                                     |     |     |
|               | 39.1                          | 6892          | 1.8   | 35.83     | 23.0         | 37.0         | 64.0             | 91.0                                |                                     |                                                                                        |                                                                                        |                                     |     |     |
|               | 45.4                          | 5933          | 2.0   | 30.84     | 23.0         | 37.0         | 62.0             | 90.0                                |                                     |                                                                                        |                                                                                        |                                     |     |     |
|               | 30.8                          | 8348          | 1.1   | 90.79     | 13.0         | 28.0         | 76.0             | 105.0                               |                                     |                                                                                        |                                                                                        | <b>PD/PM 83<br/>200L2B / 200L2C</b> | 559 | 221 |
|               | 37.0                          | 6961          | 1.3   | 75.70     | 13.0         | 28.0         | 66.0             | 96.0                                |                                     |                                                                                        |                                                                                        |                                     |     |     |
|               | 43.0                          | 5991          | 1.4   | 65.16     | 16.0         | 31.0         | 66.0             | 96.0                                |                                     |                                                                                        |                                                                                        |                                     |     |     |
|               | 48.8                          | 5271          | 1.7   | 57.32     | 19.0         | 34.0         | 66.0             | 95.0                                |                                     |                                                                                        |                                                                                        |                                     |     |     |
|               | 58.6                          | 4394          | 2.1   | 47.79     | 21.0         | 36.0         | 65.0             | 94.0                                |                                     |                                                                                        |                                                                                        |                                     |     |     |
|               | 64.3                          | 4002          | 2.0   | 43.52     | 22.0         | 37.0         | 65.0             | 94.0                                |                                     |                                                                                        |                                                                                        |                                     |     |     |
|               | 78.1                          | 3295          | 2.8   | 35.83     | 23.0         | 37.0         | 64.0             | 91.0                                |                                     |                                                                                        |                                                                                        |                                     |     |     |
|               | 23.0                          | 12101         | 0.9   | 39.18     | 28.0         | 44.0         | -                | -                                   | <b>PD/PM 82<br/>225M6B / 225M6C</b> | 628                                                                                    | 220                                                                                    |                                     |     |     |
|               | 27.9                          | 9961          | 1.1   | 32.25     | 24.0         | 37.0         | -                | -                                   |                                     |                                                                                        |                                                                                        |                                     |     |     |
|               | 31.7                          | 8756          | 1.2   | 28.35     | 24.0         | 37.0         | 62.0             | 88.0                                |                                     |                                                                                        |                                                                                        |                                     |     |     |
|               | 36.7                          | 7570          | 1.5   | 24.51     | 24.0         | 36.0         | 60.0             | 86.0                                |                                     |                                                                                        |                                                                                        |                                     |     |     |
|               | 42.6                          | 6529          | 1.7   | 21.14     | 24.0         | 36.0         | 58.0             | 84.0                                |                                     |                                                                                        |                                                                                        |                                     |     |     |
|               | 51.7                          | 5377          | 1.9   | 17.41     | 23.0         | 34.0         | 56.0             | 80.0                                |                                     |                                                                                        |                                                                                        |                                     |     |     |
|               | 59.2                          | 4692          | 2.1   | 15.19     | 28.0         | 46.0         | 53.0             | 76.0                                |                                     |                                                                                        |                                                                                        |                                     |     |     |
|               | 69.3                          | 4012          | 2.7   | 12.99     | 28.0         | 46.0         | 51.0             | 74.0                                |                                     |                                                                                        |                                                                                        |                                     |     |     |
| 93.1          | 2987                          | 2.3           | 9.67  | 28.0      | 46.0         | 48.0         | 68.0             |                                     |                                     |                                                                                        |                                                                                        |                                     |     |     |
| 108.8         | 2554                          | 3.0           | 8.27  | 28.0      | 46.0         | 46.0         | 66.0             |                                     |                                     |                                                                                        |                                                                                        |                                     |     |     |
| 29.5          | 9334                          | 1.1           | 47.51 | 28.0      | 46.0         | -            | -                | <b>PD/PM 82<br/>200L4C / 200L4D</b> |                                     |                                                                                        |                                                                                        | 555                                 | 220 |     |
| 35.7          | 7697                          | 1.4           | 39.18 | -         | -            | -            | -                |                                     |                                     |                                                                                        |                                                                                        |                                     |     |     |
| 35.8          | 7685                          | 1.2           | 39.12 | 28.0      | 44.0         | -            | -                |                                     |                                     |                                                                                        |                                                                                        |                                     |     |     |
| 43.4          | 6336                          | 1.6           | 32.25 | -         | -            | -            | -                |                                     |                                     |                                                                                        |                                                                                        |                                     |     |     |
| 49.4          | 5570                          | 1.8           | 28.35 | 24.0      | 37.0         | 62.0         | 88.0             |                                     |                                     |                                                                                        |                                                                                        |                                     |     |     |
| 57.1          | 4815                          | 2.2           | 24.51 | 24.0      | 36.0         | 60.0         | 86.0             |                                     |                                     |                                                                                        |                                                                                        |                                     |     |     |
| 66.2          | 4153                          | 2.6           | 21.14 | 24.0      | 36.0         | 58.0         | 84.0             |                                     |                                     |                                                                                        |                                                                                        |                                     |     |     |
| 80.4          | 3420                          | 2.8           | 17.41 | 23.0      | 34.0         | 56.0         | 80.0             |                                     |                                     |                                                                                        |                                                                                        |                                     |     |     |
| 58.9          | 4527                          | 1.8           | 47.51 | 28.0      | 46.0         | -            | -                | <b>PD/PM 82<br/>200L2B / 200L2C</b> | 555                                 | 220                                                                                    |                                                                                        |                                     |     |     |
| 71.5          | 3733                          | 2.2           | 39.18 | 28.0      | 44.0         | -            | -                |                                     |                                     |                                                                                        |                                                                                        |                                     |     |     |
| 71.6          | 3728                          | 1.9           | 39.12 | 28.0      | 44.0         | -            | -                |                                     |                                     |                                                                                        |                                                                                        |                                     |     |     |
| 86.8          | 3073                          | 2.6           | 32.25 | 24.0      | 37.0         | -            | -                |                                     |                                     |                                                                                        |                                                                                        |                                     |     |     |
| 98.8          | 2701                          | 2.8           | 28.35 | 24.0      | 37.0         | 62.0         | 88.0             |                                     |                                     |                                                                                        |                                                                                        |                                     |     |     |
| 33.4          | 8190                          | 0.8           | 26.92 | 16.0      | 26.0         | 50.0         | 73.0             | <b>PD/PM 73<br/>225M6B / 225M6C</b> | 507                                 | 217                                                                                    |                                                                                        |                                     |     |     |
| 38.3          | 7140                          | 1.0           | 23.47 | 16.0      | 26.0         | 49.0         | 72.0             |                                     |                                     |                                                                                        |                                                                                        |                                     |     |     |

| <b>P<sub>1</sub></b><br>[kW] | <b>n<sub>2</sub></b><br>[Min <sup>-1</sup> ] | <b>M<sub>2</sub></b><br>[Nm] | <b>f<sub>B</sub></b> | <b>i<sub>ges</sub></b> | <b>F<sub>R</sub></b><br>[N] | <b>F<sub>A</sub></b><br>[N] | <b>F<sub>R GR</sub></b><br>[N] | <b>F<sub>A GR</sub></b><br>[N]            | Tip / Type / Typ<br>IE2 / IE3             | Kg  | mm  |
|------------------------------|----------------------------------------------|------------------------------|----------------------|------------------------|-----------------------------|-----------------------------|--------------------------------|-------------------------------------------|-------------------------------------------|-----|-----|
| <b>30.0</b>                  | 30.0                                         | 8976                         | 0.8                  | 46.66                  | 11.0                        | 22.0                        | 52.0                           | 76.0                                      | <b>PD/PM 73</b><br><b>200L4C / 200L4D</b> | 434 | 217 |
|                              | 37.9                                         | 7108                         | 0.9                  | 36.95                  | 13.0                        | 24.0                        | 52.0                           | 75.0                                      |                                           |     |     |
|                              | 45.9                                         | 5865                         | 1.1                  | 30.49                  | 15.0                        | 26.0                        | 51.0                           | 74.0                                      |                                           |     |     |
|                              | 52.0                                         | 5178                         | 1.3                  | 26.92                  | 16.0                        | 26.0                        | 50.0                           | 73.0                                      |                                           |     |     |
|                              | 59.7                                         | 4515                         | 1.5                  | 23.47                  | 16.0                        | 26.0                        | 49.0                           | 72.0                                      |                                           |     |     |
|                              | 47.0                                         | 5473                         | 1.0                  | 59.52                  | 11.0                        | 22.0                        | 59.0                           | 80.0                                      | <b>PD/PM 73</b><br><b>200L2B / 200L2C</b> | 434 | 217 |
|                              | 60.0                                         | 4290                         | 1.3                  | 46.66                  | 11.0                        | 22.0                        | 52.0                           | 76.0                                      |                                           |     |     |
|                              | 75.8                                         | 3398                         | 1.5                  | 36.95                  | 13.0                        | 24.0                        | 52.0                           | 75.0                                      |                                           |     |     |
|                              | 91.8                                         | 2804                         | 1.8                  | 30.49                  | 15.0                        | 26.0                        | 51.0                           | 74.0                                      |                                           |     |     |
|                              | 104.0                                        | 2475                         | 2.0                  | 26.92                  | 16.0                        | 26.0                        | 50.0                           | 73.0                                      |                                           |     |     |
|                              | 119.3                                        | 2158                         | 2.3                  | 23.47                  | 16.0                        | 26.0                        | 49.0                           | 72.0                                      |                                           |     |     |
|                              | 39.3                                         | 7073                         | 0.9                  | 22.90                  | 17.0                        | 28.0                        | 50.0                           | 72.0                                      | <b>PD/PM 72</b><br><b>225M6B / 225M6C</b> | 500 | 216 |
|                              | 45.1                                         | 6165                         | 1.0                  | 19.96                  | 17.0                        | 27.0                        | 49.0                           | 71.0                                      |                                           |     |     |
|                              | 55.3                                         | 5025                         | 1.4                  | 16.27                  | 17.0                        | 27.0                        | 47.0                           | 68.0                                      |                                           |     |     |
|                              | 69.8                                         | 3981                         | 1.5                  | 12.89                  | 17.0                        | 25.0                        | 44.0                           | 65.0                                      |                                           |     |     |
|                              | 80.5                                         | 3453                         | 1.9                  | 11.18                  | 17.0                        | 25.0                        | 43.0                           | 63.0                                      |                                           |     |     |
|                              | 90.8                                         | 3061                         | 1.5                  | 9.91                   | 16.0                        | 24.0                        | 42.0                           | 61.0                                      |                                           |     |     |
|                              | 95.1                                         | 2922                         | 2.3                  | 9.46                   | 16.0                        | 23.0                        | 42.0                           | 60.0                                      |                                           |     |     |
|                              | 104.2                                        | 2669                         | 1.7                  | 8.64                   | 16.0                        | 23.0                        | 40.0                           | 59.0                                      |                                           |     |     |
|                              | 120.0                                        | 2316                         | 2.0                  | 7.50                   | 19.0                        | 33.0                        | 39.0                           | 57.0                                      |                                           |     |     |
|                              | 142.0                                        | 1958                         | 2.4                  | 6.34                   | 19.0                        | 33.0                        | 37.0                           | 54.0                                      |                                           |     |     |
|                              | 151.0                                        | 1841                         | 2.5                  | 5.96                   | 19.0                        | 33.0                        | 35.0                           | 52.0                                      |                                           |     |     |
|                              | 169.8                                        | 1637                         | 2.6                  | 5.30                   | 19.0                        | 33.0                        | 35.0                           | 51.0                                      |                                           |     |     |
|                              | 178.9                                        | 1554                         | 2.7                  | 5.03                   | 19.0                        | 33.0                        | 34.0                           | 50.0                                      |                                           |     |     |
|                              | 211.3                                        | 1316                         | 2.9                  | 4.26                   | 19.0                        | 33.0                        | 33.0                           | 49.0                                      |                                           |     |     |
|                              | 37.6                                         | 7312                         | 0.9                  | 37.22                  | 19.0                        | 33.0                        | 57.0                           | 80.0                                      | <b>PD/PM 72</b><br><b>200L4C / 200L4D</b> | 427 | 216 |
|                              | 52.1                                         | 5283                         | 1.1                  | 26.89                  | 17.0                        | 27.0                        | 51.0                           | 74.0                                      |                                           |     |     |
|                              | 61.1                                         | 4499                         | 1.3                  | 22.90                  | 17.0                        | 28.0                        | 50.0                           | 72.0                                      |                                           |     |     |
|                              | 70.1                                         | 3921                         | 1.5                  | 19.96                  | 17.0                        | 27.0                        | 49.0                           | 71.0                                      |                                           |     |     |
|                              | 86.0                                         | 3196                         | 2.0                  | 16.27                  | 17.0                        | 27.0                        | 47.0                           | 68.0                                      |                                           |     |     |
|                              | 108.6                                        | 2532                         | 2.3                  | 12.89                  | 17.0                        | 25.0                        | 44.0                           | 65.0                                      |                                           |     |     |
|                              | 125.2                                        | 2196                         | 2.8                  | 11.18                  | 17.0                        | 25.0                        | 43.0                           | 63.0                                      |                                           |     |     |
|                              | 141.3                                        | 1947                         | 2.2                  | 9.91                   | 16.0                        | 24.0                        | 42.0                           | 61.0                                      |                                           |     |     |
|                              | 162.0                                        | 1697                         | 2.5                  | 8.64                   | 16.0                        | 23.0                        | 40.0                           | 59.0                                      |                                           |     |     |
|                              | 61.3                                         | 4351                         | 1.0                  | 45.66                  | 19.0                        | 33.0                        | 59.0                           | 80.0                                      | <b>PD/PM 72</b><br><b>200L2B / 200L2C</b> | 427 | 216 |
|                              | 75.2                                         | 3546                         | 1.4                  | 37.22                  | 19.0                        | 33.0                        | 57.0                           | 80.0                                      |                                           |     |     |
|                              | 104.1                                        | 2562                         | 1.7                  | 26.89                  | 17.0                        | 27.0                        | 51.0                           | 74.0                                      |                                           |     |     |
|                              | 122.3                                        | 2182                         | 2.0                  | 22.90                  | 17.0                        | 28.0                        | 50.0                           | 72.0                                      |                                           |     |     |
|                              | 140.3                                        | 1902                         | 2.3                  | 19.96                  | 17.0                        | 27.0                        | 49.0                           | 71.0                                      |                                           |     |     |
|                              | 48.2                                         | 5769                         | 0.8                  | 18.68                  | 14.0                        | 22.0                        | 38.0                           | 55.0                                      | <b>PD/PM 62</b><br><b>225M6B / 225M6C</b> | 437 | 212 |
|                              | 60.8                                         | 4571                         | 1.0                  | 14.80                  | 14.0                        | 22.0                        | 37.0                           | 53.0                                      |                                           |     |     |
|                              | 72.9                                         | 3811                         | 1.2                  | 12.34                  | 14.0                        | 22.0                        | 36.0                           | 51.0                                      |                                           |     |     |
|                              | 84.7                                         | 3280                         | 1.4                  | 10.62                  | 14.0                        | 21.0                        | 35.0                           | 50.0                                      |                                           |     |     |
|                              | 96.1                                         | 2894                         | 1.0                  | 9.37                   | 14.0                        | 20.0                        | 33.0                           | 48.0                                      |                                           |     |     |
|                              | 115.2                                        | 2412                         | 1.2                  | 7.81                   | 14.0                        | 20.0                        | 32.0                           | 46.0                                      |                                           |     |     |
|                              | 133.7                                        | 2079                         | 1.5                  | 6.73                   | 13.0                        | 19.0                        | 31.0                           | 45.0                                      |                                           |     |     |
|                              | 150.3                                        | 1850                         | 1.4                  | 5.99                   | 13.0                        | 19.0                        | 31.0                           | 44.0                                      |                                           |     |     |
|                              | 155.7                                        | 1785                         | 1.4                  | 5.78                   | 13.0                        | 18.0                        | 30.0                           | 44.0                                      |                                           |     |     |
| 163.9                        | 1696                                         | 1.4                          | 5.49                 | 13.0                   | 18.0                        | 30.0                        | 43.0                           |                                           |                                           |     |     |
| 183.7                        | 1513                                         | 1.5                          | 4.90                 | 13.0                   | 18.0                        | 29.0                        | 42.0                           |                                           |                                           |     |     |
| 205.5                        | 1353                                         | 1.6                          | 4.38                 | 13.0                   | 17.0                        | 28.0                        | 41.0                           |                                           |                                           |     |     |
| 53.8                         | 5112                                         | 0.9                          | 26.02                | -                      | -                           | 43.0                        | 60.0                           | <b>PD/PM 62</b><br><b>200L4C / 200L4D</b> |                                           |     |     |
| 61.1                         | 4501                                         | 1.0                          | 22.91                | 13.0                   | 22.0                        | 39.0                        | 56.0                           |                                           |                                           |     |     |
| 94.6                         | 2908                                         | 1.5                          | 14.80                | 14.0                   | 22.0                        | 38.0                        | 55.0                           |                                           |                                           |     |     |
| 113.5                        | 2424                                         | 1.8                          | 12.34                | 14.0                   | 22.0                        | 37.0                        | 53.0                           |                                           |                                           |     |     |
| 131.8                        | 2086                                         | 2.1                          | 10.62                | 14.0                   | 21.0                        | 36.0                        | 51.0                           |                                           |                                           |     |     |
| 149.4                        | 1841                                         | 1.5                          | 9.37                 | 14.0                   | 20.0                        | 35.0                        | 50.0                           |                                           |                                           |     |     |
| 179.3                        | 1534                                         | 1.7                          | 7.81                 | 14.0                   | 20.0                        | 33.0                        | 48.0                           |                                           |                                           |     |     |
| 208.0                        | 1322                                         | 2.3                          | 6.73                 | 13.0                   | 19.0                        | 32.0                        | 46.0                           |                                           |                                           |     |     |
| 233.7                        | 1177                                         | 2.0                          | 5.99                 | 13.0                   | 19.0                        | 31.0                        | 45.0                           |                                           |                                           |     |     |
| 242.2                        | 1136                                         | 2.1                          | 5.78                 | 13.0                   | 18.0                        | 31.0                        | 44.0                           |                                           |                                           |     |     |
| 255.0                        | 1079                                         | 2.1                          | 5.49                 | 13.0                   | 18.0                        | 30.0                        | 44.0                           |                                           |                                           |     |     |
| 285.7                        | 963                                          | 2.2                          | 4.90                 | 13.0                   | 18.0                        | 30.0                        | 43.0                           |                                           |                                           |     |     |
| 319.6                        | 860                                          | 2.4                          | 4.38                 | 13.0                   | 17.0                        | 29.0                        | 42.0                           |                                           |                                           |     |     |
|                              |                                              |                              |                      |                        |                             |                             |                                |                                           |                                           |     |     |



| <b>P<sub>1</sub></b><br>[kW] | <b>n<sub>2</sub></b><br>[Min <sup>-1</sup> ] | <b>M<sub>2</sub></b><br>[Nm] | <b>f<sub>B</sub></b> | <b>i<sub>ges</sub></b> | <b>F<sub>R</sub></b><br>[N] | <b>F<sub>A</sub></b><br>[N] | <b>F<sub>R GR</sub></b><br>[N] | <b>F<sub>A GR</sub></b><br>[N]            | <b>Tip / Type / Typ</b><br><b>IE2 / IE3</b> | <b>Kg</b> | <b>mm</b> |
|------------------------------|----------------------------------------------|------------------------------|----------------------|------------------------|-----------------------------|-----------------------------|--------------------------------|-------------------------------------------|---------------------------------------------|-----------|-----------|
| <b>30.0</b>                  | 122.2                                        | 2183                         | 1.6                  | 22.91                  | 13.0                        | 22.0                        | 39.0                           | 56.0                                      | <b>PD/PM 62</b><br><b>200L2B / 200L2C</b>   | 364       | 212       |
|                              | 149.9                                        | 1780                         | 1.9                  | 18.68                  | 14.0                        | 22.0                        | 38.0                           | 55.0                                      |                                             |           |           |
|                              | 189.2                                        | 1410                         | 2.4                  | 14.80                  | 14.0                        | 22.0                        | 37.0                           | 53.0                                      |                                             |           |           |
|                              | 226.9                                        | 1176                         | 2.8                  | 12.34                  | 14.0                        | 22.0                        | 36.0                           | 51.0                                      |                                             |           |           |
|                              | 298.8                                        | 893                          | 2.3                  | 9.37                   | 14.0                        | 20.0                        | 33.0                           | 48.0                                      |                                             |           |           |
| 358.5                        | 744                                          | 2.7                          | 7.81                 | 14.0                   | 20.0                        | 32.0                        | 46.0                           |                                           |                                             |           |           |
| <b>37.0</b>                  | 6.9                                          | 47865                        | 1.9                  | 201.75                 | -                           | -                           | 92.0                           | 126.0                                     | <b>PD/PM 123</b><br><b>225M4A / 225M4B</b>  | 2491      | 236       |
|                              | 9.1                                          | 36619                        | 2.5                  | 154.35                 | -                           | -                           | 120.0                          | 125.0                                     |                                             |           |           |
|                              | 10.2                                         | 32555                        | 2.8                  | 137.22                 | -                           | -                           | 116.0                          | 116.0                                     |                                             |           |           |
|                              | 13.9                                         | 22879                        | 3.0                  | 201.75                 | -                           | -                           | 92.0                           | 126.0                                     | <b>PD/PM 123</b><br><b>200L2B / 200L2C</b>  | 2391      | 236       |
|                              | 8.1                                          | 40797                        | 1.7                  | 171.96                 | -                           | -                           | 111.0                          | 138.0                                     | <b>PD/PM 113</b><br><b>225M4A / 225M4B</b>  | 2386      | 233       |
|                              | 9.2                                          | 36268                        | 1.9                  | 152.87                 | -                           | -                           | 121.0                          | 136.0                                     |                                             |           |           |
|                              | 10.7                                         | 31016                        | 2.2                  | 130.73                 | -                           | -                           | 129.0                          | 133.0                                     |                                             |           |           |
|                              | 12.5                                         | 26662                        | 2.6                  | 112.38                 | -                           | -                           | 135.0                          | 129.0                                     |                                             |           |           |
|                              | 15.2                                         | 21844                        | 3.0                  | 92.07                  | -                           | -                           | 141.0                          | 124.0                                     |                                             |           |           |
|                              | 16.3                                         | 19501                        | 2.7                  | 171.96                 | -                           | -                           | 111.0                          | 138.0                                     | <b>PD/PM 113</b><br><b>200L2C / 200L2D</b>  | 2286      | 233       |
|                              | 18.3                                         | 17336                        | 3.0                  | 152.87                 | -                           | -                           | 121.0                          | 136.0                                     |                                             |           |           |
|                              | 10.0                                         | 33312                        | 1.1                  | 140.41                 | -                           | -                           | 104.0                          | 140.0                                     | <b>PD/PM 103</b><br><b>225M4A / 225M4B</b>  | 1498      | 229       |
|                              | 13.4                                         | 24842                        | 1.4                  | 104.71                 | -                           | -                           | 122.0                          | 134.0                                     |                                             |           |           |
|                              | 15.3                                         | 21673                        | 1.6                  | 91.35                  | -                           | -                           | 126.0                          | 131.0                                     |                                             |           |           |
|                              | 19.3                                         | 17250                        | 2.2                  | 72.71                  | -                           | -                           | 130.0                          | 126.0                                     |                                             |           |           |
|                              | 21.4                                         | 15526                        | 2.3                  | 65.44                  | -                           | -                           | 131.0                          | 124.0                                     |                                             |           |           |
|                              | 24.7                                         | 13466                        | 2.6                  | 56.76                  | -                           | -                           | 133.0                          | 120.0                                     |                                             |           |           |
|                              | 19.9                                         | 15923                        | 1.7                  | 140.41                 | -                           | -                           | 104.0                          | 140.0                                     | <b>PD/PM 103</b><br><b>200L2C / 200L2D</b>  | 1425      | 229       |
|                              | 26.7                                         | 11875                        | 2.3                  | 104.71                 | -                           | -                           | 122.0                          | 134.0                                     |                                             |           |           |
|                              | 30.7                                         | 10359                        | 2.6                  | 91.35                  | -                           | -                           | 126.0                          | 131.0                                     |                                             |           |           |
|                              | 10.3                                         | 32185                        | 0.8                  | 135.66                 | 18.0                        | 43.0                        | 91.0                           | 112.0                                     | <b>PD/PM 93</b><br><b>225M4A / 225M4B</b>   | 934       | 225       |
|                              | 12.1                                         | 27405                        | 0.9                  | 115.51                 | 23.0                        | 49.0                        | 91.0                           | 113.0                                     |                                             |           |           |
|                              | 13.9                                         | 23891                        | 1.1                  | 100.70                 | 27.0                        | 52.0                        | 90.0                           | 113.0                                     |                                             |           |           |
|                              | 16.8                                         | 19737                        | 1.2                  | 83.19                  | 29.0                        | 53.0                        | 88.0                           | 111.0                                     |                                             |           |           |
|                              | 19.4                                         | 17122                        | 1.4                  | 72.17                  | 31.0                        | 55.0                        | 87.0                           | 111.0                                     |                                             |           |           |
|                              | 21.5                                         | 15452                        | 1.6                  | 65.13                  | 32.0                        | 56.0                        | 85.0                           | 109.0                                     |                                             |           |           |
|                              | 25.2                                         | 13158                        | 1.8                  | 55.46                  | 33.0                        | 56.0                        | 84.0                           | 108.0                                     |                                             |           |           |
|                              | 29.0                                         | 11471                        | 2.1                  | 48.35                  | 34.0                        | 56.0                        | 82.0                           | 106.0                                     |                                             |           |           |
|                              | 33.4                                         | 9950                         | 2.4                  | 41.94                  | 34.0                        | 56.0                        | 80.0                           | 104.0                                     |                                             |           |           |
|                              | 39.4                                         | 8420                         | 2.9                  | 35.49                  | 34.0                        | 54.0                        | 78.0                           | 101.0                                     |                                             |           |           |
|                              | 20.6                                         | 15384                        | 1.3                  | 135.66                 | 18.0                        | 43.0                        | 91.0                           | 112.0                                     | <b>PD/PM 93</b><br><b>200L2C / 200L2D</b>   | 861       | 225       |
|                              | 24.2                                         | 13099                        | 1.5                  | 115.51                 | 23.0                        | 49.0                        | 91.0                           | 113.0                                     |                                             |           |           |
| 27.8                         | 11420                                        | 1.7                          | 100.70               | 27.0                   | 52.0                        | 90.0                        | 113.0                          |                                           |                                             |           |           |
| 33.7                         | 9434                                         | 1.9                          | 83.19                | 29.0                   | 53.0                        | 88.0                        | 111.0                          |                                           |                                             |           |           |
| 38.8                         | 8184                                         | 2.2                          | 72.17                | 31.0                   | 55.0                        | 87.0                        | 111.0                          |                                           |                                             |           |           |
| 43.0                         | 7386                                         | 2.5                          | 65.13                | 32.0                   | 56.0                        | 85.0                        | 109.0                          |                                           |                                             |           |           |
| 50.5                         | 6289                                         | 2.9                          | 55.46                | 33.0                   | 56.0                        | 84.0                        | 108.0                          |                                           |                                             |           |           |
| 40.7                         | 8325                                         | 2.0                          | 34.36                | 28.0                   | 42.0                        | 66.0                        | 85.0                           | <b>PD/PM 92</b><br><b>225M4A / 225M4B</b> | 929                                         | 224       |           |
| 45.5                         | 7460                                         | 2.4                          | 30.79                | 28.0                   | 41.0                        | 64.0                        | 84.0                           |                                           |                                             |           |           |
| 52.1                         | 6506                                         | 2.6                          | 26.85                | 28.0                   | 40.0                        | 63.0                        | 82.0                           |                                           |                                             |           |           |
| 60.4                         | 5614                                         | 2.9                          | 23.17                | 27.0                   | 39.0                        | 61.0                        | 80.0                           |                                           |                                             |           |           |
| 24.4                         | 13599                                        | 0.9                          | 57.32                | 12.0                   | 24.0                        | 60.0                        | 87.0                           | <b>PD/PM 83</b><br><b>225M4A / 225M4B</b> | 632                                         | 221       |           |
| 29.3                         | 11338                                        | 1.1                          | 47.79                | 15.0                   | 28.0                        | 61.0                        | 88.0                           |                                           |                                             |           |           |
| 32.2                         | 10325                                        | 1.0                          | 43.52                | 17.0                   | 30.0                        | 61.0                        | 88.0                           |                                           |                                             |           |           |
| 39.1                         | 8501                                         | 1.4                          | 35.83                | 18.0                   | 31.0                        | 60.0                        | 86.0                           |                                           |                                             |           |           |
| 45.4                         | 7317                                         | 1.7                          | 30.84                | 20.0                   | 32.0                        | 59.0                        | 85.0                           |                                           |                                             |           |           |
| 30.8                         | 10296                                        | 0.9                          | 90.79                | 12.0                   | 24.0                        | 76.0                        | 105.0                          | <b>PD/PM 83</b><br><b>200L2C / 200L2D</b> | 559                                         | 221       |           |
| 37.0                         | 8585                                         | 1.1                          | 75.70                | 12.0                   | 24.0                        | 66.0                        | 96.0                           |                                           |                                             |           |           |
| 43.0                         | 7389                                         | 1.2                          | 65.16                | 12.0                   | 24.0                        | 66.0                        | 96.0                           |                                           |                                             |           |           |
| 48.8                         | 6500                                         | 1.4                          | 57.32                | 12.0                   | 24.0                        | 60.0                        | 87.0                           |                                           |                                             |           |           |
| 58.6                         | 5420                                         | 1.7                          | 47.79                | 15.0                   | 28.0                        | 61.0                        | 88.0                           |                                           |                                             |           |           |
| 64.3                         | 4935                                         | 1.6                          | 43.52                | 17.0                   | 30.0                        | 61.0                        | 88.0                           |                                           |                                             |           |           |
| 78.1                         | 4063                                         | 2.3                          | 35.83                | 18.0                   | 31.0                        | 60.0                        | 86.0                           |                                           |                                             |           |           |
| 90.8                         | 3497                                         | 2.6                          | 30.84                | 20.0                   | 32.0                        | 59.0                        | 85.0                           |                                           |                                             |           |           |

| $P_1$<br>[kW] | $n_2$<br>[Min <sup>-1</sup> ] | $M_2$<br>[Nm] | $f_B$ | $i_{ges}$ | $F_R$<br>[N] | $F_A$<br>[N] | $F_{RGR}$<br>[N] | $F_{AGR}$<br>[N]                          | Tip / Type / Typ<br>IE2 / IE3             |     |     |                                           |     |     |
|---------------|-------------------------------|---------------|-------|-----------|--------------|--------------|------------------|-------------------------------------------|-------------------------------------------|-----|-----|-------------------------------------------|-----|-----|
| <b>37.0</b>   | 35.7                          | 9493          | 1.1   | 39.18     | -            | -            | -                | -                                         | <b>PD/PM 82</b><br><b>225M4A / 225M4B</b> | 628 | 220 |                                           |     |     |
|               | 43.4                          | 7814          | 1.3   | 32.25     | -            | -            | -                | -                                         |                                           |     |     |                                           |     |     |
|               | 49.4                          | 6869          | 1.5   | 28.35     | 21.0         | 32.0         | 59.0             | 84.0                                      |                                           |     |     |                                           |     |     |
|               | 57.1                          | 5939          | 1.8   | 24.51     | 21.0         | 32.0         | 58.0             | 83.0                                      |                                           |     |     |                                           |     |     |
|               | 66.2                          | 5122          | 2.1   | 21.14     | 21.0         | 32.0         | 56.0             | 81.0                                      |                                           |     |     |                                           |     |     |
|               | 80.4                          | 4218          | 2.3   | 17.41     | 21.0         | 31.0         | 54.0             | 78.0                                      |                                           |     |     |                                           |     |     |
|               | 92.2                          | 3680          | 2.6   | 15.19     | 21.0         | 31.0         | 53.0             | 76.0                                      |                                           |     |     |                                           |     |     |
|               | 144.8                         | 2343          | 2.8   | 9.67      | 20.0         | 27.0         | 48.0             | 68.0                                      |                                           |     |     |                                           |     |     |
|               | 58.9                          | 5583          | 1.4   | 47.51     | 21.0         | 32.0         | -                | -                                         |                                           |     |     | <b>PD/PM 82</b><br><b>200L2C / 200L2D</b> | 555 | 220 |
|               | 71.5                          | 4604          | 1.8   | 39.18     | 21.0         | 32.0         | -                | -                                         |                                           |     |     |                                           |     |     |
|               | 71.6                          | 4597          | 1.5   | 39.12     | 21.0         | 32.0         | -                | -                                         |                                           |     |     |                                           |     |     |
|               | 86.8                          | 3790          | 2.1   | 32.25     | 21.0         | 32.0         | -                | -                                         |                                           |     |     |                                           |     |     |
|               | 98.8                          | 3332          | 2.3   | 28.35     | 21.0         | 32.0         | 59.0             | 84.0                                      |                                           |     |     |                                           |     |     |
|               | 114.2                         | 2880          | 2.8   | 24.51     | 21.0         | 32.0         | 58.0             | 83.0                                      |                                           |     |     |                                           |     |     |
|               | 37.9                          | 8766          | 0.8   | 36.95     | 13.0         | 24.0         | 52.0             | 75.0                                      | <b>PD/PM 73</b><br><b>225M4A / 225M4B</b> | 507 | 217 |                                           |     |     |
|               | 45.9                          | 7234          | 0.9   | 30.49     | 11.0         | 20.0         | 47.0             | 69.0                                      |                                           |     |     |                                           |     |     |
|               | 52.0                          | 6387          | 1.0   | 26.92     | 12.0         | 21.0         | 47.0             | 68.0                                      |                                           |     |     |                                           |     |     |
|               | 59.7                          | 5568          | 1.2   | 23.47     | 13.0         | 22.0         | 47.0             | 68.0                                      |                                           |     |     |                                           |     |     |
|               | 47.0                          | 6750          | 0.8   | 59.52     | 13.0         | 24.0         | 59.0             | 80.0                                      | <b>PD/PM 73</b><br><b>200L2C / 200L2D</b> | 434 | 217 |                                           |     |     |
|               | 60.0                          | 5291          | 1.0   | 46.66     | 13.0         | 24.0         | 52.0             | 76.0                                      |                                           |     |     |                                           |     |     |
|               | 75.8                          | 4190          | 1.2   | 36.95     | 13.0         | 24.0         | 52.0             | 75.0                                      |                                           |     |     |                                           |     |     |
|               | 91.8                          | 3458          | 1.5   | 30.49     | 11.0         | 20.0         | 47.0             | 69.0                                      |                                           |     |     |                                           |     |     |
|               | 104.0                         | 3053          | 1.6   | 26.92     | 12.0         | 21.0         | 47.0             | 68.0                                      |                                           |     |     |                                           |     |     |
|               | 119.3                         | 2662          | 1.9   | 23.47     | 13.0         | 22.0         | 47.0             | 68.0                                      |                                           |     |     |                                           |     |     |
|               | 52.1                          | 6515          | 0.9   | 26.89     | 13.0         | 22.0         | 48.0             | 70.0                                      | <b>PD/PM 72</b><br><b>225M4A / 225M4B</b> | 500 | 216 |                                           |     |     |
|               | 61.1                          | 5549          | 1.0   | 22.90     | 14.0         | 23.0         | 47.0             | 69.0                                      |                                           |     |     |                                           |     |     |
|               | 70.1                          | 4836          | 1.2   | 19.96     | 15.0         | 24.0         | 47.0             | 67.0                                      |                                           |     |     |                                           |     |     |
|               | 86.0                          | 3942          | 1.6   | 16.27     | 15.0         | 23.0         | 45.0             | 65.0                                      |                                           |     |     |                                           |     |     |
|               | 108.6                         | 3123          | 1.9   | 12.89     | 15.0         | 23.0         | 43.0             | 62.0                                      |                                           |     |     |                                           |     |     |
|               | 125.2                         | 2709          | 2.3   | 11.18     | 15.0         | 23.0         | 42.0             | 61.0                                      |                                           |     |     |                                           |     |     |
|               | 141.3                         | 2401          | 1.8   | 9.91      | 15.0         | 22.0         | 40.0             | 59.0                                      |                                           |     |     |                                           |     |     |
|               | 148.0                         | 2292          | 2.7   | 9.46      | 15.0         | 22.0         | 40.0             | 59.0                                      |                                           |     |     |                                           |     |     |
|               | 162.0                         | 2093          | 2.0   | 8.64      | 15.0         | 21.0         | 39.0             | 57.0                                      |                                           |     |     |                                           |     |     |
|               | 186.7                         | 1817          | 2.5   | 7.50      | 15.0         | 21.0         | 38.0             | 56.0                                      |                                           |     |     |                                           |     |     |
|               | 220.8                         | 1536          | 2.9   | 6.34      | 14.0         | 20.0         | 37.0             | 54.0                                      |                                           |     |     |                                           |     |     |
|               | 234.9                         | 1444          | 3.0   | 5.96      | -            | -            | 35.0             | 52.0                                      |                                           |     |     |                                           |     |     |
|               | 61.3                          | 5366          | 0.8   | 45.66     | 13.0         | 22.0         | 59.0             | 80.0                                      |                                           |     |     | <b>PD/PM 72</b><br><b>200L2C / 200L2D</b> | 427 | 216 |
|               | 75.2                          | 4374          | 1.1   | 37.22     | 13.0         | 22.0         | 57.0             | 80.0                                      |                                           |     |     |                                           |     |     |
|               | 104.1                         | 3160          | 1.4   | 26.89     | 13.0         | 22.0         | 48.0             | 70.0                                      |                                           |     |     |                                           |     |     |
|               | 122.3                         | 2691          | 1.6   | 22.90     | 14.0         | 23.0         | 47.0             | 69.0                                      |                                           |     |     |                                           |     |     |
|               | 140.3                         | 2346          | 1.9   | 19.96     | 15.0         | 24.0         | 47.0             | 67.0                                      |                                           |     |     |                                           |     |     |
|               | 172.1                         | 1912          | 2.6   | 16.27     | 15.0         | 23.0         | 45.0             | 65.0                                      |                                           |     |     |                                           |     |     |
|               | 217.2                         | 1515          | 2.9   | 12.89     | 15.0         | 23.0         | 43.0             | 62.0                                      |                                           |     |     |                                           |     |     |
|               | 282.5                         | 1165          | 2.8   | 9.91      | 15.0         | 22.0         | 40.0             | 59.0                                      |                                           |     |     |                                           |     |     |
|               | 61.1                          | 5551          | 0.8   | 22.91     | 10.0         | 17.0         | 37.0             | 52.0                                      | <b>PD/PM 62</b><br><b>225M4A / 225M4B</b> | 437 | 212 |                                           |     |     |
|               | 94.6                          | 3586          | 1.2   | 14.80     | 12.0         | 19.0         | 35.0             | 50.0                                      |                                           |     |     |                                           |     |     |
|               | 113.5                         | 2990          | 1.5   | 12.34     | 13.0         | 19.0         | 34.0             | 49.0                                      |                                           |     |     |                                           |     |     |
|               | 131.8                         | 2573          | 1.7   | 10.62     | 13.0         | 19.0         | 33.0             | 48.0                                      |                                           |     |     |                                           |     |     |
| 149.4         | 2270                          | 1.2           | 9.37  | 12.0      | 18.0         | 32.0         | 46.0             |                                           |                                           |     |     |                                           |     |     |
| 179.3         | 1892                          | 1.4           | 7.81  | 12.0      | 18.0         | 31.0         | 45.0             |                                           |                                           |     |     |                                           |     |     |
| 208.0         | 1631                          | 1.8           | 6.73  | 12.0      | 17.0         | 30.0         | 44.0             |                                           |                                           |     |     |                                           |     |     |
| 233.7         | 1451                          | 1.6           | 5.99  | 12.0      | 17.0         | 30.0         | 43.0             |                                           |                                           |     |     |                                           |     |     |
| 242.2         | 1400                          | 1.7           | 5.78  | 12.0      | 17.0         | 30.0         | 42.0             |                                           |                                           |     |     |                                           |     |     |
| 255.0         | 1330                          | 1.7           | 5.49  | 12.0      | 17.0         | 29.0         | 42.0             |                                           |                                           |     |     |                                           |     |     |
| 285.7         | 1187                          | 1.8           | 4.90  | 12.0      | 17.0         | 29.0         | 41.0             |                                           |                                           |     |     |                                           |     |     |
| 319.6         | 1061                          | 1.9           | 4.38  | 12.0      | 16.0         | 28.0         | 40.0             |                                           |                                           |     |     |                                           |     |     |
| 122.2         | 2692                          | 1.3           | 22.91 | 10.0      | 17.0         | 37.0         | 52.0             | <b>PD/PM 62</b><br><b>200L2C / 200L2D</b> | 364                                       | 212 |     |                                           |     |     |
| 149.9         | 2195                          | 1.5           | 18.68 | 11.0      | 18.0         | 36.0         | 51.0             |                                           |                                           |     |     |                                           |     |     |
| 189.2         | 1739                          | 2.0           | 14.80 | 12.0      | 19.0         | 35.0         | 50.0             |                                           |                                           |     |     |                                           |     |     |
| 226.9         | 1450                          | 2.3           | 12.34 | 13.0      | 19.0         | 34.0         | 49.0             |                                           |                                           |     |     |                                           |     |     |
| 263.7         | 1248                          | 2.6           | 10.62 | 13.0      | 19.0         | 33.0         | 48.0             |                                           |                                           |     |     |                                           |     |     |
| 298.8         | 1101                          | 1.9           | 9.37  | 12.0      | 18.0         | 32.0         | 46.0             |                                           |                                           |     |     |                                           |     |     |
| 358.5         | 918                           | 2.2           | 7.81  | 12.0      | 18.0         | 31.0         | 45.0             |                                           |                                           |     |     |                                           |     |     |
| 416.0         | 791                           | 2.9           | 6.73  | 12.0      | 17.0         | 30.0         | 44.0             |                                           |                                           |     |     |                                           |     |     |
| 467.4         | 704                           | 2.6           | 5.99  | 12.0      | 17.0         | 30.0         | 43.0             |                                           |                                           |     |     |                                           |     |     |
| 484.4         | 679                           | 2.6           | 5.78  | 12.0      | 17.0         | 30.0         | 42.0             |                                           |                                           |     |     |                                           |     |     |
| 510.0         | 645                           | 2.7           | 5.49  | 12.0      | 17.0         | 29.0         | 42.0             |                                           |                                           |     |     |                                           |     |     |
| 571.4         | 576                           | 2.8           | 4.90  | 12.0      | 17.0         | 29.0         | 41.0             |                                           |                                           |     |     |                                           |     |     |
| 639.3         | 515                           | 3.0           | 4.38  | 12.0      | 16.0         | 28.0         | 40.0             |                                           |                                           |     |     |                                           |     |     |



| $P_1$<br>[kW] | $n_2$<br>[Min <sup>-1</sup> ] | $M_2$<br>[Nm] | $f_B$  | $i_{ges}$ | $F_R$<br>[N] | $F_A$<br>[N] | $F_{RGR}$<br>[N] | $F_{AGR}$<br>[N]                     | Tip / Type / Typ<br>IE2 / IE3        |  |  |
|---------------|-------------------------------|---------------|--------|-----------|--------------|--------------|------------------|--------------------------------------|--------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| <b>45.0</b>   | 6.9                           | 58214         | 1.5    | 201.75    | -            | -            | 92.0             | 126.0                                | <b>PD/PM 123<br/>225M4B / 225M4C</b> | 2491                                                                                | 236                                                                                 |
|               | 9.1                           | 44537         | 2.0    | 154.35    | -            | -            | 101.0            | 116.0                                |                                      |                                                                                     |                                                                                     |
|               | 10.2                          | 39594         | 2.3    | 137.22    | -            | -            | 116.0            | 116.0                                |                                      |                                                                                     |                                                                                     |
|               | 11.9                          | 33861         | 2.7    | 117.35    | -            | -            | 113.0            | 107.0                                |                                      |                                                                                     |                                                                                     |
| 13.9          | 27826                         | 2.5           | 201.75 | -         | -            | 92.0         | 126.0            | <b>PD/PM 123<br/>225M2B</b>          | 2491                                 | 236                                                                                 |                                                                                     |
| 8.1           | 49618                         | 1.4           | 171.96 | -         | -            | 85.0         | 130.0            | <b>PD/PM 113<br/>225M4B / 225M4C</b> | 2386                                 | 233                                                                                 |                                                                                     |
| 9.2           | 44110                         | 1.6           | 152.87 | -         | -            | -            | -                |                                      |                                      |                                                                                     |                                                                                     |
| 10.7          | 37722                         | 1.8           | 130.73 | -         | -            | 116.0        | 127.0            |                                      |                                      |                                                                                     |                                                                                     |
| 12.5          | 32427                         | 2.1           | 112.38 | -         | -            | 127.0        | 124.0            |                                      |                                      |                                                                                     |                                                                                     |
| 15.2          | 26566                         | 2.5           | 92.07  | -         | -            | 136.0        | 120.0            |                                      |                                      |                                                                                     |                                                                                     |
| 18.2          | 22221                         | 2.8           | 77.01  | -         | -            | 141.0        | 117.0            |                                      |                                      |                                                                                     |                                                                                     |
| 16.3          | 23717                         | 2.2           | 171.96 | -         | -            | 85.0         | 130.0            | <b>PD/PM 113<br/>225M2B</b>          | 2386                                 | 233                                                                                 |                                                                                     |
| 18.3          | 21084                         | 2.5           | 152.87 | -         | -            | 103.0        | 129.0            |                                      |                                      |                                                                                     |                                                                                     |
| 21.4          | 18031                         | 2.9           | 130.73 | -         | -            | 116.0        | 127.0            |                                      |                                      |                                                                                     |                                                                                     |
| 10.0          | 40515                         | 0.9           | 140.41 | -         | -            | 104.0        | 140.0            | <b>PD/PM 103<br/>225M4B / 225M4C</b> | 1498                                 | 299                                                                                 |                                                                                     |
| 13.4          | 30214                         | 1.2           | 104.71 | -         | -            | 113.0        | 128.0            |                                      |                                      |                                                                                     |                                                                                     |
| 15.3          | 26359                         | 1.3           | 91.35  | -         | -            | 120.0        | 125.0            |                                      |                                      |                                                                                     |                                                                                     |
| 19.3          | 20980                         | 1.8           | 72.71  | -         | -            | 126.0        | 122.0            |                                      |                                      |                                                                                     |                                                                                     |
| 21.4          | 18882                         | 1.9           | 65.44  | -         | -            | 128.0        | 120.0            |                                      |                                      |                                                                                     |                                                                                     |
| 24.7          | 16378                         | 2.1           | 56.76  | -         | -            | 131.0        | 116.0            |                                      |                                      |                                                                                     |                                                                                     |
| 29.2          | 13836                         | 2.5           | 47.95  | -         | -            | 133.0        | 112.0            |                                      |                                      |                                                                                     |                                                                                     |
| 34.1          | 11830                         | 3.0           | 41.00  | -         | -            | 133.0        | 106.0            |                                      |                                      |                                                                                     |                                                                                     |
| 19.9          | 19366                         | 1.4           | 140.41 | -         | -            | 104.0        | 140.0            |                                      |                                      |                                                                                     | <b>PD/PM 103<br/>225M2B</b>                                                         |
| 26.7          | 14442                         | 1.9           | 104.71 | -         | -            | 113.0        | 128.0            |                                      |                                      |                                                                                     |                                                                                     |
| 30.7          | 12599                         | 2.1           | 91.35  | -         | -            | 120.0        | 125.0            |                                      |                                      |                                                                                     |                                                                                     |
| 38.5          | 10028                         | 2.8           | 72.71  | -         | -            | 126.0        | 122.0            |                                      |                                      |                                                                                     |                                                                                     |
| 42.8          | 9026                          | 3.0           | 65.44  | -         | -            | 128.0        | 120.0            |                                      |                                      |                                                                                     |                                                                                     |
| 12.1          | 33330                         | 0.8           | 115.51 | 11.0      | 32.0         | 83.0         | 101.0            | <b>PD/PM 93<br/>225M4B / 225M4C</b>  | 934                                  | 225                                                                                 |                                                                                     |
| 13.9          | 29057                         | 0.9           | 100.70 | 16.0      | 38.0         | 83.0         | 103.0            |                                      |                                      |                                                                                     |                                                                                     |
| 16.8          | 24004                         | 1.0           | 83.19  | 20.0      | 41.0         | 82.0         | 102.0            |                                      |                                      |                                                                                     |                                                                                     |
| 19.4          | 20824                         | 1.2           | 72.17  | 23.0      | 44.0         | 82.0         | 103.0            |                                      |                                      |                                                                                     |                                                                                     |
| 21.5          | 18793                         | 1.3           | 65.13  | 32.0      | 32.0         | 85.0         | 109.0            |                                      |                                      |                                                                                     |                                                                                     |
| 25.2          | 16003                         | 1.5           | 55.46  | 27.0      | 48.0         | 80.0         | 102.0            |                                      |                                      |                                                                                     |                                                                                     |
| 29.0          | 13951                         | 1.7           | 48.35  | 29.0      | 49.0         | 79.0         | 101.0            |                                      |                                      |                                                                                     |                                                                                     |
| 33.4          | 12102                         | 2.0           | 41.94  | 30.0      | 49.0         | 77.0         | 99.0             |                                      |                                      |                                                                                     |                                                                                     |
| 39.4          | 10241                         | 2.3           | 35.49  | 31.0      | 49.0         | 75.0         | 97.0             |                                      |                                      |                                                                                     |                                                                                     |
| 20.6          | 18711                         | 1.0           | 135.66 | 11.0      | 32.0         | 91.0         | 112.0            | <b>PD/PM 93<br/>225M2B</b>           | 934                                  | 225                                                                                 |                                                                                     |
| 24.2          | 15932                         | 1.2           | 115.51 | 11.0      | 32.0         | 83.0         | 101.0            |                                      |                                      |                                                                                     |                                                                                     |
| 27.8          | 13889                         | 1.4           | 100.70 | 16.0      | 38.0         | 83.0         | 103.0            |                                      |                                      |                                                                                     |                                                                                     |
| 33.7          | 11474                         | 1.6           | 83.19  | 20.0      | 41.0         | 82.0         | 102.0            |                                      |                                      |                                                                                     |                                                                                     |
| 38.8          | 9954                          | 1.8           | 72.17  | 23.0      | 44.0         | 82.0         | 103.0            |                                      |                                      |                                                                                     |                                                                                     |
| 43.0          | 8983                          | 2.1           | 65.13  | 32.0      | 32.0         | 85.0         | 109.0            |                                      |                                      |                                                                                     |                                                                                     |
| 50.5          | 7649                          | 2.4           | 55.46  | 27.0      | 48.0         | 80.0         | 102.0            |                                      |                                      |                                                                                     |                                                                                     |
| 57.9          | 6669                          | 2.7           | 48.35  | 29.0      | 49.0         | 79.0         | 101.0            |                                      |                                      |                                                                                     |                                                                                     |
| 40.7          | 10125                         | 1.6           | 34.36  | 25.0      | 37.0         | 64.0         | 82.0             |                                      |                                      |                                                                                     | <b>PD/PM 92<br/>225M4B / 225M4C</b>                                                 |
| 45.5          | 9073                          | 2.0           | 30.79  | 25.0      | 37.0         | 62.0         | 81.0             |                                      |                                      |                                                                                     |                                                                                     |
| 52.1          | 7912                          | 2.2           | 26.85  | 25.0      | 37.0         | 61.0         | 79.0             |                                      |                                      |                                                                                     |                                                                                     |
| 60.4          | 6828                          | 2.4           | 23.17  | 25.0      | 36.0         | 59.0         | 77.0             |                                      |                                      |                                                                                     |                                                                                     |
| 69.7          | 5920                          | 2.7           | 20.09  | 25.0      | 35.0         | 57.0         | 75.0             |                                      |                                      |                                                                                     |                                                                                     |
| 80.7          | 5110                          | 3.0           | 17.34  | 25.0      | 34.0         | 55.0         | 72.0             |                                      |                                      |                                                                                     |                                                                                     |
| 81.5          | 4911                          | 2.5           | 34.36  | 25.0      | 37.0         | 64.0         | 82.0             | <b>PD/PM 92<br/>225M2B</b>           | 929                                  | 224                                                                                 |                                                                                     |
| 29.3          | 13790                         | 0.9           | 47.79  | 8.0       | 18.0         | 55.0         | 80.0             | <b>PD/PM 83<br/>225M4B / 225M4C</b>  | 632                                  | 221                                                                                 |                                                                                     |
| 32.2          | 12558                         | 0.8           | 43.52  | 11.0      | 22.0         | 56.0         | 81.0             |                                      |                                      |                                                                                     |                                                                                     |
| 39.1          | 10339                         | 1.2           | 35.83  | 13.0      | 24.0         | 56.0         | 80.0             |                                      |                                      |                                                                                     |                                                                                     |
| 45.4          | 8899                          | 1.4           | 30.84  | 15.0      | 26.0         | 55.0         | 80.0             |                                      |                                      |                                                                                     |                                                                                     |
| 37.0          | 10441                         | 0.9           | 75.70  | 8.0       | 18.0         | 66.0         | 96.0             | <b>PD/PM 83<br/>225M2B</b>           | 632                                  | 221                                                                                 |                                                                                     |
| 43.0          | 8987                          | 1.0           | 65.16  | 8.0       | 18.0         | 66.0         | 96.0             |                                      |                                      |                                                                                     |                                                                                     |
| 48.8          | 7906                          | 1.2           | 57.32  | 8.0       | 18.0         | 60.0         | 87.0             |                                      |                                      |                                                                                     |                                                                                     |
| 58.6          | 6591                          | 1.4           | 47.79  | 8.0       | 18.0         | 55.0         | 80.0             |                                      |                                      |                                                                                     |                                                                                     |
| 64.3          | 6002                          | 1.3           | 43.52  | 11.0      | 22.0         | 56.0         | 81.0             |                                      |                                      |                                                                                     |                                                                                     |
| 78.1          | 4942                          | 1.9           | 35.83  | 13.0      | 24.0         | 56.0         | 80.0             |                                      |                                      |                                                                                     |                                                                                     |
| 90.8          | 4254                          | 2.2           | 30.84  | 15.0      | 26.0         | 55.0         | 80.0             |                                      |                                      |                                                                                     |                                                                                     |
|               |                               |               |        |           |              |              |                  |                                      |                                      |                                                                                     |                                                                                     |

| P <sub>1</sub><br>[kW] | n <sub>2</sub><br>[Min <sup>-1</sup> ] | M <sub>2</sub><br>[Nm] | f <sub>B</sub> | i <sub>ges</sub> | F <sub>R</sub><br>[N] | F <sub>A</sub><br>[N] | F <sub>R GR</sub><br>[N] | F <sub>A GR</sub><br>[N] | Tip / Type / Typ<br>IE2 / IE3 |     |     |                             |     |     |
|------------------------|----------------------------------------|------------------------|----------------|------------------|-----------------------|-----------------------|--------------------------|--------------------------|-------------------------------|-----|-----|-----------------------------|-----|-----|
| 45.0                   | 35.7                                   | 11546                  | 0.9            | 39.18            | -                     | -                     | -                        | -                        | PD/PM 82<br>225M4B / 225M4C   | 628 | 220 |                             |     |     |
|                        | 43.4                                   | 9504                   | 1.1            | 32.25            | -                     | -                     | -                        | -                        |                               |     |     |                             |     |     |
|                        | 49.4                                   | 8354                   | 1.2            | 28.35            | -                     | -                     | -                        | -                        |                               |     |     |                             |     |     |
|                        | 57.1                                   | 7223                   | 1.5            | 24.51            | 18.0                  | 28.0                  | 55.0                     | 79.0                     |                               |     |     |                             |     |     |
|                        | 66.2                                   | 6230                   | 1.7            | 21.14            | 19.0                  | 28.0                  | 54.0                     | 78.0                     |                               |     |     |                             |     |     |
|                        | 80.4                                   | 5130                   | 1.9            | 17.41            | 19.0                  | 28.0                  | 52.0                     | 75.0                     |                               |     |     |                             |     |     |
|                        | 92.2                                   | 4476                   | 2.1            | 15.19            | 19.0                  | 28.0                  | 51.0                     | 73.0                     |                               |     |     |                             |     |     |
|                        | 107.8                                  | 3828                   | 2.7            | 12.99            | 19.0                  | 27.0                  | 50.0                     | 71.0                     |                               |     |     |                             |     |     |
|                        | 144.8                                  | 2850                   | 2.3            | 9.67             | 18.0                  | 25.0                  | 46.0                     | 67.0                     |                               |     |     |                             |     |     |
|                        | 169.3                                  | 2437                   | 3.0            | 8.27             | 18.0                  | 25.0                  | 45.0                     | 65.0                     |                               |     |     |                             |     |     |
|                        | 71.5                                   | 5600                   | 1.4            | 39.18            | 18.0                  | 28.0                  | -                        | -                        |                               |     |     | PD/PM 82<br>225M2B          | 628 | 220 |
|                        | 86.8                                   | 4609                   | 1.7            | 32.25            | -                     | -                     | -                        | -                        |                               |     |     |                             |     |     |
|                        | 98.8                                   | 4052                   | 1.9            | 28.35            | -                     | -                     | 59.0                     | 84.0                     |                               |     |     |                             |     |     |
|                        | 114.2                                  | 3503                   | 2.3            | 24.51            | 18.0                  | 28.0                  | 55.0                     | 79.0                     |                               |     |     |                             |     |     |
|                        | 132.5                                  | 3021                   | 2.7            | 21.14            | 19.0                  | 28.0                  | 54.0                     | 78.0                     |                               |     |     |                             |     |     |
|                        | 160.8                                  | 2488                   | 3.0            | 17.41            | 19.0                  | 28.0                  | 52.0                     | 75.0                     |                               |     |     |                             |     |     |
|                        | 45.9                                   | 8798                   | 0.8            | 30.49            | 11.0                  | 20.0                  | 47.0                     | 69.0                     | PD/PM 73<br>225M4B / 225M4C   | 507 | 217 |                             |     |     |
|                        | 52.0                                   | 7768                   | 0.9            | 26.92            | 8.0                   | 15.0                  | 44.0                     | 63.0                     |                               |     |     |                             |     |     |
|                        | 59.7                                   | 6772                   | 1.0            | 23.47            | 9.0                   | 17.0                  | 43.0                     | 63.0                     |                               |     |     |                             |     |     |
|                        | 60.0                                   | 6436                   | 0.8            | 46.66            | 11.0                  | 20.0                  | 52.0                     | 76.0                     | PD/PM 73<br>225M2B            | 507 | 217 |                             |     |     |
|                        | 75.8                                   | 5096                   | 1.0            | 36.95            | 11.0                  | 20.0                  | 52.0                     | 75.0                     |                               |     |     |                             |     |     |
|                        | 91.8                                   | 4205                   | 1.2            | 30.49            | 11.0                  | 20.0                  | 47.0                     | 69.0                     |                               |     |     |                             |     |     |
|                        | 104.0                                  | 3713                   | 1.4            | 26.92            | 8.0                   | 15.0                  | 44.0                     | 63.0                     |                               |     |     |                             |     |     |
|                        | 119.3                                  | 3237                   | 1.6            | 23.47            | 9.0                   | 17.0                  | 43.0                     | 63.0                     |                               |     |     |                             |     |     |
|                        | 61.1                                   | 6748                   | 0.9            | 22.90            | 11.0                  | 18.0                  | 44.0                     | 65.0                     |                               |     |     | PD/PM 72<br>225M4B / 225M4C | 500 | 216 |
|                        | 70.1                                   | 5882                   | 1.0            | 19.96            | 12.0                  | 20.0                  | 44.0                     | 64.0                     |                               |     |     |                             |     |     |
|                        | 86.0                                   | 4795                   | 1.3            | 16.27            | 13.0                  | 20.0                  | 43.0                     | 62.0                     |                               |     |     |                             |     |     |
|                        | 108.6                                  | 3798                   | 1.5            | 12.89            | 13.0                  | 20.0                  | 41.0                     | 60.0                     |                               |     |     |                             |     |     |
|                        | 125.2                                  | 3295                   | 1.9            | 11.18            | 14.0                  | 20.0                  | 40.0                     | 59.0                     |                               |     |     |                             |     |     |
|                        | 141.3                                  | 2920                   | 1.5            | 9.91             | 13.0                  | 19.0                  | 39.0                     | 57.0                     |                               |     |     |                             |     |     |
|                        | 148.0                                  | 2788                   | 2.2            | 9.46             | 14.0                  | 20.0                  | 39.0                     | 57.0                     |                               |     |     |                             |     |     |
|                        | 162.0                                  | 2546                   | 1.7            | 8.64             | 13.0                  | 19.0                  | 38.0                     | 56.0                     |                               |     |     |                             |     |     |
|                        | 186.7                                  | 2210                   | 2.0            | 7.50             | 13.0                  | 19.0                  | 37.0                     | 54.0                     |                               |     |     |                             |     |     |
|                        | 220.8                                  | 1868                   | 2.4            | 6.34             | 13.0                  | 18.0                  | 36.0                     | 52.0                     |                               |     |     |                             |     |     |
|                        | 234.9                                  | 1756                   | 2.5            | 5.96             | 13.0                  | 18.0                  | 35.0                     | 52.0                     |                               |     |     |                             |     |     |
|                        | 264.2                                  | 1562                   | 2.6            | 5.30             | 13.0                  | 18.0                  | 35.0                     | 50.0                     |                               |     |     |                             |     |     |
|                        | 278.3                                  | 1482                   | 2.7            | 5.03             | 13.0                  | 18.0                  | 34.0                     | 50.0                     |                               |     |     |                             |     |     |
|                        | 328.6                                  | 1255                   | 2.9            | 4.26             | 13.0                  | 17.0                  | 33.0                     | 48.0                     |                               |     |     |                             |     |     |
|                        | 104.1                                  | 3843                   | 1.1            | 26.89            | 11.0                  | 18.0                  | 48.0                     | 70.0                     | PD/PM 72<br>225M2B            | 500 | 216 |                             |     |     |
|                        | 122.3                                  | 3273                   | 1.3            | 22.90            | 11.0                  | 18.0                  | 44.0                     | 65.0                     |                               |     |     |                             |     |     |
|                        | 140.3                                  | 2853                   | 1.5            | 19.96            | 12.0                  | 20.0                  | 44.0                     | 64.0                     |                               |     |     |                             |     |     |
|                        | 172.1                                  | 2325                   | 2.1            | 16.27            | 13.0                  | 20.0                  | 43.0                     | 62.0                     |                               |     |     |                             |     |     |
|                        | 217.2                                  | 1842                   | 2.4            | 12.89            | 13.0                  | 20.0                  | 41.0                     | 60.0                     |                               |     |     |                             |     |     |
|                        | 250.4                                  | 1598                   | 3.0            | 11.18            | 14.0                  | 20.0                  | 40.0                     | 59.0                     |                               |     |     |                             |     |     |
|                        | 282.5                                  | 1416                   | 2.3            | 9.91             | 13.0                  | 19.0                  | 39.0                     | 57.0                     |                               |     |     |                             |     |     |
|                        | 324.1                                  | 1235                   | 2.6            | 8.64             | 13.0                  | 19.0                  | 38.0                     | 56.0                     |                               |     |     |                             |     |     |
|                        | 94.6                                   | 4361                   | 1.0            | 14.80            | 12.0                  | 19.0                  | 35.0                     | 50.0                     | PD/PM 62<br>225M4B / 225M4C   | 437 | 212 |                             |     |     |
|                        | 113.5                                  | 3636                   | 1.2            | 12.34            | 10.0                  | 16.0                  | 32.0                     | 46.0                     |                               |     |     |                             |     |     |
| 131.8                  | 3130                                   | 1.4                    | 10.62          | 11.0             | 16.0                  | 32.0                  | 46.0                     |                          |                               |     |     |                             |     |     |
| 149.4                  | 2761                                   | 1.0                    | 9.37           | 12.0             | 18.0                  | 32.0                  | 46.0                     |                          |                               |     |     |                             |     |     |
| 179.3                  | 2301                                   | 1.2                    | 7.81           | 11.0             | 16.0                  | 30.0                  | 43.0                     |                          |                               |     |     |                             |     |     |
| 208.0                  | 1983                                   | 1.5                    | 6.73           | 11.0             | 16.0                  | 29.0                  | 42.0                     |                          |                               |     |     |                             |     |     |
| 233.7                  | 1765                                   | 1.4                    | 5.99           | 11.0             | 16.0                  | 29.0                  | 41.0                     |                          |                               |     |     |                             |     |     |
| 242.2                  | 1703                                   | 1.4                    | 5.78           | 11.0             | 16.0                  | 29.0                  | 41.0                     |                          |                               |     |     |                             |     |     |
| 255.0                  | 1618                                   | 1.4                    | 5.49           | 11.0             | 15.0                  | 28.0                  | 41.0                     |                          |                               |     |     |                             |     |     |
| 285.7                  | 1444                                   | 1.5                    | 4.90           | 11.0             | 15.0                  | 28.0                  | 40.0                     |                          |                               |     |     |                             |     |     |
| 319.6                  | 1291                                   | 1.6                    | 4.38           | 11.0             | 15.0                  | 27.0                  | 39.0                     |                          |                               |     |     |                             |     |     |
| 122.2                  | 3274                                   | 1.1                    | 22.91          | 10.0             | 17.0                  | 37.0                  | 52.0                     | PD/PM 62<br>225M2B       | 437                           | 212 |     |                             |     |     |
| 149.9                  | 2670                                   | 1.3                    | 18.68          | 11.0             | 18.0                  | 36.0                  | 51.0                     |                          |                               |     |     |                             |     |     |
| 189.2                  | 2115                                   | 1.6                    | 14.80          | 12.0             | 19.0                  | 35.0                  | 50.0                     |                          |                               |     |     |                             |     |     |
| 226.9                  | 1764                                   | 1.9                    | 12.34          | 10.0             | 16.0                  | 32.0                  | 46.0                     |                          |                               |     |     |                             |     |     |
| 263.7                  | 1518                                   | 2.2                    | 10.62          | 11.0             | 16.0                  | 32.0                  | 46.0                     |                          |                               |     |     |                             |     |     |
| 298.8                  | 1339                                   | 1.6                    | 9.37           | 12.0             | 18.0                  | 32.0                  | 46.0                     |                          |                               |     |     |                             |     |     |
| 358.5                  | 1116                                   | 1.8                    | 7.81           | 11.0             | 16.0                  | 30.0                  | 43.0                     |                          |                               |     |     |                             |     |     |
| 416.0                  | 962                                    | 2.4                    | 6.73           | 11.0             | 16.0                  | 29.0                  | 42.0                     |                          |                               |     |     |                             |     |     |
| 467.4                  | 856                                    | 2.1                    | 5.99           | 11.0             | 16.0                  | 29.0                  | 41.0                     |                          |                               |     |     |                             |     |     |
| 484.4                  | 826                                    | 2.1                    | 5.78           | 11.0             | 16.0                  | 29.0                  | 41.0                     |                          |                               |     |     |                             |     |     |
| 510.0                  | 785                                    | 2.2                    | 5.49           | 11.0             | 15.0                  | 28.0                  | 41.0                     |                          |                               |     |     |                             |     |     |
| 571.4                  | 700                                    | 2.3                    | 4.90           | 11.0             | 15.0                  | 28.0                  | 40.0                     |                          |                               |     |     |                             |     |     |
| 639.3                  | 626                                    | 2.5                    | 4.38           | 11.0             | 15.0                  | 27.0                  | 39.0                     |                          |                               |     |     |                             |     |     |





| $P_1$<br>[kW] | $n_2$<br>[Min <sup>-1</sup> ] | $M_2$<br>[Nm] | $f_B$ | $i_{ges}$ | $F_R$<br>[N] | $F_A$<br>[N] | $F_{RGR}$<br>[N] | $F_{AGR}$<br>[N] | Tip / Type / Typ<br>IE2 / IE3        |  |  |
|---------------|-------------------------------|---------------|-------|-----------|--------------|--------------|------------------|------------------|--------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| <b>55.0</b>   | 9.1                           | 54434         | 1.7   | 154.35    | -            | -            | 67.0             | 105.0            | <b>PD/PM 123<br/>250M4A / 250M4B</b> | 2644                                                                                | 236                                                                                 |
|               | 10.2                          | 48393         | 1.9   | 137.22    | -            | -            | 94.0             | 106.0            |                                      |                                                                                     |                                                                                     |
|               | 11.9                          | 41386         | 2.2   | 117.35    | -            | -            | 113.0            | 107.0            |                                      |                                                                                     |                                                                                     |
|               | 13.9                          | 35577         | 2.5   | 100.88    | -            | -            | 124.0            | 106.0            |                                      |                                                                                     |                                                                                     |
|               | 18.1                          | 26019         | 2.6   | 154.35    | -            | -            | 67.0             | 105.0            | <b>PD/PM 123<br/>250M2A</b>          | 2644                                                                                | 236                                                                                 |
|               | 20.4                          | 23132         | 3.0   | 137.22    | -            | -            | 94.0             | 106.0            |                                      |                                                                                     |                                                                                     |
|               | 8.1                           | 60645         | 1.1   | 171.96    | -            | -            | 49.0             | 121.0            | <b>PD/PM 113<br/>250M4A / 250M4B</b> | 2539                                                                                | 233                                                                                 |
|               | 9.2                           | 53912         | 1.3   | 152.87    | -            | -            | -                | -                |                                      |                                                                                     |                                                                                     |
|               | 10.7                          | 46104         | 1.5   | 130.73    | -            | -            | 94.0             | 120.0            |                                      |                                                                                     |                                                                                     |
|               | 12.5                          | 39633         | 1.7   | 112.38    | -            | -            | 113.0            | 118.0            |                                      |                                                                                     |                                                                                     |
|               | 15.2                          | 32470         | 2.0   | 92.07     | -            | -            | 128.0            | 116.0            |                                      |                                                                                     |                                                                                     |
|               | 18.2                          | 27159         | 2.3   | 77.01     | -            | -            | 135.0            | 113.0            |                                      |                                                                                     |                                                                                     |
|               | 22.1                          | 22373         | 2.7   | 63.44     | -            | -            | 140.0            | 109.0            |                                      |                                                                                     |                                                                                     |
|               | 16.3                          | 28988         | 1.8   | 171.96    | -            | -            | 49.0             | 121.0            | <b>PD/PM 113<br/>250M2A</b>          | 2539                                                                                | 233                                                                                 |
|               | 18.3                          | 25770         | 2.0   | 152.87    | -            | -            | 69.0             | 120.0            |                                      |                                                                                     |                                                                                     |
|               | 21.4                          | 22038         | 2.4   | 130.73    | -            | -            | 94.0             | 120.0            |                                      |                                                                                     |                                                                                     |
|               | 24.9                          | 18944         | 2.8   | 112.38    | -            | -            | 113.0            | 118.0            |                                      |                                                                                     |                                                                                     |
|               | 13.4                          | 36928         | 1.0   | 104.71    | -            | -            | 99.0             | 119.0            | <b>PD/PM 103<br/>250M4A / 250M4B</b> | 1671                                                                                | 229                                                                                 |
|               | 15.3                          | 32216         | 1.1   | 91.35     | -            | -            | 109.0            | 119.0            |                                      |                                                                                     |                                                                                     |
|               | 19.3                          | 25642         | 1.5   | 72.71     | -            | -            | 120.0            | 116.0            |                                      |                                                                                     |                                                                                     |
|               | 21.4                          | 23079         | 1.5   | 65.44     | -            | -            | 125.0            | 114.0            |                                      |                                                                                     |                                                                                     |
|               | 24.7                          | 20017         | 1.7   | 56.76     | -            | -            | 128.0            | 112.0            |                                      |                                                                                     |                                                                                     |
|               | 29.2                          | 16910         | 2.1   | 47.95     | -            | -            | 131.0            | 109.0            |                                      |                                                                                     |                                                                                     |
|               | 34.1                          | 14459         | 2.4   | 41.00     | -            | -            | 133.0            | 106.0            |                                      |                                                                                     |                                                                                     |
|               | 40.8                          | 12114         | 2.9   | 34.35     | -            | -            | 134.0            | 102.0            |                                      |                                                                                     |                                                                                     |
|               | 26.7                          | 17651         | 1.5   | 104.71    | -            | -            | 99.0             | 119.0            | <b>PD/PM 103<br/>250M2A</b>          | 1671                                                                                | 229                                                                                 |
|               | 30.7                          | 15399         | 1.7   | 91.35     | -            | -            | 109.0            | 119.0            |                                      |                                                                                     |                                                                                     |
|               | 38.5                          | 12257         | 2.3   | 72.71     | -            | -            | 120.0            | 116.0            |                                      |                                                                                     |                                                                                     |
|               | 42.8                          | 11031         | 2.4   | 65.44     | -            | -            | 125.0            | 114.0            |                                      |                                                                                     |                                                                                     |
|               | 49.3                          | 9568          | 2.8   | 56.76     | -            | -            | 128.0            | 112.0            |                                      |                                                                                     |                                                                                     |
|               | 16.8                          | 29338         | 0.8   | 83.19     | 9.0          | 26.0         | 75.0             | 91.0             | <b>PD/PM 93<br/>250M4A / 250M4B</b>  | 1107                                                                                | 225                                                                                 |
|               | 19.4                          | 25452         | 0.9   | 72.17     | 14.0         | 32.0         | 75.0             | 93.0             |                                      |                                                                                     |                                                                                     |
|               | 25.2                          | 19559         | 1.2   | 55.46     | 21.0         | 38.0         | 75.0             | 94.0             |                                      |                                                                                     |                                                                                     |
|               | 29.0                          | 17051         | 1.4   | 48.35     | 23.0         | 40.0         | 74.0             | 94.0             |                                      |                                                                                     |                                                                                     |
|               | 33.4                          | 14791         | 1.6   | 41.94     | 25.0         | 41.0         | 73.0             | 93.0             |                                      |                                                                                     |                                                                                     |
|               | 39.4                          | 12516         | 1.9   | 35.49     | 26.0         | 43.0         | 72.0             | 92.0             |                                      |                                                                                     |                                                                                     |
|               | 24.2                          | 19472         | 1.0   | 115.51    | 9.0          | 26.0         | 83.0             | 101.0            | <b>PD/PM 93<br/>250M2A</b>           | 1107                                                                                | 225                                                                                 |
|               | 27.8                          | 16975         | 1.1   | 100.70    | 9.0          | 26.0         | 83.0             | 103.0            |                                      |                                                                                     |                                                                                     |
|               | 33.7                          | 14024         | 1.3   | 83.19     | 9.0          | 26.0         | 75.0             | 91.0             |                                      |                                                                                     |                                                                                     |
|               | 38.8                          | 12166         | 1.5   | 72.17     | 14.0         | 32.0         | 75.0             | 93.0             |                                      |                                                                                     |                                                                                     |
|               | 50.5                          | 9349          | 2.0   | 55.46     | 21.0         | 38.0         | 75.0             | 94.0             |                                      |                                                                                     |                                                                                     |
|               | 57.9                          | 8151          | 2.2   | 48.35     | 23.0         | 40.0         | 74.0             | 94.0             |                                      |                                                                                     |                                                                                     |
|               | 66.8                          | 7070          | 2.6   | 41.94     | 25.0         | 41.0         | 73.0             | 93.0             |                                      |                                                                                     |                                                                                     |
|               | 78.9                          | 5983          | 3.0   | 35.49     | 26.0         | 43.0         | 72.0             | 92.0             |                                      |                                                                                     |                                                                                     |
|               | 40.7                          | 12375         | 1.3   | 34.36     | 20.0         | 31.0         | 61.0             | 77.0             | <b>PD/PM 92<br/>250M4A / 250M4B</b>  | 1102                                                                                | 224                                                                                 |
|               | 45.5                          | 11090         | 1.6   | 30.79     | 21.0         | 32.0         | 60.0             | 77.0             |                                      |                                                                                     |                                                                                     |
|               | 52.1                          | 9671          | 1.8   | 26.85     | 22.0         | 32.0         | 59.0             | 75.0             |                                      |                                                                                     |                                                                                     |
|               | 60.4                          | 8345          | 2.0   | 23.17     | 23.0         | 32.0         | 57.0             | 74.0             |                                      |                                                                                     |                                                                                     |
|               | 69.7                          | 7236          | 2.2   | 20.09     | 22.0         | 31.0         | 55.0             | 72.0             |                                      |                                                                                     |                                                                                     |
|               | 80.7                          | 6245          | 2.5   | 17.34     | 22.0         | 31.0         | 54.0             | 70.0             |                                      |                                                                                     |                                                                                     |
|               | 95.3                          | 5291          | 2.8   | 14.69     | 22.0         | 30.0         | 52.0             | 68.0             |                                      |                                                                                     |                                                                                     |
|               | 137.1                         | 3677          | 2.9   | 10.21     | -            | -            | 46.0             | 59.0             |                                      |                                                                                     |                                                                                     |
|               | 81.5                          | 6002          | 2.1   | 34.36     | 20.0         | 31.0         | 61.0             | 77.0             |                                      |                                                                                     |                                                                                     |
|               | 90.9                          | 5379          | 2.5   | 30.79     | 21.0         | 32.0         | 60.0             | 77.0             |                                      |                                                                                     |                                                                                     |
|               | 104.3                         | 4690          | 2.8   | 26.85     | 22.0         | 32.0         | 59.0             | 75.0             |                                      |                                                                                     |                                                                                     |
|               | 57.1                          | 8828          | 1.2   | 24.51     | 14.0         | 22.0         | 52.0             | 74.0             | <b>PD/PM 82<br/>250M4A / 250M4B</b>  | 801                                                                                 | 220                                                                                 |
|               | 66.2                          | 7614          | 1.4   | 21.14     | 15.0         | 23.0         | 51.0             | 74.0             |                                      |                                                                                     |                                                                                     |
|               | 80.4                          | 6271          | 1.5   | 17.41     | 16.0         | 24.0         | 50.0             | 72.0             |                                      |                                                                                     |                                                                                     |
|               | 92.2                          | 5471          | 1.7   | 15.19     | 17.0         | 24.0         | 49.0             | 70.0             |                                      |                                                                                     |                                                                                     |
|               | 107.8                         | 4679          | 2.2   | 12.99     | 17.0         | 24.0         | 48.0             | 69.0             |                                      |                                                                                     |                                                                                     |
|               | 128.7                         | 3919          | 2.6   | 10.88     | 17.0         | 24.0         | 47.0             | 67.0             |                                      |                                                                                     |                                                                                     |
|               | 144.8                         | 3483          | 1.9   | 9.67      | 17.0         | 23.0         | 45.0             | 65.0             |                                      |                                                                                     |                                                                                     |
|               | 169.3                         | 2979          | 2.4   | 8.27      | 17.0         | 23.0         | 44.0             | 63.0             |                                      |                                                                                     |                                                                                     |
|               | 202.0                         | 2496          | 2.7   | 6.93      | 17.0         | 22.0         | 42.0             | 61.0             |                                      |                                                                                     |                                                                                     |
|               | 309.7                         | 1628          | 3.0   | 4.52      | 16.0         | 20.0         | 38.0             | 55.0             |                                      |                                                                                     |                                                                                     |







| <b>P<sub>1</sub></b><br>[kW] | <b>n<sub>2</sub></b><br>[Min <sup>-1</sup> ] | <b>M<sub>2</sub></b><br>[Nm] | <b>f<sub>B</sub></b> | <b>i<sub>ges</sub></b> | <b>F<sub>R</sub></b><br>[N] | <b>F<sub>A</sub></b><br>[N] | <b>F<sub>R GR</sub></b><br>[N] | <b>F<sub>A GR</sub></b><br>[N] | Tip / Type / Typ<br>IE2 / IE3        |  Kg |  mm |                                      |      |
|------------------------------|----------------------------------------------|------------------------------|----------------------|------------------------|-----------------------------|-----------------------------|--------------------------------|--------------------------------|--------------------------------------|----------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------|--------------------------------------|------|
| <b>55.0</b>                  | 114.2                                        | 4282                         | 1.9                  | 24.51                  | 14.0                        | 22.0                        | 52.0                           | 74.0                           | <b>PD/PM 82<br/>250M2A</b>           | 801                                                                                    | 220                                                                                    |                                      |      |
|                              | 132.5                                        | 3693                         | 2.2                  | 21.14                  | 15.0                        | 23.0                        | 51.0                           | 74.0                           |                                      |                                                                                        |                                                                                        |                                      |      |
|                              | 160.8                                        | 3041                         | 2.4                  | 17.41                  | 16.0                        | 24.0                        | 50.0                           | 72.0                           |                                      |                                                                                        |                                                                                        |                                      |      |
|                              | 184.3                                        | 2654                         | 2.7                  | 15.19                  | 17.0                        | 24.0                        | 49.0                           | 70.0                           |                                      |                                                                                        |                                                                                        |                                      |      |
|                              | 289.6                                        | 1689                         | 2.9                  | 9.67                   | 17.0                        | 23.0                        | 45.0                           | 65.0                           |                                      |                                                                                        |                                                                                        |                                      |      |
|                              | 94.6                                         | 5331                         | 0.8                  | 14.80                  | -                           | -                           | 35.0                           | 50.0                           | <b>PD/PM 62<br/>250M4A / 250M4B</b>  | 610                                                                                    | 212                                                                                    |                                      |      |
|                              | 113.5                                        | 4445                         | 1.0                  | 12.34                  | -                           | -                           | 34.0                           | 49.0                           |                                      |                                                                                        |                                                                                        |                                      |      |
|                              | 131.8                                        | 3825                         | 1.1                  | 10.62                  | -                           | -                           | 33.0                           | 48.0                           |                                      |                                                                                        |                                                                                        |                                      |      |
|                              | 149.4                                        | 3375                         | 0.8                  | 9.37                   | -                           | -                           | 32.0                           | 46.0                           |                                      |                                                                                        |                                                                                        |                                      |      |
|                              | 179.3                                        | 2813                         | 1.0                  | 7.81                   | -                           | -                           | 31.0                           | 45.0                           |                                      |                                                                                        |                                                                                        |                                      |      |
|                              | 208.0                                        | 2424                         | 1.2                  | 6.73                   | -                           | -                           | 30.0                           | 44.0                           |                                      |                                                                                        |                                                                                        |                                      |      |
|                              | 233.7                                        | 2157                         | 1.1                  | 5.99                   | -                           | -                           | 30.0                           | 43.0                           |                                      |                                                                                        |                                                                                        |                                      |      |
|                              | 242.2                                        | 2082                         | 1.1                  | 5.78                   | -                           | -                           | 30.0                           | 42.0                           |                                      |                                                                                        |                                                                                        |                                      |      |
|                              | 255.0                                        | 1977                         | 1.2                  | 5.49                   | -                           | -                           | 29.0                           | 42.0                           |                                      |                                                                                        |                                                                                        |                                      |      |
|                              | 285.7                                        | 1765                         | 1.2                  | 4.90                   | -                           | -                           | 29.0                           | 41.0                           |                                      |                                                                                        |                                                                                        |                                      |      |
|                              | 319.6                                        | 1578                         | 1.3                  | 4.38                   | -                           | -                           | 28.0                           | 40.0                           |                                      |                                                                                        |                                                                                        |                                      |      |
|                              | <b>75.0</b>                                  | 9.1                          | 74229                | 1.2                    | 154.35                      | -                           | -                              | 32.0                           | 82.0                                 | <b>PD/PM 123<br/>280M4B / 280M4C</b>                                                   | 2874                                                                                   | 236                                  |      |
|                              |                                              | 10.2                         | 65991                | 1.4                    | 137.22                      | -                           | -                              | 48.0                           | 86.0                                 |                                                                                        |                                                                                        |                                      |      |
| 11.9                         |                                              | 56435                        | 1.6                  | 117.35                 | -                           | -                           | 65.0                           | 90.0                           |                                      |                                                                                        |                                                                                        |                                      |      |
| 13.9                         |                                              | 48514                        | 1.9                  | 100.88                 | -                           | -                           | 94.0                           | 92.0                           |                                      |                                                                                        |                                                                                        |                                      |      |
| 16.9                         |                                              | 39747                        | 2.3                  | 82.65                  | -                           | -                           | 115.0                          | 93.0                           |                                      |                                                                                        |                                                                                        |                                      |      |
| 20.3                         |                                              | 33241                        | 2.7                  | 69.12                  | -                           | -                           | 125.0                          | 93.0                           |                                      |                                                                                        |                                                                                        |                                      |      |
| 18.1                         |                                              | 35481                        | 1.9                  | 154.35                 | -                           | -                           | 32.0                           | 82.0                           | <b>PD/PM 123<br/>280M2B / 280M2C</b> | 2874                                                                                   | 236                                                                                    |                                      |      |
| 20.4                         |                                              | 31543                        | 2.2                  | 137.22                 | -                           | -                           | 48.0                           | 86.0                           |                                      |                                                                                        |                                                                                        |                                      |      |
| 23.9                         |                                              | 26976                        | 2.5                  | 117.35                 | -                           | -                           | 65.0                           | 90.0                           |                                      |                                                                                        |                                                                                        |                                      |      |
| 27.8                         |                                              | 23190                        | 2.9                  | 100.88                 | -                           | -                           | 94.0                           | 92.0                           |                                      |                                                                                        |                                                                                        |                                      |      |
| 8.1                          |                                              | 82697                        | 0.8                  | 171.96                 | -                           | -                           | 26.0                           | 102.0                          | <b>PD/PM 113<br/>280M4B / 280M4C</b> | 2769                                                                                   | 233                                                                                    |                                      |      |
| 9.2                          |                                              | 73517                        | 0.9                  | 152.87                 | -                           | -                           | -                              | -                              |                                      |                                                                                        |                                                                                        |                                      |      |
| 10.7                         |                                              | 62869                        | 1.1                  | 130.73                 | -                           | -                           | 48.0                           | 105.0                          |                                      |                                                                                        |                                                                                        |                                      |      |
| 12.5                         |                                              | 54045                        | 1.3                  | 112.38                 | -                           | -                           | 65.0                           | 106.0                          |                                      |                                                                                        |                                                                                        |                                      |      |
| 15.2                         |                                              | 44277                        | 1.5                  | 92.07                  | -                           | -                           | 103.0                          | 105.0                          |                                      |                                                                                        |                                                                                        |                                      |      |
| 18.2                         |                                              | 37035                        | 1.7                  | 77.01                  | -                           | -                           | 119.0                          | 104.0                          |                                      |                                                                                        |                                                                                        |                                      |      |
| 22.1                         |                                              | 30509                        | 2.0                  | 63.44                  | -                           | -                           | 130.0                          | 102.0                          |                                      |                                                                                        |                                                                                        |                                      |      |
| 25.8                         |                                              | 26094                        | 2.3                  | 54.26                  | -                           | -                           | 136.0                          | 100.0                          |                                      |                                                                                        |                                                                                        |                                      |      |
| 30.0                         |                                              | 22430                        | 2.7                  | 46.64                  | -                           | -                           | 141.0                          | 97.0                           |                                      |                                                                                        |                                                                                        |                                      |      |
| 16.3                         |                                              | 39529                        | 1.3                  | 171.96                 | -                           | -                           | 26.0                           | 102.0                          |                                      |                                                                                        |                                                                                        | <b>PD/PM 113<br/>280M2B / 280M2C</b> | 2769 |
| 18.3                         |                                              | 35141                        | 1.5                  | 152.87                 | -                           | -                           | 32.0                           | 104.0                          |                                      |                                                                                        |                                                                                        |                                      |      |
| 21.4                         |                                              | 30051                        | 1.7                  | 130.73                 | -                           | -                           | 48.0                           | 105.0                          |                                      |                                                                                        |                                                                                        |                                      |      |
| 24.9                         |                                              | 25833                        | 2.0                  | 112.38                 | -                           | -                           | 65.0                           | 106.0                          |                                      |                                                                                        |                                                                                        |                                      |      |
| 30.4                         |                                              | 21164                        | 2.3                  | 92.07                  | -                           | -                           | 103.0                          | 105.0                          |                                      |                                                                                        |                                                                                        |                                      |      |
| 36.4                         |                                              | 17703                        | 2.7                  | 77.01                  | -                           | -                           | 119.0                          | 104.0                          |                                      |                                                                                        |                                                                                        |                                      |      |
| 40.2                         |                                              | 17116                        | 2.5                  | 34.85                  | -                           | -                           | 144.0                          | 94.0                           | <b>PD/PM 112<br/>280M4B / 280M4C</b> | 2600                                                                                   | 232                                                                                    |                                      |      |
| 46.8                         |                                              | 14695                        | 2.9                  | 29.92                  | -                           | -                           | 145.0                          | 87.0                           |                                      |                                                                                        |                                                                                        |                                      |      |
| 15.3                         |                                              | 43931                        | 0.8                  | 91.35                  | -                           | -                           | 77.0                           | 105.0                          | <b>PD/PM 103<br/>280M4B / 280M4C</b> | 1871                                                                                   | 229                                                                                    |                                      |      |
| 19.3                         |                                              | 34967                        | 1.1                  | 72.71                  | -                           | -                           | 103.0                          | 105.0                          |                                      |                                                                                        |                                                                                        |                                      |      |
| 21.4                         |                                              | 31471                        | 1.1                  | 65.44                  | -                           | -                           | 113.0                          | 104.0                          |                                      |                                                                                        |                                                                                        |                                      |      |
| 24.7                         | 27296                                        | 1.3                          | 56.76                | -                      | -                           | 118.0                       | 103.0                          |                                |                                      |                                                                                        |                                                                                        |                                      |      |
| 29.2                         | 23060                                        | 1.5                          | 47.95                | -                      | -                           | 124.0                       | 102.0                          |                                |                                      |                                                                                        |                                                                                        |                                      |      |
| 34.1                         | 19717                                        | 1.8                          | 41.00                | -                      | -                           | 128.0                       | 100.0                          |                                |                                      |                                                                                        |                                                                                        |                                      |      |
| 40.8                         | 16519                                        | 2.1                          | 34.35                | -                      | -                           | 131.0                       | 97.0                           |                                |                                      |                                                                                        |                                                                                        |                                      |      |
| 47.0                         | 14326                                        | 2.4                          | 29.79                | -                      | -                           | 133.0                       | 95.0                           |                                |                                      |                                                                                        |                                                                                        |                                      |      |
| 51.5                         | 13071                                        | 2.5                          | 27.18                | -                      | -                           | 134.0                       | 93.0                           |                                |                                      |                                                                                        |                                                                                        |                                      |      |
| 59.4                         | 11340                                        | 2.9                          | 23.58                | -                      | -                           | 135.0                       | 90.0                           |                                |                                      |                                                                                        |                                                                                        |                                      |      |
| 26.7                         | 24070                                        | 1.1                          | 104.71               | -                      | -                           | 99.0                        | 119.0                          | <b>PD/PM 103<br/>280M2C</b>    |                                      |                                                                                        |                                                                                        | 1871                                 | 229  |
| 30.7                         | 20999                                        | 1.3                          | 91.35                | -                      | -                           | 77.0                        | 105.0                          |                                |                                      |                                                                                        |                                                                                        |                                      |      |
| 38.5                         | 16714                                        | 1.7                          | 72.71                | -                      | -                           | 103.0                       | 105.0                          |                                |                                      |                                                                                        |                                                                                        |                                      |      |
| 42.8                         | 15043                                        | 1.8                          | 65.44                | -                      | -                           | 113.0                       | 104.0                          |                                |                                      |                                                                                        |                                                                                        |                                      |      |
| 49.3                         | 13048                                        | 2.0                          | 56.76                | -                      | -                           | 118.0                       | 103.0                          |                                |                                      |                                                                                        |                                                                                        |                                      |      |
| 58.4                         | 11022                                        | 2.4                          | 47.95                | -                      | -                           | 124.0                       | 102.0                          |                                |                                      |                                                                                        |                                                                                        |                                      |      |
| 68.3                         | 9425                                         | 2.8                          | 41.00                | -                      | -                           | 128.0                       | 100.0                          |                                |                                      |                                                                                        |                                                                                        |                                      |      |
| 29.0                         | 23252                                        | 1.0                          | 48.35                | 10.0                   | 23.0                        | 66.0                        | 81.0                           |                                | <b>PD/PM 93<br/>280M4B / 280M4C</b>  | 1307                                                                                   | 225                                                                                    |                                      |      |
| 33.4                         | 20169                                        | 1.2                          | 41.94                | 13.0                   | 26.0                        | 66.0                        | 82.0                           |                                |                                      |                                                                                        |                                                                                        |                                      |      |
| 39.4                         | 17068                                        | 1.4                          | 35.49                | 17.0                   | 30.0                        | 66.0                        | 82.0                           |                                |                                      |                                                                                        |                                                                                        |                                      |      |



| <b>P<sub>1</sub></b><br>[kW] | <b>n<sub>2</sub></b><br>[Min <sup>-1</sup> ] | <b>M<sub>2</sub></b><br>[Nm] | <b>f<sub>B</sub></b> | <b>i<sub>ges</sub></b> | <b>F<sub>R</sub></b><br>[N] | <b>F<sub>A</sub></b><br>[N] | <b>F<sub>R GR</sub></b><br>[N] | <b>F<sub>A GR</sub></b><br>[N]            | <b>Tip / Type / Typ</b><br><b>IE2 / IE3</b> | <b>Kg</b> | <b>mm</b> |
|------------------------------|----------------------------------------------|------------------------------|----------------------|------------------------|-----------------------------|-----------------------------|--------------------------------|-------------------------------------------|---------------------------------------------|-----------|-----------|
| <b>75.0</b>                  | 27.8                                         | 23148                        | 0.8                  | 100.70                 | 10.0                        | 23.0                        | 83.0                           | 103.0                                     | <b>PD/PM 93</b><br><b>280M2B / 280M2C</b>   | 1307      | 225       |
|                              | 33.7                                         | 19123                        | 1.0                  | 83.19                  | 10.0                        | 23.0                        | 75.0                           | 91.0                                      |                                             |           |           |
|                              | 38.8                                         | 16590                        | 1.1                  | 72.17                  | 10.0                        | 23.0                        | 75.0                           | 93.0                                      |                                             |           |           |
|                              | 57.9                                         | 11114                        | 1.6                  | 48.35                  | 10.0                        | 23.0                        | 66.0                           | 81.0                                      |                                             |           |           |
|                              | 66.8                                         | 9641                         | 1.9                  | 41.94                  | 13.0                        | 26.0                        | 66.0                           | 82.0                                      |                                             |           |           |
|                              | 78.9                                         | 8158                         | 2.2                  | 35.49                  | 17.0                        | 30.0                        | 66.0                           | 82.0                                      |                                             |           |           |
|                              | 45.5                                         | 15122                        | 1.2                  | 30.79                  | 13.0                        | 22.0                        | 55.0                           | 69.0                                      | <b>PD/PM 92</b><br><b>280M4B / 280M4C</b>   | 1302      | 224       |
|                              | 52.1                                         | 13187                        | 1.3                  | 26.85                  | 15.0                        | 23.0                        | 54.0                           | 69.0                                      |                                             |           |           |
|                              | 60.4                                         | 11380                        | 1.4                  | 23.17                  | 17.0                        | 25.0                        | 53.0                           | 68.0                                      |                                             |           |           |
|                              | 69.7                                         | 9867                         | 1.6                  | 20.09                  | 17.0                        | 24.0                        | 52.0                           | 66.0                                      |                                             |           |           |
|                              | 80.7                                         | 8516                         | 1.8                  | 17.34                  | 18.0                        | 25.0                        | 51.0                           | 65.0                                      |                                             |           |           |
|                              | 95.3                                         | 7215                         | 2.0                  | 14.69                  | 19.0                        | 25.0                        | 50.0                           | 64.0                                      |                                             |           |           |
|                              | 116.3                                        | 5913                         | 2.3                  | 12.04                  | 19.0                        | 25.0                        | 48.0                           | 62.0                                      |                                             |           |           |
|                              | 137.1                                        | 5015                         | 2.2                  | 10.21                  | 18.0                        | 24.0                        | 46.0                           | 59.0                                      |                                             |           |           |
|                              | 161.8                                        | 4248                         | 2.6                  | 8.65                   | 18.0                        | 24.0                        | 44.0                           | 58.0                                      |                                             |           |           |
|                              | 197.5                                        | 3482                         | 2.9                  | 7.09                   | 18.0                        | 23.0                        | 42.0                           | 56.0                                      |                                             |           |           |
|                              | 90.9                                         | 7335                         | 1.9                  | 30.79                  | 13.0                        | 22.0                        | 55.0                           | 69.0                                      | <b>PD/PM 92</b><br><b>280M2B / 280M2C</b>   | 1302      | 224       |
|                              | 104.3                                        | 6396                         | 2.0                  | 26.85                  | 15.0                        | 23.0                        | 54.0                           | 69.0                                      |                                             |           |           |
|                              | 120.8                                        | 5519                         | 2.3                  | 23.17                  | 17.0                        | 25.0                        | 53.0                           | 68.0                                      |                                             |           |           |
|                              | 139.4                                        | 4786                         | 2.5                  | 20.09                  | 17.0                        | 24.0                        | 52.0                           | 66.0                                      |                                             |           |           |
|                              | 161.5                                        | 4131                         | 2.9                  | 17.34                  | 18.0                        | 25.0                        | 51.0                           | 65.0                                      |                                             |           |           |
|                              | 66.2                                         | 10383                        | 1.0                  | 21.14                  | 8.0                         | 14.0                        | 45.0                           | 65.0                                      | <b>PD/PM 82</b><br><b>280M4B / 280M4C</b>   | 1001      | 220       |
|                              | 80.4                                         | 8551                         | 1.1                  | 17.41                  | 10.0                        | 16.0                        | 45.0                           | 65.0                                      |                                             |           |           |
|                              | 92.2                                         | 7460                         | 1.3                  | 15.19                  | 11.0                        | 17.0                        | 45.0                           | 64.0                                      |                                             |           |           |
|                              | 107.8                                        | 6380                         | 1.6                  | 12.99                  | 13.0                        | 19.0                        | 44.0                           | 64.0                                      |                                             |           |           |
|                              | 128.7                                        | 5344                         | 1.9                  | 10.88                  | 14.0                        | 19.0                        | 43.0                           | 62.0                                      |                                             |           |           |
|                              | 144.8                                        | 4749                         | 1.4                  | 9.67                   | 13.0                        | 19.0                        | 42.0                           | 60.0                                      |                                             |           |           |
|                              | 169.3                                        | 4062                         | 1.8                  | 8.27                   | 14.0                        | 19.0                        | 41.0                           | 59.0                                      |                                             |           |           |
| 202.0                        | 3404                                         | 2.0                          | 6.93                 | 14.0                   | 19.0                        | 40.0                        | 58.0                           |                                           |                                             |           |           |
| 309.7                        | 2220                                         | 2.2                          | 4.52                 | 14.0                   | 18.0                        | 37.0                        | 53.0                           |                                           |                                             |           |           |
| 114.2                        | 5839                                         | 1.4                          | 24.51                | 8.0                    | 14.0                        | 45.0                        | 65.0                           | <b>PD/PM 82</b><br><b>280M2B / 280M2C</b> |                                             |           |           |
| 132.5                        | 5036                                         | 1.6                          | 21.14                | 8.0                    | 14.0                        | 45.0                        | 65.0                           |                                           |                                             |           |           |
| 160.8                        | 4147                                         | 1.8                          | 17.41                | 10.0                   | 16.0                        | 45.0                        | 65.0                           |                                           |                                             |           |           |
| 184.3                        | 3618                                         | 2.0                          | 15.19                | 11.0                   | 17.0                        | 45.0                        | 64.0                           |                                           |                                             |           |           |
| 215.6                        | 3094                                         | 2.5                          | 12.99                | 13.0                   | 19.0                        | 44.0                        | 64.0                           |                                           |                                             |           |           |
| 257.4                        | 2592                                         | 3.0                          | 10.88                | 14.0                   | 19.0                        | 43.0                        | 62.0                           |                                           |                                             |           |           |
| 289.6                        | 2303                                         | 2.2                          | 9.67                 | 13.0                   | 19.0                        | 42.0                        | 60.0                           |                                           |                                             |           |           |
| 338.6                        | 1970                                         | 2.8                          | 8.27                 | 14.0                   | 19.0                        | 41.0                        | 59.0                           |                                           |                                             |           |           |
| <b>90.0</b>                  | 9.1                                          | 89074                        | 1.0                  | 154.35                 | -                           | -                           | 32.0                           | 87.0                                      | <b>PD/PM 123</b><br><b>280M4C / 280M4D</b>  | 2874      | 236       |
|                              | 10.2                                         | 79189                        | 1.1                  | 137.22                 | -                           | -                           | 23.0                           | 71.0                                      |                                             |           |           |
|                              | 11.9                                         | 67722                        | 1.3                  | 117.35                 | -                           | -                           | 28.0                           | 77.0                                      |                                             |           |           |
|                              | 13.9                                         | 58217                        | 1.5                  | 100.88                 | -                           | -                           | 52.0                           | 81.0                                      |                                             |           |           |
|                              | 16.9                                         | 47697                        | 1.9                  | 82.65                  | -                           | -                           | 94.0                           | 84.0                                      |                                             |           |           |
|                              | 20.3                                         | 39889                        | 2.3                  | 69.12                  | -                           | -                           | 112.0                          | 85.0                                      |                                             |           |           |
|                              | 18.1                                         | 42577                        | 1.6                  | 154.35                 | -                           | -                           | 32.0                           | 82.0                                      | <b>PD/PM 123</b><br><b>280M2C / 280M2D</b>  | 2874      | 236       |
|                              | 20.4                                         | 37852                        | 1.8                  | 137.22                 | -                           | -                           | 23.0                           | 71.0                                      |                                             |           |           |
|                              | 23.9                                         | 32371                        | 2.1                  | 117.35                 | -                           | -                           | 28.0                           | 77.0                                      |                                             |           |           |
|                              | 27.8                                         | 27828                        | 2.5                  | 100.88                 | -                           | -                           | 52.0                           | 81.0                                      |                                             |           |           |
|                              | 33.9                                         | 22799                        | 3.0                  | 82.65                  | -                           | -                           | 94.0                           | 84.0                                      |                                             |           |           |
|                              | 9.2                                          | 88220                        | 0.8                  | 152.87                 | -                           | -                           | -                              | -                                         | <b>PD/PM 113</b><br><b>280M4C / 280M4D</b>  | 2769      | 233       |
|                              | 10.7                                         | 75443                        | 0.9                  | 130.73                 | -                           | -                           | 32.0                           | 94.0                                      |                                             |           |           |
|                              | 12.5                                         | 64854                        | 1.1                  | 112.38                 | -                           | -                           | 39.0                           | 96.0                                      |                                             |           |           |
|                              | 15.2                                         | 53133                        | 1.2                  | 92.07                  | -                           | -                           | 72.0                           | 98.0                                      |                                             |           |           |
|                              | 18.2                                         | 44442                        | 1.4                  | 77.01                  | -                           | -                           | 101.0                          | 98.0                                      |                                             |           |           |
|                              | 22.1                                         | 36611                        | 1.6                  | 63.44                  | -                           | -                           | 120.0                          | 97.0                                      |                                             |           |           |
|                              | 25.8                                         | 31313                        | 1.9                  | 54.26                  | -                           | -                           | 129.0                          | 95.0                                      |                                             |           |           |
|                              | 30.0                                         | 26916                        | 2.2                  | 46.64                  | -                           | -                           | 136.0                          | 94.0                                      |                                             |           |           |
|                              | 36.6                                         | 22051                        | 2.7                  | 38.21                  | -                           | -                           | 141.0                          | 91.0                                      |                                             |           |           |
|                              | 16.3                                         | 47435                        | 1.1                  | 171.96                 | -                           | -                           | 26.0                           | 102.0                                     | <b>PD/PM 113</b><br><b>280M2C / 280M2D</b>  | 2769      | 233       |
|                              | 18.3                                         | 42169                        | 1.2                  | 152.87                 | -                           | -                           | 21.0                           | 92.0                                      |                                             |           |           |
|                              | 21.4                                         | 36062                        | 1.5                  | 130.73                 | -                           | -                           | 32.0                           | 94.0                                      |                                             |           |           |
|                              | 24.9                                         | 31000                        | 1.7                  | 112.38                 | -                           | -                           | 39.0                           | 96.0                                      |                                             |           |           |
|                              | 30.4                                         | 25397                        | 2.0                  | 92.07                  | -                           | -                           | 72.0                           | 98.0                                      |                                             |           |           |
|                              | 36.4                                         | 21243                        | 2.2                  | 77.01                  | -                           | -                           | 101.0                          | 98.0                                      |                                             |           |           |
|                              | 44.1                                         | 17500                        | 2.6                  | 63.44                  | -                           | -                           | 120.0                          | 97.0                                      |                                             |           |           |
|                              | 51.6                                         | 14968                        | 3.0                  | 54.26                  | -                           | -                           | 129.0                          | 95.0                                      |                                             |           |           |

| P <sub>1</sub><br>[kW] | n <sub>2</sub><br>[Min <sup>-1</sup> ] | M <sub>2</sub><br>[Nm] | f <sub>B</sub> | i <sub>ges</sub> | F <sub>R</sub><br>[N] | F <sub>A</sub><br>[N] | F <sub>R GR</sub><br>[N] | F <sub>A GR</sub><br>[N]            | Tip / Type / Typ<br>IE2 / IE3        | Kg   | mm  |                                     |      |
|------------------------|----------------------------------------|------------------------|----------------|------------------|-----------------------|-----------------------|--------------------------|-------------------------------------|--------------------------------------|------|-----|-------------------------------------|------|
| <b>90.0</b>            | 40.2                                   | 20540                  | 2.0            | 34.85            | -                     | -                     | 144.0                    | 88.0                                | <b>PD/PM 112<br/>280M4C / 280M4D</b> | 2692 | 232 |                                     |      |
|                        | 46.8                                   | 17634                  | 2.4            | 29.92            | -                     | -                     | 143.0                    | 90.0                                |                                      |      |     |                                     |      |
|                        | 55.0                                   | 15011                  | 2.8            | 25.47            | -                     | -                     | 145.0                    | 87.0                                |                                      |      |     |                                     |      |
|                        | 19.3                                   | 41960                  | 0.9            | 72.71            | -                     | -                     | 84.0                     | 97.0                                | <b>PD/PM 103<br/>280M4C / 280M4D</b> | 1871 | 229 |                                     |      |
|                        | 21.4                                   | 37765                  | 0.9            | 65.44            | -                     | -                     | 100.0                    | 97.0                                |                                      |      |     |                                     |      |
|                        | 24.7                                   | 32756                  | 1.1            | 56.76            | -                     | -                     | 109.0                    | 97.0                                |                                      |      |     |                                     |      |
|                        | 29.2                                   | 27672                  | 1.3            | 47.95            | -                     | -                     | 118.0                    | 96.0                                |                                      |      |     |                                     |      |
|                        | 34.1                                   | 23661                  | 1.5            | 41.00            | -                     | -                     | 124.0                    | 95.0                                |                                      |      |     |                                     |      |
|                        | 40.8                                   | 19823                  | 1.8            | 34.35            | -                     | -                     | 128.0                    | 93.0                                |                                      |      |     |                                     |      |
|                        | 47.0                                   | 17192                  | 2.0            | 29.79            | -                     | -                     | 130.0                    | 91.0                                |                                      |      |     |                                     |      |
|                        | 51.5                                   | 15685                  | 2.1            | 27.18            | -                     | -                     | 132.0                    | 89.0                                |                                      |      |     |                                     |      |
|                        | 59.4                                   | 13608                  | 2.4            | 23.58            | -                     | -                     | 133.0                    | 87.0                                |                                      |      |     |                                     |      |
|                        | 66.7                                   | 12119                  | 2.7            | 21.00            | -                     | -                     | 134.0                    | 86.0                                |                                      |      |     |                                     |      |
|                        | 26.7                                   | 28884                  | 0.9            | 104.71           | -                     | -                     | 99.0                     | 119.0                               | <b>PD/PM 103<br/>280M2C / 280M2D</b> | 1871 | 229 |                                     |      |
|                        | 30.7                                   | 25199                  | 1.1            | 91.35            | -                     | -                     | 77.0                     | 105.0                               |                                      |      |     |                                     |      |
|                        | 38.5                                   | 20057                  | 1.4            | 72.71            | -                     | -                     | 84.0                     | 97.0                                |                                      |      |     |                                     |      |
|                        | 42.8                                   | 18051                  | 1.5            | 65.44            | -                     | -                     | 100.0                    | 97.0                                |                                      |      |     |                                     |      |
|                        | 49.3                                   | 15657                  | 1.7            | 56.76            | -                     | -                     | 109.0                    | 97.0                                |                                      |      |     |                                     |      |
|                        | 58.4                                   | 13227                  | 2.0            | 47.95            | -                     | -                     | 118.0                    | 96.0                                |                                      |      |     |                                     |      |
|                        | 68.3                                   | 11310                  | 2.4            | 41.00            | -                     | -                     | 124.0                    | 95.0                                |                                      |      |     |                                     |      |
|                        | 81.5                                   | 9475                   | 2.8            | 34.35            | -                     | -                     | 128.0                    | 93.0                                |                                      |      |     |                                     |      |
|                        | 76.8                                   | 10750                  | 3.0            | 18.24            | -                     | -                     | 135.0                    | 84.0                                | <b>PD/PM 102<br/>280M4C / 280M4D</b> | 1871 | 228 |                                     |      |
|                        | 29.0                                   | 27902                  | 0.9            | 48.35            | -                     | -                     | 66.0                     | 81.0                                | <b>PD/PM 93<br/>280M4C / 280M4D</b>  | 1307 | 225 |                                     |      |
|                        | 33.4                                   | 24203                  | 1.0            | 41.94            | -                     | -                     | 66.0                     | 82.0                                |                                      |      |     |                                     |      |
|                        | 39.4                                   | 20481                  | 1.2            | 35.49            | -                     | -                     | 66.0                     | 82.0                                |                                      |      |     |                                     |      |
|                        | 33.7                                   | 22948                  | 0.8            | 83.19            | 10.0                  | 23.0                  | 75.0                     | 91.0                                | <b>PD/PM 93<br/>280M2C / 280M2D</b>  | 1307 | 225 |                                     |      |
|                        | 38.8                                   | 19908                  | 0.9            | 72.17            | 10.0                  | 23.0                  | 75.0                     | 93.0                                |                                      |      |     |                                     |      |
|                        | 57.9                                   | 13337                  | 1.4            | 48.35            | 10.0                  | 23.0                  | 66.0                     | 81.0                                |                                      |      |     |                                     |      |
|                        | 66.8                                   | 11569                  | 1.6            | 41.94            | 10.0                  | 23.0                  | 66.0                     | 82.0                                |                                      |      |     |                                     |      |
|                        | 78.9                                   | 9790                   | 1.9            | 35.49            | 10.0                  | 23.0                  | 66.0                     | 82.0                                |                                      |      |     |                                     |      |
|                        | 45.5                                   | 18147                  | 1.0            | 30.79            | 7.0                   | 14.0                  | 51.0                     | 63.0                                | <b>PD/PM 92<br/>280M4C / 280M4D</b>  | 1302 | 224 |                                     |      |
|                        | 52.1                                   | 15825                  | 1.1            | 26.85            | 10.0                  | 17.0                  | 51.0                     | 63.0                                |                                      |      |     |                                     |      |
|                        | 60.4                                   | 13656                  | 1.2            | 23.17            | 13.0                  | 19.0                  | 51.0                     | 64.0                                |                                      |      |     |                                     |      |
|                        | 69.7                                   | 11840                  | 1.3            | 20.09            | 13.0                  | 20.0                  | 49.0                     | 62.0                                |                                      |      |     |                                     |      |
|                        | 80.7                                   | 10220                  | 1.5            | 17.34            | 15.0                  | 21.0                  | 49.0                     | 62.0                                |                                      |      |     |                                     |      |
|                        | 95.3                                   | 8658                   | 1.7            | 14.69            | 16.0                  | 22.0                  | 48.0                     | 61.0                                |                                      |      |     |                                     |      |
|                        | 116.3                                  | 7096                   | 1.9            | 12.04            | 17.0                  | 22.0                  | 46.0                     | 60.0                                |                                      |      |     |                                     |      |
|                        | 137.1                                  | 6017                   | 1.8            | 10.21            | 16.0                  | 21.0                  | 44.0                     | 57.0                                |                                      |      |     |                                     |      |
|                        | 161.8                                  | 5098                   | 2.2            | 8.65             | 17.0                  | 21.0                  | 43.0                     | 56.0                                |                                      |      |     |                                     |      |
|                        | 197.5                                  | 4179                   | 2.4            | 7.09             | 17.0                  | 21.0                  | 41.0                     | 54.0                                |                                      |      |     |                                     |      |
|                        | 242.2                                  | 3407                   | 2.6            | 5.78             | 17.0                  | 21.0                  | 40.0                     | 52.0                                |                                      |      |     |                                     |      |
|                        | 261.2                                  | 3159                   | 2.6            | 5.36             | 17.0                  | 20.0                  | 39.0                     | 51.0                                |                                      |      |     |                                     |      |
|                        | 90.9                                   | 8801                   | 1.5            | 30.79            | 7.0                   | 14.0                  | 51.0                     | 63.0                                |                                      |      |     | <b>PD/PM 92<br/>280M2C / 280M2D</b> | 1302 |
|                        | 104.3                                  | 7675                   | 1.7            | 26.85            | 10.0                  | 17.0                  | 51.0                     | 63.0                                |                                      |      |     |                                     |      |
|                        | 120.8                                  | 6623                   | 1.9            | 23.17            | 13.0                  | 19.0                  | 51.0                     | 64.0                                |                                      |      |     |                                     |      |
|                        | 139.4                                  | 5743                   | 2.1            | 20.09            | 13.0                  | 20.0                  | 49.0                     | 62.0                                |                                      |      |     |                                     |      |
|                        | 161.5                                  | 4957                   | 2.4            | 17.34            | 15.0                  | 21.0                  | 49.0                     | 62.0                                |                                      |      |     |                                     |      |
|                        | 190.6                                  | 4199                   | 2.7            | 14.69            | 16.0                  | 22.0                  | 48.0                     | 61.0                                |                                      |      |     |                                     |      |
| 232.6                  | 3442                                   | 3.0                    | 12.04          | 17.0             | 22.0                  | 46.0                  | 60.0                     |                                     |                                      |      |     |                                     |      |
| 274.2                  | 2919                                   | 2.8                    | 10.21          | 16.0             | 21.0                  | 44.0                  | 57.0                     |                                     |                                      |      |     |                                     |      |
| 66.2                   | 12459                                  | 0.9                    | 21.14          | -                | -                     | 14.0                  | 45.0                     | <b>PD/PM 82<br/>280M4C / 280M4D</b> | 1001                                 | 220  |     |                                     |      |
| 80.4                   | 10261                                  | 0.9                    | 17.41          | -                | -                     | 16.0                  | 45.0                     |                                     |                                      |      |     |                                     |      |
| 92.2                   | 8953                                   | 1.1                    | 15.19          | -                | -                     | 17.0                  | 45.0                     |                                     |                                      |      |     |                                     |      |
| 107.8                  | 7656                                   | 1.3                    | 12.99          | -                | -                     | 19.0                  | 44.0                     |                                     |                                      |      |     |                                     |      |
| 128.7                  | 6412                                   | 1.6                    | 10.88          | -                | -                     | 19.0                  | 43.0                     |                                     |                                      |      |     |                                     |      |
| 144.8                  | 5699                                   | 1.1                    | 9.67           | -                | -                     | 19.0                  | 42.0                     |                                     |                                      |      |     |                                     |      |
| 169.3                  | 4874                                   | 1.5                    | 8.27           | -                | -                     | 19.0                  | 41.0                     |                                     |                                      |      |     |                                     |      |
| 202.0                  | 4084                                   | 1.7                    | 6.93           | -                | -                     | 19.0                  | 40.0                     |                                     |                                      |      |     |                                     |      |
| 309.7                  | 2664                                   | 1.8                    | 4.52           | -                | -                     | 18.0                  | 37.0                     |                                     |                                      |      |     |                                     |      |
|                        |                                        |                        |                |                  |                       |                       |                          |                                     |                                      |      |     |                                     |      |



| <b>P<sub>1</sub></b><br>[kW] | <b>n<sub>2</sub></b><br>[Min <sup>-1</sup> ] | <b>M<sub>2</sub></b><br>[Nm] | <b>f<sub>B</sub></b> | <b>i<sub>ges</sub></b> | <b>F<sub>R</sub></b><br>[N] | <b>F<sub>A</sub></b><br>[N] | <b>F<sub>R GR</sub></b><br>[N] | <b>F<sub>A GR</sub></b><br>[N]    | <b>Tip / Type / Typ</b><br><b>IE2 / IE3</b> |  <b>Kg</b> |  <b>mm</b> |
|------------------------------|----------------------------------------------|------------------------------|----------------------|------------------------|-----------------------------|-----------------------------|--------------------------------|-----------------------------------|---------------------------------------------|-----------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------|
| <b>90.0</b>                  | 114.2                                        | 7006                         | 1.2                  | 24.51                  | 8.0                         | 14.0                        | 45.0                           | 65.0                              | <b>PD/PM 82</b><br><b>280M2C / 280M2D</b>   | 1001                                                                                          | 220                                                                                           |
|                              | 132.5                                        | 6043                         | 1.3                  | 21.14                  | 8.0                         | 14.0                        | 45.0                           | 65.0                              |                                             |                                                                                               |                                                                                               |
|                              | 160.8                                        | 4977                         | 1.5                  | 17.41                  | 8.0                         | 14.0                        | 45.0                           | 65.0                              |                                             |                                                                                               |                                                                                               |
|                              | 184.3                                        | 4342                         | 1.7                  | 15.19                  | 8.0                         | 14.0                        | 45.0                           | 64.0                              |                                             |                                                                                               |                                                                                               |
|                              | 215.6                                        | 3713                         | 2.1                  | 12.99                  | 8.0                         | 14.0                        | 44.0                           | 64.0                              |                                             |                                                                                               |                                                                                               |
|                              | 257.4                                        | 3110                         | 2.5                  | 10.88                  | 8.0                         | 14.0                        | 43.0                           | 62.0                              |                                             |                                                                                               |                                                                                               |
|                              | 289.6                                        | 2764                         | 1.8                  | 9.67                   | 8.0                         | 14.0                        | 42.0                           | 60.0                              |                                             |                                                                                               |                                                                                               |
|                              | 338.6                                        | 2364                         | 2.3                  | 8.27                   | 8.0                         | 14.0                        | 41.0                           | 59.0                              |                                             |                                                                                               |                                                                                               |
|                              | 404.0                                        | 1981                         | 2.6                  | 6.93                   | 8.0                         | 14.0                        | 40.0                           | 58.0                              |                                             |                                                                                               |                                                                                               |
|                              | 619.5                                        | 1292                         | 2.9                  | 4.52                   | 8.0                         | 14.0                        | 37.0                           | 53.0                              |                                             |                                                                                               |                                                                                               |
| <b>110</b>                   | 10.2                                         | 96786                        | 0.9                  | 137.22                 | -                           | -                           | 14.0                           | 51.0                              | <b>PD/PM 123</b><br><b>315S4C</b>           | 3424                                                                                          | 236                                                                                           |
|                              | 11.9                                         | 82771                        | 1.1                  | 117.35                 | -                           | -                           | 17.0                           | 60.0                              |                                             |                                                                                               |                                                                                               |
|                              | 13.9                                         | 71154                        | 1.3                  | 100.88                 | -                           | -                           | 27.0                           | 66.0                              |                                             |                                                                                               |                                                                                               |
|                              | 16.9                                         | 58296                        | 1.5                  | 82.65                  | -                           | -                           | 44.0                           | 72.0                              |                                             |                                                                                               |                                                                                               |
|                              | 20.3                                         | 48753                        | 1.8                  | 69.12                  | -                           | -                           | 94.0                           | 76.0                              |                                             |                                                                                               |                                                                                               |
|                              | 20.4                                         | 46263                        | 1.5                  | 137.22                 | -                           | -                           | 14.0                           | 51.0                              | <b>PD/PM 123</b><br><b>315S2C</b>           | 3424                                                                                          | 236                                                                                           |
|                              | 23.9                                         | 39564                        | 1.7                  | 117.35                 | -                           | -                           | 17.0                           | 60.0                              |                                             |                                                                                               |                                                                                               |
|                              | 27.8                                         | 34011                        | 2.0                  | 100.88                 | -                           | -                           | 27.0                           | 66.0                              |                                             |                                                                                               |                                                                                               |
|                              | 33.9                                         | 27865                        | 2.5                  | 82.65                  | -                           | -                           | 44.0                           | 72.0                              |                                             |                                                                                               |                                                                                               |
|                              | 40.5                                         | 23304                        | 2.9                  | 69.12                  | -                           | -                           | 94.0                           | 76.0                              |                                             |                                                                                               |                                                                                               |
|                              | 12.5                                         | 79266                        | 0.9                  | 112.38                 | -                           | -                           | 23.0                           | 84.0                              | <b>PD/PM 113</b><br><b>315S4C</b>           | 3029                                                                                          | 233                                                                                           |
|                              | 15.2                                         | 64940                        | 1.0                  | 92.07                  | -                           | -                           | 38.0                           | 88.0                              |                                             |                                                                                               |                                                                                               |
|                              | 18.2                                         | 54318                        | 1.1                  | 77.01                  | -                           | -                           | 64.0                           | 89.0                              |                                             |                                                                                               |                                                                                               |
|                              | 22.1                                         | 44746                        | 1.3                  | 63.44                  | -                           | -                           | 100.0                          | 90.0                              |                                             |                                                                                               |                                                                                               |
|                              | 25.8                                         | 38272                        | 1.6                  | 54.26                  | -                           | -                           | 117.0                          | 89.0                              |                                             |                                                                                               |                                                                                               |
|                              | 30.0                                         | 32897                        | 1.8                  | 46.64                  | -                           | -                           | 128.0                          | 88.0                              |                                             |                                                                                               |                                                                                               |
|                              | 36.6                                         | 26951                        | 2.2                  | 38.21                  | -                           | -                           | 136.0                          | 87.0                              |                                             |                                                                                               |                                                                                               |
|                              | 43.8                                         | 22543                        | 2.7                  | 31.96                  | -                           | -                           | 141.0                          | 85.0                              |                                             |                                                                                               |                                                                                               |
|                              | 18.3                                         | 51540                        | 1.0                  | 152.87                 | -                           | -                           | 21.0                           | 92.0                              | <b>PD/PM 113</b><br><b>315S2C</b>           | 3029                                                                                          | 233                                                                                           |
|                              | 21.4                                         | 44075                        | 1.2                  | 130.73                 | -                           | -                           | 32.0                           | 94.0                              |                                             |                                                                                               |                                                                                               |
|                              | 24.9                                         | 37889                        | 1.4                  | 112.38                 | -                           | -                           | 23.0                           | 84.0                              |                                             |                                                                                               |                                                                                               |
|                              | 30.4                                         | 31041                        | 1.6                  | 92.07                  | -                           | -                           | 38.0                           | 88.0                              |                                             |                                                                                               |                                                                                               |
|                              | 36.4                                         | 25964                        | 1.8                  | 77.01                  | -                           | -                           | 64.0                           | 89.0                              |                                             |                                                                                               |                                                                                               |
|                              | 44.1                                         | 21389                        | 2.1                  | 63.44                  | -                           | -                           | 100.0                          | 90.0                              |                                             |                                                                                               |                                                                                               |
|                              | 51.6                                         | 18294                        | 2.5                  | 54.26                  | -                           | -                           | 117.0                          | 89.0                              |                                             |                                                                                               |                                                                                               |
|                              | 60.0                                         | 15725                        | 2.9                  | 46.64                  | -                           | -                           | 128.0                          | 88.0                              |                                             |                                                                                               |                                                                                               |
|                              | 40.2                                         | 25104                        | 1.7                  | 34.85                  | -                           | -                           | 139.0                          | 86.0                              | <b>PD/PM 112</b><br><b>315S4C</b>           | 2872                                                                                          | 232                                                                                           |
|                              | 46.8                                         | 21553                        | 1.9                  | 29.92                  | -                           | -                           | 142.0                          | 84.0                              |                                             |                                                                                               |                                                                                               |
|                              | 55.0                                         | 18347                        | 2.3                  | 25.47                  | -                           | -                           | 145.0                          | 82.0                              |                                             |                                                                                               |                                                                                               |
|                              | 65.4                                         | 15430                        | 2.7                  | 21.42                  | -                           | -                           | 147.0                          | 79.0                              |                                             |                                                                                               |                                                                                               |
|                              | 99.7                                         | 10114                        | 2.6                  | 14.04                  | -                           | -                           | 147.0                          | 67.0                              |                                             |                                                                                               |                                                                                               |
|                              | 80.3                                         | 12176                        | 2.6                  | 34.85                  | -                           | -                           | 139.0                          | 86.0                              | <b>PD/PM 112</b><br><b>315S2C</b>           | 2692                                                                                          | 232                                                                                           |
|                              | 21.4                                         | 46157                        | 0.8                  | 65.44                  | -                           | -                           | 74.0                           | 87.0                              | <b>PD/PM 103</b><br><b>315S4C</b>           | 2236                                                                                          | 229                                                                                           |
|                              | 24.7                                         | 40035                        | 0.9                  | 56.76                  | -                           | -                           | 92.0                           | 88.0                              |                                             |                                                                                               |                                                                                               |
|                              | 29.2                                         | 33821                        | 1.0                  | 47.95                  | -                           | -                           | 107.0                          | 89.0                              |                                             |                                                                                               |                                                                                               |
|                              | 34.1                                         | 28919                        | 1.2                  | 41.00                  | -                           | -                           | 116.0                          | 89.0                              |                                             |                                                                                               |                                                                                               |
| 40.8                         | 24228                                        | 1.4                          | 34.35                | -                      | -                           | 123.0                       | 88.0                           |                                   |                                             |                                                                                               |                                                                                               |
| 47.0                         | 21012                                        | 1.7                          | 29.79                | -                      | -                           | 127.0                       | 87.0                           |                                   |                                             |                                                                                               |                                                                                               |
| 51.5                         | 19171                                        | 1.7                          | 27.18                | -                      | -                           | 129.0                       | 85.0                           |                                   |                                             |                                                                                               |                                                                                               |
| 59.4                         | 16632                                        | 2.0                          | 23.58                | -                      | -                           | 131.0                       | 84.0                           |                                   |                                             |                                                                                               |                                                                                               |
| 66.7                         | 14812                                        | 2.2                          | 21.00                | -                      | -                           | 132.0                       | 82.0                           |                                   |                                             |                                                                                               |                                                                                               |
| 30.7                         | 30798                                        | 0.9                          | 91.35                | -                      | -                           | 77.0                        | 105.0                          | <b>PD/PM 103</b><br><b>315S2C</b> |                                             |                                                                                               |                                                                                               |
| 38.5                         | 24514                                        | 1.2                          | 72.71                | -                      | -                           | 84.0                        | 97.0                           |                                   |                                             |                                                                                               |                                                                                               |
| 42.8                         | 22063                                        | 1.2                          | 65.44                | -                      | -                           | 74.0                        | 87.0                           |                                   |                                             |                                                                                               |                                                                                               |
| 49.3                         | 19136                                        | 1.4                          | 56.76                | -                      | -                           | 92.0                        | 88.0                           |                                   |                                             |                                                                                               |                                                                                               |
| 58.4                         | 16166                                        | 1.6                          | 47.95                | -                      | -                           | 107.0                       | 89.0                           |                                   |                                             |                                                                                               |                                                                                               |
| 68.3                         | 13823                                        | 1.9                          | 41.00                | -                      | -                           | 116.0                       | 89.0                           |                                   |                                             |                                                                                               |                                                                                               |
| 81.5                         | 11581                                        | 2.3                          | 34.35                | -                      | -                           | 123.0                       | 88.0                           |                                   |                                             |                                                                                               |                                                                                               |
| 94.0                         | 10044                                        | 2.6                          | 29.79                | -                      | -                           | 127.0                       | 87.0                           |                                   |                                             |                                                                                               |                                                                                               |
| 103.0                        | 9164                                         | 2.7                          | 27.18                | -                      | -                           | 129.0                       | 85.0                           |                                   |                                             |                                                                                               |                                                                                               |
| 76.8                         | 13139                                        | 2.4                          | 18.24                | -                      | -                           | 134.0                       | 81.0                           |                                   | <b>PD/PM 102</b><br><b>315S4C</b>           | 2236                                                                                          | 228                                                                                           |
| 92.2                         | 10942                                        | 2.9                          | 15.19                | -                      | -                           | 135.0                       | 78.0                           |                                   |                                             |                                                                                               |                                                                                               |

| <b>P<sub>1</sub></b><br>[kW] | <b>n<sub>2</sub></b><br>[Min <sup>-1</sup> ] | <b>M<sub>2</sub></b><br>[Nm] | <b>f<sub>B</sub></b> | <b>i<sub>ges</sub></b> | <b>F<sub>R</sub></b><br>[N] | <b>F<sub>A</sub></b><br>[N] | <b>F<sub>R GR</sub></b><br>[N] | <b>F<sub>A GR</sub></b><br>[N]       | Tip / Type / Typ<br>IE2 / IE3        |  |  |  |  |
|------------------------------|----------------------------------------------|------------------------------|----------------------|------------------------|-----------------------------|-----------------------------|--------------------------------|--------------------------------------|--------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|--|--|
| <b>110</b>                   | 52.1                                         | 19341                        | 0.9                  | 26.85                  | 3.0                         | 9.0                         | 46.0                           | 57.0                                 | <b>PD/PM 92<br/>315S4C</b>           | 1667                                                                                | 224                                                                                 |  |  |
|                              | 60.4                                         | 16690                        | 1.0                  | 23.17                  | 6.0                         | 12.0                        | 47.0                           | 58.0                                 |                                      |                                                                                     |                                                                                     |  |  |
|                              | 69.7                                         | 14472                        | 1.1                  | 20.09                  | 8.0                         | 13.0                        | 46.0                           | 57.0                                 |                                      |                                                                                     |                                                                                     |  |  |
|                              | 80.7                                         | 12491                        | 1.2                  | 17.34                  | 10.0                        | 15.0                        | 46.0                           | 57.0                                 |                                      |                                                                                     |                                                                                     |  |  |
|                              | 95.3                                         | 10582                        | 1.4                  | 14.69                  | 12.0                        | 17.0                        | 45.0                           | 57.0                                 |                                      |                                                                                     |                                                                                     |  |  |
|                              | 116.3                                        | 8673                         | 1.6                  | 12.04                  | 14.0                        | 18.0                        | 44.0                           | 57.0                                 |                                      |                                                                                     |                                                                                     |  |  |
|                              | 137.1                                        | 7355                         | 1.5                  | 10.21                  | 14.0                        | 18.0                        | 43.0                           | 54.0                                 |                                      |                                                                                     |                                                                                     |  |  |
|                              | 161.8                                        | 6231                         | 1.8                  | 8.65                   | 14.0                        | 18.0                        | 42.0                           | 53.0                                 |                                      |                                                                                     |                                                                                     |  |  |
|                              | 197.5                                        | 5107                         | 2.0                  | 7.09                   | 15.0                        | 19.0                        | 40.0                           | 52.0                                 |                                      |                                                                                     |                                                                                     |  |  |
|                              | 242.2                                        | 4164                         | 2.1                  | 5.78                   | 15.0                        | 19.0                        | 39.0                           | 50.0                                 |                                      |                                                                                     |                                                                                     |  |  |
|                              | 261.2                                        | 3861                         | 2.2                  | 5.36                   | 15.0                        | 18.0                        | 38.0                           | 50.0                                 |                                      |                                                                                     |                                                                                     |  |  |
|                              | 104.3                                        | 9381                         | 1.4                  | 26.85                  | 3.0                         | 9.0                         | 46.0                           | 57.0                                 |                                      |                                                                                     |                                                                                     |  |  |
|                              | 120.8                                        | 8095                         | 1.5                  | 23.17                  | 6.0                         | 12.0                        | 47.0                           | 58.0                                 |                                      |                                                                                     |                                                                                     |  |  |
|                              | 139.4                                        | 7019                         | 1.7                  | 20.09                  | 8.0                         | 13.0                        | 46.0                           | 57.0                                 |                                      |                                                                                     |                                                                                     |  |  |
|                              | 161.5                                        | 6058                         | 1.9                  | 17.34                  | 10.0                        | 15.0                        | 46.0                           | 57.0                                 |                                      |                                                                                     |                                                                                     |  |  |
|                              | 190.6                                        | 5132                         | 2.2                  | 14.69                  | 12.0                        | 17.0                        | 45.0                           | 57.0                                 |                                      |                                                                                     |                                                                                     |  |  |
|                              | 232.6                                        | 4206                         | 2.5                  | 12.04                  | 14.0                        | 18.0                        | 44.0                           | 57.0                                 |                                      |                                                                                     |                                                                                     |  |  |
|                              | 274.2                                        | 3567                         | 2.3                  | 10.21                  | 14.0                        | 18.0                        | 43.0                           | 54.0                                 |                                      |                                                                                     |                                                                                     |  |  |
|                              | 323.7                                        | 3022                         | 2.8                  | 8.65                   | 14.0                        | 18.0                        | 42.0                           | 53.0                                 |                                      |                                                                                     |                                                                                     |  |  |
| <b>132</b>                   | 10.2                                         | 116143                       | 0.8                  | 137.22                 | -                           | -                           | 14.0                           | 51.0                                 | <b>PD/PM 123<br/>315M4C / 315M4B</b> | 3424                                                                                | 236                                                                                 |  |  |
|                              | 11.9                                         | 99325                        | 0.9                  | 117.35                 | -                           | -                           | 17.0                           | 60.0                                 |                                      |                                                                                     |                                                                                     |  |  |
|                              | 13.9                                         | 85385                        | 1.1                  | 100.88                 | -                           | -                           | 26.0                           | 50.0                                 |                                      |                                                                                     |                                                                                     |  |  |
|                              | 16.9                                         | 69955                        | 1.3                  | 82.65                  | -                           | -                           | 32.0                           | 59.0                                 |                                      |                                                                                     |                                                                                     |  |  |
|                              | 20.3                                         | 58503                        | 1.5                  | 69.12                  | -                           | -                           | 52.0                           | 65.0                                 |                                      |                                                                                     |                                                                                     |  |  |
|                              | 20.4                                         | 55516                        | 1.2                  | 137.22                 | -                           | -                           | 14.0                           | 51.0                                 | <b>PD/PM 123<br/>315M2C / 315M2B</b> | 3424                                                                                | 236                                                                                 |  |  |
|                              | 23.9                                         | 47477                        | 1.4                  | 117.35                 | -                           | -                           | 17.0                           | 60.0                                 |                                      |                                                                                     |                                                                                     |  |  |
|                              | 27.8                                         | 40814                        | 1.7                  | 100.88                 | -                           | -                           | 26.0                           | 50.0                                 |                                      |                                                                                     |                                                                                     |  |  |
|                              | 33.9                                         | 33438                        | 2.0                  | 82.65                  | -                           | -                           | 32.0                           | 59.0                                 |                                      |                                                                                     |                                                                                     |  |  |
|                              | 40.5                                         | 27964                        | 2.4                  | 69.12                  | -                           | -                           | 52.0                           | 65.0                                 |                                      |                                                                                     |                                                                                     |  |  |
|                              | 15.2                                         | 77928                        | 0.8                  | 92.07                  | -                           | -                           | 44.0                           | 76.0                                 | <b>PD/PM 113<br/>315M4C / 315M4B</b> | 3029                                                                                | 233                                                                                 |  |  |
|                              | 18.2                                         | 65181                        | 1.0                  | 77.01                  | -                           | -                           | 52.0                           | 80.0                                 |                                      |                                                                                     |                                                                                     |  |  |
|                              | 22.1                                         | 53696                        | 1.1                  | 63.44                  | -                           | -                           | 66.0                           | 82.0                                 |                                      |                                                                                     |                                                                                     |  |  |
|                              | 25.8                                         | 45926                        | 1.3                  | 54.26                  | -                           | -                           | 97.0                           | 83.0                                 |                                      |                                                                                     |                                                                                     |  |  |
|                              | 30.0                                         | 39476                        | 1.5                  | 46.64                  | -                           | -                           | 115.0                          | 83.0                                 |                                      |                                                                                     |                                                                                     |  |  |
|                              | 36.6                                         | 32341                        | 1.9                  | 38.21                  | -                           | -                           | 128.0                          | 82.0                                 |                                      |                                                                                     |                                                                                     |  |  |
|                              | 43.8                                         | 27051                        | 2.2                  | 31.96                  | -                           | -                           | 136.0                          | 81.0                                 |                                      |                                                                                     |                                                                                     |  |  |
|                              | 18.3                                         | 61848                        | 0.8                  | 152.87                 | -                           | -                           | 21.0                           | 92.0                                 |                                      |                                                                                     |                                                                                     |  |  |
|                              | 21.4                                         | 52890                        | 1.0                  | 130.73                 | -                           | -                           | 32.0                           | 94.0                                 | <b>PD/PM 113<br/>315M2C / 315M2B</b> | 3029                                                                                | 233                                                                                 |  |  |
|                              | 24.9                                         | 45466                        | 1.2                  | 112.38                 | -                           | -                           | 23.0                           | 84.0                                 |                                      |                                                                                     |                                                                                     |  |  |
|                              | 30.4                                         | 37249                        | 1.3                  | 92.07                  | -                           | -                           | 44.0                           | 76.0                                 |                                      |                                                                                     |                                                                                     |  |  |
|                              | 36.4                                         | 31156                        | 1.5                  | 77.01                  | -                           | -                           | 52.0                           | 80.0                                 |                                      |                                                                                     |                                                                                     |  |  |
|                              | 44.1                                         | 25666                        | 1.8                  | 63.44                  | -                           | -                           | 66.0                           | 82.0                                 |                                      |                                                                                     |                                                                                     |  |  |
|                              | 51.6                                         | 21952                        | 2.1                  | 54.26                  | -                           | -                           | 97.0                           | 83.0                                 |                                      |                                                                                     |                                                                                     |  |  |
|                              | 60.0                                         | 18869                        | 2.4                  | 46.64                  | -                           | -                           | 115.0                          | 83.0                                 |                                      |                                                                                     |                                                                                     |  |  |
|                              | 73.3                                         | 15459                        | 2.9                  | 38.21                  | -                           | -                           | 128.0                          | 82.0                                 |                                      |                                                                                     |                                                                                     |  |  |
|                              | 40.2                                         | 30125                        | 1.4                  | 34.85                  | -                           | -                           | 139.0                          | 86.0                                 | <b>PD/PM 112<br/>315M4C / 315M4B</b> | 2952                                                                                | 232                                                                                 |  |  |
|                              | 46.8                                         | 25863                        | 1.6                  | 29.92                  | -                           | -                           | 138.0                          | 80.0                                 |                                      |                                                                                     |                                                                                     |  |  |
|                              | 55.0                                         | 22017                        | 1.9                  | 25.47                  | -                           | -                           | 141.0                          | 79.0                                 |                                      |                                                                                     |                                                                                     |  |  |
|                              | 65.4                                         | 18516                        | 2.3                  | 21.42                  | -                           | -                           | 144.0                          | 74.0                                 |                                      |                                                                                     |                                                                                     |  |  |
|                              | 76.6                                         | 15793                        | 2.7                  | 18.27                  | -                           | -                           | 144.0                          | 72.0                                 |                                      |                                                                                     |                                                                                     |  |  |
|                              | 85.7                                         | 14116                        | 3.0                  | 16.33                  | -                           | -                           | 145.0                          | 71.0                                 |                                      |                                                                                     |                                                                                     |  |  |
|                              | 99.7                                         | 12136                        | 2.2                  | 14.04                  | -                           | -                           | 147.0                          | 67.0                                 |                                      |                                                                                     |                                                                                     |  |  |
| 117.1                        | 10338                                        | 2.5                          | 11.96                | -                      | -                           | 148.0                       | 66.0                           |                                      |                                      |                                                                                     |                                                                                     |  |  |
| 139.3                        | 8687                                         | 3.0                          | 10.05                | -                      | -                           | 149.0                       | 64.0                           |                                      |                                      |                                                                                     |                                                                                     |  |  |
| 80.3                         | 14611                                        | 2.2                          | 34.85                | -                      | -                           | 139.0                       | 86.0                           |                                      |                                      |                                                                                     |                                                                                     |  |  |
| 93.6                         | 12544                                        | 2.5                          | 29.92                | -                      | -                           | 138.0                       | 80.0                           | <b>PD/PM 112<br/>315M2C / 315M2B</b> | 2692                                 | 232                                                                                 |                                                                                     |  |  |
| 109.9                        | 10678                                        | 3.0                          | 25.47                | -                      | -                           | 141.0                       | 79.0                           |                                      |                                      |                                                                                     |                                                                                     |  |  |
| 29.2                         | 40585                                        | 0.9                          | 47.95                | -                      | -                           | 107.0                       | 89.0                           |                                      |                                      |                                                                                     |                                                                                     |  |  |
| 34.1                         | 34703                                        | 1.0                          | 41.00                | -                      | -                           | 105.0                       | 82.0                           | <b>PD/PM 103<br/>315M4C / 315M4B</b> | 2236                                 | 229                                                                                 |                                                                                     |  |  |
| 40.8                         | 29074                                        | 1.2                          | 34.35                | -                      | -                           | 116.0                       | 82.0                           |                                      |                                      |                                                                                     |                                                                                     |  |  |
| 47.0                         | 25214                                        | 1.4                          | 29.79                | -                      | -                           | 122.0                       | 82.0                           |                                      |                                      |                                                                                     |                                                                                     |  |  |
| 51.5                         | 23005                                        | 1.4                          | 27.18                | -                      | -                           | 125.0                       | 81.0                           |                                      |                                      |                                                                                     |                                                                                     |  |  |
| 59.4                         | 19958                                        | 1.7                          | 23.58                | -                      | -                           | 128.0                       | 80.0                           |                                      |                                      |                                                                                     |                                                                                     |  |  |
| 66.7                         | 17774                                        | 1.9                          | 21.00                | -                      | -                           | 130.0                       | 79.0                           |                                      |                                      |                                                                                     |                                                                                     |  |  |
|                              |                                              |                              |                      |                        |                             |                             |                                |                                      |                                      |                                                                                     |                                                                                     |  |  |

| <b>P<sub>1</sub></b><br>[kW] | <b>n<sub>2</sub></b><br>[Min <sup>-1</sup> ] | <b>M<sub>2</sub></b><br>[Nm] | <b>f<sub>B</sub></b> | <b>i<sub>ges</sub></b> | <b>F<sub>R</sub></b><br>[N] | <b>F<sub>A</sub></b><br>[N] | <b>F<sub>R GR</sub></b><br>[N] | <b>F<sub>A GR</sub></b><br>[N] | <b>Tip / Type / Typ</b><br><b>IE2 / IE3</b> |  <b>Kg</b> |  <b>mm</b> |
|------------------------------|----------------------------------------------|------------------------------|----------------------|------------------------|-----------------------------|-----------------------------|--------------------------------|--------------------------------|---------------------------------------------|-----------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------|
| <b>132</b>                   | 38.5                                         | 29417                        | 1.0                  | 72.71                  | -                           | -                           | 84.0                           | 97.0                           | <b>PD/PM 103</b><br><b>315M2C / 315M2B</b>  | 2236                                                                                          | 229                                                                                           |
|                              | 42.8                                         | 26476                        | 1.0                  | 65.44                  | -                           | -                           | 74.0                           | 87.0                           |                                             |                                                                                               |                                                                                               |
|                              | 49.3                                         | 22964                        | 1.2                  | 56.76                  | -                           | -                           | 92.0                           | 88.0                           |                                             |                                                                                               |                                                                                               |
|                              | 58.4                                         | 19399                        | 1.4                  | 47.95                  | -                           | -                           | 107.0                          | 89.0                           |                                             |                                                                                               |                                                                                               |
|                              | 68.3                                         | 16588                        | 1.6                  | 41.00                  | -                           | -                           | 105.0                          | 82.0                           |                                             |                                                                                               |                                                                                               |
|                              | 81.5                                         | 13897                        | 1.9                  | 34.35                  | -                           | -                           | 116.0                          | 82.0                           |                                             |                                                                                               |                                                                                               |
|                              | 94.0                                         | 12052                        | 2.2                  | 29.79                  | -                           | -                           | 122.0                          | 82.0                           |                                             |                                                                                               |                                                                                               |
|                              | 103.0                                        | 10996                        | 2.3                  | 27.18                  | -                           | -                           | 125.0                          | 81.0                           |                                             |                                                                                               |                                                                                               |
|                              | 118.7                                        | 9540                         | 2.6                  | 23.58                  | -                           | -                           | 128.0                          | 80.0                           |                                             |                                                                                               |                                                                                               |
|                              | 133.3                                        | 8496                         | 3.0                  | 21.00                  | -                           | -                           | 130.0                          | 79.0                           |                                             |                                                                                               |                                                                                               |
|                              | 76.8                                         | 15767                        | 2.0                  | 18.24                  | -                           | -                           | 132.0                          | 78.0                           | <b>PD/PM 102</b><br><b>315M4C / 315M4B</b>  | 2236                                                                                          | 228                                                                                           |
|                              | 92.2                                         | 13130                        | 2.4                  | 15.19                  | -                           | -                           | 134.0                          | 76.0                           |                                             |                                                                                               |                                                                                               |
|                              | 103.7                                        | 11670                        | 2.7                  | 13.50                  | -                           | -                           | 134.0                          | 75.0                           |                                             |                                                                                               |                                                                                               |
|                              | 184.7                                        | 6552                         | 2.9                  | 7.58                   | -                           | -                           | 137.0                          | 65.0                           |                                             |                                                                                               |                                                                                               |
|                              | 60.4                                         | 20028                        | 0.8                  | 23.17                  | 6.0                         | 12.0                        | 42.0                           | 51.0                           | <b>PD/PM 92</b><br><b>315M4C / 315M4B</b>   | 1667                                                                                          | 224                                                                                           |
|                              | 69.7                                         | 17366                        | 0.9                  | 20.09                  | 1.0                         | 6.0                         | 42.0                           | 51.0                           |                                             |                                                                                               |                                                                                               |
|                              | 80.7                                         | 14989                        | 1.0                  | 17.34                  | 5.0                         | 9.0                         | 42.0                           | 52.0                           |                                             |                                                                                               |                                                                                               |
|                              | 95.3                                         | 12698                        | 1.2                  | 14.69                  | 8.0                         | 12.0                        | 42.0                           | 53.0                           |                                             |                                                                                               |                                                                                               |
|                              | 116.3                                        | 10408                        | 1.3                  | 12.04                  | 10.0                        | 14.0                        | 42.0                           | 53.0                           |                                             |                                                                                               |                                                                                               |
|                              | 137.1                                        | 8826                         | 1.2                  | 10.21                  | 10.0                        | 14.0                        | 40.0                           | 51.0                           |                                             |                                                                                               |                                                                                               |
|                              | 161.8                                        | 7477                         | 1.5                  | 8.65                   | 12.0                        | 15.0                        | 40.0                           | 51.0                           |                                             |                                                                                               |                                                                                               |
|                              | 197.5                                        | 6129                         | 1.7                  | 7.09                   | 13.0                        | 16.0                        | 39.0                           | 50.0                           |                                             |                                                                                               |                                                                                               |
|                              | 242.2                                        | 4996                         | 1.8                  | 5.78                   | 14.0                        | 16.0                        | 38.0                           | 49.0                           |                                             |                                                                                               |                                                                                               |
|                              | 261.2                                        | 4633                         | 1.8                  | 5.36                   | 14.0                        | 16.0                        | 37.0                           | 48.0                           |                                             |                                                                                               |                                                                                               |
|                              | 104.3                                        | 11257                        | 1.2                  | 26.85                  | 6.0                         | 12.0                        | 41.0                           | 49.0                           | <b>PD/PM 92</b><br><b>315M2C / 315M2B</b>   | 1667                                                                                          | 224                                                                                           |
|                              | 120.8                                        | 9714                         | 1.3                  | 23.17                  | 6.0                         | 12.0                        | 42.0                           | 51.0                           |                                             |                                                                                               |                                                                                               |
|                              | 139.4                                        | 8423                         | 1.4                  | 20.09                  | 1.0                         | 6.0                         | 42.0                           | 51.0                           |                                             |                                                                                               |                                                                                               |
|                              | 161.5                                        | 7270                         | 1.6                  | 17.34                  | 5.0                         | 9.0                         | 42.0                           | 52.0                           |                                             |                                                                                               |                                                                                               |
|                              | 190.6                                        | 6159                         | 1.8                  | 14.69                  | 8.0                         | 12.0                        | 42.0                           | 53.0                           |                                             |                                                                                               |                                                                                               |
|                              | 232.6                                        | 5048                         | 2.1                  | 12.04                  | 10.0                        | 14.0                        | 42.0                           | 53.0                           |                                             |                                                                                               |                                                                                               |
|                              | 274.2                                        | 4281                         | 1.9                  | 10.21                  | 10.0                        | 14.0                        | 40.0                           | 51.0                           |                                             |                                                                                               |                                                                                               |
|                              | 323.7                                        | 3627                         | 2.3                  | 8.65                   | 12.0                        | 15.0                        | 40.0                           | 51.0                           |                                             |                                                                                               |                                                                                               |
|                              | 394.9                                        | 2972                         | 2.6                  | 7.09                   | 13.0                        | 16.0                        | 39.0                           | 50.0                           |                                             |                                                                                               |                                                                                               |
| 484.4                        | 2423                                         | 2.8                          | 5.78                 | 14.0                   | 16.0                        | 38.0                        | 49.0                           |                                |                                             |                                                                                               |                                                                                               |
| 522.4                        | 2247                                         | 2.8                          | 5.36                 | 14.0                   | 16.0                        | 37.0                        | 48.0                           |                                |                                             |                                                                                               |                                                                                               |
| <b>160</b>                   | 13.9                                         | 103497                       | 0.9                  | 100.88                 | -                           | -                           | 26.0                           | 50.0                           | <b>PD/PM 123</b><br><b>315L4C / 315L4A</b>  | 3424                                                                                          | 236                                                                                           |
|                              | 16.9                                         | 84794                        | 1.1                  | 82.65                  | -                           | -                           | 30.0                           | 42.0                           |                                             |                                                                                               |                                                                                               |
|                              | 20.3                                         | 70913                        | 1.3                  | 69.12                  | -                           | -                           | 77.0                           | 49.0                           |                                             |                                                                                               |                                                                                               |
|                              | 20.4                                         | 67292                        | 1.0                  | 137.22                 | -                           | -                           | 14.0                           | 51.0                           | <b>PD/PM123</b><br><b>315L2C / 315L2A</b>   | 3424                                                                                          | 236                                                                                           |
|                              | 23.9                                         | 57548                        | 1.2                  | 117.35                 | -                           | -                           | 17.0                           | 60.0                           |                                             |                                                                                               |                                                                                               |
|                              | 27.8                                         | 49471                        | 1.4                  | 100.88                 | -                           | -                           | 26.0                           | 50.0                           |                                             |                                                                                               |                                                                                               |
|                              | 33.9                                         | 40531                        | 1.7                  | 82.65                  | -                           | -                           | 30.0                           | 42.0                           |                                             |                                                                                               |                                                                                               |
|                              | 40.5                                         | 33896                        | 2.0                  | 69.12                  | -                           | -                           | 77.0                           | 49.0                           |                                             |                                                                                               |                                                                                               |
|                              | 18.2                                         | 79008                        | 0.8                  | 77.01                  | -                           | -                           | 42.0                           | 68.0                           | <b>PD/PM 113</b><br><b>315L4C / 315L4A</b>  | 3029                                                                                          | 233                                                                                           |
|                              | 22.1                                         | 65086                        | 0.9                  | 63.44                  | -                           | -                           | 45.0                           | 72.0                           |                                             |                                                                                               |                                                                                               |
|                              | 25.8                                         | 55668                        | 1.1                  | 54.26                  | -                           | -                           | 56.0                           | 74.0                           |                                             |                                                                                               |                                                                                               |
|                              | 30.0                                         | 47850                        | 1.3                  | 46.64                  | -                           | -                           | 94.0                           | 76.0                           |                                             |                                                                                               |                                                                                               |
|                              | 36.6                                         | 39201                        | 1.5                  | 38.21                  | -                           | -                           | 116.0                          | 76.0                           |                                             |                                                                                               |                                                                                               |
|                              | 43.8                                         | 32789                        | 1.8                  | 31.96                  | -                           | -                           | 127.0                          | 76.0                           |                                             |                                                                                               |                                                                                               |
|                              | 21.4                                         | 64110                        | 0.8                  | 130.73                 | -                           | -                           | -                              | -                              | <b>PD/PM 113</b><br><b>315L2C / 315L2A</b>  | 3029                                                                                          | 233                                                                                           |
|                              | 24.9                                         | 55111                        | 1.0                  | 112.38                 | -                           | -                           | 23.0                           | 84.0                           |                                             |                                                                                               |                                                                                               |
|                              | 30.4                                         | 45151                        | 1.1                  | 92.07                  | -                           | -                           | 44.0                           | 76.0                           |                                             |                                                                                               |                                                                                               |
|                              | 36.4                                         | 37765                        | 1.3                  | 77.01                  | -                           | -                           | 42.0                           | 68.0                           |                                             |                                                                                               |                                                                                               |
|                              | 44.1                                         | 31111                        | 1.5                  | 63.44                  | -                           | -                           | 45.0                           | 72.0                           |                                             |                                                                                               |                                                                                               |
|                              | 51.6                                         | 26609                        | 1.7                  | 54.26                  | -                           | -                           | 56.0                           | 74.0                           |                                             |                                                                                               |                                                                                               |
|                              | 60.0                                         | 22872                        | 2.0                  | 46.64                  | -                           | -                           | 94.0                           | 76.0                           |                                             |                                                                                               |                                                                                               |
|                              | 73.3                                         | 18738                        | 2.4                  | 38.21                  | -                           | -                           | 116.0                          | 76.0                           |                                             |                                                                                               |                                                                                               |
|                              | 87.6                                         | 15673                        | 2.9                  | 31.96                  | -                           | -                           | 127.0                          | 76.0                           |                                             |                                                                                               |                                                                                               |
|                              | 40.2                                         | 36515                        | 1.2                  | 34.85                  | -                           | -                           | 139.0                          | 86.0                           | <b>PD/PM 112</b><br><b>315L4C / 315L4A</b>  | 3102                                                                                          | 232                                                                                           |
|                              | 46.8                                         | 31349                        | 1.3                  | 29.92                  | -                           | -                           | 131.0                          | 76.0                           |                                             |                                                                                               |                                                                                               |
|                              | 55.0                                         | 26687                        | 1.6                  | 25.47                  | -                           | -                           | 136.0                          | 75.0                           |                                             |                                                                                               |                                                                                               |
|                              | 65.4                                         | 22443                        | 1.9                  | 21.42                  | -                           | -                           | 141.0                          | 74.0                           |                                             |                                                                                               |                                                                                               |
|                              | 76.6                                         | 19143                        | 2.2                  | 18.27                  | -                           | -                           | 144.0                          | 72.0                           |                                             |                                                                                               |                                                                                               |
|                              | 85.7                                         | 17110                        | 2.5                  | 16.33                  | -                           | -                           | 145.0                          | 71.0                           |                                             |                                                                                               |                                                                                               |
|                              | 99.7                                         | 14711                        | 1.8                  | 14.04                  | -                           | -                           | 147.0                          | 67.0                           |                                             |                                                                                               |                                                                                               |
|                              | 117.1                                        | 12531                        | 2.1                  | 11.96                  | -                           | -                           | 148.0                          | 66.0                           |                                             |                                                                                               |                                                                                               |
|                              | 139.3                                        | 10530                        | 2.5                  | 10.05                  | -                           | -                           | 149.0                          | 64.0                           |                                             |                                                                                               |                                                                                               |
|                              | 163.2                                        | 8990                         | 2.8                  | 8.58                   | -                           | -                           | 150.0                          | 61.0                           |                                             |                                                                                               |                                                                                               |
| 182.5                        | 8036                                         | 3.0                          | 7.67                 | -                      | -                           | 148.0                       | 60.0                           |                                |                                             |                                                                                               |                                                                                               |

| <b>P<sub>1</sub></b><br>[kW] | <b>n<sub>2</sub></b><br>[Min <sup>-1</sup> ] | <b>M<sub>2</sub></b><br>[Nm] | <b>f<sub>B</sub></b> | <b>i<sub>ges</sub></b> | <b>F<sub>R</sub></b><br>[N] | <b>F<sub>A</sub></b><br>[N] | <b>F<sub>R GR</sub></b><br>[N] | <b>F<sub>A GR</sub></b><br>[N] | Tip / Type / Typ<br>IE2 / IE3              |  |  |
|------------------------------|----------------------------------------------|------------------------------|----------------------|------------------------|-----------------------------|-----------------------------|--------------------------------|--------------------------------|--------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| <b>160</b>                   | 80.3                                         | 17710                        | 1.8                  | 34.85                  | -                           | -                           | 139.0                          | 86.0                           | <b>PD/PM 112</b><br><b>315L2C / 315L2A</b> | 2692                                                                                | 232                                                                                 |
|                              | 93.6                                         | 15205                        | 2.1                  | 29.92                  | -                           | -                           | 131.0                          | 76.0                           |                                            |                                                                                     |                                                                                     |
|                              | 109.9                                        | 12943                        | 2.5                  | 25.47                  | -                           | -                           | 136.0                          | 75.0                           |                                            |                                                                                     |                                                                                     |
|                              | 130.7                                        | 10885                        | 2.9                  | 21.42                  | -                           | -                           | 141.0                          | 74.0                           |                                            |                                                                                     |                                                                                     |
|                              | 199.4                                        | 7135                         | 2.8                  | 14.04                  | -                           | -                           | 147.0                          | 67.0                           |                                            |                                                                                     |                                                                                     |
|                              | 34.1                                         | 42064                        | 0.8                  | 41.00                  | -                           | -                           | 85.0                           | 74.0                           | <b>PD/PM 103</b><br><b>315L4C / 315L4A</b> | 2236                                                                                | 229                                                                                 |
|                              | 40.8                                         | 35241                        | 1.0                  | 34.35                  | -                           | -                           | 104.0                          | 75.0                           |                                            |                                                                                     |                                                                                     |
|                              | 47.0                                         | 30563                        | 1.1                  | 29.79                  | -                           | -                           | 114.0                          | 76.0                           |                                            |                                                                                     |                                                                                     |
|                              | 51.5                                         | 27885                        | 1.2                  | 27.18                  | -                           | -                           | 118.0                          | 75.0                           |                                            |                                                                                     |                                                                                     |
|                              | 59.4                                         | 24192                        | 1.4                  | 23.58                  | -                           | -                           | 123.0                          | 75.0                           |                                            |                                                                                     |                                                                                     |
|                              | 66.7                                         | 21545                        | 1.5                  | 21.00                  | -                           | -                           | 126.0                          | 75.0                           |                                            |                                                                                     |                                                                                     |
|                              | 38.5                                         | 35657                        | 0.8                  | 72.71                  | -                           | -                           | -                              | -                              | <b>PD/PM 103</b><br><b>315L2C / 315L2A</b> | 2236                                                                                | 229                                                                                 |
|                              | 42.8                                         | 32092                        | 0.8                  | 65.44                  | -                           | -                           | 74.0                           | 87.0                           |                                            |                                                                                     |                                                                                     |
|                              | 49.3                                         | 27835                        | 1.0                  | 56.76                  | -                           | -                           | 92.0                           | 88.0                           |                                            |                                                                                     |                                                                                     |
|                              | 58.4                                         | 23515                        | 1.1                  | 47.95                  | -                           | -                           | 107.0                          | 89.0                           |                                            |                                                                                     |                                                                                     |
|                              | 68.3                                         | 20106                        | 1.3                  | 41.00                  | -                           | -                           | 85.0                           | 74.0                           |                                            |                                                                                     |                                                                                     |
|                              | 81.5                                         | 16845                        | 1.6                  | 34.35                  | -                           | -                           | 104.0                          | 75.0                           |                                            |                                                                                     |                                                                                     |
|                              | 94.0                                         | 14609                        | 1.8                  | 29.79                  | -                           | -                           | 114.0                          | 76.0                           |                                            |                                                                                     |                                                                                     |
|                              | 103.0                                        | 13329                        | 1.9                  | 27.18                  | -                           | -                           | 118.0                          | 75.0                           |                                            |                                                                                     |                                                                                     |
|                              | 118.7                                        | 11564                        | 2.2                  | 23.58                  | -                           | -                           | 123.0                          | 75.0                           |                                            |                                                                                     |                                                                                     |
|                              | 133.0                                        | 10298                        | 2.4                  | 21.00                  | -                           | -                           | 126.0                          | 75.0                           |                                            |                                                                                     |                                                                                     |
|                              | 76.8                                         | 19111                        | 1.7                  | 18.24                  | -                           | -                           | 129.0                          | 74.0                           | <b>PD/PM 102</b><br><b>315L4C / 315L4A</b> | 2236                                                                                | 228                                                                                 |
|                              | 92.2                                         | 15916                        | 2.0                  | 15.19                  | -                           | -                           | 132.0                          | 73.0                           |                                            |                                                                                     |                                                                                     |
|                              | 103.7                                        | 14145                        | 2.3                  | 13.50                  | -                           | -                           | 133.0                          | 72.0                           |                                            |                                                                                     |                                                                                     |
|                              | 120.4                                        | 12186                        | 2.6                  | 11.63                  | -                           | -                           | 134.0                          | 70.0                           |                                            |                                                                                     |                                                                                     |
|                              | 134.4                                        | 10918                        | 2.9                  | 10.42                  | -                           | -                           | 135.0                          | 69.0                           |                                            |                                                                                     |                                                                                     |
|                              | 184.7                                        | 7942                         | 2.4                  | 7.58                   | -                           | -                           | 136.0                          | 64.0                           |                                            |                                                                                     |                                                                                     |
|                              | 207.7                                        | 7062                         | 2.7                  | 6.74                   | -                           | -                           | 136.0                          | 62.0                           |                                            |                                                                                     |                                                                                     |
|                              | 153.5                                        | 9269                         | 2.6                  | 18.24                  | -                           | -                           | 129.0                          | 74.0                           | <b>PD/PM 102</b><br><b>315L2C / 315L2A</b> | 2236                                                                                | 228                                                                                 |
|                              | 69.7                                         | 21050                        | 0.8                  | 20.09                  | 1.0                         | 6.0                         | 36.0                           | 43.0                           | <b>PD/PM 92</b><br><b>315L4C / 315L4A</b>  | 1667                                                                                | 224                                                                                 |
|                              | 80.7                                         | 18168                        | 0.9                  | 17.34                  | 5.0                         | 9.0                         | 38.0                           | 46.0                           |                                            |                                                                                     |                                                                                     |
|                              | 95.3                                         | 15392                        | 1.0                  | 14.69                  | 2.0                         | 6.0                         | 39.0                           | 47.0                           |                                            |                                                                                     |                                                                                     |
|                              | 116.3                                        | 12615                        | 1.1                  | 12.04                  | 6.0                         | 9.0                         | 39.0                           | 48.0                           |                                            |                                                                                     |                                                                                     |
|                              | 137.1                                        | 10698                        | 1.0                  | 10.21                  | 6.0                         | 9.0                         | 38.0                           | 47.0                           |                                            |                                                                                     |                                                                                     |
|                              | 161.8                                        | 9063                         | 1.2                  | 8.65                   | 8.0                         | 11.0                        | 37.0                           | 47.0                           |                                            |                                                                                     |                                                                                     |
|                              | 197.5                                        | 7429                         | 1.4                  | 7.09                   | 10.0                        | 13.0                        | 37.0                           | 47.0                           |                                            |                                                                                     |                                                                                     |
|                              | 242.2                                        | 6056                         | 1.5                  | 5.78                   | 11.0                        | 14.0                        | 36.0                           | 46.0                           |                                            |                                                                                     |                                                                                     |
|                              | 261.2                                        | 5616                         | 1.5                  | 5.36                   | 12.0                        | 14.0                        | 36.0                           | 46.0                           |                                            |                                                                                     |                                                                                     |
|                              | 104.3                                        | 13645                        | 1.0                  | 26.85                  | 1.0                         | 6.0                         | 41.0                           | 49.0                           | <b>PD/PM 92</b><br><b>315L2C / 315L2A</b>  | 1667                                                                                | 224                                                                                 |
|                              | 120.8                                        | 11775                        | 1.1                  | 23.17                  | 1.0                         | 6.0                         | 42.0                           | 51.0                           |                                            |                                                                                     |                                                                                     |
|                              | 139.4                                        | 10209                        | 1.2                  | 20.09                  | 1.0                         | 6.0                         | 36.0                           | 43.0                           |                                            |                                                                                     |                                                                                     |
|                              | 161.5                                        | 8812                         | 1.3                  | 17.34                  | 5.0                         | 9.0                         | 38.0                           | 46.0                           |                                            |                                                                                     |                                                                                     |
|                              | 190.6                                        | 7465                         | 1.5                  | 14.69                  | 2.0                         | 6.0                         | 39.0                           | 47.0                           |                                            |                                                                                     |                                                                                     |
|                              | 232.6                                        | 6119                         | 1.7                  | 12.04                  | 6.0                         | 9.0                         | 39.0                           | 48.0                           |                                            |                                                                                     |                                                                                     |
|                              | 274.2                                        | 5189                         | 1.6                  | 10.21                  | 6.0                         | 9.0                         | 38.0                           | 47.0                           |                                            |                                                                                     |                                                                                     |
|                              | 323.7                                        | 4396                         | 1.9                  | 8.65                   | 8.0                         | 1.0                         | 37.0                           | 47.0                           |                                            |                                                                                     |                                                                                     |
|                              | 394.9                                        | 3603                         | 2.1                  | 7.09                   | 10.0                        | 13.0                        | 37.0                           | 47.0                           |                                            |                                                                                     |                                                                                     |
|                              | 484.4                                        | 2937                         | 2.3                  | 5.78                   | 11.0                        | 14.0                        | 36.0                           | 46.0                           |                                            |                                                                                     |                                                                                     |
| 522.4                        | 2724                                         | 2.3                          | 5.36                 | 12.0                   | 14.0                        | 36.0                        | 46.0                           |                                |                                            |                                                                                     |                                                                                     |
| <b>200</b>                   | 16.9                                         | 105993                       | 0.8                  | 82.65                  | -                           | -                           | 30.0                           | 42.0                           | <b>PD/PM 123</b><br><b>315L4D / 315L4C</b> | 3424                                                                                | 236                                                                                 |
|                              | 20.3                                         | 88641                        | 1.0                  | 69.12                  | -                           | -                           | 70.0                           | 28.0                           |                                            |                                                                                     |                                                                                     |
|                              | 20.4                                         | 84115                        | 0.8                  | 137.22                 | -                           | -                           | -                              | -                              | <b>PD/PM 123</b><br><b>315L2D / 315L2C</b> | 3424                                                                                | 236                                                                                 |
|                              | 23.9                                         | 71935                        | 1.0                  | 117.35                 | -                           | -                           | -                              | -                              |                                            |                                                                                     |                                                                                     |
|                              | 27.8                                         | 61839                        | 1.1                  | 100.88                 | -                           | -                           | 26.0                           | 50.0                           |                                            |                                                                                     |                                                                                     |
|                              | 33.9                                         | 50664                        | 1.4                  | 82.65                  | -                           | -                           | 30.0                           | 42.0                           |                                            |                                                                                     |                                                                                     |
|                              | 40.5                                         | 42370                        | 1.6                  | 69.12                  | -                           | -                           | 70.0                           | 28.0                           |                                            |                                                                                     |                                                                                     |
|                              | 25.8                                         | 69585                        | 0.9                  | 54.26                  | -                           | -                           | 56.0                           | 74.0                           | <b>PD/PM 113</b><br><b>315L4D / 315L4C</b> | 3029                                                                                | 233                                                                                 |
|                              | 30.0                                         | 59812                        | 1.0                  | 46.64                  | -                           | -                           | 31.0                           | 66.0                           |                                            |                                                                                     |                                                                                     |
|                              | 36.6                                         | 49002                        | 1.2                  | 38.21                  | -                           | -                           | 90.0                           | 68.0                           |                                            |                                                                                     |                                                                                     |
|                              | 43.8                                         | 40986                        | 1.5                  | 31.96                  | -                           | -                           | 111.0                          | 69.0                           |                                            |                                                                                     |                                                                                     |
|                              | 24.9                                         | 68888                        | 0.8                  | 112.38                 | -                           | -                           | -                              | -                              | <b>PD/PM 113</b><br><b>315L2D / 315L2C</b> | 3029                                                                                | 233                                                                                 |
|                              | 30.4                                         | 56438                        | 0.9                  | 92.07                  | -                           | -                           | 44.0                           | 76.0                           |                                            |                                                                                     |                                                                                     |
|                              | 36.4                                         | 47207                        | 1.0                  | 77.01                  | -                           | -                           | 42.0                           | 68.0                           |                                            |                                                                                     |                                                                                     |
|                              | 44.1                                         | 38888                        | 1.2                  | 63.44                  | -                           | -                           | 45.0                           | 72.0                           |                                            |                                                                                     |                                                                                     |
|                              | 51.6                                         | 33261                        | 1.4                  | 54.26                  | -                           | -                           | 56.0                           | 74.0                           |                                            |                                                                                     |                                                                                     |
| 60.0                         | 28590                                        | 1.6                          | 46.64                | -                      | -                           | 31.0                        | 66.0                           |                                |                                            |                                                                                     |                                                                                     |
| 73.3                         | 23423                                        | 1.9                          | 38.21                | -                      | -                           | 90.0                        | 68.0                           |                                |                                            |                                                                                     |                                                                                     |
| 87.6                         | 19591                                        | 2.3                          | 31.96                | -                      | -                           | 111.0                       | 69.0                           |                                |                                            |                                                                                     |                                                                                     |



| $P_1$<br>[kW] | $n_2$<br>[Min <sup>-1</sup> ] | $M_2$<br>[Nm] | $f_B$ | $i_{ges}$ | $F_R$<br>[N] | $F_A$<br>[N] | $F_{RGR}$<br>[N] | $F_{AGR}$<br>[N]                    | Tip / Type / Typ<br>IE2 / IE3        |  Kg |  mm |
|---------------|-------------------------------|---------------|-------|-----------|--------------|--------------|------------------|-------------------------------------|--------------------------------------|----------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------|
| <b>200</b>    | 40.2                          | 45644         | 0.9   | 34.85     | -            | -            | 139.0            | 86.0                                | <b>PD/PM 112<br/>315L4D / 315L4C</b> | 3242                                                                                   | 232                                                                                    |
|               | 46.8                          | 39187         | 1.1   | 29.92     | -            | -            | 118.0            | 69.0                                |                                      |                                                                                        |                                                                                        |
|               | 55.0                          | 33358         | 1.3   | 25.47     | -            | -            | 127.0            | 69.0                                |                                      |                                                                                        |                                                                                        |
|               | 65.4                          | 28054         | 1.5   | 21.42     | -            | -            | 135.0            | 69.0                                |                                      |                                                                                        |                                                                                        |
|               | 76.6                          | 23928         | 1.8   | 18.27     | -            | -            | 140.0            | 68.0                                |                                      |                                                                                        |                                                                                        |
|               | 85.7                          | 21388         | 2.0   | 16.33     | -            | -            | 142.0            | 67.0                                |                                      |                                                                                        |                                                                                        |
|               | 99.7                          | 18388         | 1.4   | 14.04     | -            | -            | 145.0            | 64.0                                |                                      |                                                                                        |                                                                                        |
|               | 117.1                         | 15664         | 1.7   | 11.96     | -            | -            | 146.0            | 62.0                                |                                      |                                                                                        |                                                                                        |
|               | 139.3                         | 13163         | 2.0   | 10.05     | -            | -            | 148.0            | 61.0                                |                                      |                                                                                        |                                                                                        |
|               | 163.2                         | 11237         | 2.2   | 8.58      | -            | -            | 147.0            | 59.0                                |                                      |                                                                                        |                                                                                        |
|               | 182.5                         | 10046         | 2.4   | 7.67      | -            | -            | 144.0            | 58.0                                |                                      |                                                                                        |                                                                                        |
|               | 80.3                          | 22138         | 1.4   | 34.85     | -            | -            | -                | -                                   |                                      |                                                                                        |                                                                                        |
|               | 93.6                          | 19006         | 1.7   | 29.92     | -            | -            | 118.0            | 69.0                                |                                      |                                                                                        |                                                                                        |
|               | 109.9                         | 16179         | 2.0   | 25.47     | -            | -            | 127.0            | 69.0                                |                                      |                                                                                        |                                                                                        |
|               | 130.7                         | 13607         | 2.3   | 21.42     | -            | -            | 135.0            | 69.0                                |                                      |                                                                                        |                                                                                        |
|               | 153.3                         | 11606         | 2.8   | 18.27     | -            | -            | 140.0            | 68.0                                |                                      |                                                                                        |                                                                                        |
|               | 199.4                         | 8919          | 2.3   | 14.04     | -            | -            | 145.0            | 64.0                                |                                      |                                                                                        |                                                                                        |
|               | 234.1                         | 7597          | 2.6   | 11.96     | -            | -            | 146.0            | 62.0                                |                                      |                                                                                        |                                                                                        |
|               | 40.8                          | 44051         | 0.8   | 34.35     | -            | -            | 104.0            | 75.0                                | <b>PD/PM 103<br/>315L4D / 315L4C</b> | 2236                                                                                   | 229                                                                                    |
|               | 47.0                          | 38204         | 0.9   | 29.79     | -            | -            | 114.0            | 76.0                                |                                      |                                                                                        |                                                                                        |
|               | 51.5                          | 34856         | 0.9   | 27.18     | -            | -            | 118.0            | 75.0                                |                                      |                                                                                        |                                                                                        |
|               | 59.4                          | 30240         | 1.1   | 23.58     | -            | -            | 123.0            | 75.0                                |                                      |                                                                                        |                                                                                        |
|               | 66.7                          | 26931         | 1.2   | 21.00     | -            | -            | 126.0            | 75.0                                |                                      |                                                                                        |                                                                                        |
|               | 49.3                          | 34794         | 0.8   | 56.76     | -            | -            | -                | -                                   | <b>PD/PM 103<br/>315L2D / 315L2C</b> | 2236                                                                                   | 229                                                                                    |
|               | 58.4                          | 29393         | 0.9   | 47.95     | -            | -            | -                | -                                   |                                      |                                                                                        |                                                                                        |
|               | 68.3                          | 25133         | 1.1   | 41.00     | -            | -            | 85.0             | 74.0                                |                                      |                                                                                        |                                                                                        |
|               | 81.5                          | 21056         | 1.3   | 34.35     | -            | -            | 104.0            | 75.0                                |                                      |                                                                                        |                                                                                        |
|               | 94.0                          | 18261         | 1.5   | 29.79     | -            | -            | 114.0            | 76.0                                |                                      |                                                                                        |                                                                                        |
|               | 103.0                         | 16661         | 1.5   | 27.18     | -            | -            | 118.0            | 75.0                                |                                      |                                                                                        |                                                                                        |
|               | 118.7                         | 14454         | 1.7   | 23.58     | -            | -            | 123.0            | 75.0                                |                                      |                                                                                        |                                                                                        |
|               | 133.3                         | 12873         | 1.9   | 21.00     | -            | -            | 126.0            | 75.0                                |                                      |                                                                                        |                                                                                        |
|               | 76.8                          | 23889         | 1.3   | 18.24     | -            | -            | 124.0            | 69.0                                | <b>PD/PM 102<br/>315L4D / 315L4C</b> | 2236                                                                                   | 228                                                                                    |
|               | 92.2                          | 19895         | 1.6   | 15.19     | -            | -            | 128.0            | 68.0                                |                                      |                                                                                        |                                                                                        |
|               | 103.7                         | 17681         | 1.8   | 13.50     | -            | -            | 130.0            | 68.0                                |                                      |                                                                                        |                                                                                        |
|               | 120.4                         | 15232         | 2.1   | 11.63     | -            | -            | 132.0            | 67.0                                |                                      |                                                                                        |                                                                                        |
|               | 134.4                         | 13647         | 2.3   | 10.42     | -            | -            | 133.0            | 66.0                                |                                      |                                                                                        |                                                                                        |
|               | 152.2                         | 12049         | 2.5   | 9.20      | -            | -            | 134.0            | 64.0                                |                                      |                                                                                        |                                                                                        |
|               | 169.9                         | 10792         | 2.8   | 8.24      | -            | -            | 135.0            | 63.0                                |                                      |                                                                                        |                                                                                        |
|               | 184.7                         | 9928          | 1.9   | 7.58      | -            | -            | 135.0            | 61.0                                |                                      |                                                                                        |                                                                                        |
|               | 207.7                         | 8827          | 2.2   | 6.74      | -            | -            | 133.0            | 60.0                                |                                      |                                                                                        |                                                                                        |
|               | 241.4                         | 7596          | 2.5   | 5.80      | -            | -            | 130.0            | 58.0                                |                                      |                                                                                        |                                                                                        |
|               | 269.2                         | 6811          | 2.8   | 5.20      | -            | -            | 127.0            | 57.0                                |                                      |                                                                                        |                                                                                        |
|               | 153.5                         | 11587         | 2.1   | 18.24     | -            | -            | 124.0            | 69.0                                | <b>PD/PM 102<br/>315L2D / 315L2C</b> | 2236                                                                                   | 228                                                                                    |
|               | 184.3                         | 9649          | 2.5   | 15.19     | -            | -            | 128.0            | 68.0                                |                                      |                                                                                        |                                                                                        |
|               | 207.4                         | 8576          | 2.8   | 13.50     | -            | -            | 130.0            | 68.0                                |                                      |                                                                                        |                                                                                        |
|               | 369.4                         | 4815          | 3.0   | 7.58      | -            | -            | 135.0            | 61.0                                |                                      |                                                                                        |                                                                                        |
|               | 95.3                          | 19240         | 0.8   | 14.69     | -            | -            | 39.0             | 47.0                                | <b>PD/PM 92<br/>315L4D / 315L4C</b>  | 1667                                                                                   | 224                                                                                    |
|               | 116.3                         | 15769         | 0.9   | 12.04     | -            | -            | 39.0             | 48.0                                |                                      |                                                                                        |                                                                                        |
| 137.1         | 13372                         | 0.8           | 10.21 | -         | -            | 38.0         | 47.0             |                                     |                                      |                                                                                        |                                                                                        |
| 161.8         | 11329                         | 1.0           | 8.65  | -         | -            | 37.0         | 47.0             |                                     |                                      |                                                                                        |                                                                                        |
| 197.5         | 9286                          | 1.1           | 7.09  | -         | -            | 37.0         | 47.0             |                                     |                                      |                                                                                        |                                                                                        |
| 242.2         | 7570                          | 1.2           | 5.78  | -         | -            | 36.0         | 46.0             |                                     |                                      |                                                                                        |                                                                                        |
| 261.2         | 7020                          | 1.2           | 5.36  | -         | -            | 36.0         | 46.0             |                                     |                                      |                                                                                        |                                                                                        |
| 104.3         | 17056                         | 0.8           | 26.85 | 1.0       | 6.0          | 41.0         | 49.0             | <b>PD/PM 92<br/>315L2D / 315L2C</b> | 1667                                 | 224                                                                                    |                                                                                        |
| 120.8         | 14718                         | 0.8           | 23.17 | 1.0       | 6.0          | 42.0         | 51.0             |                                     |                                      |                                                                                        |                                                                                        |
| 139.4         | 12762                         | 0.9           | 20.09 | 1.0       | 6.0          | 36.0         | 43.0             |                                     |                                      |                                                                                        |                                                                                        |
| 161.5         | 11015                         | 1.1           | 17.34 | 1.0       | 6.0          | 38.0         | 46.0             |                                     |                                      |                                                                                        |                                                                                        |
| 190.6         | 9332                          | 1.2           | 14.69 | 1.0       | 6.0          | 39.0         | 47.0             |                                     |                                      |                                                                                        |                                                                                        |
| 232.6         | 7648                          | 1.4           | 12.04 | 1.0       | 6.0          | 39.0         | 48.0             |                                     |                                      |                                                                                        |                                                                                        |
| 274.2         | 6486                          | 1.3           | 10.21 | 1.0       | 6.0          | 38.0         | 47.0             |                                     |                                      |                                                                                        |                                                                                        |
| 323.7         | 5495                          | 1.5           | 8.65  | 1.0       | 6.0          | 37.0         | 47.0             |                                     |                                      |                                                                                        |                                                                                        |
| 394.9         | 4504                          | 1.7           | 7.09  | 1.0       | 6.0          | 37.0         | 47.0             |                                     |                                      |                                                                                        |                                                                                        |
| 484.4         | 3672                          | 1.8           | 5.78  | 1.0       | 6.0          | 36.0         | 46.0             |                                     |                                      |                                                                                        |                                                                                        |
| 522.4         | 3405                          | 1.9           | 5.36  | 1.0       | 6.0          | 36.0         | 46.0             |                                     |                                      |                                                                                        |                                                                                        |



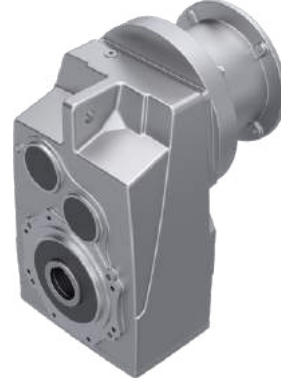
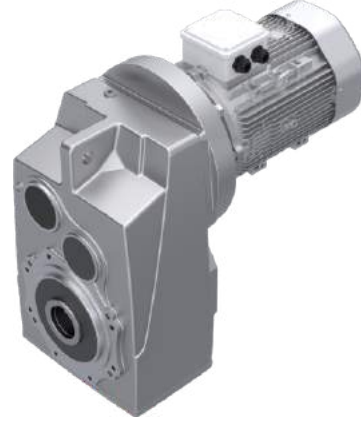


A series of horizontal dotted lines spanning the width of the page, intended for writing or drawing.

Ölçü Tabloları

Dimension Tables

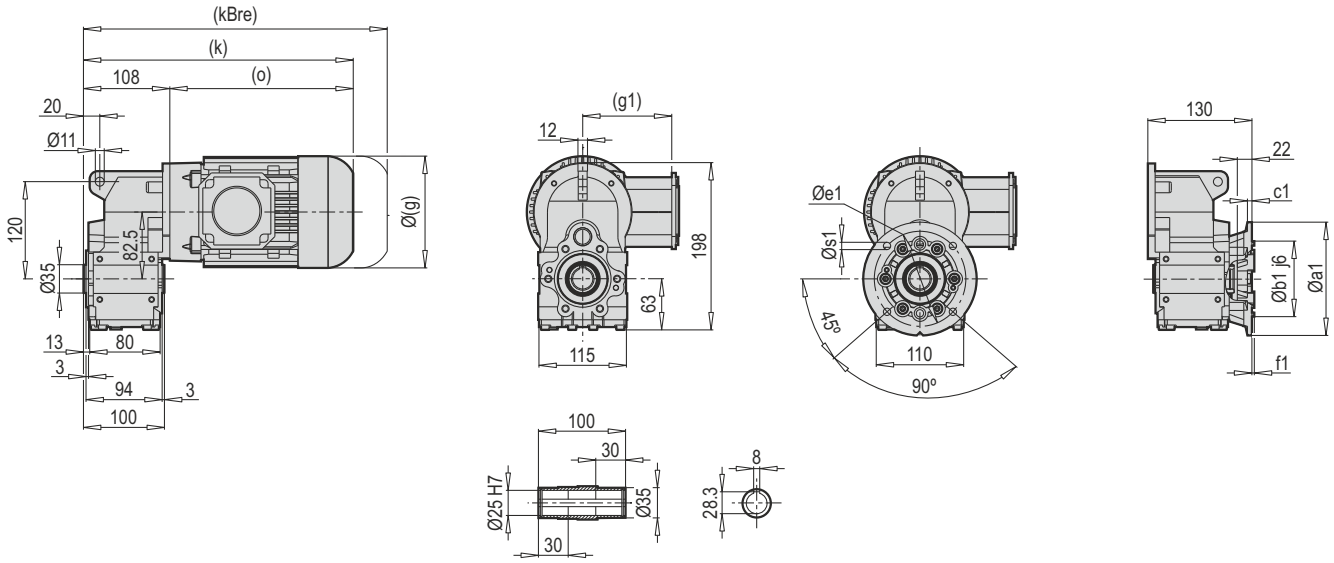
Maßtabellen



**PD / PM**

PD A02

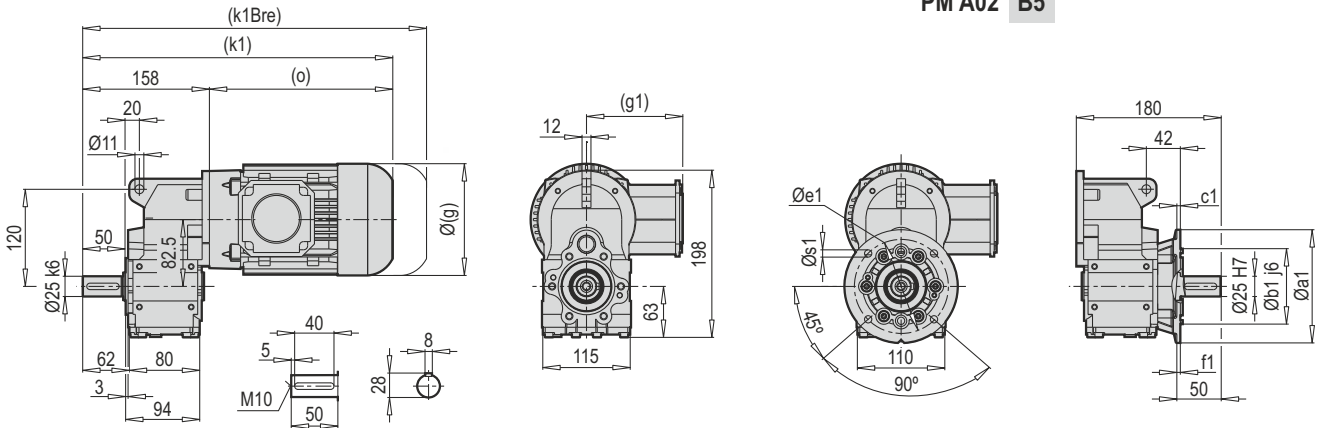
PD A02 B5



| a1  | b1 | c1 | e1  | f1 | s1  |
|-----|----|----|-----|----|-----|
| 140 | 95 | 10 | 115 | 3  | 4x9 |

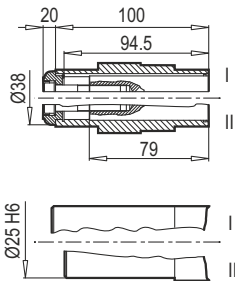
PM A02

PM A02 B5



PD A02 Ç

70 - 71

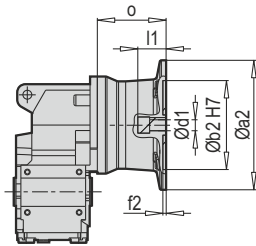


Ayak Delik Ölçüleri sayfa 58 / Dimension of foot is on page 58 / Fußlochmaße Seite 58

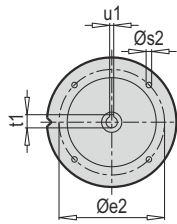
|                   | 63 M    | 71 M    | 80 M    | 90 S/L  |  |  |  |  |
|-------------------|---------|---------|---------|---------|--|--|--|--|
| <b>g</b>          | 124     | 140     | 172     | 182     |  |  |  |  |
| <b>g1</b>         | 111     | 119     | 130.5   | 130     |  |  |  |  |
| <b>k/k1</b>       | 301/351 | 332/382 | 361/411 | 426/476 |  |  |  |  |
| <b>kBre/k1Bre</b> | 353/403 | 392/442 | 431/481 | 494/544 |  |  |  |  |
| <b>o</b>          | 193     | 224     | 252.5   | 318     |  |  |  |  |

Not: (...) İşaretili olan ölçüler motor markasına göre farklılık gösterir. / Note: The dimensions which have (...) sign vary depending on the motor. / Hinweis: (...) Die gekennzeichneten Maße unterscheiden sich je nach Motormarke.

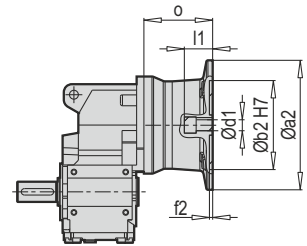
PD A02



IEC



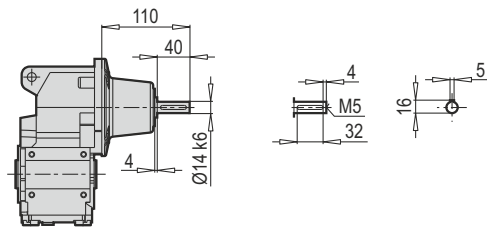
PM A02



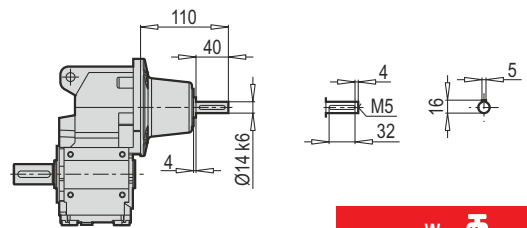
| Tip / Type / Typ | IEC | Øa2 | Øb2 | Øe2 | f2  | Øs2 | Ød1 | l1 | t1   | u1 | o   |
|------------------|-----|-----|-----|-----|-----|-----|-----|----|------|----|-----|
| PD/PM A02        | 63  | 140 | 95  | 115 | 3.5 | M8  | 11  | 23 | 12.8 | 4  | 85  |
|                  | 71  | 160 | 110 | 130 | 4.0 | M8  | 14  | 30 | 16.3 | 5  | 85  |
|                  | 80  | 200 | 130 | 165 | 4.0 | M10 | 19  | 40 | 21.8 | 6  | 103 |
|                  | 90  | 200 | 130 | 165 | 4.0 | M10 | 24  | 50 | 27.3 | 8  | 103 |

| ~ Kg |           |
|------|-----------|
| IEC  | PD/PM A02 |
| 63   | 7         |
| 71   | 8         |
| 80   | 10        |
| 90   | 10        |

PD A02



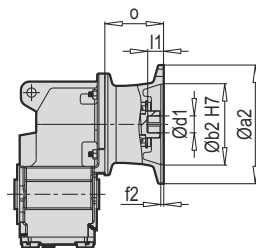
W



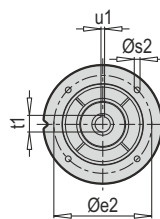
PM A02

| W ~ Kg    |   |
|-----------|---|
| PD/PM A02 | 6 |

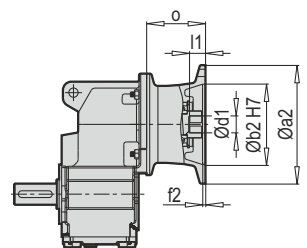
PD A02



PAM B5/B14



PM A02



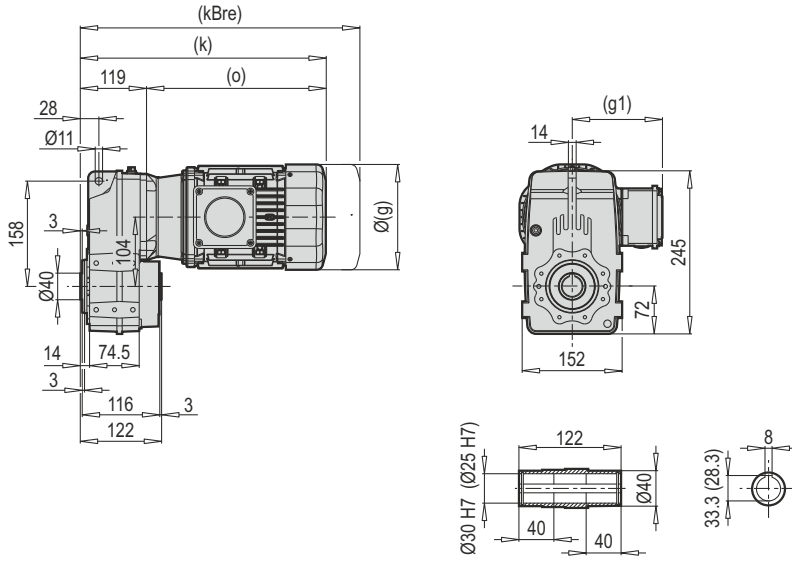
| Tip / Type / Typ | PAM B5 | Øa2 | Øb2 | Øe2 | f2  | Øs2 | Ød1 | l1 | t1   | u1 | o   |
|------------------|--------|-----|-----|-----|-----|-----|-----|----|------|----|-----|
| PD/PM A02        | 63     | 140 | 95  | 115 | 3.5 | M8  | 11  | 23 | 12.8 | 4  | 85  |
|                  | 71     | 160 | 110 | 130 | 4.0 | M8  | 14  | 30 | 16.3 | 5  | 85  |
|                  | 80     | 200 | 130 | 165 | 4.0 | M10 | 19  | 40 | 21.8 | 6  | 103 |
|                  | 90     | 200 | 130 | 165 | 4.0 | M10 | 24  | 50 | 27.3 | 8  | 103 |

| ~ Kg   |           |
|--------|-----------|
| PAM B5 | PD/PM A02 |
| 63     | 7         |
| 71     | 8         |
| 80     | 10        |
| 90     | 10        |

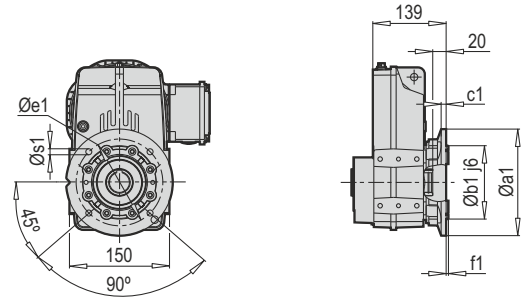
| Tip / Type / Typ | PAM B14 | Øa2 | Øb2 | Øe2 | f2  | Øs2 | Ød1 | l1 | t1   | u1 | o   |
|------------------|---------|-----|-----|-----|-----|-----|-----|----|------|----|-----|
| PD/PM A02        | 63      | 90  | 60  | 75  | 3.5 | 6   | 11  | 23 | 12.8 | 4  | 85  |
|                  | 71      | 105 | 70  | 85  | 4.0 | 7   | 14  | 30 | 16.3 | 5  | 85  |
|                  | 80      | 120 | 80  | 100 | 4.0 | 7   | 19  | 40 | 21.8 | 6  | 103 |
|                  | 90      | 140 | 95  | 115 | 4.0 | 9   | 24  | 50 | 27.3 | 8  | 103 |

| ~ Kg    |           |
|---------|-----------|
| PAM B14 | PD/PM A02 |
| 63      | 6         |
| 71      | 7         |
| 80      | 9         |
| 90      | 9         |

PD B02

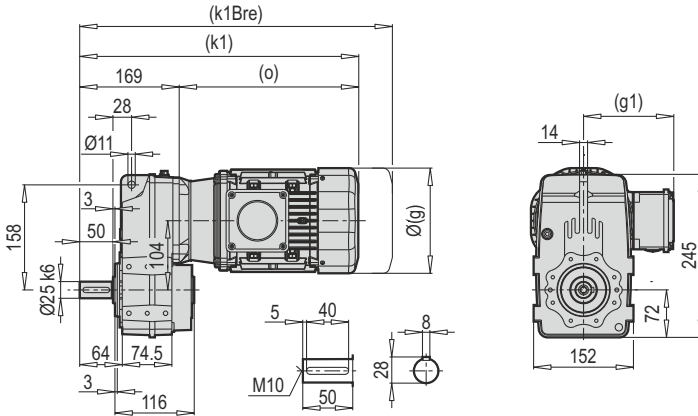


PD B02 B5

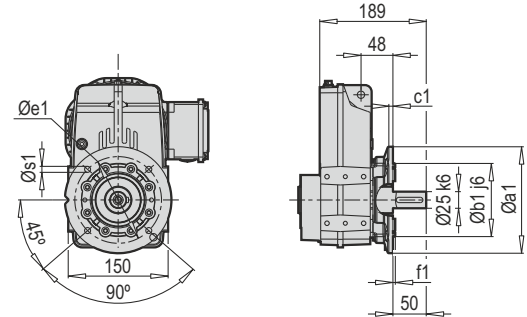


| a1  | b1  | c1 | e1  | f1  | s1  |
|-----|-----|----|-----|-----|-----|
| 160 | 110 | 12 | 130 | 3.5 | 4x9 |

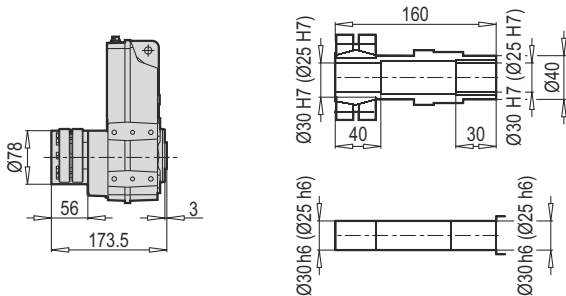
PM B02



PM B02 B5

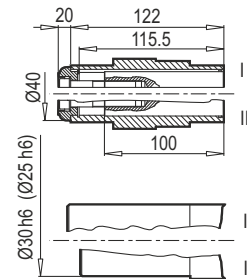


PD B02 KS



PD B02 Ç

70 - 71

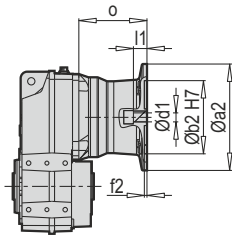


Ayak Delik Ölçüleri sayfa 58 / Dimension of foot is on page 58 / Fußlochmaße Seite 58

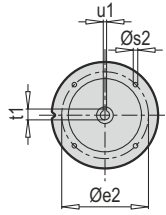
|                   | 63 M    | 71 M    | 80 M    | 90 S/L  |  |  |  |  |
|-------------------|---------|---------|---------|---------|--|--|--|--|
| <b>g</b>          | 124     | 140     | 172     | 182     |  |  |  |  |
| <b>g1</b>         | 111     | 119     | 130.5   | 130     |  |  |  |  |
| <b>k/k1</b>       | 312/362 | 343/393 | 370/420 | 435/485 |  |  |  |  |
| <b>kBre/k1Bre</b> | 364/414 | 403/453 | 440/490 | 503/553 |  |  |  |  |
| <b>o</b>          | 193     | 224     | 252.5   | 318     |  |  |  |  |

Not: (...) İşaretili olan ölçüler motor markasına göre farklılık gösterir. / Note: The dimensions which have (...) sign vary depending on the motor. / Hinweis: (...) Die gekennzeichneten Maße unterscheiden sich je nach Motormarke.

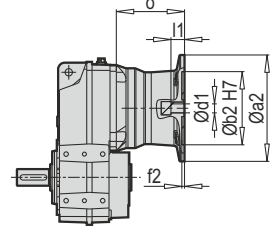
PD B02



IEC



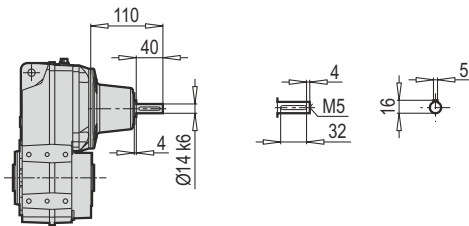
PM B02



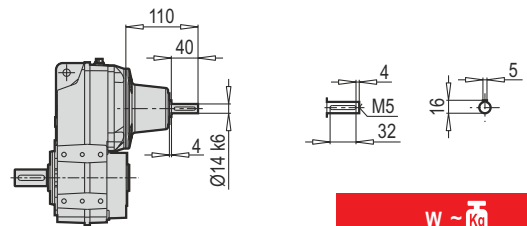
| Tip / Type / Typ | IEC | Øa2 | Øb2 | Øe2 | f2  | Øs2 | Ød1 | l1 | t1   | u1 | o   |
|------------------|-----|-----|-----|-----|-----|-----|-----|----|------|----|-----|
| PD/PM B02        | 63  | 140 | 95  | 115 | 3.5 | M8  | 11  | 23 | 12.8 | 4  | 85  |
|                  | 71  | 160 | 110 | 130 | 4.0 | M8  | 14  | 30 | 16.3 | 5  | 85  |
|                  | 80  | 200 | 130 | 165 | 4.0 | M10 | 19  | 40 | 21.8 | 6  | 103 |
|                  | 90  | 200 | 130 | 165 | 4.0 | M10 | 24  | 50 | 27.3 | 8  | 103 |

| ~ Kg |           |
|------|-----------|
| IEC  | PD/PM B02 |
| 63   | 11        |
| 71   | 12        |
| 80   | 15        |
| 90   | 15        |

PD B02



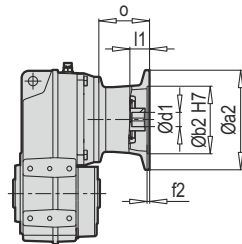
W



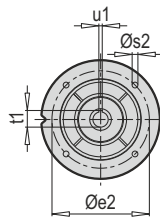
PM B02

| W ~ Kg    |    |
|-----------|----|
| PD/PM B02 | 10 |

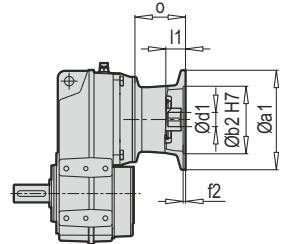
PD B02



PAM B5/B14



PM B02



| Tip / Type / Typ | PAM B5 | Øa2 | Øb2 | Øe2 | f2  | Øs2 | Ød1 | l1 | t1   | u1 | o   |
|------------------|--------|-----|-----|-----|-----|-----|-----|----|------|----|-----|
| PD/PM B02        | 63     | 140 | 95  | 115 | 3.5 | M8  | 11  | 23 | 12.8 | 4  | 85  |
|                  | 71     | 160 | 110 | 130 | 4.0 | M8  | 14  | 30 | 16.3 | 5  | 85  |
|                  | 80     | 200 | 130 | 165 | 4.0 | M10 | 19  | 40 | 21.8 | 6  | 103 |
|                  | 90     | 200 | 130 | 165 | 4.0 | M10 | 24  | 50 | 27.3 | 8  | 103 |

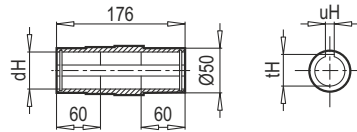
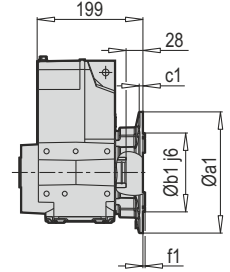
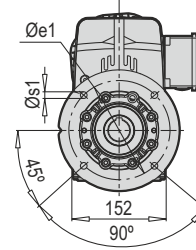
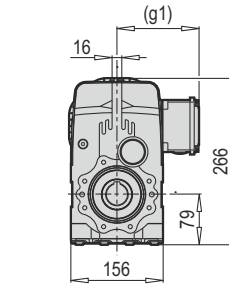
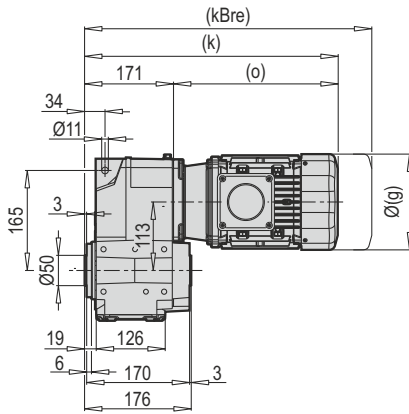
| ~ Kg   |           |
|--------|-----------|
| PAM B5 | PD/PM B02 |
| 63     | 10        |
| 71     | 11        |
| 80     | 14        |
| 90     | 14        |

| Tip / Type / Typ | PAM B14 | Øa2 | Øb2 | Øe2 | f2  | Øs2 | Ød1 | l1 | t1   | u1 | o   |
|------------------|---------|-----|-----|-----|-----|-----|-----|----|------|----|-----|
| PD/PM B02        | 63      | 90  | 60  | 75  | 3.5 | 6   | 11  | 23 | 12.8 | 4  | 85  |
|                  | 71      | 105 | 70  | 85  | 4.0 | 7   | 14  | 30 | 16.3 | 5  | 85  |
|                  | 80      | 120 | 80  | 100 | 4.0 | 7   | 19  | 40 | 21.8 | 6  | 103 |
|                  | 90      | 140 | 95  | 115 | 4.0 | 9   | 24  | 50 | 27.3 | 8  | 103 |

| ~ Kg    |           |
|---------|-----------|
| PAM B14 | PD/PM B02 |
| 63      | 9         |
| 71      | 10        |
| 80      | 13        |
| 90      | 13        |

**PD C13**

**PD C13 B5**

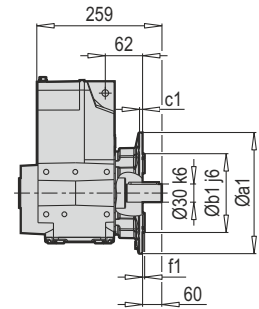
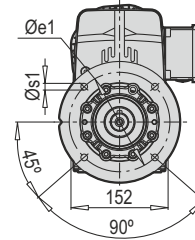
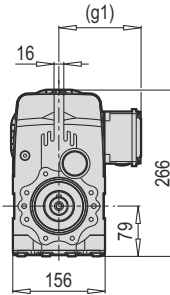
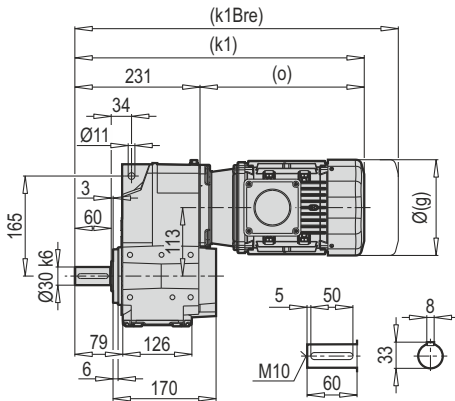


|           |      |        |        |
|-----------|------|--------|--------|
| <b>dH</b> | Ø 35 | (Ø 30) | (Ø 25) |
| <b>uH</b> | 10   | (8)    | (8)    |
| <b>tH</b> | 38.3 | (33.3) | (28.3) |

| a1  | b1  | c1 | e1  | f1  | s1   |
|-----|-----|----|-----|-----|------|
| 160 | 110 | 12 | 130 | 3.5 | 4x9  |
| 200 | 130 | 12 | 165 | 3.5 | 4x11 |

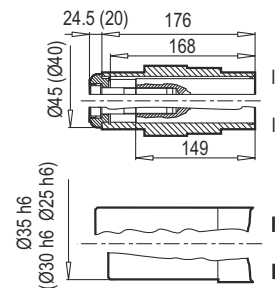
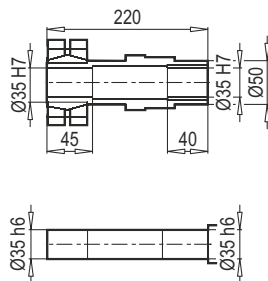
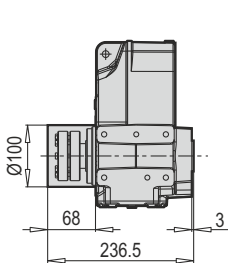
**PM C13**

**PM C13 B5**



**PD C13 KS**

**PD C13 Ç** 70-71

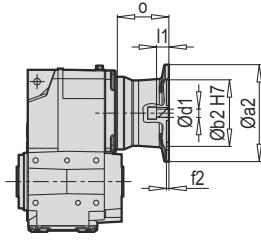


Ayak Delik Ölçüleri sayfa 58 / Dimension of foot is on page 58 / Fußlochmaße Seite 58

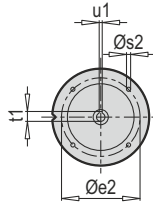
|                   | 63 M    | 71 M    | 80 M    | 90 S/L  | 100 L   |
|-------------------|---------|---------|---------|---------|---------|
| <b>g</b>          | 124     | 140     | 172     | 182     | 202     |
| <b>g1</b>         | 111     | 119     | 130.5   | 130     | 153     |
| <b>k/k1</b>       | 364/424 | 395/455 | 419/479 | 484/544 | 524/584 |
| <b>kBre/k1Bre</b> | 416/476 | 455/515 | 489/549 | 552/612 | 607/667 |
| <b>o</b>          | 193     | 224     | 252.5   | 318     | 357.5   |

Not: (...) İşaretili olan ölçüler motor markasına göre farklılık gösterir. / Note: The dimensions which have (...) sign vary depending on the motor. / Hinweis: (...) Die gekennzeichneten Maße unterscheiden sich je nach Motormarke.

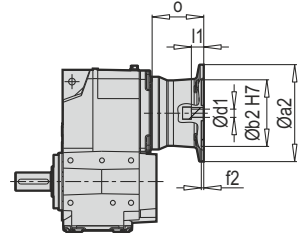
PD C13



IEC



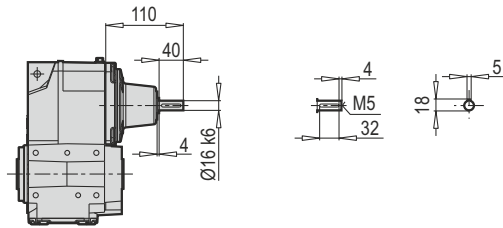
PM C13



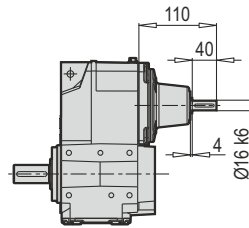
| Tip / Type / Typ | IEC | Øa2 | Øb2 | Øe2 | f2  | Øs2 | Ød1 | l1 | t1   | u1 | o   |
|------------------|-----|-----|-----|-----|-----|-----|-----|----|------|----|-----|
| PD/PM C13        | 63  | 140 | 95  | 115 | 3.5 | M8  | 11  | 23 | 12.8 | 4  | 85  |
|                  | 71  | 160 | 110 | 130 | 4.0 | M8  | 14  | 30 | 16.3 | 5  | 85  |
|                  | 80  | 200 | 130 | 165 | 4.0 | M10 | 19  | 40 | 21.8 | 6  | 103 |
|                  | 90  | 200 | 130 | 165 | 4.0 | M10 | 24  | 50 | 27.3 | 8  | 103 |
|                  | 100 | 250 | 180 | 215 | 5.0 | M12 | 28  | 60 | 31.3 | 8  | 126 |

| ~ Kg |           |
|------|-----------|
| IEC  | PD/PM C13 |
| 63   | 24        |
| 71   | 25        |
| 80   | 27        |
| 90   | 27        |
| 100  | 32        |

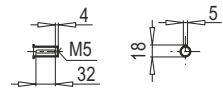
PD C13



W



PM C13

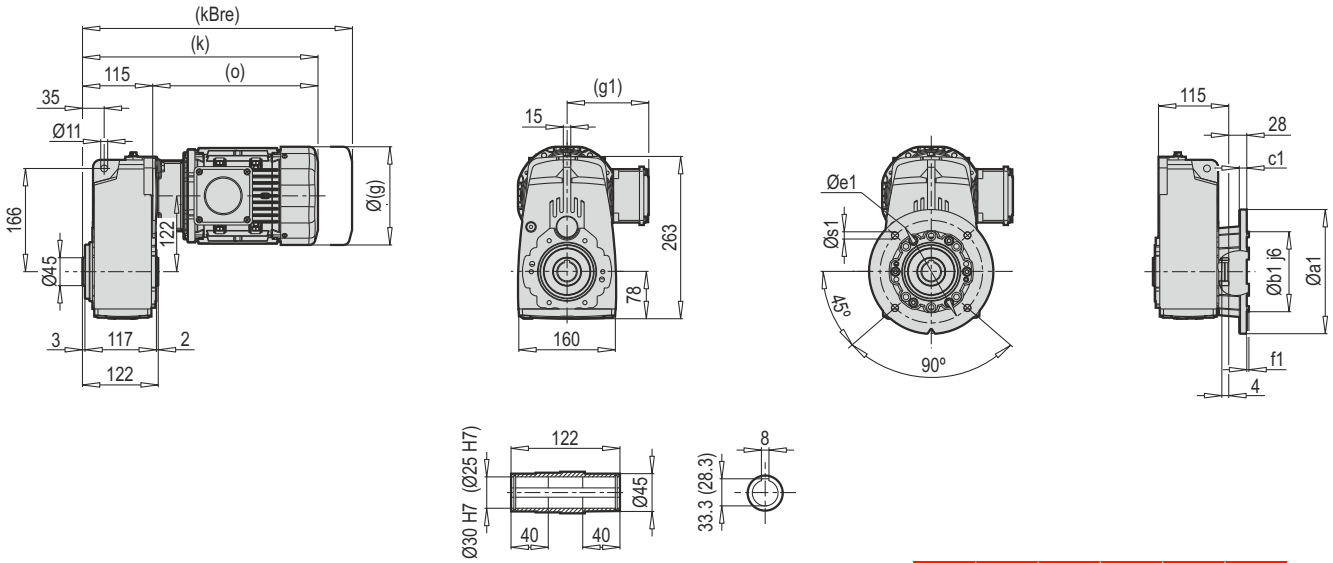


| W ~ Kg    |    |
|-----------|----|
| PD/PM C13 | 23 |



PD 12

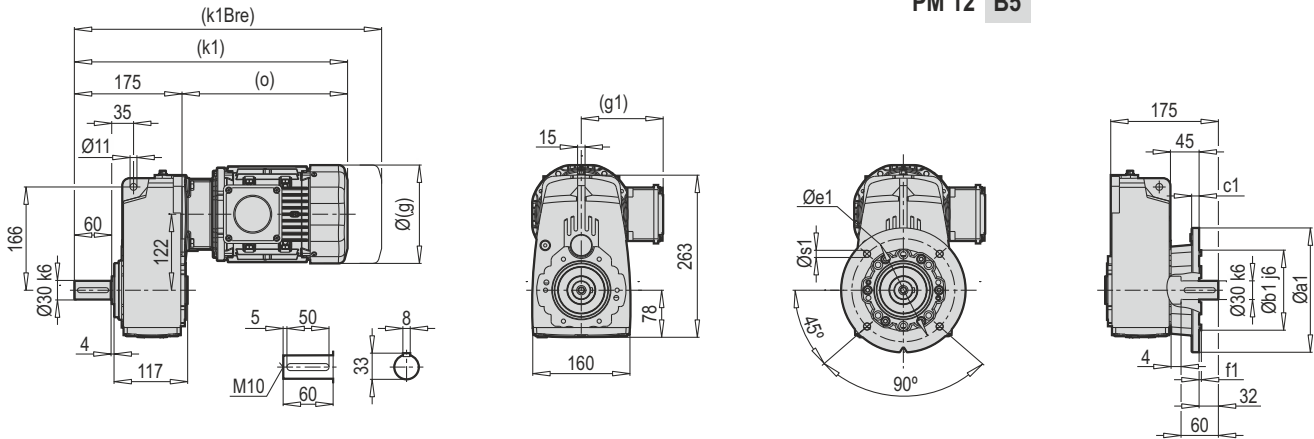
PD 12 B5



| a1  | b1  | c1 | e1  | f1  | s1   |
|-----|-----|----|-----|-----|------|
| 200 | 130 | 12 | 165 | 3.5 | 4x11 |

PM 12

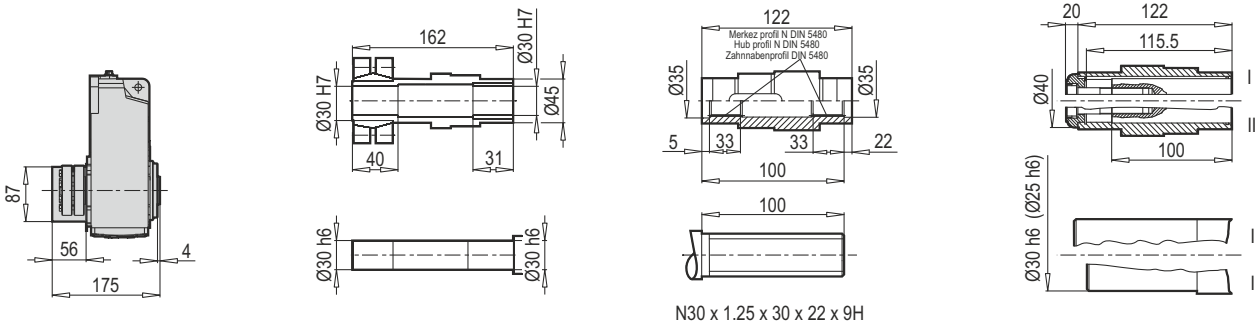
PM 12 B5



PD 12 KS

PD 12 DIN 5480

PD 12 Ç 70 - 71



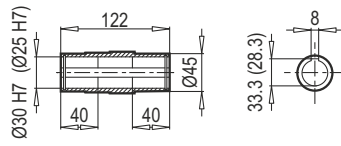
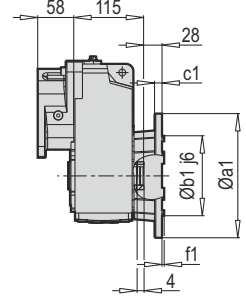
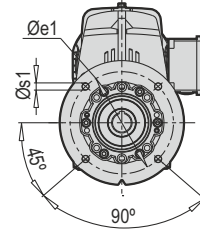
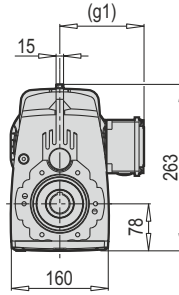
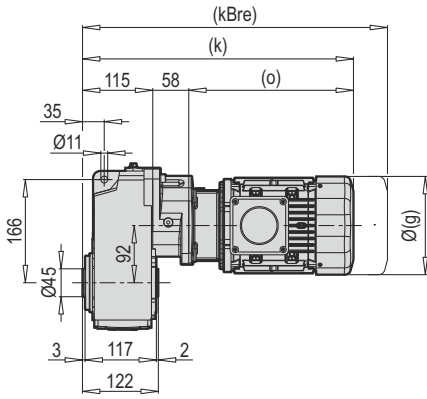
N30 x 1.25 x 30 x 22 x 9H

|                   | 63 M    | 71 M    | 80 M    | 90 S/L  | 100 L   | 112 M   |  |  |
|-------------------|---------|---------|---------|---------|---------|---------|--|--|
| <b>g</b>          | 124     | 140     | 172     | 182     | 202     | 220     |  |  |
| <b>g1</b>         | 111     | 119     | 130.5   | 130     | 153     | 158.5   |  |  |
| <b>k/k1</b>       | 313/373 | 355/415 | 381/441 | 447/507 | 498/558 | 493/553 |  |  |
| <b>kBre/k1Bre</b> | 365/425 | 415/475 | 451/511 | 455/515 | 582/642 | 593/653 |  |  |
| <b>o</b>          | 198     | 240     | 266     | 331.5   | 383     | 378     |  |  |

Not: (...) İşaretili olan ölçüler motor markasına göre farklılık gösterir. / Note: The dimensions which have (...) sign vary depending on the motor. / Hinweis: (...) Die gekennzeichneten Maße unterscheiden sich je nach Motormarke.

PD 13

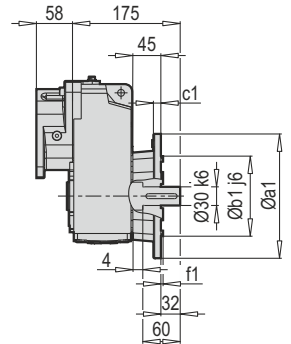
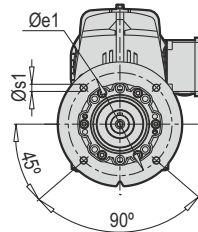
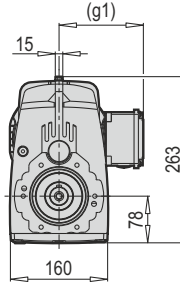
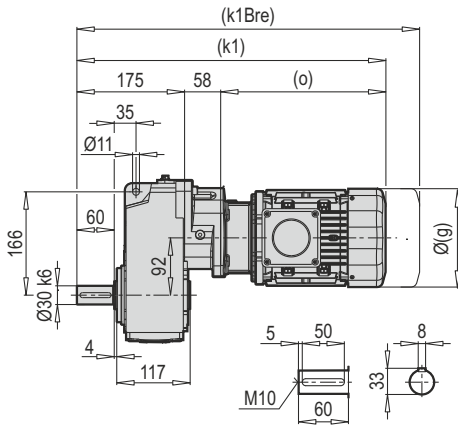
PD 13 B5



| a1  | b1  | c1 | e1  | f1  | s1   |
|-----|-----|----|-----|-----|------|
| 200 | 130 | 12 | 165 | 3.5 | 4x11 |

PM 13

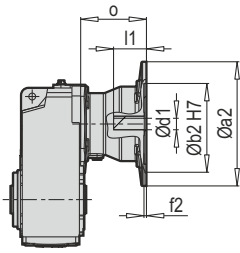
PM 13 B5



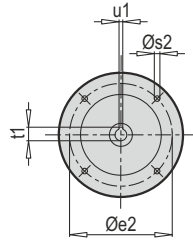
|            | 63 M    | 71 M    |  |  |  |  |  |
|------------|---------|---------|--|--|--|--|--|
| g          | 124     | 140     |  |  |  |  |  |
| g1         | 111     | 119     |  |  |  |  |  |
| k/k1       | 371/431 | 413/473 |  |  |  |  |  |
| kBre/k1Bre | 423/483 | 473/533 |  |  |  |  |  |
| o          | 198     | 240     |  |  |  |  |  |

Not: (...) işaretli olan ölçüler motor markasına göre farklılık gösterir. / Note: The dimensions which have (...) sign vary depending on the motor. / Hinweis: (...) Die gekennzeichneten Maße unterscheiden sich je nach Motormarke.

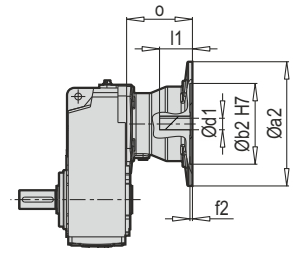
PD 12  
PD 13



IEC



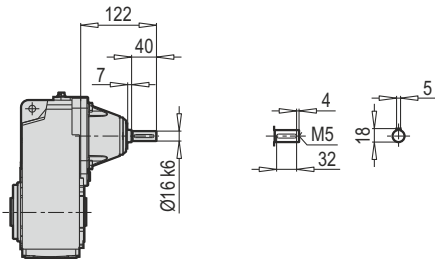
PM 12  
PM 13



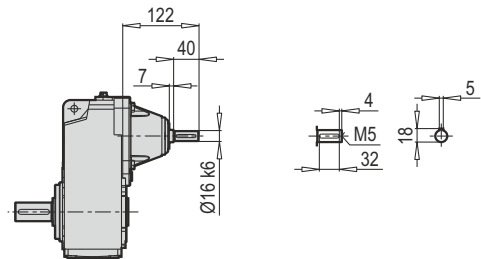
| Tip /<br>Type / Typ | IEC | Øa2 | Øb2 | Øe2 | f2  | Øs2 | Ød1 | l1 | t1   | u1 | o   |
|---------------------|-----|-----|-----|-----|-----|-----|-----|----|------|----|-----|
| PD/PM 12-13         | 63  | 140 | 95  | 115 | 3.5 | M8  | 11  | 23 | 12.8 | 4  | 85  |
| PD/PM 12-13         | 71  | 160 | 110 | 130 | 4.0 | M8  | 14  | 30 | 16.3 | 5  | 89  |
| PD/PM 12            | 80  | 200 | 130 | 165 | 4.0 | M10 | 19  | 40 | 21.8 | 6  | 105 |
| PD/PM 12            | 90  | 200 | 130 | 165 | 4.0 | M10 | 24  | 50 | 27.3 | 8  | 105 |
| PD/PM 12            | 100 | 250 | 180 | 215 | 5.0 | M12 | 28  | 60 | 31.3 | 8  | 130 |
| PD/PM 12            | 112 | 250 | 180 | 215 | 5.0 | M12 | 28  | 60 | 31.3 | 8  | 130 |

| ~ Kg |          |          |
|------|----------|----------|
| IEC  | PD/PM 12 | PD/PM 13 |
| 63   | 20       | 24       |
| 71   | 21       | 25       |
| 80   | 24       | -        |
| 90   | 24       | -        |
| 100  | 31       | -        |
| 112  | 31       | -        |

PD 12  
PD 13



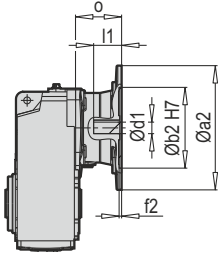
W



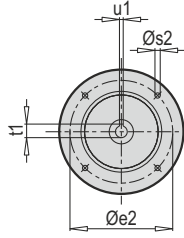
PM 12  
PM 13

| ~ Kg     |    |
|----------|----|
| PD/PM 12 | 19 |
| PD/PM 13 | 23 |

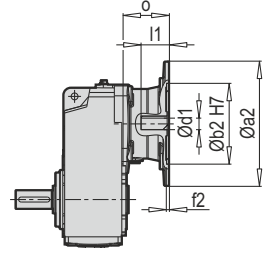
PD 12  
PD 13



PAM B5/B14



PM 12  
PM 13



| Tip /<br>Type / Typ | PAM B5 | Øa2 | Øb2 | Øe2 | f2  | Øs2 | Ød1 | l1 | t1   | u1 | o     |
|---------------------|--------|-----|-----|-----|-----|-----|-----|----|------|----|-------|
| PD/PM 12-13         | 63     | 140 | 95  | 115 | 3.5 | M8  | 11  | 23 | 12.8 | 4  | 85    |
| PD/PM 12-13         | 71     | 160 | 110 | 130 | 4.0 | M8  | 14  | 30 | 16.3 | 5  | 55    |
| PD/PM 12            | 80     | 200 | 130 | 165 | 4.0 | M10 | 19  | 40 | 21.8 | 6  | 74    |
| PD/PM 12            | 90     | 200 | 130 | 165 | 4.0 | M10 | 24  | 50 | 27.3 | 8  | 74    |
| PD/PM 12            | 100    | 250 | 180 | 215 | 5.0 | M12 | 28  | 60 | 31.3 | 8  | 131.5 |
| PD/PM 12            | 112    | 250 | 180 | 215 | 5.0 | M12 | 28  | 60 | 31.3 | 8  | 131.5 |

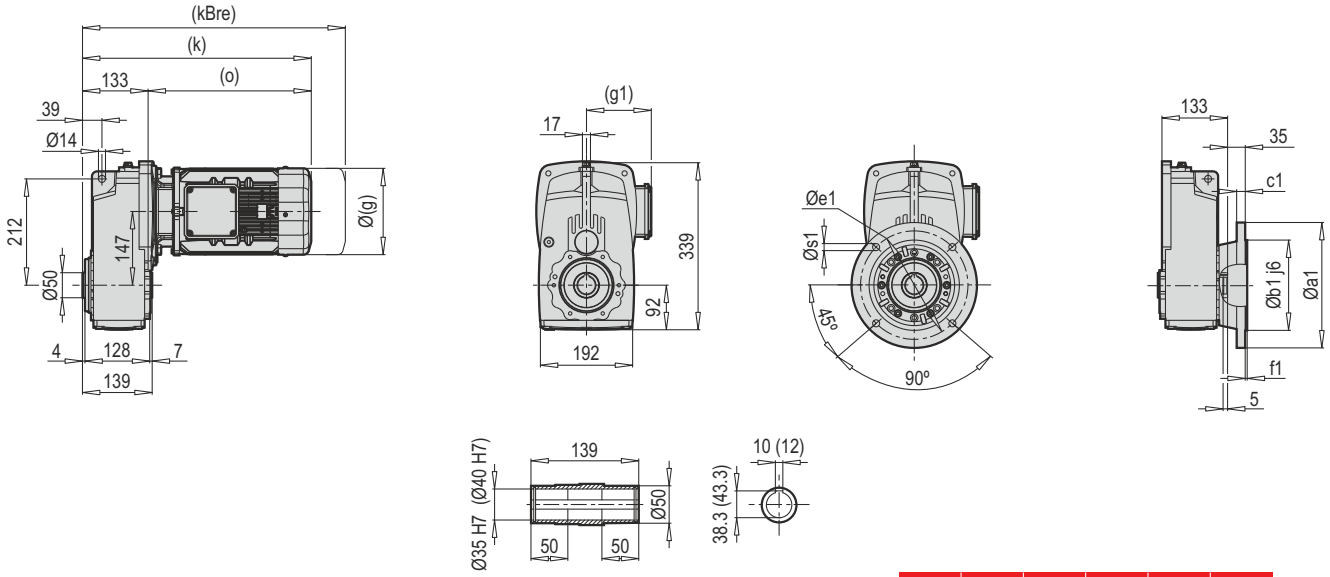
| ~ Kg   |          |          |
|--------|----------|----------|
| PAM B5 | PD/PM 12 | PD/PM 13 |
| 63     | 18       | 22       |
| 71     | 18       | 22       |
| 80     | 19       | -        |
| 90     | 19       | -        |
| 100    | 26       | -        |
| 112    | 26       | -        |

| Tip /<br>Type / Typ | PAM B14 | Øa2 | Øb2 | Øe2 | f2  | Øs2 | Ød1 | l1 | t1   | u1 | o  |
|---------------------|---------|-----|-----|-----|-----|-----|-----|----|------|----|----|
| PD/PM 12-13         | 63      | 90  | 60  | 75  | 3.5 | 6   | 11  | 23 | 12.8 | 4  | 60 |
| PD/PM 12-13         | 71      | 105 | 70  | 85  | 4.0 | 7   | 14  | 30 | 16.3 | 5  | 55 |
| PD/PM 12            | 80      | 120 | 80  | 100 | 4.0 | 7   | 19  | 40 | 21.8 | 6  | 74 |
| PD/PM 12            | 90      | 140 | 95  | 115 | 4.0 | 9   | 24  | 50 | 27.3 | 8  | 74 |
| PD/PM 12            | 100     | 160 | 110 | 130 | 5.0 | 9   | 28  | 60 | 31.3 | 8  | 75 |
| PD/PM 12            | 112     | 160 | 110 | 130 | 5.0 | 9   | 28  | 60 | 31.3 | 8  | 75 |

| ~ Kg    |          |          |
|---------|----------|----------|
| PAM B14 | PD/PM 12 | PD/PM 13 |
| 63      | 17       | 21       |
| 71      | 17       | 21       |
| 80      | 18       | -        |
| 90      | 18       | -        |
| 100     | 19       | -        |
| 112     | 19       | -        |

**PD 22**

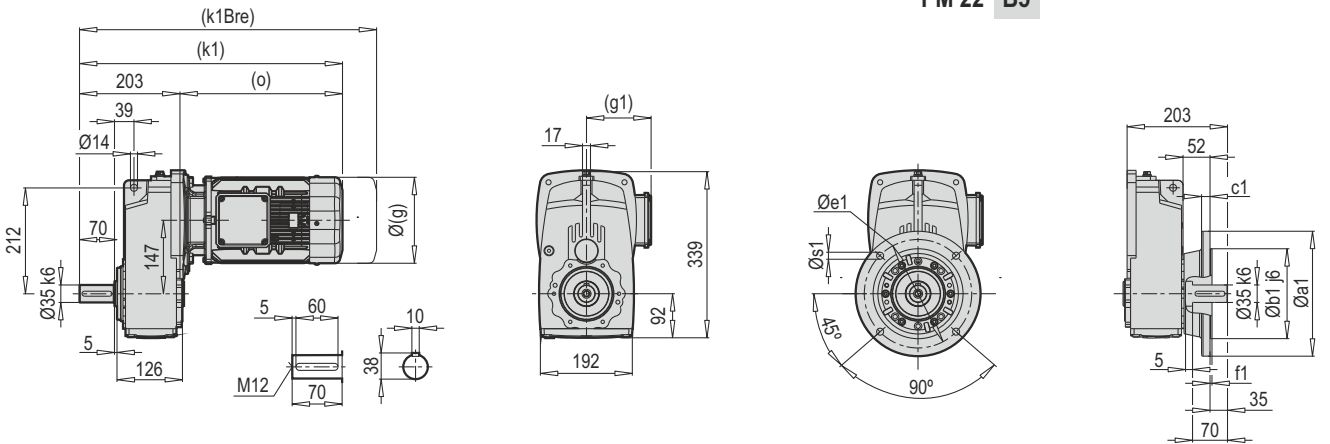
**PD 22 B5**



| a1  | b1  | c1 | e1  | f1 | s1   |
|-----|-----|----|-----|----|------|
| 250 | 180 | 16 | 215 | 4  | 4x14 |

**PM 22**

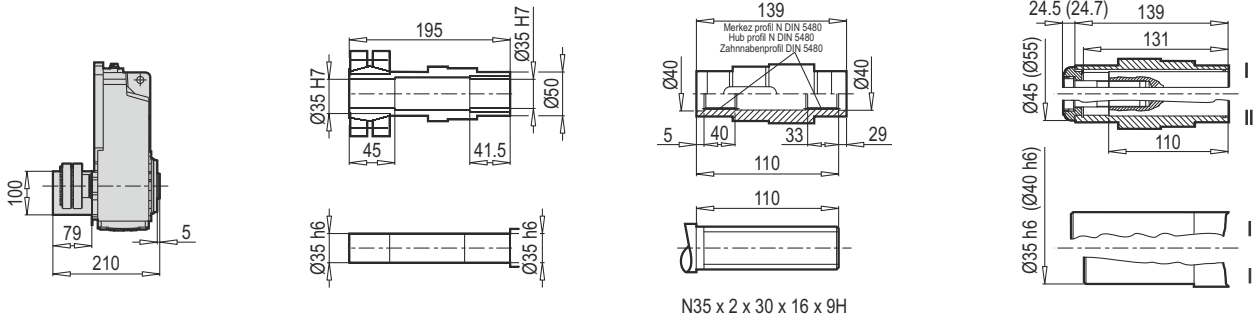
**PM 22 B5**



**PD 22 KS**

**PD 22 DIN 5480**

**PD 22 Ç** 70 - 71

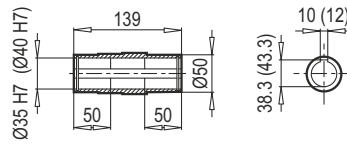
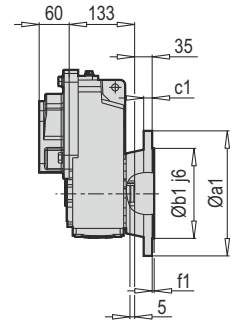
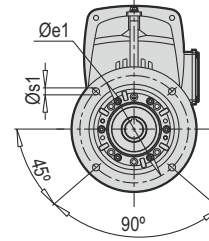
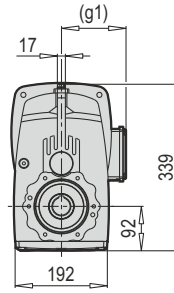
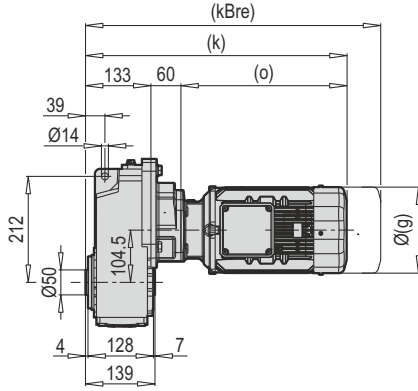


|                   | 71 M    | 80 M    | 90 S/L  | 100 L   | 112 M   |  |  |  |
|-------------------|---------|---------|---------|---------|---------|--|--|--|
| <b>g</b>          | 140     | 172     | 182     | 202     | 220     |  |  |  |
| <b>g1</b>         | 119     | 130.5   | 130     | 153     | 158.5   |  |  |  |
| <b>k/k1</b>       | 369/439 | 393/463 | 459/529 | 510/580 | 505/575 |  |  |  |
| <b>kBre/k1Bre</b> | 429/499 | 463/533 | 527/597 | 594/664 | 605/675 |  |  |  |
| <b>o</b>          | 236     | 260     | 325.5   | 377     | 371.5   |  |  |  |

Not: (...) İşaretili olan ölçüler motor markasına göre farklılık gösterir. / Note: The dimensions which have (...) sign vary depending on the motor. / Hinweis: (...) Die gekennzeichneten Maße unterscheiden sich je nach Motormarke.

PD 23

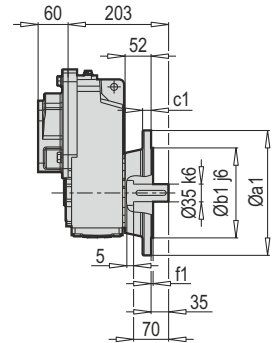
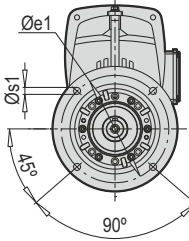
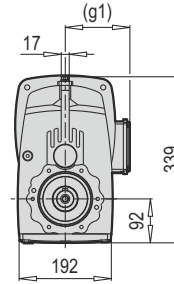
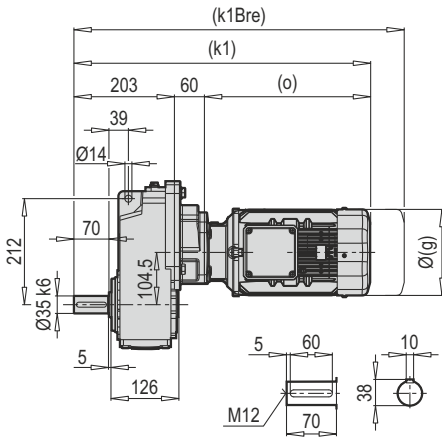
PD 23 B5



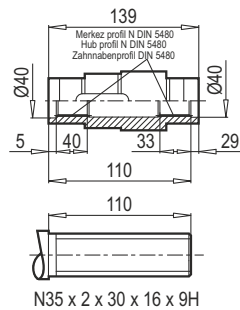
| a1  | b1  | c1 | e1  | f1 | s1   |
|-----|-----|----|-----|----|------|
| 250 | 180 | 16 | 215 | 4  | 4x14 |

PM 23

PM 23 B5

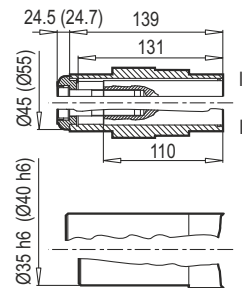


PD 23 DIN 5480



PD 23 Ç

70 - 71



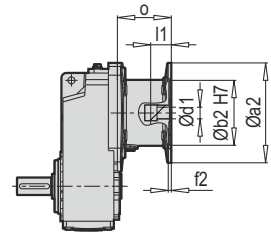
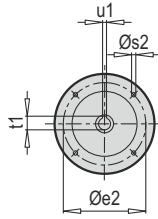
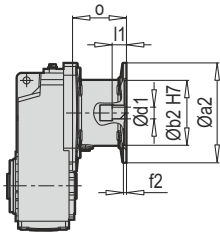
|            | 63 M    | 71 M    | 80 M    | 90 S/L  |
|------------|---------|---------|---------|---------|
| g          | 124     | 140     | 172     | 182     |
| g1         | 111     | 119     | 130.5   | 130     |
| k/k1       | 391/461 | 433/503 | 459/529 | 525/595 |
| kBre/k1Bre | 443/513 | 493/563 | 529/599 | 533/603 |
| o          | 198     | 240     | 266     | 331.5   |

Not: (...) İşaretili olan ölçüler motor markasına göre farklılık gösterir. / Note: The dimensions which have (...) sign vary depending on the motor. / Hinweis: (...) Die gekennzeichneten Maße unterscheiden sich je nach Motormarke.

PD 22  
PD 23

IEC

PM 22  
PM 23



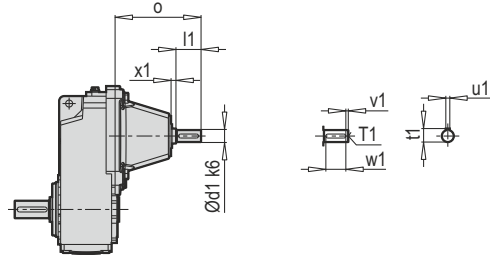
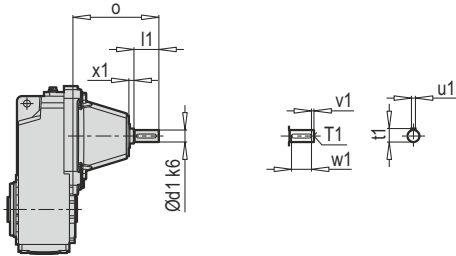
| Tip / Type / Typ | IEC | Øa2 | Øb2 | Øe2 | f2  | Øs2 | Ød1 | l1 | t1   | u1 | PD/PM 22<br>o | PD/PM 23<br>o |
|------------------|-----|-----|-----|-----|-----|-----|-----|----|------|----|---------------|---------------|
| PD/PM 23         | 63  | 140 | 95  | 115 | 3.5 | M8  | 11  | 23 | 12.8 | 4  | 85            | 85            |
| PD/PM 22-23      | 71  | 160 | 110 | 130 | 4.0 | M8  | 14  | 30 | 16.3 | 5  | 88            | 89            |
| PD/PM 22-23      | 80  | 200 | 130 | 165 | 4.0 | M10 | 19  | 40 | 21.8 | 6  | 105           | 105           |
| PD/PM 22-23      | 90  | 200 | 130 | 165 | 4.0 | M10 | 24  | 50 | 27.3 | 8  | 105           | 105           |
| PD/PM 22         | 100 | 250 | 180 | 215 | 5.0 | M12 | 28  | 60 | 31.3 | 8  | 130           | -             |
| PD/PM 22         | 112 | 250 | 180 | 215 | 5.0 | M12 | 28  | 60 | 31.3 | 8  | 130           | -             |

| ~ Kg |          |          |
|------|----------|----------|
| IEC  | PD/PM 22 | PD/PM 23 |
| 63   | -        | 38       |
| 71   | 34       | 40       |
| 80   | 38       | 43       |
| 90   | 38       | 43       |
| 100  | 43       | -        |
| 112  | 43       | -        |

PD 22  
PD 23

W

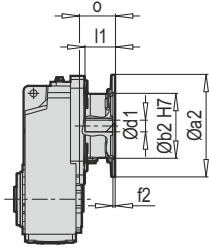
PM 22  
PM 23



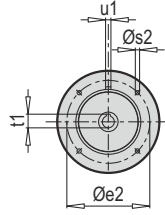
| Tip / Type / Typ | Ød1 | x1 | l1 | o   | T1 | t1 | u1 | v1 | w1 |
|------------------|-----|----|----|-----|----|----|----|----|----|
| PD/PM 22         | 24  | 8  | 50 | 172 | M8 | 27 | 8  | 5  | 40 |
| PD/PM 23         | 16  | 7  | 40 | 122 | M5 | 18 | 5  | 4  | 32 |

| ~ Kg     |          |
|----------|----------|
| PD/PM 22 | PD/PM 23 |
| 36       | 37       |

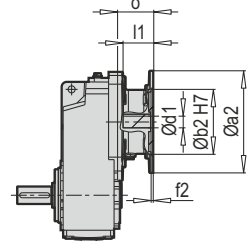
PD 22  
PD 23



PAM B5/B14



PM 22  
PM 23



| Tip /<br>Type / Typ | PAM B5 | Øa2 | Øb2 | Øe2 | f2  | Øs2 | Ød1 | l1 | t1   | u1 | o  |
|---------------------|--------|-----|-----|-----|-----|-----|-----|----|------|----|----|
| PD/PM 23            | 63     | 140 | 95  | 115 | 3.5 | M8  | 11  | 23 | 12.8 | 4  | 85 |
| PD/PM 22-23         | 71     | 160 | 110 | 130 | 4.0 | M8  | 14  | 30 | 16.3 | 5  | 55 |
| PD/PM 22-23         | 80     | 200 | 130 | 165 | 4.0 | M10 | 19  | 40 | 21.8 | 6  | 74 |
| PD/PM 22-23         | 90     | 200 | 130 | 165 | 4.0 | M10 | 24  | 50 | 27.3 | 8  | 74 |
| PD/PM 22            | 100    | 250 | 180 | 215 | 5.0 | M12 | 28  | 60 | 31.3 | 8  | 75 |
| PD/PM 22            | 112    | 250 | 180 | 215 | 5.0 | M12 | 28  | 60 | 31.3 | 8  | 75 |

| ~ Kg   |          |          |
|--------|----------|----------|
| PAM B5 | PD/PM 22 | PD/PM 23 |
| 63     | -        | 36       |
| 71     | 32       | 36       |
| 80     | 33       | 37       |
| 90     | 33       | 37       |
| 100    | 34       | -        |
| 112    | 34       | -        |

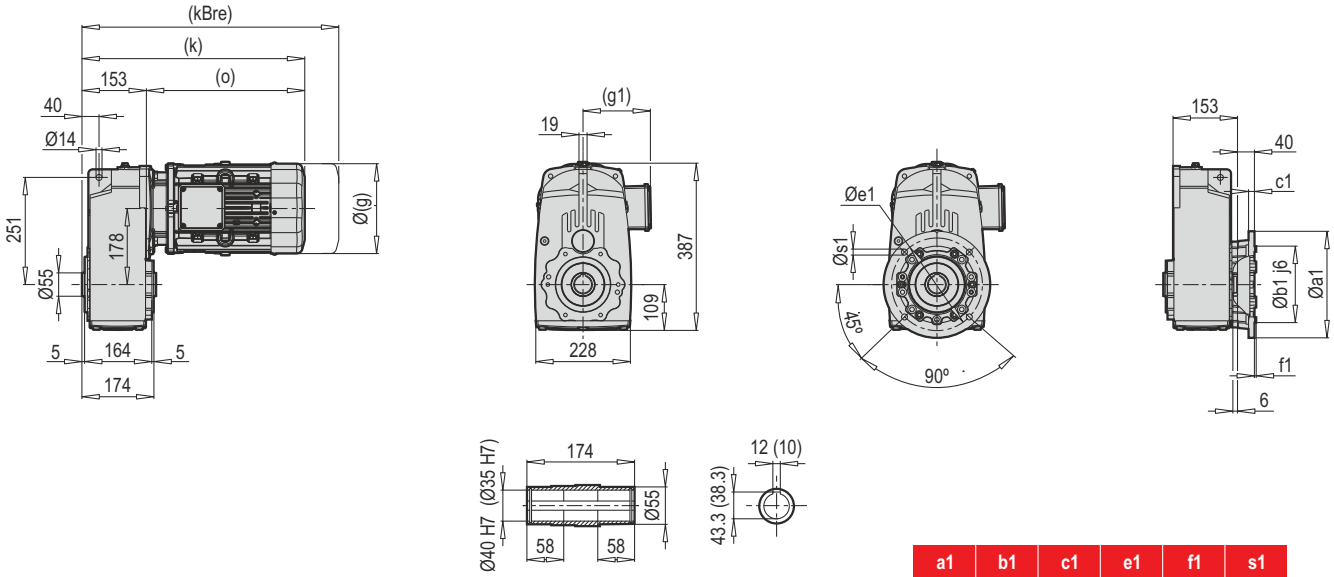
| Tip /<br>Type / Typ | PAM B14 | Øa2 | Øb2 | Øe2 | f2  | Øs2 | Ød1 | l1 | t1   | u1 | o  |
|---------------------|---------|-----|-----|-----|-----|-----|-----|----|------|----|----|
| PD/PM 23            | 63      | 90  | 60  | 75  | 3.5 | 6   | 11  | 23 | 12.8 | 4  | 60 |
| PD/PM 22-23         | 71      | 105 | 70  | 85  | 4.0 | 7   | 14  | 30 | 16.3 | 5  | 55 |
| PD/PM 22-23         | 80      | 120 | 80  | 100 | 4.0 | 7   | 19  | 40 | 21.8 | 6  | 74 |
| PD/PM 22-23         | 90      | 140 | 95  | 115 | 4.0 | 9   | 24  | 50 | 27.3 | 8  | 74 |
| PD/PM 22            | 100     | 160 | 110 | 130 | 5.0 | 9   | 28  | 60 | 31.3 | 8  | 75 |
| PD/PM 22            | 112     | 160 | 110 | 130 | 5.0 | 9   | 28  | 60 | 31.3 | 8  | 75 |

| ~ Kg    |          |          |
|---------|----------|----------|
| PAM B14 | PD/PM 22 | PD/PM 23 |
| 63      | -        | 35       |
| 71      | 30       | 35       |
| 80      | 31       | 36       |
| 90      | 31       | 36       |
| 100     | 33       | -        |
| 112     | 33       | -        |



**PD 32**

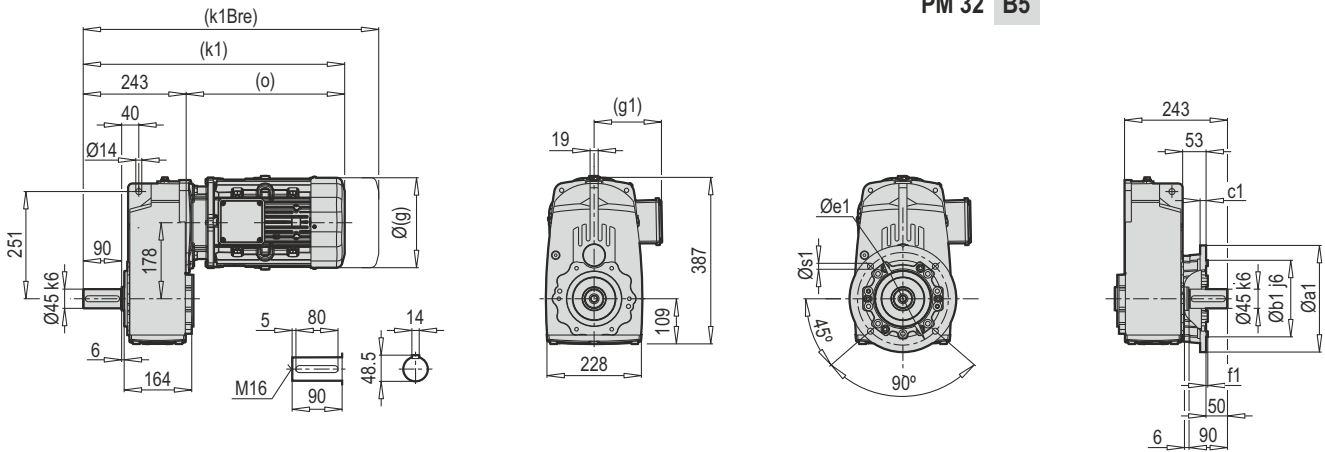
**PD 32 B5**



| a1  | b1  | c1 | e1  | f1 | s1   |
|-----|-----|----|-----|----|------|
| 250 | 180 | 15 | 215 | 4  | 4x14 |
| 300 | 230 | 20 | 265 | 4  | 4x14 |

**PM 32**

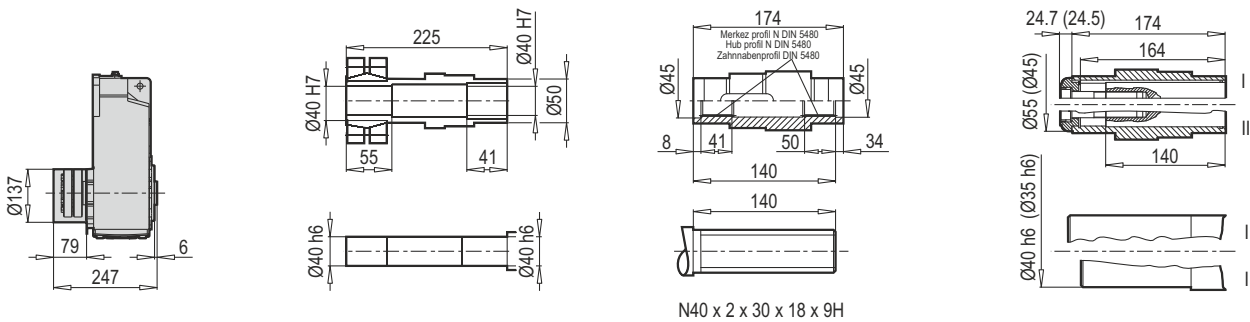
**PM 32 B5**



**PD 32 KS**

**PD 32 DIN 5480**

**PD 32 Ç** 70 - 71

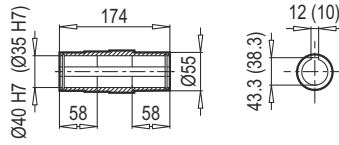
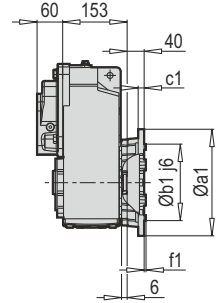
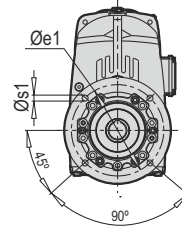
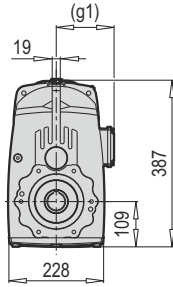
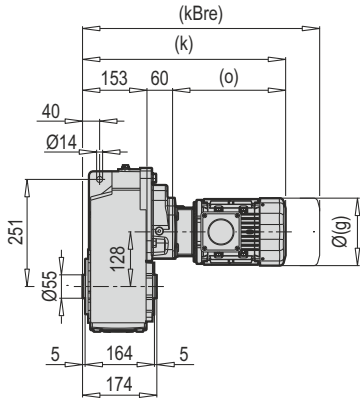


N40 x 2 x 30 x 18 x 9H

|                   | 71 M    | 80 M    | 90 S/L  | 100 L   | 112 M   | 132 S   | 132 M   |  |
|-------------------|---------|---------|---------|---------|---------|---------|---------|--|
| <b>g</b>          | 140     | 172     | 182     | 202     | 220     | 270.5   | 270.5   |  |
| <b>g1</b>         | 119     | 130.5   | 130     | 153     | 158.5   | 187.5   | 187.5   |  |
| <b>k/k1</b>       | 389/479 | 413/503 | 479/567 | 530/620 | 525/615 | 600/690 | 600/690 |  |
| <b>kBre/k1Bre</b> | 449/539 | 483/573 | 547/637 | 614/704 | 625/715 | 699/789 | 727/817 |  |
| <b>o</b>          | 236     | 260     | 325.5   | 377     | 371.5   | 446.5   | 446.5   |  |

Not: (...) İşaretili olan ölçüler motor markasına göre farklılık gösterir. / Note: The dimensions which have (...) sign vary depending on the motor. / Hinweis: (...) Die gekennzeichneten Maße unterscheiden sich je nach Motormarke.

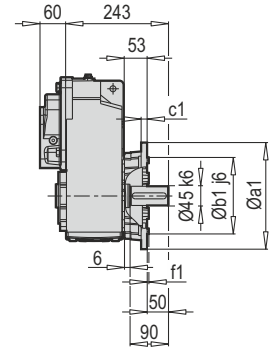
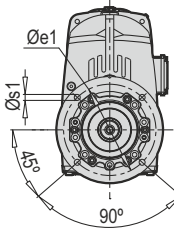
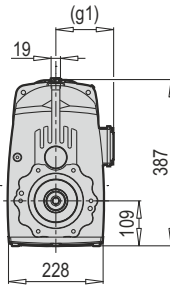
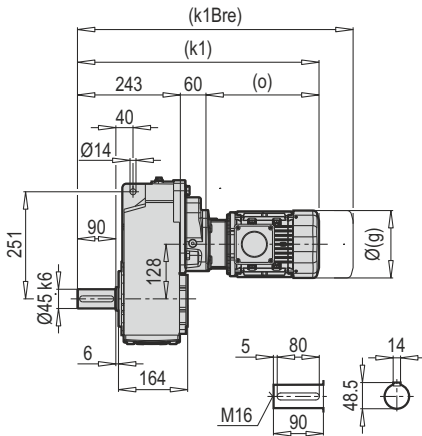
PD 33



PD 33 B5

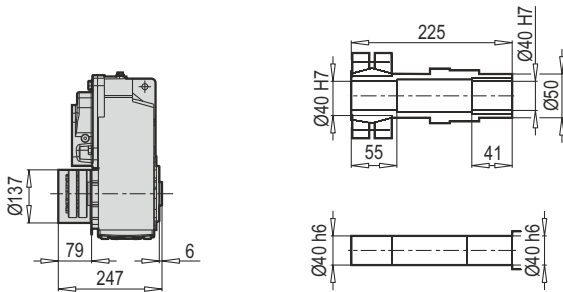
| a1  | b1  | c1 | e1  | f1 | s1   |
|-----|-----|----|-----|----|------|
| 250 | 180 | 15 | 215 | 4  | 4x14 |
| 300 | 230 | 20 | 265 | 4  | 4x14 |

PM 33

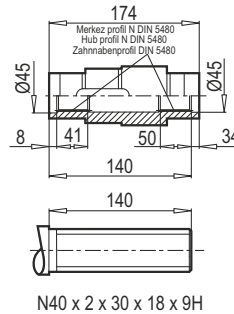


PM 33 B5

PD 33 KS

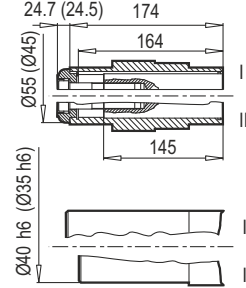


PD 33 DIN 5480



PD 33 Ç

70 - 71



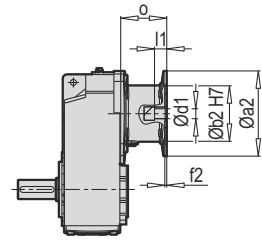
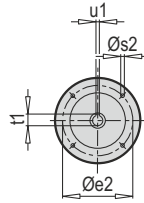
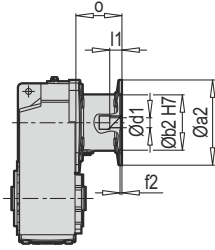
|            | 63 M    | 71 M    | 80 M    | 90 S/L  |  |  |  |  |
|------------|---------|---------|---------|---------|--|--|--|--|
| g          | 124     | 140     | 172     | 182     |  |  |  |  |
| g1         | 111     | 119     | 130.5   | 130     |  |  |  |  |
| k/k1       | 411/501 | 453/543 | 479/569 | 545/635 |  |  |  |  |
| kBre/k1Bre | 463/553 | 513/603 | 549/639 | 553/643 |  |  |  |  |
| o          | 198     | 240     | 266     | 331.5   |  |  |  |  |

Not: (...) İşaretili olan ölçüler motor markasına göre farklılık gösterir. / Note: The dimensions which have (...) sign vary depending on the motor. / Hinweis: (...) Die gekennzeichneten Maße unterscheiden sich je nach Motormarke.

PD 32  
PD 33

IEC

PM 32  
PM 33



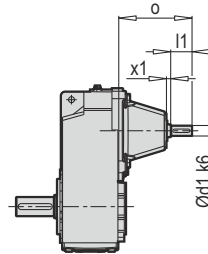
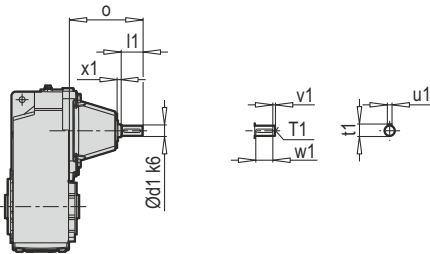
| Tip / Type / Typ | IEC | Øa2 | Øb2 | Øe2 | f2  | Øs2 | Ød1 | l1 | t1   | u1 | PD/PM 32<br>o | PD/PM 33<br>o |
|------------------|-----|-----|-----|-----|-----|-----|-----|----|------|----|---------------|---------------|
| PD/PM 33         | 63  | 140 | 95  | 115 | 3.5 | M8  | 11  | 23 | 12.8 | 4  | -             | 85            |
| PD/PM 32-33      | 71  | 160 | 110 | 130 | 4.0 | M8  | 14  | 30 | 16.3 | 5  | 88            | 89            |
| PD/PM 32-33      | 80  | 200 | 130 | 165 | 4.0 | M10 | 19  | 40 | 21.8 | 6  | 107           | 105           |
| PD/PM 32-33      | 90  | 200 | 130 | 165 | 4.0 | M10 | 24  | 50 | 27.3 | 8  | 107           | 105           |
| PD/PM 32-33      | 100 | 250 | 180 | 215 | 5.0 | M12 | 28  | 60 | 31.3 | 8  | 124           | 130           |
| PD/PM 32-33      | 112 | 250 | 180 | 215 | 5.0 | M12 | 28  | 60 | 31.3 | 8  | 124           | 130           |
| PD/PM 32         | 132 | 300 | 230 | 265 | 5.0 | M12 | 38  | 80 | 41.3 | 10 | 156           | -             |

| ~ Kg |          |          |
|------|----------|----------|
| IEC  | PD/PM 32 | PD/PM 33 |
| 63   | -        | 55       |
| 71   | 50       | 56       |
| 80   | 54       | 59       |
| 90   | 54       | 59       |
| 100  | 58       | 67       |
| 112  | 58       | 67       |
| 132  | 68       | -        |

PD 32  
PD 33

W

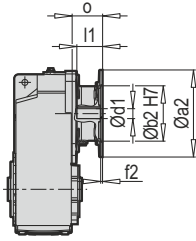
PM 32  
PM 33



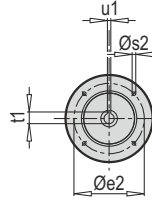
| Tip / Type / Typ | Ød1 | x1 | l1 | o   | T1 | t1 | u1 | v1 | w1 |
|------------------|-----|----|----|-----|----|----|----|----|----|
| PD/PM 32         | 24  | 8  | 50 | 172 | M8 | 27 | 8  | 5  | 40 |
| PD/PM 33         | 16  | 7  | 40 | 122 | M5 | 18 | 5  | 4  | 32 |

| ~ Kg     |          |
|----------|----------|
| PD/PM 32 | PD/PM 33 |
| 52       | 54       |

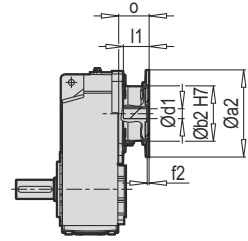
PD 32  
PD 33



PAM B5/B14



PM 32  
PM 33



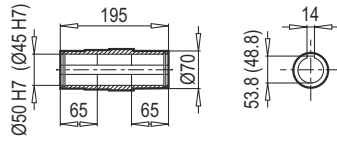
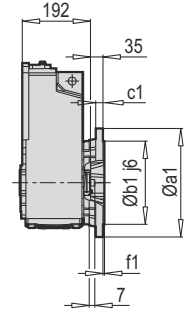
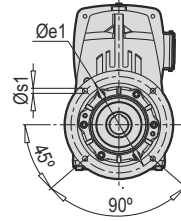
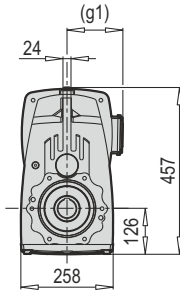
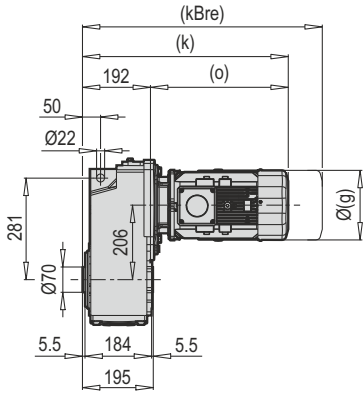
| Tip / Type / Typ | PAM B5 | Øa2 | Øb2 | Øe2 | f2  | Øs2 | Ød1 | l1 | t1   | u1 | ° (32) | ° (33) |
|------------------|--------|-----|-----|-----|-----|-----|-----|----|------|----|--------|--------|
| PD/PM 33         | 63     | 140 | 95  | 115 | 3.5 | M8  | 11  | 23 | 12.8 | 4  | -      | 85     |
| PD/PM 32-33      | 71     | 160 | 110 | 130 | 4.0 | M8  | 14  | 30 | 16.3 | 5  | 88     | 55     |
| PD/PM 32-33      | 80     | 200 | 130 | 165 | 4.0 | M10 | 19  | 40 | 21.8 | 6  | 72     | 74     |
| PD/PM 32-33      | 90     | 200 | 130 | 165 | 4.0 | M10 | 24  | 50 | 27.3 | 8  | 72     | 74     |
| PD/PM 32-33      | 100    | 250 | 180 | 215 | 5.0 | M12 | 28  | 60 | 31.3 | 8  | 75     | 131.5  |
| PD/PM 32-33      | 112    | 250 | 180 | 215 | 5.0 | M12 | 28  | 60 | 31.3 | 8  | 75     | 131.5  |
| PD/PM 32         | 132    | 300 | 230 | 265 | 5.0 | M12 | 38  | 80 | 41.3 | 10 | 94     | -      |

| ~ kg   |          |          |
|--------|----------|----------|
| PAM B5 | PD/PM 32 | PD/PM 33 |
| 63     | -        | 52       |
| 71     | 47       | 52       |
| 80     | 48       | 53       |
| 90     | 48       | 53       |
| 100    | 49       | 60       |
| 112    | 49       | 60       |
| 132    | 59       | -        |

| Tip / Type / Typ | PAM B14 | Øa2 | Øb2 | Øe2 | f2  | Øs2 | Ød1 | l1 | t1   | u1 | ° (32) | ° (33) |
|------------------|---------|-----|-----|-----|-----|-----|-----|----|------|----|--------|--------|
| PD/PM 33         | 63      | 90  | 60  | 75  | 3.5 | 6   | 11  | 23 | 12.8 | 4  | -      | 60     |
| PD/PM 32-33      | 71      | 105 | 70  | 85  | 4   | 7   | 14  | 30 | 16.3 | 5  | 55     | 55     |
| PD/PM 32-33      | 80      | 120 | 80  | 100 | 4   | 7   | 19  | 40 | 21.8 | 6  | 72     | 74     |
| PD/PM 32-33      | 90      | 140 | 95  | 115 | 4   | 9   | 24  | 50 | 27.3 | 8  | 72     | 74     |
| PD/PM 32-33      | 100     | 160 | 110 | 130 | 5   | 9   | 28  | 60 | 31.3 | 8  | 75     | 75     |
| PD/PM 32-33      | 112     | 160 | 110 | 130 | 5   | 9   | 28  | 60 | 31.3 | 8  | 75     | 75     |
| PD/PM 32         | 132     | 200 | 130 | 165 | 5   | 11  | 38  | 80 | 41.3 | 10 | 94     | -      |

| ~ kg    |          |          |
|---------|----------|----------|
| PAM B14 | PD/PM 32 | PD/PM 33 |
| 63      | -        | 51       |
| 71      | 45       | 51       |
| 80      | 46       | 52       |
| 90      | 46       | 52       |
| 100     | 48       | 53       |
| 112     | 48       | 53       |
| 132     | 52       | -        |

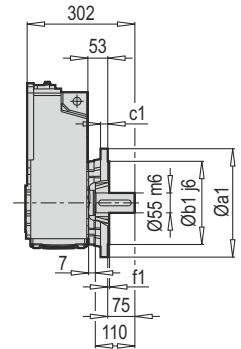
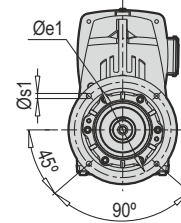
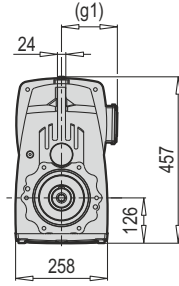
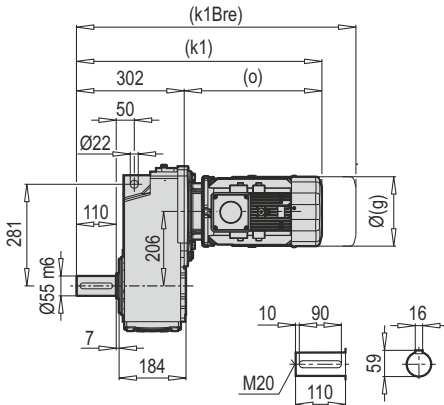
PD 42



PD 42 B5

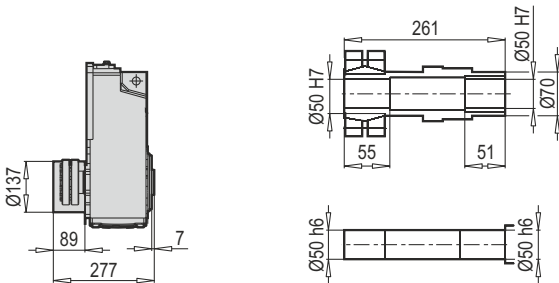
| a1  | b1  | c1 | e1  | f1 | s1   |
|-----|-----|----|-----|----|------|
| 300 | 230 | 20 | 265 | 4  | 4x14 |

PM 42

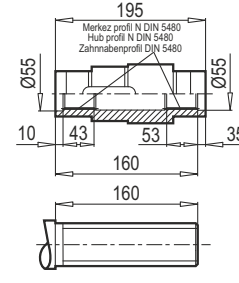


PM 42 B5

PD 42 KS

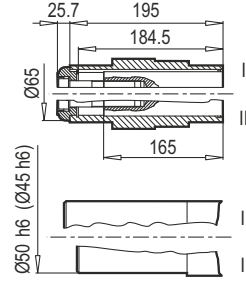


PD 42 DIN 5480



PD 42 Ç

70 - 71

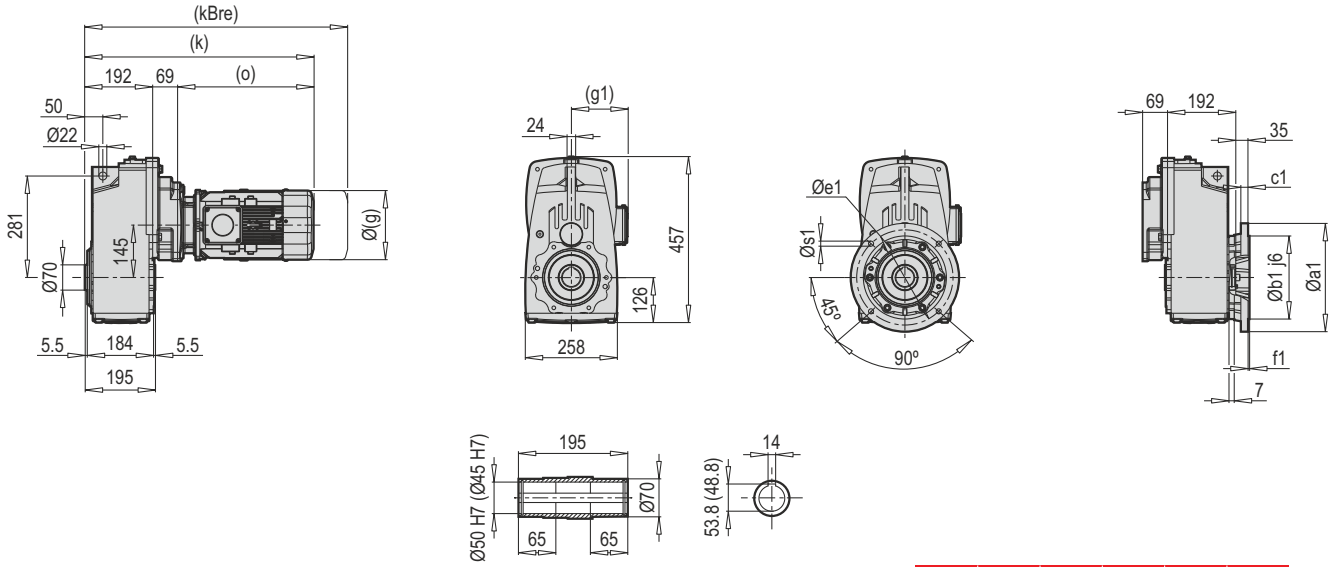


|                   | 90 S/L  | 100 L   | 112 M   | 132 S   | 132 M   | 160 M/L |  |  |
|-------------------|---------|---------|---------|---------|---------|---------|--|--|
| <b>g</b>          | 182     | 202     | 220     | 270.5   | 270.5   | 321.5   |  |  |
| <b>g1</b>         | 130     | 153     | 158.5   | 187.5   | 187.5   | 214     |  |  |
| <b>k/k1</b>       | 522/632 | 573/683 | 572/682 | 634/744 | 634/744 | 722/832 |  |  |
| <b>kBre/k1Bre</b> | 590/700 | 657/767 | 672/782 | 733/843 | 753/863 | 827/937 |  |  |
| <b>o</b>          | 329.5   | 381     | 379.5   | 441.5   | 441.5   | 530     |  |  |

Not: (...) İşaretili olan ölçüler motor markasına göre farklılık gösterir. / Note: The dimensions which have (...) sign vary depending on the motor. / Hinweis: (...) Die gekennzeichneten Maße unterscheiden sich je nach Motormarke.

PD 43

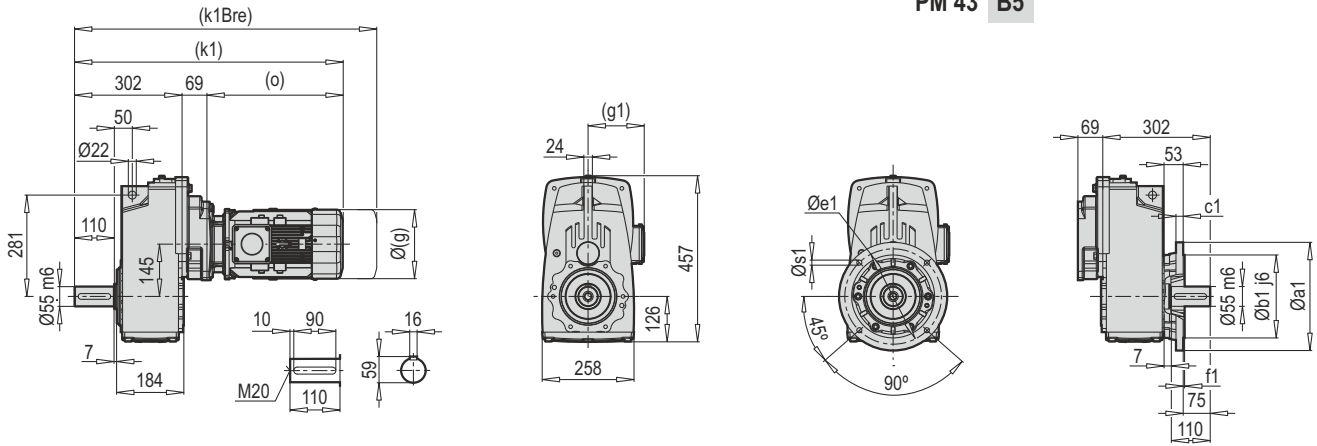
PD 43 B5



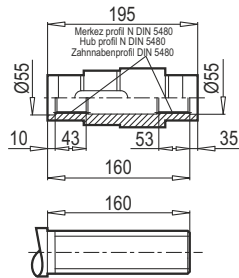
| a1  | b1  | c1 | e1  | f1 | s1   |
|-----|-----|----|-----|----|------|
| 300 | 230 | 20 | 265 | 4  | 4x14 |

PM 43

PM 43 B5



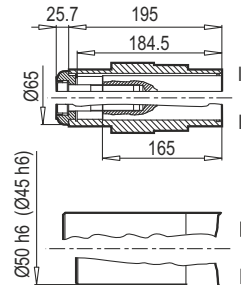
PD 43 DIN 5480



N50 x 2 x 30 x 24 x 9H

PD 43 Ç

70 - 71



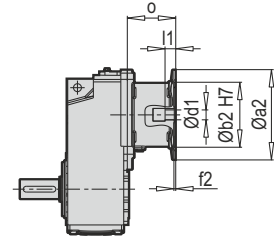
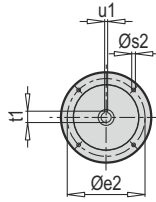
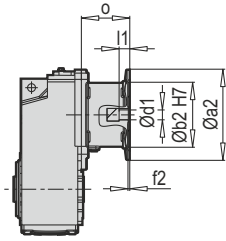
|                   | 71 M    | 80 M    | 90 S/L  | 100 L   | 112 M   |  |  |  |
|-------------------|---------|---------|---------|---------|---------|--|--|--|
| <b>g</b>          | 140     | 172     | 182     | 202     | 220     |  |  |  |
| <b>g1</b>         | 119     | 130.5   | 130     | 153     | 158.5   |  |  |  |
| <b>k/k1</b>       | 497/607 | 521/631 | 587/697 | 638/748 | 633/743 |  |  |  |
| <b>kBre/k1Bre</b> | 557/667 | 591/701 | 655/765 | 722/832 | 733/843 |  |  |  |
| <b>o</b>          | 236     | 260     | 325.5   | 377     | 371.5   |  |  |  |

Not: (...) İşaretili olan ölçüler motor markasına göre farklılık gösterir. / Note: The dimensions which have (...) sign vary depending on the motor. / Hinweis: (...) Die gekennzeichneten Maße unterscheiden sich je nach Motormarke.

PD 42  
PD 43

IEC

PM 42  
PM 43



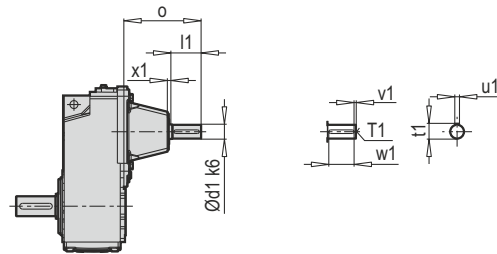
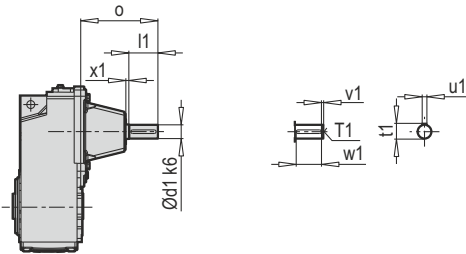
| Tip / Type / Typ | IEC | Øa2 | Øb2 | Øe2 | f2 | Øs2 | Ød1 | l1  | t1   | u1 | PD/PM 42 o | PD/PM 43 o |
|------------------|-----|-----|-----|-----|----|-----|-----|-----|------|----|------------|------------|
| PD/PM 43         | 71  | 160 | 110 | 130 | 4  | M8  | 14  | 30  | 16.3 | 5  | -          | 88         |
| PD/PM 43         | 80  | 200 | 130 | 165 | 4  | M10 | 19  | 40  | 21.8 | 6  | -          | 107        |
| PD/PM 42-43      | 90  | 200 | 130 | 165 | 4  | M10 | 24  | 50  | 27.3 | 8  | 109        | 107        |
| PD/PM 42-43      | 100 | 250 | 180 | 215 | 5  | M12 | 28  | 60  | 31.3 | 8  | 133        | 124        |
| PD/PM 42-43      | 112 | 250 | 180 | 215 | 5  | M12 | 28  | 60  | 31.3 | 8  | 133        | 124        |
| PD/PM 42         | 132 | 300 | 230 | 265 | 5  | M12 | 38  | 80  | 41.3 | 10 | 190        | -          |
| PD/PM 42         | 160 | 350 | 250 | 300 | 6  | M16 | 42  | 110 | 45.3 | 12 | 194        | -          |

| ~ Kg |          |          |
|------|----------|----------|
| IEC  | PD/PM 42 | PD/PM 43 |
| 71   | -        | 81       |
| 80   | -        | 85       |
| 90   | 73       | 85       |
| 100  | 80       | 89       |
| 112  | 80       | 89       |
| 132  | 95       | -        |
| 160  | 105      | -        |

PD 42  
PD 43

W

PM 42  
PM 43



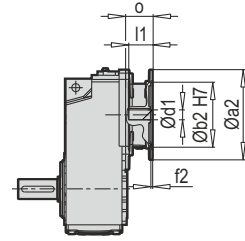
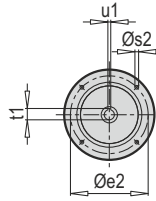
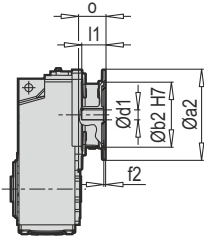
| Tip / Type / Typ | Ød1 | x1 | l1 | o   | T1  | t1 | u1 | v1 | w1 |
|------------------|-----|----|----|-----|-----|----|----|----|----|
| PD/PM 42         | 38  | 8  | 80 | 213 | M12 | 41 | 10 | 5  | 70 |
| PD/PM 43         | 24  | 8  | 50 | 172 | M8  | 27 | 8  | 5  | 40 |

| ~ Kg     |          |
|----------|----------|
| PD/PM 42 | PD/PM 43 |
| 78       | 83       |

PD 42  
PD 43

PAM B5/B14

PM 42  
PM 43



| Tip / Type / Typ | PAM B5 | Øa2 | Øb2 | Øe2 | f2  | Øs2 | Ød1 | l1  | t1   | u1 | o   |
|------------------|--------|-----|-----|-----|-----|-----|-----|-----|------|----|-----|
| PD/PM 43         | 71     | 160 | 110 | 130 | 4.0 | M8  | 14  | 30  | 16.3 | 5  | 88  |
| PD/PM 43         | 80     | 200 | 130 | 165 | 4.0 | M10 | 19  | 40  | 21.8 | 6  | 72  |
| PD/PM 42-43      | 90     | 200 | 130 | 165 | 4.0 | M10 | 24  | 50  | 27.3 | 8  | 72  |
| PD/PM 42-43      | 100    | 250 | 180 | 215 | 5.0 | M12 | 28  | 60  | 31.3 | 8  | 75  |
| PD/PM 42-43      | 112    | 250 | 180 | 215 | 5.0 | M12 | 28  | 60  | 31.3 | 8  | 75  |
| PD/PM 42         | 132    | 300 | 230 | 265 | 5.0 | M12 | 38  | 80  | 41.3 | 10 | 94  |
| PD/PM 42         | 160    | 350 | 250 | 300 | 6.0 | M16 | 42  | 110 | 45.3 | 12 | 120 |

| ~ kg   |          |          |
|--------|----------|----------|
| PAM B5 | PD/PM 42 | PD/PM 43 |
| 71     | -        | 77       |
| 80     | -        | 78       |
| 90     | 66       | 78       |
| 100    | 67       | 79       |
| 112    | 67       | 79       |
| 132    | 76       | -        |
| 160    | 84       | -        |

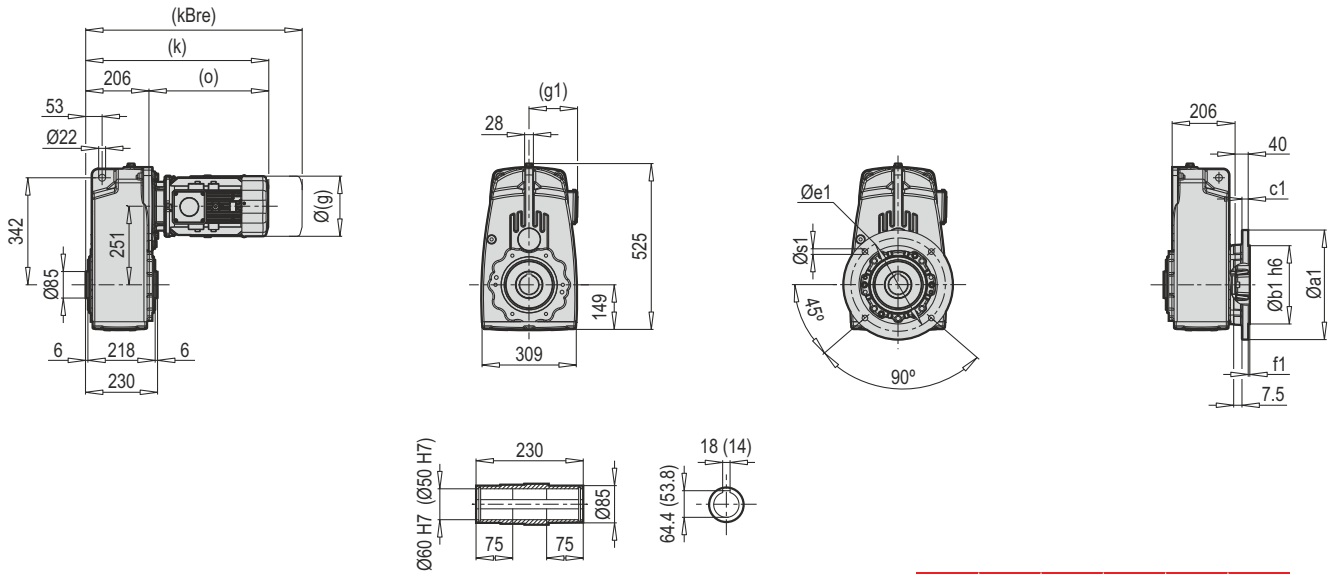
| Tip / Type / Typ | PAM B14 | Øa2 | Øb2 | Øe2 | f2 | Øs2 | Ød1 | l1 | t1   | u1 | o  |
|------------------|---------|-----|-----|-----|----|-----|-----|----|------|----|----|
| PD/PM 43         | 71      | 105 | 70  | 85  | 4  | 7   | 14  | 30 | 16.3 | 5  | 55 |
| PD/PM 43         | 80      | 120 | 80  | 100 | 4  | 7   | 19  | 40 | 21.8 | 6  | 72 |
| PD/PM 42-43      | 90      | 140 | 95  | 115 | 4  | 9   | 24  | 50 | 27.3 | 8  | 72 |
| PD/PM 42-43      | 100     | 160 | 110 | 130 | 5  | 9   | 28  | 60 | 31.3 | 8  | 75 |
| PD/PM 42-43      | 112     | 160 | 110 | 130 | 5  | 9   | 28  | 60 | 31.3 | 8  | 75 |
| PD/PM 42         | 132     | 200 | 130 | 165 | 5  | 11  | 38  | 80 | 41.3 | 10 | 94 |

| ~ kg    |          |          |
|---------|----------|----------|
| PAM B14 | PD/PM 42 | PD/PM 43 |
| 71      | -        | 75       |
| 80      | -        | 76       |
| 90      | 65       | 76       |
| 100     | 66       | 78       |
| 112     | 66       | 78       |
| 132     | 71       | -        |



PD 52

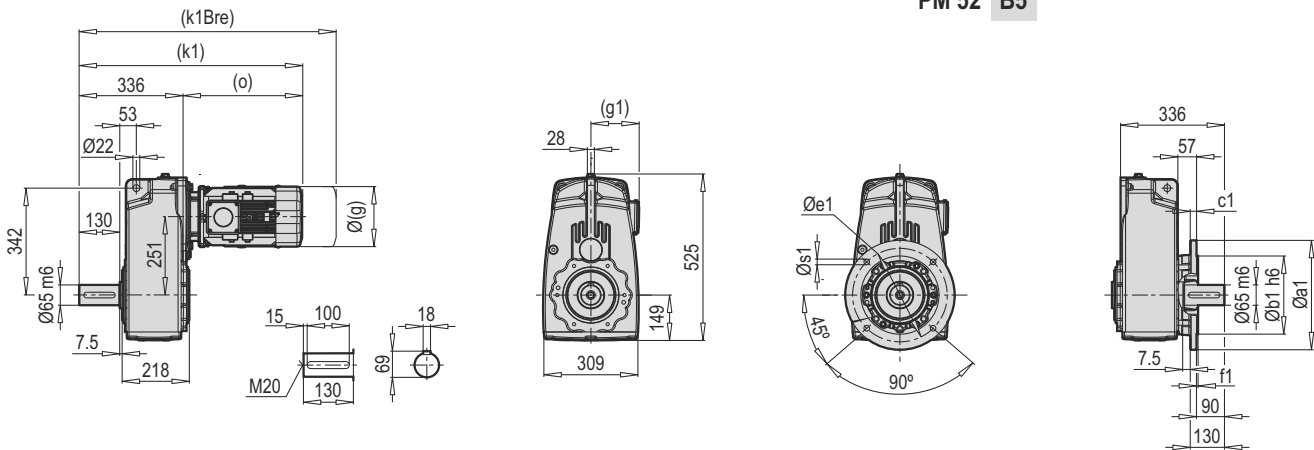
PD 52 B5



| a1  | b1  | c1 | e1  | f1 | s1   |
|-----|-----|----|-----|----|------|
| 350 | 250 | 20 | 300 | 5  | 4x18 |

PM 52

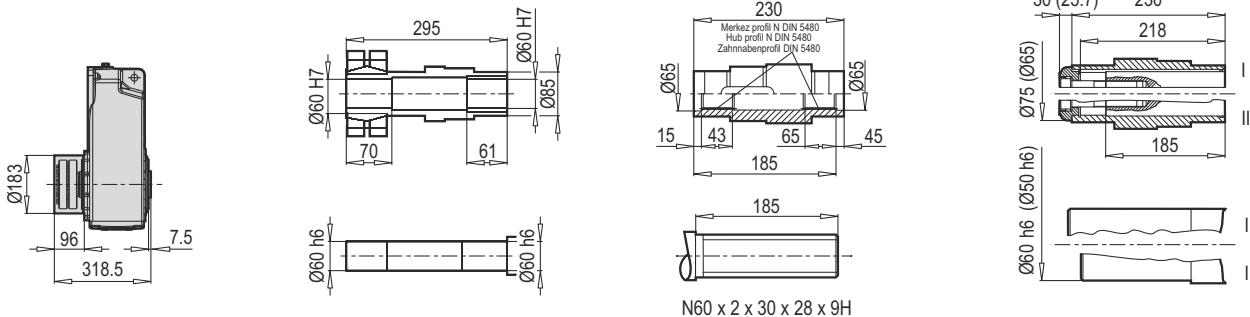
PM 52 B5



PD 52 KS

PD 52 DIN 5480

PD 52 Ç 70 - 71



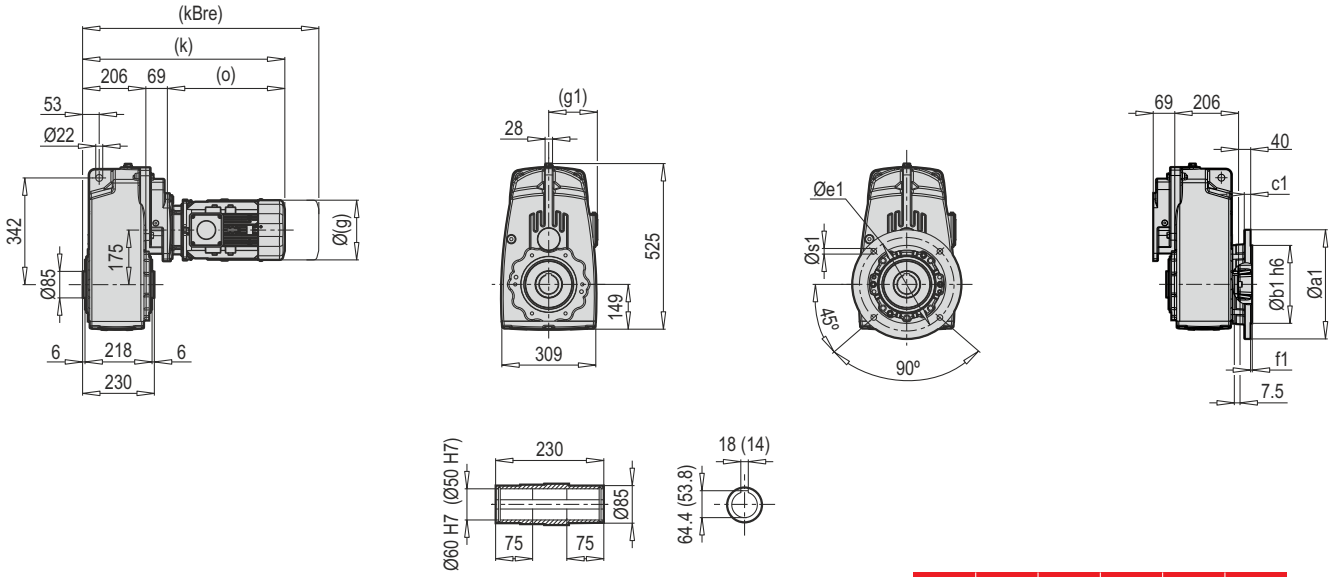
N60 x 2 x 30 x 28 x 9H

|                   | 90 S/L  | 100 L   | 112 M   | 132 S   | 132 M   | 160 M/L | 180 M/L  |  |
|-------------------|---------|---------|---------|---------|---------|---------|----------|--|
| <b>g</b>          | 182     | 202     | 220     | 270.5   | 270.5   | 321.5   | 363      |  |
| <b>g1</b>         | 130     | 153     | 158.5   | 187.5   | 187.5   | 214     | 249      |  |
| <b>k/k1</b>       | 536/666 | 587/717 | 586/716 | 648/778 | 648/778 | 736/866 | 830/960  |  |
| <b>kBre/k1Bre</b> | 604/734 | 671/801 | 686/816 | 747/877 | 767/897 | 841/971 | 931/1061 |  |
| <b>o</b>          | 329.5   | 381     | 379.5   | 441.5   | 441.5   | 530     | 624      |  |

Not : (...) İşaretili olan ölçüler motor markasına göre farklılık gösterir. / Note: The dimensions which have (...) sign vary depending on the motor. / Hinweis: (...) Die gekennzeichneten Maße unterscheiden sich je nach Motormarke.

PD 53

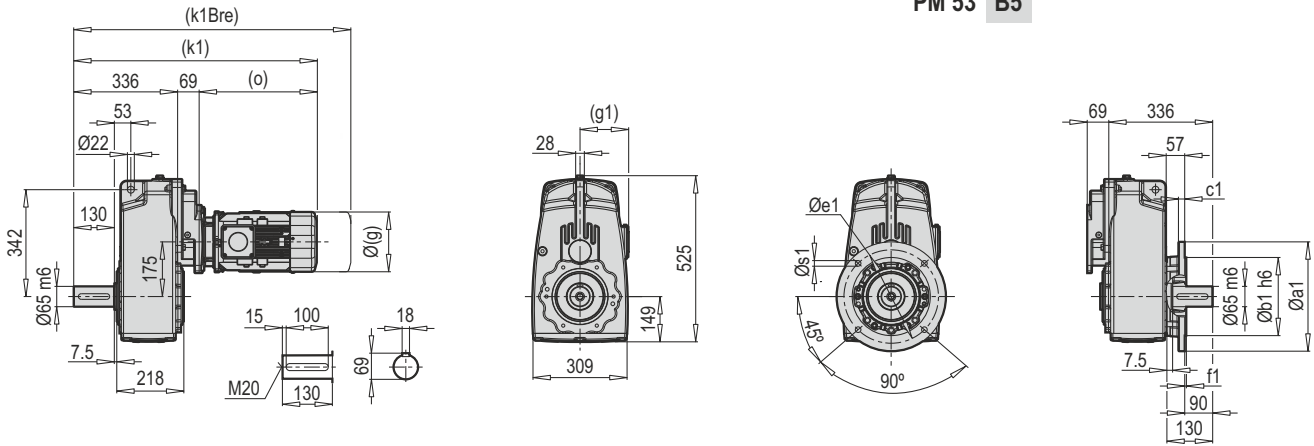
PD 53 B5



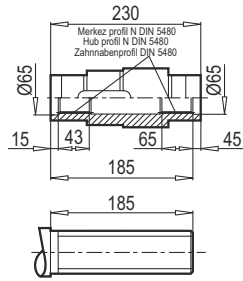
| a1  | b1  | c1 | e1  | f1 | s1   |
|-----|-----|----|-----|----|------|
| 350 | 250 | 20 | 300 | 5  | 4x18 |

PM 53

PM 53 B5



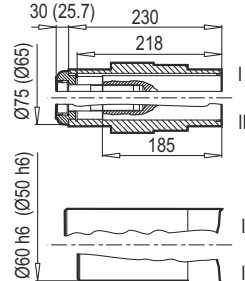
PD 53 DIN 5480



N60 x 2 x 30 x 28 x 9H

PD 53 Ç

70 - 71



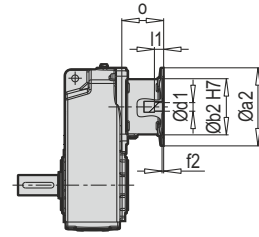
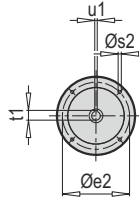
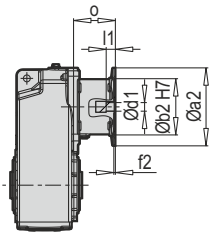
|                   | 80 M    | 90 S/L  | 100 L   | 112 M   |  |  |  |  |
|-------------------|---------|---------|---------|---------|--|--|--|--|
| <b>g</b>          | 172     | 182     | 202     | 220     |  |  |  |  |
| <b>g1</b>         | 130.5   | 130     | 153     | 158.5   |  |  |  |  |
| <b>k/k1</b>       | 535/665 | 601/731 | 652/782 | 647/777 |  |  |  |  |
| <b>kBre/k1Bre</b> | 605/735 | 669/799 | 736/866 | 747/877 |  |  |  |  |
| <b>o</b>          | 260     | 325.5   | 377     | 371.5   |  |  |  |  |

Not: (...) İşaretili ölçüler motor markasına göre farklılık gösterir. / Note: The dimensions which have (...) sign vary depending on the motor. / Hinweis: (...) Die gekennzeichneten Maße unterscheiden sich je nach Motormarke.

PD 52  
PD 53

IEC

PM 52  
PM 53



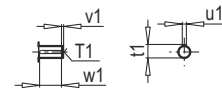
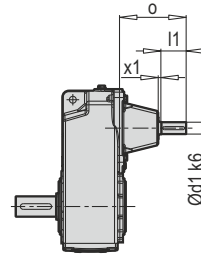
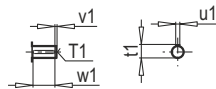
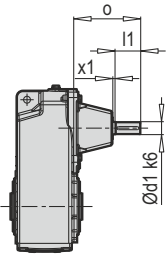
| Tip / Type / Typ | IEC | Øa2 | Øb2 | Øe2 | f2  | Øs2 | Ød1 | l1  | t1   | u1 | PD/PM 52<br>o | PD/PM 53<br>o |
|------------------|-----|-----|-----|-----|-----|-----|-----|-----|------|----|---------------|---------------|
| PD/PM 53         | 71  | 160 | 110 | 130 | 4.0 | M8  | 14  | 30  | 16.3 | 5  | -             | 88            |
| PD/PM 53         | 80  | 200 | 130 | 165 | 4.0 | M10 | 19  | 40  | 21.8 | 6  | -             | 107           |
| PD/PM 52-53      | 90  | 200 | 130 | 165 | 4.0 | M10 | 24  | 50  | 27.3 | 8  | 109           | 107           |
| PD/PM 52-53      | 100 | 250 | 180 | 215 | 5.0 | M12 | 28  | 60  | 31.3 | 8  | 133           | 124           |
| PD/PM 52-53      | 112 | 250 | 180 | 215 | 5.0 | M12 | 28  | 60  | 31.3 | 8  | 133           | 124           |
| PD/PM 52         | 132 | 300 | 230 | 265 | 5.0 | M12 | 38  | 80  | 41.3 | 10 | 190           | -             |
| PD/PM 52         | 160 | 350 | 250 | 300 | 6.0 | M16 | 42  | 110 | 45.3 | 12 | 194           | -             |
| PD/PM 52         | 180 | 350 | 250 | 300 | 6.0 | M16 | 48  | 110 | 51.8 | 14 | 194           | -             |

| ~ Kg |          |          |
|------|----------|----------|
| IEC  | PD/PM 52 | PD/PM 53 |
| 71   | -        | 124      |
| 80   | -        | 128      |
| 90   | 111      | 128      |
| 100  | 119      | 132      |
| 112  | 119      | 132      |
| 132  | 133      | -        |
| 160  | 144      | -        |
| 180  | 144      | -        |

PD 52  
PD 53

W

PM 52  
PM 53



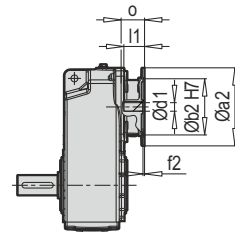
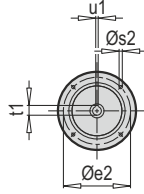
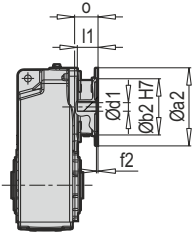
| Tip / Type / Typ | Ød1 | x1 | l1 | o   | T1  | t1 | u1 | v1 | w1 |
|------------------|-----|----|----|-----|-----|----|----|----|----|
| PD/PM 52         | 38  | 8  | 80 | 213 | M12 | 41 | 10 | 5  | 70 |
| PD/PM 53         | 24  | 8  | 50 | 172 | M8  | 27 | 8  | 5  | 40 |

| ~ Kg     |     |
|----------|-----|
| PD/PM 52 | 117 |
| PD/PM 53 | 126 |

PD 52  
PD 53

PAM B5/B14

PM 52  
PM 53



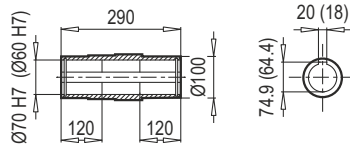
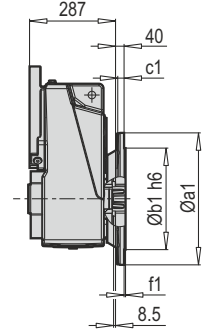
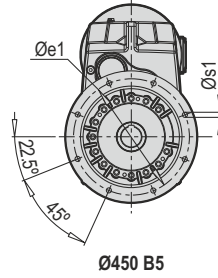
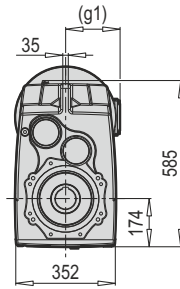
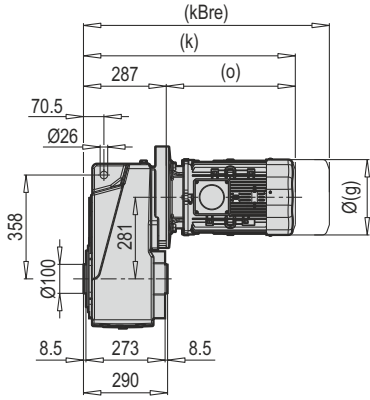
| Tip / Type / Typ | PAM B5 | Øa2 | Øb2 | Øe2 | f2  | Øs2 | Ød1 | l1  | t1   | u1 | o   |
|------------------|--------|-----|-----|-----|-----|-----|-----|-----|------|----|-----|
| PD/PM 53         | 71     | 160 | 110 | 130 | 4.0 | M8  | 14  | 30  | 16.3 | 5  | 88  |
| PD/PM 53         | 80     | 200 | 130 | 165 | 4.0 | M10 | 19  | 40  | 21.8 | 6  | 72  |
| PD/PM 52-53      | 90     | 200 | 130 | 165 | 4.0 | M10 | 24  | 50  | 27.3 | 8  | 72  |
| PD/PM 52-53      | 100    | 250 | 180 | 215 | 5.0 | M12 | 28  | 60  | 31.3 | 8  | 75  |
| PD/PM 52-53      | 112    | 250 | 180 | 215 | 5.0 | M12 | 28  | 60  | 31.3 | 8  | 75  |
| PD/PM 52         | 132    | 300 | 230 | 265 | 5.0 | M12 | 38  | 80  | 41.3 | 10 | 94  |
| PD/PM 52         | 160    | 350 | 250 | 300 | 6.0 | M16 | 42  | 110 | 45.3 | 12 | 120 |
| PD/PM 52         | 180    | 350 | 250 | 300 | 6.0 | M16 | 48  | 110 | 51.8 | 14 | 120 |

| ~ Kg   |          |          |
|--------|----------|----------|
| PAM B5 | PD/PM 52 | PD/PM 53 |
| 71     | -        | 117      |
| 80     | -        | 118      |
| 90     | 102      | 118      |
| 100    | 103      | 119      |
| 112    | 103      | 119      |
| 132    | 112      | -        |
| 160    | 120      | -        |
| 180    | 120      | -        |

| Tip / Type / Typ | PAM B14 | Øa2 | Øb2 | Øe2 | f2  | Øs2 | Ød1 | l1 | t1   | u1 | o  |
|------------------|---------|-----|-----|-----|-----|-----|-----|----|------|----|----|
| PD/PM 53         | 71      | 105 | 70  | 85  | 4.0 | 7   | 14  | 30 | 16.3 | 5  | 55 |
| PD/PM 53         | 80      | 120 | 80  | 100 | 4.0 | 7   | 19  | 40 | 21.8 | 6  | 72 |
| PD/PM 52-53      | 90      | 140 | 95  | 115 | 4.0 | 9   | 24  | 50 | 27.3 | 8  | 72 |
| PD/PM 52-53      | 100     | 160 | 110 | 130 | 5.0 | 9   | 28  | 60 | 31.3 | 8  | 75 |
| PD/PM 52-53      | 112     | 160 | 110 | 130 | 5.0 | 9   | 28  | 60 | 31.3 | 8  | 75 |
| PD/PM 52         | 132     | 200 | 130 | 165 | 5.0 | 11  | 38  | 80 | 41.3 | 10 | 94 |

| ~ Kg   |          |          |
|--------|----------|----------|
| PAM B5 | PD/PM 52 | PD/PM 53 |
| 71     | -        | 115      |
| 80     | -        | 116      |
| 90     | 101      | 116      |
| 100    | 102      | 118      |
| 112    | 102      | 118      |
| 132    | 107      | -        |

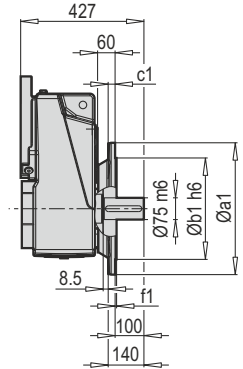
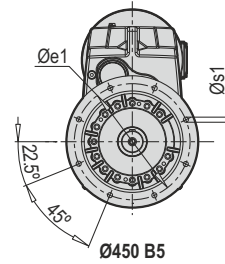
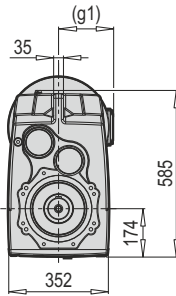
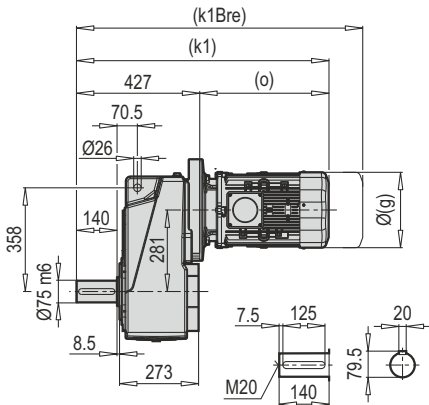
PD 62



PD 62 B5

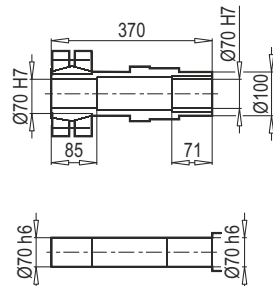
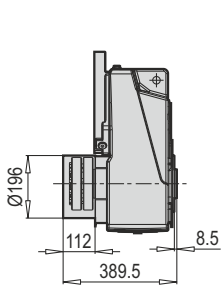
| a1  | b1  | c1 | e1  | f1 | s1   |
|-----|-----|----|-----|----|------|
| 400 | 300 | 20 | 350 | 5  | 4x18 |
| 450 | 350 | 22 | 400 | 5  | 8x18 |

PM 62

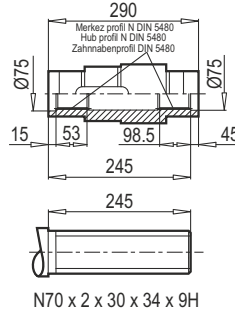


PM 62 B5

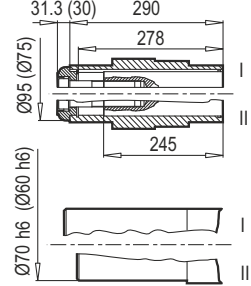
PD 62 KS



PD 62 DIN 5480



PD 62 Ç 70 - 71

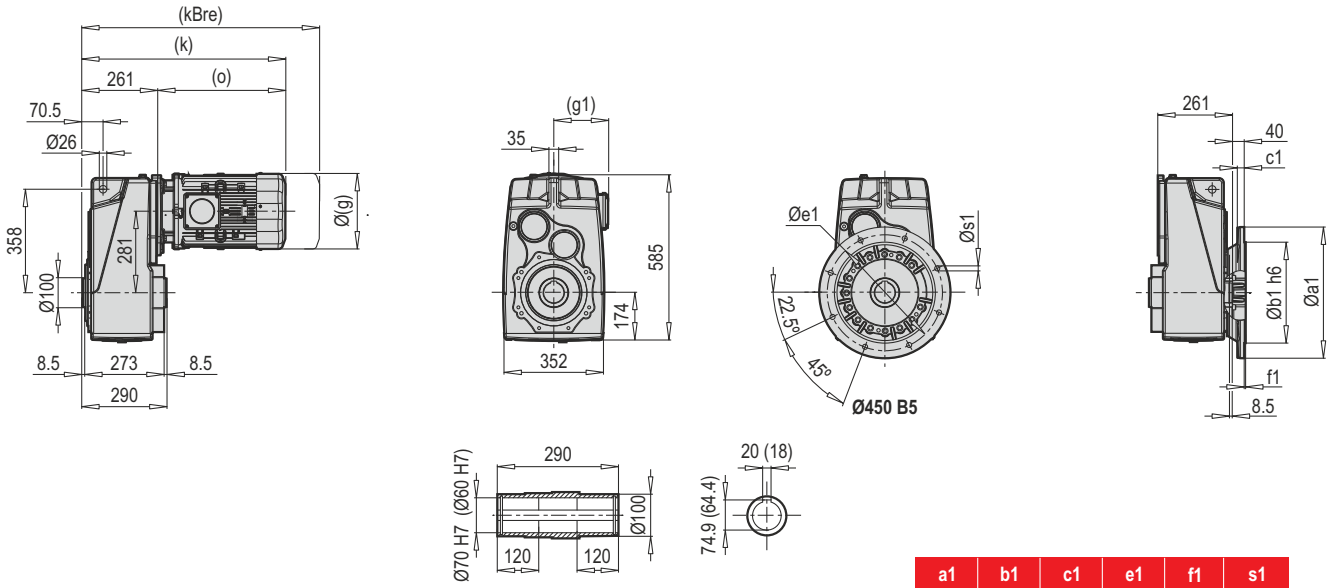


|                   | 100 L   | 112 M   | 132 S   | 132 M   | 160 M/L  | 180 M/L   | 200 L     | 225 M     | 250 M     |
|-------------------|---------|---------|---------|---------|----------|-----------|-----------|-----------|-----------|
| <b>g</b>          | 202     | 220     | 270.5   | 270.5   | 321.5    | 363       | 363       | 456       | 495       |
| <b>g1</b>         | 153     | 158.5   | 187.5   | 187.5   | 214      | 249       | 249       | 260       | 392       |
| <b>k/k1</b>       | 667/807 | 666/806 | 732/872 | 732/872 | 817/957  | 911/1051  | 920/1060  | 987/1128  | 931/1131  |
| <b>kBre/k1Bre</b> | 751/891 | 766/906 | 832/972 | 852/992 | 922/1062 | 1030/1170 | 1038/1178 | 1159/1300 | 1071/1271 |
| <b>o</b>          | 380     | 378.5   | 445     | 445     | 530      | 624       | 632.5     | 700       | 644       |

Not: (...) İşaretili olan ölçüler motor markasına göre farklılık gösterir. / Note: The dimensions which have (...) sign vary depending on the motor. / Hinweis: (...) Die gekennzeichneten Maße unterscheiden sich je nach Motormarke.

**PD 63**

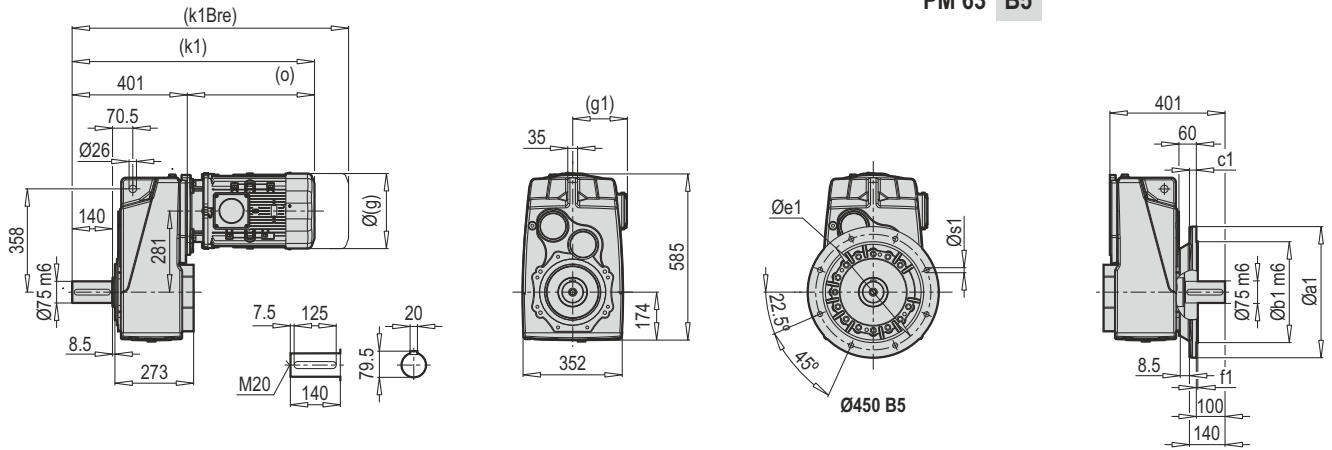
**PD 63 B5**



| a1  | b1  | c1 | e1  | f1 | s1   |
|-----|-----|----|-----|----|------|
| 400 | 300 | 20 | 350 | 5  | 4x18 |
| 450 | 350 | 22 | 400 | 5  | 8x18 |

**PM 63**

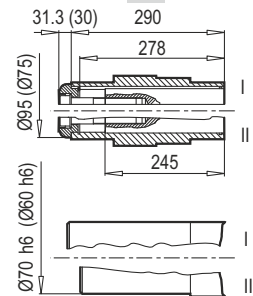
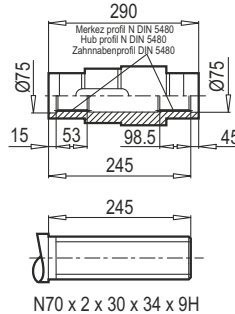
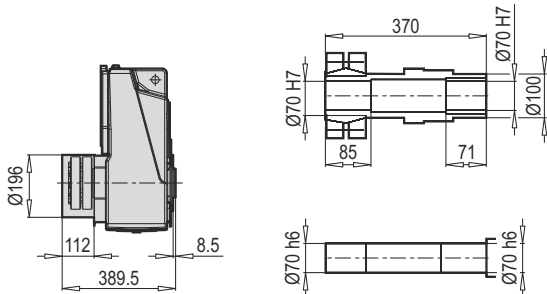
**PM 63 B5**



**PD 63 KS**

**PD 63 DIN 5480**

**PD 63 Ç** 70 - 71



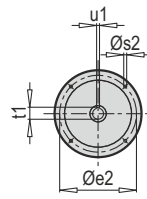
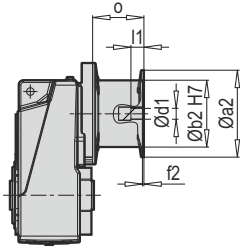
|                   | 90 S/L  | 100 L   | 112 M   | 132 S   | 132 M   | 160 M/L  | 180 M/L   |  |
|-------------------|---------|---------|---------|---------|---------|----------|-----------|--|
| <b>g</b>          | 182     | 202     | 220     | 270.5   | 270.5   | 321.5    | 363       |  |
| <b>g1</b>         | 130     | 153     | 158.5   | 187.5   | 187.5   | 214      | 249       |  |
| <b>k/k1</b>       | 591/731 | 642/782 | 641/781 | 703/843 | 703/843 | 791/931  | 885/1025  |  |
| <b>kBre/k1Bre</b> | 659/799 | 726/866 | 741/881 | 806/946 | 826/966 | 896/1036 | 1004/1144 |  |
| <b>o</b>          | 329.5   | 381     | 379.5   | 441.5   | 441.5   | 530      | 624       |  |

Not: (...) İşaretili olan ölçüler motor markasına göre farklılık gösterir. / Note: The dimensions which have (...) sign vary depending on the motor. / Hinweis: (...) Die gekennzeichneten Maße unterscheiden sich je nach Motormarke.

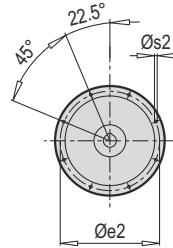
PD 62  
PD 63

IEC

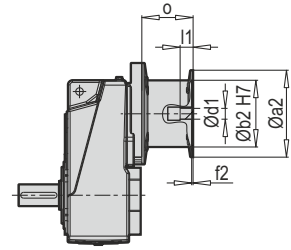
PM 62  
PM 63



IEC 90...200



IEC 225...315



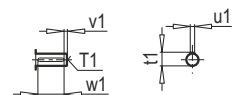
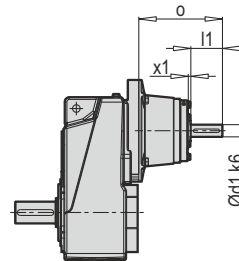
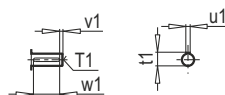
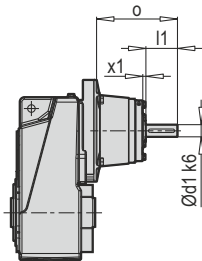
| Tip / Type / Typ | IEC | Øa2 | Øb2 | Øe2 | f2  | Øs2 | Ød1 | l1  | t1   | u1 | PD/PM 62<br>o | PD/PM 63<br>o |
|------------------|-----|-----|-----|-----|-----|-----|-----|-----|------|----|---------------|---------------|
| PD/PM 63         | 90  | 200 | 130 | 165 | 4.0 | M10 | 24  | 50  | 27.3 | 8  | -             | 109           |
| PD/PM 62-63      | 100 | 250 | 180 | 215 | 5.0 | M12 | 28  | 60  | 31.3 | 8  | 127           | 133           |
| PD/PM 62-63      | 112 | 250 | 180 | 215 | 5.0 | M12 | 28  | 60  | 31.3 | 8  | 127           | 133           |
| PD/PM 62-63      | 132 | 300 | 230 | 265 | 5.0 | M12 | 38  | 80  | 41.3 | 10 | 177           | 190           |
| PD/PM 62-63      | 160 | 350 | 250 | 300 | 6.0 | M16 | 42  | 110 | 45.3 | 12 | 266           | 194           |
| PD/PM 62-63      | 180 | 350 | 250 | 300 | 6.0 | M16 | 48  | 110 | 51.8 | 14 | 266           | 194           |
| PD/PM 62         | 200 | 400 | 300 | 350 | 6.0 | M16 | 55  | 110 | 59.3 | 16 | 229           | -             |
| PD/PM 62         | 225 | 450 | 350 | 400 | 6.0 | M16 | 60  | 140 | 64.4 | 18 | 303           | -             |

| ~ Kg |          |          |
|------|----------|----------|
| IEC  | PD/PM 62 | PD/PM 63 |
| 90   | -        | 196      |
| 100  | 213      | 204      |
| 112  | 213      | 204      |
| 132  | 227      | 218      |
| 160  | 253      | 229      |
| 180  | 253      | 229      |
| 200  | 268      | -        |
| 225  | 284      | -        |

PD 62  
PD 63

W

PM 62  
PM 63



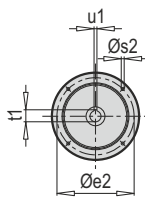
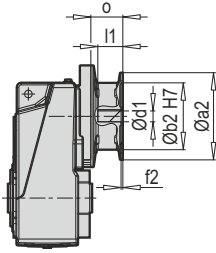
| Tip / Type / Typ | Ød1 | x1 | l1  | o   | T1  | t1 | u1 | v1 | w1 |
|------------------|-----|----|-----|-----|-----|----|----|----|----|
| PD/PM 62         | 42  | 8  | 110 | 288 | M16 | 45 | 12 | 10 | 90 |
| PD/PM 63         | 38  | 8  | 80  | 213 | M12 | 41 | 10 | 5  | 70 |

| ~ Kg     |     |
|----------|-----|
| PD/PM 62 | 226 |
| PD/PM 63 | 202 |

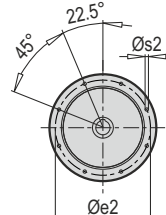
**PD 62**  
**PD 63**

**PAM B5/B14**

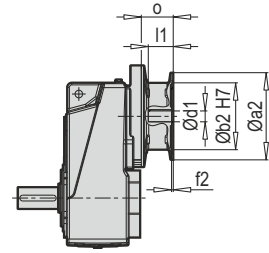
**PM 62**  
**PM 63**



**PAM 90...200**



**PAM 225...315**



| Tip / Type / Typ | PAM B5 | Øa2 | Øb2 | Øe2 | f2  | Øs2 | Ød1 | l1  | t1   | u1 | o (62) | o (63) |
|------------------|--------|-----|-----|-----|-----|-----|-----|-----|------|----|--------|--------|
| PD/PM 63         | 90     | 200 | 130 | 165 | 4.0 | M10 | 24  | 50  | 27.3 | 8  | -      | 72     |
| PD/PM 62-63      | 100    | 250 | 180 | 215 | 5.0 | M12 | 28  | 60  | 31.3 | 8  | 75     | 75     |
| PD/PM 62-63      | 112    | 250 | 180 | 215 | 5.0 | M12 | 28  | 60  | 31.3 | 8  | 75     | 75     |
| PD/PM 62-63      | 132    | 300 | 230 | 265 | 5.0 | M12 | 38  | 80  | 41.3 | 10 | 110    | 94     |
| PD/PM 62-63      | 160    | 350 | 250 | 300 | 6.0 | M16 | 42  | 110 | 45.3 | 12 | 145    | 120    |
| PD/PM 62-63      | 180    | 350 | 250 | 300 | 6.0 | M16 | 48  | 110 | 51.8 | 14 | 145    | 120    |
| PD/PM 62         | 200    | 400 | 300 | 350 | 6.0 | M16 | 55  | 110 | 59.3 | 16 | 157    | -      |
| PD/PM 62         | 225    | 450 | 350 | 400 | 6.0 | M16 | 60  | 140 | 64.4 | 18 | 183    | -      |

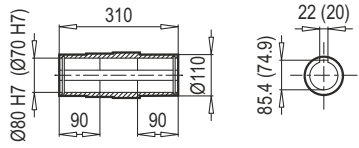
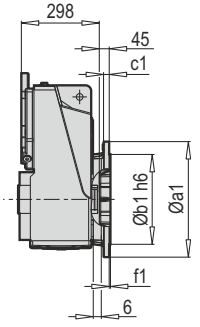
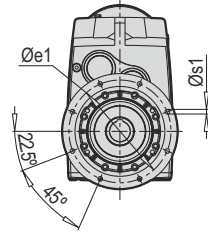
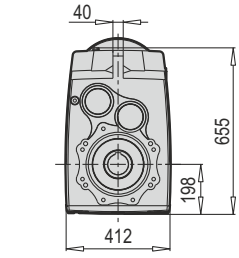
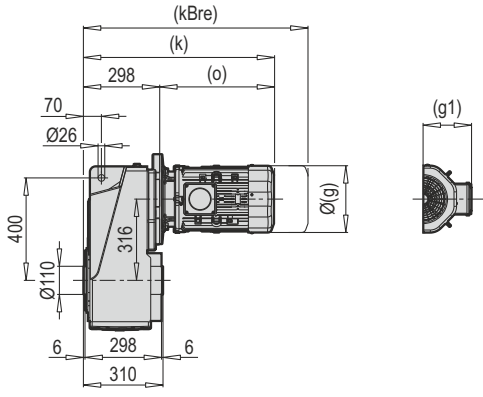
| ~ Kg   |          |          |
|--------|----------|----------|
| PAM B5 | PD/PM 62 | PD/PM 63 |
| 90     | -        | 183      |
| 100    | 190      | 184      |
| 112    | 190      | 184      |
| 132    | 201      | 193      |
| 160    | 218      | 201      |
| 180    | 218      | 201      |
| 200    | 225      | -        |
| 225    | 225      | -        |

| Tip / Type / Typ | PAM B14 | Øa2 | Øb2 | Øe2 | f2  | Øs2 | Ød1 | l1 | t1   | u1 | o (62) | o (63) |
|------------------|---------|-----|-----|-----|-----|-----|-----|----|------|----|--------|--------|
| PD/PM 63         | 90      | 140 | 95  | 115 | 4.0 | 9   | 24  | 50 | 27.3 | 8  | 75     | 75     |
| PD/PM 62-63      | 100     | 160 | 110 | 130 | 5.0 | 9   | 28  | 60 | 31.3 | 8  | 75     | 75     |
| PD/PM 62-63      | 112     | 160 | 110 | 130 | 5.0 | 9   | 28  | 60 | 31.3 | 8  | 110    | 94     |
| PD/PM 62-63      | 132     | 200 | 130 | 165 | 5.0 | 11  | 38  | 80 | 41.3 | 10 | 110    | 94     |

| ~ Kg    |          |          |
|---------|----------|----------|
| PAM B14 | PD/PM 62 | PD/PM 63 |
| 90      | -        | 182      |
| 100     | 189      | 183      |
| 112     | 189      | 183      |
| 132     | 196      | 188      |



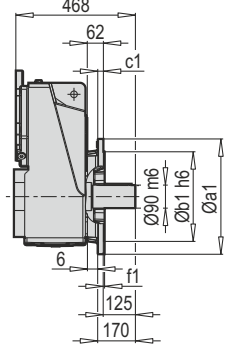
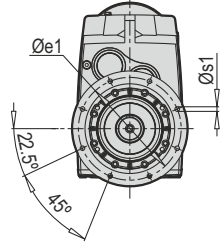
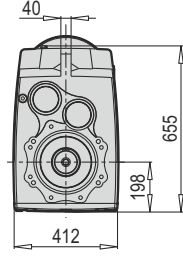
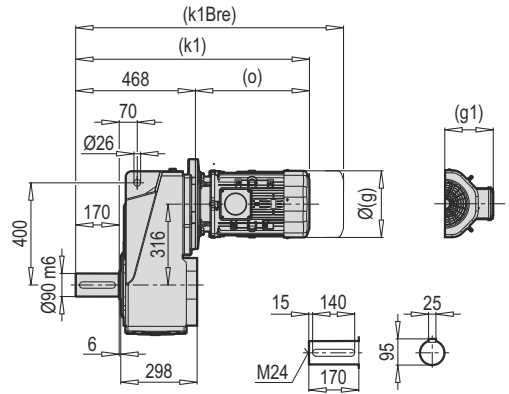
PD 72



PD 72 B5

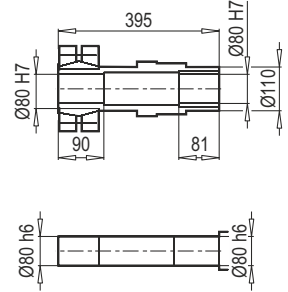
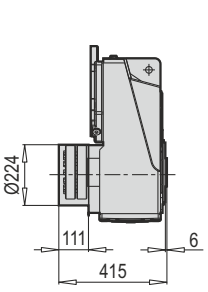
| a1  | b1  | c1 | e1  | f1 | s1   |
|-----|-----|----|-----|----|------|
| 450 | 350 | 22 | 400 | 5  | 8x18 |
| 550 | 450 | 28 | 500 | 5  | 8x18 |

PM 72

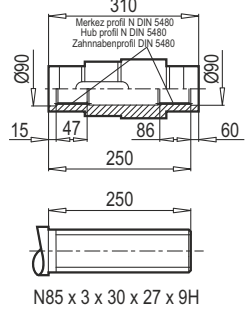


PM 72 B5

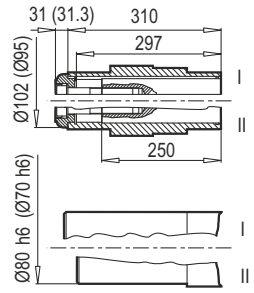
PD 72 KS



PD 72 DIN 5480



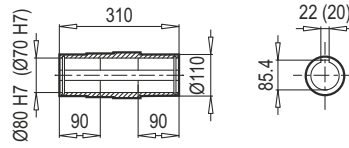
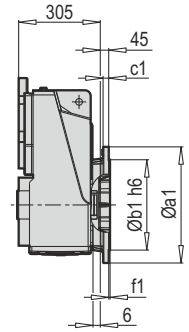
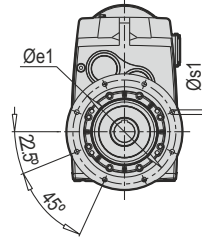
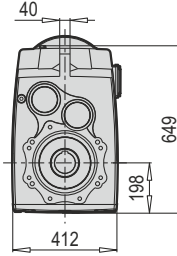
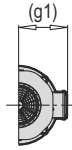
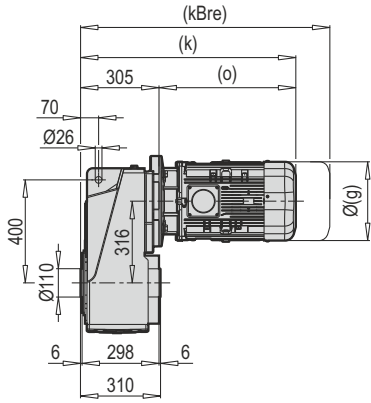
PD 72 Ç



|            | 132 S    | 132 M    | 160 M/L  | 180 M/L   | 200 L     | 225 S/M   |  |
|------------|----------|----------|----------|-----------|-----------|-----------|--|
| g          | 270.5    | 270.5    | 321.5    | 363       | 363       | 456       |  |
| g1         | 187.5    | 187.5    | 214      | 249       | 249       | 260       |  |
| k/k1       | 743/913  | 743/913  | 828/998  | 922/1092  | 931/1101  | 998/1168  |  |
| kBre/k1Bre | 843/1013 | 863/1033 | 933/1103 | 1041/1211 | 1049/1219 | 1170/1340 |  |
| o          | 445      | 445      | 530      | 624       | 632.5     | 700       |  |

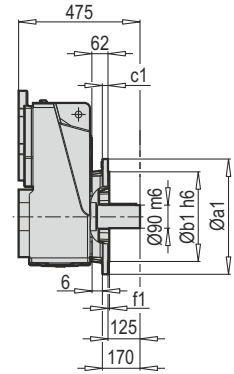
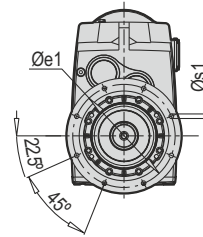
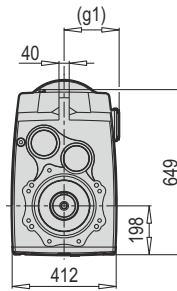
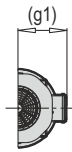
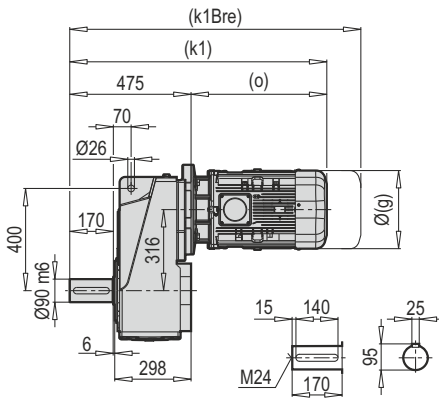
Not: (...) İşaretili olan ölçüler motor markasına göre farklılık gösterir. / Note: The dimensions which have (...) sign vary depending on the motor. / Hinweis: (...) Die gekennzeichneten Maße unterscheiden sich je nach Motormarke.

PD 73



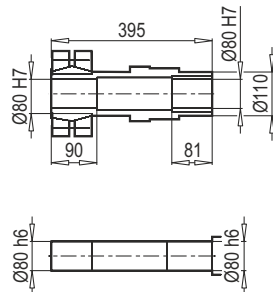
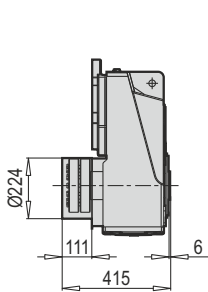
| a1  | b1  | c1 | e1  | f1 | s1   |
|-----|-----|----|-----|----|------|
| 450 | 350 | 22 | 400 | 5  | 8x18 |
| 550 | 450 | 28 | 500 | 5  | 8x18 |

PM 73

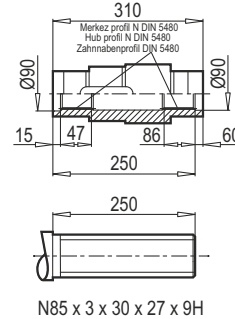


PM 73 B5

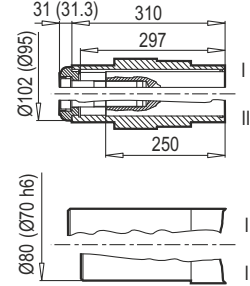
PD 73 KS



PD 73 DIN 5480



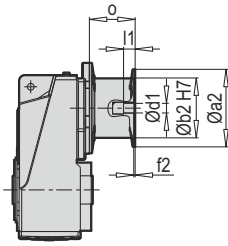
PD 73 Ç 70 - 71



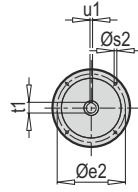
|                   | 100 L   | 112 M   | 132 S    | 132 M    | 160 M/L  | 180 M/L   | 200 L     | 225 S/M   |
|-------------------|---------|---------|----------|----------|----------|-----------|-----------|-----------|
| <b>g</b>          | 202     | 220     | 270.5    | 270.5    | 321.5    | 363       | 363       | 456       |
| <b>g1</b>         | 153     | 158.5   | 187.5    | 187.5    | 214      | 249       | 249       | 260       |
| <b>k/k1</b>       | 685/855 | 684/854 | 750/920  | 750/920  | 835/1005 | 929/1099  | 938/1108  | 1005/1175 |
| <b>kBre/k1Bre</b> | 769/939 | 784/954 | 850/1020 | 870/1040 | 940/1110 | 1048/1217 | 1056/1226 | 1177/1347 |
| <b>o</b>          | 380     | 378.5   | 445      | 445      | 530      | 624       | 632.5     | 700       |

Not: (...) İşaretili olan ölçüler motor markasına göre farklılık gösterir. / Note: The dimensions which have (...) sign vary depending on the motor. / Hinweis: (...) Die gekennzeichneten Maße unterscheiden sich je nach Motormarke.

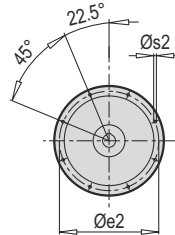
PD 72  
PD 73



IEC

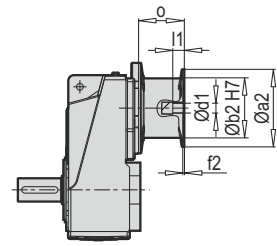


IEC 100...200



IEC 225...315

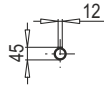
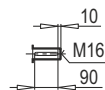
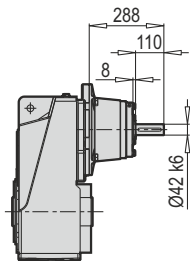
PM 72  
PM 73



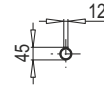
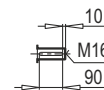
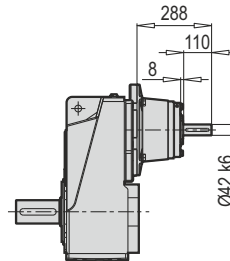
| Tip /<br>Type / Typ | IEC | Øa2 | Øb2 | Øe2 | f2  | Øs2 | Ød1 | l1  | t1   | u1 | o   |
|---------------------|-----|-----|-----|-----|-----|-----|-----|-----|------|----|-----|
| PD/PM 73            | 100 | 250 | 180 | 215 | 5.0 | M12 | 28  | 60  | 31.3 | 8  | 127 |
| PD/PM 73            | 112 | 250 | 180 | 215 | 5.0 | M12 | 28  | 60  | 31.3 | 8  | 127 |
| PD/PM 72-73         | 132 | 300 | 230 | 265 | 5.0 | M12 | 38  | 80  | 41.3 | 10 | 177 |
| PD/PM 72-73         | 160 | 350 | 250 | 300 | 6.0 | M16 | 42  | 110 | 45.3 | 12 | 266 |
| PD/PM 72-73         | 180 | 350 | 250 | 300 | 6.0 | M16 | 48  | 110 | 51.8 | 14 | 266 |
| PD/PM 72-73         | 200 | 400 | 300 | 350 | 6.0 | M16 | 55  | 110 | 59.3 | 16 | 229 |
| PD/PM 72-73         | 225 | 450 | 350 | 400 | 6.0 | M16 | 60  | 140 | 64.4 | 18 | 303 |

| ~ Kg |          |          |
|------|----------|----------|
| IEC  | PD/PM 72 | PD/PM 73 |
| 100  | -        | 287      |
| 112  | -        | 287      |
| 132  | 293      | 300      |
| 160  | 319      | 327      |
| 180  | 319      | 327      |
| 200  | 334      | 341      |
| 225  | 350      | 357      |

PD 72  
PD 73



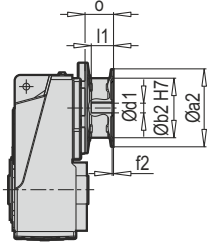
W



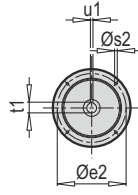
PM 72  
PM 73

| ~ Kg     |     |
|----------|-----|
| PD/PM 72 | 292 |
| PD/PM 73 | 299 |

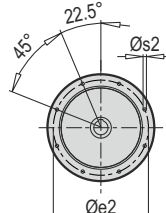
PD 72  
PD 73



PAM B5/B14

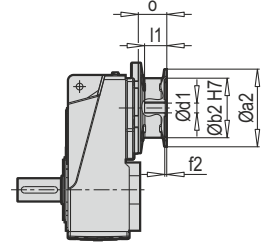


PAM 90...200



PAM 225...315

PM 72  
PM 73



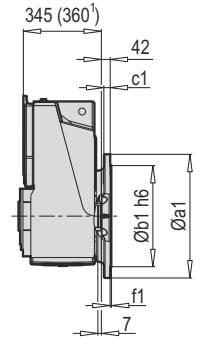
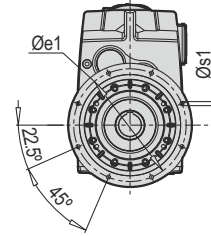
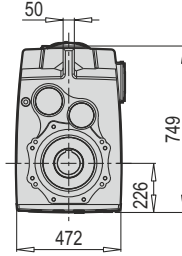
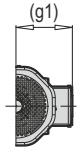
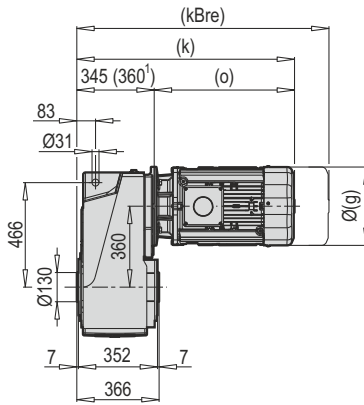
| Tip / Type / Typ | PAM B5 | Øa2 | Øb2 | Øe2 | f2  | Øs2 | Ød1 | l1  | t1   | u1 | o   |
|------------------|--------|-----|-----|-----|-----|-----|-----|-----|------|----|-----|
| PD/PM 73         | 100    | 250 | 180 | 215 | 5.0 | M12 | 28  | 60  | 31.3 | 8  | 75  |
| PD/PM 73         | 112    | 250 | 180 | 215 | 5.0 | M12 | 28  | 60  | 31.3 | 8  | 75  |
| PD/PM 72-73      | 132    | 300 | 230 | 265 | 5.0 | M12 | 38  | 80  | 41.3 | 10 | 110 |
| PD/PM 72-73      | 160    | 350 | 250 | 300 | 6.0 | M16 | 42  | 110 | 45.3 | 12 | 145 |
| PD/PM 72-73      | 180    | 350 | 250 | 300 | 6.0 | M16 | 48  | 110 | 51.8 | 14 | 145 |
| PD/PM 72-73      | 200    | 400 | 300 | 350 | 6.0 | M16 | 55  | 110 | 59.3 | 16 | 157 |
| PD/PM 72-73      | 225    | 450 | 350 | 400 | 6.0 | M16 | 60  | 140 | 64.4 | 18 | 183 |

| ~ Kg   |          |          |
|--------|----------|----------|
| PAM B5 | PD/PM 72 | PD/PM 73 |
| 100    | -        | 260      |
| 112    | -        | 260      |
| 132    | 264      | 271      |
| 160    | 281      | 288      |
| 180    | 281      | 288      |
| 200    | 288      | 295      |
| 225    | 298      | 305      |

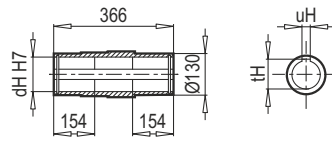
| Tip / Type / Typ | PAM B14 | Øa2 | Øb2 | Øe2 | f2  | Øs2 | Ød1 | l1 | t1   | u1 | o   |
|------------------|---------|-----|-----|-----|-----|-----|-----|----|------|----|-----|
| PD/PM 73         | 100     | 160 | 110 | 130 | 5.0 | 9   | 28  | 60 | 31.3 | 8  | 75  |
| PD/PM 73         | 112     | 160 | 110 | 130 | 5.0 | 9   | 28  | 60 | 31.3 | 8  | 75  |
| PD/PM 72-73      | 132     | 200 | 130 | 165 | 5.0 | 11  | 38  | 80 | 41.3 | 10 | 110 |

| ~ Kg    |          |          |
|---------|----------|----------|
| PAM B14 | PD/PM 72 | PD/PM 73 |
| 100     | -        | 259      |
| 112     | -        | 259      |
| 132     | 259      | 266      |

**PD 82**



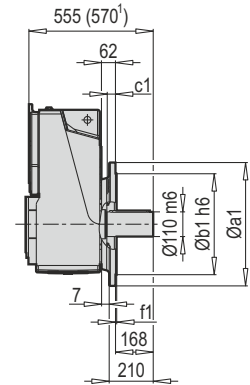
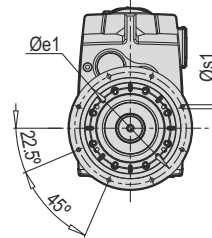
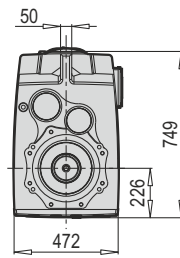
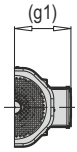
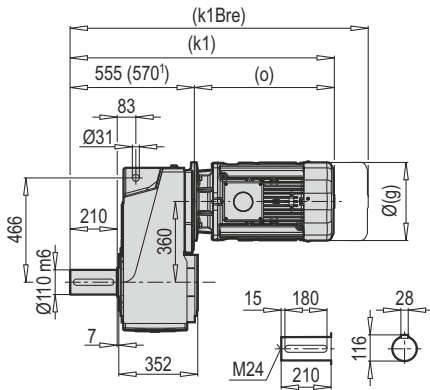
|           |       |         |        |        |        |
|-----------|-------|---------|--------|--------|--------|
| <b>dH</b> | Ø 100 | (Ø 95)  | (Ø 90) | (Ø 85) | (Ø 80) |
| <b>uH</b> | 28    | (25)    | (25)   | (22)   | (22)   |
| <b>tH</b> | 106.4 | (100.4) | (95.4) | (90.4) | (85.4) |



**PD 82 B5**

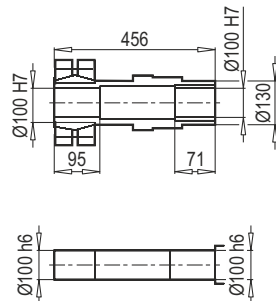
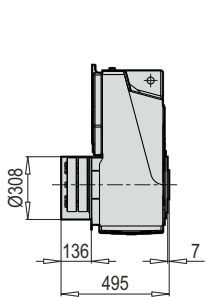
|           |           |           |           |           |           |
|-----------|-----------|-----------|-----------|-----------|-----------|
| <b>a1</b> | <b>b1</b> | <b>c1</b> | <b>e1</b> | <b>f1</b> | <b>s1</b> |
| 550       | 450       | 28        | 500       | 5         | 8x18      |

**PM 82**

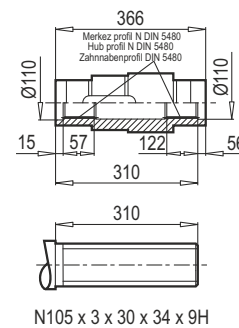


**PM 82 B5**

**PD 82 KS**

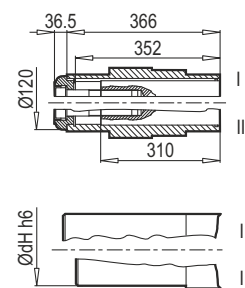


**PD 82 DIN 5480**



**PD 82 Ç**

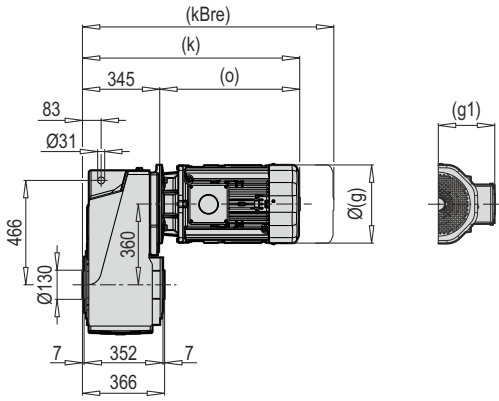
70 - 71



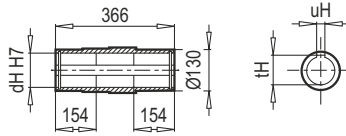
|                   | 132 S    | 132 M    | 160 M/L  | 180 M/L   | 200 L     | 225 S/M   | 250 M <sup>1)</sup> | 280 S <sup>1)</sup> |
|-------------------|----------|----------|----------|-----------|-----------|-----------|---------------------|---------------------|
| <b>g</b>          | 270.5    | 270.5    | 321.5    | 363       | 363       | 456       | 495                 | 527                 |
| <b>g1</b>         | 187.5    | 187.5    | 214      | 249       | 249       | 260       | 392                 | 367                 |
| <b>k/k1</b>       | 790/1000 | 790/1000 | 875/1085 | 969/1179  | 978/1188  | 1045/1255 | 1004/1214           | 1259/1469           |
| <b>kBre/k1Bre</b> | 890/1100 | 910/1120 | 980/1190 | 1088/1298 | 1096/1306 | 1217/1427 | 1134/1344           | -                   |
| <b>o</b>          | 445      | 445      | 530      | 624       | 632.5     | 700       | 644                 | 914                 |

**Not:** (...) İşaretili olan ölçüler motor markasına göre farklılık gösterir. / **Note:** The dimensions which have (...) sign vary depending on the motor. / **Hinweis:** (...) Die gekennzeichneten Maße unterscheiden sich je nach Motormarke.

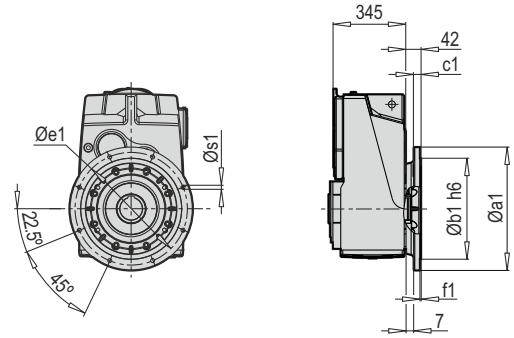
PD 83



|           |       |         |        |        |        |
|-----------|-------|---------|--------|--------|--------|
| <b>dH</b> | Ø 100 | (Ø 95)  | (Ø 90) | (Ø 85) | (Ø 80) |
| <b>uH</b> | 28    | (25)    | (25)   | (22)   | (22)   |
| <b>tH</b> | 106.4 | (100.4) | (95.4) | (90.4) | (85.4) |

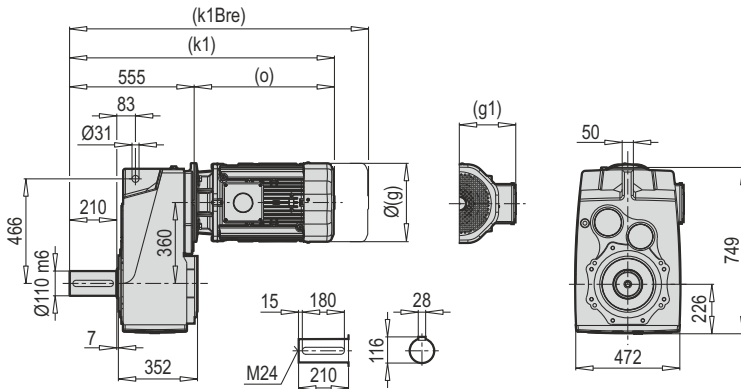


PD 83 B5

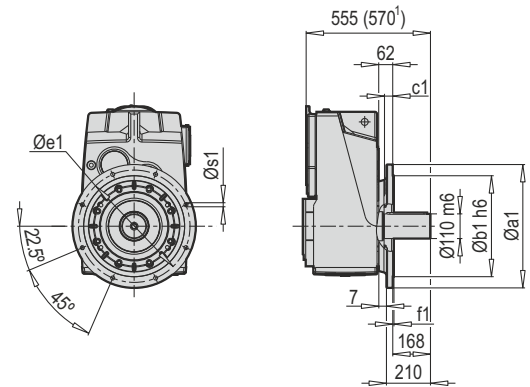


|           |           |           |           |           |           |
|-----------|-----------|-----------|-----------|-----------|-----------|
| <b>a1</b> | <b>b1</b> | <b>c1</b> | <b>e1</b> | <b>f1</b> | <b>s1</b> |
| 550       | 450       | 28        | 500       | 5         | 8x18      |

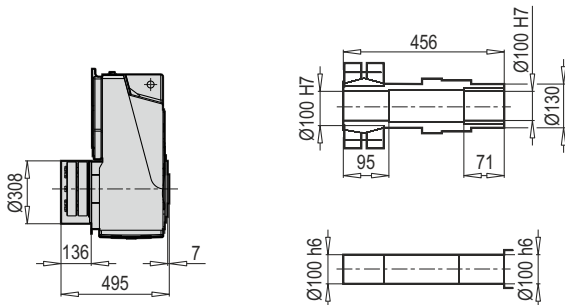
PM 83



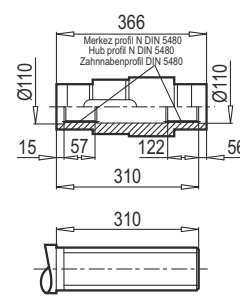
PM 83 B5



PD 83 KS



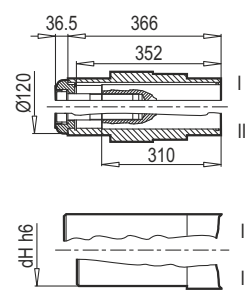
PD 83 DIN 5480



N105 x 3 x 30 x 34 x 9H

PD 83 Ç

70 - 71



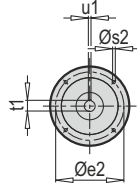
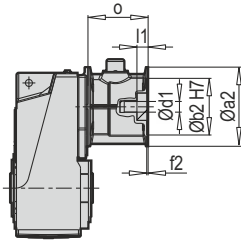
|                   | 100 L    | 112 M    | 132 S    | 132 M    | 160 M/L  | 180 M/L   | 200 L     | 225 S/M   |
|-------------------|----------|----------|----------|----------|----------|-----------|-----------|-----------|
| <b>g</b>          | 202      | 220      | 270.5    | 270.5    | 321.5    | 363       | 363       | 456       |
| <b>g1</b>         | 153      | 158.5    | 187.5    | 187.5    | 214      | 249       | 249       | 260       |
| <b>k/k1</b>       | 725/935  | 724/934  | 790/1000 | 790/1000 | 875/1085 | 969/1179  | 978/1188  | 1045/1255 |
| <b>kBre/k1Bre</b> | 809/1019 | 824/1034 | 890/1100 | 910/1120 | 980/1190 | 1088/1298 | 1096/1306 | 1217/1427 |
| <b>o</b>          | 380      | 378.5    | 445      | 445      | 530      | 624       | 632.5     | 700       |

Not: (...) İşaretili olan ölçüler motor markasına göre farklılık gösterir. / Note: The dimensions which have (...) sign vary depending on the motor. / Hinweis: (...) Die gekennzeichneten Maße unterscheiden sich je nach Motormarke.

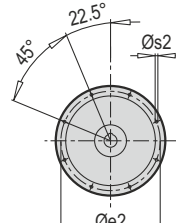
PD 82  
PD 83

IEC

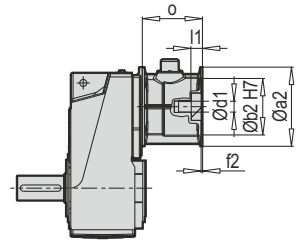
PM 82  
PM 83



IEC 100...200



IEC 225...315



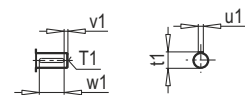
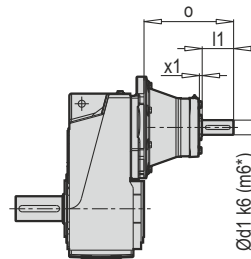
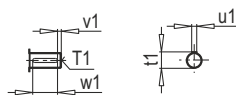
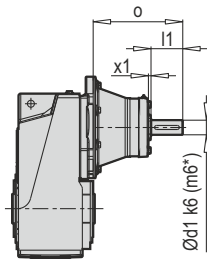
| Tip / Type / Typ | IEC | Øa2 | Øb2 | Øe2 | f1  | Øs2 | Ød1 | l1  | t1   | u1 | o   |
|------------------|-----|-----|-----|-----|-----|-----|-----|-----|------|----|-----|
| PD/PM 83         | 100 | 250 | 180 | 215 | 5.0 | M12 | 28  | 60  | 31.3 | 8  | 127 |
| PD/PM 83         | 112 | 250 | 180 | 215 | 5.0 | M12 | 28  | 60  | 31.3 | 8  | 127 |
| PD/PM 82-83      | 132 | 300 | 230 | 265 | 5.0 | M12 | 38  | 80  | 41.3 | 10 | 177 |
| PD/PM 82-83      | 160 | 350 | 250 | 300 | 6.0 | M16 | 42  | 110 | 45.3 | 12 | 266 |
| PD/PM 82-83      | 180 | 350 | 250 | 300 | 6.0 | M16 | 48  | 110 | 51.8 | 14 | 266 |
| PD/PM 82-83      | 200 | 400 | 300 | 350 | 6.0 | M16 | 55  | 110 | 59.3 | 16 | 229 |
| PD/PM 82-83      | 225 | 450 | 350 | 400 | 6.0 | M16 | 60  | 140 | 64.4 | 18 | 303 |
| PD/PM 82         | 250 | 550 | 450 | 500 | 6.0 | M16 | 65  | 140 | 69.4 | 18 | 304 |
| PD/PM 82         | 280 | 550 | 450 | 500 | 6.0 | M16 | 75  | 140 | 79.9 | 20 | 304 |

| ~ Kg |          |          |
|------|----------|----------|
| IEC  | PD/PM 82 | PD/PM 83 |
| 100  | -        | 422      |
| 112  | -        | 422      |
| 132  | 431      | 436      |
| 160  | 458      | 462      |
| 180  | 458      | 462      |
| 200  | 473      | 477      |
| 225  | 489      | 493      |
| 250  | 547      | -        |
| 280  | 547      | -        |

PD 82  
PD 83

W

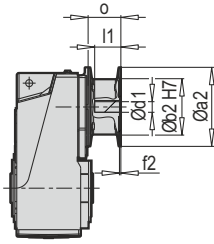
PM 82  
PM 83



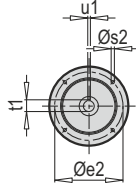
| Tip / Type / Typ | Ød1 | x1 | l1  | o   | T1  | t1 | u1 | v1 | w1  |
|------------------|-----|----|-----|-----|-----|----|----|----|-----|
| PD/PM 82         | 65* | 12 | 140 | 397 | M20 | 69 | 18 | 15 | 110 |
| PD/PM 83         | 42  | 8  | 110 | 288 | M16 | 45 | 12 | 10 | 90  |

| ~ Kg     |     |
|----------|-----|
| PD/PM 82 | 510 |
| PD/PM 83 | 435 |

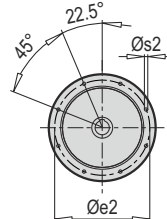
**PD 82**  
**PD 83**



**PAM B5/B14**

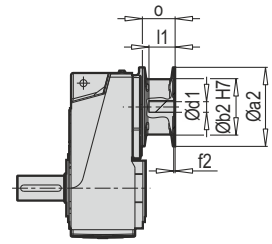


**PAM 100...200**



**PAM 225...315**

**PM 82**  
**PM 83**



| Tip / Type / Typ | PAM B5 | Øa2 | Øb2 | Øe2 | f2  | Øs2 | Ød1 | l1  | t1   | u1 | o   |
|------------------|--------|-----|-----|-----|-----|-----|-----|-----|------|----|-----|
| PD/PM 83         | 100    | 250 | 180 | 215 | 5.0 | M12 | 28  | 60  | 31.3 | 8  | 75  |
| PD/PM 83         | 112    | 250 | 180 | 215 | 5.0 | M12 | 28  | 60  | 31.3 | 8  | 75  |
| PD/PM 82-83      | 132    | 300 | 230 | 265 | 5.0 | M12 | 38  | 80  | 41.3 | 10 | 110 |
| PD/PM 82-83      | 160    | 350 | 250 | 300 | 6.0 | M16 | 42  | 110 | 45.3 | 12 | 145 |
| PD/PM 82-83      | 180    | 350 | 250 | 300 | 6.0 | M16 | 48  | 110 | 51.8 | 14 | 145 |
| PD/PM 82-83      | 200    | 400 | 300 | 350 | 6.0 | M16 | 55  | 110 | 59.3 | 16 | 157 |
| PD/PM 82-83      | 225    | 450 | 350 | 400 | 6.0 | M16 | 60  | 140 | 64.4 | 18 | 183 |
| PD/PM 82         | 250    | 550 | 450 | 500 | 6.0 | M16 | 65  | 140 | 69.4 | 18 | 202 |
| PD/PM 82         | 280    | 550 | 450 | 500 | 6.0 | M16 | 75  | 140 | 79.9 | 20 | 202 |

| ~ Kg   |          |          |
|--------|----------|----------|
| PAM B5 | PD/PM 82 | PD/PM 83 |
| 100    | -        | 385      |
| 112    | -        | 385      |
| 132    | 392      | 396      |
| 160    | 409      | 413      |
| 180    | 409      | 413      |
| 200    | 416      | 419      |
| 225    | 426      | 430      |
| 250    | 486      | -        |
| 280    | 486      | -        |

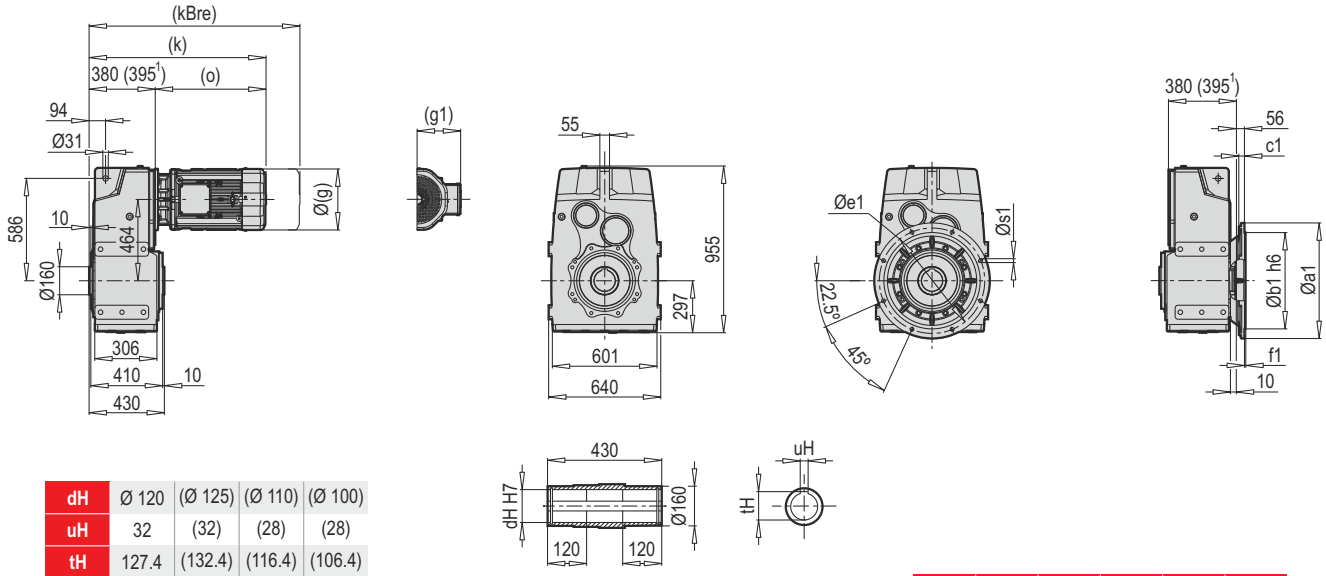
| Tip / Type / Typ | PAM B14 | Øa2 | Øb2 | Øe2 | f2  | Øs2 | Ød1 | l1 | t1   | u1 | o   |
|------------------|---------|-----|-----|-----|-----|-----|-----|----|------|----|-----|
| PD/PM 83         | 100     | 160 | 110 | 130 | 5.0 | 9   | 28  | 60 | 31.3 | 8  | 75  |
| PD/PM 83         | 112     | 160 | 110 | 130 | 5.0 | 9   | 28  | 60 | 31.3 | 8  | 75  |
| PD/PM 82-83      | 132     | 200 | 130 | 165 | 5.0 | 11  | 38  | 80 | 41.3 | 10 | 110 |

| ~ Kg    |          |          |
|---------|----------|----------|
| PAM B14 | PD/PM 82 | PD/PM 83 |
| 100     | -        | 384      |
| 112     | -        | 384      |
| 132     | 387      | 391      |



**PD 92**

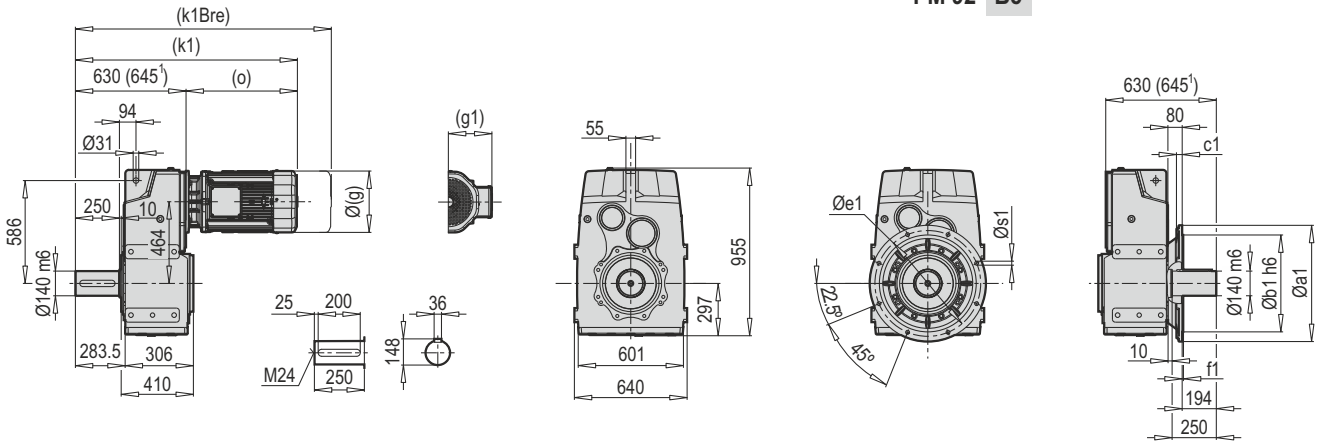
**PD 92 B5**



|           |           |           |           |           |           |
|-----------|-----------|-----------|-----------|-----------|-----------|
| <b>a1</b> | <b>b1</b> | <b>c1</b> | <b>e1</b> | <b>f1</b> | <b>s1</b> |
| 660       | 550       | 32        | 600       | 6         | 8x22      |

**PM 92**

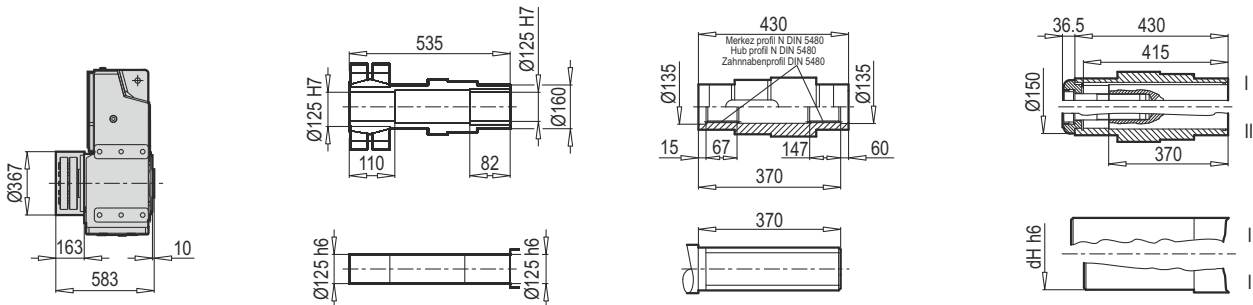
**PM 92 B5**



**PD 92 KS**

**PD 92 DIN 5480**

**PD 92 Ç** 70 - 71



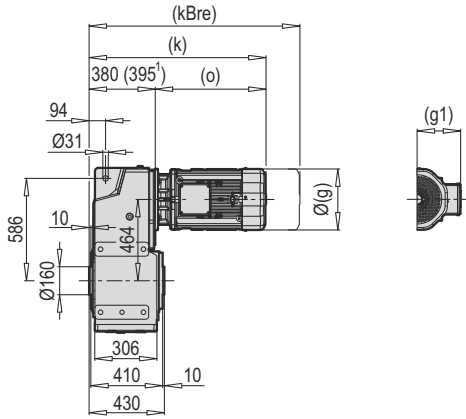
N130 x 5 x 30 x 24 x 9H

Ayak Delik Ölçüleri sayfa 58 / Dimension of foot is on page 58 / Fußlochmaße Seite 58

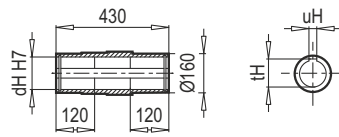
|                   |              |                |                           |                           |                           |                           |                           |  |
|-------------------|--------------|----------------|---------------------------|---------------------------|---------------------------|---------------------------|---------------------------|--|
|                   | <b>200 L</b> | <b>225 S/M</b> | <b>250 M<sup>1)</sup></b> | <b>280 S<sup>1)</sup></b> | <b>280 M<sup>1)</sup></b> | <b>315 S<sup>1)</sup></b> | <b>315 M<sup>1)</sup></b> |  |
| <b>g</b>          | 363          | 456            | 495                       | 527                       | 527                       | -                         | -                         |  |
| <b>g1</b>         | 249          | 260            | 392                       | 367                       | 367                       | -                         | -                         |  |
| <b>k/k1</b>       | 1013/1263    | 1080/1330      | 1039/1289                 | 1280/1530                 | 1280/1530                 | -                         | -                         |  |
| <b>kBre/k1Bre</b> | 1131/1381    | 1252/1502      | 1169/1419                 | -                         | -                         | -                         | -                         |  |
| <b>o</b>          | 632.5        | 700            | 644                       | 885                       | 885                       | -                         | -                         |  |

Not: (...) İşaretili olan ölçüler motor markasına göre farklılık gösterir. / Note: The dimensions which have (...) sign vary depending on the motor. / Hinweis: (...) Die gekennzeichneten Maße unterscheiden sich je nach Motormarke.

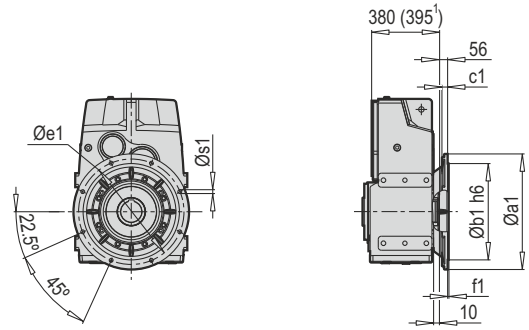
PD 93



|           |       |         |         |         |
|-----------|-------|---------|---------|---------|
| <b>dH</b> | Ø 120 | (Ø 125) | (Ø 110) | (Ø 100) |
| <b>uH</b> | 32    | (32)    | (28)    | (28)    |
| <b>tH</b> | 127.4 | (132.4) | (116.4) | (106.4) |

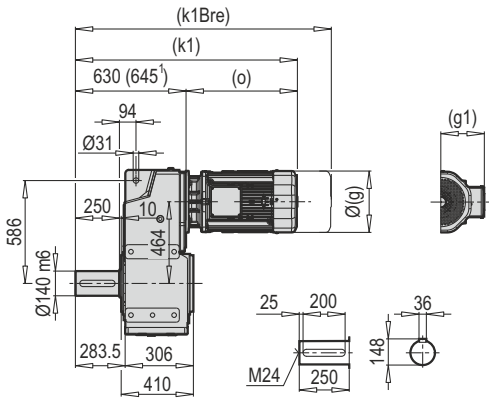


PD 93 B5

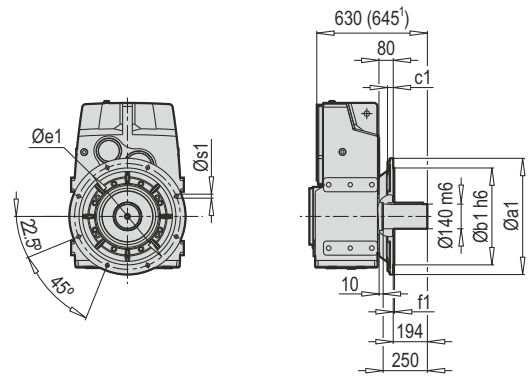


|           |           |           |           |           |           |
|-----------|-----------|-----------|-----------|-----------|-----------|
| <b>a1</b> | <b>b1</b> | <b>c1</b> | <b>e1</b> | <b>f1</b> | <b>s1</b> |
| 660       | 550       | 32        | 600       | 6         | 8x22      |

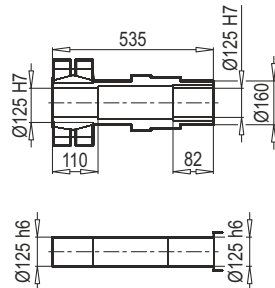
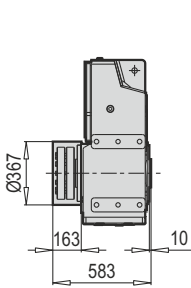
PM 93



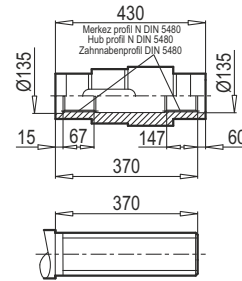
PM 93 B5



PD 93 KS



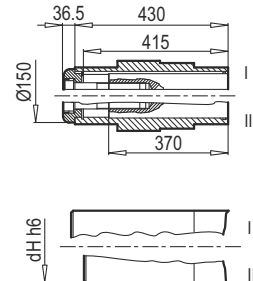
PD 93 DIN 5480



N130 x 5 x 30 x 24 x 9H

PD 93 Ç

70 - 71

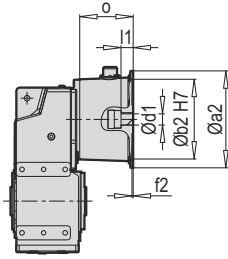


Ayak Delik Ölçüleri sayfa 58 / Dimension of foot is on page 58 / Fußlochmaße Seite 58

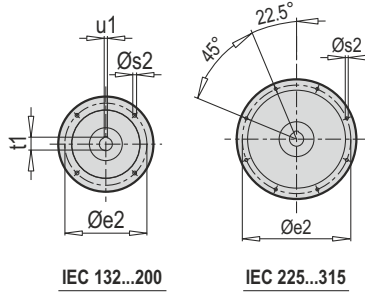
|                   | 132 S    | 132 M    | 160 M/L   | 180 M/L   | 200 L     | 225 S/M   | 250 M <sup>1)</sup> | 280 S <sup>1)</sup> |
|-------------------|----------|----------|-----------|-----------|-----------|-----------|---------------------|---------------------|
| <b>g</b>          | 270.5    | 270.5    | 321.5     | 363       | 363       | 456       | 495                 | 527                 |
| <b>g1</b>         | 187.5    | 187.5    | 214       | 249       | 249       | 260       | 392                 | 367                 |
| <b>k/k1</b>       | 825/1075 | 825/1075 | 910/1160  | 1004/1254 | 1013/1263 | 1080/1330 | 1039/1289           | 1280/1530           |
| <b>kBre/k1Bre</b> | 925/1175 | 945/1195 | 1015/1265 | 1223/1373 | 1131/1381 | 1252/1502 | 1169/1419           | -                   |
| <b>o</b>          | 445      | 445      | 530       | 624       | 632.5     | 700       | 644                 | 885                 |

Not: (...) İşaretili olan ölçüler motor markasına göre farklılık gösterir. / Note: The dimensions which have (...) sign vary depending on the motor. / Hinweis: (...) Die gekennzeichneten Maße unterscheiden sich je nach Motormarke.

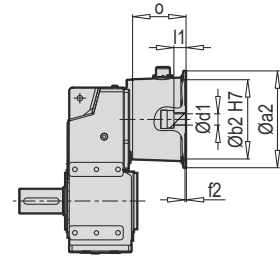
PD 92  
PD 93



IEC



PM 92  
PM 93

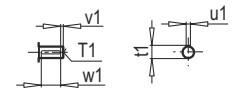
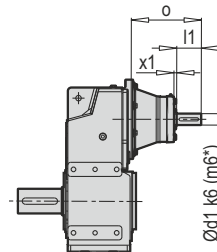
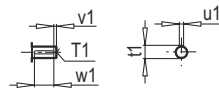
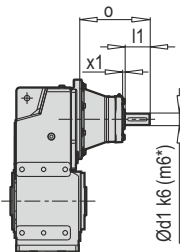


| Tip / Type / Typ | IEC | Øa2 | Øb2 | Øe2 | f2  | Øs2 | Ød1 | l1  | t1   | u1 | o   |
|------------------|-----|-----|-----|-----|-----|-----|-----|-----|------|----|-----|
| PD/PM 93         | 132 | 300 | 230 | 265 | 5.0 | M12 | 38  | 80  | 41.3 | 10 | 177 |
| PD/PM 93         | 160 | 350 | 250 | 300 | 6.0 | M16 | 42  | 110 | 45.3 | 12 | 266 |
| PD/PM 92-93      | 180 | 350 | 250 | 300 | 6.0 | M16 | 48  | 110 | 51.8 | 14 | 266 |
| PD/PM 92-93      | 200 | 400 | 300 | 350 | 6.0 | M16 | 55  | 110 | 59.3 | 16 | 229 |
| PD/PM 92-93      | 225 | 450 | 350 | 400 | 6.0 | M16 | 60  | 140 | 64.4 | 18 | 303 |
| PD/PM 92-93      | 250 | 550 | 450 | 500 | 6.0 | M16 | 65  | 140 | 69.4 | 18 | 304 |
| PD/PM 92-93      | 280 | 550 | 450 | 500 | 6.0 | M16 | 75  | 140 | 79.9 | 20 | 304 |
| PD/PM 92         | 315 | 660 | 550 | 600 | 7.0 | M20 | 80  | 170 | 85.4 | 22 | 382 |

| ~ Kg |          |          |
|------|----------|----------|
| IEC  | PD/PM 92 | PD/PM 93 |
| 132  | -        | 756      |
| 160  | -        | 782      |
| 180  | 777      | 782      |
| 200  | 792      | 797      |
| 225  | 808      | 813      |
| 250  | 866      | 871      |
| 280  | 866      | 871      |
| 315  | 951      | -        |

PD 92  
PD 93

W

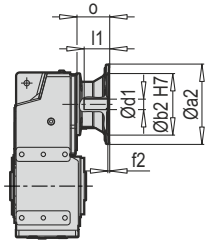


PM 92  
PM 93

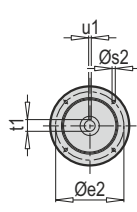
| Tip / Type / Typ | Ød1 | x1 | l1  | o   | T1  | t1 | u1 | v1 | w1  |
|------------------|-----|----|-----|-----|-----|----|----|----|-----|
| PD/PM 92         | 65* | 12 | 140 | 397 | M20 | 69 | 18 | 15 | 110 |
| PD/PM 93         | 42  | 8  | 110 | 288 | M16 | 45 | 12 | 10 | 90  |

| ~ Kg     |     |
|----------|-----|
| PD/PM 92 | 829 |
| PD/PM 93 | 755 |

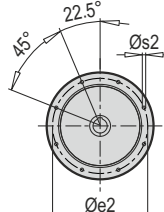
PD 92  
PD 93



PAM B5/B14

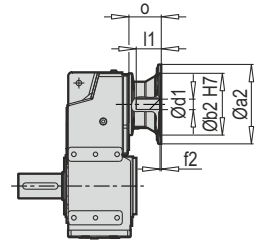


PAM 132...200



PAM 225...315

PM 92  
PM 93



| Tip / Type / Typ | PAM B5 | Øa2 | Øb2 | Øe2 | f2  | Øs2 | Ød1 | l1  | t1   | u1 | o   |
|------------------|--------|-----|-----|-----|-----|-----|-----|-----|------|----|-----|
| PD/PM 93         | 132    | 300 | 230 | 265 | 5.0 | M12 | 38  | 80  | 41.3 | 10 | 110 |
| PD/PM 93         | 160    | 350 | 250 | 300 | 6.0 | M16 | 42  | 110 | 45.3 | 12 | 145 |
| PD/PM 92-93      | 180    | 350 | 250 | 300 | 6.0 | M16 | 48  | 110 | 51.8 | 14 | 145 |
| PD/PM 92-93      | 200    | 400 | 300 | 350 | 6.0 | M16 | 55  | 110 | 59.3 | 16 | 157 |
| PD/PM 92-93      | 225    | 450 | 350 | 400 | 6.0 | M16 | 60  | 140 | 64.4 | 18 | 183 |
| PD/PM 92-93      | 250    | 550 | 450 | 500 | 6.0 | M16 | 65  | 140 | 69.4 | 18 | 202 |
| PD/PM 92-93      | 280    | 550 | 450 | 500 | 6.0 | M16 | 75  | 140 | 79.9 | 20 | 202 |

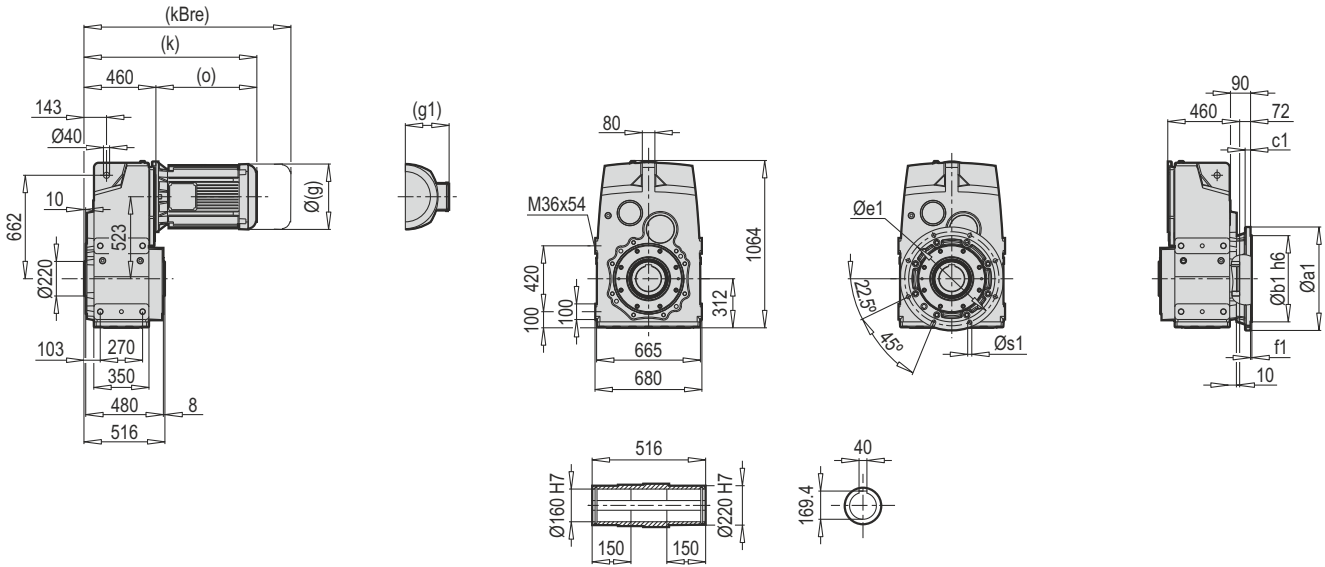
| ~ Kg   |          |          |
|--------|----------|----------|
| PAM B5 | PD/PM 92 | PD/PM 93 |
| 132    | -        | 698      |
| 160    | -        | 715      |
| 180    | 710      | 715      |
| 200    | 717      | 722      |
| 225    | 727      | 722      |
| 250    | 787      | 792      |
| 280    | 787      | 792      |

| Tip / Type / Typ | PAM B14 | Øa2 | Øb2 | Øe2 | f2  | Øs2 | Ød1 | l1 | t1   | u1 | o   |
|------------------|---------|-----|-----|-----|-----|-----|-----|----|------|----|-----|
| PD/PM 93         | 132     | 200 | 130 | 165 | 5.0 | 11  | 38  | 80 | 41.3 | 10 | 110 |

| ~ Kg    |          |          |
|---------|----------|----------|
| PAM B14 | PD/PM 92 | PD/PM 93 |
| 132     | -        | 693      |

PD 102

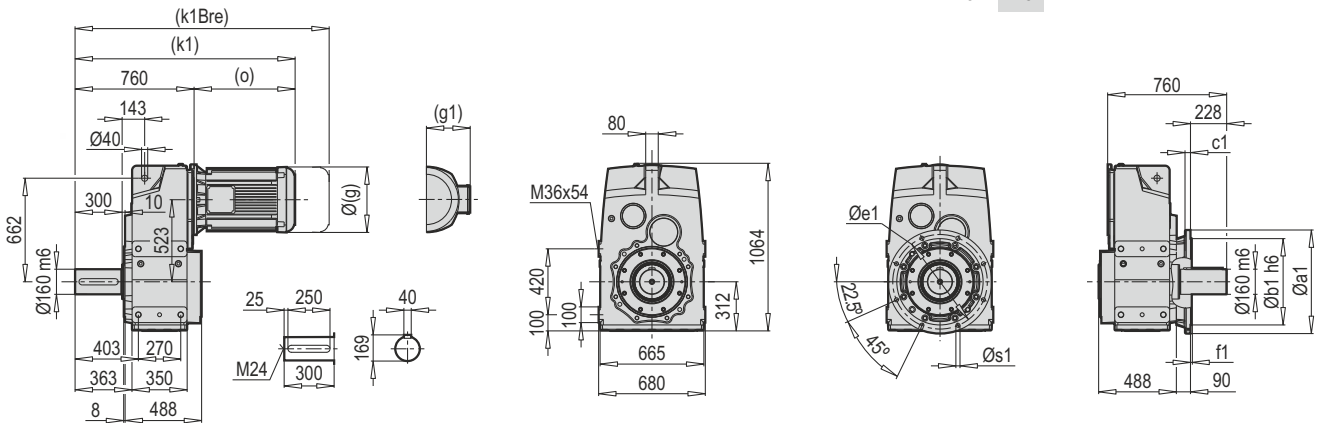
PD 102 B5



| a1  | b1  | c1 | e1  | f1 | s1   |
|-----|-----|----|-----|----|------|
| 660 | 550 | 35 | 600 | 8  | 8x26 |

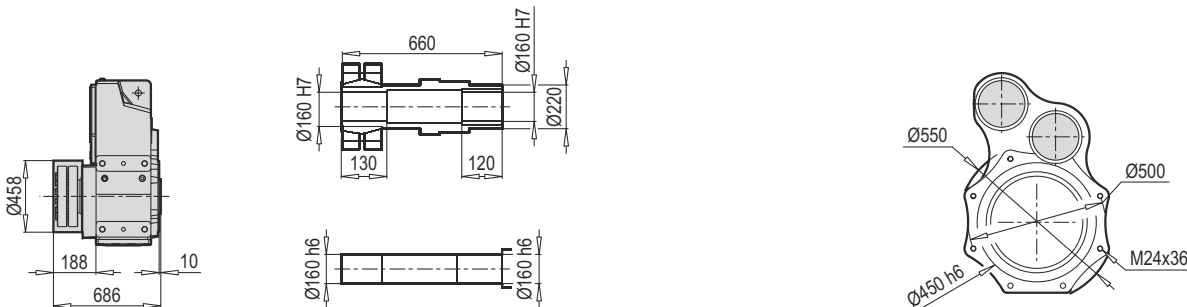
PM 102

PM 102 B5



PD 102 KS

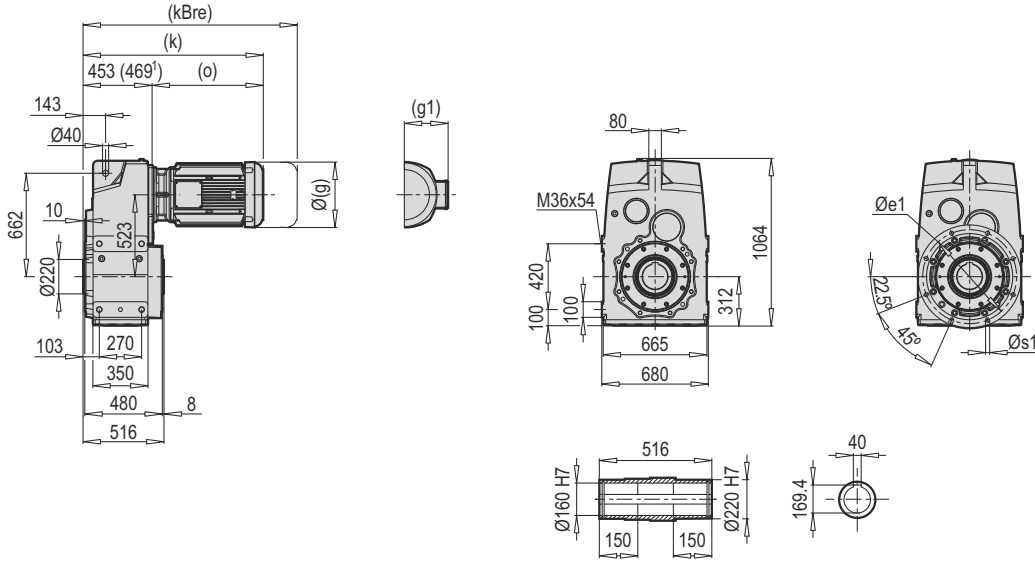
B14



|                   | 280 S     | 280 M     | 315 S | 315 M | 315 L |  |  |  |
|-------------------|-----------|-----------|-------|-------|-------|--|--|--|
| <b>g</b>          | 527       | 527       | -     | -     | -     |  |  |  |
| <b>g1</b>         | 367       | 367       | -     | -     | -     |  |  |  |
| <b>k/k1</b>       | 1345/1645 | 1345/1645 | -     | -     | -     |  |  |  |
| <b>kBre/k1Bre</b> | -         | -         | -     | -     | -     |  |  |  |
| <b>o</b>          | 885       | 885       | -     | -     | -     |  |  |  |

Not: (...) İşaretili olan ölçüler motor markasına göre farklılık gösterir. / Note: The dimensions which have (...) sign vary depending on the motor. / Hinweis: (...) Die gekennzeichneten Maße unterscheiden sich je nach Motormarke.

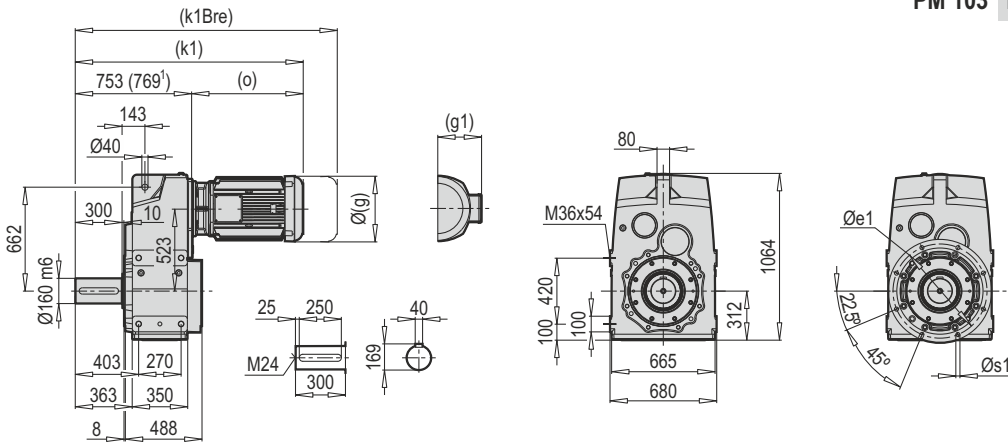
PD 103



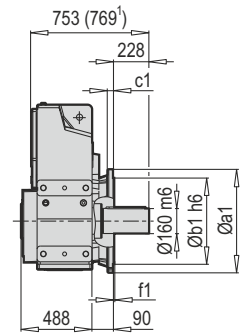
PD 103 B5

| a1  | b1  | c1 | e1  | f1 | s1   |
|-----|-----|----|-----|----|------|
| 660 | 550 | 35 | 600 | 8  | 8x26 |

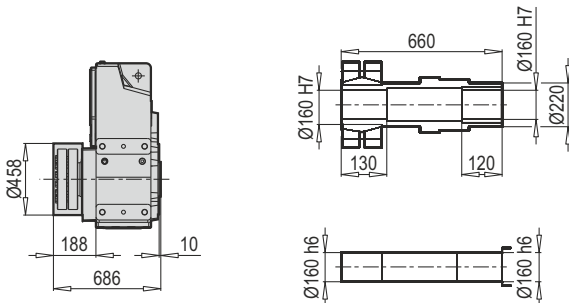
PM 103



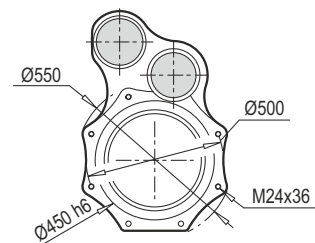
PM 103 B5



PD 103 KS



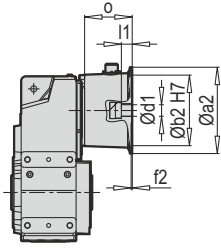
B14



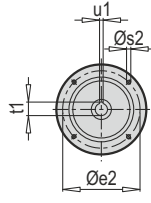
|            | 160 M/L   | 180 M/L   | 200 L     | 225 S/M   | 250 M¹)   | 280 S¹)   | 280 M¹)   | 315 S¹) | 315 M¹) |
|------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|---------|---------|
| g          | 321.5     | 363       | 363       | 456       | 495       | 527       | 527       | -       | -       |
| g1         | 214       | 249       | 249       | 260       | 392       | 367       | 367       | -       | -       |
| k/k1       | 983/1283  | 1077/1377 | 1086/1386 | 1153/1453 | 1113/1413 | 1354/1654 | 1354/1654 | -       | -       |
| kBre/k1Bre | 1088/1388 | 1196/1496 | 1204/1504 | 1325/1625 | 1243/1543 | -         | -         | -       | -       |
| o          | 530       | 624       | 632.5     | 700       | 644       | 885       | 885       | -       | -       |

Not: (...) İşaretili olan ölçüler motor markasına göre farklılık gösterir. / Note: The dimensions which have (...) sign vary depending on the motor. / Hinweis: (...) Die gekennzeichneten Maße unterscheiden sich je nach Motormarke.

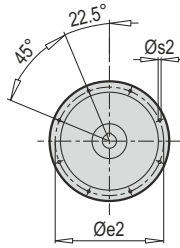
PD 102  
PD 103



IEC

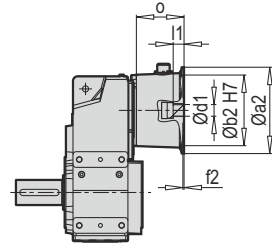


IEC 160...200



IEC 225...315

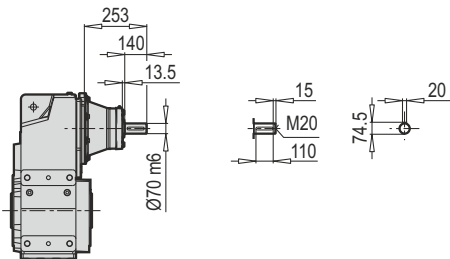
PM 102  
PM 103



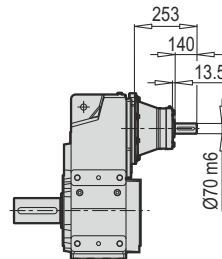
| Tip /<br>Type / Typ | IEC | Øa2 | Øb2 | Øe2 | f2  | Øs2 | Ød1 | l1  | t1   | u1 | o   |
|---------------------|-----|-----|-----|-----|-----|-----|-----|-----|------|----|-----|
| PD/PM 103           | 160 | 350 | 250 | 300 | 6.0 | M16 | 42  | 110 | 45.3 | 12 | 266 |
| PD/PM 103           | 180 | 350 | 250 | 300 | 6.0 | M16 | 48  | 110 | 51.8 | 14 | 266 |
| PD/PM 103           | 200 | 400 | 300 | 350 | 6.0 | M16 | 55  | 110 | 59.3 | 16 | 229 |
| PD/PM 103           | 225 | 450 | 350 | 400 | 6.0 | M16 | 60  | 140 | 64.4 | 18 | 303 |
| PD/PM 102-103       | 250 | 550 | 450 | 500 | 6.0 | M16 | 65  | 140 | 69.4 | 18 | 304 |
| PD/PM 102-103       | 280 | 550 | 450 | 500 | 6.0 | M16 | 75  | 140 | 79.9 | 20 | 304 |
| PD/PM 102-103       | 315 | 660 | 550 | 600 | 7.0 | M20 | 80  | 170 | 85.4 | 22 | 382 |

| ~ Kg |           |           |
|------|-----------|-----------|
| IEC  | PD/PM 102 | PD/PM 103 |
| 132  | -         | 756       |
| 160  | -         | 782       |
| 180  | 777       | 782       |
| 200  | 792       | 797       |
| 225  | 808       | 813       |
| 250  | 866       | 871       |
| 280  | 866       | 871       |

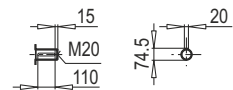
PD 102  
PD 103



W

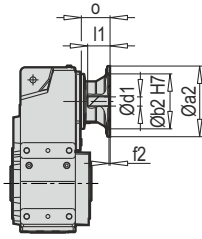


PM 102  
PM 103

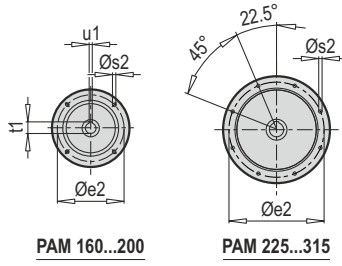


| ~ Kg      |      |
|-----------|------|
| PD/PM 102 | 1358 |
| PD/PM 103 | 1384 |

PD 102  
PD 103



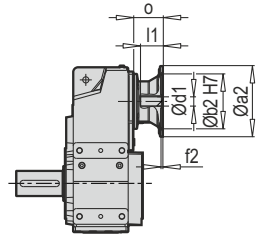
PAM B5



PAM 160...200

PAM 225...315

PM 102  
PM 103

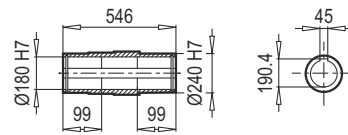
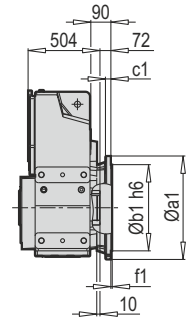
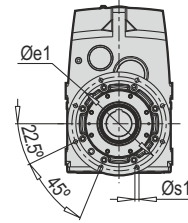
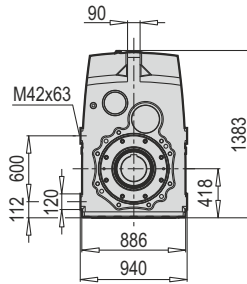
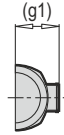
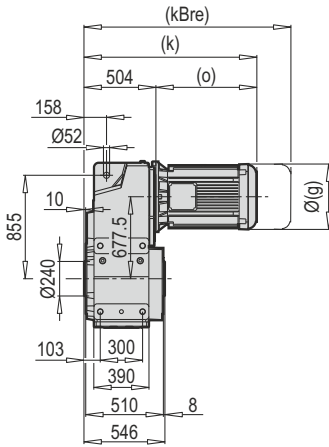


| Tip /<br>Type / Typ | PAM B5 | Øa2 | Øb2 | Øe2 | f2  | Øs2 | Ød1 | l1  | t1   | u1 | o   |
|---------------------|--------|-----|-----|-----|-----|-----|-----|-----|------|----|-----|
| PD/PM 103           | 160    | 350 | 250 | 300 | 6.0 | M16 | 42  | 110 | 45.3 | 12 | 145 |
| PD/PM 103           | 180    | 350 | 250 | 300 | 6.0 | M16 | 48  | 110 | 51.8 | 14 | 145 |
| PD/PM 103           | 200    | 400 | 300 | 350 | 6.0 | M16 | 55  | 110 | 59.3 | 16 | 157 |
| PD/PM 103           | 225    | 450 | 350 | 400 | 6.0 | M16 | 60  | 140 | 64.4 | 18 | 183 |
| PD/PM 102-103       | 250    | 550 | 450 | 500 | 6.0 | M16 | 65  | 140 | 69.4 | 18 | 202 |
| PD/PM 102-103       | 280    | 550 | 450 | 500 | 6.0 | M16 | 75  | 140 | 79.9 | 20 | 202 |

| ~ Kg   |           |           |
|--------|-----------|-----------|
| PAM B5 | PD/PM 102 | PD/PM 103 |
| 160    | -         | 1279      |
| 180    | -         | 1279      |
| 200    | -         | 1286      |
| 225    | -         | 1296      |
| 250    | 1331      | 1356      |
| 280    | 1331      | 1356      |



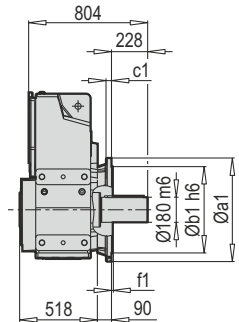
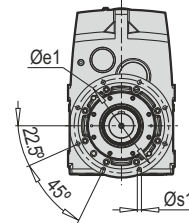
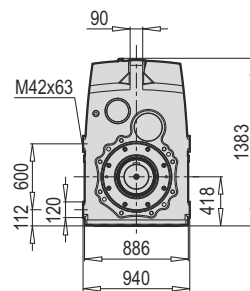
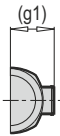
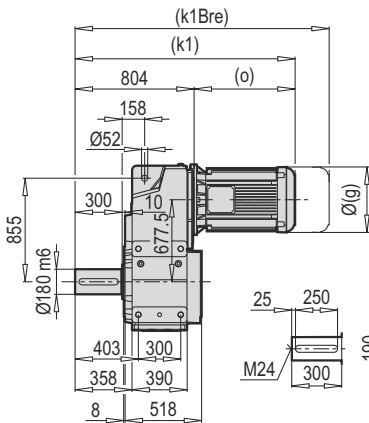
PD 112



PD 112 B5

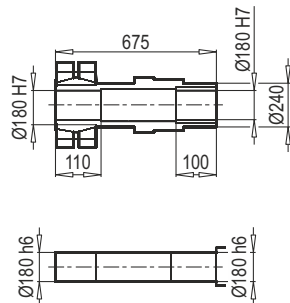
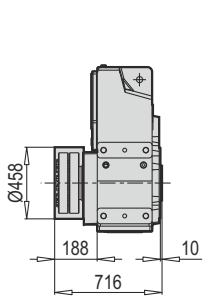
| a1  | b1  | c1 | e1  | f1 | s1   |
|-----|-----|----|-----|----|------|
| 660 | 550 | 35 | 600 | 8  | 8x26 |

PM 112

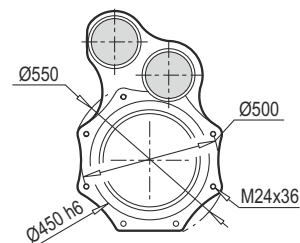


PM 112 B5

PD 112 KS



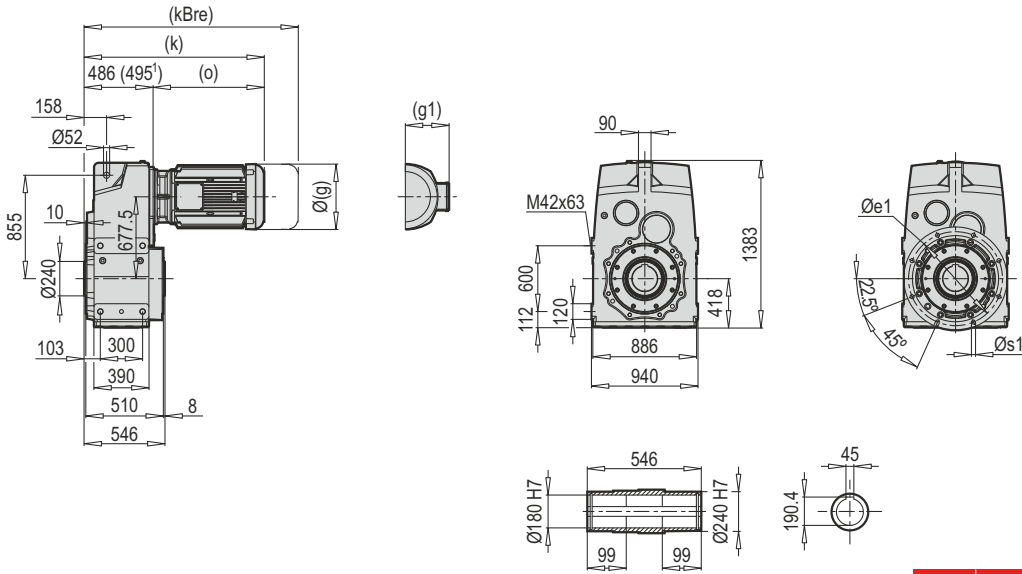
B14



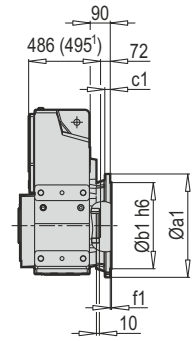
|            | 280 S     | 280 M     | 315 S | 315 M | 315 L |  |  |  |
|------------|-----------|-----------|-------|-------|-------|--|--|--|
| g          | 527       | 527       | -     | -     | -     |  |  |  |
| g1         | 367       | 367       | -     | -     | -     |  |  |  |
| k/k1       | 1389/1689 | 1389/1689 | -     | -     | -     |  |  |  |
| kBre/k1Bre | -         | -         | -     | -     | -     |  |  |  |
| o          | 885       | 885       | -     | -     | -     |  |  |  |

Not: (...) İşaretili olan ölçüler motor markasına göre farklılık gösterir. / Note: The dimensions which have (...) sign vary depending on the motor. / Hinweis: (...) Die gekennzeichneten Maße unterscheiden sich je nach Motormarke.

PD 113

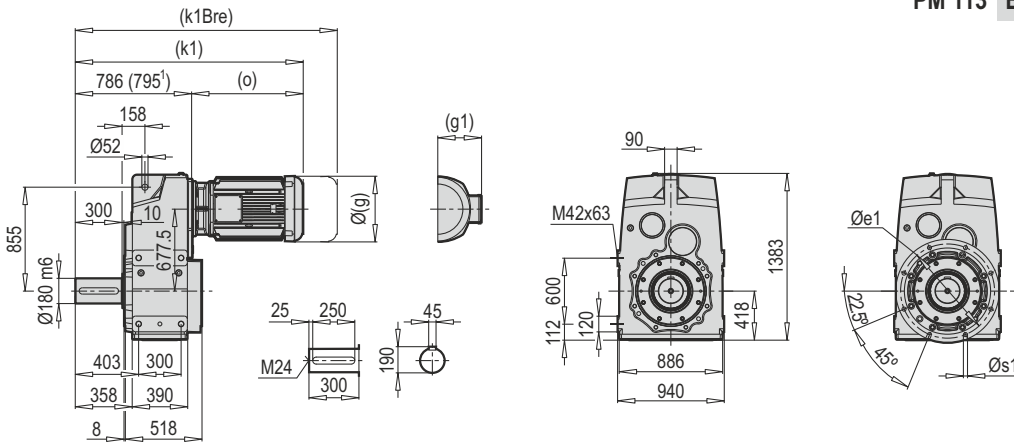


PD 113 B5

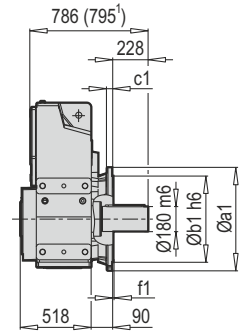


| a1  | b1  | c1 | e1  | f1 | s1   |
|-----|-----|----|-----|----|------|
| 660 | 550 | 35 | 600 | 8  | 8x26 |

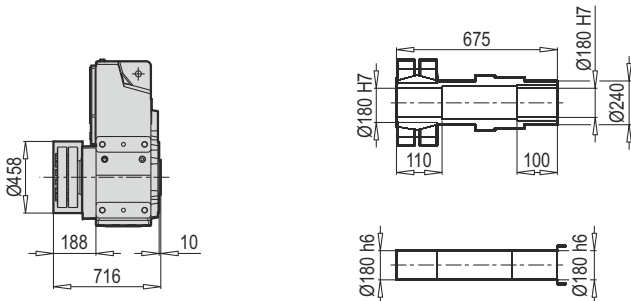
PM 113



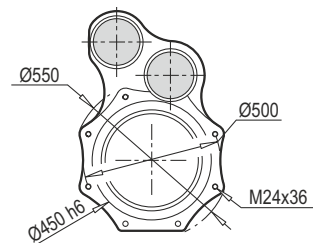
PM 113 B5



PD 113 KS



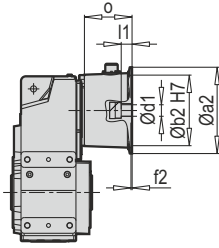
B14



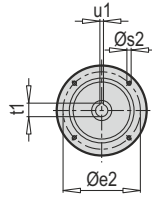
|                   | 160 M/L   | 180 M/L   | 200 L     | 225 S/M   | 250 M     | 280 S     | 280 M <sup>1)</sup> | 315 S <sup>1)</sup> | 315 M <sup>1)</sup> | 315 L <sup>1)</sup> |
|-------------------|-----------|-----------|-----------|-----------|-----------|-----------|---------------------|---------------------|---------------------|---------------------|
| <b>g</b>          | 321.5     | 363       | 363       | 456       | 495       | 527       | 527                 | -                   | -                   | -                   |
| <b>g1</b>         | 214       | 249       | 249       | 260       | 392       | 367       | 367                 | -                   | -                   | -                   |
| <b>k/k1</b>       | 1016/1316 | 1110/1410 | 1119/1419 | 1186/1486 | 1130/1430 | 1380/1680 | 1380/1680           | -                   | -                   | -                   |
| <b>kBre/k1Bre</b> | 1121/1421 | 1229/1529 | 1237/1537 | 1358/1658 | 1260/1560 | -         | -                   | -                   | -                   | -                   |
| <b>o</b>          | 530       | 624       | 632.5     | 700       | 644       | 885       | 885                 | -                   | -                   | -                   |

Not: (...) İşaretili olan ölçüler motor markasına göre farklılık gösterir. / Note: The dimensions which have (...) sign vary depending on the motor. / Hinweis: (...) Die gekennzeichneten Maße unterscheiden sich je nach Motormarke.

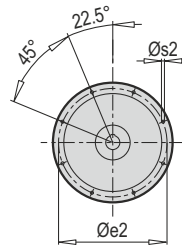
PD 112  
PD 113



IEC

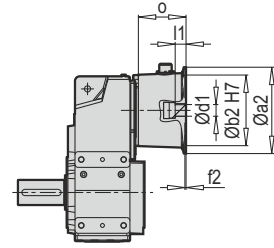


IEC 160...200



IEC 225...315

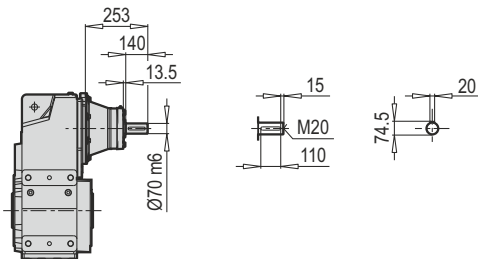
PM 112  
PM 113



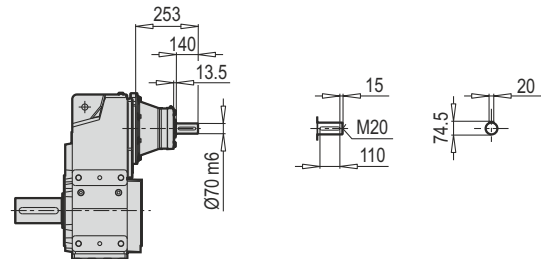
| Tip / Type / Typ | IEC | Øa2 | Øb2 | Øe2 | f2  | Øs2 | Ød1 | l1  | t1   | u1 | o   |
|------------------|-----|-----|-----|-----|-----|-----|-----|-----|------|----|-----|
| PD/PM 113        | 160 | 350 | 250 | 300 | 6.0 | M16 | 42  | 110 | 45.3 | 12 | 266 |
| PD/PM 113        | 180 | 350 | 250 | 300 | 6.0 | M16 | 48  | 110 | 51.8 | 14 | 266 |
| PD/PM 113        | 200 | 400 | 300 | 350 | 6.0 | M16 | 55  | 110 | 59.3 | 16 | 229 |
| PD/PM 113        | 225 | 450 | 350 | 400 | 6.0 | M16 | 60  | 140 | 64.4 | 18 | 303 |
| PD/PM 112-113    | 250 | 550 | 450 | 500 | 6.0 | M16 | 65  | 140 | 69.4 | 18 | 304 |
| PD/PM 112-113    | 280 | 550 | 450 | 500 | 6.0 | M16 | 75  | 140 | 79.9 | 20 | 304 |
| PD/PM 112-113    | 315 | 660 | 550 | 600 | 7.0 | M20 | 80  | 170 | 85.4 | 22 | 382 |

| ~ Kg |           |           |
|------|-----------|-----------|
| IEC  | PD/PM 112 | PD/PM 113 |
| 160  | -         | 2268      |
| 180  | -         | 2268      |
| 200  | -         | 2283      |
| 225  | -         | 2299      |
| 250  | 2276      | 2357      |
| 280  | 2276      | 2357      |
| 315  | 2361      | 2442      |

PD 112  
PD 113



W



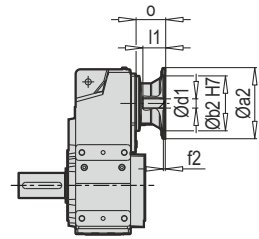
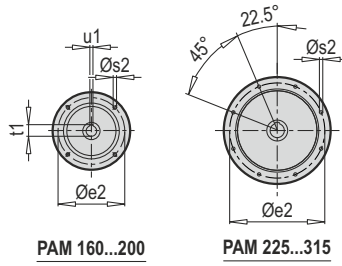
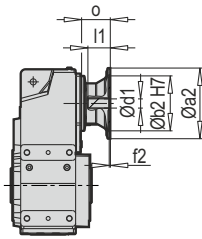
PM 112  
PM 113

| ~ Kg      |      |
|-----------|------|
| PD/PM 112 | 2191 |
| PD/PM 113 | 2273 |

PD 112  
PD 113

PAM B5

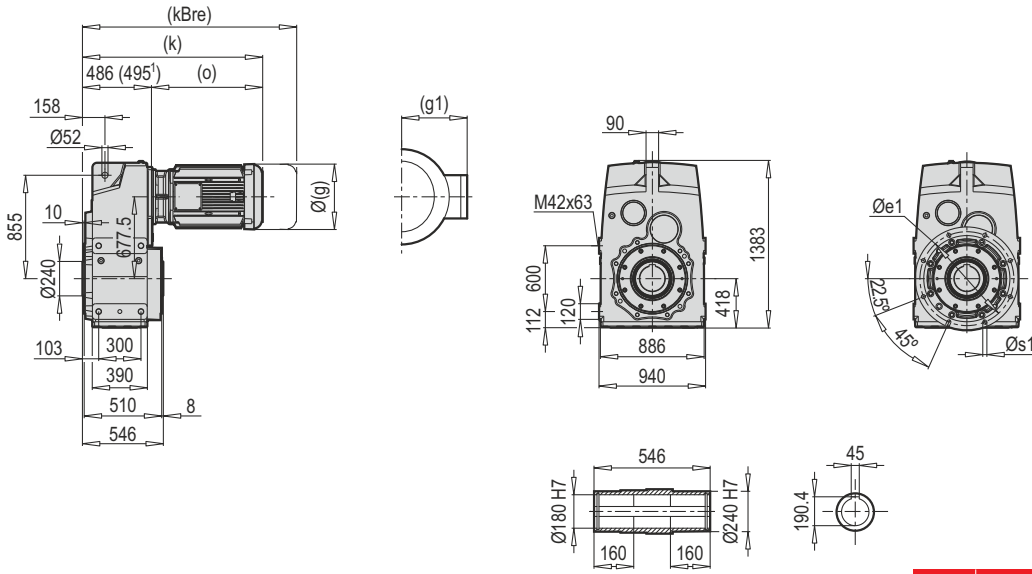
PM 112  
PM 113



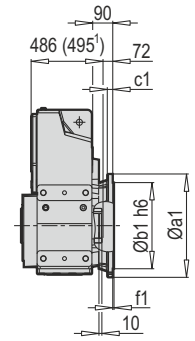
| Tip /<br>Type / Typ | PAM B5 | Øa2 | Øb2 | Øe2 | f2  | Øs2 | Ød1 | l1  | t1   | u1 | o   |
|---------------------|--------|-----|-----|-----|-----|-----|-----|-----|------|----|-----|
| PD/PM 113           | 160    | 350 | 250 | 300 | 6.0 | M16 | 42  | 110 | 45.3 | 12 | 145 |
| PD/PM 113           | 180    | 350 | 250 | 300 | 6.0 | M16 | 48  | 110 | 51.8 | 14 | 145 |
| PD/PM 113           | 200    | 400 | 300 | 350 | 6.0 | M16 | 55  | 110 | 59.3 | 16 | 157 |
| PD/PM 113           | 225    | 450 | 350 | 400 | 6.0 | M16 | 60  | 140 | 64.4 | 18 | 183 |
| PD/PM 112-113       | 250    | 550 | 450 | 500 | 6.0 | M16 | 65  | 140 | 69.4 | 18 | 202 |
| PD/PM 112-113       | 280    | 550 | 450 | 500 | 6.0 | M16 | 75  | 140 | 79.9 | 20 | 202 |

| ~ Kg   |           |           |
|--------|-----------|-----------|
| PAM B5 | PD/PM 112 | PD/PM 113 |
| 160    | -         | 2117      |
| 180    | -         | 2117      |
| 200    | -         | 2124      |
| 225    | -         | 2134      |
| 250    | 2117      | 2194      |
| 280    | 2117      | 2194      |

PD 123

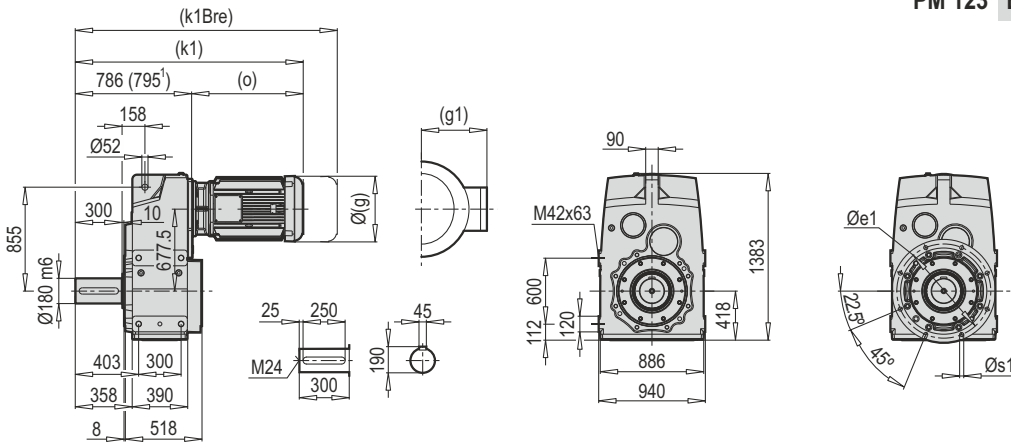


PD 123 B5

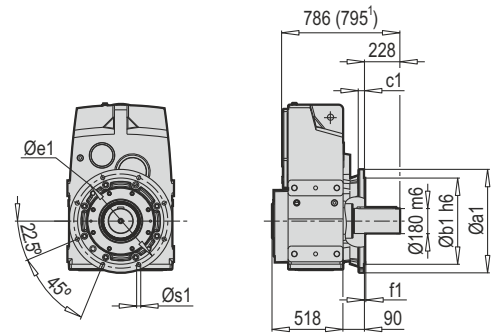


| a1  | b1  | c1 | e1  | f1 | s1   |
|-----|-----|----|-----|----|------|
| 660 | 550 | 35 | 600 | 8  | 8x26 |

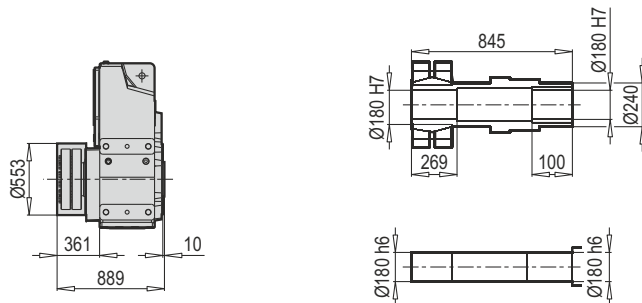
PM 123



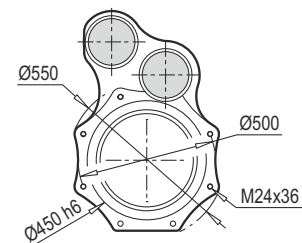
PM 123 B5



PD 123 KS



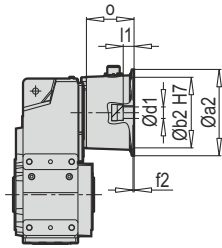
B14



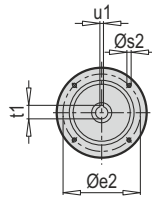
|                   | 200 L     | 225 S/M   | 250 M     | 280 S     | 280 M <sup>1)</sup> | 315 S | 315 M <sup>1)</sup> | 315 L <sup>1)</sup> |
|-------------------|-----------|-----------|-----------|-----------|---------------------|-------|---------------------|---------------------|
| <b>g</b>          | 363       | 456       | 495       | 527       | 527                 | -     | -                   | -                   |
| <b>g1</b>         | 249       | 260       | 392       | 367       | 367                 | -     | -                   | -                   |
| <b>k/k1</b>       | 1119/1419 | 1186/1486 | 1130/1430 | 1380/1680 | 1380/1680           | -     | -                   | -                   |
| <b>kBre/k1Bre</b> | 1237/1537 | 1358/1658 | 1260/1560 | -         | -                   | -     | -                   | -                   |
| <b>o</b>          | 632.5     | 700       | 644       | 885       | 885                 | -     | -                   | -                   |

Not: (...) İşaretili olan ölçüler motor markasına göre farklılık gösterir. / Note: The dimensions which have (...) sign vary depending on the motor. / Hinweis: (...) Die gekennzeichneten Maße unterscheiden sich je nach Motormarke.

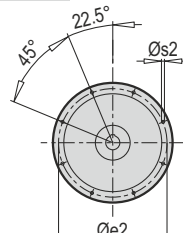
PD 123



IEC

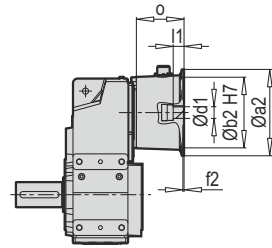


IEC 160...200



IEC 225...315

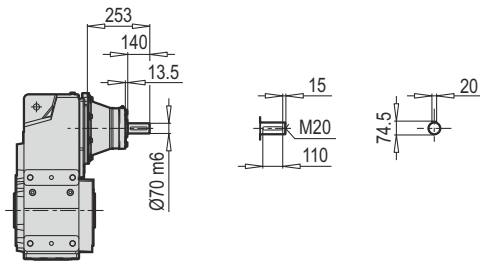
PM 123



| Tip / Type / Typ | IEC | Øa2 | Øb2 | Øe2 | f2  | Øs2 | Ød1 | l1  | t1   | u1 | o   |
|------------------|-----|-----|-----|-----|-----|-----|-----|-----|------|----|-----|
| PD/PM 123        | 160 | 350 | 250 | 300 | 6.0 | M16 | 42  | 110 | 45.3 | 12 | 266 |
|                  | 180 | 350 | 250 | 300 | 6.0 | M16 | 48  | 110 | 51.8 | 14 | 266 |
|                  | 200 | 400 | 300 | 350 | 6.0 | M16 | 55  | 110 | 59.3 | 16 | 229 |
|                  | 225 | 450 | 350 | 400 | 6.0 | M16 | 60  | 140 | 64.4 | 18 | 303 |
|                  | 250 | 550 | 450 | 500 | 6.0 | M16 | 65  | 140 | 69.4 | 18 | 304 |
|                  | 280 | 550 | 450 | 500 | 6.0 | M16 | 75  | 140 | 79.9 | 20 | 304 |
|                  | 315 | 660 | 550 | 600 | 7.0 | M20 | 80  | 170 | 85.4 | 22 | 382 |

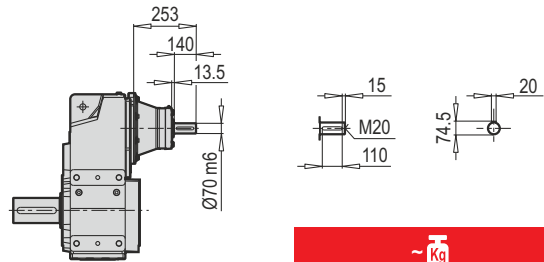
| ~ Kg |           |
|------|-----------|
| IEC  | PD/PM 123 |
| 160  | 2268      |
| 180  | 2268      |
| 200  | 2283      |
| 225  | 2299      |
| 250  | 2357      |
| 280  | 2357      |
| 315  | 2442      |

PD 123



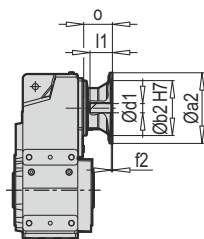
W

PM 123

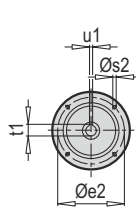


| ~ Kg      |      |
|-----------|------|
| PD/PM 123 |      |
| PD/PM 123 | 2273 |

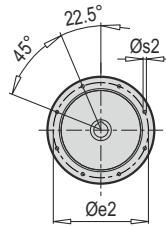
PD 123



PAM B5/B14

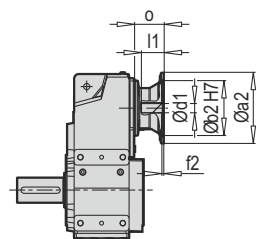


PAM 160...200



PAM 225...315

PM 123

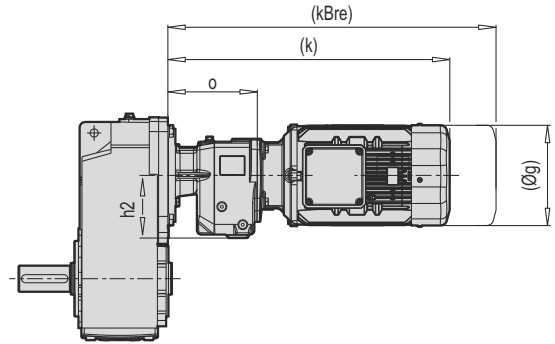
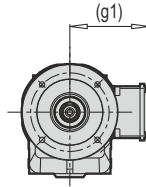
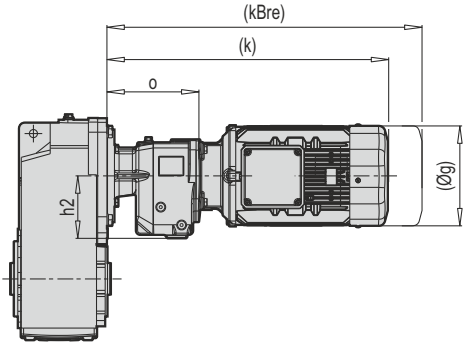


| Tip / Type / Typ | PAM B5 | Øa2 | Øb2 | Øe2 | f2  | Øs2 | Ød1 | l1  | t1   | u1 | o   |
|------------------|--------|-----|-----|-----|-----|-----|-----|-----|------|----|-----|
| PD/PM 123        | 160    | 350 | 250 | 300 | 6.0 | M16 | 42  | 110 | 45.3 | 12 | 145 |
|                  | 180    | 350 | 250 | 300 | 6.0 | M16 | 48  | 110 | 51.8 | 14 | 145 |
|                  | 200    | 400 | 300 | 350 | 6.0 | M16 | 55  | 110 | 59.3 | 16 | 157 |
|                  | 225    | 450 | 350 | 400 | 6.0 | M16 | 60  | 140 | 64.4 | 18 | 183 |
|                  | 250    | 550 | 450 | 500 | 6.0 | M16 | 65  | 140 | 69.4 | 18 | 202 |
|                  | 280    | 550 | 450 | 500 | 6.0 | M16 | 75  | 140 | 79.9 | 20 | 202 |

| ~ Kg   |           |
|--------|-----------|
| PAM B5 | PD/PM 123 |
| 160    | 2222      |
| 180    | 2222      |
| 200    | 2229      |
| 225    | 2239      |
| 250    | 2299      |
| 280    | 2299      |

PD 12/02 PD 32/12  
 PD 22/02 PD 42/12  
 PD 52/12

PM 12/02 PM 32/12  
 PM 22/02 PM 42/12  
 PM 52/12



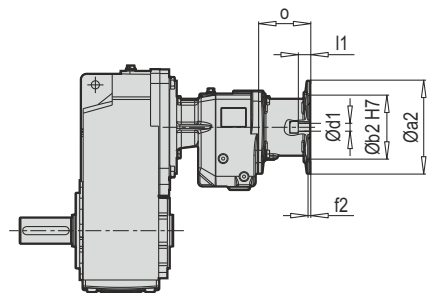
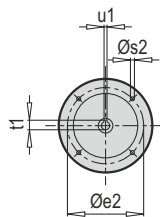
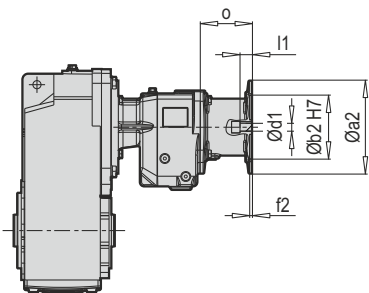
| Tip / Type / Typ | Motor  | g     | g1    | h2  | o   | k   | kBre |
|------------------|--------|-------|-------|-----|-----|-----|------|
| PD/PM 12/02      | 63 M   | 124   | 111   | 91  | 143 | 341 | 393  |
|                  | 71 M   | 140   | 119   |     |     |     |      |
| PD/PM 22/02      | 63 M   | 124   | 111   | 91  | 159 | 373 | 425  |
|                  | 71 M   | 140   | 119   |     |     |     |      |
|                  | 80 M   | 172   | 130.5 |     |     |     |      |
| PD/PM 32/12      | 63 M   | 124   | 111   | 108 | 172 | 386 | 438  |
|                  | 71 M   | 140   | 119   |     |     |     |      |
|                  | 80 M   | 172   | 130.5 |     |     |     |      |
|                  | 90 S/L | 182   | 130   |     |     |     |      |
|                  | 100 L  | 202   | 153   |     |     |     |      |
| PD/PM 42/12      | 63 M   | 124   | 111   | 108 | 176 | 386 | 438  |
|                  | 71 M   | 140   | 119   |     |     |     |      |
|                  | 80 M   | 172   | 130.5 |     |     |     |      |
|                  | 90 S/L | 182   | 130   |     |     |     |      |
|                  | 100 L  | 202   | 153   |     |     |     |      |
| 112 M            | 220    | 158.5 |       |     | 554 | 654 |      |

Not: (...) işaretli olan ölçüler motor markasına göre farklılık gösterir. / Note: The dimensions which have (...) sign vary depending on the motor. / Hinweis: (...) Die gekennzeichneten Maße unterscheiden sich je nach Motormarke.

PD 12/02 PD 32/12  
 PD 22/02 PD 42/12  
 PD 52/12

**IEC**

PM 12/02 PM 32/12  
 PM 22/02 PM 42/12  
 PM 52/12

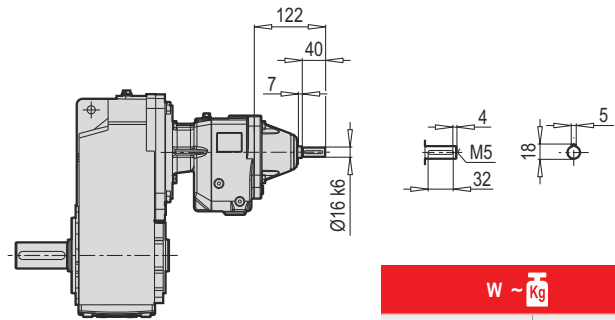
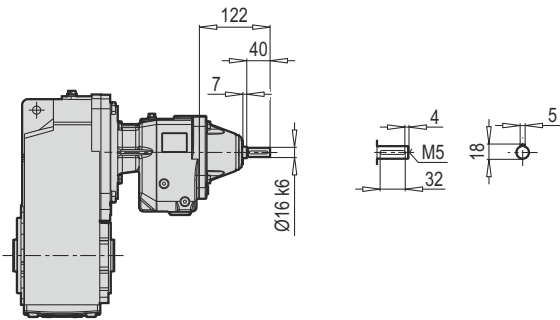


| Tip / Type / Typ                            | IEC | Øa2 | Øb2 | Øe2 | f2  | Øs2 | Ød1 | l1 | t1   | u1 | o   | ~Kg |             |             |             |             |             |
|---------------------------------------------|-----|-----|-----|-----|-----|-----|-----|----|------|----|-----|-----|-------------|-------------|-------------|-------------|-------------|
|                                             |     |     |     |     |     |     |     |    |      |    |     | IEC | PD/PM 12/02 | PD/PM 22/02 | PD/PM 32/12 | PD/PM 42/12 | PD/PM 52/12 |
| PD/PM 12/02 - 22/02 - 32/12 - 42/12 - 52/12 | 63  | 140 | 95  | 115 | 3.5 | M8  | 11  | 23 | 12.8 | 4  | 85  | 63  | 28          | 40          | 57          | 73          | 111         |
| PD/PM 12/02 - 22/02 - 32/12 - 42/12 - 52/12 | 71  | 160 | 110 | 130 | 4.0 | M8  | 14  | 30 | 16.3 | 5  | 89  | 71  | 29          | 41          | 58          | 74          | 112         |
| PD/PM 12/02 - 22/02 - 32/12 - 42/12 - 52/12 | 80  | 200 | 130 | 165 | 4.0 | M10 | 19  | 40 | 21.8 | 6  | 105 | 80  | 32          | 44          | 61          | 77          | 116         |
| PD/PM 12/02 - 22/02 - 32/12 - 42/12 - 52/12 | 90  | 200 | 130 | 165 | 4.0 | M10 | 24  | 50 | 27.3 | 8  | 105 | 90  | 32          | 44          | 61          | 77          | 116         |
| PD/PM 32/12 - 42/12 - 52/12                 | 100 | 250 | 180 | 215 | 5.0 | M12 | 28  | 60 | 31.3 | 8  | 130 | 100 | -           | -           | 69          | 84          | 123         |
| PD/PM 32/12 - 42/12 - 52/12                 | 112 | 250 | 180 | 215 | 5.0 | M12 | 28  | 60 | 31.3 | 8  | 130 | 112 | -           | -           | 69          | 84          | 123         |

PD 12/02 PD 32/12  
PD 22/02 PD 42/12  
PD 52/12

W

PM 12/02 PM 32/12  
PM 22/02 PM 42/12  
PM 52/12

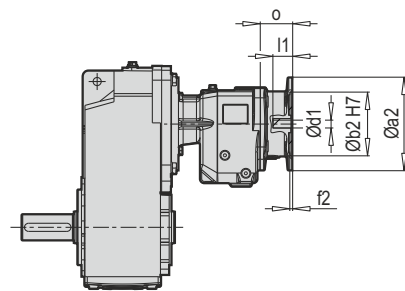
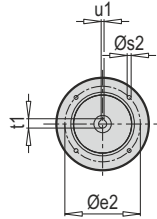
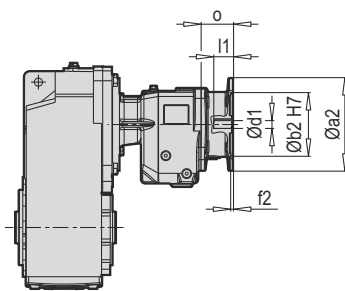


| W ~ Kg      |     |
|-------------|-----|
| PD/PM 12/02 | 27  |
| PD/PM 22/02 | 38  |
| PD/PM 32/12 | 56  |
| PD/PM 43/12 | 72  |
| PD/PM 53/12 | 110 |

PD 12/02 PD 32/12  
PD 22/02 PD 42/12  
PD 52/12

PAM B5/B14

PM 12/02 PM 32/12  
PM 22/02 PM 42/12  
PM 52/12



| Tip / Type / Typ                            | PAM B5 | Øa2 | Øb2 | Øe2 | f2  | Øs2 | Ød1 | l1 | t1   | u1 | o     |
|---------------------------------------------|--------|-----|-----|-----|-----|-----|-----|----|------|----|-------|
| PD/PM 12/02 - 22/02 - 32/12 - 42/12 - 52/12 | 63     | 140 | 95  | 115 | 3.5 | M8  | 11  | 23 | 12.8 | 4  | 85    |
| PD/PM 12/02 - 22/02 - 32/12 - 42/12 - 52/12 | 71     | 160 | 110 | 130 | 4.0 | M8  | 14  | 30 | 16.3 | 5  | 55    |
| PD/PM 12/02 - 22/02 - 32/12 - 42/12 - 52/12 | 80     | 200 | 130 | 165 | 4.0 | M10 | 19  | 40 | 21.8 | 6  | 74    |
| PD/PM 12/02 - 22/02 - 32/12 - 42/12 - 52/12 | 90     | 200 | 130 | 165 | 4.0 | M10 | 24  | 50 | 27.3 | 8  | 74    |
| PD/PM 32/12 - 42/12 - 52/12                 | 100    | 250 | 180 | 215 | 5.0 | M12 | 28  | 60 | 31.3 | 8  | 131.5 |
| PD/PM 32/12 - 42/12 - 52/12                 | 112    | 250 | 180 | 215 | 5.0 | M12 | 28  | 60 | 31.3 | 8  | 131.5 |

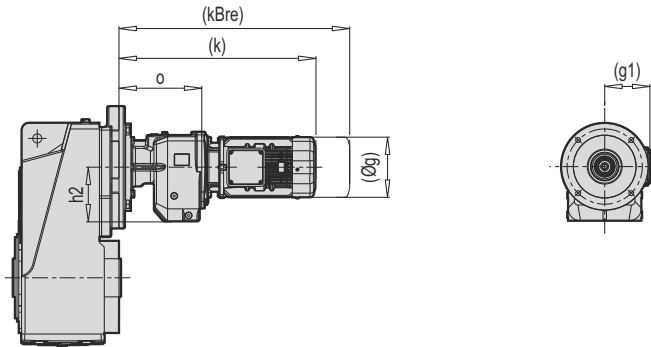
| ~ Kg   |             |             |             |             |             |
|--------|-------------|-------------|-------------|-------------|-------------|
| PAM B5 | PD/PM 12/02 | PD/PM 22/02 | PD/PM 32/12 | PD/PM 42/12 | PD/PM 52/12 |
| 63     | 26          | 37          | 54          | 69          | 105         |
| 71     | 26          | 37          | 54          | 69          | 105         |
| 80     | 27          | 38          | 55          | 70          | 106         |
| 90     | 27          | 38          | 55          | 70          | 106         |
| 100    | -           | -           | 62          | 77          | 113         |
| 112    | -           | -           | 62          | 77          | 113         |

| Tip / Type / Typ                            | PAM B14 | Øa2 | Øb2 | Øe2 | f2  | Øs2 | Ød1 | l1 | t1   | u1 | o  |
|---------------------------------------------|---------|-----|-----|-----|-----|-----|-----|----|------|----|----|
| PD/PM 12/02 - 22/02 - 32/12 - 42/12 - 52/12 | 63      | 90  | 60  | 75  | 3.5 | 6   | 11  | 23 | 12.8 | 4  | 60 |
| PD/PM 12/02 - 22/02 - 32/12 - 42/12 - 52/12 | 71      | 105 | 70  | 85  | 4.0 | 7   | 14  | 30 | 16.3 | 5  | 55 |
| PD/PM 12/02 - 22/02 - 32/12 - 42/12 - 52/12 | 80      | 120 | 80  | 100 | 4.0 | 7   | 19  | 40 | 21.8 | 6  | 74 |
| PD/PM 12/02 - 22/02 - 32/12 - 42/12 - 52/12 | 90      | 140 | 95  | 115 | 4.0 | 9   | 24  | 50 | 27.3 | 8  | 74 |
| PD/PM 32/12 - 42/12 - 52/12                 | 100     | 160 | 110 | 130 | 5.0 | 9   | 28  | 60 | 31.3 | 8  | 75 |
| PD/PM 32/12 - 42/12 - 52/12                 | 112     | 160 | 110 | 130 | 5.0 | 9   | 28  | 60 | 31.3 | 8  | 75 |

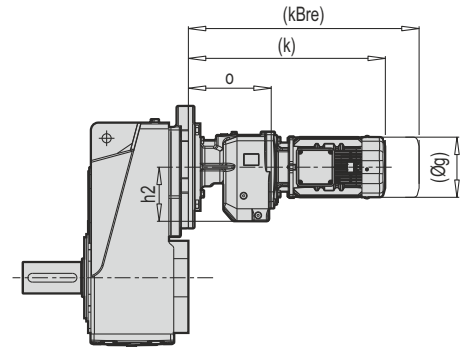
| ~ Kg    |             |             |             |             |             |
|---------|-------------|-------------|-------------|-------------|-------------|
| PAM B14 | PD/PM 12/02 | PD/PM 22/02 | PD/PM 32/12 | PD/PM 42/12 | PD/PM 52/12 |
| 63      | 25          | 36          | 53          | 68          | 104         |
| 71      | 25          | 36          | 53          | 68          | 104         |
| 80      | 26          | 37          | 54          | 69          | 105         |
| 90      | 26          | 37          | 54          | 69          | 105         |
| 100     | -           | -           | 55          | 70          | 106         |
| 112     | -           | -           | 55          | 70          | 106         |



PD 63/22 PD 63/32  
 PD 73/22 PD 73/32  
 PD 83/32



PM 63/22 PM 63/32  
 PM 73/22 PM 73/32  
 PM 83/32

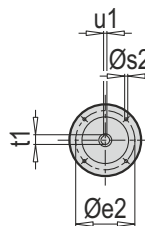
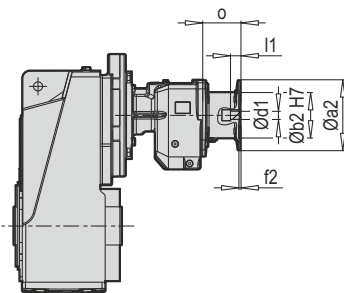


| Tip / Type / Typ           | Motor  | g     | g1    | h2  | o   | k   | kBre |
|----------------------------|--------|-------|-------|-----|-----|-----|------|
| PD/PM 63/22<br>PD/PM 73/22 | 71 M   | 140   | 119   | 127 | 195 | 416 | 476  |
|                            | 80 M   | 172   | 130.5 |     |     | 455 | 525  |
|                            | 90 S/L | 182   | 130   |     |     | 521 | 589  |
|                            | 100 L  | 202   | 153   |     |     | 572 | 656  |
|                            | 112 M  | 220   | 158.5 |     |     | 567 | 667  |
| PD/PM 63/32<br>PD/PM 73/32 | 90 S/L | 182   | 130   | 159 | 237 | 563 | 631  |
|                            | 100 L  | 202   | 153   |     |     | 614 | 698  |
|                            | 112 M  | 220   | 158.5 |     |     | 609 | 710  |
|                            | 132 S  | 270.5 | 187.5 |     |     | 704 | 783  |
|                            | 132 M  | 270.5 | 187.5 |     |     | 704 | 811  |
| PD/PM 83/32                | 71 M   | 140   | 119   | 159 | 237 | 470 | 532  |
|                            | 80 M   | 172   | 130.5 |     |     | 497 | 567  |
|                            | 90 S/L | 182   | 130   |     |     | 563 | 631  |
|                            | 100 L  | 202   | 153   |     |     | 614 | 698  |
|                            | 112 M  | 220   | 158.5 |     |     | 609 | 709  |
|                            | 132 S  | 270.5 | 187.5 |     |     | 704 | 783  |
|                            | 132 M  | 270.5 | 187.5 |     |     | 704 | 811  |

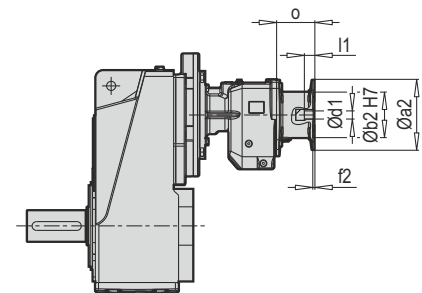
Not: (...) İşaretili olan ölçüler motor markasına göre farklılık gösterir. / Note: The dimensions which have (...) sign vary depending on the motor. / Hinweis: (...) Die gekennzeichneten Maße unterscheiden sich je nach Motormarke.

PD 63/22 PD 63/32  
 PD 73/22 PD 73/32  
 PD 83/32

IEC



PM 63/22 PM 63/32  
 PM 73/22 PM 73/32  
 PM 83/32

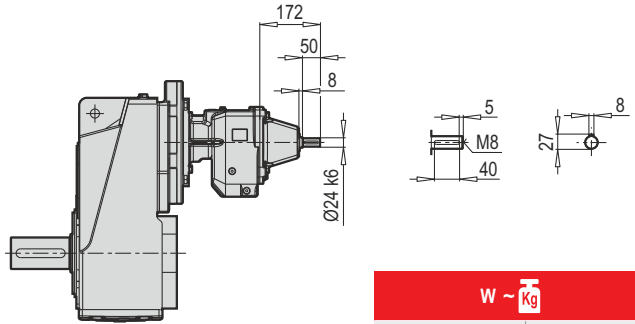
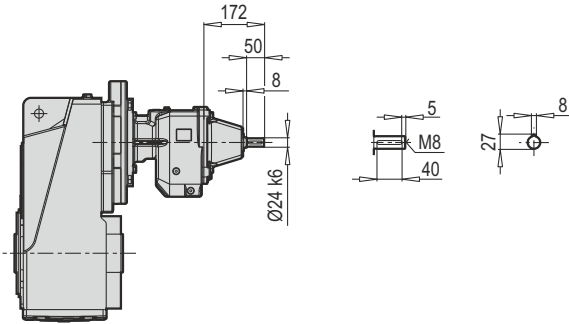


| Tip / Type / Typ                            | IEC | Øa2 | Øb2 | Øe2 | f2  | Øs2 | Ød1 | l1 | t1   | u1 | o   | ~Kg |             |             |             |             |             |
|---------------------------------------------|-----|-----|-----|-----|-----|-----|-----|----|------|----|-----|-----|-------------|-------------|-------------|-------------|-------------|
|                                             |     |     |     |     |     |     |     |    |      |    |     | IEC | PD/PM 63/22 | PD/PM 73/22 | PD/PM 63/32 | PD/PM 73/32 | PD/PM 83/32 |
| PD/PM 63/22 - 73/22 - 83/32                 | 71  | 160 | 110 | 130 | 4.0 | M8  | 14  | 30 | 16.3 | 5  | 88  | 71  | 209         | 286         | -           | -           | 432         |
| PD/PM 63/22 - 73/22 - 83/32                 | 80  | 200 | 130 | 165 | 4.0 | M10 | 19  | 40 | 21.8 | 6  | 107 | 80  | 213         | 290         | -           | -           | 437         |
| PD/PM 63/22 - 73/22 - 63/32 - 73/32 - 83/32 | 90  | 200 | 130 | 165 | 4.0 | M10 | 24  | 50 | 27.3 | 8  | 107 | 90  | 213         | 290         | 225         | 301         | 437         |
| PD/PM 63/22 - 73/22 - 63/32 - 73/32 - 83/32 | 100 | 250 | 180 | 215 | 5.0 | M12 | 28  | 60 | 31.3 | 8  | 124 | 100 | 217         | 294         | 229         | 306         | 441         |
| PD/PM 63/22 - 73/22 - 63/32 - 73/32 - 83/32 | 112 | 250 | 180 | 215 | 5.0 | M12 | 28  | 60 | 31.3 | 8  | 124 | 112 | 217         | 294         | 229         | 306         | 441         |
| PD/PM 63/32 - 73/32 - 83/32                 | 132 | 300 | 230 | 265 | 5.0 | M12 | 38  | 80 | 41.3 | 10 | 156 | 132 | -           | -           | 238         | 315         | 451         |

PD 63/22 PD 63/32  
PD 73/22 PD 73/32  
PD 83/32

**W**

PM 63/22 PM 63/32  
PM 73/22 PM 73/32  
PM 83/32

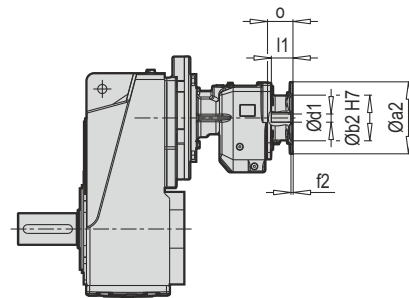
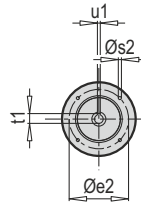
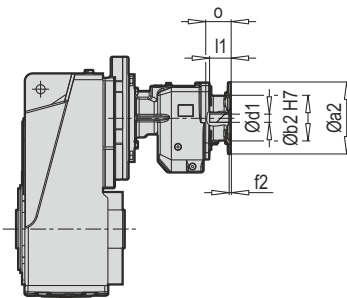


| W ~ Kg      |     |
|-------------|-----|
| PD/PM 63/22 | 211 |
| PD/PM 73/22 | 288 |
| PD/PM 63/32 | 223 |
| PD/PM 73/32 | 299 |
| PD/PM 83/32 | 435 |

PD 63/22 PD 63/32  
PD 73/22 PD 73/32  
PD 83/32

**PAM B5/B14**

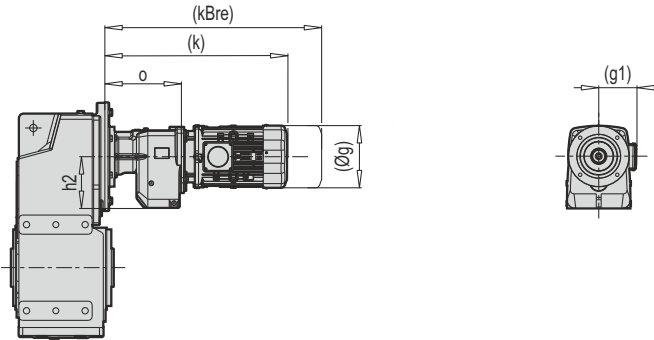
PM 63/22 PM 63/32  
PM 73/22 PM 73/32  
PM 83/32



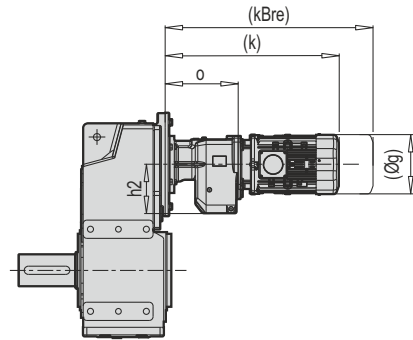
| Tip / Type / Typ                            | PAM B5 | Øa2 | Øb2 | Øe2 | f2  | Øs2 | Ød1 | l1 | t1   | u1 | o  | ~ Kg   |             |             |             |             |             |
|---------------------------------------------|--------|-----|-----|-----|-----|-----|-----|----|------|----|----|--------|-------------|-------------|-------------|-------------|-------------|
|                                             |        |     |     |     |     |     |     |    |      |    |    | PAM B5 | PD/PM 63/22 | PD/PM 73/22 | PD/PM 63/32 | PD/PM 73/32 | PD/PM 83/32 |
| PD/PM 63/22 - 73/22 - 83/32                 | 71     | 160 | 110 | 130 | 4.0 | M8  | 14  | 30 | 16.3 | 5  | 88 | 71     | 198         | 271         | -           | -           | 407         |
| PD/PM 63/22 - 73/22 - 83/32                 | 80     | 200 | 130 | 165 | 4.0 | M10 | 19  | 40 | 21.8 | 6  | 72 | 80     | 199         | 272         | -           | -           | 408         |
| PD/PM 63/22 - 73/22 - 63/32 - 73/32 - 83/32 | 90     | 200 | 130 | 165 | 4.0 | M10 | 24  | 50 | 27.3 | 8  | 72 | 90     | 199         | 272         | 210         | 283         | 408         |
| PD/PM 63/22 - 73/22 - 63/32 - 73/32 - 83/32 | 100    | 250 | 180 | 215 | 5.0 | M12 | 28  | 60 | 31.3 | 8  | 75 | 100    | 200         | 273         | 211         | 284         | 409         |
| PD/PM 63/22 - 73/22 - 63/32 - 73/32 - 83/32 | 112    | 250 | 180 | 215 | 5.0 | M12 | 28  | 60 | 31.3 | 8  | 75 | 112    | 200         | 273         | 211         | 284         | 409         |
| PD/PM 63/32 - 73/32 - 83/32                 | 132    | 300 | 230 | 265 | 5.0 | M12 | 38  | 80 | 41.3 | 10 | 94 | 132    | -           | -           | 221         | 294         | 419         |

| Tip / Type / Typ                            | PAM B14 | Øa2 | Øb2 | Øe2 | f2 | Øs2 | Ød1 | l1 | t1   | u1 | o  | ~ Kg    |             |             |             |             |             |
|---------------------------------------------|---------|-----|-----|-----|----|-----|-----|----|------|----|----|---------|-------------|-------------|-------------|-------------|-------------|
|                                             |         |     |     |     |    |     |     |    |      |    |    | PAM B14 | PD/PM 63/22 | PD/PM 73/22 | PD/PM 63/32 | PD/PM 73/32 | PD/PM 83/32 |
| PD/PM 63/22 - 73/22 - 83/32                 | 71      | 105 | 70  | 85  | 4  | 7   | 14  | 30 | 16.3 | 5  | 55 | 71      | 196         | 269         | -           | -           | 405         |
| PD/PM 63/22 - 73/22 - 83/32                 | 80      | 120 | 80  | 100 | 4  | 7   | 19  | 40 | 21.8 | 6  | 72 | 80      | 197         | 270         | -           | -           | 406         |
| PD/PM 63/22 - 73/22 - 63/32 - 73/32 - 83/32 | 90      | 140 | 95  | 115 | 4  | 9   | 24  | 50 | 27.3 | 8  | 72 | 90      | 197         | 270         | 208         | 281         | 406         |
| PD/PM 63/22 - 73/22 - 63/32 - 73/32 - 83/32 | 100     | 160 | 110 | 130 | 5  | 9   | 28  | 60 | 31.3 | 8  | 75 | 100     | 199         | 272         | 210         | 283         | 408         |
| PD/PM 63/22 - 73/22 - 63/32 - 73/32 - 83/32 | 112     | 160 | 110 | 130 | 5  | 9   | 28  | 60 | 31.3 | 8  | 75 | 112     | 199         | 272         | 210         | 283         | 408         |
| PD/PM 63/32 - 73/32 - 83/32                 | 132     | 200 | 130 | 165 | 5  | 11  | 38  | 80 | 41.3 | 10 | 94 | 132     | -           | -           | 214         | 287         | 412         |

PD 83/42 PD 93/52  
 PD 93/42 PD 103/52  
 PD 113/52



PM 83/42 PM 93/52  
 PM 93/42 PM 103/52  
 PM 113/52



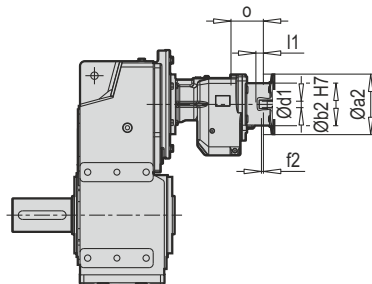
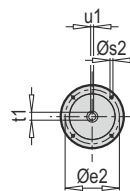
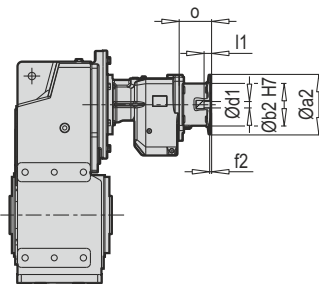
| Tip / Type / Typ             | Motor   | g     | g1    | h2   | o   | k   | kBre |
|------------------------------|---------|-------|-------|------|-----|-----|------|
| PD/PM 83/42                  | 90 S/L  | 182   | 130   | 179  | 280 | 610 | 678  |
|                              | 100 L   | 202   | 153   |      |     | 661 | 745  |
|                              | 112 M   | 220   | 158.5 |      |     | 660 | 760  |
|                              | 132 S   | 270.5 | 187.5 |      |     | 722 | 821  |
|                              | 132 M   | 270.5 | 187.5 |      |     | 722 | 841  |
|                              | 160 M/L | 321.5 | 214   |      |     | 810 | 915  |
| PD/PM 93/42                  | 90 S/L  | 182   | 130   | 179  | 280 | 610 | 678  |
|                              | 100 L   | 202   | 153   |      |     | 661 | 745  |
|                              | 112 M   | 220   | 158.5 |      |     | 660 | 760  |
|                              | 132 S   | 270.5 | 187.5 |      |     | 722 | 821  |
|                              | 132 M   | 270.5 | 187.5 |      |     | 722 | 841  |
|                              | 160 M/L | 321.5 | 214   |      |     | 810 | 915  |
| PD/PM 93/52                  | 112 M   | 220   | 158.5 | 218  | 320 | 700 | 800  |
|                              | 132 S   | 270.5 | 187.5 |      |     | 762 | 861  |
|                              | 132 M   | 270.5 | 187.5 |      |     | 762 | 881  |
|                              | 160 M/L | 321.5 | 214   |      |     | 850 | 955  |
|                              | 180 M/L | 363   | 249   |      |     | 944 | 1045 |
| PD/PM 103/52<br>PD/PM 113/52 | 90S/L   | 182   | 130   | 218  | 320 | 650 | 718  |
|                              | 100 L   | 217   | 160   |      |     | 614 | 695  |
|                              | 112 M   | 220   | 158.5 |      |     | 700 | 800  |
|                              | 132 S   | 270.5 | 187.5 |      |     | 762 | 861  |
|                              | 132 M   | 270.5 | 187.5 |      |     | 762 | 881  |
|                              | 160 M/L | 321.5 | 214   |      |     | 850 | 955  |
| 180 M/L                      | 363     | 249   | 944   | 1045 |     |     |      |

Not: (...) işaretli olan ölçüler motor markasına göre farklılık gösterir. / Note: The dimensions which have (...) sign vary depending on the motor. / Hinweis: (...) Die gekennzeichneten Maße unterscheiden sich je nach Motormarke.

PD 83/42 PD 93/52  
 PD 93/42 PD 103/52  
 PD 113/52

**IEC**

PM 83/42 PM 93/52  
 PM 93/42 PM 103/52  
 PM 113/52

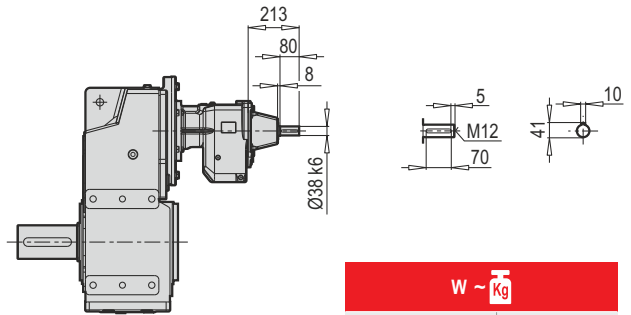
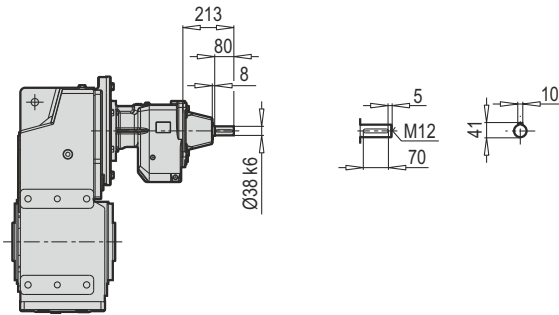


| Tip / Type / Typ                              | IEC | Øa2 | Øb2 | Øe2 | f2  | Øs2 | Ød1 | l1  | t1   | u1 | o   | ~Kg |             |             |             |              |              |
|-----------------------------------------------|-----|-----|-----|-----|-----|-----|-----|-----|------|----|-----|-----|-------------|-------------|-------------|--------------|--------------|
|                                               |     |     |     |     |     |     |     |     |      |    |     | IEC | PD/PM 83/42 | PD/PM 93/42 | PD/PM 93/52 | PD/PM 103/52 | PD/PM 113/52 |
| PD/PM 83/42 - 93/42 - 103/52 - 113/52         | 90  | 200 | 130 | 165 | 4.0 | M10 | 24  | 50  | 27.3 | 8  | 109 | 90  | 433         | 735         | 764         | 1328         | 2182         |
| PD/PM 83/42 - 93/42 - 93/52 - 103/52 - 113/52 | 100 | 250 | 180 | 215 | 5.0 | M12 | 28  | 60  | 31.3 | 8  | 133 | 100 | 441         | 743         | 772         | 1336         | 2190         |
| PD/PM 83/42 - 93/42 - 93/52 - 103/52 - 113/52 | 112 | 250 | 180 | 215 | 5.0 | M12 | 28  | 60  | 31.3 | 8  | 133 | 112 | 441         | 743         | 772         | 1336         | 2190         |
| PD/PM 83/42 - 93/42 - 93/52 - 103/52 - 113/52 | 132 | 300 | 230 | 265 | 5.0 | M12 | 38  | 80  | 41.3 | 10 | 190 | 132 | 455         | 757         | 786         | 1350         | 2230         |
| PD/PM 83/42 - 93/42 - 93/52 - 103/52 - 113/52 | 160 | 350 | 250 | 300 | 6.0 | M16 | 42  | 110 | 45.3 | 12 | 194 | 160 | 465         | 767         | 796         | 1360         | 2240         |
| PD/PM 93/52 - 103/52 - 113/52                 | 180 | 350 | 250 | 300 | 6.0 | M16 | 48  | 110 | 51.8 | 14 | 194 | 180 | 465         | 767         | 796         | 1360         | 2240         |

PD 83/42 PD 93/52  
PD 93/42 PD 103/52  
PD 113/52

**W**

PM 83/42 PM 93/52  
PM 93/42 PM 103/52  
PM 113/52

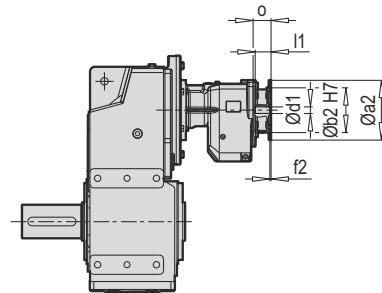
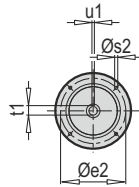
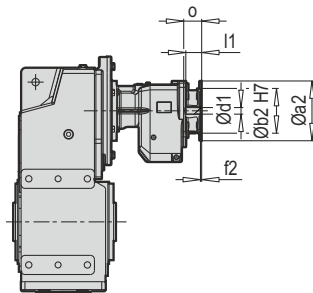


| W - $\bar{K}_g$ |      |
|-----------------|------|
| PD/PM 83/42     | 432  |
| PD/PM 93/42     | 734  |
| PD/PM 93/52     | 763  |
| PD/PM 103/52    | 1327 |
| PD/PM 113/52    | 2181 |

PD 83/42 PD 93/52  
PD 93/42 PD 103/52  
PD 113/52

**PAM B5/B14**

PM 83/42 PM 93/52  
PM 93/42 PM 103/52  
PM 113/52



| Tip / Type / Typ                      | PAM B5 | Øa2 | Øb2 | Øe2 | f2  | Øs2 | Ød1 | l1  | t1   | u1 | o   | $\bar{K}_g$ |             |             |             |              |              |
|---------------------------------------|--------|-----|-----|-----|-----|-----|-----|-----|------|----|-----|-------------|-------------|-------------|-------------|--------------|--------------|
|                                       |        |     |     |     |     |     |     |     |      |    |     | PAM B5      | PD/PM 83/42 | PD/PM 93/42 | PD/PM 93/52 | PD/PM 103/52 | PD/PM 113/52 |
| PD/PM 83/42-93/42-103/52-113/52       | 90     | 200 | 130 | 165 | 4.0 | M10 | 24  | 50  | 27.3 | 8  | 72  | 90          | 433         | 735         | 764         | 1328         | 2182         |
| PD/PM 83/42-93/42-93/52-103/52-113/52 | 100    | 250 | 180 | 215 | 5.0 | M12 | 28  | 60  | 31.3 | 8  | 75  | 100         | 441         | 743         | 772         | 1336         | 2190         |
| PD/PM 83/42-93/42-93/52-103/52-113/52 | 112    | 250 | 180 | 215 | 5.0 | M12 | 28  | 60  | 31.3 | 8  | 75  | 112         | 441         | 743         | 772         | 1336         | 2190         |
| PD/PM 83/42-93/42-93/52-103/52-113/52 | 132    | 300 | 230 | 265 | 5.0 | M12 | 38  | 80  | 41.3 | 10 | 94  | 132         | 455         | 757         | 786         | 1350         | 2230         |
| PD/PM 83/42-93/42-93/52-103/52-113/52 | 160    | 350 | 250 | 300 | 6.0 | M16 | 42  | 110 | 45.3 | 12 | 120 | 160         | 465         | 767         | 796         | 1360         | 2240         |
| PD/PM 93/52-103/52-113/52             | 180    | 350 | 250 | 300 | 6.0 | M16 | 48  | 110 | 51.8 | 14 | 120 | 180         | 465         | 767         | 796         | 1360         | 2240         |

| Tip / Type / Typ                     | PAM B14 | Øa2 | Øb2 | Øe2 | f2  | Øs2 | Ød1 | l1 | t1   | u1 | o  | $\bar{K}_g$ |             |             |             |              |              |
|--------------------------------------|---------|-----|-----|-----|-----|-----|-----|----|------|----|----|-------------|-------------|-------------|-------------|--------------|--------------|
|                                      |         |     |     |     |     |     |     |    |      |    |    | PAM B14     | PD/PM 83/42 | PD/PM 93/42 | PD/PM 93/52 | PD/PM 103/52 | PD/PM 113/52 |
| PD/PM83/42-93/42-103/52-113/52       | 90      | 140 | 95  | 115 | 4.0 | 9   | 24  | 50 | 27.3 | 8  | 72 | 90          | 433         | 735         | 764         | 1328         | 2182         |
| PD/PM83/42-93/42-93/52-103/52-113/52 | 100     | 160 | 110 | 130 | 5.0 | 9   | 28  | 60 | 31.3 | 8  | 75 | 100         | 441         | 743         | 772         | 1336         | 2190         |
| PD/PM83/42-93/42-93/52-103/52-113/52 | 112     | 160 | 110 | 130 | 5.0 | 9   | 28  | 60 | 31.3 | 8  | 75 | 112         | 441         | 743         | 772         | 1336         | 2190         |
| PD/PM83/42-93/42-93/52-103/52-113/52 | 132     | 200 | 130 | 165 | 5.0 | 11  | 38  | 80 | 41.3 | 10 | 94 | 132         | 455         | 757         | 786         | 1350         | 2230         |

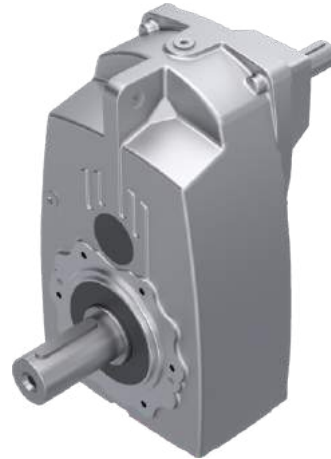
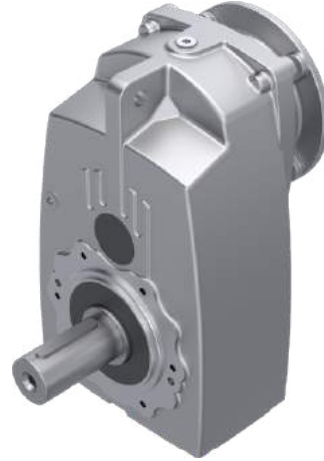
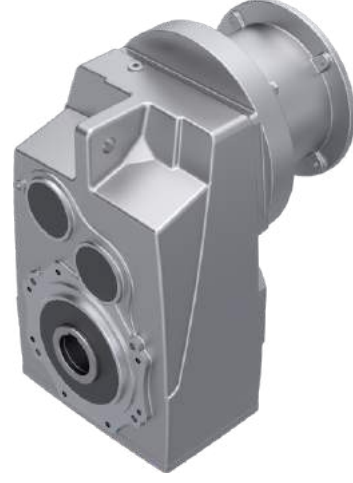


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## W - IEC ve PAM Adaptörü Seçim Tabloları

Selection Of W-IEC and  
PAM Adapters

Auswahltablelle von  
W - PAM - IEC Adapters



**PD/PM**

## TR TEKNİK AÇIKLAMALAR

## EN TECHNICAL DESCRIPTIONS

## DE TECHNISCHE BESCHREIBUNGEN

**W, IEC ve PAM adaptörü performans tabloları yapısı:**  
Performance tables for W - IEC and PAM adapter type  
Der Aufbau der Leistungstabelle für W - IEC und PAM-Adapter

IEC'li ya da PAM adaptörlü girişler için geçerli olan servis faktörü doğrudan motor montajlı redüktörler ile aynıdır. IEC ve PAM montajlı redüktörlerin servis faktörü  $f_B$  motorlu seçim sayılarından bulunabilir.

Service factor  $f_B$  could be checked from selection of geared motor tables. Because this value is the same for geared motor and geared motor with IEC-PAM adapters

Der Betriebsfaktor  $f_B$  für Antriebe mit IEC- oder PAM-Adapter ist der gleiche wie für Getriebe mit Motordirektanschluss. Den Betriebsfaktor  $f_B$  für Getriebe mit IEC- und PAM-Adapter finden Sie auf den Motorauswahltabellen.

Max. Giriş Gücü  
Max. Input Power  
Max. Antriebsleistung

| Tip<br>Type<br>Typ | $i_{ges}$ | 4-pol.<br>50 Hz<br>1400 rpm<br>$n_2$ [ $min^{-1}$ ] | $M_{amax}$<br>$f_B=1$<br>4 - pol.<br>[Nm] | W<br>$P_{1max} - f_B \geq 1$ |                            |                            |                             | IEC - PAM<br>$f_B \Rightarrow$ 77 - 183 |    |     |  |  |  |  |  |  |  |  |  |  |
|--------------------|-----------|-----------------------------------------------------|-------------------------------------------|------------------------------|----------------------------|----------------------------|-----------------------------|-----------------------------------------|----|-----|--|--|--|--|--|--|--|--|--|--|
|                    |           |                                                     |                                           | 4 - pol.<br>1400rpm<br>[kW]  | 6 - pol.<br>930rpm<br>[kW] | 8 - pol.<br>700rpm<br>[kW] | 12 - pol.<br>465rpm<br>[kW] |                                         |    |     |  |  |  |  |  |  |  |  |  |  |
| PD 32<br>PM 32     | 112.23    | 12.50                                               | 770                                       | 1.01                         | 0.67                       | 0.50                       | 0.33                        | 71                                      | 80 | 90* |  |  |  |  |  |  |  |  |  |  |
|                    | 100.85    | 13.90                                               | 807                                       | 1.17                         | 0.78                       | 0.59                       | 0.39                        | 71                                      | 80 | 90* |  |  |  |  |  |  |  |  |  |  |
|                    | 88.74     | 15.80                                               | 945                                       | 1.56                         | 1.04                       | 0.78                       | 0.52                        |                                         | 80 | 90  |  |  |  |  |  |  |  |  |  |  |
|                    | 79.75     | 17.60                                               | 850                                       | 1.56                         | 1.04                       | 0.78                       | 0.52                        |                                         | 80 | 90  |  |  |  |  |  |  |  |  |  |  |
|                    | 70.52     | 19.90                                               | 564                                       | 1.17                         | 0.78                       | 0.59                       | 0.39                        | 71                                      | 80 | 90* |  |  |  |  |  |  |  |  |  |  |
|                    | 65.91     | 21.20                                               | 758                                       | 1.69                         | 1.12                       | 0.84                       | 0.56                        |                                         | 80 | 90  |  |  |  |  |  |  |  |  |  |  |
|                    | 64.11     | 21.80                                               | 1015                                      | 2.32                         | 1.54                       | 1.16                       | 0.77                        |                                         |    |     |  |  |  |  |  |  |  |  |  |  |
|                    |           |                                                     |                                           |                              | 9.20                       | 6.07                       | 4.60                        | 3.04                                    |    |     |  |  |  |  |  |  |  |  |  |  |
|                    |           |                                                     |                                           | 9.20                         | 6.07                       | 4.60                       | 3.04                        |                                         |    |     |  |  |  |  |  |  |  |  |  |  |

**Tip W azami tahrik gücü hesaplanırken italik olmayan değerler alınmıştır.  $P_{1max}$  ile  $f_B = 1$**

$P_{1max}$  value which is non-italic is calculated when service factor  $f_B$  is equal to one.

Bei der Berechnung der maximalen Antriebsleistung des Typs W wurden nicht kursive Werte verwendet.  $P_{1max}$  und  $f_B = 1$

**$P_{1max}$  hesaplanırken italik olan değerlerde  $f_B > 1$  alınmıştır.**

$P_{1max}$  value which is *italic*, is calculated when service factor  $f_B$  is greater than one.

Bei der Berechnung von  $P_{1max}$  wurden für kursiv gedruckte Werte  $f_B > 1$  verwendet.

**Max. çıkış momenti**  
Max. output torque  
Abtriebsdrehmoment

**Çıkış Devri**  
Output speed  
Leistungsgeschwindigkeit

**Redüktör Tahvili**  
Reduction ratio  
Verkleinerungsfaktor

**Redüktör Tipi**  
Gear unit type  
Getriebetyp

**IEC motor büyüklükleri ve IEC standart çıkışları DIN EN 50347' e göre dir.**  
IEC motor sizes and IEC standart outputs as per DIN EN 50347  
IEC-Motorgößen und IEC-Standard-Abtriebe entsprechen DIN EN 50347.

**Yıldız işareti : Dikkat Tip W sütunundaki  $P_{1max}$  değerlerini aşmamalıdır.**

Asterix indicates:  
caution, don't exceed the max. driver power  $P_{1max}$  as per Type W column










\*: Achtung  $P_{1max}$  in Spalte W darf nicht überschritten werden.

**Rakamlı alanlar IEC adaptörünün, IEC motor büyüklüğü ve tahvil oranına uygun olduğunu belirtir.**

This area which is colorless is shown IEC adapter is applicable for this IEC motor size and reduction ratio.










Digitale Bereichen zeigen, dass IEC Adapter für IEC Motorgöße und der Wechselkurse ist.

|    |    |
|----|----|
| 71 | 80 |
| 71 | 80 |
|    | 80 |
|    | 80 |
|    | 80 |

| Tip<br>Type<br>Typ                                                                                                                                                                                                                                                                                                                                                                                                              | i <sub>ges</sub> | 4-pol.<br>50 Hz<br>1400 rpm<br>n <sub>2</sub> [min <sup>-1</sup> ] | M <sub>amax</sub><br>f <sub>B</sub> =1<br>4 - pol.<br>[Nm] | W<br>P <sub>1max</sub> - f <sub>B</sub> ≥ 1 |                            |                            |                             | IEC - PAM<br>f <sub>B</sub> ⇔  77 - 183 |     |     |     |  |  |  |  |  |  |  |  |  |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------|--------------------------------------------------------------------|------------------------------------------------------------|---------------------------------------------|----------------------------|----------------------------|-----------------------------|----------------------------------------------------------------------------------------------------------------------------|-----|-----|-----|--|--|--|--|--|--|--|--|--|
|                                                                                                                                                                                                                                                                                                                                                                                                                                 |                  |                                                                    |                                                            | 4 - pol.<br>1400rpm<br>[kW]                 | 6 - pol.<br>930rpm<br>[kW] | 8 - pol.<br>700rpm<br>[kW] | 12 - pol.<br>465rpm<br>[kW] |                                                                                                                            |     |     |     |  |  |  |  |  |  |  |  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                 |                  |                                                                    |                                                            |                                             |                            |                            |                             | 63                                                                                                                         | 71* | 80* | 90* |  |  |  |  |  |  |  |  |  |
| <b>PD A02</b><br><b>PM A02</b><br><br><br> 187<br>+<br><b>IEC - PAM</b><br><br> 187         | 81.73            | 17.10                                                              | 65                                                         | 0.12                                        | 0.08                       | 0.06                       | 0.04                        | 63                                                                                                                         |     |     |     |  |  |  |  |  |  |  |  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                 | 59.32            | 23.60                                                              | 110                                                        | 0.27                                        | 0.18                       | 0.14                       | 0.09                        | 63                                                                                                                         | 71* |     |     |  |  |  |  |  |  |  |  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                 | 49.62            | 28.20                                                              | 100                                                        | 0.30                                        | 0.20                       | 0.15                       | 0.10                        | 63                                                                                                                         | 71* |     |     |  |  |  |  |  |  |  |  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                 | 41.88            | 33.40                                                              | 85                                                         | 0.30                                        | 0.20                       | 0.15                       | 0.10                        | 63                                                                                                                         | 71* |     |     |  |  |  |  |  |  |  |  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                 | 37.71            | 37.10                                                              | 100                                                        | 0.39                                        | 0.26                       | 0.19                       | 0.13                        | 63                                                                                                                         | 71  | 80* |     |  |  |  |  |  |  |  |  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                 | 34.80            | 40.20                                                              | 103                                                        | 0.43                                        | 0.29                       | 0.22                       | 0.14                        | 63                                                                                                                         | 71  | 80* |     |  |  |  |  |  |  |  |  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                 | 31.83            | 44.00                                                              | 95                                                         | 0.44                                        | 0.29                       | 0.22                       | 0.15                        | 63                                                                                                                         | 71  | 80* |     |  |  |  |  |  |  |  |  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                 | 29.11            | 48.10                                                              | 110                                                        | 0.55                                        | 0.37                       | 0.28                       | 0.18                        | 63                                                                                                                         | 71  | 80* |     |  |  |  |  |  |  |  |  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                 | 24.57            | 57.00                                                              | 116                                                        | 0.69                                        | 0.46                       | 0.35                       | 0.23                        | 63                                                                                                                         | 71  | 80* |     |  |  |  |  |  |  |  |  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                 | 22.34            | 62.70                                                              | 109                                                        | 0.72                                        | 0.48                       | 0.36                       | 0.24                        | 63                                                                                                                         | 71  | 80* |     |  |  |  |  |  |  |  |  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                 | 18.77            | 74.60                                                              | 95                                                         | 0.74                                        | 0.49                       | 0.37                       | 0.25                        | 63                                                                                                                         | 71  | 80  |     |  |  |  |  |  |  |  |  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                 | <b>16.54</b>     | <b>84.60</b>                                                       | 100                                                        | 0.89                                        | 0.59                       | 0.44                       | 0.29                        | 63                                                                                                                         | 71  | 80  | 90* |  |  |  |  |  |  |  |  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                 | 14.91            | 93.90                                                              | 75                                                         | 0.74                                        | 0.49                       | 0.37                       | 0.24                        | 63                                                                                                                         | 71  | 80* |     |  |  |  |  |  |  |  |  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                 | <b>13.83</b>     | <b>101.20</b>                                                      | 110                                                        | 1.17                                        | 0.77                       | 0.58                       | 0.39                        | 63                                                                                                                         | 71  | 80  | 90* |  |  |  |  |  |  |  |  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                 | <b>11.67</b>     | <b>120.00</b>                                                      | 110                                                        | 1.38                                        | 0.92                       | 0.69                       | 0.46                        | 63                                                                                                                         | 71  | 80  | 90* |  |  |  |  |  |  |  |  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                 | <b>9.49</b>      | <b>147.50</b>                                                      | 110                                                        | 1.50                                        | 0.99                       | 0.75                       | 0.50                        | 63                                                                                                                         | 71  | 80  | 90  |  |  |  |  |  |  |  |  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                 | <b>8.63</b>      | <b>162.20</b>                                                      | 114                                                        | 1.50                                        | 0.99                       | 0.75                       | 0.50                        | 63                                                                                                                         | 71  | 80  | 90  |  |  |  |  |  |  |  |  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                 | <b>7.25</b>      | <b>193.10</b>                                                      | 112                                                        | 1.50                                        | 0.99                       | 0.75                       | 0.50                        | 63                                                                                                                         | 71  | 80  | 90  |  |  |  |  |  |  |  |  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                 | <b>6.35</b>      | <b>220.50</b>                                                      | 110                                                        | 1.50                                        | 0.99                       | 0.75                       | 0.50                        | 63                                                                                                                         | 71  | 80  | 90  |  |  |  |  |  |  |  |  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                 | <b>5.33</b>      | <b>262.70</b>                                                      | 92                                                         | 1.50                                        | 0.99                       | 0.75                       | 0.50                        | 63                                                                                                                         | 71  | 80  | 90  |  |  |  |  |  |  |  |  |  |
| <b>4.24</b>                                                                                                                                                                                                                                                                                                                                                                                                                     | <b>330.20</b>    | 73                                                                 | 1.50                                                       | 0.99                                        | 0.75                       | 0.50                       | 63                          | 71                                                                                                                         | 80  | 90  |     |  |  |  |  |  |  |  |  |  |
| <b>PD B02</b><br><b>PM B02</b><br><br><br> 189<br>+<br><b>IEC - PAM</b><br><br> 189 | 139.15           | 10.10                                                              | 110                                                        | 0.12                                        | 0.08                       | 0.06                       | 0.04                        | 63*                                                                                                                        |     |     |     |  |  |  |  |  |  |  |  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                 | 103.09           | 13.60                                                              | 129                                                        | 0.18                                        | 0.12                       | 0.09                       | 0.06                        | 63                                                                                                                         | 71* |     |     |  |  |  |  |  |  |  |  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                 | 85.67            | 16.30                                                              | 140                                                        | 0.24                                        | 0.16                       | 0.12                       | 0.08                        | 63                                                                                                                         | 71* |     |     |  |  |  |  |  |  |  |  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                 | 79.42            | 17.60                                                              | 129                                                        | 0.24                                        | 0.16                       | 0.12                       | 0.08                        | 63                                                                                                                         | 71* | 80* |     |  |  |  |  |  |  |  |  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                 | 66.00            | 21.20                                                              | 140                                                        | 0.31                                        | 0.21                       | 0.16                       | 0.10                        | 63                                                                                                                         | 71* | 80* |     |  |  |  |  |  |  |  |  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                 | 56.55            | 24.80                                                              | 160                                                        | 0.41                                        | 0.28                       | 0.21                       | 0.14                        | 63                                                                                                                         | 71  | 80* |     |  |  |  |  |  |  |  |  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                 | 51.60            | 27.10                                                              | 146                                                        | 0.41                                        | 0.28                       | 0.21                       | 0.14                        | 63                                                                                                                         | 71  | 80* |     |  |  |  |  |  |  |  |  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                 | 44.23            | 31.70                                                              | 164                                                        | 0.54                                        | 0.36                       | 0.27                       | 0.18                        | 63                                                                                                                         | 71  | 80* |     |  |  |  |  |  |  |  |  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                 | 40.35            | 34.70                                                              | 165                                                        | 0.60                                        | 0.40                       | 0.30                       | 0.20                        | 63                                                                                                                         | 71  | 80* |     |  |  |  |  |  |  |  |  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                 | 34.16            | 41.00                                                              | 153                                                        | 0.66                                        | 0.44                       | 0.33                       | 0.22                        | 63                                                                                                                         | 71  | 80* |     |  |  |  |  |  |  |  |  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                 | <b>30.08</b>     | <b>46.50</b>                                                       | 129                                                        | 0.63                                        | 0.42                       | 0.31                       | 0.21                        | 63                                                                                                                         | 71  | 80* | 90* |  |  |  |  |  |  |  |  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                 | <b>25.96</b>     | <b>53.90</b>                                                       | 129                                                        | 0.73                                        | 0.48                       | 0.36                       | 0.24                        | 63                                                                                                                         | 71  | 80* | 90* |  |  |  |  |  |  |  |  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                 | <b>22.68</b>     | <b>61.70</b>                                                       | 129                                                        | 0.83                                        | 0.55                       | 0.42                       | 0.28                        | 63                                                                                                                         | 71  | 80  | 90* |  |  |  |  |  |  |  |  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                 | <b>21.58</b>     | <b>64.90</b>                                                       | 140                                                        | 0.95                                        | 0.63                       | 0.48                       | 0.32                        | 63                                                                                                                         | 71  | 80  | 90* |  |  |  |  |  |  |  |  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                 | <b>19.94</b>     | <b>70.20</b>                                                       | 129                                                        | 0.95                                        | 0.63                       | 0.47                       | 0.32                        | 63                                                                                                                         | 71  | 80  | 90* |  |  |  |  |  |  |  |  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                 | <b>17.62</b>     | <b>79.50</b>                                                       | 129                                                        | 1.07                                        | 0.71                       | 0.54                       | 0.36                        | 63                                                                                                                         | 71  | 80  | 90* |  |  |  |  |  |  |  |  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                 | <b>16.57</b>     | <b>84.50</b>                                                       | 140                                                        | 1.24                                        | 0.82                       | 0.62                       | 0.41                        | 63                                                                                                                         | 71  | 80  | 90* |  |  |  |  |  |  |  |  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                 | <b>14.20</b>     | <b>98.60</b>                                                       | 163                                                        | 1.50                                        | 0.99                       | 0.75                       | 0.50                        | 63                                                                                                                         | 71  | 80  | 90  |  |  |  |  |  |  |  |  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                 | <b>12.96</b>     | <b>108.00</b>                                                      | 160                                                        | 1.50                                        | 0.99                       | 0.75                       | 0.50                        | 63                                                                                                                         | 71  | 80  | 90  |  |  |  |  |  |  |  |  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                 | <b>11.28</b>     | <b>124.10</b>                                                      | 140                                                        | 1.50                                        | 0.99                       | 0.75                       | 0.50                        | 63                                                                                                                         | 71  | 80  | 90  |  |  |  |  |  |  |  |  |  |
| <b>10.97</b>                                                                                                                                                                                                                                                                                                                                                                                                                    | <b>127.60</b>    | 152                                                                | 1.50                                                       | 0.99                                        | 0.75                       | 0.50                       | 63                          | 71                                                                                                                         | 80  | 90  |     |  |  |  |  |  |  |  |  |  |
| <b>9.67</b>                                                                                                                                                                                                                                                                                                                                                                                                                     | <b>144.80</b>    | 141                                                                | 1.50                                                       | 0.99                                        | 0.75                       | 0.50                       | 63                          | 71                                                                                                                         | 80  | 90  |     |  |  |  |  |  |  |  |  |  |
| <b>8.82</b>                                                                                                                                                                                                                                                                                                                                                                                                                     | <b>158.70</b>    | 138                                                                | 1.50                                                       | 0.99                                        | 0.75                       | 0.50                       | 63                          | 71                                                                                                                         | 80  | 90  |     |  |  |  |  |  |  |  |  |  |
| <b>7.47</b>                                                                                                                                                                                                                                                                                                                                                                                                                     | <b>187.40</b>    | 131                                                                | 1.50                                                       | 0.99                                        | 0.75                       | 0.50                       | 63                          | 71                                                                                                                         | 80  | 90  |     |  |  |  |  |  |  |  |  |  |
| <b>6.43</b>                                                                                                                                                                                                                                                                                                                                                                                                                     | <b>217.70</b>    | 123                                                                | 1.50                                                       | 0.99                                        | 0.75                       | 0.50                       | 63                          | 71                                                                                                                         | 80  | 90  |     |  |  |  |  |  |  |  |  |  |
| <b>6.00</b>                                                                                                                                                                                                                                                                                                                                                                                                                     | <b>233.30</b>    | 121                                                                | 1.50                                                       | 0.99                                        | 0.75                       | 0.50                       | 63                          | 71                                                                                                                         | 80  | 90  |     |  |  |  |  |  |  |  |  |  |
| <b>5.17</b>                                                                                                                                                                                                                                                                                                                                                                                                                     | <b>270.80</b>    | 114                                                                | 1.50                                                       | 0.99                                        | 0.75                       | 0.50                       | 63                          | 71                                                                                                                         | 80  | 90  |     |  |  |  |  |  |  |  |  |  |
| <b>4.67</b>                                                                                                                                                                                                                                                                                                                                                                                                                     | <b>299.80</b>    | 110                                                                | 1.50                                                       | 0.99                                        | 0.75                       | 0.50                       | 63                          | 71                                                                                                                         | 80  | 90  |     |  |  |  |  |  |  |  |  |  |
| <b>4.02</b>                                                                                                                                                                                                                                                                                                                                                                                                                     | <b>348.30</b>    | 103                                                                | 1.50                                                       | 0.99                                        | 0.75                       | 0.50                       | 63                          | 71                                                                                                                         | 80  | 90  |     |  |  |  |  |  |  |  |  |  |

- IEC - PAM bağlantısı yoktur / No IEC - PAM assembling on empty fields / Keine IEC - PAM-Verbindung
- 63 IEC - PAM bağlantısı yapılır / IEC - PAM assembling available on numbered fields / IEC - PAM-Verbindung möglich
- 80\* IEC - PAM bağlantısı yapılacaksa P<sub>1max</sub> değerleri aşılmamalıdır - Do not exceed the P<sub>1max</sub> values indicated on fields with asterisk / Bei IEC - PAM-Verbindungen, sollten die P<sub>1max</sub>-Werte nicht überschritten werden.




| Tip<br>Type<br>Typ                                                                                                                                                                                                                                                                                                                                                                                                              | i <sub>ges</sub>                                                                                                                                                                                                                                                                                                                                                                                                      | 4-pol.<br>50 Hz<br>1400 rpm<br>n <sub>2</sub> [min <sup>-1</sup> ] | M <sub>amax</sub><br>f <sub>B</sub> =1<br>4 - pol.<br>[Nm] | W<br>P <sub>1max</sub> - f <sub>B</sub> ≥ 1 |                            |                            |                             | IEC - PAM<br>f <sub>B</sub> ⇔  77 - 183 |     |     |      |      |  |  |  |  |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------|------------------------------------------------------------|---------------------------------------------|----------------------------|----------------------------|-----------------------------|----------------------------------------------------------------------------------------------------------------------------|-----|-----|------|------|--|--|--|--|
|                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                    |                                                            | 4 - pol.<br>1400rpm<br>[kW]                 | 6 - pol.<br>930rpm<br>[kW] | 8 - pol.<br>700rpm<br>[kW] | 12 - pol.<br>465rpm<br>[kW] |                                                                                                                            |     |     |      |      |  |  |  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                    |                                                            |                                             |                            |                            |                             | 63*                                                                                                                        | 71* |     |      |      |  |  |  |  |
| <b>PD 12/02</b><br><b>PM 12/02</b><br><br><br> 239<br>+<br><b>IEC - PAM</b><br><br> 238-239 | 3607.45                                                                                                                                                                                                                                                                                                                                                                                                               | 0.39                                                               | 290                                                        | 0.05                                        | 0.03                       | 0.03                       | 0.02                        | 63*                                                                                                                        | 71* |     |      |      |  |  |  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                 | 2448.00                                                                                                                                                                                                                                                                                                                                                                                                               | 0.57                                                               | 290                                                        | 0.06                                        | 0.04                       | 0.03                       | 0.02                        | 63*                                                                                                                        | 71* |     |      |      |  |  |  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                 | 1965.82                                                                                                                                                                                                                                                                                                                                                                                                               | 0.71                                                               | 290                                                        | 0.06                                        | 0.04                       | 0.03                       | 0.02                        | 63*                                                                                                                        | 71* |     |      |      |  |  |  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                 | 1621.40                                                                                                                                                                                                                                                                                                                                                                                                               | 0.86                                                               | 290                                                        | 0.07                                        | 0.04                       | 0.03                       | 0.02                        | 63*                                                                                                                        | 71* |     |      |      |  |  |  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                 | 1363.09                                                                                                                                                                                                                                                                                                                                                                                                               | 1.00                                                               | 290                                                        | 0.07                                        | 0.05                       | 0.04                       | 0.02                        | 63*                                                                                                                        | 71* |     |      |      |  |  |  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                 | <b>1064.65</b>                                                                                                                                                                                                                                                                                                                                                                                                        | <b>1.30</b>                                                        | 290                                                        | 0.08                                        | 0.05                       | 0.04                       | 0.03                        | 63*                                                                                                                        | 71* | 80* | 90*  |      |  |  |  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                 | <b>824.73</b>                                                                                                                                                                                                                                                                                                                                                                                                         | <b>1.70</b>                                                        | 290                                                        | 0.09                                        | 0.06                       | 0.05                       | 0.03                        | 63*                                                                                                                        | 71* | 80* | 90*  |      |  |  |  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                 | <b>662.28</b>                                                                                                                                                                                                                                                                                                                                                                                                         | <b>2.10</b>                                                        | 290                                                        | 0.10                                        | 0.07                       | 0.05                       | 0.03                        | 63*                                                                                                                        | 71* | 80* | 90*  |      |  |  |  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                 | <b>546.25</b>                                                                                                                                                                                                                                                                                                                                                                                                         | <b>2.60</b>                                                        | 290                                                        | 0.12                                        | 0.08                       | 0.06                       | 0.04                        | 63*                                                                                                                        | 71* | 80* | 90*  |      |  |  |  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                 | <b>405.92</b>                                                                                                                                                                                                                                                                                                                                                                                                         | <b>3.40</b>                                                        | 290                                                        | 0.14                                        | 0.09                       | 0.07                       | 0.05                        | 63*                                                                                                                        | 71* | 80* | 90*  |      |  |  |  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                 | <b>328.02</b>                                                                                                                                                                                                                                                                                                                                                                                                         | <b>4.30</b>                                                        | 290                                                        | 0.17                                        | 0.11                       | 0.08                       | 0.06                        | 63*                                                                                                                        | 71* | 80* | 90*  |      |  |  |  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                 | <b>284.03</b>                                                                                                                                                                                                                                                                                                                                                                                                         | <b>4.90</b>                                                        | 290                                                        | 0.19                                        | 0.12                       | 0.09                       | 0.06                        | 63                                                                                                                         | 71* | 80* | 90*  |      |  |  |  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                 | <b>229.52</b>                                                                                                                                                                                                                                                                                                                                                                                                         | <b>6.10</b>                                                        | 290                                                        | 0.23                                        | 0.15                       | 0.11                       | 0.07                        | 63                                                                                                                         | 71* | 80* | 90*  |      |  |  |  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                 | <b>PD C13</b><br><b>PM C13</b><br><br><br> 191<br>+<br><b>IEC</b><br><br> 191 | 380.81                                                             | 3.70                                                       | 370                                         | 0.14                       | 0.09                       | 0.07                        | 0.05                                                                                                                       | 63* | 71* |      |      |  |  |  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                                                                                                                                                                                                                                                                                                                                                                       | 301.44                                                             | 4.60                                                       | 370                                         | 0.18                       | 0.12                       | 0.09                        | 0.06                                                                                                                       | 63  | 71* | 80*  | 90*  |  |  |  |  |
| 257.36                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                                                                                                                                                                                                                                                                                                                                                       | 5.40                                                               | 370                                                        | 0.21                                        | 0.14                       | 0.11                       | 0.07                        | 63                                                                                                                         | 71* |     |      |      |  |  |  |  |
| 203.72                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                                                                                                                                                                                                                                                                                                                                                       | 6.90                                                               | 370                                                        | 0.27                                        | 0.18                       | 0.13                       | 0.09                        | 63                                                                                                                         | 71* | 80* | 90*  |      |  |  |  |  |
| 158.21                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                                                                                                                                                                                                                                                                                                                                                       | 8.80                                                               | 370                                                        | 0.34                                        | 0.23                       | 0.17                       | 0.11                        | 63                                                                                                                         | 71* | 80* | 90*  |      |  |  |  |  |
| 136.54                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                                                                                                                                                                                                                                                                                                                                                       | 10.30                                                              | 370                                                        | 0.40                                        | 0.26                       | 0.20                       | 0.13                        | 63                                                                                                                         | 71  | 80* | 90*  |      |  |  |  |  |
| <b>118.07</b>                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                       | <b>11.90</b>                                                       | 370                                                        | 0.46                                        | 0.30                       | 0.23                       | 0.15                        | 63                                                                                                                         | 71  | 80* | 90*  |      |  |  |  |  |
| 106.03                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                                                                                                                                                                                                                                                                                                                                                       | 13.20                                                              | 370                                                        | 0.51                                        | 0.34                       | 0.26                       | 0.17                        | 63                                                                                                                         | 71  | 80* | 90*  |      |  |  |  |  |
| <b>101.01</b>                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                       | <b>13.90</b>                                                       | 370                                                        | 0.54                                        | 0.36                       | 0.27                       | 0.18                        | 63                                                                                                                         | 71  | 80* | 90*  |      |  |  |  |  |
| <b>88.92</b>                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                                                                                                                                                                                                       | <b>15.70</b>                                                       | 370                                                        | 0.61                                        | 0.41                       | 0.30                       | 0.20                        | 63                                                                                                                         | 71  | 80* | 90*  |      |  |  |  |  |
| <b>78.83</b>                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                                                                                                                                                                                                       | <b>17.80</b>                                                       | 370                                                        | 0.69                                        | 0.46                       | 0.34                       | 0.23                        | 63                                                                                                                         | 71  | 80* | 90*  | 100* |  |  |  |  |
| <b>68.27</b>                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                                                                                                                                                                                                       | <b>20.50</b>                                                       | 370                                                        | 0.79                                        | 0.53                       | 0.40                       | 0.26                        | 63                                                                                                                         | 71  | 80  | 90*  |      |  |  |  |  |
| <b>60.09</b>                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                                                                                                                                                                                                       | <b>23.30</b>                                                       | 370                                                        | 0.90                                        | 0.60                       | 0.45                       | 0.30                        | 63                                                                                                                         | 71  | 80  | 90*  |      |  |  |  |  |
| <b>53.28</b>                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                                                                                                                                                                                                       | <b>26.30</b>                                                       | 357                                                        | 0.98                                        | 0.65                       | 0.49                       | 0.33                        | 63                                                                                                                         | 71  | 80  | 90*  | 100* |  |  |  |  |
| <b>44.33</b>                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                                                                                                                                                                                                       | <b>31.60</b>                                                       | 337                                                        | 1.11                                        | 0.74                       | 0.56                       | 0.37                        | 63                                                                                                                         | 71  | 80  | 90*  | 100* |  |  |  |  |
| <b>38.83</b>                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                                                                                                                                                                                                       | <b>36.10</b>                                                       | 324                                                        | 1.23                                        | 0.81                       | 0.61                       | 0.41                        | 63                                                                                                                         | 71  | 80  | 90*  | 100* |  |  |  |  |
| <b>35.71</b>                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                                                                                                                                                                                                       | <b>39.20</b>                                                       | 300                                                        | 1.23                                        | 0.82                       | 0.62                       | 0.41                        | 63                                                                                                                         | 71  | 80  | 90*  | 100* |  |  |  |  |
| <b>29.71</b>                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                                                                                                                                                                                                       | <b>47.10</b>                                                       | 282                                                        | 1.39                                        | 0.92                       | 0.69                       | 0.46                        | 63                                                                                                                         | 71  | 80  | 90*  | 100* |  |  |  |  |
| <b>26.02</b>                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                                                                                                                                                                                                       | <b>53.80</b>                                                       | 271                                                        | 1.53                                        | 1.01                       | 0.76                       | 0.51                        | 63                                                                                                                         | 71  | 80  | 90   | 100* |  |  |  |  |
| <b>24.17</b>                                                                                                                                                                                                                                                                                                                                                                                                                    | <b>57.90</b>                                                                                                                                                                                                                                                                                                                                                                                                          | 277                                                                | 1.67                                                       | 1.11                                        | 0.84                       | 0.56                       |                             |                                                                                                                            | 80  | 90  | 100* |      |  |  |  |  |
| <b>18.76</b>                                                                                                                                                                                                                                                                                                                                                                                                                    | <b>74.60</b>                                                                                                                                                                                                                                                                                                                                                                                                          | 243                                                                | 1.90                                                       | 1.26                                        | 0.95                       | 0.63                       |                             |                                                                                                                            | 80  | 90  | 100* |      |  |  |  |  |
| <b>16.20</b>                                                                                                                                                                                                                                                                                                                                                                                                                    | <b>86.40</b>                                                                                                                                                                                                                                                                                                                                                                                                          | 231                                                                | 2.08                                                       | 1.38                                        | 1.04                       | 0.69                       |                             |                                                                                                                            | 80  | 90  | 100* |      |  |  |  |  |

IEC - PAM bağlantısı yoktur / No IEC - PAM assembling on empty fields / Keine IEC - PAM-Verbindung

63 IEC - PAM bağlantısı yapılır / IEC - PAM assembling available on numbered fields / IEC - PAM-Verbindung möglich










80\* IEC - PAM bağlantısı yapılacaksa P<sub>1max</sub> değerleri aşılmamalıdır - Do not exceed the P<sub>1max</sub> values indicated on fields with asterisk / Bei IEC - PAM-Verbindungen, sollten die P<sub>1max</sub>-Werte nicht überschritten werden.

| Tip<br>Type<br>Typ           | i <sub>ges</sub> | 4-pol.<br>50 Hz<br>1400 rpm<br>n <sub>2</sub> [min <sup>-1</sup> ] | M <sub>amax</sub><br>f <sub>B</sub> =1<br>4 - pol.<br>[Nm] | W<br>P <sub>1max</sub> - f <sub>B</sub> ≥ 1 |                            |                            |                             | IEC - PAM<br>f <sub>B</sub> ⇒  77 - 183 |     |     |     |      |      |  |  |  |  |
|------------------------------|------------------|--------------------------------------------------------------------|------------------------------------------------------------|---------------------------------------------|----------------------------|----------------------------|-----------------------------|----------------------------------------------------------------------------------------------------------------------------|-----|-----|-----|------|------|--|--|--|--|
|                              |                  |                                                                    |                                                            | 4 - pol.<br>1400rpm<br>[kW]                 | 6 - pol.<br>930rpm<br>[kW] | 8 - pol.<br>700rpm<br>[kW] | 12 - pol.<br>465rpm<br>[kW] |                                                                                                                            |     |     |     |      |      |  |  |  |  |
|                              |                  |                                                                    |                                                            |                                             |                            |                            |                             |                                                                                                                            |     |     |     | 63*  | 71*  |  |  |  |  |
| <b>PD 13</b><br><b>PM 13</b> | 633.80           | 2.20                                                               | 222                                                        | 0.05                                        | 0.03                       | 0.03                       | 0.02                        | 63*                                                                                                                        | 71* |     |     |      |      |  |  |  |  |
|                              | 556.59           | 2.50                                                               | 225                                                        | 0.06                                        | 0.04                       | 0.03                       | 0.02                        | 63*                                                                                                                        | 71* |     |     |      |      |  |  |  |  |
|                              | 472.42           | 3.00                                                               | 225                                                        | 0.07                                        | 0.05                       | 0.03                       | 0.02                        | 63*                                                                                                                        | 71* |     |     |      |      |  |  |  |  |
|                              | 414.87           | 3.40                                                               | 225                                                        | 0.08                                        | 0.05                       | 0.04                       | 0.03                        | 63*                                                                                                                        | 71* |     |     |      |      |  |  |  |  |
|                              | 368.83           | 3.80                                                               | 225                                                        | 0.09                                        | 0.06                       | 0.04                       | 0.03                        | 63*                                                                                                                        | 71* |     |     |      |      |  |  |  |  |
|                              | 301.08           | 4.60                                                               | 270                                                        | 0.13                                        | 0.09                       | 0.07                       | 0.04                        | 63*                                                                                                                        | 71* |     |     |      |      |  |  |  |  |
|                              | 251.58           | 5.60                                                               | 274                                                        | 0.16                                        | 0.11                       | 0.08                       | 0.05                        | 63*                                                                                                                        | 71* |     |     |      |      |  |  |  |  |
|                              | 209.76           | 6.70                                                               | 235                                                        | 0.16                                        | 0.11                       | 0.08                       | 0.05                        | 63*                                                                                                                        | 71* |     |     |      |      |  |  |  |  |
|                              | 163.92           | 8.50                                                               | 225                                                        | 0.20                                        | 0.13                       | 0.10                       | 0.07                        | 63                                                                                                                         | 71* |     |     |      |      |  |  |  |  |
|                              | 129.01           | 10.90                                                              | 225                                                        | 0.26                                        | 0.17                       | 0.13                       | 0.08                        | 63                                                                                                                         | 71* |     |     |      |      |  |  |  |  |
| 105.32                       | 13.30            | 270                                                                | 0.37                                                       | 0.24                                        | 0.19                       | 0.12                       | 63                          | 71                                                                                                                         |     |     |     |      |      |  |  |  |  |
| 88.00                        | 15.90            | 274                                                                | 0.37                                                       | 0.24                                        | 0.19                       | 0.12                       | 63                          | 71                                                                                                                         |     |     |     |      |      |  |  |  |  |
| <b>PD 12</b><br><b>PM 12</b> | 109.45           | 12.80                                                              | 209                                                        | 0.28                                        | 0.19                       | 0.14                       | 0.09                        | 63                                                                                                                         | 71* |     |     |      |      |  |  |  |  |
|                              | 92.43            | 15.10                                                              | 232                                                        | 0.37                                        | 0.24                       | 0.18                       | 0.12                        | 63                                                                                                                         | 71* |     |     |      |      |  |  |  |  |
|                              | 81.17            | 17.20                                                              | 296                                                        | 0.53                                        | 0.36                       | 0.27                       | 0.18                        | 63                                                                                                                         | 71  |     |     |      |      |  |  |  |  |
|                              | 72.16            | 19.40                                                              | 296                                                        | 0.60                                        | 0.40                       | 0.30                       | 0.20                        |                                                                                                                            | 71  | 80* | 90* |      |      |  |  |  |  |
|                              | 66.26            | 21.10                                                              | 270                                                        | 0.60                                        | 0.40                       | 0.30                       | 0.20                        | 63                                                                                                                         | 71  |     |     |      |      |  |  |  |  |
|                              | 58.91            | 23.80                                                              | 283                                                        | 0.70                                        | 0.47                       | 0.35                       | 0.23                        |                                                                                                                            | 71  | 80* | 90* |      |      |  |  |  |  |
|                              | 55.37            | 25.30                                                              | 235                                                        | 0.62                                        | 0.41                       | 0.31                       | 0.21                        | 63                                                                                                                         | 71  |     |     |      |      |  |  |  |  |
|                              | 49.22            | 28.40                                                              | 260                                                        | 0.77                                        | 0.51                       | 0.39                       | 0.26                        |                                                                                                                            | 71  | 80  | 90* |      |      |  |  |  |  |
|                              | 46.16            | 30.30                                                              | 196                                                        | 0.62                                        | 0.41                       | 0.31                       | 0.21                        | 63                                                                                                                         | 71  |     |     |      |      |  |  |  |  |
|                              | 41.04            | 34.10                                                              | 217                                                        | 0.78                                        | 0.51                       | 0.39                       | 0.26                        |                                                                                                                            | 71  | 80  | 90* |      |      |  |  |  |  |
|                              | <b>32.07</b>     | <b>43.70</b>                                                       | 230                                                        | 1.05                                        | 0.70                       | 0.53                       | 0.35                        | 63                                                                                                                         | 71  | 80  | 90* |      |      |  |  |  |  |
|                              | <b>28.35</b>     | <b>49.40</b>                                                       | 225                                                        | 1.16                                        | 0.77                       | 0.58                       | 0.39                        | 63                                                                                                                         | 71  | 80  | 90* |      |      |  |  |  |  |
|                              | <b>25.24</b>     | <b>55.50</b>                                                       | 225                                                        | 1.31                                        | 0.87                       | 0.65                       | 0.43                        | 63                                                                                                                         | 71  | 80  | 90* | 100* | 112* |  |  |  |  |
|                              | <b>20.61</b>     | <b>67.90</b>                                                       | 225                                                        | 1.60                                        | 1.06                       | 0.80                       | 0.53                        | 63                                                                                                                         | 71  | 80  | 90  | 100* | 112* |  |  |  |  |
|                              | <b>17.22</b>     | <b>81.30</b>                                                       | 224                                                        | 1.91                                        | 1.27                       | 0.95                       | 0.63                        | 63                                                                                                                         | 71  | 80  | 90  | 100* | 112* |  |  |  |  |
|                              | <b>14.09</b>     | <b>99.40</b>                                                       | 210                                                        | 2.18                                        | 1.45                       | 1.09                       | 0.73                        | 63                                                                                                                         | 71  | 80  | 90  | 100* | 112* |  |  |  |  |
|                              | <b>11.75</b>     | <b>119.10</b>                                                      | 204                                                        | 2.55                                        | 1.69                       | 1.27                       | 0.85                        | 63                                                                                                                         | 71  | 80  | 90  | 100* | 112* |  |  |  |  |
|                              | <b>10.34</b>     | <b>135.40</b>                                                      | 196                                                        | 2.78                                        | 1.85                       | 1.39                       | 0.92                        | 63                                                                                                                         | 71  | 80  | 90  | 100* | 112* |  |  |  |  |
|                              | <b>9.16</b>      | <b>152.80</b>                                                      | 189                                                        | 3.02                                        | 2.01                       | 1.51                       | 1.00                        | 63                                                                                                                         | 71  | 80  | 90  | 100  | 112* |  |  |  |  |
|                              | <b>8.23</b>      | <b>170.10</b>                                                      | 191                                                        | 3.40                                        | 2.26                       | 1.70                       | 1.13                        | 63                                                                                                                         | 71  | 80  | 90  | 100* | 112* |  |  |  |  |
| <b>8.18</b>                  | <b>171.10</b>    | 160                                                                | 2.87                                                       | 1.90                                        | 1.43                       | 0.95                       | 63                          | 71                                                                                                                         | 80  | 90  | 100 | 112* |      |  |  |  |  |
| <b>7.25</b>                  | <b>193.10</b>    | 187                                                                | 3.78                                                       | 2.51                                        | 1.89                       | 1.26                       | 63                          | 71                                                                                                                         | 80  | 90  | 100 | 112* |      |  |  |  |  |
| <b>6.42</b>                  | <b>218.10</b>    | 181                                                                | 4.00                                                       | 2.64                                        | 2.00                       | 1.32                       | 63                          | 71                                                                                                                         | 80  | 90  | 100 | 112  |      |  |  |  |  |
| <b>5.47</b>                  | <b>255.90</b>    | 172                                                                | 4.00                                                       | 2.64                                        | 2.00                       | 1.32                       | 63                          | 71                                                                                                                         | 80  | 90  | 100 | 112  |      |  |  |  |  |
| <b>4.78</b>                  | <b>292.90</b>    | 128                                                                | 3.93                                                       | 2.61                                        | 1.96                       | 1.30                       | 63                          | 71                                                                                                                         | 80  | 90  | 100 | 112* |      |  |  |  |  |

IEC - PAM bağlantısı yoktur / No IEC - PAM assembling on empty fields / Keine IEC - PAM-Verbindung

63 IEC - PAM bağlantısı yapılır / IEC - PAM assembling available on numbered fields / IEC - PAM-Verbindung möglich






80\* IEC - PAM bağlantısı yapılacaksa P<sub>1max</sub> değerleri aşılmamalıdır - Do not exceed the P<sub>1max</sub> values indicated on fields with asterisk / Bei IEC - PAM-Verbindungen, sollten die P<sub>1max</sub>-Werte nicht überschritten werden.

| Tip<br>Type<br>Typ                                                                                                                                                                                                                                                                                                                                                                                                              | i <sub>ges</sub>                                                                                                                                                                                                                                                                                                                                                                                                                 | 4-pol.<br>50 Hz<br>1400 rpm<br>n <sub>2</sub> [min <sup>-1</sup> ] | M <sub>amax</sub><br>f <sub>B</sub> =1<br>4 - pol.<br>[Nm] | W<br>P <sub>1max</sub> - f <sub>B</sub> ≥ 1 |                            |                            |                             | IEC - PAM<br>f <sub>B</sub> ⇒  77 - 183 |     |     |     |  |  |  |  |  |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------|------------------------------------------------------------|---------------------------------------------|----------------------------|----------------------------|-----------------------------|----------------------------------------------------------------------------------------------------------------------------|-----|-----|-----|--|--|--|--|--|
|                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                    |                                                            | 4 - pol.<br>1400rpm<br>[kW]                 | 6 - pol.<br>930rpm<br>[kW] | 8 - pol.<br>700rpm<br>[kW] | 12 - pol.<br>465rpm<br>[kW] |                                                                                                                            |     |     |     |  |  |  |  |  |
| <b>PD 22/02</b><br><b>PM 22/02</b><br><br><br> 239<br>+<br><b>IEC - PAM</b><br><br> 238-239 | 3425.64                                                                                                                                                                                                                                                                                                                                                                                                                          | 0.41                                                               | 520                                                        | 0.06                                        | 0.04                       | 0.03                       | 0.02                        | 63*                                                                                                                        | 71* |     |     |  |  |  |  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                 | 2653.67                                                                                                                                                                                                                                                                                                                                                                                                                          | 0.53                                                               | 520                                                        | 0.07                                        | 0.04                       | 0.03                       | 0.02                        | 63*                                                                                                                        | 71* |     |     |  |  |  |  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                 | 2130.98                                                                                                                                                                                                                                                                                                                                                                                                                          | 0.66                                                               | 520                                                        | 0.08                                        | 0.05                       | 0.04                       | 0.02                        | 63*                                                                                                                        | 71* |     |     |  |  |  |  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                 | 1726.36                                                                                                                                                                                                                                                                                                                                                                                                                          | 0.81                                                               | 520                                                        | 0.08                                        | 0.05                       | 0.04                       | 0.03                        | 63*                                                                                                                        | 71* |     |     |  |  |  |  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                 | 1423.90                                                                                                                                                                                                                                                                                                                                                                                                                          | 0.98                                                               | 520                                                        | 0.09                                        | 0.06                       | 0.05                       | 0.03                        | 63*                                                                                                                        | 71* |     |     |  |  |  |  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                 | <b>1065.19</b>                                                                                                                                                                                                                                                                                                                                                                                                                   | <b>1.30</b>                                                        | 520                                                        | 0.11                                        | 0.07                       | 0.06                       | 0.04                        | 63*                                                                                                                        | 71* | 80* | 90* |  |  |  |  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                 | <b>825.15</b>                                                                                                                                                                                                                                                                                                                                                                                                                    | <b>1.70</b>                                                        | 520                                                        | 0.13                                        | 0.09                       | 0.07                       | 0.04                        | 63*                                                                                                                        | 71* | 80* | 90* |  |  |  |  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                 | <b>662.62</b>                                                                                                                                                                                                                                                                                                                                                                                                                    | <b>2.10</b>                                                        | 520                                                        | 0.16                                        | 0.10                       | 0.08                       | 0.05                        | 63*                                                                                                                        | 71* | 80* | 90* |  |  |  |  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                 | <b>514.10</b>                                                                                                                                                                                                                                                                                                                                                                                                                    | <b>2.70</b>                                                        | 520                                                        | 0.20                                        | 0.12                       | 0.10                       | 0.06                        | 63                                                                                                                         | 71* | 80* | 90* |  |  |  |  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                 | <b>424.03</b>                                                                                                                                                                                                                                                                                                                                                                                                                    | <b>3.30</b>                                                        | 520                                                        | 0.22                                        | 0.14                       | 0.11                       | 0.07                        | 63                                                                                                                         | 71* | 80* | 90* |  |  |  |  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                 | <b>356.48</b>                                                                                                                                                                                                                                                                                                                                                                                                                    | <b>3.90</b>                                                        | 520                                                        | 0.25                                        | 0.17                       | 0.13                       | 0.08                        | 63                                                                                                                         | 71* | 80* | 90* |  |  |  |  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                 | <b>288.06</b>                                                                                                                                                                                                                                                                                                                                                                                                                    | <b>4.90</b>                                                        | 520                                                        | 0.30                                        | 0.20                       | 0.15                       | 0.10                        | 63                                                                                                                         | 71* | 80* | 90* |  |  |  |  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                 | <b>216.66</b>                                                                                                                                                                                                                                                                                                                                                                                                                    | <b>6.50</b>                                                        | 520                                                        | 0.39                                        | 0.26                       | 0.20                       | 0.13                        | 63                                                                                                                         | 71  | 80* | 90* |  |  |  |  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                 | <b>175.52</b>                                                                                                                                                                                                                                                                                                                                                                                                                    | <b>8.00</b>                                                        | 520                                                        | 0.47                                        | 0.31                       | 0.24                       | 0.16                        | 63                                                                                                                         | 71  | 80* | 90* |  |  |  |  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                 | <b>PD 23</b><br><b>PM 23</b><br><br><br> 198<br>+<br><b>IEC - PAM</b><br><br> 198-199 | 762.96                                                             | 1.80                                                       | 438                                         | 0.08                       | 0.06                       | 0.04                        | 0.03                                                                                                                       | 63* | 71* |     |  |  |  |  |  |
| 622.96                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                                                                                                                                                                                                                                                                                                                                                                  | 2.20                                                               | 521                                                        | 0.12                                        | 0.08                       | 0.06                       | 0.04                        | 63*                                                                                                                        | 71* |     |     |  |  |  |  |  |
| 482.49                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                                                                                                                                                                                                                                                                                                                                                                  | 2.90                                                               | 521                                                        | 0.16                                        | 0.11                       | 0.08                       | 0.05                        | 63*                                                                                                                        | 71* |     |     |  |  |  |  |  |
| 390.87                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                                                                                                                                                                                                                                                                                                                                                                  | 3.60                                                               | 521                                                        | 0.20                                        | 0.13                       | 0.10                       | 0.06                        | 63                                                                                                                         | 71* |     |     |  |  |  |  |  |
| 330.43                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                                                                                                                                                                                                                                                                                                                                                                  | 4.20                                                               | 563                                                        | 0.25                                        | 0.17                       | 0.12                       | 0.08                        | 63                                                                                                                         | 71* |     |     |  |  |  |  |  |
| 276.32                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                                                                                                                                                                                                                                                                                                                                                                  | 5.10                                                               | 553                                                        | 0.29                                        | 0.19                       | 0.15                       | 0.10                        | 63                                                                                                                         | 71* |     |     |  |  |  |  |  |
| 235.73                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                                                                                                                                                                                                                                                                                                                                                                  | 5.90                                                               | 473                                                        | 0.29                                        | 0.20                       | 0.15                       | 0.10                        | 63                                                                                                                         | 71* |     |     |  |  |  |  |  |
| <b>185.19</b>                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                  | <b>7.60</b>                                                        | 521                                                        | 0.41                                        | 0.27                       | 0.21                       | 0.14                        | 63                                                                                                                         | 71  | 80* | 90* |  |  |  |  |  |
| <b>150.03</b>                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                  | <b>9.30</b>                                                        | 521                                                        | 0.51                                        | 0.34                       | 0.25                       | 0.17                        | 63                                                                                                                         | 71  | 80* | 90* |  |  |  |  |  |
| <b>131.68</b>                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                  | <b>10.60</b>                                                       | 521                                                        | 0.58                                        | 0.39                       | 0.29                       | 0.19                        | 63                                                                                                                         | 71  | 80* | 90* |  |  |  |  |  |
| <b>116.40</b>                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                  | <b>12.00</b>                                                       | 521                                                        | 0.66                                        | 0.44                       | 0.33                       | 0.22                        | 63                                                                                                                         | 71  | 80* | 90* |  |  |  |  |  |
| <b>98.40</b>                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                                                                                                                                                                                                                  | <b>14.20</b>                                                       | 563                                                        | 0.75                                        | 0.50                       | 0.38                       | 0.25                        | 63                                                                                                                         | 71  | 80  | 90* |  |  |  |  |  |
| <b>82.29</b>                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                                                                                                                                                                                                                  | <b>17.00</b>                                                       | 561                                                        | 0.75                                        | 0.50                       | 0.38                       | 0.25                        | 63                                                                                                                         | 71  | 80  | 90* |  |  |  |  |  |

IEC - PAM bağlantısı yoktur / No IEC - PAM assembling on empty fields / Keine IEC - PAM-Verbindung

63 IEC - PAM bağlantısı yapılır / IEC - PAM assembling available on numbered fields / IEC - PAM-Verbindung möglich










80\* IEC - PAM bağlantısı yapılacaktır P<sub>1max</sub> değerleri aşılmamalıdır - Do not exceed the P<sub>1max</sub> values indicated on fields with asterisk / Bei IEC - PAM-Verbindungen, sollten die P<sub>1max</sub>-Werte nicht überschritten werden.

| Tip<br>Type<br>Typ                                                                                    | i <sub>ges</sub> | 4-pol.<br>50 Hz<br>1400 rpm<br>n <sub>2</sub> [min <sup>-1</sup> ] | M <sub>amax</sub><br>f <sub>B</sub> =1<br>4 - pol.<br>[Nm] | W<br>P <sub>1max</sub> - f <sub>B</sub> ≥ 1 |                            |                            |                             | IEC - PAM<br>f <sub>B</sub> ⇔  77 - 183 |     |     |      |      |  |  |  |  |  |  |
|-------------------------------------------------------------------------------------------------------|------------------|--------------------------------------------------------------------|------------------------------------------------------------|---------------------------------------------|----------------------------|----------------------------|-----------------------------|----------------------------------------------------------------------------------------------------------------------------|-----|-----|------|------|--|--|--|--|--|--|
|                                                                                                       |                  |                                                                    |                                                            | 4 - pol.<br>1400rpm<br>[kW]                 | 6 - pol.<br>930rpm<br>[kW] | 8 - pol.<br>700rpm<br>[kW] | 12 - pol.<br>465rpm<br>[kW] |                                                                                                                            |     |     |      |      |  |  |  |  |  |  |
|                                                                                                       |                  |                                                                    |                                                            |                                             |                            |                            |                             | 71                                                                                                                         | 80* | 90* | 100* | 112* |  |  |  |  |  |  |
| <b>PD 22</b>                                                                                          | 127.46           | 11.00                                                              | 380                                                        | 0.44                                        | 0.29                       | 0.22                       | 0.15                        | 71                                                                                                                         | 80* |     |      |      |  |  |  |  |  |  |
| <b>PM 22</b>                                                                                          | 104.07           | 13.50                                                              | 397                                                        | 0.56                                        | 0.37                       | 0.28                       | 0.19                        | 71                                                                                                                         | 80* |     |      |      |  |  |  |  |  |  |
|                                                                                                       | 100.98           | 13.90                                                              | 440                                                        | 0.64                                        | 0.42                       | 0.32                       | 0.21                        | 71                                                                                                                         | 80* | 90* |      |      |  |  |  |  |  |  |
| <b>W</b><br>         | 82.45            | 17.00                                                              | 477                                                        | 0.85                                        | 0.56                       | 0.42                       | 0.28                        | 71                                                                                                                         | 80  | 90* |      |      |  |  |  |  |  |  |
|                      | 69.70            | 20.10                                                              | 443                                                        | 0.93                                        | 0.62                       | 0.47                       | 0.31                        | 71                                                                                                                         | 80  | 90* |      |      |  |  |  |  |  |  |
| +                                                                                                     | 53.98            | 25.90                                                              | 506                                                        | 1.37                                        | 0.91                       | 0.69                       | 0.46                        |                                                                                                                            | 80  | 90* |      |      |  |  |  |  |  |  |
| <b>IEC - PAM</b><br> | 51.73            | 27.10                                                              | 521                                                        | 1.48                                        | 0.98                       | 0.74                       | 0.49                        |                                                                                                                            | 80  | 90* | 100* | 112* |  |  |  |  |  |  |
|                                                                                                       | 45.14            | 31.00                                                              | 450                                                        | 1.46                                        | 0.97                       | 0.73                       | 0.49                        |                                                                                                                            | 80  | 90* |      |      |  |  |  |  |  |  |
|                      | 43.73            | 32.00                                                              | 563                                                        | 1.89                                        | 1.25                       | 0.94                       | 0.63                        |                                                                                                                            | 80  | 90  | 100* | 112* |  |  |  |  |  |  |
|                                                                                                       | <b>37.18</b>     | <b>37.70</b>                                                       | 460                                                        | 1.81                                        | 1.20                       | 0.91                       | 0.60                        | 71                                                                                                                         | 80  |     |      |      |  |  |  |  |  |  |
|                                                                                                       | 36.57            | 38.30                                                              | 501                                                        | 2.01                                        | 1.33                       | 1.00                       | 0.67                        |                                                                                                                            | 80  | 90  | 100* | 112* |  |  |  |  |  |  |
|                                                                                                       | 31.20            | 44.90                                                              | 445                                                        | 2.09                                        | 1.39                       | 1.05                       | 0.69                        |                                                                                                                            | 80  | 90  | 100* | 112* |  |  |  |  |  |  |
|                                                                                                       | <b>29.64</b>     | <b>47.20</b>                                                       | 500                                                        | 2.47                                        | 1.64                       | 1.24                       | 0.82                        | 71                                                                                                                         | 80  | 90  | 100* | 112* |  |  |  |  |  |  |
|                                                                                                       | <b>26.81</b>     | <b>52.20</b>                                                       | 439                                                        | 2.40                                        | 1.59                       | 1.20                       | 0.80                        | 71                                                                                                                         | 80  | 90  | 100* | 112* |  |  |  |  |  |  |
|                                                                                                       | <b>24.98</b>     | <b>56.00</b>                                                       | 490                                                        | 2.88                                        | 1.91                       | 1.44                       | 0.96                        | 71                                                                                                                         | 80  | 90  | 100* | 112* |  |  |  |  |  |  |
|                                                                                                       | <b>23.99</b>     | <b>58.40</b>                                                       | 435                                                        | 2.66                                        | 1.77                       | 1.33                       | 0.88                        | 71                                                                                                                         | 80  | 90  | 100* | 112* |  |  |  |  |  |  |
|                                                                                                       | <b>21.89</b>     | <b>64.00</b>                                                       | 480                                                        | 3.21                                        | 2.14                       | 1.61                       | 1.07                        | 71                                                                                                                         | 80  | 90  | 100  | 112* |  |  |  |  |  |  |
|                                                                                                       | <b>18.51</b>     | <b>75.60</b>                                                       | 486                                                        | 3.85                                        | 2.56                       | 1.92                       | 1.28                        | 71                                                                                                                         | 80  | 90  | 100  | 112* |  |  |  |  |  |  |
|                                                                                                       | <b>16.56</b>     | <b>84.50</b>                                                       | 471                                                        | 4.00                                        | 2.64                       | 2.00                       | 1.32                        | 71                                                                                                                         | 80  | 90  | 100  | 112  |  |  |  |  |  |  |
|                                                                                                       | <b>13.20</b>     | <b>106.10</b>                                                      | 405                                                        | 4.00                                        | 2.64                       | 2.00                       | 1.32                        | 71                                                                                                                         | 80  | 90  | 100  | 112  |  |  |  |  |  |  |
|                                                                                                       | <b>11.81</b>     | <b>118.50</b>                                                      | 384                                                        | 4.00                                        | 2.64                       | 2.00                       | 1.32                        | 71                                                                                                                         | 80  | 90  | 100  | 112  |  |  |  |  |  |  |
|                                                                                                       | <b>10.16</b>     | <b>137.80</b>                                                      | 356                                                        | 4.00                                        | 2.64                       | 2.00                       | 1.32                        | 71                                                                                                                         | 80  | 90  | 100  | 112  |  |  |  |  |  |  |
|                                                                                                       | <b>9.00</b>      | <b>155.60</b>                                                      | 335                                                        | 4.00                                        | 2.64                       | 2.00                       | 1.32                        | 71                                                                                                                         | 80  | 90  | 100  | 112  |  |  |  |  |  |  |
|                                                                                                       | <b>8.36</b>      | <b>167.50</b>                                                      | 256                                                        | 4.00                                        | 2.64                       | 2.00                       | 1.32                        | 71                                                                                                                         | 80  | 90  | 100  | 112  |  |  |  |  |  |  |
|                                                                                                       | <b>7.48</b>      | <b>187.20</b>                                                      | 243                                                        | 4.00                                        | 2.64                       | 2.00                       | 1.32                        | 71                                                                                                                         | 80  | 90  | 100  | 112  |  |  |  |  |  |  |
|                                                                                                       | <b>6.43</b>      | <b>217.70</b>                                                      | 226                                                        | 4.00                                        | 2.64                       | 2.00                       | 1.32                        | 71                                                                                                                         | 80  | 90  | 100  | 112  |  |  |  |  |  |  |
|                                                                                                       | <b>5.70</b>      | <b>245.60</b>                                                      | 212                                                        | 4.00                                        | 2.64                       | 2.00                       | 1.32                        | 71                                                                                                                         | 80  | 90  | 100  | 112  |  |  |  |  |  |  |
|                                                                                                       | <b>4.51</b>      | <b>310.40</b>                                                      | 186                                                        | 4.00                                        | 2.64                       | 2.00                       | 1.32                        |                                                                                                                            |     | 90  | 100  | 112  |  |  |  |  |  |  |

IEC - PAM bağlantısı yoktur / No IEC - PAM assembling on empty fields / Keine IEC - PAM-Verbindung

63 IEC - PAM bağlantısı yapılır / IEC - PAM assembling available on numbered fields / IEC - PAM-Verbindung möglich






80\* IEC - PAM bağlantısı yapılacaktır P<sub>1max</sub> değerleri aşılmamalıdır - Do not exceed the P<sub>1max</sub> values indicated on fields with asterisk / Bei IEC - PAM-Verbindungen, sollten die P<sub>1max</sub>-Werte nicht überschritten werden.

| Tip<br>Type<br>Typ                                                                                      | i <sub>ges</sub>                                                                                      | 4-pol.<br>50 Hz<br>1400 rpm<br>n <sub>2</sub> [min <sup>-1</sup> ] | M <sub>amax</sub><br>f <sub>B</sub> =1<br>4 - pol.<br>[Nm] | W<br>P <sub>1max</sub> - f <sub>B</sub> ≥ 1 |                            |                            |                             | IEC - PAM<br>f <sub>B</sub> ⇒  77 - 183 |     |     |     |      |      |      |      |  |  |
|---------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------|------------------------------------------------------------|---------------------------------------------|----------------------------|----------------------------|-----------------------------|----------------------------------------------------------------------------------------------------------------------------|-----|-----|-----|------|------|------|------|--|--|
|                                                                                                         |                                                                                                       |                                                                    |                                                            | 4 - pol.<br>1400rpm<br>[kW]                 | 6 - pol.<br>930rpm<br>[kW] | 8 - pol.<br>700rpm<br>[kW] | 12 - pol.<br>465rpm<br>[kW] |                                                                                                                            |     |     |     |      |      |      |      |  |  |
|                                                                                                         |                                                                                                       |                                                                    |                                                            |                                             |                            |                            |                             |                                                                                                                            |     | 63* | 71* | 80*  | 90*  | 100* | 112* |  |  |
| <b>PD 32/12</b><br><b>PM 32/12</b>                                                                      | 3434.69                                                                                               | 0.41                                                               | 900                                                        | 0.08                                        | 0.05                       | 0.04                       | 0.03                        | 63*                                                                                                                        | 71* |     |     |      |      |      |      |  |  |
|                                                                                                         | 2794.50                                                                                               | 0.50                                                               | 900                                                        | 0.09                                        | 0.06                       | 0.04                       | 0.03                        | 63*                                                                                                                        | 71* |     |     |      |      |      |      |  |  |
|                                                                                                         | 2246.56                                                                                               | 0.62                                                               | 900                                                        | 0.10                                        | 0.06                       | 0.05                       | 0.03                        | 63*                                                                                                                        | 71* |     |     |      |      |      |      |  |  |
|                                                                                                         | <b>W</b><br>         | <b>1696.40</b>                                                     | <b>0.83</b>                                                | 900                                         | 0.12                       | 0.08                       | 0.06                        | 0.04                                                                                                                       | 63* | 71* | 80* | 90*  |      |      |      |  |  |
|                                                                                                         |  239                 | <b>1335.13</b>                                                     | <b>1.00</b>                                                | 900                                         | 0.14                       | 0.09                       | 0.07                        | 0.05                                                                                                                       | 63* | 71* | 80* | 90*  | 100* | 112* |      |  |  |
|                                                                                                         | +                                                                                                     | <b>851.83</b>                                                      | <b>1.60</b>                                                | 900                                         | 0.16                       | 0.11                       | 0.08                        | 0.05                                                                                                                       | 63* | 71* | 80* | 90*  | 100* | 112* |      |  |  |
|                                                                                                         | <b>IEC - PAM</b><br> | <b>684.80</b>                                                      | <b>2.00</b>                                                | 900                                         | 0.23                       | 0.15                       | 0.12                        | 0.08                                                                                                                       | 63  | 71* | 80* | 90*  | 100* | 112* |      |  |  |
|                                                                                                         |  238-239             | <b>521.00</b>                                                      | <b>2.70</b>                                                | 900                                         | 0.29                       | 0.19                       | 0.15                        | 0.10                                                                                                                       | 63  | 71* | 80* | 90*  | 100* | 112* |      |  |  |
|                                                                                                         |                                                                                                       | <b>461.30</b>                                                      | <b>3.00</b>                                                | 900                                         | 0.33                       | 0.21                       | 0.16                        | 0.11                                                                                                                       | 63  | 71* | 80* | 90*  | 100* | 112* |      |  |  |
|                                                                                                         |                                                                                                       | <b>358.19</b>                                                      | <b>3.90</b>                                                | 900                                         | 0.41                       | 0.27                       | 0.20                        | 0.13                                                                                                                       | 63  | 71  | 80* | 90*  | 100* | 112* |      |  |  |
|                                                                                                         |                                                                                                       | <b>270.47</b>                                                      | <b>5.20</b>                                                | 900                                         | 0.53                       | 0.35                       | 0.26                        | 0.17                                                                                                                       | 63  | 71  | 80* | 90*  | 100* | 112* |      |  |  |
|                                                                                                         |                                                                                                       | <b>217.44</b>                                                      | <b>6.40</b>                                                | 900                                         | 0.65                       | 0.43                       | 0.32                        | 0.21                                                                                                                       | 63  | 71  | 80* | 90*  | 100* | 112* |      |  |  |
|                                                                                                         |                                                                                                       | <b>179.71</b>                                                      | <b>7.80</b>                                                | 900                                         | 0.77                       | 0.51                       | 0.39                        | 0.26                                                                                                                       | 63  | 71  | 80  | 90*  | 100* | 112* |      |  |  |
|                                                                                                         |                                                                                                       | <b>141.42</b>                                                      | <b>9.90</b>                                                | 900                                         | 0.93                       | 0.62                       | 0.47                        | 0.31                                                                                                                       | 63  | 71  | 80  | 90*  | 100* | 112* |      |  |  |
|                                                                                                         |                                                                                                       | <b>114.01</b>                                                      | <b>12.30</b>                                               | 900                                         | 1.16                       | 0.77                       | 0.58                        | 0.38                                                                                                                       | 63  | 71  | 80  | 90*  | 100* | 112* |      |  |  |
|                                                                                                         |                                                                                                       | <b>87.71</b>                                                       | <b>16.00</b>                                               | 900                                         | 1.50                       | 1.00                       | 0.75                        | 0.50                                                                                                                       | 63  | 71  | 80  | 90   | 100* | 112* |      |  |  |
|                                                                                                         | <b>PD 33</b><br><b>PM 33</b>                                                                          | 1022.54                                                            | 1.40                                                       | 787                                         | 0.11                       | 0.07                       | 0.06                        | 0.04                                                                                                                       | 63* | 71* |     |      |      |      |      |  |  |
| 918.90                                                                                                  |                                                                                                       | 1.50                                                               | 822                                                        | 0.13                                        | 0.09                       | 0.07                       | 0.04                        | 63*                                                                                                                        | 71* |     |     |      |      |      |      |  |  |
| 808.52                                                                                                  |                                                                                                       | 1.70                                                               | 1039                                                       | 0.19                                        | 0.13                       | 0.09                       | 0.06                        | 63                                                                                                                         | 71* |     |     |      |      |      |      |  |  |
| <b>W</b><br>         |                                                                                                       | <b>726.57</b>                                                      | <b>1.90</b>                                                | 944                                         | 0.19                       | 0.13                       | 0.10                        | 0.06                                                                                                                       | 63  | 71* |     |      |      |      |      |  |  |
|  202                 |                                                                                                       | <b>584.11</b>                                                      | <b>2.40</b>                                                | 1000                                        | 0.25                       | 0.17                       | 0.13                        | 0.08                                                                                                                       | 63  | 71* |     |      |      |      |      |  |  |
| +                                                                                                       |                                                                                                       | <b>482.75</b>                                                      | <b>2.90</b>                                                | 866                                         | 0.26                       | 0.17                       | 0.13                        | 0.09                                                                                                                       | 63  | 71* |     |      |      |      |      |  |  |
|                                                                                                         |                                                                                                       | <b>408.42</b>                                                      | <b>3.40</b>                                                | 796                                         | 0.29                       | 0.19                       | 0.14                        | 0.09                                                                                                                       | 63  | 71* |     |      |      |      |      |  |  |
| <b>IEC - PAM</b><br> |                                                                                                       | <b>287.08</b>                                                      | <b>4.90</b>                                                | 938                                         | 0.48                       | 0.32                       | 0.24                        | 0.16                                                                                                                       | 63  | 71  | 80* | 90*  |      |      |      |  |  |
|  202-203             |                                                                                                       | <b>230.79</b>                                                      | <b>6.10</b>                                                | 1000                                        | 0.64                       | 0.42                       | 0.32                        | 0.21                                                                                                                       | 63  | 71  | 80* | 90*  |      |      |      |  |  |
|                                                                                                         |                                                                                                       | <b>190.74</b>                                                      | <b>7.30</b>                                                | 866                                         | 0.67                       | 0.44                       | 0.33                        | 0.22                                                                                                                       | 63  | 71  | 80* | 90*  |      |      |      |  |  |
|                                                                                                         |                                                                                                       | <b>161.38</b>                                                      | <b>8.70</b>                                                | 788                                         | 0.72                       | 0.48                       | 0.36                        | 0.24                                                                                                                       | 63  | 71  | 80* | 90*  |      |      |      |  |  |
|                                                                                                         |                                                                                                       | <b>127.01</b>                                                      | <b>11.00</b>                                               | 774                                         | 0.89                       | 0.59                       | 0.45                        | 0.30                                                                                                                       | 63  | 71  | 80  | 90*  | 100* | 112* |      |  |  |
|                                                                                                         |                                                                                                       | <b>103.92</b>                                                      | <b>13.50</b>                                               | 735                                         | 1.04                       | 0.69                       | 0.52                        | 0.34                                                                                                                       | 63  | 71  | 80  | 90*  | 100* | 112* |      |  |  |
|                                                                                                         | <b>89.45</b>                                                                                          | <b>16.20</b>                                                       | 621                                                        | 1.05                                        | 0.68                       | 0.53                       | 0.34                        | 63                                                                                                                         | 71  | 80  | 90* | 100* | 112* |      |      |  |  |

IEC - PAM bağlantısı yoktur / No IEC - PAM assembling on empty fields / Keine IEC - PAM-Verbindung

63 IEC - PAM bağlantısı yapılır / IEC - PAM assembling available on numbered fields / IEC - PAM-Verbindung möglich








80\* IEC - PAM bağlantısı yapılacaktır P<sub>1max</sub> değerleri aşılmamalıdır - Do not exceed the P<sub>1max</sub> values indicated on fields with asterisk / Bei IEC - PAM-Verbindungen, sollten die P<sub>1max</sub>-Werte nicht überschritten werden.

| Tip<br>Type<br>Typ                                                                                    | i <sub>ges</sub> | 4-pol.<br>50 Hz<br>1400 rpm<br>n <sub>2</sub> [min <sup>-1</sup> ] | M <sub>amax</sub><br>f <sub>B</sub> =1<br>4 - pol.<br>[Nm] | W<br>P <sub>1max</sub> - f <sub>B</sub> ≥ 1 |                            |                            |                             | IEC - PAM<br>f <sub>B</sub> ⇔  77 - 183 |    |     |      |      |      |  |  |
|-------------------------------------------------------------------------------------------------------|------------------|--------------------------------------------------------------------|------------------------------------------------------------|---------------------------------------------|----------------------------|----------------------------|-----------------------------|----------------------------------------------------------------------------------------------------------------------------|----|-----|------|------|------|--|--|
|                                                                                                       |                  |                                                                    |                                                            | 4 - pol.<br>1400rpm<br>[kW]                 | 6 - pol.<br>930rpm<br>[kW] | 8 - pol.<br>700rpm<br>[kW] | 12 - pol.<br>465rpm<br>[kW] |                                                                                                                            |    |     |      |      |      |  |  |
|                                                                                                       |                  |                                                                    |                                                            |                                             |                            |                            |                             |                                                                                                                            |    | 71  | 80   | 90*  |      |  |  |
| <b>PD 32</b>                                                                                          | 112.23           | 12.50                                                              | 770                                                        | 1.01                                        | 0.67                       | 0.50                       | 0.33                        | 71                                                                                                                         | 80 | 90* |      |      |      |  |  |
| <b>PM 32</b>                                                                                          | 100.85           | 13.90                                                              | 807                                                        | 1.17                                        | 0.78                       | 0.59                       | 0.39                        | 71                                                                                                                         | 80 | 90* |      |      |      |  |  |
| <b>W</b><br>         | 88.74            | 15.80                                                              | 945                                                        | 1.56                                        | 1.04                       | 0.78                       | 0.52                        |                                                                                                                            | 80 | 90  |      |      |      |  |  |
|                                                                                                       | 79.75            | 17.60                                                              | 850                                                        | 1.56                                        | 1.04                       | 0.78                       | 0.52                        |                                                                                                                            | 80 | 90  |      |      |      |  |  |
|  202                 | 70.52            | 19.90                                                              | 564                                                        | 1.17                                        | 0.78                       | 0.59                       | 0.39                        | 71                                                                                                                         | 80 | 90* |      |      |      |  |  |
|                                                                                                       | 65.91            | 21.20                                                              | 758                                                        | 1.69                                        | 1.12                       | 0.84                       | 0.56                        |                                                                                                                            | 80 | 90  |      |      |      |  |  |
| +                                                                                                     | 64.11            | 21.80                                                              | 1015                                                       | 2.32                                        | 1.54                       | 1.16                       | 0.77                        |                                                                                                                            | 80 | 90  | 100* | 112* |      |  |  |
|                                                                                                       | 55.76            | 25.10                                                              | 642                                                        | 1.69                                        | 1.12                       | 0.84                       | 0.56                        |                                                                                                                            | 80 | 90  |      |      |      |  |  |
| <b>IEC - PAM</b><br> | 52.98            | 26.40                                                              | 845                                                        | 2.34                                        | 1.55                       | 1.17                       | 0.78                        |                                                                                                                            | 80 | 90  | 100* | 112* |      |  |  |
|                                                                                                       | 48.00            | 29.20                                                              | 552                                                        | 1.69                                        | 1.12                       | 0.84                       | 0.56                        |                                                                                                                            | 80 | 90  |      |      |      |  |  |
|  202-203             | 44.83            | 31.20                                                              | 737                                                        | 2.41                                        | 1.60                       | 1.21                       | 0.80                        |                                                                                                                            | 80 | 90  | 100* | 112* |      |  |  |
|                                                                                                       | <b>42.05</b>     | <b>33.30</b>                                                       | 929                                                        | 3.24                                        | 2.15                       | 1.62                       | 1.08                        | 71                                                                                                                         | 80 | 90  | 100  | 112* |      |  |  |
|                                                                                                       | 38.59            | 36.30                                                              | 634                                                        | 2.41                                        | 1.60                       | 1.20                       | 0.80                        |                                                                                                                            | 80 | 90  | 100* | 112* |      |  |  |
| <b>37.79</b>                                                                                          | <b>37.00</b>     | 835                                                                | 3.24                                                       | 2.15                                        | 1.62                       | 1.08                       |                             | 71                                                                                                                         | 80 | 90  | 100  | 112* |      |  |  |
|                                                                                                       | 31.90            | 43.90                                                              | 877                                                        | 4.03                                        | 2.68                       | 2.02                       | 1.34                        | 71                                                                                                                         | 80 | 90  | 100  | 112  |      |  |  |
| <b>28.67</b>                                                                                          | <b>48.80</b>     | 870                                                                | 4.45                                                       | 2.96                                        | 2.22                       | 1.48                       |                             | 71                                                                                                                         | 80 | 90  | 100  | 112  |      |  |  |
| <b>25.86</b>                                                                                          | <b>54.10</b>     | 846                                                                | 4.80                                                       | 3.19                                        | 2.40                       | 1.59                       |                             | 71                                                                                                                         | 80 | 90  | 100  | 112  |      |  |  |
| <b>23.69</b>                                                                                          | <b>59.10</b>     | 805                                                                | 4.98                                                       | 3.31                                        | 2.49                       | 1.65                       |                             | 71                                                                                                                         | 80 | 90  | 100  | 112  |      |  |  |
| <b>22.42</b>                                                                                          | <b>62.40</b>     | 800                                                                | 5.23                                                       | 3.42                                        | 2.62                       | 1.74                       |                             | 71                                                                                                                         | 80 | 90  | 100  | 112  | 132* |  |  |
| <b>21.37</b>                                                                                          | <b>65.50</b>     | 722                                                                | 4.95                                                       | 3.29                                        | 2.48                       | 1.65                       |                             | 71                                                                                                                         | 80 | 90  | 100  | 112  |      |  |  |
| <b>20.15</b>                                                                                          | <b>69.50</b>     | 822                                                                | 5.98                                                       | 3.97                                        | 2.99                       | 1.99                       |                             | 71                                                                                                                         | 80 | 90  | 100  | 112  | 132* |  |  |
| <b>16.65</b>                                                                                          | <b>84.10</b>     | 841                                                                | 7.40                                                       | 4.92                                        | 3.70                       | 2.46                       |                             | 71                                                                                                                         | 80 | 90  | 100  | 112  | 132* |  |  |
| <b>14.09</b>                                                                                          | <b>99.40</b>     | 857                                                                | 8.92                                                       | 5.92                                        | 4.46                       | 2.96                       |                             | 71                                                                                                                         | 80 | 90  | 100  | 112  | 132* |  |  |
| <b>11.35</b>                                                                                          | <b>123.30</b>    | 821                                                                | 9.20                                                       | 6.07                                        | 4.60                       | 3.04                       |                             |                                                                                                                            |    | 90  | 100  | 112  | 132  |  |  |
| <b>9.77</b>                                                                                           | <b>143.30</b>    | 839                                                                | 9.20                                                       | 6.07                                        | 4.60                       | 3.04                       |                             |                                                                                                                            |    | 90  | 100  | 112  | 132  |  |  |
| <b>8.29</b>                                                                                           | <b>168.90</b>    | 676                                                                | 9.20                                                       | 6.07                                        | 4.60                       | 3.04                       |                             | 71                                                                                                                         | 80 | 90  | 100  | 112  | 132  |  |  |
| <b>6.68</b>                                                                                           | <b>209.60</b>    | 607                                                                | 9.20                                                       | 6.07                                        | 4.60                       | 3.04                       |                             |                                                                                                                            |    | 90  | 100  | 112  | 132  |  |  |
| <b>5.66</b>                                                                                           | <b>247.30</b>    | 555                                                                | 9.20                                                       | 6.07                                        | 4.60                       | 3.04                       |                             |                                                                                                                            |    | 90  | 100  | 112  | 132  |  |  |
| <b>4.48</b>                                                                                           | <b>312.50</b>    | 461                                                                | 9.20                                                       | 6.07                                        | 4.60                       | 3.04                       |                             |                                                                                                                            |    | 90  | 100  | 112  | 132  |  |  |

IEC - PAM bağlantısı yoktur / No IEC - PAM assembling on empty fields / Keine IEC - PAM-Verbindung

63 IEC - PAM bağlantısı yapılır / IEC - PAM assembling available on numbered fields / IEC - PAM-Verbindung möglich






80\* IEC - PAM bağlantısı yapılacaksa P<sub>1max</sub> değerleri aşılmamalıdır - Do not exceed the P<sub>1max</sub> values indicated on fields with asterisk / Bei IEC - PAM-Verbindungen, sollten die P<sub>1max</sub>-Werte nicht überschritten werden.

| Tip<br>Type<br>Typ                                                                                                                                                                                                                                                                                                                                                | i <sub>ges</sub>                                                                                                                                                                                                                                                                                                                                                 | 4-pol.<br>50 Hz<br>1400 rpm<br>n <sub>2</sub> [min <sup>-1</sup> ] | M <sub>amax</sub><br>f <sub>B</sub> =1<br>4 - pol.<br>[Nm] | W<br>P <sub>1max</sub> - f <sub>B</sub> ≥ 1 |                            |                            |                             | IEC - PAM<br>f <sub>B</sub> ⇒  77 - 183 |     |      |      |      |      |  |  |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------|------------------------------------------------------------|---------------------------------------------|----------------------------|----------------------------|-----------------------------|----------------------------------------------------------------------------------------------------------------------------|-----|------|------|------|------|--|--|
|                                                                                                                                                                                                                                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                  |                                                                    |                                                            | 4 - pol.<br>1400rpm<br>[kW]                 | 6 - pol.<br>930rpm<br>[kW] | 8 - pol.<br>700rpm<br>[kW] | 12 - pol.<br>465rpm<br>[kW] |                                                                                                                            |     |      |      |      |      |  |  |
|                                                                                                                                                                                                                                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                  |                                                                    |                                                            |                                             |                            |                            |                             |                                                                                                                            |     | 63*  | 71*  |      |      |  |  |
| <b>PD 42/12</b><br><b>PM 42/12</b><br><br> <b>W</b><br> <b>239</b><br>+<br><b>IEC - PAM</b><br> <b>238-239</b> | 2783.90                                                                                                                                                                                                                                                                                                                                                          | 0.50                                                               | 1800                                                       | 0.13                                        | 0.09                       | 0.07                       | 0.04                        | 63*                                                                                                                        | 71* |      |      |      |      |  |  |
|                                                                                                                                                                                                                                                                                                                                                                   | 2249.64                                                                                                                                                                                                                                                                                                                                                          | 0.62                                                               | 1800                                                       | 0.16                                        | 0.10                       | 0.08                       | 0.05                        | 63*                                                                                                                        | 71* |      |      |      |      |  |  |
|                                                                                                                                                                                                                                                                                                                                                                   | 1830.33                                                                                                                                                                                                                                                                                                                                                          | 0.76                                                               | 1800                                                       | 0.18                                        | 0.12                       | 0.09                       | 0.06                        | 63                                                                                                                         | 71* |      |      |      |      |  |  |
|                                                                                                                                                                                                                                                                                                                                                                   | 1343.79                                                                                                                                                                                                                                                                                                                                                          | 1.00                                                               | 1800                                                       | 0.24                                        | 0.16                       | 0.12                       | 0.08                        | 63                                                                                                                         | 71* |      |      |      |      |  |  |
|                                                                                                                                                                                                                                                                                                                                                                   | <b>1111.10</b>                                                                                                                                                                                                                                                                                                                                                   | <b>1.30</b>                                                        | 1800                                                       | 0.28                                        | 0.18                       | 0.14                       | 0.09                        | 63                                                                                                                         | 71* | 80*  | 90*  |      |      |  |  |
|                                                                                                                                                                                                                                                                                                                                                                   | <b>874.48</b>                                                                                                                                                                                                                                                                                                                                                    | <b>1.60</b>                                                        | 1800                                                       | 0.34                                        | 0.23                       | 0.17                       | 0.11                        | 63                                                                                                                         | 71* | 80*  | 90*  | 100* | 112* |  |  |
|                                                                                                                                                                                                                                                                                                                                                                   | <b>699.58</b>                                                                                                                                                                                                                                                                                                                                                    | <b>2.00</b>                                                        | 1800                                                       | 0.42                                        | 0.28                       | 0.21                       | 0.14                        | 63                                                                                                                         | 71  | 80*  | 90*  | 100* | 112* |  |  |
|                                                                                                                                                                                                                                                                                                                                                                   | <b>557.93</b>                                                                                                                                                                                                                                                                                                                                                    | <b>2.50</b>                                                        | 1800                                                       | 0.51                                        | 0.34                       | 0.26                       | 0.17                        | 63                                                                                                                         | 71  | 80*  | 90*  | 100* | 112* |  |  |
|                                                                                                                                                                                                                                                                                                                                                                   | <b>409.62</b>                                                                                                                                                                                                                                                                                                                                                    | <b>3.40</b>                                                        | 1800                                                       | 0.68                                        | 0.45                       | 0.34                       | 0.23                        | 63                                                                                                                         | 71  | 80*  | 90*  | 100* | 112* |  |  |
|                                                                                                                                                                                                                                                                                                                                                                   | <b>341.25</b>                                                                                                                                                                                                                                                                                                                                                    | <b>4.10</b>                                                        | 1800                                                       | 0.77                                        | 0.51                       | 0.39                       | 0.26                        | 63                                                                                                                         | 71  | 80   | 90*  | 100* | 112* |  |  |
|                                                                                                                                                                                                                                                                                                                                                                   | <b>302.14</b>                                                                                                                                                                                                                                                                                                                                                    | <b>4.60</b>                                                        | 1800                                                       | 0.87                                        | 0.58                       | 0.44                       | 0.29                        | 63                                                                                                                         | 71  | 80   | 90*  | 100* | 112* |  |  |
|                                                                                                                                                                                                                                                                                                                                                                   | <b>234.61</b>                                                                                                                                                                                                                                                                                                                                                    | <b>6.00</b>                                                        | 1800                                                       | 1.12                                        | 0.75                       | 0.56                       | 0.37                        | 63                                                                                                                         | 71  | 80   | 90*  | 100* | 112* |  |  |
|                                                                                                                                                                                                                                                                                                                                                                   | <b>177.15</b>                                                                                                                                                                                                                                                                                                                                                    | <b>7.90</b>                                                        | 1800                                                       | 1.49                                        | 0.99                       | 0.74                       | 0.49                        | 63                                                                                                                         | 71  | 80   | 90*  | 100* | 112* |  |  |
|                                                                                                                                                                                                                                                                                                                                                                   | <b>152.50</b>                                                                                                                                                                                                                                                                                                                                                    | <b>9.20</b>                                                        | 1800                                                       | 1.73                                        | 1.15                       | 0.87                       | 0.57                        | 63                                                                                                                         | 71  | 80   | 90   | 100* | 112* |  |  |
|                                                                                                                                                                                                                                                                                                                                                                   | <b>127.43</b>                                                                                                                                                                                                                                                                                                                                                    | <b>11.00</b>                                                       | 1800                                                       | 2.07                                        | 1.38                       | 1.04                       | 0.69                        | 63                                                                                                                         | 71  | 80   | 90   | 100* | 112* |  |  |
|                                                                                                                                                                                                                                                                                                                                                                   | <b>PD 43</b><br><b>PM 43</b><br><br> <b>W</b><br> <b>206</b><br>+<br><b>IEC - PAM</b><br> <b>206-207</b> | 1585.08                                                            | 0.88                                                       | 1420                                        | 0.13                       | 0.09                       | 0.07                        | 0.04                                                                                                                       | 71* | 80*  | 90*  |      |      |  |  |
| 1129.42                                                                                                                                                                                                                                                                                                                                                           |                                                                                                                                                                                                                                                                                                                                                                  | 1.20                                                               | 1600                                                       | 0.21                                        | 0.14                       | 0.10                       | 0.07                        | 71*                                                                                                                        | 80* | 90*  |      |      |      |  |  |
| 1097.89                                                                                                                                                                                                                                                                                                                                                           |                                                                                                                                                                                                                                                                                                                                                                  | 1.30                                                               | 1088                                                       | 0.15                                        | 0.10                       | 0.07                       | 0.05                        | 71*                                                                                                                        | 80* | 90*  |      |      |      |  |  |
| 782.28                                                                                                                                                                                                                                                                                                                                                            |                                                                                                                                                                                                                                                                                                                                                                  | 1.80                                                               | 1476                                                       | 0.28                                        | 0.18                       | 0.14                       | 0.09                        | 71*                                                                                                                        | 80* | 90*  |      |      |      |  |  |
| 653.66                                                                                                                                                                                                                                                                                                                                                            |                                                                                                                                                                                                                                                                                                                                                                  | 2.10                                                               | 1233                                                       | 0.28                                        | 0.18                       | 0.14                       | 0.09                        | 71*                                                                                                                        | 80* | 90*  |      |      |      |  |  |
| 605.88                                                                                                                                                                                                                                                                                                                                                            |                                                                                                                                                                                                                                                                                                                                                                  | 2.30                                                               | 1475                                                       | 0.36                                        | 0.24                       | 0.18                       | 0.12                        |                                                                                                                            | 80* | 90*  |      |      |      |  |  |
| 532.76                                                                                                                                                                                                                                                                                                                                                            |                                                                                                                                                                                                                                                                                                                                                                  | 2.60                                                               | 2000                                                       | 0.55                                        | 0.37                       | 0.28                       | 0.18                        | 71                                                                                                                         | 80* | 90*  |      |      |      |  |  |
| 445.16                                                                                                                                                                                                                                                                                                                                                            |                                                                                                                                                                                                                                                                                                                                                                  | 3.10                                                               | 1666                                                       | 0.55                                        | 0.36                       | 0.27                       | 0.18                        | 71                                                                                                                         | 80* | 90*  |      |      |      |  |  |
| 412.63                                                                                                                                                                                                                                                                                                                                                            |                                                                                                                                                                                                                                                                                                                                                                  | 3.40                                                               | 1990                                                       | 0.71                                        | 0.47                       | 0.35                       | 0.23                        |                                                                                                                            | 80* | 90*  |      |      |      |  |  |
| 391.14                                                                                                                                                                                                                                                                                                                                                            |                                                                                                                                                                                                                                                                                                                                                                  | 3.60                                                               | 2000                                                       | 0.75                                        | 0.50                       | 0.37                       | 0.25                        | 71                                                                                                                         | 80  | 90*  |      |      |      |  |  |
| 344.78                                                                                                                                                                                                                                                                                                                                                            |                                                                                                                                                                                                                                                                                                                                                                  | 4.10                                                               | 1662                                                       | 0.71                                        | 0.47                       | 0.35                       | 0.23                        |                                                                                                                            | 80* | 90*  |      |      |      |  |  |
| 326.83                                                                                                                                                                                                                                                                                                                                                            |                                                                                                                                                                                                                                                                                                                                                                  | 4.30                                                               | 1890                                                       | 0.85                                        | 0.56                       | 0.42                       | 0.28                        | 71                                                                                                                         | 80  | 90*  |      |      |      |  |  |
| 302.94                                                                                                                                                                                                                                                                                                                                                            |                                                                                                                                                                                                                                                                                                                                                                  | 4.60                                                               | 2077                                                       | 1.01                                        | 0.67                       | 0.50                       | 0.33                        |                                                                                                                            | 80  | 90*  |      |      |      |  |  |
| 272.49                                                                                                                                                                                                                                                                                                                                                            |                                                                                                                                                                                                                                                                                                                                                                  | 5.10                                                               | 1572                                                       | 0.85                                        | 0.56                       | 0.42                       | 0.28                        | 71                                                                                                                         | 80  | 90*  |      |      |      |  |  |
| 253.13                                                                                                                                                                                                                                                                                                                                                            |                                                                                                                                                                                                                                                                                                                                                                  | 5.50                                                               | 1961                                                       | 1.14                                        | 0.75                       | 0.57                       | 0.38                        |                                                                                                                            | 80  | 90*  |      |      |      |  |  |
| 211.05                                                                                                                                                                                                                                                                                                                                                            |                                                                                                                                                                                                                                                                                                                                                                  | 6.60                                                               | 1635                                                       | 1.14                                        | 0.75                       | 0.57                       | 0.38                        |                                                                                                                            | 80  | 90*  |      |      |      |  |  |
| <b>191.52</b>                                                                                                                                                                                                                                                                                                                                                     |                                                                                                                                                                                                                                                                                                                                                                  | <b>7.30</b>                                                        | 1990                                                       | 1.52                                        | 1.01                       | 0.76                       | 0.51                        | 71                                                                                                                         | 80  | 90   | 100* | 112* |      |  |  |
| <b>160.03</b>                                                                                                                                                                                                                                                                                                                                                     |                                                                                                                                                                                                                                                                                                                                                                  | <b>8.70</b>                                                        | 1657                                                       | 1.52                                        | 1.01                       | 0.76                       | 0.50                        | 71                                                                                                                         | 80  | 90   | 100* | 112* |      |  |  |
| <b>140.61</b>                                                                                                                                                                                                                                                                                                                                                     |                                                                                                                                                                                                                                                                                                                                                                  | <b>10.00</b>                                                       | 2000                                                       | 2.09                                        | 1.39                       | 1.04                       | 0.69                        | 71                                                                                                                         | 80  | 90   | 100* | 112* |      |  |  |
| <b>118.53</b>                                                                                                                                                                                                                                                                                                                                                     | <b>11.80</b>                                                                                                                                                                                                                                                                                                                                                     | 2000                                                               | 2.47                                                       | 1.64                                        | 1.24                       | 0.82                       | 71                          | 80                                                                                                                         | 90  | 100* | 112* |      |      |  |  |
| <b>103.86</b>                                                                                                                                                                                                                                                                                                                                                     | <b>13.50</b>                                                                                                                                                                                                                                                                                                                                                     | 2000                                                               | 2.82                                                       | 1.88                                        | 1.41                       | 0.94                       | 71                          | 80                                                                                                                         | 90  | 100* | 112* |      |      |  |  |
| <b>86.78</b>                                                                                                                                                                                                                                                                                                                                                      | <b>16.10</b>                                                                                                                                                                                                                                                                                                                                                     | 1980                                                               | 3.00                                                       | 1.98                                        | 1.50                       | 0.99                       | 71                          | 80                                                                                                                         | 90  | 100  | 112* |      |      |  |  |

IEC - PAM bağlantısı yoktur / No IEC - PAM assembling on empty fields / Keine IEC - PAM-Verbindung

63 IEC - PAM bağlantısı yapılır / IEC - PAM assembling available on numbered fields / IEC - PAM-Verbindung möglich

80\* IEC - PAM bağlantısı yapılacaksa P<sub>1max</sub> değerleri aşılmamalıdır - Do not exceed the P<sub>1max</sub> values indicated on fields with asterisk / Bei IEC - PAM-Verbindungen, sollten die P<sub>1max</sub>-Werte nicht überschritten werden.










| Tip<br>Type<br>Typ                                                                                    | i <sub>ges</sub> | 4-pol.<br>50 Hz<br>1400 rpm<br>n <sub>2</sub> [min <sup>-1</sup> ] | M <sub>amax</sub><br>f <sub>B</sub> =1<br>4 - pol.<br>[Nm] | W<br>P <sub>1max</sub> - f <sub>B</sub> ≥ 1 |                            |                            |                             | IEC - PAM<br>f <sub>B</sub> ⇔  77 - 183 |      |      |      |      |  |  |  |  |  |
|-------------------------------------------------------------------------------------------------------|------------------|--------------------------------------------------------------------|------------------------------------------------------------|---------------------------------------------|----------------------------|----------------------------|-----------------------------|----------------------------------------------------------------------------------------------------------------------------|------|------|------|------|--|--|--|--|--|
|                                                                                                       |                  |                                                                    |                                                            | 4 - pol.<br>1400rpm<br>[kW]                 | 6 - pol.<br>930rpm<br>[kW] | 8 - pol.<br>700rpm<br>[kW] | 12 - pol.<br>465rpm<br>[kW] |                                                                                                                            |      |      |      |      |  |  |  |  |  |
|                                                                                                       |                  |                                                                    |                                                            |                                             |                            |                            |                             | 90*                                                                                                                        |      |      |      |      |  |  |  |  |  |
| <b>PD 42</b>                                                                                          | 155.40           | 9.00                                                               | 1275                                                       | 1.20                                        | 0.80                       | 0.60                       | 0.40                        | 90*                                                                                                                        |      |      |      |      |  |  |  |  |  |
| <b>PM 42</b>                                                                                          | 110.73           | 12.60                                                              | 1600                                                       | 2.12                                        | 1.41                       | 1.06                       | 0.70                        | 90                                                                                                                         | 100* | 112* |      |      |  |  |  |  |  |
|                                                                                                       | 90.52            | 15.50                                                              | 1600                                                       | 2.59                                        | 1.72                       | 1.30                       | 0.86                        | 90                                                                                                                         | 100* | 112* |      |      |  |  |  |  |  |
| <b>W</b><br>         | 75.41            | 18.60                                                              | 1589                                                       | 3.09                                        | 2.05                       | 1.54                       | 1.03                        |                                                                                                                            | 100  | 112* | 132* |      |  |  |  |  |  |
|  206                 | 61.64            | 22.70                                                              | 1794                                                       | 4.27                                        | 2.83                       | 2.13                       | 1.42                        |                                                                                                                            | 100  | 112  | 132* |      |  |  |  |  |  |
|                                                                                                       | 52.23            | 26.80                                                              | 1818                                                       | 5.10                                        | 3.39                       | 2.55                       | 1.69                        |                                                                                                                            | 100  | 112  | 132* |      |  |  |  |  |  |
| <b>+</b>                                                                                              | <b>45.06</b>     | <b>31.10</b>                                                       | 1594                                                       | 5.19                                        | 3.44                       | 2.59                       | 1.72                        | 90                                                                                                                         | 100  | 112  | 132* |      |  |  |  |  |  |
| <b>IEC - PAM</b><br> | 43.64            | 32.10                                                              | 1600                                                       | 5.37                                        | 3.57                       | 2.69                       | 1.79                        |                                                                                                                            | 100  | 112  | 132* |      |  |  |  |  |  |
|  206-207             | <b>40.79</b>     | <b>34.30</b>                                                       | 1556                                                       | 5.59                                        | 3.71                       | 2.80                       | 1.86                        | 90                                                                                                                         | 100  | 112  | 132* |      |  |  |  |  |  |
|                                                                                                       | 38.35            | 36.50                                                              | 2000                                                       | 7.65                                        | 5.08                       | 3.82                       | 2.54                        |                                                                                                                            |      |      | 132* |      |  |  |  |  |  |
|                                                                                                       | <b>36.84</b>     | <b>38.00</b>                                                       | 1400                                                       | 5.57                                        | 3.70                       | 2.79                       | 1.85                        | 90                                                                                                                         | 100  | 112  | 132* |      |  |  |  |  |  |
|                                                                                                       | 36.39            | 38.50                                                              | 1375                                                       | 5.54                                        | 3.68                       | 2.77                       | 1.84                        |                                                                                                                            | 100  | 112  | 132* |      |  |  |  |  |  |
|                                                                                                       | <b>32.31</b>     | <b>43.30</b>                                                       | 1620                                                       | 7.35                                        | 4.88                       | 3.68                       | 2.44                        | 90                                                                                                                         | 100  | 112  | 132* | 160* |  |  |  |  |  |
|                                                                                                       | 32.04            | 43.70                                                              | 1785                                                       | 8.17                                        | 5.43                       | 4.08                       | 2.71                        |                                                                                                                            |      |      | 132* |      |  |  |  |  |  |
|                                                                                                       | 26.72            | 52.40                                                              | 1600                                                       | 8.78                                        | 5.83                       | 4.39                       | 2.92                        |                                                                                                                            |      |      | 132* |      |  |  |  |  |  |
|                                                                                                       | <b>26.41</b>     | <b>53.00</b>                                                       | 1787                                                       | 9.92                                        | 6.59                       | 4.96                       | 3.29                        | 90                                                                                                                         | 100  | 112  | 132  | 160* |  |  |  |  |  |
|                                                                                                       | <b>26.25</b>     | <b>53.30</b>                                                       | 1608                                                       | 8.98                                        | 5.97                       | 4.49                       | 2.98                        | 90                                                                                                                         | 100  | 112  | 132* | 160* |  |  |  |  |  |
|                                                                                                       | <b>22.38</b>     | <b>62.60</b>                                                       | 1699                                                       | 11.13                                       | 7.39                       | 5.56                       | 3.70                        | 90                                                                                                                         | 100  | 112  | 132  | 160* |  |  |  |  |  |
|                                                                                                       | <b>21.46</b>     | <b>65.20</b>                                                       | 1686                                                       | 11.52                                       | 7.65                       | 5.76                       | 3.83                        | 90                                                                                                                         | 100  | 112  | 132  | 160* |  |  |  |  |  |
|                                                                                                       | <b>18.18</b>     | <b>77.00</b>                                                       | 1800                                                       | 14.51                                       | 9.64                       | 7.26                       | 4.82                        | 90                                                                                                                         | 100  | 112  | 132  | 160* |  |  |  |  |  |
|                                                                                                       | <b>15.19</b>     | <b>92.20</b>                                                       | 1800                                                       | 15.00                                       | 9.90                       | 7.50                       | 4.95                        | 90                                                                                                                         | 100  | 112  | 132  | 160  |  |  |  |  |  |
|                                                                                                       | <b>12.67</b>     | <b>110.50</b>                                                      | 1750                                                       | 15.00                                       | 9.90                       | 7.50                       | 4.95                        | 90                                                                                                                         | 100  | 112  | 132  | 160  |  |  |  |  |  |
|                                                                                                       | <b>10.83</b>     | <b>129.30</b>                                                      | 1700                                                       | 15.00                                       | 9.90                       | 7.50                       | 4.95                        | 90                                                                                                                         | 100  | 112  | 132  | 160  |  |  |  |  |  |
|                                                                                                       | <b>9.23</b>      | <b>151.70</b>                                                      | 1634                                                       | 15.00                                       | 9.90                       | 7.50                       | 4.95                        | 90                                                                                                                         | 100  | 112  | 132  | 160  |  |  |  |  |  |
|                                                                                                       | <b>8.33</b>      | <b>168.10</b>                                                      | 1272                                                       | 15.00                                       | 9.90                       | 7.50                       | 4.95                        | 90                                                                                                                         | 100  | 112  | 132  | 160  |  |  |  |  |  |
|                                                                                                       | <b>7.13</b>      | <b>196.40</b>                                                      | 1202                                                       | 15.00                                       | 9.90                       | 7.50                       | 4.95                        | 90                                                                                                                         | 100  | 112  | 132  | 160  |  |  |  |  |  |
|                                                                                                       | <b>6.07</b>      | <b>230.60</b>                                                      | 1200                                                       | 15.00                                       | 9.90                       | 7.50                       | 4.95                        | 90                                                                                                                         | 100  | 112  | 132  | 160  |  |  |  |  |  |
|                                                                                                       | <b>5.44</b>      | <b>257.40</b>                                                      | 1035                                                       | 15.00                                       | 9.90                       | 7.50                       | 4.95                        |                                                                                                                            |      |      | 132  | 160  |  |  |  |  |  |
|                                                                                                       | <b>5.00</b>      | <b>280.00</b>                                                      | 1035                                                       | 15.00                                       | 9.90                       | 7.50                       | 4.95                        |                                                                                                                            |      |      | 132  | 160  |  |  |  |  |  |
|                                                                                                       | <b>4.69</b>      | <b>298.50</b>                                                      | 1035                                                       | 15.00                                       | 9.90                       | 7.50                       | 4.95                        |                                                                                                                            |      |      | 132  | 160  |  |  |  |  |  |

IEC - PAM bağlantısı yoktur / No IEC - PAM assembling on empty fields / Keine IEC - PAM-Verbindung

63 IEC - PAM bağlantısı yapılır / IEC - PAM assembling available on numbered fields / IEC - PAM-Verbindung möglich

80\* IEC - PAM bağlantısı yapılacaktır P<sub>1max</sub> değerleri aşılmamalıdır - Do not exceed the P<sub>1max</sub> values indicated on fields with asterisk / Bei IEC - PAM-Verbindungen, sollten die P<sub>1max</sub>-Werte nicht überschritten werden.






| Tip<br>Type<br>Typ                                                                                                                                                                                                                                                                                                                                                                                                                   | i <sub>ges</sub> | 4-pol.<br>50 Hz<br>1400 rpm<br>n <sub>2</sub> [min <sup>-1</sup> ] | M <sub>amax</sub><br>f <sub>B</sub> =1<br>4 - pol.<br>[Nm] | W<br>P <sub>1max</sub> - f <sub>B</sub> ≥ 1 |                            |                            |                             | IEC - PAM<br>f <sub>B</sub> ⇒  77 - 183 |     |     |      |      |      |  |  |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------|--------------------------------------------------------------------|------------------------------------------------------------|---------------------------------------------|----------------------------|----------------------------|-----------------------------|----------------------------------------------------------------------------------------------------------------------------|-----|-----|------|------|------|--|--|
|                                                                                                                                                                                                                                                                                                                                                                                                                                      |                  |                                                                    |                                                            | 4 - pol.<br>1400rpm<br>[kW]                 | 6 - pol.<br>930rpm<br>[kW] | 8 - pol.<br>700rpm<br>[kW] | 12 - pol.<br>465rpm<br>[kW] |                                                                                                                            |     |     |      |      |      |  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                      |                  |                                                                    |                                                            |                                             |                            |                            |                             |                                                                                                                            |     | 63  | 71*  |      |      |  |  |
| <b>PD 52/12</b><br><b>PM 52/12</b><br><br><br> 239<br><br>+<br><b>IEC - PAM</b><br><br> 238-239  | 2769.78          | 0.51                                                               | 3000                                                       | 0.20                                        | 0.13                       | 0.10                       | 0.07                        | 63                                                                                                                         | 71* |     |      |      |      |  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                      | 2215.83          | 0.63                                                               | 3000                                                       | 0.24                                        | 0.16                       | 0.12                       | 0.08                        | 63                                                                                                                         | 71* |     |      |      |      |  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                      | 1802.82          | 0.78                                                               | 3000                                                       | 0.28                                        | 0.19                       | 0.14                       | 0.09                        | 63                                                                                                                         | 71* |     |      |      |      |  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                      | 1333.49          | 1.00                                                               | 3000                                                       | 0.37                                        | 0.24                       | 0.18                       | 0.12                        |                                                                                                                            | 71* | 80* | 90*  |      |      |  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                      | <b>1094.40</b>   | <b>1.30</b>                                                        | 3000                                                       | 0.44                                        | 0.29                       | 0.22                       | 0.15                        | 63                                                                                                                         | 71  | 80* | 90*  |      |      |  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                      | <b>861.34</b>    | <b>1.60</b>                                                        | 3000                                                       | 0.55                                        | 0.36                       | 0.28                       | 0.18                        | 63                                                                                                                         | 71  | 80* | 90*  | 100* | 112* |  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                      | <b>689.07</b>    | <b>2.00</b>                                                        | 3000                                                       | 0.68                                        | 0.45                       | 0.34                       | 0.22                        | 63                                                                                                                         | 71  | 80* | 90*  | 100* | 112* |  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                      | <b>549.54</b>    | <b>2.50</b>                                                        | 3000                                                       | 0.80                                        | 0.53                       | 0.40                       | 0.27                        | 63                                                                                                                         | 71  | 80  | 90*  | 100* | 112* |  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                      | <b>448.15</b>    | <b>3.10</b>                                                        | 3000                                                       | 0.98                                        | 0.65                       | 0.49                       | 0.33                        | 63                                                                                                                         | 71  | 80  | 90*  | 100* | 112* |  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                      | <b>338.40</b>    | <b>4.10</b>                                                        | 3000                                                       | 1.30                                        | 0.86                       | 0.65                       | 0.43                        | 63                                                                                                                         | 71  | 80  | 90*  | 100* | 112* |  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                      | <b>272.80</b>    | <b>5.10</b>                                                        | 3000                                                       | 1.61                                        | 1.07                       | 0.81                       | 0.54                        | 63                                                                                                                         | 71  | 80  | 90   | 100* | 112* |  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                      | <b>232.65</b>    | <b>6.00</b>                                                        | 3000                                                       | 1.89                                        | 1.26                       | 0.95                       | 0.63                        | 63                                                                                                                         | 71  | 80  | 90   | 100* | 112* |  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                      | <b>174.49</b>    | <b>8.00</b>                                                        | 3000                                                       | 2.52                                        | 1.67                       | 1.26                       | 0.84                        | 63                                                                                                                         | 71  | 80  | 90   | 100* | 112* |  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                      | <b>142.31</b>    | <b>9.80</b>                                                        | 3000                                                       | 3.00                                        | 1.98                       | 1.50                       | 0.99                        | 63                                                                                                                         | 71  | 80  | 90   | 100  | 112* |  |  |
| <b>PD 53</b><br><b>PM 53</b><br><br><br> 210<br><br>+<br><b>IEC - PAM</b><br><br> 210-211 | 1367.36          | 1.00                                                               | 2700                                                       | 0.29                                        | 0.19                       | 0.14                       | 0.10                        |                                                                                                                            | 80* | 90* |      |      |      |  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                      | 936.55           | 1.50                                                               | 2700                                                       | 0.42                                        | 0.28                       | 0.21                       | 0.14                        |                                                                                                                            | 80* | 90* |      |      |      |  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                      | 699.67           | 2.00                                                               | 3200                                                       | 0.67                                        | 0.45                       | 0.34                       | 0.22                        |                                                                                                                            | 80* | 90* |      |      |      |  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                      | 570.63           | 2.50                                                               | 2800                                                       | 0.72                                        | 0.48                       | 0.36                       | 0.24                        |                                                                                                                            | 80* | 90* |      |      |      |  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                      | 524.75           | 2.70                                                               | 3200                                                       | 0.89                                        | 0.59                       | 0.45                       | 0.30                        |                                                                                                                            | 80  | 90* |      |      |      |  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                      | 427.97           | 3.30                                                               | 3200                                                       | 1.10                                        | 0.73                       | 0.55                       | 0.36                        |                                                                                                                            | 80  | 90* |      |      |      |  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                      | 361.64           | 3.90                                                               | 2800                                                       | 1.14                                        | 0.75                       | 0.57                       | 0.38                        |                                                                                                                            | 80  | 90* |      |      |      |  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                      | <b>331.54</b>    | <b>4.20</b>                                                        | 3200                                                       | 1.41                                        | 0.94                       | 0.71                       | 0.47                        | 71                                                                                                                         | 80  | 90* | 100* | 112* |      |  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                      | <b>270.40</b>    | <b>5.20</b>                                                        | 2700                                                       | 1.46                                        | 0.97                       | 0.73                       | 0.49                        | 71                                                                                                                         | 80  | 90* | 100* | 112* |      |  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                      | <b>248.66</b>    | <b>5.60</b>                                                        | 3200                                                       | 1.89                                        | 1.25                       | 0.94                       | 0.63                        | 71                                                                                                                         | 80  | 90  | 100* | 112* |      |  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                      | <b>202.80</b>    | <b>6.90</b>                                                        | 3200                                                       | 2.31                                        | 1.54                       | 1.16                       | 0.77                        | 71                                                                                                                         | 80  | 90  | 100* | 112* |      |  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                      | <b>171.36</b>    | <b>8.20</b>                                                        | 2800                                                       | 2.40                                        | 1.59                       | 1.20                       | 0.80                        | 71                                                                                                                         | 80  | 90  | 100* | 112* |      |  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                      | <b>153.85</b>    | <b>9.10</b>                                                        | 3200                                                       | 3.05                                        | 2.03                       | 1.52                       | 1.01                        | 71                                                                                                                         | 80  | 90  | 100  | 112* |      |  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                      | <b>138.78</b>    | <b>10.10</b>                                                       | 3200                                                       | 3.38                                        | 2.25                       | 1.69                       | 1.12                        | 71                                                                                                                         | 80  | 90  | 100  | 112* |      |  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                      | <b>117.27</b>    | <b>11.90</b>                                                       | 2750                                                       | 3.44                                        | 2.28                       | 1.72                       | 1.14                        | 71                                                                                                                         | 80  | 90  | 100  | 112* |      |  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                      | <b>91.51</b>     | <b>15.30</b>                                                       | 2900                                                       | 4.65                                        | 3.09                       | 2.32                       | 1.54                        | 71                                                                                                                         | 80  | 90  | 100  | 112  |      |  |  |
| <b>82.55</b>                                                                                                                                                                                                                                                                                                                                                                                                                         | <b>17.00</b>     | 2795                                                               | 4.96                                                       | 3.30                                        | 2.48                       | 1.65                       | 71                          | 80                                                                                                                         | 90  | 100 | 112  |      |      |  |  |

IEC - PAM bağlantısı yoktur / No IEC - PAM assembling on empty fields / Keine IEC - PAM-Verbindung

63 IEC - PAM bağlantısı yapılır / IEC - PAM assembling available on numbered fields / IEC - PAM-Verbindung möglich














80\* IEC - PAM bağlantısı yapılacaksa P<sub>1max</sub> değerleri aşılmamalıdır - Do not exceed the P<sub>1max</sub> values indicated on fields with asterisk / Bei IEC - PAM-Verbindungen, sollten die P<sub>1max</sub>-Werte nicht überschritten werden.

| Tip<br>Type<br>Typ                                                                                                           | i <sub>ges</sub> | 4-pol.<br>50 Hz<br>1400 rpm<br>n <sub>2</sub> [min <sup>-1</sup> ] | M <sub>amax</sub><br>f <sub>B</sub> =1<br>4 - pol.<br>[Nm] | W<br>P <sub>1max</sub> - f <sub>B</sub> ≥ 1 |                            |                            |                             | IEC - PAM<br>f <sub>B</sub> ⇔  77 - 183 |      |      |      |      |      |  |  |
|------------------------------------------------------------------------------------------------------------------------------|------------------|--------------------------------------------------------------------|------------------------------------------------------------|---------------------------------------------|----------------------------|----------------------------|-----------------------------|----------------------------------------------------------------------------------------------------------------------------|------|------|------|------|------|--|--|
|                                                                                                                              |                  |                                                                    |                                                            | 4 - pol.<br>1400rpm<br>[kW]                 | 6 - pol.<br>930rpm<br>[kW] | 8 - pol.<br>700rpm<br>[kW] | 12 - pol.<br>465rpm<br>[kW] |                                                                                                                            |      |      |      |      |      |  |  |
|                                                                                                                              |                  |                                                                    |                                                            |                                             |                            |                            |                             |                                                                                                                            |      | 90   | 100* | 112* |      |  |  |
| <b>PD 52</b>                                                                                                                 | 134.05           | 10.40                                                              | 2654                                                       | 2.90                                        | 1.93                       | 1.45                       | 0.96                        | 90                                                                                                                         | 100* | 112* |      |      |      |  |  |
| <b>PM 52</b>                                                                                                                 | 100.15           | 14.00                                                              | 2241                                                       | 3.28                                        | 2.18                       | 1.64                       | 1.09                        | 90                                                                                                                         | 100  | 112* |      |      |      |  |  |
|                                                                                                                              | 91.82            | 15.20                                                              | 2759                                                       | 4.40                                        | 2.93                       | 2.20                       | 1.46                        |                                                                                                                            | 100  | 112  | 132* |      |      |  |  |
|                                                                                                                              | 81.68            | 17.10                                                              | 1828                                                       | 3.28                                        | 2.18                       | 1.64                       | 1.09                        | 90                                                                                                                         | 100  | 112* |      |      |      |  |  |
|                                                                                                                              | 68.60            | 20.40                                                              | 2970                                                       | 6.35                                        | 4.22                       | 3.17                       | 2.11                        |                                                                                                                            | 100  | 112  | 132* |      |      |  |  |
|                                                                                                                              | 55.94            | 25.00                                                              | 2600                                                       | 6.81                                        | 4.53                       | 3.41                       | 2.26                        |                                                                                                                            | 100  | 112  | 132* |      |      |  |  |
| <b>W</b><br><br>210                         | <b>55.55</b>     | <b>25.20</b>                                                       | 2500                                                       | 6.60                                        | 4.38                       | 3.30                       | 2.19                        | 90                                                                                                                         | 100  | 112  | 132* |      |      |  |  |
| <b>+</b><br><b>IEC - PAM</b><br><br>210-211 | 51.45            | 27.20                                                              | 3235                                                       | 9.22                                        | 6.12                       | 4.61                       | 3.06                        |                                                                                                                            |      |      | 132* |      |      |  |  |
|                                                                                                                              | 47.27            | 29.60                                                              | 2400                                                       | 7.44                                        | 4.94                       | 3.72                       | 2.47                        |                                                                                                                            | 100  | 112  | 132* |      |      |  |  |
|                                                                                                                              | 41.96            | 33.40                                                              | 3200                                                       | 11.18                                       | 7.43                       | 5.59                       | 3.71                        |                                                                                                                            |      |      | 132  |      |      |  |  |
|                                                                                                                              | <b>40.79</b>     | <b>34.30</b>                                                       | 2500                                                       | 8.98                                        | 5.97                       | 4.49                       | 2.98                        | 90                                                                                                                         | 100  | 112  | 132* | 160* |      |  |  |
|                                                                                                                              | 35.45            | 39.50                                                              | 2700                                                       | 11.17                                       | 7.42                       | 5.58                       | 3.71                        |                                                                                                                            |      |      | 132  |      |      |  |  |
|                                                                                                                              | <b>33.41</b>     | <b>41.90</b>                                                       | 2300                                                       | 10.09                                       | 6.70                       | 5.05                       | 3.35                        | 90                                                                                                                         | 100  | 112  | 132  | 160* | 180* |  |  |
|                                                                                                                              | <b>30.47</b>     | <b>45.90</b>                                                       | 2900                                                       | 13.95                                       | 9.27                       | 6.98                       | 4.63                        | 90                                                                                                                         | 100  | 112  | 132  | 160* | 180* |  |  |
|                                                                                                                              | <b>24.96</b>     | <b>56.10</b>                                                       | 2900                                                       | 17.03                                       | 11.31                      | 8.52                       | 5.66                        | 90                                                                                                                         | 100  | 112  | 132  | 160  | 180* |  |  |
|                                                                                                                              | <b>20.36</b>     | <b>68.80</b>                                                       | 3100                                                       | 22.00                                       | 14.52                      | 11.00                      | 7.26                        | 90                                                                                                                         | 100  | 112  | 132  | 160  | 180  |  |  |
|                                                                                                                              | <b>18.86</b>     | <b>74.20</b>                                                       | 2600                                                       | 20.21                                       | 13.42                      | 10.10                      | 6.71                        | 90                                                                                                                         | 100  | 112  | 132  | 160  | 180* |  |  |
|                                                                                                                              | <b>17.61</b>     | <b>79.50</b>                                                       | 2750                                                       | 22.00                                       | 14.52                      | 11.00                      | 7.26                        | 90                                                                                                                         | 100  | 112  | 132  | 160  | 180  |  |  |
|                                                                                                                              | <b>15.38</b>     | <b>91.00</b>                                                       | 2600                                                       | 22.00                                       | 14.52                      | 11.00                      | 7.26                        | 90                                                                                                                         | 100  | 112  | 132  | 160  | 180  |  |  |
|                                                                                                                              | <b>13.00</b>     | <b>107.70</b>                                                      | 2629                                                       | 22.00                                       | 14.52                      | 11.00                      | 7.26                        | 90                                                                                                                         | 100  | 112  | 132  | 160  | 180  |  |  |
|                                                                                                                              | <b>10.73</b>     | <b>130.50</b>                                                      | 2500                                                       | 22.00                                       | 14.52                      | 11.00                      | 7.26                        |                                                                                                                            | 100  | 112  | 132  | 160  | 180  |  |  |
|                                                                                                                              | <b>9.47</b>      | <b>147.80</b>                                                      | 2300                                                       | 22.00                                       | 14.52                      | 11.00                      | 7.26                        |                                                                                                                            | 100  | 112  | 132  | 160  | 180  |  |  |
|                                                                                                                              | <b>8.69</b>      | <b>161.10</b>                                                      | 2360                                                       | 22.00                                       | 14.52                      | 11.00                      | 7.26                        | 90                                                                                                                         | 100  | 112  | 132  | 160  | 180  |  |  |
|                                                                                                                              | <b>7.17</b>      | <b>195.30</b>                                                      | 2161                                                       | 22.00                                       | 14.52                      | 11.00                      | 7.26                        |                                                                                                                            | 100  | 112  | 132  | 160  | 180  |  |  |
|                                                                                                                              | <b>6.33</b>      | <b>221.20</b>                                                      | 2114                                                       | 22.00                                       | 14.52                      | 11.00                      | 7.26                        |                                                                                                                            | 100  | 112  | 132  | 160  | 180  |  |  |
|                                                                                                                              | <b>5.70</b>      | <b>245.60</b>                                                      | 1800                                                       | 22.00                                       | 14.52                      | 11.00                      | 7.26                        |                                                                                                                            |      |      |      | 160  | 180  |  |  |
|                                                                                                                              | <b>5.35</b>      | <b>261.70</b>                                                      | 1750                                                       | 22.00                                       | 14.52                      | 11.00                      | 7.26                        |                                                                                                                            |      |      |      | 160  | 180  |  |  |
|                                                                                                                              | <b>5.02</b>      | <b>278.90</b>                                                      | 1700                                                       | 22.00                                       | 14.52                      | 11.00                      | 7.26                        |                                                                                                                            |      |      |      | 160  | 180  |  |  |
|                                                                                                                              | <b>4.32</b>      | <b>324.10</b>                                                      | 1550                                                       | 22.00                                       | 14.52                      | 11.00                      | 7.26                        |                                                                                                                            |      |      |      | 160  | 180  |  |  |

IEC - PAM bağlantısı yoktur / No IEC - PAM assembling on empty fields / Keine IEC - PAM-Verbindung

63 IEC - PAM bağlantısı yapılır / IEC - PAM assembling available on numbered fields / IEC - PAM-Verbindung möglich




80\* IEC - PAM bağlantısı yapılacaktır P<sub>1max</sub> değerleri aşılmamalıdır - Do not exceed the P<sub>1max</sub> values indicated on fields with asterisk / Bei IEC - PAM-Verbindungen, sollten die P<sub>1max</sub>-Werte nicht überschritten werden.

| Tip<br>Type<br>Typ                                                                                                                                                                                                                                                                                                                                                                                                                | i <sub>ges</sub>                                                                                                                                                                                                                                                                                                                                                                                                                   | 4-pol.<br>50 Hz<br>1400 rpm<br>n <sub>2</sub> [min <sup>-1</sup> ] | M <sub>amax</sub><br>f <sub>B</sub> =1<br>4 - pol.<br>[Nm] | W<br>P <sub>1max</sub> - f <sub>B</sub> ≥ 1 |                            |                            |                             | IEC - PAM<br>f <sub>B</sub> ⇔  77 - 183 |      |      |      |      |     |  |  |  |  |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------|------------------------------------------------------------|---------------------------------------------|----------------------------|----------------------------|-----------------------------|----------------------------------------------------------------------------------------------------------------------------|------|------|------|------|-----|--|--|--|--|
|                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                    |                                                            | 4 - pol.<br>1400rpm<br>[kW]                 | 6 - pol.<br>930rpm<br>[kW] | 8 - pol.<br>700rpm<br>[kW] | 12 - pol.<br>465rpm<br>[kW] |                                                                                                                            |      |      |      |      |     |  |  |  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                    |                                                            |                                             |                            |                            |                             | 71*                                                                                                                        | 80*  |      |      |      |     |  |  |  |  |
| <b>PD 63/22</b><br><b>PM 63/22</b><br><br><br> 241<br>+<br><b>IEC - PAM</b><br><br> 240-241   | 4160.29                                                                                                                                                                                                                                                                                                                                                                                                                            | 0.34                                                               | 4780                                                       | 0.21                                        | 0.14                       | 0.10                       | 0.07                        | 71*                                                                                                                        | 80*  |      |      |      |     |  |  |  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                   | 3456.44                                                                                                                                                                                                                                                                                                                                                                                                                            | 0.41                                                               | 5400                                                       | 0.27                                        | 0.18                       | 0.13                       | 0.09                        | 71*                                                                                                                        | 80*  | 90*  |      |      |     |  |  |  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                   | 2738.15                                                                                                                                                                                                                                                                                                                                                                                                                            | 0.51                                                               | 4780                                                       | 0.30                                        | 0.20                       | 0.15                       | 0.10                        | 71*                                                                                                                        | 80*  | 90*  |      |      |     |  |  |  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                   | 2209.62                                                                                                                                                                                                                                                                                                                                                                                                                            | 0.63                                                               | 5400                                                       | 0.40                                        | 0.26                       | 0.20                       | 0.13                        |                                                                                                                            | 80*  | 90*  |      |      |     |  |  |  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                   | 1859.06                                                                                                                                                                                                                                                                                                                                                                                                                            | 0.75                                                               | 5400                                                       | 0.47                                        | 0.31                       | 0.23                       | 0.15                        |                                                                                                                            | 80*  | 90*  |      |      |     |  |  |  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                   | <b>1260.77</b>                                                                                                                                                                                                                                                                                                                                                                                                                     | <b>1.10</b>                                                        | 5400                                                       | 0.67                                        | 0.44                       | 0.33                       | 0.22                        | 71                                                                                                                         | 80*  | 90*  | 100* | 112* |     |  |  |  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                   | <b>1104.71</b>                                                                                                                                                                                                                                                                                                                                                                                                                     | <b>1.30</b>                                                        | 5400                                                       | 0.76                                        | 0.50                       | 0.38                       | 0.25                        | 71                                                                                                                         | 80   | 90*  | 100* | 112* |     |  |  |  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                   | <b>821.10</b>                                                                                                                                                                                                                                                                                                                                                                                                                      | <b>1.70</b>                                                        | 5400                                                       | 0.96                                        | 0.64                       | 0.48                       | 0.32                        | 71                                                                                                                         | 80   | 90*  | 100* | 112* |     |  |  |  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                   | <b>637.34</b>                                                                                                                                                                                                                                                                                                                                                                                                                      | <b>2.20</b>                                                        | 5400                                                       | 1.24                                        | 0.83                       | 0.62                       | 0.41                        | 71                                                                                                                         | 80   | 90*  | 100* | 112* |     |  |  |  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                   | <b>570.21</b>                                                                                                                                                                                                                                                                                                                                                                                                                      | <b>2.50</b>                                                        | 5400                                                       | 1.39                                        | 0.92                       | 0.69                       | 0.46                        | 71                                                                                                                         | 80   | 90*  | 100* | 112* |     |  |  |  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                   | <b>434.44</b>                                                                                                                                                                                                                                                                                                                                                                                                                      | <b>3.20</b>                                                        | 5400                                                       | 1.82                                        | 1.21                       | 0.91                       | 0.61                        | 71                                                                                                                         | 80   | 90   | 100* | 112* |     |  |  |  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                   | <b>349.07</b>                                                                                                                                                                                                                                                                                                                                                                                                                      | <b>4.00</b>                                                        | 5400                                                       | 2.27                                        | 1.51                       | 1.13                       | 0.75                        | 71                                                                                                                         | 80   | 90   | 100* | 112* |     |  |  |  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                   | <b>300.12</b>                                                                                                                                                                                                                                                                                                                                                                                                                      | <b>4.70</b>                                                        | 5400                                                       | 2.64                                        | 1.75                       | 1.32                       | 0.88                        | 71                                                                                                                         | 80   | 90   | 100* | 112* |     |  |  |  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                   | <b>PD 63/32</b><br><b>PM 63/32</b><br><br><br> 241<br>+<br><b>IEC - PAM</b><br><br> 240-241 | <b>223.50</b>                                                      | <b>6.30</b>                                                | 4780                                        | 3.14                       | 2.08                       | 1.57                        | 1.04                                                                                                                       | 90   | 100  | 112* | 132* |     |  |  |  |  |
| 191.13                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                                                                                                                                                                                                                                                                                                                                                                                    | 7.30                                                               | 4780                                                       | 3.67                                        | 2.44                       | 1.83                       | 1.22                        | 90                                                                                                                         | 100  | 112* | 132* |      |     |  |  |  |  |
| <b>158.90</b>                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                    | <b>8.80</b>                                                        | 4780                                                       | 4.41                                        | 2.93                       | 2.20                       | 1.46                        | 90                                                                                                                         | 100  | 112  | 132* |      |     |  |  |  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                    |                                                            |                                             |                            |                            |                             |                                                                                                                            |      |      |      |      |     |  |  |  |  |
| <b>PD 63</b><br><b>PM 63</b><br><br><br> 214<br>+<br><b>IEC - PAM</b><br><br> 214-215 | 552.15                                                                                                                                                                                                                                                                                                                                                                                                                             | 2.50                                                               | 5170                                                       | 1.37                                        | 0.91                       | 0.69                       | 0.46                        | 90*                                                                                                                        |      |      |      |      |     |  |  |  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                   | 445.80                                                                                                                                                                                                                                                                                                                                                                                                                             | 3.10                                                               | 4170                                                       | 1.37                                        | 0.91                       | 0.69                       | 0.46                        | 90*                                                                                                                        |      |      |      |      |     |  |  |  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                   | 393.43                                                                                                                                                                                                                                                                                                                                                                                                                             | 3.60                                                               | 5880                                                       | 2.19                                        | 1.46                       | 1.10                       | 0.73                        | 90                                                                                                                         | 100* | 112* |      |      |     |  |  |  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                   | 317.64                                                                                                                                                                                                                                                                                                                                                                                                                             | 4.40                                                               | 5640                                                       | 2.60                                        | 1.73                       | 1.30                       | 0.86                        | 90                                                                                                                         | 100* | 112* |      |      |     |  |  |  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                   | 267.94                                                                                                                                                                                                                                                                                                                                                                                                                             | 5.20                                                               | 5880                                                       | 3.22                                        | 2.14                       | 1.61                       | 1.07                        |                                                                                                                            | 100  | 112* | 132* |      |     |  |  |  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                   | 251.63                                                                                                                                                                                                                                                                                                                                                                                                                             | 5.60                                                               | 4480                                                       | 2.61                                        | 1.73                       | 1.30                       | 0.87                        | 90                                                                                                                         | 100* | 112* |      |      |     |  |  |  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                   | 225.83                                                                                                                                                                                                                                                                                                                                                                                                                             | 6.20                                                               | 4020                                                       | 2.61                                        | 1.73                       | 1.30                       | 0.87                        | 90                                                                                                                         | 100* | 112* |      |      |     |  |  |  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                   | 212.26                                                                                                                                                                                                                                                                                                                                                                                                                             | 6.60                                                               | 4670                                                       | 3.23                                        | 2.14                       | 1.61                       | 1.07                        |                                                                                                                            | 100  | 112* | 132* |      |     |  |  |  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                   | 171.37                                                                                                                                                                                                                                                                                                                                                                                                                             | 8.20                                                               | 5570                                                       | 4.76                                        | 3.17                       | 2.38                       | 1.58                        |                                                                                                                            | 100  | 112  | 132* |      |     |  |  |  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                   | <b>160.11</b>                                                                                                                                                                                                                                                                                                                                                                                                                      | <b>8.70</b>                                                        | 5770                                                       | 5.28                                        | 3.51                       | 2.64                       | 1.75                        | 90                                                                                                                         | 100  | 112  | 132* |      |     |  |  |  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                   | <b>126.84</b>                                                                                                                                                                                                                                                                                                                                                                                                                      | <b>11.00</b>                                                       | 4580                                                       | 5.29                                        | 3.52                       | 2.65                       | 1.76                        | 90                                                                                                                         | 100  | 112  | 132* |      |     |  |  |  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                   | <b>114.79</b>                                                                                                                                                                                                                                                                                                                                                                                                                      | <b>12.20</b>                                                       | 5880                                                       | 7.51                                        | 4.99                       | 3.75                       | 2.49                        | 90                                                                                                                         | 100  | 112  | 132* | 160* |     |  |  |  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                   | <b>92.68</b>                                                                                                                                                                                                                                                                                                                                                                                                                       | <b>15.10</b>                                                       | 6000                                                       | 9.49                                        | 6.30                       | 4.75                       | 3.15                        | 90                                                                                                                         | 100  | 112  | 132  | 160* |     |  |  |  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                   | <b>75.30</b>                                                                                                                                                                                                                                                                                                                                                                                                                       | <b>18.60</b>                                                       | 6000                                                       | 11.68                                       | 7.76                       | 5.84                       | 3.88                        | 90                                                                                                                         | 100  | 112  | 132  | 160* |     |  |  |  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                   | <b>73.42</b>                                                                                                                                                                                                                                                                                                                                                                                                                       | <b>19.10</b>                                                       | 5570                                                       | 11.10                                       | 7.39                       | 5.56                       | 3.69                        | 90                                                                                                                         | 100  | 112  | 132  | 160* |     |  |  |  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                   | <b>59.65</b>                                                                                                                                                                                                                                                                                                                                                                                                                       | <b>23.50</b>                                                       | 5500                                                       | 13.52                                       | 8.98                       | 6.76                       | 4.49                        | 90                                                                                                                         | 100  | 112  | 132  | 160* |     |  |  |  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                   | <b>51.01</b>                                                                                                                                                                                                                                                                                                                                                                                                                       | <b>27.40</b>                                                       | 5080                                                       | 14.60                                       | 9.70                       | 7.30                       | 4.85                        | 90                                                                                                                         | 100  | 112  | 132  | 160* |     |  |  |  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                   | <b>42.41</b>                                                                                                                                                                                                                                                                                                                                                                                                                       | <b>33.00</b>                                                       | 4550                                                       | 15.73                                       | 10.45                      | 7.86                       | 5.22                        | 90                                                                                                                         | 100  | 112  | 132  | 160  |     |  |  |  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                   | <b>36.27</b>                                                                                                                                                                                                                                                                                                                                                                                                                       | <b>38.60</b>                                                       | 4550                                                       | 18.39                                       | 12.22                      | 9.20                       | 6.11                        | 90                                                                                                                         | 100  | 112  | 132  | 160  |     |  |  |  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                   | <b>30.90</b>                                                                                                                                                                                                                                                                                                                                                                                                                       | <b>45.30</b>                                                       | 4550                                                       | 21.59                                       | 14.34                      | 10.79                      | 7.17                        | 90                                                                                                                         | 100  | 112  | 132  | 160  | 180 |  |  |  |  |
| <b>28.66</b>                                                                                                                                                                                                                                                                                                                                                                                                                      | <b>48.80</b>                                                                                                                                                                                                                                                                                                                                                                                                                       | 4600                                                               | 22.00                                                      | 14.52                                       | 11.00                      | 7.26                       | 90                          | 100                                                                                                                        | 112  | 132  | 160  | 180  |     |  |  |  |  |
| <b>24.42</b>                                                                                                                                                                                                                                                                                                                                                                                                                      | <b>57.30</b>                                                                                                                                                                                                                                                                                                                                                                                                                       | 4690                                                               | 22.00                                                      | 14.52                                       | 11.00                      | 7.26                       | 90                          | 100                                                                                                                        | 112  | 132  | 160  | 180  |     |  |  |  |  |

IEC - PAM bağlantısı yoktur / No IEC - PAM assembling on empty fields / Keine IEC - PAM-Verbindung

63 IEC - PAM bağlantısı yapılır / IEC - PAM assembling available on numbered fields / IEC - PAM-Verbindung möglich














80\* IEC - PAM bağlantısı yapılacaksa P<sub>1max</sub> değerleri aşılmamalıdır - Do not exceed the P<sub>1max</sub> values indicated on fields with asterisk / Bei IEC - PAM-Verbindungen, sollten die P<sub>1max</sub>-Werte nicht überschritten werden.

| Tip<br>Type<br>Typ                                                                                               | i <sub>ges</sub> | 4-pol.<br>50 Hz<br>1400 rpm<br>n <sub>2</sub> [min <sup>-1</sup> ] | M <sub>amax</sub><br>f <sub>B</sub> =1<br>4 - pol.<br>[Nm] | W<br>P <sub>1max</sub> - f <sub>B</sub> ≥ 1 |                            |                            |                             | IEC - PAM<br>f <sub>B</sub> ⇔  77 - 183 |     |      |      |      |      |      |  |  |
|------------------------------------------------------------------------------------------------------------------|------------------|--------------------------------------------------------------------|------------------------------------------------------------|---------------------------------------------|----------------------------|----------------------------|-----------------------------|----------------------------------------------------------------------------------------------------------------------------|-----|------|------|------|------|------|--|--|
|                                                                                                                  |                  |                                                                    |                                                            | 4 - pol.<br>1400rpm<br>[kW]                 | 6 - pol.<br>930rpm<br>[kW] | 8 - pol.<br>700rpm<br>[kW] | 12 - pol.<br>465rpm<br>[kW] |                                                                                                                            |     |      |      |      |      |      |  |  |
|                                                                                                                  |                  |                                                                    |                                                            |                                             |                            |                            |                             |                                                                                                                            |     |      |      |      |      |      |  |  |
| <b>PD 62</b>                                                                                                     | 80.26            | 17.40                                                              | 4131                                                       | 7.55                                        | 5.01                       | 3.77                       | 2.51                        | 100                                                                                                                        | 112 | 132* |      |      |      |      |  |  |
|                                                                                                                  | <b>PM 62</b>     | 65.45                                                              | 21.40                                                      | 3369                                        | 7.55                       | 5.01                       | 3.77                        | 2.51                                                                                                                       | 100 | 112  | 132* |      |      |      |  |  |
| <b>W</b><br><br>214             | 61.05            | 22.90                                                              | 4535                                                       | 10.89                                       | 7.23                       | 5.44                       | 3.62                        |                                                                                                                            |     | 132  | 160* | 180* |      |      |  |  |
|                                                                                                                  | 49.79            | 28.10                                                              | 4040                                                       | 11.89                                       | 7.90                       | 5.95                       | 3.95                        |                                                                                                                            |     | 132  | 160* | 180* |      |      |  |  |
| +                                                                                                                | 39.44            | 35.50                                                              | 3200                                                       | 11.89                                       | 7.90                       | 5.95                       | 3.95                        |                                                                                                                            |     | 132  | 160* | 180* |      |      |  |  |
|                                                                                                                  | <b>29.89</b>     | <b>46.80</b>                                                       | 4537                                                       | 22.25                                       | 14.78                      | 11.13                      | 7.39                        | 100                                                                                                                        | 112 | 132  | 160  | 180  |      |      |  |  |
| <b>IEC - PAM</b><br><br>214-215 | <b>26.02</b>     | <b>53.80</b>                                                       | 4533                                                       | 25.54                                       | 16.97                      | 12.77                      | 8.48                        | 100                                                                                                                        | 112 | 132  | 160  | 180  |      |      |  |  |
|                                                                                                                  | <b>22.91</b>     | <b>61.10</b>                                                       | 4535                                                       | 29.02                                       | 19.28                      | 14.51                      | 9.64                        | 100                                                                                                                        | 112 | 132  | 160  | 180  | 200* | 225* |  |  |
|                                                                                                                  | <b>18.68</b>     | <b>74.90</b>                                                       | 4427                                                       | 34.74                                       | 23.08                      | 17.37                      | 11.54                       | 100                                                                                                                        | 112 | 132  | 160  | 180  | 200  | 225* |  |  |
|                                                                                                                  | <b>14.80</b>     | <b>94.60</b>                                                       | 4475                                                       | 44.33                                       | 29.44                      | 22.16                      | 14.72                       | 100                                                                                                                        | 112 | 132  | 160  | 180  | 200  | 225* |  |  |
|                                                                                                                  | <b>12.34</b>     | <b>113.50</b>                                                      | 4389                                                       | 45.00                                       | 29.70                      | 22.50                      | 14.85                       | 100                                                                                                                        | 112 | 132  | 160  | 180  | 200  | 225  |  |  |
|                                                                                                                  | <b>10.64</b>     | <b>131.60</b>                                                      | 2026                                                       | 27.91                                       | 18.54                      | 13.96                      | 9.27                        | 100                                                                                                                        | 112 | 132  | 160  | 180  |      |      |  |  |
|                                                                                                                  | <b>10.62</b>     | <b>131.80</b>                                                      | 4314                                                       | 45.00                                       | 29.70                      | 22.50                      | 14.85                       | 100                                                                                                                        | 112 | 132  | 160  | 180  | 200  | 225  |  |  |
|                                                                                                                  | <b>9.37</b>      | <b>149.40</b>                                                      | 2754                                                       | 43.09                                       | 28.62                      | 21.54                      | 14.31                       | 100                                                                                                                        | 112 | 132  | 160  | 180  | 200  | 225* |  |  |
|                                                                                                                  | <b>7.81</b>      | <b>179.30</b>                                                      | 2682                                                       | 45.00                                       | 29.70                      | 22.50                      | 14.85                       | 100                                                                                                                        | 112 | 132  | 160  | 180  | 200  | 225  |  |  |
|                                                                                                                  | <b>6.73</b>      | <b>208.00</b>                                                      | 2990                                                       | 45.00                                       | 29.70                      | 22.50                      | 14.85                       | 100                                                                                                                        | 112 | 132  | 160  | 180  | 200  | 225  |  |  |
|                                                                                                                  | <b>5.99</b>      | <b>233.70</b>                                                      | 2392                                                       | 45.00                                       | 29.70                      | 22.50                      | 14.85                       |                                                                                                                            |     |      |      | 180  | 200  | 225  |  |  |
|                                                                                                                  | <b>5.78</b>      | <b>242.20</b>                                                      | 2334                                                       | 45.00                                       | 29.70                      | 22.50                      | 14.85                       |                                                                                                                            |     | 132  | 160  | 180  | 200  | 225  |  |  |
|                                                                                                                  | <b>5.49</b>      | <b>255.00</b>                                                      | 2291                                                       | 45.00                                       | 29.70                      | 22.50                      | 14.85                       |                                                                                                                            |     | 132  | 160  | 180  | 200  | 225  |  |  |
|                                                                                                                  | <b>4.90</b>      | <b>285.70</b>                                                      | 2156                                                       | 45.00                                       | 29.70                      | 22.50                      | 14.85                       |                                                                                                                            |     | 132  | 160  | 180  | 200  | 225  |  |  |
|                                                                                                                  | <b>4.38</b>      | <b>319.60</b>                                                      | 2034                                                       | 45.00                                       | 29.70                      | 22.50                      | 14.85                       |                                                                                                                            |     |      |      | 180  | 200  | 225  |  |  |

IEC - PAM bağlantısı yoktur / No IEC - PAM assembling on empty fields / Keine IEC - PAM-Verbindung

63 IEC - PAM bağlantısı yapılır / IEC - PAM assembling available on numbered fields / IEC - PAM-Verbindung möglich




80\* IEC - PAM bağlantısı yapılacaksa P<sub>1max</sub> değerleri aşılmamalıdır - Do not exceed the P<sub>1max</sub> values indicated on fields with asterisk / Bei IEC - PAM-Verbindungen, sollten die P<sub>1max</sub>-Werte nicht überschritten werden.

| Tip<br>Type<br>Typ                                                                                                                                                                                                                                                                                                                                                                                                     | i <sub>ges</sub> | 4-pol.<br>50 Hz<br>1400 rpm<br>n <sub>2</sub> [min <sup>-1</sup> ] | M <sub>amax</sub><br>f <sub>B</sub> =1<br>4 - pol.<br>[Nm] | W<br>P <sub>1max</sub> - f <sub>B</sub> ≥ 1 |                            |                            |                             | IEC - PAM<br>f <sub>B</sub> ⇔  77 - 183 |      |      |      |      |      |      |  |  |  |  |  |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------|--------------------------------------------------------------------|------------------------------------------------------------|---------------------------------------------|----------------------------|----------------------------|-----------------------------|----------------------------------------------------------------------------------------------------------------------------|------|------|------|------|------|------|--|--|--|--|--|
|                                                                                                                                                                                                                                                                                                                                                                                                                        |                  |                                                                    |                                                            | 4 - pol.<br>1400rpm<br>[kW]                 | 6 - pol.<br>930rpm<br>[kW] | 8 - pol.<br>700rpm<br>[kW] | 12 - pol.<br>465rpm<br>[kW] |                                                                                                                            |      |      |      |      |      |      |  |  |  |  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                        |                  |                                                                    |                                                            |                                             |                            |                            |                             |                                                                                                                            |      |      |      | 71*  | 80*  | 90*  |  |  |  |  |  |
| <b>PD 73/22</b><br><b>PM 73/22</b><br><br><br><br>+<br><b>IEC - PAM</b><br><br>    | 5651.03          | 0.25                                                               | 7080                                                       | 0.22                                        | 0.15                       | 0.11                       | 0.07                        | 71*                                                                                                                        | 80*  | 90*  |      |      |      |      |  |  |  |  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                        | 4889.70          | 0.29                                                               | 7080                                                       | 0.25                                        | 0.17                       | 0.13                       | 0.08                        | 71*                                                                                                                        | 80*  | 90*  |      |      |      |      |  |  |  |  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                        | 3612.58          | 0.39                                                               | 7080                                                       | 0.33                                        | 0.22                       | 0.16                       | 0.11                        |                                                                                                                            | 80*  | 90*  |      |      |      |      |  |  |  |  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                        | 2629.95          | 0.53                                                               | 7080                                                       | 0.43                                        | 0.29                       | 0.22                       | 0.14                        |                                                                                                                            | 80*  | 90*  |      |      |      |      |  |  |  |  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                        | <b>2061.26</b>   | <b>0.68</b>                                                        | 7080                                                       | 0.54                                        | 0.36                       | 0.27                       | 0.18                        | 71                                                                                                                         | 80*  | 90*  | 100* | 112* |      |      |  |  |  |  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                        | <b>1806.13</b>   | <b>0.78</b>                                                        | 7080                                                       | 0.61                                        | 0.41                       | 0.31                       | 0.20                        | 71                                                                                                                         | 80*  | 90*  | 100* | 112* |      |      |  |  |  |  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                        | <b>1342.44</b>   | <b>1.00</b>                                                        | 7080                                                       | 0.77                                        | 0.51                       | 0.39                       | 0.26                        | 71                                                                                                                         | 80   | 90*  | 100* | 112* |      |      |  |  |  |  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                        | <b>1042.00</b>   | <b>1.30</b>                                                        | 7080                                                       | 1.00                                        | 0.66                       | 0.50                       | 0.33                        | 71                                                                                                                         | 80   | 90*  | 100* | 112* |      |      |  |  |  |  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                        | <b>932.25</b>    | <b>1.50</b>                                                        | 7080                                                       | 1.11                                        | 0.74                       | 0.56                       | 0.37                        | 71                                                                                                                         | 80   | 90*  | 100* | 112* |      |      |  |  |  |  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                        | <b>710.29</b>    | <b>2.00</b>                                                        | 7080                                                       | 1.46                                        | 0.97                       | 0.73                       | 0.49                        | 71                                                                                                                         | 80   | 90*  | 100* | 112* |      |      |  |  |  |  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                        | <b>570.70</b>    | <b>2.50</b>                                                        | 7080                                                       | 1.82                                        | 1.21                       | 0.91                       | 0.60                        | 71                                                                                                                         | 80   | 90   | 100* | 112* |      |      |  |  |  |  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                        | <b>434.82</b>    | <b>3.20</b>                                                        | 7080                                                       | 2.39                                        | 1.59                       | 1.19                       | 0.79                        | 71                                                                                                                         | 80   | 90   | 100* | 112* |      |      |  |  |  |  |  |
| <b>376.24</b>                                                                                                                                                                                                                                                                                                                                                                                                          | <b>3.70</b>      | 7080                                                               | 2.76                                                       | 1.83                                        | 1.38                       | 0.92                       | 71                          | 80                                                                                                                         | 90   | 100* | 112* |      |      |      |  |  |  |  |  |
| <b>PD 73/32</b><br><b>PM 73/32</b><br><br><br><br>+<br><b>IEC - PAM</b><br><br> | 295.06           | 4.70                                                               | 7060                                                       | 3.51                                        | 2.33                       | 1.75                       | 1.17                        | 90                                                                                                                         | 100  | 112* | 132* |      |      |      |  |  |  |  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                        | 223.01           | 6.30                                                               | 7060                                                       | 4.64                                        | 3.08                       | 2.32                       | 1.54                        | 90                                                                                                                         | 100  | 112  | 132* |      |      |      |  |  |  |  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                        |                  |                                                                    |                                                            |                                             |                            |                            |                             |                                                                                                                            |      |      |      |      |      |      |  |  |  |  |  |
| <b>PD 73</b><br><b>PM 73</b><br><br><br><br>+<br><b>IEC - PAM</b><br><br>  | 338.37           | 4.10                                                               | 7540                                                       | 3.27                                        | 2.17                       | 1.63                       | 1.08                        | 100                                                                                                                        | 112* | 132* |      |      |      |      |  |  |  |  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                        | 273.32           | 5.10                                                               | 7540                                                       | 4.04                                        | 2.69                       | 2.02                       | 1.34                        | 100                                                                                                                        | 112  | 132* |      |      |      |      |  |  |  |  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                        | 216.45           | 6.50                                                               | 8300                                                       | 5.62                                        | 3.73                       | 2.81                       | 1.87                        | 100                                                                                                                        | 112  | 132* |      |      |      |      |  |  |  |  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                        | <b>204.72</b>    | <b>6.80</b>                                                        | 7540                                                       | 5.40                                        | 3.59                       | 2.70                       | 1.79                        | 100                                                                                                                        | 112  | 132* |      |      |      |      |  |  |  |  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                        | <b>162.12</b>    | <b>8.60</b>                                                        | 6270                                                       | 5.67                                        | 3.77                       | 2.83                       | 1.88                        | 100                                                                                                                        | 112  | 132* |      |      |      |      |  |  |  |  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                        | <b>150.32</b>    | <b>9.30</b>                                                        | 7540                                                       | 7.35                                        | 4.88                       | 3.68                       | 2.44                        | 100                                                                                                                        | 112  | 132* |      |      |      |      |  |  |  |  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                        | <b>123.12</b>    | <b>11.40</b>                                                       | 7540                                                       | 8.98                                        | 5.96                       | 4.49                       | 2.98                        | 100                                                                                                                        | 112  | 132* | 160* | 180* |      |      |  |  |  |  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                        | <b>106.53</b>    | <b>13.10</b>                                                       | 7540                                                       | 10.38                                       | 6.89                       | 5.19                       | 3.45                        | 100                                                                                                                        | 112  | 132  | 160* | 180* |      |      |  |  |  |  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                        | <b>93.05</b>     | <b>15.00</b>                                                       | 7540                                                       | 11.88                                       | 7.89                       | 5.94                       | 3.95                        | 100                                                                                                                        | 112  | 132  | 160* | 180* | 200* | 225* |  |  |  |  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                        | <b>78.75</b>     | <b>17.80</b>                                                       | 7420                                                       | 13.81                                       | 9.18                       | 6.91                       | 4.59                        | 100                                                                                                                        | 112  | 132  | 160* | 180* |      |      |  |  |  |  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                        | <b>68.14</b>     | <b>20.50</b>                                                       | 7200                                                       | 15.49                                       | 10.29                      | 7.75                       | 5.14                        | 100                                                                                                                        | 112  | 132  | 160  | 180* |      |      |  |  |  |  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                        | <b>59.52</b>     | <b>23.50</b>                                                       | 7060                                                       | 17.39                                       | 11.55                      | 8.69                       | 5.78                        | 100                                                                                                                        | 112  | 132  | 160  | 180* | 200* | 225* |  |  |  |  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                        | <b>53.42</b>     | <b>26.20</b>                                                       | 7080                                                       | 19.43                                       | 12.91                      | 9.71                       | 6.45                        | 100                                                                                                                        | 112  | 132  | 160  | 180* |      |      |  |  |  |  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                        | <b>46.66</b>     | <b>30.00</b>                                                       | 7080                                                       | 22.24                                       | 14.78                      | 11.12                      | 7.39                        | 100                                                                                                                        | 112  | 132  | 160  | 180  | 200* | 225* |  |  |  |  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                        | <b>36.95</b>     | <b>37.90</b>                                                       | 6620                                                       | 26.26                                       | 17.45                      | 13.13                      | 8.72                        | 100                                                                                                                        | 112  | 132  | 160  | 180  | 200* | 225* |  |  |  |  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                        | <b>30.49</b>     | <b>45.90</b>                                                       | 6620                                                       | 31.83                                       | 21.14                      | 15.91                      | 10.57                       | 100                                                                                                                        | 112  | 132  | 160  | 180  | 200  | 225* |  |  |  |  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                        | <b>26.92</b>     | <b>52.00</b>                                                       | 6620                                                       | 36.05                                       | 23.95                      | 18.03                      | 11.97                       | 100                                                                                                                        | 112  | 132  | 160  | 180  | 200  | 225* |  |  |  |  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                        | <b>23.47</b>     | <b>59.70</b>                                                       | 6610                                                       | 41.29                                       | 27.43                      | 20.64                      | 13.71                       | 100                                                                                                                        | 112  | 132  | 160  | 180  | 200  | 225* |  |  |  |  |  |

IEC - PAM bağlantısı yoktur / No IEC - PAM assembling on empty fields / Keine IEC - PAM-Verbindung

63 IEC - PAM bağlantısı yapılır / IEC - PAM assembling available on numbered fields / IEC - PAM-Verbindung möglich













80\* IEC - PAM bağlantısı yapılacaksa P<sub>1max</sub> değerleri aşılmamalıdır - Do not exceed the P<sub>1max</sub> values indicated on fields with asterisk / Bei IEC - PAM-Verbindungen, sollten die P<sub>1max</sub>-Werte nicht überschritten werden.

| Tip<br>Type<br>Typ                                                                                               | i <sub>ges</sub> | 4-pol.<br>50 Hz<br>1400 rpm<br>n <sub>2</sub> [min <sup>-1</sup> ] | M <sub>amax</sub><br>f <sub>B</sub> =1<br>4 - pol.<br>[Nm] | W<br>P <sub>1max</sub> - f <sub>B</sub> ≥ 1 |                            |                            |                             | IEC - PAM<br>f <sub>B</sub> ⇒  77 - 183 |      |      |      |      |  |  |  |
|------------------------------------------------------------------------------------------------------------------|------------------|--------------------------------------------------------------------|------------------------------------------------------------|---------------------------------------------|----------------------------|----------------------------|-----------------------------|----------------------------------------------------------------------------------------------------------------------------|------|------|------|------|--|--|--|
|                                                                                                                  |                  |                                                                    |                                                            | 4 - pol.<br>1400rpm<br>[kW]                 | 6 - pol.<br>930rpm<br>[kW] | 8 - pol.<br>700rpm<br>[kW] | 12 - pol.<br>465rpm<br>[kW] |                                                                                                                            |      |      |      |      |  |  |  |
|                                                                                                                  |                  |                                                                    |                                                            |                                             |                            |                            |                             |                                                                                                                            |      |      |      |      |  |  |  |
| <b>PD 72</b>                                                                                                     | 69.80            | 20.10                                                              | 5804                                                       | 12.19                                       | 8.10                       | 6.09                       | 4.05                        | 132                                                                                                                        | 160* | 180* |      |      |  |  |  |
| <b>PM 72</b>                                                                                                     | 56.90            | 24.60                                                              | 5534                                                       | 14.26                                       | 9.47                       | 7.13                       | 4.74                        | 132                                                                                                                        | 160* | 180* |      |      |  |  |  |
|                                                                                                                  | 45.66            | 30.70                                                              | 5809                                                       | 18.65                                       | 12.39                      | 9.33                       | 6.19                        |                                                                                                                            | 160  | 180* | 200* |      |  |  |  |
| <b>W</b><br><br>218             | 45.06            | 31.10                                                              | 4382                                                       | 14.26                                       | 9.47                       | 7.13                       | 4.74                        | 132                                                                                                                        | 160* | 180* |      |      |  |  |  |
|                                                                                                                  | 37.22            | 37.60                                                              | 6473                                                       | 25.49                                       | 16.94                      | 12.75                      | 8.47                        |                                                                                                                            | 160  | 180  | 200* |      |  |  |  |
| <b>+</b>                                                                                                         | <b>34.69</b>     | <b>40.40</b>                                                       | 5804                                                       | 24.53                                       | 16.29                      | 12.26                      | 8.15                        | 132                                                                                                                        | 160  | 180  |      |      |  |  |  |
|                                                                                                                  | <b>26.89</b>     | <b>52.10</b>                                                       | 5807                                                       | 31.66                                       | 21.03                      | 15.83                      | 10.52                       | 132                                                                                                                        | 160  | 180  | 200  | 225* |  |  |  |
| <b>IEC - PAM</b><br><br>218-219 | <b>22.90</b>     | <b>61.10</b>                                                       | 5802                                                       | 37.14                                       | 24.67                      | 18.57                      | 12.34                       | 132                                                                                                                        | 160  | 180  | 200  | 225* |  |  |  |
|                                                                                                                  | <b>19.96</b>     | <b>70.10</b>                                                       | 5810                                                       | 42.67                                       | 28.35                      | 21.34                      | 14.17                       | 132                                                                                                                        | 160  | 180  | 200  | 225* |  |  |  |
|                                                                                                                  | <b>16.27</b>     | <b>86.00</b>                                                       | 6469                                                       | 45.00                                       | 29.70                      | 22.50                      | 14.85                       | 132                                                                                                                        | 160  | 180  | 200  | 225  |  |  |  |
|                                                                                                                  | <b>12.89</b>     | <b>108.60</b>                                                      | 5864                                                       | 45.00                                       | 29.70                      | 22.50                      | 14.85                       | 132                                                                                                                        | 160  | 180  | 200  | 225  |  |  |  |
|                                                                                                                  | <b>11.18</b>     | <b>125.20</b>                                                      | 6221                                                       | 45.00                                       | 29.70                      | 22.50                      | 14.85                       | 132                                                                                                                        | 160  | 180  | 200  | 225  |  |  |  |
|                                                                                                                  | <b>9.91</b>      | <b>141.30</b>                                                      | 4273                                                       | 45.00                                       | 29.70                      | 22.50                      | 14.85                       | 132                                                                                                                        | 160  | 180  | 200  | 225  |  |  |  |
|                                                                                                                  | <b>9.46</b>      | <b>148.00</b>                                                      | 6263                                                       | 45.00                                       | 29.70                      | 22.50                      | 14.85                       | 132                                                                                                                        | 160  | 180  | 200  | 225  |  |  |  |
|                                                                                                                  | <b>8.64</b>      | <b>162.00</b>                                                      | 4222                                                       | 45.00                                       | 29.70                      | 22.50                      | 14.85                       | 132                                                                                                                        | 160  | 180  | 200  | 225  |  |  |  |
|                                                                                                                  | <b>7.50</b>      | <b>186.70</b>                                                      | 4507                                                       | 45.00                                       | 29.70                      | 22.50                      | 14.85                       | 132                                                                                                                        | 160  | 180  | 200  | 225  |  |  |  |
|                                                                                                                  | <b>6.34</b>      | <b>220.80</b>                                                      | 4450                                                       | 45.00                                       | 29.70                      | 22.50                      | 14.85                       | 132                                                                                                                        | 160  | 180  | 200  | 225  |  |  |  |
|                                                                                                                  | <b>5.96</b>      | <b>234.90</b>                                                      | 4322                                                       | 45.00                                       | 29.70                      | 22.50                      | 14.85                       |                                                                                                                            |      |      |      | 225  |  |  |  |
|                                                                                                                  | <b>5.30</b>      | <b>264.20</b>                                                      | 4065                                                       | 45.00                                       | 29.70                      | 22.50                      | 14.85                       | 132                                                                                                                        | 160  | 180  | 200  | 225  |  |  |  |
|                                                                                                                  | <b>5.03</b>      | <b>278.30</b>                                                      | 3929                                                       | 45.00                                       | 29.70                      | 22.50                      | 14.85                       |                                                                                                                            |      |      |      | 225  |  |  |  |
|                                                                                                                  | <b>4.26</b>      | <b>328.60</b>                                                      | 3619                                                       | 45.00                                       | 29.70                      | 22.50                      | 14.85                       | 132                                                                                                                        | 160  | 180  | 200  | 225  |  |  |  |

IEC - PAM bağlantısı yoktur / No IEC - PAM assembling on empty fields / Keine IEC - PAM-Verbindung

63 IEC - PAM bağlantısı yapılır / IEC - PAM assembling available on numbered fields / IEC - PAM-Verbindung möglich




80\* IEC - PAM bağlantısı yapılacaksa P<sub>1max</sub> değerleri aşılmamalıdır - Do not exceed the P<sub>1max</sub> values indicated on fields with asterisk / Bei IEC - PAM-Verbindungen, sollten die P<sub>1max</sub>-Werte nicht überschritten werden.

| Tip<br>Type<br>Typ                                                                                                                                                                                                                                                                                                                                                                                                | i <sub>ges</sub>                                                                                                                                                                                                                                                                                                                                                                                                   | 4-pol.<br>50 Hz<br>1400 rpm<br>n <sub>2</sub> [min <sup>-1</sup> ] | M <sub>amax</sub><br>f <sub>B</sub> =1<br>4 - pol.<br>[Nm] | W<br>P <sub>1max</sub> - f <sub>B</sub> ≥ 1 |                            |                            |                             | IEC - PAM<br>f <sub>B</sub> ⇔ 77 - 183 |     |      |      |      |      |      |  |  |  |  |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------|------------------------------------------------------------|---------------------------------------------|----------------------------|----------------------------|-----------------------------|----------------------------------------|-----|------|------|------|------|------|--|--|--|--|
|                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                    |                                                            | 4 - pol.<br>1400rpm<br>[kW]                 | 6 - pol.<br>930rpm<br>[kW] | 8 - pol.<br>700rpm<br>[kW] | 12 - pol.<br>465rpm<br>[kW] |                                        |     |      |      |      |      |      |  |  |  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                    |                                                            |                                             |                            |                            |                             |                                        |     |      |      |      |      |      |  |  |  |  |
| <b>PD 83/32</b><br><b>PM 83/32</b><br><br><br>+<br><b>IEC - PAM</b><br><br>   | 6601.35                                                                                                                                                                                                                                                                                                                                                                                                            | 0.21                                                               | 12100                                                      | 0.31                                        | 0.20                       | 0.15                       | 0.10                        | 71*                                    | 80* | 90*  |      |      |      |      |  |  |  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                   | 5504.36                                                                                                                                                                                                                                                                                                                                                                                                            | 0.25                                                               | 12100                                                      | 0.36                                        | 0.24                       | 0.18                       | 0.12                        | 71*                                    | 80* | 90*  |      |      |      |      |  |  |  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                   | 4202.93                                                                                                                                                                                                                                                                                                                                                                                                            | 0.33                                                               | 12100                                                      | 0.46                                        | 0.31                       | 0.23                       | 0.15                        |                                        | 80* | 90*  |      |      |      |      |  |  |  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                   | 3519.07                                                                                                                                                                                                                                                                                                                                                                                                            | 0.40                                                               | 12100                                                      | 0.54                                        | 0.36                       | 0.27                       | 0.18                        |                                        | 80* | 90*  |      |      |      |      |  |  |  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                   | 2996.11                                                                                                                                                                                                                                                                                                                                                                                                            | 0.47                                                               | 12100                                                      | 0.63                                        | 0.42                       | 0.32                       | 0.21                        |                                        | 80* | 90*  |      |      |      |      |  |  |  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                   | 2408.64                                                                                                                                                                                                                                                                                                                                                                                                            | 0.58                                                               | 12100                                                      | 0.78                                        | 0.51                       | 0.39                       | 0.26                        |                                        | 80  | 90*  | 100* | 112* |      |      |  |  |  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                   | <b>1692.65</b>                                                                                                                                                                                                                                                                                                                                                                                                     | <b>0.83</b>                                                        | 12100                                                      | 1.05                                        | 0.70                       | 0.52                       | 0.35                        | 71                                     | 80  | 90*  | 100* | 112* |      |      |  |  |  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                   | <b>1362.94</b>                                                                                                                                                                                                                                                                                                                                                                                                     | <b>1.00</b>                                                        | 12100                                                      | 1.30                                        | 0.86                       | 0.65                       | 0.43                        | 71                                     | 80  | 90*  | 100* | 112* |      |      |  |  |  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                   | <b>1061.83</b>                                                                                                                                                                                                                                                                                                                                                                                                     | <b>1.30</b>                                                        | 12100                                                      | 1.67                                        | 1.11                       | 0.84                       | 0.55                        | 71                                     | 80  | 90   | 100* | 112* | 132* |      |  |  |  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                   | <b>889.06</b>                                                                                                                                                                                                                                                                                                                                                                                                      | <b>1.60</b>                                                        | 12100                                                      | 2.00                                        | 1.33                       | 1.00                       | 0.66                        | 71                                     | 80  | 90   | 100* | 112* | 132* |      |  |  |  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                   | <b>716.55</b>                                                                                                                                                                                                                                                                                                                                                                                                      | <b>2.00</b>                                                        | 12100                                                      | 2.48                                        | 1.64                       | 1.24                       | 0.82                        |                                        |     | 90   | 100* | 112* | 132* |      |  |  |  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                   | <b>610.07</b>                                                                                                                                                                                                                                                                                                                                                                                                      | <b>2.30</b>                                                        | 12100                                                      | 2.91                                        | 1.93                       | 1.45                       | 0.97                        |                                        |     | 90   | 100* | 112* | 132* |      |  |  |  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                   | <b>PD 83/42</b><br><b>PM 83/42</b><br><br><br>+<br><b>IEC - PAM</b><br><br> | 550.29                                                             | 2.50                                                       | 12100                                       | 3.22                       | 2.14                       | 1.61                        | 1.07                                   | 90  | 100  | 112* | 132* | 160* |      |  |  |  |  |
| 468.82                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                                                                                                                                                                                                                                                                                                                                                                    | 3.00                                                               | 12100                                                      | 3.78                                        | 2.51                       | 1.89                       | 1.26                        | 90                                     | 100 | 112* | 132* | 160* |      |      |  |  |  |  |
| 346.82                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                                                                                                                                                                                                                                                                                                                                                                    | 4.00                                                               | 12100                                                      | 5.11                                        | 3.40                       | 2.56                       | 1.70                        | 90                                     | 100 | 112  | 132* | 160* |      |      |  |  |  |  |
| 295.48                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                                                                                                                                                                                                                                                                                                                                                                    | 4.70                                                               | 12100                                                      | 6.00                                        | 3.99                       | 3.00                       | 1.99                        | 90                                     | 100 | 112  | 132* | 160* |      |      |  |  |  |  |
| 223.71                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                                                                                                                                                                                                                                                                                                                                                                    | 6.30                                                               | 12100                                                      | 7.93                                        | 5.27                       | 3.96                       | 2.63                        | 90                                     | 100 | 112  | 132* | 160* |      |      |  |  |  |  |
| <b>186.54</b>                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                    | <b>7.50</b>                                                        | 12100                                                      | 9.20                                        | 6.07                       | 4.60                       | 3.04                        | 90                                     | 100 | 112  | 132  | 160* |      |      |  |  |  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                    |                                                            |                                             |                            |                            |                             |                                        |     |      |      |      |      |      |  |  |  |  |
| <b>PD 83</b><br><b>PM 83</b><br><br><br>+<br><b>IEC - PAM</b><br><br> | 386.39                                                                                                                                                                                                                                                                                                                                                                                                             | 3.60                                                               | 12700                                                      | 4.82                                        | 3.20                       | 2.41                       | 1.60                        | 100                                    | 112 | 132* |      |      |      |      |  |  |  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                   | 318.11                                                                                                                                                                                                                                                                                                                                                                                                             | 4.40                                                               | 13000                                                      | 5.99                                        | 3.98                       | 3.00                       | 1.99                        | 100                                    | 112 | 132* |      |      |      |      |  |  |  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                   | 293.92                                                                                                                                                                                                                                                                                                                                                                                                             | 4.80                                                               | 12700                                                      | 6.33                                        | 4.21                       | 3.17                       | 2.10                        |                                        |     | 132* | 160* | 180* |      |      |  |  |  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                   | 241.98                                                                                                                                                                                                                                                                                                                                                                                                             | 5.80                                                               | 13100                                                      | 7.94                                        | 5.27                       | 3.97                       | 2.64                        |                                        |     | 132* | 160* | 180* |      |      |  |  |  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                   | 200.83                                                                                                                                                                                                                                                                                                                                                                                                             | 7.00                                                               | 10800                                                      | 7.88                                        | 5.24                       | 3.94                       | 2.62                        | 100                                    | 112 | 132* |      |      |      |      |  |  |  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                   | 185.56                                                                                                                                                                                                                                                                                                                                                                                                             | 7.50                                                               | 12680                                                      | 10.02                                       | 6.65                       | 5.01                       | 3.33                        |                                        |     | 132  | 160* | 180* |      |      |  |  |  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                   | 152.77                                                                                                                                                                                                                                                                                                                                                                                                             | 9.20                                                               | 13200                                                      | 12.67                                       | 8.41                       | 6.33                       | 4.21                        |                                        |     | 132  | 160* | 180* |      |      |  |  |  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                   | <b>143.91</b>                                                                                                                                                                                                                                                                                                                                                                                                      | <b>9.70</b>                                                        | 12500                                                      | 12.73                                       | 8.46                       | 6.37                       | 4.23                        | 100                                    | 112 | 132  | 160* | 180* |      |      |  |  |  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                   | <b>125.27</b>                                                                                                                                                                                                                                                                                                                                                                                                      | <b>11.20</b>                                                       | 12190                                                      | 14.27                                       | 9.48                       | 7.13                       | 4.74                        | 100                                    | 112 | 132  | 160* | 180* |      |      |  |  |  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                   | <b>118.48</b>                                                                                                                                                                                                                                                                                                                                                                                                      | <b>11.80</b>                                                       | 12450                                                      | 15.40                                       | 10.23                      | 7.70                       | 5.12                        | 100                                    | 112 | 132  | 160  | 180* |      |      |  |  |  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                   | <b>103.13</b>                                                                                                                                                                                                                                                                                                                                                                                                      | <b>13.60</b>                                                       | 12100                                                      | 17.20                                       | 11.43                      | 8.60                       | 5.71                        | 100                                    | 112 | 132  | 160  | 180* |      |      |  |  |  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                   | <b>90.79</b>                                                                                                                                                                                                                                                                                                                                                                                                       | <b>15.40</b>                                                       | 12100                                                      | 19.54                                       | 12.98                      | 9.77                       | 6.49                        | 100                                    | 112 | 132  | 160  | 180* | 200* | 225* |  |  |  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                   | <b>75.70</b>                                                                                                                                                                                                                                                                                                                                                                                                       | <b>18.50</b>                                                       | 12100                                                      | 23.43                                       | 15.57                      | 11.72                      | 7.78                        | 100                                    | 112 | 132  | 160  | 180  | 200* | 225* |  |  |  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                   | <b>65.16</b>                                                                                                                                                                                                                                                                                                                                                                                                       | <b>21.50</b>                                                       | 11300                                                      | 25.42                                       | 16.89                      | 12.71                      | 8.44                        | 100                                    | 112 | 132  | 160  | 180  | 200* | 225* |  |  |  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                   | <b>57.32</b>                                                                                                                                                                                                                                                                                                                                                                                                       | <b>24.40</b>                                                       | 12100                                                      | 30.95                                       | 20.56                      | 15.47                      | 10.28                       | 100                                    | 112 | 132  | 160  | 180  | 200  | 225* |  |  |  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                   | <b>47.79</b>                                                                                                                                                                                                                                                                                                                                                                                                       | <b>29.30</b>                                                       | 12100                                                      | 37.12                                       | 24.66                      | 18.56                      | 12.33                       | 100                                    | 112 | 132  | 160  | 180  | 200  | 225* |  |  |  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                   | <b>43.52</b>                                                                                                                                                                                                                                                                                                                                                                                                       | <b>32.20</b>                                                       | 10600                                                      | 35.71                                       | 23.72                      | 17.85                      | 11.86                       | 100                                    | 112 | 132  | 160  | 180  | 200  | 225* |  |  |  |  |
| <b>35.83</b>                                                                                                                                                                                                                                                                                                                                                                                                      | <b>39.10</b>                                                                                                                                                                                                                                                                                                                                                                                                       | 12080                                                              | 45.00                                                      | 29.70                                       | 22.50                      | 14.85                      | 100                         | 112                                    | 132 | 160  | 180  | 200  | 225  |      |  |  |  |  |
| <b>30.84</b>                                                                                                                                                                                                                                                                                                                                                                                                      | <b>45.40</b>                                                                                                                                                                                                                                                                                                                                                                                                       | 12090                                                              | 45.00                                                      | 29.70                                       | 22.50                      | 14.85                      | 100                         | 112                                    | 132 | 160  | 180  | 200  | 225  |      |  |  |  |  |

IEC - PAM bağlantısı yoktur / No IEC - PAM assembling on empty fields / Keine IEC - PAM-Verbindung

63 IEC - PAM bağlantısı yapılır / IEC - PAM assembling available on numbered fields / IEC - PAM-Verbindung möglich

80\* IEC - PAM bağlantısı yapılacaksa P<sub>1max</sub> değerleri aşılmamalıdır - Do not exceed the P<sub>1max</sub> values indicated on fields with asterisk / Bei IEC - PAM-Verbindungen, sollten die P<sub>1max</sub>-Werte nicht überschritten werden.

















| Tip<br>Type<br>Typ                                                                                    | i <sub>ges</sub> | 4-pol.<br>50 Hz<br>1400 rpm<br>n <sub>2</sub> [min <sup>-1</sup> ] | M <sub>amax</sub><br>f <sub>B</sub> =1<br>4 - pol.<br>[Nm] | W<br>P <sub>1max</sub> - f <sub>B</sub> ≥ 1 |                            |                            |                             | IEC - PAM<br>f <sub>B</sub> ⇔  77 - 183 |     |      |     |      |     |      |  |  |  |  |  |
|-------------------------------------------------------------------------------------------------------|------------------|--------------------------------------------------------------------|------------------------------------------------------------|---------------------------------------------|----------------------------|----------------------------|-----------------------------|----------------------------------------------------------------------------------------------------------------------------|-----|------|-----|------|-----|------|--|--|--|--|--|
|                                                                                                       |                  |                                                                    |                                                            | 4 - pol.<br>1400rpm<br>[kW]                 | 6 - pol.<br>930rpm<br>[kW] | 8 - pol.<br>700rpm<br>[kW] | 12 - pol.<br>465rpm<br>[kW] |                                                                                                                            |     |      |     |      |     |      |  |  |  |  |  |
|                                                                                                       |                  |                                                                    |                                                            |                                             |                            |                            |                             |                                                                                                                            |     |      |     | 132  | 160 | 180* |  |  |  |  |  |
| <b>PD 82</b>                                                                                          | 72.17            | 19.40                                                              | 7875                                                       | 16.00                                       | 10.63                      | 8.00                       | 5.31                        | 132                                                                                                                        | 160 | 180* |     |      |     |      |  |  |  |  |  |
| <b>PM 82</b>                                                                                          | 59.41            | 23.60                                                              | 6483                                                       | 16.00                                       | 10.63                      | 8.00                       | 5.31                        | 132                                                                                                                        | 160 | 180* |     |      |     |      |  |  |  |  |  |
| <b>W</b><br>         | 47.51            | 29.50                                                              | 10613                                                      | 32.75                                       | 21.75                      | 16.37                      | 10.88                       |                                                                                                                            | 160 | 180  | 200 |      |     |      |  |  |  |  |  |
|                                                                                                       | 39.18            | 35.70                                                              | 10615                                                      | 39.72                                       | 26.38                      | 19.86                      | 13.19                       |                                                                                                                            |     |      | 200 | 225* |     |      |  |  |  |  |  |
| +                                                                                                     | 39.12            | 35.80                                                              | 9342                                                       | 35.01                                       | 23.26                      | 17.50                      | 11.63                       |                                                                                                                            | 160 | 180  | 200 |      |     |      |  |  |  |  |  |
|                                                                                                       | 32.25            | 43.40                                                              | 10346                                                      | 47.03                                       | 31.24                      | 23.51                      | 15.62                       |                                                                                                                            |     |      | 200 | 225  |     |      |  |  |  |  |  |
| <b>IEC - PAM</b><br> | <b>28.35</b>     | <b>49.40</b>                                                       | 9998                                                       | 51.70                                       | 34.34                      | 25.85                      | 17.17                       | 132                                                                                                                        | 160 | 180  | 200 | 225  |     |      |  |  |  |  |  |
|                                                                                                       | <b>24.51</b>     | <b>57.10</b>                                                       | 10603                                                      | 63.42                                       | 42.13                      | 31.71                      | 21.06                       | 132                                                                                                                        | 160 | 180  | 200 | 225  | 250 |      |  |  |  |  |  |
|                                                                                                       | <b>21.14</b>     | <b>66.20</b>                                                       | 10618                                                      | 73.63                                       | 48.91                      | 36.82                      | 24.46                       | 132                                                                                                                        | 160 | 180  | 200 | 225  | 250 | 280* |  |  |  |  |  |
|                                                                                                       | <b>17.41</b>     | <b>80.40</b>                                                       | 9697                                                       | 75.00                                       | 49.50                      | 37.50                      | 24.75                       | 132                                                                                                                        | 160 | 180  | 200 | 225  | 250 | 280* |  |  |  |  |  |
|                                                                                                       | <b>15.19</b>     | <b>92.20</b>                                                       | 9480                                                       | 75.00                                       | 49.50                      | 37.50                      | 24.75                       | 132                                                                                                                        | 160 | 180  | 200 | 225  | 250 | 280* |  |  |  |  |  |
|                                                                                                       | <b>12.99</b>     | <b>107.80</b>                                                      | 10294                                                      | 75.00                                       | 49.50                      | 37.50                      | 24.75                       | 132                                                                                                                        | 160 | 180  | 200 | 225  | 250 | 280* |  |  |  |  |  |
|                                                                                                       | <b>10.88</b>     | <b>128.70</b>                                                      | 10290                                                      | 75.00                                       | 49.50                      | 37.50                      | 24.75                       | 132                                                                                                                        | 160 | 180  | 200 | 225  | 250 | 280* |  |  |  |  |  |
|                                                                                                       | <b>9.67</b>      | <b>144.80</b>                                                      | 6521                                                       | 75.00                                       | 49.50                      | 37.50                      | 24.75                       | 132                                                                                                                        | 160 | 180  | 200 | 225  | 250 | 280* |  |  |  |  |  |
|                                                                                                       | <b>8.27</b>      | <b>169.30</b>                                                      | 7296                                                       | 75.00                                       | 49.50                      | 37.50                      | 24.75                       | 132                                                                                                                        | 160 | 180  | 200 | 225  | 250 | 280* |  |  |  |  |  |
|                                                                                                       | <b>6.93</b>      | <b>202.00</b>                                                      | 6786                                                       | 75.00                                       | 49.50                      | 37.50                      | 24.75                       | 132                                                                                                                        | 160 | 180  | 200 | 225  | 250 | 280* |  |  |  |  |  |
|                                                                                                       | <b>4.52</b>      | <b>309.70</b>                                                      | 4890                                                       | 75.00                                       | 49.50                      | 37.50                      | 24.75                       | 132                                                                                                                        | 160 | 180  | 200 | 225  | 250 | 280* |  |  |  |  |  |

IEC - PAM bağlantısı yoktur / No IEC - PAM assembling on empty fields / Keine IEC - PAM-Verbindung







63 IEC - PAM bağlantısı yapılır / IEC - PAM assembling available on numbered fields / IEC - PAM-Verbindung möglich

80\* IEC - PAM bağlantısı yapılacaksa P<sub>1max</sub> değerleri aşılmamalıdır - Do not exceed the P<sub>1max</sub> values indicated on fields with asterisk / Bei IEC - PAM-Verbindungen, sollten die P<sub>1max</sub>-Werte nicht überschritten werden.



| Tip<br>Type<br>Typ                                                                                                                                                                                                                                                                                                                                                                                             | i <sub>ges</sub> | 4-pol.<br>50 Hz<br>1400 rpm<br>n <sub>2</sub> [min <sup>-1</sup> ] | M <sub>amax</sub><br>f <sub>B</sub> =1<br>4 - pol.<br>[Nm] | W<br>P <sub>1max</sub> - f <sub>B</sub> ≥ 1 |                            |                            |                             | IEC - PAM<br>f <sub>B</sub> ⇔ 77 - 183 |      |      |      |      |      |      |  |  |  |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------|--------------------------------------------------------------------|------------------------------------------------------------|---------------------------------------------|----------------------------|----------------------------|-----------------------------|----------------------------------------|------|------|------|------|------|------|--|--|--|
|                                                                                                                                                                                                                                                                                                                                                                                                                |                  |                                                                    |                                                            | 4 - pol.<br>1400rpm<br>[kW]                 | 6 - pol.<br>930rpm<br>[kW] | 8 - pol.<br>700rpm<br>[kW] | 12 - pol.<br>465rpm<br>[kW] |                                        |      |      |      |      |      |      |  |  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                |                  |                                                                    |                                                            |                                             |                            |                            |                             |                                        |      |      |      |      |      |      |  |  |  |
| <b>PD 93/42</b><br><b>PM 93/42</b><br><br><br><br>+<br>IEC - PAM<br><br>   | 4158.29          | 0.34                                                               | 24000                                                      | 0.85                                        | 0.56                       | 0.42                       | 0.28                        |                                        | 100* | 112* | 132* |      |      |      |  |  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                | 2433.68          | 0.58                                                               | 24000                                                      | 1.45                                        | 0.96                       | 0.72                       | 0.48                        | 90*                                    | 100* | 112* |      |      |      |      |  |  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                | 2202.85          | 0.64                                                               | 24000                                                      | 1.60                                        | 1.06                       | 0.80                       | 0.53                        | 90                                     | 100* | 112* |      |      |      |      |  |  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                | 1744.83          | 0.80                                                               | 24000                                                      | 2.02                                        | 1.34                       | 1.01                       | 0.67                        | 90                                     | 100* | 112* | 132* | 160* |      |      |  |  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                | 1417.68          | 0.99                                                               | 24000                                                      | 2.48                                        | 1.65                       | 1.24                       | 0.82                        | 90                                     | 100* | 112* | 132* | 160* |      |      |  |  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                | 1177.36          | 1.20                                                               | 24000                                                      | 2.99                                        | 1.99                       | 1.49                       | 0.99                        | 90                                     | 100  | 112* | 132* | 160* |      |      |  |  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                | 885.67           | 1.60                                                               | 24000                                                      | 3.97                                        | 2.64                       | 1.99                       | 1.32                        | 90                                     | 100  | 112  | 132* | 160* |      |      |  |  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                | 715.36           | 2.00                                                               | 24000                                                      | 4.92                                        | 3.27                       | 2.46                       | 1.63                        | 90                                     | 100  | 112  | 132* | 160* |      |      |  |  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                | 618.83           | 2.30                                                               | 24000                                                      | 5.69                                        | 3.78                       | 2.84                       | 1.89                        | 90                                     | 100  | 112  | 132* | 160* |      |      |  |  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                | 450.86           | 3.10                                                               | 24000                                                      | 7.80                                        | 5.18                       | 3.90                       | 2.59                        | 90                                     | 100  | 112  | 132* | 160* |      |      |  |  |  |
| <b>PD 93/52</b><br><b>PM 93/52</b><br><br><br><br>+<br>IEC - PAM<br><br>  | 410.49           | 3.40                                                               | 24000                                                      | 8.57                                        | 5.69                       | 4.29                       | 2.85                        | 100                                    | 112  | 132* | 160* | 180* |      |      |  |  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                | 294.19           | 4.80                                                               | 24000                                                      | 11.96                                       | 7.94                       | 5.98                       | 3.97                        | 100                                    | 112  | 132  | 160* | 180* |      |      |  |  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                | 233.30           | 6.00                                                               | 24000                                                      | 15.08                                       | 10.02                      | 7.54                       | 5.01                        |                                        |      |      | 160  | 180* |      |      |  |  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                | 200.50           | 7.00                                                               | 24000                                                      | 17.55                                       | 11.66                      | 8.77                       | 5.83                        |                                        |      |      | 160  | 180* |      |      |  |  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                |                  |                                                                    |                                                            |                                             |                            |                            |                             |                                        |      |      |      |      |      |      |  |  |  |
| <b>PD 93</b><br><b>PM 93</b><br><br><br><br>+<br>IEC - PAM<br><br> | 352.16           | 4.00                                                               | 25400                                                      | 10.57                                       | 7.02                       | 5.29                       | 3.51                        | 132                                    | 160* | 180* |      |      |      |      |  |  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                | 290.94           | 4.80                                                               | 24000                                                      | 12.09                                       | 8.03                       | 6.05                       | 4.02                        | 132                                    | 160* | 180* |      |      |      |      |  |  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                | 204.66           | 6.80                                                               | 22000                                                      | 15.76                                       | 10.47                      | 7.88                       | 5.23                        | 132                                    | 160  | 180* |      |      |      |      |  |  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                | 175.03           | 8.00                                                               | 25400                                                      | 21.27                                       | 14.13                      | 10.64                      | 7.07                        | 132                                    | 160  | 180* |      |      |      |      |  |  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                | 144.60           | 9.70                                                               | 24000                                                      | 24.33                                       | 16.16                      | 12.17                      | 8.08                        | 132                                    | 160  | 180  |      |      |      |      |  |  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                | 135.66           | 10.30                                                              | 25400                                                      | 27.45                                       | 18.23                      | 13.72                      | 9.12                        | 132                                    | 160  | 180  | 200* | 225* |      |      |  |  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                | 115.51           | 12.10                                                              | 25400                                                      | 32.24                                       | 21.41                      | 16.12                      | 10.71                       | 132                                    | 160  | 180  | 200  | 225* | 250* |      |  |  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                | 100.70           | 13.90                                                              | 25400                                                      | 36.98                                       | 24.56                      | 18.49                      | 12.28                       | 132                                    | 160  | 180  | 200  | 225* | 250* | 280* |  |  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                | 83.19            | 16.80                                                              | 24000                                                      | 42.29                                       | 28.09                      | 21.15                      | 14.05                       | 132                                    | 160  | 180  | 200  | 225* | 250* | 280* |  |  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                | 72.17            | 19.40                                                              | 24000                                                      | 48.75                                       | 32.38                      | 24.38                      | 16.19                       | 132                                    | 160  | 180  | 200  | 225  | 250* | 280* |  |  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                | 65.13            | 21.50                                                              | 24260                                                      | 54.61                                       | 36.27                      | 27.30                      | 18.14                       | 132                                    | 160  | 180  | 200  | 225  |      |      |  |  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                | 55.46            | 25.20                                                              | 24000                                                      | 63.44                                       | 42.14                      | 31.72                      | 21.07                       | 132                                    | 160  | 180  | 200  | 225  | 250  |      |  |  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                | 48.35            | 29.00                                                              | 24000                                                      | 72.77                                       | 48.34                      | 36.38                      | 24.17                       | 132                                    | 160  | 180  | 200  | 225  | 250  | 280* |  |  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                | 41.94            | 33.40                                                              | 24000                                                      | 75.00                                       | 49.50                      | 37.50                      | 24.75                       | 132                                    | 160  | 180  | 200  | 225  | 250  | 280* |  |  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                | 35.49            | 39.40                                                              | 24000                                                      | 75.00                                       | 49.50                      | 37.50                      | 24.75                       | 132                                    | 160  | 180  | 200  | 225  | 250  | 280* |  |  |  |
| <b>PD 92</b><br><b>PM 92</b><br><br><br><br>+<br>IEC - PAM<br><br> | 34.36            | 40.70                                                              | 16250                                                      | 69.33                                       | 46.06                      | 34.67                      | 23.03                       | 180                                    | 200  | 225  | 250  |      |      |      |  |  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                | 30.79            | 45.50                                                              | 17930                                                      | 85.37                                       | 56.71                      | 42.68                      | 28.35                       | 180                                    | 200  | 225  | 250  | 280* |      |      |  |  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                | 26.85            | 52.10                                                              | 17200                                                      | 93.91                                       | 62.38                      | 46.95                      | 31.19                       | 180                                    | 200  | 225  | 250  | 280  | 315* |      |  |  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                | 23.17            | 60.40                                                              | 16426                                                      | 103.93                                      | 69.04                      | 51.96                      | 34.52                       | 180                                    | 200  | 225  | 250  | 280  | 315* |      |  |  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                | 20.09            | 69.70                                                              | 15926                                                      | 116.21                                      | 77.20                      | 58.11                      | 38.60                       | 180                                    | 200  | 225  | 250  | 280  | 315* |      |  |  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                | 17.34            | 80.70                                                              | 15492                                                      | 130.97                                      | 87.00                      | 65.49                      | 43.50                       | 180                                    | 200  | 225  | 250  | 280  | 315* |      |  |  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                | 14.69            | 95.30                                                              | 14715                                                      | 146.85                                      | 97.55                      | 73.42                      | 48.77                       | 180                                    | 200  | 225  | 250  | 280  | 315* |      |  |  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                | 12.04            | 116.30                                                             | 13808                                                      | 160.00                                      | 105.60                     | 80.00                      | 52.80                       | 180                                    | 200  | 225  | 250  | 280  | 315* |      |  |  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                | 10.21            | 137.10                                                             | 10792                                                      | 154.95                                      | 102.93                     | 77.48                      | 51.47                       | 180                                    | 200  | 225  | 250  | 280  | 315* |      |  |  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                | 8.65             | 161.80                                                             | 11160                                                      | 160.00                                      | 105.60                     | 80.00                      | 52.80                       | 180                                    | 200  | 225  | 250  | 280  | 315* |      |  |  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                | 7.09             | 197.50                                                             | 10116                                                      | 160.00                                      | 105.60                     | 80.00                      | 52.80                       | 180                                    | 200  | 225  | 250  | 280  | 315* |      |  |  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                | 5.78             | 242.20                                                             | 8825                                                       | 160.00                                      | 105.60                     | 80.00                      | 52.80                       | 180                                    | 200  | 255  | 250  | 280  | 315* |      |  |  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                | 5.36             | 261.20                                                             | 8336                                                       | 160.00                                      | 105.60                     | 80.00                      | 52.80                       |                                        |      |      | 250  | 280  | 315* |      |  |  |  |














- IEC - PAM bağlantısı yoktur / No IEC - PAM assembling on empty fields / Keine IEC - PAM-Verbindung
- 63 IEC - PAM bağlantısı yapılır / IEC - PAM assembling available on numbered fields / IEC - PAM-Verbindung möglich
- 80\* IEC - PAM bağlantısı yapılacaksa P<sub>1max</sub> değerleri aşılmamalıdır - Do not exceed the P<sub>1max</sub> values indicated on fields with asterisk / Bei IEC - PAM-Verbindungen, sollten die P<sub>1max</sub>-Werte nicht überschritten werden.

| Tip<br>Type<br>Typ                                                                                                                                                                                                                   | i <sub>ges</sub> | 4-pol.<br>50 Hz<br>1400 rpm<br>n <sub>2</sub> [min <sup>-1</sup> ] | M <sub>amax</sub><br>f <sub>B</sub> =1<br>4 - pol.<br>[Nm] | W<br>P <sub>1max</sub> - f <sub>B</sub> ≥ 1 |                            |                            |                             | IEC - PAM<br>f <sub>B</sub> ⇔ 77 - 183 |      |      |      |      |      |      |  |  |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------|--------------------------------------------------------------------|------------------------------------------------------------|---------------------------------------------|----------------------------|----------------------------|-----------------------------|----------------------------------------|------|------|------|------|------|------|--|--|
|                                                                                                                                                                                                                                      |                  |                                                                    |                                                            | 4 - pol.<br>1400rpm<br>[kW]                 | 6 - pol.<br>930rpm<br>[kW] | 8 - pol.<br>700rpm<br>[kW] | 12 - pol.<br>465rpm<br>[kW] |                                        |      |      |      |      |      |      |  |  |
|                                                                                                                                                                                                                                      |                  |                                                                    |                                                            |                                             |                            |                            |                             |                                        |      |      |      |      |      |      |  |  |
| <b>PD 103/52</b><br><b>PM 103/52</b><br><br><br>+<br>IEC - PAM<br> | 4677.24          | 0.30                                                               | 35000                                                      | 1.10                                        | 0.73                       | 0.55                       | 0.36                        | 90*                                    | 100* | 112* |      |      |      |      |  |  |
|                                                                                                                                                                                                                                      | 3520.13          | 0.40                                                               | 35000                                                      | 1.46                                        | 0.97                       | 0.73                       | 0.48                        |                                        | 100* | 112* | 132* |      |      |      |  |  |
|                                                                                                                                                                                                                                      | 2796.57          | 0.50                                                               | 35000                                                      | 1.83                                        | 1.22                       | 0.92                       | 0.61                        |                                        | 100* | 112* | 132* |      |      |      |  |  |
|                                                                                                                                                                                                                                      | 2402.69          | 0.58                                                               | 35000                                                      | 2.14                                        | 1.42                       | 1.07                       | 0.71                        |                                        |      |      | 132* |      |      |      |  |  |
|                                                                                                                                                                                                                                      | 1887.83          | 0.74                                                               | 35000                                                      | 2.72                                        | 1.81                       | 1.36                       | 0.90                        |                                        |      |      | 132* |      |      |      |  |  |
|                                                                                                                                                                                                                                      | <b>1416.90</b>   | <b>0.99</b>                                                        | 35000                                                      | 3.62                                        | 2.41                       | 1.81                       | 1.20                        | 90                                     | 100  | 112* | 132* | 160* | 180* |      |  |  |
|                                                                                                                                                                                                                                      | <b>1165.61</b>   | <b>1.20</b>                                                        | 35000                                                      | 4.40                                        | 2.92                       | 2.20                       | 1.46                        | 90                                     | 100  | 112  | 132* | 160* | 180* |      |  |  |
|                                                                                                                                                                                                                                      | <b>915.84</b>    | <b>1.50</b>                                                        | 35000                                                      | 5.60                                        | 3.72                       | 2.80                       | 1.86                        | 90                                     | 100  | 112  | 132* | 160* | 180* |      |  |  |
|                                                                                                                                                                                                                                      | <b>692.20</b>    | <b>2.00</b>                                                        | 35000                                                      | 7.41                                        | 4.92                       | 3.71                       | 2.46                        | 90                                     | 100  | 112  | 132* | 160* | 180* |      |  |  |
|                                                                                                                                                                                                                                      | <b>578.09</b>    | <b>2.40</b>                                                        | 35000                                                      | 8.88                                        | 5.90                       | 4.44                       | 2.95                        | 90                                     | 100  | 112  | 132* | 160* | 180* |      |  |  |
|                                                                                                                                                                                                                                      | <b>476.93</b>    | <b>2.90</b>                                                        | 35000                                                      | 10.76                                       | 7.15                       | 5.38                       | 3.57                        |                                        | 100  | 112  | 132  | 160* | 180* |      |  |  |
|                                                                                                                                                                                                                                      | <b>366.18</b>    | <b>3.80</b>                                                        | 35000                                                      | 14.01                                       | 9.31                       | 7.01                       | 4.65                        | 90                                     | 100  | 112  | 132  | 160* | 180* |      |  |  |
|                                                                                                                                                                                                                                      | <b>302.10</b>    | <b>4.60</b>                                                        | 35000                                                      | 16.98                                       | 11.28                      | 8.49                       | 5.64                        |                                        | 100  | 112  | 132  | 160  | 180* |      |  |  |
| <b>PD 103</b><br><b>PM 103</b><br><br><br>+<br>IEC - PAM<br>     | 357.40           | 3.90                                                               | 35460                                                      | 14.54                                       | 9.66                       | 7.27                       | 4.83                        | 160                                    | 180* |      |      |      |      |      |  |  |
|                                                                                                                                                                                                                                      | 332.64           | 4.20                                                               | 37000                                                      | 16.31                                       | 10.83                      | 8.15                       | 5.42                        | 160                                    | 180* |      |      |      |      |      |  |  |
|                                                                                                                                                                                                                                      | 282.85           | 4.90                                                               | 33000                                                      | 17.10                                       | 11.36                      | 8.55                       | 5.68                        | 160                                    | 180* |      |      |      |      |      |  |  |
|                                                                                                                                                                                                                                      | 263.25           | 5.30                                                               | 33000                                                      | 18.38                                       | 12.21                      | 9.19                       | 6.10                        | 160                                    | 180* |      |      |      |      |      |  |  |
|                                                                                                                                                                                                                                      | <b>180.68</b>    | <b>7.70</b>                                                        | 35000                                                      | 28.40                                       | 18.86                      | 14.20                      | 9.43                        | 160                                    | 180  |      |      |      |      |      |  |  |
|                                                                                                                                                                                                                                      | <b>168.16</b>    | <b>8.30</b>                                                        | 35000                                                      | 30.51                                       | 20.27                      | 15.26                      | 10.13                       | 160                                    | 180  |      |      |      |      |      |  |  |
|                                                                                                                                                                                                                                      | <b>140.41</b>    | <b>10.00</b>                                                       | 35480                                                      | 37.04                                       | 24.61                      | 18.52                      | 12.30                       | 160                                    | 180  | 200  | 225* |      |      |      |  |  |
|                                                                                                                                                                                                                                      | <b>104.71</b>    | <b>13.40</b>                                                       | 35300                                                      | 49.42                                       | 32.83                      | 24.71                      | 16.41                       | 160                                    | 180  | 200  | 225  | 250* | 280* |      |  |  |
|                                                                                                                                                                                                                                      | <b>91.35</b>     | <b>15.30</b>                                                       | 35380                                                      | 56.78                                       | 37.72                      | 28.39                      | 18.86                       | 160                                    | 180  | 200  | 225  | 250  | 280* | 315* |  |  |
|                                                                                                                                                                                                                                      | <b>72.71</b>     | <b>19.30</b>                                                       | 37200                                                      | 75.00                                       | 49.82                      | 37.50                      | 24.91                       | 160                                    | 180  | 200  | 225  | 250  | 280* | 315* |  |  |
|                                                                                                                                                                                                                                      | <b>65.44</b>     | <b>21.40</b>                                                       | 35100                                                      | 78.63                                       | 52.23                      | 39.32                      | 26.12                       | 160                                    | 180  | 200  | 225  | 250  | 280* | 315* |  |  |
|                                                                                                                                                                                                                                      | <b>56.76</b>     | <b>24.70</b>                                                       | 35000                                                      | 90.40                                       | 60.05                      | 45.20                      | 30.02                       | 160                                    | 180  | 200  | 225  | 250  | 280  | 315* |  |  |
|                                                                                                                                                                                                                                      | <b>47.95</b>     | <b>29.20</b>                                                       | 35000                                                      | 107.01                                      | 71.08                      | 53.50                      | 35.54                       | 160                                    | 180  | 200  | 225  | 250  | 280  | 315* |  |  |
|                                                                                                                                                                                                                                      | <b>41.00</b>     | <b>34.10</b>                                                       | 35000                                                      | 125.14                                      | 83.13                      | 62.57                      | 41.57                       | 160                                    | 180  | 200  | 225  | 250  | 280  | 315* |  |  |
|                                                                                                                                                                                                                                      | <b>34.35</b>     | <b>40.80</b>                                                       | 35000                                                      | 149.37                                      | 99.22                      | 74.69                      | 49.61                       | 160                                    | 180  | 200  | 225  | 250  | 280  | 315* |  |  |
|                                                                                                                                                                                                                                      | <b>29.79</b>     | <b>47.00</b>                                                       | 35000                                                      | 160.00                                      | 105.60                     | 80.00                      | 52.80                       | 160                                    | 180  | 200  | 225  | 250  | 280  | 315* |  |  |
|                                                                                                                                                                                                                                      | <b>27.18</b>     | <b>51.50</b>                                                       | 33000                                                      | 160.00                                      | 105.60                     | 80.00                      | 52.80                       | 160                                    | 180  | 200  | 225  | 250  | 280  | 315* |  |  |
| <b>23.58</b>                                                                                                                                                                                                                         | <b>59.40</b>     | 33000                                                              | 160.00                                                     | 105.60                                      | 80.00                      | 52.80                      | 160                         | 180                                    | 200  | 225  | 250  | 280  | 315* |      |  |  |
| <b>21.00</b>                                                                                                                                                                                                                         | <b>66.70</b>     | 33000                                                              | 160.00                                                     | 105.60                                      | 80.00                      | 52.80                      | 160                         | 180                                    | 200  | 225  | 250  | 280  | 315* |      |  |  |
| <b>PD 102</b><br><b>PM 102</b><br><br><br>+<br>IEC - PAM<br>   | 18.24            | 76.80                                                              | 32000                                                      | 200.00                                      | 132.00                     | 100.00                     | 66.00                       | 250                                    | 280  | 315  |      |      |      |      |  |  |
|                                                                                                                                                                                                                                      | 15.19            | 92.20                                                              | 32000                                                      | 200.00                                      | 132.00                     | 100.00                     | 66.00                       | 250                                    | 280  | 315  |      |      |      |      |  |  |
|                                                                                                                                                                                                                                      | 13.50            | 103.70                                                             | 32000                                                      | 200.00                                      | 132.00                     | 100.00                     | 66.00                       | 250                                    | 280  | 315  |      |      |      |      |  |  |
|                                                                                                                                                                                                                                      | 11.63            | 120.40                                                             | 32000                                                      | 200.00                                      | 132.00                     | 100.00                     | 66.00                       | 250                                    | 280  | 315  |      |      |      |      |  |  |
|                                                                                                                                                                                                                                      | 10.42            | 134.40                                                             | 32000                                                      | 200.00                                      | 132.00                     | 100.00                     | 66.00                       | 250                                    | 280  | 315  |      |      |      |      |  |  |
|                                                                                                                                                                                                                                      | 9.20             | 152.20                                                             | 30000                                                      | 200.00                                      | 132.00                     | 100.00                     | 66.00                       | 250                                    | 280  | 315  |      |      |      |      |  |  |
|                                                                                                                                                                                                                                      | 8.24             | 169.90                                                             | 30000                                                      | 200.00                                      | 132.00                     | 100.00                     | 66.00                       | 250                                    | 280  | 315  |      |      |      |      |  |  |
|                                                                                                                                                                                                                                      | 7.58             | 184.70                                                             | 19000                                                      | 200.00                                      | 132.00                     | 100.00                     | 66.00                       | 250                                    | 280  | 315  |      |      |      |      |  |  |
|                                                                                                                                                                                                                                      | 6.74             | 207.70                                                             | 19000                                                      | 200.00                                      | 132.00                     | 100.00                     | 66.00                       | 250                                    | 280  | 315  |      |      |      |      |  |  |
| 5.80                                                                                                                                                                                                                                 | 241.40           | 19000                                                              | 200.00                                                     | 132.00                                      | 100.00                     | 66.00                      | 250                         | 280                                    | 315  |      |      |      |      |      |  |  |
| 5.20                                                                                                                                                                                                                                 | 269.20           | 19000                                                              | 200.00                                                     | 132.00                                      | 100.00                     | 66.00                      | 250                         | 280                                    | 315  |      |      |      |      |      |  |  |

IEC - PAM bağlantısı yoktur / No IEC - PAM assembling on empty fields / Keine IEC - PAM-Verbindung

63 IEC - PAM bağlantısı yapılır / IEC - PAM assembling available on numbered fields / IEC - PAM-Verbindung möglich






80\* IEC - PAM bağlantısı yapılacaksa P<sub>1max</sub> değerleri aşılmamalıdır - Do not exceed the P<sub>1max</sub> values indicated on fields with asterisk / Bei IEC - PAM-Verbindungen, sollten die P<sub>1max</sub>-Werte nicht überschritten werden.

| Tip<br>Type<br>Typ                                                                                                                                                                                                                                                                                                                                                                                                      | i <sub>ges</sub> | 4-pol.<br>50 Hz<br>1400 rpm<br>n <sub>2</sub> [min <sup>-1</sup> ] | M <sub>amax</sub><br>f <sub>B</sub> =1<br>4 - pol.<br>[Nm] | W<br>P <sub>1max</sub> - f <sub>B</sub> ≥ 1 |                            |                            |                             | IEC - PAM<br>f <sub>B</sub> ⇔  77 - 183 |      |      |      |      |      |      |      |      |  |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------|--------------------------------------------------------------------|------------------------------------------------------------|---------------------------------------------|----------------------------|----------------------------|-----------------------------|----------------------------------------------------------------------------------------------------------------------------|------|------|------|------|------|------|------|------|--|
|                                                                                                                                                                                                                                                                                                                                                                                                                         |                  |                                                                    |                                                            | 4 - pol.<br>1400rpm<br>[kW]                 | 6 - pol.<br>930rpm<br>[kW] | 8 - pol.<br>700rpm<br>[kW] | 12 - pol.<br>465rpm<br>[kW] |                                                                                                                            |      |      |      |      |      |      |      |      |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                         |                  |                                                                    |                                                            |                                             |                            |                            |                             |                                                                                                                            |      |      | 90   | 100* | 112* | 132* | 160* | 180* |  |
| <b>PD 113/52</b><br><b>PM 113/52</b><br><br><br><br>+<br><b>IEC - PAM</b><br><br>   | 4001.34          | 0.35                                                               | 60000                                                      | 2.20                                        | 1.46                       | 1.10                       | 0.73                        | 90                                                                                                                         | 100* | 112* |      |      |      |      |      |      |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                         | 3722.96          | 0.38                                                               | 60000                                                      | 2.36                                        | 1.57                       | 1.18                       | 0.78                        | 90                                                                                                                         | 100* | 112* | 132* | 160* | 180* |      |      |      |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                         | 3062.69          | 0.46                                                               | 60000                                                      | 2.87                                        | 1.91                       | 1.44                       | 0.95                        | 90                                                                                                                         | 100* | 112* | 132* | 160* | 180* |      |      |      |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                         | 2328.41          | 0.60                                                               | 60000                                                      | 3.78                                        | 2.51                       | 1.89                       | 1.25                        | 90                                                                                                                         | 100  | 112* | 132* | 160* | 180* |      |      |      |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                         | 1829.47          | 0.77                                                               | 60000                                                      | 4.81                                        | 3.19                       | 2.40                       | 1.60                        | 90                                                                                                                         | 100  | 112  | 132* | 160* | 180* |      |      |      |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                         | 1382.74          | 1.00                                                               | 60000                                                      | 6.36                                        | 4.23                       | 3.18                       | 2.11                        | 90                                                                                                                         | 100  | 112  | 132* | 160* | 180* |      |      |      |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                         | 1154.79          | 1.20                                                               | 60000                                                      | 7.62                                        | 5.06                       | 3.81                       | 2.53                        | 90                                                                                                                         | 100  | 112  | 132* | 160* | 180* |      |      |      |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                         | 962.15           | 1.50                                                               | 60000                                                      | 9.14                                        | 6.07                       | 4.57                       | 3.04                        | 90                                                                                                                         | 100  | 112  | 132  | 160* | 180* |      |      |      |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                         | 731.47           | 1.90                                                               | 60000                                                      | 12.02                                       | 7.99                       | 6.01                       | 3.99                        | 90                                                                                                                         | 100  | 112  | 132  | 160* | 180* |      |      |      |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                         | 603.47           | 2.30                                                               | 60000                                                      | 14.58                                       | 9.68                       | 7.29                       | 4.84                        |                                                                                                                            | 100  | 112  | 132  | 160* | 180* |      |      |      |  |
| 479.85                                                                                                                                                                                                                                                                                                                                                                                                                  | 2.90             | 60000                                                              | 18.33                                                      | 12.18                                       | 9.17                       | 6.09                       |                             |                                                                                                                            |      |      | 160  | 180* |      |      |      |      |  |
| 363.21                                                                                                                                                                                                                                                                                                                                                                                                                  | 3.90             | 50000                                                              | 20.18                                                      | 13.41                                       | 10.09                      | 6.70                       |                             |                                                                                                                            |      |      | 160  | 180* |      |      |      |      |  |
| 312.23                                                                                                                                                                                                                                                                                                                                                                                                                  | 4.50             | 50000                                                              | 22.00                                                      | 14.52                                       | 11.00                      | 7.26                       |                             |                                                                                                                            |      |      | 160  | 180  |      |      |      |      |  |
| <b>PD 113</b><br><b>PM 113</b><br><br><br><br>+<br><b>IEC - PAM</b><br><br>    | 224.76           | 6.20                                                               | 69000                                                      | 45.00                                       | 29.90                      | 22.50                      | 14.95                       | 160                                                                                                                        | 180  |      |      |      |      |      |      |      |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                         | 171.96           | 8.10                                                               | 69000                                                      | 58.82                                       | 39.08                      | 29.41                      | 19.54                       | 160                                                                                                                        | 180  | 200  | 225  | 250  | 280* |      |      |      |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                         | 152.87           | 9.20                                                               | 69000                                                      | 66.17                                       | 43.95                      | 33.08                      | 21.98                       | 160                                                                                                                        | 180  | 200  | 225  | 250  | 280* | 315* |      |      |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                         | 130.73           | 10.70                                                              | 69000                                                      | 77.37                                       | 51.40                      | 38.69                      | 25.70                       | 160                                                                                                                        | 180  | 200  | 225  | 250  | 280* | 315* |      |      |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                         | 112.38           | 12.50                                                              | 69000                                                      | 90.01                                       | 59.79                      | 45.00                      | 29.90                       | 160                                                                                                                        | 180  | 200  | 225  | 250  | 280* | 315* |      |      |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                         | 92.07            | 15.20                                                              | 65400                                                      | 104.13                                      | 69.17                      | 52.07                      | 34.59                       | 160                                                                                                                        | 180  | 200  | 225  | 250  | 280  | 315* |      |      |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                         | 77.01            | 18.20                                                              | 62150                                                      | 118.31                                      | 78.59                      | 59.15                      | 39.30                       | 160                                                                                                                        | 180  | 200  | 225  | 250  | 280  | 315* |      |      |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                         | 63.44            | 22.10                                                              | 60000                                                      | 138.65                                      | 92.10                      | 69.32                      | 46.05                       | 160                                                                                                                        | 180  | 200  | 225  | 250  | 280  | 315* |      |      |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                         | 54.26            | 25.80                                                              | 60000                                                      | 162.10                                      | 107.68                     | 81.05                      | 53.84                       | 160                                                                                                                        | 180  | 200  | 225  | 250  | 280  | 315* |      |      |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                         | 46.64            | 30.00                                                              | 60000                                                      | 188.59                                      | 125.28                     | 94.29                      | 62.64                       | 160                                                                                                                        | 180  | 200  | 225  | 250  | 280  | 315* |      |      |  |
| 38.21                                                                                                                                                                                                                                                                                                                                                                                                                   | 36.60            | 60000                                                              | 200.00                                                     | 132.00                                      | 100.00                     | 66.00                      | 160                         | 180                                                                                                                        | 200  | 225  | 250  | 280  | 315  |      |      |      |  |
| 31.96                                                                                                                                                                                                                                                                                                                                                                                                                   | 43.80            | 60000                                                              | 200.00                                                     | 132.00                                      | 100.00                     | 66.00                      | 160                         | 180                                                                                                                        | 200  | 225  | 250  | 280  | 315  |      |      |      |  |
| <b>PD 112</b><br><b>PM 112</b><br><br><br><br>+<br><b>IEC - PAM</b><br><br> | 34.85            | 40.20                                                              | 42000                                                      | 176.67                                      | 117.36                     | 88.34                      | 58.68                       | 250                                                                                                                        | 280  | 315* |      |      |      |      |      |      |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                         | 29.92            | 46.80                                                              | 42000                                                      | 200.00                                      | 132.00                     | 100.00                     | 66.00                       | 250                                                                                                                        | 280  | 315  |      |      |      |      |      |      |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                         | 25.47            | 55.00                                                              | 42000                                                      | 200.00                                      | 132.00                     | 100.00                     | 66.00                       | 250                                                                                                                        | 280  | 315  |      |      |      |      |      |      |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                         | 21.42            | 65.40                                                              | 42000                                                      | 200.00                                      | 132.00                     | 100.00                     | 66.00                       | 250                                                                                                                        | 280  | 315  |      |      |      |      |      |      |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                         | 18.27            | 76.60                                                              | 42000                                                      | 200.00                                      | 132.00                     | 100.00                     | 66.00                       | 250                                                                                                                        | 280  | 315  |      |      |      |      |      |      |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                         | 16.33            | 85.70                                                              | 42000                                                      | 200.00                                      | 132.00                     | 100.00                     | 66.00                       | 250                                                                                                                        | 280  | 315  |      |      |      |      |      |      |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                         | 14.04            | 99.70                                                              | 26600                                                      | 200.00                                      | 132.00                     | 100.00                     | 66.00                       | 250                                                                                                                        | 280  | 315  |      |      |      |      |      |      |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                         | 11.96            | 117.10                                                             | 26300                                                      | 200.00                                      | 132.00                     | 100.00                     | 66.00                       | 250                                                                                                                        | 280  | 315  |      |      |      |      |      |      |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                         | 10.05            | 139.30                                                             | 26000                                                      | 200.00                                      | 132.00                     | 100.00                     | 66.00                       | 250                                                                                                                        | 280  | 315  |      |      |      |      |      |      |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                         | 8.58             | 163.20                                                             | 24800                                                      | 200.00                                      | 132.00                     | 100.00                     | 66.00                       | 250                                                                                                                        | 280  | 315  |      |      |      |      |      |      |  |
| 7.67                                                                                                                                                                                                                                                                                                                                                                                                                    | 182.50           | 24000                                                              | 200.00                                                     | 132.00                                      | 100.00                     | 66.00                      | 250                         | 280                                                                                                                        | 315  |      |      |      |      |      |      |      |  |

IEC - PAM bağlantısı yoktur / No IEC - PAM assembling on empty fields / Keine IEC - PAM-Verbindung

63 IEC - PAM bağlantısı yapılır / IEC - PAM assembling available on numbered fields / IEC - PAM-Verbindung möglich

80\* IEC - PAM bağlantısı yapılacaksa P<sub>1max</sub> değerleri aşılmamalıdır - Do not exceed the P<sub>1max</sub> values indicated on fields with asterisk / Bei IEC - PAM-Verbindungen, sollten die P<sub>1max</sub>-Werte nicht überschritten werden.

| Tip<br>Type<br>Typ                                                                             | i <sub>ges</sub> | 4-pol.<br>50 Hz<br>1400 rpm<br>n <sub>2</sub> [min <sup>-1</sup> ] | M <sub>amax</sub><br>f <sub>B</sub> =1<br>4 - pol.<br>[Nm] | W<br>P <sub>1max</sub> - f <sub>B</sub> ≥ 1 |                            |                            |                             | IEC - PAM<br>f <sub>B</sub> ⇒  77 - 183 |     |     |     |     |      |      |  |  |
|------------------------------------------------------------------------------------------------|------------------|--------------------------------------------------------------------|------------------------------------------------------------|---------------------------------------------|----------------------------|----------------------------|-----------------------------|----------------------------------------------------------------------------------------------------------------------------|-----|-----|-----|-----|------|------|--|--|
|                                                                                                |                  |                                                                    |                                                            | 4 - pol.<br>1400rpm<br>[kW]                 | 6 - pol.<br>930rpm<br>[kW] | 8 - pol.<br>700rpm<br>[kW] | 12 - pol.<br>465rpm<br>[kW] |                                                                                                                            |     |     |     |     |      |      |  |  |
|                                                                                                |                  |                                                                    |                                                            |                                             |                            |                            |                             | 160                                                                                                                        | 180 | 200 | 225 |     |      |      |  |  |
| <b>PD 123</b>                                                                                  | <b>201.75</b>    | <b>6.90</b>                                                        | 90000                                                      | 65.40                                       | 43.44                      | 32.70                      | 21.72                       | 160                                                                                                                        | 180 | 200 | 225 |     |      |      |  |  |
| <b>PM 123</b>                                                                                  | <b>154.35</b>    | <b>9.10</b>                                                        | 90000                                                      | 85.48                                       | 56.78                      | 42.74                      | 28.39                       | 160                                                                                                                        | 180 | 200 | 225 | 250 | 280* |      |  |  |
| W<br>         | <b>137.22</b>    | <b>10.20</b>                                                       | 90000                                                      | 96.15                                       | 63.87                      | 48.08                      | 31.94                       | 160                                                                                                                        | 180 | 200 | 225 | 250 | 280  | 315* |  |  |
|               | <b>117.35</b>    | <b>11.90</b>                                                       | 90000                                                      | 112.43                                      | 74.69                      | 56.22                      | 37.34                       | 160                                                                                                                        | 180 | 200 | 225 | 250 | 280  | 315* |  |  |
| +                                                                                              | <b>100.88</b>    | <b>13.90</b>                                                       | 90000                                                      | 130.79                                      | 86.88                      | 65.39                      | 43.44                       | 160                                                                                                                        | 180 | 200 | 225 | 250 | 280  | 315* |  |  |
| IEC - PAM<br> | <b>82.65</b>     | <b>16.90</b>                                                       | 90000                                                      | 159.60                                      | 106.04                     | 79.80                      | 53.02                       | 160                                                                                                                        | 180 | 200 | 225 | 250 | 280  | 315* |  |  |
|               | <b>69.12</b>     | <b>20.30</b>                                                       | 90000                                                      | 190.88                                      | 126.80                     | 95.44                      | 63.40                       | 160                                                                                                                        | 180 | 200 | 225 | 250 | 280  | 315* |  |  |

IEC - PAM bağlantısı yoktur / No IEC - PAM assembling on empty fields / Keine IEC - PAM-Verbindung

63 IEC - PAM bağlantısı yapılır / IEC - PAM assembling available on numbered fields / IEC - PAM-Verbindung möglich

80\* IEC - PAM bağlantısı yapılacaksa P<sub>1max</sub> değerleri aşılmamalıdır - Do not exceed the P<sub>1max</sub> values indicated on fields with asterisk / Bei IEC - PAM-Verbindungen, sollten die P<sub>1max</sub>-Werte nicht überschritten werden.



A series of horizontal dotted lines spanning the width of the page, intended for writing or drawing.

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GENEL PARÇA LİSTESİ

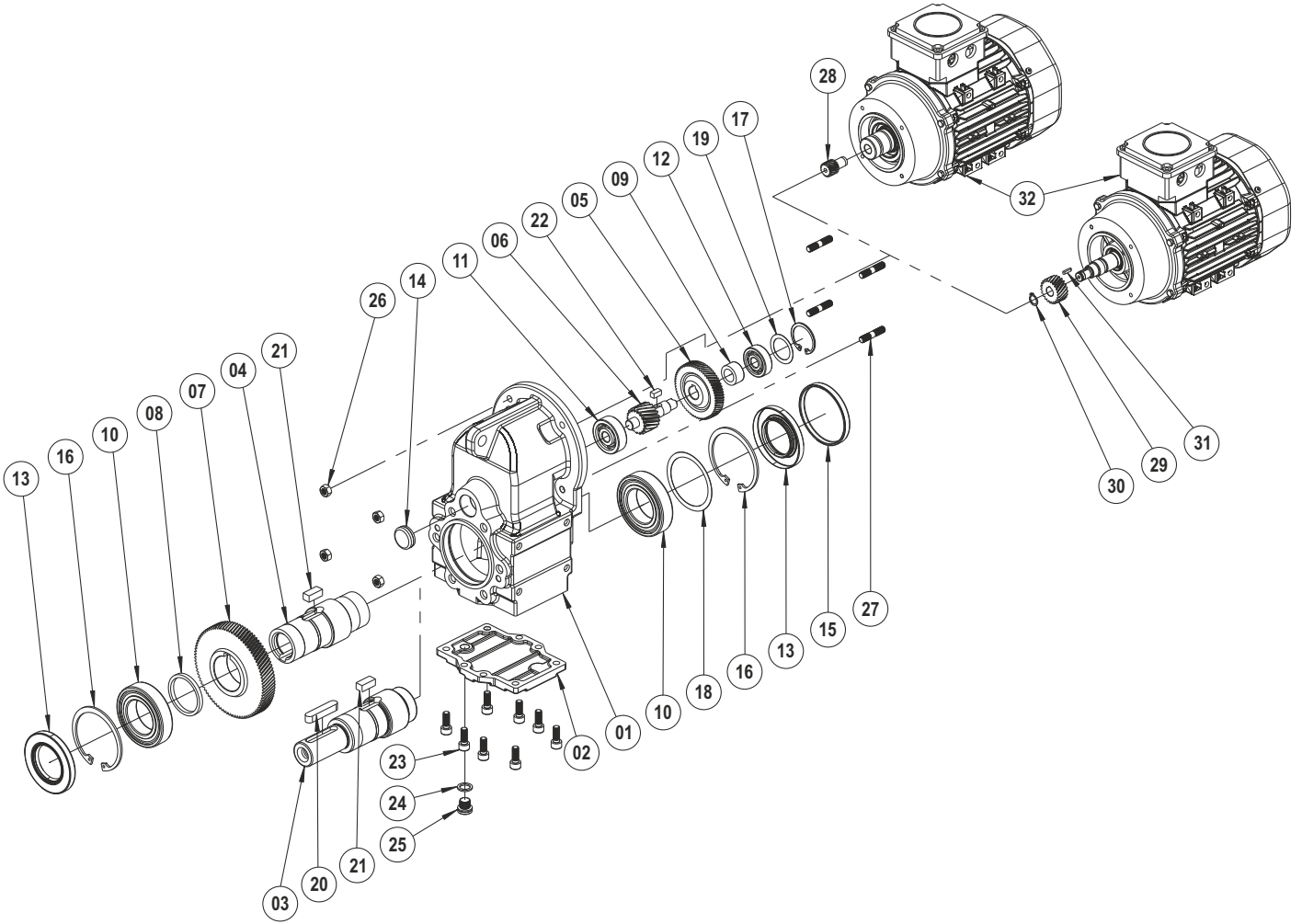
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GENERAL PART LIST

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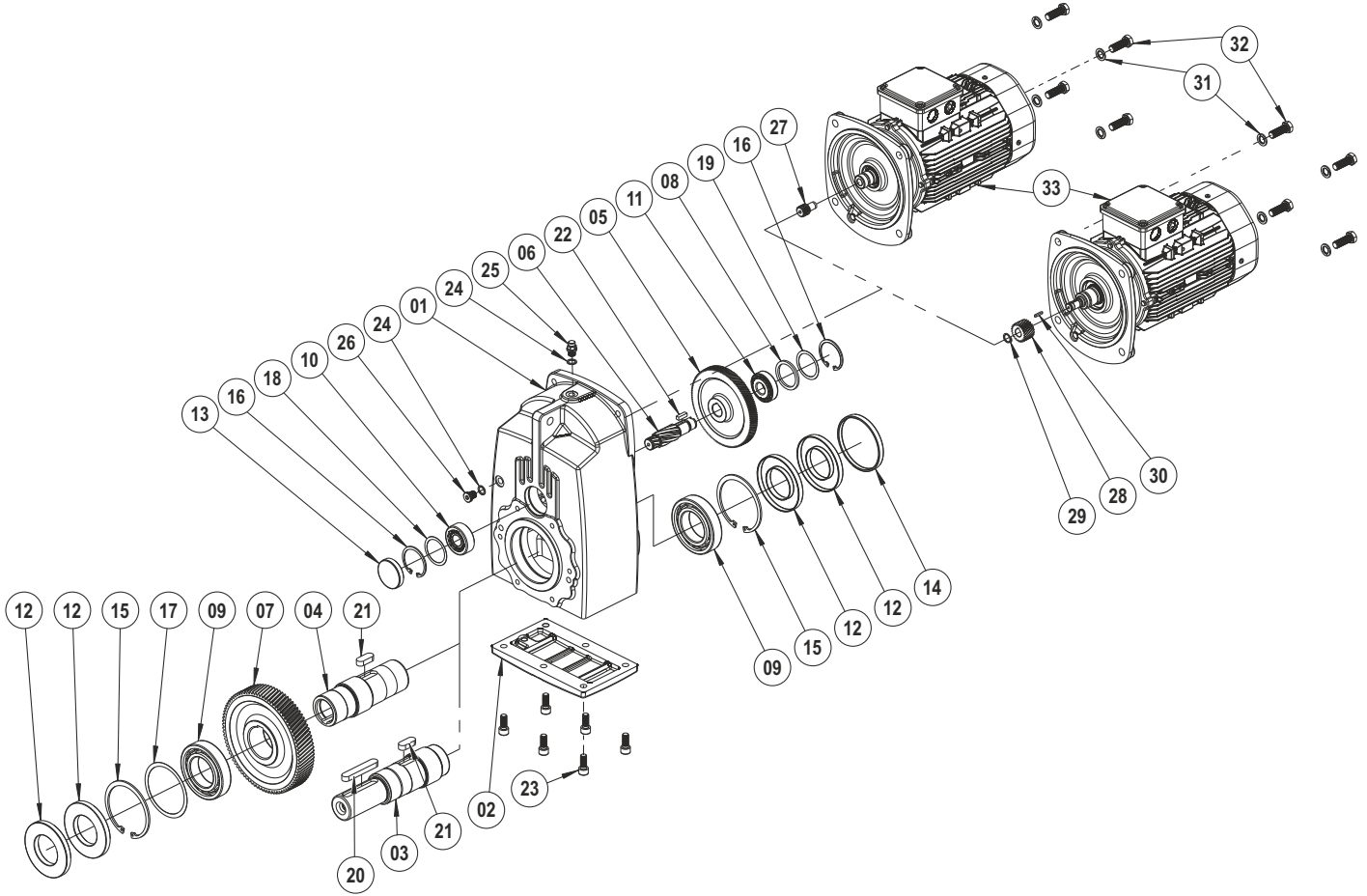
ALLGEMEINE STUCKLISTE

PD / PM A02



|    |                  |    |                     |    |                          |    |                                |
|----|------------------|----|---------------------|----|--------------------------|----|--------------------------------|
| 01 | Gövde            | 17 | Segman (DIN 472)    | 01 | Gehäuse                  | 17 | Sicherungsring (DIN 472)       |
| 02 | Kapak            | 18 | Layner              | 02 | Abdeckung                | 18 | Passscheibe                    |
| 03 | Çıkış Mili       | 19 | Layner              | 03 | Abtriebswelle            | 19 | Passscheibe                    |
| 04 | Çıkış Şaftı      | 20 | Kama                | 04 | Hohlwelle                | 20 | Passfeder                      |
| 05 | Z2 Dişlisi       | 21 | Kama                | 05 | Antriebsrad              | 21 | Passfeder                      |
| 06 | Z3 Dişlisi       | 22 | Kama                | 06 | Ritzelwelle              | 22 | Passfeder                      |
| 07 | Z4 Dişlisi       | 23 | Cıvata (DIN 912)    | 07 | Abtriebsrad              | 23 | Verschrauben (DIN 912)         |
| 08 | Rondela          | 24 | Rondela (DIN 7603)  | 08 | Distanzscheibe           | 24 | Distanzscheibe (DIN 7603)      |
| 09 | Burç             | 25 | Yağ Tapası          | 09 | Distanzbuchse            | 25 | Ölstopşel                      |
| 10 | Rulman           | 26 | Somun (DIN 934)     | 10 | Kugellager               | 26 | Schraubenmutter (DIN 934)      |
| 11 | Rulman           | 27 | Saplama             | 11 | Kugellager               | 27 | Bolzen                         |
| 12 | Rulman           | 28 | Z1 Dişlisi          | 12 | Kugellager               | 28 | Antriebsritzel                 |
| 13 | Yağ Keçesi       | 29 | Z1 Dişlisi (Kamalı) | 13 | Öldichtung               | 29 | Antriebsritzel (mit Passfeder) |
| 14 | Yağ Kapağı       | 30 | Segman (DIN 471)    | 14 | Ölabdeckung              | 30 | Sicherungsring (DIN 471)       |
| 15 | Yağ Kapağı       | 31 | Kama                | 15 | Ölabdeckung              | 31 | Passfeder                      |
| 16 | Segman (DIN 472) | 32 | Motor               | 16 | Sicherungsring (DIN 472) | 32 | Motor                          |

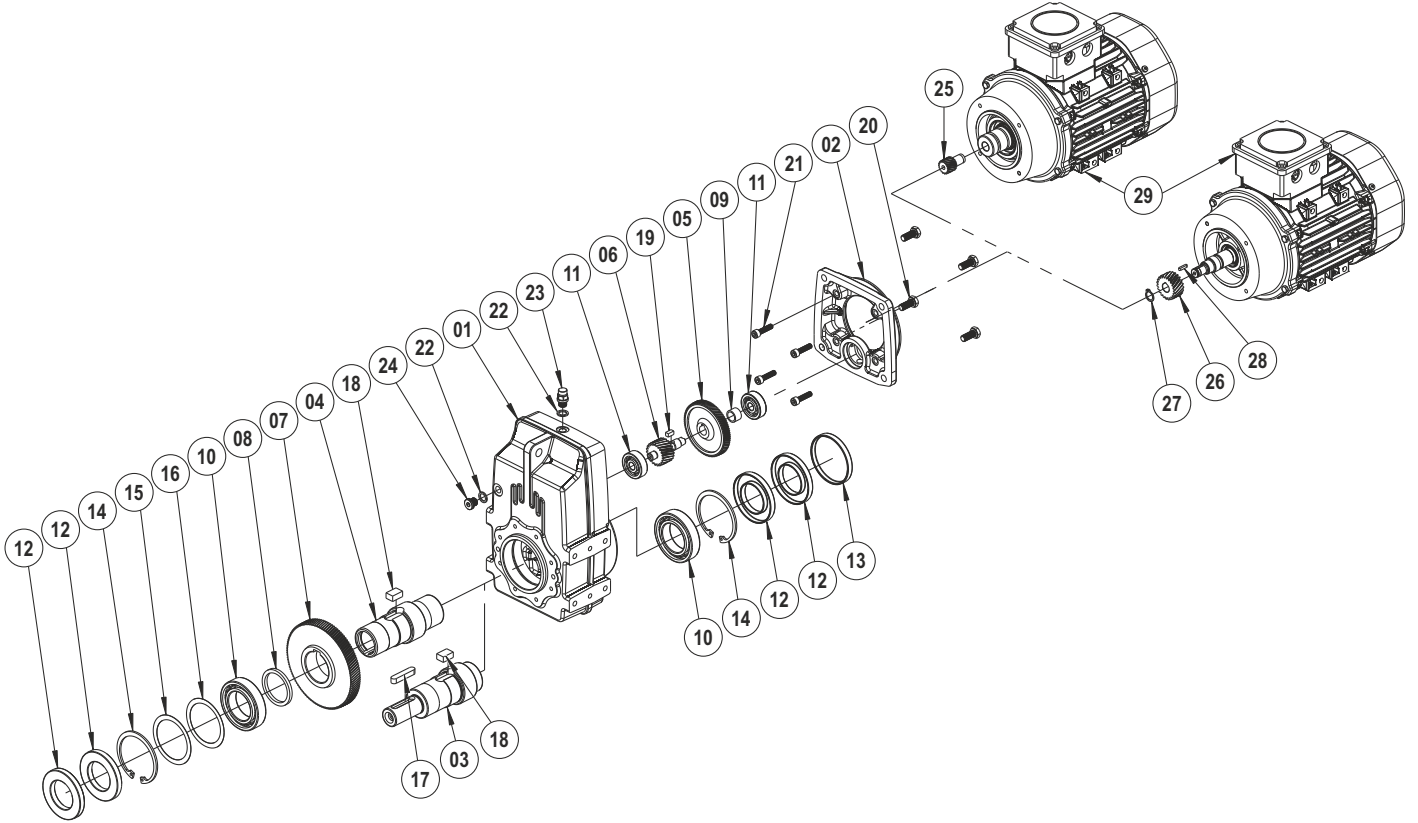
## PD / PM 12 ... 52



|                     |                        |                       |                              |                             |                                   |
|---------------------|------------------------|-----------------------|------------------------------|-----------------------------|-----------------------------------|
| 01 Gövde            | 18 Layner              | 01 Gear Case          | 18 Shim                      | 01 Gehäuse                  | 18 Passscheibe                    |
| 02 Kapak            | 19 Layner              | 02 Cover              | 19 Shim                      | 02 Abdeckung                | 19 Passscheibe                    |
| 03 Çıkış Mili       | 20 Kama                | 03 Output Solid Shaft | 20 Key                       | 03 Abtriebswelle            | 20 Passfeder                      |
| 04 Çıkış Şaftı      | 21 Kama                | 04 Hollow Shaft       | 21 Key                       | 04 Hohlwelle                | 21 Passfeder                      |
| 05 Z2 Dişlisi       | 22 Kama                | 05 Driving Gear       | 22 Key                       | 05 Antriebsrad              | 22 Passfeder                      |
| 06 Z3 Dişlisi       | 23 Cıvata (DIN 912)    | 06 Pinion Shaft       | 23 Bolt (DIN 912)            | 06 Ritzelwelle              | 23 Antriebsritzel (DIN 912)       |
| 07 Z4 Dişlisi       | 24 Rondela (DIN 7603)  | 07 Driven Gear        | 24 Washer (DIN 7603)         | 07 Abtriebsrad              | 24 Distanzscheibe (DIN 7603)      |
| 08 Rondela          | 25 Havalandırma Tapası | 08 Washer             | 25 Vent Plug                 | 08 Distanzscheibe           | 25 Entlüftungstopfen              |
| 09 Rulman           | 26 Yağ Tapası          | 09 Bearing            | 26 Oil Plug                  | 09 Kugellager               | 26 Ölstopfel                      |
| 10 Rulman           | 27 Z1 Dişlisi          | 10 Bearing            | 27 Driving Pinion            | 10 Kugellager               | 27 Antriebsritzel                 |
| 11 Rulman           | 28 Z1 Dişlisi (Kamalı) | 11 Bearing            | 28 Driving Pinion (With Key) | 11 Kugellager               | 28 Antriebsritzel (mit Passfeder) |
| 12 Yağ Keçesi       | 29 Segman (DIN 471)    | 12 Oil Seal           | 29 Circlip (DIN 471)         | 12 Öldichtung               | 29 Sicherungsring (DIN 471)       |
| 13 Yağ Kapağı       | 30 Kama                | 13 Oil Cover          | 30 Key                       | 13 Ölbaddeckung             | 30 Passfeder                      |
| 14 Yağ Kapağı       | 31 Rondela (DIN 127)   | 14 Oil Cover          | 31 Washer (DIN 127)          | 14 Ölbaddeckung             | 31 Distanzscheibe (DIN 127)       |
| 15 Segman (DIN 472) | 32 Cıvata (DIN 933)    | 15 Circlip (DIN 472)  | 32 Bolt (DIN 933)            | 15 Sicherungsring (DIN 472) | 32 Verschrauben (DIN 933)         |
| 16 Segman (DIN 472) | 33 Motor               | 16 Circlip (DIN 472)  | 33 Motor                     | 16 Sicherungsring (DIN 472) | 33 Motor                          |
| 17 Layner           |                        | 17 Shim               |                              | 17 Passscheibe              |                                   |



PD / PM B02



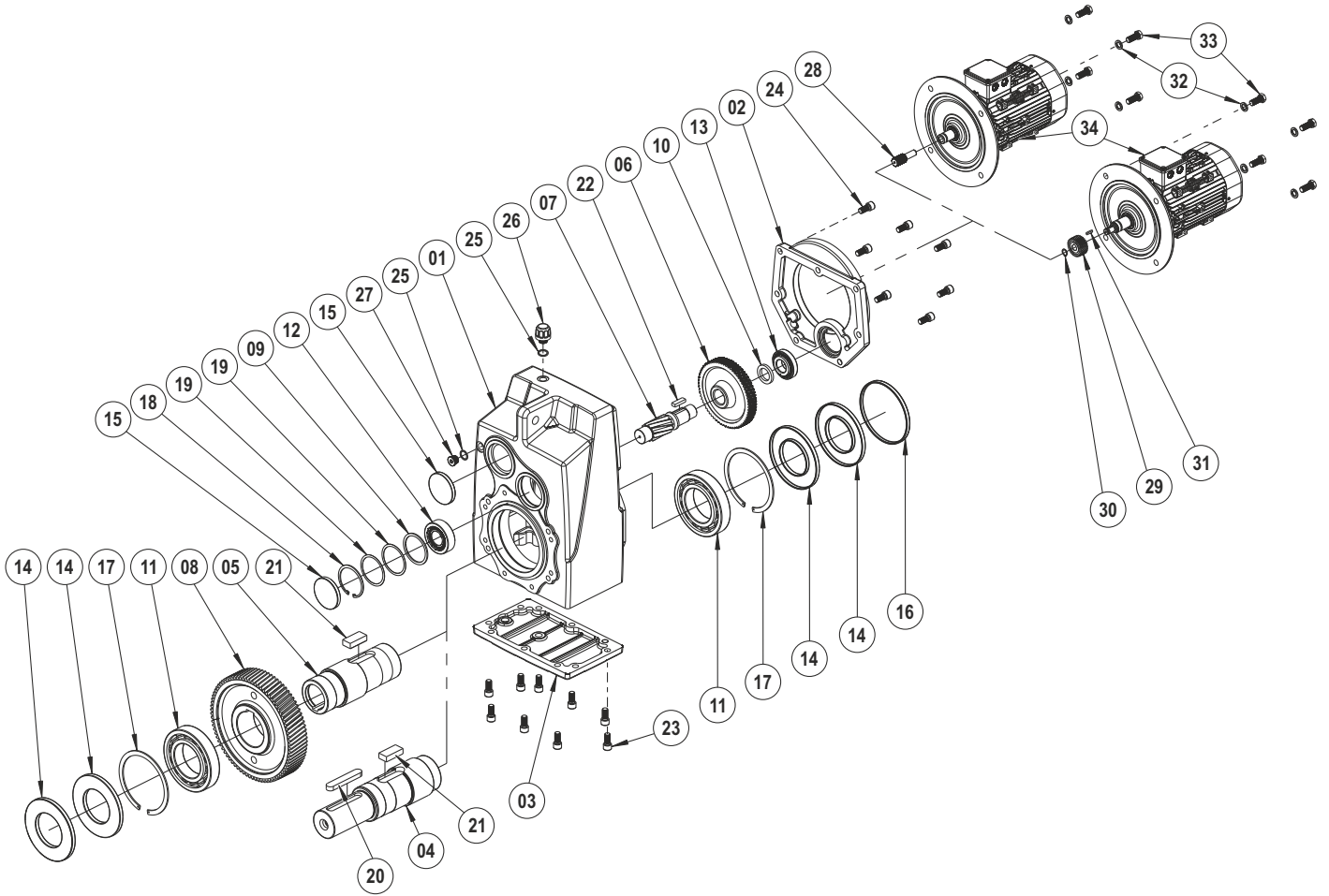
- 01 Gövde
- 02 Ara Bağlantı Flanşı
- 03 Çıkış Mili
- 04 Çıkış Şaftı
- 05 Z2 Dişlisi
- 06 Z3 Dişlisi
- 07 Z4 Dişlisi
- 08 Rondela
- 09 Burç
- 10 Rulman
- 11 Rulman
- 12 Yağ Keçesi
- 13 Yağ Kapağı
- 14 Segman (DIN 472)
- 15 Layner
- 16 Layner
- 17 Kama
- 18 Kama
- 19 Kama
- 20 Cıvata (DIN 933)
- 21 Cıvata (DIN 912)
- 22 Rondela (DIN 7603)
- 23 Havalandırma Tapası
- 24 Yağ Tapası
- 25 Z1 Dişlisi
- 26 Z1 Dişlisi (Kamalı)
- 27 Segman (DIN 471)
- 28 Kama
- 29 Motor

- 01 Gear Case
- 02 Intermediate Flange
- 03 Output Solid Shaft
- 04 Hollow Shaft
- 05 Driving Gear
- 06 Pinion Shaft
- 07 Driven Gear
- 08 Washer
- 09 Spacer
- 10 Bearing
- 11 Bearing
- 12 Oil Seal
- 13 Oil Cover
- 14 Circlip (DIN 472)
- 15 Shim
- 16 Shim
- 17 Key
- 18 Key
- 19 Key
- 20 Bolt (DIN 933)
- 21 Bolt (DIN 912)
- 22 Washer (DIN 7603)
- 23 Vent Plug
- 24 Oil Plug
- 25 Driving Pinion
- 26 Driving Pinion (With Key)
- 27 Circlip (DIN 471)
- 28 Key
- 29 Motor

- 01 Gehäuse
- 02 Zwischenflansch
- 03 Abtriebswelle
- 04 Hohlwelle
- 05 Antriebsrad
- 06 Ritzelwelle
- 07 Abtriebsrad
- 08 Distanzscheibe
- 09 Distanzbuchse
- 10 Kugellager
- 11 Kugellager
- 12 Öldichtung
- 13 Öldeckung
- 14 Sicherungsring (DIN 472)
- 15 Passscheibe
- 16 Passscheibe
- 17 Passfeder
- 18 Passfeder
- 19 Passfeder
- 20 Verschrauben (DIN 933)
- 21 Verschrauben (DIN 912)
- 22 Distanzscheibe (DIN 7603)
- 23 Entlüftungstopfen
- 24 Ölstöpsel
- 25 Antriebsritzel
- 26 Antriebsritzel (mit Passfeder)
- 27 Sicherungsring (DIN 472)
- 28 Passfeder
- 29 Motor



## PD / PM 62 ... 112



|    |                     |    |                     |    |                          |    |                                |
|----|---------------------|----|---------------------|----|--------------------------|----|--------------------------------|
| 01 | Gövde               | 18 | Segman (DIN 472)    | 01 | Gehäuse                  | 18 | Sicherungsring (DIN 472)       |
| 02 | Ara Bağlantı Flanşı | 19 | Layner              | 02 | Zwischenflansch          | 19 | Passscheibe                    |
| 03 | Kapak               | 20 | Kama                | 03 | Abdeckung                | 20 | Passfeder                      |
| 04 | Çıkış Mili          | 21 | Kama                | 04 | Abtriebswelle            | 21 | Passfeder                      |
| 05 | Çıkış Şaftı         | 22 | Kama                | 05 | Hohlwelle                | 22 | Passfeder                      |
| 06 | Z2 Dişlisi          | 23 | Cıvata (DIN 912)    | 06 | Antriebsrad              | 23 | Verschrauben (DIN 912)         |
| 07 | Z3 Dişlisi          | 24 | Cıvata (DIN 912)    | 07 | Ritzelwelle              | 24 | Verschrauben (DIN 912)         |
| 08 | Z4 Dişlisi          | 25 | Rondela (DIN 7603)  | 08 | Abtriebsrad              | 25 | Distanzscheibe (DIN 7603)      |
| 09 | Rondela             | 26 | Havalandırma Tapası | 09 | Distanzscheibe           | 26 | Entlüftungsstopfen             |
| 10 | Burç                | 27 | Yağ Tapası          | 10 | Distanzbuchse            | 27 | Ölstöpsel                      |
| 11 | Rulman              | 28 | Z1 Dişlisi          | 11 | Kugellager               | 28 | Antriebsritzel                 |
| 12 | Rulman              | 29 | Z1 Dişlisi (Kamalı) | 12 | Kugellager               | 29 | Antriebsritzel (mit Passfeder) |
| 13 | Rulman              | 30 | Segman (DIN 471)    | 13 | Kugellager               | 30 | Sicherungsring (DIN 471)       |
| 14 | Yağ Keçesi          | 31 | Kama                | 14 | Öldichtung               | 31 | Passfeder                      |
| 15 | Yağ Kapağı          | 32 | Rondela (DIN 127)   | 15 | Ölabdeckung              | 32 | Distanzscheibe (DIN 127)       |
| 16 | Yağ Kapağı          | 33 | Cıvata (DIN 933)    | 16 | Ölabdeckung              | 33 | Verschrauben (DIN 933)         |
| 17 | Segman (DIN 472)    | 34 | Motor               | 17 | Sicherungsring (DIN 472) | 34 | Motor                          |

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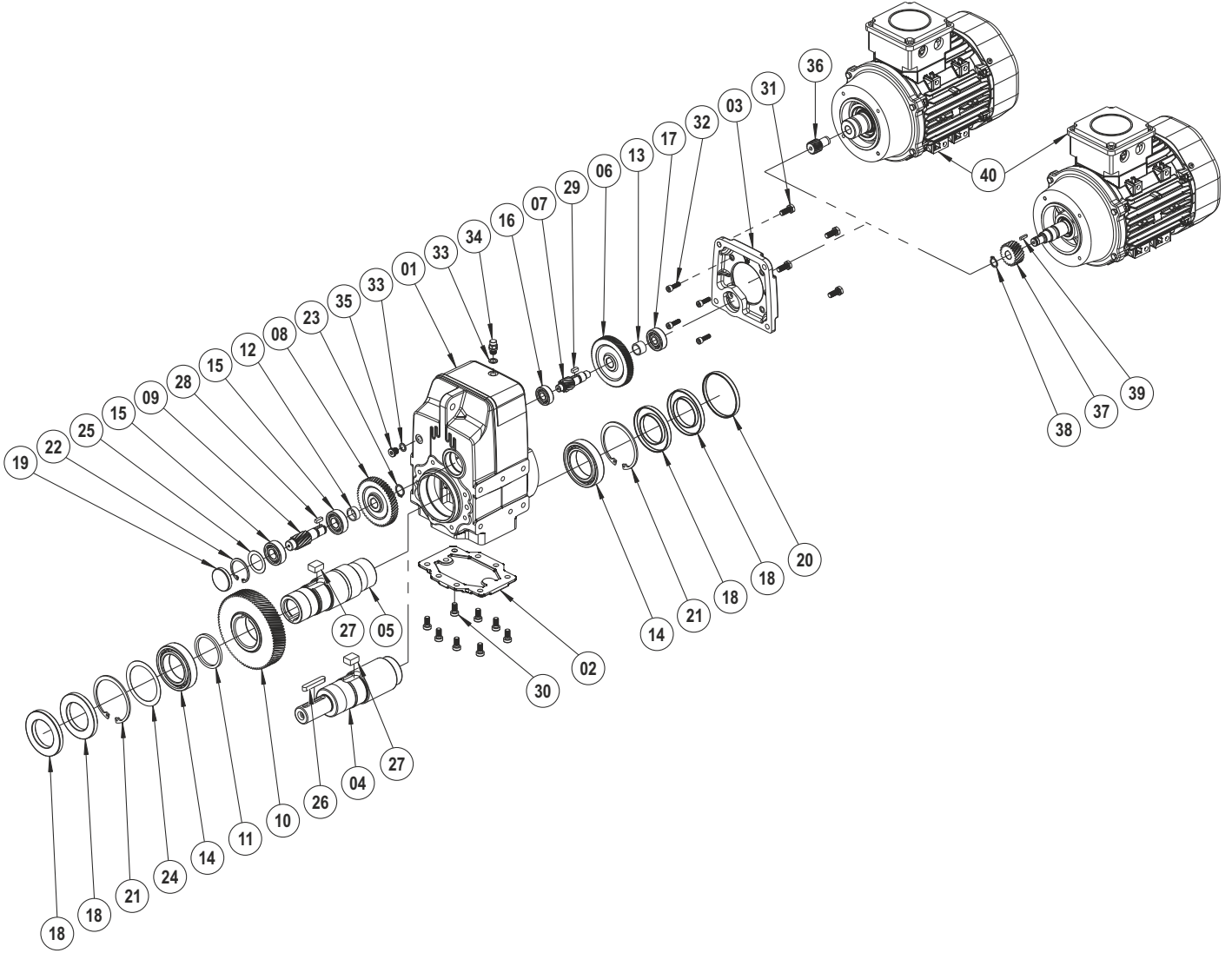
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GENERAL PART LIST

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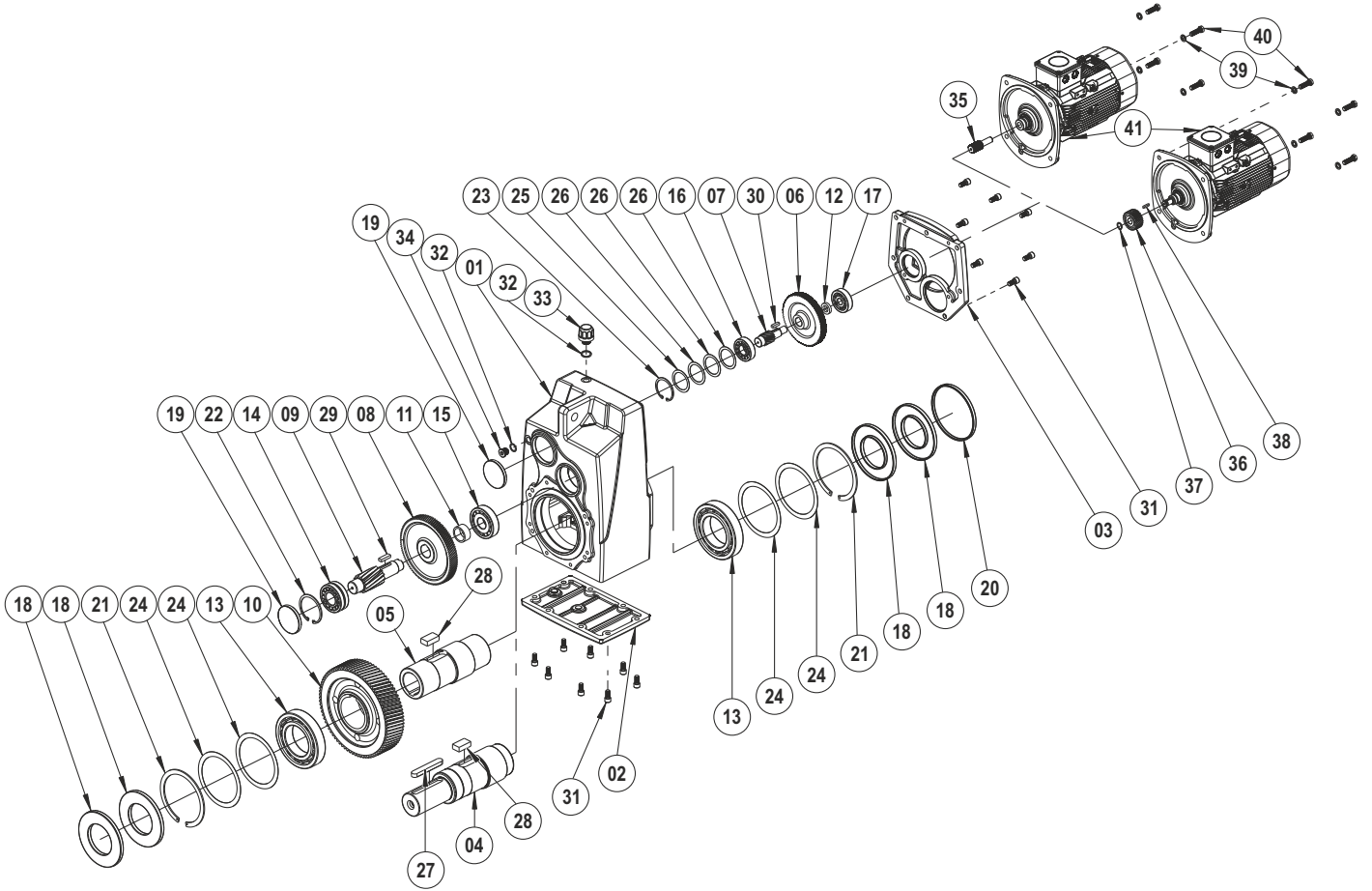
ALLGEMEINE STUCKLISTE

PD / PM C13



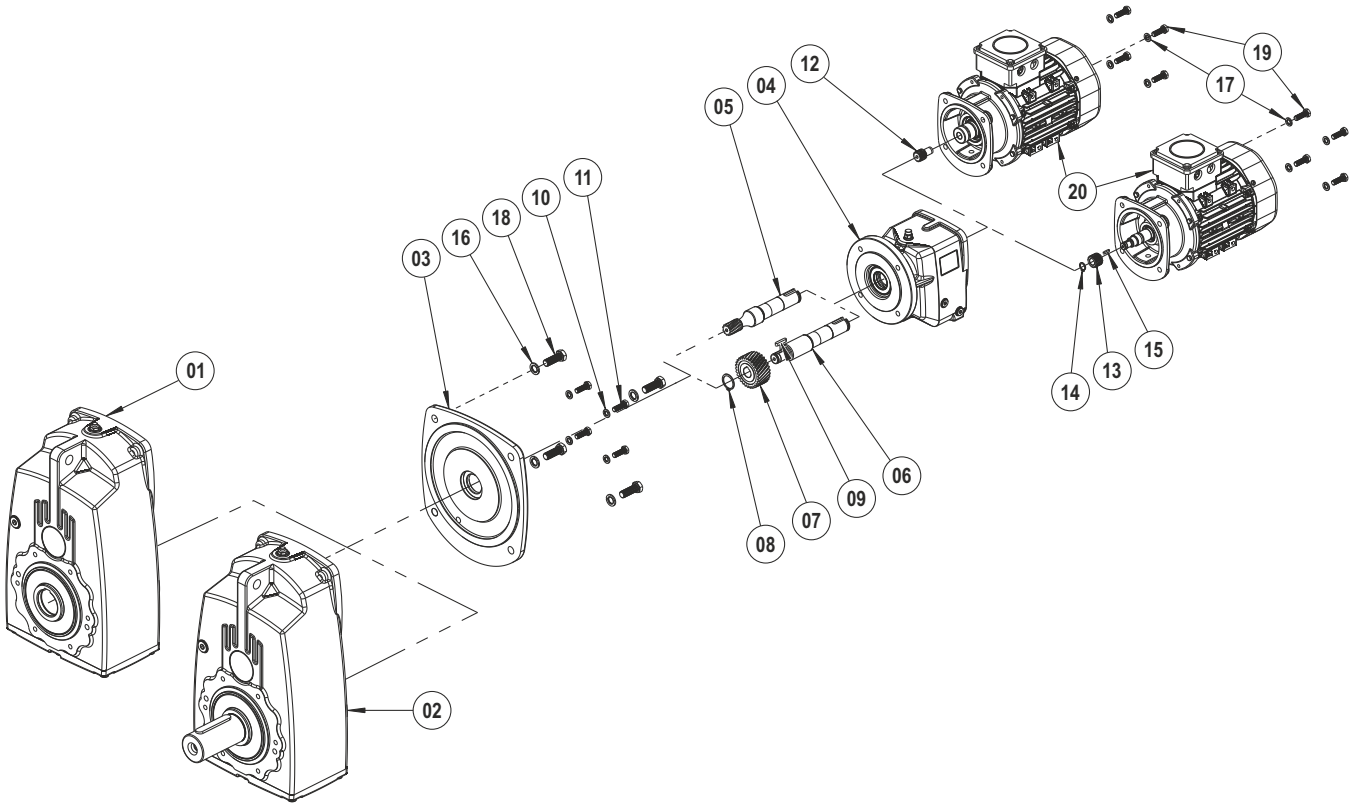
|    |                     |    |                     |    |                     |    |                           |    |                 |    |                                |
|----|---------------------|----|---------------------|----|---------------------|----|---------------------------|----|-----------------|----|--------------------------------|
| 01 | Gövde               | 21 | Segman (DIN 472)    | 01 | Gear Case           | 21 | Circlip (DIN 472)         | 01 | Gehäuse         | 21 | Sicherungsring (DIN 472)       |
| 02 | Kapak               | 22 | Segman (DIN 472)    | 02 | Cover               | 22 | Circlip (DIN 472)         | 02 | Abdeckung       | 22 | Sicherungsring (DIN 472)       |
| 03 | Ara Bağlantı Flanşı | 23 | Segman (DIN 471)    | 03 | Intermediate Flange | 23 | Circlip (DIN 471)         | 03 | Zwischenflansch | 23 | Sicherungsring (DIN 471)       |
| 04 | Çıkış Mili          | 24 | Layner              | 04 | Output Solid Shaft  | 24 | Shim                      | 04 | Abtriebswelle   | 24 | Passscheibe                    |
| 05 | Çıkış Şaftı         | 25 | Layner              | 05 | Hollow Shaft        | 25 | Shim                      | 05 | Hohlwelle       | 25 | Passscheibe                    |
| 06 | Z2 Dişlisi          | 26 | Kama                | 06 | Driving Gear        | 26 | Key                       | 06 | Antriebsrad     | 26 | Passfeder                      |
| 07 | Z3 Dişlisi          | 27 | Kama                | 07 | Pinion Shaft        | 27 | Key                       | 07 | Ritzelwelle     | 27 | Passfeder                      |
| 08 | Z4 Dişlisi          | 28 | Kama                | 08 | Driven Gear         | 28 | Key                       | 08 | Abtriebsrad     | 28 | Passfeder                      |
| 09 | Z5 Dişlisi          | 29 | Kama                | 09 | Pinion Shaft        | 29 | Key                       | 09 | Ritzelwelle     | 29 | Passfeder                      |
| 10 | Z6 Dişlisi          | 30 | Cıvata (DIN 912)    | 10 | Driven Gear         | 30 | Bolt (DIN 912)            | 10 | Abtriebsrad     | 30 | Verschrauben (DIN 912)         |
| 11 | Rondela             | 31 | Cıvata (DIN 933)    | 11 | Washer              | 31 | Bolt (DIN 933)            | 11 | Distanzscheibe  | 31 | Verschrauben (DIN 933)         |
| 12 | Burç                | 32 | Cıvata (DIN 912)    | 12 | Spacer              | 32 | Bolt (DIN 912)            | 12 | Distanzbuchse   | 32 | Verschrauben (DIN 912)         |
| 13 | Burç                | 33 | Rondela (DIN 7603)  | 13 | Spacer              | 33 | Washer (DIN 7603)         | 13 | Distanzbuchse   | 33 | Distanzscheibe (DIN 7603)      |
| 14 | Rulman              | 34 | Havalandırma Tapası | 14 | Bearing             | 34 | Vent Plug                 | 14 | Kugellager      | 34 | Entlüftungsstopfen             |
| 15 | Rulman              | 35 | Yağ Tapası          | 15 | Bearing             | 35 | Oil Plug                  | 15 | Kugellager      | 35 | Ölstöpsel                      |
| 16 | Rulman              | 36 | Z1 Dişlisi          | 16 | Bearing             | 36 | Driving Pinion            | 16 | Kugellager      | 36 | Antriebsritzel                 |
| 17 | Rulman              | 37 | Z1 Dişlisi (Kamalı) | 17 | Bearing             | 37 | Driving Pinion (With Key) | 17 | Kugellager      | 37 | Antriebsritzel (mit Passfeder) |
| 18 | Yağ Keçesi          | 38 | Segman (DIN 471)    | 18 | Oil Seal            | 38 | Circlip (DIN 471)         | 18 | Öldichtung      | 38 | Sicherungsring (DIN 471)       |
| 19 | Yağ Kapağı          | 39 | Kama                | 19 | Oil Cover           | 39 | Key                       | 19 | Ölabdeckung     | 39 | Passfeder                      |
| 20 | Yağ Kapağı          | 40 | Motor               | 20 | Oil Cover           | 40 | Motor                     | 20 | Ölabdeckung     | 40 | Motor                          |

## PD / PM 63 ... 123



|    |                     |    |                     |    |                     |    |                           |    |                          |    |                                |
|----|---------------------|----|---------------------|----|---------------------|----|---------------------------|----|--------------------------|----|--------------------------------|
| 01 | Gövde               | 22 | Segman (DIN 472)    | 01 | Gear Case           | 22 | Circlip (DIN 472)         | 01 | Gehäuse                  | 22 | Sicherungsring (DIN 472)       |
| 02 | Kapak               | 23 | Segman (DIN 472)    | 02 | Cover               | 23 | Circlip (DIN 472)         | 02 | Abdeckung                | 23 | Sicherungsring (DIN 472)       |
| 03 | Ara Bağlantı Flanşı | 24 | Layner              | 03 | Intermediate Flange | 24 | Shim                      | 03 | Zwischenflansch          | 24 | Passscheibe                    |
| 04 | Çıkış Mili          | 25 | Layner              | 04 | Output Solid Shaft  | 25 | Shim                      | 04 | Abtriebswelle            | 25 | Passscheibe                    |
| 05 | Çıkış Şaftı         | 26 | Layner              | 05 | Hollow Shaft        | 26 | Shim                      | 05 | Hohlwelle                | 26 | Passscheibe                    |
| 06 | Z2 Dişlisi          | 27 | Kama                | 06 | Driving Gear        | 27 | Key                       | 06 | Antriebsrad              | 27 | Passfeder                      |
| 07 | Z3 Dişlisi          | 28 | Kama                | 07 | Pinion Shaft        | 28 | Key                       | 07 | Ritzelwelle              | 28 | Passfeder                      |
| 08 | Z4 Dişlisi          | 29 | Kama                | 08 | Driven Gear         | 29 | Key                       | 08 | Abtriebsrad              | 29 | Passfeder                      |
| 09 | Z5 Dişlisi          | 30 | Kama                | 09 | Pinion Shaft        | 30 | Key                       | 09 | Ritzelwelle              | 30 | Passfeder                      |
| 10 | Z6 Dişlisi          | 31 | Civata (DIN 912)    | 10 | Driven Gear         | 31 | Bolt (DIN 912)            | 10 | Abtriebsrad              | 31 | Verschrauben (DIN 912)         |
| 11 | Burç                | 32 | Rondela (DIN 7603)  | 11 | Spacer              | 32 | Washer (DIN 7603)         | 11 | Distanzbuchse            | 32 | Distanzscheibe (DIN 7603)      |
| 12 | Burç                | 33 | Havalandırma Tapası | 12 | Spacer              | 33 | Vent Plug                 | 12 | Distanzbuchse            | 33 | Entlüftungstopfen              |
| 13 | Rulman              | 34 | Yağ Tapası          | 13 | Bearing             | 34 | Oil Plug                  | 13 | Kugellager               | 34 | Ölstopel                       |
| 14 | Rulman              | 35 | Z1 Dişlisi          | 14 | Bearing             | 35 | Driving Pinion            | 14 | Kugellager               | 35 | Antriebsritzel                 |
| 15 | Rulman              | 36 | Z1 Dişlisi (Kamalı) | 15 | Bearing             | 36 | Driving Pinion (With Key) | 15 | Kugellager               | 36 | Antriebsritzel (mit Passfeder) |
| 16 | Rulman              | 37 | Segman (DIN 471)    | 16 | Bearing             | 37 | Circlip (DIN 471)         | 16 | Kugellager               | 37 | Sicherungsring (DIN 471)       |
| 17 | Rulman              | 38 | Kama                | 17 | Bearing             | 38 | Key                       | 17 | Kugellager               | 38 | Passfeder                      |
| 18 | Yağ Keçesi          | 39 | Rondela (DIN 127)   | 18 | Oil Seal            | 39 | Washer (DIN 127)          | 18 | Öldichtung               | 39 | Distanzscheibe (DIN 127)       |
| 19 | Yağ Kapağı          | 40 | Civata (DIN 933)    | 19 | Oil Cover           | 40 | Bolt (DIN 933)            | 19 | Ölabdeckung              | 40 | Verschrauben (DIN 933)         |
| 20 | Yağ Kapağı          | 41 | Motor               | 20 | Oil Cover           | 41 | Motor                     | 20 | Ölabdeckung              | 41 | Motor                          |
| 21 | Segman (DIN 472)    |    |                     | 21 | Circlip (DIN 472)   |    |                           | 21 | Sicherungsring (DIN 472) |    |                                |

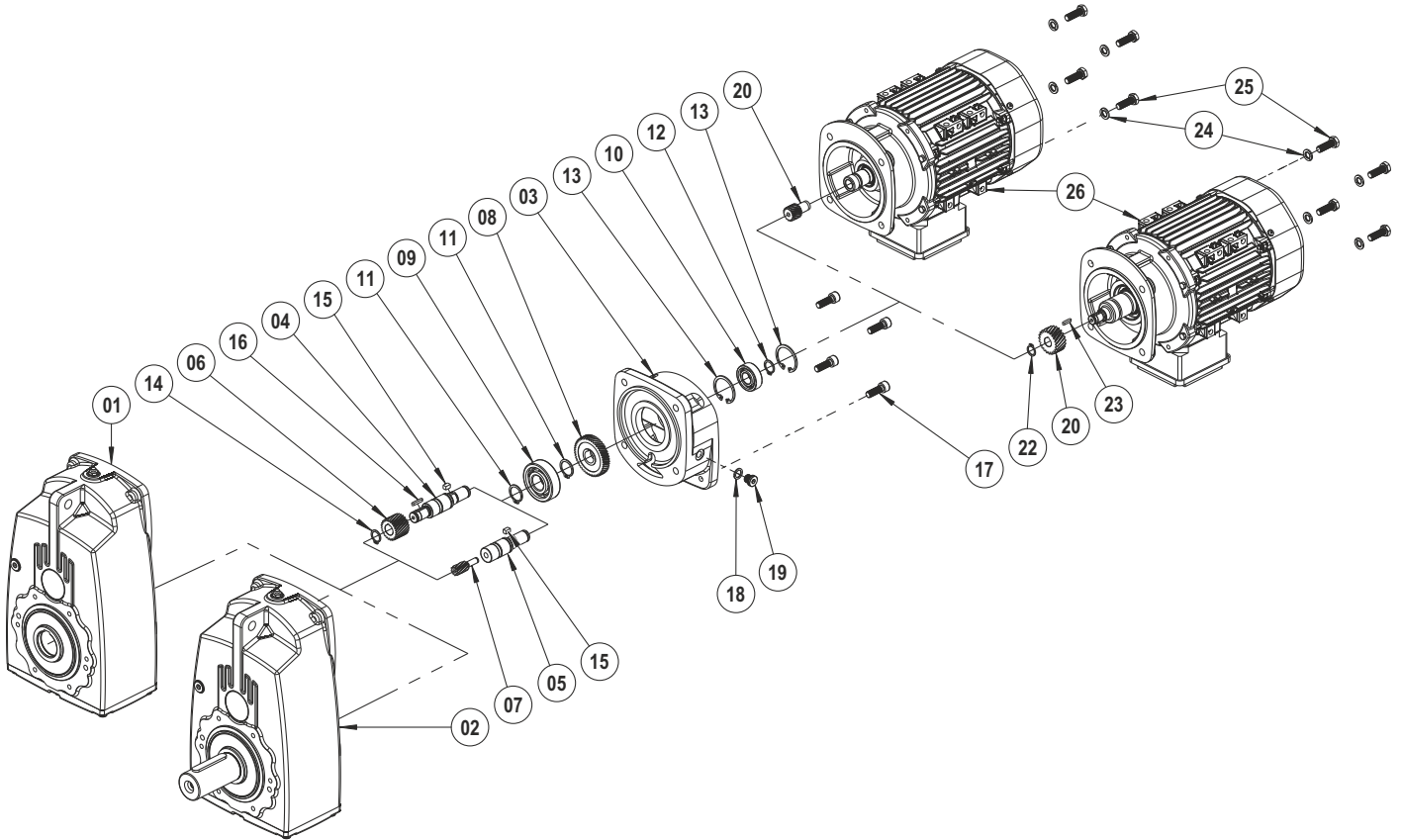
PD / PM 12/02 ... 103/52



- 01 PD Montajlı Redüktör
- 02 PM Montajlı Redüktör
- 03 Ara Bağlantı Flanşı
- 04 PF Montajlı Redüktör
- 05 Ara Mil (Dişlisi)
- 06 Ara Mil (Kamalı)
- 07 Ara Dişli (Kamalı)
- 08 Segman (DIN 471)
- 09 Kama
- 10 Rondela (DIN 127)
- 11 Cıvata (DIN 933)
- 12 Z1 Dişlisi
- 13 Z1 Dişlisi (Kamalı)
- 14 Segman (DIN 471)
- 15 Kama
- 16 Rondela (DIN 127)
- 17 Rondela (DIN 127)
- 18 Cıvata (DIN 933)
- 19 Cıvata (DIN 933)
- 20 Motor

- 01 PD Mounted Gear Unit
- 02 PM Mounted Gear Unit
- 03 Intermediate Flange
- 04 PF Mounted Gear Unit
- 05 Intermediate Shaft (With Gear)
- 06 Intermediate Shaft (With Key)
- 07 Intermediate Gear (With Key)
- 08 Circlip (DIN 471)
- 09 Key
- 10 Washer (DIN 127)
- 11 Bolt (DIN 933)
- 12 Driving Pinion
- 13 Driving Pinion (With Key)
- 14 Circlip (DIN 471)
- 15 Key
- 16 Washer (DIN 127)
- 17 Washer (DIN 127)
- 18 Bolt (DIN 933)
- 19 Bolt (DIN 933)
- 20 Motor

- 01 PD Montiertes Getriebe
- 02 PM Montiertes Getriebe
- 03 Zwischenflansch
- 04 PF Montiertes Getriebe
- 05 Übertragungswelle (mit Zahnrad)
- 06 Übertragungswelle (mit Passfeder)
- 07 Übertragungswelle (mit Passfeder)
- 08 Sicherungsring (DIN 471)
- 09 Passfeder
- 10 Distanzscheibe (DIN 127)
- 11 Verschrauben (DIN 933)
- 12 Antriebsritzel
- 13 Antriebsritzel (mit Passfeder)
- 14 Sicherungsring (DIN 471)
- 15 Passfeder
- 16 Distanzscheibe (DIN 127)
- 17 Distanzscheibe (DIN 127)
- 18 Verschrauben (DIN 933)
- 19 Verschrauben (DIN 933)
- 20 Motor

**PD / PM 13 ... 53**  
**İndirgeyici Gövde / Reduction Gear Case / Anbauehäuse**


- 01 PD Montajlı Redüktör
- 02 PM Montajlı Redüktör
- 03 İndirgeyici Gövde
- 04 Ara Mil (Kamalı)
- 05 Ara Mil
- 06 Ara Dişli (Kamalı)
- 07 Ara Dişli
- 08 Z2 Dişlisi
- 09 Rulman
- 10 Rulman
- 11 Segman (DIN 471)
- 12 Segman (DIN 471)
- 13 Segman (DIN 472)
- 14 Segman (DIN 471)
- 15 Kama
- 16 Kama
- 17 Cıvata (DIN 912)
- 18 Rondela (DIN 7603)
- 19 Yağ Tıpası
- 20 Z1 Dişlisi (Kamalı)
- 21 Z1 Dişlisi
- 22 Segman (DIN 471)
- 23 Kama
- 24 Rondela (DIN 127)
- 25 Cıvata (DIN 933)
- 26 Motor

- 01 PD Mounted Gear Unit
- 02 PM Mounted Gear Unit
- 03 Reduction Gear Case
- 04 Intermediate Shaft (With Key)
- 05 Intermediate Shaft
- 06 Intermediate Gear (With Key)
- 07 Intermediate Gear
- 08 Driving Gear
- 09 Bearing
- 10 Bearing
- 11 Circlip (DIN 471)
- 12 Circlip (DIN 471)
- 13 Circlip (DIN 472)
- 14 Circlip (DIN 471)
- 15 Key
- 16 Key
- 17 Bolt (DIN 912)
- 18 Washer (DIN 7603)
- 19 Oil Plug
- 20 Driving Pinion (With Key)
- 21 Driving Pinion
- 22 Circlip (DIN 471)
- 23 Key
- 24 Washer (DIN 127)
- 25 Bolt (DIN 933)
- 26 Motor

- 01 PD Montiertes Getriebe
- 02 PM Montiertes Getriebe
- 03 Anbauehäuse
- 04 Übertragungswelle (mit Passfeder)
- 05 Übertragungswelle
- 06 Zwischengetriebe (mit Passfeder)
- 07 Zwischengetriebe
- 08 Antriebsrad
- 09 Kugellager
- 10 Kugellager
- 11 Sicherungsring (DIN 471)
- 12 Sicherungsring (DIN 471)
- 13 Sicherungsring (DIN 472)
- 14 Sicherungsring (DIN 471)
- 15 Passfeder
- 16 Passfeder
- 17 Verschrauben (DIN 912)
- 18 Distanzscheibe (DIN 7603)
- 19 Ölstöpsel
- 20 Antriebsritzel (mit Passfeder)
- 21 Antriebsritzel
- 22 Sicherungsring (DIN 471)
- 23 Passfeder
- 24 Distanzscheibe (DIN 7603)
- 25 Verschrauben (DIN 933)
- 26 Motor

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GENEL PARÇA LİSTESİ

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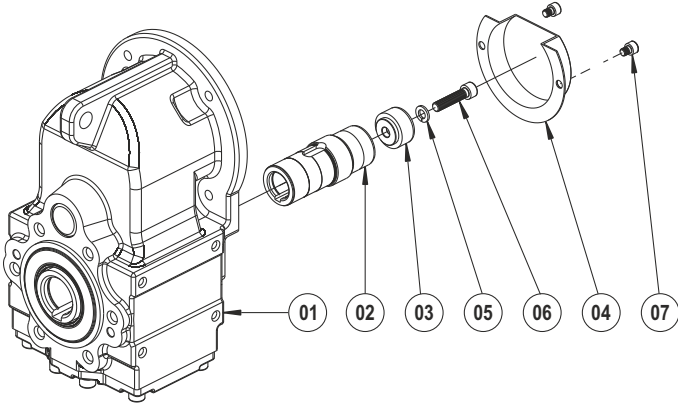
GENERAL PART LIST

DE

ALLGEMEINE STUCKLISTE

**PD / PM A02**

**Aksesuarlar / Accessories / Zubehör**



**Çektirme, (Ç)  
Koruma Kapağı (KK)**

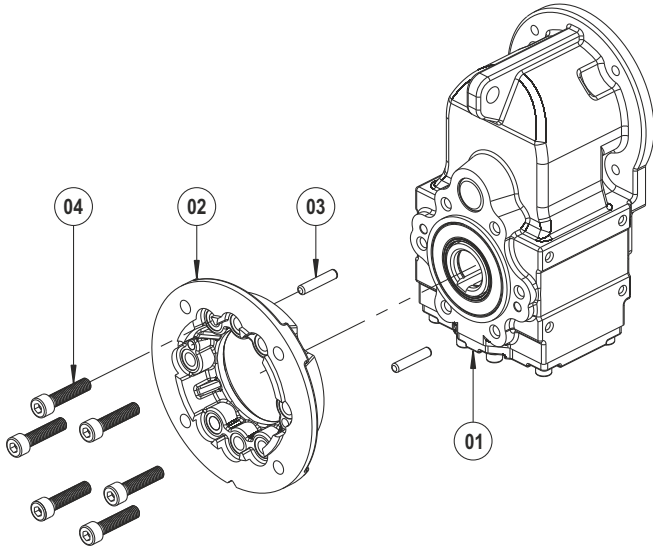
- 01 PD Montajlı Redüktör
- 02 Çıkış Şaftı
- 03 Çektirme Rondelası
- 04 Şaft Koruma Kapağı
- 05 Rondela (DIN 127)
- 06 Cıvata (DIN 912)
- 07 Cıvata (DIN 912)

**Puller,  
Protection Cover**

- PD Mounted Gear Unit
- Hollow Shaft
- Puller Washer
- Protection Cover
- Washer (DIN 127)
- Bolt (DIN 912)
- Bolt (DIN 912)

**Befestigungsbausatz,  
Schutzkappe**

- PD Montiertes Getriebe
- Hohlwelle
- Abziehscheibe
- Schutzhülle
- Distanzscheibe (DIN 127)
- Verschrauben (DIN 912)
- Verschrauben (DIN 912)



**B5 Çıkış Flanşı**

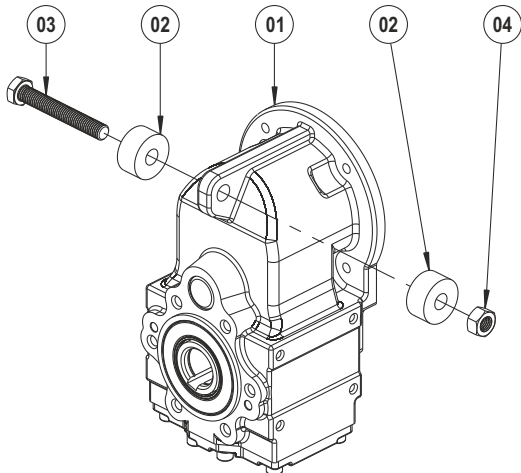
- 01 PD Montajlı Redüktör
- 02 B5 Çıkış Flanşı
- 03 Pim
- 04 Cıvata (DIN 912)

**B5 Output Flange**

- PD Mounted Gear Unit
- B5 Output Flange
- Pin
- Bolt (DIN 912)

**B5 Abtriebsflansch**

- PD Montiertes Getriebe
- B5 Abtriebsflansch
- Bolzen
- Verschrauben (DIN 912)



**Lastik Takoz (LT)**

- 01 PD Montajlı Redüktör
- 02 Lastik Takoz
- 03 Cıvata (DIN 933)
- 04 Somun (DIN 934)

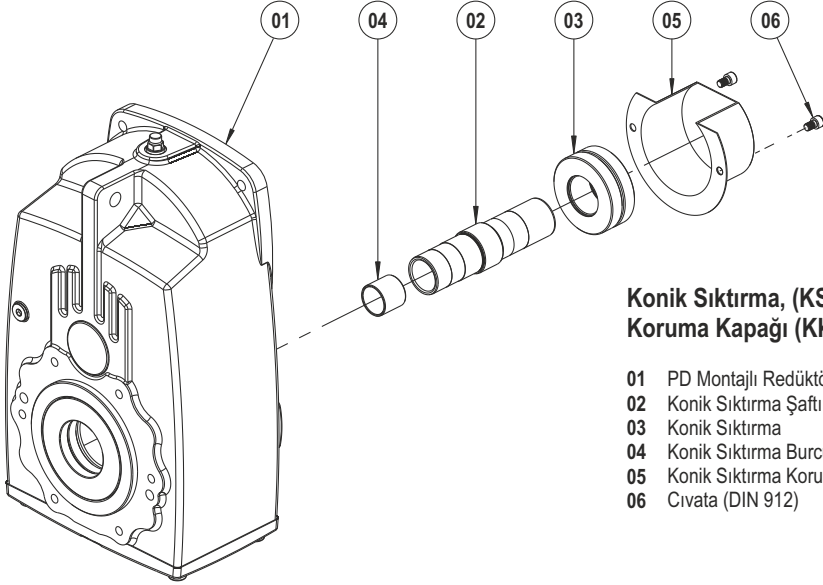
**Rubber Buffer**

- PD Mounted Gear Unit
- Rubber Buffer
- Bolt (DIN 933)
- Nut (DIN 934)

**Gummipuffer**

- PD Montiertes Getriebe
- Gummipuffer
- Verschrauben (DIN 933)
- Schraubenmutter (DIN 934)



**PD / PM 12 ... 52**  
**Aksesuarlar / Accessories / Zubehör**

**Konik Sıkırtma, (KS)**  
**Koruma Kapağı (KK)**

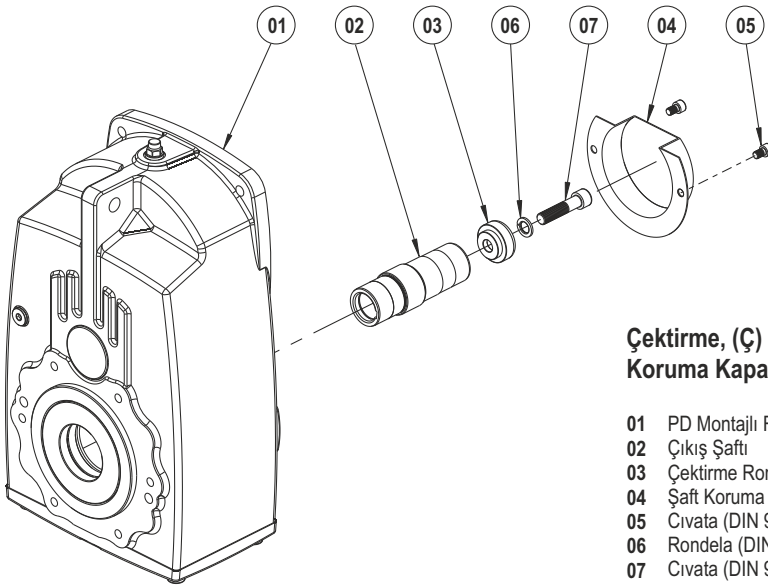
- 01 PD Montajlı Redüktör
- 02 Konik Sıkırtma Şaftı
- 03 Konik Sıkırtma
- 04 Konik Sıkırtma Burcu
- 05 Konik Sıkırtma Koruma Kapağı
- 06 Cıvata (DIN 912)

**Shrink Disk,**  
**Protection Cover**

- PD Mounted Gear Unit
- Shrink Disk Hollow Shaft
- Shrink Disk
- Shrink Disk Bushing
- Shrink Disk Cover
- Bolt (DIN 912)

**Schrumpfscheibe,**  
**Schutzkappe**

- PD Montiertes Getriebe
- Schrumpfscheibe Hohlwelle
- Schrumpfscheibe
- Schrumpfscheibenbuchse
- Schrumpfscheibedeckel
- Verschrauben (DIN 912)


**Çektirme, (Ç)**  
**Koruma Kapağı (KK)**

- 01 PD Montajlı Redüktör
- 02 Çıkış Şaftı
- 03 Çektirme Rondelası
- 04 Şaft Koruma Kapağı
- 05 Cıvata (DIN 912)
- 06 Rondela (DIN 127)
- 07 Cıvata (DIN 912)

**Puller,**  
**Protection Cover;**

- PD Mounted Gear Unit
- Hollow Shaft
- Puller Washer
- Protection Cover
- Bolt (DIN 912)
- Washer (DIN 127)
- Bolt (DIN 912)

**Befestigungsbausatz,**  
**Schutzkappe**

- PD Montiertes Getriebe
- Hohlwelle
- Abziehscheibe
- Schutzhülle
- Verschrauben (DIN 912)
- Distanzscheibe (DIN 127)
- Verschrauben (DIN 912)

TR

GENEL PARÇA LİSTESİ

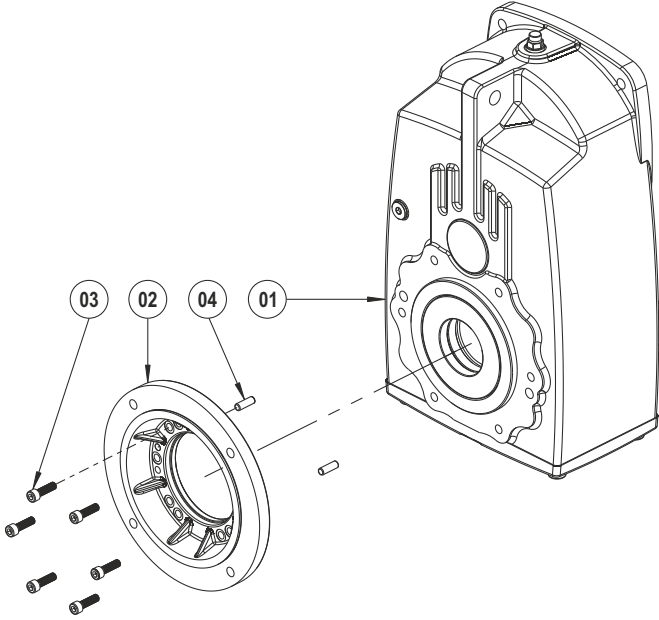
EN

GENERAL PART LIST

DE

ALLGEMEINE STUCKLISTE

**PD / PM 12 ... 52**  
Aksesuarlar / Accessories / Zubehör



**B5 Çıkış Flanşı**

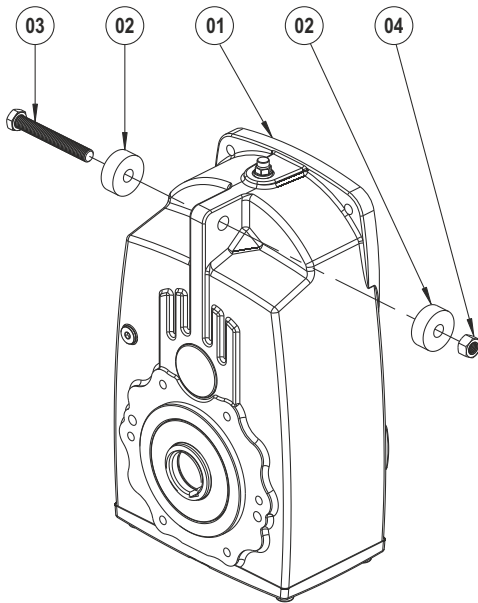
- 01 PD Montajlı Redüktör
- 02 B5 Çıkış Flanşı
- 03 Cıvata (DIN 933)
- 04 Pim

**B5 Output Flange**

- PD Mounted Gear Unit
- B5 Output Flange
- Bolt (DIN 933)
- Pin

**B5 Abtriebsflansch**

- PD Montiertes Getriebe
- B5 Abtriebsflansch
- Verschrauben (DIN 933)
- Bolzen



**Lastik Takoz (LT)**

- 01 PD Montajlı Redüktör
- 02 Lastik Takoz
- 03 Cıvata (DIN 933)
- 04 Somun (DIN 934)

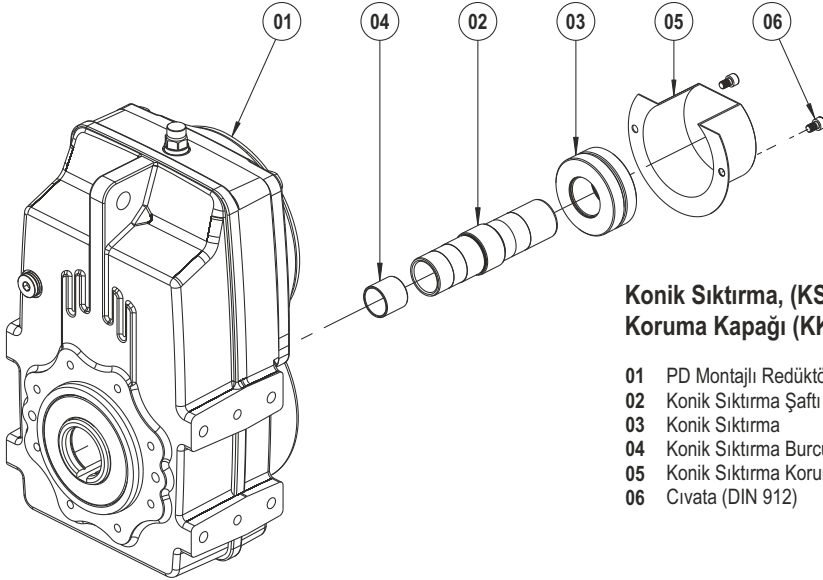
**Rubber Buffer**

- PD Mounted Gear Unit
- Rubber Buffer
- Bolt (DIN 933)
- Nut (DIN 934)

**Gummipuffer**

- PD Montiertes Getriebe
- Gummipuffer
- Verschrauben (DIN 933)
- Schraubenmutter (DIN 934)



**PD / PM B02**
**Aksesuarlar / Accessories / Zubehör**

**Konik Sıkırtma, (KS)  
Koruma Kapağı (KK)**

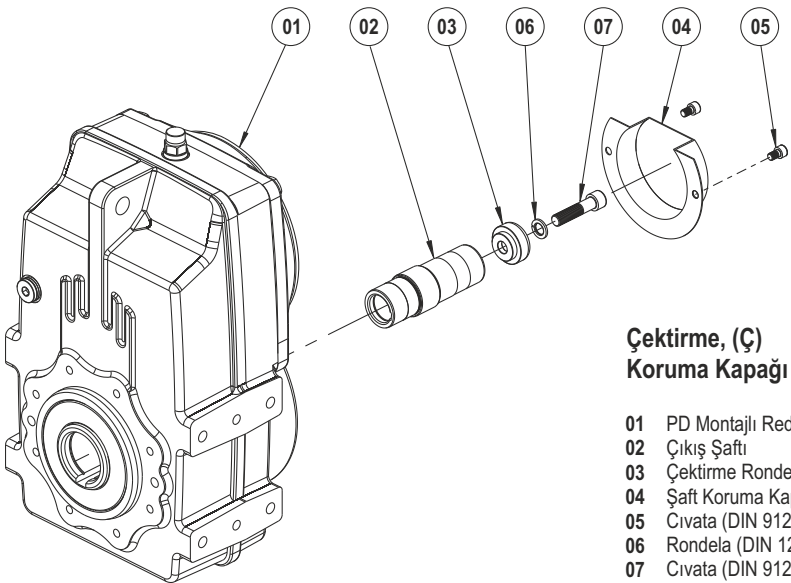
- 01 PD Montajlı Redüktör
- 02 Konik Sıkırtma Şaftı
- 03 Konik Sıkırtma
- 04 Konik Sıkırtma Burcu
- 05 Konik Sıkırtma Koruma Kapağı
- 06 Cıvata (DIN 912)

**Shrink Disk,  
Protection Cover**

- PD Mounted Gear Unit
- Shrink Disk Hollow Shaft
- Shrink Disk
- Shrink Disk Bushing
- Shrink Disk Cover
- Bolt (DIN 912)

**Schrumpfscheibe,  
Schutzkappe**

- PD Montiertes Getriebe
- Schrumpfscheibe Hohlwelle
- Schrumpfscheibe
- Schrumpfscheibenbuchse
- Schrumpfscheibedeckel
- Verschrauben (DIN 912)


**Çektirme, (Ç)  
Koruma Kapağı (KK)**

- 01 PD Montajlı Redüktör
- 02 Çıkış Şaftı
- 03 Çektirme Rondelası
- 04 Şaft Koruma Kapağı
- 05 Cıvata (DIN 912)
- 06 Rondela (DIN 127)
- 07 Cıvata (DIN 912)

**Puller,  
Protection Cover;**

- PD Mounted Gear Unit
- Hollow Shaft
- Puller Washer
- Protection Cover
- Bolt (DIN 912)
- Washer (DIN 127)
- Bolt (DIN 912)

**Befestigungsbausatz,  
Schutzkappe**

- PD Montiertes Getriebe
- Hohlwelle
- Abziehscheibe
- Schutzhülle
- Verschrauben (DIN 912)
- Distanzscheibe (DIN 127)
- Verschrauben (DIN 912)

TR

GENEL PARÇA LİSTESİ

EN

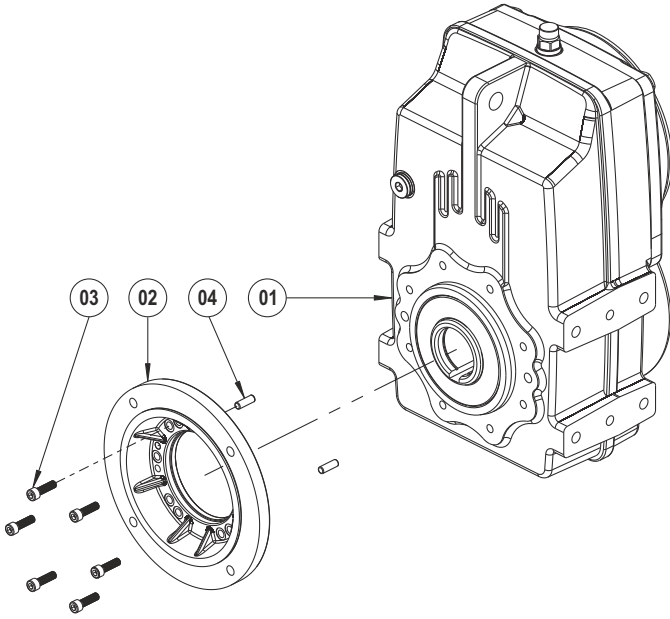
GENERAL PART LIST

DE

ALLGEMEINE STUCKLISTE

**PD / PM B02**

Aksesuarlar / Accessories / Zubehör



**B5 Çıkış Flanşı**

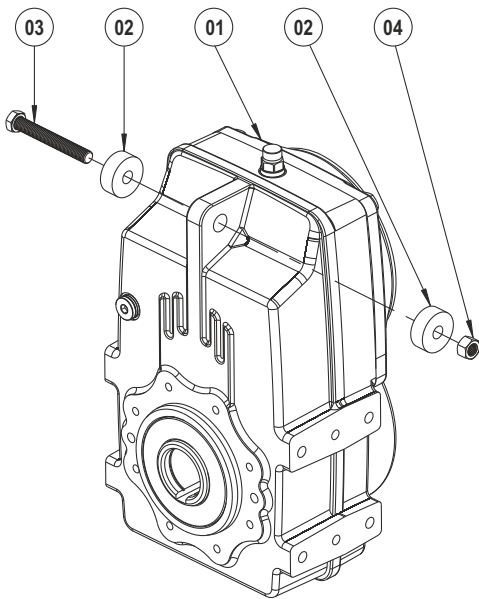
- 01 PD Montajlı Redüktör
- 02 B5 Çıkış Flanşı
- 03 Cıvata (DIN 933)
- 04 Pim

**B5 Output Flange**

- PD Mounted Gear Unit
- B5 Output Flange
- Bolt (DIN 933)
- Pin

**B5 Abtriebsflansch**

- PD Montiertes Getriebe
- B5 Abtriebsflansch
- Verschrauben (DIN 933)
- Bolzen



**Lastik Takoz (LT)**

- 01 PD Montajlı Redüktör
- 02 Lastik Takoz
- 03 Cıvata (DIN 933)
- 04 Somun (DIN 934)

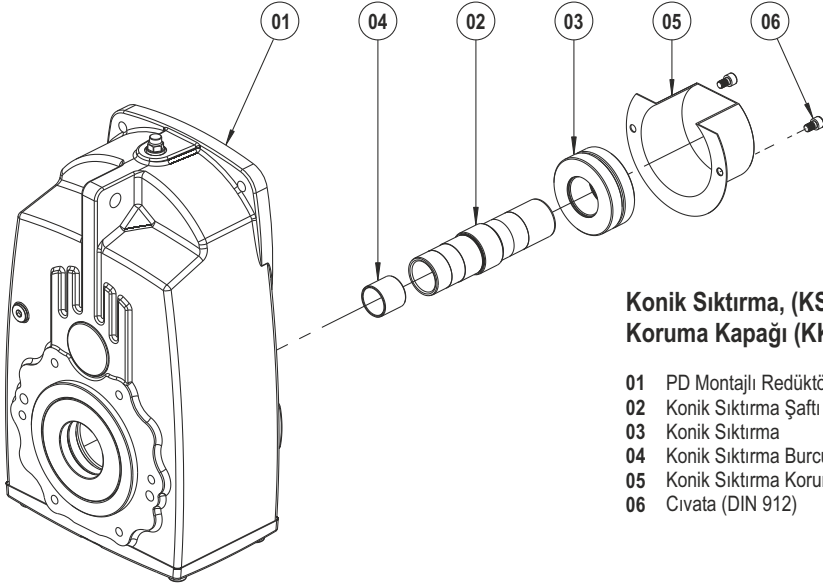
**Rubber Buffer**

- PD Mounted Gear Unit
- Rubber Buffer
- Bolt (DIN 933)
- Nut (DIN 934)

**Gummipuffer**

- PD Montiertes Getriebe
- Gummipuffer
- Verschrauben (DIN 933)
- Schraubenmutter (DIN 934)

**PD / PM 62 ... 112**  
**Aksesuarlar / Accessories / Zubehör**



**Konik Sıkırtma, (KS)**  
**Koruma Kapağı (KK)**

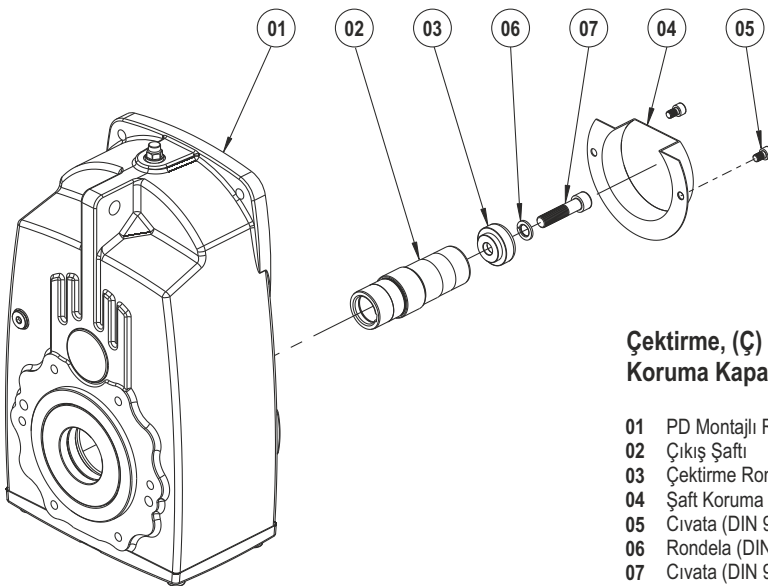
- 01 PD Montajlı Redüktör
- 02 Konik Sıkırtma Şaftı
- 03 Konik Sıkırtma
- 04 Konik Sıkırtma Burcu
- 05 Konik Sıkırtma Koruma Kapağı
- 06 Cıvata (DIN 912)

**Shrink Disk,**  
**Protection Cover**

- PD Mounted Gear Unit
- Shrink Disk Hollow Shaft
- Shrink Disk
- Shrink Disk Bushing
- Shrink Disk Cover
- Bolt (DIN 912)

**Schrumpfscheibe,**  
**Schutzkappe**

- PD Montiertes Getriebe
- Schrumpfscheibe Hohlwelle
- Schrumpfscheibe
- Schrumpfscheibenbuchse
- Schrumpfscheibedeckel
- Verschrauben (DIN 912)



**Çektirme, (Ç)**  
**Koruma Kapağı (KK)**

- 01 PD Montajlı Redüktör
- 02 Çıkış Şaftı
- 03 Çektirme Rondelası
- 04 Şaft Koruma Kapağı
- 05 Cıvata (DIN 912)
- 06 Rondela (DIN 127)
- 07 Cıvata (DIN 912)

**Puller,**  
**Protection Cover;**

- PD Mounted Gear Unit
- Hollow Shaft
- Puller Washer
- Protection Cover
- Bolt (DIN 912)
- Washer (DIN 127)
- Bolt (DIN 912)

**Befestigungsbausatz,**  
**Schutzkappe**

- PD Montiertes Getriebe
- Hohlwelle
- Abziehscheibe
- Schutzhülle
- Verschrauben (DIN 912)
- Distanzscheibe (DIN 127)
- Verschrauben (DIN 912)

TR

GENEL PARÇA LİSTESİ

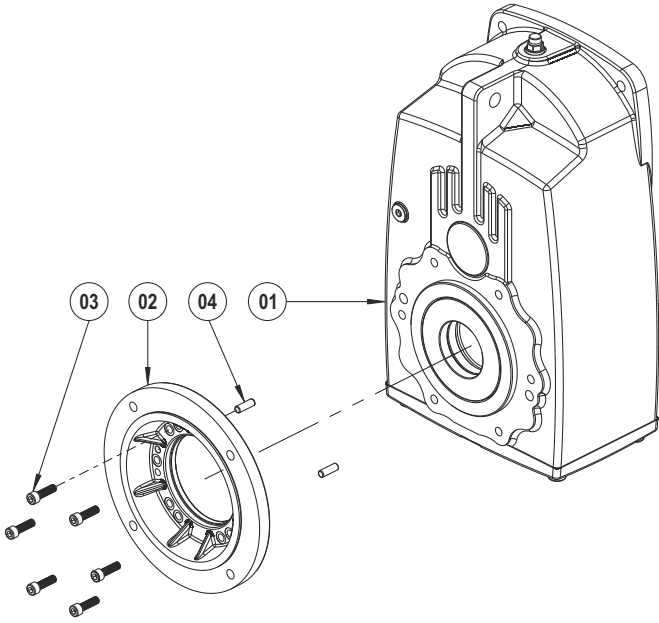
EN

GENERAL PART LIST

DE

ALLGEMEINE STUCKLISTE

**PD / PM 62 ... 112**  
**Aksesuarlar / Accessories / Zubehör**



**B5 Çıkış Flanşı**

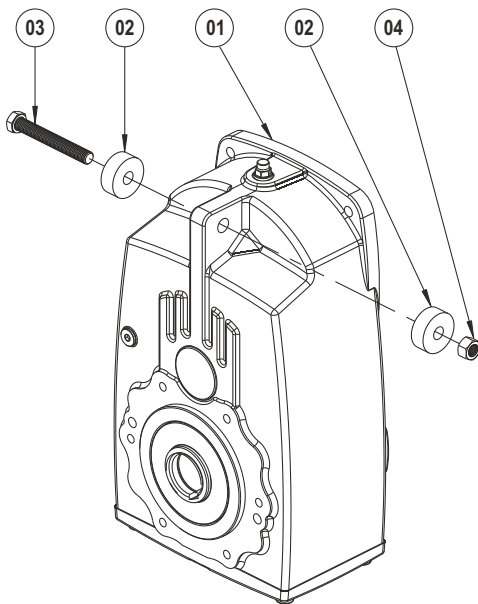
- 01 PD Montajlı Redüktör
- 02 B5 Çıkış Flanşı
- 03 Cıvata (DIN 933)
- 04 Pim

**B5 Output Flange**

- PD Mounted Gear Unit
- B5 Output Flange
- Bolt (DIN 933)
- Pin

**B5 Abtriebsflansch**

- PD Montiertes Getriebe
- B5 Abtriebsflansch
- Verschrauben (DIN 933)
- Bolzen



**Lastik Takoz (LT)**

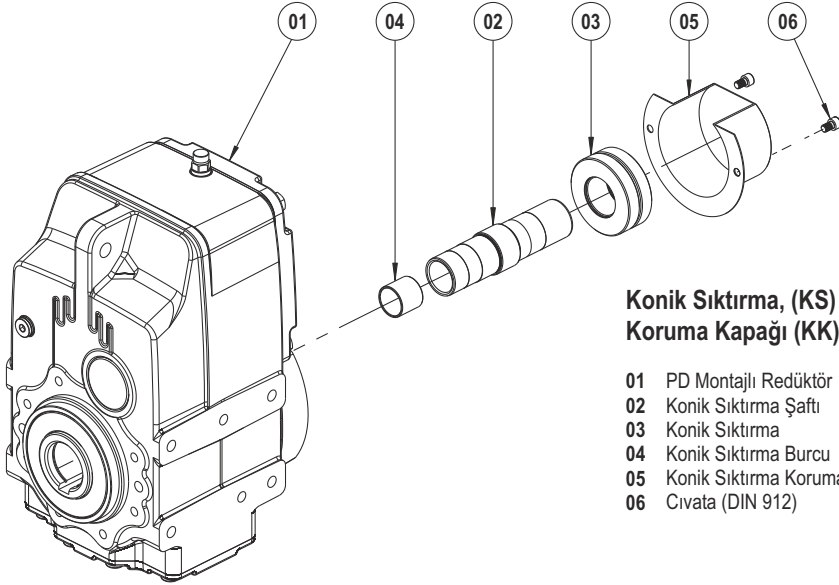
- 01 PD Montajlı Redüktör
- 02 Lastik Takoz
- 03 Cıvata (DIN 933)
- 04 Somun (DIN 934)

**Rubber Buffer**

- PD Mounted Gear Unit
- Rubber Buffer
- Bolt (DIN 933)
- Nut (DIN 934)

**Gummipuffer**

- PD Montiertes Getriebe
- Gummipuffer
- Verschrauben (DIN 933)
- Schraubenmutter (DIN 934)

**PD / PM C13**
**Aksesuarlar / Accessories / Zubehör**

**Konik Sıktırma, (KS)  
Koruma Kapağı (KK)**

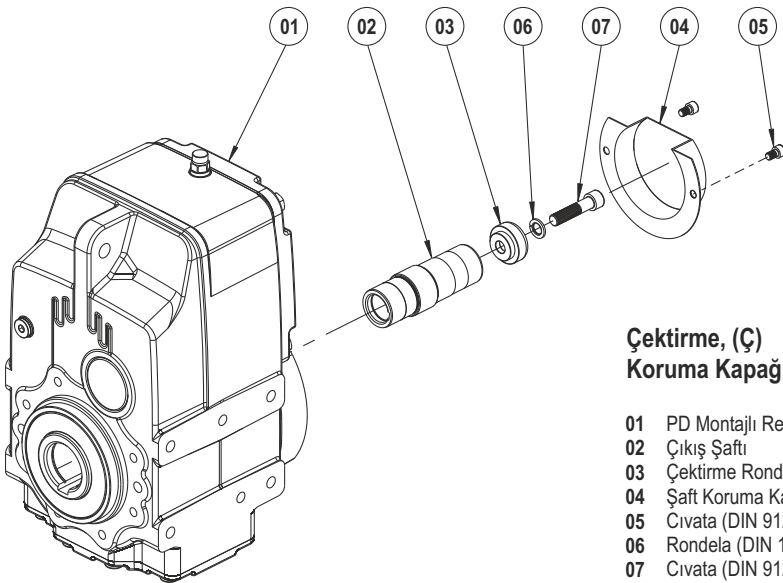
- 01 PD Montajlı Redüktör
- 02 Konik Sıktırma Şaftı
- 03 Konik Sıktırma
- 04 Konik Sıktırma Burcu
- 05 Konik Sıktırma Koruma Kapağı
- 06 Cıvata (DIN 912)

**Shrink Disk,  
Protection Cover**

- PD Mounted Gear Unit
- Shrink Disk Hollow Shaft
- Shrink Disk
- Shrink Disk Bushing
- Shrink Disk Cover
- Bolt (DIN 912)

**Schrumpfscheibe,  
Schutzkappe**

- PD Montiertes Getriebe
- Schrumpfscheibe Hohlwelle
- Schrumpfscheibe
- Schrumpfscheibenbuchse
- Schrumpfscheibedeckel
- Verschrauben (DIN 912)


**Çektirme, (Ç)  
Koruma Kapağı (KK)**

- 01 PD Montajlı Redüktör
- 02 Çıkış Şaftı
- 03 Çektirme Rondelası
- 04 Şaft Koruma Kapağı
- 05 Cıvata (DIN 912)
- 06 Rondela (DIN 127)
- 07 Cıvata (DIN 912)

**Puller,  
Protection Cover;**

- PD Mounted Gear Unit
- Hollow Shaft
- Puller Washer
- Protection Cover
- Bolt (DIN 912)
- Washer (DIN 127)
- Bolt (DIN 912)

**Befestigungsbausatz,  
Schutzkappe**

- PD Montiertes Getriebe
- Hohlwelle
- Abziehscheibe
- Schutzhülle
- Verschrauben (DIN 912)
- Distanzscheibe (DIN 127)
- Verschrauben (DIN 912)

TR

GENEL PARÇA LİSTESİ

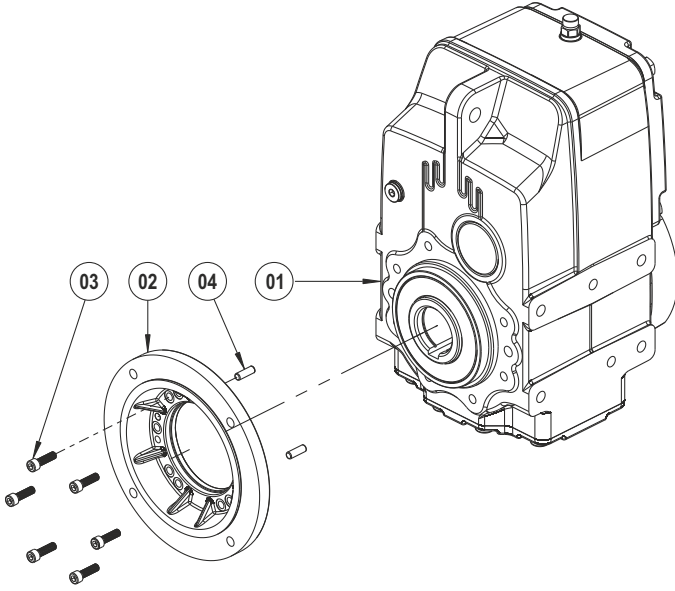
EN

GENERAL PART LIST

DE

ALLGEMEINE STUCKLISTE

**PD / PM C13**  
Akseuarlar / Accessories / Zubehör



**B5 Çıkış Flanşı**

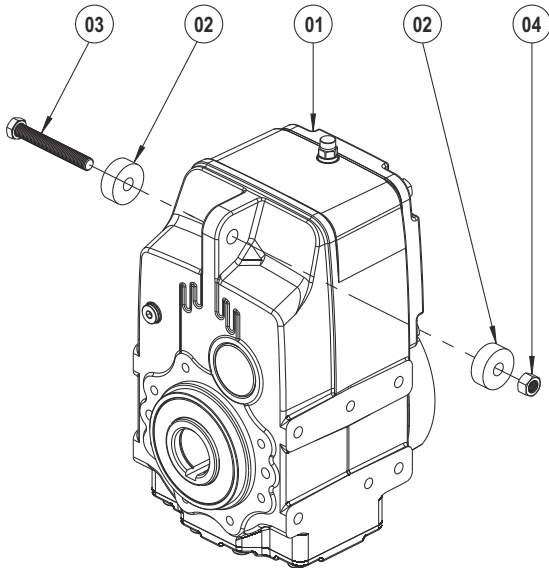
- 01 PD Montajlı Redüktör
- 02 B5 Çıkış Flanşı
- 03 Cıvata (DIN 933)
- 04 Pim

**B5 Output Flange**

- PD Mounted Gear Unit
- B5 Output Flange
- Bolt (DIN 933)
- Pin

**B5 Abtriebsflansch**

- PD Montiertes Getriebe
- B5 Abtriebsflansch
- Verschrauben (DIN 933)
- Bolzen



**Lastik Takoz (LT)**

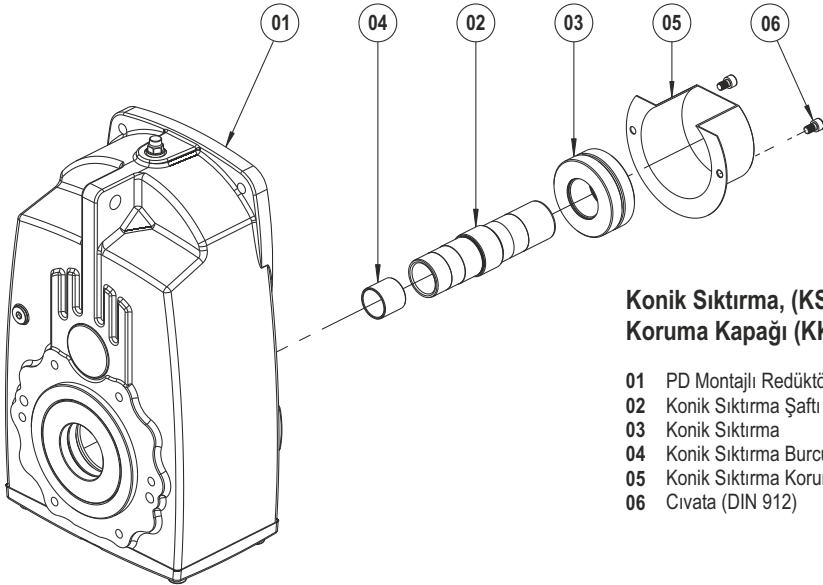
- 01 PD Montajlı Redüktör
- 02 Lastik Takoz
- 03 Cıvata (DIN 933)
- 04 Somun (DIN 934)

**Rubber Buffer**

- PD Mounted Gear Unit
- Rubber Buffer
- Bolt (DIN 933)
- Nut (DIN 934)

**Gummipuffer**

- PD Montiertes Getriebe
- Gummipuffer
- Verschrauben (DIN 933)
- Schraubenmutter (DIN 934)

**PD / PM 63 ... 123**  
**Aksesuarlar / Accessories / Zubehör**

**Konik Sıkırtma, (KS)**  
**Koruma Kapağı (KK)**

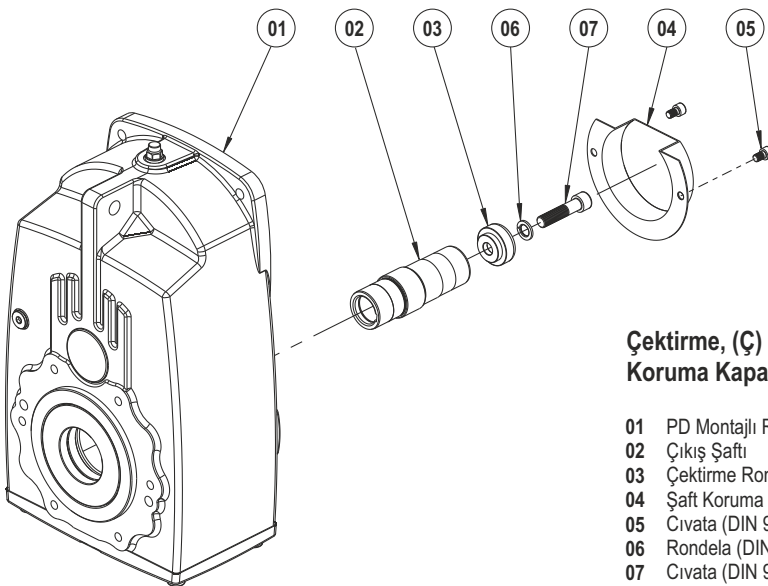
- 01 PD Montajlı Redüktör
- 02 Konik Sıkırtma Şaftı
- 03 Konik Sıkırtma
- 04 Konik Sıkırtma Burcu
- 05 Konik Sıkırtma Koruma Kapağı
- 06 Cıvata (DIN 912)

**Shrink Disk,**  
**Protection Cover**

- PD Mounted Gear Unit
- Shrink Disk Hollow Shaft
- Shrink Disk
- Shrink Disk Bushing
- Shrink Disk Cover
- Bolt (DIN 912)

**Schrumpfscheibe,**  
**Schutzkappe**

- PD Montiertes Getriebe
- Schrumpfscheibe Hohlwelle
- Schrumpfscheibe
- Schrumpfscheibenbuchse
- Schrumpfscheibedeckel
- Verschrauben (DIN 912)


**Çektirme, (Ç)**  
**Koruma Kapağı (KK)**

- 01 PD Montajlı Redüktör
- 02 Çıkış Şaftı
- 03 Çektirme Rondelası
- 04 Şaft Koruma Kapağı
- 05 Cıvata (DIN 912)
- 06 Rondela (DIN 127)
- 07 Cıvata (DIN 912)

**Puller,**  
**Protection Cover;**

- PD Mounted Gear Unit
- Hollow Shaft
- Puller Washer
- Protection Cover
- Bolt (DIN 912)
- Washer (DIN 127)
- Bolt (DIN 912)

**Befestigungsbausatz,**  
**Schutzkappe**

- PD Montiertes Getriebe
- Hohlwelle
- Abziehscheibe
- Schutzhülle
- Verschrauben (DIN 912)
- Distanzscheibe (DIN 127)
- Verschrauben (DIN 912)

TR

GENEL PARÇA LİSTESİ

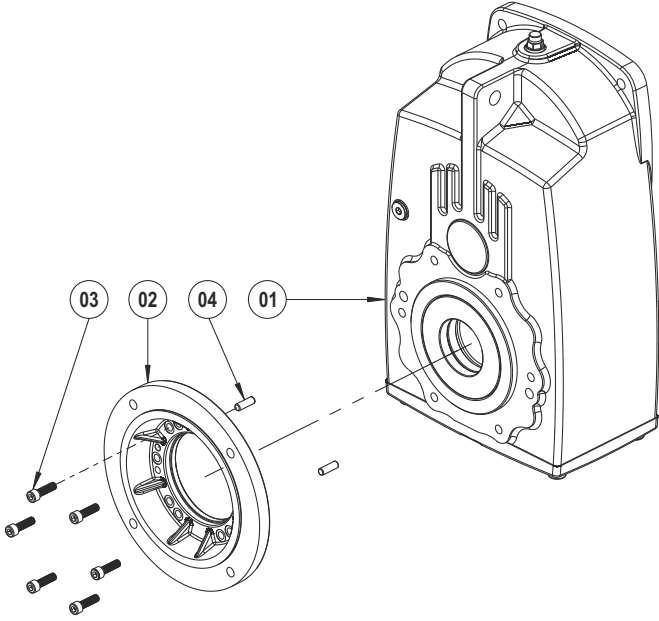
EN

GENERAL PART LIST

DE

ALLGEMEINE STUCKLISTE

**PD / PM 63 ... 123**  
**Aksesuarlar / Accessories / Zubehör**



**B5 Çıkış Flanşı**

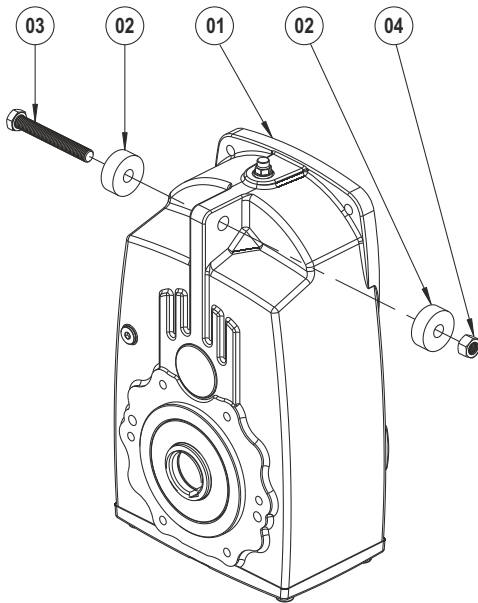
- 01 PD Montajlı Redüktör
- 02 B5 Çıkış Flanşı
- 03 Cıvata (DIN 933)
- 04 Pim

**B5 Output Flange**

- PD Mounted Gear Unit
- B5 Output Flange
- Bolt (DIN 933)
- Pin

**B5 Abtriebsflansch**

- PD Montiertes Getriebe
- B5 Abtriebsflansch
- Verschrauben (DIN 933)
- Bolzen



**Lastik Takoz (LT)**

- 01 PD Montajlı Redüktör
- 02 Lastik Takoz
- 03 Cıvata (DIN 933)
- 04 Somun (DIN 934)

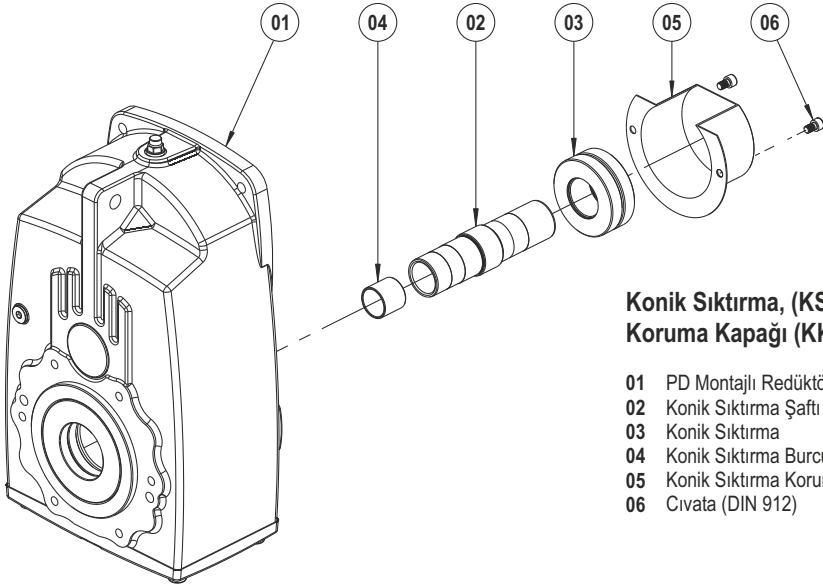
**Rubber Buffer**

- PD Mounted Gear Unit
- Rubber Buffer
- Bolt (DIN 933)
- Nut (DIN 934)

**Gummipuffer**

- PD Montiertes Getriebe
- Gummipuffer
- Verschrauben (DIN 933)
- Schraubenmutter (DIN 934)



**PD / PM 12/02 ... 103/52**  
**Aksesuarlar / Accessories / Zubehör**

**Konik Sıkırma, (KS)**  
**Koruma Kapağı (KK)**

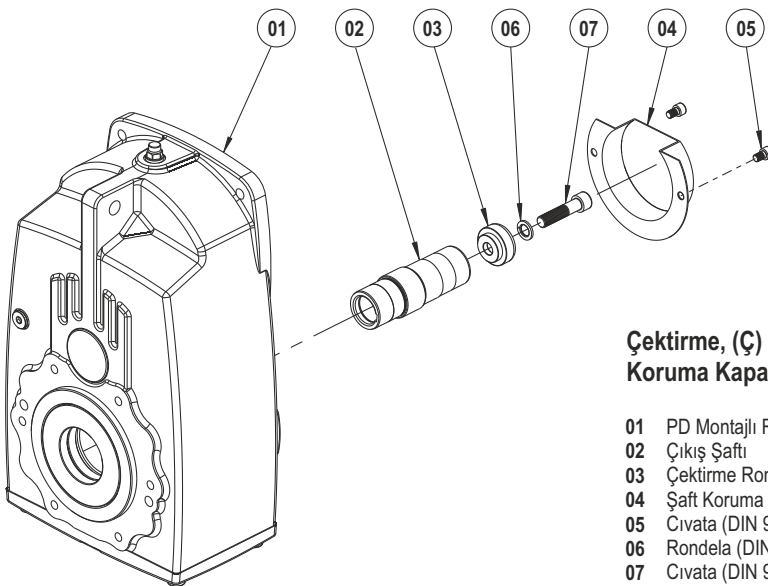
- 01 PD Montajlı Redüktör
- 02 Konik Sıkırma Şaftı
- 03 Konik Sıkırma
- 04 Konik Sıkırma Burcu
- 05 Konik Sıkırma Koruma Kapağı
- 06 Cıvata (DIN 912)

**Shrink Disk,**  
**Protection Cover**

- PD Mounted Gear Unit
- Shrink Disk Hollow Shaft
- Shrink Disk
- Shrink Disk Bushing
- Shrink Disk Cover
- Bolt (DIN 912)

**Schrumpfscheibe,**  
**Schutzkappe**

- PD Montiertes Getriebe
- Schrumpfscheibe Hohlwelle
- Schrumpfscheibe
- Schrumpfscheibenbuchse
- Schrumpfscheibedeckel
- Verschrauben (DIN 912)


**Çektirme, (Ç)**  
**Koruma Kapağı (KK)**

- 01 PD Montajlı Redüktör
- 02 Çıkış Şaftı
- 03 Çektirme Rondelası
- 04 Şaft Koruma Kapağı
- 05 Cıvata (DIN 912)
- 06 Rondela (DIN 127)
- 07 Cıvata (DIN 912)

**Puller,**  
**Protection Cover;**

- PD Mounted Gear Unit
- Hollow Shaft
- Puller Washer
- Protection Cover
- Bolt (DIN 912)
- Washer (DIN 127)
- Bolt (DIN 912)

**Befestigungsbausatz,**  
**Schutzkappe**

- PD Montiertes Getriebe
- Hohlwelle
- Abziehscheibe
- Schutzhülle
- Verschrauben (DIN 912)
- Distanzscheibe (DIN 127)
- Verschrauben (DIN 912)

TR

GENEL PARÇA LİSTESİ

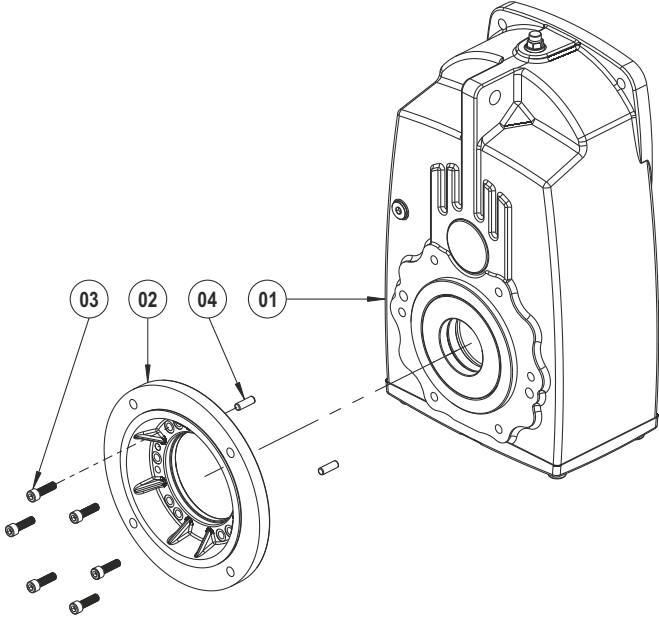
EN

GENERAL PART LIST

DE

ALLGEMEINE STÜCKLISTE

**PD / PM 12/02 ... 103/52**  
**Aksesuarlar / Accessories / Zubehör**



**B5 Çıkış Flanşı**

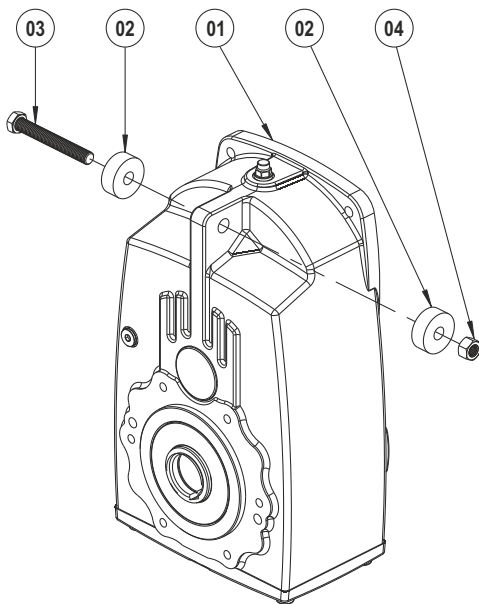
- 01 PD Montajlı Redüktör
- 02 B5 Çıkış Flanşı
- 03 Cıvata (DIN 933)
- 04 Pim

**B5 Output Flange**

- PD Mounted Gear Unit
- B5 Output Flange
- Bolt (DIN 933)
- Pin

**B5 Abtriebsflansch**

- PD Montiertes Getriebe
- B5 Abtriebsflansch
- Verschrauben (DIN 933)
- Bolzen



**Lastik Takoz (LT)**

- 01 PD Montajlı Redüktör
- 02 Lastik Takoz
- 03 Cıvata (DIN 933)
- 04 Somun (DIN 934)

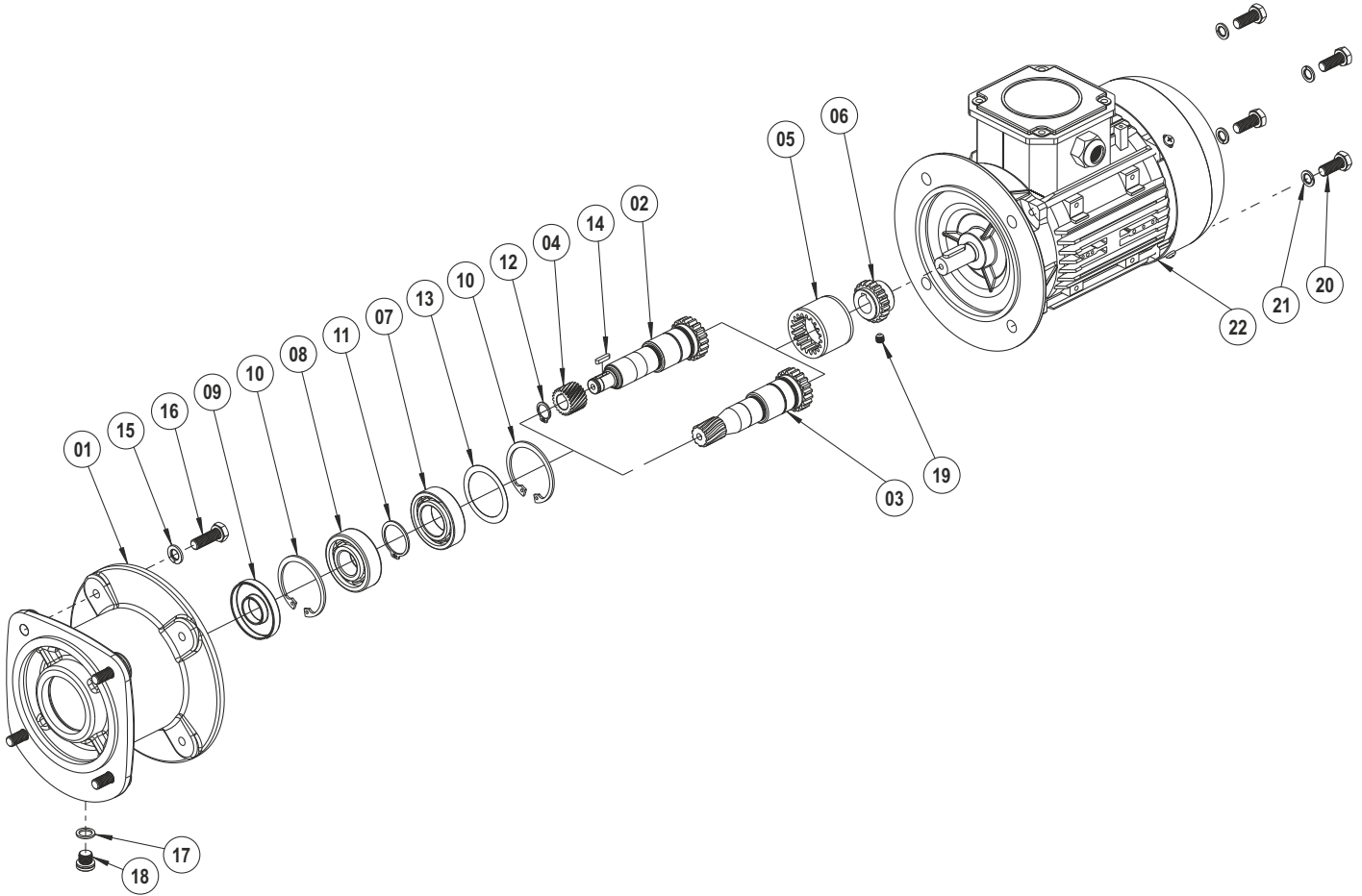
**Rubber Buffer**

- PD Mounted Gear Unit
- Rubber Buffer
- Bolt (DIN 933)
- Nut (DIN 934)

**Gummipuffer**

- PD Montiertes Getriebe
- Gummipuffer
- Verschrauben (DIN 933)
- Schraubenmutter (DIN 934)

## IEC 63 ... 112

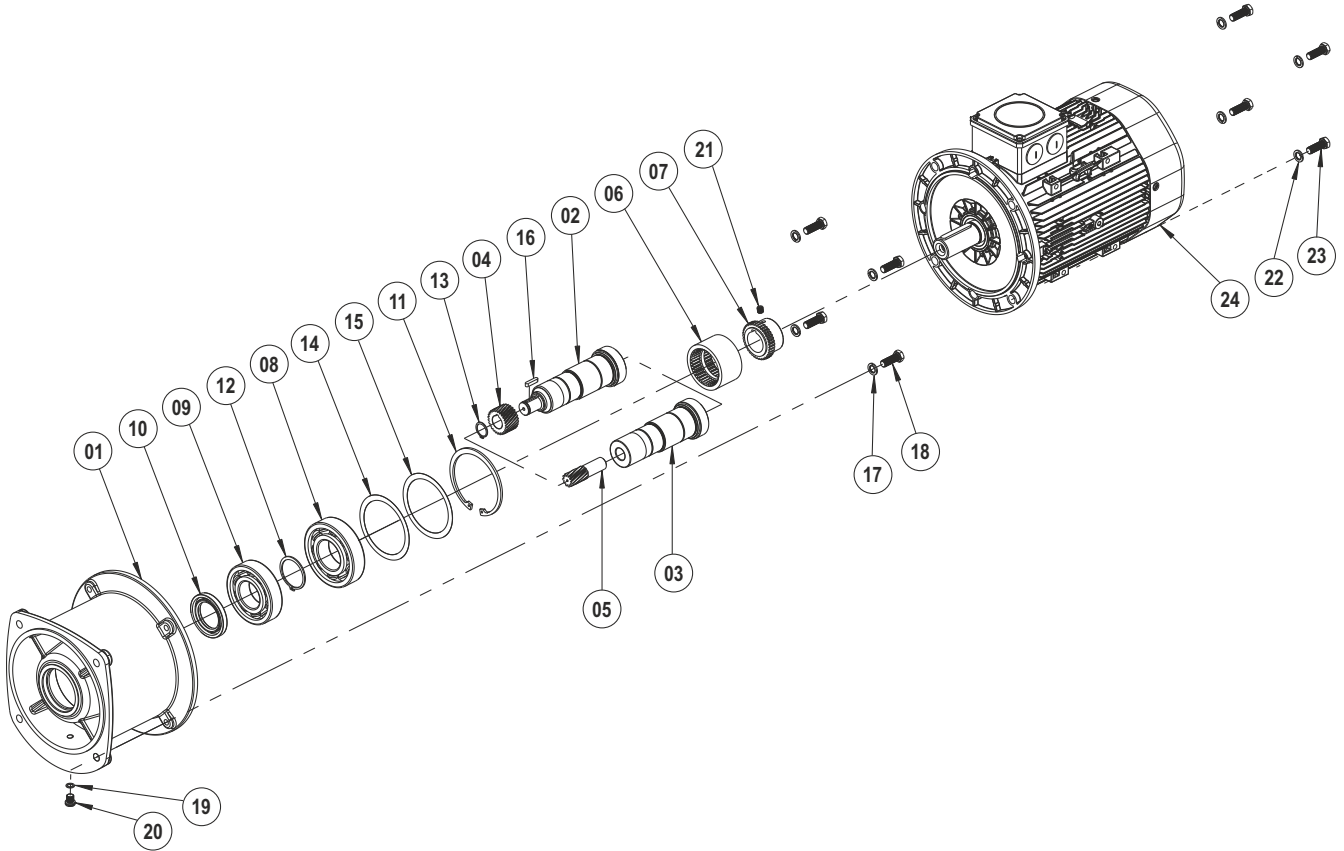


- 01 Gövde
- 02 IEC Mili (Kamalı)
- 03 IEC Mili (Dişlilii)
- 04 Z1 Dişlisi (Kamalı)
- 05 Plastik Kaplin
- 06 Metal Kaplin
- 07 Rulman
- 08 Rulman
- 09 Yağ Keçesi
- 10 Segman (DIN 472)
- 11 Segman (DIN 471)
- 12 Segman (DIN 471)
- 13 Layner
- 14 Kama
- 15 Rondela (DIN 127)
- 16 Cıvata (DIN 933)
- 17 Rondela (DIN 7603)
- 18 Yağ Tapası
- 19 Cıvata (DIN 916)
- 20 Cıvata (DIN 933)
- 21 Rondela (DIN 127)
- 22 Motor

- 01 Gear Case
- 02 IEC Shaft (With Key)
- 03 IEC Shaft (With Gear)
- 04 Driving Pinion (With Key)
- 05 Plastic Coupling
- 06 Metal Coupling
- 07 Bearing
- 08 Bearing
- 09 Oil Seal
- 10 Circlip (DIN 472)
- 11 Circlip (DIN 471)
- 12 Circlip (DIN 471)
- 13 Shim
- 14 Key
- 15 Washer (DIN 127)
- 16 Bolt (DIN 933)
- 17 Washer (DIN 7603)
- 18 Oil Plug
- 19 Bolt (DIN 916)
- 20 Bolt (DIN 933)
- 21 Washer (DIN 127)
- 22 Motor

- 01 Gehäuse
- 02 IEC Welle (mit Passfeder)
- 03 IEC Welle (mit Zahnrad)
- 04 Antriebsritzel (mit Passfeder)
- 05 Kupplung (Plastik)
- 06 Kupplung (Metall)
- 07 Kugellager
- 08 Kugellager
- 09 Öldichtung
- 10 Sicherungsring (DIN 472)
- 11 Sicherungsring (DIN 471)
- 12 Sicherungsring (DIN 471)
- 13 Passscheibe
- 14 Passfeder
- 15 Distanzscheibe (DIN 127)
- 16 Verschrauben (DIN 933)
- 17 Distanzscheibe (DIN 7603)
- 18 Ölstopfel
- 19 Verschrauben (DIN 912)
- 20 Verschrauben (DIN 933)
- 21 Distanzscheibe (DIN 127)
- 22 Motor

IEC 132 ... 180

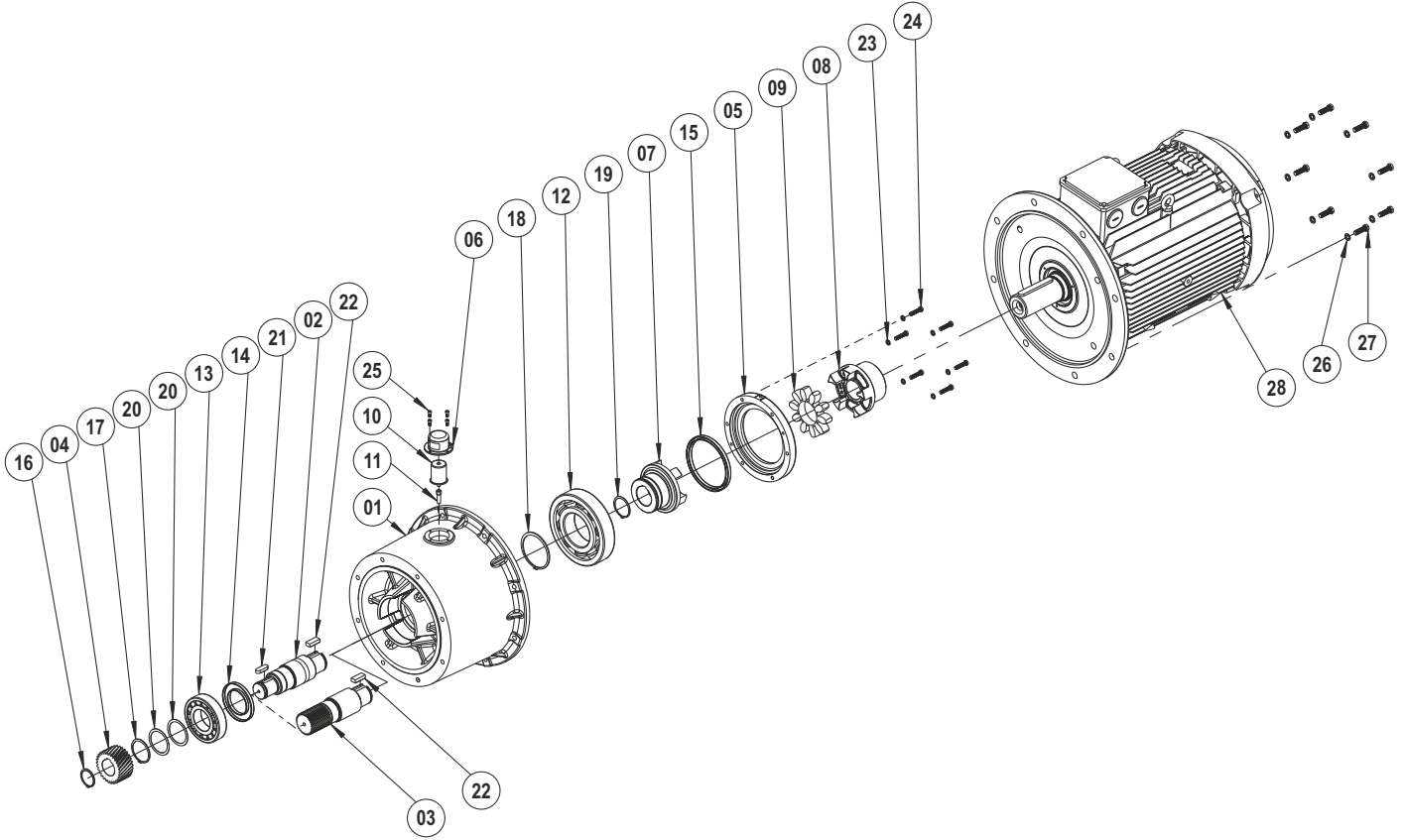


- 01 Gövde
- 02 IEC Mili (Kamalı)
- 03 IEC Mili
- 04 Z1 Dişlisi (Kamalı)
- 05 Z1 Dişlisi
- 06 Plastik Kaplin
- 07 Metal Kaplin
- 08 Rulman
- 09 Rulman
- 10 Yağ Keçesi
- 11 Segman (DIN 472)
- 12 Segman (DIN 471)
- 13 Segman (DIN 471)
- 14 Layner
- 15 Layner
- 16 Kama
- 17 Rondela (DIN 127)
- 18 Cıvata (DIN 933)
- 19 Rondela (DIN 7603)
- 20 Yağ Tapası
- 21 Cıvata (DIN 916)
- 22 Rondela (DIN 127)
- 23 Cıvata (DIN 933)
- 24 Motor

- 01 Gear Case
- 02 IEC Shaft (With Key)
- 03 IEC Shaft
- 04 Driving Pinion (With Key)
- 05 Driving Pinion
- 06 Plastic Coupling
- 07 Metal Coupling
- 08 Bearing
- 09 Bearing
- 10 Oil Seal
- 11 Circlip (DIN 472)
- 12 Circlip (DIN 471)
- 13 Circlip (DIN 471)
- 14 Shim
- 15 Shim
- 16 Key
- 17 Washer (DIN 127)
- 18 Bolt (DIN 933)
- 19 Washer (DIN 7603)
- 20 Oil Plug
- 21 Bolt (DIN 916)
- 22 Washer (DIN 127)
- 23 Bolt (DIN 933)
- 24 Motor

- 01 Gehäuse
- 02 IEC Welle (mit Passfeder)
- 03 IEC Welle
- 04 Antriebsritzel (mit Passfeder)
- 05 Antriebsritzel
- 06 Kupplung (Plastik)
- 07 Kupplung (Metall)
- 08 Kugellager
- 09 Kugellager
- 10 Öldichtung
- 11 Sicherungsring (DIN 472)
- 12 Sicherungsring (DIN 471)
- 13 Sicherungsring (DIN 471)
- 14 Passscheibe
- 15 Passscheibe
- 16 Passfeder
- 17 Distanzscheibe (DIN 127)
- 18 Verschrauben (DIN 933)
- 19 Distanzscheibe (DIN 7603)
- 20 Ölstopf
- 21 Verschrauben (DIN 912)
- 22 Distanzscheibe (DIN 127)
- 23 Verschrauben (DIN 933)
- 24 Motor

## IEC 160 ... 315



- 01 Gövde
- 02 IEC Mili (Kamalı)
- 03 IEC Mili (Dişli)
- 04 Z1 Dişlisi (Kamalı)
- 05 Rulman Flanşı
- 06 Yağlama Kapağı
- 07 Kaplin (Redüktör Tarafı)
- 08 Kaplin (Motor Tarafı)
- 09 Spider
- 10 Otomatik Yağlayıcı Tüpü
- 11 Otomatik Yağlayıcı Adaptörü
- 12 Rulman
- 13 Rulman
- 14 Yağ Keçesi
- 15 Yağ Keçesi
- 16 Segman (DIN 471)
- 17 Segman (DIN 471)
- 18 Segman (DIN 471)
- 19 Segman (DIN 471)
- 20 Layner
- 21 Kama
- 22 Kama
- 23 Rondela (DIN 127)
- 24 Cıvata (DIN 933)
- 25 Cıvata (DIN 912)
- 26 Rondela (DIN 127)
- 27 Cıvata (DIN 933)
- 28 Motor

- 01 Gear Case
- 02 IEC Shaft (With Key)
- 03 IEC Shaft (With Gear)
- 04 Driving Pinion (With Key)
- 05 Bearing Flange
- 06 Lubrication Cover
- 07 Coupling (Gearbox Side)
- 08 Coupling (Motor Side)
- 09 Spider
- 10 Automatic Lubricator
- 11 Automatic Lubricator Adapter
- 12 Bearing
- 13 Bearing
- 14 Oil Seal
- 15 Oil Seal
- 16 Circlip (DIN 471)
- 17 Circlip (DIN 471)
- 18 Circlip (DIN 471)
- 19 Circlip (DIN 471)
- 20 Shim
- 21 Key
- 22 Key
- 23 Washer (DIN 127)
- 24 Bolt (DIN 933)
- 25 Bolt (DIN 912)
- 26 Washer (DIN 127)
- 27 Bolt (DIN 933)
- 28 Motor

- 01 Gehäuse
- 02 IEC Welle (mit Passfeder)
- 03 IEC Welle (mit Zahnrad)
- 04 Antriebsritzel (mit Passfeder)
- 05 Lagerflansch
- 06 Schmierdeckel
- 07 Kupplung (Getriebeseite)
- 08 Kupplung (Motorseite)
- 09 Spider
- 10 Automatischer Schmierstoffgeber
- 11 Automatischer Schmierstoffgeber Verlängerung
- 12 Kugellager
- 13 Kugellager
- 14 Öldichtung
- 15 Öldichtung
- 16 Sicherungsring (DIN 471)
- 17 Sicherungsring (DIN 471)
- 18 Sicherungsring (DIN 471)
- 19 Sicherungsring (DIN 471)
- 20 Passscheibe
- 21 Passfeder
- 22 Passfeder
- 23 Distanzscheibe (DIN 127)
- 24 Verschrauben (DIN 933)
- 25 Verschrauben (DIN 912)
- 26 Distanzscheibe (DIN 127)
- 27 Verschrauben (DIN 933)
- 28 Motor

TR

GENEL PARÇA LİSTESİ

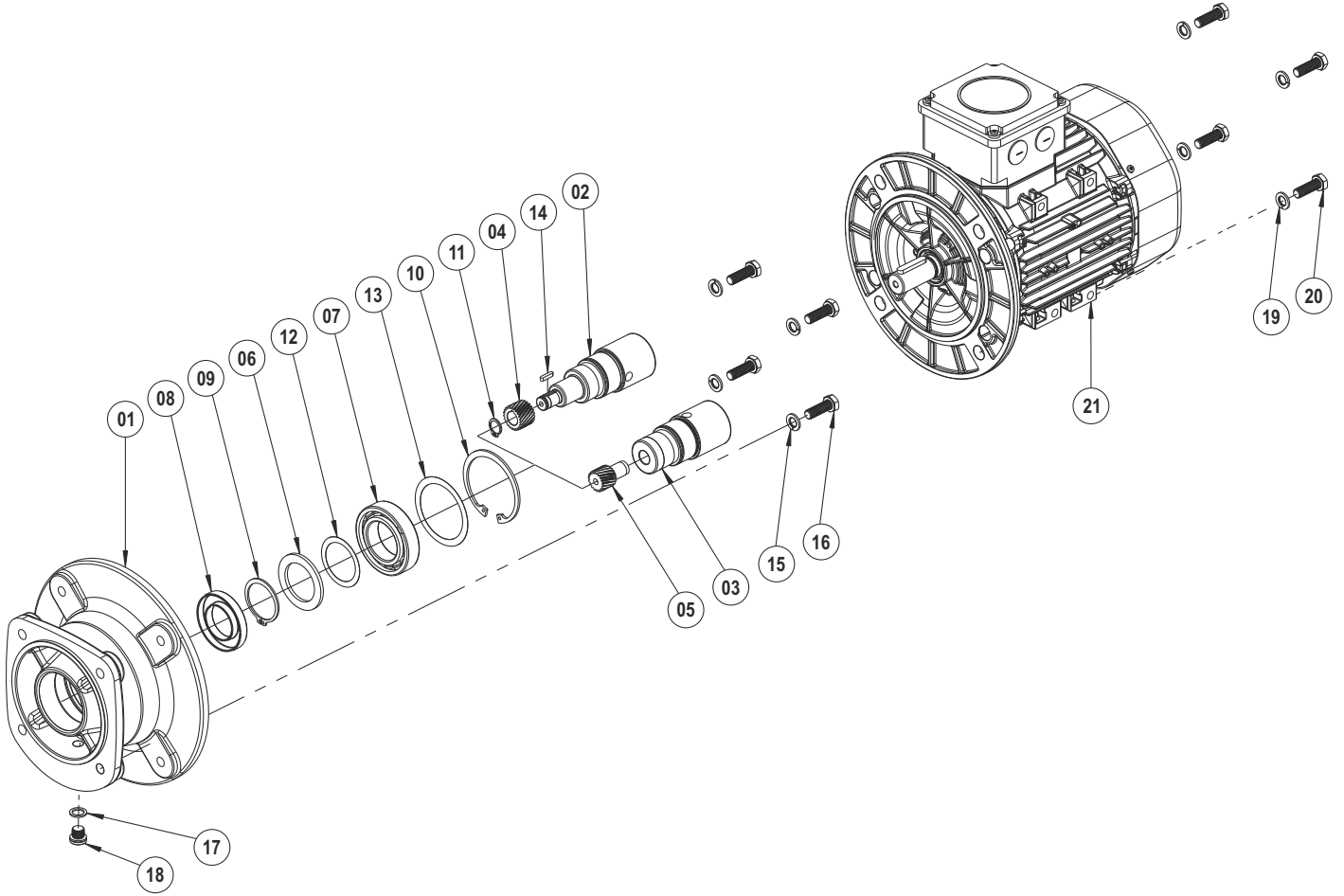
EN

GENERAL PART LIST

DE

ALLGEMEINE STUCKLISTE

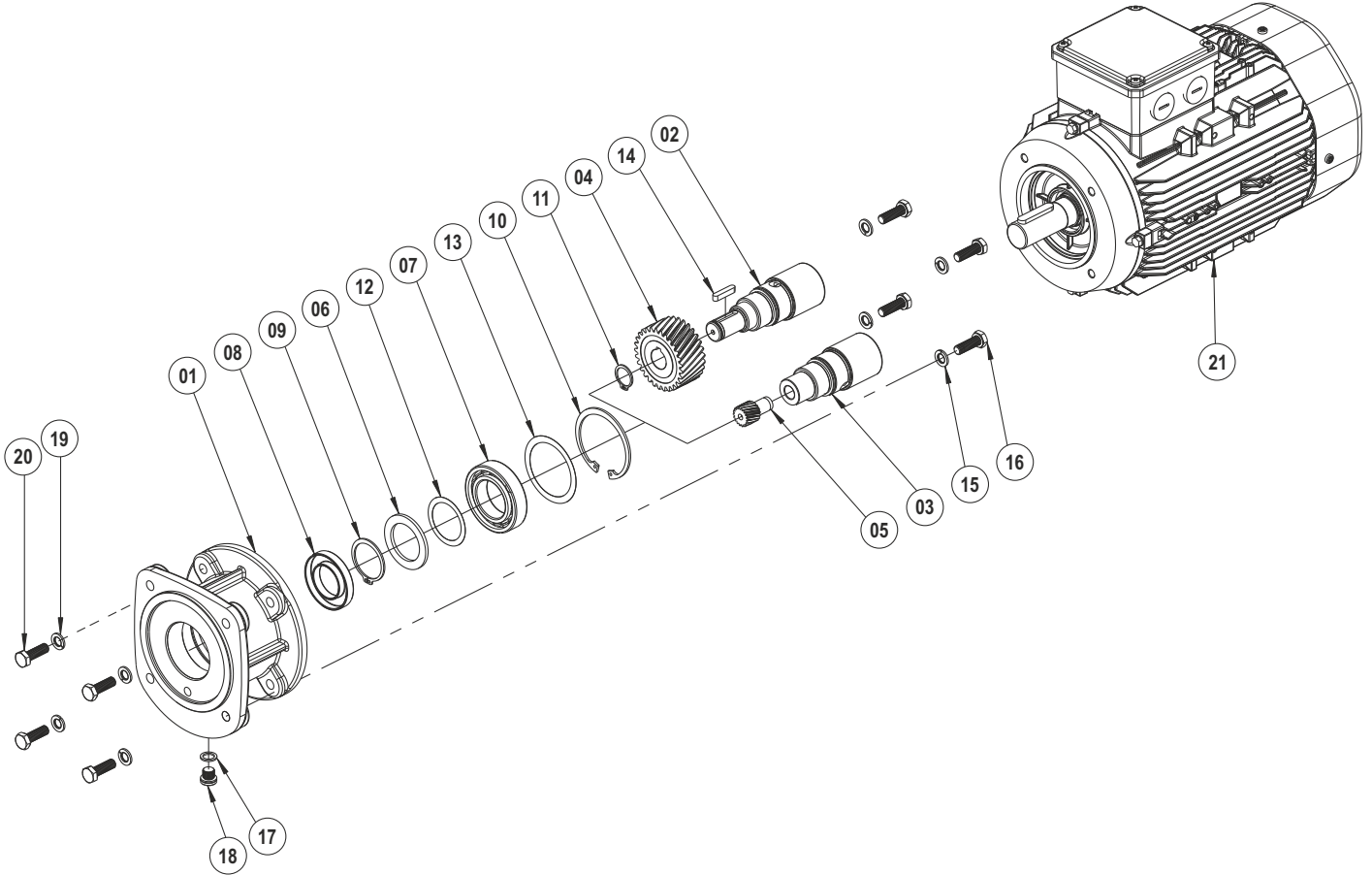
**PAM B5 / 63 ... 315**



- 01 Gövde
- 02 PAM Mili (Kamalı)
- 03 PAM Mili
- 04 Z1 Dişlisi (Kamalı)
- 05 Z1 Dişlisi
- 06 Rondela
- 07 Rulman
- 08 Yağ Keçesi
- 09 Segman (DIN 471)
- 10 Segman (DIN 472)
- 11 Segman (DIN 471)
- 12 Layner
- 13 Layner
- 14 Kama
- 15 Rondela (DIN 127)
- 16 Cıvata (DIN 933)
- 17 Rondela (DIN 7603)
- 18 Yağ Tapası
- 19 Rondela (DIN 127)
- 20 Cıvata (DIN 933)
- 21 Motor

- 01 Gear Case
- 02 PAM Shaft (With Key)
- 03 PAM Shaft
- 04 Driving Pinion (With Key)
- 05 Driving Pinion
- 06 Washer
- 07 Bearing
- 08 Oil Seal
- 09 Circlip (DIN 471)
- 10 Circlip (DIN 472)
- 11 Circlip (DIN 471)
- 12 Shim
- 13 Shim
- 14 Key
- 15 Washer (DIN 127)
- 16 Bolt (DIN 933)
- 17 Washer (DIN 7603)
- 18 Oil Plug
- 19 Washer (DIN 127)
- 20 Bolt (DIN 933)
- 21 Motor

- 01 Gehäuse
- 02 PAM Welle (mit Passfeder)
- 03 PAM Welle
- 04 Antriebsritzel (mit Passfeder)
- 05 Antriebsritzel
- 06 Distanzscheibe
- 07 Kugellager
- 08 Öldichtung
- 09 Sicherungsring (DIN 471)
- 10 Sicherungsring (DIN 472)
- 11 Sicherungsring (DIN 471)
- 12 Passscheibe
- 13 Passscheibe
- 14 Passfeder
- 15 Distanzscheibe (DIN 127)
- 16 Verschrauben (DIN 933)
- 17 Distanzscheibe (DIN 7603)
- 18 Ölstöpsel
- 19 Distanzscheibe (DIN 127)
- 20 Verschrauben (DIN 933)
- 21 Motor

**PAM B14 / 63 ... 132**


- 01 Gövde
- 02 PAM Mili (Kamalı)
- 03 PAM Mili
- 04 Z1 Dişlisi (Kamalı)
- 05 Z1 Dişlisi
- 06 Rondela
- 07 Rulman
- 08 Yağ Keçesi
- 09 Segman (DIN 471)
- 10 Segman (DIN 472)
- 11 Segman (DIN 471)
- 12 Layner
- 13 Layner
- 14 Kama
- 15 Rondela (DIN 127)
- 16 Cıvata (DIN 933)
- 17 Rondela (DIN 7603)
- 18 Yağ Tapası
- 19 Rondela (DIN 127)
- 20 Cıvata (DIN 933)
- 21 Motor

- 01 Gear Case
- 02 PAM Shaft (With Key)
- 03 PAM Shaft
- 04 Driving Pinion (With Key)
- 05 Driving Pinion
- 06 Washer
- 07 Bearing
- 08 Oil Seal
- 09 Circlip (DIN 471)
- 10 Circlip (DIN 472)
- 11 Circlip (DIN 471)
- 12 Shim
- 13 Shim
- 14 Key
- 15 Washer (DIN 127)
- 16 Bolt (DIN 933)
- 17 Washer (DIN 7603)
- 18 Oil Plug
- 19 Washer (DIN 127)
- 20 Bolt (DIN 933)
- 21 Motor

- 01 Gehäuse
- 02 PAM Welle (mit Passfeder)
- 03 PAM Welle
- 04 Antriebsritzel (mit Passfeder)
- 05 Antriebsritzel
- 06 Distanzscheibe
- 07 Kugellager
- 08 Öldichtung
- 09 Sicherungsring (DIN 471)
- 10 Sicherungsring (DIN 472)
- 11 Sicherungsring (DIN 471)
- 12 Passscheibe
- 13 Passscheibe
- 14 Passfeder
- 15 Distanzscheibe (DIN 127)
- 16 Verschrauben (DIN 933)
- 17 Distanzscheibe (DIN 7603)
- 18 Ölstöpsel
- 19 Distanzscheibe (DIN 127)
- 20 Verschrauben (DIN 933)
- 21 Motor

TR

GENEL PARÇA LİSTESİ

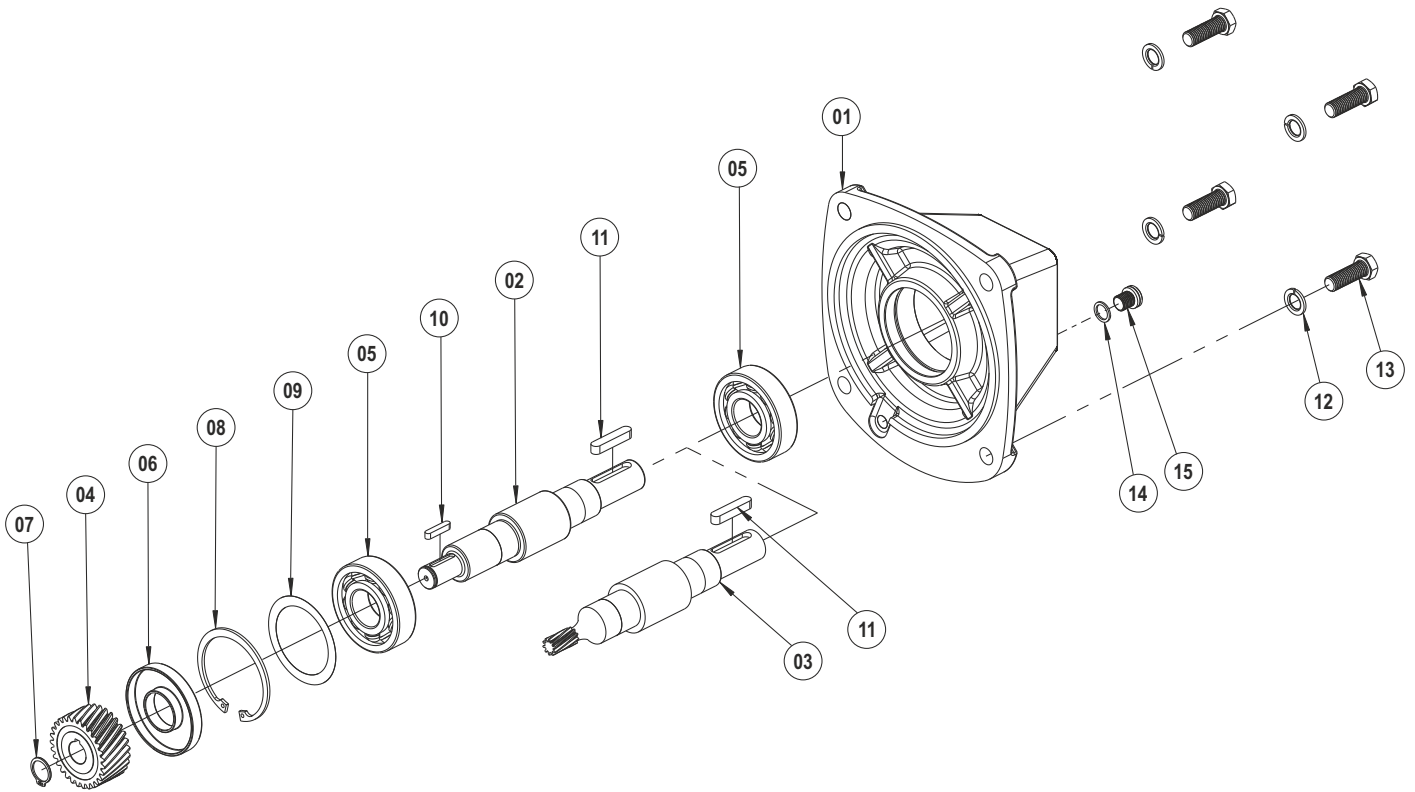
EN

GENERAL PART LIST

DE

ALLGEMEINE STUCKLISTE

W 122 - 172 - 213

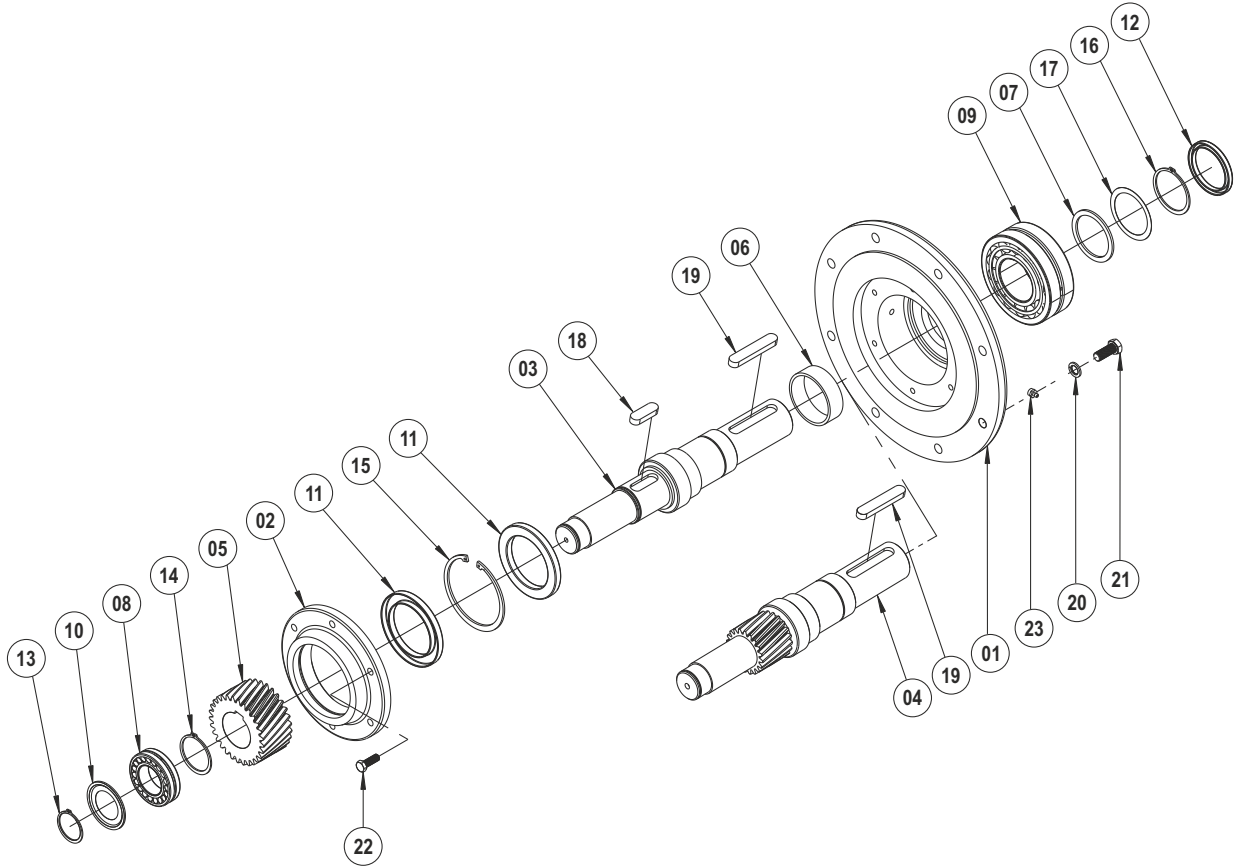


- 01 Gövde
- 02 W Mili (Kamalı)
- 03 W Mili (Dişlili)
- 04 Z1 Dişlisi (Kamalı)
- 05 Rulman
- 06 Yağ Keçesi
- 07 Segman (DIN 471)
- 08 Segman (DIN 472)
- 09 Layner
- 10 Kama
- 11 Kama
- 12 Rondela (DIN 127)
- 13 Cıvata (DIN 933)
- 14 Rondela (DIN 7603)
- 15 Yağ Tıpası

- 01 Gear Case
- 02 W Shaft (With Key)
- 03 W Shaft (With Gear)
- 04 Driving Pinion (With Key)
- 05 Bearing
- 06 Oil Seal
- 07 Circlip (DIN 471)
- 08 Circlip (DIN 472)
- 09 Shim
- 10 Key
- 11 Key
- 12 Washer (DIN 127)
- 13 Bolt (DIN 933)
- 14 Washer (DIN 7603)
- 15 Oil Plug

- 01 Gehäuse
- 02 W Welle (mit Passfeder)
- 03 W Welle (mit Zahnrad)
- 04 Antriebsritzel (mit Passfeder)
- 05 Kugellager
- 06 Öldichtung
- 07 Sicherungsring (DIN 471)
- 08 Sicherungsring (DIN 472)
- 09 Passscheibe
- 10 Passfeder
- 11 Passfeder
- 12 Distanzscheibe (DIN 127)
- 13 Verschrauben (DIN 933)
- 14 Distanzscheibe (DIN 7603)
- 15 Ölstöpsel



**W 253**


- 01 Gövde
- 02 Rulman Kapağı
- 03 W Mili (Kamalı)
- 04 W Mili (Dişlili)
- 05 Z1 Dişlisi (Kamalı)
- 06 Burç
- 07 Rondela
- 08 Rulman
- 09 Rulman
- 10 Nilos-Ring
- 11 Yağ Keçesi
- 12 Yağ Keçesi
- 13 Segman (DIN 471)
- 14 Segman (DIN 471)
- 15 Segman (DIN 472)
- 16 Segman (DIN 471)
- 17 Layner
- 18 Kama
- 19 Kama
- 20 Rondela (DIN 127)
- 21 Cıvata (DIN 933)
- 22 Cıvata (DIN 933)
- 23 Gresörlük

- 01 Gear Case
- 02 Bearing Cover
- 03 W Shaft (With Key)
- 04 W Shaft (With Gear)
- 05 Driving Pinion (With Key)
- 06 Spacer
- 07 Washer
- 08 Bearing
- 09 Bearing
- 10 Nilos-Ring
- 11 Oil Seal
- 12 Oil Seal
- 13 Circlip (DIN 471)
- 14 Circlip (DIN 471)
- 15 Circlip (DIN 472)
- 16 Circlip (DIN 471)
- 17 Shim
- 18 Key
- 19 Key
- 20 Washer (DIN 127)
- 21 Bolt (DIN 933)
- 22 Bolt (DIN 933)
- 23 Grease Nipple

- 01 Gehäuse
- 02 Lagerdeckel
- 03 W Welle (mit Passfeder)
- 04 W Welle (mit Zahnrad)
- 05 Antriebsritzel (mit Passfeder)
- 06 Distanzbuchse
- 07 Distanzscheibe
- 08 Kugellager
- 09 Kugellager
- 10 Nilos-Ring
- 11 Öldichtung
- 12 Öldichtung
- 13 Sicherungsring (DIN 471)
- 14 Sicherungsring (DIN 471)
- 15 Sicherungsring (DIN 472)
- 16 Sicherungsring (DIN 471)
- 17 Passscheibe
- 18 Passfeder
- 19 Passfeder
- 20 Distanzscheibe (DIN 127)
- 21 Verschrauben (DIN 933)
- 22 Verschrauben (DIN 933)
- 23 Schmiernippel

TR

GENEL PARÇA LİSTESİ

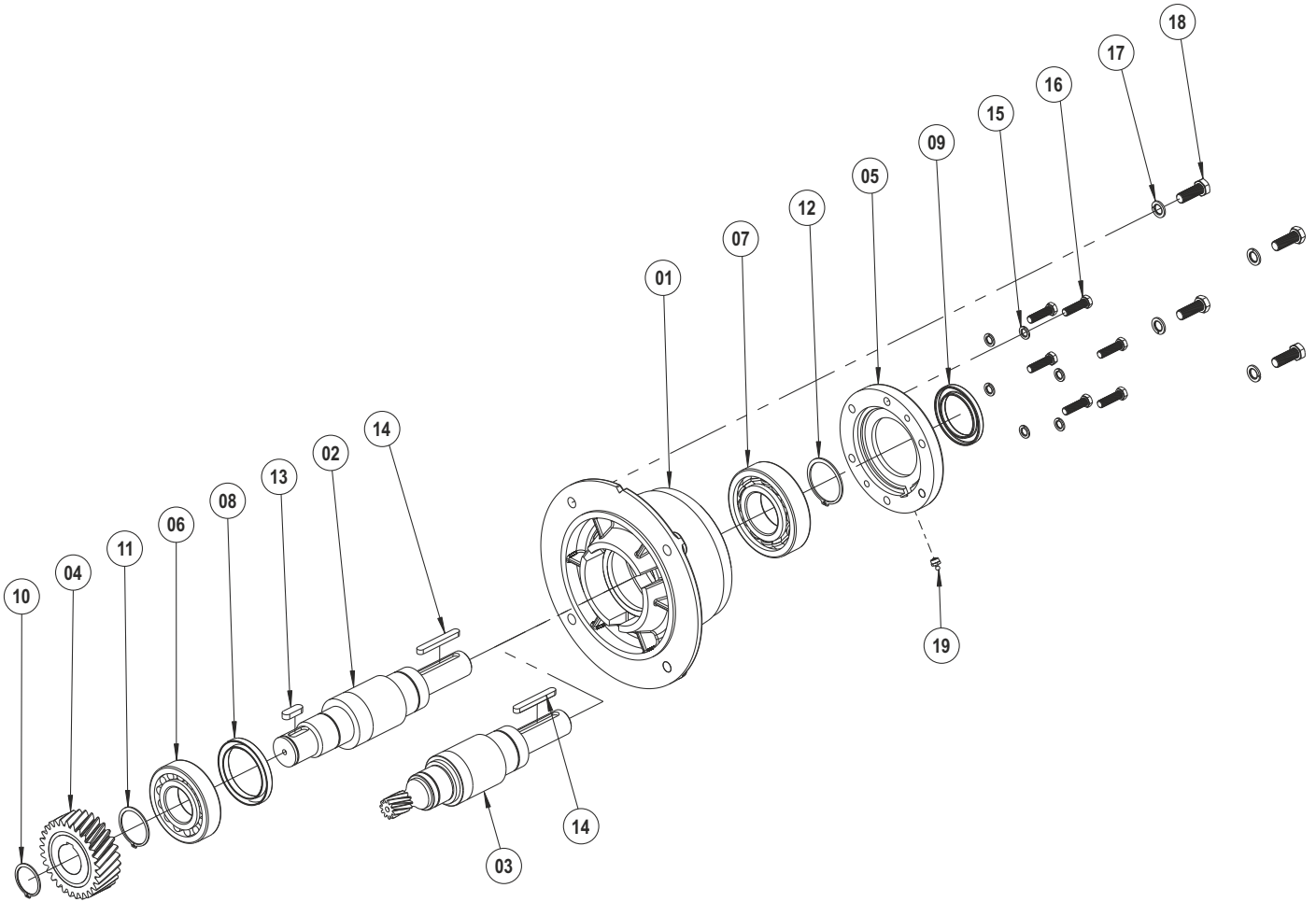
EN

GENERAL PART LIST

DE

ALLGEMEINE STUCKLISTE

**W 288**

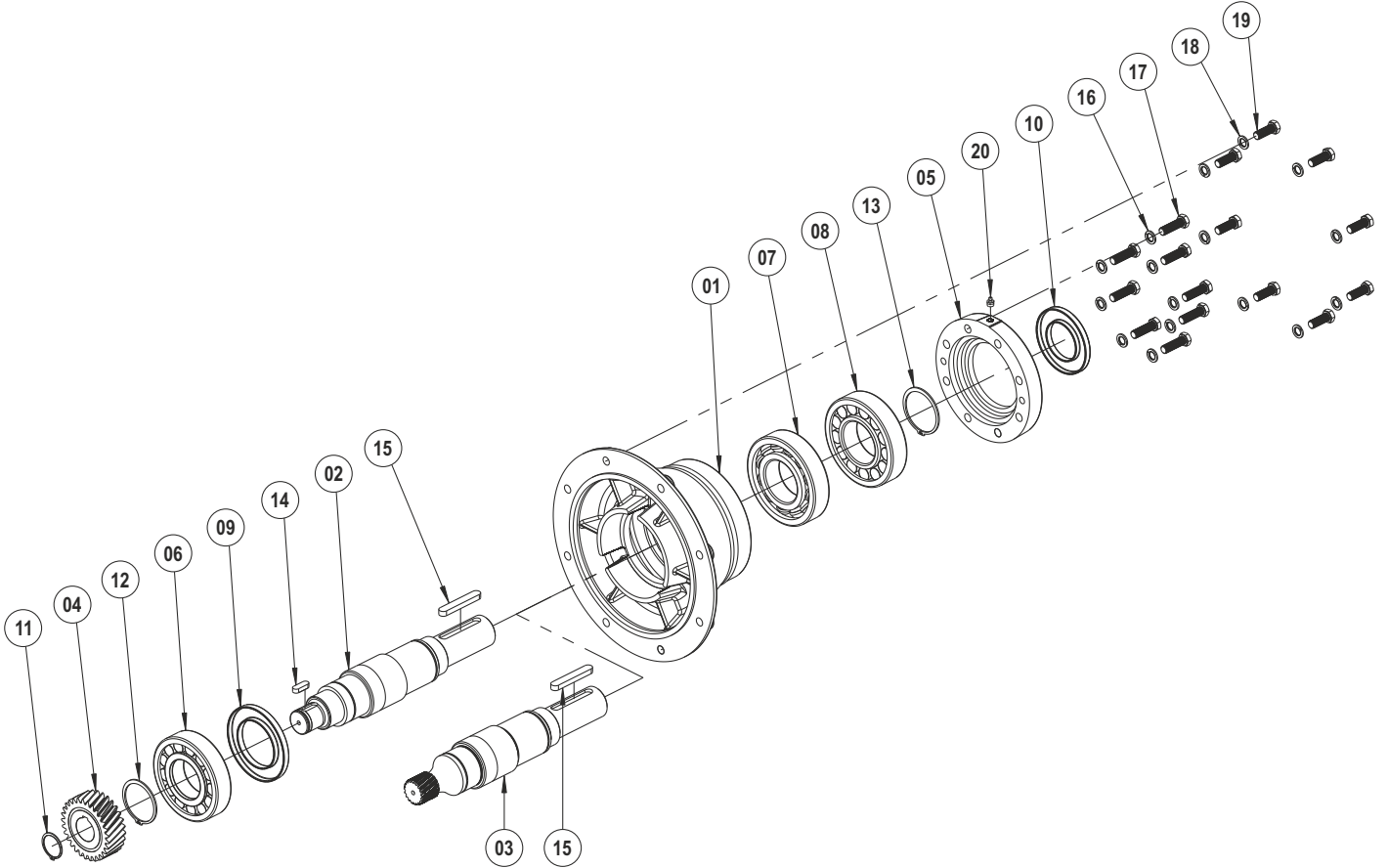


- 01 Gövde
- 02 W Mili (Kamalı)
- 03 W Mili (Dişli)
- 04 Z1 Dişlisi (Kamalı)
- 05 Rulman Flanşı
- 06 Rulman
- 07 Rulman
- 08 Yağ Keçesi
- 09 Yağ Keçesi
- 10 Segman (DIN 471)
- 11 Segman (DIN 471)
- 12 Segman (DIN 471)
- 13 Kama
- 14 Kama
- 15 Rondela (DIN 127)
- 16 Cıvata (DIN 933)
- 17 Rondela (DIN 127)
- 18 Cıvata (DIN 933)
- 19 Gresörlük

- 01 Gear Case
- 02 W Shaft (With Key)
- 03 W Shaft (With Gear)
- 04 Driving Pinion (With Key)
- 05 Bearing Flange
- 06 Bearing
- 07 Bearing
- 08 Oil Seal
- 09 Oil Seal
- 10 Circlip (DIN 471)
- 11 Circlip (DIN 471)
- 12 Circlip (DIN 471)
- 13 Key
- 14 Key
- 15 Washer (DIN 127)
- 16 Bolt (DIN 933)
- 17 Washer (DIN 127)
- 18 Bolt (DIN 933)
- 19 Grease Nipple

- 01 Gehäuse
- 02 W Welle (mit Passfeder)
- 03 W Welle (mit Zahnrad)
- 04 Antriebsritzel (mit Passfeder)
- 05 Lagerflanş
- 06 Kugellager
- 07 Kugellager
- 08 Öldichtung
- 09 Öldichtung
- 10 Sicherungsring (DIN 471)
- 11 Sicherungsring (DIN 471)
- 12 Sicherungsring (DIN 471)
- 13 Passfeder
- 14 Passfeder
- 15 Distanzscheibe (DIN 127)
- 16 Verschrauben (DIN 933)
- 17 Distanzscheibe (DIN 127)
- 18 Verschrauben (DIN 933)
- 19 Schmiernippel

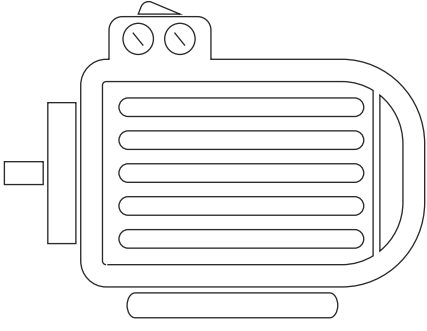
## W 397



- 01 Gövde
- 02 W Mili (Kamalı)
- 03 W Mili (Dişlili)
- 04 Z1 Dişlisi (Kamalı)
- 05 Rulman Flanşı
- 06 Rulman
- 07 Rulman
- 08 Rulman
- 09 Yağ Keçesi
- 10 Yağ Keçesi
- 11 Segman (DIN 471)
- 12 Segman (DIN 471)
- 13 Segman (DIN 471)
- 14 Kama
- 15 Kama
- 16 Rondela (DIN 127)
- 17 Cıvata (DIN 933)
- 18 Rondela (DIN 127)
- 19 Cıvata (DIN 933)
- 20 Gresörlük

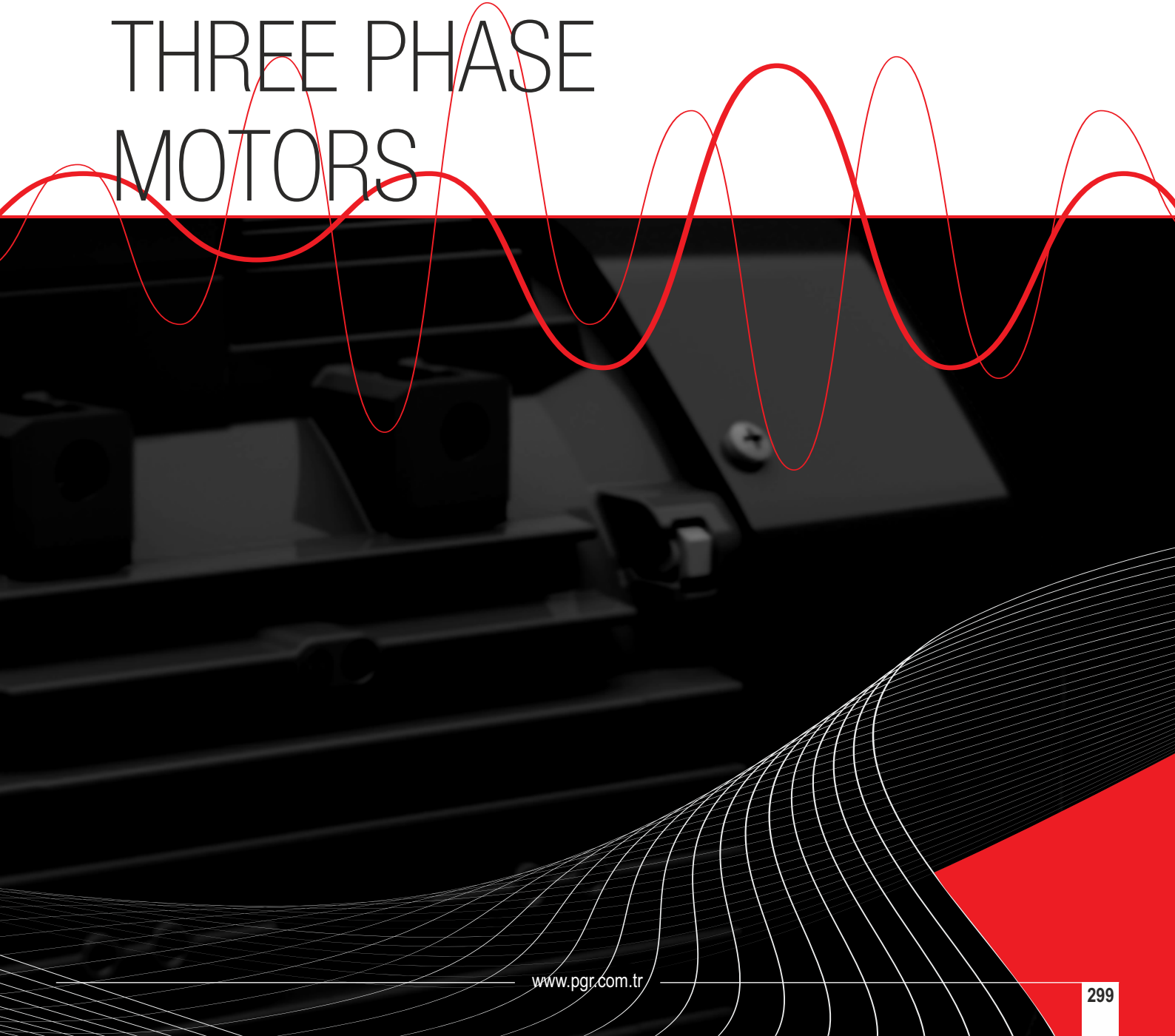
- 01 Gear Case
- 02 W Shaft (With Key)
- 03 W Shaft (With Gear)
- 04 Driving Pinion (With Key)
- 05 Bearing Flange
- 06 Bearing
- 07 Bearing
- 08 Bearing
- 09 Oil Seal
- 10 Oil Seal
- 11 Circlip (DIN 471)
- 12 Circlip (DIN 471)
- 13 Circlip (DIN 471)
- 14 Key
- 15 Key
- 16 Washer (DIN 127)
- 17 Bolt (DIN 933)
- 18 Washer (DIN 127)
- 19 Bolt (DIN 933)
- 20 Grease Nipple

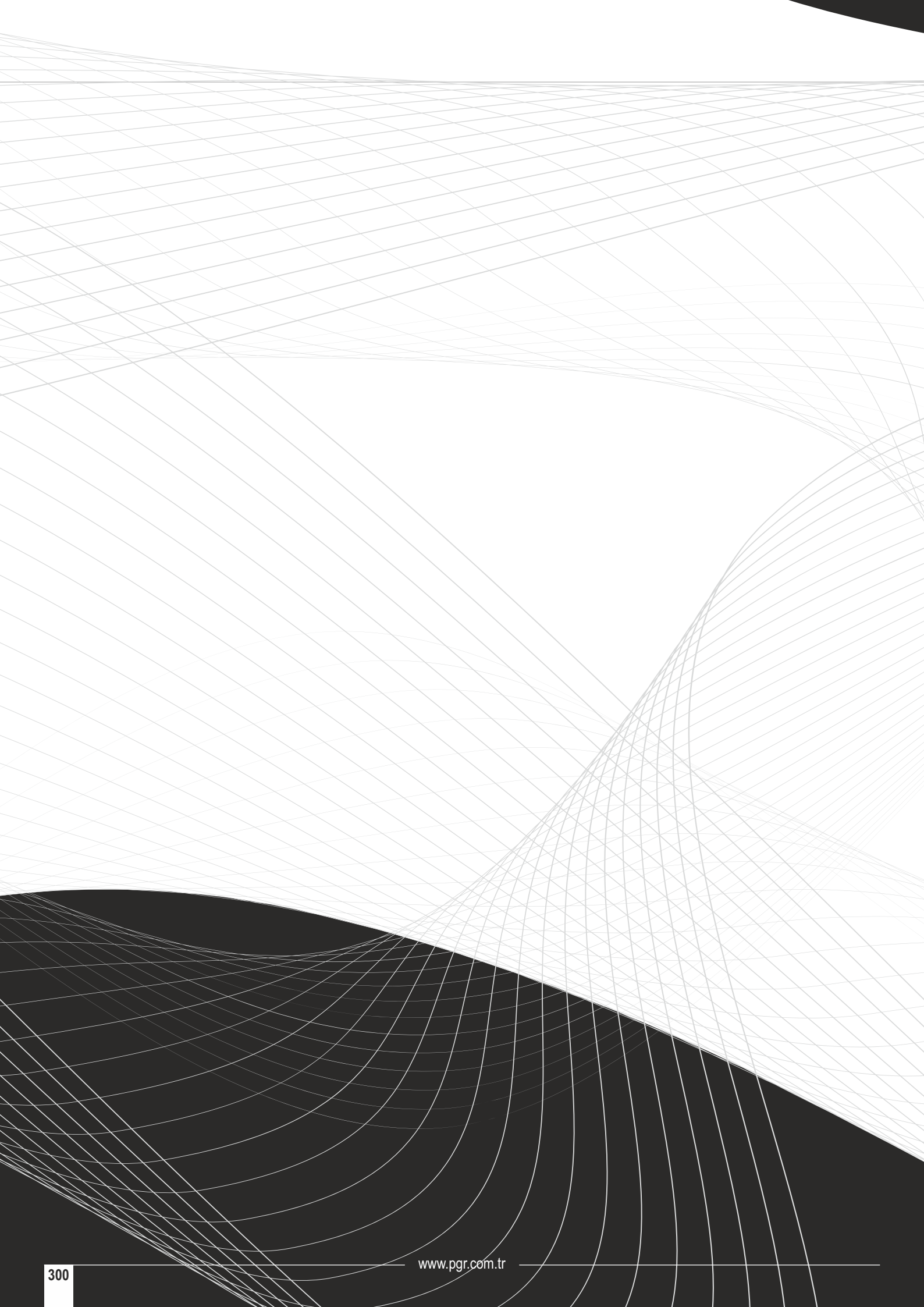
- 01 Gehäuse
- 02 W Welle (mit Passfeder)
- 03 W Welle (mit Zahnrad)
- 04 Antriebsritzel (mit Passfeder)
- 05 Lagerflansch
- 06 Kugellager
- 07 Kugellager
- 08 Kugellager
- 09 Öldichtung
- 10 Öldichtung
- 11 Sicherungsring (DIN 471)
- 12 Sicherungsring (DIN 471)
- 13 Sicherungsring (DIN 471)
- 14 Passfeder
- 15 Passfeder
- 16 Distanzscheibe (DIN 127)
- 17 Verschrauben (DIN 933)
- 18 Distanzscheibe (DIN 127)
- 19 Verschrauben (DIN 933)
- 20 Schmiernippel



# ÜÇ FAZLI MOTORLAR

THREE PHASE  
MOTORS





# IE3





| MOTOR TİPİ<br>MOTOR TYPE             | GÖVDE<br>TİPİ<br>HOUSING<br>TYPE | NOMİNAL<br>RATED VALUES |      |                |                 |                  |                 | KALKIŞTAKİ DEĞERLER<br>STARTING VALUES |                  |             |             | Devrilme<br>Momenti<br>Oranı<br>Breakdown<br>Torque Ratio<br>Mk/ Mn | VERİM*<br>EFFICIENCY* |             |      | Cos φ | J       | Ağırlık<br>Weight<br>(B3) | Ses Basınç<br>Seviyesi<br>Sound<br>Pressure<br>Level |
|--------------------------------------|----------------------------------|-------------------------|------|----------------|-----------------|------------------|-----------------|----------------------------------------|------------------|-------------|-------------|---------------------------------------------------------------------|-----------------------|-------------|------|-------|---------|---------------------------|------------------------------------------------------|
|                                      |                                  | GÜÇ<br>POWER            |      | DEVİR<br>SPEED | AKIM<br>CURRENT | MOMENT<br>TORQUE | AKIM<br>CURRENT |                                        | MOMENT<br>TORQUE |             | η%          |                                                                     |                       |             |      |       |         |                           |                                                      |
|                                      |                                  | kW                      | HP   |                |                 |                  | rpm             | A                                      | Nm               | $I_A / I_N$ | $I_Δ / I_N$ |                                                                     | $M_A / M_N$           | $M_Δ / M_N$ | 4/4  |       |         |                           |                                                      |
| 6 kutup 1000 d/dak / 6 pole 1000 rpm |                                  |                         |      |                |                 |                  |                 |                                        |                  |             |             |                                                                     |                       |             |      |       |         |                           |                                                      |
| 230/400V                             | Q3H90L6C                         | Aluminium               | 0,75 | 1,0            | 950             | 2,1              | 7,6             | 4,9                                    | -                | 2,5         | -           | 3,0                                                                 | 78,9                  | 78,4        | 74,9 | 0,67  | 0,00460 | 18                        | 53                                                   |
|                                      | Q3H90L6D                         | Aluminium               | 1,1  | 1,5            | 950             | 3,0              | 11,1            | 4,5                                    | -                | 2,6         | -           | 2,9                                                                 | 81,0                  | 80,6        | 78,3 | 0,67  | 0,00528 | 20                        | 53                                                   |
|                                      | Q3H100L6D                        | Aluminium               | 1,5  | 2,0            | 960             | 4,1              | 14,9            | 4,8                                    | -                | 2,6         | -           | 3,0                                                                 | 82,5                  | 81,7        | 78,2 | 0,65  | 0,01059 | 26                        | 55                                                   |
|                                      | Q3H112M6D                        | Aluminium               | 2,2  | 3,0            | 957             | 5,2              | 22,0            | 4,9                                    | -                | 2,7         | -           | 3,0                                                                 | 84,3                  | 84,6        | 83,7 | 0,71  | 0,01383 | 32                        | 57                                                   |
| 400/690V                             | Q3H132S6A                        | Aluminium               | 3,0  | 4,0            | 978             | 7,3              | 29,3            | 1,9                                    | 5,7              | 0,6         | 2,0         | 2,5                                                                 | 85,6                  | 85,2        | 82,8 | 0,68  | 0,03560 | 53                        | 61                                                   |
|                                      | Q3H132M6A                        | Aluminium               | 4,0  | 5,5            | 975             | 9,1              | 39,2            | 2,0                                    | 6,0              | 0,7         | 2,2         | 2,6                                                                 | 86,8                  | 85,7        | 82,8 | 0,72  | 0,04030 | 58                        | 60                                                   |
|                                      | Q3H132M6B                        | Aluminium               | 5,5  | 7,5            | 971             | 12,0             | 54,1            | 2,1                                    | 6,3              | 0,7         | 2,1         | 2,6                                                                 | 88,0                  | 87,6        | 85,3 | 0,75  | 0,05940 | 82                        | 60                                                   |
|                                      | Q3H160M6C                        | Aluminium               | 7,5  | 10,0           | 976             | 16,5             | 73,4            | 2,0                                    | 6,0              | 0,7         | 2,2         | 3,0                                                                 | 89,1                  | 89,0        | 88,0 | 0,73  | 0,07540 | 88                        | 62                                                   |
|                                      | Q3H160L6D                        | Aluminium               | 11,0 | 15,0           | 974             | 24,2             | 107,8           | 2,1                                    | 6,3              | 0,7         | 2,2         | 3,0                                                                 | 90,3                  | 90,1        | 89,3 | 0,73  | 0,09000 | 101                       | 62                                                   |
|                                      | Q3H180L6B                        | Aluminium               | 15,0 | 20,0           | 980             | 32,2             | 146,2           | 2,2                                    | 6,6              | 0,7         | 2,1         | 2,9                                                                 | 91,2                  | 90,9        | 88,7 | 0,75  | 0,18660 | 155                       | 68                                                   |
|                                      | Q3H200L6C                        | Aluminium               | 18,5 | 25,0           | 981             | 40,3             | 180,1           | 2,3                                    | 6,9              | 0,6         | 1,9         | 2,7                                                                 | 91,7                  | 91,6        | 91,3 | 0,72  | 0,23286 | 194                       | 69                                                   |
|                                      | Q3H200L6D                        | Aluminium               | 22,0 | 30,0           | 982             | 50,5             | 213,9           | 2,9                                    | 5,0              | 0,6         | 1,9         | 2,2                                                                 | 92,2                  | 92,2        | 91,6 | 0,69  | 0,22166 | 193                       | 69                                                   |
|                                      | Q3E225M6C                        | Aluminium               | 30,0 | 40,0           | 975             | 59,1             | 293,8           | 1,9                                    | 6,1              | 0,6         | 1,8         | 2,5                                                                 | 92,9                  | 92,8        | 91,8 | 0,80  | 0,52900 | 238                       | 71                                                   |

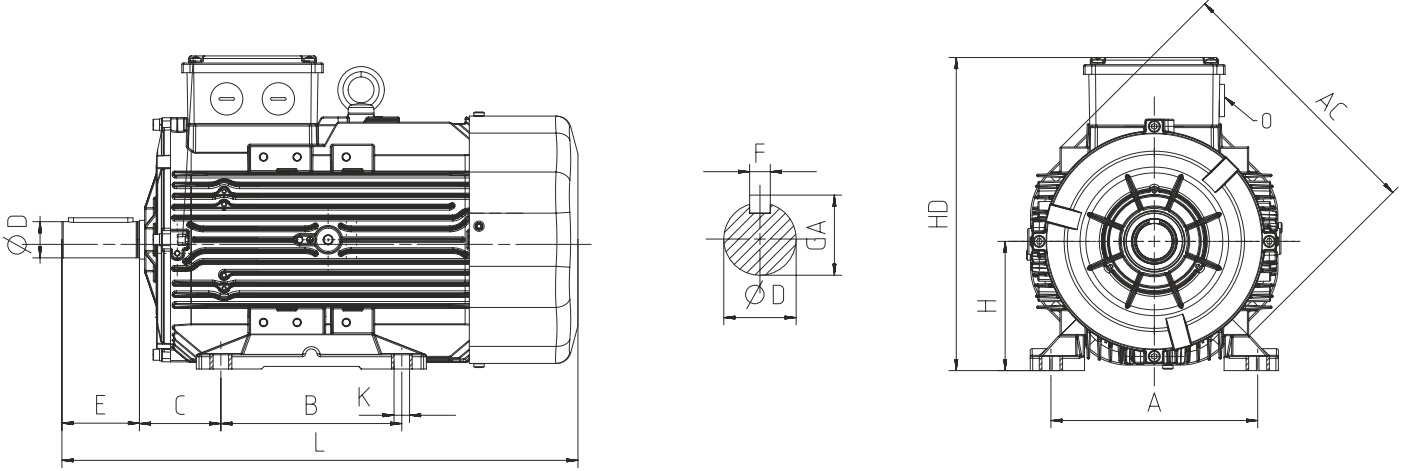
\* IEC 60034-2-1'e göre / According to IEC 60034-2-1

\*\* Ses Basınç Seviyeleri motordan 1m uzaklıktan ölçülmüştür. / The sound pressure measurements are taken 1m away from the motor

\*\*\* Tolerans +3 dBA / Tolerance +3 dBA



## BOYUTLAR - B3 / DIMENSION - B3



| Güç<br>Power<br>(kW) | Kutup<br>sayısı<br>Number<br>of Poles | Motor Tipi<br>Motor Type | Gövde<br>Tipi<br>Housing<br>Type | Ana Boyutlar<br>Main Dimensions |     |       | Ayaklı Motorlar<br>Foot Mounted Motors |     |     |     |      | Mil<br>Shaft |                  |     |      | Rulman<br>Bearing |                                 | Keçe<br>Seal                                |                                 |                                             |
|----------------------|---------------------------------------|--------------------------|----------------------------------|---------------------------------|-----|-------|----------------------------------------|-----|-----|-----|------|--------------|------------------|-----|------|-------------------|---------------------------------|---------------------------------------------|---------------------------------|---------------------------------------------|
|                      |                                       |                          |                                  | AC                              | L   | O     | B                                      | A   | H   | HD  | K    | C            | D <sup>(1)</sup> | E   | GA   | F <sup>(2)</sup>  | Kasnak<br>Taraflı<br>Drive Side | Kasnak<br>Taraflı Aksı<br>Non Drive<br>Side | Kasnak<br>Taraflı<br>Drive Side | Kasnak<br>Taraflı Aksı<br>Non Drive<br>Side |
| 0,75                 | 2                                     | Q3H80M2C                 | Aluminium                        | 158                             | 268 | 1xM20 | 100                                    | 125 | 80  | 216 | 10   | 50           | 19               | 40  | 21,5 | 6                 | 6204-ZZ                         | 6204-ZZ                                     | 20*30*7                         | 20*30*7                                     |
| 0,75                 | 4                                     | Q3H80M4D                 | Aluminium                        | 158                             | 268 | 1xM20 | 100                                    | 125 | 80  | 216 | 10   | 50           | 19               | 40  | 21,5 | 6                 | 6204-ZZ                         | 6204-ZZ                                     | 20*30*7                         | 20*30*7                                     |
| 0,75                 | 6                                     | Q3H90L6C                 | Aluminium                        | 172                             | 344 | 1xM25 | 100-125                                | 140 | 90  | 223 | 10   | 56           | 24               | 50  | 27,0 | 8                 | 6305-ZZ                         | 6205-ZZ                                     | 25*40*7                         | 25*40*7                                     |
| 1,1                  | 2                                     | Q3H80M2D                 | Aluminium                        | 158                             | 268 | 1xM20 | 100                                    | 125 | 80  | 216 | 10   | 50           | 19               | 40  | 21,5 | 6                 | 6204-ZZ                         | 6204-ZZ                                     | 20*30*7                         | 20*30*7                                     |
| 1,1                  | 4                                     | Q3H90L4C                 | Aluminium                        | 158                             | 303 | 1xM25 | 100-125                                | 140 | 90  | 213 | 10   | 56           | 24               | 50  | 27,0 | 8                 | 6305-ZZ                         | 6204-ZZ                                     | 25*40*7                         | 20*30*7                                     |
| 1,1                  | 6                                     | Q3H90L6D                 | Aluminium                        | 172                             | 344 | 1xM25 | 100-125                                | 140 | 90  | 223 | 10   | 56           | 24               | 50  | 27,0 | 8                 | 6305-ZZ                         | 6205-ZZ                                     | 25*40*7                         | 25*40*7                                     |
| 1,5                  | 2                                     | Q3H90L2C                 | Aluminium                        | 158                             | 303 | 1xM25 | 100-125                                | 140 | 90  | 213 | 10   | 56           | 24               | 50  | 27,0 | 8                 | 6305-ZZ                         | 6204-ZZ                                     | 25*40*7                         | 20*30*7                                     |
| 1,5                  | 4                                     | Q3H90L4D                 | Aluminium                        | 172                             | 344 | 1xM25 | 100-125                                | 140 | 90  | 223 | 10   | 56           | 24               | 50  | 27,0 | 8                 | 6305-ZZ                         | 6205-ZZ                                     | 25*40*7                         | 25*40*7                                     |
| 1,5                  | 6                                     | Q3H100L6D                | Aluminium                        | 191                             | 400 | 1xM25 | 140                                    | 160 | 100 | 243 | 12   | 63           | 28               | 60  | 31,0 | 8                 | 6306-ZZ                         | 6205-ZZ                                     | 30*47*7                         | 30*47*7                                     |
| 2,2                  | 2                                     | Q3H90L2D                 | Aluminium                        | 172                             | 344 | 1xM25 | 100-125                                | 140 | 90  | 223 | 10   | 56           | 24               | 50  | 27,0 | 8                 | 6305-ZZ                         | 6205-ZZ                                     | 25*40*7                         | 25*40*7                                     |
| 2,2                  | 4                                     | Q3H100L4C                | Aluminium                        | 172                             | 384 | 1xM25 | 140                                    | 160 | 100 | 233 | 12   | 63           | 28               | 60  | 31,0 | 8                 | 6306-ZZ                         | 6205-ZZ                                     | 30*47*7                         | 25*40*7                                     |
| 2,2                  | 6                                     | Q3H112M6D                | Aluminium                        | 210                             | 396 | 1xM25 | 140                                    | 190 | 112 | 265 | 12   | 70           | 28               | 60  | 31,0 | 8                 | 6306-ZZ                         | 6206-ZZ                                     | 30*47*7                         | 30*47*7                                     |
| 3                    | 2                                     | Q3H100L2D                | Aluminium                        | 172                             | 349 | 1xM25 | 140                                    | 160 | 100 | 233 | 12   | 63           | 28               | 60  | 31,0 | 8                 | 6306-ZZ                         | 6205-ZZ                                     | 30*47*7                         | 25*40*7                                     |
| 3                    | 4                                     | Q3H100L4D                | Aluminium                        | 191                             | 400 | 1xM25 | 140                                    | 160 | 100 | 243 | 12   | 63           | 28               | 60  | 31,0 | 8                 | 6306-ZZ                         | 6205-ZZ                                     | 30*47*7                         | 30*47*7                                     |
| 3                    | 6                                     | Q3H132S6A                | Aluminium                        | 260                             | 481 | 1xM32 | 140-178                                | 216 | 132 | 312 | 12   | 89           | 38               | 80  | 41,0 | 10                | 6208-ZZ                         | 6208-ZZ                                     | 40*62*10                        | 40*62*10                                    |
| 4                    | 2                                     | Q3H112M2C                | Aluminium                        | 191                             | 400 | 1xM25 | 140                                    | 190 | 112 | 254 | 12   | 70           | 28               | 60  | 31,0 | 8                 | 6306-ZZ                         | 6205-ZZ                                     | 30*47*7                         | 25*40*7                                     |
| 4                    | 4                                     | Q3H112M4D                | Aluminium                        | 210                             | 396 | 1xM25 | 140                                    | 190 | 112 | 265 | 12   | 70           | 28               | 60  | 31,0 | 8                 | 6306-ZZ                         | 6206-ZZ                                     | 30*47*7                         | 30*47*7                                     |
| 4                    | 6                                     | Q3H132M6A                | Aluminium                        | 260                             | 481 | 1xM32 | 140-178                                | 216 | 132 | 312 | 12   | 89           | 38               | 80  | 41,0 | 10                | 6208-ZZ                         | 6208-ZZ                                     | 40*62*10                        | 40*62*10                                    |
| 5,5                  | 2                                     | Q3H132S2C                | Aluminium                        | 210                             | 422 | 1xM25 | 140-178                                | 216 | 132 | 283 | 12   | 89           | 38               | 80  | 41,0 | 10                | 6208-ZZ                         | 6206-ZZ                                     | 40*62*10                        | 30*47*7                                     |
| 5,5                  | 4                                     | Q3H132S4B                | Aluminium                        | 260                             | 481 | 1xM32 | 140-178                                | 216 | 132 | 312 | 12   | 89           | 38               | 80  | 41,0 | 10                | 6208-ZZ                         | 6208-ZZ                                     | 40*62*10                        | 40*62*10                                    |
| 5,5                  | 6                                     | Q3H132M6B                | Aluminium                        | 260                             | 481 | 1xM32 | 140-178                                | 216 | 132 | 312 | 12   | 89           | 38               | 80  | 41,0 | 10                | 6208-ZZ                         | 6208-ZZ                                     | 40*62*10                        | 40*62*10                                    |
| 7,5                  | 2                                     | Q3H132S2D                | Aluminium                        | 210                             | 448 | 1xM25 | 140-178                                | 216 | 132 | 283 | 12   | 89           | 38               | 80  | 41,0 | 10                | 6208-ZZ                         | 6206-ZZ                                     | 40*62*10                        | 30*47*7                                     |
| 7,5                  | 4                                     | Q3H132M4D                | Aluminium                        | 260                             | 481 | 1xM32 | 140-178                                | 216 | 132 | 312 | 12   | 89           | 38               | 80  | 41,0 | 10                | 6208-ZZ                         | 6208-ZZ                                     | 40*62*10                        | 40*62*10                                    |
| 7,5                  | 6                                     | Q3H160M6C                | Aluminium                        | 305                             | 591 | 1xM32 | 210-254                                | 254 | 160 | 368 | 14,5 | 108          | 42               | 110 | 45,0 | 12                | 6309-ZZ                         | 6209-ZZ                                     | 45*72*10                        | 45*72*10                                    |
| 11                   | 2                                     | Q3H160M2C                | Aluminium                        | 260                             | 520 | 1xM32 | 210-254                                | 254 | 160 | 351 | 14,5 | 108          | 42               | 110 | 45,0 | 12                | 6309-ZZ                         | 6208-ZZ                                     | 45*72*10                        | 40*62*10                                    |
| 11                   | 4                                     | Q3H160M4C                | Aluminium                        | 260                             | 578 | 1xM32 | 210-254                                | 254 | 160 | 351 | 14,5 | 108          | 42               | 110 | 45,0 | 12                | 6309-ZZ                         | 6208-ZZ                                     | 45*72*10                        | 40*62*10                                    |
| 11                   | 6                                     | Q3H160L6D                | Aluminium                        | 305                             | 591 | 1xM32 | 210-254                                | 254 | 160 | 368 | 14,5 | 108          | 42               | 110 | 45,0 | 12                | 6309-ZZ                         | 6209-ZZ                                     | 45*72*10                        | 45*72*10                                    |
| 15                   | 2                                     | Q3H160M2DE               | Aluminium                        | 260                             | 580 | 1xM32 | 210-254                                | 254 | 160 | 351 | 14,5 | 108          | 42               | 110 | 45,0 | 12                | 6309-ZZ                         | 6208-ZZ                                     | 45*72*10                        | 40*62*10                                    |
| 15                   | 4                                     | Q3H160L4B                | Aluminium                        | 305                             | 591 | 1xM32 | 210-254                                | 254 | 160 | 368 | 14,5 | 108          | 42               | 110 | 45,0 | 12                | 6309-ZZ                         | 6209-ZZ                                     | 45*72*10                        | 45*72*10                                    |
| 15                   | 6                                     | Q3H180L6B                | Aluminium                        | 349                             | 696 | 1xM40 | 241-279                                | 279 | 180 | 437 | 14,5 | 121          | 48               | 110 | 51,5 | 14                | 6310-ZZ                         | 6310-ZZ                                     | 50*80*10                        | 50*80*10                                    |

(1) Toleranslar 28 mm'ye kadar DIN EN 50347 "j6", 28 mm ve üzeri "k6" / Tolerance DIN EN 50347 "j6" up to 28mm, "k6" above 28mm

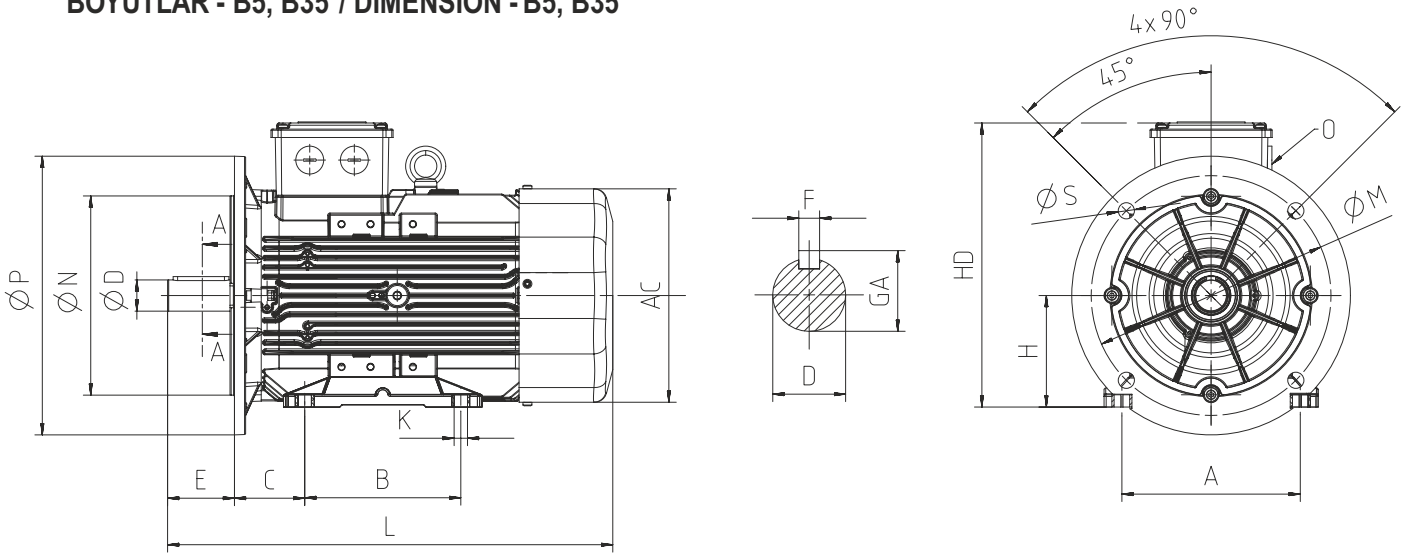
(2) DIN 6885'e göre / According to DIN 6885

| Güç Power (kW) | Kutup sayısı Number of Poles | Motor Tipi Motor Type | Gövde Tipi Housing Type | Ana Boyutlar Main Dimensions |      |       | Ayaklı Motorlar Foot Mounted Motors |     |     |     |      |     | Mil Shaft        |     |      |                  | Rulman Bearing           |                                   | Keçe Seal                |                                   |
|----------------|------------------------------|-----------------------|-------------------------|------------------------------|------|-------|-------------------------------------|-----|-----|-----|------|-----|------------------|-----|------|------------------|--------------------------|-----------------------------------|--------------------------|-----------------------------------|
|                |                              |                       |                         | AC                           | L    | O     | B                                   | A   | H   | HD  | K    | C   | D <sup>(1)</sup> | E   | GA   | F <sup>(2)</sup> | Kasnak Tarafı Drive Side | Kasnak Tarafı Aksi Non drive Side | Kasnak Tarafı Drive Side | Kasnak Tarafı Aksi Non drive Side |
| 18,5           | 2                            | Q3H160L2C             | Aluminium               | 305                          | 591  | 1xM32 | 210-254                             | 254 | 160 | 368 | 14,5 | 108 | 42               | 110 | 45,0 | 12               | 6309-ZZ                  | 6209-ZZ                           | 45*72*10                 | 45*72*10                          |
| 18,5           | 4                            | Q3H180M4B             | Aluminium               | 305                          | 596  | 1xM32 | 241-279                             | 279 | 180 | 398 | 14,5 | 121 | 48               | 110 | 51,5 | 14               | 6310-ZZ                  | 6209-ZZ                           | 50*80*10                 | 45*72*10                          |
| 18,5           | 6                            | Q3H200L6C             | Aluminium               | 349                          | 750  | 1xM50 | 305                                 | 318 | 200 | 455 | 18,5 | 133 | 55               | 110 | 59,0 | 16               | 6312-ZZ                  | 6310-ZZ                           | 60*90*10                 | 60*90*10                          |
| 22             | 2                            | Q3H180M2B             | Aluminium               | 305                          | 596  | 1xM32 | 241-279                             | 279 | 180 | 398 | 14,5 | 121 | 48               | 110 | 51,5 | 14               | 6310-ZZ                  | 6209-ZZ                           | 50*80*10                 | 45*72*10                          |
| 22             | 4                            | Q3H180L4B             | Aluminium               | 349                          | 696  | 1xM40 | 241-279                             | 279 | 180 | 437 | 14,5 | 121 | 48               | 110 | 51,5 | 14               | 6310-ZZ                  | 6310-ZZ                           | 50*80*10                 | 50*80*10                          |
| 22             | 6                            | Q3H200L6D             | Aluminium               | 349                          | 759  | 1xM50 | 267-305                             | 318 | 200 | 455 | 18,5 | 133 | 55               | 110 | 59,0 | 16               | 6312-ZZ                  | 6310-ZZ                           | 60*90*10                 | 60*90*10                          |
| 30             | 2                            | Q3H200L2C             | Aluminium               | 349                          | 706  | 1xM50 | 267-305                             | 318 | 200 | 455 | 18,5 | 133 | 55               | 110 | 59,0 | 16               | 6312-ZZ                  | 6310-ZZ                           | 60*90*10                 | 60*90*10                          |
| 30             | 4                            | Q3H200L4D             | Aluminium               | 349                          | 759  | 1xM50 | 267-305                             | 318 | 200 | 455 | 18,5 | 133 | 55               | 110 | 59,0 | 16               | 6312-ZZ                  | 6310-ZZ                           | 60*90*10                 | 60*90*10                          |
| 30             | 6                            | Q3E225M6C             | Aluminium               | 456                          | 765  | 1xM50 | 286-311                             | 356 | 225 | 485 | 18,5 | 149 | 60               | 140 | 64,0 | 18               | 6313-ZZ                  | 6313-ZZ                           | 65*100*13                | 65*100*13                         |
| 37             | 2                            | Q3H200L2D             | Aluminium               | 349                          | 706  | 1xM50 | 305                                 | 318 | 200 | 455 | 18,5 | 133 | 55               | 110 | 59,0 | 16               | 6312-ZZ                  | 6310-ZZ                           | 60*90*10                 | 60*90*10                          |
| 37             | 4                            | Q3E225M4B             | Aluminium               | 456                          | 765  | 1xM50 | 286-311                             | 356 | 225 | 485 | 18,5 | 149 | 60               | 140 | 64,0 | 18               | 6313-ZZ                  | 6313-ZZ                           | 65*100*13                | 65*100*13                         |
| 45             | 2                            | Q3E225M2B             | Aluminium               | 456                          | 735  | 1xM50 | 286-311                             | 356 | 225 | 485 | 18,5 | 149 | 55               | 110 | 59,0 | 16               | 6313-ZZ                  | 6313-ZZ                           | 65*100*13                | 65*100*13                         |
| 45             | 4                            | Q3E225M4C             | Aluminium               | 456                          | 765  | 1xM50 | 286-311                             | 356 | 225 | 485 | 18,5 | 149 | 60               | 140 | 64,0 | 18               | 6313-ZZ                  | 6313-ZZ                           | 65*100*13                | 65*100*13                         |
| 55             | 2                            | Q3E250M2A             | Aluminium               | 527                          | 886  | 2xM50 | 349                                 | 406 | 250 | 615 | 24   | 149 | 60               | 140 | 64,0 | 18               | 6315-ZZ                  | 6313-ZZ                           | 75*112*12                | 65*100*13                         |
| 55             | 2                            | Q3EP250M2C            | Cast Iron               | 489                          | 893  | 1xM50 | 349                                 | 406 | 250 | 616 | 24   | 149 | 60               | 140 | 69,0 | 18               | 6316                     | 6316                              | 80*100*10                | 80*100*10                         |
| 55             | 4                            | Q3E250M4B             | Cast Iron               | 489                          | 893  | 1xM50 | 349                                 | 406 | 250 | 616 | 24   | 149 | 65               | 140 | 69,0 | 18               | 6316                     | 6316                              | 80*100*10                | 80*100*10                         |
| 75             | 2                            | Q3EP280M2C            | Cast Iron               | 489                          | 1025 | 1xM50 | 419                                 | 457 | 280 | 647 | 24   | 190 | 65               | 140 | 69,0 | 18               | 6316                     | 6316                              | 80*100*10                | 80*100*10                         |
| 75             | 4                            | Q3EP280M4C            | Cast Iron               | 489                          | 1025 | 1xM50 | 419                                 | 457 | 280 | 647 | 24   | 190 | 75               | 140 | 79,5 | 20               | 6316                     | 6316                              | 80*100*10                | 80*100*10                         |
| 90             | 2                            | Q3EP280M2D            | Cast Iron               | 489                          | 1025 | 1xM50 | 419                                 | 457 | 280 | 647 | 24   | 190 | 65               | 140 | 69,0 | 18               | 6316                     | 6316                              | 80*100*10                | 80*100*10                         |
| 90             | 4                            | Q3EP280M4D            | Cast Iron               | 489                          | 1025 | 1xM50 | 419                                 | 457 | 280 | 647 | 24   | 190 | 75               | 140 | 79,5 | 20               | 6316                     | 6316                              | 80*100*10                | 80*100*10                         |
| 110            | 2                            | Q3EP315S2C            | Cast Iron               | 652                          | 1176 | 2xM63 | 406                                 | 508 | 315 | 833 | 28   | 216 | 65               | 140 | 69   | 18               | 6316                     | 6316                              | 80*100*5.5               | 80*100*5.5                        |
| 110            | 4                            | Q3EP315S4C            | Cast Iron               | 652                          | 1206 | 2xM63 | 406                                 | 508 | 315 | 833 | 28   | 216 | 80               | 170 | 85   | 22               | 6319                     | 6319                              | 95*115*5.5               | 95*115*5.5                        |
| 132            | 2                            | Q3EP315M2B            | Cast Iron               | 652                          | 1176 | 2xM63 | 457                                 | 508 | 315 | 833 | 28   | 216 | 65               | 140 | 69   | 18               | 6316                     | 6316                              | 80*100*5.5               | 80*100*5.5                        |
| 132            | 4                            | Q3EP315M4B            | Cast Iron               | 652                          | 1206 | 2xM63 | 457                                 | 508 | 315 | 833 | 28   | 216 | 80               | 170 | 85   | 22               | 6319                     | 6319                              | 95*115*5.5               | 95*115*5.5                        |
| 160            | 2                            | Q3EP315L2A            | Cast Iron               | 652                          | 1287 | 2xM63 | 508                                 | 508 | 315 | 833 | 28   | 216 | 65               | 140 | 69   | 18               | 6316                     | 6316                              | 80*100*5.5               | 80*100*5.5                        |
| 160            | 4                            | Q3EP315L4A            | Cast Iron               | 652                          | 1317 | 2xM63 | 508                                 | 508 | 315 | 833 | 28   | 216 | 80               | 170 | 85   | 22               | 6319                     | 6319                              | 95*115*5.5               | 95*115*5.5                        |
| 200            | 2                            | Q3EP315L2C            | Cast Iron               | 652                          | 1287 | 2xM63 | 508                                 | 508 | 315 | 833 | 28   | 216 | 65               | 140 | 69   | 18               | 6316                     | 6316                              | 80*100*5.5               | 80*100*5.5                        |
| 200            | 4                            | Q3EP315L4C            | Cast Iron               | 652                          | 1317 | 2xM63 | 508                                 | 508 | 315 | 833 | 28   | 216 | 80               | 170 | 85   | 22               | 6319                     | 6319                              | 95*115*5.5               | 95*115*5.5                        |
| 250            | 2                            | Q3EP355M2C            | Cast Iron               | 762                          | 1512 | 4xM63 | 560                                 | 610 | 355 | 997 | 28   | 254 | 75               | 140 | 80   | 20               | 6317                     | 6317                              | 85*105*5.5               | 85*105*5.5                        |
| 250            | 4                            | Q3EP355M4C            | Cast Iron               | 762                          | 1542 | 4xM63 | 560                                 | 610 | 355 | 997 | 28   | 254 | 95               | 170 | 100  | 25               | 6322                     | 6322                              | 110*130*5.5              | 110*130*5.5                       |
| 315            | 2                            | Q3EP355L2B            | Cast Iron               | 762                          | 1512 | 4xM63 | 630                                 | 610 | 355 | 997 | 28   | 254 | 75               | 140 | 80   | 20               | 6317                     | 6317                              | 85*105*5.5               | 85*105*5.5                        |
| 315            | 4                            | Q3EP355L4B            | Cast Iron               | 762                          | 1542 | 4xM63 | 630                                 | 610 | 355 | 997 | 28   | 254 | 95               | 170 | 100  | 25               | 6322                     | 6322                              | 110*130*5.5              | 110*130*5.5                       |
| 355            | 2                            | Q3EP355L2C            | Cast Iron               | 762                          | 1512 | 4xM63 | 630                                 | 610 | 355 | 997 | 28   | 254 | 75               | 140 | 80   | 20               | 6317                     | 6317                              | 85*105*5.5               | 85*105*5.5                        |
| 355            | 4                            | Q3EP355L4C            | Cast Iron               | 762                          | 1542 | 4xM63 | 630                                 | 610 | 355 | 997 | 28   | 254 | 95               | 170 | 100  | 25               | 6322                     | 6322                              | 110*130*5.5              | 110*130*5.5                       |

(1) Toleranslar 28 mm'ye kadar DIN EN 50347 "j6", 28 mm ve üzeri "k6" / Tolerance DIN EN 50347 "j6" up to 28mm, "k6" above 28mm

(2) DIN 6885'e göre / According to DIN 6885

## BOYUTLAR - B5, B35 / DIMENSION - B5, B35



| Güç<br>Power<br>(kW) | Kutup<br>sayısı<br>Number<br>of Poles | Motor Tipi<br>Motor Type | Gövde<br>Tipi<br>Housing<br>Type | Ana Boyutlar<br>Main Dimensions |     |       | Ayaklı Motorlar<br>Foot Mounted Motors |     |     |     |      | Mil<br>Shaft     |     | Rulman<br>Bearing |                  | Keçe<br>Seal                    |                                             | Flanş (FA) (B5)<br>Flange (FA) (B5) |                                             |     |                  |     |   |      |
|----------------------|---------------------------------------|--------------------------|----------------------------------|---------------------------------|-----|-------|----------------------------------------|-----|-----|-----|------|------------------|-----|-------------------|------------------|---------------------------------|---------------------------------------------|-------------------------------------|---------------------------------------------|-----|------------------|-----|---|------|
|                      |                                       |                          |                                  | AC                              | L   | O     | B                                      | A   | H   | HD  | K    | D <sup>(1)</sup> | E   | GA                | F <sup>(2)</sup> | Kasnak<br>Taraflı<br>Drive Side | Kasnak<br>Taraflı Aksı<br>Non drive<br>Side | Kasnak<br>Taraflı<br>Drive Side     | Kasnak<br>Taraflı Aksı<br>Non drive<br>Side | P   | N <sup>(3)</sup> | M   | R | S    |
| 0,75                 | 2                                     | Q3H80M2C                 | Aluminium                        | 158                             | 268 | 1xM20 | 100                                    | 125 | 80  | 216 | 10   | 19               | 40  | 21,5              | 6                | 6204-ZZ                         | 6204-ZZ                                     | 20*30*7                             | 20*30*7                                     | 200 | 130              | 165 | - | 12   |
| 0,75                 | 4                                     | Q3H80M4D                 | Aluminium                        | 158                             | 268 | 1xM20 | 100                                    | 125 | 80  | 216 | 10   | 19               | 40  | 21,5              | 6                | 6204-ZZ                         | 6204-ZZ                                     | 20*30*7                             | 20*30*7                                     | 200 | 130              | 165 | - | 12   |
| 0,75                 | 6                                     | Q3H90L6C                 | Aluminium                        | 172                             | 344 | 1xM25 | 100-125                                | 140 | 90  | 223 | 10   | 24               | 50  | 27,0              | 8                | 6305-ZZ                         | 6205-ZZ                                     | 25*40*7                             | 25*40*7                                     | 200 | 130              | 165 | - | 12   |
| 1,1                  | 2                                     | Q3H80M2D                 | Aluminium                        | 158                             | 268 | 1xM20 | 100                                    | 125 | 80  | 216 | 10   | 19               | 40  | 21,5              | 6                | 6204-ZZ                         | 6204-ZZ                                     | 20*30*7                             | 20*30*7                                     | 200 | 130              | 165 | - | 12   |
| 1,1                  | 4                                     | Q3H90L4C                 | Aluminium                        | 158                             | 303 | 1xM25 | 100-125                                | 140 | 90  | 213 | 10   | 24               | 50  | 27,0              | 8                | 6305-ZZ                         | 6204-ZZ                                     | 25*40*7                             | 20*30*7                                     | 200 | 130              | 165 | - | 12   |
| 1,1                  | 6                                     | Q3H90L6D                 | Aluminium                        | 172                             | 344 | 1xM25 | 100-125                                | 140 | 90  | 223 | 10   | 24               | 50  | 27,0              | 8                | 6305-ZZ                         | 6205-ZZ                                     | 25*40*7                             | 25*40*7                                     | 200 | 130              | 165 | - | 12   |
| 1,5                  | 2                                     | Q3H90L2C                 | Aluminium                        | 158                             | 303 | 1xM25 | 100-125                                | 140 | 90  | 213 | 10   | 24               | 50  | 27,0              | 8                | 6305-ZZ                         | 6204-ZZ                                     | 25*40*7                             | 20*30*7                                     | 200 | 130              | 165 | - | 12   |
| 1,5                  | 4                                     | Q3H90L4D                 | Aluminium                        | 172                             | 344 | 1xM25 | 100-125                                | 140 | 90  | 223 | 10   | 24               | 50  | 27,0              | 8                | 6305-ZZ                         | 6205-ZZ                                     | 25*40*7                             | 25*40*7                                     | 200 | 130              | 165 | - | 12   |
| 1,5                  | 6                                     | Q3H100L6D                | Aluminium                        | 191                             | 400 | 1xM25 | 140                                    | 160 | 100 | 243 | 12   | 28               | 60  | 31,0              | 8                | 6306-ZZ                         | 6205-ZZ                                     | 30*47*7                             | 30*47*7                                     | 250 | 180              | 215 | - | 14,5 |
| 2,2                  | 2                                     | Q3H90L2D                 | Aluminium                        | 172                             | 344 | 1xM25 | 100-125                                | 140 | 90  | 223 | 10   | 24               | 50  | 27,0              | 8                | 6305-ZZ                         | 6205-ZZ                                     | 25*40*7                             | 25*40*7                                     | 200 | 130              | 165 | - | 12   |
| 2,2                  | 4                                     | Q3H100L4C                | Aluminium                        | 172                             | 384 | 1xM25 | 140                                    | 160 | 100 | 233 | 12   | 28               | 60  | 31,0              | 8                | 6306-ZZ                         | 6205-ZZ                                     | 30*47*7                             | 25*40*7                                     | 250 | 180              | 215 | - | 14,5 |
| 2,2                  | 6                                     | Q3H112M6D                | Aluminium                        | 210                             | 396 | 1xM25 | 140                                    | 190 | 112 | 265 | 12   | 28               | 60  | 31,0              | 8                | 6306-ZZ                         | 6206-ZZ                                     | 30*47*7                             | 30*47*7                                     | 250 | 180              | 215 | - | 14,5 |
| 3                    | 2                                     | Q3H100L2D                | Aluminium                        | 172                             | 349 | 1xM25 | 140                                    | 160 | 100 | 233 | 12   | 28               | 60  | 31,0              | 8                | 6306-ZZ                         | 6205-ZZ                                     | 30*47*7                             | 25*40*7                                     | 250 | 180              | 215 | - | 14,5 |
| 3                    | 4                                     | Q3H100L4D                | Aluminium                        | 191                             | 400 | 1xM25 | 140                                    | 160 | 100 | 243 | 12   | 28               | 60  | 31,0              | 8                | 6306-ZZ                         | 6205-ZZ                                     | 30*47*7                             | 30*47*7                                     | 250 | 180              | 215 | - | 14,5 |
| 3                    | 6                                     | Q3H132S6A                | Aluminium                        | 260                             | 481 | 1xM32 | 140-178                                | 216 | 132 | 312 | 12   | 38               | 80  | 41,0              | 10               | 6208-ZZ                         | 6208-ZZ                                     | 40*62*10                            | 40*62*10                                    | 300 | 230              | 265 | - | 14,5 |
| 4                    | 2                                     | Q3H112M2C                | Aluminium                        | 191                             | 399 | 1xM25 | 140                                    | 190 | 112 | 254 | 12   | 28               | 60  | 31,0              | 8                | 6306-ZZ                         | 6205-ZZ                                     | 30*47*7                             | 25*40*7                                     | 250 | 180              | 215 | - | 14,5 |
| 4                    | 4                                     | Q3H112M4D                | Aluminium                        | 210                             | 396 | 1xM25 | 140                                    | 190 | 112 | 265 | 12   | 28               | 60  | 31,0              | 8                | 6306-ZZ                         | 6206-ZZ                                     | 30*47*7                             | 30*47*7                                     | 250 | 180              | 215 | - | 14,5 |
| 4                    | 6                                     | Q3H132M6A                | Aluminium                        | 260                             | 481 | 1xM32 | 140-178                                | 216 | 132 | 312 | 12   | 38               | 80  | 41,0              | 10               | 6208-ZZ                         | 6208-ZZ                                     | 40*62*10                            | 40*62*10                                    | 300 | 230              | 265 | - | 14,5 |
| 5,5                  | 2                                     | Q3H132S2C                | Aluminium                        | 210                             | 422 | 1xM25 | 140-178                                | 216 | 132 | 283 | 12   | 38               | 80  | 41,0              | 10               | 6208-ZZ                         | 6206-ZZ                                     | 40*62*10                            | 30*47*7                                     | 300 | 230              | 265 | - | 14,5 |
| 5,5                  | 4                                     | Q3H132S4B                | Aluminium                        | 260                             | 481 | 1xM32 | 140-178                                | 216 | 132 | 312 | 12   | 38               | 80  | 41,0              | 10               | 6208-ZZ                         | 6208-ZZ                                     | 40*62*10                            | 40*62*10                                    | 300 | 230              | 265 | - | 14,5 |
| 5,5                  | 6                                     | Q3H132M6B                | Aluminium                        | 260                             | 481 | 1xM32 | 140-178                                | 216 | 132 | 312 | 12   | 38               | 80  | 41,0              | 10               | 6208-ZZ                         | 6208-ZZ                                     | 40*62*10                            | 40*62*10                                    | 300 | 230              | 265 | - | 14,5 |
| 7,5                  | 2                                     | Q3H132S2D                | Aluminium                        | 210                             | 448 | 1xM25 | 140-178                                | 216 | 132 | 283 | 12   | 38               | 80  | 41,0              | 10               | 6208-ZZ                         | 6206-ZZ                                     | 40*62*10                            | 30*47*7                                     | 300 | 230              | 265 | - | 14,5 |
| 7,5                  | 4                                     | Q3H132M4D                | Aluminium                        | 260                             | 481 | 1xM32 | 140-178                                | 216 | 132 | 312 | 12   | 38               | 80  | 41,0              | 10               | 6208-ZZ                         | 6208-ZZ                                     | 40*62*10                            | 40*62*10                                    | 300 | 230              | 265 | - | 14,5 |
| 7,5                  | 6                                     | Q3H160M6C                | Aluminium                        | 305                             | 591 | 1xM32 | 210-254                                | 254 | 160 | 368 | 14,5 | 42               | 110 | 45,0              | 12               | 6309-ZZ                         | 6209-ZZ                                     | 45*72*10                            | 45*72*10                                    | 350 | 250              | 300 | - | 18,5 |
| 11                   | 2                                     | Q3H160M2C                | Aluminium                        | 260                             | 520 | 1xM32 | 210-254                                | 254 | 160 | 351 | 14,5 | 42               | 110 | 45,0              | 12               | 6309-ZZ                         | 6208-ZZ                                     | 45*72*10                            | 40*62*10                                    | 350 | 250              | 300 | - | 18,5 |
| 11                   | 4                                     | Q3H160M4C                | Aluminium                        | 260                             | 580 | 1xM32 | 210-254                                | 254 | 160 | 351 | 14,5 | 42               | 110 | 45,0              | 12               | 6309-ZZ                         | 6208-ZZ                                     | 45*72*10                            | 40*62*10                                    | 350 | 250              | 300 | - | 18,5 |
| 11                   | 6                                     | Q3H160L6D                | Aluminium                        | 305                             | 591 | 1xM32 | 210-254                                | 254 | 160 | 368 | 14,5 | 42               | 110 | 45,0              | 12               | 6309-ZZ                         | 6209-ZZ                                     | 45*72*10                            | 45*72*10                                    | 350 | 250              | 300 | - | 18,5 |
| 15                   | 2                                     | Q3H160M2DE               | Aluminium                        | 260                             | 580 | 1xM32 | 210-254                                | 254 | 160 | 351 | 14,5 | 42               | 110 | 45,0              | 12               | 6309-ZZ                         | 6208-ZZ                                     | 45*72*10                            | 40*62*10                                    | 350 | 250              | 300 | - | 18,5 |
| 15                   | 4                                     | Q3H160L4B                | Aluminium                        | 305                             | 591 | 1xM32 | 210-254                                | 254 | 160 | 368 | 14,5 | 42               | 110 | 45,0              | 12               | 6309-ZZ                         | 6209-ZZ                                     | 45*72*10                            | 45*72*10                                    | 350 | 250              | 300 | - | 18,5 |
| 15                   | 6                                     | Q3H180L6B                | Aluminium                        | 349                             | 696 | 1xM40 | 241-279                                | 279 | 180 | 437 | 14,5 | 48               | 110 | 51,5              | 14               | 6310-ZZ                         | 6310-ZZ                                     | 50*80*10                            | 50*80*10                                    | 350 | 250              | 300 | - | 18,5 |

(1) Toleranslar 28 mm'ye kadar DIN EN 50347 "j6", 28 mm ve üzeri "k6" / Tolerance DIN EN 50347 "j6" up to 28mm, "k6" above 28mm

(2) DIN 6885'e göre / According to DIN 6885

(3) Tolerans DIN EN 50347 "j6" / Tolerance DIN EN 50347 "j6"

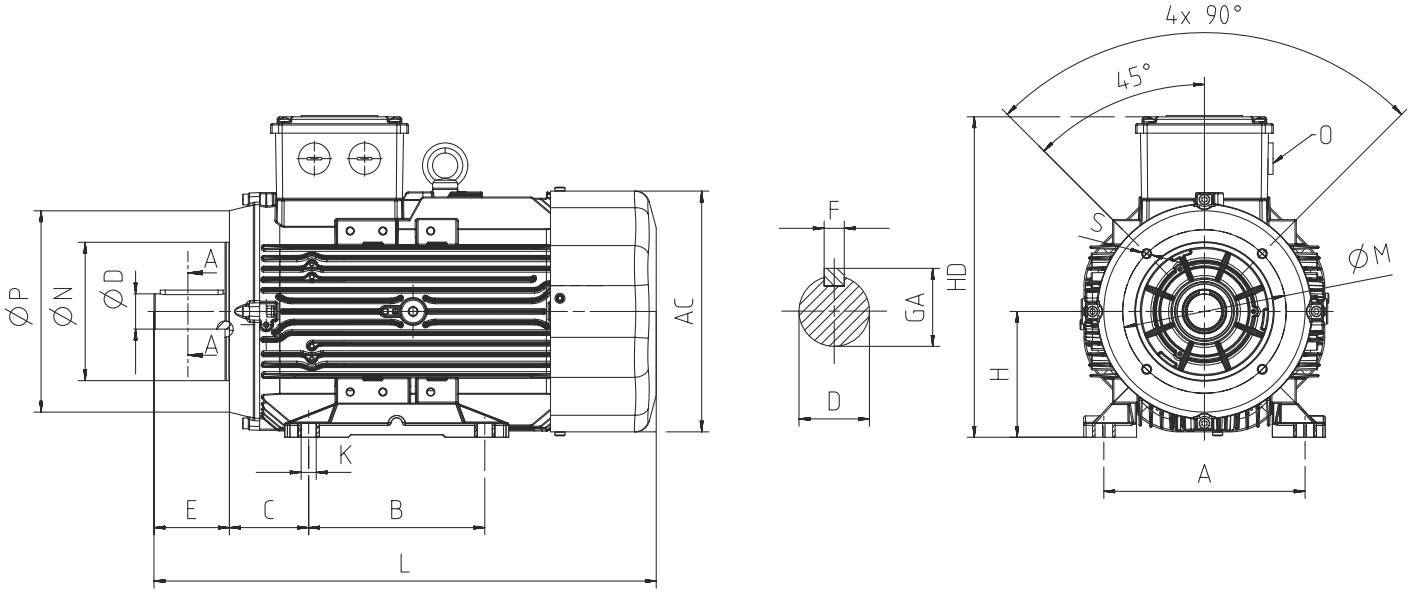
| Güç Power (kW) | Kutup sayısı Number of Poles | Motor Tipi Motor Type | Gövde Tipi Housing Type | Ana Boyutlar Main Dimensions |      |       | Ayaklı Motorlar Foot Mounted Motors |     |     |     |      | Mil Shaft        |     |      |                  | Rulman Bearing           |                                     | Keçe Seal                |                                     | Flanş (FA) (B5) Flange (FA) (B5) |                  |     |   |      |
|----------------|------------------------------|-----------------------|-------------------------|------------------------------|------|-------|-------------------------------------|-----|-----|-----|------|------------------|-----|------|------------------|--------------------------|-------------------------------------|--------------------------|-------------------------------------|----------------------------------|------------------|-----|---|------|
|                |                              |                       |                         | AC                           | L    | O     | B                                   | A   | H   | HD  | K    | D <sup>(1)</sup> | E   | GA   | F <sup>(2)</sup> | Kasnak Tarafı Drive Side | Kasnak Tarafı Aksisi Non drive Side | Kasnak Tarafı Drive Side | Kasnak Tarafı Aksisi Non drive Side | P                                | N <sup>(3)</sup> | M   | R | S    |
| 18,5           | 4                            | Q3H180M4B             | Aluminium               | 305                          | 596  | 1xM32 | 241-279                             | 279 | 180 | 398 | 14,5 | 48               | 110 | 51,5 | 14               | 6310-ZZ                  | 6209-ZZ                             | 50*80*10                 | 45*72*10                            | 350                              | 250              | 300 | - | 18,5 |
| 18,5           | 6                            | Q3H200L6C             | Aluminium               | 349                          | 750  | 1xM50 | 305                                 | 318 | 200 | 455 | 18,5 | 55               | 110 | 59,0 | 16               | 6312-ZZ                  | 6310-ZZ                             | 60*90*10                 | 60*90*10                            | 400                              | 300              | 350 | - | 18,5 |
| 22             | 2                            | Q3H180M2A             | Aluminium               | 305                          | 596  | 1xM32 | 241-279                             | 279 | 180 | 398 | 14,5 | 48               | 110 | 51,5 | 14               | 6310-ZZ                  | 6209-ZZ                             | 50*80*10                 | 45*72*10                            | 350                              | 250              | 300 | - | 18,5 |
| 22             | 4                            | Q3H180L4B             | Aluminium               | 349                          | 696  | 1xM40 | 241-279                             | 279 | 180 | 437 | 14,5 | 48               | 110 | 51,5 | 14               | 6310-ZZ                  | 6310-ZZ                             | 50*80*10                 | 50*80*10                            | 350                              | 250              | 300 | - | 18,5 |
| 22             | 6                            | Q3H200L6D             | Aluminium               | 349                          | 759  | 1xM50 | 305                                 | 318 | 200 | 455 | 18,5 | 55               | 110 | 59,0 | 16               | 6312-ZZ                  | 6310-ZZ                             | 60*90*10                 | 60*90*10                            | 400                              | 300              | 350 | - | 18,5 |
| 30             | 2                            | Q3H200L2C             | Aluminium               | 349                          | 706  | 1xM50 | 305                                 | 318 | 200 | 455 | 18,5 | 55               | 110 | 59,0 | 16               | 6312-ZZ                  | 6310-ZZ                             | 60*90*10                 | 60*90*10                            | 400                              | 300              | 350 | - | 18,5 |
| 30             | 4                            | Q3H200L4D             | Aluminium               | 349                          | 759  | 1xM50 | 305                                 | 318 | 200 | 455 | 18,5 | 55               | 110 | 59,0 | 16               | 6312-ZZ                  | 6310-ZZ                             | 60*90*10                 | 60*90*10                            | 400                              | 300              | 350 | - | 18,5 |
| 30             | 6                            | Q3E225M6C             | Aluminium               | 456                          | 765  | 1xM50 | 286-311                             | 356 | 225 | 485 | 18,5 | 60               | 140 | 64,0 | 18               | 6313-ZZ                  | 6313-ZZ                             | 65*100*13                | 65*100*13                           | 450                              | 350              | 400 | - | 18,5 |
| 37             | 2                            | Q3H200L2D             | Aluminium               | 349                          | 706  | 1xM50 | 305                                 | 318 | 200 | 455 | 18,5 | 55               | 110 | 59,0 | 16               | 6312-ZZ                  | 6310-ZZ                             | 60*90*10                 | 60*90*10                            | 400                              | 300              | 350 | - | 18,5 |
| 37             | 4                            | Q3E225M4B             | Aluminium               | 456                          | 765  | 1xM50 | 286-311                             | 356 | 225 | 485 | 18,5 | 60               | 140 | 64,0 | 18               | 6313-ZZ                  | 6313-ZZ                             | 65*100*13                | 65*100*13                           | 450                              | 350              | 400 | - | 18,5 |
| 45             | 2                            | Q3E225M2B             | Aluminium               | 456                          | 735  | 1xM50 | 286-311                             | 356 | 225 | 485 | 18,5 | 55               | 110 | 59,0 | 16               | 6313-ZZ                  | 6313-ZZ                             | 65*100*13                | 65*100*13                           | 450                              | 350              | 400 | - | 18,5 |
| 45             | 4                            | Q3E225M4C             | Aluminium               | 456                          | 765  | 1xM50 | 286-311                             | 356 | 225 | 485 | 18,5 | 60               | 140 | 64,0 | 18               | 6313-ZZ                  | 6313-ZZ                             | 65*100*13                | 65*100*13                           | 450                              | 350              | 400 | - | 18,5 |
| 55             | 2                            | Q3E250M2A             | Aluminium               | 527                          | 886  | 2*M50 | 349                                 | 406 | 250 | 615 | 24   | 60               | 140 | 64,0 | 18               | 6315-ZZ                  | 6313-ZZ                             | 75*112*12                | 65*100*13                           | 550                              | 450              | 500 | - | 18,5 |
| 55             | 2                            | Q3EP250M2C            | Cast Iron               | 489                          | 893  | 1xM50 | 349                                 | 406 | 250 | 616 | 24   | 60               | 140 | 69,0 | 18               | 6316                     | 6316                                | 80*100*10                | 80*100*10                           | 550                              | 450              | 500 | - | 18,5 |
| 55             | 4                            | Q3E250M4B             | Cast Iron               | 489                          | 893  | 1xM50 | 349                                 | 406 | 250 | 616 | 24   | 65               | 140 | 69,0 | 18               | 6316                     | 6316                                | 80*100*10                | 80*100*10                           | 550                              | 450              | 500 | - | 18,5 |
| 75             | 2                            | Q3EP280M2C            | Cast Iron               | 489                          | 1025 | 1xM50 | 368-419                             | 457 | 280 | 647 | 24   | 65               | 140 | 69,0 | 18               | 6316                     | 6316                                | 80*100*10                | 80*100*10                           | 550                              | 450              | 500 | - | 18,5 |
| 75             | 4                            | Q3EP280M4C            | Cast Iron               | 489                          | 1025 | 1xM50 | 368-419                             | 457 | 280 | 647 | 24   | 75               | 140 | 79,5 | 20               | 6316                     | 6316                                | 80*100*10                | 80*100*10                           | 550                              | 450              | 500 | - | 18,5 |
| 90             | 2                            | Q3EP280M2D            | Cast Iron               | 489                          | 1025 | 1xM50 | 368-419                             | 457 | 280 | 647 | 24   | 65               | 140 | 69,0 | 18               | 6316                     | 6316                                | 80*100*10                | 80*100*10                           | 550                              | 450              | 500 | - | 18,5 |
| 90             | 4                            | Q3EP280M4D            | Cast Iron               | 489                          | 1025 | 1xM50 | 368-419                             | 457 | 280 | 647 | 24   | 75               | 140 | 79,5 | 20               | 6316                     | 6316                                | 80*100*10                | 80*100*10                           | 550                              | 450              | 500 | - | 18,5 |
| 110            | 2                            | Q3EP315S2C            | Cast Iron               | 652                          | 1176 | 2*M63 | 406                                 | 508 | 315 | 833 | 28   | 65               | 140 | 69   | 18               | 6316                     | 6316                                | 80*100*5,5               | 80*100*5,5                          | 660                              | 550              | 600 | 0 | 24   |
| 110            | 4                            | Q3EP315S4C            | Cast Iron               | 652                          | 1206 | 2*M63 | 406                                 | 508 | 315 | 833 | 28   | 80               | 170 | 85   | 22               | 6319                     | 6319                                | 95*115*5,5               | 95*115*5,5                          | 660                              | 550              | 600 | 0 | 24   |
| 132            | 2                            | Q3EP315M2B            | Cast Iron               | 652                          | 1176 | 2*M63 | 457                                 | 508 | 315 | 833 | 28   | 65               | 140 | 69   | 18               | 6316                     | 6316                                | 80*100*5,5               | 80*100*5,5                          | 660                              | 550              | 600 | 0 | 24   |
| 132            | 4                            | Q3EP315M4B            | Cast Iron               | 652                          | 1206 | 2*M63 | 457                                 | 508 | 315 | 833 | 28   | 80               | 170 | 85   | 22               | 6319                     | 6319                                | 95*115*5,5               | 95*115*5,5                          | 660                              | 550              | 600 | 0 | 24   |
| 160            | 2                            | Q3EP315L2A            | Cast Iron               | 652                          | 1287 | 2*M63 | 508                                 | 508 | 315 | 833 | 28   | 65               | 140 | 69   | 18               | 6316                     | 6316                                | 80*100*5,5               | 80*100*5,5                          | 660                              | 550              | 600 | 0 | 24   |
| 160            | 4                            | Q3EP315L4A            | Cast Iron               | 652                          | 1317 | 2*M63 | 508                                 | 508 | 315 | 833 | 28   | 80               | 170 | 85   | 22               | 6319                     | 6319                                | 95*115*5,5               | 95*115*5,5                          | 660                              | 550              | 600 | 0 | 24   |
| 200            | 2                            | Q3EP315L2C            | Cast Iron               | 652                          | 1287 | 2*M63 | 508                                 | 508 | 315 | 833 | 28   | 65               | 140 | 69   | 18               | 6316                     | 6316                                | 80*100*5,5               | 80*100*5,5                          | 660                              | 550              | 600 | 0 | 24   |
| 200            | 4                            | Q3EP315L4C            | Cast Iron               | 652                          | 1317 | 2*M63 | 508                                 | 508 | 315 | 833 | 28   | 80               | 170 | 85   | 22               | 6319                     | 6319                                | 95*115*5,5               | 95*115*5,5                          | 660                              | 550              | 600 | 0 | 24   |
| 250            | 2                            | Q3EP355M2C            | Cast Iron               | 762                          | 1512 | 4*M63 | 560                                 | 610 | 355 | 997 | 28   | 75               | 140 | 80   | 20               | 6317                     | 6317                                | 85*105*5,5               | 85*105*5,5                          | 800                              | 680              | 740 | 0 | 24   |
| 250            | 4                            | Q3EP355M4C            | Cast Iron               | 762                          | 1542 | 4*M63 | 560                                 | 610 | 355 | 997 | 28   | 95               | 170 | 100  | 25               | 6322                     | 6322                                | 110*130*5,5              | 110*130*5,5                         | 800                              | 680              | 740 | 0 | 24   |
| 315            | 2                            | Q3EP355L2B            | Cast Iron               | 762                          | 1512 | 4*M63 | 630                                 | 610 | 355 | 997 | 28   | 75               | 140 | 80   | 20               | 6317                     | 6317                                | 85*105*5,5               | 85*105*5,5                          | 800                              | 680              | 740 | 0 | 24   |
| 315            | 4                            | Q3EP355L4B            | Cast Iron               | 762                          | 1542 | 4*M63 | 630                                 | 610 | 355 | 997 | 28   | 95               | 170 | 100  | 25               | 6322                     | 6322                                | 110*130*5,5              | 110*130*5,5                         | 800                              | 680              | 740 | 0 | 24   |
| 355            | 2                            | Q3EP355L2C            | Cast Iron               | 762                          | 1512 | 4*M63 | 630                                 | 610 | 355 | 997 | 28   | 75               | 140 | 80   | 20               | 6317                     | 6317                                | 85*105*5,5               | 85*105*5,5                          | 800                              | 680              | 740 | 0 | 24   |
| 355            | 4                            | Q3EP355L4C            | Cast Iron               | 762                          | 1542 | 4*M63 | 630                                 | 610 | 355 | 997 | 28   | 95               | 170 | 100  | 25               | 6322                     | 6322                                | 110*130*5,5              | 110*130*5,5                         | 800                              | 680              | 740 | 0 | 24   |

(1) Toleranslar 28 mm'ye kadar DIN EN 50347 "j6", 28 mm ve üzeri "k6" / Tolerance DIN EN 50347 "j6" up to 28mm, "k6" above 28mm

(2) DIN 6885'e göre / According to DIN 6885

(3) Tolerans DIN EN 50347 "j6" / Tolerance DIN EN 50347 "j6"

## BOYUTLAR - B14a, B34a / DIMENSION - B14a, B34a



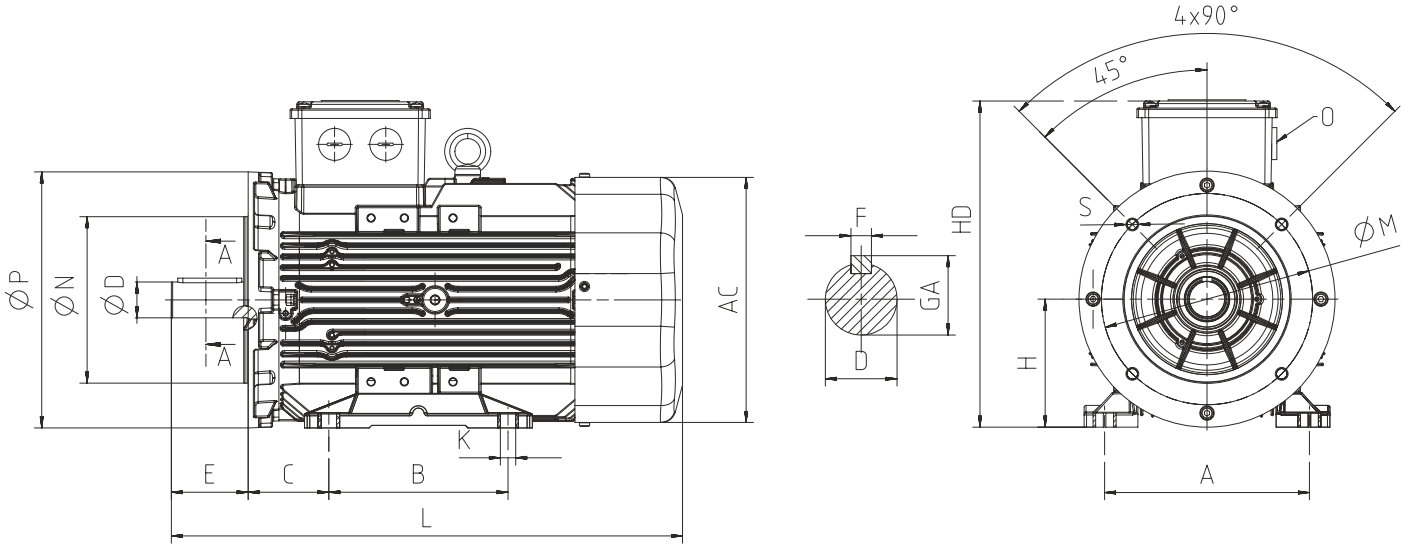
| Güç<br>Power<br>(kW) | Kutup<br>sayısı<br>Number<br>of Poles | Motor Tipi<br>Motor Type | Gövde<br>Tipi<br>Housing<br>Type | Ana Boyutlar<br>Main Dimensions |     |       | Ayaklı Motorlar<br>Foot Mounted Motors |     |     |     |    | Mil<br>Shaft     |    | Rulman<br>Bearing |                  | Keçe<br>Seal                    |                                             | Flanş (FC) (B14a)<br>Flange (FC) (B14a) |                                             |     |                  |     |   |     |
|----------------------|---------------------------------------|--------------------------|----------------------------------|---------------------------------|-----|-------|----------------------------------------|-----|-----|-----|----|------------------|----|-------------------|------------------|---------------------------------|---------------------------------------------|-----------------------------------------|---------------------------------------------|-----|------------------|-----|---|-----|
|                      |                                       |                          |                                  | AC                              | L   | O     | B                                      | A   | H   | HD  | K  | D <sup>(1)</sup> | E  | GA                | F <sup>(2)</sup> | Kasnak<br>Taraflı<br>Drive Side | Kasnak<br>Taraflı Aksı<br>Non drive<br>Side | Kasnak<br>Taraflı<br>Drive Side         | Kasnak<br>Taraflı Aksı<br>Non drive<br>Side | P   | N <sup>(3)</sup> | M   | R | S   |
| 0,75                 | 2                                     | Q3H80M2C                 | Aluminium                        | 158                             | 268 | 1xM20 | 100                                    | 125 | 80  | 216 | 10 | 19               | 40 | 21,5              | 6                | 6204-ZZ                         | 6204-ZZ                                     | 20*30*7                                 | 20*30*7                                     | 120 | 80               | 100 | - | M6  |
| 0,75                 | 4                                     | Q3H80M4D                 | Aluminium                        | 158                             | 268 | 1xM20 | 100                                    | 125 | 80  | 216 | 10 | 19               | 40 | 21,5              | 6                | 6204-ZZ                         | 6204-ZZ                                     | 20*30*7                                 | 20*30*7                                     | 120 | 80               | 100 | - | M6  |
| 0,75                 | 6                                     | Q3H90L6C                 | Aluminium                        | 172                             | 344 | 1xM25 | 100-125                                | 140 | 90  | 223 | 10 | 24               | 50 | 27,0              | 8                | 6305-ZZ                         | 6205-ZZ                                     | 25*40*7                                 | 25*40*7                                     | 140 | 95               | 115 | - | M8  |
| 1,1                  | 2                                     | Q3H80M2D                 | Aluminium                        | 158                             | 268 | 1xM20 | 100                                    | 125 | 80  | 216 | 10 | 19               | 40 | 21,5              | 6                | 6204-ZZ                         | 6204-ZZ                                     | 20*30*7                                 | 20*30*7                                     | 120 | 80               | 100 | - | M6  |
| 1,1                  | 4                                     | Q3H90L4C                 | Aluminium                        | 158                             | 303 | 1xM25 | 100-125                                | 140 | 90  | 213 | 10 | 24               | 50 | 27,0              | 8                | 6305-ZZ                         | 6204-ZZ                                     | 25*40*7                                 | 20*30*7                                     | 140 | 95               | 115 | - | M8  |
| 1,1                  | 6                                     | Q3H90L6D                 | Aluminium                        | 172                             | 344 | 1xM25 | 100-125                                | 140 | 90  | 223 | 10 | 24               | 50 | 27,0              | 8                | 6305-ZZ                         | 6205-ZZ                                     | 25*40*7                                 | 25*40*7                                     | 140 | 95               | 115 | - | M8  |
| 1,5                  | 2                                     | Q3H90L2C                 | Aluminium                        | 158                             | 303 | 1xM25 | 100-125                                | 140 | 90  | 213 | 10 | 24               | 50 | 27,0              | 8                | 6305-ZZ                         | 6204-ZZ                                     | 25*40*7                                 | 20*30*7                                     | 140 | 95               | 115 | - | M8  |
| 1,5                  | 4                                     | Q3H90L4D                 | Aluminium                        | 172                             | 344 | 1xM25 | 100-125                                | 140 | 90  | 223 | 10 | 24               | 50 | 27,0              | 8                | 6305-ZZ                         | 6205-ZZ                                     | 25*40*7                                 | 25*40*7                                     | 140 | 95               | 115 | - | M8  |
| 1,5                  | 6                                     | Q3H100L6D                | Aluminium                        | 191                             | 400 | 1xM25 | 140                                    | 160 | 100 | 243 | 12 | 28               | 60 | 31,0              | 8                | 6306-ZZ                         | 6205-ZZ                                     | 30*47*7                                 | 30*47*7                                     | 160 | 110              | 130 | - | M8  |
| 2,2                  | 2                                     | Q3H90L2D                 | Aluminium                        | 172                             | 344 | 1xM25 | 100-125                                | 140 | 90  | 223 | 10 | 24               | 50 | 27,0              | 8                | 6305-ZZ                         | 6205-ZZ                                     | 25*40*7                                 | 25*40*7                                     | 140 | 95               | 115 | - | M8  |
| 2,2                  | 4                                     | Q3H100L4C                | Aluminium                        | 172                             | 384 | 1xM25 | 140                                    | 160 | 100 | 233 | 12 | 28               | 60 | 31,0              | 8                | 6306-ZZ                         | 6205-ZZ                                     | 30*47*7                                 | 25*40*7                                     | 160 | 110              | 130 | - | M8  |
| 2,2                  | 6                                     | Q3H112M6D                | Aluminium                        | 210                             | 396 | 1xM25 | 140                                    | 190 | 112 | 265 | 12 | 28               | 60 | 31,0              | 8                | 6306-ZZ                         | 6206-ZZ                                     | 30*47*7                                 | 30*47*7                                     | 160 | 110              | 130 | - | M8  |
| 3                    | 2                                     | Q3H100L2D                | Aluminium                        | 172                             | 349 | 1xM25 | 140                                    | 160 | 100 | 233 | 12 | 28               | 60 | 31,0              | 8                | 6306-ZZ                         | 6205-ZZ                                     | 30*47*7                                 | 25*40*7                                     | 160 | 110              | 130 | - | M8  |
| 3                    | 4                                     | Q3H100L4D                | Aluminium                        | 191                             | 400 | 1xM25 | 140                                    | 160 | 100 | 243 | 12 | 28               | 60 | 31,0              | 8                | 6306-ZZ                         | 6205-ZZ                                     | 30*47*7                                 | 30*47*7                                     | 160 | 110              | 130 | - | M8  |
| 3                    | 6                                     | Q3H132S6A                | Aluminium                        | 260                             | 481 | 1xM32 | 140-178                                | 216 | 132 | 312 | 12 | 38               | 80 | 41,0              | 10               | 6208-ZZ                         | 6208-ZZ                                     | 40*62*10                                | 40*62*10                                    | 200 | 130              | 165 | - | M10 |
| 4                    | 2                                     | Q3H112M2C                | Aluminium                        | 191                             | 399 | 1xM25 | 140                                    | 190 | 112 | 254 | 12 | 28               | 60 | 31,0              | 8                | 6306-ZZ                         | 6205-ZZ                                     | 30*47*7                                 | 25*40*7                                     | 160 | 110              | 130 | - | M8  |
| 4                    | 4                                     | Q3H112M4D                | Aluminium                        | 210                             | 396 | 1xM25 | 140                                    | 190 | 112 | 265 | 12 | 28               | 60 | 31,0              | 8                | 6306-ZZ                         | 6206-ZZ                                     | 30*47*7                                 | 30*47*7                                     | 160 | 110              | 130 | - | M8  |
| 4                    | 6                                     | Q3H132M6A                | Aluminium                        | 260                             | 481 | 1xM32 | 140-178                                | 216 | 132 | 312 | 12 | 38               | 80 | 41,0              | 10               | 6208-ZZ                         | 6208-ZZ                                     | 40*62*10                                | 40*62*10                                    | 200 | 130              | 165 | - | M10 |
| 5,5                  | 2                                     | Q3H132S2C                | Aluminium                        | 210                             | 422 | 1xM25 | 140-178                                | 216 | 132 | 283 | 12 | 38               | 80 | 41,0              | 10               | 6208-ZZ                         | 6206-ZZ                                     | 40*62*10                                | 30*47*7                                     | 200 | 130              | 165 | - | M10 |
| 5,5                  | 4                                     | Q3H132S4B                | Aluminium                        | 260                             | 481 | 1xM32 | 140-178                                | 216 | 132 | 312 | 12 | 38               | 80 | 41,0              | 10               | 6208-ZZ                         | 6208-ZZ                                     | 40*62*10                                | 40*62*10                                    | 200 | 130              | 165 | - | M10 |
| 5,5                  | 6                                     | Q3H132M6B                | Aluminium                        | 260                             | 481 | 1xM32 | 140-178                                | 216 | 132 | 312 | 12 | 38               | 80 | 41,0              | 10               | 6208-ZZ                         | 6208-ZZ                                     | 40*62*10                                | 40*62*10                                    | 200 | 130              | 165 | - | M10 |
| 7,5                  | 2                                     | Q3H132S2D                | Aluminium                        | 210                             | 448 | 1xM25 | 140-178                                | 216 | 132 | 283 | 12 | 38               | 80 | 41,0              | 10               | 6208-ZZ                         | 6206-ZZ                                     | 40*62*10                                | 30*47*7                                     | 200 | 130              | 165 | - | M10 |
| 7,5                  | 4                                     | Q3H132M4D                | Aluminium                        | 260                             | 481 | 1xM32 | 140-178                                | 216 | 132 | 312 | 12 | 38               | 80 | 41,0              | 10               | 6208-ZZ                         | 6208-ZZ                                     | 40*62*10                                | 40*62*10                                    | 200 | 130              | 165 | - | M10 |

(1) Toleranslar 28 mm'ye kadar DIN EN 50347 "j6", 28 mm ve üzeri "k6" / Tolerance DIN EN 50347 "j6" up to 28mm, "k6" above 28mm

(2) DIN 6885'e göre / According to DIN 6885

(3) Tolerans DIN EN 50347 "j6" / Tolerance DIN EN 50347 "j6"

BOYUTLAR - B14b, B34b / DIMENSION - B14b, B34b



| Güç Power (kW) | Kutup sayısı Number of Poles | Motor Tipi Motor Type | Gövde Tipi Housing Type | Ana Boyutlar Main Dimensions |     |       | Ayaklı Motorlar Foot Mounted Motors |     |     |     |    | Mil Shaft        |    | Rulman Bearing |                  | Keçe Seal                |                                    | Flanş (FB) (B14b) Flange (FB) (B14b) |                                    |     |                  |     |   |     |
|----------------|------------------------------|-----------------------|-------------------------|------------------------------|-----|-------|-------------------------------------|-----|-----|-----|----|------------------|----|----------------|------------------|--------------------------|------------------------------------|--------------------------------------|------------------------------------|-----|------------------|-----|---|-----|
|                |                              |                       |                         | AC                           | L   | O     | B                                   | A   | H   | HD  | K  | D <sup>(1)</sup> | E  | GA             | F <sup>(2)</sup> | Kasnak Tarafı Drive Side | Kasnak Tarafı Aksli Non drive Side | Kasnak Tarafı Drive Side             | Kasnak Tarafı Aksli Non drive Side | P   | N <sup>(3)</sup> | M   | R | S   |
| 0,75           | 2                            | Q3H80M2C              | Aluminium               | 158                          | 268 | 1xM20 | 100                                 | 125 | 80  | 216 | 10 | 19               | 40 | 21,5           | 6                | 6204-ZZ                  | 6204-ZZ                            | 20*30*7                              | 20*30*7                            | 160 | 110              | 130 | - | M8  |
| 0,75           | 4                            | Q3H80M4D              | Aluminium               | 158                          | 268 | 1xM20 | 100                                 | 125 | 80  | 216 | 10 | 19               | 40 | 21,5           | 6                | 6204-ZZ                  | 6204-ZZ                            | 20*30*7                              | 20*30*7                            | 160 | 110              | 130 | - | M8  |
| 0,75           | 6                            | Q3H90L6C              | Aluminium               | 172                          | 344 | 1xM25 | 100-125                             | 140 | 90  | 223 | 10 | 24               | 50 | 27,0           | 8                | 6305-ZZ                  | 6205-ZZ                            | 25*40*7                              | 25*40*7                            | 160 | 110              | 130 | - | M8  |
| 1,1            | 2                            | Q3H80M2D              | Aluminium               | 158                          | 268 | 1xM20 | 100                                 | 125 | 80  | 216 | 10 | 19               | 40 | 21,5           | 6                | 6204-ZZ                  | 6204-ZZ                            | 20*30*7                              | 20*30*7                            | 160 | 110              | 130 | - | M8  |
| 1,1            | 4                            | Q3H90L4C              | Aluminium               | 158                          | 303 | 1xM25 | 100-125                             | 140 | 90  | 213 | 10 | 24               | 50 | 27,0           | 8                | 6305-ZZ                  | 6204-ZZ                            | 25*40*7                              | 20*30*7                            | 160 | 110              | 130 | - | M8  |
| 1,1            | 6                            | Q3H90L6D              | Aluminium               | 172                          | 344 | 1xM25 | 100-125                             | 140 | 90  | 223 | 10 | 24               | 50 | 27,0           | 8                | 6305-ZZ                  | 6205-ZZ                            | 25*40*7                              | 25*40*7                            | 160 | 110              | 130 | - | M8  |
| 1,5            | 2                            | Q3H90L2C              | Aluminium               | 158                          | 303 | 1xM25 | 100-125                             | 140 | 90  | 213 | 10 | 24               | 50 | 27,0           | 8                | 6305-ZZ                  | 6204-ZZ                            | 25*40*7                              | 20*30*7                            | 160 | 110              | 130 | - | M8  |
| 1,5            | 4                            | Q3H90L4D              | Aluminium               | 172                          | 344 | 1xM25 | 100-125                             | 140 | 90  | 223 | 10 | 24               | 50 | 27,0           | 8                | 6305-ZZ                  | 6205-ZZ                            | 25*40*7                              | 25*40*7                            | 160 | 110              | 130 | - | M8  |
| 1,5            | 6                            | Q3H100L6D             | Aluminium               | 191                          | 400 | 1xM25 | 140                                 | 160 | 100 | 243 | 12 | 28               | 60 | 31,0           | 8                | 6306-ZZ                  | 6205-ZZ                            | 30*47*7                              | 30*47*7                            | 200 | 130              | 130 | - | M10 |
| 2,2            | 2                            | Q3H90L2D              | Aluminium               | 172                          | 344 | 1xM25 | 100-125                             | 140 | 90  | 223 | 10 | 24               | 50 | 27,0           | 8                | 6305-ZZ                  | 6205-ZZ                            | 25*40*7                              | 25*40*7                            | 260 | 110              | 130 | - | M8  |
| 2,2            | 4                            | Q3H100L4C             | Aluminium               | 172                          | 384 | 1xM25 | 140                                 | 160 | 100 | 233 | 12 | 28               | 60 | 31,0           | 8                | 6306-ZZ                  | 6205-ZZ                            | 30*47*7                              | 25*40*7                            | 200 | 130              | 165 | - | M10 |
| 2,2            | 6                            | Q3H112M6D             | Aluminium               | 210                          | 396 | 1xM25 | 140                                 | 190 | 112 | 265 | 12 | 28               | 60 | 31,0           | 8                | 6306-ZZ                  | 6206-ZZ                            | 30*47*7                              | 30*47*7                            | 200 | 130              | 165 | - | M10 |
| 3              | 2                            | Q3H100L2D             | Aluminium               | 172                          | 349 | 1xM25 | 140                                 | 160 | 100 | 233 | 12 | 28               | 60 | 31,0           | 8                | 6306-ZZ                  | 6205-ZZ                            | 30*47*7                              | 25*40*7                            | 200 | 130              | 165 | - | M10 |
| 3              | 4                            | Q3H100L4D             | Aluminium               | 191                          | 400 | 1xM25 | 140                                 | 160 | 100 | 243 | 12 | 28               | 60 | 31,0           | 8                | 6306-ZZ                  | 6205-ZZ                            | 30*47*7                              | 30*47*7                            | 200 | 130              | 165 | - | M10 |
| 3              | 6                            | Q3H132S6A             | Aluminium               | 260                          | 481 | 1xM32 | 140-178                             | 216 | 132 | 312 | 12 | 38               | 80 | 41,0           | 10               | 6208-ZZ                  | 6208-ZZ                            | 40*62*10                             | 40*62*10                           | 250 | 180              | 215 | - | M12 |
| 4              | 2                            | Q3H112M2C             | Aluminium               | 191                          | 399 | 1xM25 | 140                                 | 190 | 112 | 254 | 12 | 28               | 60 | 31,0           | 8                | 6306-ZZ                  | 6205-ZZ                            | 30*47*7                              | 25*40*7                            | 200 | 130              | 165 | - | M10 |
| 4              | 4                            | Q3H112M4D             | Aluminium               | 210                          | 396 | 1xM25 | 140                                 | 190 | 112 | 265 | 12 | 28               | 60 | 31,0           | 8                | 6306-ZZ                  | 6206-ZZ                            | 30*47*7                              | 30*47*7                            | 200 | 130              | 165 | - | M10 |
| 4              | 6                            | Q3H132M6A             | Aluminium               | 260                          | 481 | 1xM32 | 140-178                             | 216 | 132 | 312 | 12 | 38               | 80 | 41,0           | 10               | 6208-ZZ                  | 6208-ZZ                            | 40*62*10                             | 40*62*10                           | 250 | 180              | 215 | - | M12 |
| 5,5            | 2                            | Q3H132S2C             | Aluminium               | 210                          | 422 | 1xM25 | 140-178                             | 216 | 132 | 283 | 12 | 38               | 80 | 41,0           | 10               | 6208-ZZ                  | 6206-ZZ                            | 40*62*10                             | 30*47*7                            | 250 | 180              | 215 | - | M12 |
| 5,5            | 4                            | Q3H132S4B             | Aluminium               | 260                          | 481 | 1xM32 | 140-178                             | 216 | 132 | 312 | 12 | 38               | 80 | 41,0           | 10               | 6208-ZZ                  | 6208-ZZ                            | 40*62*10                             | 40*62*10                           | 250 | 180              | 215 | - | M12 |
| 5,5            | 6                            | Q3H132M6B             | Aluminium               | 260                          | 481 | 1xM32 | 140-178                             | 216 | 132 | 312 | 12 | 38               | 80 | 41,0           | 10               | 6208-ZZ                  | 6208-ZZ                            | 40*62*10                             | 40*62*10                           | 250 | 180              | 215 | - | M12 |
| 7,5            | 2                            | Q3H132S2D             | Aluminium               | 210                          | 448 | 1xM25 | 140-178                             | 216 | 132 | 283 | 12 | 38               | 80 | 41,0           | 10               | 6208-ZZ                  | 6206-ZZ                            | 40*62*10                             | 30*47*7                            | 250 | 180              | 215 | - | M12 |
| 7,5            | 4                            | Q3H132M4D             | Aluminium               | 260                          | 481 | 1xM32 | 140-178                             | 216 | 132 | 312 | 12 | 38               | 80 | 41,0           | 10               | 6208-ZZ                  | 6208-ZZ                            | 40*62*10                             | 40*62*10                           | 250 | 180              | 215 | - | M12 |

(1) Toleranslar 28 mm'ye kadar DIN EN 50347 "j6", 28 mm ve üzeri "k6" / Tolerance DIN EN 50347 "j6" up to 28mm, "k6" above 28mm

(2) DIN 6885'e göre / According to DIN 6885

(3) Tolerans DIN EN 50347 "j6" / Tolerance DIN EN 50347 "j6"



## ELEKTRİKSEL ÖZELLİKLER - 50 Hz / ELECTRICAL CHARACTERISTICS AT 50 Hz

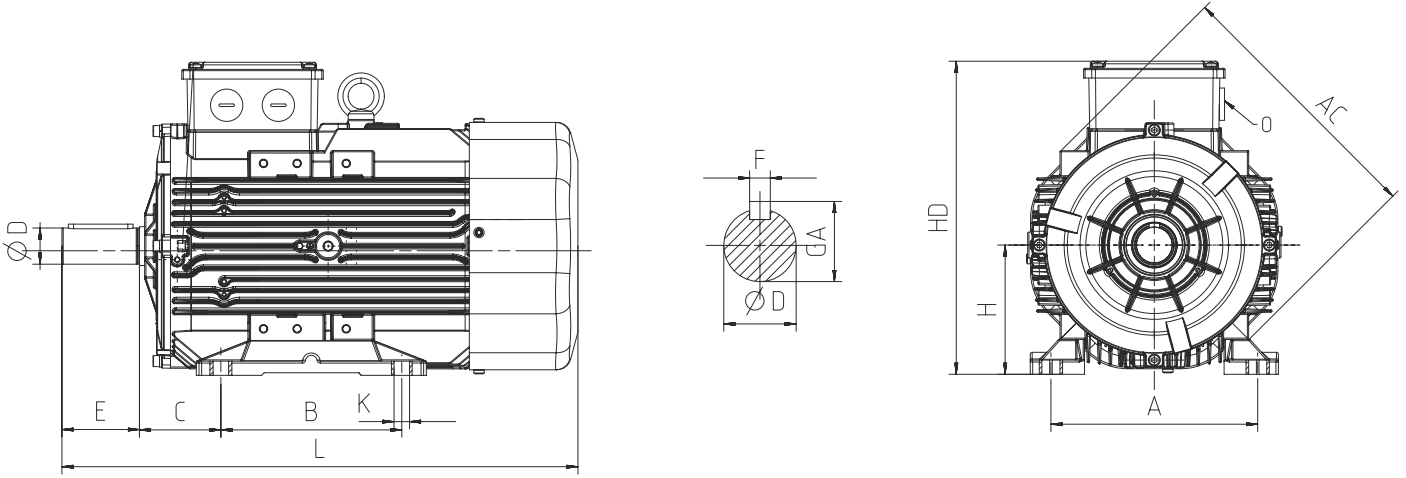
| MOTOR TİPİ<br>MOTOR TYPE             | GÖVDE<br>TİPİ<br>HOUSING<br>TYPE | NOMINAL<br>RATED VALUES |      |                |                 |                  | KALKIŞTAKİ DEĞERLER<br>STARTING VALUES |             |                  |             |     | Devrilme<br>Momenti<br>Oranı<br>Breakdown<br>Torque Ratio<br>Mk/ Mn | VERİM*<br>EFFICIENCY* |      |      | Cos φ   | J       | Ağırlık<br>Weight<br>(B3) | Ses Basınç<br>Seviyesi<br>Sound<br>Pressure<br>Level<br>dB** |
|--------------------------------------|----------------------------------|-------------------------|------|----------------|-----------------|------------------|----------------------------------------|-------------|------------------|-------------|-----|---------------------------------------------------------------------|-----------------------|------|------|---------|---------|---------------------------|--------------------------------------------------------------|
|                                      |                                  | GÜÇ<br>POWER            |      | DEVİR<br>SPEED | AKIM<br>CURRENT | MOMENT<br>TORQUE | AKIM<br>CURRENT                        |             | MOMENT<br>TORQUE |             | η%  |                                                                     |                       |      |      |         |         |                           |                                                              |
|                                      |                                  | kW                      | HP   |                |                 |                  | $I_A / I_N$                            | $I_Δ / I_N$ | $M_A / M_N$      | $M_Δ / M_N$ | 4/4 |                                                                     | 3/4                   | 2/4  |      |         |         |                           |                                                              |
| 2 kutup 3000 d/dak / 2 pole 3000 rpm |                                  |                         |      |                |                 |                  |                                        |             |                  |             |     |                                                                     |                       |      |      |         |         |                           |                                                              |
| 230/400V                             | Q3H80M2DE                        | Aluminium               | 1,5  | 2,0            | 2905            | 3,2              | 4,9                                    | 10,9        | -                | 5           | -   | 5,4                                                                 | 84,2                  | 83,3 | 80,5 | 0,80    | 0,00224 | 15                        | 59                                                           |
|                                      | Q3H90L2E                         | Aluminium               | 3,0  | 4,0            | 2890            | 5,8              | 9,9                                    | 8,1         | -                | 3           | -   | 3,5                                                                 | 87,1                  | 88,1 | 87,7 | 0,86    | 0,00318 | 19                        | 63                                                           |
| 400/690V                             | Q3H100L2DE                       | Aluminium               | 4,0  | 5,5            | 2936            | 8,0              | 13,0                                   | 3,6         | 10,9             | 1,6         | 4,8 | 5,7                                                                 | 88,1                  | 88,1 | 85,8 | 0,82    | 0,00611 | 29                        | 66                                                           |
|                                      | Q3H112M2D                        | Aluminium               | 5,5  | 7,5            | 2920            | 10,5             | 18,1                                   | 3,5         | 10,5             | 1,2         | 3,7 | 5,1                                                                 | 89,2                  | 89,0 | 87,2 | 0,86    | 0,00741 | 32                        | 68                                                           |
|                                      | Q3H112M2DE                       | Aluminium               | 7,5  | 10,0           | 2918            | 13,6             | 24,5                                   | 3,6         | 10,7             | 1,4         | 4,3 | 5,4                                                                 | 90,1                  | 90,3 | 89,1 | 0,88    | 0,00921 | 42                        | 69                                                           |
|                                      | Q3H132M2A                        | Aluminium               | 11,0 | 15,0           | 2925            | 20,7             | 36,0                                   | 3,5         | 10,5             | 1,3         | 3,9 | 5,2                                                                 | 91,2                  | 91,4 | 90,6 | 0,85    | 0,03489 | 61                        | 69                                                           |
|                                      | Q3H132M2B                        | Aluminium               | 15,0 | 20,0           | 2935            | 27,6             | 48,8                                   | 3,5         | 10,4             | 1,2         | 3,7 | 5,2                                                                 | 91,9                  | 91,3 | 89,8 | 0,86    | 0,00402 | 77                        | 71                                                           |
|                                      | Q3H160L2D                        | Aluminium               | 22,0 | 30,0           | 2961            | 39,1             | 71,0                                   | 3,5         | 10,6             | 1,2         | 3,6 | 5,1                                                                 | 92,7                  | 92,4 | 91,3 | 0,87    | 0,05539 | 114                       | 70                                                           |
|                                      | Q3H180M2B                        | Aluminium               | 30,0 | 40,0           | 2957            | 50,1             | 96,9                                   | 3,2         | 9,6              | 1,0         | 2,9 | 3,9                                                                 | 93,3                  | 93,2 | 92,6 | 0,93    | 0,10277 | 148                       | 77                                                           |
| Q3H200L2DE                           | Aluminium                        | 45,0                    | 60,0 | 2964           | 75,2            | 145,0            | 3,6                                    | 10,7        | 1,0              | 3,0         | 2,7 | 94,0                                                                | 93,3                  | 92,8 | 0,92 | 0,14769 | 199     | 78                        |                                                              |
| 4 kutup 1500 d/dak / 4 pole 1500 rpm |                                  |                         |      |                |                 |                  |                                        |             |                  |             |     |                                                                     |                       |      |      |         |         |                           |                                                              |
| 230/400V                             | Q3H80M4DE                        | Aluminium               | 1,1  | 1,5            | 1448            | 2,6              | 7,3                                    | 7,2         | -                | 3,1         | -   | 3,7                                                                 | 82,7                  | 82,4 | 89,5 | 0,75    | 0,00306 | 14                        | 48                                                           |
|                                      | Q3H90L4DE                        | Aluminium               | 2,2  | 3,0            | 1453            | 5,4              | 14,4                                   | 9,5         | -                | 5,0         | -   | 5,5                                                                 | 86,7                  | 84,3 | 80,6 | 0,68    | 0,00690 | 25                        | 54                                                           |
| 400/690V                             | Q3H100L4E                        | Aluminium               | 4,0  | 5,5            | 1445            | 8,8              | 26,4                                   | 8,6         | -                | 3,5         | -   | 4,2                                                                 | 88,6                  | 87,1 | 85,6 | 0,75    | 0,01124 | 35                        | 56                                                           |
|                                      | Q3H112M4E                        | Aluminium               | 5,5  | 7,5            | 1443            | 11,25            | 36,4                                   | 2,8         | 8,3              | 1,0         | 3,1 | 3,8                                                                 | 89,6                  | 89,2 | 88,3 | 0,80    | 0,01526 | 40                        | 57                                                           |
|                                      | Q3H132M4E                        | Aluminium               | 11,0 | 15,0           | 1470            | 19,2             | 71,3                                   | 2,7         | 8,0              | 0,7         | 2,1 | 3,8                                                                 | 91,4                  | 91,5 | 90,4 | 0,90    | 0,05940 | 82                        | 63                                                           |
|                                      | Q3H160L4C                        | Aluminium               | 18,5 | 25,0           | 1474            | 39,5             | 119,9                                  | 2,5         | 7,4              | 0,8         | 2,3 | 3,5                                                                 | 92,6                  | 91,9 | 91,2 | 0,74    | 0,10511 | 114                       | 58                                                           |
|                                      | Q3H180L4C                        | Aluminium               | 30,0 | 40,0           | 1475            | 54,8             | 194,2                                  | 2,5         | 7,6              | 0,8         | 2,3 | 2,8                                                                 | 93,6                  | 93,2 | 92,3 | 0,85    | 0,22165 | 187                       | 69                                                           |

\* IEC 60034-2-1'e göre / According to IEC 60034-2-1

\*\* Ses Basınç Seviyeleri motordan 1m uzaklıktan ölçülmüştür. / The sound pressure measurements are taken 1m away from the motor

\*\*\* Tolerans +3 dBA / Tolerance +3 dBA

## BOYUTLAR - B3 / DIMENSION - B3

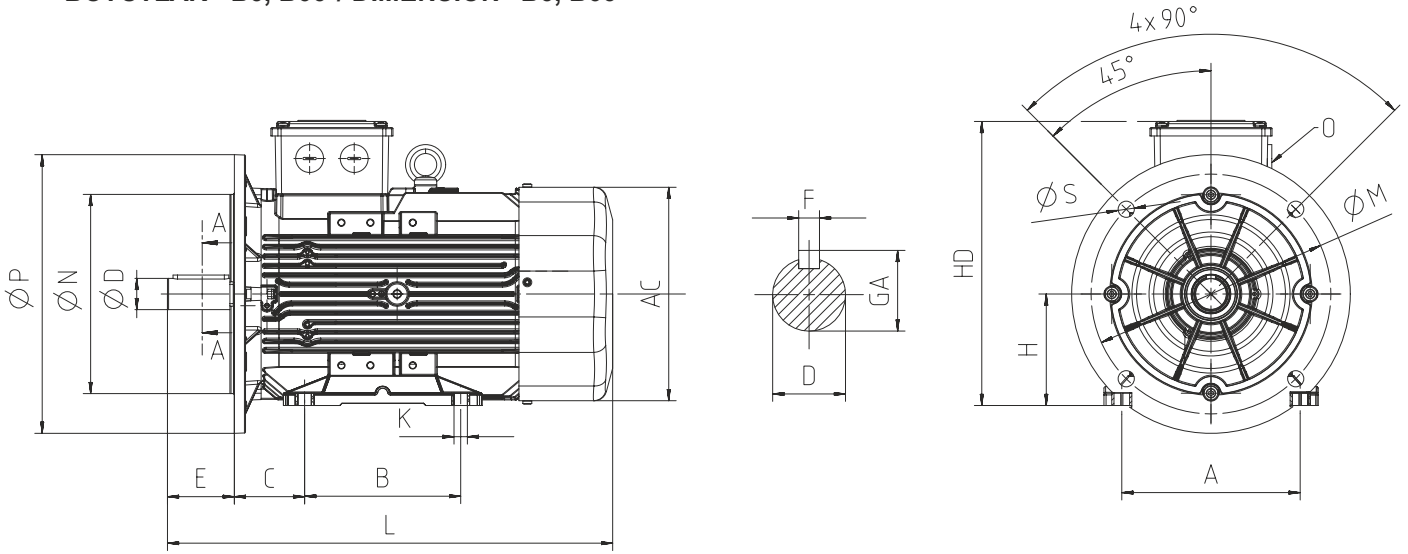


| Güç<br>Power<br>(kW) | Kutup<br>sayısı<br>Number<br>of Poles | Motor Tipi<br>Motor Type | Gövde<br>Tipi<br>Housing<br>Type | Ana Boyutlar<br>Main Dimensions |     |       | Ayaklı Motorlar<br>Foot Mounted Motors |     |     |     |      | Mil<br>Shaft |                  |     |      | Rulman<br>Bearing |                                 | Keçe<br>Seal                                |                                 |                                             |
|----------------------|---------------------------------------|--------------------------|----------------------------------|---------------------------------|-----|-------|----------------------------------------|-----|-----|-----|------|--------------|------------------|-----|------|-------------------|---------------------------------|---------------------------------------------|---------------------------------|---------------------------------------------|
|                      |                                       |                          |                                  | AC                              | L   | O     | B                                      | A   | H   | HD  | K    | C            | D <sup>(1)</sup> | E   | GA   | F <sup>(2)</sup>  | Kasnak<br>Taraflı<br>Drive Side | Kasnak<br>Taraflı Aksı<br>Non drive<br>Side | Kasnak<br>Taraflı<br>Drive Side | Kasnak<br>Taraflı Aksı<br>Non drive<br>Side |
| 1,1                  | 4                                     | Q3H80M4DE                | Aluminium                        | 158                             | 268 | 1xM20 | 100                                    | 125 | 80  | 216 | 10   | 50           | 19               | 40  | 21,5 | 6                 | 6204-ZZ                         | 6204-ZZ                                     | 20*30*7                         | 20*30*7                                     |
| 1,5                  | 2                                     | Q3H80M2DE                | Aluminium                        | 158                             | 268 | 1xM20 | 100                                    | 125 | 80  | 216 | 10   | 50           | 19               | 40  | 21,5 | 6                 | 6204-ZZ                         | 6204-ZZ                                     | 20*30*7                         | 20*30*7                                     |
| 2,2                  | 4                                     | Q3H90L4DE                | Aluminium                        | 172                             | 344 | 1xM25 | 100-125                                | 140 | 90  | 223 | 10   | 56           | 24               | 50  | 27,0 | 8                 | 6305-ZZ                         | 6205-ZZ                                     | 25*40*7                         | 25*40*7                                     |
| 3,0                  | 2                                     | Q3H90L2E                 | Aluminium                        | 172                             | 344 | 1xM25 | 100-125                                | 140 | 90  | 223 | 10   | 56           | 24               | 50  | 27,0 | 8                 | 6305-ZZ                         | 6205-ZZ                                     | 25*40*7                         | 25*40*7                                     |
| 4,0                  | 2                                     | Q3H100L2DE               | Aluminium                        | 191                             | 400 | 1xM25 | 140                                    | 160 | 100 | 243 | 12   | 63           | 28               | 60  | 31,0 | 8                 | 6306-ZZ                         | 6205-ZZ                                     | 30*47*7                         | 30*47*7                                     |
| 4,0                  | 4                                     | Q3H100L4E                | Aluminium                        | 191                             | 422 | 1xM25 | 140                                    | 160 | 100 | 243 | 12   | 63           | 28               | 60  | 31,0 | 8                 | 6306-ZZ                         | 6205-ZZ                                     | 30*47*7                         | 30*47*7                                     |
| 5,5                  | 2                                     | Q3H112M2D                | Aluminium                        | 210                             | 396 | 1xM25 | 140                                    | 190 | 112 | 265 | 12   | 70           | 28               | 60  | 31,0 | 8                 | 6306-ZZ                         | 6206-ZZ                                     | 30*47*7                         | 30*47*7                                     |
| 5,5                  | 4                                     | Q3H112M4E                | Aluminium                        | 210                             | 421 | 1xM25 | 140                                    | 190 | 112 | 265 | 12   | 70           | 28               | 60  | 31,0 | 8                 | 6306-ZZ                         | 6206-ZZ                                     | 30*47*7                         | 30*47*7                                     |
| 7,5                  | 2                                     | Q3H112M2DE               | Aluminium                        | 210                             | 421 | 1xM25 | 140                                    | 190 | 112 | 265 | 12   | 70           | 28               | 60  | 31,0 | 8                 | 6306-ZZ                         | 6206-ZZ                                     | 30*47*7                         | 30*47*7                                     |
| 11,0                 | 2                                     | Q3H132M2A                | Aluminium                        | 260                             | 481 | 1xM32 | 140-178                                | 216 | 132 | 312 | 12   | 89           | 38               | 80  | 41,0 | 10                | 6208-ZZ                         | 6208-ZZ                                     | 40*62*10                        | 40*62*10                                    |
| 11,0                 | 4                                     | Q3H132M4E                | Aluminium                        | 260                             | 520 | 1xM32 | 140-178                                | 216 | 132 | 312 | 12   | 89           | 38               | 80  | 41,0 | 10                | 6309-ZZ                         | 6209-ZZ                                     | 40*62*10                        | 40*62*10                                    |
| 15,0                 | 2                                     | Q3H132M2B                | Aluminium                        | 260                             | 520 | 1xM32 | 140-178                                | 216 | 132 | 312 | 12   | 89           | 38               | 80  | 41,0 | 10                | 6208-ZZ                         | 6208-ZZ                                     | 40*62*10                        | 40*62*10                                    |
| 18,5                 | 4                                     | Q3H160L4C                | Aluminium                        | 305                             | 591 | 1xM32 | 210-254                                | 254 | 160 | 368 | 14,5 | 108          | 42               | 110 | 45,0 | 12                | 6309-ZZ                         | 6209-ZZ                                     | 45*72*10                        | 45*72*10                                    |
| 30,0                 | 4                                     | Q3H180L4C                | Aluminium                        | 349                             | 696 | 1xM40 | 241-279                                | 279 | 180 | 437 | 14,5 | 121          | 48               | 110 | 51,5 | 14                | 6310-ZZ                         | 6310-ZZ                                     | 50*80*10                        | 50*80*10                                    |
| 22,0                 | 2                                     | Q3H160L2D                | Aluminium                        | 305                             | 591 | 1xM32 | 210-254                                | 254 | 160 | 368 | 14,5 | 108          | 42               | 110 | 45,0 | 12                | 6309-ZZ                         | 6209-ZZ                                     | 45*72*10                        | 45*72*10                                    |
| 30,0                 | 2                                     | Q3H180M2B                | Aluminium                        | 349                             | 696 | 1xM40 | 241-279                                | 279 | 180 | 437 | 14,5 | 121          | 48               | 110 | 51,5 | 14                | 6310-ZZ                         | 6310-ZZ                                     | 50*80*10                        | 50*80*10                                    |
| 45,0                 | 2                                     | Q3H200L2DE               | Aluminium                        | 349                             | 759 | 1xM50 | 267-305                                | 318 | 200 | 455 | 18,5 | 133          | 55               | 110 | 59,0 | 16                | 6312-ZZ                         | 6310-ZZ                                     | 60*90*10                        | 60*90*10                                    |

(1) Toleranslar 28 mm'ye kadar DIN EN 50347 "j6", 28 mm ve üzeri "k6" / Tolerance DIN EN 50347 "j6" up to 28mm, "k6" above 28mm  
(2) DIN 6885'e göre / According to DIN 6885



## BOYUTLAR - B5, B35 / DIMENSION - B5, B35



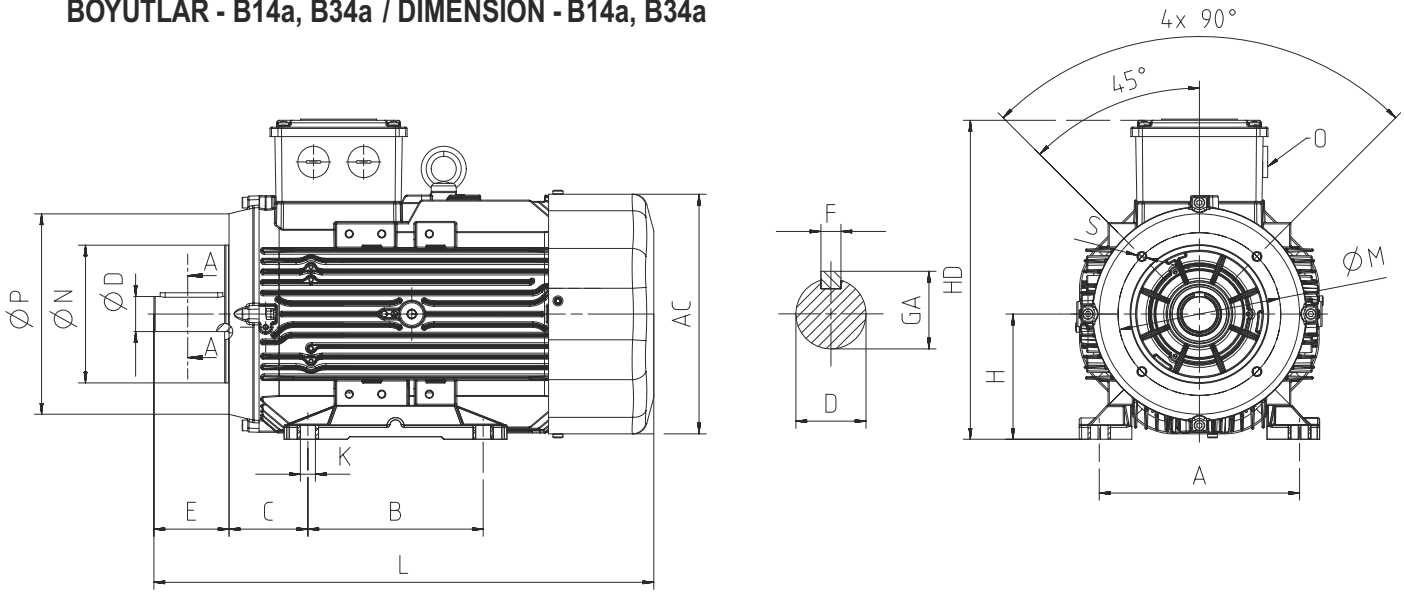
| Güç Power (kW) | Kutup sayısı Number of Poles | Motor Tipi Motor Type | Gövde Tipi Housing Type | Ana Boyutlar Main Dimensions |     |       | Ayaklı Motorlar Foot Mounted Motors |     |     |     |      | Mil Shaft        |     |      |                  | Rulman Bearing           |                                   | Keçe Seal                |                                   | Flanş (FA) (B5) Flange (FA) (B5) |                  |     |   |      |
|----------------|------------------------------|-----------------------|-------------------------|------------------------------|-----|-------|-------------------------------------|-----|-----|-----|------|------------------|-----|------|------------------|--------------------------|-----------------------------------|--------------------------|-----------------------------------|----------------------------------|------------------|-----|---|------|
|                |                              |                       |                         | AC                           | L   | O     | B                                   | A   | H   | HD  | K    | D <sup>(1)</sup> | E   | GA   | F <sup>(2)</sup> | Kasnak Tarafı Drive Side | Kasnak Tarafı Aksı Non drive Side | Kasnak Tarafı Drive Side | Kasnak Tarafı Aksı Non drive Side | P                                | N <sup>(3)</sup> | M   | R | S    |
| 1,1            | 4                            | Q3H80M4DE             | Aluminium               | 158                          | 268 | 1xM20 | 100                                 | 125 | 80  | 216 | 10   | 19               | 40  | 21,5 | 6                | 6204-ZZ                  | 6204-ZZ                           | 20*30*7                  | 20*30*7                           | 200                              | 130              | 165 | - | 12   |
| 1,5            | 2                            | Q3H80M2DE             | Aluminium               | 158                          | 268 | 1xM20 | 100                                 | 125 | 80  | 216 | 10   | 19               | 40  | 21,5 | 6                | 6204-ZZ                  | 6204-ZZ                           | 20*30*7                  | 20*30*7                           | 200                              | 130              | 165 | - | 12   |
| 2,2            | 4                            | Q3H90L4DE             | Aluminium               | 172                          | 344 | 1xM25 | 100-125                             | 140 | 90  | 223 | 10   | 24               | 50  | 27,0 | 8                | 6305-ZZ                  | 6205-ZZ                           | 25*40*7                  | 25*40*7                           | 200                              | 130              | 165 | - | 12   |
| 3              | 2                            | Q3H90L2E              | Aluminium               | 172                          | 344 | 1xM25 | 100-125                             | 140 | 90  | 223 | 10   | 24               | 50  | 27,0 | 8                | 6305-ZZ                  | 6205-ZZ                           | 25*40*7                  | 25*40*7                           | 200                              | 130              | 165 | - | 12   |
| 4              | 2                            | Q3H100L2DE            | Aluminium               | 191                          | 400 | 1xM25 | 140                                 | 160 | 100 | 243 | 12   | 28               | 60  | 31,0 | 8                | 6306-ZZ                  | 6205-ZZ                           | 30*47*7                  | 30*47*7                           | 250                              | 180              | 215 | - | 14,5 |
| 4              | 4                            | Q3H100L4E             | Aluminium               | 191                          | 422 | 1xM25 | 140                                 | 160 | 100 | 243 | 12   | 28               | 60  | 31,0 | 8                | 6306-ZZ                  | 6205-ZZ                           | 30*47*7                  | 30*47*7                           | 250                              | 180              | 215 | - | 14,5 |
| 5,5            | 2                            | Q3H112M2D             | Aluminium               | 210                          | 396 | 1xM25 | 140                                 | 190 | 112 | 265 | 12   | 28               | 60  | 31,0 | 8                | 6306-ZZ                  | 6206-ZZ                           | 30*47*7                  | 30*47*7                           | 250                              | 180              | 215 | - | 14,5 |
| 5,5            | 4                            | Q3H112M4E             | Aluminium               | 210                          | 421 | 1xM25 | 140                                 | 190 | 112 | 265 | 12   | 28               | 60  | 31,0 | 8                | 6306-ZZ                  | 6206-ZZ                           | 30*47*7                  | 30*47*7                           | 250                              | 180              | 215 | - | 14,5 |
| 7,5            | 2                            | Q3H112M2DE            | Aluminium               | 210                          | 421 | 1xM25 | 140                                 | 190 | 112 | 265 | 12   | 28               | 60  | 31,0 | 8                | 6306-ZZ                  | 6206-ZZ                           | 30*47*7                  | 30*47*7                           | 250                              | 180              | 215 | - | 14,5 |
| 11             | 2                            | Q3H132M2A             | Aluminium               | 260                          | 481 | 1xM32 | 140-178                             | 216 | 132 | 312 | 12   | 38               | 80  | 41,0 | 10               | 6208-ZZ                  | 6208-ZZ                           | 40*62*10                 | 40*62*10                          | 300                              | 230              | 265 | - | 14,5 |
| 11             | 4                            | Q3H132M4E             | Aluminium               | 260                          | 520 | 1xM32 | 140-178                             | 216 | 132 | 312 | 12   | 38               | 80  | 41,0 | 10               | 6309-ZZ                  | 6209-ZZ                           | 40*62*10                 | 40*62*10                          | 300                              | 230              | 265 | - | 14,5 |
| 15             | 2                            | Q3H132M2B             | Aluminium               | 260                          | 520 | 1xM32 | 140-178                             | 216 | 132 | 312 | 12   | 38               | 80  | 41,0 | 10               | 6208-ZZ                  | 6208-ZZ                           | 40*62*10                 | 40*62*10                          | 300                              | 230              | 265 | - | 14,5 |
| 18,5           | 4                            | Q3H160L4C             | Aluminium               | 305                          | 591 | 1xM32 | 210-254                             | 254 | 160 | 368 | 14,5 | 42               | 110 | 45,0 | 12               | 6309-ZZ                  | 6209-ZZ                           | 45*72*10                 | 45*72*10                          | 350                              | 250              | 300 | - | 18,5 |
| 30             | 4                            | Q3H180L4C             | Aluminium               | 349                          | 696 | 1xM40 | 241-279                             | 279 | 180 | 437 | 14,5 | 48               | 110 | 51,5 | 14               | 6310-ZZ                  | 6310-ZZ                           | 50*80*10                 | 50*80*10                          | 350                              | 250              | 300 | - | 18,5 |
| 22             | 2                            | Q3H160L2D             | Aluminium               | 305                          | 591 | 1xM32 | 210-254                             | 254 | 160 | 368 | 14,5 | 42               | 110 | 45,0 | 12               | 6309-ZZ                  | 6209-ZZ                           | 45*72*10                 | 45*72*10                          | 350                              | 250              | 300 | - | 18,5 |
| 30             | 2                            | Q3H180M2B             | Aluminium               | 349                          | 696 | 1xM40 | 241-279                             | 279 | 180 | 437 | 14,5 | 48               | 110 | 51,5 | 14               | 6310-ZZ                  | 6310-ZZ                           | 50*80*10                 | 50*80*10                          | 350                              | 250              | 300 | - | 18,5 |
| 45             | 2                            | Q3H200L2DE            | Aluminium               | 349                          | 759 | 1xM50 | 267-305                             | 318 | 200 | 455 | 18,5 | 55               | 110 | 59,0 | 16               | 6312-ZZ                  | 6310-ZZ                           | 60*90*10                 | 60*90*10                          | 400                              | 300              | 350 | - | 18,5 |

(1) Toleranslar 28 mm'ye kadar DIN EN 50347 "j6", 28 mm ve üzeri "k6" / Tolerance DIN EN 50347 "j6" up to 28mm, "k6" above 28mm

(2) DIN 6885'e göre / According to DIN 6885

(3) Tolerans DIN EN 50347 "j6" / Tolerance DIN EN 50347 "j6"

## BOYUTLAR - B14a, B34a / DIMENSION - B14a, B34a



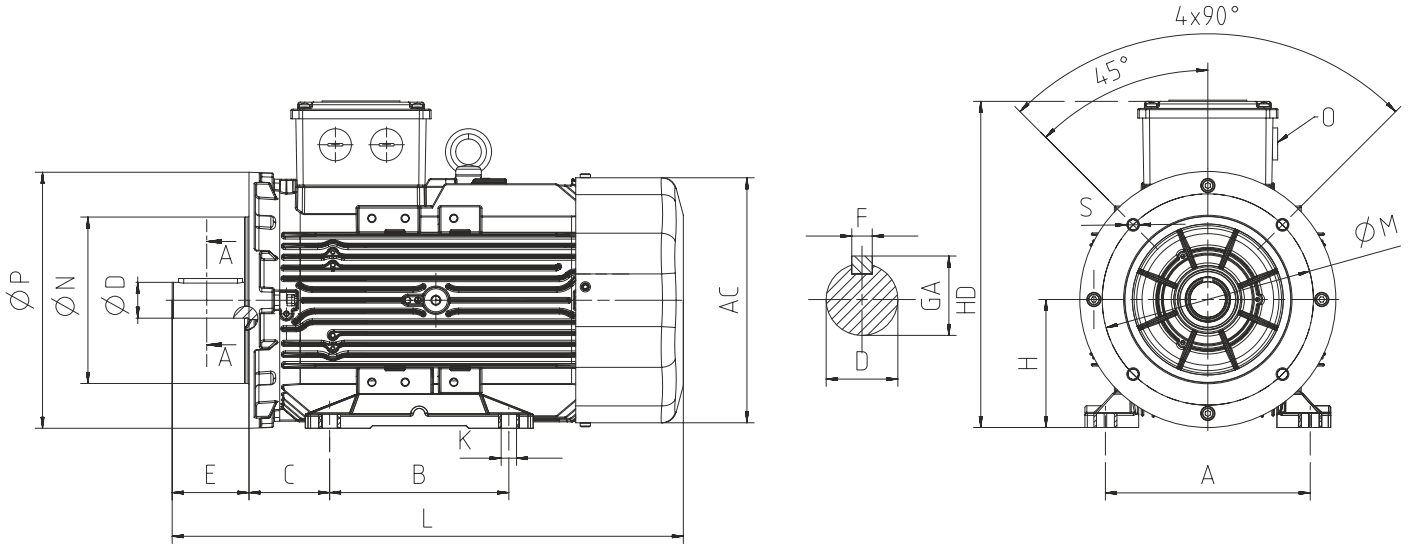
| Güç Power (kW) | Kutup sayısı Number of Poles | Motor Tipi Motor Type | Gövde Tipi Housing Type | Ana Boyutlar Main Dimensions |     |       | Ayaklı Motorlar Foot Mounted Motors |     |     |     |    | Mil Shaft        |    |      | Rulman Bearing   |                          | Keçe Seal                         |                          | Flanş (FC) (B14a) Flange (FC) (B14a) |     |                  |     |   |     |
|----------------|------------------------------|-----------------------|-------------------------|------------------------------|-----|-------|-------------------------------------|-----|-----|-----|----|------------------|----|------|------------------|--------------------------|-----------------------------------|--------------------------|--------------------------------------|-----|------------------|-----|---|-----|
|                |                              |                       |                         | AC                           | L   | O     | B                                   | A   | H   | HD  | K  | D <sup>(1)</sup> | E  | GA   | F <sup>(2)</sup> | Kasnak Tarafı Drive Side | Kasnak Tarafı Aksı Non drive Side | Kasnak Tarafı Drive Side | Kasnak Tarafı Aksı Non drive Side    | P   | N <sup>(3)</sup> | M   | R | S   |
| 1,1            | 4                            | Q3H80M4DE             | Aluminium               | 158                          | 268 | 1xM20 | 100                                 | 125 | 80  | 216 | 10 | 19               | 40 | 21,5 | 6                | 6204-ZZ                  | 6204-ZZ                           | 20*30*7                  | 20*30*7                              | 120 | 80               | 100 | - | M6  |
| 1,5            | 2                            | Q3H80M2DE             | Aluminium               | 158                          | 268 | 1xM20 | 100                                 | 125 | 80  | 216 | 10 | 19               | 40 | 21,5 | 6                | 6204-ZZ                  | 6204-ZZ                           | 20*30*7                  | 20*30*7                              | 120 | 80               | 100 | - | M6  |
| 2,2            | 4                            | Q3H90L4DE             | Aluminium               | 172                          | 344 | 1xM25 | 100-125                             | 140 | 90  | 223 | 10 | 24               | 50 | 27,0 | 8                | 6305-ZZ                  | 6205-ZZ                           | 25*40*7                  | 25*40*7                              | 140 | 95               | 115 | - | M8  |
| 3              | 2                            | Q3H90L2E              | Aluminium               | 172                          | 344 | 1xM25 | 100-125                             | 140 | 90  | 223 | 10 | 24               | 50 | 27,0 | 8                | 6305-ZZ                  | 6205-ZZ                           | 25*40*7                  | 25*40*7                              | 140 | 95               | 115 | - | M8  |
| 4              | 2                            | Q3H100L2DE            | Aluminium               | 191                          | 400 | 1xM25 | 140                                 | 160 | 100 | 243 | 12 | 28               | 60 | 31,0 | 8                | 6306-ZZ                  | 6205-ZZ                           | 30*47*7                  | 30*47*7                              | 160 | 110              | 130 | - | M8  |
| 4              | 4                            | Q3H100L4E             | Aluminium               | 191                          | 422 | 1xM25 | 140                                 | 160 | 100 | 243 | 12 | 28               | 60 | 31,0 | 8                | 6306-ZZ                  | 6205-ZZ                           | 30*47*7                  | 30*47*7                              | 160 | 110              | 130 | - | M8  |
| 5,5            | 2                            | Q3H112M2D             | Aluminium               | 210                          | 396 | 1xM25 | 140                                 | 190 | 112 | 265 | 12 | 28               | 60 | 31,0 | 8                | 6306-ZZ                  | 6206-ZZ                           | 30*47*7                  | 30*47*7                              | 160 | 110              | 130 | - | M8  |
| 5,5            | 4                            | Q3H112M4E             | Aluminium               | 210                          | 421 | 1xM25 | 140                                 | 190 | 112 | 265 | 12 | 28               | 60 | 31,0 | 8                | 6306-ZZ                  | 6206-ZZ                           | 30*47*7                  | 30*47*7                              | 160 | 110              | 130 | - | M8  |
| 7,5            | 2                            | Q3H112M2DE            | Aluminium               | 210                          | 421 | 1xM25 | 140                                 | 190 | 112 | 265 | 12 | 28               | 60 | 31,0 | 8                | 6306-ZZ                  | 6206-ZZ                           | 30*47*7                  | 30*47*7                              | 160 | 110              | 130 | - | M8  |
| 11             | 2                            | Q3H132M2A             | Aluminium               | 260                          | 481 | 1xM32 | 140-178                             | 216 | 132 | 312 | 12 | 38               | 80 | 41,0 | 10               | 6208-ZZ                  | 6208-ZZ                           | 40*62*10                 | 40*62*10                             | 200 | 130              | 165 | - | M10 |
| 11             | 4                            | Q3H132M4E             | Aluminium               | 260                          | 520 | 1xM32 | 140-178                             | 216 | 132 | 312 | 12 | 38               | 80 | 41,0 | 10               | 6208-ZZ                  | 6208-ZZ                           | 40*62*10                 | 40*62*10                             | 200 | 130              | 165 | - | M10 |
| 15             | 2                            | Q3H132M2B             | Aluminium               | 260                          | 520 | 1xM32 | 140-178                             | 216 | 132 | 312 | 12 | 38               | 80 | 41,0 | 10               | 6208-ZZ                  | 6208-ZZ                           | 40*62*10                 | 40*62*10                             | 200 | 130              | 165 | - | M10 |

(1) Toleranslar 28 mm'ye kadar DIN EN 50347 "j6", 28 mm ve üzeri "k6" / Tolerance DIN EN 50347 "j6" up to 28mm, "k6" above 28mm

(2) DIN 6885'e göre / According to DIN 6885

(3) Tolerans DIN EN 50347 "j6" / Tolerance DIN EN 50347 "j6"

## BOYUTLAR - B14b, B34b / DIMENSION - B14b, B34b



| Güç<br>Power<br>(kW) | Kutup<br>sayısı<br>Number<br>of Poles | Motor Tipi<br>Motor Type | Gövde<br>Tipi<br>Housing<br>Type | Ana Boyutlar<br>Main Dimensions |     |       | Ayaklı Motorlar<br>Foot Mounted Motors |     |     |     |    | Mil<br>Shaft     |    |      | Rulman<br>Bearing |                                 | Keçe<br>Seal                                |                                 | Flanş (FB) (B14b)<br>Flange (FB) (B14b)     |     |                  |     |   |     |
|----------------------|---------------------------------------|--------------------------|----------------------------------|---------------------------------|-----|-------|----------------------------------------|-----|-----|-----|----|------------------|----|------|-------------------|---------------------------------|---------------------------------------------|---------------------------------|---------------------------------------------|-----|------------------|-----|---|-----|
|                      |                                       |                          |                                  | AC                              | L   | O     | B                                      | A   | H   | HD  | K  | D <sup>(1)</sup> | E  | GA   | F <sup>(2)</sup>  | Kasnak<br>Taraflı<br>Drive Side | Kasnak<br>Taraflı Aksı<br>Non drive<br>Side | Kasnak<br>Taraflı<br>Drive Side | Kasnak<br>Taraflı Aksı<br>Non drive<br>Side | P   | N <sup>(3)</sup> | M   | R | S   |
| 1,1                  | 4                                     | Q3H80M4DE                | Aluminium                        | 158                             | 268 | 1xM20 | 100                                    | 125 | 80  | 216 | 10 | 19               | 40 | 21,5 | 6                 | 6204-ZZ                         | 6204-ZZ                                     | 20*30*7                         | 20*30*7                                     | 160 | 110              | 130 | - | M8  |
| 1,5                  | 2                                     | Q3H80M2DE                | Aluminium                        | 158                             | 268 | 1xM20 | 100                                    | 125 | 80  | 216 | 10 | 19               | 40 | 21,5 | 6                 | 6204-ZZ                         | 6204-ZZ                                     | 20*30*7                         | 20*30*7                                     | 160 | 110              | 130 | - | M8  |
| 2,2                  | 4                                     | Q3H90L4DE                | Aluminium                        | 172                             | 344 | 1xM25 | 100-125                                | 140 | 90  | 223 | 10 | 24               | 50 | 27,0 | 8                 | 6305-ZZ                         | 6205-ZZ                                     | 25*40*7                         | 25*40*7                                     | 160 | 110              | 130 | - | M8  |
| 3                    | 2                                     | Q3H90L2E                 | Aluminium                        | 172                             | 344 | 1xM25 | 100-125                                | 140 | 90  | 223 | 10 | 24               | 50 | 27,0 | 8                 | 6305-ZZ                         | 6205-ZZ                                     | 25*40*7                         | 25*40*7                                     | 160 | 110              | 130 | - | M8  |
| 4                    | 2                                     | Q3H100L2DE               | Aluminium                        | 191                             | 400 | 1xM25 | 140                                    | 160 | 100 | 243 | 12 | 28               | 60 | 31,0 | 8                 | 6306-ZZ                         | 6205-ZZ                                     | 30*47*7                         | 30*47*7                                     | 200 | 130              | 165 | - | M10 |
| 4                    | 4                                     | Q3H100L4E                | Aluminium                        | 191                             | 422 | 1xM25 | 140                                    | 160 | 100 | 243 | 12 | 28               | 60 | 31,0 | 8                 | 6306-ZZ                         | 6205-ZZ                                     | 30*47*7                         | 30*47*7                                     | 200 | 130              | 165 | - | M10 |
| 5,5                  | 2                                     | Q3H112M2D                | Aluminium                        | 210                             | 396 | 1xM25 | 140                                    | 190 | 112 | 265 | 12 | 28               | 60 | 31,0 | 8                 | 6306-ZZ                         | 6206-ZZ                                     | 30*47*7                         | 30*47*7                                     | 200 | 130              | 165 | - | M10 |
| 5,5                  | 4                                     | Q3H112M4E                | Aluminium                        | 210                             | 421 | 1xM25 | 140                                    | 190 | 112 | 265 | 12 | 28               | 60 | 31,0 | 8                 | 6306-ZZ                         | 6206-ZZ                                     | 30*47*7                         | 30*47*7                                     | 200 | 130              | 165 | - | M10 |
| 7,5                  | 2                                     | Q3H112M2DE               | Aluminium                        | 210                             | 421 | 1xM25 | 140                                    | 190 | 112 | 265 | 12 | 28               | 60 | 31,0 | 8                 | 6306-ZZ                         | 6206-ZZ                                     | 30*47*7                         | 30*47*7                                     | 200 | 130              | 165 | - | M10 |
| 11                   | 2                                     | Q3H132M2A                | Aluminium                        | 260                             | 481 | 1xM32 | 140-178                                | 216 | 132 | 312 | 12 | 38               | 80 | 41,0 | 10                | 6208-ZZ                         | 6208-ZZ                                     | 40*62*10                        | 40*62*10                                    | 250 | 180              | 215 | - | M12 |
| 11                   | 4                                     | Q3H132M4E                | Aluminium                        | 260                             | 520 | 1xM32 | 140-178                                | 216 | 132 | 312 | 12 | 38               | 80 | 41,0 | 10                | 6208-ZZ                         | 6208-ZZ                                     | 40*62*10                        | 40*62*10                                    | 250 | 180              | 215 | - | M12 |
| 15                   | 2                                     | Q3H132M2B                | Aluminium                        | 260                             | 520 | 1xM32 | 140-178                                | 216 | 132 | 312 | 12 | 38               | 80 | 41,0 | 10                | 6208-ZZ                         | 6208-ZZ                                     | 40*62*10                        | 40*62*10                                    | 250 | 180              | 215 | - | M12 |

(1) Toleranslar 28 mm'ye kadar DIN EN 50347 "j6", 28 mm ve üzeri "k6" / Tolerance DIN EN 50347 "j6" up to 28mm, "k6" above 28mm

(2) DIN 6885'e göre / According to DIN 6885

(3) Tolerans DIN EN 50347 "j6" / Tolerance DIN EN 50347 "j6"

# IE2

## ELEKTRİKSEL ÖZELLİKLER - 50 Hz / ELECTRICAL CHARACTERISTICS AT 50 Hz

| MOTOR TİPİ<br>MOTOR TYPE             | GÖVDE<br>TIPI<br>HOUSING<br>TYPE | NOMINAL<br>RATED VALUES |       |                |                 |                  |                 | KALKIŞTAKİ DEĞERLER<br>STARTING VALUES |                  |             |             | Devrilme<br>Momenti<br>Oranı<br>Breakdown<br>Torque Ratio<br>Mk/ Mn | VERİM*<br>EFFICIENCY* |             |      | Cos φ   | J       | Ağırlık<br>Weight<br>(B3) | Ses Basınç<br>Seviyesi<br>Sound<br>Pressure<br>Level<br>dBA** |
|--------------------------------------|----------------------------------|-------------------------|-------|----------------|-----------------|------------------|-----------------|----------------------------------------|------------------|-------------|-------------|---------------------------------------------------------------------|-----------------------|-------------|------|---------|---------|---------------------------|---------------------------------------------------------------|
|                                      |                                  | GÜÇ<br>POWER            |       | DEVİR<br>SPEED | AKIM<br>CURRENT | MOMENT<br>TORQUE | AKIM<br>CURRENT |                                        | MOMENT<br>TORQUE |             | η%          |                                                                     |                       |             |      |         |         |                           |                                                               |
|                                      |                                  | kW                      | HP    |                |                 |                  | rpm             | A                                      | Nm               | $I_A / I_N$ | $I_Δ / I_N$ |                                                                     | $M_A / M_N$           | $M_Δ / M_N$ | 4/4  |         |         |                           |                                                               |
| 2 kutup 3000 d/dak / 2 pole 3000 rpm |                                  |                         |       |                |                 |                  |                 |                                        |                  |             |             |                                                                     |                       |             |      |         |         |                           |                                                               |
| 230/400V                             | Q2E63M2A                         | Aluminium               | 0,18  | 1/4            | 2810            | 0,4              | 0,6             | 4,7                                    | -                | 2,1         | -           | 2,3                                                                 | 59,1                  | 63,8        | 58,5 | 0,85    | 0,00022 | 5                         | 52                                                            |
|                                      | Q2E63M2B                         | Aluminium               | 0,25  | 1/3            | 2820            | 0,6              | 0,8             | 5,6                                    | -                | 2,7         | -           | 2,7                                                                 | 64,7                  | 66,2        | 63,5 | 0,84    | 0,00025 | 6                         | 52                                                            |
|                                      | Q2E71M2A                         | Aluminium               | 0,37  | 1/2            | 2850            | 0,8              | 1,2             | 8,1                                    | -                | 4,0         | -           | 4,2                                                                 | 69,5                  | 69,6        | 67,3 | 0,80    | 0,00067 | 8                         | 54                                                            |
|                                      | Q2E71M2B                         | Aluminium               | 0,55  | 3/4            | 2880            | 1,2              | 1,8             | 8,2                                    | -                | 4,1         | -           | 4,3                                                                 | 74,1                  | 74,3        | 74,2 | 0,82    | 0,00086 | 10                        | 54                                                            |
|                                      | Q2H80M2B                         | Aluminium               | 0,75  | 1,0            | 2850            | 1,7              | 2,5             | 6,4                                    | -                | 2,8         | -           | 3,3                                                                 | 77,4                  | 77,6        | 74,4 | 0,82    | 0,00111 | 9                         | 58                                                            |
|                                      | Q2H80M2C                         | Aluminium               | 1,1   | 1,5            | 2860            | 2,5              | 3,7             | 6,7                                    | -                | 2,8         | -           | 3,3                                                                 | 79,6                  | 79,8        | 77,0 | 0,81    | 0,00140 | 11                        | 58                                                            |
|                                      | Q2H90L2B                         | Aluminium               | 1,5   | 2,0            | 2875            | 3,8              | 5,0             | 8,0                                    | -                | 3,9         | -           | 4,4                                                                 | 81,3                  | 80,4        | 76,6 | 0,74    | 0,00176 | 13                        | 62                                                            |
|                                      | Q2H90L2D                         | Aluminium               | 2,2   | 3,0            | 2870            | 4,7              | 7,3             | 9,1                                    | -                | 3,9         | -           | 4,4                                                                 | 83,2                  | 82,8        | 81,3 | 0,83    | 0,00231 | 16                        | 62                                                            |
|                                      | Q2H100L2C                        | Aluminium               | 3,0   | 4,0            | 2887            | 6,3              | 9,9             | 7,3                                    | -                | 2,4         | -           | 2,9                                                                 | 84,6                  | 85,4        | 84,2 | 0,83    | 0,00266 | 19                        | 66                                                            |
| 400/690V                             | Q2H112M2B                        | Aluminium               | 4,0   | 5,5            | 2900            | 8,0              | 13,2            | 3,1                                    | 9,3              | 1,1         | 3,2         | 4,0                                                                 | 85,8                  | 86,1        | 84,5 | 0,85    | 0,00487 | 24                        | 68                                                            |
|                                      | Q2H132S2B                        | Aluminium               | 5,5   | 7,5            | 2915            | 10,6             | 18,0            | 3,5                                    | 10,6             | 1,5         | 4,4         | 5,3                                                                 | 87,0                  | 87,1        | 84,9 | 0,86    | 0,00703 | 34                        | 69                                                            |
|                                      | Q2H132S2C                        | Aluminium               | 7,5   | 10,0           | 2900            | 14,6             | 24,7            | 3,5                                    | 10,6             | 1,3         | 3,8         | 4,6                                                                 | 88,1                  | 88,6        | 87,6 | 0,85    | 0,00772 | 37                        | 69                                                            |
|                                      | Q2H160M2B                        | Aluminium               | 11,0  | 15,0           | 2923            | 21,2             | 35,9            | 3,1                                    | 9,2              | 1,1         | 3,3         | 4,8                                                                 | 89,4                  | 89,9        | 88,4 | 0,83    | 0,03517 | 65                        | 70                                                            |
|                                      | Q2H160M2C                        | Aluminium               | 15,0  | 20,0           | 2915            | 30,0             | 49,2            | 3,2                                    | 9,6              | 1,3         | 3,9         | 5,1                                                                 | 90,3                  | 90,6        | 89,6 | 0,80    | 0,04015 | 67                        | 70                                                            |
|                                      | Q2H160M2D                        | Aluminium               | 18,5  | 25,0           | 2930            | 30,8             | 60,3            | 2,7                                    | 8,0              | 0,6         | 1,9         | 3,6                                                                 | 90,9                  | 91,7        | 91,1 | 0,95    | 0,04613 | 79                        | 70                                                            |
|                                      | Q2H180M2A                        | Aluminium               | 22,0  | 30,0           | 2955            | 40,9             | 71,2            | 3,5                                    | 10,6             | 1,2         | 3,6         | 5,2                                                                 | 91,3                  | 92,0        | 90,7 | 0,84    | 0,05141 | 100                       | 77                                                            |
|                                      | Q2H200L2B                        | Aluminium               | 30,0  | 40,0           | 2955            | 51,5             | 97,1            | 2,8                                    | 8,5              | 0,8         | 2,4         | 3,6                                                                 | 92,0                  | 92,5        | 91,8 | 0,91    | 0,08644 | 175                       | 78                                                            |
|                                      | Q2H200L2C                        | Aluminium               | 37,0  | 50,0           | 2965            | 66,2             | 119,6           | 3,4                                    | 10,1             | 1,0         | 3,1         | 4,5                                                                 | 92,5                  | 92,5        | 91,2 | 0,87    | 0,10277 | 175                       | 78                                                            |
|                                      | Q2E225M2B                        | Aluminium               | 45,0  | 60,0           | 2960            | 82,1             | 145,2           | 2,9                                    | 8,7              | 0,8         | 2,4         | 2,9                                                                 | 92,9                  | 92,6        | 91,1 | 0,85    | 0,23500 | 235                       | 81                                                            |
|                                      | Q2E250M2A                        | Cast Iron               | 55,0  | 75,0           | 2976            | 92,7             | 177,0           | 2,8                                    | 8,4              | 0,8         | 2,5         | 3,4                                                                 | 93,2                  | 93,0        | 91,6 | 0,91    | 0,48700 | 486                       | 82                                                            |
|                                      | Q2EP280M2B                       | Cast Iron               | 75,0  | 100,0          | 2975            | 127,9            | 240,8           | 3,5                                    | 10,6             | 0,9         | 2,7         | 5,1                                                                 | 93,8                  | 93,7        | 92,5 | 0,92    | 0,54000 | 576                       | 84                                                            |
|                                      | Q2EP280M2C                       | Cast Iron               | 90,0  | 125,0          | 2980            | 149,0            | 288,6           | 2,4                                    | 7,1              | 1,0         | 3,0         | 3,0                                                                 | 94,1                  | 93,9        | 92,9 | 0,91    | 0,64500 | 585                       | 84                                                            |
|                                      | Q2EP315S2C                       | Cast Iron               | 110,0 | 127            | 2,975           | 185              | 353             | 2,6                                    | 7,8              | 0,7         | 2,2         | 2,4                                                                 | 94,3                  | 94,3        | 93,1 | 0,91    | 1,43600 | 920                       | 87                                                            |
|                                      | Q2EP315M2C                       | Cast Iron               | 132,0 | 152            | 2,975           | 221              | 423             | 2,6                                    | 7,8              | 0,8         | 2,3         | 2,4                                                                 | 94,6                  | 94,6        | 93,4 | 0,91    | 1,72300 | 970                       | 87                                                            |
|                                      | Q2EP315L2C                       | Cast Iron               | 160,0 | 184            | 2,975           | 268              | 513             | 2,5                                    | 7,5              | 0,8         | 2,3         | 2,4                                                                 | 94,8                  | 94,8        | 93,6 | 0,91    | 1,95300 | 1170                      | 87                                                            |
|                                      | Q2EP315L2D                       | Cast Iron               | 200,0 | 230            | 2,975           | 334              | 643             | 2,7                                    | 8                | 0,8         | 2,4         | 2,6                                                                 | 95                    | 95          | 93,8 | 0,91    | 2,52700 | 1200                      | 87                                                            |
| Q2EP355M2C                           | Cast Iron                        | 250,0                   | 280   | 2,985          | 422             | 799              | 2,3             | 7                                      | 0,7              | 2           | 2,4         | 95                                                                  | 95                    | 93,8        | 0,90 | 3,92000 | 1690    | 87                        |                                                               |
| Q2EP355L2C                           | Cast Iron                        | 315,0                   | 353,0 | 2,985          | 532             | 1.007            | 2,5             | 7,4                                    | 0,7              | 2,0         | 2,3         | 95,0                                                                | 95,0                  | 93,8        | 0,90 | 4,17000 | 1.870   | 87                        |                                                               |
| Q2EP355L2D                           | Cast Iron                        | 355,0                   | 398,0 | 2985           | 599             | 1.135            | 2,5             | 7,5                                    | 0,6              | 1,8         | 2,1         | 95,0                                                                | 95,0                  | 93,8        | 0,90 | 4,44000 | 1953    | 87                        |                                                               |

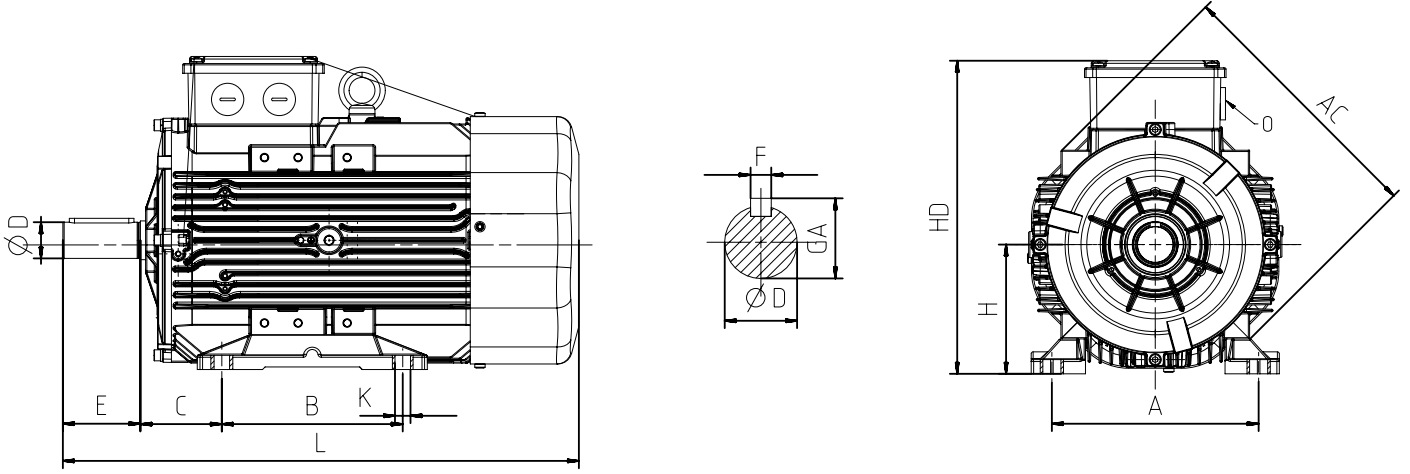
\* IEC 60034-2-1'e göre / According to IEC 60034-2-1

\*\* Ses Basınç Seviyeleri motordan 1m uzaklıktan ölçülmüştür. / The sound pressure measurements are taken 1m away from the motor

\*\*\* Tolerans +3 dBA / Tolerance +3 dBA

| MOTOR TİPİ<br>MOTOR TYPE             | GÖVDE<br>TİPİ<br>HOUSING<br>TYPE | NOMİNAL<br>RATED VALUES |       |                       |                      |                        | KALKIŞTAKİ DEĞERLER<br>STARTING VALUES             |     |                                                     |     | Devrilme<br>Momenti<br>Oranı<br>Breakdown<br>Torque Ratio<br>Mk/ Mn | VERİM*<br>EFFICIENCY* |      |      | Cos φ   | J<br>kgm <sup>2</sup> | Ağırlık<br>Weight<br>(B3)<br>kg | Ses Basıncı<br>Seviyesi<br>Sound<br>Pressure<br>Level<br>dBA<br>** |    |
|--------------------------------------|----------------------------------|-------------------------|-------|-----------------------|----------------------|------------------------|----------------------------------------------------|-----|-----------------------------------------------------|-----|---------------------------------------------------------------------|-----------------------|------|------|---------|-----------------------|---------------------------------|--------------------------------------------------------------------|----|
|                                      |                                  | GÜÇ<br>POWER            |       | DEVİR<br>SPEED<br>rpm | AKIM<br>CURRENT<br>A | MOMENT<br>TORQUE<br>Nm | AKIM<br>CURRENT<br>I <sub>A</sub> / I <sub>N</sub> |     | MOMENT<br>TORQUE<br>M <sub>A</sub> / M <sub>N</sub> |     |                                                                     | η%                    |      |      |         |                       |                                 |                                                                    |    |
|                                      |                                  | kW                      | HP    |                       |                      |                        | λ                                                  | Δ   | λ                                                   | Δ   |                                                                     | 4/4                   | 3/4  | 2/4  |         |                       |                                 |                                                                    |    |
| 4 kutup 1500 d/dak / 4 pole 1500 rpm |                                  |                         |       |                       |                      |                        |                                                    |     |                                                     |     |                                                                     |                       |      |      |         |                       |                                 |                                                                    |    |
| 230/400V                             | Q2E63M4A                         | Aluminium               | 0,12  | 1/6                   | 1420                 | 0,5                    | 0,9                                                | 3,4 | -                                                   | 2,2 | -                                                                   | 3,2                   | 64,0 | 54,1 | 44,9    | 0,56                  | 0,00022                         | 5                                                                  | 41 |
|                                      | Q2E63M4B                         | Aluminium               | 0,18  | 1/4                   | 1400                 | 0,6                    | 1,2                                                | 3,7 | -                                                   | 2,7 | -                                                                   | 3,0                   | 68,0 | 60,0 | 51,3    | 0,66                  | 0,00026                         | 6                                                                  | 41 |
|                                      | Q2E71M4A                         | Aluminium               | 0,25  | 1/3                   | 1415                 | 0,6                    | 1,7                                                | 4,6 | -                                                   | 2,6 | -                                                                   | 3,8                   | 68,5 | 68,8 | 66,9    | 0,70                  | 0,00095                         | 9                                                                  | 45 |
|                                      | Q2E71M4B                         | Aluminium               | 0,37  | 1/2                   | 1425                 | 1,1                    | 2,5                                                | 4,6 | -                                                   | 2,6 | -                                                                   | 3,8                   | 72,7 | 73,1 | 72,0    | 0,71                  | 0,00095                         | 9                                                                  | 45 |
|                                      | Q2H80M4B                         | Aluminium               | 0,55  | 3/4                   | 1435                 | 1,3                    | 3,6                                                | 6,4 | -                                                   | 2,3 | -                                                                   | 3,2                   | 77,1 | 78,8 | 75,4    | 0,76                  | 0,00175                         | 10                                                                 | 49 |
|                                      | Q2H80M4C                         | Aluminium               | 0,75  | 1,0                   | 1440                 | 1,8                    | 5,0                                                | 5,5 | -                                                   | 2,1 | -                                                                   | 2,6                   | 79,6 | 80,0 | 77,7    | 0,76                  | 0,00216                         | 11                                                                 | 49 |
|                                      | Q2H90L4C                         | Aluminium               | 1,10  | 1,5                   | 1430                 | 2,5                    | 7,4                                                | 5,7 | -                                                   | 2,2 | -                                                                   | 2,6                   | 81,4 | 82,4 | 81,6    | 0,80                  | 0,00267                         | 13                                                                 | 54 |
|                                      | Q2H90L4C                         | Aluminium               | 1,50  | 2,0                   | 1427                 | 3,3                    | 10,0                                               | 6,4 | -                                                   | 2,5 | -                                                                   | 3,1                   | 82,8 | 84,2 | 83,7    | 0,79                  | 0,00328                         | 15                                                                 | 54 |
|                                      | Q2H100L4B                        | Aluminium               | 2,20  | 3,0                   | 1437                 | 5,3                    | 14,6                                               | 7,6 | -                                                   | 3,6 | -                                                                   | 4,2                   | 84,3 | 84,1 | 81,5    | 0,72                  | 0,00521                         | 21                                                                 | 55 |
| Q2H100L4C                            | Aluminium                        | 3,00                    | 4,0   | 1440                  | 7,4                  | 20,0                   | 6,5                                                | -   | 3,3                                                 | -   | 3,7                                                                 | 85,5                  | 85,3 | 83,0 | 0,70    | 0,00694               | 25                              | 55                                                                 |    |
| 400/690V                             | Q2H112M4C                        | Aluminium               | 4,00  | 5,5                   | 1440                 | 8,7                    | 26,6                                               | 2,7 | 8,0                                                 | 1,1 | 3,2                                                                 | 3,8                   | 86,6 | 85,7 | 83,5    | 0,78                  | 0,01085                         | 31                                                                 | 58 |
|                                      | Q2H132S4A                        | Aluminium               | 5,50  | 7,5                   | 1445                 | 11,5                   | 35,5                                               | 2,7 | 8,0                                                 | 1,0 | 3,0                                                                 | 3,8                   | 87,7 | 88,3 | 87,3    | 0,79                  | 0,01414                         | 38                                                                 | 59 |
|                                      | Q2H132M4C                        | Aluminium               | 7,50  | 10,0                  | 1460                 | 15,0                   | 49,1                                               | 2,4 | 7,1                                                 | 0,5 | 1,5                                                                 | 0,6                   | 88,7 | 89,4 | 88,7    | 0,82                  | 0,03560                         | 54                                                                 | 62 |
|                                      | Q2H160M4C                        | Aluminium               | 11,00 | 15,0                  | 1468                 | 21,6                   | 71,5                                               | 2,6 | 7,9                                                 | 0,7 | 2,1                                                                 | 3,6                   | 89,8 | 91,1 | 90,3    | 0,81                  | 0,05468                         | 79                                                                 | 63 |
|                                      | Q2H160L4B                        | Aluminium               | 15,00 | 20,0                  | 1462                 | 29,8                   | 98,0                                               | 2,6 | 7,8                                                 | 0,6 | 1,8                                                                 | 3,4                   | 90,6 | 91,4 | 90,9    | 0,80                  | 0,05940                         | 83                                                                 | 63 |
|                                      | Q2H180M4A                        | Aluminium               | 18,50 | 25,0                  | 1470                 | 36,0                   | 120,2                                              | 2,3 | 6,8                                                 | 0,7 | 2,2                                                                 | 2,9                   | 91,2 | 92,0 | 91,6    | 0,81                  | 0,10513                         | 110                                                                | 67 |
|                                      | Q2H180M4B                        | Aluminium               | 22,00 | 30,0                  | 1462                 | 41,8                   | 143,8                                              | 1,8 | 5,5                                                 | 0,6 | 1,9                                                                 | 2,8                   | 91,6 | 92,9 | 93,3    | 0,84                  | 0,11398                         | 118                                                                | 67 |
|                                      | Q2H200L4C                        | Aluminium               | 30,00 | 40,0                  | 1475                 | 55,3                   | 194,6                                              | 2,7 | 8,2                                                 | 0,9 | 2,7                                                                 | 3,5                   | 92,0 | 91,9 | 91,4    | 0,85                  | 0,18660                         | 195                                                                | 70 |
|                                      | Q2E225M4A                        | Aluminium               | 37,00 | 50,0                  | 1480                 | 68,3                   | 238,8                                              | 3,0 | 9,1                                                 | 1,2 | 3,6                                                                 | 4,0                   | 92,7 | 92,6 | 91,3    | 0,84                  | 0,36420                         | 263                                                                | 71 |
|                                      | Q2E225M4B                        | Aluminium               | 45,00 | 60,0                  | 1480                 | 81,5                   | 290,5                                              | 3,1 | 9,4                                                 | 1,2 | 3,7                                                                 | 3,0                   | 93,1 | 93,0 | 91,9    | 0,85                  | 0,43500                         | 280                                                                | 71 |
|                                      | Q2E250M4A                        | Cast Iron               | 55,00 | 75,0                  | 1486                 | 104,8                  | 353,5                                              | 2,4 | 7,2                                                 | 0,8 | 2,3                                                                 | 3,0                   | 93,5 | 93,7 | 93,3    | 0,81                  | 0,36400                         | 506                                                                | 72 |
|                                      | Q2EP280M4B                       | Cast Iron               | 75,00 | 100,0                 | 1485                 | 134,2                  | 485,7                                              | 2,6 | 7,8                                                 | 1,0 | 2,9                                                                 | 3,4                   | 94,0 | 93,9 | 93,2    | 0,86                  | 1,06100                         | 624                                                                | 73 |
|                                      | Q2EP280M4C                       | Cast Iron               | 90,00 | 125,0                 | 1486                 | 163,5                  | 584,2                                              | 2,6 | 7,8                                                 | 1,0 | 2,9                                                                 | 3,3                   | 94,2 | 94,6 | 94,2    | 0,85                  | 1,14800                         | 638                                                                | 73 |
|                                      | Q2EP315S4C                       | Cast Iron               | 110,0 | 127,0                 | 1480                 | 191                    | 709                                                | 2,4 | 7,2                                                 | 0,7 | 2,2                                                                 | 2,5                   | 94,5 | 94,5 | 93,9    | 0,88                  | 3,03500                         | 925                                                                | 70 |
|                                      | Q2EP315M4C                       | Cast Iron               | 132,0 | 152,0                 | 1480                 | 229                    | 851                                                | 2,3 | 7,0                                                 | 0,7 | 2,1                                                                 | 2,4                   | 94,7 | 94,7 | 94,1    | 0,88                  | 3,41500                         | 1.010                                                              | 70 |
| Q2EP315L4C                           | Cast Iron                        | 160,0                   | 184,0 | 1480                  | 273                  | 1.032                  | 2,5                                                | 7,5 | 0,7                                                 | 2,2 | 2,5                                                                 | 94,9                  | 94,9 | 94,3 | 0,89    | 4,11900               | 1.080                           | 76                                                                 |    |
| Q2EP315L4D                           | Cast Iron                        | 200,0                   | 230,0 | 1480                  | 341                  | 1.290                  | 2,5                                                | 7,5 | 0,8                                                 | 2,3 | 2,5                                                                 | 95,1                  | 95,1 | 94,5 | 0,89    | 5,20300               | 1.200                           | 76                                                                 |    |
| Q2EP355M4C                           | Cast Iron                        | 250,0                   | 280,0 | 1485                  | 426                  | 1.607                  | 2,6                                                | 7,9 | 0,8                                                 | 2,3 | 2,5                                                                 | 95,1                  | 95,1 | 94,5 | 0,89    | 8,79000               | 1.720                           | 76                                                                 |    |
| Q2EP355L4C                           | Cast Iron                        | 315,0                   | 353,0 | 1485                  | 531                  | 2.025                  | 2,5                                                | 7,4 | 0,7                                                 | 2,0 | 2,3                                                                 | 95,1                  | 95,1 | 94,5 | 0,90    | 10,13300              | 1.920                           | 87                                                                 |    |
| Q2EP355L4D                           | Cast Iron                        | 355,0                   | 398,0 | 1485                  | 603                  | 2.283                  | 2,9                                                | 8,8 | 0,6                                                 | 1,8 | 2,0                                                                 | 95,1                  | 95,1 | 94,5 | 0,89    | 10,67800              | 1.953                           | 87                                                                 |    |
| 6 kutup 1000 d/dak / 6 pole 1000 rpm |                                  |                         |       |                       |                      |                        |                                                    |     |                                                     |     |                                                                     |                       |      |      |         |                       |                                 |                                                                    |    |
| 230/400V                             | Q2H90S6B                         | Aluminium               | 0,75  | 1,0                   | 943                  | 1,8                    | 7,7                                                | 4,6 | -                                                   | 2,1 | -                                                                   | 2,7                   | 75,9 | 75,1 | 71,4    | 0,69                  | 0,00383                         | 16                                                                 | 53 |
|                                      | Q2H90L6C                         | Aluminium               | 1,10  | 1,5                   | 938                  | 3,0                    | 11,2                                               | 2,8 | -                                                   | 2,4 | -                                                                   | 2,8                   | 78,1 | 78,0 | 75,1    | 0,69                  | 0,00464                         | 18                                                                 | 53 |
|                                      | Q2H100L6C                        | Aluminium               | 1,50  | 2,0                   | 955                  | 4,0                    | 15,2                                               | 3,3 | -                                                   | 2,6 | -                                                                   | 3,2                   | 79,8 | 79,3 | 76,3    | 0,67                  | 0,00871                         | 26                                                                 | 56 |
|                                      | Q2H112M6C                        | Aluminium               | 2,20  | 3,0                   | 942                  | 5,4                    | 22,4                                               | 5,2 | -                                                   | 2,0 | -                                                                   | 2,6                   | 81,8 | 81,5 | 79,5    | 0,72                  | 0,00936                         | 31                                                                 | 58 |
| 400/690V                             | Q2H132S6A                        | Aluminium               | 3,00  | 4,0                   | 965                  | 14,1                   | 29,8                                               | 1,8 | 5,4                                                 | 1,1 | 3,2                                                                 | 3,3                   | 83,3 | 82,3 | 79,4    | 0,64                  | 0,02950                         | 47                                                                 | 62 |
|                                      | Q2H132M6A                        | Aluminium               | 4,00  | 5,5                   | 970                  | 10,4                   | 39,8                                               | 1,9 | 5,8                                                 | 0,7 | 2,2                                                                 | 2,6                   | 84,6 | 83,5 | 80,7    | 0,65                  | 0,03560                         | 53                                                                 | 61 |
|                                      | Q2H132M6B                        | Aluminium               | 5,50  | 7,5                   | 960                  | 12,8                   | 54,7                                               | 1,7 | 5,2                                                 | 0,9 | 2,6                                                                 | 2,9                   | 86,1 | 85,7 | 83,9    | 0,72                  | 0,06420                         | 67                                                                 | 60 |
|                                      | Q2H160M6B                        | Aluminium               | 7,50  | 10,0                  | 970                  | 18,9                   | 74,6                                               | 2,1 | 6,2                                                 | 1,2 | 3,6                                                                 | 3,8                   | 87,2 | 84,3 | 81,7    | 0,66                  | 0,07540                         | 88                                                                 | 63 |
|                                      | Q2H160L6B                        | Aluminium               | 11,00 | 15,0                  | 970                  | 25,5                   | 109,4                                              | 1,7 | 5,2                                                 | 1,0 | 3,0                                                                 | 3,1                   | 88,7 | 88,5 | 86,3    | 0,71                  | 0,07040                         | 99                                                                 | 63 |
|                                      | Q2H180L6A                        | Aluminium               | 15,00 | 20,0                  | 970                  | 31,5                   | 146,9                                              | 1,8 | 5,1                                                 | 0,6 | 1,8                                                                 | 2,0                   | 89,7 | 89,5 | 87,30,0 | 0,76                  | 0,16677                         | 115                                                                | 69 |
|                                      | Q2H200L6B                        | Aluminium               | 18,50 | 25,0                  | 981                  | 41,6                   | 179,8                                              | 2,0 | 5,9                                                 | 0,7 | 2,1                                                                 | 2,6                   | 90,4 | 90,5 | 89,6    | 0,70                  | 0,18660                         | 160                                                                | 70 |
|                                      | Q2H200L6C                        | Aluminium               | 22,00 | 30,0                  | 982                  | 48,8                   | 214,5                                              | 1,8 | 5,6                                                 | 0,8 | 2,3                                                                 | 2,4                   | 90,9 | 91,0 | 90,3    | 0,72                  | 0,20643                         | 171                                                                | 70 |
| Q2E225M6B                            | Aluminium                        | 30,00                   | 40,0  | 975                   | 57,0                 | 287,6                  | 1,9                                                | 5,7 | 0,6                                                 | 1,7 | 2,5                                                                 | 91,7                  | 91,6 | 90,7 | 0,83    | 0,49334               | 234                             | 66                                                                 |    |

## BOYUTLAR - B3 / DIMENSION - B3



| Güç<br>Power<br>(kW) | Kutup<br>sayısı<br>Number<br>of Poles | Motor Tipi<br>Motor Type | Gövde<br>Tipi<br>Housing<br>Type | Ana Boyutlar<br>Main Dimensions |     |       | Ayaklı Motorlar<br>Foot Mounted Motors |     |     |     |    | Mil<br>Shaft |                  |    |      | Rulman<br>Bearing |                                 | Keçe<br>Seal                                |                                 |                                             |
|----------------------|---------------------------------------|--------------------------|----------------------------------|---------------------------------|-----|-------|----------------------------------------|-----|-----|-----|----|--------------|------------------|----|------|-------------------|---------------------------------|---------------------------------------------|---------------------------------|---------------------------------------------|
|                      |                                       |                          |                                  | AC                              | L   | O     | B                                      | A   | H   | HD  | K  | C            | D <sup>(1)</sup> | E  | GA   | F <sup>(2)</sup>  | Kasnak<br>Taraflı<br>Drive Side | Kasnak<br>Taraflı Aksı<br>Non Drive<br>Side | Kasnak<br>Taraflı<br>Drive Side | Kasnak<br>Taraflı Aksı<br>Non Drive<br>Side |
| 0,12                 | 4                                     | Q2E63M4A                 | Aluminium                        | 123                             | 220 | 1xM20 | 80                                     | 100 | 63  | 162 | 7  | 40           | 11               | 23 | 12,5 | 4                 | 6201-ZZ                         | 6201-ZZ                                     | 12*22*7                         | 12*22*7                                     |
| 0,18                 | 2                                     | Q2E63M2A                 | Aluminium                        | 123                             | 220 | 1xM20 | 80                                     | 100 | 63  | 162 | 7  | 40           | 11               | 23 | 12,5 | 4                 | 6201-ZZ                         | 6201-ZZ                                     | 12*22*7                         | 12*22*7                                     |
| 0,18                 | 4                                     | Q2E63M4B                 | Aluminium                        | 123                             | 220 | 1xM20 | 80                                     | 100 | 63  | 162 | 7  | 40           | 11               | 23 | 12,5 | 4                 | 6201-ZZ                         | 6201-ZZ                                     | 12*22*7                         | 12*22*7                                     |
| 0,25                 | 2                                     | Q2E63M2B                 | Aluminium                        | 123                             | 220 | 1xM20 | 80                                     | 100 | 63  | 162 | 7  | 40           | 11               | 23 | 12,5 | 4                 | 6201-ZZ                         | 6201-ZZ                                     | 12*22*7                         | 12*22*7                                     |
| 0,25                 | 4                                     | Q2E71M4A                 | Aluminium                        | 138                             | 253 | 1xM20 | 90                                     | 112 | 71  | 190 | 7  | 45           | 14               | 30 | 16,0 | 5                 | 6202-ZZ                         | 6202-ZZ                                     | 15*24*5                         | 15*24*5                                     |
| 0,37                 | 2                                     | Q2E71M2A                 | Aluminium                        | 138                             | 253 | 1xM20 | 90                                     | 112 | 71  | 190 | 7  | 45           | 14               | 30 | 16,0 | 5                 | 6202-ZZ                         | 6202-ZZ                                     | 15*24*5                         | 15*24*5                                     |
| 0,37                 | 4                                     | Q2E71M4B                 | Aluminium                        | 138                             | 253 | 1xM20 | 90                                     | 112 | 71  | 190 | 7  | 45           | 14               | 30 | 16,0 | 5                 | 6202-ZZ                         | 6202-ZZ                                     | 15*24*5                         | 15*24*5                                     |
| 0,55                 | 2                                     | Q2E71M2B                 | Aluminium                        | 138                             | 253 | 1xM20 | 90                                     | 112 | 71  | 190 | 7  | 45           | 14               | 30 | 16,0 | 5                 | 6202-ZZ                         | 6202-ZZ                                     | 15*24*5                         | 15*24*5                                     |
| 0,55                 | 4                                     | Q2H80M4B                 | Aluminium                        | 158                             | 268 | 1xM20 | 100                                    | 125 | 80  | 216 | 10 | 50           | 19               | 40 | 21,5 | 6                 | 6204-ZZ                         | 6204-ZZ                                     | 20*30*7                         | 20*30*7                                     |
| 0,75                 | 2                                     | Q2H80M2B                 | Aluminium                        | 158                             | 268 | 1xM20 | 100                                    | 125 | 80  | 216 | 10 | 50           | 19               | 40 | 21,5 | 6                 | 6204-ZZ                         | 6204-ZZ                                     | 20*30*7                         | 20*30*7                                     |
| 0,75                 | 4                                     | Q2H80M4C                 | Aluminium                        | 158                             | 268 | 1xM20 | 100                                    | 125 | 80  | 216 | 10 | 50           | 19               | 40 | 21,5 | 6                 | 6204-ZZ                         | 6204-ZZ                                     | 20*30*7                         | 20*30*7                                     |
| 0,75                 | 6                                     | Q2H90S6B                 | Aluminium                        | 172                             | 344 | 1xM25 | 100-125                                | 140 | 90  | 223 | 10 | 56           | 24               | 50 | 27,0 | 8                 | 6305-ZZ                         | 6205-ZZ                                     | 25*40*7                         | 25*40*7                                     |
| 1,1                  | 2                                     | Q2H80M2C                 | Aluminium                        | 158                             | 268 | 1xM20 | 100                                    | 125 | 80  | 216 | 10 | 50           | 19               | 40 | 21,5 | 6                 | 6204-ZZ                         | 6204-ZZ                                     | 20*30*7                         | 20*30*7                                     |
| 1,1                  | 4                                     | Q2H90L4C                 | Aluminium                        | 158                             | 278 | 1xM25 | 100-125                                | 140 | 90  | 213 | 10 | 56           | 24               | 50 | 27,0 | 8                 | 6305-ZZ                         | 6204-ZZ                                     | 25*40*7                         | 20*30*7                                     |
| 1,1                  | 6                                     | Q2H90L6C                 | Aluminium                        | 172                             | 344 | 1xM25 | 100-125                                | 140 | 90  | 223 | 10 | 56           | 24               | 50 | 27,0 | 8                 | 6305-ZZ                         | 6205-ZZ                                     | 25*40*7                         | 25*40*7                                     |
| 1,5                  | 2                                     | Q2H90L2B                 | Aluminium                        | 158                             | 278 | 1xM25 | 100-125                                | 140 | 90  | 213 | 10 | 56           | 24               | 50 | 27,0 | 8                 | 6305-ZZ                         | 6204-ZZ                                     | 25*40*7                         | 20*30*7                                     |
| 1,5                  | 4                                     | Q2H90L4C                 | Aluminium                        | 158                             | 303 | 1xM25 | 100-125                                | 140 | 90  | 213 | 10 | 56           | 24               | 50 | 27,0 | 8                 | 6305-ZZ                         | 6204-ZZ                                     | 25*40*7                         | 20*30*7                                     |
| 1,5                  | 6                                     | Q2H100L6C                | Aluminium                        | 191                             | 400 | 1xM25 | 140                                    | 160 | 100 | 243 | 12 | 63           | 28               | 60 | 31,0 | 8                 | 6306-ZZ                         | 6205-ZZ                                     | 30*47*7                         | 30*47*7                                     |
| 2,2                  | 2                                     | Q2H90L2D                 | Aluminium                        | 158                             | 303 | 1xM25 | 100-125                                | 140 | 90  | 213 | 10 | 56           | 24               | 50 | 27,0 | 8                 | 6305-ZZ                         | 6204-ZZ                                     | 25*40*7                         | 20*30*7                                     |
| 2,2                  | 4                                     | Q2H100L4B                | Aluminium                        | 172                             | 349 | 1xM25 | 140                                    | 160 | 100 | 233 | 12 | 63           | 28               | 60 | 31,0 | 8                 | 6306-ZZ                         | 6205-ZZ                                     | 30*47*7                         | 25*40*7                                     |
| 2,2                  | 6                                     | Q2H112M6C                | Aluminium                        | 210                             | 396 | 1xM25 | 140                                    | 190 | 112 | 265 | 12 | 70           | 28               | 60 | 31,0 | 8                 | 6306-ZZ                         | 6206-ZZ                                     | 30*47*7                         | 30*47*7                                     |
| 3                    | 2                                     | Q2H100L2C                | Aluminium                        | 172                             | 349 | 1xM25 | 140                                    | 160 | 100 | 233 | 12 | 63           | 28               | 60 | 31,0 | 8                 | 6306-ZZ                         | 6205-ZZ                                     | 30*47*7                         | 25*40*7                                     |
| 3                    | 4                                     | Q2H100L4C                | Aluminium                        | 172                             | 384 | 1xM25 | 140                                    | 160 | 100 | 233 | 12 | 63           | 28               | 60 | 31,0 | 8                 | 6306-ZZ                         | 6205-ZZ                                     | 30*47*7                         | 25*40*7                                     |
| 3                    | 6                                     | Q2H132S6A                | Aluminium                        | 260                             | 481 | 1xM32 | 140-178                                | 216 | 132 | 312 | 12 | 89           | 38               | 80 | 41,0 | 10                | 6208-ZZ                         | 6208-ZZ                                     | 40*62*10                        | 40*62*10                                    |
| 4                    | 2                                     | Q2H112M2B                | Aluminium                        | 191                             | 399 | 1xM25 | 140                                    | 190 | 112 | 254 | 12 | 70           | 28               | 60 | 31,0 | 8                 | 6306-ZZ                         | 6205-ZZ                                     | 30*47*7                         | 25*40*7                                     |
| 4                    | 4                                     | Q2H112M4C                | Aluminium                        | 191                             | 399 | 1xM25 | 140                                    | 190 | 112 | 254 | 12 | 70           | 28               | 60 | 31,0 | 8                 | 6306-ZZ                         | 6205-ZZ                                     | 30*47*7                         | 25*40*7                                     |
| 4                    | 6                                     | Q2H132M6A                | Aluminium                        | 260                             | 481 | 1xM32 | 140-178                                | 216 | 132 | 312 | 12 | 89           | 38               | 80 | 41,0 | 10                | 6208-ZZ                         | 6208-ZZ                                     | 40*62*10                        | 40*62*10                                    |
| 5,5                  | 2                                     | Q2H132S2B                | Aluminium                        | 210                             | 422 | 1xM25 | 140-178                                | 216 | 132 | 283 | 12 | 89           | 38               | 80 | 41,0 | 10                | 6208-ZZ                         | 6206-ZZ                                     | 40*62*10                        | 30*47*7                                     |
| 5,5                  | 4                                     | Q2H132S4A                | Aluminium                        | 210                             | 422 | 1xM25 | 140-178                                | 216 | 132 | 283 | 12 | 89           | 38               | 80 | 41,0 | 10                | 6208-ZZ                         | 6206-ZZ                                     | 40*62*10                        | 30*47*7                                     |
| 5,5                  | 6                                     | Q2H132M6B                | Aluminium                        | 260                             | 481 | 1xM32 | 140-178                                | 216 | 132 | 312 | 12 | 89           | 38               | 80 | 41,0 | 10                | 6208-ZZ                         | 6208-ZZ                                     | 40*62*10                        | 40*62*10                                    |

(1) Toleranslar 28 mm'ye kadar DIN EN 50347 "j6", 28 mm ve üzeri "k6" / Tolerance DIN EN 50347 "j6" up to 28mm, "k6" above 28mm  
(2) DIN 6885'e göre / According to DIN 6885

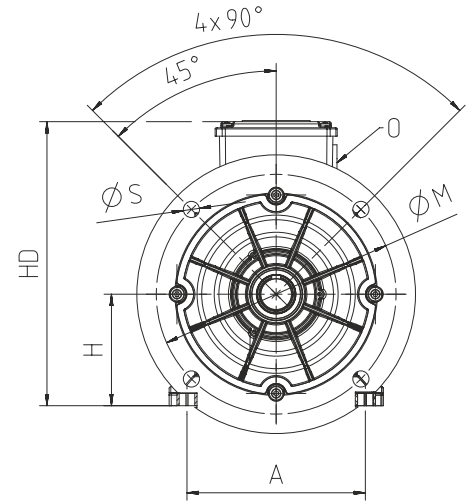
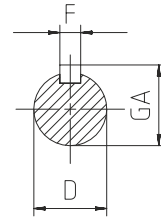
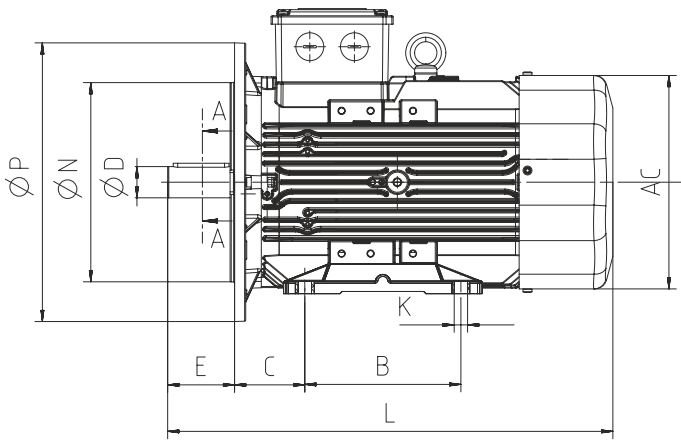


| Güç Power (kW) | Kutup sayısı Number of Poles | Motor Tipi Motor Type | Gövde Tipi Housing Type | Ana Boyutlar Main Dimensions |      |       | Ayaklı Motorlar Foot Mounted Motors |     |     |     |      |     | Mil Shaft        |     |      |                  | Rulman Bearing           |                                   | Keçe Seal                |                                   |
|----------------|------------------------------|-----------------------|-------------------------|------------------------------|------|-------|-------------------------------------|-----|-----|-----|------|-----|------------------|-----|------|------------------|--------------------------|-----------------------------------|--------------------------|-----------------------------------|
|                |                              |                       |                         | AC                           | L    | O     | B                                   | A   | H   | HD  | K    | C   | D <sup>(1)</sup> | E   | GA   | F <sup>(2)</sup> | Kasnak Tarafı Drive Side | Kasnak Tarafı Aksı Non Drive Side | Kasnak Tarafı Drive Side | Kasnak Tarafı Aksı Non Drive Side |
| 7,5            | 2                            | Q2H132S2C             | Aluminium               | 210                          | 422  | 1xM25 | 140-178                             | 216 | 132 | 283 | 12   | 89  | 38               | 80  | 41,0 | 10               | 6208-ZZ                  | 6206-ZZ                           | 40*62*10                 | 30*47*7                           |
| 7,5            | 4                            | Q2H132M4C             | Aluminium               | 260                          | 481  | 1xM32 | 140-178                             | 216 | 132 | 312 | 12   | 89  | 38               | 80  | 41,0 | 10               | 6208-ZZ                  | 6208-ZZ                           | 40*62*10                 | 40*62*10                          |
| 7,5            | 6                            | Q2H160M6B             | Aluminium               | 305                          | 591  | 1xM32 | 210-254                             | 254 | 160 | 368 | 14,5 | 108 | 42               | 110 | 45,0 | 12               | 6309-ZZ                  | 6209-ZZ                           | 45*72*10                 | 45*72*10                          |
| 11             | 2                            | Q2H160M2B             | Aluminium               | 260                          | 520  | 1xM32 | 210-254                             | 254 | 160 | 351 | 14,5 | 108 | 42               | 110 | 45,0 | 12               | 6309-ZZ                  | 6208-ZZ                           | 45*72*10                 | 40*62*10                          |
| 11             | 4                            | Q2H160M4C             | Aluminium               | 260                          | 520  | 1xM32 | 210-254                             | 254 | 160 | 351 | 14,5 | 108 | 42               | 110 | 45,0 | 12               | 6309-ZZ                  | 6208-ZZ                           | 45*72*10                 | 40*62*10                          |
| 11             | 6                            | Q2H160L6B             | Aluminium               | 305                          | 591  | 1xM32 | 210-254                             | 254 | 160 | 368 | 14,5 | 108 | 42               | 110 | 45,0 | 12               | 6309-ZZ                  | 6209-ZZ                           | 45*72*10                 | 45*72*10                          |
| 15             | 2                            | Q2H160M2C             | Aluminium               | 260                          | 520  | 1xM32 | 210-254                             | 254 | 160 | 351 | 14,5 | 108 | 42               | 110 | 45,0 | 12               | 6309-ZZ                  | 6208-ZZ                           | 45*72*10                 | 40*62*10                          |
| 15             | 4                            | Q2H160L4B             | Aluminium               | 260                          | 520  | 1xM32 | 210-254                             | 254 | 160 | 351 | 14,5 | 108 | 42               | 110 | 45,0 | 12               | 6309-ZZ                  | 6208-ZZ                           | 45*72*10                 | 40*62*10                          |
| 15             | 6                            | Q2H180L6A             | Aluminium               | 349                          | 696  | 1xM40 | 241-279                             | 279 | 180 | 437 | 14,5 | 121 | 48               | 110 | 51,5 | 14               | 6310-ZZ                  | 6310-ZZ                           | 50*80*10                 | 50*80*10                          |
| 18,5           | 2                            | Q2H160M2D             | Aluminium               | 260                          | 520  | 1xM32 | 210-254                             | 254 | 160 | 351 | 14,5 | 108 | 42               | 110 | 45,0 | 12               | 6309-ZZ                  | 6208-ZZ                           | 45*72*10                 | 40*62*10                          |
| 18,5           | 4                            | Q2H180M4A             | Aluminium               | 305                          | 596  | 1xM32 | 241-279                             | 279 | 180 | 398 | 14,5 | 121 | 48               | 110 | 51,5 | 14               | 6310-ZZ                  | 6209-ZZ                           | 50*80*10                 | 45*72*10                          |
| 18,5           | 6                            | Q2H200L6B             | Aluminium               | 349                          | 706  | 1xM50 | 305                                 | 318 | 200 | 455 | 18,5 | 133 | 55               | 110 | 59,0 | 16               | 6312-ZZ                  | 6310-ZZ                           | 60*90*10                 | 60*90*10                          |
| 22             | 2                            | Q2H180M2A             | Aluminium               | 305                          | 596  | 1xM32 | 241-279                             | 279 | 180 | 398 | 14,5 | 121 | 48               | 110 | 51,5 | 14               | 6310-ZZ                  | 6209-ZZ                           | 50*80*10                 | 45*72*10                          |
| 22             | 4                            | Q2H180M4B             | Aluminium               | 305                          | 596  | 1xM32 | 241-279                             | 279 | 180 | 398 | 14,5 | 121 | 48               | 110 | 51,5 | 14               | 6310-ZZ                  | 6209-ZZ                           | 50*80*10                 | 45*72*10                          |
| 22             | 6                            | Q2H200L6C             | Aluminium               | 349                          | 706  | 1xM50 | 267-305                             | 318 | 200 | 455 | 18,5 | 133 | 55               | 110 | 59,0 | 16               | 6312-ZZ                  | 6310-ZZ                           | 60*90*10                 | 60*90*10                          |
| 30             | 2                            | Q2H200L2B             | Aluminium               | 349                          | 706  | 1xM50 | 267-305                             | 318 | 200 | 455 | 18,5 | 133 | 55               | 110 | 59,0 | 16               | 6312-ZZ                  | 6310-ZZ                           | 60*90*10                 | 60*90*10                          |
| 30             | 4                            | Q2H200L4C             | Aluminium               | 349                          | 706  | 1xM50 | 267-305                             | 318 | 200 | 455 | 18,5 | 133 | 55               | 110 | 59,0 | 16               | 6312-ZZ                  | 6310-ZZ                           | 60*90*10                 | 60*90*10                          |
| 30             | 6                            | Q2E225M6B             | Aluminium               | 456                          | 765  | 1xM50 | 286-311                             | 356 | 225 | 485 | 18,5 | 149 | 60               | 140 | 64,0 | 18               | 6313-ZZ                  | 6313-ZZ                           | 65*100*13                | 65*100*13                         |
| 37             | 2                            | Q2H200L2C             | Aluminium               | 349                          | 706  | 1xM50 | 305                                 | 318 | 200 | 455 | 18,5 | 133 | 55               | 110 | 59,0 | 16               | 6312-ZZ                  | 6310-ZZ                           | 60*90*10                 | 60*90*10                          |
| 37             | 4                            | Q2E225M4A             | Aluminium               | 456                          | 765  | 1xM50 | 286-311                             | 356 | 225 | 485 | 18,5 | 149 | 60               | 140 | 64,0 | 18               | 6313-ZZ                  | 6313-ZZ                           | 65*100*13                | 65*100*13                         |
| 45             | 2                            | Q2E225M2B             | Aluminium               | 456                          | 735  | 1xM50 | 286-311                             | 356 | 225 | 485 | 18,5 | 149 | 55               | 110 | 59,0 | 16               | 6313-ZZ                  | 6313-ZZ                           | 65*100*13                | 65*100*13                         |
| 45             | 4                            | Q2E225M4B             | Aluminium               | 456                          | 765  | 1xM50 | 286-311                             | 356 | 225 | 485 | 18,5 | 149 | 60               | 140 | 64,0 | 18               | 6313-ZZ                  | 6313-ZZ                           | 65*100*13                | 65*100*13                         |
| 55             | 2                            | Q2E250M2A             | Aluminium               | 527                          | 886  | 2*M50 | 349                                 | 406 | 250 | 615 | 24   | 149 | 60               | 140 | 64,0 | 18               | 6315-ZZ                  | 6313-ZZ                           | 75*112*12                | 65*100*13                         |
| 55             | 2                            | Q2E250M2A             | Cast Iron               | 489                          | 893  | 1xM50 | 349                                 | 406 | 250 | 616 | 24   | 149 | 60               | 140 | 69,0 | 18               | 6316-Z                   | 6316-Z                            | 80*100*10                | 80*100*10                         |
| 55             | 4                            | Q2E250M4A             | Cast Iron               | 489                          | 893  | 1xM50 | 349                                 | 406 | 250 | 616 | 24   | 149 | 65               | 140 | 69,0 | 18               | 6316-Z                   | 6316-Z                            | 80*100*10                | 80*100*10                         |
| 75             | 2                            | Q2EP280M2B            | Cast Iron               | 489                          | 1025 | 1xM50 | 419                                 | 457 | 280 | 647 | 24   | 190 | 65               | 140 | 69,0 | 18               | 6316-Z                   | 6316-Z                            | 80*100*10                | 80*100*10                         |
| 75             | 4                            | Q2EP280M4B            | Cast Iron               | 489                          | 1025 | 1xM50 | 419                                 | 457 | 280 | 647 | 24   | 190 | 75               | 140 | 79,5 | 20               | 6316-Z                   | 6316-Z                            | 80*100*10                | 80*100*10                         |
| 90             | 2                            | Q2EP280M2C            | Cast Iron               | 489                          | 1025 | 1xM50 | 419                                 | 457 | 280 | 647 | 24   | 190 | 65               | 140 | 69,0 | 18               | 6316-Z                   | 6316-Z                            | 80*100*10                | 80*100*10                         |
| 90             | 4                            | Q2EP280M4C            | Cast Iron               | 489                          | 1025 | 1xM50 | 419                                 | 457 | 280 | 647 | 24   | 190 | 75               | 140 | 79,5 | 20               | 6316-Z                   | 6316-Z                            | 80*100*10                | 80*100*10                         |
| 110            | 2                            | Q2EP315S2C            | Cast Iron               | 630                          | 1180 | 2*M63 | 406                                 | 508 | 315 | 845 | 28   | 216 | 65               | 140 | 69   | 18               | 6317                     | 6317                              | 85*105*5.5               | 85*105*5.5                        |
| 110            | 4                            | Q2EP315S4C            | Cast Iron               | 630                          | 1210 | 2*M63 | 406                                 | 508 | 315 | 845 | 28   | 216 | 80               | 170 | 85   | 22               | 6319                     | 6319                              | 95*115*5.5               | 95*115*5.5                        |
| 132            | 2                            | Q2EP315M2C            | Cast Iron               | 630                          | 1290 | 2*M63 | 457                                 | 508 | 315 | 845 | 28   | 216 | 65               | 140 | 69   | 18               | 6317                     | 6317                              | 85*105*5.5               | 85*105*5.5                        |
| 132            | 4                            | Q2EP315M4C            | Cast Iron               | 630                          | 1320 | 2*M63 | 457                                 | 508 | 315 | 845 | 28   | 216 | 80               | 170 | 85   | 22               | 6319                     | 6319                              | 95*115*5.5               | 95*115*5.5                        |
| 160            | 2                            | Q2EP315L2C            | Cast Iron               | 630                          | 1290 | 2*M63 | 508                                 | 508 | 315 | 845 | 28   | 216 | 65               | 140 | 69   | 18               | 6317                     | 6317                              | 85*105*5.5               | 85*105*5.5                        |
| 160            | 4                            | Q2EP315L4C            | Cast Iron               | 630                          | 1320 | 2*M63 | 508                                 | 508 | 315 | 845 | 28   | 216 | 80               | 170 | 85   | 22               | 6319                     | 6319                              | 95*115*5.5               | 95*115*5.5                        |
| 200            | 2                            | Q2EP315L2D            | Cast Iron               | 630                          | 1290 | 2*M63 | 508                                 | 508 | 315 | 845 | 28   | 216 | 65               | 140 | 69   | 18               | 6317                     | 6317                              | 85*105*5.5               | 85*105*5.5                        |
| 200            | 4                            | Q2EP315L4D            | Cast Iron               | 630                          | 1320 | 2*M63 | 508                                 | 508 | 315 | 845 | 28   | 216 | 80               | 170 | 85   | 22               | 6319                     | 6319                              | 95*115*5.5               | 95*115*5.5                        |
| 250            | 2                            | Q2EP355M2C            | Cast Iron               | 710                          | 1486 | 4*M63 | 560                                 | 610 | 355 | 956 | 28   | 254 | 75               | 140 | 80   | 20               | 6317                     | 6317                              | 85*105*5.5               | 85*105*5.5                        |
| 250            | 4                            | Q2EP355M4C            | Cast Iron               | 710                          | 1517 | 4*M63 | 560                                 | 610 | 355 | 956 | 28   | 254 | 95               | 170 | 100  | 25               | 6322                     | 6322                              | 110*130*5.5              | 110*130*5.5                       |
| 315            | 2                            | Q2EP355L2C            | Cast Iron               | 710                          | 1486 | 4*M63 | 630                                 | 610 | 355 | 956 | 28   | 254 | 75               | 140 | 80   | 20               | 6317                     | 6317                              | 85*105*5.5               | 85*105*5.5                        |
| 315            | 4                            | Q2EP355L4C            | Cast Iron               | 710                          | 1517 | 4*M63 | 630                                 | 610 | 355 | 956 | 28   | 254 | 95               | 170 | 100  | 25               | 6322                     | 6322                              | 110*130*5.5              | 110*130*5.5                       |
| 355            | 2                            | Q2EP355L2D            | Cast Iron               | 710                          | 1486 | 4*M63 | 630                                 | 610 | 355 | 956 | 28   | 254 | 75               | 140 | 80   | 20               | 6317                     | 6317                              | 85*105*5.5               | 85*105*5.5                        |
| 355            | 4                            | Q2EP355L4D            | Cast Iron               | 710                          | 1517 | 4*M63 | 630                                 | 610 | 355 | 956 | 28   | 254 | 95               | 170 | 100  | 25               | 6322                     | 6322                              | 110*130*5.5              | 110*130*5.5                       |

(1) Toleranslar 28 mm'ye kadar DIN EN 50347 "j6", 28 mm ve üzeri "k6" / Tolerance DIN EN 50347 "j6" up to 28mm, "k6" above 28mm  
(2) DIN 6885'e göre / According to DIN 6885



## BOYUTLAR - B5, B35 / DIMENSION - B5, B35



| Güç<br>Power<br>(kW) | Kutup<br>sayısı<br>Number<br>of Poles | Motor Tipi<br>Motor Type | Gövde<br>Tipi<br>Housing<br>Type | Ana Boyutlar<br>Main Dimensions |     |       | Ayaklı Motorlar<br>Foot Mounted Motors |     |     |     |    | Mil<br>Shaft     |    |      |                  | Rulman<br>Bearing               |                                                | Keçe<br>Seal                    |                                                | Flanş (FA) (B5)<br>Flange (FA) (B5) |                  |     |   |      |
|----------------------|---------------------------------------|--------------------------|----------------------------------|---------------------------------|-----|-------|----------------------------------------|-----|-----|-----|----|------------------|----|------|------------------|---------------------------------|------------------------------------------------|---------------------------------|------------------------------------------------|-------------------------------------|------------------|-----|---|------|
|                      |                                       |                          |                                  | AC                              | L   | O     | B                                      | A   | H   | HD  | K  | D <sup>(1)</sup> | E  | GA   | F <sup>(2)</sup> | Kasnak<br>Taraflı<br>Drive Side | Kasnak<br>Taraflı<br>Aksi<br>Non drive<br>Side | Kasnak<br>Taraflı<br>Drive Side | Kasnak<br>Taraflı<br>Aksi<br>Non drive<br>Side | P                                   | N <sup>(3)</sup> | M   | R | S    |
| 0,12                 | 4                                     | Q2E63M4A                 | Aluminium                        | 123                             | 220 | 1xM20 | 80                                     | 100 | 63  | 162 | 7  | 11               | 23 | 12,5 | 4                | 6201-ZZ                         | 6201-ZZ                                        | 12*22*7                         | 12*22*7                                        | 140                                 | 95               | 115 | - | 10   |
| 0,18                 | 2                                     | Q2E63M2A                 | Aluminium                        | 123                             | 220 | 1xM20 | 80                                     | 100 | 63  | 162 | 7  | 11               | 23 | 12,5 | 4                | 6201-ZZ                         | 6201-ZZ                                        | 12*22*7                         | 12*22*7                                        | 140                                 | 95               | 115 | - | 10   |
| 0,18                 | 4                                     | Q2E63M4B                 | Aluminium                        | 123                             | 220 | 1xM20 | 80                                     | 100 | 63  | 162 | 7  | 11               | 23 | 12,5 | 4                | 6201-ZZ                         | 6201-ZZ                                        | 12*22*7                         | 12*22*7                                        | 140                                 | 95               | 115 | - | 10   |
| 0,25                 | 2                                     | Q2E63M2B                 | Aluminium                        | 123                             | 220 | 1xM20 | 80                                     | 100 | 63  | 162 | 7  | 11               | 23 | 12,5 | 4                | 6201-ZZ                         | 6201-ZZ                                        | 12*22*7                         | 12*22*7                                        | 140                                 | 95               | 115 | - | 10   |
| 0,25                 | 4                                     | Q2E71M4A                 | Aluminium                        | 138                             | 253 | 1xM20 | 90                                     | 112 | 71  | 190 | 7  | 14               | 30 | 16,0 | 5                | 6202-ZZ                         | 6202-ZZ                                        | 15*24*5                         | 15*24*5                                        | 160                                 | 110              | 130 | - | 10   |
| 0,37                 | 2                                     | Q2E71M2A                 | Aluminium                        | 138                             | 253 | 1xM20 | 90                                     | 112 | 71  | 190 | 7  | 14               | 30 | 16,0 | 5                | 6202-ZZ                         | 6202-ZZ                                        | 15*24*5                         | 15*24*5                                        | 160                                 | 110              | 130 | - | 10   |
| 0,37                 | 4                                     | Q2E71M4B                 | Aluminium                        | 138                             | 253 | 1xM20 | 90                                     | 112 | 71  | 190 | 7  | 14               | 30 | 16,0 | 5                | 6202-ZZ                         | 6202-ZZ                                        | 15*24*5                         | 15*24*5                                        | 160                                 | 110              | 130 | - | 10   |
| 0,55                 | 2                                     | Q2E71M2B                 | Aluminium                        | 138                             | 253 | 1xM20 | 90                                     | 112 | 71  | 190 | 7  | 14               | 30 | 16,0 | 5                | 6202-ZZ                         | 6202-ZZ                                        | 15*24*5                         | 15*24*5                                        | 160                                 | 110              | 130 | - | 10   |
| 0,55                 | 4                                     | Q2H80M4B                 | Aluminium                        | 158                             | 268 | 1xM20 | 100                                    | 125 | 80  | 216 | 10 | 19               | 40 | 21,5 | 6                | 6204-ZZ                         | 6204-ZZ                                        | 20*30*7                         | 20*30*7                                        | 200                                 | 130              | 165 | - | 12   |
| 0,75                 | 2                                     | Q2H80M2B                 | Aluminium                        | 158                             | 268 | 1xM20 | 100                                    | 125 | 80  | 216 | 10 | 19               | 40 | 21,5 | 6                | 6204-ZZ                         | 6204-ZZ                                        | 20*30*7                         | 20*30*7                                        | 200                                 | 130              | 165 | - | 12   |
| 0,75                 | 4                                     | Q2H80M4C                 | Aluminium                        | 158                             | 268 | 1xM20 | 100                                    | 125 | 80  | 216 | 10 | 19               | 40 | 21,5 | 6                | 6204-ZZ                         | 6204-ZZ                                        | 20*30*7                         | 20*30*7                                        | 200                                 | 130              | 165 | - | 12   |
| 0,75                 | 6                                     | Q2H90S6B                 | Aluminium                        | 172                             | 344 | 1xM25 | 100-125                                | 140 | 90  | 223 | 10 | 24               | 50 | 27,0 | 8                | 6305-ZZ                         | 6205-ZZ                                        | 25*40*7                         | 25*40*7                                        | 200                                 | 130              | 165 | - | 12   |
| 1,1                  | 2                                     | Q2H80M2C                 | Aluminium                        | 158                             | 268 | 1xM20 | 100                                    | 125 | 80  | 216 | 10 | 19               | 40 | 21,5 | 6                | 6204-ZZ                         | 6204-ZZ                                        | 20*30*7                         | 20*30*7                                        | 200                                 | 130              | 165 | - | 12   |
| 1,1                  | 4                                     | Q2H90L4C                 | Aluminium                        | 158                             | 278 | 1xM25 | 100-125                                | 140 | 90  | 213 | 10 | 24               | 50 | 27,0 | 8                | 6305-ZZ                         | 6204-ZZ                                        | 25*40*7                         | 20*30*7                                        | 200                                 | 130              | 165 | - | 12   |
| 1,1                  | 6                                     | Q2H90L6B                 | Aluminium                        | 172                             | 344 | 1xM25 | 100-125                                | 140 | 90  | 223 | 10 | 24               | 50 | 27,0 | 8                | 6305-ZZ                         | 6205-ZZ                                        | 25*40*7                         | 25*40*7                                        | 200                                 | 130              | 165 | - | 12   |
| 1,5                  | 2                                     | Q2H90L2B                 | Aluminium                        | 158                             | 278 | 1xM25 | 100-125                                | 140 | 90  | 213 | 10 | 24               | 50 | 27,0 | 8                | 6305-ZZ                         | 6204-ZZ                                        | 25*40*7                         | 20*30*7                                        | 200                                 | 130              | 165 | - | 12   |
| 1,5                  | 4                                     | Q2H90L4C                 | Aluminium                        | 158                             | 303 | 1xM25 | 100-125                                | 140 | 90  | 213 | 10 | 24               | 50 | 27,0 | 8                | 6305-ZZ                         | 6204-ZZ                                        | 25*40*7                         | 20*30*7                                        | 200                                 | 130              | 165 | - | 12   |
| 1,5                  | 6                                     | Q2H100L6C                | Aluminium                        | 191                             | 400 | 1xM25 | 140                                    | 160 | 100 | 243 | 12 | 28               | 60 | 31,0 | 8                | 6306-ZZ                         | 6205-ZZ                                        | 30*47*7                         | 30*47*7                                        | 250                                 | 180              | 215 | - | 14,5 |
| 2,2                  | 2                                     | Q2H90L2D                 | Aluminium                        | 158                             | 303 | 1xM25 | 100-125                                | 140 | 90  | 213 | 10 | 24               | 50 | 27,0 | 8                | 6305-ZZ                         | 6204-ZZ                                        | 25*40*7                         | 20*30*7                                        | 200                                 | 130              | 165 | - | 12   |
| 2,2                  | 4                                     | Q2H100L4B                | Aluminium                        | 172                             | 349 | 1xM25 | 140                                    | 160 | 100 | 233 | 12 | 28               | 60 | 31,0 | 8                | 6306-ZZ                         | 6205-ZZ                                        | 30*47*7                         | 25*40*7                                        | 250                                 | 180              | 215 | - | 14,5 |
| 2,2                  | 6                                     | Q2H112M6C                | Aluminium                        | 210                             | 396 | 1xM25 | 140                                    | 190 | 112 | 265 | 12 | 28               | 60 | 31,0 | 8                | 6306-ZZ                         | 6206-ZZ                                        | 30*47*7                         | 30*47*7                                        | 250                                 | 180              | 215 | - | 14,5 |
| 3                    | 2                                     | Q2H100L2C                | Aluminium                        | 172                             | 349 | 1xM25 | 140                                    | 160 | 100 | 233 | 12 | 28               | 60 | 31,0 | 8                | 6306-ZZ                         | 6205-ZZ                                        | 30*47*7                         | 25*40*7                                        | 250                                 | 180              | 215 | - | 14,5 |
| 3                    | 4                                     | Q2H100L4C                | Aluminium                        | 172                             | 384 | 1xM25 | 140                                    | 160 | 100 | 233 | 12 | 28               | 60 | 31,0 | 8                | 6306-ZZ                         | 6205-ZZ                                        | 30*47*7                         | 25*40*7                                        | 250                                 | 180              | 215 | - | 14,5 |
| 3                    | 6                                     | Q2H132S6A                | Aluminium                        | 260                             | 481 | 1xM32 | 140-178                                | 216 | 132 | 312 | 12 | 38               | 80 | 41,0 | 10               | 6208-ZZ                         | 6208-ZZ                                        | 40*62*10                        | 40*62*10                                       | 300                                 | 230              | 265 | - | 14,5 |
| 4                    | 2                                     | Q2H112M2B                | Aluminium                        | 191                             | 399 | 1xM25 | 140                                    | 190 | 112 | 254 | 12 | 28               | 60 | 31,0 | 8                | 6306-ZZ                         | 6205-ZZ                                        | 30*47*7                         | 25*40*7                                        | 250                                 | 180              | 215 | - | 14,5 |
| 4                    | 4                                     | Q2H112M4C                | Aluminium                        | 191                             | 399 | 1xM25 | 140                                    | 190 | 112 | 254 | 12 | 28               | 60 | 31,0 | 8                | 6306-ZZ                         | 6205-ZZ                                        | 30*47*7                         | 25*40*7                                        | 250                                 | 180              | 215 | - | 14,5 |
| 4                    | 6                                     | Q2H132M6A                | Aluminium                        | 260                             | 481 | 1xM32 | 140-178                                | 216 | 132 | 312 | 12 | 38               | 80 | 41,0 | 10               | 6208-ZZ                         | 6208-ZZ                                        | 40*62*10                        | 40*62*10                                       | 300                                 | 230              | 265 | - | 14,5 |
| 5,5                  | 2                                     | Q2H132S2B                | Aluminium                        | 210                             | 422 | 1xM25 | 140-178                                | 216 | 132 | 283 | 12 | 38               | 80 | 41,0 | 10               | 6208-ZZ                         | 6206-ZZ                                        | 40*62*10                        | 30*47*7                                        | 300                                 | 230              | 265 | - | 14,5 |
| 5,5                  | 4                                     | Q2H132S4A                | Aluminium                        | 210                             | 422 | 1xM25 | 140-178                                | 216 | 132 | 283 | 12 | 38               | 80 | 41,0 | 10               | 6208-ZZ                         | 6206-ZZ                                        | 40*62*10                        | 30*47*7                                        | 300                                 | 230              | 265 | - | 14,5 |
| 5,5                  | 6                                     | Q2H132M6B                | Aluminium                        | 260                             | 481 | 1xM32 | 140-178                                | 216 | 132 | 312 | 12 | 38               | 80 | 41,0 | 10               | 6208-ZZ                         | 6208-ZZ                                        | 40*62*10                        | 40*62*10                                       | 300                                 | 230              | 265 | - | 14,5 |

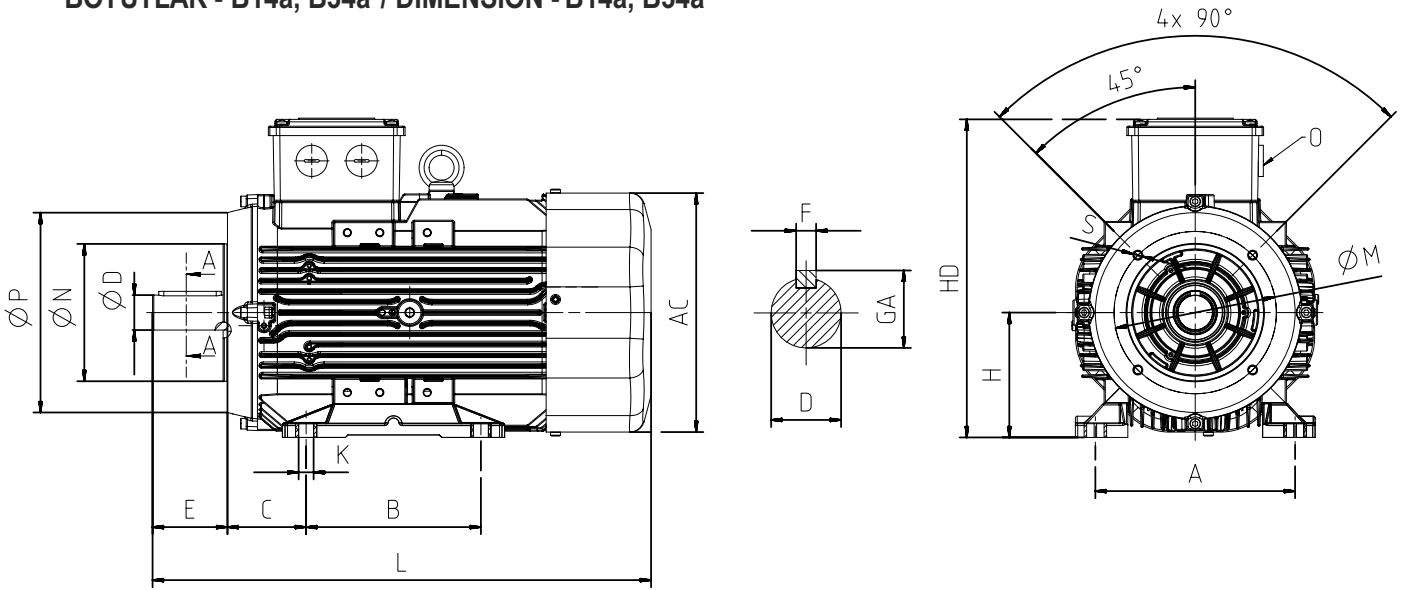
(1) Toleranslar 28 mm'ye kadar DIN EN 50347 "j6", 28 mm ve üzeri "k6" / Tolerance DIN EN 50347 "j6" up to 28mm, "k6" above 28mm

(2) DIN 6885'e göre / According to DIN 6885

(3) Tolerans DIN EN 50347 "j6" / Tolerance DIN EN 50347 "j6"

| Güç Power (kW) | Kutup sayısı Number of Poles | Motor Tipi Motor Type | Gövde Tipi Housing Type | Ana Boyutlar Main Dimensions |      |       | Ayaklı Motorlar Foot Mounted Motors |     |     |     |      | Mil Shaft        |     |      | Rulman Bearing   |                          | Keçe Seal                         |                          | Flanş (FA) (B5) Flange (FA) (B5)  |     |                  |     |   |      |
|----------------|------------------------------|-----------------------|-------------------------|------------------------------|------|-------|-------------------------------------|-----|-----|-----|------|------------------|-----|------|------------------|--------------------------|-----------------------------------|--------------------------|-----------------------------------|-----|------------------|-----|---|------|
|                |                              |                       |                         | AC                           | L    | O     | B                                   | A   | H   | HD  | K    | D <sup>(1)</sup> | E   | GA   | F <sup>(2)</sup> | Kasnak Tarafı Drive Side | Kasnak Tarafı Aksı Non drive Side | Kasnak Tarafı Drive Side | Kasnak Tarafı Aksı Non drive Side | P   | N <sup>(3)</sup> | M   | R | S    |
| 7,5            | 2                            | Q2H132S2C             | Aluminium               | 210                          | 422  | 1xM25 | 140-178                             | 216 | 132 | 283 | 12   | 38               | 80  | 41,0 | 10               | 6208-ZZ                  | 6206-ZZ                           | 40*62*10                 | 30*47*7                           | 300 | 230              | 265 | - | 14,5 |
| 7,5            | 4                            | Q2H132M4C             | Aluminium               | 260                          | 481  | 1xM32 | 140-178                             | 216 | 132 | 312 | 12   | 38               | 80  | 41,0 | 10               | 6208-ZZ                  | 6208-ZZ                           | 40*62*10                 | 40*62*10                          | 300 | 230              | 265 | - | 14,5 |
| 7,5            | 6                            | Q2H160M6B             | Aluminium               | 305                          | 591  | 1xM32 | 210-254                             | 254 | 160 | 368 | 14,5 | 42               | 110 | 45,0 | 12               | 6309-ZZ                  | 6209-ZZ                           | 45*72*10                 | 45*72*10                          | 350 | 250              | 300 | - | 18,5 |
| 11             | 2                            | Q2H160M2B             | Aluminium               | 260                          | 520  | 1xM32 | 210-254                             | 254 | 160 | 351 | 14,5 | 42               | 110 | 45,0 | 12               | 6309-ZZ                  | 6208-ZZ                           | 45*72*10                 | 40*62*10                          | 350 | 250              | 300 | - | 18,5 |
| 11             | 4                            | Q2H160M4C             | Aluminium               | 260                          | 520  | 1xM32 | 210-254                             | 254 | 160 | 351 | 14,5 | 42               | 110 | 45,0 | 12               | 6309-ZZ                  | 6208-ZZ                           | 45*72*10                 | 40*62*10                          | 350 | 250              | 300 | - | 18,5 |
| 11             | 6                            | Q2H160L6B             | Aluminium               | 305                          | 591  | 1xM32 | 210-254                             | 254 | 160 | 368 | 14,5 | 42               | 110 | 45,0 | 12               | 6309-ZZ                  | 6209-ZZ                           | 45*72*10                 | 45*72*10                          | 350 | 250              | 300 | - | 18,5 |
| 15             | 2                            | Q2H160M2C             | Aluminium               | 260                          | 520  | 1xM32 | 210-254                             | 254 | 160 | 351 | 14,5 | 42               | 110 | 45,0 | 12               | 6309-ZZ                  | 6208-ZZ                           | 45*72*10                 | 40*62*10                          | 350 | 250              | 300 | - | 18,5 |
| 15             | 4                            | Q2H160L4B             | Aluminium               | 260                          | 520  | 1xM32 | 210-254                             | 254 | 160 | 351 | 14,5 | 42               | 110 | 45,0 | 12               | 6309-ZZ                  | 6208-ZZ                           | 45*72*10                 | 40*62*10                          | 350 | 250              | 300 | - | 18,5 |
| 15             | 6                            | Q2H180L6A             | Aluminium               | 349                          | 696  | 1xM40 | 241-279                             | 279 | 180 | 437 | 14,5 | 48               | 110 | 51,5 | 14               | 6310-ZZ                  | 6310-ZZ                           | 50*80*10                 | 50*80*10                          | 350 | 250              | 300 | - | 18,5 |
| 18,5           | 2                            | Q2H160M2D             | Aluminium               | 260                          | 520  | 1xM32 | 210-254                             | 254 | 160 | 351 | 14,5 | 42               | 110 | 45,0 | 12               | 6309-ZZ                  | 6208-ZZ                           | 45*72*10                 | 40*62*10                          | 350 | 250              | 300 | - | 18,5 |
| 18,5           | 4                            | Q2H180M4A             | Aluminium               | 305                          | 596  | 1xM32 | 241-279                             | 279 | 180 | 398 | 14,5 | 48               | 110 | 51,5 | 14               | 6310-ZZ                  | 6209-ZZ                           | 50*80*10                 | 45*72*10                          | 350 | 250              | 300 | - | 18,5 |
| 18,5           | 6                            | Q2H200L6B             | Aluminium               | 349                          | 706  | 1xM50 | 305                                 | 318 | 200 | 455 | 18,5 | 55               | 110 | 59,0 | 16               | 6312-ZZ                  | 6310-ZZ                           | 60*90*10                 | 60*90*10                          | 400 | 300              | 350 | - | 18,5 |
| 22             | 2                            | Q2H180M2A             | Aluminium               | 305                          | 596  | 1xM32 | 241-279                             | 279 | 180 | 398 | 14,5 | 48               | 110 | 51,5 | 14               | 6310-ZZ                  | 6209-ZZ                           | 50*80*10                 | 45*72*10                          | 350 | 250              | 300 | - | 18,5 |
| 22             | 4                            | Q2H180M4B             | Aluminium               | 305                          | 596  | 1xM32 | 241-279                             | 279 | 180 | 398 | 14,5 | 48               | 110 | 51,5 | 14               | 6310-ZZ                  | 6209-ZZ                           | 50*80*10                 | 45*72*10                          | 350 | 250              | 300 | - | 18,5 |
| 22             | 6                            | Q2H200L6C             | Aluminium               | 349                          | 706  | 1xM50 | 267-305                             | 318 | 200 | 455 | 18,5 | 55               | 110 | 59,0 | 16               | 6312-ZZ                  | 6310-ZZ                           | 60*90*10                 | 60*90*10                          | 400 | 300              | 350 | - | 18,5 |
| 30             | 2                            | Q2H200L2B             | Aluminium               | 349                          | 706  | 1xM50 | 267-305                             | 318 | 200 | 455 | 18,5 | 55               | 110 | 59,0 | 16               | 6312-ZZ                  | 6310-ZZ                           | 60*90*10                 | 60*90*10                          | 400 | 300              | 350 | - | 18,5 |
| 30             | 4                            | Q2H200L4C             | Aluminium               | 349                          | 706  | 1xM50 | 267-305                             | 318 | 200 | 455 | 18,5 | 55               | 110 | 59,0 | 16               | 6312-ZZ                  | 6310-ZZ                           | 60*90*10                 | 60*90*10                          | 400 | 300              | 350 | - | 18,5 |
| 30             | 6                            | Q2E225M6B             | Aluminium               | 456                          | 765  | 1xM50 | 286-311                             | 356 | 225 | 485 | 18,5 | 60               | 140 | 64,0 | 18               | 6313-ZZ                  | 6313-ZZ                           | 65*100*13                | 65*100*13                         | 450 | 350              | 400 | - | 18,5 |
| 37             | 2                            | Q2H200L2C             | Aluminium               | 349                          | 706  | 1xM50 | 267-305                             | 318 | 200 | 455 | 18,5 | 55               | 110 | 59,0 | 16               | 6312-ZZ                  | 6310-ZZ                           | 60*90*10                 | 60*90*10                          | 400 | 300              | 350 | - | 18,5 |
| 37             | 4                            | Q2E225M4A             | Aluminium               | 456                          | 765  | 1xM50 | 286-311                             | 356 | 225 | 485 | 18,5 | 60               | 140 | 64,0 | 18               | 6313-ZZ                  | 6313-ZZ                           | 65*100*13                | 65*100*13                         | 450 | 350              | 400 | - | 18,5 |
| 45             | 2                            | Q2E225M2B             | Aluminium               | 456                          | 735  | 1xM50 | 286-311                             | 356 | 225 | 485 | 18,5 | 55               | 110 | 59,0 | 16               | 6313-ZZ                  | 6313-ZZ                           | 65*100*13                | 65*100*13                         | 450 | 350              | 400 | - | 18,5 |
| 45             | 4                            | Q2E225M4B             | Aluminium               | 456                          | 765  | 1xM50 | 286-311                             | 356 | 225 | 485 | 18,5 | 60               | 140 | 64,0 | 18               | 6313-ZZ                  | 6313-ZZ                           | 65*100*13                | 65*100*13                         | 450 | 350              | 400 | - | 18,5 |
| 55             | 2                            | Q2E250M2A             | Aluminium               | 527                          | 886  | 2*M50 | 349                                 | 406 | 250 | 615 | 24   | 60               | 140 | 18   | 64               | 6315-ZZ                  | 6313-ZZ                           | 75*112*12                | 65*100*13                         | 550 | 450              | 500 | - | 18,5 |
| 55             | 2                            | Q2E250M2A             | Cast Iron               | 489                          | 893  | 1xM50 | 349                                 | 406 | 250 | 616 | 24   | 60               | 140 | 69,0 | 18               | 6316-Z                   | 6316-Z                            | 80*100*10                | 80*100*10                         | 550 | 450              | 500 | - | 18,5 |
| 55             | 4                            | Q2E250M4A             | Cast Iron               | 489                          | 893  | 1xM50 | 349                                 | 406 | 250 | 616 | 24   | 65               | 140 | 69,0 | 18               | 6316-Z                   | 6316-Z                            | 80*100*10                | 80*100*10                         | 550 | 450              | 500 | - | 18,5 |
| 75             | 2                            | Q2EP280M2B            | Cast Iron               | 489                          | 1025 | 1xM50 | 419                                 | 457 | 280 | 647 | 24   | 65               | 140 | 69,0 | 18               | 6316-Z                   | 6316-Z                            | 80*100*10                | 80*100*10                         | 550 | 450              | 500 | - | 18,5 |
| 75             | 4                            | Q2EP280M4B            | Cast Iron               | 489                          | 1025 | 1xM50 | 419                                 | 457 | 280 | 647 | 24   | 75               | 140 | 79,5 | 20               | 6316-Z                   | 6316-Z                            | 80*100*10                | 80*100*10                         | 550 | 450              | 500 | - | 18,5 |
| 90             | 2                            | Q2EP280M2C            | Cast Iron               | 489                          | 1025 | 1xM50 | 419                                 | 457 | 280 | 647 | 24   | 65               | 140 | 69,0 | 18               | 6316-Z                   | 6316-Z                            | 80*100*10                | 80*100*10                         | 550 | 450              | 500 | - | 18,5 |
| 90             | 4                            | Q2EP280M4C            | Cast Iron               | 489                          | 1025 | 1xM50 | 419                                 | 457 | 280 | 647 | 24   | 75               | 140 | 79,5 | 20               | 6316-Z                   | 6316-Z                            | 80*100*10                | 80*100*10                         | 550 | 450              | 500 | - | 18,5 |
| 110            | 2                            | Q2EP315S2C            | Cast Iron               | 630                          | 1180 | 2*M63 | 406                                 | 508 | 315 | 845 | 28   | 216              | 65  | 140  | 69               | 6317                     | 6317                              | 85*105*5.5               | 85*105*5.5                        | 660 | 550              | 600 | - | 24   |
| 110            | 4                            | Q2EP315S4C            | Cast Iron               | 630                          | 1210 | 2*M63 | 406                                 | 508 | 315 | 845 | 28   | 216              | 80  | 170  | 85               | 6319                     | 6319                              | 95*115*5.5               | 95*115*5.5                        | 660 | 550              | 600 | - | 24   |
| 132            | 2                            | Q2EP315M2C            | Cast Iron               | 630                          | 1290 | 2*M63 | 457                                 | 508 | 315 | 845 | 28   | 216              | 65  | 140  | 69               | 6317                     | 6317                              | 85*105*5.5               | 85*105*5.5                        | 660 | 550              | 600 | - | 24   |
| 132            | 4                            | Q2EP315M4C            | Cast Iron               | 630                          | 1320 | 2*M63 | 457                                 | 508 | 315 | 845 | 28   | 216              | 80  | 170  | 85               | 6319                     | 6319                              | 95*115*5.5               | 95*115*5.5                        | 660 | 550              | 600 | - | 24   |
| 160            | 2                            | Q2EP315L2C            | Cast Iron               | 630                          | 1290 | 2*M63 | 508                                 | 508 | 315 | 845 | 28   | 216              | 65  | 140  | 69               | 6317                     | 6317                              | 85*105*5.5               | 85*105*5.5                        | 660 | 550              | 600 | - | 24   |
| 160            | 4                            | Q2EP315L4C            | Cast Iron               | 630                          | 1320 | 2*M63 | 508                                 | 508 | 315 | 845 | 28   | 216              | 80  | 170  | 85               | 6319                     | 6319                              | 95*115*5.5               | 95*115*5.5                        | 660 | 550              | 600 | - | 24   |
| 200            | 2                            | Q2EP315L2D            | Cast Iron               | 630                          | 1290 | 2*M63 | 508                                 | 508 | 315 | 845 | 28   | 216              | 65  | 140  | 69               | 6317                     | 6317                              | 85*105*5.5               | 85*105*5.5                        | 660 | 550              | 600 | - | 24   |
| 200            | 4                            | Q2EP315L4D            | Cast Iron               | 630                          | 1320 | 2*M63 | 508                                 | 508 | 315 | 845 | 28   | 216              | 80  | 170  | 85               | 6319                     | 6319                              | 95*115*5.5               | 95*115*5.5                        | 660 | 550              | 600 | - | 24   |
| 250            | 2                            | Q2EP355M2C            | Cast Iron               | 710                          | 1486 | 4*M63 | 560                                 | 610 | 355 | 956 | 28   | 254              | 75  | 140  | 80               | 6317                     | 6317                              | 85*105*5.5               | 85*105*5.5                        | 800 | 680              | 740 | - | 24   |
| 250            | 4                            | Q2EP355M4C            | Cast Iron               | 710                          | 1517 | 4*M63 | 560                                 | 610 | 355 | 956 | 28   | 254              | 95  | 170  | 100              | 6322                     | 6322                              | 110*130*5.5              | 110*130*5.5                       | 800 | 680              | 740 | - | 24   |
| 315            | 2                            | Q2EP355L2C            | Cast Iron               | 710                          | 1486 | 4*M63 | 630                                 | 610 | 355 | 956 | 28   | 254              | 75  | 140  | 80               | 6317                     | 6317                              | 85*105*5.5               | 85*105*5.5                        | 800 | 680              | 740 | - | 24   |
| 315            | 4                            | Q2EP355L4C            | Cast Iron               | 710                          | 1517 | 4*M63 | 630                                 | 610 | 355 | 956 | 28   | 254              | 95  | 170  | 100              | 6322                     | 6322                              | 110*130*5.5              | 110*130*5.5                       | 800 | 680              | 740 | - | 24   |
| 355            | 2                            | Q2EP355L2D            | Cast Iron               | 710                          | 1486 | 4*M63 | 630                                 | 610 | 355 | 956 | 28   | 254              | 75  | 140  | 80               | 6317                     | 6317                              | 85*105*5.5               | 85*105*5.5                        | 800 | 680              | 740 | - | 24   |
| 355            | 4                            | Q2EP355L4D            | Cast Iron               | 710                          | 1517 | 4*M63 | 630                                 | 610 | 355 | 956 | 28   | 254              | 95  | 170  | 100              | 6322                     | 6322                              | 110*130*5.5              | 110*130*5.5                       | 800 | 680              | 740 | - | 24   |

## BOYUTLAR - B14a, B34a / DIMENSION - B14a, B34a



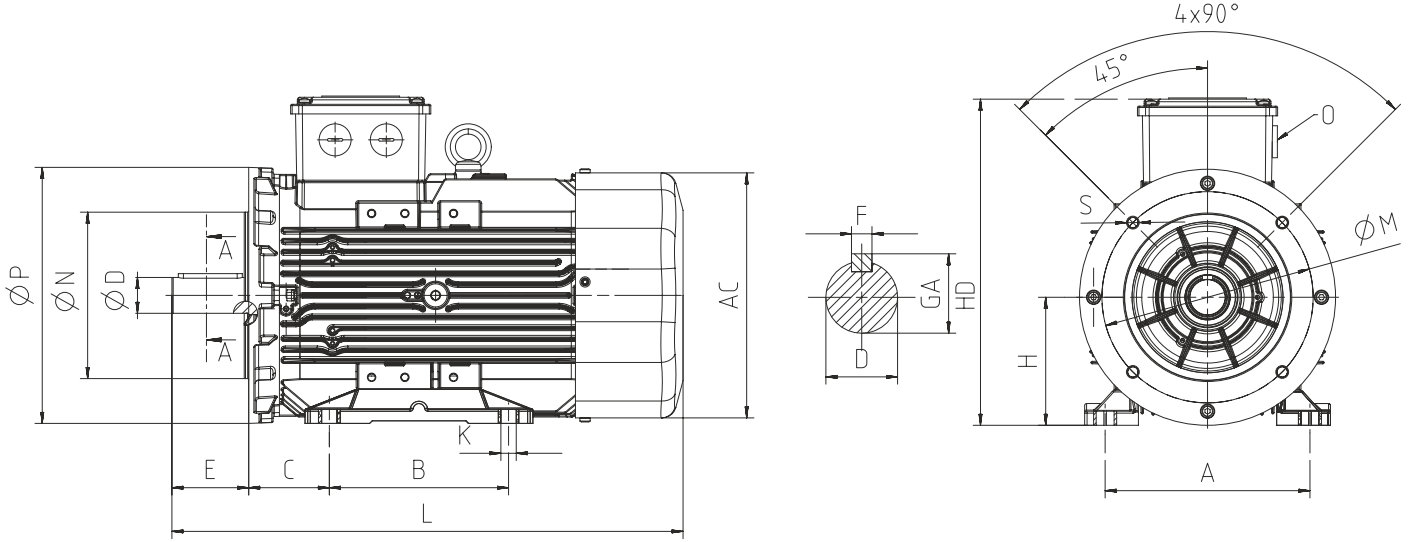
| Güç Power (kW) | Kutup sayısı Number of Poles | Motor Tipi Motor Type | Gövde Tipi Housing Type | Ana Boyutlar Main Dimensions |     |       | Ayaklı Motorlar Foot Mounted Motors |     |     |     | Mil Shaft |                  | Rulman Bearing |      | Keçe Seal        |                          | Flanş (FC) (B14a) Flange (FC) (B14a) |                          |                                   |     |                  |     |   |     |
|----------------|------------------------------|-----------------------|-------------------------|------------------------------|-----|-------|-------------------------------------|-----|-----|-----|-----------|------------------|----------------|------|------------------|--------------------------|--------------------------------------|--------------------------|-----------------------------------|-----|------------------|-----|---|-----|
|                |                              |                       |                         | AC                           | L   | O     | B                                   | A   | H   | HD  | K         | D <sup>(1)</sup> | E              | GA   | F <sup>(2)</sup> | Kasnak Tarafı Drive Side | Kasnak Tarafı Aksı Non drive Side    | Kasnak Tarafı Drive Side | Kasnak Tarafı Aksı Non drive Side | P   | N <sup>(3)</sup> | M   | R | S   |
| 0,12           | 4                            | Q2E63M4A              | Aluminium               | 123                          | 220 | 1xM20 | 80                                  | 100 | 63  | 162 | 7         | 11               | 23             | 12,5 | 4                | 6201-ZZ                  | 6201-ZZ                              | 12*22*7                  | 12*22*7                           | 90  | 60               | 75  | - | M5  |
| 0,18           | 2                            | Q2E63M2A              | Aluminium               | 123                          | 220 | 1xM20 | 80                                  | 100 | 63  | 162 | 7         | 11               | 23             | 12,5 | 4                | 6201-ZZ                  | 6201-ZZ                              | 12*22*7                  | 12*22*7                           | 90  | 60               | 75  | - | M5  |
| 0,18           | 4                            | Q2E63M4B              | Aluminium               | 123                          | 220 | 1xM20 | 80                                  | 100 | 63  | 162 | 7         | 11               | 23             | 12,5 | 4                | 6201-ZZ                  | 6201-ZZ                              | 12*22*7                  | 12*22*7                           | 90  | 60               | 75  | - | M5  |
| 0,25           | 2                            | Q2E63M2B              | Aluminium               | 123                          | 220 | 1xM20 | 80                                  | 100 | 63  | 162 | 7         | 11               | 23             | 12,5 | 4                | 6201-ZZ                  | 6201-ZZ                              | 12*22*7                  | 12*22*7                           | 90  | 60               | 75  | - | M5  |
| 0,25           | 4                            | Q2E71M4A              | Aluminium               | 138                          | 253 | 1xM20 | 90                                  | 112 | 71  | 190 | 7         | 14               | 30             | 16,0 | 5                | 6202-ZZ                  | 6202-ZZ                              | 15*24*5                  | 15*24*5                           | 105 | 70               | 85  | - | M6  |
| 0,37           | 2                            | Q2E71M2A              | Aluminium               | 138                          | 253 | 1xM20 | 90                                  | 112 | 71  | 190 | 7         | 14               | 30             | 16,0 | 5                | 6202-ZZ                  | 6202-ZZ                              | 15*24*5                  | 15*24*5                           | 105 | 70               | 85  | - | M6  |
| 0,37           | 4                            | Q2E71M4B              | Aluminium               | 138                          | 253 | 1xM20 | 90                                  | 112 | 71  | 190 | 7         | 14               | 30             | 16,0 | 5                | 6202-ZZ                  | 6202-ZZ                              | 15*24*5                  | 15*24*5                           | 105 | 70               | 85  | - | M6  |
| 0,55           | 2                            | Q2E71M2B              | Aluminium               | 138                          | 253 | 1xM20 | 90                                  | 112 | 71  | 190 | 7         | 14               | 30             | 16,0 | 5                | 6202-ZZ                  | 6202-ZZ                              | 15*24*5                  | 15*24*5                           | 105 | 70               | 85  | - | M6  |
| 0,55           | 4                            | Q2H80M4B              | Aluminium               | 158                          | 268 | 1xM20 | 100                                 | 125 | 80  | 216 | 10        | 19               | 40             | 21,5 | 6                | 6204-ZZ                  | 6204-ZZ                              | 20*30*7                  | 20*30*7                           | 120 | 80               | 100 | - | M6  |
| 0,75           | 2                            | Q2H80M2B              | Aluminium               | 158                          | 268 | 1xM20 | 100                                 | 125 | 80  | 216 | 10        | 19               | 40             | 21,5 | 6                | 6204-ZZ                  | 6204-ZZ                              | 20*30*7                  | 20*30*7                           | 120 | 80               | 100 | - | M6  |
| 0,75           | 4                            | Q2H80M4C              | Aluminium               | 158                          | 268 | 1xM20 | 100                                 | 125 | 80  | 216 | 10        | 19               | 40             | 21,5 | 6                | 6204-ZZ                  | 6204-ZZ                              | 20*30*7                  | 20*30*7                           | 120 | 80               | 100 | - | M6  |
| 0,75           | 6                            | Q2H90S6B              | Aluminium               | 172                          | 344 | 1xM25 | 100-125                             | 140 | 90  | 223 | 10        | 24               | 50             | 27,0 | 8                | 6305-ZZ                  | 6205-ZZ                              | 25*40*7                  | 25*40*7                           | 140 | 95               | 115 | - | M8  |
| 1,1            | 2                            | Q2H80M2C              | Aluminium               | 158                          | 268 | 1xM20 | 100                                 | 125 | 80  | 216 | 10        | 19               | 40             | 21,5 | 6                | 6204-ZZ                  | 6204-ZZ                              | 20*30*7                  | 20*30*7                           | 120 | 80               | 100 | - | M6  |
| 1,1            | 4                            | Q2H90L4C              | Aluminium               | 158                          | 278 | 1xM25 | 100-125                             | 140 | 90  | 213 | 10        | 24               | 50             | 27,0 | 8                | 6305-ZZ                  | 6204-ZZ                              | 25*40*7                  | 20*30*7                           | 140 | 95               | 115 | - | M8  |
| 1,1            | 6                            | Q2H90L6C              | Aluminium               | 172                          | 344 | 1xM25 | 100-125                             | 140 | 90  | 223 | 10        | 24               | 50             | 27,0 | 8                | 6305-ZZ                  | 6205-ZZ                              | 25*40*7                  | 25*40*7                           | 140 | 95               | 115 | - | M8  |
| 1,5            | 2                            | Q2H90L2B              | Aluminium               | 158                          | 278 | 1xM25 | 100-125                             | 140 | 90  | 213 | 10        | 24               | 50             | 27,0 | 8                | 6305-ZZ                  | 6204-ZZ                              | 25*40*7                  | 20*30*7                           | 140 | 95               | 115 | - | M8  |
| 1,5            | 4                            | Q2H90L4C              | Aluminium               | 158                          | 303 | 1xM25 | 100-125                             | 140 | 90  | 213 | 10        | 24               | 50             | 27,0 | 8                | 6305-ZZ                  | 6204-ZZ                              | 25*40*7                  | 20*30*7                           | 140 | 95               | 115 | - | M8  |
| 1,5            | 6                            | Q2H100L6C             | Aluminium               | 191                          | 400 | 1xM25 | 140                                 | 160 | 100 | 243 | 12        | 28               | 60             | 31,0 | 8                | 6306-ZZ                  | 6205-ZZ                              | 30*47*7                  | 30*47*7                           | 160 | 110              | 130 | - | M8  |
| 2,2            | 2                            | Q2H90L2D              | Aluminium               | 158                          | 303 | 1xM25 | 100-125                             | 140 | 90  | 213 | 10        | 24               | 50             | 27,0 | 8                | 6305-ZZ                  | 6204-ZZ                              | 25*40*7                  | 20*30*7                           | 140 | 95               | 115 | - | M8  |
| 2,2            | 4                            | Q2H100L4B             | Aluminium               | 172                          | 349 | 1xM25 | 140                                 | 160 | 100 | 233 | 12        | 28               | 60             | 31,0 | 8                | 6306-ZZ                  | 6205-ZZ                              | 30*47*7                  | 25*40*7                           | 160 | 110              | 130 | - | M8  |
| 2,2            | 6                            | Q2H112M6C             | Aluminium               | 210                          | 396 | 1xM25 | 140                                 | 190 | 112 | 265 | 12        | 28               | 60             | 31,0 | 8                | 6306-ZZ                  | 6206-ZZ                              | 30*47*7                  | 30*47*7                           | 160 | 110              | 130 | - | M8  |
| 3              | 2                            | Q2H100L2C             | Aluminium               | 172                          | 349 | 1xM25 | 140                                 | 160 | 100 | 233 | 12        | 28               | 60             | 31,0 | 8                | 6306-ZZ                  | 6205-ZZ                              | 30*47*7                  | 25*40*7                           | 160 | 110              | 130 | - | M8  |
| 3              | 4                            | Q2H100L4C             | Aluminium               | 172                          | 384 | 1xM25 | 140                                 | 160 | 100 | 233 | 12        | 28               | 60             | 31,0 | 8                | 6306-ZZ                  | 6205-ZZ                              | 30*47*7                  | 25*40*7                           | 160 | 110              | 130 | - | M8  |
| 3              | 6                            | Q2H132S6A             | Aluminium               | 260                          | 481 | 1xM32 | 140-178                             | 216 | 132 | 312 | 12        | 38               | 80             | 41,0 | 10               | 6208-ZZ                  | 6208-ZZ                              | 40*62*10                 | 40*62*10                          | 200 | 130              | 165 | - | M10 |
| 4              | 2                            | Q2H112M2B             | Aluminium               | 191                          | 399 | 1xM25 | 140                                 | 190 | 112 | 254 | 12        | 28               | 60             | 31,0 | 8                | 6306-ZZ                  | 6205-ZZ                              | 30*47*7                  | 25*40*7                           | 160 | 110              | 130 | - | M8  |
| 4              | 4                            | Q2H112M4C             | Aluminium               | 191                          | 399 | 1xM25 | 140                                 | 190 | 112 | 254 | 12        | 28               | 60             | 31,0 | 8                | 6306-ZZ                  | 6205-ZZ                              | 30*47*7                  | 25*40*7                           | 160 | 110              | 130 | - | M8  |
| 4              | 6                            | Q2H132M6A             | Aluminium               | 260                          | 481 | 1xM32 | 140-178                             | 216 | 132 | 312 | 12        | 38               | 80             | 41,0 | 10               | 6208-ZZ                  | 6208-ZZ                              | 40*62*10                 | 40*62*10                          | 200 | 130              | 165 | - | M10 |
| 5,5            | 2                            | Q2H132S2B             | Aluminium               | 210                          | 422 | 1xM25 | 140-178                             | 216 | 132 | 283 | 12        | 38               | 80             | 41,0 | 10               | 6208-ZZ                  | 6206-ZZ                              | 40*62*10                 | 30*47*7                           | 200 | 130              | 165 | - | M10 |
| 5,5            | 4                            | Q2H132S4A             | Aluminium               | 210                          | 422 | 1xM25 | 140-178                             | 216 | 132 | 283 | 12        | 38               | 80             | 41,0 | 10               | 6208-ZZ                  | 6206-ZZ                              | 40*62*10                 | 30*47*7                           | 200 | 130              | 165 | - | M10 |
| 5,5            | 6                            | Q2H132M6B             | Aluminium               | 260                          | 481 | 1xM32 | 140-178                             | 216 | 132 | 312 | 12        | 38               | 80             | 41,0 | 10               | 6208-ZZ                  | 6208-ZZ                              | 40*62*10                 | 40*62*10                          | 200 | 130              | 165 | - | M10 |
| 7,5            | 2                            | Q2H132S2C             | Aluminium               | 210                          | 422 | 1xM25 | 140-178                             | 216 | 132 | 283 | 12        | 38               | 80             | 41,0 | 10               | 6208-ZZ                  | 6206-ZZ                              | 40*62*10                 | 30*47*7                           | 200 | 130              | 165 | - | M10 |
| 7,5            | 4                            | Q2H132M4C             | Aluminium               | 260                          | 481 | 1xM32 | 140-178                             | 216 | 132 | 312 | 12        | 38               | 80             | 41,0 | 10               | 6208-ZZ                  | 6208-ZZ                              | 40*62*10                 | 40*62*10                          | 200 | 130              | 165 | - | M10 |

(1) Toleranslar 28 mm'ye kadar DIN EN 50347 "j6", 28 mm ve üzeri "k6" / Tolerance DIN EN 50347 "j6" up to 28mm, "k6" above 28mm

(2) DIN 6885'e göre / According to DIN 6885

(3) Tolerans DIN EN 50347 "j6" / Tolerance DIN EN 50347 "j6"

## BOYUTLAR - B14b, B34b / DIMENSION - B14b, B34b



| Güç<br>Power<br>(kW) | Kutup<br>sayısı<br>Number<br>of Poles | Motor Tipi<br>Motor Type | Gövde<br>Tipi<br>Housing<br>Type | Ana Boyutlar<br>Main Dimensions |     |       | Ayaklı Motorlar<br>Foot Mounted Motors |     |     |     |    | Mil<br>Shaft     |    | Rulman<br>Bearing |                  | Keçe<br>Seal                    |                                             | Flanş (FB) (B14b)<br>Flange (FB) (B14b) |                                             |     |                  |     |   |     |
|----------------------|---------------------------------------|--------------------------|----------------------------------|---------------------------------|-----|-------|----------------------------------------|-----|-----|-----|----|------------------|----|-------------------|------------------|---------------------------------|---------------------------------------------|-----------------------------------------|---------------------------------------------|-----|------------------|-----|---|-----|
|                      |                                       |                          |                                  | AC                              | L   | O     | B                                      | A   | H   | HD  | K  | D <sup>(1)</sup> | E  | GA                | F <sup>(2)</sup> | Kasnak<br>Taraflı<br>Drive Side | Kasnak<br>Taraflı Aksı<br>Non drive<br>Side | Kasnak<br>Taraflı<br>Drive Side         | Kasnak<br>Taraflı Aksı<br>Non drive<br>Side | P   | N <sup>(3)</sup> | M   | R | S   |
| 0,12                 | 4                                     | Q2E63M4A                 | Aluminium                        | 123                             | 220 | 1xM20 | 80                                     | 100 | 63  | 162 | 7  | 11               | 23 | 12,5              | 4                | 6201-ZZ                         | 6201-ZZ                                     | 12*22*7                                 | 12*22*7                                     | 120 | 80               | 100 | - | M6  |
| 0,18                 | 2                                     | Q2E63M2A                 | Aluminium                        | 123                             | 220 | 1xM20 | 80                                     | 100 | 63  | 162 | 7  | 11               | 23 | 12,5              | 4                | 6201-ZZ                         | 6201-ZZ                                     | 12*22*7                                 | 12*22*7                                     | 120 | 80               | 100 | - | M6  |
| 0,18                 | 4                                     | Q2E63M4B                 | Aluminium                        | 123                             | 220 | 1xM20 | 80                                     | 100 | 63  | 162 | 7  | 11               | 23 | 12,5              | 4                | 6201-ZZ                         | 6201-ZZ                                     | 12*22*7                                 | 12*22*7                                     | 120 | 80               | 100 | - | M6  |
| 0,25                 | 2                                     | Q2E63M2B                 | Aluminium                        | 123                             | 220 | 1xM20 | 80                                     | 100 | 63  | 162 | 7  | 11               | 23 | 12,5              | 4                | 6201-ZZ                         | 6201-ZZ                                     | 12*22*7                                 | 12*22*7                                     | 120 | 80               | 100 | - | M6  |
| 0,25                 | 4                                     | Q2E71M4A                 | Aluminium                        | 138                             | 253 | 1xM20 | 90                                     | 112 | 71  | 190 | 7  | 14               | 30 | 16,0              | 5                | 6202-ZZ                         | 6202-ZZ                                     | 15*24*5                                 | 15*24*5                                     | 140 | 95               | 115 | - | M8  |
| 0,37                 | 2                                     | Q2E71M2A                 | Aluminium                        | 138                             | 253 | 1xM20 | 90                                     | 112 | 71  | 190 | 7  | 14               | 30 | 16,0              | 5                | 6202-ZZ                         | 6202-ZZ                                     | 15*24*5                                 | 15*24*5                                     | 140 | 95               | 115 | - | M8  |
| 0,37                 | 4                                     | Q2E71M4B                 | Aluminium                        | 138                             | 253 | 1xM20 | 90                                     | 112 | 71  | 190 | 7  | 14               | 30 | 16,0              | 5                | 6202-ZZ                         | 6202-ZZ                                     | 15*24*5                                 | 15*24*5                                     | 140 | 95               | 115 | - | M8  |
| 0,55                 | 2                                     | Q2E71M2B                 | Aluminium                        | 138                             | 253 | 1xM20 | 90                                     | 112 | 71  | 190 | 7  | 14               | 30 | 16,0              | 5                | 6202-ZZ                         | 6202-ZZ                                     | 15*24*5                                 | 15*24*5                                     | 140 | 95               | 115 | - | M8  |
| 0,55                 | 4                                     | Q2H80M4B                 | Aluminium                        | 158                             | 268 | 1xM20 | 100                                    | 125 | 80  | 216 | 10 | 19               | 40 | 21,5              | 6                | 6204-ZZ                         | 6204-ZZ                                     | 20*30*7                                 | 20*30*7                                     | 160 | 110              | 130 | - | M8  |
| 0,75                 | 2                                     | Q2H80M2B                 | Aluminium                        | 158                             | 268 | 1xM20 | 100                                    | 125 | 80  | 216 | 10 | 19               | 40 | 21,5              | 6                | 6204-ZZ                         | 6204-ZZ                                     | 20*30*7                                 | 20*30*7                                     | 160 | 110              | 130 | - | M8  |
| 0,75                 | 4                                     | Q2H80M4C                 | Aluminium                        | 158                             | 268 | 1xM20 | 100                                    | 125 | 80  | 216 | 10 | 19               | 40 | 21,5              | 6                | 6204-ZZ                         | 6204-ZZ                                     | 20*30*7                                 | 20*30*7                                     | 160 | 110              | 130 | - | M8  |
| 0,75                 | 6                                     | Q2H90S6B                 | Aluminium                        | 172                             | 344 | 1xM25 | 100-125                                | 140 | 90  | 223 | 10 | 24               | 50 | 27,0              | 8                | 6305-ZZ                         | 6205-ZZ                                     | 25*40*7                                 | 25*40*7                                     | 160 | 110              | 130 | - | M8  |
| 1,1                  | 2                                     | Q2H80M2C                 | Aluminium                        | 158                             | 268 | 1xM20 | 100                                    | 125 | 80  | 216 | 10 | 19               | 40 | 21,5              | 6                | 6204-ZZ                         | 6204-ZZ                                     | 20*30*7                                 | 20*30*7                                     | 160 | 110              | 130 | - | M8  |
| 1,1                  | 4                                     | Q2H90L4C                 | Aluminium                        | 158                             | 278 | 1xM25 | 100-125                                | 140 | 90  | 213 | 10 | 24               | 50 | 27,0              | 8                | 6305-ZZ                         | 6204-ZZ                                     | 25*40*7                                 | 20*30*7                                     | 160 | 110              | 130 | - | M8  |
| 1,1                  | 6                                     | Q2H90L6C                 | Aluminium                        | 172                             | 344 | 1xM25 | 100-125                                | 140 | 90  | 223 | 10 | 24               | 50 | 27,0              | 8                | 6305-ZZ                         | 6205-ZZ                                     | 25*40*7                                 | 25*40*7                                     | 160 | 110              | 130 | - | M8  |
| 1,5                  | 2                                     | Q2H90L2B                 | Aluminium                        | 158                             | 278 | 1xM25 | 100-125                                | 140 | 90  | 213 | 10 | 24               | 50 | 27,0              | 8                | 6305-ZZ                         | 6204-ZZ                                     | 25*40*7                                 | 20*30*7                                     | 160 | 110              | 130 | - | M8  |
| 1,5                  | 4                                     | Q2H90L4C                 | Aluminium                        | 158                             | 303 | 1xM25 | 100-125                                | 140 | 90  | 213 | 10 | 24               | 50 | 27,0              | 8                | 6305-ZZ                         | 6204-ZZ                                     | 25*40*7                                 | 20*30*7                                     | 160 | 110              | 130 | - | M8  |
| 1,5                  | 6                                     | Q2H100L6C                | Aluminium                        | 191                             | 400 | 1xM25 | 140                                    | 160 | 100 | 243 | 12 | 28               | 60 | 31,0              | 8                | 6306-ZZ                         | 6205-ZZ                                     | 30*47*7                                 | 30*47*7                                     | 200 | 130              | 165 | - | M10 |
| 2,2                  | 2                                     | Q2H90L2D                 | Aluminium                        | 158                             | 303 | 1xM25 | 100-125                                | 140 | 90  | 213 | 10 | 24               | 50 | 27,0              | 8                | 6305-ZZ                         | 6204-ZZ                                     | 25*40*7                                 | 20*30*7                                     | 160 | 110              | 130 | - | M8  |
| 2,2                  | 4                                     | Q2H100L4B                | Aluminium                        | 172                             | 349 | 1xM25 | 140                                    | 160 | 100 | 233 | 12 | 28               | 60 | 31,0              | 8                | 6306-ZZ                         | 6205-ZZ                                     | 30*47*7                                 | 25*40*7                                     | 200 | 130              | 165 | - | M10 |
| 2,2                  | 6                                     | Q2H112M6C                | Aluminium                        | 210                             | 396 | 1xM25 | 140                                    | 190 | 112 | 265 | 12 | 28               | 60 | 31,0              | 8                | 6306-ZZ                         | 6206-ZZ                                     | 30*47*7                                 | 30*47*7                                     | 200 | 130              | 165 | - | M10 |
| 3                    | 2                                     | Q2H100L2C                | Aluminium                        | 172                             | 349 | 1xM25 | 140                                    | 160 | 100 | 233 | 12 | 28               | 60 | 31,0              | 8                | 6306-ZZ                         | 6205-ZZ                                     | 30*47*7                                 | 25*40*7                                     | 200 | 130              | 165 | - | M10 |
| 3                    | 4                                     | Q2H100L4C                | Aluminium                        | 172                             | 384 | 1xM25 | 140                                    | 160 | 100 | 233 | 12 | 28               | 60 | 31,0              | 8                | 6306-ZZ                         | 6205-ZZ                                     | 30*47*7                                 | 25*40*7                                     | 200 | 130              | 165 | - | M10 |
| 3                    | 6                                     | Q2H132S6A                | Aluminium                        | 260                             | 481 | 1xM32 | 140-178                                | 216 | 132 | 312 | 12 | 38               | 80 | 41,0              | 10               | 6208-ZZ                         | 6208-ZZ                                     | 40*62*10                                | 40*62*10                                    | 250 | 180              | 215 | - | M12 |
| 4                    | 2                                     | Q2H112M2B                | Aluminium                        | 191                             | 399 | 1xM25 | 140                                    | 190 | 112 | 254 | 12 | 28               | 60 | 31,0              | 8                | 6306-ZZ                         | 6205-ZZ                                     | 30*47*7                                 | 25*40*7                                     | 200 | 130              | 165 | - | M10 |
| 4                    | 4                                     | Q2H112M4C                | Aluminium                        | 191                             | 399 | 1xM25 | 140                                    | 190 | 112 | 254 | 12 | 28               | 60 | 31,0              | 8                | 6306-ZZ                         | 6205-ZZ                                     | 30*47*7                                 | 25*40*7                                     | 200 | 130              | 165 | - | M10 |
| 4                    | 6                                     | Q2H132M6A                | Aluminium                        | 260                             | 481 | 1xM32 | 140-178                                | 216 | 132 | 312 | 12 | 38               | 80 | 41,0              | 10               | 6208-ZZ                         | 6208-ZZ                                     | 40*62*10                                | 40*62*10                                    | 250 | 180              | 215 | - | M12 |
| 5,5                  | 2                                     | Q2H132S2B                | Aluminium                        | 210                             | 422 | 1xM25 | 140-178                                | 216 | 132 | 283 | 12 | 38               | 80 | 41,0              | 10               | 6208-ZZ                         | 6206-ZZ                                     | 40*62*10                                | 30*47*7                                     | 250 | 180              | 215 | - | M12 |
| 5,5                  | 4                                     | Q2H132S4A                | Aluminium                        | 210                             | 422 | 1xM25 | 140-178                                | 216 | 132 | 283 | 12 | 38               | 80 | 41,0              | 10               | 6208-ZZ                         | 6206-ZZ                                     | 40*62*10                                | 30*47*7                                     | 250 | 180              | 215 | - | M12 |
| 5,5                  | 6                                     | Q2H132M6B                | Aluminium                        | 260                             | 481 | 1xM32 | 140-178                                | 216 | 132 | 312 | 12 | 38               | 80 | 41,0              | 10               | 6208-ZZ                         | 6208-ZZ                                     | 40*62*10                                | 40*62*10                                    | 250 | 180              | 215 | - | M12 |
| 7,5                  | 2                                     | Q2H132S2C                | Aluminium                        | 210                             | 422 | 1xM25 | 140-178                                | 216 | 132 | 283 | 12 | 38               | 80 | 41,0              | 10               | 6208-ZZ                         | 6206-ZZ                                     | 40*62*10                                | 30*47*7                                     | 250 | 180              | 215 | - | M12 |
| 7,5                  | 4                                     | Q2H132M4C                | Aluminium                        | 260                             | 481 | 1xM32 | 140-178                                | 216 | 132 | 312 | 12 | 38               | 80 | 41,0              | 10               | 6208-ZZ                         | 6208-ZZ                                     | 40*62*10                                | 40*62*10                                    | 250 | 180              | 215 | - | M12 |

(1) Toleranslar 28 mm'ye kadar DIN EN 50347 "j6", 28 mm ve üzeri "k6" / Tolerance DIN EN 50347 "j6" up to 28mm, "k6" above 28mm

(2) DIN 6885'e göre / According to DIN 6885

(3) Tolerans DIN EN 50347 "j6" / Tolerance DIN EN 50347 "j6"

## ELEKTRİKSEL ÖZELLİKLER - 50 Hz / ELECTRICAL CHARACTERISTICS AT 50 Hz

| MOTOR TİPİ<br>MOTOR TYPE             | GÖVDE<br>TIPI<br>HOUSING<br>TYPE | NOMINAL<br>RATED VALUES |       |                |                 |                  |                 | KALKIŞTAKİ DEĞERLER<br>STARTING VALUES |                  |             |             | Devrilme<br>Momenti<br>Oranı<br>Breakdown<br>Torque Ratio<br>Mk/ Mn | VERİM*<br>EFFICIENCY* |      |      | Cos φ   | J       | Ağırlık<br>Weight<br>(B3) | Ses Basınç<br>Seviyesi<br>Sound<br>Pressure<br>Level<br>dBA** |
|--------------------------------------|----------------------------------|-------------------------|-------|----------------|-----------------|------------------|-----------------|----------------------------------------|------------------|-------------|-------------|---------------------------------------------------------------------|-----------------------|------|------|---------|---------|---------------------------|---------------------------------------------------------------|
|                                      |                                  | GÜÇ<br>POWER            |       | DEVİR<br>SPEED | AKIM<br>CURRENT | MOMENT<br>TORQUE | AKIM<br>CURRENT |                                        | MOMENT<br>TORQUE |             | η%          |                                                                     |                       |      |      |         |         |                           |                                                               |
|                                      |                                  | kW                      | HP    |                |                 |                  | rpm             | A                                      | Nm               | $I_A / I_N$ | $M_A / M_N$ |                                                                     | λ                     | Δ    | λ    |         |         |                           |                                                               |
| 2 kutup 3000 d/dak / 2 pole 3000 rpm |                                  |                         |       |                |                 |                  |                 |                                        |                  |             |             |                                                                     |                       |      |      |         |         |                           |                                                               |
| 230/400V                             | Q2H80M2D                         | Aluminium               | 1,5   | 2,0            | 2875            | 3,8              | 5,0             | 8,0                                    | -                | 3,9         | -           | 4,4                                                                 | 81,3                  | 80,4 | 76,6 | 0,74    | 0,00169 | 12                        | 58                                                            |
|                                      | Q2H80M2DE                        | Aluminium               | 2,2   | 3,0            | 2870            | 4,7              | 7,3             | 9,1                                    | -                | 3,9         | -           | 4,4                                                                 | 83,2                  | 82,8 | 81,3 | 0,83    | 0,00224 | 16                        | 59                                                            |
|                                      | Q2H90L2D                         | Aluminium               | 3,0   | 4,0            | 2887            | 6,3              | 9,9             | 7,3                                    | -                | 2,4         | -           | 2,9                                                                 | 84,6                  | 85,4 | 84,2 | 0,83    | 0,00283 | 19                        | 61                                                            |
| 400/690V                             | Q2HS100L2C                       | Aluminium               | 4,0   | 5,5            | 2913            | 8,2              | 13,2            | 3,6                                    | 10,8             | 1,4         | 4,2         | 4,8                                                                 | 85,8                  | 87,0 | 86,1 | 0,82    | 0,00381 | 24                        | 66                                                            |
|                                      | Q2HS112M2C                       | Aluminium               | 5,5   | 7,5            | 2910            | 10,6             | 18,1            | 3,6                                    | 10,9             | 1,3         | 3,8         | 4,5                                                                 | 87,0                  | 87,5 | 86,2 | 0,86    | 0,00637 | 29                        | 68                                                            |
|                                      | Q2HS112M2D                       | Aluminium               | 7,5   | 10,0           | 2895            | 14,1             | 24,8            | 3,4                                    | 10,3             | 1,3         | 3,9         | 4,6                                                                 | 88,1                  | 89,0 | 88,7 | 0,88    | 0,00751 | 30                        | 68                                                            |
|                                      | Q2H132M2A                        | Aluminium               | 11,0  | 15,0           | 2923            | 21,3             | 35,9            | 3,1                                    | 9,2              | 1,1         | 3,3         | 4,8                                                                 | 89,4                  | 89,9 | 88,4 | 0,83    | 0,03489 | 57                        | 69                                                            |
|                                      | Q2H132M2B                        | Aluminium               | 15,0  | 20,0           | 2915            | 30,0             | 49,2            | 3,2                                    | 9,6              | 1,3         | 3,9         | 5,1                                                                 | 90,3                  | 90,6 | 89,6 | 0,80    | 0,03490 | 65                        | 69                                                            |
|                                      | Q2H132M2C                        | Aluminium               | 18,5  | 25,0           | 2930            | 30,8             | 60,3            | 2,7                                    | 8,0              | 0,6         | 1,9         | 3,6                                                                 | 90,9                  | 91,7 | 91,1 | 0,95    | 0,04685 | 77                        | 70                                                            |
|                                      | Q2H160L2C                        | Aluminium               | 22,0  | 30,0           | 2955            | 40,9             | 71,2            | 3,5                                    | 10,4             | 1,2         | 3,6         | 5,2                                                                 | 91,3                  | 92,0 | 90,7 | 0,84    | 0,04808 | 96                        | 71                                                            |
|                                      | Q2H180M2B                        | Aluminium               | 30,0  | 37,0           | 2955            | 51,5             | 97,1            | 2,8                                    | 8,5              | 0,8         | 2,4         | 3,6                                                                 | 92,0                  | 92,5 | 91,8 | 0,91    | 0,08643 | 128                       | 77                                                            |
|                                      | Q2H180M2C                        | Aluminium               | 37,0  | 50,0           | 2965            | 66,2             | 119,6           | 3,4                                    | 10,1             | 1,0         | 3,1         | 4,5                                                                 | 92,5                  | 92,5 | 91,2 | 0,87    | 0,10277 | 145                       | 77                                                            |
|                                      | Q2H200L2D                        | Aluminium               | 45,0  | 60,0           | 2960            | 76,0             | 145,1           | 3,3                                    | 9,8              | 0,9         | 2,8         | 5,3                                                                 | 92,9                  | 93,4 | 92,7 | 0,92    | 0,11910 | 166                       | 78                                                            |
|                                      | Q2E225M2C                        | Aluminium               | 55,0  | 75,0           | 2970            | 96,6             | 176,9           | 3,5                                    | 10,6             | 1,0         | 3,0         | 7,1                                                                 | 93,2                  | 93,7 | 92,4 | 0,88    | 0,29500 | 244                       | 80                                                            |
|                                      | Q2EP250M2C                       | Cast Iron               | 75,0  | 100,0          | 2975            | 127,9            | 240,8           | 3,5                                    | 10,6             | 0,9         | 2,7         | 6,8                                                                 | 93,8                  | 93,7 | 92,5 | 0,92    | 0,54000 | 565                       | 81                                                            |
| Q2EP280M2D                           | Cast Iron                        | 110,0                   | 150,0 | 2980           | 192,0           | 352,4            | 2,6             | 7,7                                    | 1,0              | 2,9         | 3,4         | 94,1                                                                | 93,9                  | 92,9 | 0,88 | 0,70200 | 640     | 82                        |                                                               |
| 4 kutup 1500 d/dak / 4 pole 1500 rpm |                                  |                         |       |                |                 |                  |                 |                                        |                  |             |             |                                                                     |                       |      |      |         |         |                           |                                                               |
| 230/400V                             | Q2H80M4D                         | Aluminium               | 1,1   | 1,5            | 1430            | 2,5              | 7,4             | 5,7                                    | -                | 2,2         | -           | 2,6                                                                 | 81,4                  | 82,4 | 81,6 | 0,80    | 0,00260 | 12                        | 48                                                            |
|                                      | Q2H80M4DE                        | Aluminium               | 1,5   | 2,0            | 1427            | 3,3              | 10,0            | 6,4                                    | -                | 2,5         | -           | 3,1                                                                 | 82,8                  | 84,2 | 83,7 | 0,79    | 0,00306 | 14                        | 48                                                            |
|                                      | Q2H90L4D                         | Aluminium               | 2,2   | 3,0            | 1437            | 5,3              | 14,6            | 7,6                                    | -                | 3,6         | -           | 4,2                                                                 | 84,3                  | 84,1 | 81,5 | 0,72    | 0,00526 | 18                        | 52                                                            |
|                                      | Q2H90L4DE                        | Aluminium               | 3,0   | 4,0            | 1440            | 7,4              | 20,0            | 6,5                                    | -                | 3,3         | -           | 3,7                                                                 | 85,5                  | 85,3 | 83,0 | 0,70    | 0,00690 | 25                        | 53                                                            |
|                                      | Q2H100L4D                        | Aluminium               | 4,0   | 5,5            | 1440            | 8,7              | 26,6            | 2,7                                    | 8,0              | 1,1         | 3,2         | 3,8                                                                 | 86,6                  | 85,7 | 83,5 | 0,78    | 0,01058 | 31                        | 57                                                            |
|                                      | Q2H112M4D                        | Aluminium               | 5,5   | 7,5            | 1445            | 11,6             | 35,5            | 2,7                                    | 8,0              | 1,0         | 3,0         | 3,8                                                                 | 87,7                  | 88,3 | 87,3 | 0,79    | 0,01382 | 38                        | 58                                                            |
| 400/690V                             | Q2H132M4D                        | Aluminium               | 11,0  | 15,0           | 1468            | 21,6             | 71,5            | 2,6                                    | 7,9              | 0,7         | 2,1         | 3,6                                                                 | 89,8                  | 91,1 | 90,3 | 0,81    | 0,05440 | 76                        | 61                                                            |
|                                      | Q2H132M4E                        | Aluminium               | 15,0  | 20,0           | 1462            | 29,8             | 98,0            | 2,6                                    | 7,8              | 0,6         | 1,8         | 3,4                                                                 | 90,6                  | 91,4 | 90,9 | 0,80    | 0,05940 | 81                        | 63                                                            |
|                                      | Q2H160L4B                        | Aluminium               | 18,5  | 25,0           | 1470            | 36,0             | 120,2           | 2,3                                    | 6,8              | 0,7         | 2,2         | 2,9                                                                 | 91,2                  | 92,0 | 91,6 | 0,81    | 0,09005 | 101                       | 57                                                            |
|                                      | Q2H160L4C                        | Aluminium               | 22,0  | 30,0           | 1462            | 41,8             | 143,8           | 1,8                                    | 5,5              | 0,6         | 1,9         | 2,8                                                                 | 91,6                  | 92,9 | 93,3 | 0,84    | 0,11068 | 115                       | 58                                                            |
|                                      | Q2H180L4C                        | Aluminium               | 30,0  | 40,0           | 1475            | 55,3             | 194,6           | 2,7                                    | 8,2              | 0,9         | 2,7         | 3,5                                                                 | 92,0                  | 91,9 | 91,4 | 0,85    | 0,14694 | 143                       | 70                                                            |
|                                      | Q2H200L4D                        | Aluminium               | 37,0  | 50,0           | 1476            | 72,5             | 240,8           | 2,8                                    | 8,3              | 0,9         | 2,8         | 3,7                                                                 | 92,7                  | 93,2 | 92,8 | 0,79    | 0,26440 | 177                       | 71                                                            |
| Q2EP250M4E                           | Cast Iron                        | 75,0                    | 100,0 | 1485           | 134,2           | 485,7            | 2,6             | 7,8                                    | 1,0              | 2,9         | 3,4         | 94,0                                                                | 93,9                  | 93,2 | 0,86 | 1,06110 | 610     | 72                        |                                                               |
| Q2EP280M4E                           | Cast Iron                        | 110,0                   | 150,0 | 1485           | 200,3           | 714,0            | 2,6             | 7,9                                    | 1,0              | 2,9         | 3,4         | 94,5                                                                | 94,3                  | 93,1 | 0,84 | 1,25200 | 688     | 73                        |                                                               |

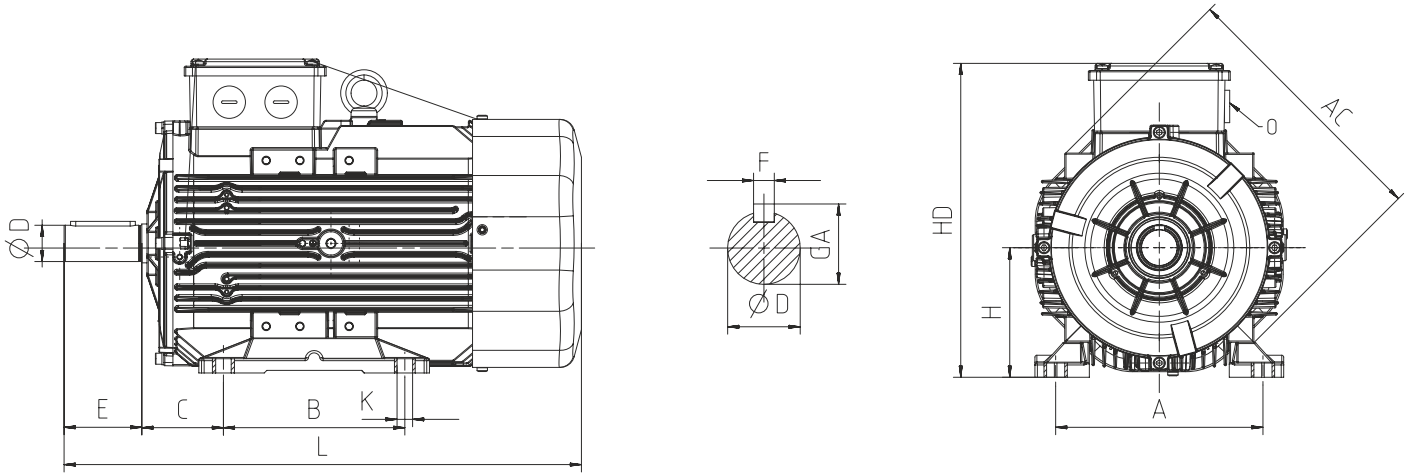
\* IEC 60034-2-1'e göre / According to IEC 60034-2-1

\*\* Ses Basınç Seviyeleri motordan 1m uzaklıktan ölçülmüştür. / The sound pressure measurements are taken 1m away from the motor

\*\*\* Tolerans +3 dBA / Tolerance +3 dBA



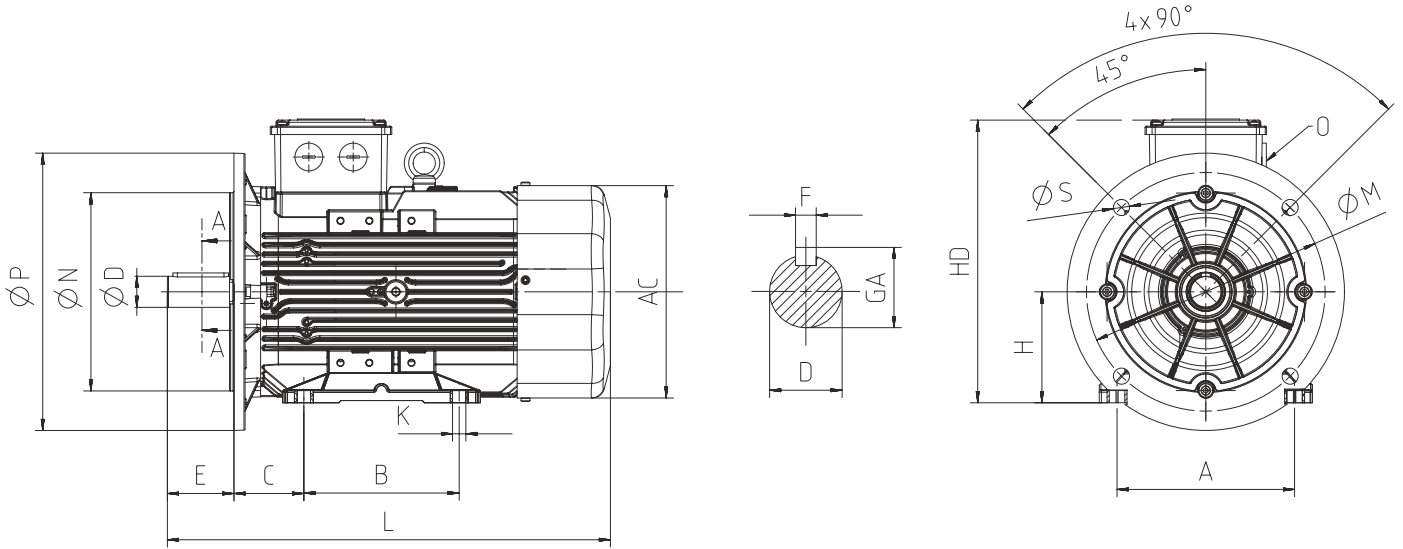
## BOYUTLAR - B3 / DIMENSION - B3



| Güç<br>Power<br>(kW) | Kutup<br>sayısı<br>Number<br>of Poles | Motor Tipi<br>Motor Type | Gövde<br>Tipi<br>Housing<br>Type | Ana Boyutlar<br>Main Dimensions |      |       | Ayaklı Motorlar<br>Foot Mounted Motors |     |     |     |      | Mil<br>Shaft |                  |     |      | Rulman<br>Bearing |                                 | Keçe<br>Seal                                |                                 |                                             |
|----------------------|---------------------------------------|--------------------------|----------------------------------|---------------------------------|------|-------|----------------------------------------|-----|-----|-----|------|--------------|------------------|-----|------|-------------------|---------------------------------|---------------------------------------------|---------------------------------|---------------------------------------------|
|                      |                                       |                          |                                  | AC                              | L    | O     | B                                      | A   | H   | HD  | K    | C            | D <sup>(1)</sup> | E   | GA   | F <sup>(2)</sup>  | Kasnak<br>Taraflı<br>Drive Side | Kasnak<br>Taraflı Aksı<br>Non Drive<br>Side | Kasnak<br>Taraflı<br>Drive Side | Kasnak<br>Taraflı Aksı<br>Non Drive<br>Side |
| 1,1                  | 4                                     | Q2H80M4D                 | Aluminium                        | 158                             | 268  | 1xM20 | 100                                    | 125 | 80  | 216 | 10   | 50           | 19               | 40  | 21,5 | 6                 | 6204-ZZ                         | 6204-ZZ                                     | 20*30*7                         | 20*30*7                                     |
| 1,5                  | 2                                     | Q2H80M2D                 | Aluminium                        | 158                             | 268  | 1xM20 | 100                                    | 125 | 80  | 216 | 10   | 50           | 19               | 40  | 21,5 | 6                 | 6204-ZZ                         | 6204-ZZ                                     | 20*30*7                         | 20*30*7                                     |
| 1,5                  | 4                                     | Q2H80M4DE                | Aluminium                        | 158                             | 268  | 1xM20 | 100                                    | 125 | 80  | 216 | 10   | 50           | 19               | 40  | 21,5 | 6                 | 6204-ZZ                         | 6204-ZZ                                     | 20*30*7                         | 20*30*7                                     |
| 2,2                  | 2                                     | Q2H80M2DE                | Aluminium                        | 158                             | 268  | 1xM20 | 100                                    | 125 | 80  | 216 | 10   | 50           | 19               | 40  | 21,5 | 6                 | 6204-ZZ                         | 6204-ZZ                                     | 20*30*7                         | 20*30*7                                     |
| 2,2                  | 4                                     | Q2H90L4D                 | Aluminium                        | 172                             | 344  | 1xM25 | 100-125                                | 140 | 90  | 223 | 10   | 56           | 24               | 50  | 27,0 | 8                 | 6305-ZZ                         | 6205-ZZ                                     | 25*40*7                         | 25*40*7                                     |
| 3,0                  | 2                                     | Q2H90L2D                 | Aluminium                        | 172                             | 344  | 1xM25 | 100-125                                | 140 | 90  | 223 | 10   | 56           | 24               | 50  | 27,0 | 8                 | 6305-ZZ                         | 6205-ZZ                                     | 25*40*7                         | 25*40*7                                     |
| 3,0                  | 4                                     | Q2H90L4DE                | Aluminium                        | 172                             | 379  | 1xM25 | 100-125                                | 140 | 90  | 223 | 10   | 56           | 24               | 50  | 27,0 | 8                 | 6305-ZZ                         | 6205-ZZ                                     | 25*40*7                         | 25*40*7                                     |
| 4,0                  | 2                                     | Q2HS100L2C               | Aluminium                        | 172                             | 384  | 1xM25 | 140                                    | 160 | 100 | 233 | 12   | 63           | 28               | 60  | 31,0 | 8                 | 6306-ZZ                         | 6205-ZZ                                     | 30*47*7                         | 25*40*7                                     |
| 4,0                  | 4                                     | Q2H100L4D                | Aluminium                        | 191                             | 400  | 1xM25 | 140                                    | 160 | 100 | 243 | 12   | 63           | 28               | 60  | 31,0 | 8                 | 6306-ZZ                         | 6205-ZZ                                     | 30*47*7                         | 25*40*7                                     |
| 5,5                  | 2                                     | Q2HS112M2C               | Aluminium                        | 191                             | 399  | 1xM25 | 140                                    | 190 | 112 | 254 | 12   | 70           | 28               | 60  | 31,0 | 8                 | 6306-ZZ                         | 6205-ZZ                                     | 30*47*7                         | 25*40*7                                     |
| 5,5                  | 4                                     | Q2H112M4D                | Aluminium                        | 210                             | 421  | 1xM25 | 140                                    | 190 | 112 | 265 | 12   | 70           | 28               | 60  | 31,0 | 8                 | 6306-ZZ                         | 6206-ZZ                                     | 30*47*7                         | 30*47*7                                     |
| 7,5                  | 2                                     | Q2HS112M2D               | Aluminium                        | 191                             | 421  | 1xM25 | 140                                    | 190 | 112 | 254 | 12   | 70           | 28               | 60  | 31,0 | 8                 | 6306-ZZ                         | 6205-ZZ                                     | 30*47*7                         | 25*40*7                                     |
| 11,0                 | 2                                     | Q2H132M2A                | Aluminium                        | 260                             | 481  | 1xM32 | 140-178                                | 216 | 132 | 312 | 12   | 89           | 38               | 80  | 41,0 | 10                | 6208-ZZ                         | 6208-ZZ                                     | 40*62*10                        | 40*62*10                                    |
| 11,0                 | 4                                     | Q2H132M4D                | Aluminium                        | 260                             | 481  | 1xM32 | 140-178                                | 216 | 132 | 312 | 12   | 89           | 38               | 80  | 41,0 | 10                | 6208-ZZ                         | 6208-ZZ                                     | 40*62*10                        | 40*62*10                                    |
| 15,0                 | 2                                     | Q2H132M2B                | Aluminium                        | 260                             | 481  | 1xM32 | 140-178                                | 216 | 132 | 312 | 12   | 89           | 38               | 80  | 41,0 | 10                | 6208-ZZ                         | 6208-ZZ                                     | 40*62*10                        | 40*62*10                                    |
| 15,0                 | 4                                     | Q2H132M4E                | Aluminium                        | 260                             | 539  | 1xM32 | 140-178                                | 216 | 132 | 312 | 12   | 89           | 38               | 80  | 41,0 | 10                | 6208-ZZ                         | 6208-ZZ                                     | 40*62*10                        | 40*62*10                                    |
| 18,5                 | 2                                     | Q2H132M2C                | Aluminium                        | 260                             | 539  | 1xM32 | 140-178                                | 216 | 132 | 312 | 12   | 89           | 38               | 80  | 41,0 | 10                | 6208-ZZ                         | 6208-ZZ                                     | 40*62*10                        | 40*62*10                                    |
| 18,5                 | 4                                     | Q2H160L4B                | Aluminium                        | 305                             | 591  | 1xM32 | 210-254                                | 254 | 160 | 368 | 14,5 | 108          | 42               | 110 | 45,0 | 12                | 6309-ZZ                         | 6209-ZZ                                     | 45*72*10                        | 45*72*10                                    |
| 22,0                 | 2                                     | Q2H160L2C                | Aluminium                        | 305                             | 591  | 1xM32 | 210-254                                | 254 | 160 | 368 | 14,5 | 108          | 42               | 110 | 45,0 | 12                | 6309-ZZ                         | 6209-ZZ                                     | 45*72*10                        | 45*72*10                                    |
| 22,0                 | 4                                     | Q2H160L4C                | Aluminium                        | 305                             | 591  | 1xM32 | 210-254                                | 254 | 160 | 368 | 14,5 | 108          | 42               | 110 | 45,0 | 12                | 6309-ZZ                         | 6209-ZZ                                     | 45*72*10                        | 45*72*10                                    |
| 30,0                 | 2                                     | Q2H180M2B                | Aluminium                        | 349                             | 696  | 1xM40 | 241-279                                | 279 | 180 | 437 | 14,5 | 121          | 48               | 110 | 51,5 | 14                | 6310-ZZ                         | 6310-ZZ                                     | 50*80*10                        | 50*80*10                                    |
| 30,0                 | 4                                     | Q2H180L4C                | Aluminium                        | 349                             | 696  | 1xM40 | 241-279                                | 279 | 180 | 437 | 14,5 | 121          | 48               | 110 | 51,5 | 14                | 6310-ZZ                         | 6310-ZZ                                     | 50*80*10                        | 50*80*10                                    |
| 37,0                 | 2                                     | Q2H180M2C                | Aluminium                        | 349                             | 696  | 1xM40 | 241-279                                | 279 | 180 | 437 | 14,5 | 121          | 48               | 110 | 51,5 | 14                | 6310-ZZ                         | 6310-ZZ                                     | 50*80*10                        | 50*80*10                                    |
| 37,0                 | 4                                     | Q2H200L4D                | Aluminium                        | 349                             | 759  | 1xM50 | 267-305                                | 318 | 200 | 455 | 18,5 | 133          | 55               | 110 | 59,0 | 16                | 6312-ZZ                         | 6310-ZZ                                     | 60*90*10                        | 60*90*10                                    |
| 45,0                 | 2                                     | Q2H200L2D                | Aluminium                        | 349                             | 759  | 1xM50 | 267-305                                | 318 | 200 | 455 | 18,5 | 133          | 55               | 110 | 59,0 | 16                | 6312-ZZ                         | 6310-ZZ                                     | 60*90*10                        | 60*90*10                                    |
| 55,0                 | 2                                     | Q2E225M2C                | Aluminium                        | 456                             | 735  | 1xM50 | 286-311                                | 356 | 225 | 485 | 18,5 | 149          | 55               | 110 | 59,0 | 16                | 6313-ZZ                         | 6313-ZZ                                     | 65*100*13                       | 65*100*13                                   |
| 75,0                 | 2                                     | Q2EP250M2C               | Cast Iron                        | 489                             | 893  | 1xM50 | 311-349                                | 406 | 250 | 616 | 30   | 149          | 60               | 140 | 64,0 | 18                | 6316-Z                          | 6316-Z                                      | 80*100*10                       | 80*100*10                                   |
| 75,0                 | 4                                     | Q2EP250M4E               | Cast Iron                        | 489                             | 893  | 1xM50 | 311-349                                | 406 | 250 | 616 | 30   | 149          | 65               | 140 | 69,0 | 18                | 6316-Z                          | 6316-Z                                      | 80*100*10                       | 80*100*10                                   |
| 110,0                | 2                                     | Q2EP280M2D               | Cast Iron                        | 489                             | 1025 | 1xM50 | 368-419                                | 457 | 280 | 647 | 24   | 190          | 65               | 140 | 69,0 | 18                | 6316-Z                          | 6316-Z                                      | 80*100*10                       | 80*100*10                                   |
| 110,0                | 4                                     | Q2EP280M4E               | Cast Iron                        | 489                             | 1025 | 1xM50 | 368-419                                | 457 | 280 | 647 | 24   | 130          | 75               | 140 | 79,5 | 20                | 6316-Z                          | 6316-Z                                      | 80*100*10                       | 80*100*10                                   |

(1) Toleranslar 28 mm'ye kadar DIN EN 50347 "j6", 28 mm ve üzeri "k6" / Tolerance DIN EN 50347 "j6" up to 28mm, "k6" above 28mm  
(2) DIN 6885'e göre / According to DIN 6885

## BOYUTLAR - B5, B35 / DIMENSION - B5, B35



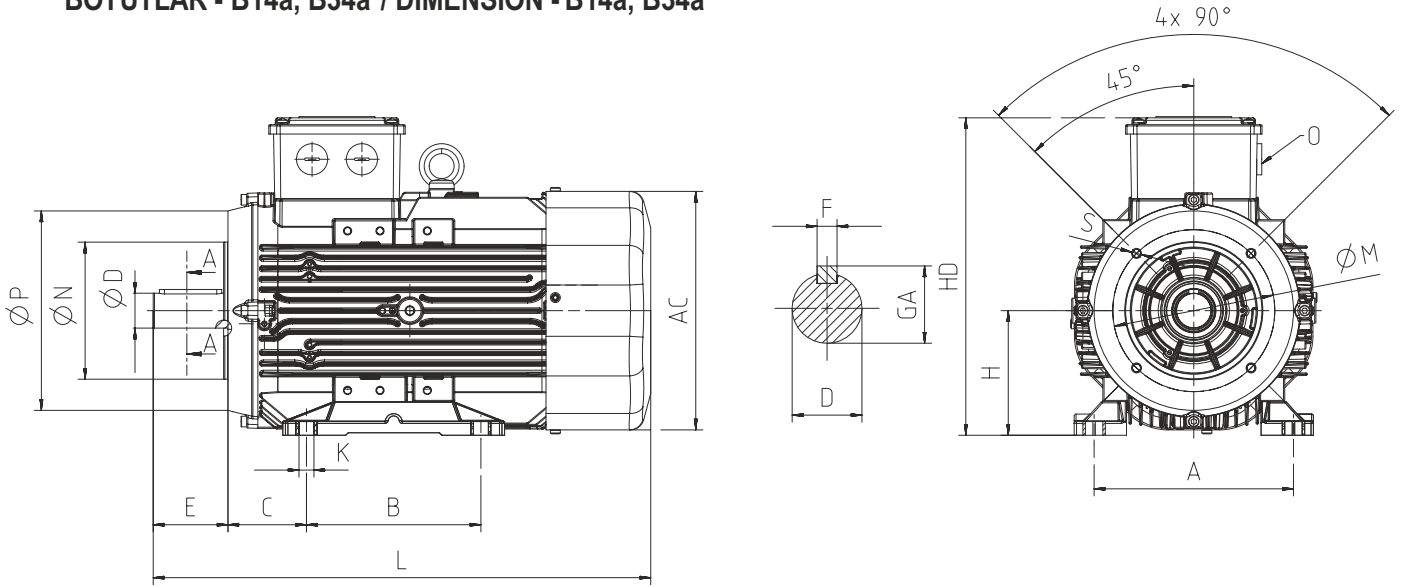
| Güç<br>Power<br>(kW) | Kutup<br>sayısı<br>Number<br>of Poles | Motor Tipi<br>Motor Type | Gövde<br>Tipi<br>Housing<br>Type | Ana Boyutlar<br>Main Dimensions |      |       | Ayaklı Motorlar<br>Foot Mounted Motors |     |     |     |      | Mil<br>Shaft     |     | Rulman<br>Bearing |                  | Keçe<br>Seal                    |                                             | Flanş (FA) (B5)<br>Flange (FA) (B5) |                                             |     |                  |     |   |      |
|----------------------|---------------------------------------|--------------------------|----------------------------------|---------------------------------|------|-------|----------------------------------------|-----|-----|-----|------|------------------|-----|-------------------|------------------|---------------------------------|---------------------------------------------|-------------------------------------|---------------------------------------------|-----|------------------|-----|---|------|
|                      |                                       |                          |                                  | AC                              | L    | O     | B                                      | A   | H   | HD  | K    | D <sup>(1)</sup> | E   | GA                | F <sup>(2)</sup> | Kasnak<br>Taraflı<br>Drive Side | Kasnak<br>Taraflı Aksı<br>Non drive<br>Side | Kasnak<br>Taraflı<br>Drive Side     | Kasnak<br>Taraflı Aksı<br>Non drive<br>Side | P   | N <sup>(3)</sup> | M   | R | S    |
| 1,1                  | 4                                     | Q2H80M4D                 | Aluminium                        | 158                             | 268  | 1xM20 | 100                                    | 125 | 80  | 216 | 10,0 | 19               | 40  | 21,5              | 6                | 6204-ZZ                         | 6204-ZZ                                     | 20*30*7                             | 20*30*7                                     | 200 | 130              | 165 | - | 12,0 |
| 1,5                  | 2                                     | Q2H80M2D                 | Aluminium                        | 158                             | 268  | 1xM20 | 100                                    | 125 | 80  | 216 | 10,0 | 19               | 40  | 21,5              | 6                | 6204-ZZ                         | 6204-ZZ                                     | 20*30*7                             | 20*30*7                                     | 200 | 130              | 165 | - | 12,0 |
| 1,5                  | 4                                     | Q2H80M4DE                | Aluminium                        | 158                             | 268  | 1xM20 | 100                                    | 125 | 80  | 216 | 10,0 | 19               | 40  | 21,5              | 6                | 6204-ZZ                         | 6204-ZZ                                     | 20*30*7                             | 20*30*7                                     | 200 | 130              | 165 | - | 12,0 |
| 2,2                  | 2                                     | Q2H80M2DE                | Aluminium                        | 158                             | 268  | 1xM20 | 100                                    | 125 | 80  | 216 | 10,0 | 19               | 40  | 21,5              | 6                | 6204-ZZ                         | 6204-ZZ                                     | 20*30*7                             | 20*30*7                                     | 200 | 130              | 165 | - | 12,0 |
| 2,2                  | 4                                     | Q2H90L4D                 | Aluminium                        | 172                             | 344  | 1xM25 | 100-125                                | 140 | 90  | 223 | 10,0 | 24               | 50  | 27,0              | 8                | 6305-ZZ                         | 6205-ZZ                                     | 25*40*7                             | 25*40*7                                     | 200 | 130              | 165 | - | 12,0 |
| 3,0                  | 2                                     | Q2H90L2D                 | Aluminium                        | 172                             | 344  | 1xM25 | 100-125                                | 140 | 90  | 223 | 10,0 | 24               | 50  | 27,0              | 8                | 6305-ZZ                         | 6205-ZZ                                     | 25*40*7                             | 25*40*7                                     | 200 | 130              | 165 | - | 12,0 |
| 3,0                  | 4                                     | Q2H90L4DE                | Aluminium                        | 172                             | 379  | 1xM25 | 100-125                                | 140 | 90  | 223 | 10,0 | 24               | 50  | 27,0              | 8                | 6305-ZZ                         | 6205-ZZ                                     | 25*40*7                             | 25*40*7                                     | 200 | 130              | 165 | - | 12,0 |
| 4,0                  | 2                                     | Q2HS100L2C               | Aluminium                        | 172                             | 384  | 1xM25 | 140                                    | 160 | 100 | 233 | 12,0 | 28               | 60  | 31,0              | 8                | 6306-ZZ                         | 6205-ZZ                                     | 30*47*7                             | 25*40*7                                     | 250 | 180              | 215 | - | 14,5 |
| 4,0                  | 4                                     | Q2H100L4D                | Aluminium                        | 191                             | 400  | 1xM25 | 140                                    | 160 | 100 | 243 | 12,0 | 28               | 60  | 31,0              | 8                | 6306-ZZ                         | 6205-ZZ                                     | 30*47*7                             | 30*47*7                                     | 250 | 180              | 215 | - | 14,5 |
| 5,5                  | 2                                     | Q2HS112M2C               | Aluminium                        | 191                             | 399  | 1xM25 | 140                                    | 190 | 112 | 254 | 12,0 | 28               | 60  | 31,0              | 8                | 6306-ZZ                         | 6205-ZZ                                     | 30*47*7                             | 25*40*7                                     | 250 | 180              | 215 | - | 14,5 |
| 5,5                  | 4                                     | Q2H112M4D                | Aluminium                        | 210                             | 421  | 1xM25 | 140                                    | 190 | 112 | 265 | 12,0 | 28               | 60  | 31,0              | 8                | 6306-ZZ                         | 6206-ZZ                                     | 30*47*7                             | 30*47*7                                     | 250 | 180              | 215 | - | 14,5 |
| 7,5                  | 2                                     | Q2HS112M2D               | Aluminium                        | 191                             | 421  | 1xM25 | 140                                    | 190 | 112 | 254 | 12,0 | 28               | 60  | 31,0              | 8                | 6306-ZZ                         | 6205-ZZ                                     | 30*47*7                             | 25*40*7                                     | 250 | 180              | 215 | - | 14,5 |
| 11,0                 | 2                                     | Q2H132M2A                | Aluminium                        | 260                             | 481  | 1xM32 | 140-178                                | 216 | 132 | 312 | 12,0 | 38               | 80  | 41,0              | 10               | 6208-ZZ                         | 6208-ZZ                                     | 40*62*10                            | 40*62*10                                    | 300 | 230              | 265 | - | 14,5 |
| 11,0                 | 4                                     | Q2H132M4D                | Aluminium                        | 260                             | 481  | 1xM32 | 140-178                                | 216 | 132 | 312 | 12,0 | 38               | 80  | 41,0              | 10               | 6208-ZZ                         | 6208-ZZ                                     | 40*62*10                            | 40*62*10                                    | 300 | 230              | 265 | - | 14,5 |
| 15,0                 | 2                                     | Q2H132M2B                | Aluminium                        | 260                             | 481  | 1xM32 | 140-178                                | 216 | 132 | 312 | 12,0 | 38               | 80  | 41,0              | 10               | 6208-ZZ                         | 6208-ZZ                                     | 40*62*10                            | 40*62*10                                    | 300 | 230              | 265 | - | 14,5 |
| 15,0                 | 4                                     | Q2H132M4E                | Aluminium                        | 260                             | 539  | 1xM32 | 140-178                                | 216 | 132 | 312 | 12,0 | 38               | 80  | 41,0              | 10               | 6208-ZZ                         | 6208-ZZ                                     | 40*62*10                            | 40*62*10                                    | 300 | 230              | 265 | - | 14,5 |
| 18,5                 | 2                                     | Q2H132M2C                | Aluminium                        | 260                             | 539  | 1xM32 | 140-178                                | 216 | 132 | 312 | 12,0 | 38               | 80  | 41,0              | 10               | 6208-ZZ                         | 6208-ZZ                                     | 40*62*10                            | 40*62*10                                    | 300 | 230              | 265 | - | 14,5 |
| 18,5                 | 4                                     | Q2H160L4B                | Aluminium                        | 305                             | 591  | 1xM32 | 210-254                                | 254 | 160 | 368 | 14,5 | 42               | 110 | 45,0              | 12               | 6309-ZZ                         | 6209-ZZ                                     | 45*72*10                            | 45*72*10                                    | 350 | 250              | 300 | - | 18,5 |
| 22,0                 | 2                                     | Q2H160L2C                | Aluminium                        | 305                             | 591  | 1xM32 | 210-254                                | 254 | 160 | 368 | 14,5 | 42               | 110 | 45,0              | 12               | 6309-ZZ                         | 6209-ZZ                                     | 45*72*10                            | 45*72*10                                    | 350 | 250              | 300 | - | 18,5 |
| 22,0                 | 4                                     | Q2H160L4C                | Aluminium                        | 305                             | 591  | 1xM32 | 210-254                                | 254 | 160 | 368 | 14,5 | 42               | 110 | 45,0              | 12               | 6309-ZZ                         | 6209-ZZ                                     | 45*72*10                            | 45*72*10                                    | 350 | 250              | 300 | - | 18,5 |
| 30,0                 | 2                                     | Q2H180M2B                | Aluminium                        | 349                             | 696  | 1xM40 | 241-279                                | 279 | 180 | 437 | 14,5 | 48               | 110 | 51,5              | 14               | 6310-ZZ                         | 6310-ZZ                                     | 50*80*10                            | 50*80*10                                    | 350 | 250              | 300 | - | 18,5 |
| 30,0                 | 4                                     | Q2H180L4C                | Aluminium                        | 349                             | 696  | 1xM40 | 241-279                                | 279 | 180 | 437 | 14,5 | 48               | 110 | 51,5              | 14               | 6310-ZZ                         | 6310-ZZ                                     | 50*80*10                            | 50*80*10                                    | 350 | 250              | 300 | - | 18,5 |
| 37,0                 | 2                                     | Q2H180M2C                | Aluminium                        | 349                             | 696  | 1xM40 | 241-279                                | 279 | 180 | 437 | 14,5 | 48               | 110 | 51,5              | 14               | 6310-ZZ                         | 6310-ZZ                                     | 50*80*10                            | 50*80*10                                    | 350 | 250              | 300 | - | 18,5 |
| 37,0                 | 4                                     | Q2H200L4D                | Aluminium                        | 349                             | 759  | 1xM50 | 267-305                                | 318 | 200 | 455 | 18,5 | 55               | 110 | 59,0              | 16               | 6312-ZZ                         | 6310-ZZ                                     | 60*90*10                            | 60*90*10                                    | 400 | 300              | 350 | - | 18,5 |
| 45,0                 | 2                                     | Q2H200L2D                | Aluminium                        | 349                             | 759  | 1xM50 | 267-305                                | 318 | 200 | 455 | 18,5 | 55               | 110 | 59,0              | 16               | 6312-ZZ                         | 6310-ZZ                                     | 60*90*10                            | 60*90*10                                    | 400 | 300              | 350 | - | 18,5 |
| 55,0                 | 2                                     | Q2E225M2C                | Aluminium                        | 456                             | 735  | 1xM50 | 286-311                                | 356 | 225 | 485 | 18,5 | 55               | 110 | 59,0              | 16               | 6313-ZZ                         | 6313-ZZ                                     | 65*100*13                           | 65*100*13                                   | 450 | 350              | 400 | - | 18,5 |
| 75,0                 | 2                                     | Q2EP250M2C               | Cast Iron                        | 489                             | 893  | 1xM50 | 349                                    | 406 | 250 | 616 | 24,0 | 60               | 140 | 69,0              | 18               | 6316-Z                          | 6316-Z                                      | 80*100*10                           | 80*100*10                                   | 550 | 450              | 500 | - | 18,5 |
| 75,0                 | 4                                     | Q2EP250M4E               | Cast Iron                        | 489                             | 893  | 1xM50 | 349                                    | 406 | 250 | 616 | 24,0 | 65               | 140 | 69,0              | 18               | 6316-Z                          | 6316-Z                                      | 80*100*10                           | 80*100*10                                   | 550 | 450              | 500 | - | 18,5 |
| 110,0                | 2                                     | Q2EP280M2D               | Cast Iron                        | 489                             | 1025 | 1xM50 | 419                                    | 457 | 280 | 647 | 24,0 | 65               | 140 | 69,0              | 18               | 6316-Z                          | 6316-Z                                      | 80*100*10                           | 80*100*10                                   | 550 | 450              | 500 | - | 18,5 |
| 110,0                | 4                                     | Q2EP280M4E               | Cast Iron                        | 489                             | 1025 | 1xM50 | 419                                    | 457 | 280 | 647 | 24,0 | 75               | 140 | 79,5              | 20               | 6316-Z                          | 6316-Z                                      | 80*100*10                           | 80*100*10                                   | 550 | 450              | 500 | - | 18,5 |

(1) Toleranslar 28 mm'ye kadar DIN EN 50347 "j6", 28 mm ve üzeri "k6" / Tolerance DIN EN 50347 "j6" up to 28mm, "k6" above 28mm

(2) DIN 6885'e göre / According to DIN 6885

(3) Tolerans DIN EN 50347 "j6" / Tolerance DIN EN 50347 "j6"

## BOYUTLAR - B14a, B34a / DIMENSION - B14a, B34a



| Güç Power (kW) | Kutup sayısı Number of Poles | Motor Tipi Motor Type | Gövde Tipi Housing Type | Ana Boyutlar Main Dimensions |     |       | Ayaklı Motorlar Foot Mounted Motors |     |     |     |    | Mil Shaft        |    | Rulman Bearing |                  | Keçe Seal                |                                   | Flanş (FC) (B14a) Flange (FC) (B14a) |                                   |     |                  |     |   |     |
|----------------|------------------------------|-----------------------|-------------------------|------------------------------|-----|-------|-------------------------------------|-----|-----|-----|----|------------------|----|----------------|------------------|--------------------------|-----------------------------------|--------------------------------------|-----------------------------------|-----|------------------|-----|---|-----|
|                |                              |                       |                         | AC                           | L   | O     | B                                   | A   | H   | HD  | K  | D <sup>(1)</sup> | E  | GA             | F <sup>(2)</sup> | Kasnak Tarafı Drive Side | Kasnak Tarafı Aksı Non drive Side | Kasnak Tarafı Drive Side             | Kasnak Tarafı Aksı Non drive Side | P   | N <sup>(3)</sup> | M   | R | S   |
| 1,1            | 4                            | Q2H80M4D              | Aluminium               | 158                          | 268 | 1xM20 | 100                                 | 125 | 80  | 216 | 10 | 19               | 40 | 21,5           | 6                | 6204-ZZ                  | 6204-ZZ                           | 20*30*7                              | 20*30*7                           | 120 | 80               | 100 | - | M6  |
| 1,5            | 2                            | Q2H80M2D              | Aluminium               | 158                          | 268 | 1xM20 | 100                                 | 125 | 80  | 216 | 10 | 19               | 40 | 21,5           | 6                | 6204-ZZ                  | 6204-ZZ                           | 20*30*7                              | 20*30*7                           | 120 | 80               | 100 | - | M6  |
| 1,5            | 4                            | Q2H80M4DE             | Aluminium               | 158                          | 268 | 1xM20 | 100                                 | 125 | 80  | 216 | 10 | 19               | 40 | 21,5           | 6                | 6204-ZZ                  | 6204-ZZ                           | 20*30*7                              | 20*30*7                           | 120 | 80               | 100 | - | M6  |
| 2,2            | 2                            | Q2H80M2DE             | Aluminium               | 158                          | 268 | 1xM20 | 100                                 | 125 | 80  | 216 | 10 | 19               | 40 | 21,5           | 6                | 6204-ZZ                  | 6204-ZZ                           | 20*30*7                              | 20*30*7                           | 120 | 80               | 100 | - | M6  |
| 2,2            | 4                            | Q2H90L4D              | Aluminium               | 172                          | 344 | 1xM25 | 100-125                             | 140 | 90  | 223 | 10 | 24               | 50 | 27,0           | 8                | 6305-ZZ                  | 6205-ZZ                           | 25*40*7                              | 25*40*7                           | 140 | 95               | 115 | - | M8  |
| 3,0            | 2                            | Q2H90L2D              | Aluminium               | 172                          | 344 | 1xM25 | 100-125                             | 140 | 90  | 223 | 10 | 24               | 50 | 27,0           | 8                | 6305-ZZ                  | 6205-ZZ                           | 25*40*7                              | 25*40*7                           | 140 | 95               | 115 | - | M8  |
| 3,0            | 4                            | Q2H90L4DE             | Aluminium               | 172                          | 379 | 1xM25 | 100-125                             | 140 | 90  | 223 | 10 | 24               | 50 | 27,0           | 8                | 6305-ZZ                  | 6205-ZZ                           | 25*40*7                              | 25*40*7                           | 140 | 95               | 115 | - | M8  |
| 4,0            | 2                            | Q2HS100L2C            | Aluminium               | 172                          | 384 | 1xM25 | 140                                 | 160 | 100 | 233 | 12 | 28               | 60 | 31,0           | 8                | 6306-ZZ                  | 6205-ZZ                           | 30*47*7                              | 25*40*7                           | 160 | 110              | 130 | - | M8  |
| 4,0            | 4                            | Q2H100L4D             | Aluminium               | 191                          | 400 | 1xM25 | 140                                 | 160 | 100 | 243 | 12 | 28               | 60 | 31,0           | 8                | 6306-ZZ                  | 6205-ZZ                           | 30*47*7                              | 30*47*7                           | 160 | 110              | 130 | - | M8  |
| 5,5            | 2                            | Q2HS112M2C            | Aluminium               | 191                          | 399 | 1xM25 | 140                                 | 190 | 112 | 254 | 12 | 28               | 60 | 31,0           | 8                | 6306-ZZ                  | 6205-ZZ                           | 30*47*7                              | 25*40*7                           | 160 | 110              | 130 | - | M8  |
| 5,5            | 4                            | Q2H112M4D             | Aluminium               | 210                          | 421 | 1xM25 | 140                                 | 190 | 112 | 265 | 12 | 28               | 60 | 31,0           | 8                | 6306-ZZ                  | 6206-ZZ                           | 30*47*7                              | 30*47*7                           | 160 | 110              | 130 | - | M8  |
| 7,5            | 2                            | Q2HS112M2D            | Aluminium               | 191                          | 421 | 1xM25 | 140                                 | 190 | 112 | 254 | 12 | 28               | 60 | 31,0           | 8                | 6306-ZZ                  | 6205-ZZ                           | 30*47*7                              | 25*40*7                           | 160 | 110              | 130 | - | M8  |
| 11,0           | 2                            | Q2H132M2A             | Aluminium               | 260                          | 481 | 1xM32 | 140-178                             | 216 | 132 | 312 | 12 | 38               | 80 | 41,0           | 10               | 6208-ZZ                  | 6208-ZZ                           | 40*62*10                             | 40*62*10                          | 200 | 130              | 165 | - | M10 |
| 11,0           | 4                            | Q2H132M4D             | Aluminium               | 260                          | 539 | 1xM32 | 140-178                             | 216 | 132 | 312 | 12 | 38               | 80 | 41,0           | 10               | 6208-ZZ                  | 6208-ZZ                           | 40*62*10                             | 40*62*10                          | 200 | 130              | 165 | - | M10 |
| 15,0           | 2                            | Q2H132M2B             | Aluminium               | 260                          | 539 | 1xM32 | 140-178                             | 216 | 132 | 312 | 12 | 38               | 80 | 41,0           | 10               | 6208-ZZ                  | 6208-ZZ                           | 40*62*10                             | 40*62*10                          | 200 | 130              | 165 | - | M10 |
| 15,0           | 4                            | Q2H132M4E             | Aluminium               | 260                          | 539 | 1xM32 | 140-178                             | 216 | 132 | 312 | 12 | 38               | 80 | 41,0           | 10               | 6208-ZZ                  | 6208-ZZ                           | 40*62*10                             | 40*62*10                          | 200 | 130              | 165 | - | M10 |
| 18,5           | 2                            | Q2H132M2C             | Aluminium               | 260                          | 539 | 1xM32 | 140-178                             | 216 | 132 | 312 | 12 | 38               | 80 | 41,0           | 10               | 6208-ZZ                  | 6208-ZZ                           | 40*62*10                             | 40*62*10                          | 200 | 130              | 165 | - | M10 |

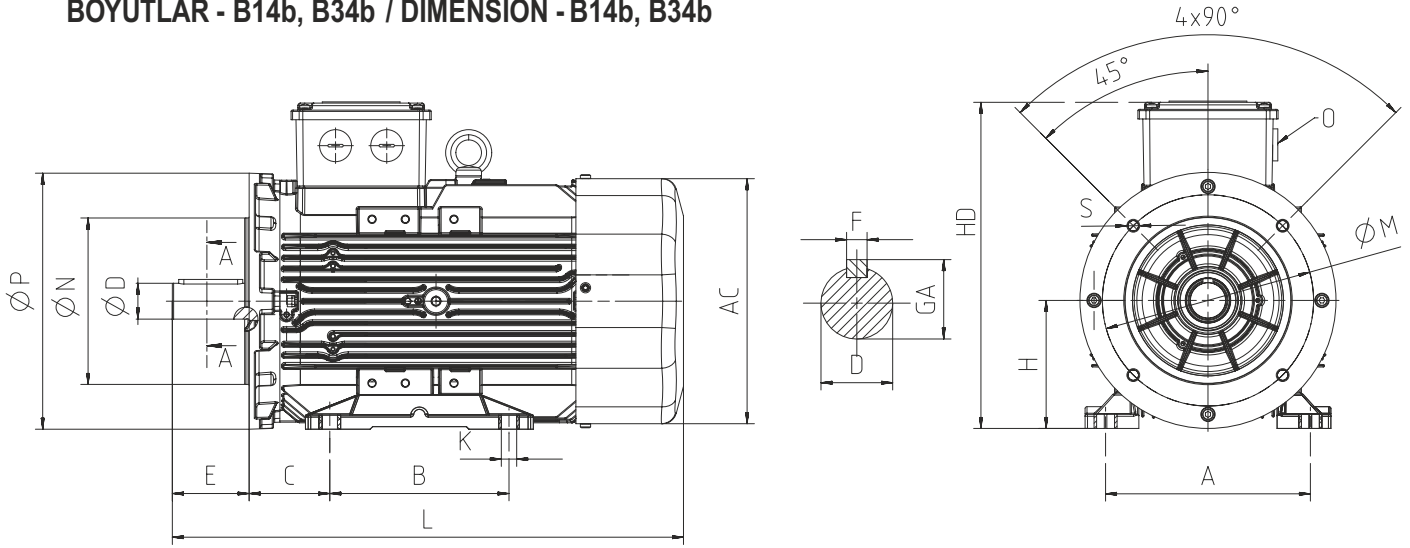
(1) Toleranslar 28 mm'ye kadar DIN EN 50347 "j6", 28 mm ve üzeri "k6" / Tolerance DIN EN 50347 "j6" up to 28mm, "k6" above 28mm

(2) DIN 6885'e göre / According to DIN 6885

(3) Tolerans DIN EN 50347 "j6" / Tolerance DIN EN 50347 "j6"



## BOYUTLAR - B14b, B34b / DIMENSION - B14b, B34b



| Güç Power (kW) | Kutup sayısı Number of Poles | Motor Tipi Motor Type | Gövde Tipi Housing Type | Ana Boyutlar Main Dimensions |     |       | Ayaklı Motorlar Foot Mounted Motors |     |     |     |    | Mil Shaft        |    |      | Rulman Bearing   |                          | Keçe Seal                         |                          | Flanş (FB) (B14b) Flange (FB) (B14b) |     |                  |     |   |     |
|----------------|------------------------------|-----------------------|-------------------------|------------------------------|-----|-------|-------------------------------------|-----|-----|-----|----|------------------|----|------|------------------|--------------------------|-----------------------------------|--------------------------|--------------------------------------|-----|------------------|-----|---|-----|
|                |                              |                       |                         | AC                           | L   | O     | B                                   | A   | H   | HD  | K  | D <sup>(1)</sup> | E  | GA   | F <sup>(2)</sup> | Kasnak Tarafı Drive Side | Kasnak Tarafı Aksı Non drive Side | Kasnak Tarafı Drive Side | Kasnak Tarafı Aksı Non drive Side    | P   | N <sup>(3)</sup> | M   | R | S   |
| 1,1            | 4                            | Q2H80M4D              | Aluminium               | 158                          | 268 | 1xM20 | 100                                 | 125 | 80  | 216 | 10 | 19               | 40 | 21,5 | 6                | 6204-ZZ                  | 6204-ZZ                           | 20*30*7                  | 20*30*7                              | 160 | 110              | 130 | - | M8  |
| 1,5            | 2                            | Q2H80M2D              | Aluminium               | 158                          | 268 | 1xM20 | 100                                 | 125 | 80  | 216 | 10 | 19               | 40 | 21,5 | 6                | 6204-ZZ                  | 6204-ZZ                           | 20*30*7                  | 20*30*7                              | 160 | 110              | 130 | - | M8  |
| 1,5            | 4                            | Q2H80M4DE             | Aluminium               | 158                          | 268 | 1xM20 | 100                                 | 125 | 80  | 216 | 10 | 19               | 40 | 21,5 | 6                | 6204-ZZ                  | 6204-ZZ                           | 20*30*7                  | 20*30*7                              | 160 | 110              | 130 | - | M8  |
| 2,2            | 2                            | Q2H80M2DE             | Aluminium               | 158                          | 268 | 1xM20 | 100                                 | 125 | 80  | 216 | 10 | 19               | 40 | 21,5 | 6                | 6204-ZZ                  | 6204-ZZ                           | 20*30*7                  | 20*30*7                              | 160 | 110              | 130 | - | M8  |
| 2,2            | 4                            | Q2H90L4D              | Aluminium               | 172                          | 344 | 1xM25 | 100-125                             | 140 | 90  | 223 | 10 | 24               | 50 | 27,0 | 8                | 6305-ZZ                  | 6205-ZZ                           | 25*40*7                  | 25*40*7                              | 160 | 110              | 130 | - | M8  |
| 3,0            | 2                            | Q2H90L2D              | Aluminium               | 172                          | 344 | 1xM25 | 100-125                             | 140 | 90  | 223 | 10 | 24               | 50 | 27,0 | 8                | 6305-ZZ                  | 6205-ZZ                           | 25*40*7                  | 25*40*7                              | 160 | 110              | 130 | - | M8  |
| 3,0            | 4                            | Q2H90L4DE             | Aluminium               | 172                          | 379 | 1xM25 | 100-125                             | 140 | 90  | 223 | 10 | 24               | 50 | 27,0 | 8                | 6305-ZZ                  | 6205-ZZ                           | 25*40*7                  | 25*40*7                              | 160 | 110              | 130 | - | M8  |
| 4,0            | 2                            | Q2HS100L2C            | Aluminium               | 172                          | 384 | 1xM25 | 140                                 | 160 | 100 | 233 | 12 | 28               | 60 | 31,0 | 8                | 6306-ZZ                  | 6205-ZZ                           | 30*47*7                  | 25*40*7                              | 200 | 130              | 165 | - | M10 |
| 4,0            | 4                            | Q2H100L4D             | Aluminium               | 191                          | 400 | 1xM25 | 140                                 | 160 | 100 | 243 | 12 | 28               | 60 | 31,0 | 8                | 6306-ZZ                  | 6205-ZZ                           | 30*47*7                  | 30*47*7                              | 200 | 130              | 165 | - | M10 |
| 5,5            | 2                            | Q2HS112M2C            | Aluminium               | 191                          | 399 | 1xM25 | 140                                 | 190 | 112 | 254 | 12 | 28               | 60 | 31,0 | 8                | 6306-ZZ                  | 6205-ZZ                           | 30*47*7                  | 25*40*7                              | 200 | 130              | 165 | - | M10 |
| 5,5            | 4                            | Q2H112M4D             | Aluminium               | 210                          | 421 | 1xM25 | 140                                 | 190 | 112 | 265 | 12 | 28               | 60 | 31,0 | 8                | 6306-ZZ                  | 6206-ZZ                           | 30*47*7                  | 30*47*7                              | 200 | 130              | 165 | - | M10 |
| 7,5            | 2                            | Q2HS112M2D            | Aluminium               | 191                          | 421 | 1xM25 | 140                                 | 190 | 112 | 254 | 12 | 28               | 60 | 31,0 | 8                | 6306-ZZ                  | 6205-ZZ                           | 30*47*7                  | 25*40*7                              | 200 | 130              | 165 | - | M10 |
| 11,0           | 2                            | Q2H132M2A             | Aluminium               | 260                          | 481 | 1xM32 | 140-178                             | 216 | 132 | 312 | 12 | 38               | 80 | 41,0 | 10               | 6208-ZZ                  | 6208-ZZ                           | 40*62*10                 | 40*62*10                             | 250 | 180              | 215 | - | M12 |
| 11,0           | 4                            | Q2H132M4D             | Aluminium               | 260                          | 539 | 1xM32 | 140-178                             | 216 | 132 | 312 | 12 | 38               | 80 | 41,0 | 10               | 6208-ZZ                  | 6208-ZZ                           | 40*62*10                 | 40*62*10                             | 250 | 180              | 215 | - | M12 |
| 15,0           | 2                            | Q2H132M2B             | Aluminium               | 260                          | 539 | 1xM32 | 140-178                             | 216 | 132 | 312 | 12 | 38               | 80 | 41,0 | 10               | 6208-ZZ                  | 6208-ZZ                           | 40*62*10                 | 40*62*10                             | 250 | 180              | 215 | - | M12 |
| 15,0           | 4                            | Q2H132M4E             | Aluminium               | 260                          | 539 | 1xM32 | 140-178                             | 216 | 132 | 312 | 12 | 38               | 80 | 41,0 | 10               | 6208-ZZ                  | 6208-ZZ                           | 40*62*10                 | 40*62*10                             | 250 | 180              | 215 | - | M12 |
| 18,5           | 2                            | Q2H132M2C             | Aluminium               | 260                          | 539 | 1xM32 | 140-178                             | 216 | 132 | 312 | 12 | 38               | 80 | 41,0 | 10               | 6208-ZZ                  | 6208-ZZ                           | 40*62*10                 | 40*62*10                             | 250 | 180              | 215 | - | M12 |

(1) Toleranslar 28 mm'ye kadar DIN EN 50347 "j6", 28 mm ve üzeri "k6" / Tolerance DIN EN 50347 "j6" up to 28mm, "k6" above 28mm

(2) DIN 6885'e göre / According to DIN 6885

(3) Tolerans DIN EN 50347 "j6" / Tolerance DIN EN 50347 "j6"

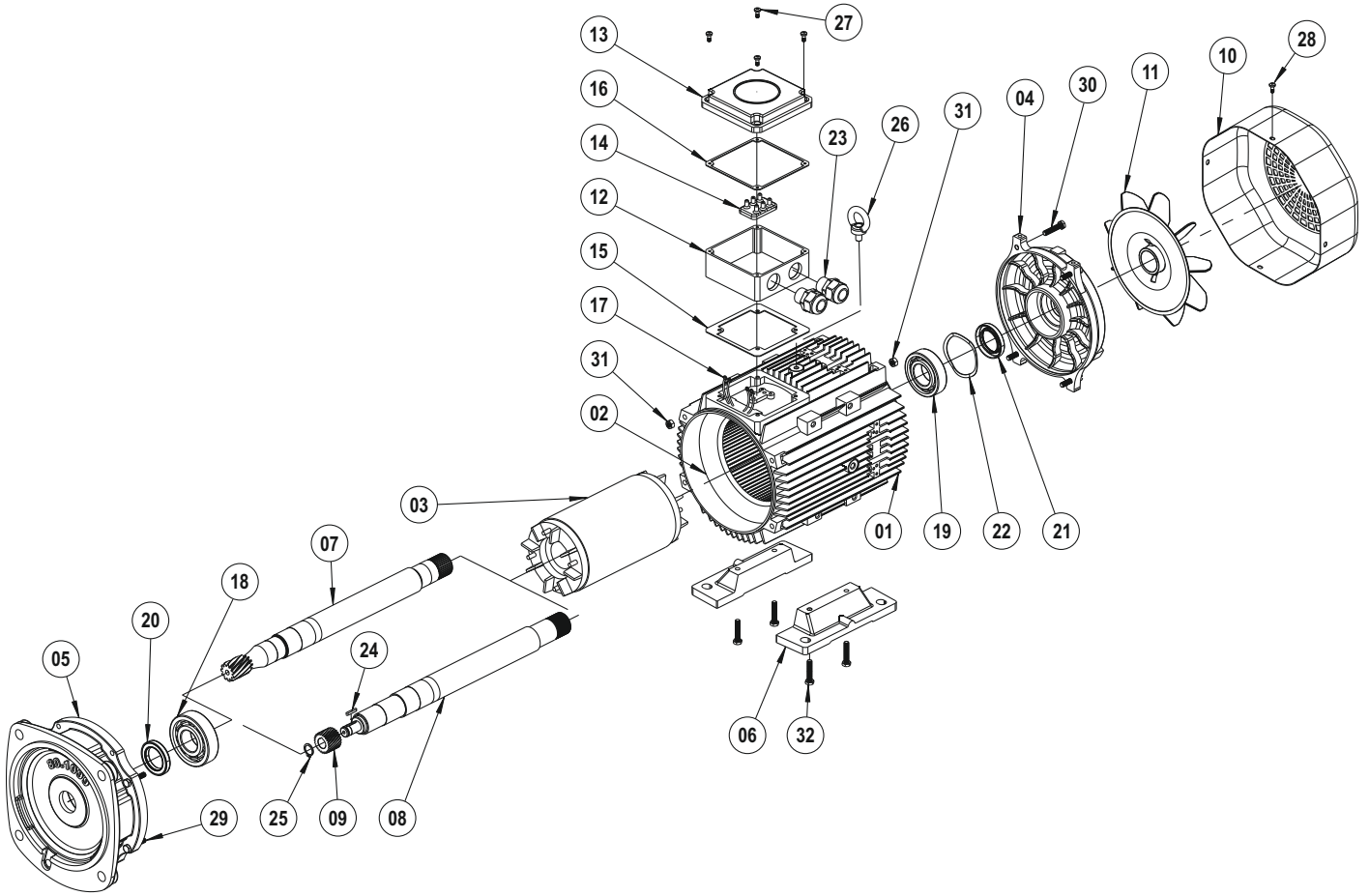


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## TR MOTOR PARÇA LİSTESİ

## EN MOTOR PART LIST

## DE ERSATZTEILLISTE FÜR MOTOR



- 01 Gövde
- 02 Sargılı Stator
- 03 Rotor
- 04 Motor Arka Kapağı
- 05 PGR Motor Bağlantı Flanşı
- 06 Ayak
- 07 Motor Mili (Yekpare)
- 08 Motor Mili (Çakma)
- 09 Z1 Dişlisi
- 10 Fan Kapağı
- 11 Fan
- 12 Terminal Kutusu
- 13 Terminal Kutu Kapağı
- 14 Klemens Plakası
- 15 Terminal Contası Alt
- 16 Terminal Contası Üst
- 17 Kablo Grubu
- 18 Ön Rulman
- 19 Arka Rulman
- 20 Keçe (Ön)
- 21 Keçe (Arka)
- 22 Rulman Gergi Yayı
- 23 Rakor
- 24 Kama
- 25 Segman
- 26 Mapa
- 27 Yıldız Başlı Cıvata
- 28 Yıldız Başlı Cıvata
- 29 Cıvata DIN 933
- 30 Cıvata DIN 933
- 31 Somun
- 32 Cıvata DIN 933

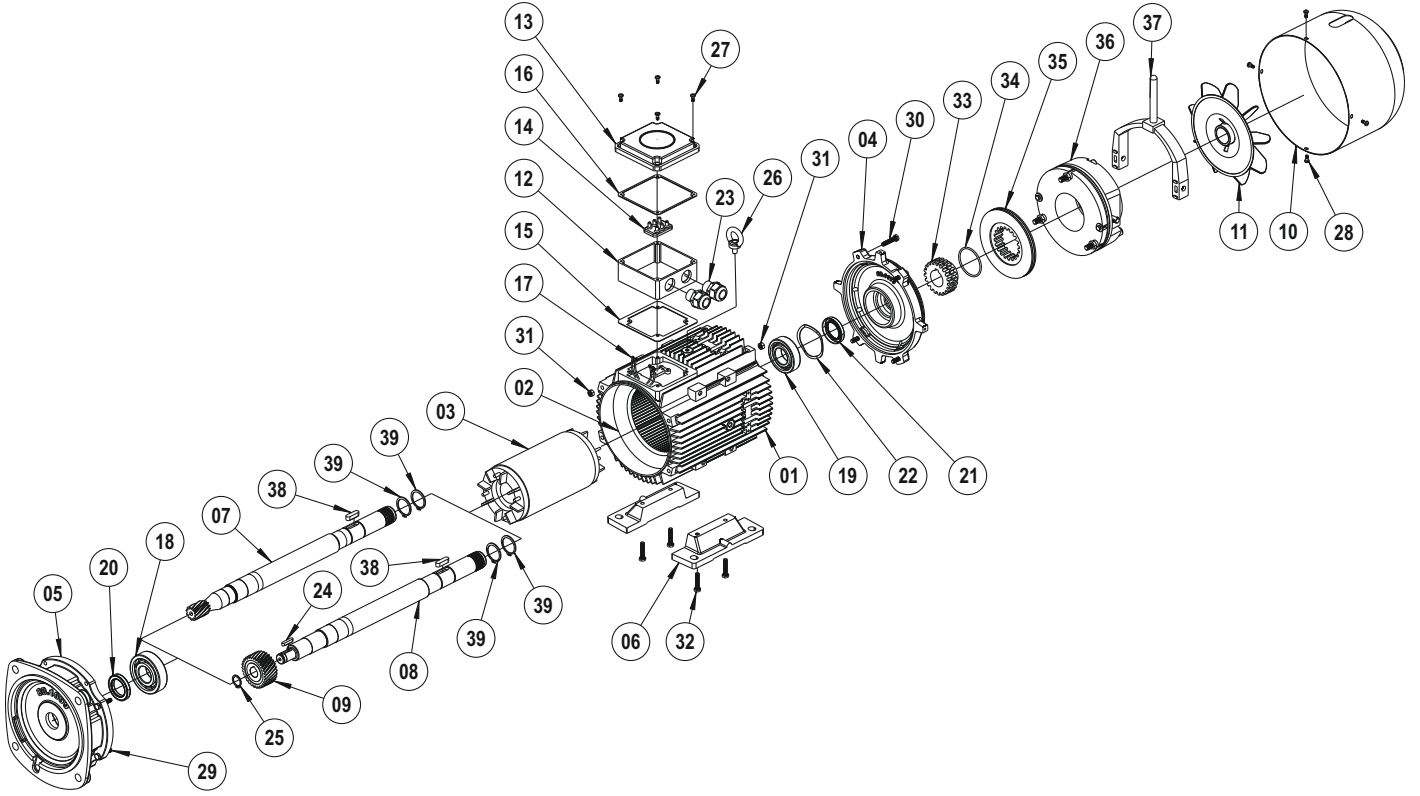
- 01 Housing
- 02 Wound Stator
- 03 Rotor
- 04 Nondrive - Endshield
- 05 Motor Connection Flange
- 06 Foot
- 07 Drive Shaft (Gearcut)
- 08 Drive Shaft (Plain)
- 09 Z1 Gear
- 10 Fan Cover
- 11 Fan
- 12 Terminal Box
- 13 Terminal Box Cover
- 14 Terminal Plate
- 15 Terminal Gasket Down
- 16 Terminal Gasket Up
- 17 Lead Cables
- 18 Ball Bearing (Drive-Side)
- 19 Ball Bearing (Non-Drive-Side)
- 20 Seal Ring (Front)
- 21 Seal Ring (Back)
- 22 Bearing Shim
- 23 Conduit
- 24 Key
- 25 Circlip DIN 471
- 26 Eye Bolt
- 27 Pan Head Secrews
- 28 Pan Head Secrews
- 29 Bolt
- 30 Bolt
- 31 Nut
- 32 Bolt

- 01 Gehäuse
- 02 gewickelter Stator
- 03 Rotor
- 04 B-Lagerschild
- 05 Motor-Anschlussflansch
- 06 Fuß
- 07 Antriebswelle (verzahnt)
- 08 Antriebswelle (glatt)
- 09 Antriebsritzel
- 10 Lüfterhaube
- 11 Lüfter
- 12 Klemmkasten
- 13 Klemmkastendeckel
- 14 Anschlussplatte
- 15 Klemmkastendichtung unten
- 16 Klemmkastendichtung oben
- 17 Kabelbaum
- 18 Kugellager (Antriebsseite)
- 19 Kugellager (Nicht-Antriebsseite)
- 20 Dichtungsring (Vorne)
- 21 Dichtungsring (Hinten)
- 22 Stützscheibe
- 23 Gewindemuffe
- 24 Passfeder
- 25 Sicherungsring DIN 471
- 26 Augenschraube
- 27 Kreuzschlitzschraube
- 28 Kreuzschlitzschraube
- 29 Schraube DIN 933
- 30 Schraube DIN 933
- 31 Schraubenmutter
- 32 Schraube DIN 933

TR FRENLİ MOTOR PARÇA LİSTESİ

EN BRAKE MOTOR PART LIST

DE ERSATZTEILLISTE FÜR MOTOR MIT BREMSE



- 01 Gövde
- 02 Sargılı Stator
- 03 Rotor
- 04 Fren Flanşı
- 05 PGR Motor Bağlantı Flanşı
- 06 Ayak
- 07 Motor Mili (Yekpare)
- 08 Motor Mili (Çakma)
- 09 Z1 Dişlisi
- 10 Fan Kapağı
- 11 Fan
- 12 Terminal Kutusu
- 13 Terminal Kutu Kapağı
- 14 Klemens Plakası
- 15 Terminal Contası Alt
- 16 Terminal Contası Üst
- 17 Kablo Grubu
- 18 Ön Rulman
- 19 Arka Rulman
- 20 Keçe (Ön)
- 21 Keçe (Arka)
- 22 Rulman Gergi Yayı
- 23 Rakor
- 24 Kama
- 25 Segman
- 26 Mapa
- 27 Yıldız Başlı Cıvata
- 28 Yıldız Başlı Cıvata
- 29 Cıvata DIN 933
- 30 Cıvata DIN 933
- 31 Somun
- 32 Cıvata DIN 933
- 33 Fren Kaplini
- 34 O-Ring
- 35 Fren Balatası
- 36 Fren
- 37 Manuel Kolu
- 38 Kama
- 39 Segman DIN 471

- 01 Housing
- 02 Wound Stator
- 03 Rotor
- 04 Brake Connection Flange
- 05 Motor Connection Flange
- 06 Foot
- 07 Drive Shaft (Gearcut)
- 08 Drive Shaft (Plain)
- 09 Z1 Gear
- 10 Fan Cover
- 11 Fan
- 12 Terminal Box
- 13 Terminal Box Cover
- 14 Terminal Plate
- 15 Terminal Gasket Down
- 16 Terminal Gasket Up
- 17 Lead Cables
- 18 Ball Bearing (Drive-Side)
- 19 Ball Bearing (Non-Drive-Side)
- 20 Seal Ring (Front)
- 21 Seal Ring (Back)
- 22 Bearing Shim
- 23 Conduit
- 24 Key
- 25 Circlip DIN 471
- 26 Eye Bolt
- 27 Pan Head Screws
- 28 Pan Head Screws
- 29 Bolt
- 30 Bolt
- 31 Nut
- 32 Bolt
- 33 Coupling
- 34 O-Ring
- 35 Brake Lining
- 36 Brake
- 37 Hand Release
- 38 Key
- 39 Circlip DIN 471

- 01 Gehäuse
- 02 gewickelter Stator
- 03 Rotor
- 04 Bremsflansch
- 05 Motor-Anschlussflansch
- 06 Fuß
- 07 Antriebswelle (verzahnt)
- 08 Antriebswelle (glatt)
- 09 Antriebsritzel
- 10 Lüfterhaube
- 11 Lüfter
- 12 Klemmkasten
- 13 Klemmkastendeckel
- 14 Anschlussplatte
- 15 Klemmkastendichtung unten
- 16 Klemmkastendichtung oben
- 17 Kabelbaum
- 18 Kugellager (Antriebsseite)
- 19 Kugellager (Nicht-Antriebsseite)
- 20 Dichtungsring (Vorne)
- 21 Dichtungsring (Hinten)
- 22 Stützscheibe
- 23 Gewindemuffe
- 24 Passfeder
- 25 Sicherungsring DIN 471
- 26 Augenschraube
- 27 Kreuzschlitzschraube
- 28 Kreuzschlitzschraube
- 29 Schraube DIN 933
- 30 Schraube DIN 933
- 31 Schraubenmutter
- 32 Schraube DIN 933
- 33 Kupplung
- 34 O-Ring
- 35 Bremsbelag
- 36 Bremse
- 37 Handauslöser
- 38 Passfeder
- 39 Sicherungsring DIN 471

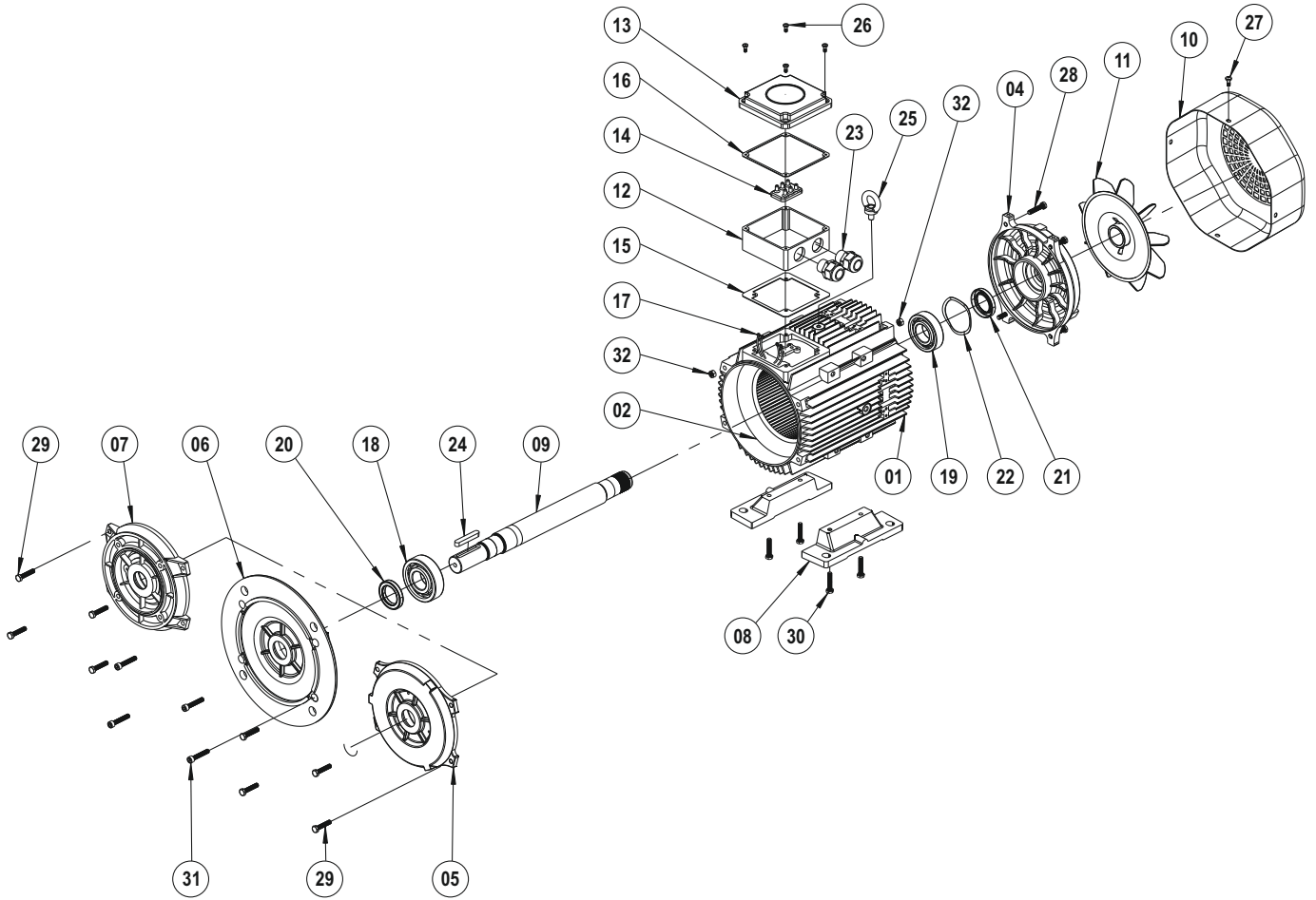
TR

**B3-B5-B14 FLANŞLI MOTOR  
 PARÇA LİSTESİ**

EN

**B3-B5-B14 FLANGE MOTOR PART LIST**

DE

**ERSATZTEILLISTE FÜR MOTOR  
 MIT B3-B5-B14-FLANSCH**


- 01 Gövde
- 02 Sargılı Stator
- 03 Rotor
- 04 Motor Arka Kapağı
- 05 B3 Motor Bağlantı Flanşı
- 06 B5 Motor Bağlantı Flanşı
- 07 B14 Motor Bağlantı Flanşı
- 08 Ayak
- 09 Motor Mili (Standart)
- 10 Fan Kapağı
- 11 Fan
- 12 Terminal Kutusu
- 13 Terminal Kutu Kapağı
- 14 Klemens Plakası
- 15 Terminal Contası Alt
- 16 Terminal Contası Üst
- 17 Kablo Grubu
- 18 Ön Rulman
- 19 Arka Rulman
- 20 Keçe (Ön)
- 21 Keçe (Arka)
- 22 Rulman Gergi Yay
- 23 Rakor
- 24 Kama
- 25 Mapa
- 26 Yıldız Başlı Cıvata
- 27 Yıldız Başlı Cıvata
- 28 Cıvata DIN 933
- 29 Cıvata DIN 933
- 30 Cıvata DIN 933
- 31 Cıvata DIN 912
- 32 Somun

- 01 Housing
- 02 Wound Stator
- 03 Rotor
- 04 Nondrive - Endshield
- 05 Flange
- 06 Flange
- 07 Flange
- 08 Foot
- 09 Drive Shaft (standard)
- 10 Fan Cover
- 11 Fan
- 12 Terminal Box
- 13 Terminal Box Cover
- 14 Terminal Plate
- 15 Terminal Gasket Down
- 16 Terminal Gasket Up
- 17 Lead Cables
- 18 Ball Bearing (Drive-Side)
- 19 Ball Bearing (Non-Drive-Side)
- 20 Seal Ring (Front)
- 21 Seal Ring (Back)
- 22 Bearing Shim
- 23 Conduit
- 24 Key
- 25 Eye Bolt
- 26 Pan Head Screws
- 27 Pan Head Screws
- 28 Bolt
- 29 Bolt
- 30 Bolt
- 31 Bolt
- 32 Nut

- 01 Gehäuse
- 02 gewickelter Stator
- 03 Rotor
- 04 B-Lagerschild
- 05 B3 Flansch
- 06 B5 Flansch
- 07 B14 Flansch
- 08 Fuß
- 09 Antriebswelle (standart)
- 10 Lüfterhaube
- 11 Lüfter
- 12 Klemmkasten
- 13 Klemmkastendeckel
- 14 Anschlussplatte
- 15 Klemmkastendichtung unten
- 16 Klemmkastendichtung oben
- 17 Kabelbaum
- 18 Kugellager (Antriebsseite)
- 19 Kugellager (Nicht-Antriebsseite)
- 20 Dichtungsring (Vorne)
- 21 Dichtungsring (Hinten)
- 22 Stützscheibe
- 23 Gewindemuffe
- 24 Passfeder
- 25 Augenschraube
- 26 Kreuzschlitzschraube
- 27 Kreuzschlitzschraube
- 28 Schraube DIN 933
- 29 Schraube DIN 933
- 30 Schraube DIN 933
- 31 Schraube DIN 912
- 32 Schraubenmutter

TR

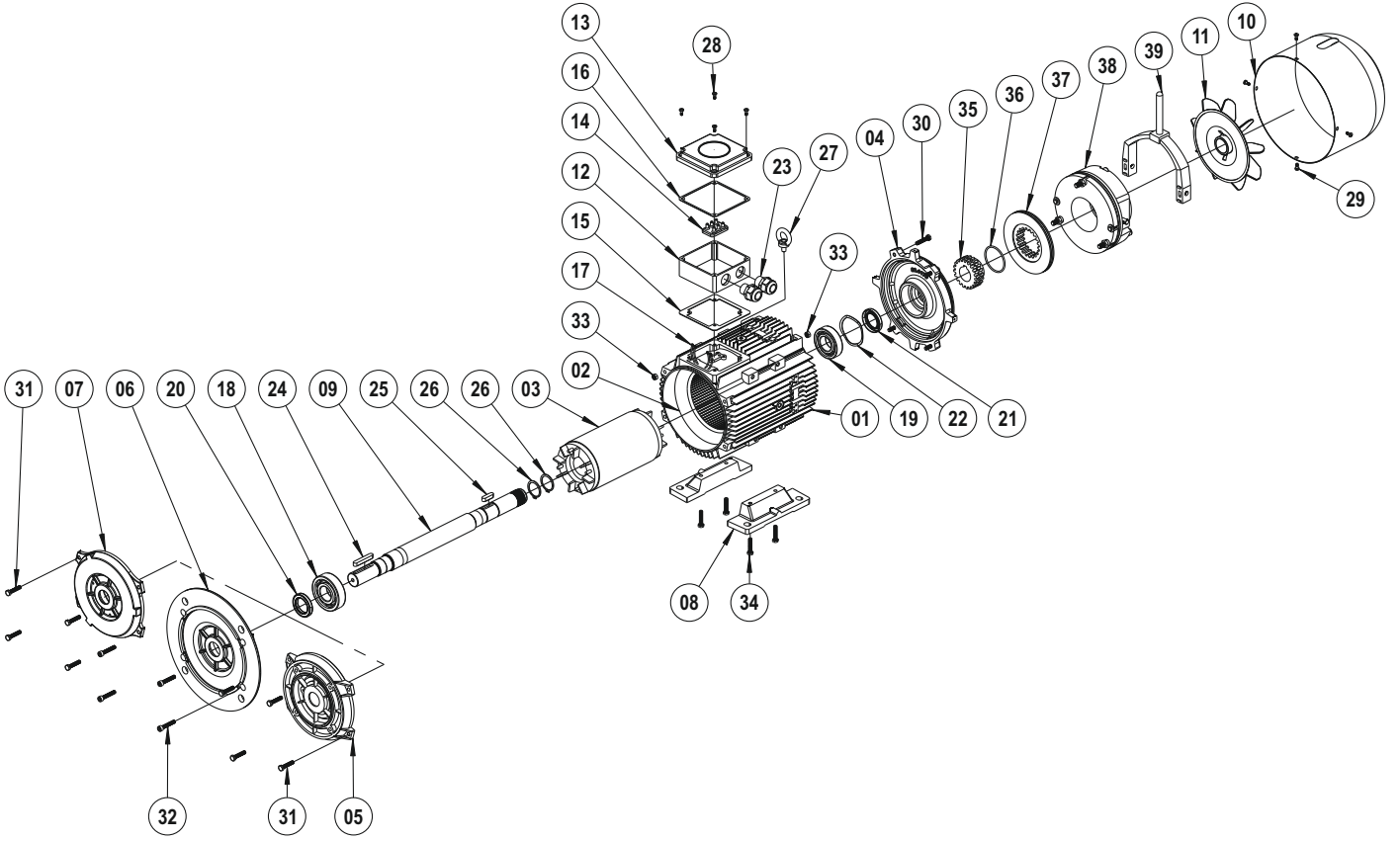
FRENLİ B3-B5-B14 FLANŞLI  
MOTOR PARÇA LİSTESİ

EN

BRAKE B3-B5-B14 FLANGE  
MOTOR PART LIST

DE

ERSATZTEILLISTE FÜR MOTOR MIT  
BREMSE UND B3-B5-B14-FLANSCH



- 01 Gövde
- 02 Sargılı Stator
- 03 Rotor
- 04 Fren Flanşı
- 05 B3 Motor Bağlantı Flanşı
- 06 B5 Motor Bağlantı Flanşı
- 07 B14 Motor Bağlantı Flanşı
- 08 Ayak
- 09 Motor Mili (Standart)
- 10 Fan Kapağı
- 11 Fan
- 12 Terminal Kutusu
- 13 Terminal Kutu Kapağı
- 14 Klemens Plakası
- 15 Terminal Contası Alt
- 16 Terminal Contası Üst
- 17 Kablo Grubu
- 18 Ön Rulman
- 19 Arka Rulman
- 20 Keçe (Ön)
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- 22 Rulman Gergi Yay
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- 25 Kama
- 26 Segman
- 27 Mapa
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- 29 Yıldız Başlı Cıvata
- 30 Cıvata DIN 933
- 31 Cıvata DIN 933
- 32 Cıvata DIN 912
- 33 Somun
- 34 Cıvata DIN 933
- 35 Fren Kaplini
- 36 O-Ring
- 37 Fren Balatası
- 38 Fren
- 39 Manuel Kolu

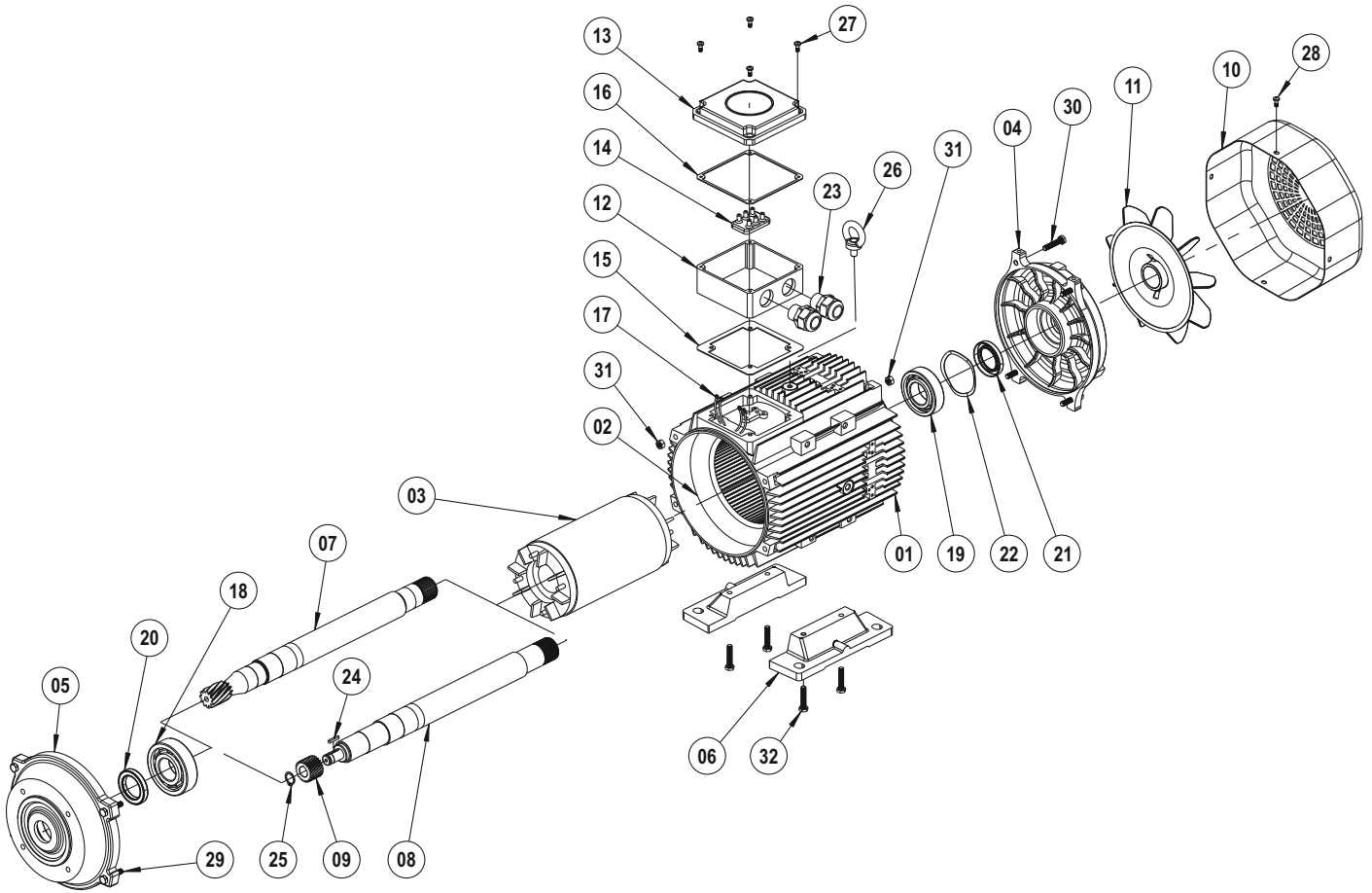
- 01 Housing
- 02 Wound Stator
- 03 Rotor
- 04 Brake Connection Flange
- 05 B3 Flange
- 06 Flange
- 07 Flange
- 08 Foot
- 09 Drive Shaft (standard)
- 10 Fan Cover
- 11 Fan
- 12 Terminal Box
- 13 Terminal Box Cover
- 14 Terminal Plate
- 15 Terminal Gasket Down
- 16 Terminal Gasket Up
- 17 Lead Cables
- 18 Bal Bearing (Drive-Side)
- 19 Bal Bearing (Non-Drive-Side)
- 20 Seal Ring (Front)
- 21 Seal Ring (Back)
- 22 Bearing Shim
- 23 Conduit
- 24 Key
- 25 Key
- 26 Circilip DIN 471
- 27 Eye Bolt
- 28 Pan Head Screws
- 29 Pan Head Screws
- 30 Bolt
- 31 Bolt
- 32 Bolt
- 33 Nut
- 34 Bolt
- 35 Brake Coupling
- 36 O-Ring
- 37 Brake Lining
- 38 Brake
- 39 Hand Release

- 01 Gehäuse
- 02 gewickelter Stator
- 03 Rotor
- 04 Bremsflansch
- 05 B3 Flansch
- 06 B5 Flansch
- 07 B14 Flansch
- 08 Fuß
- 09 Antriebswelle (standart)
- 10 Lüfterhaube
- 11 Lüfter
- 12 Klemmkasten
- 13 Klemmkastendeckel
- 14 Anschlussplatte
- 15 Klemmkastendichtung unten
- 16 Klemmkastendichtung oben
- 17 Kabelbaum
- 18 Kugellager (Antriebsseite)
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- 20 Dichtungsring (Vorne)
- 21 Dichtungsring (Hinten)
- 22 Stützscheibe
- 23 Gewindemuffe
- 24 Passfeder
- 25 Passfeder
- 26 Sicherungsring DIN 471
- 27 Augenschraube
- 28 Kreuzschlitzschraube
- 29 Kreuzschlitzschraube
- 30 Schraube DIN 933
- 31 Schraube DIN 933
- 32 Schraube DIN 912
- 33 Schraubenmutter
- 34 Schraube DIN 933
- 35 Kupplung
- 36 O-Ring
- 37 Bremsbelag
- 38 Bremse
- 39 Handauslöser

## TR MOTOR PARÇA LİSTESİ

## EN THE MOTOR PART LIST

## DE ERSATZTEILLISTE FÜR MOTOR



- 01 Gövde
- 02 Sargılı Stator
- 03 Rotor
- 04 Motor Arka Kapağı
- 05 PGR Motor Bağlantı Flanşı
- 06 Ayak
- 07 Motor Mili (Yekpare)
- 08 Motor Mili (Çakma)
- 09 Z1 Dişlisi
- 10 Fan Kapağı
- 11 Fan
- 12 Terminal Kutusu
- 13 Terminal Kutu Kapağı
- 14 Klemens Plakası
- 15 Terminal Contası Alt
- 16 Terminal Contası Üst
- 17 Kablo Grubu
- 18 Ön Rulman
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- 20 Keçe (Ön)
- 21 Keçe (Arka)
- 22 Rulman Gergi Yayı
- 23 Rakor
- 24 Kama
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- 28 Yıldız Başlı Cıvata
- 29 Cıvata DIN 933
- 30 Cıvata DIN 933
- 31 Somun
- 32 Cıvata DIN 933

- 01 Housing
- 02 Wound Stator
- 03 Rotor
- 04 Nondrive - Endshield
- 05 Motor Connection Flange
- 06 Foot
- 07 Drive Shaft (Gearcut)
- 08 Drive Shaft (Plain)
- 09 Z1 Gear
- 10 Fan Cover
- 11 Fan
- 12 Terminal Box
- 13 Terminal Box Cover
- 14 Terminal Plate
- 15 Terminal Gasket Down
- 16 Terminal Gasket Up
- 17 Lead Cables
- 18 Ball Bearing (Drive-Side)
- 19 Ball Bearing (Non-Drive-Side)
- 20 Seal Ring (Front)
- 21 Seal Ring (Back)
- 22 Bearing Shim
- 23 Conduit
- 24 Key
- 25 Circlip DIN 471
- 26 Eye Bolt
- 27 Pan Head Screws
- 28 Pan Head Screws
- 29 Bolt
- 30 Bolt
- 31 Nut
- 32 Bolt

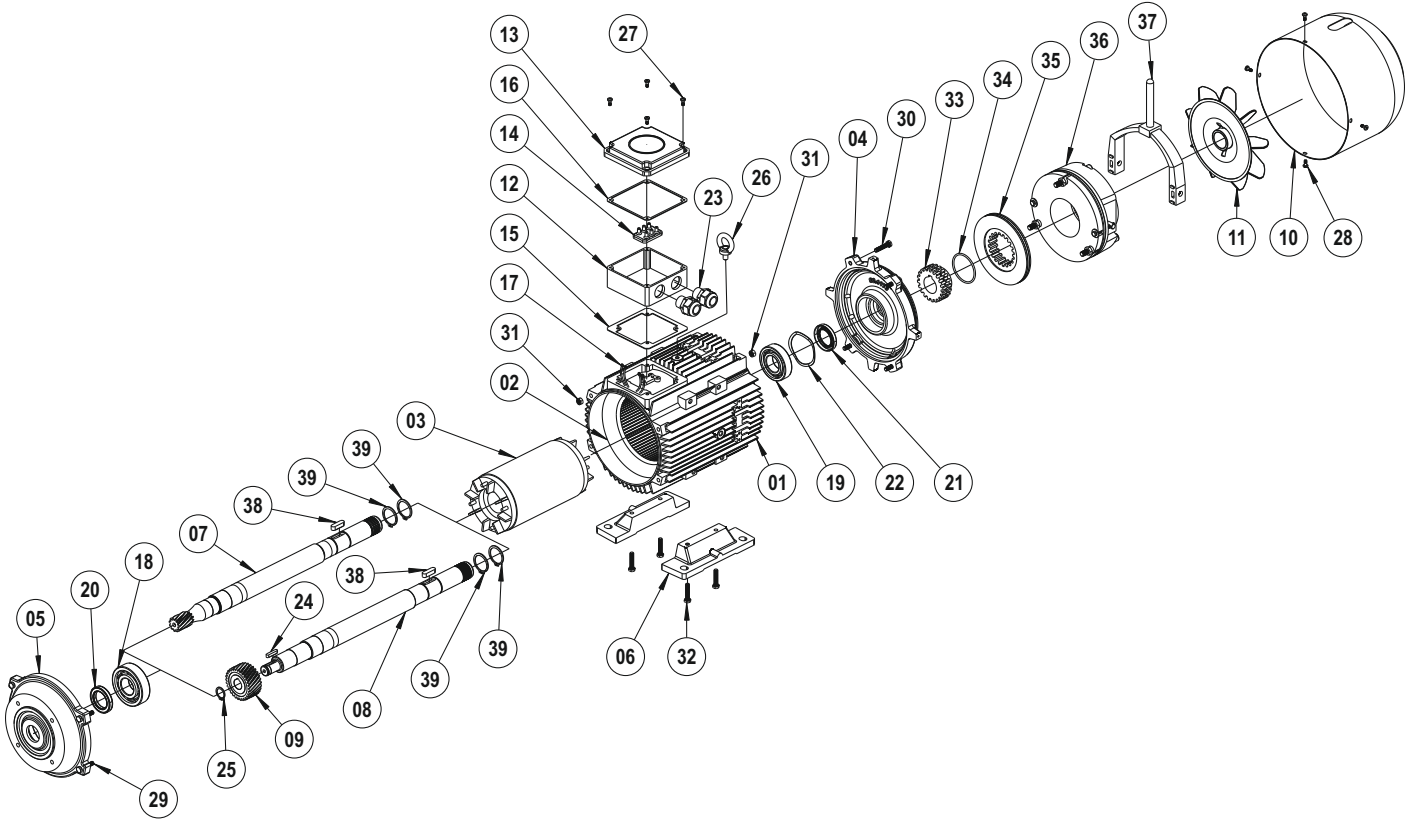
- 01 Gehäuse
- 02 gewickelter Stator
- 03 Rotor
- 04 B-Lagerschild
- 05 Motor-Anschlussflansch
- 06 Fuß
- 07 Antriebswelle (verzahnt)
- 08 Antriebswelle (glatt)
- 09 Antriebsritzel
- 10 Lüfterhaube
- 11 Lüfter
- 12 Klemmkasten
- 13 Klemmkastendeckel
- 14 Anschlussplatte
- 15 Klemmkastendichtung unten
- 16 Klemmkastendichtung oben
- 17 Kabelbaum
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- 19 Kugellager (Nicht-Antriebsseite)
- 20 Dichtungsring (Vorne)
- 21 Dichtungsring (Hinten)
- 22 Stützscheibe
- 23 Gewindemuffe
- 24 Passfeder
- 25 Sicherungsring DIN 471
- 26 Augenschraube
- 27 Kreuzschlitzschraube
- 28 Kreuzschlitzschraube
- 29 Schraube DIN 933
- 30 Schraube DIN 933
- 31 Schraubenmutter
- 32 Schraube DIN 933



TR FRENLİ MOTOR PARÇA LİSTESİ

EN THE MOTOR PART LIST WITH BRAKE

DE ERSATZTEILLISTE FÜR MOTOR MIT BREMSE



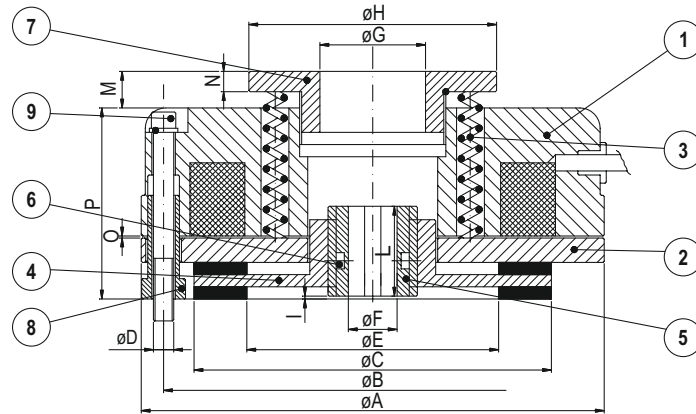
- 01 Gövde
- 02 Sargılı Stator
- 03 Rotor
- 04 Fren Flanşı
- 05 PGR Motor Bağlantı Flanşı
- 06 Ayak
- 07 Motor Mili (Yekpare)
- 08 Motor Mili (Çakma)
- 09 Z1 Dişlisi
- 10 Fan Kapağı
- 11 Fan
- 12 Terminal Kutusu
- 13 Terminal Kutu Kapağı
- 14 Klemens Plakası
- 15 Terminal Contası Alt
- 16 Terminal Contası Üst
- 17 Kablo Grubu
- 18 Ön Rulman
- 19 Arka Rulman
- 20 Keçe (Ön)
- 21 Keçe (Arka)
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- 28 Yıldız Başlı Cıvata
- 29 Cıvata DIN 933
- 30 Cıvata DIN 933
- 31 Somun
- 32 Cıvata DIN 933
- 33 Fren Kaplini
- 34 O-Ring
- 35 Fren Balatası
- 36 Fren
- 37 Manuel Kolu
- 38 Kama
- 39 Segman

- 01 Housing
- 02 Wound Stator
- 03 Rotor
- 04 Brake Connection Flange
- 05 Flange
- 06 Foot
- 07 Drive Shaft (Gearcut)
- 08 Drive Shaft (Plain)
- 09 Z1 Gear
- 10 Fan Cover
- 11 Fan
- 12 Terminal Box
- 13 Terminal Box Cover
- 14 Terminal Plate
- 15 Terminal Gasket Down
- 16 Terminal Gasket Up
- 17 Lead Cables
- 18 Ball Bearing (Drive-Side)
- 19 Ball Bearing (Non-Drive-Side)
- 20 Seal Ring (Front)
- 21 Seal Ring (Back)
- 22 Bearing Shim
- 23 Conduit
- 24 Key
- 25 Circlip DIN 471
- 26 Eye Bolt
- 27 Pan Head Screws
- 28 Pan Head Screws
- 29 Bolt
- 30 Bolt
- 31 Nut
- 32 Bolt
- 33 Coupling
- 34 O-Ring
- 35 Brake Lining
- 36 Brake
- 37 Hand Release
- 38 Key
- 39 Circlip DIN 471

- 01 Gehäuse
- 02 gewickelter Stator
- 03 Rotor
- 04 Bremsflansch
- 05 Motor-Anschlussflansch
- 06 Fuß
- 07 Antriebswelle (verzahnt)
- 08 Antriebswelle (glatt)
- 09 Antriebsritzel
- 10 Lüfterhaube
- 11 Lüfter
- 12 Klemmkasten
- 13 Klemmkastendeckel
- 14 Anschlussplatte
- 15 Klemmkastendichtung unten
- 16 Klemmkastendichtung oben
- 17 Kabelbaum
- 18 Kugellager (Antriebsseite)
- 19 Kugellager (Nicht-Antriebsseite)
- 20 Dichtungsring (Vorne)
- 21 Dichtungsring (Hinten)
- 22 Stützscheibe
- 23 Gewindemuffe
- 24 Passfeder
- 25 Sicherungsring DIN 471
- 26 Augenschraube
- 27 Kreuzschlitzschraube
- 28 Kreuzschlitzschraube
- 29 Schraube DIN 933
- 30 Schraube DIN 933
- 31 Schraubenmutter
- 32 Schraube DIN 933
- 33 Kupplung
- 34 O-Ring
- 35 Bremsbelag
- 36 Bremse
- 37 Handauslöser
- 38 Passfeder
- 39 Sicherungsring DIN 471



|    |                    |    |                 |    |                   |
|----|--------------------|----|-----------------|----|-------------------|
| TR | FREN PARÇA LİSTESİ | EN | BRAKE PART LIST | DE | BREMSE-TEILELISTE |
|----|--------------------|----|-----------------|----|-------------------|



- 1 Elektromagnets
- 2 Endüvi plakası
- 3 Tork yayı
- 4 Disk
- 5 Kamalı burç
- 6 O-ring
- 7 Ayar halkası
- 8 Ayar somunu
- 9 Bağlantı civataları

- 1 Electromagnet
- 2 Armature plate
- 3 Torque springs
- 4 Disc
- 5 Splined hub
- 6 O-ring
- 7 Adjuster rings
- 8 Adjuster nuts
- 9 Fixing screws

- 1 Elektromagnet
- 2 Ankerplatte
- 3 Bremsfeder
- 4 Scheibe
- 5 Nabe
- 6 O-Ring
- 7 Einstellring
- 8 Einstellschraube
- 9 Feststellschraube

| Tip / Type / Typ<br>Fren Modeli / Brake Model / Bremsmodell                                                                                                            | K1          | K2          | K3    | K4    | K5          | K6          | K7          | K7/D             | K8    | K8/D         | K9          | K9/D        | K9/T           |     |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|-------------|-------|-------|-------------|-------------|-------------|------------------|-------|--------------|-------------|-------------|----------------|-----|
| Statik Fren Momenti / Static Braking Torque /<br>Statisches Bremsmoment (Nm)                                                                                           | 5           | 12          | 16    | 20    | 40          | 60          | 90          | 180              | 200   | 400          | 300         | 600         | 900            |     |
| Motorun Max. Hızı / Max Speed of the motor /<br>Höchstgeschwindigkeit des Motors (rpm)                                                                                 | 3000        | 3000        | 3000  | 3000  | 3000        | 3000        | 3000        | 3000             | 1500  | 1500         | 1500        | 1500        | 1500           |     |
| Giriş Gücü / Input Power /<br>Eingangsleistung (W)                                                                                                                     | 15          | 20          | 25    | 30    | 45          | 50          | 55          | 55               | 60    | 60           | 65          | 65          | 65             |     |
| Max. Ses / Max noisiness /<br>Maximale lautheit (≤dB-A)                                                                                                                | 68          | 69          | 68    | 69    | 70          | 70          | 70          | 70               | 70    | 69           | 69          | 69          | 70             |     |
| Ağırlık / Weight / Gewicht (Kg.)                                                                                                                                       | 1,1         | 1,85        | 2,55  | 2,84  | 4,8         | 7           | 12          | 15               | 14,3  | 18           | 23          | 28          | 34             |     |
| A                                                                                                                                                                      | 84          | 104         | 114   | 124   | 148         | 159         | 189         | 189              | 218   | 218          | 248         | 248         | 248            |     |
| B                                                                                                                                                                      | 72          | 90          | 103   | 112   | 132         | 145         | 170         | 170              | 196   | 196          | 230         | 230         | 230            |     |
| C                                                                                                                                                                      | 61          | 77          | 88    | 98    | 119         | 128         | 151         | 151              | 176   | 176          | 204         | 204         | 204            |     |
| D                                                                                                                                                                      | 3xM4        | 3xM5        | 3xM5  | 3xM6  | 3xM6        | 3xM8        | 3xM8        | 3xM8             | 6xM10 | 6xM10        | 6xM10       | 6xM10       | 9xM10          |     |
| Delik toleransı K3'e kadar H7, diğerleri + 0,01/-0,01<br>Tolerance hole till size K3 H7, others + 0,01/-0,01<br>Bohrungstoleranz bis Grösse K3 H7, andere + 0,01/-0,01 | E           | 35          | 44    | 62    | 69          | 79          | 80          | 90               | 90    | 103          | 103         | 132         | 132            | 132 |
| F                                                                                                                                                                      | 10-11<br>12 | 11-14<br>15 | 11-15 | 14-25 | 24-25<br>28 | 25-30<br>34 | 25-30<br>34 | 25 H40<br>34 H60 | 24-34 | 34 H60<br>48 | 44-45<br>48 | 44-45<br>48 | 44-45<br>48-50 |     |
| G                                                                                                                                                                      | 20          | 26          | 26    | 42    | 60          | 60          | 60          | 60               | 60    | 60           | 60          | 60          | 60             |     |
| H                                                                                                                                                                      | 50          | 61          | 61    | 79    | 104         | 104         | 104         | 104              | 104   | 104          | 104         | 104         | 104            |     |
| I                                                                                                                                                                      | 1,5         | 1,5         | 1,5   | 1,5   | 1,5         | 1,5         | 1,5         | 1,5              | 1,5   | 1,5          | 1,5         | 1,5         | 1,5            |     |
| L                                                                                                                                                                      | 18          | 20          | 20    | 20    | 25          | 30          | 30          | 60               | 40    | 60           | 40          | 60          | 80             |     |
| M (max)                                                                                                                                                                | 9           | 9           | 9     | 9,5   | 18          | 16          | 14          | 14               | 18    | 18           | 18          | 18          | 18             |     |
| N                                                                                                                                                                      | 4           | 4           | 4     | 5,5   | 8           | 8           | 8           | 8                | 8     | 8            | 8           | 8           | 8              |     |
| O                                                                                                                                                                      | 0,2         | 0,2         | 0,2   | 0,2   | 0,3         | 0,3         | 0,3         | 0,3              | 0,3   | 0,4          | 0,4         | 0,4         | 0,4+0,5        |     |
| P                                                                                                                                                                      | 38,5        | 41,5        | 47    | 46,5  | 64          | 69,5        | 79          | 101,5            | 78    | 98           | 80          | 105         | 130            |     |

**Not :** Fren çalıştırılmadan önce statik fren momenti tabloda verilen değerlere göre ± % 20 değişiklik gösterebilir.

**Note :** The brake before running in, the static braking torque value could change by +20% from the reported value.

**Notizen :** Bevor die Bremse eingefahren ist, kann das statische Bremsmoment um etwa ± 20 % vom Tabellenwert abweichen.



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