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PGR®
DRIVE TECHNOLOGIES



PA/PF SERIES

Helisel Dişlili Redüktör
Helical Gear Units
Stirnradgetriebemotoren

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DRIVE TECHNOLOGIES

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PGR®

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 sağılığı ve güvenliği ve Kalite yönetim sistemleri konusunda bilinçlendirmeyi;
- Çalışan sağlığının ve çevrenin korunması için çalışmaları mızı 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.

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.

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 Marktanteilsstabilität zu erhalten, Steigerung der Leistung ihrer geschulten Mitarbeiter durch Schaffung eines friedlichen Arbeitsumfelds;

hat sie als Unternehmenspolitik übernommen.

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.

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.

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 Produktpalletten im höchsten Zustand zu übertreffen. Unsere Entwurfstätigkeiten und Produktentwicklungsprogramme und EDV unterstützten Arbeitsprozesse zeigen eine steigernde Grafik. Unsere wettbewerbsfähige und kräftige Qualitätspolitik vergrößert unseren Kundenumfang weiter.

TR TEKNİK BİLGİLER

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 ünitede 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 ≤ 0.25 ise düzgün çalışma yük sınıfı (U), 0.25 < maf ≤ 3 ise orta darbeli yük sınıfı (M) ve 3 < maf ≤ 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 4'deki diyagram 1 kullanılarak mekanik yönden gerekli servis faktörü değeri bulunur.

2.Termal Limit Kontrolü
Redüktörde bazı çalışma koşullarında aşırı ısınma gözlenebilir. 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 aşılmaması gereklidir.
Termal olarak transfer edilebilen güç süresi (3saat) sadece PA/PF62, PD/PM62, PKD 6390 ve daha büyük gövdeler için olası bir sınırı temsil eder.

EN TECHNICAL INFORMATION

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 importonce. When using equipments which are not adviced 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 ≤ 0.25 it is Uniform application(U)
0.25 < maf ≤ 3 it is Moderate impact application(M)
3 < maf ≤ 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 4 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 wil be possible to increase the thermal power values with additional coolers like fan, coil, heat exchanger, radiator, etc.,and they should be 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.

DE TECHNISCHE INFORMATION

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 Getriebesbesteht, 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 unda us dem Massenbeschleunigungsfaktor (maf).
Bei maf ≤ 0,25 gleichmäßiger Betrieb (U),
bei 0,25 < maf ≤ 3 ungleichmäßiger Betrieb (M)
und bei 3 < maf ≤ 10 stark ungleihmäßiger 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 4 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, Serpentinen 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/PF62, PD/PM62, 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 olabilmesidir.

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 temerature 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 healtier 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 montaged. 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 t he 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 Frequenzumrichter betrieben wird. Im Gegensatz zum Wechselstrommotor beeinflussen seltene Drehmoment-effekte 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-Stopps pro Stunde und Betriebsfaktor.

TR SERVİS FAKTÖRÜ

Diyagram 1 günlük çalışma zamanına (saat), saatteki start sayısına ve uygulanılan 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 kütlesel 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 fB 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

EN SERVICE FACTOR

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 fB 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

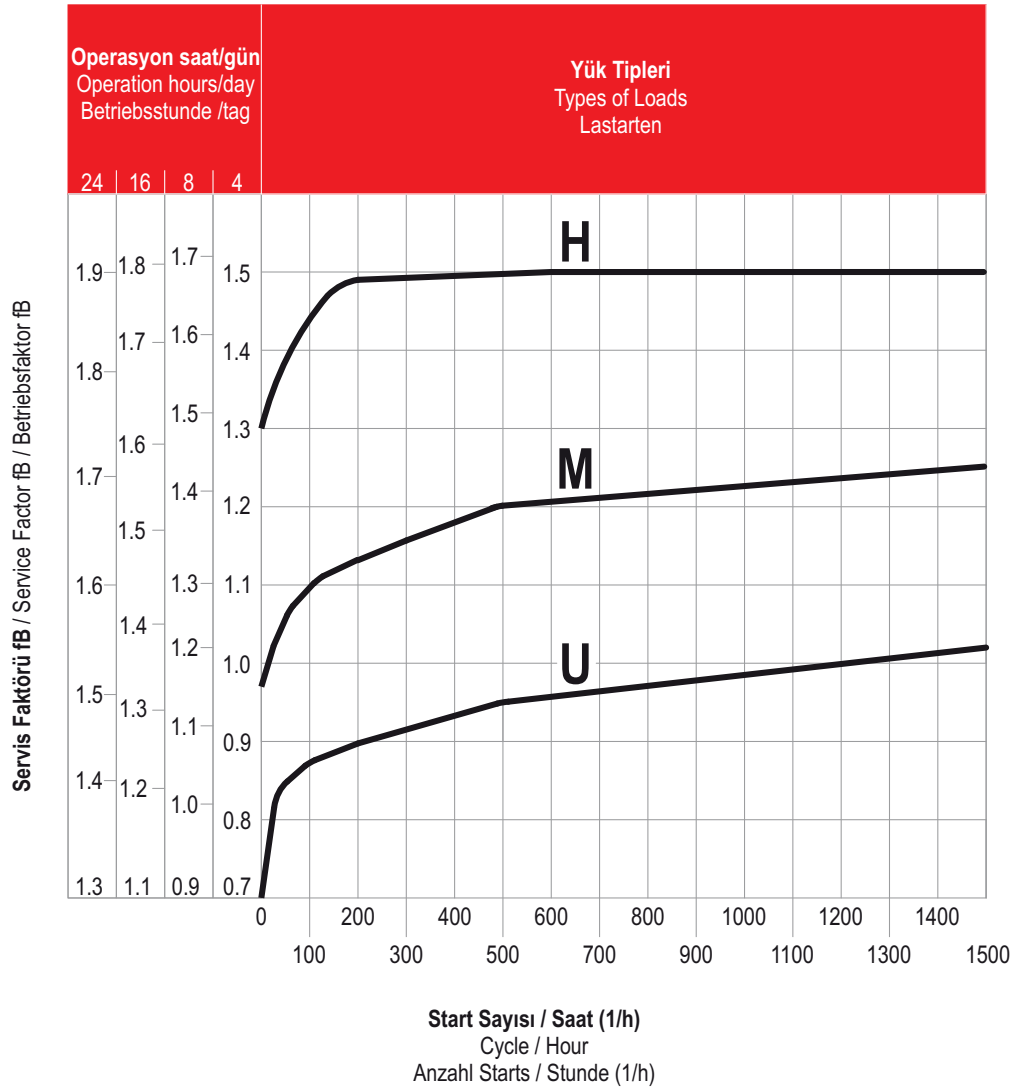
DE SERVICEFAKTOR

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 fB 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



TR TEKNİK BİLGİLER

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 mekaniz maları, 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, perdahlama 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.

EN TECHNICAL INFORMATION

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) Modarate 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, balacing machines, packaging machines, gear pumps, centrifugal pumps, valve turning gears, weaving looms, carding-machines, treshing machines, granulation vats, corrianders, agitators, drying rollers.

H) Heavy shocks, non-uniform application
Stone crushers, eccentric press machines, choppers, press machines, gridingmills, hammmer mills, shredders, heavy mixers, boring machines, folding machines, turning looms, horizontal mixers, cutters, vibrators, centrifugal machines, heavy cranes and elevators, plate-cyclinder-cold extrusion machines, fixed cyclinder with regulated velocity, sluch machines, drying cyclinders, polishing cyclinders,

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.

DE TECHNISCHE INFORMATION

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, Zahnradpumpen, Kreiselpumpen (Halbflüssigkeitspumpen), Ventildrehvorrichtungen, Webstühle, Putzereimaschinen, Dreschmaschinen, Granulier-(Debegat-) Behälter, Siebe, Rührwerke, Trockenwalzen.

H) Starke Stöße, stark ungleichmäßiger Betrieb
Steinbrecher, Exzenterpressen, Häcksler, Pressen, Mahlspindeln, Hammerbrecher, Aktenvernichter, Hochleistungsmischer, Stanzmaschinen, Abkantmaschinen, Rundtische, Horizontalmischer, Schneidgeräte, Vibratoren Zentrifugen, Rundtische, Schwerlastkräne und Aufzüge, Plattenzylinder - Kaltwalzmaschinen, geschwindigkeitsregulierbare Festwalzen, Auflösemaschinen, Trockenwalzen, Kalanderwalzen.

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 Load Classification Stoßgrad	Çalışma Operation Betrieb	Kütle hız faktörü Mass Acceleration Factor Massenbeschleunigungs-faktor
U	Düzgün çalışma / Uniform application / gleichmäßiger Betrieb	$m_{af} \leq 0.25$
M	Düzgün olmayan çalışma / Non-uniform application / ungleichmäßiger Betrieb	$0.25 < m_{af} \leq 3$
H	Aşırı düzgün olmayan çalışma / Extreme non-uniform application / stark ungleichmäßiger Betrieb	$3 < m_{af} \leq 10$

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

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

Kütlesel ivme faktörü maf, çıkış tarafındaki dış kütleler ile giriş tarafındaki yüksek hızlı kütlelerin arasındaki ilişkiyi gösterir.
Kütlesel ivme faktörünün dişli ünitesinin tork tesir seviyesine önemli ölçüde sistem başlatma, frenleme ve titreşim üzerinden etkisi vardır.
Örneğin bir bantlı konveyör sistemini ele alalım. Burada dış kütle atalet momentini konveyör bant üzerinde taşınan malzemenin kütlesel yükü oluşturur. Eğer maf >10 ise transfer elemanlarında büyük deplasman (yük değiştirme) var ise ya da yük sınıflandırmamızda bir belirsizlik var ise PGR'ye danışınız. Bu ve benzeri hususlarla belirli şüpheleriniz var ise PGR'ye danışınız.

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

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.

i_{ges} = Getriebeübersetzung
$J_{ex.red}$ = alle externen Massenträgheitsmomente auf Antriebsmotor reduziert
J_{ex} = alle externen Massenträgheitsmomente
J_{mot} = Massenträgheitsmoment des Motors

Der Massenbeschleunigungsfaktor maf stellt das Verhältnis von externen abtriebsseitigen und schnelllaufenden 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 fB'dir. Redüktörümüz için geçerli maksimum çıkış momenti Mamax'dır. Motor gücümüz P1'dir. Redüktör çıkış devrimiz n2'dir. Redüktörümüzün operasyonel çıkış momenti M2'dir.

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

$$M_2 = \frac{9550.\ P1.\ \eta}{n_2}\ [Nm] \qquad P1\ [kW],\ n_2\ [min^{-1}]$$

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

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

Redüktörümüzün doğru seçimi, motorlu seçim tablolarımızda mevcut olan fB Servis faktörü değerinin Diyagram 1'den bulduğumuz minimum servis faktörümüz fBmin değerlerinden büyük veya eşit olması durumunda mümkündür.

Helisel dişlili redüktörler, Paralel şaft montajlı redüktörler ve Helisel konik dişlili redüktörler her bir kademede çok yüksek verime sahiptir (kademe başına yaklaşık %96 - %98 veya η= 0,96 - 0,98). Bu yüzden hesaplamalarda verim η =1,0 alınması yeterli ve doğru sonuçlara ulaşılmasına yardımcı olur. Helisel sonsuz dişlili redüktörlerin verimliliği (η), her bir çıkış hızı (n2) için oranlar W, IEC, PAM Seçim tablolarında belirtilmiştir. W kovanı montajlı (serbest hareket mili) redüktörde çıkış gücü aşağıdaki formülden hesaplanır.

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

Redüktörümüzün güvenli ve verimli bir şekilde çalışması için maksimum tahrik gücü P1max'ın aşılmaması gerekir.

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

W, IEC, PAM bağlantılı redüktörler için W, IEC, PAM seçim tablolarında her bir çıkış devri (n2) ve maksimum çıkış momenti (Mamax) için P1max değerleri tablo halinde listelenmiştir.

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 değerin aşılmaması tavsiye edilir. Belirtilen değerleden daha yüksek fren torku kullanılacak ise bu durum redüktör seçimi yapılırken göz önünde bulundurulmalıdır. Lütfen istenmeyen durumları engellemek için PGR'ye başvurunuz.

EN TECHNICAL INFORMATION

Fb is the service factor of our gear unit. Mamax is maximum output moment of our gear unit. P1 is the motor power. Gear unit output rotation is n2. M2 is the operational output moment.

Since our system is a mechanical system, we have losses in our system unit. Our input power cannot be transmitted to the output as 100% lossless. For this reason, we consider the efficiency in percent and add it to the formulas in our calculations. Gear unit efficiency: η

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 fB min which is taken from diagram-1

$$f_B \geq f_{B\ min}$$

Helical gear reducers has higher efficiencies than Parallel shaft mounted gear units and Helical bevel gear reducers. (approx. 96% - 98% per step or η= 0.96 - 0.98). Therefore, taking efficiency η = 1.0 in calculations helps to achieve sufficient and correct results. For efficiency (η) of helical worm gear units,the ratio of each output speed (n2) 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.

For the safe and efficient operation of our gearbox, the maximum drive power P1max must not be exceeded.

For gear units with W, IEC, PAM connection, P1max values for each output speed (n2) and maximum output torque (Mamax) are listed in the W, IEC, PAM selection tables.

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.

DE TECHNISCHE INFORMATION

Der Betriebsfaktor des Getriebes (fb). Das gültige maximale Abtriebsdrehmoment für Getriebe (Mamax.) Motorleistung (P1) Abtriebsdrehzahl (n2) Abtriebsdrehmoment (M2)

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: η

Die richtige Auswahl unseres Getriebes ist möglich, wenn der in unseren Motorauswahltabellen verfügbare Wert fB Servicefaktor größer oder gleich unserem minimalen Servicefaktor fBmin ist, den wir aus Diagramm 1 gefunden haben.

Stirnradgetriebe, Flachgetriebe und Kegelradgetriebe haben einen sehr hohen Wirkungsgrad (ca. 96% - 98% je Getriebestufe oder η= 0,96 - 0,98). Daher führt der vereinfachte Getriebewirkungsgrad η = 1,0 in der Regel zu hinreichend und korrekte Ergebnissen. Bei Stirnradschneckengetrieben ist der Getriebewirkungsgrad (η) der Schneckengetriebe in den Leistungs- und Übersetzungstabellen (W,IEC,PAM) für die jeweilige Abtriebsdrehzahl (n2) aufgeführt. Bei Getrieben mit freier Antriebswelle Typ W darf die installierte Antriebsleistung P1 höchstens betragen:

Hierbei darf die maximale Antriebsleistung P1max nicht überschritten werden.

P1 ≤ P1max Die Leistungs- und Übersetzungstabellen (W, IEC, PAM) führen die jeweiligen Abtriebsdrehzahl n2 das maximale Getriebeabtriebsdrehmoment Mamax und die maximale Motorleistung P1max 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 Fahrantrieben, 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.

TR TEKNİK BİLGİLER

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 koşuluna dayanmaktadır.

Ayrıca motorlu seçim tablolarında yer alan radyal ve eksenel kuvvet değerleri sistemin servis faktörünün (fB=1) bire eşit olduğu durum için verilmiştir. Darbeli yükler, darbeli tekrarlı yükler, uzun süreli çalışmalı (>8 saat/gün) gibi uygulamalarda servis faktörünün (fB>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.

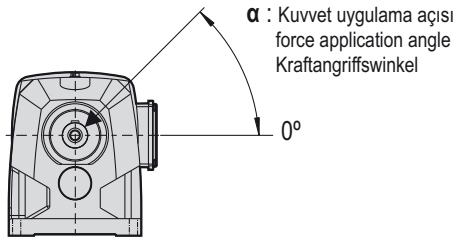
Daha yüksek radyal ve eksenel kuvvetler potansiyel olarak kuvvet yönünün uygulama doğrultusuna ve dönüş yönüne göre mümkündür. Kesin bir hesaplama için bu tip uygulamalar söz konusu ise operasyonel kuvvet yönünü, dönüş yönünü ayrıca istenilen servis süresini (gerekli olan) detaylı olarak PGR'ye iletiniz.

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 ≤ 17 diş
Zincir Dişliler	1.4	z ≤ 13 diş
Zincir Dişliler	1.2	z ≤ 20 diş
Dar V-Kayış Kasnakları	1.7	ön gerilim
Düz kayış Kasnakları	2.5	kuvveti
Dişli Kayış Kasnakları	1.5	

Kuvvet uygulama noktası :
Kuvvet uygulama noktası aşağıdaki şekillere göre tanımlanır.



F_{Rx} : "X" Uygulama noktasındaki müsaade edilen radyal kuvvet [N]
F_A : Müsaade edilen eksenel kuvvet [N]

EN TECHNICAL INFORMATION

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 (fB=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 (fB>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.

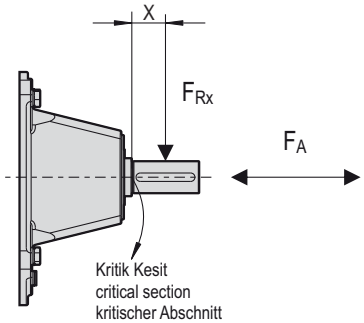
Higher radial and axial forces are potentially possible with respect to the direction of application and the direction of rotation of the force direction. For an exact calculation, if such applications are in calculation, please inform PGR in detail the operational force direction, the direction of rotation, 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 ≤ 17 teeth
Chain Sprockets	1.4	z ≤ 13 teeth
Chain Sprockets	1.2	z ≤ 20 teeth
Narrow V-belt pulleys	1.7	by
Flat belt pulleys	2.5	pretension force
Gear belt pulleys	1.5	

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



F_{Rx} : Permitted overhung load at point [N]
F_A : Permitted axial force [N]

DE TECHNISCHE INFORMATION

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 (fB=1) zugrunde. Bei stoßartigen Kräften und längeren Laufzeiten > 8 Stunden/Tag) ist auch für die Quer- und Axialkräfte ein entsprechender Betriebsfaktor (fB>1) zu berücksichtigen. Die zulässigen Querkräfte FA- und FR- werden entsprechend reduziert.

Die Querkraftangaben 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 Querkraft ein entsprechender Faktor (fz) zu beachten.

Querkraft-Faktor fz

Übertragungselemente	Faktor fz	Hinweise
Zahnräder	1.1	z ≤ 17 Zähne
Kettenräder	1.4	z ≤ 13 Zähne
Kettenräder	1.2	z ≤ 20 Zähne
Schmalkeilriebenscheiben	1.7	durch
Flachriemenscheiben	2.5	Vorspannkraft
Zahnriemenscheiben	1.5	

Definition des Kraftangriffs
Der Kraftangriff wind gemäß dem folgenden Bild definiert

F_{Rx} : zulässige Querkraft bei Abstand [N]
F_A : zulässige Axialkraft [N]

TR TEKNİK BİLGİLER

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

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]
$F_{R\ vorth}$: 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.

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

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.

EN TECHNICAL INFORMATION

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

$$F_{Rvorth} = \frac{2 \cdot M_a}{d_o} f_z \leq F_R$$

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]
$F_{R\ vorth}$: 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

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

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

c			[Nmm]
C_{GR}			[Nmm]
f	📖	10-13	[mm]
y			[mm]
z			[mm]

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.

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
$F_{R\ vorth}$: (kN) vorhandene Querkraft an der Getriebewelle

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

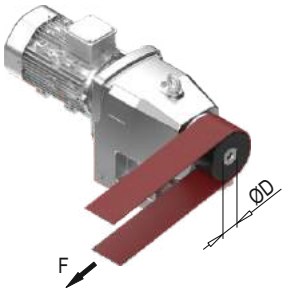
X : Abstand von Wellenbund bis Kraftangriff (mm)
F_{RXW} : zul. Querkraft an Stelle x Wellenfestigkeit
F_R : Querkraft aus Drehzahl- und Leistungstabelle, Kraftangriff auf Wellenmitte (kN)
F_{RXL} : zul. Querkraft an Stelle x Lagerlebensdauer
z,y,f : Faktoren siehe Tabelle
c : Faktoren siehe Tabelle

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)' nun 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

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

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



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 Gearbox Type Reduzierertyp	y (mm)	z (mm)	c **Normal** Normal (Nmm)	C_{GR} **Güçlendirilmiş /** Reinforced / Verstärkt (Nmm)	f (mm)	d (mm)	l (mm)
PA/PF 11	65.0	85.0	#	-	39.0	20	40
PA/PF 21	77.0	102.0	#	-	50.0	25	50
PA/PF 31	104.5	134.5	#	-	69.5	30	60
PA/PF 41	111.5	146.5	#	-	67.0	35	70
PA/PF 51	125.0	165.0	#	-	74.0	40	80
PA/PF 02 - PA/PF 03	63.8	83.8	0.06×10^6	0.10×10^6	11.8	20	40
PA/PF 12 - PA/PF 13	73.5	98.5	0.12×10^6	0.18×10^6	14.0	25	50
PA/PF 22 - PA/PF 23	86.0	116.0	0.19×10^6	0.30×10^6	14.0	30	60
PA/PF 32- PA/PF 33	112.5	152.5	0.39×10^6	0.60×10^6	30.0	40	80
PA/PF 42 - PA/PF 43	123.0	168.0	0.42×10^6	0.73×10^6	30.0	45	90
PA/PF 52 - PA/PF 53	149.5	204.5	0.92×10^6	1.56×10^6	35.0	55	110
PA/PF 62 - PA/PF 63	191.0	256.0	1.46×10^6	2.46×10^6	35.0	65	130
PA/PF 72 - PA/PF 73	212.0	282.0	2.13×10^6	4.45×10^6	37.0	75	140
PA/PF 82 - PA/PF 83	248.5	333.5	4.24×10^6	6.89×10^6	38.0	90	170
PA/PF 92- PA/PF 93	278.0	383.0	8.07×10^6	12.50×10^6	41.0	110	210
PA/PF 102 - PA/PF 103	323.5	448.5	14.86×10^6	22.84×10^6	46.0	130	250

 # İstediğinde hesaplanacaktır.

It will be calculated when you demand.

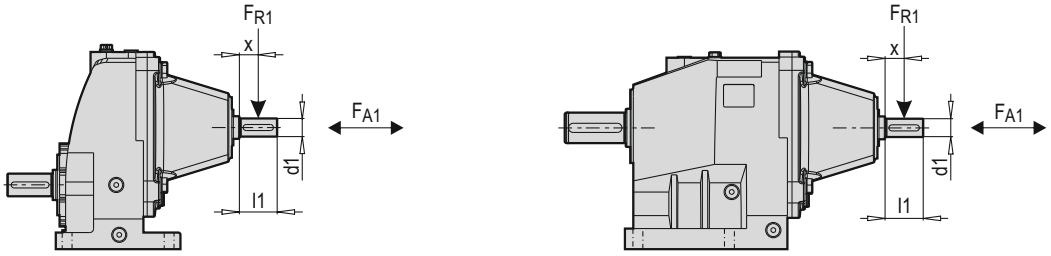
Wird auf Anfrage berechnet

y - z - c - C_{GR} - f 9

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

- 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 EİNGANGSWELLE
f=0

Redüktör Tipi Gearbox Type Reduzierertyp	**y** (mm)	**z** (mm)	**c** (Nmm)	**d1** (mm)	**l1** (mm)
PA/PF 03 PA/PF 11 PA/PF 02 PA/PF 12 PA/PF 13 PA/PF 23 PA/PF 33	70.0	90.0	3.64×10^4	16	40
PA/PF 21 PA/PF 31 PA/PF 22 PA/PF 32 PA/PF 43 PA/PF 53	96.5	121.5	1.07×10^5	24	50
PA/PF 41 PA/PF 51 PA/PF 42 PA/PF 52 PA/PF 63	110.5	150.5	4.70×10^5	38	80
PA/PF 62 PA/PF 63* PA/PF 72 PA/PF 73 PA/PF 83 PA/PF 93	149.5	204.5	4.60×10^5	42	110
PA/PF 82 PA/PF 83* PA/PF 92 PA/PF 93* PA/PF 103	207.5	277.5	1.82×10^6	65	140
PA\PF 102	224.5	294.5	1.66×10^6	65	140

*** W Adaptörlerde Güçlendirilmiş Rulman Kullanılmıştır. / *** Reinforced bearing is used at W Adapters. / * In W-Ausführungen werden verstärkte Lager verwendet

y - z - c 9

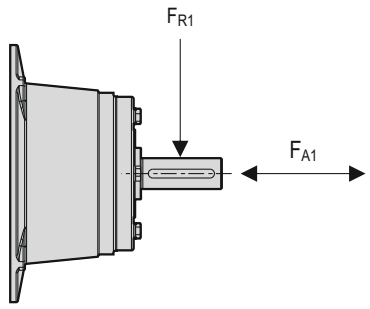
TR RADYAL YÜK HESABI

EN CALCULATION OF RADIAL LOADS

DE BERECHNUNG VON QUERKRAFT

- W ADAPTÖR

- W ADAPTER



Tip Type Typ	PA/PF 11 PA/PF 02 PA/PF 12 PA/PF 03 PA/PF 13 PA/PF 23 PA/PF 33		PA/PF 21 PA/PF 31 PA/PF 22 PA/PF 32 PA/PF 43 PA/PF 53		PA/PF 41 PA/PF 51 PA/PF 42 PA/PF 52 PA/PF 63		PA/PF 62 PA/PF 72 PA/PF 63* PA/PF 73 PA/PF 83 PA/PF 93		PA/PF 82 PA/PF 92 PA/PF 102 PA/PF 83* PA/PF 93* PA/PF 103	
P_1 (kW)	F_{A1}	F_{R1}	F_{A1}	F_{R1}	F_{A1}	F_{R1}	F_{A1}	F_{R1}	F_{A1}	F_{R1}
0.12 0.18	1.2 1.1	0.85 0.82	2.9 2.9	2.1 2.1	- -	- -	- -	- -	- -	- -
0.25 0.37	1.0 0.89	0.78 0.75	2.8 2.6	2.1 2.1	- 4.1	- 2.1	- -	- -	- -	- -
0.55 0.75	0.77 0.58	0.72 0.70	2.5 2.3	2.0 1.9	3.9 3.8	2.8 2.4	- 6.1	- 4.4	- -	- -
1.10 1.50	0.35 0.29	0.61 0.43	2.1 2.0	1.8 1.8	3.5 3.3	2.7 2.6	5.9 5.8	4.3 4.2	- -	- -
2.20 3.00	0.20 0.15	0.42 0.23	1.7 1.5	1.7 1.6	2.7 2.5	2.4 2.3	5.5 5.2	4.1 3.9	- 4.3	- 11.0
4.00 5.50	- -	- -	0.98 0.65	1.1 1.0	2.3 1.6	2.1 1.8	4.9 4.4	3.7 3.4	4.2 4.1	10.9 10.8
7.50 9.20	- -	- -	0.27 -	1.0 -	1.4 1.0	1.3 0.98	4.3 3.9	3.4 3.1	3.8 3.6	10.4 10.1
11.0 15.0	- -	- -	- -	- -	0.59 -	0.47 -	3.3 3.3	2.7 2.7	3.4 3.1	9.9 9.5
18.5 22.0	- -	- -	- -	- -	- -	- -	2.7 2.2	2.3 1.8	3.0 2.9	9.3 9.3
30.0 37.0	- -	- -	- -	- -	- -	- -	1.1 0.74	1.2 0.87	2.3 2.0	8.4 8.1
45.0 55.0	- -	- -	- -	- -	- -	- -	- -	- -	2.2 1.5	8.3 7.4
75.0 90.0	- -	- -	- -	- -	- -	- -	- -	- -	0.78 0.24	4.6 5.2

*** W Adaptörlerde Güçlendirilmiş Rulman Kullanılmıştır.**
* Reinforced bearing is used at W Adapters.
* In W-Ausführungen werden verstärkte Lager verwendet

$F_{A1} \Rightarrow F_{r1} = 0$
$F_{R1} \Rightarrow F_{a1} = 0$

9

TR KISALTMALAR

f_B	= Servis Faktörü (Mamax / Ma)
F_A	= Çıkış tarafındaki müsaade edilebilir eksenel yük [kN]
F_R	= Çıkış tarafındaki, milin orta noktasına etkiyen müsaade edilebilir radyal yük [kN]
F_D	= Reaksiyon yükü [kN]
i_{toplam}	= Dişli ünitesindeki toplam tahvil oranı
i_{ges}	= Tahvil oranı
M_2	= Çıkış momenti [Nm]
M_{amax}	= Müsaade edilebilir maksimum çıkış momenti [Nm]
n_2	= Çıkış devri [d/dk]
P_e	= Mamax referans alınarak hesaplanan güç [kW]
P_n	= Motor güç oranı [kW]
η	= Verim [%]
kg	= Redüktörün ağırlığı

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.

EN ABBREVIATIONS

f_B	= Service factor (Mamax / Ma)
F_A	= Permissible axial load at the output side [kN]
F_R	= Permissible overhung load at the output side, force acting at the shaft's midpoint [kN]
F_D	= Reaction [kN]
i_{total}	= Gear units total ratio
i_{ges}	= Reduction ratio
M_2	= Output torque [Nm]
M_{amax}	= Max. permissible output torque [Nm]
n_2	= Output speed [min^{-1}]
P_e	= Calculated power [kW] with reference to Mamax
P_n	= Rated power of motor [kW]
η	= Efficiency [%]
kg	= Weight of the geared motor

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.

DE ABKÜRZUNGEN

f_B	= Betriebsfaktor (Mamax / Ma)
F_A	= zulässige axiale Belastung auf der Abtriebsseite [kN]
F_R	= Querkraft aus Drehzahl- Leistungstabellen, Kraftangriff auf Wellenmitte[kN]
F_D	= Reaktionsbelastung [kN]
i_{total}	= Gesamtübersetzungsverhältnis
i_{ges}	= Übersetzungsverhältnis
M_2	= Abtriebsdrehmoment [Nm]
M_{amax}	= zul. Maximale Drehmoment [Nm]
n_2	= Abtriebsdrehzahl [min^{-1}]
P_e	= Mit der Referenz Mamax berechnete Leistung [kW]
P_n	= Motorleistung [kW]
η	= Leistung [%]
kg	= Gewicht des Getriebes

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 PA/PF TANITIMI

HELİSEL DİŞLİLİ REDÜKTÖRLER (PA/PF)

Polat Group Redüktör ürünü olan Helisel dişlili (PA/PF) serisi 27 farklı gövde büyüklüğü ile hizmete sunulmaktadır.

Redüktörler;
- PA/PF 11...51 arası 1 kademeli,
- PA/PF 02...52 arası 2 kademeli redüktörlere indirgeyici gövde montajlanarak 3 kademeli (PA/PF 03...53),
- PA/PF 62...102 ve PA/PF 63...103 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 büyüklüğümüz için ayaktan ve flanştan montaj opsiyonumuz mevcuttur. PA/PF serisi redüktörlerimiz giriş ve çıkış yönü eş eksenli gövde yapısıyla montaj kolaylığı ve ağır çalışma şartlarına uygun tasarımı ile tercih edilmektedir. Flanş montajlı redüktörlerimizde flanş kısmımız gövdeye yekparedir. Gövde ile beraber dökümdür. Bu sebepten flanş kısmını gövde kısmına bağlamak için herhangi bir makine bağlantı elemanı mevcut değildir.

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 torka 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 yükleme 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. Pik / 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 ısıl işlem, 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 taşırken 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. PA/PF serisi redüktörlerimiz her türlü endüstriyel uygulamada kullanılabilmektedir.

EN DESCRIPTION OF PA/PF

HELICAL GEAR UNITS (PA/PF)

The series of Helical Gear Units of PGR has 27 different case dimensions.

Gear Units;
- Gear units from PA/PF 11 to 51 have 1 stage
- Gear units from PA/PF 02 to 52 can be made 3 stage (From PA/PF 03 to 53) by using reductive case.,
- Gear units from PA/PF 62 to 102 and from PA/PF 63 to 103 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 foot munted and case mounted options for every case dimensios. PA/PF series are suitable for heavy working conditions and easy montage since they has equiaxial case design between input and output. For flange mounted gear units, the flange part can not removed from case. They are produced as stick together. Because of this reason, we do not have machine connection apparatus to bind flange to case.

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 offers 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 leekproofing 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 PA/PF series gear units can be used in all kinds of industrial applications.

DE PA/PF-EINFÜHRUNG

STİRNRADGETRİEBE (PA/PF)

Die Stirnradgetriebe (PA/PF) von PGR werden in 27 verschiedenen Gehäusegrößen angeboten.

Getriebe:
- 1-stufig zwischen PA/PF 11 und PA/PF 51
- durch Montage von Reduziergehäuse an 2-stufige Getriebe zwischen PA/PF 02 und PA/PF 52, 3-stufig zwischen PA/PF 03 und 53
- Zwischen PA/PF 62 und PA/PF 102 und PA/PF 63 und PA/PF 103 bei gleichen Gehäusen 2- oder 3-stufig lieferbar.
- Für hohe Untersetzungsverhältnisse sind 4-,5- und 6-stufige Getriebe vorhanden.

Für all unsere Gehäusegrößen sind Optionen mit Fuß- und Flanschbefestigung vorhanden. Unsere Getriebe der PA/PF-Serie werden bevorzugt mit ihrer koaxialen Antriebs- und Abtriebswelle, ihrer einfachen Montage und ihrem Design, das für schwere Arbeitsbedingungen geeignet ist. Bei Getrieben mit Flanschbefestigung ist der Flansch zusammen mit dem Gehäuse aus einem Guss. Daher besteht kein Verbindungselement für die Verbindung von Flansch an Gehäuse.
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 Wiederstandsfähigkeit. 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 Stufeliegt 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, hoche Festigkeit und lange Lebensdauer aus. Dies bringt sicheres Arbeiten unter schwierigen Arbeitsbedingungen mit sich. Unsere Getriebe der Baureihe PA/PF können in allen Arten von Industrieanwendungen eingesetzt werden.

TR PA/PF TANITIMI

Motorlu ya da motorsuz seçeneklerde, W kovanlı, PAM ve IEC adaptörlü giriş opsiyonları sunulmaktadır.

Helisel dişlili redüktörler;
0.12 kW'dan 160 kW'ya kadar değişen güçleri ile maksimum 26000 Nm'ye kadar çıkış momenti sağlayabilmektedir.

EN DESCRIPTION OF PA/PF

For motor and without motor versions, we have input options of free input shaft ,with PAM,IEC adaptors.

Helical gear units;
with various power ranging between 0,12 kW and 160 kW, supplies at most 26000 Nm output moment.

DE PA/PF-EINFÜHRUNG

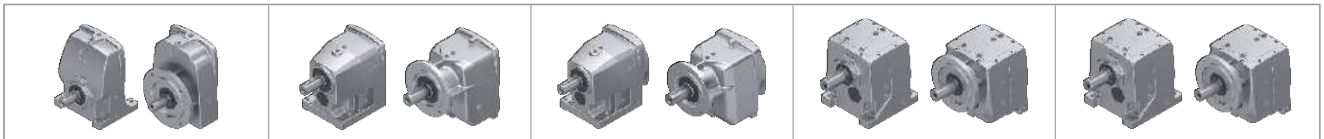
Bei Auswahlmöglichkeiten mit oder ohne Motor gibt es Antriebsoptionen mit freier Antriebswelle, PAM- und IEC-Adapter.

Stirnradgetriebe bieten ein Abtriebsmoment von max. 26000Nm bei einer Leistung zwischen 0,12 kW und 160 kW.

MAX. MÜSAADE EDİLEBİLİR ÇIKIŞ MOMENTİ $M_{a\ max.}$
MAX. PERMISSIBLE OUTPUT TORQUES $M_{a\ max.}$
MAX. ZULÄSSIGE AUSGANGSMOMENTE $M_{a\ max.}$

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Bir, İki ve Üç kademeli helisel dişlili redüktör
Helical gear boxes single, double and triple reduction
Ein-, Zwei und dreistufiges Stirnradgetriebe



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)
PA/PF 11	60	**PA/PF 02**	100	**PA/PF 03**	110	**PA/PF 62**	3120	**PA/PF 63**	3700
PA/PF 21	80	**PA/PF 12**	180	**PA/PF 13**	200	**PA/PF 72**	4710	**PA/PF 73**	5650
PA/PF 31	190	**PA/PF 22**	370	**PA/PF 23**	340	**PA/PF 82**	7250	**PA/PF 83**	9180
PA/PF 41	290	**PA/PF 32**	710	**PA/PF 33**	670	**PA/PF 92**	10780	**PA/PF 93**	14000
PA/PF 51	490	**PA/PF 42**	1240	**PA/PF 43**	1290	**PA/PF 102**	17370	**PA/PF 103**	23160
		PA/PF 52	2020	**PA/\PF 53**	2230				

TR W, IEC VE PAM ADAPTÖRÜ

W kovanlı (serbest giriş milli) 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 maximum 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 gresörlük 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 0ºC…40º arasındaki ortam sıcaklığında çalışmaya göre tasarlanmıştır. Eğer ortam sıcaklığı belirtilen standart değerlerden (0ºC…40º) çok uzun süre farklı kalıyorsa özel yağlayıcılar kullanılmalıdır. Bunun gibi durumlar için firmamıza danışınız.
Otomatik yağlayıcılı, 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 olmasını öneriyoruz. PA/PF 52, PD/PM 52 PKD 5390'a kadar olan gövde büyüklüklüğündeki 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 kaplinlari 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 aupper 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 Schmiernippel, 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 äßere 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 Wechselintervall 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, lebensdauergeschmierte 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 gegeüber 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 EİNSATZBEREİCHE

UYGULAMALAR	APPLICATIONS	ANWENDUNGEN
KARIŞTIRICILAR	AGITATORS (MIXERS)	MISCHER
* Saf Sıvılar	* Pure Liquids	* Reine Flüssigkeiten
* Sıvılar ve Katılar	* Liquids and Solids	* Flüssigkeiten und Feststoffe
* Değişken Yoğunluklu Sıvılar	* Liquids - Variable Density	* Flüssigkeiten mit variabler Dichte
HAVALANDIRMA TERTİBATLARI	BLOWERS	BELÜFTUNGSVORRICHTUNGEN
* Santrifüj	* Centrifugal	* Zentrifuge
* Lob	* Lobe	* Lob
* Pervane	* Vane	* Propeller
MAYALAMA VE DAMITMA	BREWING AND DISTILLING	GÄREN UND DESTILLIEREN
* Şişeleme Mekanizması	* Bottling Machinery	* Abfüllmechanismus
* Mayalama Kazanları - Kesintisiz İş	* Brew Kettles - Continuous Duty	* Gärkessel - Ununterbrochene Arbeit
* Fırınlar, Ocaklar - Kesintisiz İş	* Cookers - Continuous Duty	* Öfen, Herde - Ununterbrochener Betrieb
* Ezme, Karışım Kazanları - Kesintisiz İş	* Mash Tubs - Continuous Duty	* Zerkleinern, Mischkesseln - Ununterbrochenes Arbeiten
* Ölçü Haznesi - Sık Sık Başlama	* Scale Hopper - Frequent Starts	* Messbehälter - Häufiger Start
TOPRAK İŞLEME MAKİNELERİ	CLAY WORKING MACHINERY	BODENBEARBEITUNGSMASCHINEN
* Tuğla Presi	* Brick Press	* Ziegelpresse
* Briket Makinesi	* Briquette Machine	* Brikettmaschine
* Çamur Karma Makinesi	* Pug Mill	* Schlammmischer
KOMPRESÖRLER	COMPRESSORS	KOMPRESSOREN
* Santrifüj	* Centrifugal	* Zentrifuge
* Lob	* Lobe	* Lob
* Çok Pistonlu	* Reciprocating, Multi-Cylinder	* Mehrkolben
* Tek Pistonlu	* Reciprocating, Single-Cylinder	* Einzelkolben
KONVEYÖRLER - GENEL MAKSATLI	CONVEYORS - GENERAL PURPOSE	FÖRDERER - ALLGEMEINE ZWECKE
* Üniform Yüklü	* Uniformly Loaded or Fed	* Uniform geladen
* Üniform Yüklü Olmayan	* Not Uniformly fed	* Nicht einheitlich belastet
* Pistonlu veya Karıştırıcılı	* Reciprocating Or Shaker	* Mit Kolben oder Mischer
VİNÇLER	CRANES	KRÄNE
* Kuru Havuz	* Dry Dock	* Trockenbecken
Ana Kaldırma vinci	Main Hoist	Haupthebekran
Yardımcı Vinç	Auxiliary Hoist	Hilfskran
Direkli Vinç	Boom Hoist	Mastkran
Döndürme İşi	Slewing Drive	Rotationsarbeit
Çekme İşi	Traction Drive	Zieharbeit
* Endüstriyel İşi	* Industrial Duty	* Industrielle
Ana Kaldırma Vinci	Main Hoist	Haupthebewinde
ASANSÖRLER	ELEVATORS	AUFZÜGE
* Kova	* Bucket	* Eimer
* Santrifuj Boşaltma	* Centrifugal Discharge	* Zentrifugalentladung
* Yürüyen Merdiven	* Escalators	* Rolltreppe
* Taşıma, Nakliye	* Freight	* Abwicklung, Versand
* Yerçekimi Boşaltım	* Gravity Discharge	* Schwerkraftentladung
KIRMA MAKİNELERİ	CRUSHER	ZERKLEİNERUNGSMASCHINEN
* Taş ya da Maden	* Stone or Ore	* Stein oder Mine

TR UYGULAMA ALANLARI | EN APPLICATION AREAS | DE EİNSATZBEREİCHE

UYGULAMALAR	APPLICATIONS	ANWENDUNGEN
TARAMA MAKİNELERİ	DREDGES	SIEBMASCHINEN
*** Kablo Bobinleri**	* Cable Reels	* Kabelspulen
*** Konveyörler**	* Conveyors	* Förderer
*** Pompalar**	* Pumps	* Pumpen
*** İstifleme Makineleri**	* Stackers	* Stapelmaschinen
*** Vinçler**	* Winches	* Kräne
EKSTRUDERLER	EXTRUDERS	EXTRUDER
*** Genel**	* General	Allgemeines
*** Plastikler**	* Plastics	* Kunststoffe
Değişken Hızlı Tahrik	Variable Speed Drive	Antrieb mit variabler Geschwindigkeit
Sabit Hızlı Tahrik	Fixed Speed Drive	Antrieb mit konstanter Geschwindigkeit
***Kauçuk, Lastik**	*Rubber	*Gummi, Kautschuk
Kesintisiz Vida İşlemleri	Continuous Screw Operation	Kontinuierlicher Schraubbetrieb
Kesintili Vida İşlemleri	Intermittent Screw Operation	Intermittierende Schrauboperationen
FANLAR	FANS	LÜFTER
*** Santrifüj**	* Centrifugal	* Zentrifuge
*** Yüksek Emişli**	* Forced Draft	* Starke Saugleistung
*** İndüklenmiş Çekiş**	* Induced Draft	* Induzierte Traktion
*** Endüstriyel ve Maden Ocağı**	* Industrial and Mine	* Industrie und Bergbau
BESLEME ÜNİTELERİ	FEEDERS	FÜTTERUNGSMASCHİNEN
*** Palet**	* Apron	* Palette
*** Bant**	* Belt	* Band
*** Disk**	* Disc	* Scheibe
*** Pistonlu**	* Reciprocating	* Kolben
*** Vida**	* Screw	* Schrauben
GIDA ENDÜSTRİSİ	FOOD INDUSTRY	NAHRUNGSMITTELINDUSTRIE
*** Hububat Fırını**	* Cereal Cooker	* Getreideofen
*** Hamur Karıştırıcı**	* Dough Mixer	* Knetmaschine
*** Kıyma Makinesi**	* Meat Grinder	* Fleischwolf
*** Dilimleyici**	* Slicer	* Schneidemaschine
METAL İŞLEMELERİ	METAL MILLS	METALL VERARBEITUNG
*** Çekme Makinesi Taşıma ve Ana Tahrik**	* Draw Bench Carriage and Main Drive	* Traktionsmaschinen-Förderung und Hauptantrieb
*** Hammadde İticileri**	* Slab Pushers	* Rohstoffschieber
*** Makaslar**	* Shears	* Schere
*** Tel Çekme**	* Wire Drawing	* Drahtziehen
*** Tel Sargı Makinesi**	* Wire Winding Machine	* Drahtwickelmaschine
*** Salgı Tezgahı**	* Runout Table	* Sekretbank
Geri Dönmesiz	Non-Reversing	Einzelantrieb ohne Rückkehr
Tek Tahrik	Individual Drives	Gruppenablage
Grup Tahriki	Group Drives	
DÖNER İŞLEMELER	MILLS (ROTARY TYPE)	DREHARBEITEN
*** Küresel ve Çubuk**	* Ball and Rod	* Sphärisch und Stab
Düz Halka Dişli	Spur Ring Gear	Flachringgetriebe
Helisel Halka Dişli	Helical Ring Gear	Schrägverzahntes Hohlrad
Doğrudan Bağlı	Direct Connected	Direkter Anschluss
*** Çimento Fırını**	* Cement Kilns	* Zementofen
*** Kurutucular ve Soğutucular**	* Dryers and Coolers	* Trockner und Kühler

TR UYGULAMA ALANLARI	EN APPLICATION AREAS	DE EİNSATZBEREİCHE

UYGULAMALAR	APPLICATIONS	ANWENDUNGEN
KERESTE ENDÜSTRİSİ	LUMBER INDUSTRY	HOLZİNDUSTRİE
*** Kabuk Soyucular**	* Barkers	* Schalenschäler
Besleme Tamburu	Spindle Feed	Zuführtrommel
Ana Tahrik	Main Drive	Hauptantrieb
*** Konveyörler**	* Conveyors	* Förderer
Brülör	Burner	Brenner
Ana Yük veya Ağır Yük	Main or Heavy Duty	Hauptlast oder Schwerlast
Ana Kütük	Main Log	Baumstumpf
Hızar ve Taşıma Bandı	Re-saw, Merry-Go-Round	Sägewerk und Förderband
Kalın Dilim	Slab	Platte
Taşıma	Transfer	Transport
*** Kesme Testereleri**	* Cut-Off Saws	* Trennsägen
Zincir	Chain	Kette
Sürükleme	Drag	Schleppen
*** İndirme Boşaltma Tamburları**	* Debarking Drums	* Entladetrommeln
*** Uzun Deste**	* Long Deck	* Langes Deck
*** Tomruk Çekme-Eğme**	* Log Hauls - Incline	* Kloben ziehen und abbiegen
*** Kütük Döndürme Aygıtları**	* Log Turning Devices	* Drehvorrichtungen für Baumstupfe
*** Sıralama Tablası**	* Sorting Table	* Sortiertabelle
*** Taşıma**	* Transfers	* Transport
Zincir	Chain	Kette
Kreynyolu	Causeway	Kranbahn
*** Tabla Tahriki**	* Tray Drives	* Tischlaufwerk
KAĞIT İŞLEMELERİ	PAPER MILLS	PAPIERFÜHRUNG
*** Karıştırıcı**	* Agitator (Mixer)	* Rührgerät
*** Saf çözeltiler İçin Karıştırıcı**	* Agitator for Pure Liquors	* Mischer für reine Lösungen
*** Kabuk Soyma Tromelleri**	* Barking Drums	* Peeling Tromels
*** Mekanik Kabuk Soyucu**	* Mechanical Barkers	* Mechanischer Schäler
*** Dövücü - Öğütücü**	* Beater	* Schlag - Mahlwerk
*** Düzleştirme Makinesi**	* Breaker Stack	* Richtmaschine
*** Kalenderleme**	* Calender	* Kalandrieren
*** Yüzey Pürüzlendirici**	* Chipper	* Oberflächenaufrauung
*** Çentik Besleyici**	* Chip Feeder	* Kerbzuführung
*** Kaplama Merdanesi**	* Coating Rolls	* Beschichtungswalze
*** Konveyörler**	* Conveyors	* Förderer
Çentik, Kabuk, Kimyasal	Chip, Bark, Chemical	Kerbe, Schale, Chemisch
Kalın Dilimler İçeren Kütükler	Log (including Slab)	Stämme mit dicken Scheiben
*** Kesici**	* Cutter	* Schneider
*** Silindir Kalıpları**	* Cylinder Molds	* Zylinderformen
*** Kurutucu**	* Dryer	* Trockner
Kağıt Makinesi	Paper Machine	Papiermaschine
Konveyör Tip	Conveyor Type	Förderertyp
*** Kabartmalı Basıcı**	* Embosser	* Geprägter Presser
*** Ekstruder**	* Extruder	* Extruder
*** Kağıt Merdaneleri**	* Paper Rolls	* Papierrollen
*** Presler**	* Presses	* Pressen
*** Hamurlaştırıcı**	* Pulper	* Teigmacher
*** Pompalar**	* Pumps	* Pumpen
FİLTRELER	SCREENS	FILTER
*** Havalı Yıkama**	* Air Washing	* Luftwäsche
*** Döner - Taş veya Çakıl**	* Rotary - Stone or Gravel	* Rotierer - Stein oder Kies
*** Hareketli Su Girişi**	* Traveling Water Intake	* Beweglicher Wassereinlass

TR UYGULAMA ALANLARI	EN APPLICATION AREAS	DE EİNSATZBEREİCHE

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

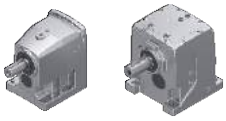
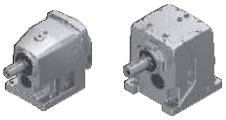
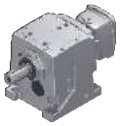
TR KULLANIM ALANLARI	EN APPLICATION AREAS	DE EİNSATZBEREİCHE

UYGULAMALAR	APPLICATIONS	ANWENDUNGEN
ŞEKER ENDÜSTRİSİ	SUGAR INDUSTRY	ZUCKERINDUSTRIE
*** Pancar Dilimleme Aleti**	* Beet Slicer	* Rübenschneider
*** Kamış Bıçakları**	* Cane Knives	* Schilfklingen
*** Kırma Makineleri**	* Crushers	* Zerkleinerungsmaschinen
TEKSTİL ENDÜSTRİSİ	TEXTILE INDUSTRY	TEXTILINDUSTRIE
*** Harman Ölçer**	* Batcher	* Dreschmesser
*** Kalenderler**	* Calenders	* Kalendrieren
*** Şablonlar**	* Cards	* Vorlagen
*** Kuru Konserveler**	* Dry Cans	* Trockenkonserven
*** Boyama Makinesi**	* Dyeing Machinery	* Färbemaschine
*** Dokuma Tezgahları**	* Looms	* Webstühle
*** Çamaşır Sıkma Makinesi - Merdane**	* Mangle	* Waschmaschine - Roller
*** Kaplama**	* Napper	* Glasur
*** Doldurma Makinesi**	* Pads	* Abfüllmaschine
*** Haşıl Makinesi**	* Siashers	* Kalibriermaschine
*** Halat Yıkama Makinesi**	* Soapers	* Seilwaschmaschine
*** Eğirme Makinesi**	* Spinners	* Spinnmaschine
*** Germe Kurutma Makineleri**	* Tenter Frames	* Stretch-Trocknungsmaschinen
*** Yıkama Makineleri**	* Washers	* Waschmaschinen
*** Masura Sarıcısı**	* Winders	* Spuler
DAMPERLİ ARAÇLAR	CAR DUMPERS	DIPPER FAHRZEUGE
ÇEKİCİ ARAÇLAR	CAR PULLERS	TURMFAHRZEUGE
ARITICILAR	CLARIFIERS	REİNİGUNGSMASCHİNEN
KONSERVE DOLUM MAKİNELERİ	CAN FILLING MACHINES	DOSENFÜLLMASCHİNEN

TR KULLANILAN TERİMLER | EN NOMENCLATURE | DE BEGRİFFE

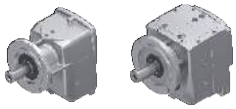
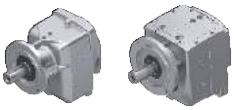
REDÜKTÖR TİPİ / GEAR TYPE / GETRIEBETYP

Ayak Montajlı / Foot Mounted / Fußbefestigung

PA 11...PA 51	=	**Tek kademeli, Ayak montajlı, Helisel dişlili redüktör** Single reduction, Foot mounted, Helical gearboxes Einstufig, Fußbefestigung, Stirnradgetriebe	
PA 02...PA 102	=	**İki kademeli, Ayak montajlı, Helisel dişlili redüktör** Double reduction, Foot mounted, Helical gearboxes Zweistufig, Fußbefestigung, Stirnradgetriebe	
PA 03...PA 103	=	**Üç kademeli, Ayak montajlı, Helisel dişlili redüktör** Triple reduction, Foot mounted, Helical gearboxes Dreistufig, Fußbefestigung, Stirnradgetriebe	
PA 02/12...PA 52/12	=	**Dört kademeli, Ayak montajlı, Helisel dişlili redüktör** Quadruple reduction, Foot mounted, Helical gearboxes Vierstufig, Fußbefestigung, Stirnradgetriebe	
PA 63/22...PA 103/52	=	**Beş kademeli, Ayak montajlı, Helisel dişlili redüktör** Quintuple reduction, Foot mounted, Helical gearboxes fünfstufig, Fußbefestigung, Stirnradgetriebe	
PA 63/23...PA 103/53	=	**Altı kademeli, Ayak montajlı, Helisel dişlili redüktör** Sixtuple reduction, Foot mounted, Helical gearboxes Sechsstufig, Fußbefestigung, Stirnradgetriebe	

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Flanş Montajlı / Flange Mounted / Flanschbefestigung

PF 11...PF 51	=	**Tek kademeli, Flanş montajlı, Helisel dişlili redüktör** Single reduction, Flange mounted, Helical gearboxes Einstufiges, flanschbefestigung, Stirnradgetriebe	
PF 02...PF 102	=	**İki kademeli, Flanş montajlı, Helisel dişlili redüktör** Double reduction, Flange mounted, Helical gearboxes Zweistufiges, flanschbefestigung, Stirnradgetriebe	
PF 03...PF 103	=	**Üç kademeli, Flanş montajlı, Helisel dişlili redüktör** Triple reduction, Flange mounted, Helical gearboxes Dreistufiges, flanschbefestigung, Stirnradgetriebe	
PF 02/12...PF 52/12	=	**Dört kademeli, Flanş montajlı, Helisel dişlili redüktör** Quadruple reduction, Flange mounted, Helical gearboxes Vierstufiges, flanschbefestigung Stirnradgetriebe	
PF 63/22...PF 103/52	=	**Beş kademeli, Flanş montajlı, Helisel dişlili redüktör** Quintuple reduction, Flange mounted, Helical gearboxes Fünfstufiges, flanschbefestigung, Stirnradgetriebe	
PF 63/23...PF 103/53	=	**Altı kademeli, Flanş montajlı, Helisel dişlili redüktör** Sixtuple reduction, Flange mounted, Helical gearboxes Sechsstufig, flanschbefestigung, Stirnradgetriebe	

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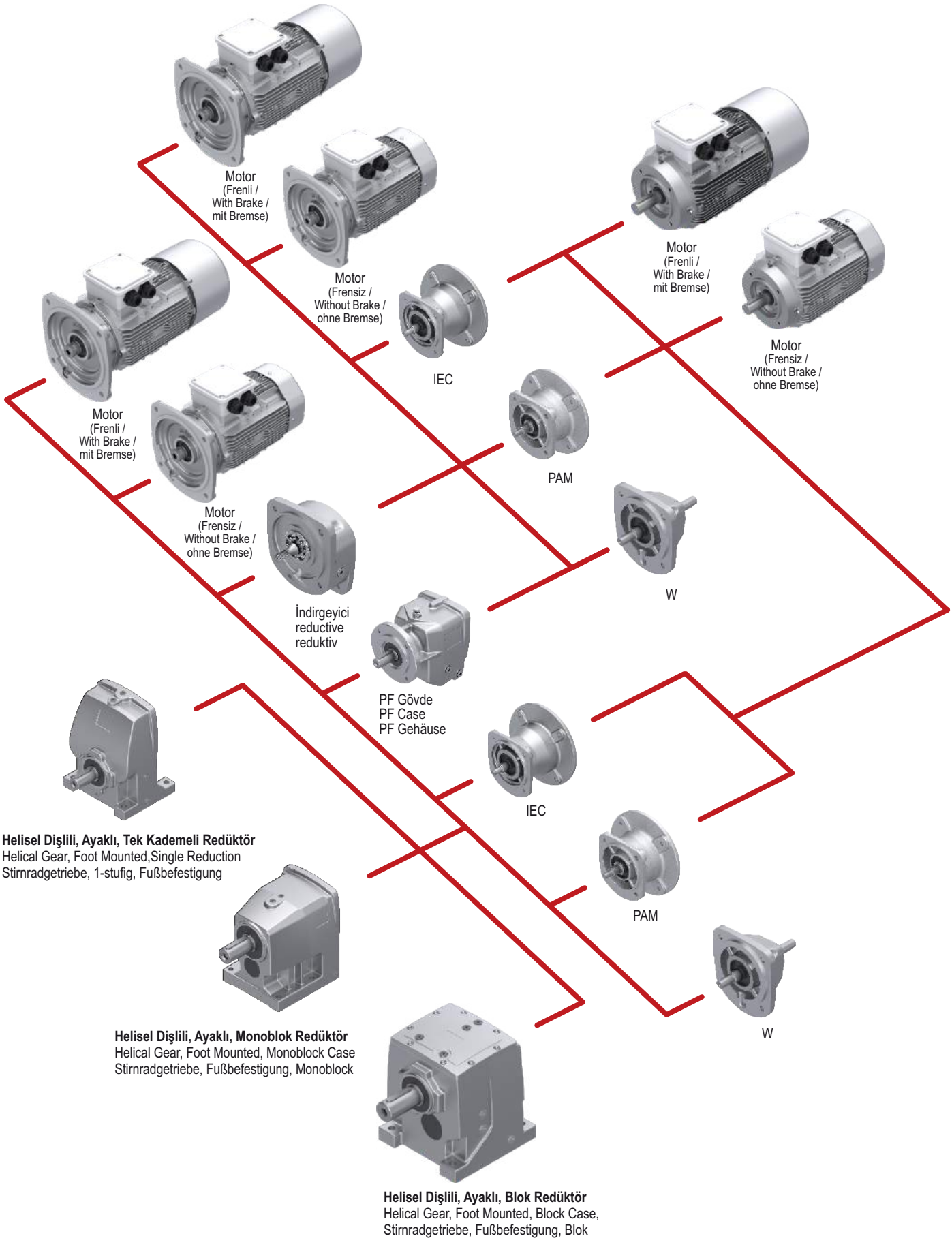
TR KULLANILAN TERİMLER

EN NOMENCLATURE

DE BEGRİFFE

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

TR PA MODÜLER SİSTEMİ | EN MODULAR SYSTEM OF PA | DE PA MODULARES SYSTEM



Helisel Dişlili, Ayaklı, Tek Kademeli Redüktör
Helical Gear, Foot Mounted,Single Reduction
Stirnradgetriebe, 1-stufig, Fußbefestigung

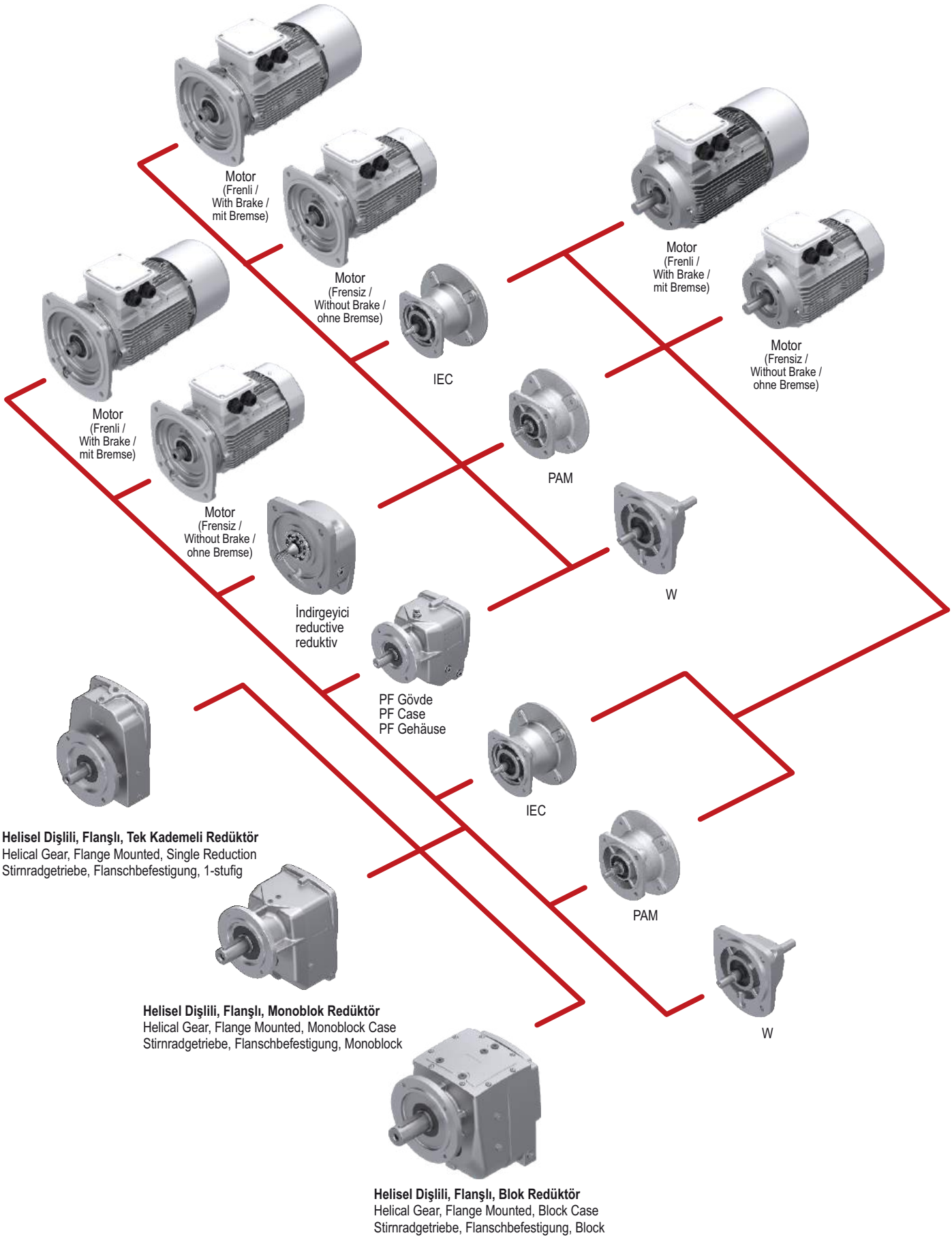
Helisel Dişlili, Ayaklı, Monoblok Redüktör
Helical Gear, Foot Mounted, Monoblock Case
Stirnradgetriebe, Fußbefestigung, Monoblock

Helisel Dişlili, Ayaklı, Blok Redüktör
Helical Gear, Foot Mounted, Block Case,
Stirnradgetriebe, Fußbefestigung, Blok

TR PF MODÜLER SİSTEMİ

EN MODULAR SYSTEM OF PF

DE PF MODULARES SYSTEM



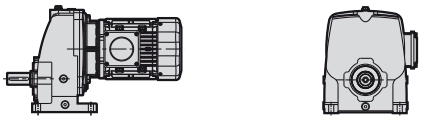
Helisel Dişlili, Flanşlı, Tek Kademeli Redüktör
Helical Gear, Flange Mounted, Single Reduction
Stirnradgetriebe, Flanschbefestigung, 1-stufig

Helisel Dişlili, Flanşlı, Monoblok Redüktör
Helical Gear, Flange Mounted, Monoblock Case
Stirnradgetriebe, Flanschbefestigung, Monoblock

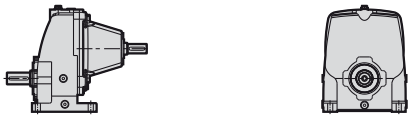
Helisel Dişlili, Flanşlı, Blok Redüktör
Helical Gear, Flange Mounted, Block Case
Stirnradgetriebe, Flanschbefestigung, Block

TR ÜRÜNLERİMİZ | EN OUR PRODUCTS | DE UNSERE PRODUKTE

1) PA 11...PA 51
Ayak montajlı, Tek kademeli, Helisel dişlili, Motorlu redüktör
Foot mounted, Single reduction, Helical geared motor,
Fußbefestigung, einstufig, Stirnradgetriebe, Mit Motor



PA 11...PA 51
Ayak montajlı, Tek kademeli, Helisel dişlili, W kovanlı redüktör
Foot mounted, Single reduction, Helical gear unit, With W adapter
Fußbefestigung, einstufig, Stirnradgetriebe, Mit W-Adapter



PA 11...PA 51
Ayak montajlı, Tek kademeli, Helisel dişlili, IEC adaptörlü redüktör
Foot mounted, Single reduction, Helical gear unit, With IEC adapter
Fußbefestigung, einstufig, Stirnradgetriebe, Mit IEC-adapter

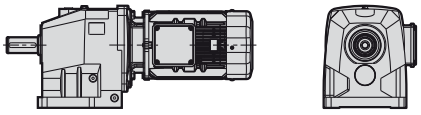


PA 11...PA 51
Ayak montajlı, Tek kademeli, Helisel dişlili, PAM adaptörlü redüktör
Foot mounted, Single reduction, Helical gear unit, With PAM adapter
Fußbefestigung, einstufig, Stirnradgetriebe, Mit PAM adapter

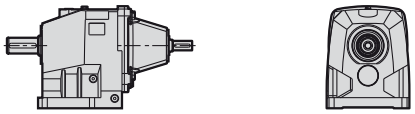


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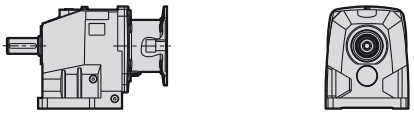
2) PA 02...PA 52
Ayak montajlı, İki kademeli, Helisel dişlili, Motorlu redüktör
Foot mounted, Double reduction, Helical geared motor,
Fußbefestigung, zweistufig, Stirnradgetriebe, Mit Motor



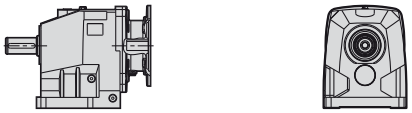
PA 02...PA 52
Ayak montajlı, İki kademeli, Helisel dişlili, W kovanlı redüktör
Foot mounted, Double reduction, Helical gear unit, With W adapter
Fußbefestigung, zweistufig, Stirnradgetriebe, Mit W-Adapter



PA 02...PA 52
Ayak montajlı, İki kademeli, Helisel dişlili, IEC adaptörlü redüktör
Foot mounted, Double reduction, Helical gear unit, With IEC adapter
Fußbefestigung, zweistufig, Stirnradgetriebe, Mit IEC-adapter

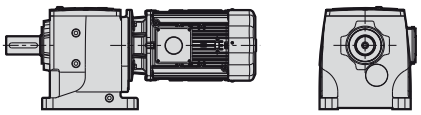


PA 02...PA 52
Ayak montajlı, İki kademeli, Helisel dişlili, PAM adaptörlü redüktör
Foot mounted, Double reduction, Helical gear unit, With PAM adapter
Fußbefestigung, zweistufig, Stirnradgetriebe, Mit PAM adapter

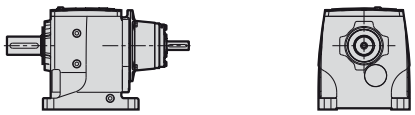


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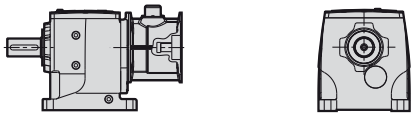
3) PA 62...102 - PA 63...103
Ayak montajlı, İki kademeli - Üç kademeli, Helisel dişlili, Motorlu redüktör
Foot mounted, Double reduction - Triple reduction, Helical geared motor,
Fußbefestigung, zweistufig - dreistufig, Stirnradgetriebe, Mit Motor



PA 62...102 - PA 63...103
Ayak montajlı, İki kademeli - Üç kademeli, Helisel dişlili, W kovanlı redüktör
Foot mounted, Double reduction - Triple reduction, Helical gear unit, With W adapter
Fußbefestigung, zweistufig - dreistufig, Stirnradgetriebe, Mit W-Adapter



PA 62...102 - PA 63...103
Ayak montajlı, İki kademeli - Üç kademeli, Helisel dişlili, IEC adaptörlü redüktör
Foot mounted, Double reduction - Triple reduction, Helical gear unit, With IEC adapter
Fußbefestigung, zweistufig - dreistufig, Stirnradgetriebe, Mit IEC-adapter

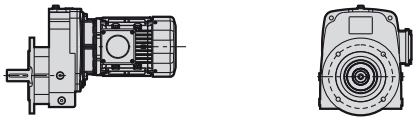


PA 62...102 - PA 63...103
Ayak montajlı, İki kademeli - Üç kademeli, Helisel dişlili, PAM adaptörlü redüktör
Foot mounted, Double reduction - Triple reduction, Helical gear unit, With PAM adapter
Fußbefestigung, zweistufig - dreistufig, Stirnradgetriebe, Mit PAM adapter

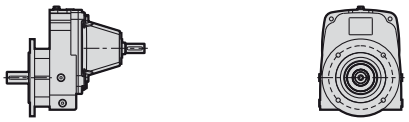


TR ÜRÜNLERİMİZ | EN OUR PRODUCTS | DE UNSERE PRODUKTE

1) PF 11...PF 51
Flanş montajlı, Tek kademeli, Helisel dişlili, Motorlu redüktör
Flange mounted, Single reduction, Helical geared motor
Flanschbefestigung, einstufig, Stirnradgetriebe, Mit Motor



PF 11...PF 51
Flanş montajlı, Tek kademeli, Helisel dişlili, W kovanlı redüktör
Flange mounted, Single reduction, Helical gear unit, With W adapter
Flanschbefestigung, einstufig, Stirnradgetriebe, Mit W-Adapter



PF 11...PF 51
Flanş montajlı, Tek kademeli, Helisel dişlili, IEC adaptörlü redüktör
Flange mounted, Single reduction, Helical gear unit, With IEC adapter
Flanschbefestigung, einstufig, Stirnradgetriebe, Mit IEC-adapter

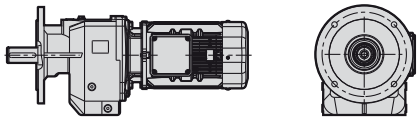


PF 11...PF 51
Flanş montajlı, Tek kademeli, Helisel dişlili, PAM adaptörlü redüktör
Flange mounted, Single reduction, Helical gear unit, With PAM adapter
Flanschbefestigung, einstufig, Stirnradgetriebe, Mit PAM adapter

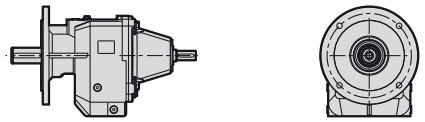


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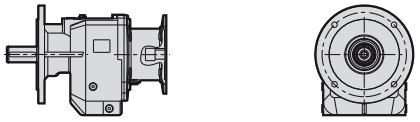
2) PF 02...PF 52
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Flange mounted, Double reduction, Helical geared motor,
Flanschbefestigung, zweistufig, Stirnradgetriebe, Mit Motor



PF 02...PF 52
Flanş montajlı, İki kademeli, Helisel dişlili, W kovanlı redüktör
Flange mounted, Double reduction, Helical gear unit, With W adapter
Flanschbefestigung, zweistufig, Stirnradgetriebe, Mit W-Adapter



PF 02...PF 52
Flanş montajlı, İki kademeli, Helisel dişlili, IEC adaptörlü redüktör
Flange mounted, Double reduction, Helical gear unit, With IEC adapter
Flanschbefestigung, zweistufig, Stirnradgetriebe, Mit IEC-adapter

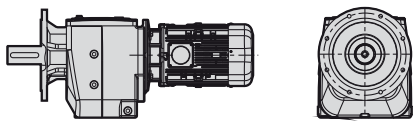


PF 02...PF 52
Flanş montajlı, İki kademeli, Helisel dişlili, PAM adaptörlü redüktör
Flange mounted, Double reduction, Helical gear unit, With PAM adapter
Flanschbefestigung, zweistufig, Stirnradgetriebe, Mit PAM adapter

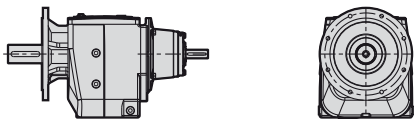


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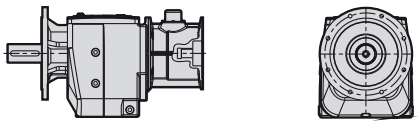
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Flange mounted, Double reduction - Triple reduction, Helical geared motor
Flanschbefestigung, zweistufig - dreistufig, Stirnradgetriebe, Mit Motor



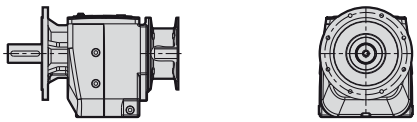
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Flange mounted, Double reduction - Triple reduction, Helical gear unit, With PAM adapter
Flanschbefestigung, zweistufig - dreistufig, Stirnradgetriebe, Mit PAM adapter



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 Sıktırma 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:.....ºC

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^{-1}

Requested Output Rotation:.....min^{-1}

2 - INPUT - OUTPUT

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

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 :.....ºC

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 GETRİEBEAUSWAHL

1- GETRİEBE

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^{-1}

Angeforderter Abtriebsdrehzahl:.....min^{-1}

2 - ANTRİEB - ABTRİEB

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

PA - PF | **103 / 52** | **244.66** | **–** | **PAM 132 - B5** | **132M / 4 BRE**



PAM B5
63, 71, 80, 90, 100, 112, 132, 160, 180, 200, 225, 250, 280, 315
157 - 220

PAM B14
63, 71, 80, 90, 100, 112, 132

IEC
56, 63, 71, 80, 90, 100, 112, 132, 160, 180, 200, 225, 250, 280, 315

W
122, 172, 213, 288, 397

AKUPLE

İges: Tahvil Oranı
İges: Reduction Ratio
İges: Verkleinerungsfaktor
55 - 156

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, 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
23 - 24

10
Gövde Büyüklüğü
Case Width
Kistenweite
0, 1, 2, 3, 4, 5, 6, 7, 8, 9, 10
157 - 220

3
Kademe
Reduction
Übersetzungstufen
1, 2, 3

PF GÖVDE
PF CASE
PF GEHÄUSE

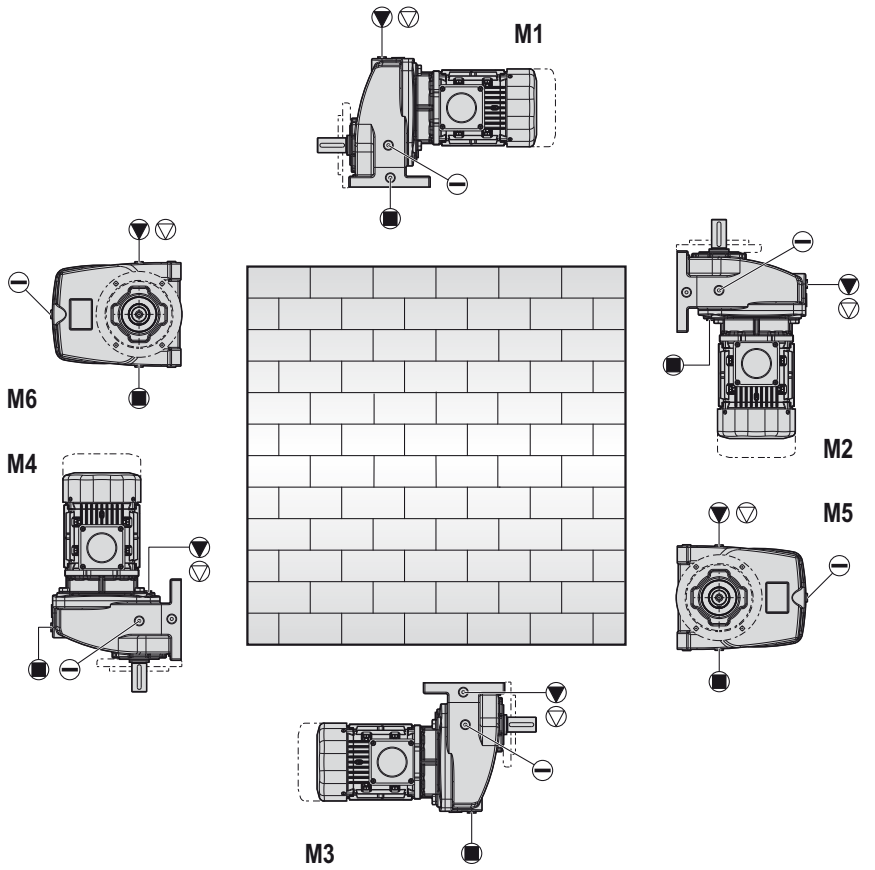
5
Gövde Büyüklüğü
Case Width
Kistenweite
0, 1, 2, 3, 4, 5
157 - 220

2
Kademe
Reduction
Übersetzungstufen
2, 3

Tip: PA (Ayaklı Redüktör / Foot Mounted Gear Unit / Fußbefestigung)
PF (Flanşlı Redüktör / Flange Mounted Gear Unit / Flanschbefestigung)

TR MONTAJ POZİSYONLARI | EN MOUNTING POSITIONS | DE MONTAGEPOSITIONEN

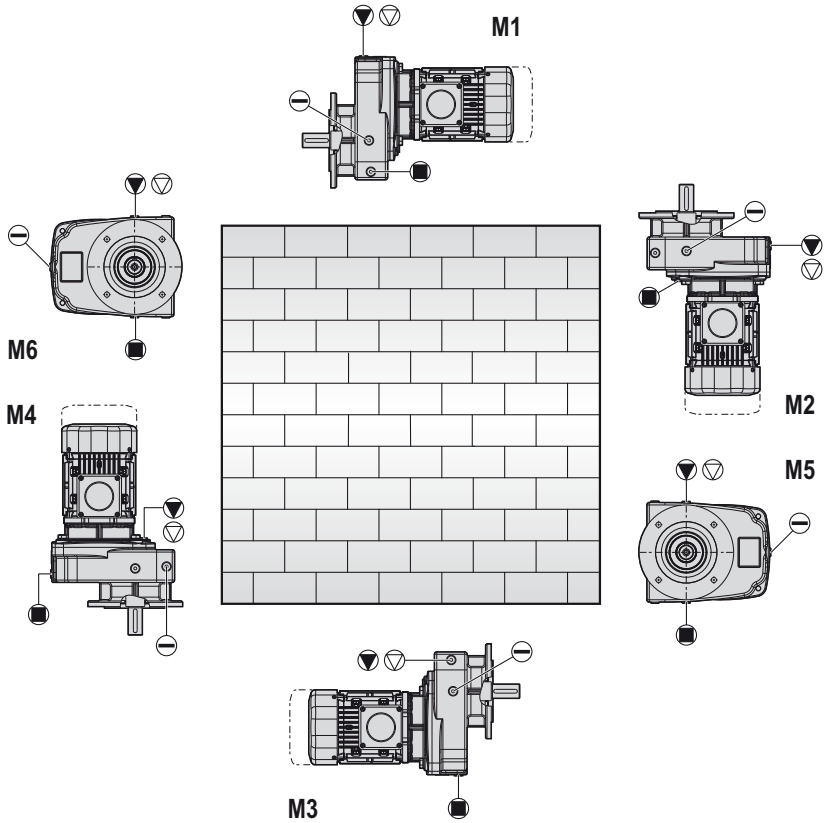
AYAK MONTAJLI
FOOT MOUNTED
FUBBEFESTIGUNG



PA

PA 11
PA 21
PA 31
PA 41
PA 51

FLANŞ MONTAJLI
FLANGE MOUNTED
FLANSCHBEFESTİGUNG



PF

PF 11
PF 21
PF 31
PF 41
PF 51

Havalandırma tapası / Vent plug / Entlüftung

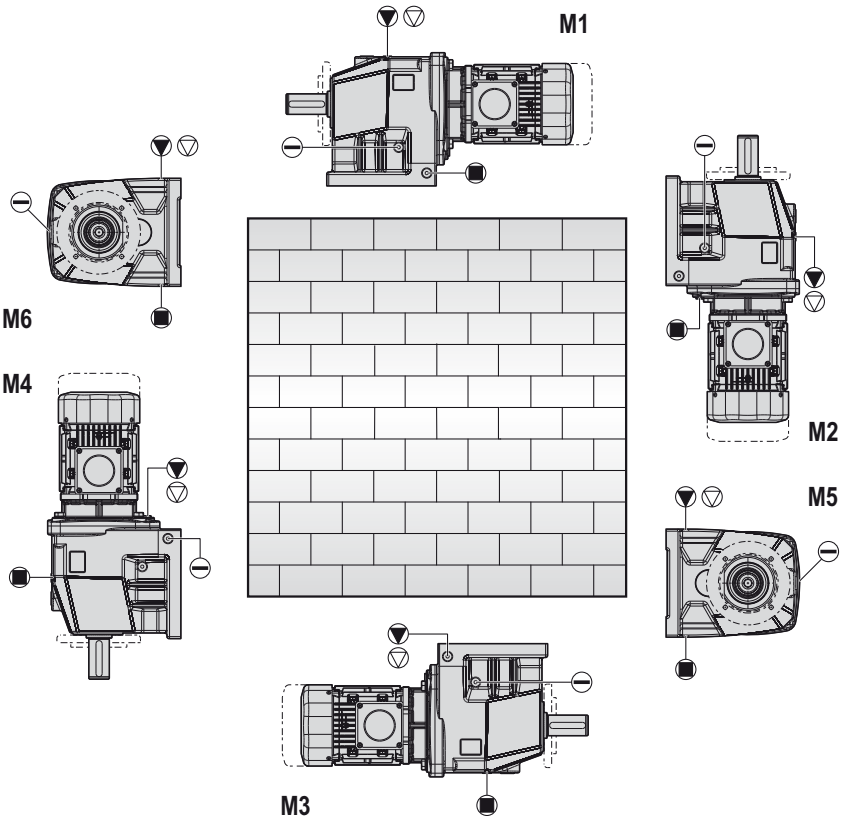
Doldurma tapası / Filling plug / Einfüllstopfen

Yağ Seviye tapası / Oil level / Ölstand

Boşaltma tapası / Drain plug / Ölablass

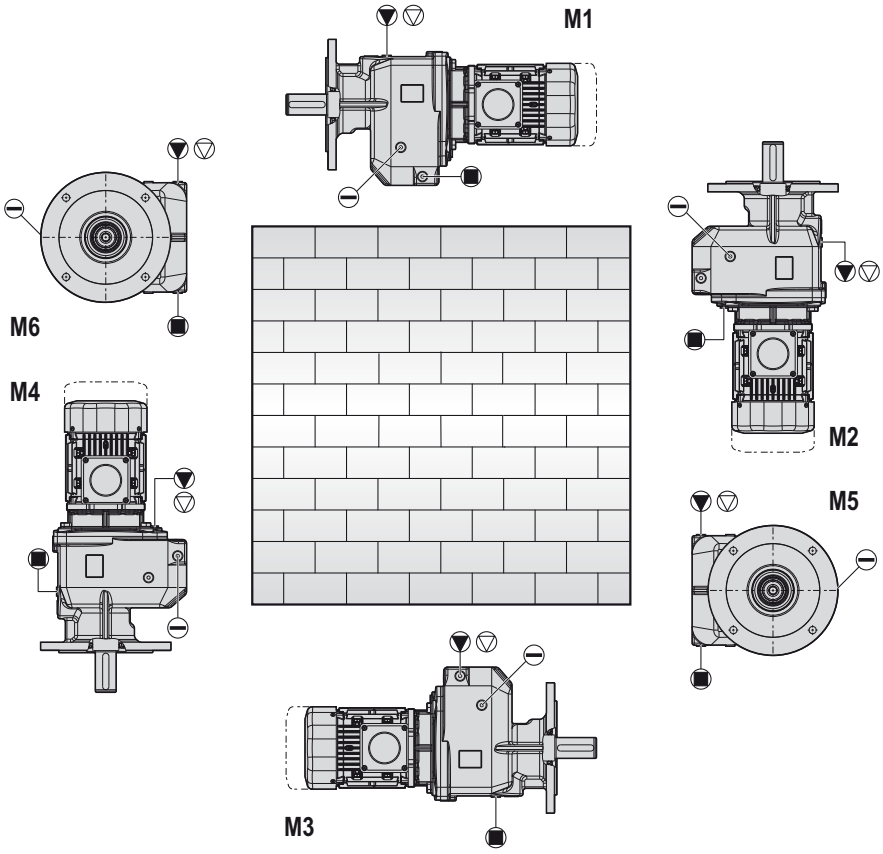
TR MONTAJ POZİSYONLARI | EN MOUNTING POSITIONS | DE MONTAGEPOSITIONEN

AYAK MONTAJLI
FOOT MOUNTED
FUBBEFESTIGUNG



PA 02
PA 12
PA 22
PA 32
PA 42
PA 52

FLANŞ MONTAJLI
FLANGE MOUNTED
FLANSCHBEFESTİGUNG



PF 02
PF 12
PF 22
PF 32
PF 42
PF 52

Havalandırma tapası / Vent plug / Entlüftung

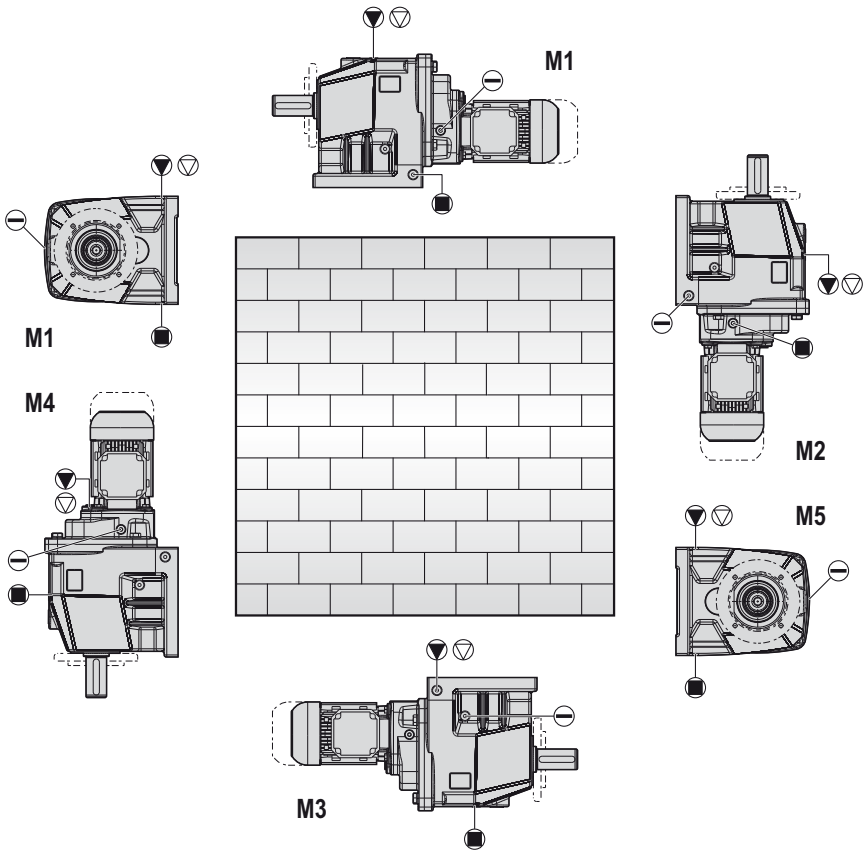
Doldurma tapası / Filling plug / Einfüllstopfen

Yağ Seviye tapası / Oil level / Ölstand

Boşaltma tapası / Drain plug / Ölablass

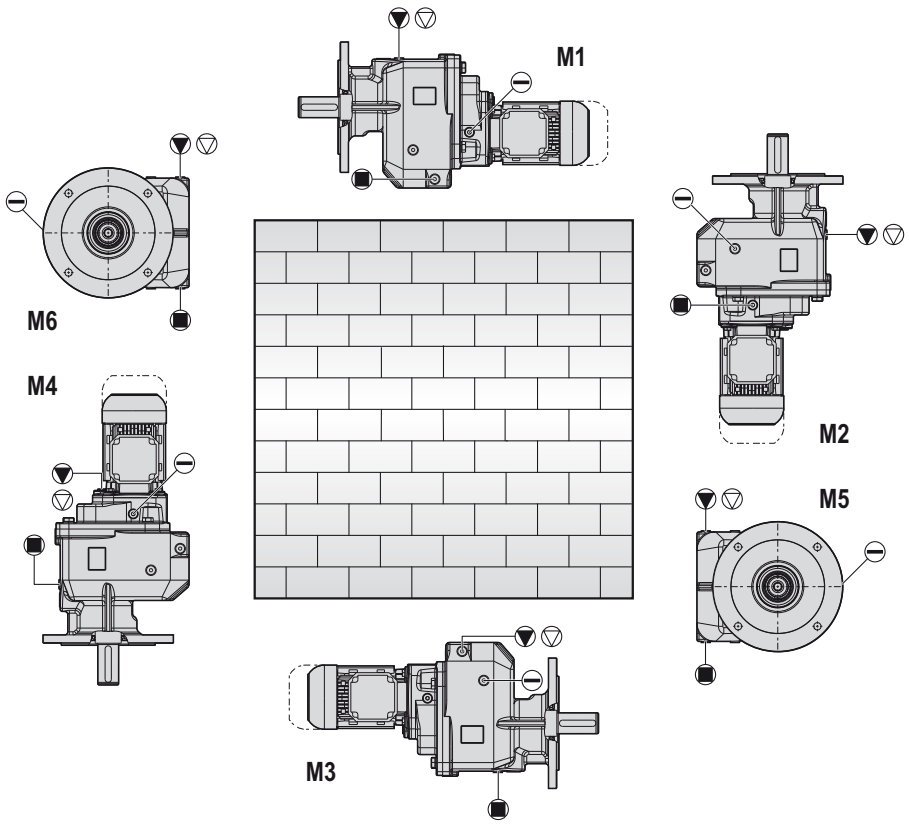
TR MONTAJ POZİSYONLARI | EN MOUNTING POSITIONS | DE MONTAGEPOSITIONEN

AYAK MONTAJLI
FOOT MOUNTED
FUBBEFESTIGUNG



PA 03
PA 13
PA 23
PA 33
PA 43
PA 53

FLANŞ MONTAJLI
FLANGE MOUNTED
FLANSCHBEFESTİGUNG



PF 03
PF 13
PF 23
PF 33
PF 43
PF 53

Havalandırma tapası / Vent plug / Entlüftung

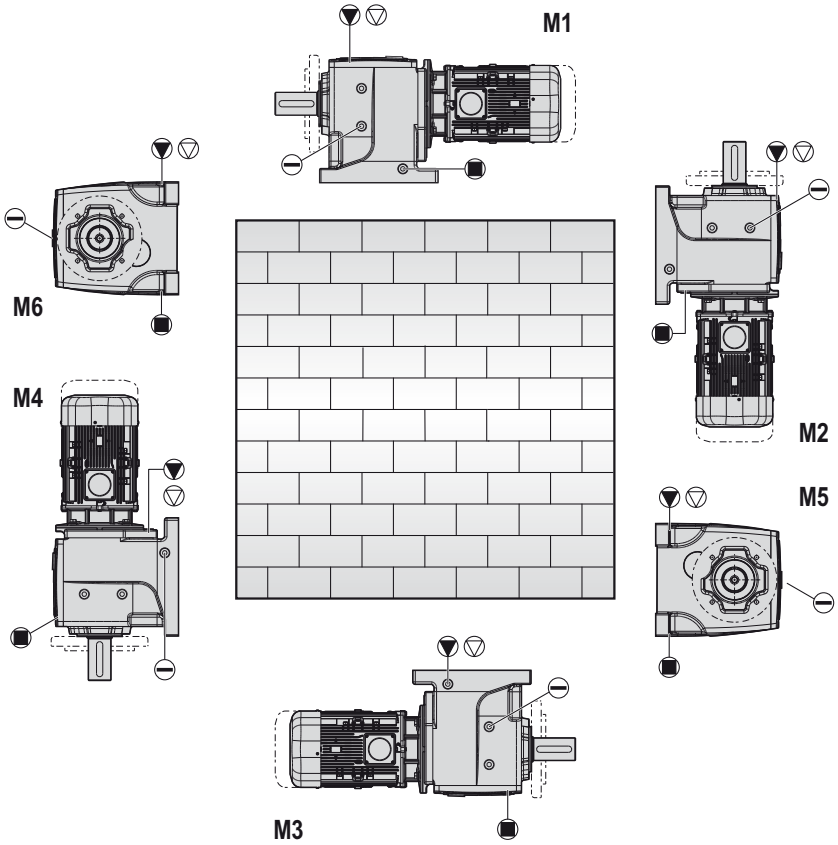
Doldurma tapası / Filling plug / Einfüllstopfen

Yağ Seviye tapası / Oil level / Ölstand

Boşaltma tapası / Drain plug / Ölablass

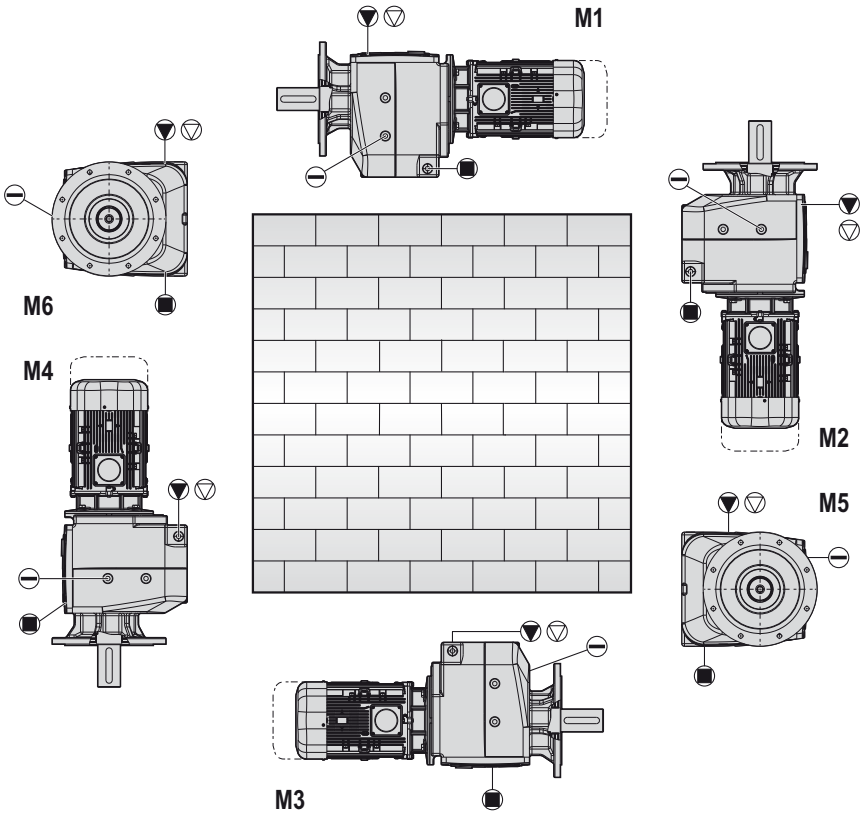
TR MONTAJ POZİSYONLARI | EN MOUNTING POSITIONS | DE MONTAGEPOSITIONEN

AYAK MONTAJLI
FOOT MOUNTED
FUBBEFESTIGUNG



PA 62
PA 63
PA 72
PA 73
PA 82
PA 83
PA 92
PA 93
PA 102
PA 103

FLANŞ MONTAJLI
FLANGE MOUNTED
FLANSCHBEFESTİGUNG



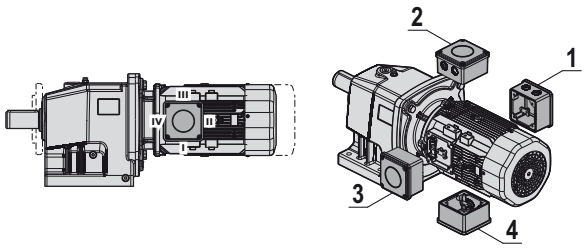
PF 62
PF 63
PF 72
PF 73
PF 82
PF 83
PF 92
PF 93
PF 102
PF 103

Havalandırma tapası / Vent plug / Entlüftung
Doldurma tapası / Filling plug / Einfüllstopfen
Yağ Seviye tapası / Oil level / Ölstand
Boşaltma tapası / Drain plug / Ölablass

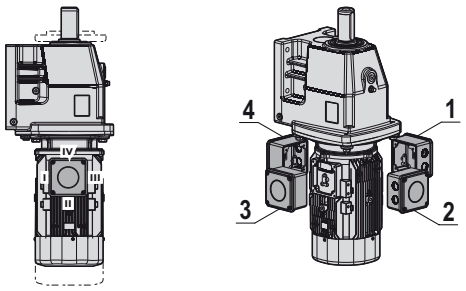
TR MONTAJ POZİSYONLARI | EN MOUNTING POSITIONS | DE MONTAGEPOSITIONEN

PA — TERMİNAL KUTUSU VE KABLO GİRİŞ YÖNLERİ / POSITION OF TERMINAL BOX AND CABLE ENTRY / KLEMMENKASTENLAGE UND KABELEİNFÜHRUNG

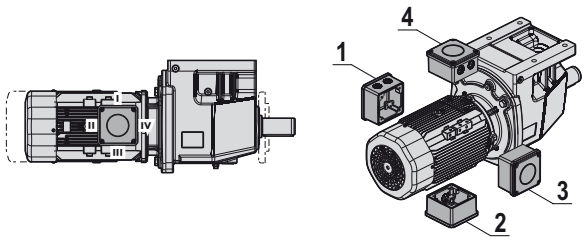
M1



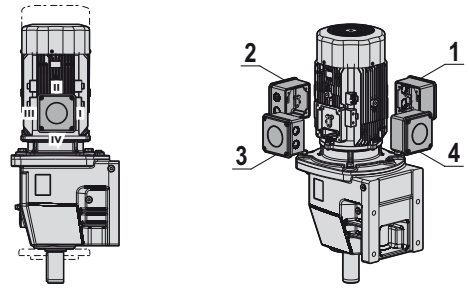
M2



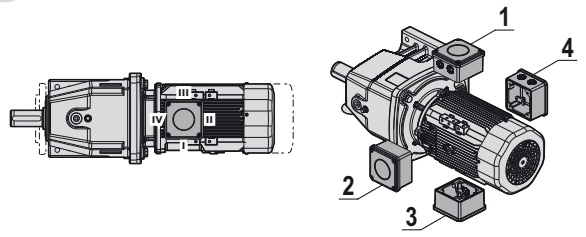
M3



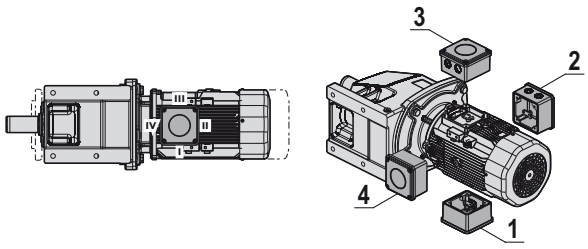
M4



M5



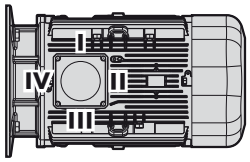
M6



*** 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

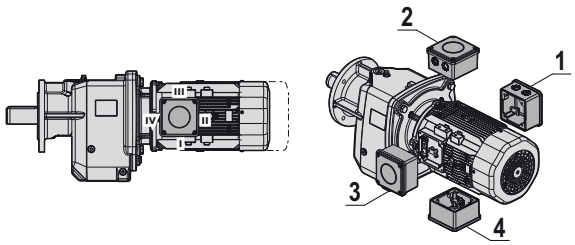
*** 1 - 2 - 3 - 4 :** Zeigt die Position des Klemmkastens an
*** I - II - III - IV:** Zeigt die kabeleinführungsposition an



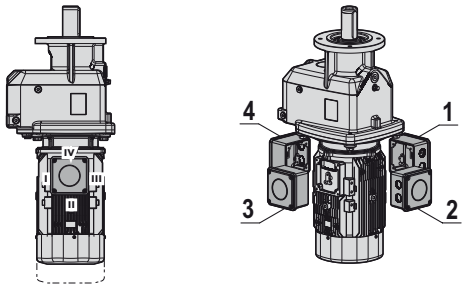
TR MONTAJ POZİSYONLARI | EN MOUNTING POSITIONS | DE MONTAGEPOSITIONEN

PF — TERMİNAL KUTUSU VE KABLO GİRİŞ YÖNLERİ / POSITION OF TERMINAL BOX AND CABLE ENTRY / KLEMMENKASTENLAGE UND KABELEİNFÜHRUNG

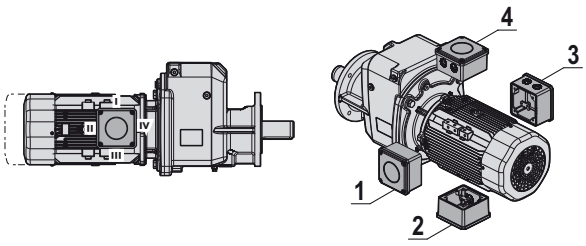
M1



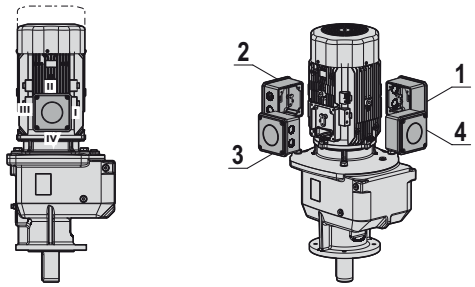
M2



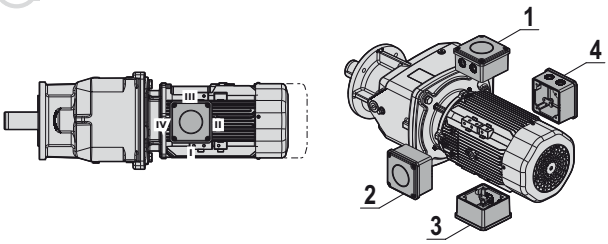
M3



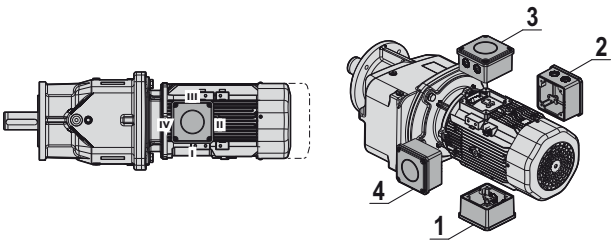
M4



M5



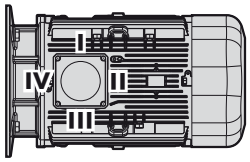
M6



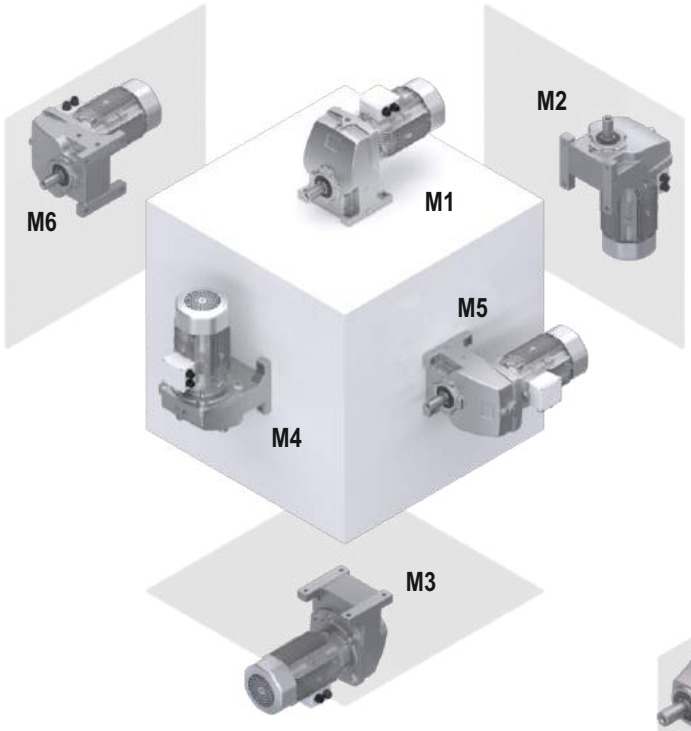
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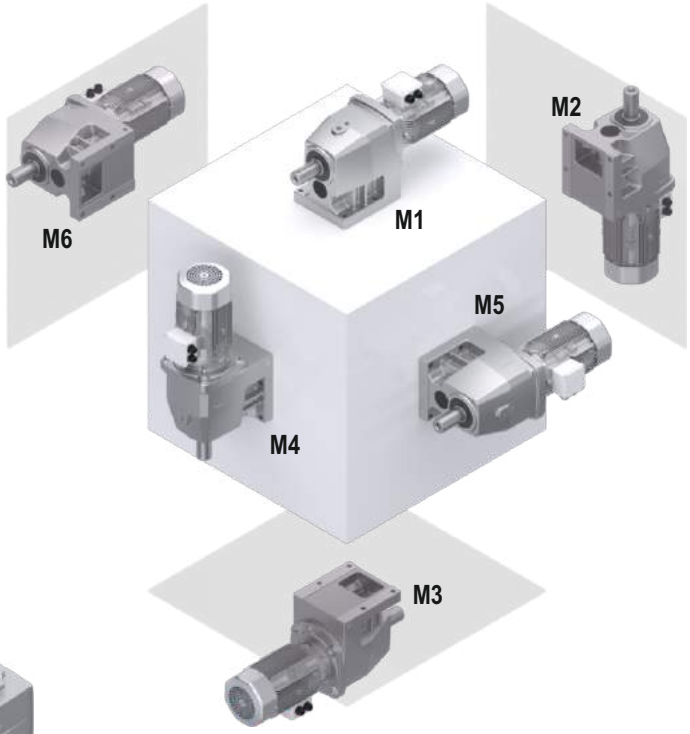
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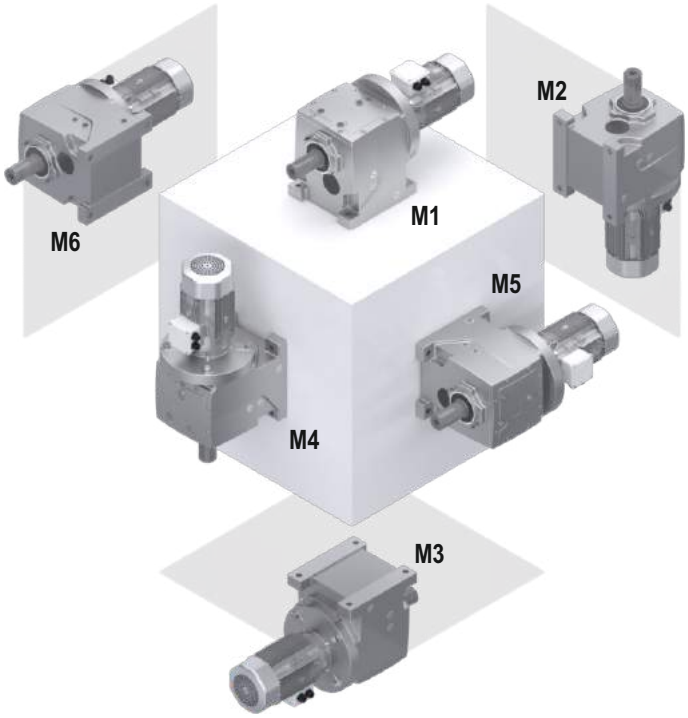
TR PA MONTAJ POZİSYONLARI | EN PA MOUNTING POSITIONS | DE PA MONTAGEPOSITIONEN



PA TEK KADEME
PA SINGLE REDUCTION
PA 1-STUFİG



PA İKİ VE ÜÇ KADEME (MONOBLOK)
PA DOUBLE AND TRIPLE REDUCTION (MONOBLOCK)
PA 2- UND 3-STUFİG (MONOBLOCK)



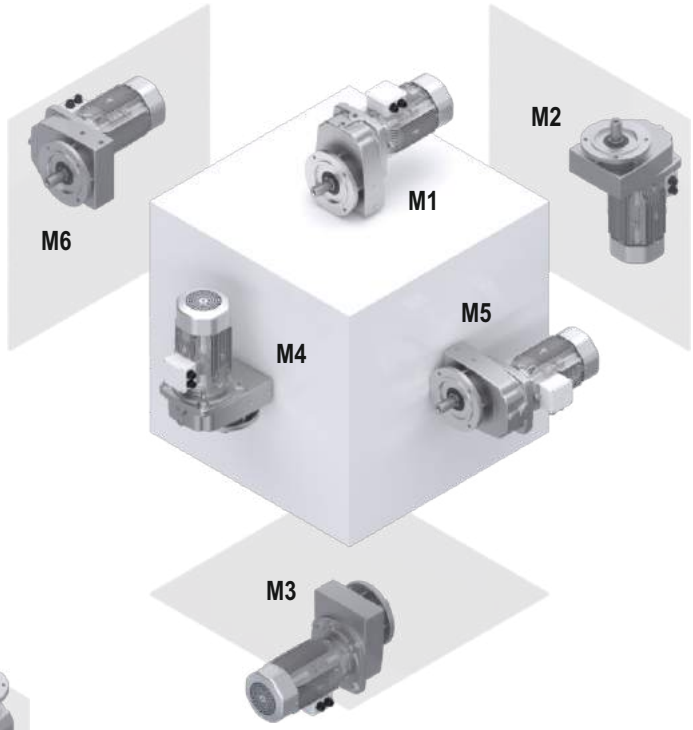
PA İKİ VE ÜÇ KADEME (BLOK)
PA DOUBLE AND TRIPLE REDUCTION (BLOC)
PA 2- UND 3-STUFİG (BLOCK)

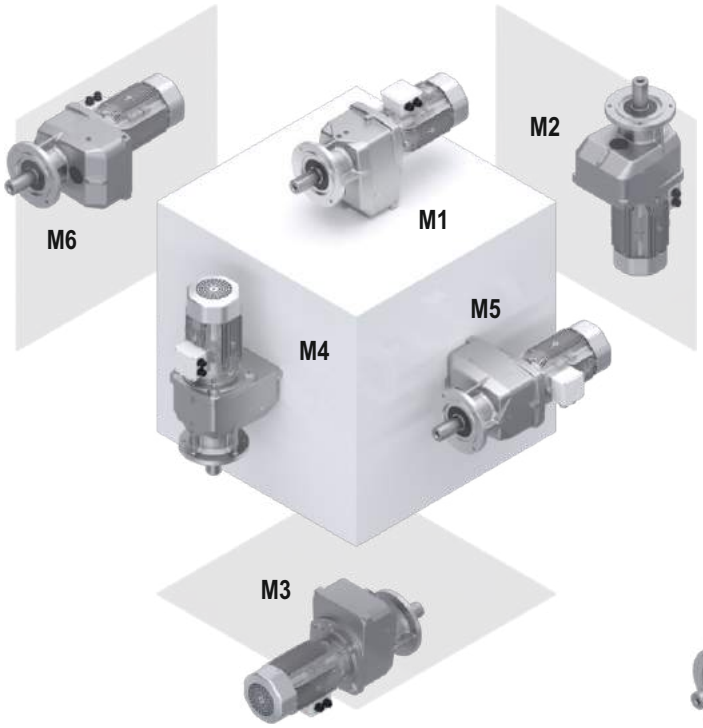
TR PF MONTAJ POZİSYONLARI

EN PF MOUNTING POSITIONS

DE PF MONTAGEPOSITIONEN

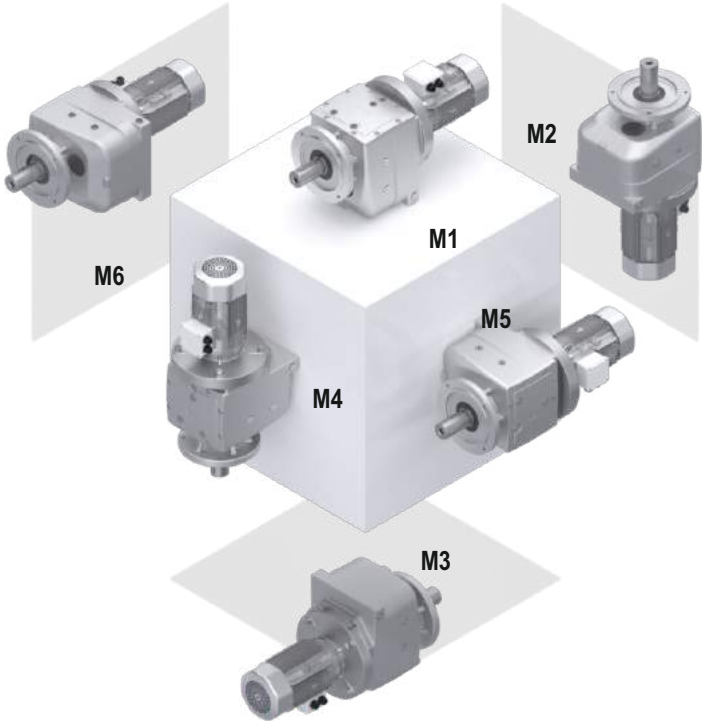
PF TEK KADEME
PF SINGLE REDUCTION
PF 1-STUFİG





PF İKİ VE ÜÇ KADEME (MONOBLOK)
PF DOUBLE AND TRIPLE REDUCTION (MONOBLOCK)
PF 2- UND 3-STUFİG (MONOBLOCK)

PF İKİ VE ÜÇ KADEME (BLOK)
PF DOUBLE AND TRIPLE REDUCTION (BLOCK)
PF 2- UND 3-STUFİG (BLOCK)



TR YAĞLAMA

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 yağlanır. 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 dolumdan sonra ilk birkaç saatlik çalışma esnasında yağ seviyesinde azalmalar gözlenebilir. Bu azalma tolerans dahilin 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 düzeltmesini 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 düzeltmesi 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 şaft üzerinde kullanılan tüm sızdırmazlık elemanları özel kalite malzeme olmalıdır.

Not: Sentetik ve mineral yağlayıcılar birbirine karıştırılmamalıdır.

EN LUBRICATION

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

At montage step, reducers are fulling 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 1000 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 2000 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 adviced 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 windowof 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 sealingrings at operation temperature where temperature is below -30 ºC and above 60 ºC

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

DE SCHMIERUNG

Vor Inbetriebnahme und längerem Lagern ist der Verschluß 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 Werkstoffquatität einzusetzen.

Bemerkung: Synthetische und mineralische Schmierstoffe dürfen nicht gemischt werden.

Redüktör Tipi Type of gearbox Getriebetyp	Yağ Tipi Type of Lubricant Schmierstoffsorte	Ortam Sıcaklığı / Ambient Temp.°C / Umgebungstemperatur	ISO vizkozite sınıfı viscosity class Viskositäts-klasse	SHELL	MOBİL	BP	ESSO	DEA	ARAL	CASTROL	TRIBOL	KLÜBER
Helisel Dişlili Redüktör Helical Gearboxes Stirnrad-getriebe	Mineral yağ Mineral oil Mineralöl	- 5...40 Normal -15...25 # - 50...-15	ISO VG 220 ISO VG 100 ISO VG 15	Shell Omala Oel 220 Shell omala Oel 100 Shell Tellus Oel T 15	Mobilgear 600 XP 220 Mobilgear 600 XP 150 Mobil DTE 10 Excel 15	Energol GR-XP 220 Energol GR-XP 100 Bartran HV 15	Spartan EP 220 Spartan EP 100 Univis J 13	Deagear DX SAE 85W-90 Falcon CLP 220 Deagear DX SAE 80W Falcon CLP 150 Alrkraft Hydraulic Oil 15	Degol BG 220 Degol BG 100 Vitamol 1010	Alpha SP 220 Alpha MW 220 Alpha MAX 220 Alpha SP 100 Alpha MW 100 Alpha MAX 220 Hyspin AWS 15 Hyspin SP 15 Hyspin ZZ 15	Tribol 1100/220 Tribol 1100/100 Tribol 770	Klüberoil GEM 1-220 Klüberoil GEM 1-100 Isoflex MT 30 rot
	Sentetik yağ Synthetic oil 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 Biodegradable oil 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 Food - grade oil Lebensmittelöle	- 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
	Akışkan sentetik gres Synthetic fluid grease 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
Rulmanlar Bearings Lager	Mineral yağlı gres Mineral oil grease Mineralölfett	- 30...60 Normal # 50...110		Alvania Fett R 3 oder Alvania Fett RL 3	Mobilux 3 Mobilux 2	Energrease LS 3 Energrease LS 2	Beacon 3 Beacon 2	Glissando 30 Glissando 20 Glissando FT 3	Aralub HL 3 Aralub HL 2 Aralub BAB EP 2	Spheerol AP 3 Spheerol AP 2 LZV - EP Spheerol EPL 2	Tribol 3030/100-2 Tribol 4020/220-2 Tribol 3785	Centoplex 3 Centoplex 2
	Sentetik gres Synthetic grease 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

TR YAĞ MİKTAR TABLOSU | EN LUBRICATION LEVELS | DE SCHMİERSTOFFTABELLE

AYAK MONTAJLI / FOOT MOUNTED / FUßBEFESTIGUNG

Yağ Miktarı - Litre (L) / Amount of oil - Liter (L) / Ölmenge - Liter (L)



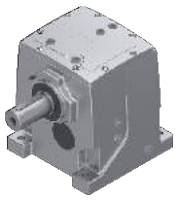
Tip / Type Typ	M1	M2	M3	M4	M5	M6
PA 11	0.25	0.50	0.55	0.40	0.40	0.40
PA 21	0.60	1.20	1.20	1.00	1.00	1.00
PA 31	1.00	1.80	2.20	2.00	1.60	1.60
PA 41	1.30	2.60	3.10	2.50	2.60	2.60
PA 51	2.00	3.50	4.40	4.00	3.40	3.40

Yağ Miktarı - Litre (L) / Amount of oil - Liter (L) / Ölmenge - Liter (L)



Tip / Type Typ	M1	M2	M3	M4	M5	M6
PA 02	0.15	0.60	0.75	0.60	0.45	0.45
PA 12	0.25	0.75	0.85	0.75	0.50	0.50
PA 22	0.50	1.80	2.00	1.80	1.35	1.35
PA 32	0.90	3.00	2.90	2.90	2.00	2.00
PA 42	1.20	4.50	4.20	4.30	3.20	3.20
PA 52	2.50	7.20	6.80	6.80	5.10	5.10

Yağ Miktarı - Litre (L) / Amount of oil - Liter (L) / Ölmenge - Liter (L)



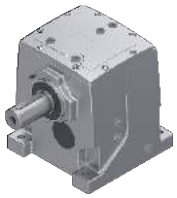
Tip / Type Typ	M1	M2	M3	M4	M5	M6
PA 62	6.50	15.00	13.00	18.00	13.00	13.00
PA 72	9.00	23.00	18.00	26.50	18.00	18.00
PA 82	14.00	35.00	27.00	40.00	28.00	28.00
PA 92	25.00	73.00	47.00	74.00	50.00	50.00
PA 102	36.00	79.00	66.00	102.00	71.00	71.00

Yağ Miktarı - Litre (L) / Amount of oil - Liter (L) / Ölmenge - Liter (L)



Tip / Type Typ	M1	M2	M3	M4	M5	M6
PA 03	0.50	1.10	0.85	1.05	0.60	0.60
PA 13	0.70	1.30	1.10	1.20	0.70	0.70
PA 23	1.40	2.40	1.90	2.40	1.40	1.40
PA 33	1.60	2.90	2.90	3.70	2.00	2.00
PA 43	3.00	5.60	4.40	5.70	3.20	3.20
PA 53	4.50	8.70	6.80	9.20	5.00	5.00

Yağ Miktarı - Litre (L) / Amount of oil - Liter (L) / Ölmenge - Liter (L)



Tip / Type Typ	M1	M2	M3	M4	M5	M6
PA 63	13.00	14.50	13.50	17.00	13.00	13.00
PA 73	19.00	20.00	19.00	25.00	19.20	19.20
PA 83	27.00	31.00	29.00	37.00	30.50	30.50
PA 93	51.50	56.00	51.00	72.00	53.50	53.50
PA 103	69.00	71.00	69.00	92.50	67.00	67.00

TR YAĞ MİKTAR TABLOSU | EN LUBRICATION LEVELS | DE SCHMİERSTOFFTABELLE

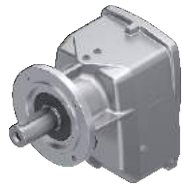
FLANŞ MONTAJLI / FLANGE MOUNTED / FLANSCHBEFESTİGUNG

Yağ Miktarı - Litre (L) / Amount of oil - Liter (L) / Ölmenge - Liter (L)



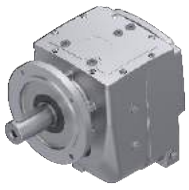
Tip / Type Typ	M1	M2	M3	M4	M5	M6
PF 11	0.25	0.50	0.45	0.30	0.35	0.35
PF 21	0.50	1.30	1.20	0.80	1.00	1.00
PF 31	0.80	1.60	1.65	1.30	1.20	1.20
PF 41	1.00	2.60	2.80	1.90	2.40	2.40
PF 51	1.80	3.50	3.90	3.30	3.40	3.40

Yağ Miktarı - Litre (L) / Amount of oil - Liter (L) / Ölmenge - Liter (L)



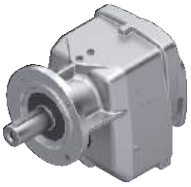
Tip / Type Typ	M1	M2	M3	M4	M5	M6
PF 02	0.25	0.65	0.70	0.70	0.50	0.50
PF 12	0.35	0.85	0.90	0.90	0.60	0.60
PF 22	0.70	2.00	2.00	2.15	1.55	1.55
PF 32	1.30	3.50	3.00	3.10	2.15	2.15
PF 42	1.80	5.00	4.00	4.50	3.20	3.20
PF 52	3.00	7.70	6.20	7.40	5.10	5.10

Yağ Miktarı - Litre (L) / Amount of oil - Liter (L) / Ölmenge - Liter (L)



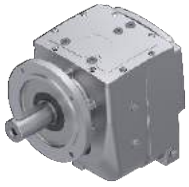
Tip / Type Typ	M1	M2	M3	M4	M5	M6
PF 62	7.00	15.00	14.00	18.70	13.50	13.50
PF 72	10.00	23.00	20.50	31.00	21.00	21.00
PF 82	15.00	37.00	30.00	45.50	30.00	30.00
PF 92	26.00	73.00	48.00	76.00	50.00	50.00
PF 102	40.00	81.00	66.00	104.00	72.00	72.00

Yağ Miktarı - Litre (L) / Amount of oil - Liter (L) / Ölmenge - Liter (L)



Tip / Type Typ	M1	M2	M3	M4	M5	M6
PF 03	0.50	1.10	0.90	1.10	0.65	0.65
PF 13	0.85	1.40	1.10	1.35	0.80	0.80
PF 23	1.80	2.90	2.10	2.90	1.50	1.50
PF 33	1.90	3.40	2.90	4.00	2.20	2.20
PF 43	3.50	6.10	4.20	6.10	3.00	3.00
PF 53	5.20	8.80	6.50	9.20	5.00	5.00

Yağ Miktarı - Litre (L) / Amount of oil - Liter (L) / Ölmenge - Liter (L)



Tip / Type Typ	M1	M2	M3	M4	M5	M6
PF 63	13.50	14.70	14.00	18.00	14.00	14.00
PF 73	21.50	22.50	22.00	29.00	22.00	22.00
PF 83	31.00	34.00	32.50	40.00	34.00	3400
PF 93	53.00	70.00	53.00	74.00	54.50	54.50
PF 103	69.00	78.00	78.00	99.00	67.00	67.00

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 aşınmasız çalışır.

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 min^{-1}.

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 Rücklaufsperren an. Rücklaufsperren ermöglichen den Lauf in nur eine Drehrichtung (im Uhrzeigersinn oder gegen den Uhrzeigersinn). Drehung in die entgegengesetzte Richtung wird durch die Rücklaufsperre verhindert.
Drehstrommotoren ab Baugröße 80, Wechselstrommotoren und W-Adapter (freie Antriebswelle) können mit geschmierten Rücklaufsperren ausgestattet werden.

Die Rücklaufsperre kann auf Wunsch entfernt werden. Die Rücklaufsperre ist fliehkraftgesteuert und läuft bei einer Drehzahl n1>900 U/min mit Ölung verschleißfrei.

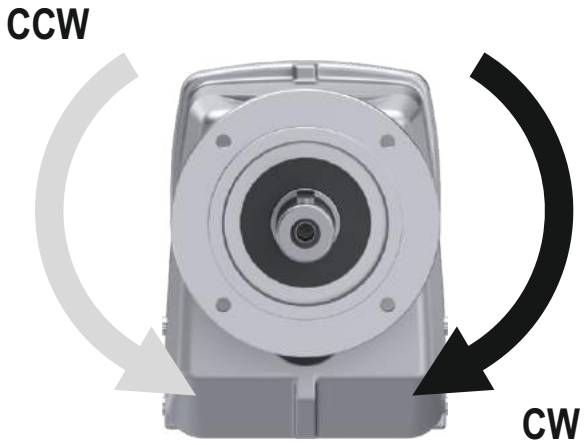
Achtung: Vor Inbetriebnahme der Anlage die Drehrichtung des Motors und des Getriebes prüfen. Pfeile auf dem Getriebe zeigen die Drehrichtung an.

CW: Im Uhrzeigersinn
CCW: Gegen den Uhrzeigersinn

PA



PF



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" yükleme 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
> Ø 30 - Ø 38	M12
> Ø 38 - Ø 50	M16
> Ø 50 - Ø 85	M20
> Ø 85 - Ø 130	M24

157 - 220

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
> Ø 30 - Ø 38	M12
> Ø 38 - Ø 50	M16
> Ø 50 - Ø 85	M20
> Ø 85 - Ø 130	M24

157 - 220

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 - ZEICHNUNGSINFORMATIONEN 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
> Ø 30 - Ø 38	M12
> Ø 38 - Ø 50	M16
> Ø 50 - Ø 85	M20
> Ø 85 - Ø 130	M24

157 - 220

Paßfedern nach DIN 6885
Achshöhe "h" nach DIN 747

FLANSCHE

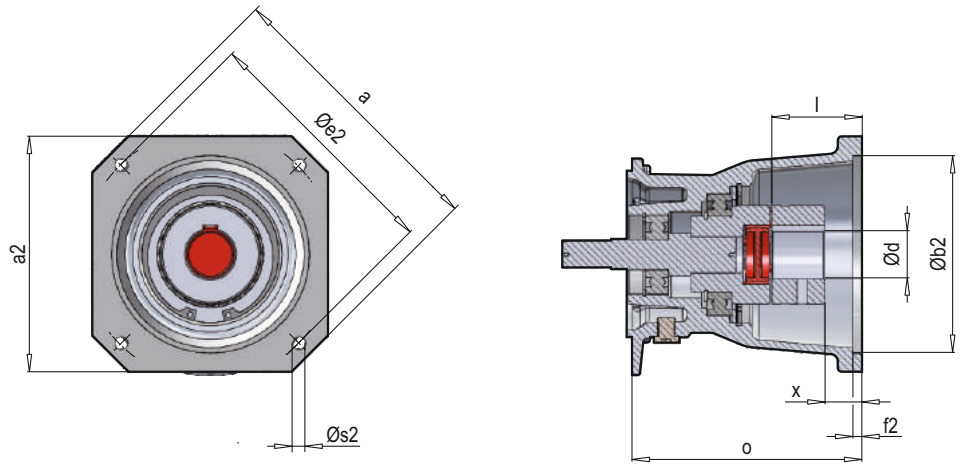
Toleranz der Flanschzentrierung (DIN 42948);

≤ ø 230 mm nach ISO j6
> ø 230 mm nach ISO h6

TR SERVOMOTOR ADAPTÖRÜ

EN SERVOMOTOR ADAPTERS

DE ADAPTER ZUM ANBAU VON SERVOMOTOREN



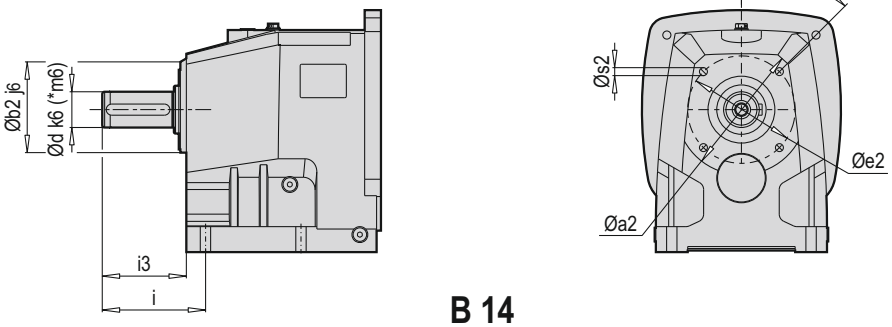
Redüktör Tipi / Gear Unit Type / Getriebetyp	Motor Büyüklüğü / Motor Size / Motorbaumaße							Şaft Ebatı / Shaft Size / Wellenmaße		Silindir / Cylinder / Zylinder	Mknom [Nm]	Adaptör tipi / Adapter type / Adaptertyp
	a	a2	b2	e2	f2	s2	x	d	l	o		
PA/PF 02 , PA/PF 12	120	96	80	100	4	M6	15	19	40	124	10	Servo 100 / 160 S
PA/PF 02 , PA/PF 12	165	126	110	130	4	M8	20	24	50	136	35	Servo 130 / 160 S
PA/PF 22 , PA/PF 32	155	126	110	130	4	M8	20	24	50	150	35	Servo 130 / 250 S
PA/PF 02 , PA/PF 12	186	155	130	165	5	M10	23	32	58	151	95	Servo 165 / 160 S
PA/PF 22 , PA/PF 32	186	155	130	165	5	M10	23	32	58	166	95	Servo 165 / 250 S
PA/PF 22 , PA/PF 32	240	192	180	215	5	M12	45	38	80	187	95	Servo 215/ 250 S
PA/PF 42 , PA/PF 52	240	192	180	215	5	M12	24	38	80	229	310	Servo 215/ 300 S
PA/PF 42 , PA/PF 52	350	260	250	300	5	M16	26	48	82	231	310	Servo 300/ 300 S
PA/PF 62 , PA/PF 72 PA/PF 82 , PA/PF 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 sıktırması ile yapılmaktadır. Servo motor bağlantı adaptörünün bağlantı flanşının farklı olması durumunda yüksek adetteki siparişler üretime alınır.

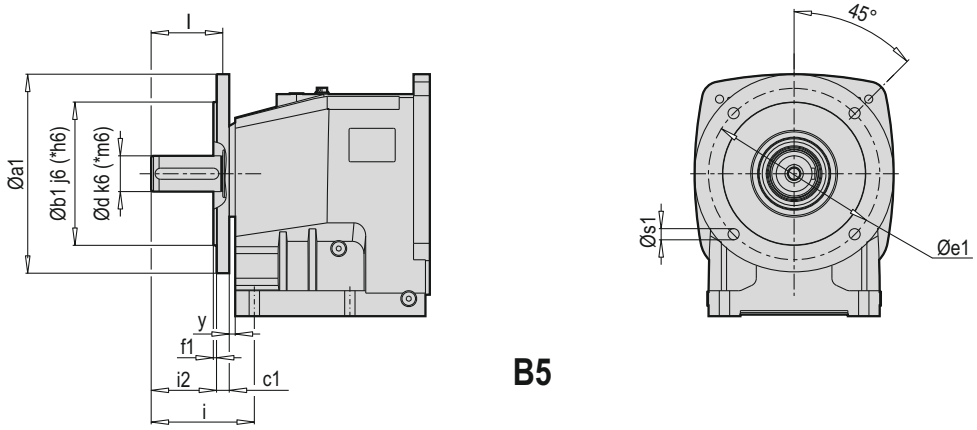
For connecting SEP adapter which is shown above, servo motor's output shaft is designed with locking key. For connecting SEK type adapter, connecting is supplied with a clamp coupling sleeve. An intermediate flange is required when other servo motor types are used with IEC adapter. Offers are manufactured 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 Gewindestifte. Bei abweichendem Anschlussflansch des Servomotor-Anschlussadapters werden Aufträge in hoher Stückzahl in Produktion genommen.

TR PA / B14 - B5 | EN PA / B14 - B5 | DE PA / B14 - B5



B 14



B5

Tip / Type / Typ	a2	b2	e2	f2	s2	i	i3	a1	b1	c1	e1	f1	s1	i2	y	d	l	x
PA 02 PA 03	90	55	72	8	M 8x13	52	42	160	110	11	130	3,5	9	27	5	20	40	3
PA 12 PA 13	95	60	80	9	M 8x13	78	60	200	130	14	165	3,5	11	43	5	25	50	4
PA 22 PA 23	130	72	100	10	M 12x20	74	59	250	180	16	215	4,0	14	38	5	30	60	5
PA 32 PA 33	150	90	120	11	M 16x25	96	79	300	230	20	265	4,0	14	54	5	40	80	6
PA 42 PA 43	165	105	135	14	M 16x25	130	106	300	230	20	265	4,0	14	81	5	45	90	6
PA 52 PA 53	200	134	165	19	M 16x25	140	120	350	250	20	300	5,0	18	95	5	55*	110	6

TR M4 MONTAJ POZİSYONU İÇİN İLAVE YAĞ HACMİ

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.

41

EN ADDITIONAL LUBRICANT VOLUME 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 leekage 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.

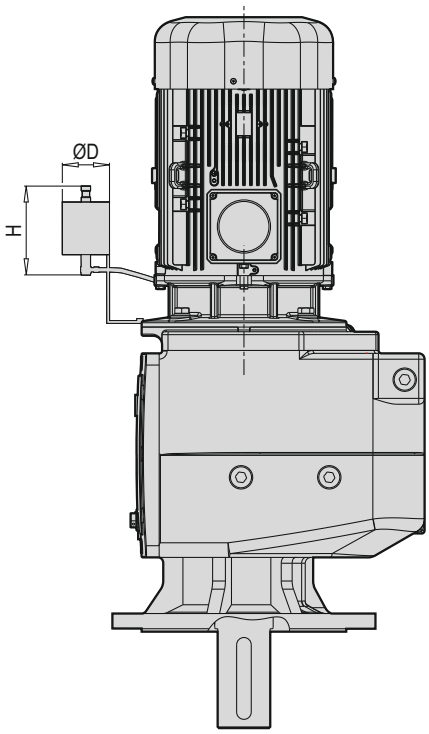
In addition to this, PGR strictly recommends usage of additional oil tube when the ratio number is less than 20, notor rotation speed is bigger than 1800 min^{-1} and smaller cases.

41

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 İges < 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.

41

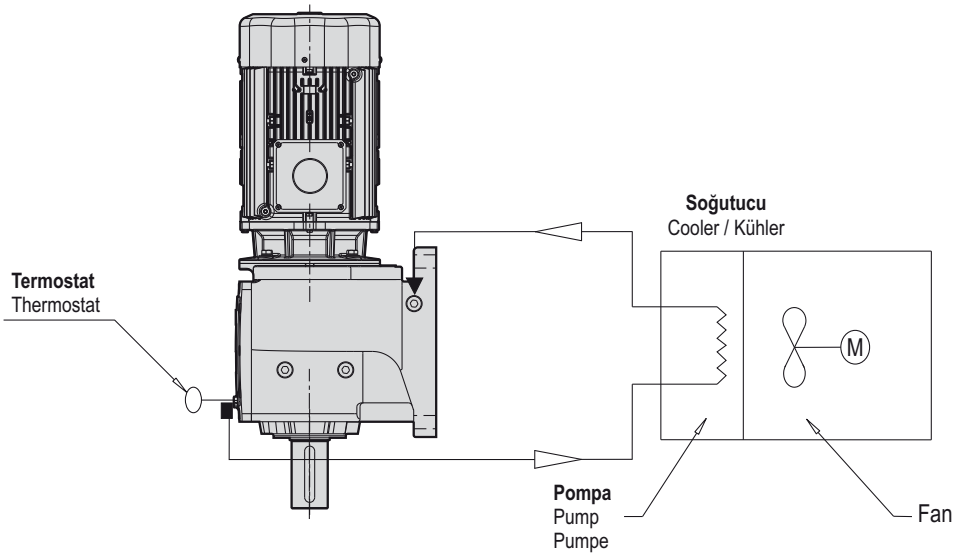


Tip Type Typ	Boyut Size	ø D [mm]	H [mm]	[kg]
PF 42 - PF 43	I	100	180	6
PF 52 - PF 53				
PF 63				
PF 62	II	150	300	7
PF 72 - PF 73				
PF 82 - PF 83	III	180	300	8
PF 92 - PF 93				
PF 102 - PF 103				

TR YAĞ SOĞUTMALI

EN OIL COOLING

DE ÖLKÜHLER



■ Çıkış = Emme hattı

▼ Yağ seviyesi = Basınç hattı

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.

■ Output = Suction line

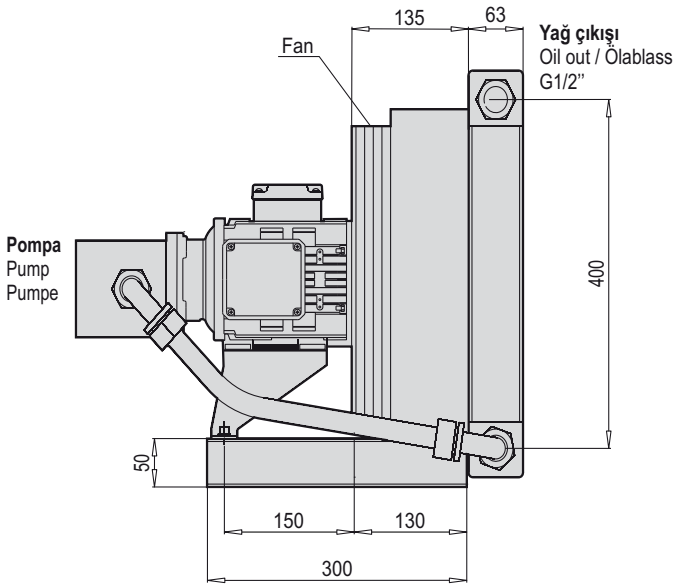
▼ Oil level = Pressure line

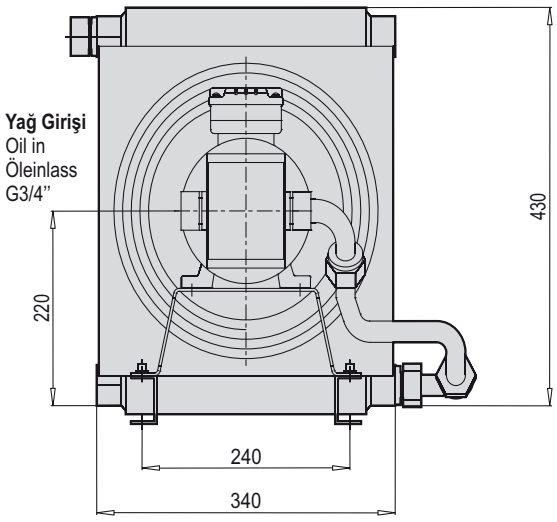
Picture which is above on this page shows cycle of the cooling unit. There is a thermostat on the gear unit for checking oil temperature. Oil flows from suction line to pressure line which is provided by a pump. In this way, oil temperature is cooled down by a fan which is supplying air flow of oil.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

■ Ablaβ = Saugleitung

▼ Ölstand = Druckleitung

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 potantially 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
Hız	: 1350 minimum
Koruma sınıfı	: IP 55
Yalıtım sınıfı	: F
Sıcaklık sınıfı	: B

Aşağıdaki özelliklerde mevcuttur:
- Özel voltaj 60 HZ - Özel motor
  Ağırlık : 32 kg

Design

Cooler	: TFS/A 8,5-400-F-03-11
Reduction	: Out 1/2"/ in 3/4"
Motors	: Spannung 3x400 V
Output	: 0.55 kW
Speed	: 1350 minimum
Protection Class	: IP 55
Insulation Class	: F
Temperature Class	: B

Available with:
- Special voltage 60 HZ - Special motor
  Weight : 32 kg

Entwurf

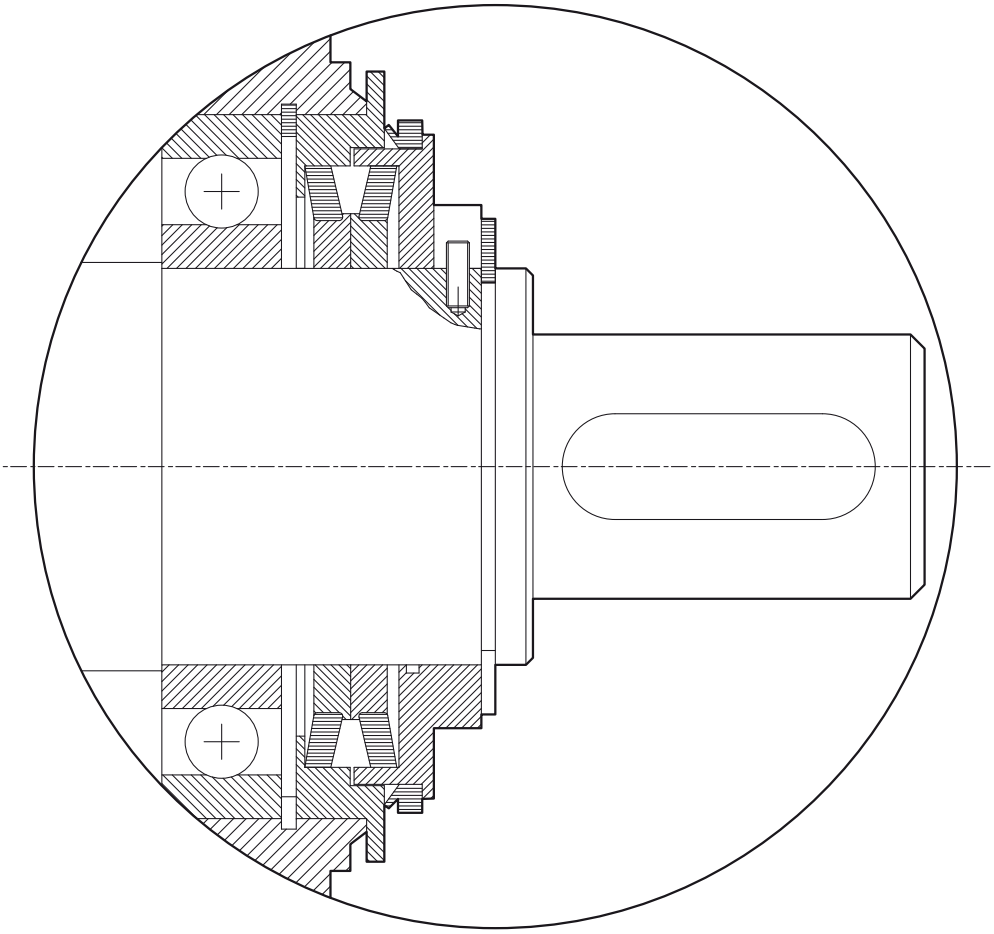
Kühler	: TFS/A 8,5-400-F-03-11
Reduzierung	: Aus 1/2"/ in 3/4"
Motoren	: Spannung 3x400 V
Leistung	: 0,55 kW
Drehzahl	: 1350 rpm
Schutzklasse	: IP 55
Isolationsklasse	: F
Temperaturklasse	: B

Lieferbar mit
- Spezialspannung 60 Hz - Sondermotor
  Gewicht: 32 kg

TR MEKANİK KEÇE

EN MECHANICAL SEAL

DE GLEITRINGDICHTUNG



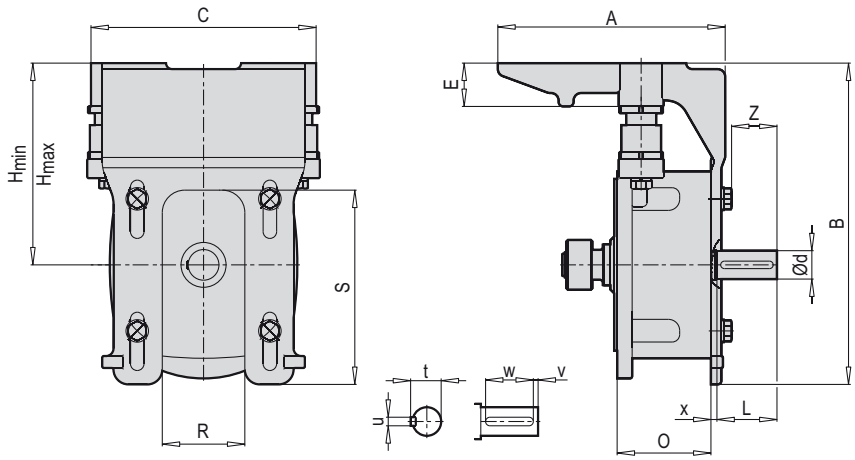
Mekanik keçe kullanımı özellikle uzun süreli maruz kalınan kötü çalışma koşullarına uygundur. Sıvı yoğunluğunun çok olduğu daldırmalı çalışma ortamlarında maximum seviye sızdırmazlık sağlar. Bu keçe tipi birçok olumsuz dış çevre koşullarından (Aşırı tozlu, sulu) yüksek seviyede koruma sağlar.

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 MOTOR PLATFORMU | EN MOTOR PLATFORM INSTALLATION | DE MOTORKONSOLEN

Motor Platformu Ölçüleri /
Motor Platform Dimensions / Abmessungen der Motorkonsole



Tip / Type / Typ	Bağlantı boyutları ve platform ölçüleri / Connection and Platform dimensions / Anschlussmaße und Motorkonsolenmaße										Mil Ölçüleri / Shaft size / Wellenmaße				Flanş / Flange / Flansch
	A	B	C	E	R	S	H min	H max	Z	O	Ød L	t u	v w	x	
MK I 63 M - 100 L	224	253	206	45	60	140	153	173	41	121.5	24 50	27 8	5 40	8	160 S
MK II 80 M - 112 M	238	320	252	50	66	145	199	224	48	115.5	28 60	31 8	5 50	9	250 S
MK III-A 90 S - 132 M	305	430	302	58	110	260	254	286	61	127	38 80	41 10	5 70	8	300 S
MK III-B 90 S - 132 M	305	430	302	58	110	260	254	286	91	172	42 110	45 12	10 90	8	Ø250
MK IV 112 M - 200 L	478	530	402	75	130	315	315	355	116	254	65 140	69 18	15 110	8	Ø350
MK V 200 L - 250 M	664	690	572	105	382	369	465	515	119	247	65 140	69 18	15 110	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 bulundurduğu bağlantı delikleri
* 90° her yöne döndürülebilir yapı
* Seçim tablolarından tahvil oranının İ=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 İ=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-Getriebe-kombinationen ab. Die jeweils möglichen Zuordnungen entnehmen Sie den Auswahltabellen, die auch für die entsprechenden mehrstufigen Getriebeausführung Gültigkeit haben.

- Vorteile der PGR-Motorkonsole für den Anwender;

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

TR MOTOR PLATFORMU

EN MOTOR PLATFORM INSTALLATION

DE MOTORKONSOLEN

Tip Type Typ	PA/PF 11 PA/PF 12	PA/PF 21 PA/PF 31 PA/PF 22 PA/PF 32	PA/PF 41 PA/PF 51 PA/PF 42 PA/PF 52 PA/PF 63	PA/PF 62 PA/PF 72 PA/PF 73 PA/PF 83	PA/PF 93	PA/PF 82 PA/PF 92 PA/PF 103	PA/PF 102
Motor	W III	W II	W III	W III W IV	W V W IV	W V W IV	W IV
63 M	MK I						
71 M	MK I						
80 M	MK I	MK II					
90 S **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	MK IV	
132 S **132 M**			MK III - A	MK III - B	MK IV	MK IV	
160 M **160 L**				MK IV	MK IV	MK IV	
180 M **180 L**				MK IV	MK IV	MK IV **	
200 L				MK IV	MK IV	MK IV **	MK V
225 S **225 M**					MK V	MK V	MK V
250 M					MK V	MK V	MK V

** Ayarlanabilir mesafe (sınırlı)

** There is a limit distance for adjustment.

Motorkonsole mit Bohrungen für mehrere Motorbaugrößen

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, 19.4 d/dk i=72.60 → PA 12 - 71 M

Redüktör tipinin seçilmesinin ardından motor gövde büyüklüğü ve redüktör tipine bağlı tabloyu kullanarak motor platformu tipini (MK) tespit ediniz (Sayfa 51).

71 M → PA 12 → 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 53)

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, 19.4 min^{-1} i=72.60 → PA 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 51).

71 M → PA 12 → 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 53)

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, 19.4 min^{-1} i=72.60 → PA 12 - 71 M

Nach Auswahl des Getriebetyps ermitteln Sie den Motorkonsolentyp (MK) anhand der Tabelle in Abhängigkeit von Motorbaugröße und Getriebetyp (Seite 51).

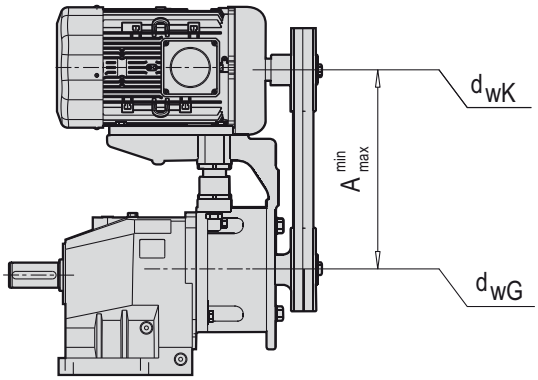
71 M → PA 12 → MK1

Informationen zu Riementyp, Verstellbereich, Riemenlänge, Achsabstand zwischen 2 Wellen und Anzahl der Riemen können unter Berücksichtigung der Zeile für die Motorkörpergröße gemäß dem MK1- Motorkonsolentyp ermittelt werden. (Seite 53)

TR V KAYIŞ VE KAYIŞ KASNAK SEÇİMİ

EN V BELT AND BELT PULLEY SELECTION

DE AUSWAHL VON V RIEMEN UND RIEMENSCHEIBE



	Motor	Çıkış Output Abtrieb (kW)	Ayar aralığı Adjustment range Einstellbereich Amin	Amax	Kayış uzunluğu Belt length Riemenlänge	Mil merkezi uzaklığı Shaft centre distance Wellenmittenabstand A	Kayış sayısı Number of belts Anzahl Riemen
MK I Kayış Tipi SPZ Belt type SPZ Riementyp SPZ					**(dwg = 80) (i = 1) Lw**		
	63 M/4A	0.12	216	236	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 Kayış Tipi XPZ Belt type XPZ Riementyp SPZ					**(dwg = 112) (i = 1) Lw**		
	80 M/4A	0.55	279	304	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 Kayış Tipi SPZ Belt type SPZ Riementyp SPZ					**(dwg = 160) (i = 1) Lw**		
	90 S/4A	1.10	344	376	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 Kayış Tipi XPA Belt type XPA Riementyp SPA					**(dwg = 200) (i = 1) Lw**		
	112 M/4B	4.00	427	467	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 Kayış Tipi SPA Belt type SPA Riementyp SPA					**(dwg = 250) (i = 1) Lw**		
	200 L/4C	30.0	665	715	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 Kayış Tipi SPB Belt type SPB Riementyp SPB					**(dwg = 250) (i = 1) Lw**		
	250 M/4C	55.0	715	765	2240	727	4

* Kayış kasnak aksesuarları PGR tarafından temin edilmemektedir.

*Belt pulley accessories are not provided by PGR.

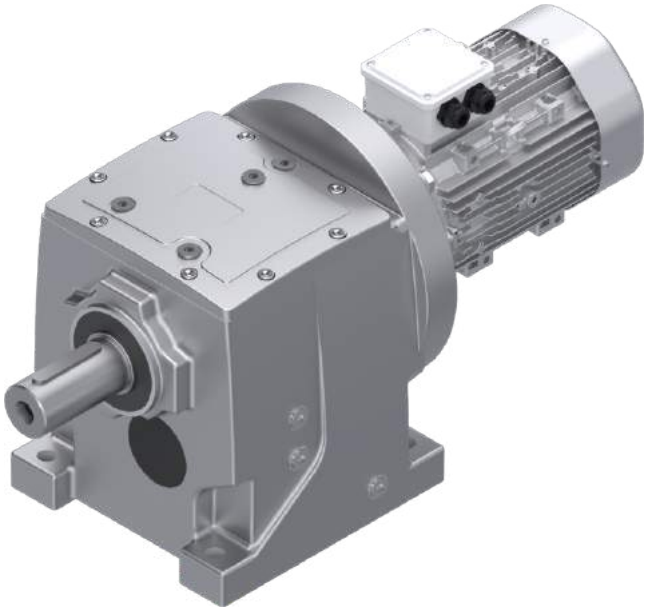
*Riemenscheibenzubehör wird nicht von PGR geliefert.

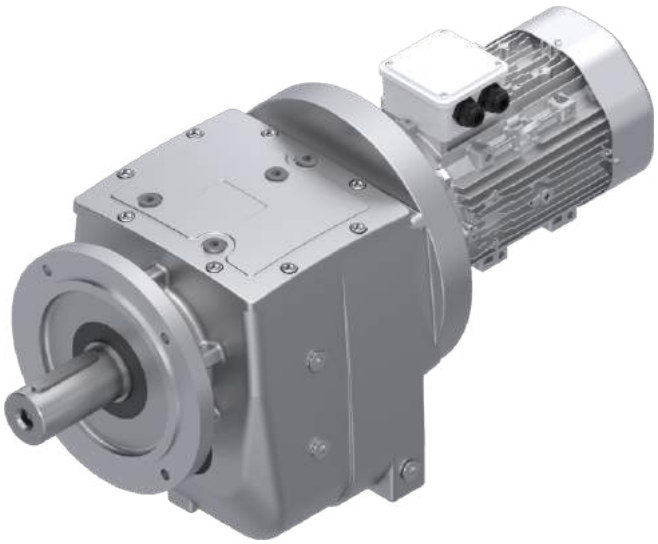


Motorlu Seçim Tabloları

Selection Tables of Geared motors

Auswahltabellen der Getriebemotoren





PA / PF

TR TEKNİK AÇIKLAMALAR | EN TECHNICAL DESCRIPTIONS | DE TECHNISCHE BESCHREIBUNGEN

0.12 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

Redüktör tipi
Gear unit motor type
Getriebetyp

Ağırlık
Weight
Gewicht

Ölçü sayfaları
Drawing pages
Zeichnungsseite

P_1 [kW]	n_2 [Min^{-1}]	M_2 [Nm]	f_B	i_{ges}	F_R [N]	F_A [N]	$F_{R\,GR}$ [N]	$F_{A\,GR}$ [N]	Tip / Type / Typ IE2 / IE3	Kg	mm
0.12	5.1	212	0.8	275.17	3.0	4.0	5.0	15.0	PA/PF 13 63M4A	20	173
	5.7	188	0.9	244.64	3.0	4.0	5.0	14.0			
	7.2	151	1.3	195.71	3.0	4.0	5.0	14.0			

Müsaade edilebilir radyal yükler
Normal rulmanlarda
F_R için listelenmiş değerlerde
F_A = 0 (N) olarak hesaplanmıştır

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

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

Müsaade edilebilir eksenel yükler
Güçlendirilmiş rulmanlarda
F_A için listelenmiş değerlerde
F_R = 0 (N) olarak hesaplanmıştır

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

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

Müsaade edilebilir eksenel yükler
Normal rulmanlarda
F_A için listelenmiş değerlerde
F_R = 0 (N) olarak hesaplanmıştır

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

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

Müsaade edilebilir radyal yükler
Güçlendirilmiş rulmanlarda
F_R için listelenmiş değerlerde
F_A = 0 (N) olarak hesaplanmıştır

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

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

P_1 [kW]	n_2 [Min^{-1}]	M_2 [Nm]	f_B	i_{ges}	F_R [N]	F_A [N]	$F_{R\,GR}$ [N]	$F_{A\,GR}$ [N]	Tip / Type / Typ IE2 / IE3	Kg	mm
0.12	0.1 0.1 0.2 0.2	9969 8061 6318 5290	0.8 1.0 1.3 1.6	8572.29 6931.18 5432.52 4548.59	44.0 44.0 44.0 44.0	65.0 65.0 65.0 65.0	- - - -	- - - -	**PA/PF 83/33 63M6C / 63M6B**	361	218
	0.1 0.1 0.2 0.2 0.3 0.3	9212 7822 6175 4993 3913 3277	0.9 1.0 1.3 1.6 2.0 2.4	12787.88 10858.81 8572.29 6931.18 5432.52 4548.59	44.0 44.0 44.0 44.0 44.0 44.0	65.0 65.0 65.0 65.0 65.0 65.0	- - - - - -	- - - - - -	**PA/PF 83/33 63M4A**	361	218
	0.2 0.3 0.3 0.4	4227 3589 2833 2291	1.4 1.7 2.1 2.7	12787.88 10858.81 8572.29 6931.18	44.0 44.0 44.0 44.0	65.0 65.0 65.0 65.0	- - - -	- - - -	**PA/PF 83/33 63M2K**	361	218
	0.2 0.2	6377 5151	0.8 1.0	5483.87 4429.50	28.0 28.0	39.0 39.0	- -	- -	**PA/PF 73/23 63M6C / 63M6B**	242	218
	0.2 0.2 0.3 0.3	5882 4755 3950 3191	0.9 1.1 1.3 1.6	8164.87 6600.95 5483.87 4429.50	28.0 28.0 28.0 28.0	39.0 39.0 39.0 39.0	- - - -	- - - -	**PA/PF 73/23 63M4A**	242	218
	0.2 0.2 0.3 0.4 0.5 0.6	4441 3736 2699 2182 1812 1464	0.9 1.0 1.4 1.7 2.1 2.6	13435.41 11303.83 8164.87 6600.95 5483.87 4429.50	28.0 28.0 28.0 28.0 28.0 28.0	39.0 39.0 39.0 39.0 39.0 39.0	- - - - - -	- - - - - -	**PA/PF 73/23 63M2K**	242	218
	0.3 0.3 0.4 0.5 0.6 0.8	3943 3276 2515 1951 1641 1240	0.9 1.0 1.3 1.7 2.0 2.7	3390.53 2816.75 2162.48 1677.79 1410.80 1066.44	20.0 20.0 20.0 10.0 13.0 13.0	45.0 45.0 45.0 45.0 24.0 24.0	- - - - 27.0 28.0	- - - - 45.0 45.0	**PA/PF 63/23 63M6C / 63M6B**	161	218
	0.3 0.3 0.4 0.5 0.6 0.8	3886 3148 2442 2029 1558 1209	0.8 1.0 1.3 1.6 2.1 2.6	5394.24 4370.02 3390.53 2816.75 2162.48 1677.79	20.0 20.0 20.0 20.0 20.0 20.0	45.0 45.0 45.0 45.0 45.0 45.0	- - - - - -	- - - - - -	**PA/PF 63/23 63M4A**	161	218
	0.3 0.4 0.5 0.6 0.8 1.0	2689 2208 1783 1444 1121 931	0.9 1.1 1.4 1.7 2.2 2.6	8135.65 6681.18 5394.24 4370.02 3390.53 2816.75	20.0 20.0 20.0 20.0 20.0 20.0	45.0 45.0 45.0 45.0 45.0 45.0	- - - - - -	- - - - - -	**PA/PF 63/23 63M2K**	161	218
	0.4 0.5 0.6 1.0 1.3 1.7	2527 2056 1711 1103 827 650	0.8 0.9 1.1 1.7 2.3 3.0	2108.36 1715.38 1427.20 920.36 690.27 542.36	14.0 14.0 14.0 14.0 14.0 14.0	24.0 24.0 24.0 24.0 24.0 24.0	- - 19.0 19.0 20.0 20.0	- - 40.0 40.0 40.0 40.0	**PA/PF 52/12 63M6C / 63M6B**	95	212
	0.5 0.7 0.8 1.0 1.5	1985 1588 1292 1075 693	0.9 1.2 1.4 1.7 2.6	2635.45 2108.36 1715.38 1427.20 920.36	14.0 14.0 14.0 14.0 14.0	24.0 24.0 24.0 24.0 24.0	- - - 19.0 19.0	- - - 40.0 40.0	**PA/PF 51/12 63M4A**	95	212
	1.1 1.3 1.6 2.0	935 748 609 507	1.5 1.9 2.3 2.7	2635.45 2108.36 1715.38 1427.20	14.0 14.0 14.0 14.0	24.0 24.0 24.0 24.0	- - - 19.0	- - - 40.0	**PA/PF 52/12 63M2K**	95	212
	0.6 0.8 1.2 1.6 2.1 2.6	1670 1336 899 660 519 416	0.8 0.9 1.4 1.9 2.4 3.0	1393.57 1114.85 750.00 550.63 433.11 346.69	8.0 8.0 8.0 8.0 1.0 1.0	12.0 12.0 12.0 12.0 4.0 4.0	11.0 11.0 11.0 12.0 12.0 11.0	30.0 30.0 29.0 27.0 25.0 23.0	**PA/PF 42/12 63M6C / 63M6B**	66	212

P_1 [kW]	n_2 [Min^{-1}]	M_2 [Nm]	f_B	i_{ges}	F_R [N]	F_A [N]	$F_{R\,GR}$ [N]	$F_{A\,GR}$ [N]	Tip / Type / Typ IE2 / IE3	Kg	mm
0.12	0.9 1.0 1.3 1.9 2.5	1176 1049 840 565 415	1.0 1.1 1.4 2.1 2.9	1561.18 1393.57 1114.85 750.00 550.63	8.0 8.0 8.0 8.0 8.0	12.0 12.0 12.0 12.0 12.0	- 11.0 11.0 11.0 12.0	- 30.0 30.0 29.0 27.0	PA/PF 42/12 63M4A	66	212
	1.1 1.3 1.8 2.0 2.5	909 767 554 495 396	1.0 1.2 1.6 1.8 2.3	2560.48 2161.45 1561.18 1393.57 1114.85	8.0 8.0 8.0 8.0 8.0	12.0 12.0 12.0 12.0 12.0	- - - 11.0 11.0	- - - 30.0 30.0	PA/PF 42/12 63M2K	66	212
	1.3 1.6 2.0 2.5 3.4 4.2	839 665 535 435 320 258	0.8 1.0 1.2 1.5 2.0 2.5	699.71 554.87 446.08 362.93 267.35 215.28	5.0 5.0 5.0 5.0 5.0 5.0	9.0 9.0 9.0 9.0 9.0 9.0	9.0 8.0 9.0 - - -	25.0 25.0 25.0 - - -	PA/PF 32/12 63M6C / 63M6B	48	212
	1.3 1.6 2.0 2.5 3.1 3.9	814 654 527 418 336 273	0.8 0.9 1.2 1.5 1.8 2.3	1080.92 868.98 699.71 554.87 446.08 362.93	6.0 5.0 5.0 5.0 5.0 5.0	9.0 9.0 9.0 9.0 9.0 9.0	9.0 - 9.0 8.0 9.0 -	25.0 - 25.0 25.0 25.0 -	PA/PF 32/12 63M4A	48	212
	1.7 2.1 2.6 3.2 4.0 5.0 6.3	569 463 384 308 248 197 158	0.8 1.0 1.2 1.5 1.9 2.4 3.0	1602.89 1304.13 1080.92 868.98 699.71 554.87 446.08	6.0 6.0 6.0 5.0 5.0 5.0 6.0	9.0 9.0 9.0 9.0 9.0 9.0 9.0	- 9.0 9.0 - 9.0 8.0 9.0	- 25.0 25.0 - 25.0 25.0 25.0	PA/PF 32/12 63M2K	48	212
	1.5 1.7 2.1 2.7 3.6 4.3	712 637 512 413 302 252	0.9 1.1 1.4 1.7 2.3 2.8	585.48 523.81 421.10 339.07 248.21 206.97	6.0 6.0 7.0 7.0 7.0 7.0	9.0 9.0 9.0 9.0 9.0 9.0	9.0 9.0 9.0 9.0 9.0 9.0	25.0 25.0 25.0 25.0 24.0 23.0	PA/PF 33 63M6C / 63M6B	44	181
	1.9 2.1 2.4 2.7 3.3 4.1	570 510 451 403 324 261	1.0 1.1 1.4 1.7 2.1 2.5	740.46 662.46 585.48 523.81 421.10 339.07	6.0 6.0 6.0 6.0 7.0 7.0	9.0 9.0 9.0 9.0 9.0 9.0	9.0 9.0 9.0 9.0 9.0 9.0	25.0 25.0 25.0 25.0 25.0 25.0	PA/PF 33 63M4A	44	181
	3.8 4.2 4.8 5.3	272 244 215 193	1.6 1.7 2.2 2.7	740.46 662.46 585.48 523.81	6.0 6.0 6.0 6.0	9.0 9.0 9.0 9.0	9.0 9.0 9.0 9.0	25.0 25.0 25.0 25.0	PA/PF 33 63M2K	44	181
	2.6 3.2 3.8 5.4 6.7 7.7	413 341 286 200 162 141	0.9 1.0 1.2 1.8 2.2 2.5	344.50 284.14 238.88 167.14 135.06 117.62	4.0 4.0 4.0 4.0 1.0 1.0	6.0 6.0 6.0 6.0 4.0 4.0	7.0 7.0 - - - -	18.0 16.0 - - - -	PA/PF 22/02 63M6C / 63M6B	35	212
	2.5 3.2 4.1 4.9 5.9 8.4	416 334 259 214 180 126	0.8 1.0 1.3 1.6 1.9 2.7	552.93 444.02 344.50 284.14 238.88 167.14	4.0 4.0 4.0 4.0 4.0 4.0	6.0 6.0 6.0 6.0 6.0 6.0	- 6.0 7.0 7.0 - -	- 19.0 18.0 16.0 - -	PA/PF 22/02 63M4A	35	212
	3.2 4.1 5.1 6.3 8.1 9.9 11.7	313 242 196 158 122 101 85	0.8 1.1 1.3 1.6 2.1 2.6 3.0	881.08 682.53 552.93 444.02 344.50 284.14 238.88	4.0 4.0 4.0 4.0 4.0 4.0 4.0	6.0 6.0 6.0 6.0 6.0 6.0 6.0	6.0 - - 6.0 7.0 7.0 -	20.0 - - 19.0 18.0 16.0 -	PA/PF 22/02 63M2K	35	212

P_1 [kW]	n_2 [Min^{-1}]	M_2 [Nm]	f_B	i_{ges}	F_R [N]	F_A [N]	$F_{R\,GR}$ [N]	$F_{A\,GR}$ [N]	Tip / Type / Typ IE2 / IE3	Kg	mm
0.12	2.8 3.4 4.1 5.0 6.0 7.3 9.0	393 319 265 219 184 151 122	0.9 1.1 1.3 1.5 1.7 2.4 2.9	323.31 261.93 217.60 179.61 151.11 124.10 100.53	5.0 5.0 5.0 5.0 5.0 5.0 5.0	6.0 6.0 6.0 6.0 6.0 6.0 6.0	7.0 7.0 7.0 7.0 7.0 7.0 8.0	19.0 18.0 17.0 16.0 15.0 15.0 14.0	**PA/PF 23 63M6C / 63M6B**	32	177
	3.4 4.3 5.3 6.4 7.8 9.3	321 249 202 167 138 116	1.1 1.4 1.7 2.0 2.3 2.5	417.44 323.31 261.93 217.60 179.61 151.11	4.0 5.0 5.0 5.0 5.0 5.0	6.0 6.0 6.0 6.0 6.0 6.0	7.0 7.0 7.0 7.0 7.0 7.0	20.0 19.0 18.0 17.0 16.0 15.0	**PA/PF 23 63M4A**	32	177
	5.4 6.7 8.7 10.7	190 154 119 96	1.1 1.7 2.2 2.7	516.35 417.44 323.31 261.93	4.0 4.0 5.0 5.0	6.0 6.0 6.0 6.0	7.0 6.0 6.0 6.0	20.0 20.0 19.0 18.0	**PA/PF 23 63M2K**	32	177
	5.4 6.8 8.2 9.8	199 160 132 111	1.0 1.1 1.3 1.6	165.75 133.10 109.78 92.29	3.0 3.0 3.0 3.0	4.0 4.0 4.0 4.0	- 5.0 - -	- 11.0 - -	**PA/PF 12/02 63M6C / 63M6B**	23	212
	5.3 6.6 8.4 10.5 12.8 15.2	199 161 125 100 83 70	0.9 1.1 1.4 1.6 2.0 2.4	263.85 213.21 165.75 133.10 109.78 92.29	3.0 3.0 3.0 3.0 3.0 3.0	4.0 4.0 4.0 4.0 4.0 4.0	- 5.0 - 5.0 - -	- 13.0 - 11.0 - -	**PA/PF 12/02 63M4A**	23	212
	6.5 8.2 10.6 13.1 16.9 21.0	153 121 94 76 59 47	0.9 1.1 1.5 1.8 2.3 2.6	430.48 340.07 263.85 213.21 165.75 133.10	3.0 3.0 3.0 3.0 3.0 3.0	4.0 4.0 4.0 4.0 4.0 4.0	- - - 5.0 - 5.0	- - - 13.0 - 11.0	**PA/PF 12/02 63M2K**	23	212
	4.6 5.7 6.8 8.3 10.5 13.1	238 194 161 132 104 83	0.9 0.9 1.0 1.4 1.8 2.5	195.71 159.23 132.48 108.73 85.57 68.46	3.0 3.0 4.0 4.0 4.0 4.0	4.0 4.0 4.0 4.0 4.0 4.0	5.0 5.0 5.0 5.0 - -	14.0 13.0 12.0 12.0 - -	**PA/PF 13 63M6C / 63M6B**	20	173
	5.1 5.7 7.2 8.8 10.6 12.9 16.4	212 188 151 123 102 84 66	0.8 0.9 1.3 1.4 1.5 2.1 2.7	275.17 244.64 195.71 159.23 132.48 108.73 85.57	3.0 3.0 3.0 3.0 4.0 4.0 4.0	4.0 4.0 4.0 4.0 4.0 4.0 4.0	5.0 5.0 5.0 5.0 5.0 5.0 -	15.0 14.0 14.0 13.0 12.0 12.0 -	**PA/PF 13 63M4A**	20	173
	6.7 7.6 8.9 10.2 11.4 14.3 17.6 21.1	155 136 115 101 90 72 59 49	0.8 1.0 1.1 1.3 1.5 2.0 2.2 2.3	420.39 369.18 313.35 275.17 244.64 195.71 159.23 132.48	3.0 3.0 3.0 3.0 3.0 3.0 3.0 4.0	4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0	5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0	15.0 15.0 15.0 15.0 14.0 14.0 13.0 12.0	**PA/PF 13 63M2K**	20	173
	12.4 14.7 16.7	90 76 67	1.6 2.1 2.8	72.60 61.31 53.84	4.0 4.0 4.0	4.0 4.0 4.0	5.0 5.0 5.0	11.0 10.0 10.0	**PA/PF 12 63M6C / 63M6B**	15	172
	19.3	56	2.5	72.60	4.0	4.0	5.0	11.0	**PA/PF 12 63M4A**	15	172
	8.6 11.0 13.7	128 99 80	0.8 1.1 1.4	105.24 81.52 65.46	2.0 2.0 2.0	3.0 3.0 3.0	- 3.0 3.0	- 6.0 6.0	**PA/PF 03 63M6C / 63M6B**	17	169

P_1 [kW]	n_2 [Min^{-1}]	M_2 [Nm]	f_B	i_{ges}	F_R [N]	F_A [N]	$F_{R\,GR}$ [N]	$F_{A\,GR}$ [N]	Tip / Type / Typ IE2 / IE3	Kg	mm
0.12	8.2 9.3 11.2 13.3 17.2 21.4	131 116 96 81 63 50	0.8 0.9 1.1 1.2 1.7 2.2	170.56 151.24 124.74 105.24 81.52 65.46	2.0 2.0 2.0 2.0 2.0 2.0	3.0 3.0 3.0 3.0 3.0 3.0	3.0 3.0 3.0 - 3.0 3.0	6.0 6.0 6.0 - 6.0 6.0	PA/PF 03 63M4A	17	169
	13.2 16.4 18.5 22.4 26.6 34.3	78 63 56 46 39 30	1.0 1.3 1.5 1.8 1.9 2.7	212.39 170.56 151.24 124.74 105.24 81.52	2.0 2.0 2.0 2.0 2.0 2.0	3.0 3.0 3.0 3.0 3.0 3.0	3.0 3.0 3.0 3.0 - 3.0	6.0 6.0 6.0 6.0 - 6.0	PA/PF 03 63M2K	17	169
	12.3 14.7 16.8 21.7 27.0 32.7 38.9	90 76 66 51 41 34 29	1.0 1.2 1.4 2.0 2.4 2.7 2.9	73.03 61.24 53.64 41.56 33.37 27.52 23.14	2.0 2.0 2.0 2.0 2.0 2.0 2.0	3.0 3.0 3.0 3.0 3.0 3.0 3.0	3.0 3.0 3.0 3.0 3.0 3.0 3.0	6.0 6.0 6.0 6.0 6.0 6.0 6.0	PA/PF 02 63M6C / 63M6B	13	168
	19.2 22.9 26.1 33.7	57 48 42 33	1.6 1.8 2.1 3.0	73.03 61.24 53.64 41.56	2.0 2.0 2.0 2.0	3.0 3.0 3.0 3.0	3.0 3.0 3.0 3.0	6.0 6.0 6.0 6.0	PA/PF 02 63M4A	13	168
	38.3 45.7	28 23	2.4 2.9	73.03 61.24	2.0 2.0	3.0 3.0	3.0 3.0	6.0 6.0	PA/PF 02 63M2K	13	168
0.18	0.1 0.1 0.1 0.1 0.2 0.2	25074 19701 14776 12482 10112 7368	0.8 1.1 1.4 1.7 2.1 2.9	14373.83 11293.72 8470.29 7155.29 5796.64 4223.52	81.0 81.0 81.0 81.0 81.0 81.0	66.0 66.0 66.0 66.0 66.0 66.0	- - - - - -	- - - - - -	PA/PF 103/53 71M6B / 71M6A	816	218
	0.1 0.1 0.2 0.2 0.2 0.3	14874 12122 10067 7502 6508 4736	0.9 1.1 1.3 1.7 2.0 2.7	8526.73 6948.97 5771.01 4300.67 3730.70 2714.80	66.0 66.0 66.0 66.0 66.0 66.0	80.0 80.0 80.0 80.0 80.0 80.0	- - - - - -	- - - - - -	PA/PF 93/43 71M6B / 71M6A	564	218
	0.2 0.2	9477 7935	0.9 1.1	5432.52 4548.59	44.0 44.0	65.0 65.0	- -	- -	PA/PF 83/33 71M6B / 71M6A	364	218
	0.2 0.2 0.3 0.3	9262 7489 5870 4915	0.9 1.1 1.4 1.6	8572.29 6931.18 5432.52 4548.59	44.0 44.0 44.0 44.0	65.0 65.0 65.0 65.0	- - - -	- - - -	PA/PF 83/33 63M4B	361	218
	0.2 0.3 0.3 0.4 0.5 0.6	6340 5383 4250 3436 2693 2255	1.0 1.1 1.4 1.8 2.3 2.7	12787.88 10858.81 8572.29 6931.18 5432.52 4548.59	44.0 44.0 44.0 44.0 44.0 44.0	65.0 65.0 65.0 65.0 65.0 65.0	- - - - - -	- - - - - -	PA/PF 83/33 63M2A	361	218
	0.5	2981	2.8	1683.27	44.0	65.0	-	-	PA/PF 83/32 71M6B / 71M6A	355	214
	0.3 0.3	5925 4786	0.8 1.0	5483.87 4429.50	28.0 28.0	39.0 39.0	- -	- -	PA/PF 73/23 63M4B	242	218
	0.3 0.4 0.5 0.6	4048 3273 2719 2196	0.9 1.2 1.4 1.7	8164.87 6600.95 5483.87 4429.50	28.0 28.0 28.0 28.0	39.0 39.0 39.0 39.0	- - - -	- - - -	PA/PF 73/23 63M2A	242	218
	0.3 0.3 0.7 0.8	6081 4912 2218 1943	0.9 1.1 2.4 2.7	3433.54 2773.38 1252.41 1097.40	11.0 11.0 11.0 11.0	3.0 3.0 3.0 3.0	- - 39.0 39.0	- - 50.0 50.0	PA/PF 73/22 71M6B / 71M6A	237	214
	0.4 0.5 0.6 0.8	3772 2927 2461 1860	0.9 1.1 1.4 1.8	2162.48 1677.79 1410.80 1066.44	20.0 20.0 20.0 20.0	45.0 45.0 45.0 45.0	- - 27.0 28.0	- - 45.0 45.0	PA/PF 63/23 71M6B / 71M6A	164	218

P_1 [kW]	n_2 [Min^{-1}]	M_2 [Nm]	f_B	i_{ges}	F_R [N]	F_A [N]	$F_{R\,GR}$ [N]	$F_{A\,GR}$ [N]	Tip / Type / Typ IE2 / IE3	Kg	mm
0.18	0.4	3664	0.9	3390.53	20.0	45.0	-	-	PA/PF 63/23 63M4B	161	218
	0.5	3044	1.1	2816.75	20.0	45.0	-	-			
	0.6	2337	1.4	2162.48	20.0	45.0	-	-			
	0.8	1813	1.8	1677.79	20.0	45.0	-	-			
	1.0	1524	2.1	1410.80	20.0	45.0	27.0	45.0			
	1.3	1152	2.8	1066.44	20.0	45.0	28.0	45.0			
	0.5	2674	0.9	5394.24	20.0	45.0	-	-	PA/PF 63/23 63M2A	161	218
	0.6	2167	1.1	4370.02	20.0	45.0	-	-			
	0.8	1681	1.4	3390.53	20.0	45.0	-	-			
	1.0	1396	1.7	2816.75	20.0	45.0	-	-			
	1.3	1072	2.3	2162.48	20.0	45.0	-	-			
	1.7	832	2.9	1677.79	20.0	45.0	-	-			
	1.1	1507	2.2	851.02	14.0	7.0	27.0	45.0	PA/PF 63/22 71M6B / 71M6A	156	214
	1.2	1289	2.6	727.77	14.0	7.0	28.0	45.0			
	0.8	2056	0.9	1143.76	14.0	24.0	-	-	PA/PF 52/12 71M6B / 71M6A	98	212
	1.0	1655	1.2	920.36	14.0	24.0	19.0	40.0			
	1.3	1241	1.5	690.27	14.0	24.0	20.0	40.0			
	1.7	975	2.0	542.36	14.0	24.0	20.0	40.0			
	1.8	884	2.2	491.74	14.0	24.0	20.0	40.0			
	2.5	637	3.0	354.34	14.0	24.0	-	-			
	0.7	2382	0.8	2108.36	13.0	24.0	-	-	PA/PF 52/12 63M4B	95	212
	0.8	1938	0.9	1715.38	13.0	24.0	-	-			
	1.0	1612	1.1	1427.20	13.0	24.0	19.0	40.0			
	1.5	1040	1.8	920.36	14.0	24.0	19.0	40.0			
	2.0	780	2.3	690.27	14.0	24.0	19.0	40.0			
	2.6	613	3.0	542.36	14.0	24.0	20.0	40.0			
	1.1	1403	1.0	2635.45	13.0	24.0	-	-	PA/PF 52/12 63M2A	95	212
	1.3	1122	1.2	2108.36	13.0	24.0	-	-			
	1.6	913	1.5	1715.38	13.0	24.0	-	-			
	2.0	760	1.8	1427.20	13.0	24.0	19.0	40.0			
	3.0	490	2.8	920.36	14.0	24.0	19.0	40.0			
	1.2	1348	0.9	750.00	8.0	12.0	11.0	27.0	PA/PF 42/12 71M6B / 71M6A	69	212
	1.3	1206	1.0	670.92	8.0	12.0	9.0	22.0			
	1.6	990	1.3	550.63	8.0	12.0	11.0	26.0			
	2.1	779	1.6	433.11	8.0	12.0	11.0	24.0			
	2.6	623	2.0	346.69	8.0	12.0	11.0	23.0			
	3.3	497	2.5	276.49	8.0	12.0	12.0	22.0			
	1.0	1574	0.8	1393.57	5.0	12.0	9.0	30.0	PA/PF 42/12 63M4B	66	212
	1.3	1259	1.0	1114.85	6.0	12.0	10.0	29.0			
	1.9	847	1.4	750.00	8.0	12.0	11.0	27.0			
	2.5	622	1.9	550.63	8.0	12.0	11.0	26.0			
	3.2	489	2.5	433.11	8.0	12.0	11.0	24.0			
	1.3	1151	0.8	2161.45	5.0	12.0	-	-	PA/PF 42/12 63M2A	66	212
	1.8	831	1.1	1561.18	5.0	12.0	-	-			
	2.0	742	1.2	1393.57	5.0	12.0	9.0	30.0			
	2.5	594	1.5	1114.85	6.0	12.0	10.0	29.0			
	3.7	399	2.3	750.00	8.0	12.0	11.0	27.0			
	1.2	1394	0.8	763.70	8.0	12.0	10.0	25.0	PA/PF 43 71M6B / 71M6A	68	185
	1.5	1129	1.0	618.49	8.0	12.0	10.0	24.0			
	1.7	964	1.1	528.04	8.0	12.0	11.0	23.0			
	2.1	769	1.6	421.21	8.0	12.0	11.0	22.0			
	2.5	656	2.1	359.61	8.0	12.0	11.0	22.0			
	3.0	545	2.2	298.65	8.0	12.0	11.0	21.0			
	3.4	482	2.8	264.02	8.0	12.0	11.0	20.0			
	2.0	802	0.8	446.08	5.0	9.0	9.0	25.0	PA/PF 32/12 71M6B / 71M6A	51	212
	2.5	653	1.0	362.93	5.0	9.0	-	-			
	3.4	481	1.4	267.35	5.0	9.0	9.0	22.0			
	4.2	387	1.7	215.28	5.0	9.0	-	-			
	5.4	301	2.2	167.16	6.0	9.0	-	-			
	6.1	266	2.4	148.00	6.0	9.0	-	-			
	7.1	227	2.9	126.22	6.0	9.0	-	-			
	2.0	790	0.8	699.71	6.0	9.0	9.0	25.0	PA/PF 32/12 63M4B	48	212
	2.5	627	1.0	554.87	5.0	9.0	8.0	25.0			
	3.1	504	1.2	446.08	5.0	9.0	9.0	25.0			
	3.9	410	1.5	362.93	5.0	9.0	-	-			
	5.2	302	2.1	267.35	5.0	9.0	9.0	22.0			
	6.5	243	2.5	215.28	5.0	9.0	-	-			

P_1 [kW]	n_2 [Min^{-1}]	M_2 [Nm]	f_B	i_{ges}	F_R [N]	F_A [N]	$F_{R\,GR}$ [N]	$F_{A\,GR}$ [N]	Tip / Type / Typ IE2 / IE3	Kg	mm
0.18	2.6	575	0.8	1080.92	6.0	9.0	9.0	25.0	PA/PF 32/12 63M2A	48	212
	3.2	463	1.0	868.98	6.0	9.0	-	-			
	4.0	373	1.3	699.71	6.0	9.0	9.0	25.0			
	5.0	295	1.6	554.87	5.0	9.0	8.0	25.0			
	6.3	237	2.0	446.08	5.0	9.0	9.0	25.0			
	7.7	193	2.4	362.93	5.0	9.0	-	-			
	2.1	769	0.9	421.10	6.0	9.0	9.0	25.0	PA/PF 33 71M6B / 71M6A	47	181
	2.7	619	1.1	339.07	7.0	9.0	9.0	25.0			
	3.6	453	1.6	248.21	7.0	9.0	9.0	23.0			
	4.3	378	1.9	206.97	7.0	9.0	9.0	22.0			
	5.4	304	2.3	166.39	6.0	9.0	9.0	21.0			
	6.7	245	2.8	133.98	6.0	9.0	9.0	20.0			
	8.0	205	2.8	112.18	6.0	9.0	-	-			
	2.4	676	0.9	585.48	6.0	9.0	9.0	25.0	PA/PF 33 63M4B	44	181
	2.7	605	1.1	523.81	6.0	9.0	9.0	25.0			
	3.3	486	1.4	421.10	6.0	9.0	9.0	25.0			
	4.1	391	1.7	339.07	7.0	9.0	9.0	25.0			
	5.6	286	2.3	248.21	7.0	9.0	9.0	23.0			
	6.8	239	2.8	206.97	7.0	9.0	9.0	22.0			
	3.8	409	1.1	740.46	6.0	9.0	9.0	25.0	PA/PF 33 63M2A	44	181
	4.2	365	1.2	662.46	6.0	9.0	9.0	25.0			
	4.8	323	1.5	585.48	6.0	9.0	9.0	25.0			
	5.3	289	1.8	523.81	6.0	9.0	9.0	25.0			
	6.6	232	2.2	421.10	6.0	9.0	9.0	25.0			
	8.3	187	2.6	339.07	7.0	9.0	9.0	25.0			
	3.8	429	0.8	238.88	4.0	6.0	-	-	PA/PF 22/02 71M6B / 71M6A	38	212
	5.4	301	1.2	167.14	4.0	6.0	7.0	14.0			
	6.7	243	1.5	135.06	4.0	6.0	7.0	13.0			
	7.7	211	1.7	117.62	4.0	6.0	-	-			
	4.1	389	0.9	344.50	4.0	6.0	7.0	18.0	PA/PF 22/02 63M4B	35	212
	4.9	321	1.1	284.14	4.0	6.0	7.0	16.0			
	5.9	270	1.3	238.88	4.0	6.0	-	-			
	8.4	189	1.8	167.14	4.0	6.0	7.0	14.0			
	10.4	153	2.2	135.06	4.0	6.0	7.0	13.0			
	11.9	133	2.6	117.62	4.0	6.0	-	-			
	5.1	294	0.9	552.93	4.0	6.0	-	-	PA/PF 22/02 63M2A	35	212
	6.3	236	1.1	444.02	4.0	6.0	6.0	19.0			
	8.1	183	1.4	344.50	4.0	6.0	7.0	18.0			
	9.9	151	1.7	284.14	4.0	6.0	7.0	16.0			
	11.7	127	2.0	238.88	4.0	6.0	-	-			
	16.8	89	2.9	167.14	4.0	6.0	7.0	14.0			
	4.1	397	0.9	217.60	5.0	6.0	7.0	16.0	PA/PF 23 71M6B / 71M6A	33	177
	5.0	328	1.0	179.61	5.0	6.0	7.0	15.0			
	6.0	276	1.1	151.11	5.0	6.0	7.0	15.0			
	7.3	227	1.6	124.10	4.0	6.0	7.0	15.0			
	9.0	184	1.9	100.53	4.0	6.0	8.0	14.0			
	10.2	161	2.2	88.24	4.0	6.0	7.0	12.0			
	11.5	142	2.5	78.00	4.0	6.0	7.0	12.0			
	13.9	118	3.0	64.80	4.0	6.0	7.0	11.0			
	4.3	373	0.9	323.31	4.0	6.0	7.0	17.0	PA/PF 23 63M4B	32	177
	5.3	302	1.1	261.93	5.0	6.0	7.0	17.0			
	6.4	251	1.4	217.60	5.0	6.0	7.0	16.0			
	7.8	207	1.5	179.61	5.0	6.0	7.0	15.0			
	9.3	174	1.7	151.11	5.0	6.0	7.0	15.0			
	11.3	143	2.4	124.10	4.0	6.0	7.0	15.0			
	13.9	116	2.9	100.53	4.0	6.0	8.0	14.0			
	6.7	230	1.1	417.44	4.0	6.0	7.0	20.0	PA/PF 23 63M2A	32	177
	8.7	178	1.4	323.31	4.0	6.0	7.0	17.0			
	10.7	145	1.8	261.93	5.0	6.0	7.0	17.0			
	12.9	120	2.2	217.60	5.0	6.0	7.0	16.0			
	15.6	99	2.4	179.61	5.0	6.0	7.0	15.0			
	18.5	83	2.7	151.11	5.0	6.0	7.0	15.0			
	10.4	160	1.6	86.26	5.0	6.0	7.0	13.0	PA/PF 22 71M6B / 71M6A	27	176
	12.9	129	2.1	69.74	5.0	6.0	7.0	13.0			
	8.2	197	0.9	109.78	3.0	4.0	-	-	PA/PF 12/02 71M6B / 71M6A	23	212
	9.8	166	1.0	92.29	3.0	4.0	5.0	10.0			

P_1 [kW]	n_2 [Min^{-1}]	M_2 [Nm]	f_B	i_{ges}	F_R [N]	F_A [N]	$F_{R\,GR}$ [N]	$F_{A\,GR}$ [N]	Tip / Type / Typ IE2 / IE3	Kg	mm
0.18	8.4 10.5 12.8 15.2	187 150 124 104	1.0 1.1 1.3 1.6	165.75 133.10 109.78 92.29	3.0 3.0 3.0 3.0	4.0 4.0 4.0 4.0	- 5.0 - 5.0	- 11.0 - 10.0	PA/PF 12/02 63M4B	23	212
	8.2 10.6 13.1 16.9 21.0 25.5 30.3	181 140 114 88 71 58 49	0.8 1.0 1.2 1.6 1.8 2.1 2.5	340.07 263.85 213.21 165.75 133.10 109.78 92.29	3.0 3.0 3.0 3.0 3.0 3.0 3.0	4.0 4.0 4.0 4.0 4.0 4.0 4.0	- - 5.0 - 5.0 - 5.0	- - 13.0 - 11.0 - 10.0	PA/PF 12/02 63M2A	23	212
	8.3 10.5 13.1	198 156 125	0.9 1.2 1.6	108.73 85.57 68.46	3.0 3.0 3.0	4.0 4.0 4.0	5.0 5.0 5.0	11.0 10.0 9.0	PA/PF 13 71M6B / 71M6A	23	173
	7.2 8.8 10.6 12.9 16.4 20.4	226 184 153 125 99 79	0.9 0.9 1.0 1.4 1.8 2.5	195.71 159.23 132.48 108.73 85.57 68.46	3.0 3.0 3.0 3.0 3.0 3.0	4.0 4.0 4.0 4.0 4.0 4.0	4.0 4.0 5.0 5.0 5.0 5.0	13.0 13.0 12.0 11.0 10.0 9.0	PA/PF 13 63M4B	20	173
	10.2 11.4 14.3 17.6 21.1 25.8 32.7	152 135 108 88 73 60 47	0.9 1.0 1.4 1.4 1.5 2.2 2.8	275.17 244.64 195.71 159.23 132.48 108.73 85.57	3.0 3.0 3.0 3.0 3.0 3.0 3.0	4.0 4.0 4.0 4.0 4.0 4.0 4.0	5.0 5.0 4.0 4.0 5.0 5.0 5.0	15.0 14.0 13.0 13.0 12.0 11.0 10.0	PA/PF 13 63M2A	20	173
	12.4 14.7 16.7 18.8 20.9 23.5 25.7 28.9 30.9 34.7	135 114 100 89 80 71 65 58 54 48	1.1 1.4 1.9 2.1 2.1 2.7 2.4 3.0 2.4 3.0	72.60 61.31 53.84 47.86 43.07 38.29 35.04 31.15 29.16 25.92	4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0	4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0	5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0	10.0 10.0 10.0 9.0 9.0 8.0 9.0 8.0 8.0 8.0	PA/PF 12 71M6B / 71M6A	18	172
	19.3 22.8 26.0	84 71 62	1.7 2.2 2.8	72.60 61.31 53.84	4.0 4.0 4.0	4.0 4.0 4.0	5.0 5.0 5.0	10.0 10.0 10.0	PA/PF 12 63M4B	15	172
	38.6	42	2.5	72.60	4.0	4.0	5.0	10.0	PA/PF 12 63M2A	15	172
	111.1	15	2.1	8.10	-	-	-	-	PA/PF 11 71M6B / 71M6A	15	158
	153.7	11	2.1	9.11	-	4.0	-	-	PA/PF 11 63M4B	11	158
	13.7	119	1.0	65.46	2.0	3.0	3.0	6.0	PA/PF 03 71M6B / 71M6A	20	169
	13.3 17.2 21.4	121 94 76	0.8 1.1 1.5	105.24 81.52 65.46	2.0 2.0 2.0	3.0 3.0 3.0	- 3.0 3.0	- 6.0 6.0	PA/PF 03 63M4B	17	169
	16.4 18.5 22.4 26.6 34.3 42.8	94 83 69 58 45 36	0.9 1.0 1.2 1.2 1.8 2.3	170.56 151.24 124.74 105.24 81.52 65.46	2.0 2.0 2.0 2.0 2.0 2.0	3.0 3.0 3.0 2.0 3.0 3.0	3.0 3.0 3.0 - 3.0 3.0	6.0 6.0 6.0 - 6.0 6.0	PA/PF 03 63M2A	17	169
	14.7 16.8 21.7 27.0 30.4 32.7 36.9 38.9 43.7 56.4	113 99 77 62 55 51 45 43 38 30	0.8 0.9 1.3 1.6 1.8 1.8 2.1 1.9 2.0 2.6	61.24 53.64 41.56 33.37 29.59 27.52 24.41 23.14 20.59 15.95	2.0 2.0 2.0 2.0 2.0 2.0 2.0 2.0 2.0 2.0	3.0 3.0 3.0 3.0 3.0 3.0 3.0 3.0 3.0 3.0	3.0 3.0 3.0 3.0 3.0 3.0 3.0 3.0 3.0 3.0	6.0 6.0 6.0 6.0 6.0 6.0 6.0 6.0 6.0 6.0	PA/PF 02 71M6B / 71M6A	17	168

P_1 [kW]	n_2 [Min^{-1}]	M_2 [Nm]	f_B	i_{ges}	F_R [N]	F_A [N]	$F_{R\,GR}$ [N]	$F_{A\,GR}$ [N]	Tip / Type / Typ IE2 / IE3	Kg	mm
0.18	19.2 22.9 26.1 33.7 42.0 50.9 60.5 68.0	86 72 63 49 39 32 27 24	1.0 1.2 1.4 2.0 2.4 2.7 2.9 3.0	73.03 61.24 53.64 41.56 33.37 27.52 23.14 20.59	2.0 2.0 2.0 2.0 2.0 2.0 2.0 2.0	3.0 3.0 3.0 3.0 3.0 3.0 3.0 3.0	3.0 3.0 3.0 3.0 3.0 3.0 3.0 3.0	6.0 6.0 6.0 6.0 6.0 6.0 6.0 6.0	PA/PF 02 63M4B	13	168
	38.3 45.7 52.2	42 35 31	1.6 1.9 2.2	73.03 61.24 53.64	2.0 2.0 2.0	3.0 3.0 3.0	3.0 3.0 3.0	6.0 6.0 6.0	PA/PF 02 63M2A	13	168
0.25	0.1 0.1 0.1 0.2 0.2 0.3	27362 20522 17336 14044 10233 8386	0.8 1.0 1.2 1.5 2.1 2.5	11293.72 8470.29 7155.29 5796.64 4223.52 3461.37	101.0 81.0 81.0 81.0 81.0 81.0	120.0 66.0 66.0 66.0 66.0 66.0	- - - - - -	- - - - - -	PA/PF 103/53 71M6C / 71M6D	816	218
	0.1 0.1 0.2 0.2 0.2 0.3	21571 16949 12711 10738 8699 6338	0.9 1.2 1.6 1.9 2.3 3.2	14373.83 11293.72 8470.29 7155.29 5796.64 4223.52	101.0 101.0 101.0 101.0 101.0 101.0	120.0 120.0 120.0 120.0 120.0 120.0	- - - - - -	- - - - - -	PA/PF 103/53 71M4A / 71M4B	816	218
	0.1 0.2 0.2 0.2 0.3 0.4	16836 13982 10420 9039 6577 5328	0.8 0.9 1.2 1.4 1.9 2.4	6948.97 5771.01 4300.67 3730.70 2714.80 2199.04	66.0 66.0 66.0 66.0 66.0 66.0	80.0 80.0 80.0 80.0 80.0 80.0	- - - - - -	- - - - - -	PA/PF 93/43 71M6C / 71M6D	564	218
	0.2 0.2 0.2 0.3 0.4 0.5	12796 10428 8661 6454 5599 4074	1.0 1.2 1.4 1.9 2.2 3.0	8526.73 6948.97 5771.01 4300.67 3730.70 2714.80	66.0 66.0 66.0 66.0 66.0 66.0	80.0 80.0 80.0 80.0 80.0 80.0	- - - - - -	- - - - - -	PA/PF 93/43 71M4A / 71M4B	564	218
	0.2	11020	0.8	4548.59	44.0	65.0	-	-	PA/PF 83/33 71M6C / 71M6D	364	218
	0.2 0.3 0.3	10402 8153 6826	0.8 1.0 1.2	6931.18 5432.52 4548.59	44.0 44.0 44.0	65.0 65.0 65.0	- - -	- - -	PA/PF 83/33 71M4A / 71M4B	364	218
	0.3 0.3 0.4 0.5 0.6	7477 5903 4773 3741 3132	0.8 1.0 1.3 1.6 1.9	10858.81 8572.29 6931.18 5432.52 4548.59	44.0 44.0 44.0 44.0 44.0	65.0 65.0 65.0 65.0 65.0	- - - - -	- - - - -	PA/PF 83/33 63M2B	361	218
	0.5 0.8	4140 2833	2.0 3.0	1683.27 1151.94	44.0 44.0	65.0 65.0	- 62.0	- 65.0	PA/PF 83/32 71M6C / 71M6D	355	214
	0.3	6647	0.8	4429.50	28.0	39.0	-	-	PA/PF 73/23 71M4A / 71M4B	245	218
	0.4 0.5 0.6	4545 3776 3050	0.8 1.0 1.2	6600.95 5483.87 4429.50	28.0 28.0 28.0	39.0 39.0 39.0	- - -	- - -	PA/PF 73/23 63M2B	242	218
	0.3 0.7 0.8 1.0 1.2	6822 3081 2699 2180 1811	0.8 1.7 1.9 2.4 2.9	2773.38 1252.41 1097.40 886.40 736.40	28.0 28.0 28.0 11.0 11.0	39.0 39.0 39.0 3.0 3.0	- 39.0 39.0 40.0 40.0	- 50.0 50.0 50.0 50.0	PA/PF 73/22 71M6C / 71M6D	237	214
	0.4 0.5 1.1 1.3	5270 4257 1922 1684	0.9 1.2 2.6 3.0	3433.54 2773.38 1252.41 1097.40	28.0 28.0 28.0 28.0	39.0 39.0 39.0 39.0	- - 39.0 39.0	- - 50.0 50.0	PA/PF 73/22 71M4A / 71M4B	237	214
	0.5 0.6 0.8	4065 3418 2584	0.8 1.0 1.3	1677.79 1410.80 1066.44	19.0 19.0 20.0	45.0 45.0 45.0	- 27.0 28.0	- 45.0 45.0	PA/PF 63/23 71M6C / 71M6D	164	218

P_1 [kW]	n_2 [Min^{-1}]	M_2 [Nm]	f_B	i_{ges}	F_R [N]	F_A [N]	$F_{R\,GR}$ [N]	$F_{A\,GR}$ [N]	Tip / Type / Typ IE2 / IE3	Kg	mm
0.25	0.5 0.6 0.8 1.0 1.3	4227 3245 2518 2117 1600	0.8 1.0 1.3 1.5 2.0	2816.75 2162.48 1677.79 1410.80 1066.44	19.0 19.0 19.0 19.0 20.0	45.0 45.0 45.0 45.0 45.0	- - - 27.0 28.0	- - - 45.0 45.0	PA/PF 63/23 71M4A / 71M4B	164	218
	0.6 0.8 1.0 1.3 1.7 2.0	3009 2335 1940 1489 1155 971	0.8 1.0 1.3 1.6 2.1 2.5	4370.02 3390.53 2816.75 2162.48 1677.79 1410.80	19.0 19.0 19.0 19.0 19.0 19.0	45.0 45.0 45.0 45.0 45.0 45.0	- - - - - 27.0	- - - - - 45.0	PA/PF 63/23 63M2B	161	218
	1.1 1.2 1.6	2093 1790 1363	1.6 1.9 2.5	851.02 727.77 554.24	20.0 20.0 14.0	41.0 41.0 7.0	27.0 28.0 28.0	45.0 45.0 45.0	PA/PF 63/22 71M6C / 71M6D	156	214
	1.6 1.9	1306 1117	2.4 2.9	851.02 727.77	20.0 20.0	41.0 41.0	27.0 28.0	45.0 45.0	PA/PF 63/22 71M4A / 71M4B	156	214
	1.0 1.3 1.7 1.8 2.5 3.2	2298 1724 1354 1228 885 707	0.8 1.1 1.4 1.6 2.2 2.7	920.36 690.27 542.36 491.74 354.34 283.16	13.0 14.0 14.0 14.0 13.0 13.0	24.0 24.0 24.0 24.0 24.0 24.0	19.0 19.0 20.0 20.0 - -	40.0 40.0 40.0 40.0 - -	PA/PF 52/12 71M6C / 71M6D	98	212
	1.0 1.2 1.5 2.0 2.6 2.8	2239 1794 1444 1083 851 772	0.8 1.0 1.3 1.7 2.2 2.4	1427.20 1143.76 920.36 690.27 542.36 491.74	11.0 13.0 13.0 14.0 14.0 14.0	24.0 24.0 24.0 24.0 24.0 24.0	18.0 - 19.0 19.0 20.0 20.0	40.0 - 40.0 40.0 40.0 40.0	PA/PF 52/12 71M4A / 71M4B	98	212
	1.3 1.6 2.0 3.0 4.1	1559 1268 1055 681 510	0.9 1.1 1.3 2.0 2.7	2108.36 1715.38 1427.20 920.36 690.27	11.0 11.0 11.0 13.0 14.0	24.0 24.0 24.0 24.0 24.0	- - 18.0 19.0 19.0	- - 40.0 40.0 40.0	PA/PF 52/12 63M2B	95	212
	1.3 1.6 2.1 2.6 3.3 3.9 5.3	1675 1375 1082 866 690 573 422	0.8 0.9 1.2 1.5 1.8 2.2 3.0	670.92 550.63 433.11 346.69 276.49 229.62 169.11	5.0 5.0 5.0 5.0 5.0 5.0 5.0	12.0 12.0 12.0 12.0 12.0 12.0 12.0	9.0 11.0 11.0 11.0 12.0 - -	22.0 26.0 24.0 23.0 22.0 - -	PA/PF 42/12 71M6C / 71M6D	69	212
	1.9 2.1 2.5 3.2 4.0 5.1	1177 1053 864 680 544 434	1.0 1.1 1.4 1.8 2.2 2.8	750.00 670.92 550.63 433.11 346.69 276.49	5.0 5.0 5.0 5.0 5.0 5.0	12.0 12.0 12.0 12.0 12.0 12.0	11.0 9.0 11.0 11.0 11.0 12.0	27.0 22.0 26.0 24.0 23.0 22.0	PA/PF 42/12 71M4A / 71M4B	69	212
	1.8 2.0 2.5 3.7 5.1 6.5	1154 1030 824 555 407 320	0.8 0.9 1.1 1.6 2.2 2.8	1561.18 1393.57 1114.85 750.00 550.63 433.11	5.0 5.0 5.0 5.0 5.0 5.0	12.0 12.0 12.0 12.0 12.0 12.0	- 9.0 10.0 11.0 11.0 11.0	- 30.0 29.0 27.0 26.0 24.0	PA/PF 42/12 63M2B	66	212
	1.7 2.1 2.5 3.0 3.4 4.1 4.9	1339 1068 912 757 669 556 464	0.8 1.2 1.5 1.6 2.0 2.3 2.3	528.04 421.21 359.61 298.65 264.02 219.26 182.86	7.0 8.0 8.0 8.0 8.0 8.0 8.0	12.0 12.0 12.0 12.0 12.0 12.0 12.0	11.0 11.0 11.0 11.0 11.0 11.0 12.0	23.0 22.0 22.0 21.0 20.0 19.0 19.0	PA/PF 43 71M6C / 71M6D	68	185
	1.8 2.3 2.7 3.3 3.9 4.7 5.3	1224 991 846 675 576 479 423	0.8 1.1 1.2 1.8 2.2 2.3 3.0	763.70 618.49 528.04 421.21 359.61 298.65 264.02	5.0 7.0 7.0 8.0 8.0 8.0 8.0	12.0 12.0 12.0 12.0 12.0 12.0 12.0	10.0 10.0 11.0 11.0 11.0 11.0 11.0	25.0 24.0 23.0 22.0 22.0 21.0 20.0	PA/PF 43 71M4A / 71M4B	68	185

P_1 [kW]	n_2 [Min^{-1}]	M_2 [Nm]	f_B	i_{ges}	F_R [N]	F_A [N]	$F_{R\,GR}$ [N]	$F_{A\,GR}$ [N]	Tip / Type / Typ IE2 / IE3	Kg	mm
0.25	3.4 4.2 5.4 6.1 7.1	668 538 417 370 315	1.0 1.2 1.6 1.8 2.1	267.35 215.28 167.16 148.00 126.22	5.0 5.0 5.0 5.0 6.0	9.0 9.0 9.0 9.0 9.0	9.0 9.0 - - -	22.0 19.0 - - -	PA/PF 32/12 71M6C / 71M6D	51	212
	3.1 3.9 5.2 6.5 8.4 9.5	700 569 419 338 262 232	0.9 1.1 1.5 1.8 2.4 2.7	446.08 362.93 267.35 215.28 167.16 148.00	6.0 5.0 5.0 5.0 5.0 5.0	9.0 9.0 9.0 9.0 9.0 9.0	9.0 - 9.0 9.0 - -	25.0 - 22.0 19.0 - -	PA/PF 32/12 71M4A / 71M4B	51	212
	4.0 5.0 6.3 7.7 10.5 13.0	517 410 330 268 198 159	0.9 1.1 1.4 1.8 2.4 3.0	699.71 554.87 446.08 362.93 267.35 215.28	6.0 6.0 6.0 5.0 5.0 5.0	9.0 9.0 9.0 9.0 9.0 9.0	9.0 8.0 9.0 - 9.0 9.0	25.0 25.0 25.0 - 22.0 19.0	PA/PF 32/12 63M2B	48	212
	2.7 3.6 4.3 5.4 6.7 8.0 10.2	860 629 525 422 340 284 224	0.8 1.1 1.3 1.7 2.0 2.0 2.5	339.07 248.21 206.97 166.39 133.98 112.18 88.29	6.0 7.0 7.0 7.0 7.0 6.0 6.0	9.0 9.0 9.0 9.0 9.0 9.0 9.0	9.0 9.0 9.0 9.0 9.0 - -	23.0 22.0 21.0 20.0 19.0 - -	PA/PF 33 71M6C / 71M6D	47	181
	2.7 3.3 4.1 5.6 6.8 8.4 10.4 12.5	840 675 544 398 332 267 215 180	0.8 1.0 1.2 1.7 2.0 2.5 3.0 3.0	523.81 421.10 339.07 248.21 206.97 166.39 133.98 112.18	6.0 6.0 6.0 7.0 7.0 7.0 7.0 6.0	9.0 9.0 9.0 9.0 9.0 9.0 9.0 9.0	9.0 9.0 9.0 9.0 9.0 9.0 9.0 -	25.0 24.0 23.0 22.0 21.0 20.0 19.0 -	PA/PF 33 71M4A / 71M4B	47	181
	3.8 4.2 4.8 5.3 6.6 8.3 11.3	567 508 449 401 323 260 190	0.8 0.8 1.1 1.3 1.6 1.9 2.7	740.46 662.46 585.48 523.81 421.10 339.07 248.21	6.0 6.0 6.0 6.0 6.0 6.0 7.0	9.0 9.0 9.0 9.0 9.0 9.0 9.0	9.0 9.0 9.0 9.0 9.0 9.0 9.0	25.0 25.0 25.0 25.0 24.0 23.0 22.0	PA/PF 33 63M2B	44	181
	11.1	209	2.6	81.27	7.0	9.0	10.0	17.0	PA/PF 32 71M6C / 71M6D	38	180
	5.4 6.7 7.7	417 337 294	0.9 1.1 1.2	167.14 135.06 117.62	4.0 4.0 4.0	6.0 6.0 6.0	7.0 7.0 7.0	14.0 13.0 12.0	PA/PF 22/02 71M6C / 71M6D	38	212
	4.9 5.9 8.4 10.4 11.9	446 375 262 212 185	0.8 0.9 1.3 1.6 1.8	284.14 238.88 167.14 135.06 117.62	4.0 4.0 4.0 4.0 4.0	6.0 6.0 6.0 6.0 6.0	7.0 - 7.0 7.0 7.0	16.0 - 14.0 13.0 12.0	PA/PF 22/02 71M4A / 71M4B	38	212
	6.3 8.1 9.9 11.7 16.8 20.7 23.8	328 255 210 177 124 100 87	0.8 1.0 1.2 1.5 2.1 2.6 3.0	444.02 344.50 284.14 238.88 167.14 135.06 117.62	4.0 4.0 4.0 4.0 4.0 4.0 4.0	6.0 6.0 6.0 6.0 6.0 6.0 6.0	6.0 7.0 7.0 - 7.0 7.0 7.0	19.0 18.0 16.0 - 14.0 13.0 12.0	PA/PF 22/02 63M2B	35	212
	6.0 7.3 9.0 10.2 11.5 13.9	383 315 255 224 198 164	0.8 1.1 1.4 1.6 1.8 2.2	151.11 124.10 100.53 88.24 78.00 64.80	5.0 4.0 4.0 4.0 4.0 4.0	6.0 6.0 6.0 6.0 6.0 6.0	7.0 7.0 7.0 7.0 7.0 7.0	14.0 13.0 12.0 12.0 12.0 11.0	PA/PF 23 71M6C / 71M6D	33	177

P_1 [kW]	n_2 [Min^{-1}]	M_2 [Nm]	f_B	i_{ges}	F_R [N]	F_A [N]	$F_{R\,GR}$ [N]	$F_{A\,GR}$ [N]	Tip / Type / Typ IE2 / IE3	Kg	mm
0.25	5.3 6.4 7.8 9.3 11.3 13.9 15.9 17.9	420 349 288 242 199 161 141 125	0.8 1.0 1.1 1.2 1.7 2.1 2.4 2.7	261.93 217.60 179.61 151.11 124.10 100.53 88.24 78.00	4.0 4.0 5.0 5.0 4.0 4.0 4.0 4.0	6.0 6.0 6.0 6.0 6.0 6.0 6.0 6.0	6.0 7.0 7.0 7.0 7.0 8.0 7.0 7.0	16.0 15.0 15.0 14.0 15.0 14.0 12.0 12.0	**PA/PF 23 71M4A / 71M4B**	33	173
	6.7 8.7 10.7 12.9 15.6 18.5 22.6	320 248 201 167 138 116 95	0.8 1.0 1.3 1.5 1.7 1.9 2.7	417.44 323.31 261.93 217.60 179.61 151.11 124.10	4.0 4.0 4.0 4.0 5.0 5.0 4.0	6.0 6.0 6.0 6.0 6.0 6.0 6.0	7.0 7.0 6.0 7.0 7.0 7.0 7.0	20.0 17.0 16.0 15.0 15.0 14.0 13.0	**PA/PF 23 63M2B**	32	173
	10.4 12.9 16.3 19.6	222 179 142 118	1.2 1.5 2.4 2.6	86.26 69.74 55.25 45.90	5.0 5.0 5.0 5.0	6.0 6.0 6.0 6.0	7.0 7.0 8.0 8.0	13.0 13.0 11.0 11.0	**PA/PF 22 71M6C / 71M6D**	27	172
	16.2 20.1	141 114	1.8 2.3	86.26 69.74	5.0 5.0	6.0 6.0	7.0 7.0	13.0 13.0	**PA/PF 22 71M4A / 71M4B**	27	172
	88.2	27	1.6	10.20	-	-	-	-	**PA/PF 21 71M6C / 71M6D**	29	160
	137.3	17	2.3	10.20	-	4.0	-	-	**PA/PF 21 71M4A / 71M4B**	29	160
	10.5 12.8 15.2	209 172 145	0.8 1.0 1.1	133.10 109.78 92.29	3.0 3.0 3.0	4.0 4.0 4.0	5.0 - 5.0	11.0 - 10.0	**PA/PF 12/02 71M4A / 71M4B**	26	212
	13.1 16.9 21.0 25.5 30.3	158 123 98 81 68	0.9 1.1 1.3 1.5 1.8	213.21 165.75 133.10 109.78 92.29	3.0 3.0 3.0 3.0 3.0	4.0 4.0 4.0 4.0 4.0	5.0 - 5.0 - 5.0	13.0 - 11.0 - 10.0	**PA/PF 12/02 63M2B**	23	212
	10.5 13.1	217 174	0.9 1.2	85.57 68.46	3.0 3.0	4.0 4.0	5.0 5.0	10.0 9.0	**PA/PF 13 71M6C / 71M6D**	23	173
	12.9 16.4 20.4	174 137 110	1.0 1.3 1.8	108.73 85.57 68.46	3.0 3.0 3.0	4.0 4.0 4.0	5.0 5.0 5.0	11.0 10.0 9.0	**PA/PF 13 71M4A / 71M4B**	23	173
	14.3 17.6 21.1 25.8 32.7 40.9	150 122 102 83 66 52	1.0 1.0 1.1 1.6 2.0 2.8	195.71 159.23 132.48 108.73 85.57 68.46	3.0 3.0 3.0 3.0 3.0 3.0	4.0 4.0 4.0 4.0 4.0 4.0	4.0 4.0 5.0 5.0 5.0 5.0	13.0 13.0 12.0 11.0 10.0 9.0	**PA/PF 13 63M2B**	20	173
	12.4 14.7 16.7 18.8 20.9 23.5 25.7 28.9 30.9 34.7	187 158 139 123 111 99 90 80 75 67	0.8 1.0 1.3 1.5 1.5 2.0 1.7 2.2 1.7 2.2	72.60 61.31 53.84 47.86 43.07 38.29 35.04 31.15 29.16 25.92	4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0	4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0	5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0	10.0 10.0 9.0 9.0 9.0 8.0 8.0 8.0 8.0 8.0	**PA/PF 12 71M6C / 71M6D**	18	172
	19.3 22.8 26.0 29.3 32.5 36.6 40.0 48.0	116 98 86 77 69 61 56 47	1.2 1.6 2.0 2.3 2.3 3.0 2.7 2.7	72.60 61.31 53.84 47.86 43.07 38.29 35.04 29.16	4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0	4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0	5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0	10.0 10.0 9.0 9.0 9.0 8.0 8.0 8.0	**PA/PF 12 71M4A / 71M4B**	18	172
	38.6 45.7	58 49	1.8 2.4	72.60 61.31	4.0 4.0	4.0 4.0	5.0 5.0	10.0 10.0	**PA/PF 12 63M2B**	15	172

P_1 [kW]	n_2 [Min^{-1}]	M_2 [Nm]	f_B	i_{ges}	F_R [N]	F_A [N]	$F_{R\,GR}$ [N]	$F_{A\,GR}$ [N]	Tip / Type / Typ IE2 / IE3	Kg	mm
0.25	111.1	21	1.5	8.10	-	-	-	-	PA/PF 11 71M6C / 71M6D	15	158
	153.7 172.8	15 14	1.5 2.2	9.11 8.10	- -	4.0 4.0	- -	- -	PA/PF 11 71M4A / 71M4B	15	158
	307.4	7	2.3	9.11	-	-	-	-	PA/PF 11 63M2B	11	158
	17.2 21.4	131 105	0.8 1.0	81.52 65.46	2.0 2.0	3.0 3.0	3.0 3.0	6.0 6.0	PA/PF 03 71M4A / 71M4B	20	169
	22.4 26.6 34.3 42.8	96 81 62 50	0.8 0.9 1.3 1.7	124.74 105.24 81.52 65.46	2.0 2.0 2.0 2.0	3.0 3.0 3.0 3.0	3.0 - 3.0 3.0	6.0 - 6.0 6.0	PA/PF 03 63M2B	17	169
	21.7 27.0 30.4 32.7 36.9 38.9 43.7 56.4 70.3 80.1 90.5 97.1	107 86 76 71 63 60 53 41 33 29 26 24	1.0 1.2 1.3 1.3 1.5 1.4 1.5 1.8 2.2 2.4 2.6 2.9	41.56 33.37 29.59 27.52 24.41 23.14 20.59 15.95 12.81 11.24 9.94 9.27	2.0 2.0 2.0 2.0 2.0 2.0 2.0 2.0 2.0 2.0 2.0 2.0	3.0 3.0 3.0 3.0 3.0 3.0 3.0 3.0 3.0 3.0 3.0 3.0	3.0 3.0 3.0 3.0 3.0 3.0 3.0 3.0 3.0 3.0 3.0 3.0	6.0 6.0 6.0 6.0 6.0 6.0 6.0 6.0 5.0 5.0 5.0 5.0	PA/PF 02 71M6C / 71M6D	17	168
	22.9 26.1 33.7 42.0 47.3 50.9 57.4 60.5 68.0 87.8	100 88 68 55 48 45 40 38 34 26	0.9 1.0 1.5 1.8 1.9 1.9 2.2 2.1 2.2 2.8	61.24 53.64 41.56 33.37 29.59 27.52 24.41 23.14 20.59 15.95	2.0 2.0 2.0 2.0 2.0 2.0 2.0 2.0 2.0 2.0	3.0 3.0 3.0 3.0 3.0 3.0 3.0 3.0 3.0 3.0	3.0 3.0 3.0 3.0 3.0 3.0 3.0 3.0 3.0 3.0	6.0 6.0 6.0 6.0 6.0 6.0 6.0 6.0 6.0 6.0	PA/PF 02 71M4A / 71M4B	17	168
	38.3 45.7 52.2 67.4 83.9 101.7	58 49 43 33 26 22	1.2 1.4 1.6 2.3 2.8 3.0	73.03 61.24 53.64 41.56 33.37 27.52	2.0 2.0 2.0 2.0 2.0 2.0	3.0 3.0 3.0 3.0 3.0 3.0	3.0 3.0 3.0 3.0 3.0 3.0	6.0 6.0 6.0 6.0 6.0 6.0	PA/PF 02 63M2B	13	168
0.37	0.1 0.2 0.2 0.3 0.3	25657 20785 15144 12412 9752	0.8 1.0 1.4 1.7 2.2	7155.29 5796.64 4223.52 3461.37 2719.64	101.0 101.0 101.0 101.0 101.0	120.0 120.0 120.0 120.0 120.0	- - - - -	- - - - -	PA/PF 103/53 80M6A	818	218
	0.1 0.2 0.2 0.2 0.3 0.4	25084 18813 15892 12875 9381 7688	0.8 1.1 1.3 1.6 2.1 2.6	11293.72 8470.29 7155.29 5796.64 4223.52 3461.37	101.0 101.0 101.0 101.0 101.0 101.0	120.0 120.0 120.0 120.0 120.0 120.0	- - - - - -	- - - - - -	PA/PF 103/53 71M4B / 71M4C	816	218
	0.2 0.2 0.3 0.4 0.5	14648 11509 8632 7292 5907	1.0 1.3 1.8 2.1 2.6	14373.83 11293.72 8470.29 7155.29 5796.64	101.0 101.0 101.0 101.0 101.0	120.0 120.0 120.0 120.0 120.0	- - - - -	- - - - -	PA/PF 103/53 71M2A	816	218
	0.2 0.2 0.3 0.4	15421 13377 9735 7885	0.8 1.0 1.3 1.6	4300.67 3730.70 2714.80 2199.04	66.0 66.0 66.0 66.0	80.0 80.0 80.0 80.0	- - - -	- - - -	PA/PF 93/43 80M6A	566	218
	0.2 0.2 0.3 0.4 0.5 0.6	15434 12818 9552 8286 6030 4884	0.8 1.0 1.3 1.5 2.0 2.5	6948.97 5771.01 4300.67 3730.70 2714.80 2199.04	66.0 66.0 66.0 66.0 66.0 66.0	80.0 80.0 80.0 80.0 80.0 80.0	- - - - - -	- - - - - -	PA/PF 93/43 71M4B / 71M4C	564	218

P_1 [kW]	n_2 [Min^{-1}]	M_2 [Nm]	f_B	i_{ges}	F_R [N]	F_A [N]	$F_{R\,GR}$ [N]	$F_{A\,GR}$ [N]	Tip / Type / Typ IE2 / IE3	Kg	mm
0.37	0.2 0.3 0.4 0.5 0.7 0.8	11491 8689 7082 5881 4383 3802	0.8 1.1 1.3 1.6 2.1 2.4	11275.92 8526.73 6948.97 5771.01 4300.67 3730.70	66.0 66.0 66.0 66.0 66.0 57.0	80.0 80.0 80.0 80.0 80.0 52.0	- - - - - -	- - - - - -	PA/PF 93/43 71M2A	564	218
	0.3	10103	0.8	4548.59	44.0	65.0	-	-	PA/PF 83/33 71M4B / 71M4C	364	218
	0.4 0.5 0.6	7063 5536 4635	0.9 1.1 1.3	6931.18 5432.52 4548.59	44.0 44.0 44.0	65.0 65.0 65.0	- - -	- - -	PA/PF 83/33 71M2A	364	218
	0.3 0.4 0.5 0.8 1.0	10413 7423 6128 4193 3267	0.8 1.1 1.4 2.0 2.6	2860.33 2039.02 1683.27 1151.94 897.44	44.0 44.0 44.0 44.0 44.0	65.0 65.0 65.0 65.0 65.0	- - - 62.0 62.0	- - - 65.0 65.0	PA/PF 83/32 80M6A	357	214
	0.8	3824	2.1	1683.27	44.0	65.0	-	-	PA/PF 83/32 71M4B / 71M4C	355	214
	0.6	4514	0.8	4429.50	28.0	39.0	-	-	PA/PF 73/23 71M2A	245	218
	0.5 0.7 0.8 1.0 1.2 1.6	6454 4559 3995 3227 2681 2062	0.8 1.2 1.3 1.6 2.0 2.5	1772.96 1252.41 1097.40 886.40 736.40 566.43	27.0 27.0 27.0 27.0 28.0 28.0	46.0 46.0 45.0 43.0 41.0 39.0	- 39.0 39.0 40.0 40.0 40.0	- 50.0 50.0 50.0 50.0 50.0	PA/PF 73/22 80M6A	239	214
	0.5 1.1 1.3 1.6 1.9	6300 2845 2493 2013 1673	0.8 1.8 2.0 2.5 3.0	2773.38 1252.41 1097.40 886.40 736.40	27.0 27.0 27.0 27.0 28.0	46.0 46.0 45.0 43.0 41.0	- 39.0 39.0 40.0 40.0	- 50.0 50.0 50.0 50.0	PA/PF 73/22 71M4B / 71M4C	237	214
	0.8 1.0 2.2	3626 2929 1323	1.0 1.3 2.9	3433.54 2773.38 1252.41	27.0 27.0 27.0	46.0 46.0 46.0	- - 39.0	- - 50.0	PA/PF 73/22 71M2A	237	214
	0.8	3824	0.9	1066.44	18.0	45.0	27.0	45.0	PA/PF 63/23 80M6A	166	218
	0.8 1.0 1.3	3726 3133 2369	0.9 1.0 1.4	1677.79 1410.80 1066.44	16.0 16.0 18.0	45.0 45.0 45.0	- 25.0 27.0	- 45.0 45.0	PA/PF 63/23 71M4B / 71M4C	164	218
	1.0 1.3 1.7 2.0 2.6	2871 2204 1710 1438 1087	0.8 1.1 1.4 1.7 2.2	2816.75 2162.48 1677.79 1410.80 1066.44	16.0 16.0 16.0 16.0 18.0	45.0 45.0 45.0 45.0 45.0	- - - 25.0 27.0	- - - 45.0 45.0	PA/PF 63/23 71M2A	164	218
	1.1 1.2 1.6 2.1 2.4	3098 2649 2018 1566 1339	1.1 1.3 1.7 2.1 2.5	851.02 727.77 554.24 430.20 367.90	19.0 19.0 20.0 20.0 20.0	45.0 43.0 41.0 37.0 36.0	27.0 28.0 28.0 28.0 28.0	45.0 45.0 45.0 45.0 45.0	PA/PF 63/22 80M6A	158	214
	1.6 1.9 2.5	1933 1653 1259	1.7 1.9 2.5	851.02 727.77 554.24	19.0 19.0 20.0	45.0 43.0 41.0	27.0 28.0 28.0	45.0 45.0 45.0	PA/PF 63/22 71M4B / 71M4C	156	214
	3.3	899	2.7	851.02	19.0	45.0	27.0	45.0	PA/PF 63/22 71M2A	156	214
	1.3 1.7 1.8 2.5 3.2 4.1 4.6	2551 2004 1817 1310 1047 813 719	0.8 1.0 1.1 1.5 1.8 2.4 2.7	690.27 542.36 491.74 354.34 283.16 219.87 194.67	11.0 11.0 11.0 11.0 11.0 11.0 11.0	24.0 24.0 24.0 24.0 24.0 24.0 24.0	20.0 20.0 20.0 - - - -	40.0 40.0 40.0 - - - -	PA/PF 52/12 80M6A	100	212

P_1 [kW]	n_2 [Min^{-1}]	M_2 [Nm]	f_B	i_{ges}	F_R [N]	F_A [N]	$F_{R\,GR}$ [N]	$F_{A\,GR}$ [N]	Tip / Type / Typ IE2 / IE3	Kg	mm
0.37	1.5	2137	0.9	920.36	11.0	24.0	19.0	40.0	PA/PF 52/12 71M4B / 71M4C	98	212
	2.0	1603	1.1	690.27	11.0	24.0	19.0	40.0			
	2.6	1259	1.5	542.36	11.0	24.0	20.0	40.0			
	2.8	1142	1.6	491.74	11.0	24.0	20.0	40.0			
	4.0	823	2.2	354.34	11.0	24.0	-	-			
	4.9	658	2.8	283.16	11.0	24.0	-	-			
	2.0	1562	0.9	1427.20	11.0	24.0	18.0	40.0	PA/PF 52/12 71M2A	98	212
	2.4	1252	1.1	1143.76	11.0	24.0	-	-			
	3.0	1007	1.4	920.36	11.0	24.0	19.0	40.0			
	4.1	755	1.8	690.27	11.0	24.0	19.0	40.0			
	5.2	594	2.3	542.36	11.0	24.0	20.0	40.0			
	5.7	538	2.6	491.74	11.0	24.0	20.0	40.0			
	1.5	2277	0.9	606.94	14.0	24.0	17.0	40.0	PA/PF 53 80M6A	103	189
	1.6	2059	1.0	548.64	14.0	24.0	18.0	40.0			
	1.8	1873	1.1	499.30	14.0	24.0	18.0	40.0			
	2.3	1472	1.3	392.31	14.0	24.0	19.0	40.0			
	2.4	1405	1.4	374.48	14.0	24.0	19.0	40.0			
	3.1	1104	2.1	294.23	14.0	24.0	19.0	40.0			
	3.7	922	2.1	245.73	14.0	24.0	20.0	40.0			
	3.8	888	2.3	236.60	14.0	24.0	20.0	40.0			
	4.8	698	2.7	185.90	14.0	24.0	20.0	40.0			
	5.1	666	3.0	177.45	14.0	24.0	20.0	40.0			
	2.1	1601	0.8	433.11	7.0	12.0	10.0	21.0	PA/PF 42/12 80M6A	71	212
	2.6	1281	1.0	346.69	5.0	12.0	11.0	23.0			
	3.3	1022	1.2	276.49	5.0	12.0	12.0	22.0			
	3.9	849	1.5	229.62	5.0	12.0	-	-			
	5.3	625	2.0	169.11	5.0	12.0	-	-			
	6.4	519	2.4	140.44	5.0	12.0	-	-			
	7.7	430	2.9	116.26	5.0	12.0	-	-			
	2.1	1558	0.8	670.92	3.0	12.0	9.0	22.0	PA/PF 42/12 71M4B / 71M4C	69	212
	2.5	1279	0.9	550.63	6.0	12.0	10.0	22.0			
	3.2	1006	1.2	433.11	7.0	12.0	10.0	21.0			
	4.0	805	1.5	346.69	5.0	12.0	11.0	23.0			
	5.1	642	1.9	276.49	5.0	12.0	12.0	22.0			
	6.1	533	2.3	229.62	5.0	12.0	-	-			
	3.7	821	1.1	750.00	3.0	12.0	11.0	27.0	PA/PF 42/12 71M2A	69	212
	4.2	734	1.2	670.92	3.0	12.0	9.0	22.0			
	5.1	603	1.5	550.63	6.0	12.0	10.0	22.0			
	6.5	474	1.9	433.11	7.0	12.0	10.0	21.0			
	8.1	379	2.4	346.69	5.0	12.0	11.0	23.0			
	10.1	303	3.0	276.49	5.0	12.0	12.0	22.0			
	2.1	1580	0.8	421.21	6.0	12.0	10.0	21.0	PA/PF 43 80M6A	70	185
	2.5	1349	1.0	359.61	7.0	12.0	11.0	20.0			
	3.0	1121	1.0	298.65	8.0	12.0	11.0	19.0			
	3.2	1045	1.3	278.52	8.0	12.0	10.0	18.0			
	3.4	991	1.3	264.02	8.0	12.0	11.0	19.0			
	3.9	868	1.4	231.31	8.0	12.0	11.0	17.0			
	4.1	823	1.5	219.26	8.0	12.0	11.0	19.0			
	4.4	767	1.8	204.49	8.0	12.0	11.0	17.0			
	4.9	686	1.6	182.86	8.0	12.0	11.0	18.0			
	5.3	637	1.9	169.82	5.0	12.0	11.0	16.0			
	6.4	531	2.1	141.63	5.0	12.0	11.0	16.0			
	7.0	485	2.7	129.27	5.0	12.0	12.0	16.0			
	8.4	403	2.9	107.36	5.0	12.0	11.0	15.0			
	2.3	1467	0.8	618.49	6.0	12.0	10.0	24.0	PA/PF 43 71M4B / 71M4C	68	185
	2.7	1253	0.8	528.04	6.0	12.0	11.0	23.0			
	3.3	999	1.2	421.21	6.0	12.0	10.0	21.0			
	3.9	853	1.5	359.61	7.0	12.0	11.0	20.0			
	4.7	709	1.6	298.65	8.0	12.0	11.0	19.0			
	5.3	626	2.0	264.02	8.0	12.0	11.0	19.0			
	6.4	520	2.3	219.26	8.0	12.0	11.0	19.0			
	7.7	434	2.3	182.86	8.0	12.0	11.0	18.0			
	3.7	866	0.9	763.70	6.0	12.0	10.0	25.0	PA/PF 43 71M2A	68	185
	4.5	701	1.2	618.49	6.0	12.0	10.0	24.0			
	5.3	599	1.3	528.04	6.0	12.0	11.0	23.0			
	6.6	478	1.9	421.21	6.0	12.0	10.0	21.0			
	7.8	408	2.4	359.61	7.0	12.0	11.0	20.0			
	9.4	339	2.5	298.65	8.0	12.0	11.0	19.0			

P_1 [kW]	n_2 [Min^{-1}]	M_2 [Nm]	f_B	i_{ges}	F_R [N]	F_A [N]	$F_{R\,GR}$ [N]	$F_{A\,GR}$ [N]	Tip / Type / Typ IE2 / IE3	Kg	mm
0.37	4.2 5.4 6.1 7.1 11.0	796 618 547 466 304	0.8 1.1 1.2 1.4 2.1	215.28 167.16 148.00 126.22 82.19	5.0 5.0 5.0 5.0 6.0	9.0 9.0 9.0 9.0 9.0	9.0 - - - -	19.0 - - - -	PA/PF 32/12 80M6A	53	212
	5.2 6.5 8.4 9.5 11.1	621 500 388 344 293	1.0 1.2 1.6 1.8 2.1	267.35 215.28 167.16 148.00 126.22	6.0 5.0 5.0 5.0 5.0	9.0 9.0 9.0 9.0 9.0	9.0 9.0 - - -	22.0 19.0 - - -	PA/PF 32/12 71M4B / 71M4C	51	212
	5.0 6.3 7.7 10.5 13.0 16.8 18.9	607 488 397 293 236 183 162	0.8 1.0 1.2 1.6 2.0 2.6 2.9	554.87 446.08 362.93 267.35 215.28 167.16 148.00	6.0 6.0 6.0 6.0 5.0 5.0 5.0	9.0 9.0 9.0 9.0 9.0 9.0 9.0	0.8 9.0 - 9.0 9.0 - -	25.0 25.0 - 22.0 19.0 - -	PA/PF 32/12 71M2A	51	212
	4.3 5.4 6.7 8.0 10.2	777 624 503 421 331	0.9 1.1 1.4 1.4 1.7	206.97 166.39 133.98 112.18 88.29	6.0 7.0 7.0 6.0 6.0	9.0 9.0 9.0 9.0 9.0	9.0 9.0 9.0 - -	20.0 19.0 18.0 - -	PA/PF 33 80M6A	49	181
	4.1 5.6 6.8 8.4 10.4 12.5 15.9	804 589 491 395 318 266 209	0.8 1.1 1.4 1.7 2.0 2.1 2.6	339.07 248.21 206.97 166.39 133.98 112.18 88.29	6.0 6.0 6.0 7.0 7.0 6.0 6.0	9.0 9.0 9.0 9.0 9.0 9.0 9.0	9.0 9.0 9.0 9.0 9.0 - -	23.0 21.0 20.0 19.0 18.0 - -	PA/PF 33 71M4B / 71M4C	47	181
	5.3 6.6 8.3 11.3 13.5 16.8	594 478 385 281 235 189	0.9 1.1 1.3 1.8 2.2 2.7	523.81 421.10 339.07 248.21 206.97 166.39	6.0 6.0 6.0 6.0 6.0 7.0	9.0 9.0 9.0 9.0 9.0 9.0	9.0 9.0 9.0 9.0 9.0 9.0	25.0 24.0 23.0 21.0 20.0 19.0	PA/PF 33 71M2A	47	181
	11.1 12.4 14.0 15.7	310 277 245 219	1.7 2.1 2.7 2.9	81.27 72.71 64.26 57.49	7.0 7.0 7.0 7.0	9.0 9.0 9.0 9.0	9.0 9.0 9.0 9.0	16.0 16.0 15.0 15.0	PA/PF 32 80M6A	40	180
	17.2	197	2.6	81.27	7.0	9.0	9.0	16.0	PA/PF 32 71M4B / 71M4C	38	180
	88.2	39	2.4	10.20	-	-	-	-	PA/PF 31 80M6A	27	162
	7.7	435	0.8	117.62	4.0	6.0	7.0	12.0	PA/PF 22/02 80M6A	40	212
	8.4 10.4 11.9	388 314 273	0.9 1.1 1.2	167.14 135.06 117.62	5.0 4.0 4.0	6.0 6.0 6.0	7.0 7.0 7.0	14.0 13.0 12.0	PA/PF 22/02 71M4B / 71M4C	38	212
	9.9 11.7 16.8 20.7 23.8	311 261 183 148 129	0.8 1.0 1.4 1.7 2.0	284.14 238.88 167.14 135.06 117.62	5.0 5.0 5.0 4.0 4.0	6.0 6.0 6.0 6.0 6.0	7.0 - 7.0 7.0 7.0	16.0 - 14.0 13.0 12.0	PA/PF 22/02 71M2A	38	212
	7.3 9.0 10.2 11.5 13.9	466 377 331 293 243	0.8 0.9 1.1 1.2 1.5	124.10 100.53 88.24 78.00 64.80	5.0 5.0 5.0 5.0 5.0	6.0 6.0 6.0 6.0 6.0	7.0 7.0 7.0 7.0 7.0	13.0 12.0 12.0 12.0 11.0	PA/PF 23 80M6A	37	177
	9.3 11.3 13.9 15.9 17.9 21.6	359 294 239 209 185 154	0.8 1.2 1.4 1.6 1.8 2.2	151.11 124.10 100.53 88.24 78.00 64.80	5.0 5.0 5.0 5.0 5.0 5.0	6.0 6.0 6.0 6.0 6.0 6.0	7.0 7.0 7.0 7.0 7.0 7.0	14.0 13.0 12.0 12.0 12.0 11.0	PA/PF 23 71M4B / 71M4C	33	177

P_1 [kW]	n_2 [Min^{-1}]	M_2 [Nm]	f_B	i_{ges}	F_R [N]	F_A [N]	$F_{R\,GR}$ [N]	$F_{A\,GR}$ [N]	Tip / Type / Typ IE2 / IE3	Kg	mm
0.37	10.7 12.9 15.6 18.5 22.6 27.9 31.7 35.9	297 247 204 171 141 114 100 88	0.9 1.0 1.2 1.3 1.8 2.3 2.6 2.9	261.93 217.60 179.61 151.11 124.10 100.53 88.24 78.00	5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0	6.0 6.0 6.0 6.0 6.0 6.0 6.0 6.0	6.0 7.0 7.0 7.0 7.0 7.0 7.0 7.0	16.0 15.0 15.0 14.0 13.0 12.0 12.0 12.0	**PA/PF 23 71M2A**	33	177
	10.4 12.9 16.3 19.6 21.0 25.3 30.7 36.5	329 266 210 175 163 135 112 94	0.8 1.0 1.6 1.8 2.2 2.6 2.7 2.7	86.26 69.74 55.25 45.90 42.79 35.55 29.34 24.69	5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0	6.0 6.0 6.0 6.0 6.0 6.0 6.0 6.0	7.0 7.0 7.0 7.0 7.0 7.0 7.0 8.0	12.0 12.0 11.0 10.0 10.0 9.0 9.0 9.0	**PA/PF 22 80M6A**	19	176
	16.2 20.1 25.3 30.5	209 169 134 111	1.2 1.6 2.4 2.6	86.26 69.74 55.25 45.90	5.0 5.0 5.0 5.0	6.0 6.0 6.0 6.0	7.0 7.0 7.0 7.0	12.0 12.0 11.0 10.0	**PA/PF 22 71M4B / 71M4C**	27	176
	32.5 40.1	101 82	1.9 2.4	86.26 69.74	5.0 5.0	6.0 6.0	7.0 7.0	13.0 13.0	**PA/PF 22 71M2A**	27	176
	88.2 113.9	39 31	1.1 2.1	10.20 7.90	- -	- -	- -	- -	**PA/PF 21 80M6A**	31	160
	137.3	25	1.6	10.20	-	4.0	-	-	**PA/PF 21 71M4B / 71M4C**	29	160
	274.5	12	2.4	10.20	-	-	-	-	**PA/PF 21 71M2A**	29	160
	15.2	214	0.8	92.29	3.0	4.0	5.0	10.0	**PA/PF 12/02 71M4B / 71M4C**	26	212
	16.9 21.0 25.5 30.3	181 146 120 101	0.8 0.9 1.0 1.2	165.75 133.10 109.78 92.29	3.0 3.0 3.0 3.0	4.0 4.0 4.0 4.0	- 5.0 - 5.0	- 11.0 - 10.0	**PA/PF 12/02 71M2A**	26	212
	16.4 20.4	203 162	0.9 1.2	85.57 68.46	3.0 3.0	4.0 4.0	5.0 5.0	10.0 9.0	**PA/PF 13 71M4B / 71M4C**	23	173
	25.8 32.7 40.9	123 97 78	1.1 1.4 1.9	108.73 85.57 68.46	3.0 3.0 3.0	4.0 4.0 4.0	5.0 5.0 5.0	11.0 10.0 9.0	**PA/PF 13 71M2A**	23	173
	18.8 23.5 28.9 34.7 42.3 47.9 53.8	182 146 119 99 81 72 64	1.0 1.3 1.5 1.5 2.2 2.4 2.5	47.86 38.29 31.15 25.92 21.27 18.80 16.74	4.0 4.0 4.0 3.0 4.0 4.0 4.0	4.0 4.0 4.0 4.0 4.0 4.0 4.0	5.0 5.0 5.0 5.0 5.0 5.0 5.0	9.0 8.0 8.0 8.0 7.0 7.0 7.0	**PA/PF 12 80M6A**	20	172
	19.3 22.8 26.0 29.3 32.5 36.6 40.0 44.9 48.0 54.0	172 145 128 114 102 91 83 74 69 61	0.8 1.1 1.4 1.6 1.6 2.0 1.8 2.2 1.8 2.2	72.60 61.31 53.84 47.86 43.07 38.29 35.04 31.15 29.16 25.92	3.0 3.0 3.0 4.0 4.0 4.0 4.0 4.0 4.0 3.0	4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0	5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0	10.0 9.0 9.0 9.0 8.0 8.0 8.0 8.0 8.0 8.0	**PA/PF 12 71M4B / 71M4C**	18	172
	38.6 45.7 52.0 58.5 65.0 79.9 96.0	85 72 63 56 51 41 34	1.2 1.6 2.1 2.4 2.4 2.8 2.8	72.60 61.31 53.84 47.86 43.07 35.04 29.16	3.0 3.0 3.0 4.0 4.0 4.0 4.0	4.0 4.0 4.0 4.0 4.0 4.0 4.0	5.0 5.0 5.0 5.0 5.0 5.0 5.0	10.0 9.0 9.0 9.0 8.0 8.0 8.0	**PA/PF 12 71M2A**	18	172
	111.1	31	1.0	8.10	-	-	-	-	**PA/PF 11 80M6A**	16	158

P_1 [kW]	n_2 [Min^{-1}]	M_2 [Nm]	f_B	i_{ges}	F_R [N]	F_A [N]	$F_{R\,GR}$ [N]	$F_{A\,GR}$ [N]	Tip / Type / Typ IE2 / IE3	Kg	mm
0.37	153.7 172.8	23 20	1.0 1.5	9.11 8.10	- -	4.0 4.0	- -	- -	**PA/PF 11 71M4B / 71M4C**	15	158
	307.4 345.7	11 10	1.6 2.3	9.11 8.10	- -	- -	- -	- -	**PA/PF 11 71M2A**	15	158
	34.3 42.8	92 74	0.9 1.1	81.52 65.46	2.0 2.0	3.0 3.0	3.0 3.0	6.0 6.0	**PA/PF 03 71M2A**	20	169
	27.0 30.4 32.7 36.9 43.7 56.4 70.3 80.1 90.5 97.1 109.8 115.4 130.6 161.6	127 113 105 93 78 61 49 43 38 35 31 30 26 21	0.8 0.9 0.9 1.0 1.0 1.2 1.5 1.6 1.8 1.9 2.1 2.2 2.4 2.8	33.37 29.59 27.52 24.41 20.59 15.95 12.81 11.24 9.94 9.27 8.20 7.80 6.89 5.57	2.0 2.0 2.0 2.0 2.0 2.0 2.0 2.0 2.0 2.0 2.0 2.0 2.0 2.0	3.0 3.0 3.0 3.0 3.0 3.0 3.0 3.0 3.0 3.0 3.0 3.0 3.0 3.0	3.0 3.0 3.0 3.0 3.0 3.0 3.0 3.0 3.0 3.0 3.0 3.0 3.0 3.0	6.0 6.0 6.0 6.0 6.0 5.0 5.0 5.0 5.0 5.0 4.0 4.0 4.0 4.0	**PA/PF 02 80M6A**	18	168
	33.7 42.0 47.3 50.9 57.4 60.5 68.0 87.8 109.3 124.6 140.8 151.0	101 81 72 67 59 56 50 39 31 27 24 22	1.0 1.2 1.3 1.3 1.5 1.4 1.5 1.9 2.3 2.5 2.7 2.9	41.56 33.37 29.59 27.52 24.41 23.14 20.59 15.95 12.81 11.24 9.94 9.27	2.0 2.0 2.0 2.0 2.0 2.0 2.0 2.0 2.0 2.0 2.0 2.0	3.0 3.0 3.0 3.0 3.0 3.0 3.0 3.0 3.0 3.0 3.0 3.0	3.0 3.0 3.0 3.0 3.0 3.0 3.0 3.0 3.0 3.0 3.0 3.0	6.0 6.0 6.0 6.0 6.0 6.0 6.0 5.0 5.0 5.0 5.0 5.0	**PA/PF 02 71M4B / 71M4C**	17	168
	38.3 45.7 52.2 67.4 83.9 94.6 101.7 114.7 121.0 136.0 175.5	86 72 63 49 39 35 32 29 27 24 19	0.8 0.9 1.1 1.5 1.9 2.0 2.0 2.4 2.2 2.3 2.9	73.03 61.24 53.64 41.56 33.37 29.59 27.52 24.41 23.14 20.59 15.95	2.0 2.0 2.0 2.0 2.0 2.0 2.0 2.0 2.0 2.0 2.0	3.0 3.0 3.0 3.0 3.0 3.0 3.0 3.0 3.0 3.0 3.0	- 3.0 3.0 3.0 3.0 3.0 3.0 3.0 3.0 3.0 3.0	- 6.0 6.0 6.0 6.0 6.0 6.0 6.0 6.0 6.0 5.0	**PA/PF 02 71M2A**	17	168
0.55	0.2 0.3 0.3	22512 18450 14496	0.9 1.1 1.4	4223.52 3461.37 2719.64	101.0 101.0 101.0	120.0 120.0 120.0	- -	- -	**PA/PF 103/53 80M6B**	818	218
	0.2 0.2 0.3 0.4 0.5	23624 19138 13944 11428 8979	0.8 1.0 1.4 1.8 2.2	7155.29 5796.64 4223.52 3461.37 2719.64	101.0 101.0 101.0 101.0 101.0	120.0 120.0 120.0 120.0 120.0	- - - - -	- - - - -	**PA/PF 103/53 80M4B / 80M4C**	818	218
	0.2 0.3 0.4 0.5 0.7 0.8	17108 12831 10839 8781 6398 5243	0.9 1.2 1.4 1.7 2.4 2.9	11293.72 8470.29 7155.29 5796.64 4223.52 3461.37	101.0 101.0 101.0 101.0 101.0 101.0	120.0 120.0 120.0 120.0 120.0 120.0	- - - - - -	- - - - - -	**PA/PF 103/53 71M2B**	816	218
	0.3 0.4	14470 11721	0.9 1.1	2714.80 2199.04	66.0 66.0	80.0 80.0	- -	- -	**PA/PF 93/43 80M6B**	566	218
	0.3 0.4 0.5 0.6	14199 12317 8963 7260	0.9 1.0 1.4 1.7	4300.67 3730.70 2714.80 2199.04	66.0 66.0 66.0 66.0	80.0 80.0 80.0 80.0	- - - -	- - - -	**PA/PF 93/43 80M4B / 80M4C**	566	218

P_1 [kW]	n_2 [Min^{-1}]	M_2 [Nm]	f_B	i_{ges}	F_R [N]	F_A [N]	$F_{R\,GR}$ [N]	$F_{A\,GR}$ [N]	Tip / Type / Typ IE2 / IE3	Kg	mm
0.55	0.4 0.5 0.7 0.8 1.0 1.3	10527 8742 6515 5651 4113 3331	0.9 1.1 1.4 1.6 2.3 2.8	6948.97 5771.01 4300.67 3730.70 2714.80 2199.04	66.0 66.0 66.0 66.0 66.0 66.0	80.0 80.0 80.0 80.0 80.0 80.0	- - - - - -	- - - - - -	**PA/PF 93/43 71M2B**	564	218
	0.6	6890	0.9	4548.59	44.0	65.0	-	-	**PA/PF 83/33 71M2B**	364	218
	0.4 0.5 0.8 1.0 1.2	11034 9109 6234 4856 3910	0.8 0.9 1.3 1.7 2.1	2039.02 1683.27 1151.94 897.44 722.63	44.0 44.0 44.0 44.0 44.0	65.0 65.0 65.0 65.0 65.0	- - 62.0 62.0 62.0	- - 65.0 65.0 65.0	**PA/PF 83/32 80M6B**	357	214
	0.5 0.7 0.8 1.2 1.6	9658 6885 5684 3890 3030	0.8 1.2 1.4 2.1 2.6	2860.33 2039.02 1683.27 1151.94 897.44	44.0 44.0 44.0 44.0 44.0	65.0 65.0 65.0 65.0 65.0	- - - 62.0 62.0	- - - 65.0 65.0	**PA/PF 83/32 80M4B / 80M4C**	357	214
	1.7	2642	2.3	1683.27	44.0	65.0	-	-	**PA/PF 83/32 71M2B**	355	214
	0.7 0.8 1.0 1.2 1.6 2.0 2.6	6777 5938 4797 3985 3065 2476 1876	0.8 0.9 1.1 1.3 1.7 2.1 2.8	1252.41 1097.40 886.40 736.40 566.43 457.52 346.75	24.0 25.0 26.0 27.0 27.0 27.0 27.0	42.0 41.0 40.0 39.0 37.0 46.0 46.0	37.0 38.0 40.0 39.0 40.0 40.0 40.0	50.0 50.0 50.0 50.0 50.0 50.0 50.0	**PA/PF 73/22 80M6B**	239	214
	0.8 1.1 1.3 1.6 1.9 2.5	5987 4229 3705 2993 2487 1913	0.8 1.2 1.3 1.7 2.0 2.6	1772.96 1252.41 1097.40 886.40 736.40 566.43	24.0 24.0 25.0 26.0 27.0 27.0	42.0 42.0 41.0 40.0 39.0 37.0	- 37.0 38.0 40.0 39.0 40.0	- 50.0 50.0 50.0 50.0 50.0	**PA/PF 73/22 80M4B / 80M4C**	239	214
	1.0 2.2 2.6 3.2	4354 1966 1723 1391	0.9 1.9 2.2 2.7	2773.38 1252.41 1097.40 886.40	24.0 24.0 25.0 26.0	42.0 42.0 41.0 40.0	- 37.0 38.0 39.0	- 50.0 50.0 50.0	**PA/PF 73/22 71M2B**	237	214
	1.3	3521	0.9	1066.44	14.0	43.0	24.0	45.0	**PA/PF 63/23 80M4B / 80M4C**	166	218
	1.7 2.0 2.6	2542 2137 1616	1.0 1.1 1.5	1677.79 1410.80 1066.44	14.0 14.0 14.0	43.0 43.0 43.0	- 25.0 24.0	- 45.0 45.0	**PA/PF 63/23 71M2B**	164	218
	1.2 1.6 2.1 2.4 3.2 4.0	3938 2999 2328 1991 1531 1219	0.9 1.1 1.4 1.7 2.2 2.8	727.77 554.24 430.20 367.90 283.00 225.22	18.0 19.0 20.0 20.0 19.0 19.0	41.0 39.0 37.0 36.0 45.0 45.0	27.0 28.0 28.0 28.0 28.0 28.0	45.0 45.0 45.0 45.0 45.0 45.0	**PA/PF 63/22 80M6B**	158	214
	1.6 1.9 2.5 3.3 3.8	2874 2457 1871 1453 1242	1.1 1.3 1.7 2.2 2.6	851.02 727.77 554.24 430.20 367.90	17.0 18.0 19.0 20.0 20.0	42.0 41.0 39.0 37.0 36.0	26.0 27.0 28.0 28.0 28.0	45.0 45.0 45.0 45.0 45.0	**PA/PF 63/22 80M4B / 80M4C**	158	214
	3.3 3.8 5.1	1336 1142 870	1.8 2.1 2.8	851.02 727.77 554.24	17.0 18.0 19.0	42.0 41.0 39.0	26.0 27.0 27.0	45.0 45.0 45.0	**PA/PF 63/22 71M2B**	156	214
	2.5 3.2 4.1 4.6 6.2 7.2	1947 1556 1208 1069 802 684	1.0 1.2 1.6 1.8 2.4 2.8	354.34 283.16 219.87 194.67 146.01 124.52	11.0 11.0 11.0 11.0 11.0 11.0	24.0 24.0 24.0 24.0 24.0 24.0	- - - - - -	- - - - - -	**PA/PF 52/12 80M6B**	100	212

P_1 [kW]	n_2 [Min^{-1}]	M_2 [Nm]	f_B	i_{ges}	F_R [N]	F_A [N]	$F_{R\,GR}$ [N]	$F_{A\,GR}$ [N]	Tip / Type / Typ IE2 / IE3	Kg	mm
0.55	2.0 2.6 2.8 4.0 4.9 6.4 7.2	2383 1872 1697 1223 977 759 672	0.8 1.0 1.1 1.5 1.9 2.4 2.7	690.27 542.36 491.74 354.34 283.16 219.87 194.67	10.0 11.0 11.0 11.0 11.0 11.0 11.0	24.0 24.0 24.0 24.0 24.0 24.0 24.0	17.0 20.0 20.0 - - - -	40.0 40.0 40.0 - - - -	**PA/PF 52/12 80M4B / 80M4C**	100	212
	3.0 4.1 5.2 5.7 7.9 9.9	1497 1123 882 800 576 461	0.9 1.2 1.6 1.7 2.4 3.0	920.36 690.27 542.36 491.74 354.34 283.16	10.0 10.0 11.0 11.0 11.0 11.0	24.0 24.0 24.0 24.0 24.0 24.0	19.0 17.0 20.0 20.0 - -	40.0 40.0 40.0 40.0 - -	**PA/PF 52/12 71M2B**	98	212
	2.3 2.4 3.1 3.7 3.8 4.8 5.1 6.5	2188 2089 1641 1371 1320 1037 990 778	0.9 1.0 1.4 1.4 1.5 1.8 2.0 3.0	392.31 374.48 294.23 245.73 236.60 185.90 177.45 139.42	13.0 13.0 13.0 14.0 14.0 14.0 14.0 14.0	24.0 24.0 24.0 24.0 24.0 24.0 24.0 24.0	19.0 19.0 19.0 20.0 20.0 20.0 20.0 20.0	40.0 40.0 40.0 40.0 40.0 40.0 40.0 40.0	**PA/PF 53 80M6B**	103	189
	2.3 2.6 2.8 3.6 3.7 4.8 5.7 5.9 7.5	2140 1935 1761 1384 1321 1038 867 834 656	0.9 1.0 1.1 1.3 1.5 2.1 2.1 2.3 2.8	606.94 548.64 499.30 392.31 374.48 294.23 245.73 236.60 185.90	10.0 11.0 12.0 13.0 13.0 13.0 14.0 14.0 14.0	24.0 24.0 24.0 24.0 24.0 24.0 24.0 24.0 24.0	17.0 18.0 18.0 19.0 19.0 19.0 20.0 20.0 20.0	40.0 40.0 40.0 40.0 40.0 40.0 40.0 40.0 40.0	**PA/PF 53 80M4B / 80M4C**	103	189
	3.3 3.9 5.3 6.4 7.7 10.3	1519 1261 929 772 639 482	0.8 1.0 1.4 1.6 2.0 2.6	276.49 229.62 169.11 140.44 116.26 87.79	3.0 3.0 3.0 3.0 3.0 3.0	12.0 12.0 12.0 12.0 12.0 12.0	- - - - - -	- - - - - -	**PA/PF 42/12 80M6B**	71	212
	3.2 4.0 5.1 6.1 8.3 10.0 12.0	1495 1197 954 793 584 485 401	0.8 1.0 1.3 1.5 2.1 2.5 3.0	433.11 346.69 276.49 229.62 169.11 140.44 116.26	3.0 3.0 3.0 3.0 3.0 3.0 3.0	12.0 12.0 12.0 12.0 12.0 12.0 12.0	9.0 - - - - - -	18.0 - - - - - -	**PA/PF 42/12 80M4B / 80M4C**	71	212
	4.2 5.1 6.5 8.1 10.1 12.2	1091 896 705 564 450 374	0.8 1.0 1.3 1.6 2.0 2.4	670.92 550.63 433.11 346.69 276.49 229.62	3.0 3.0 3.0 3.0 3.0 3.0	12.0 12.0 12.0 12.0 12.0 -	9.0 10.0 9.0 - - -	22.0 22.0 18.0 - - -	**PA/PF 42/12 71M2B**	69	212
	3.2 3.4 3.9 4.1 4.4 4.9 5.3 6.4 7.0 8.4 9.5 11.2	1553 1473 1290 1223 1141 1020 947 790 721 599 529 446	0.9 0.9 0.9 1.0 1.2 1.0 1.3 1.4 1.8 2.0 2.5 2.9	278.52 264.02 231.31 219.26 204.49 182.86 169.82 141.63 129.27 107.36 94.91 80.01	7.0 7.0 7.0 7.0 8.0 8.0 8.0 8.0 8.0 8.0 6.0 6.0	12.0 12.0 12.0 12.0 12.0 12.0 12.0 12.0 12.0 12.0 12.0 12.0	10.0 10.0 11.0 11.0 11.0 11.0 11.0 11.0 11.0 11.0 11.0 12.0	18.0 17.0 17.0 17.0 17.0 17.0 16.0 16.0 16.0 15.0 15.0 14.0	**PA/PF 43 80M6B**	70	185

P_1 [kW]	n_2 [Min^{-1}]	M_2 [Nm]	f_B	i_{ges}	F_R [N]	F_A [N]	$F_{R\,GR}$ [N]	$F_{A\,GR}$ [N]	Tip / Type / Typ IE2 / IE3	Kg	mm
0.55	3.3	1485	0.8	421.21	5.0	12.0	10.0	21.0	PA/PF 43 80M4B / 80M4C	70	185
	3.9	1268	1.0	359.61	5.0	12.0	9.0	18.0			
	4.7	1053	1.1	298.65	6.0	12.0	10.0	18.0			
	5.0	982	1.3	278.52	7.0	12.0	10.0	18.0			
	5.3	931	1.4	264.02	7.0	12.0	10.0	17.0			
	6.1	816	1.4	231.31	7.0	12.0	11.0	17.0			
	6.4	773	1.6	219.26	7.0	12.0	11.0	17.0			
	6.8	721	1.8	204.49	8.0	12.0	11.0	17.0			
	7.7	645	1.6	182.86	8.0	12.0	11.0	17.0			
	8.2	599	1.9	169.82	8.0	12.0	11.0	16.0			
	9.9	499	2.1	141.63	8.0	12.0	11.0	16.0			
	10.8	456	2.7	129.27	8.0	12.0	11.0	16.0			
	13.0	379	2.9	107.36	8.0	12.0	11.0	15.0			
	4.5	1043	0.8	618.49	5.0	12.0	10.0	24.0	PA/PF 43 71M2B	68	185
	5.3	890	0.8	528.04	5.0	12.0	11.0	23.0			
	6.6	710	1.3	421.21	5.0	12.0	10.0	21.0			
	7.8	606	1.6	359.61	5.0	12.0	9.0	18.0			
	9.4	503	1.7	298.65	6.0	12.0	10.0	18.0			
	10.6	445	2.2	264.02	7.0	12.0	10.0	17.0			
	12.8	370	2.5	219.26	7.0	12.0	11.0	17.0			
	15.3	308	2.5	182.86	8.0	12.0	11.0	17.0			
	6.1	813	0.8	148.00	5.0	9.0	-	-	PA/PF 32/12 80M6B	53	212
	7.1	693	0.9	126.22	5.0	9.0	-	-			
	11.0	452	1.4	82.19	5.0	9.0	-	-			
	6.5	743	0.8	215.28	6.0	9.0	9.0	19.0	PA/PF 32/12 80M4B / 80M4C	53	212
	8.4	577	1.1	167.16	5.0	9.0	-	-			
	9.5	511	1.2	148.00	5.0	9.0	-	-			
	11.1	436	1.4	126.22	5.0	9.0	-	-			
	17.0	284	2.2	82.19	5.0	9.0	-	-			
	7.7	590	0.8	362.93	6.0	9.0	-	-	PA/PF 32/12 71M2B	51	212
	10.5	435	1.1	267.35	6.0	9.0	9.0	22.0			
	13.0	350	1.3	215.28	6.0	9.0	9.0	19.0			
	16.8	272	1.7	167.16	5.0	9.0	-	-			
	18.9	241	2.0	148.00	5.0	9.0	-	-			
	22.2	205	2.3	126.22	5.0	9.0	-	-			
	5.4	928	0.8	166.39	6.0	9.0	9.0	18.0	PA/PF 33 80M6B	49	181
	6.7	747	0.9	133.98	6.0	9.0	9.0	17.0			
	8.0	626	0.9	112.18	6.0	9.0	-	-			
	10.2	492	1.1	88.29	6.0	9.0	-	-			
	6.8	730	0.9	206.97	5.0	9.0	8.0	19.0	PA/PF 33 80M4B / 80M4C	49	181
	8.4	587	1.1	166.39	6.0	9.0	9.0	18.0			
	10.4	473	1.4	133.98	6.0	9.0	9.0	17.0			
	12.5	396	1.4	112.18	6.0	9.0	-	-			
	15.9	311	1.7	88.29	6.0	9.0	-	-			
	8.3	572	0.9	339.07	5.0	9.0	9.0	23.0	PA/PF 33 71M2B	47	181
	11.3	418	1.2	248.21	5.0	9.0	9.0	21.0			
	13.5	349	1.5	206.97	5.0	9.0	8.0	19.0			
	16.8	280	1.8	166.39	6.0	9.0	9.0	18.0			
	20.9	226	2.2	133.98	6.0	9.0	9.0	17.0			
	25.0	189	2.2	112.18	6.0	9.0	-	-			
	31.7	149	2.7	88.29	6.0	9.0	-	-			
	11.1	460	1.2	81.27	7.0	9.0	9.0	16.0	PA/PF 32 80M6B	40	180
	12.4	412	1.4	72.71	7.0	9.0	9.0	15.0			
	14.0	364	1.8	64.26	7.0	9.0	9.0	15.0			
	15.7	326	2.0	57.49	7.0	9.0	9.0	15.0			
	19.4	262	2.1	46.29	7.0	9.0	9.0	14.0			
	23.2	219	2.1	38.76	7.0	9.0	9.0	13.0			
	27.3	187	2.1	33.00	7.0	9.0	9.0	12.0			
	17.2	293	1.8	81.27	7.0	9.0	9.0	16.0	PA/PF 32 80M4B / 80M4C	40	180
	19.3	262	2.1	72.71	7.0	9.0	9.0	15.0			
	21.8	231	2.8	64.26	7.0	9.0	9.0	15.0			
	24.4	207	3.0	57.49	7.0	9.0	9.0	15.0			
	34.5	142	2.8	81.27	7.0	9.0	9.0	17.0	PA/PF 32 71M2B	38	180
	88.2	59	1.6	10.20	-	-	-	-	PA/PF 31 80M6B	27	162

P_1 [kW]	n_2 [Min^{-1}]	M_2 [Nm]	f_B	i_{ges}	F_R [N]	F_A [N]	$F_{R\,GR}$ [N]	$F_{A\,GR}$ [N]	Tip / Type / Typ IE2 / IE3	Kg	mm
0.55	137.3	38	2.4	10.20	-	3.0	-	-	PA/PF 31 80M4B / 80M4C	27	162
	11.9	406	0.8	117.62	4.0	6.0	7.0	12.0	PA/PF 22/02 80M4B / 80M4C	40	212
	16.8 20.7 23.8	272 220 191	1.0 1.2 1.4	167.14 135.06 117.62	4.0 4.0 4.0	6.0 6.0 6.0	7.0 7.0 7.0	14.0 13.0 12.0	PA/PF 22/02 71M2B	38	212
	11.5 13.9	435 361	0.8 1.0	78.00 64.80	5.0 5.0	6.0 6.0	7.0 7.0	12.0 11.0	PA/PF 23 80M6B	37	177
	11.3 13.9 15.9 17.9 21.6	438 355 311 275 229	0.8 1.0 1.1 1.2 1.5	124.10 100.53 88.24 78.00 64.80	4.0 5.0 4.0 5.0 5.0	6.0 6.0 6.0 6.0 6.0	7.0 7.0 7.0 7.0 7.0	13.0 11.0 11.0 12.0 11.0	PA/PF 23 80M4B / 80M4C	37	177
	15.6 18.5 22.6 27.9 31.7 35.9 43.2	303 255 209 169 149 131 109	0.8 0.9 1.2 1.5 1.7 2.0 2.4	179.61 151.11 124.10 100.53 88.24 78.00 64.80	4.0 4.0 4.0 5.0 4.0 5.0 5.0	6.0 6.0 6.0 6.0 6.0 6.0 6.0	7.0 7.0 7.0 7.0 7.0 7.0 7.0	15.0 14.0 13.0 11.0 11.0 12.0 11.0	PA/PF 23 71M2B	33	177
	16.3 19.6 21.0 25.3 30.7 36.5	313 260 242 201 166 140	1.1 1.2 1.5 1.7 1.8 1.8	55.25 45.90 42.79 35.55 29.34 24.69	5.0 5.0 5.0 5.0 5.0 5.0	6.0 6.0 6.0 6.0 6.0 6.0	7.0 7.0 7.0 7.0 7.0 8.0	10.0 10.0 10.0 9.0 9.0 9.0	PA/PF 22 80M6B	19	176
	16.2 20.1 25.3 30.5 32.7 39.4 47.7 56.7	311 251 199 165 154 128 106 89	0.8 1.0 1.6 1.8 2.2 2.6 2.8 2.8	86.26 69.74 55.25 45.90 42.79 35.55 29.34 24.69	5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0	6.0 6.0 6.0 6.0 6.0 6.0 6.0 6.0	7.0 7.0 7.0 7.0 7.0 7.0 7.0 8.0	11.0 11.0 10.0 10.0 10.0 9.0 9.0 9.0	PA/PF 22 80M4B / 80M4C	19	176
	32.5 40.1 50.7 61.0	151 122 97 80	1.3 1.6 2.5 2.8	86.26 69.74 55.25 45.90	5.0 5.0 5.0 5.0	6.0 6.0 6.0 6.0	7.0 7.0 7.0 7.0	11.0 11.0 10.0 10.0	PA/PF 22 71M2B	27	176
	113.9 195.7	45 26	1.4 2.2	7.90 4.60	- -	- -	- -	- -	PA/PF 21 80M6B	31	160
	137.3 177.2	38 29	1.1 2.1	10.20 7.90	- -	4.0 4.0	- -	- -	PA/PF 21 80M4B / 80M4C	31	160
	274.5	18	1.6	10.20	-	-	-	-	PA/PF 21 71M2B	29	160
	30.3	150	0.8	92.29	3.0	4.0	5.0	10.0	PA/PF 12/02 71M2B	26	212
	32.7 40.9	144 115	0.9 1.3	85.57 68.46	3.0 3.0	4.0 4.0	5.0 5.0	10.0 9.0	PA/PF 13 71M2B	23	173
	23.5 28.9 34.7 42.3 47.9 53.8 67.2 84.3 93.3	217 176 147 120 106 95 76 60 55	0.9 1.0 1.0 1.5 1.6 1.7 2.1 2.3 2.6	38.29 31.15 25.92 21.27 18.80 16.74 13.39 10.68 9.65	3.0 3.0 3.0 3.0 3.0 3.0 3.0 3.0 3.0	4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0	5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0	8.0 7.0 7.0 7.0 7.0 7.0 6.0 6.0 6.0	PA/PF 12 80M6B	20	172
	29.3 36.6 44.9 54.0 65.8 74.5 83.6	169 135 110 91 75 66 59	1.0 1.4 1.5 1.5 2.2 2.4 2.6	47.86 38.29 31.15 25.92 21.27 18.80 16.74	3.0 3.0 3.0 3.0 3.0 3.0 3.0	4.0 4.0 4.0 4.0 4.0 4.0 4.0	5.0 5.0 5.0 5.0 5.0 5.0 5.0	8.0 8.0 7.0 7.0 7.0 7.0 7.0	PA/PF 12 80M4B / 80M4C	20	172

P_1 [kW]	n_2 [Min^{-1}]	M_2 [Nm]	f_B	i_{ges}	F_R [N]	F_A [N]	$F_{R\,GR}$ [N]	$F_{A\,GR}$ [N]	Tip / Type / Typ IE2 / IE3	Kg	mm
0.55	38.6	127	0.8	72.60	3.0	4.0	5.0	10.0	PA/PF 12 71M2B	18	172
	45.7	107	1.1	61.31	3.0	4.0	5.0	9.0			
	52.0	94	1.4	53.84	3.0	4.0	5.0	9.0			
	58.5	84	1.6	47.86	3.0	4.0	5.0	8.0			
	65.0	75	1.6	43.07	3.0	4.0	5.0	8.0			
	73.1	67	2.1	38.29	3.0	4.0	5.0	8.0			
	79.9	61	1.9	35.04	3.0	4.0	5.0	8.0			
	89.9	54	2.3	31.15	3.0	4.0	5.0	7.0			
	96.0	51	1.9	29.16	3.0	4.0	5.0	8.0			
	108.0	45	2.3	25.92	3.0	4.0	5.0	7.0			
	250.0	21	2.4	3.60	-	-	-	-	PA/PF 11 80M6B	16	158
	283.0	18	2.3	3.18	-	-	-	-			
	172.8	30	1.0	8.10	-	3.0	-	-	PA/PF 11 80M4B / 80M4C	16	158
	307.4	16	1.1	9.11	-	-	-	-	PA/PF 11 71M2B	15	158
	345.7	15	1.6	8.10	-	-	-	-			
	42.8	110	0.8	65.46	2.0	3.0	-	-	PA/PF 03 71M2B	20	169
	56.4	90	0.8	15.95	2.0	3.0	3.0	5.0	PA/PF 02 80M6B	18	168
	70.3	73	1.0	12.81	2.0	3.0	3.0	5.0			
	80.1	64	1.1	11.24	2.0	3.0	3.0	5.0			
	90.5	56	1.2	9.94	2.0	3.0	3.0	5.0			
	97.1	52	1.3	9.27	2.0	3.0	3.0	4.0			
	109.8	46	1.4	8.20	2.0	3.0	3.0	4.0			
	115.4	44	1.5	7.80	2.0	3.0	3.0	4.0			
	130.6	39	1.6	6.89	2.0	3.0	3.0	4.0			
	161.6	32	1.9	5.57	2.0	3.0	3.0	4.0			
	186.7	27	2.2	4.82	2.0	3.0	3.0	4.0			
	230.8	22	2.5	3.90	2.0	3.0	2.0	3.0			
	265.5	19	2.8	3.39	2.0	3.0	2.0	3.0			
	303.0	17	2.9	2.97	2.0	3.0	2.0	3.0			
	42.0	120	0.8	33.37	2.0	3.0	3.0	6.0	PA/PF 02 80M4B / 80M4C	18	168
	47.3	107	0.9	29.59	2.0	3.0	3.0	6.0			
	50.9	99	0.9	27.52	2.0	3.0	3.0	6.0			
	57.4	88	1.0	24.41	2.0	3.0	3.0	5.0			
	68.0	74	1.0	20.59	2.0	3.0	3.0	5.0			
	87.8	57	1.3	15.95	2.0	3.0	3.0	5.0			
	109.3	46	1.5	12.81	2.0	3.0	3.0	5.0			
	124.6	40	1.7	11.24	2.0	3.0	3.0	5.0			
	140.8	36	1.8	9.94	2.0	3.0	3.0	5.0			
	151.0	33	1.9	9.27	2.0	3.0	3.0	4.0			
	170.7	30	2.1	8.20	2.0	3.0	3.0	4.0			
	179.5	28	2.2	7.80	2.0	3.0	3.0	4.0			
	203.2	25	2.5	6.89	2.0	3.0	3.0	4.0			
	251.3	20	2.8	5.57	2.0	3.0	3.0	4.0			
	67.4	73	1.0	41.56	2.0	3.0	3.0	6.0	PA/PF 02 71M2B	17	168
	83.9	58	1.3	33.37	2.0	3.0	3.0	6.0			
	94.6	52	1.4	29.59	2.0	3.0	3.0	6.0			
	101.7	48	1.4	27.52	2.0	3.0	3.0	6.0			
	114.7	43	1.6	24.41	2.0	3.0	3.0	5.0			
	121.0	40	1.5	23.14	2.0	3.0	3.0	6.0			
	136.0	36	1.6	20.59	2.0	3.0	3.0	5.0			
	175.5	28	2.0	15.95	2.0	3.0	3.0	5.0			
	218.6	22	2.4	12.81	2.0	3.0	3.0	5.0			
	249.1	20	2.6	11.24	2.0	3.0	3.0	5.0			
	281.7	17	2.8	9.94	2.0	3.0	3.0	5.0			
0.75	0.3	25159	0.8	3461.37	101.0	120.0	-	-	PA/PF 103/53 90S6B / 90L6C	822	218
	0.3	19767	1.1	2719.64	101.0	120.0	-	-			
	0.2	26097	0.8	5796.64	101.0	120.0	-	-	PA/PF 103/53 80M4C / 80M4D	818	218
	0.3	19015	1.1	4223.52	101.0	120.0	-	-			
	0.4	15584	1.3	3461.37	101.0	120.0	-	-			
	0.5	12244	1.6	2719.64	101.0	120.0	-	-			
	0.3	17497	0.9	8470.29	101.0	120.0	-	-	PA/PF 103/53 80M2B / 80M2C	818	218
	0.4	14781	1.0	7155.29	101.0	120.0	-	-			
	0.5	11974	1.3	5796.64	101.0	120.0	-	-			
	0.7	8725	1.7	4223.52	101.0	120.0	-	-			
	0.8	7150	2.1	3461.37	101.0	120.0	-	-			
	1.0	5618	2.7	2719.64	101.0	120.0	-	-			

P_1 [kW]	n_2 [Min^{-1}]	M_2 [Nm]	f_B	i_{ges}	F_R [N]	F_A [N]	$F_{R\,GR}$ [N]	$F_{A\,GR}$ [N]	Tip / Type / Typ IE2 / IE3	Kg	mm
0.75	0.6 0.8 1.0	10432 8468 6966	2.0 2.5 3.0	1413.66 1147.52 944.01	95.0 95.0 95.0	59.0 59.0 59.0	120.0 120.0 120.0	120.0 120.0 120.0	**PA/PF 103/52 90S6B / 90L6C**	803	216
	0.4	15984	0.8	2199.04	66.0	80.0	-	-	**PA/PF 93/43 90S6B / 90L6C**	570	218
	0.5 0.6	12222 9900	1.0 1.2	2714.80 2199.04	66.0 66.0	80.0 80.0	- -	- -	**PA/PF 93/43 80M4C / 80M4D**	566	218
	0.5 0.7 0.8 1.0 1.3	11921 8884 7707 5608 4543	0.8 1.0 1.2 1.7 2.0	5771.01 4300.67 3730.70 2714.80 2199.04	66.0 66.0 66.0 66.0 66.0	80.0 80.0 80.0 80.0 80.0	- - - - -	- - - - -	**PA/PF 93/43 80M2B / 80M2C**	566	218
	0.7 0.8 1.1 1.2	9587 8051 5991 5585	1.3 1.6 2.1 2.3	1299.17 1090.99 811.95 756.80	65.0 65.0 65.0 65.0	80.0 80.0 80.0 80.0	90.0 91.0 92.0 92.0	80.0 80.0 80.0 80.0	**PA/PF 93/42 90S6B / 90L6C**	555	216
	1.7 2.1 2.4	3875 3232 2763	2.2 2.6 3.0	525.11 437.93 374.50	44.0 44.0 44.0	57.0 57.0 57.0	62.0 62.0 63.0	65.0 65.0 65.0	**PA/PF 83/42 90S6B / 90L6C**	376	216
	0.7 0.8 1.0 1.2	10086 8500 6622 5332	0.8 1.0 1.3 1.6	1366.81 1151.94 897.44 722.63	42.0 42.0 43.0 44.0	65.0 65.0 65.0 65.0	53.0 61.0 62.0 62.0	65.0 65.0 65.0 65.0	**PA/PF 83/32 90S6B / 90L6C**	361	214
	0.7 0.8 1.2 1.6 1.9	9389 7751 5304 4132 3327	0.9 1.0 1.5 1.9 2.4	2039.02 1683.27 1151.94 897.44 722.63	44.0 44.0 42.0 43.0 44.0	65.0 65.0 65.0 65.0 65.0	- - 61.0 62.0 62.0	- - 65.0 65.0 65.0	**PA/PF 83/32 80M4C / 80M4D**	357	214
	0.8 1.0 1.4 1.7 2.4	7604 6123 4365 3603 2466	0.8 1.0 1.4 1.7 2.5	3552.27 2860.33 2039.02 1683.27 1151.94	44.0 44.0 44.0 44.0 42.0	65.0 65.0 65.0 65.0 65.0	- - - - 61.0	- - - - 65.0	**PA/PF 83/32 80M2B / 80M2C**	357	214
	1.0 1.2 1.6 2.0 2.6 3.2	6541 5434 4180 3376 2559 2067	0.8 1.0 1.3 1.6 2.1 2.5	886.40 736.40 566.43 457.52 346.75 280.08	23.0 25.0 27.0 27.0 24.0 24.0	38.0 36.0 35.0 34.0 42.0 42.0	37.0 38.0 39.0 39.0 40.0 40.0	50.0 50.0 50.0 50.0 50.0 50.0	**PA/PF 73/22 90S6B / 90L6C**	243	214
	1.1 1.3 1.6 1.9 2.5 3.1	5767 5053 4081 3391 2608 2107	0.9 1.0 1.2 1.5 1.9 2.4	1252.41 1097.40 886.40 736.40 566.43 457.52	18.0 21.0 23.0 25.0 27.0 27.0	38.0 38.0 38.0 36.0 35.0 34.0	34.0 36.0 37.0 38.0 39.0 39.0	50.0 50.0 50.0 50.0 50.0 50.0	**PA/PF 73/22 80M4C / 80M4D**	239	214
	1.3 1.6 2.2 2.6 3.2 3.8	4699 3795 2681 2349 1897 1576	0.8 1.0 1.4 1.6 2.0 2.4	2194.98 1772.96 1252.41 1097.40 886.40 736.40	18.0 18.0 18.0 21.0 23.0 25.0	38.0 38.0 38.0 38.0 38.0 36.0	- - 34.0 36.0 37.0 38.0	- - 50.0 50.0 50.0 50.0	**PA/PF 73/22 80M2B / 80M2C**	239	214
	2.0 2.6	2914 2203	0.8 1.1	1410.80 1066.44	14.0 14.0	43.0 43.0	25.0 24.0	45.0 45.0	**PA/PF 63/23 80M2B / 80M2C**	166	218
	1.6 2.1 2.4 3.2 4.0 5.2 5.9	4090 3174 2715 2088 1662 1278 1133	0.8 1.1 1.2 1.6 2.0 2.6 3.0	554.24 430.20 367.90 283.00 225.22 173.24 153.52	18.0 19.0 19.0 20.0 17.0 17.0 17.0	37.0 35.0 34.0 32.0 42.0 42.0 42.0	26.0 27.0 28.0 28.0 28.0 - -	45.0 45.0 45.0 45.0 45.0 - -	**PA/PF 63/22 90S6B / 90L6C**	162	214
	1.6 1.9 2.5 3.3 3.8 4.9	3918 3351 2552 1981 1694 1303	0.8 1.0 1.3 1.6 1.9 2.5	851.02 727.77 554.24 430.20 367.90 283.00	12.0 15.0 18.0 19.0 19.0 20.0	39.0 38.0 37.0 35.0 34.0 32.0	23.0 25.0 26.0 27.0 28.0 28.0	45.0 45.0 45.0 45.0 45.0 45.0	**PA/PF 63/22 80M4C / 80M4D**	158	214

P_1 [kW]	n_2 [Min^{-1}]	M_2 [Nm]	f_B	i_{ges}	F_R [N]	F_A [N]	$F_{R\,GR}$ [N]	$F_{A\,GR}$ [N]	Tip / Type / Typ IE2 / IE3	Kg	mm
0.75	3.3	1822	1.3	851.02	12.0	39.0	23.0	45.0	PA/PF 63/22 80M2B / 80M2C	158	214
	3.8	1558	1.6	727.77	15.0	38.0	25.0	45.0			
	5.1	1186	2.0	554.24	18.0	37.0	26.0	45.0			
	6.5	921	2.6	430.20	19.0	35.0	27.0	45.0			
	2.4	2835	1.2	372.70	20.0	29.0	26.0	45.0	PA/PF 63 90S6B / 90L6C	143	193
	3.0	2289	1.5	300.91	20.0	29.0	27.0	45.0			
	3.4	2020	1.9	265.56	20.0	29.0	27.0	45.0			
	4.2	1631	2.3	214.41	20.0	29.0	28.0	45.0			
	3.2	2121	0.9	283.16	10.0	24.0	-	-	PA/PF 52/12 90S6B / 90L6C	104	212
	4.1	1647	1.2	219.87	10.0	24.0	-	-			
	4.6	1458	1.3	194.67	10.0	24.0	-	-			
	6.2	1094	1.8	146.01	10.0	24.0	-	-			
	7.2	933	2.1	124.52	10.0	24.0	-	-			
	9.2	733	2.6	97.84	10.0	24.0	-	-			
	2.8	2315	0.8	491.74	10.0	24.0	-	-	PA/PF 52/12 80M4C / 80M4D	100	212
	4.0	1668	1.1	354.34	10.0	24.0	-	-			
	4.9	1333	1.4	283.16	10.0	24.0	-	-			
	6.4	1035	1.8	219.87	10.0	24.0	-	-			
	7.2	916	2.0	194.67	10.0	24.0	-	-			
	9.6	687	2.7	146.01	10.0	24.0	-	-			
	4.1	1531	0.9	690.27	10.0	24.0	17.0	40.0	PA/PF 52/12 80M2B / 80M2C	100	212
	5.2	1203	1.2	542.36	10.0	24.0	-	-			
	5.7	1091	1.3	491.74	10.0	24.0	-	-			
	7.9	786	1.8	354.34	10.0	24.0	-	-			
	9.9	628	2.2	283.16	10.0	24.0	-	-			
	12.7	488	2.9	219.87	10.0	24.0	-	-			
	3.1	2238	1.0	294.23	13.0	24.0	19.0	40.0	PA/PF 53 90S6B / 90L6C	107	159
	3.7	1869	1.0	245.73	13.0	24.0	19.0	40.0			
	3.8	1799	1.1	236.60	13.0	24.0	19.0	40.0			
	4.8	1414	1.4	185.90	14.0	24.0	19.0	40.0			
	5.1	1350	1.5	177.45	14.0	24.0	20.0	40.0			
	6.5	1060	2.2	139.42	10.0	24.0	20.0	40.0			
	8.5	804	2.9	105.77	10.0	24.0	-	-			
	2.8	2401	0.8	499.30	9.0	24.0	17.0	40.0	PA/PF 53 80M4C / 80M4D	103	189
	3.6	1887	1.0	392.31	11.0	24.0	18.0	40.0			
	3.7	1801	1.1	374.48	12.0	24.0	18.0	40.0			
	4.8	1415	1.6	294.23	13.0	24.0	19.0	40.0			
	5.7	1182	1.6	245.73	13.0	24.0	19.0	40.0			
	5.9	1138	1.7	236.60	13.0	24.0	19.0	40.0			
	7.5	894	2.0	185.90	14.0	24.0	19.0	40.0			
	7.9	853	2.2	177.45	14.0	24.0	20.0	40.0			
	4.6	1395	1.0	606.94	9.0	24.0	17.0	40.0	PA/PF 53 80M2B / 80M2C	103	189
	5.1	1261	1.2	548.64	9.0	24.0	18.0	40.0			
	5.6	1148	1.3	499.30	9.0	24.0	17.0	40.0			
	7.1	902	1.5	392.31	11.0	24.0	18.0	40.0			
	7.5	861	1.7	374.48	12.0	24.0	18.0	40.0			
	9.5	676	2.5	294.23	13.0	24.0	19.0	40.0			
	11.4	565	2.5	245.73	13.0	24.0	19.0	40.0			
	11.8	544	2.7	236.60	13.0	24.0	19.0	40.0			
	10.4	671	2.7	86.88	14.0	24.0	20.0	40.0	PA/PF 52 90S6B / 90L6C	88	188
	11.5	606	2.8	78.53	14.0	24.0	20.0	40.0			
	12.6	552	3.0	71.47	14.0	24.0	20.0	40.0			
	67.8	104	2.9	13.27	-	-	-	-	PA/PF 51 90S6B / 90L6C	49	166
	5.3	1267	1.0	169.11	3.0	12.0	-	-	PA/PF 42/12 90S6B / 90L6C	86	212
	6.4	1052	1.2	140.44	3.0	12.0	-	-			
	7.7	871	1.4	116.26	3.0	12.0	-	-			
	10.3	658	1.9	87.79	3.0	12.0	-	-			
	5.1	1301	0.9	276.49	3.0	12.0	-	-	PA/PF 42/12 80M4C / 80M4D	71	212
	6.1	1081	1.1	229.62	3.0	12.0	-	-			
	8.3	796	1.5	169.11	3.0	12.0	-	-			
	10.0	661	1.8	140.44	3.0	12.0	-	-			
	12.0	547	2.2	116.26	3.0	12.0	-	-			
	15.9	413	2.9	87.79	3.0	12.0	-	-			

P_1 [kW]	n_2 [Min^{-1}]	M_2 [Nm]	f_B	i_{ges}	F_R [N]	F_A [N]	$F_{R\,GR}$ [N]	$F_{A\,GR}$ [N]	Tip / Type / Typ IE2 / IE3	Kg	mm
0.75	6.5 8.1 10.1 12.2 16.6 19.9	961 769 613 509 375 312	0.9 1.2 1.5 1.8 2.4 2.9	433.11 346.69 276.49 229.62 169.11 140.44	3.0 3.0 3.0 3.0 3.0 3.0	12.0 12.0 12.0 12.0 12.0 12.0	9.0 - - - - -	18.0 - - - - -	PA/PF 42/12 80M2B / 80M2C	71	212
	4.1 4.4 4.9 5.3 6.4 7.0 8.4 9.5 11.2 12.8 15.5 18.5	1668 1555 1391 1292 1077 983 817 722 609 533 443 369	0.8 0.9 0.8 0.9 1.0 1.3 1.4 1.8 2.1 2.5 2.8 3.0	219.26 204.49 182.86 169.82 141.63 129.27 107.36 94.91 80.01 70.10 58.22 48.55	6.0 7.0 7.0 7.0 8.0 8.0 8.0 8.0 5.0 5.0 5.0 5.0	12.0 12.0 12.0 12.0 12.0 12.0 12.0 12.0 12.0 12.0 12.0 12.0	10.0 10.0 11.0 11.0 11.0 11.0 11.0 11.0 11.0 11.0 - -	15.0 15.0 15.0 15.0 15.0 15.0 14.0 14.0 14.0 13.0 - -	PA/PF 43 90S6B / 90L6C	74	185
	4.7 5.0 5.3 6.1 6.4 6.8 7.7 8.2 9.9 10.8 13.0 14.8	1436 1339 1270 1112 1054 983 879 817 681 622 516 456	0.8 1.0 1.0 1.0 1.1 1.3 1.2 1.4 1.5 2.0 2.2 2.7	298.65 278.52 264.02 231.31 219.26 204.49 182.86 169.82 141.63 129.27 107.36 94.91	4.0 4.0 5.0 6.0 6.0 7.0 7.0 7.0 8.0 8.0 8.0 8.0	12.0 12.0 12.0 12.0 12.0 12.0 12.0 12.0 12.0 12.0 12.0 12.0	10.0 9.0 9.0 10.0 10.0 10.0 11.0 11.0 11.0 11.0 11.0 11.0	18.0 16.0 16.0 15.0 15.0 15.0 15.0 15.0 15.0 15.0 14.0 14.0	PA/PF 43 80M4C / 80M4D	70	185
	6.6 7.8 9.4 10.1 10.6 12.1 12.8 13.7 15.3 16.5 19.8	968 827 687 640 607 532 504 470 420 390 326	0.9 1.2 1.2 1.5 1.6 1.6 1.8 2.1 1.8 2.3 2.5	421.21 359.61 298.65 278.52 264.02 231.31 219.26 204.49 182.86 169.82 141.63	4.0 4.0 4.0 4.0 5.0 6.0 6.0 7.0 7.0 7.0 8.0	12.0 12.0 12.0 12.0 12.0 12.0 12.0 12.0 12.0 12.0 12.0	10.0 9.0 10.0 9.0 9.0 10.0 10.0 10.0 11.0 11.0 11.0	21.0 18.0 18.0 16.0 16.0 15.0 15.0 15.0 15.0 15.0 15.0	PA/PF 43 80M2B / 80M2C	70	185
	8.6 10.6 12.0 14.8	811 657 578 468	1.1 1.3 2.0 2.3	105.08 85.10 74.87 60.64	8.0 8.0 8.0 8.0	12.0 12.0 12.0 12.0	11.0 11.0 11.0 11.0	13.0 13.0 13.0 12.0	PA/PF 42 90S6B / 90L6C	59	184
	60.8 85.3	116 83	1.2 2.4	14.80 10.55	- -	- -	- -	- -	PA/PF 41 90S6B / 90L6C	40	164
	11.0	616	1.1	82.19	5.0	9.0	-	-	PA/PF 32/12 90S6B / 90L6C	57	212
	8.4 9.5 11.1 17.0	787 697 594 387	0.8 0.9 1.0 1.6	167.16 148.00 126.22 82.19	5.0 5.0 5.0 5.0	9.0 9.0 9.0 9.0	- - - -	- - - -	PA/PF 32/12 80M4C / 80M4D	53	212
	10.5 13.0 16.8 18.9 22.2 34.1	593 478 371 328 280 182	0.8 1.0 1.3 1.4 1.7 2.6	267.35 215.28 167.16 148.00 126.22 82.19	5.0 5.0 5.0 5.0 5.0 5.0	9.0 9.0 9.0 9.0 9.0 9.0	9.0 9.0 - - - -	22.0 19.0 - - - -	PA/PF 32/12 80M2B / 80M2C	53	212
	10.2	671	0.8	88.29	5.0	9.0	-	-	PA/PF 33 90S6B / 90L6C	53	181
	8.4 10.4 12.5 15.9	800 644 539 425	0.8 1.0 1.0 1.3	166.39 133.98 112.18 88.29	6.0 5.0 5.0 5.0	9.0 9.0 9.0 9.0	8.0 9.0 - -	17.0 16.0 - -	PA/PF 33 80M4C / 80M4D	49	181

P_1 [kW]	n_2 [Min^{-1}]	M_2 [Nm]	f_B	i_{ges}	F_R [N]	F_A [N]	$F_{R\,GR}$ [N]	$F_{A\,GR}$ [N]	Tip / Type / Typ IE2 / IE3	Kg	mm
0.75	13.5 16.8 20.9 25.0 31.7	476 382 308 258 203	1.1 1.3 1.6 1.6 2.0	206.97 166.39 133.98 112.18 88.29	6.0 6.0 5.0 5.0 5.0	9.0 9.0 9.0 9.0 9.0	8.0 8.0 9.0 - -	19.0 17.0 16.0 - -	PA/PF 33 80M2B / 80M2C	49	181
	11.1 12.4 14.0 15.7 19.4 19.5 23.2 24.2 27.3 28.9 29.6 33.0 33.9	628 561 496 444 357 357 299 287 255 241 235 210 205	0.9 1.0 1.4 1.4 1.6 2.0 1.6 2.2 1.6 2.2 2.9 3.0 2.2	81.27 72.71 64.26 57.49 46.29 46.22 38.76 37.22 33.00 31.16 30.45 27.24 26.53	7.0 7.0 7.0 7.0 7.0 6.0 6.0 6.0 6.0 7.0 7.0 7.0 7.0	9.0 9.0 9.0 9.0 9.0 9.0 9.0 9.0 9.0 9.0 9.0 9.0 9.0	9.0 9.0 9.0 9.0 9.0 9.0 9.0 9.0 9.0 9.0 - - 9.0	15.0 15.0 15.0 14.0 13.0 13.0 13.0 12.0 12.0 12.0 - - 11.0	PA/PF 32 90S6B / 90L6C	44	180
	17.2 19.3 21.8 24.4 30.2 36.1 42.4	399 357 316 282 227 190 162	1.3 1.6 2.0 2.2 2.3 2.3 2.3	81.27 72.71 64.26 57.49 46.29 38.76 33.00	7.0 7.0 7.0 7.0 7.0 6.0 6.0	9.0 9.0 9.0 9.0 9.0 9.0 9.0	9.0 9.0 9.0 9.0 9.0 9.0 9.0	15.0 15.0 15.0 14.0 13.0 13.0 12.0	PA/PF 32 80M4C / 80M4D	40	180
	34.5 38.5	194 173	2.0 2.5	81.27 72.71	7.0 7.0	9.0 9.0	9.0 9.0	16.0 16.0	PA/PF 32 80M2B / 80M2C	40	180
	88.2 109.8 186.3	80 64 38	1.2 1.7 2.7	10.20 8.20 4.83	- - -	- - -	- - -	- - -	PA/PF 31 90S6B / 90L6C	31	162
	137.3	51	1.8	10.20	-	3.0	-	-	PA/PF 31 80M4C / 80M4D	27	162
	274.5	25	2.7	10.20	-	-	-	-	PA/PF 31 80M2B / 80M2C	27	162
	20.7 23.8	300 261	0.9 1.0	135.06 117.62	4.0 4.0	6.0 6.0	7.0 7.0	13.0 12.0	PA/PF 22/02 80M2B / 80M2C	40	212
	15.9 17.9 21.6	424 375 312	0.8 0.9 1.1	88.24 78.00 64.80	1.0 2.0 3.0	6.0 6.0 6.0	6.0 7.0 7.0	10.0 10.0 10.0	PA/PF 23 80M4C / 80M4D	37	177
	22.6 27.9 31.7 35.9 43.2	285 231 203 179 149	0.9 1.1 1.3 1.4 1.7	124.10 100.53 88.24 78.00 64.80	1.0 1.0 1.0 1.0 3.0	6.0 6.0 6.0 6.0 6.0	7.0 7.0 6.0 7.0 7.0	13.0 11.0 10.0 10.0 10.0	PA/PF 23 80M2B / 80M2C	37	177
	16.3 19.6 21.0 25.3 26.0 30.7 31.3 36.5 37.9 45.0 53.8	427 354 330 274 268 227 222 191 184 154 129	0.8 0.9 1.1 1.3 1.3 1.4 1.8 1.4 1.9 1.9 2.8	55.25 45.90 42.79 35.55 34.67 29.34 28.80 24.69 23.77 20.00 16.74	5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0	6.0 6.0 6.0 6.0 6.0 6.0 6.0 6.0 6.0 6.0 6.0	7.0 7.0 7.0 7.0 7.0 7.0 7.0 7.0 7.0 7.0 8.0	10.0 9.0 9.0 9.0 8.0 9.0 8.0 8.0 8.0 8.0 8.0	PA/PF 22 90S6B / 90L6C	33	176
	20.1 25.3 30.5 32.7 39.4 47.7 56.7	343 271 225 210 175 144 121	0.8 1.2 1.3 1.6 1.9 2.0 2.0	69.74 55.25 45.90 42.79 35.55 29.34 24.69	5.0 5.0 5.0 5.0 5.0 5.0 5.0	6.0 6.0 6.0 6.0 6.0 6.0 6.0	7.0 7.0 7.0 7.0 7.0 7.0 7.0	11.0 10.0 9.0 9.0 9.0 9.0 8.0	PA/PF 22 80M4C / 80M4D	19	176

P_1 [kW]	n_2 [Min^{-1}]	M_2 [Nm]	f_B	i_{ges}	F_R [N]	F_A [N]	$F_{R\,GR}$ [N]	$F_{A\,GR}$ [N]	Tip / Type / Typ IE2 / IE3	Kg	mm
0.75	32.5 40.1 50.7 61.0 65.4 78.8	205 166 132 109 102 85	0.9 1.2 1.8 2.0 2.5 3.0	86.26 69.74 55.25 45.90 42.79 35.55	5.0 5.0 5.0 5.0 5.0 5.0	6.0 6.0 6.0 6.0 6.0 6.0	7.0 7.0 7.0 7.0 7.0 7.0	11.0 11.0 10.0 9.0 9.0 9.0	**PA/PF 22 80M2B / 80M2C**	19	176
	113.9 140.6 245.2 291.3	62 50 29 24	1.0 1.4 2.5 2.7	7.90 6.40 3.67 3.09	- - - -	- - - -	- - - -	- - - -	**PA/PF 21 90S6B / 90L6C**	35	160
	137.3 177.2	51 40	0.8 1.5	10.20 7.90	- -	4.0 4.0	- -	- -	**PA/PF 21 80M4C / 80M4D**	31	160
	274.5 354.4	25 20	1.2 2.3	10.20 7.90	- -	- -	- -	- -	**PA/PF 21 80M2B / 80M2C**	31	160
	42.3 47.9 53.8 67.2 84.3 93.3 114.6 123.5 137.8 155.7	164 145 129 103 82 75 61 56 50 45	1.1 1.2 1.3 1.5 1.7 1.9 2.3 2.3 2.6 2.9	21.27 18.80 16.74 13.39 10.68 9.65 7.85 7.29 6.53 5.78	3.0 3.0 3.0 3.0 3.0 3.0 3.0 3.0 3.0 3.0	4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0	5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0	7.0 6.0 6.0 6.0 6.0 6.0 5.0 5.0 5.0 5.0	**PA/PF 12 90S6B / 90L6C**	24	172
	29.3 36.6 44.9 54.0 65.8 74.5 83.6 104.6 131.1 145.1	230 184 150 125 102 90 81 64 51 46	0.8 1.0 1.1 1.1 1.6 1.8 1.9 2.3 2.6 2.9	47.86 38.29 31.15 25.92 21.27 18.80 16.74 13.39 10.68 9.65	1.0 1.0 1.0 2.0 3.0 3.0 3.0 3.0 3.0 3.0	4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0	5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0	8.0 7.0 7.0 7.0 7.0 6.0 6.0 6.0 6.0 6.0	**PA/PF 12 80M4C / 80M4D**	20	172
	58.5 73.1 89.9 108.0 131.6 148.9 167.3	114 91 74 62 51 45 40	1.2 1.5 1.7 1.7 2.5 2.7 2.9	47.86 38.29 31.15 25.92 21.27 18.80 16.74	1.0 1.0 1.0 2.0 3.0 3.0 3.0	4.0 4.0 4.0 4.0 4.0 4.0 4.0	5.0 5.0 5.0 5.0 5.0 5.0 5.0	8.0 7.0 7.0 7.0 7.0 6.0 6.0	**PA/PF 12 80M2B / 80M2C**	20	172
	250.0 283.0 318.0 387.9	28 25 22 18	1.6 1.7 2.6 2.8	3.60 3.18 2.83 2.32	- - - -	- - - -	- - - -	- - - -	**PA/PF 11 90S6B / 90L6C**	20	158
	388.9 440.3	18 16	2.7 2.5	3.60 3.18	- -	3.0 3.0	- -	- -	**PA/PF 11 80M4C / 80M4D**	16	158
	345.7	20	1.1	8.10	-	-	-	-	**PA/PF 11 80M2B / 80M2C**	16	158
	80.1 90.5 97.1 109.8 115.4 130.6 161.6 186.7 230.8 265.5 303.0	87 77 72 63 60 53 43 37 30 26 23	0.8 0.9 1.0 1.0 1.1 1.2 1.4 1.6 1.8 2.0 2.1	11.24 9.94 9.27 8.20 7.80 6.89 5.57 4.82 3.90 3.39 2.97	2.0 2.0 2.0 2.0 2.0 2.0 2.0 2.0 2.0 2.0 2.0	3.0 3.0 3.0 3.0 3.0 3.0 3.0 3.0 3.0 3.0 3.0	3.0 3.0 3.0 3.0 3.0 3.0 3.0 3.0 2.0 2.0 2.0	5.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 3.0 3.0 3.0	**PA/PF 02 90S6B / 90L6C**	22	168

P_1 [kW]	n_2 [Min^{-1}]	M_2 [Nm]	f_B	i_{ges}	F_R [N]	F_A [N]	$F_{R\,GR}$ [N]	$F_{A\,GR}$ [N]	Tip / Type / Typ IE2 / IE3	Kg	mm
0.75	87.8	78	0.9	15.95	2.0	3.0	3.0	5.0	PA/PF 02 80M4C / 80M4D	18	168
	109.3	63	1.1	12.81	2.0	3.0	3.0	5.0			
	124.6	55	1.2	11.24	2.0	3.0	3.0	5.0			
	140.8	49	1.3	9.94	2.0	3.0	3.0	4.0			
	151.0	46	1.4	9.27	2.0	3.0	3.0	4.0			
	170.7	40	1.6	8.20	2.0	3.0	3.0	4.0			
	179.5	38	1.6	7.80	2.0	3.0	3.0	4.0			
	203.2	34	1.8	6.89	2.0	3.0	3.0	4.0			
	251.3	27	2.1	5.57	2.0	3.0	3.0	4.0			
	290.5	24	2.4	4.82	2.0	3.0	3.0	4.0			
	359.0	19	2.8	3.90	2.0	3.0	2.0	3.0			
	83.9	79	0.9	33.37	2.0	3.0	3.0	6.0	PA/PF 02 80M2B / 80M2C	18	168
	94.6	70	1.0	29.59	2.0	3.0	3.0	6.0			
	101.7	66	1.0	27.52	2.0	3.0	3.0	5.0			
	114.7	58	1.2	24.41	2.0	3.0	3.0	5.0			
	136.0	49	1.1	20.59	2.0	3.0	3.0	5.0			
	175.5	38	1.4	15.95	2.0	3.0	3.0	5.0			
	218.6	31	1.7	12.81	2.0	3.0	3.0	5.0			
	249.1	27	1.9	11.24	2.0	3.0	3.0	4.0			
	281.7	24	2.1	9.94	2.0	3.0	3.0	4.0			
	302.0	22	2.2	9.27	2.0	3.0	3.0	4.0			
	341.5	20	2.5	8.20	2.0	3.0	3.0	4.0			
	359.0	19	2.6	7.80	2.0	3.0	3.0	4.0			
	406.4	16	2.8	6.89	2.0	3.0	3.0	4.0			
1.10	0.4	22856	0.9	3461.37	101.0	120.0	-	-	PA/PF 103/53 90L4B / 90L4C	822	218
	0.5	17958	1.1	2719.64	101.0	120.0	-	-			
	0.5	17562	0.9	5796.64	101.0	120.0	-	-	PA/PF 103/53 80M2C / 80M2D	818	218
	0.7	12796	1.2	4223.52	101.0	120.0	-	-			
	0.8	10487	1.4	3461.37	101.0	120.0	-	-			
	1.0	8240	1.8	2719.64	101.0	120.0	-	-			
	0.6	15300	1.4	1413.66	95.0	59.0	120.0	120.0	PA/PF 103/52 90L6C / 90L6D	803	216
	0.8	12419	1.7	1147.52	95.0	59.0	120.0	120.0			
	1.0	10217	2.1	944.01	95.0	59.0	120.0	120.0			
	1.1	8851	2.4	817.82	95.0	59.0	120.0	120.0			
	1.4	6954	3.0	642.57	95.0	59.0	120.0	120.0			
	0.6	14521	0.8	2199.04	66.0	80.0	-	-	PA/PF 93/43 90L4B / 90L4C	570	218
	0.8	11303	0.8	3730.70	66.0	80.0	-	-	PA/PF 93/43 80M2C / 80M2D	566	218
	1.0	8225	1.1	2714.80	66.0	80.0	-	-			
	1.3	6662	1.4	2199.04	66.0	80.0	-	-			
	0.7	14060	0.9	1299.17	62.0	80.0	90.0	80.0	PA/PF 93/42 90L6C / 90L6D	555	216
	0.8	11807	1.1	1090.99	63.0	80.0	91.0	80.0			
	1.1	8787	1.5	811.95	65.0	80.0	92.0	80.0			
	1.2	8191	1.6	756.80	65.0	80.0	92.0	80.0			
	1.6	5930	2.2	547.88	65.0	80.0	93.0	80.0			
	2.0	4945	2.6	456.91	65.0	80.0	93.0	80.0			
	1.1	8774	1.4	1299.17	62.0	80.0	90.0	80.0	PA/PF 93/42 90L4B / 90L4C	555	216
	1.3	7368	1.7	1090.99	63.0	80.0	91.0	80.0			
	1.7	5483	2.2	811.95	65.0	80.0	92.0	80.0			
	1.8	5111	2.4	756.80	65.0	80.0	92.0	80.0			
	1.7	5683	1.5	525.11	44.0	59.0	62.0	65.0	PA/PF 83/42 90L6C / 90L6D	376	216
	2.1	4740	1.8	437.93	44.0	57.0	62.0	65.0			
	2.4	4053	2.1	374.50	44.0	57.0	63.0	65.0			
	3.3	2987	2.8	276.00	44.0	57.0	63.0	65.0			
	2.7	3546	2.3	525.11	44.0	59.0	62.0	65.0	PA/PF 83/42 90L4B / 90L4C	376	216
	3.2	2957	2.7	437.93	44.0	57.0	62.0	65.0			
	1.0	9713	0.9	897.44	39.0	65.0	59.0	65.0	PA/PF 83/32 90L6C / 90L6D	361	214
	1.2	7821	1.1	722.63	42.0	63.0	61.0	65.0			
	1.0	9230	0.9	1366.81	30.0	65.0	53.0	65.0	PA/PF 83/32 90L4B / 90L4C	361	214
	1.2	7779	1.0	1151.94	36.0	65.0	57.0	65.0			
	1.6	6061	1.3	897.44	39.0	65.0	59.0	65.0			
	1.9	4880	1.6	722.63	42.0	63.0	61.0	65.0			

P_1 [kW]	n_2 [Min^{-1}]	M_2 [Nm]	f_B	i_{ges}	F_R [N]	F_A [N]	$F_{R\,GR}$ [N]	$F_{A\,GR}$ [N]	Tip / Type / Typ IE2 / IE3	Kg	mm
1.10	1.4 1.7 2.4 3.1 3.9	6402 5285 3617 2818 2269	0.9 1.2 1.7 2.2 2.7	2039.02 1683.27 1151.94 897.44 722.63	36.0 36.0 36.0 39.0 42.0	65.0 65.0 65.0 65.0 63.0	- - 57.0 59.0 61.0	- - 65.0 65.0 65.0	**PA/PF 83/32 80M2C / 80M2D**	357	214
	4.0 5.3	2450 1852	2.1 2.8	226.38 171.10	27.0 27.0	26.0 26.0	39.0 40.0	50.0 50.0	**PA/PF 73/32 90L6C / 90L6D**	254	214
	1.6 2.0 2.6 3.2	6130 4952 3753 3031	0.9 1.1 1.4 1.7	566.43 457.52 346.75 280.08	24.0 26.0 27.0 27.0	31.0 31.0 30.0 29.0	37.0 38.0 39.0 40.0	50.0 50.0 50.0 50.0	**PA/PF 73/22 90L6C / 90L6D**	243	214
	1.6 1.9 2.5 3.1 4.0 5.0	5986 4973 3825 3090 2342 1891	0.8 1.0 1.3 1.6 2.1 2.6	886.40 736.40 566.43 457.52 346.75 280.08	16.0 20.0 24.0 26.0 27.0 27.0	32.0 32.0 31.0 31.0 30.0 29.0	33.0 35.0 37.0 38.0 39.0 40.0	50.0 50.0 50.0 50.0 50.0 50.0	**PA/PF 73/22 90L4B / 90L4C**	243	214
	2.2 2.6 3.2 3.8 4.9 6.1	3932 3445 2783 2312 1778 1436	1.0 1.1 1.4 1.6 2.1 2.6	1252.41 1097.40 886.40 736.40 566.43 457.52	16.0 16.0 16.0 20.0 24.0 26.0	32.0 32.0 32.0 32.0 31.0 31.0	34.0 36.0 33.0 35.0 37.0 38.0	50.0 50.0 50.0 50.0 50.0 50.0	**PA/PF 73/22 80M2C / 80M2D**	239	214
	2.6	3231	0.8	1066.44	14.0	43.0	24.0	45.0	**PA/PF 63/23 80M2C / 80M2D**	166	218
	2.4 3.2 4.0 5.2 5.9	3982 3063 2437 1875 1661	0.8 1.1 1.4 1.8 2.0	367.90 283.00 225.22 173.24 153.52	12.0 12.0 12.0 12.0 12.0	39.0 39.0 39.0 39.0 39.0	28.0 28.0 28.0 - -	45.0 45.0 45.0 - -	**PA/PF 63/22 90L6C / 90L6D**	162	214
	2.5 3.3 3.8 4.9 6.2 8.1	3743 2905 2485 1911 1521 1170	0.9 1.1 1.3 1.7 2.1 2.7	554.24 430.20 367.90 283.00 225.22 173.24	12.0 12.0 12.0 12.0 12.0 12.0	39.0 39.0 39.0 39.0 39.0 39.0	26.0 27.0 28.0 28.0 28.0 -	45.0 45.0 45.0 45.0 45.0 -	**PA/PF 63/22 90L4B / 90L4C**	162	214
	3.3 3.8 5.1 6.5 7.6 9.9	2672 2285 1740 1351 1155 889	0.9 1.1 1.4 1.8 2.1 2.7	851.02 727.77 554.24 430.20 367.90 283.00	12.0 12.0 12.0 12.0 12.0 12.0	39.0 39.0 39.0 39.0 39.0 39.0	23.0 25.0 26.0 27.0 28.0 28.0	45.0 45.0 45.0 45.0 45.0 45.0	**PA/PF 63/22 80M2C / 80M2D**	158	214
	2.4 3.0 3.4 4.2	4157 3357 2962 2392	0.8 1.0 1.3 1.6	372.70 300.91 265.56 214.41	17.0 18.0 19.0 20.0	31.0 30.0 30.0 29.0	26.0 27.0 27.0 28.0	45.0 45.0 45.0 45.0	**PA/PF 63 90L6C / 90L6D**	143	193
	3.8 4.7 5.3 6.5	2629 2122 1873 1512	1.2 1.5 1.9 2.4	372.70 300.91 265.56 214.41	17.0 18.0 19.0 20.0	31.0 30.0 30.0 29.0	26.0 27.0 27.0 28.0	45.0 45.0 45.0 45.0	**PA/PF 63 90L4B / 90L4C**	143	193
	4.1 4.6 6.2 7.2 9.2	2416 2139 1604 1368 1075	0.8 0.9 1.2 1.4 1.8	219.87 194.67 146.01 124.52 97.84	10.0 10.0 10.0 10.0 10.0	24.0 24.0 24.0 24.0 24.0	- - - - -	- - - - -	**PA/PF 52/12 90L6C / 90L6D**	104	212
	4.9 6.4 7.2 9.6 11.2 14.3	1955 1518 1344 1008 860 675	0.9 1.2 1.4 1.8 2.1 2.7	283.16 219.87 194.67 146.01 124.52 97.84	10.0 10.0 10.0 10.0 10.0 10.0	24.0 24.0 24.0 24.0 24.0 24.0	- - - - - -	- - - - - -	**PA/PF 52/12 90L4B / 90L4C**	104	212

P_1 [kW]	n_2 [Min^{-1}]	M_2 [Nm]	f_B	i_{ges}	F_R [N]	F_A [N]	$F_{R\,GR}$ [N]	$F_{A\,GR}$ [N]	Tip / Type / Typ IE2 / IE3	Kg	mm
1.10	5.2	1765	0.8	542.36	10.0	24.0	-	-	PA/PF 52/12 80M2C / 80M2D	100	212
	5.7	1600	0.9	491.74	10.0	24.0	-	-			
	7.9	1153	1.2	354.34	10.0	24.0	-	-			
	9.9	921	1.5	283.16	10.0	24.0	-	-			
	12.7	715	1.9	219.87	10.0	24.0	-	-			
	14.4	633	2.2	194.67	10.0	24.0	-	-			
	19.2	475	2.9	146.01	10.0	24.0	-	-			
	3.8	2639	0.8	236.60	12.0	24.0	19.0	40.0	PA/PF 53 90L6C / 90L6D	107	189
	4.8	2074	0.9	185.90	13.0	24.0	19.0	40.0			
	5.1	1979	1.0	177.45	13.0	24.0	19.0	40.0			
	6.5	1555	1.5	139.42	14.0	24.0	19.0	40.0			
	8.5	1180	2.0	105.77	9.0	24.0	19.0	40.0			
	9.4	1064	2.2	95.41	9.0	24.0	19.0	40.0			
	11.3	889	2.2	79.69	9.0	24.0	-	-			
	13.8	729	2.8	65.31	9.0	24.0	-	-			
	4.8	2075	1.1	294.23	11.0	24.0	17.0	40.0	PA/PF 53 90L4B / 90L4C	107	189
	5.7	1733	1.1	245.73	12.0	24.0	18.0	40.0			
	5.9	1669	1.2	236.60	12.0	24.0	18.0	40.0			
	7.5	1311	1.4	185.90	13.0	24.0	19.0	40.0			
	7.9	1252	1.5	177.45	13.0	24.0	19.0	40.0			
	10.0	983	2.3	139.42	14.0	24.0	19.0	40.0			
	13.2	746	3.0	105.77	9.0	24.0	19.0	40.0			
	5.1	1850	0.8	548.64	11.0	24.0	18.0	40.0	PA/PF 53 80M2C / 80M2D	103	189
	5.6	1683	0.9	499.30	11.0	24.0	17.0	40.0			
	7.1	1323	1.0	392.31	11.0	24.0	18.0	40.0			
	7.5	1263	1.2	374.48	11.0	24.0	18.0	40.0			
	9.5	992	1.7	294.23	11.0	24.0	17.0	40.0			
	11.4	828	1.7	245.73	12.0	24.0	18.0	40.0			
	11.8	798	1.8	236.60	12.0	24.0	18.0	40.0			
	15.1	627	2.2	185.90	13.0	24.0	19.0	40.0			
	15.8	598	2.4	177.45	13.0	24.0	19.0	40.0			
	10.4	984	1.8	86.88	14.0	24.0	20.0	40.0	PA/PF 52 90L6C / 90L6D	88	188
	11.5	889	1.9	78.53	14.0	24.0	20.0	40.0			
	12.6	809	2.1	71.47	14.0	24.0	20.0	40.0			
	16.1	626	2.7	86.88	14.0	24.0	20.0	40.0	PA/PF 52 90L4B / 90L4C	88	188
	17.8	566	2.8	78.53	14.0	24.0	20.0	40.0			
	67.8	153	2.0	13.27	-	-	-	-	PA/PF 51 90L6C / 90L6D	49	166
	105.5	98	3.0	13.27	-	6.0	-	-	PA/PF 51 90L4B / 90L4C	49	166
	6.4	1543	0.8	140.44	3.0	12.0	-	-	PA/PF 42/12 90L6C / 90L6D	86	212
	7.7	1277	1.0	116.26	3.0	12.0	-	-			
	10.3	965	1.3	87.79	3.0	12.0	-	-			
	6.1	1585	0.8	229.62	3.0	12.0	-	-	PA/PF 42/12 90L4B / 90L4C	86	212
	8.3	1167	1.0	169.11	3.0	12.0	-	-			
	10.0	969	1.2	140.44	3.0	12.0	-	-			
	12.0	803	1.5	116.26	3.0	12.0	-	-			
	15.9	606	2.0	87.79	3.0	12.0	-	-			
	8.1	1128	0.8	346.69	3.0	12.0	-	-	PA/PF 42/12 80M2C / 80M2D	71	212
	10.1	900	1.0	276.49	3.0	12.0	-	-			
	12.2	747	1.2	229.62	3.0	12.0	-	-			
	16.6	550	1.7	169.11	3.0	12.0	-	-			
	19.9	457	2.0	140.44	3.0	12.0	-	-			
	24.1	378	2.4	116.26	3.0	12.0	-	-			
	7.0	1442	0.9	129.27	4.0	12.0	11.0	15.0	PA/PF 43 90L6C / 90L6D	74	185
	8.4	1198	1.0	107.36	4.0	12.0	11.0	14.0			
	9.5	1059	1.2	94.91	4.0	12.0	11.0	14.0			
	11.2	892	1.4	80.01	4.0	12.0	11.0	14.0			
	12.8	782	1.7	70.10	4.0	12.0	11.0	13.0			
	15.5	649	1.9	58.22	4.0	12.0	-	-			
	18.5	542	2.0	48.55	4.0	12.0	-	-			
	22.0	456	2.4	40.91	4.0	12.0	-	-			

P_1 [kW]	n_2 [Min^{-1}]	M_2 [Nm]	f_B	i_{ges}	F_R [N]	F_A [N]	$F_{R\,GR}$ [N]	$F_{A\,GR}$ [N]	Tip / Type / Typ IE2 / IE3	Kg	mm
1.10	6.4 6.8 7.7 8.2 9.9 10.8 13.0 14.8 17.5 20.0 24.0	1547 1442 1290 1198 999 912 757 669 564 494 411	0.8 0.9 0.8 1.0 1.1 1.4 1.5 1.9 2.2 2.5 2.8	219.26 204.49 182.86 169.82 141.63 129.27 107.36 94.91 80.01 70.10 58.22	3.0 3.0 4.0 6.0 7.0 4.0 4.0 4.0 4.0 4.0 4.0	12.0 12.0 12.0 12.0 12.0 12.0 12.0 12.0 12.0 12.0 12.0	10.0 9.0 11.0 10.0 10.0 11.0 11.0 11.0 11.0 11.0 -	15.0 13.0 15.0 13.0 13.0 15.0 14.0 14.0 14.0 13.0 -	**PA/PF 43 90L4B / 90L4C**	74	185
	7.8 9.4 10.1 10.6 12.1 12.8 13.7 15.3 16.5 19.8 21.7 26.1 29.5	1212 1007 939 890 780 739 689 617 573 478 436 362 320	0.8 0.8 1.0 1.1 1.1 1.2 1.4 1.3 1.5 1.7 2.2 2.3 2.9	359.61 298.65 278.52 264.02 231.31 219.26 204.49 182.86 169.82 141.63 129.27 107.36 94.91	3.0 3.0 3.0 3.0 3.0 3.0 3.0 4.0 6.0 7.0 4.0 4.0 4.0	12.0 12.0 12.0 12.0 12.0 12.0 12.0 12.0 12.0 12.0 12.0 12.0 12.0	9.0 10.0 9.0 9.0 10.0 10.0 9.0 11.0 10.0 10.0 11.0 11.0 11.0	18.0 18.0 16.0 16.0 15.0 15.0 13.0 15.0 13.0 13.0 15.0 14.0 14.0	**PA/PF 43 80M2C / 80M2D**	70	185
	8.6 10.6 12.0 14.8	1190 964 848 687	0.8 0.9 1.3 1.5	105.08 85.10 74.87 60.64	7.0 8.0 8.0 8.0	12.0 12.0 12.0 12.0	11.0 11.0 11.0 11.0	13.0 13.0 13.0 12.0	**PA/PF 42 90L6C / 90L6D**	59	184
	13.3 16.5 18.7 23.1	757 613 539 437	1.1 1.3 2.2 2.3	105.08 85.10 74.87 60.64	7.0 8.0 8.0 8.0	12.0 12.0 12.0 12.0	11.0 11.0 11.0 11.0	13.0 13.0 13.0 12.0	**PA/PF 42 90L4B / 90L4C**	59	184
	60.8 85.3	170 121	0.8 1.6	14.80 10.55	- -	- -	- -	- -	**PA/PF 41 90L6C / 90L6D**	40	164
	94.6 132.7	109 78	1.2 2.4	14.80 10.55	- -	4.0 4.0	- -	- -	**PA/PF 41 90L4B / 90L4C**	40	164
	17.0	567	1.1	82.19	5.0	9.0	-	-	**PA/PF 32/12 90L4B / 90L4C**	57	212
	16.8 18.9 22.2 34.1	544 482 411 267	0.9 1.0 1.1 1.8	167.16 148.00 126.22 82.19	5.0 5.0 5.0 5.0	9.0 9.0 9.0 9.0	- - - -	- - - -	**PA/PF 32/12 80M2C / 80M2D**	53	212
	15.9	623	0.9	88.29	6.0	9.0	-	-	**PA/PF 33 90L4B / 90L4C**	53	181
	16.8 20.9 25.0 31.7	561 452 378 298	0.9 1.1 1.1 1.4	166.39 133.98 112.18 88.29	6.0 6.0 6.0 6.0	9.0 9.0 9.0 9.0	8.0 9.0 - -	17.0 16.0 - -	**PA/PF 33 80M2C / 80M2D**	49	181
	14.0 15.7 19.4 19.5 23.2 24.2 27.3 28.9 29.6 33.0 33.9 39.0 43.5 54.1	728 651 524 523 439 422 374 353 345 308 300 262 234 188	0.9 1.0 1.1 1.3 1.1 1.5 1.1 1.5 1.9 2.0 1.5 2.5 3.0 3.0	64.26 57.49 46.29 46.22 38.76 37.22 33.00 31.16 30.45 27.24 26.53 23.10 20.67 16.64	6.0 7.0 6.0 6.0 6.0 6.0 6.0 6.0 5.0 5.0 5.0 7.0 7.0 7.0	9.0 9.0 9.0 9.0 9.0 9.0 9.0 9.0 9.0 9.0 9.0 9.0 9.0 9.0	9.0 9.0 9.0 9.0 9.0 9.0 9.0 9.0 - - 9.0 9.0 9.0 9.0	13.0 13.0 13.0 13.0 12.0 12.0 12.0 12.0 - - 11.0 11.0 11.0 9.0	**PA/PF 32 90L6C / 90L6D**	44	180

P_1 [kW]	n_2 [Min^{-1}]	M_2 [Nm]	f_B	i_{ges}	F_R [N]	F_A [N]	$F_{R\,GR}$ [N]	$F_{A\,GR}$ [N]	Tip / Type / Typ IE2 / IE3	Kg	mm
1.10	17.2	585	0.9	81.27	6.0	9.0	9.0	14.0	PA/PF 32 90L4B / 90L4C	44	180
	19.3	524	1.1	72.71	6.0	9.0	9.0	14.0			
	21.8	463	1.4	64.26	6.0	9.0	9.0	13.0			
	24.4	414	1.5	57.49	7.0	9.0	9.0	13.0			
	30.2	333	1.6	46.29	6.0	9.0	9.0	13.0			
	30.3	333	2.0	46.22	6.0	9.0	9.0	13.0			
	36.1	279	1.6	38.76	6.0	9.0	9.0	12.0			
	37.6	268	2.2	37.22	6.0	9.0	9.0	12.0			
	42.4	238	1.6	33.00	6.0	9.0	9.0	12.0			
	44.9	224	2.3	31.16	6.0	9.0	9.0	12.0			
	46.0	219	2.9	30.45	5.0	9.0	-	-			
	52.8	191	2.3	26.53	5.0	9.0	9.0	11.0			
	34.5	284	1.4	81.27	6.0	9.0	9.0	14.0	PA/PF 32 80M2C / 80M2D	40	180
	38.5	254	1.7	72.71	6.0	9.0	9.0	14.0			
	43.6	225	2.2	64.26	6.0	9.0	9.0	13.0			
	48.7	201	2.3	57.49	7.0	9.0	9.0	13.0			
	60.5	162	2.5	46.29	6.0	9.0	9.0	13.0			
	72.2	135	2.5	38.76	6.0	9.0	9.0	13.0			
	84.8	115	2.5	33.00	6.0	9.0	9.0	12.0			
	88.2	117	0.8	10.20	-	-	-	-	PA/PF 31 90L6C / 90L6D	31	162
	109.8	94	1.2	8.20	-	-	-	-			
	186.3	56	1.9	4.83	-	-	-	-			
	245.2	42	2.7	3.67	-	-	-	-			
	271.9	38	2.9	3.31	-	-	-	-			
	137.3	75	1.2	10.20	-	3.0	-	-	PA/PF 31 90L4B / 90L4C	31	162
	170.7	60	1.7	8.20	-	3.0	-	-			
	289.9	36	2.8	4.83	-	3.0	-	-			
	274.5	37	1.9	10.20	-	-	-	-	PA/PF 31 80M2C / 80M2D	27	162
	27.9	339	0.8	100.53	1.0	6.0	7.0	11.0	PA/PF 23 80M2C / 80M2D	37	177
	31.7	297	0.9	88.24	1.0	6.0	6.0	10.0			
	35.9	263	1.0	78.00	1.0	6.0	7.0	10.0			
	43.2	218	1.2	64.80	1.0	6.0	7.0	10.0			
	25.3	403	0.9	35.55	3.0	6.0	7.0	8.0	PA/PF 22 90L6C / 90L6D	33	176
	26.0	393	0.9	34.67	4.0	6.0	7.0	8.0			
	30.7	332	0.9	29.34	4.0	6.0	7.0	8.0			
	31.3	326	1.2	28.80	4.0	6.0	7.0	8.0			
	36.5	280	0.9	24.69	4.0	6.0	7.0	8.0			
	37.9	269	1.3	23.77	4.0	6.0	7.0	8.0			
	45.0	226	1.3	20.00	4.0	6.0	7.0	8.0			
	53.8	190	1.9	16.74	4.0	6.0	7.0	7.0			
	61.3	166	2.1	14.67	5.0	6.0	7.0	7.0			
	73.8	138	2.5	12.19	5.0	6.0	8.0	7.0			
	82.6	123	2.7	10.90	5.0	6.0	8.0	7.0			
	106.4	96	2.8	8.46	5.0	6.0	8.0	6.0			
	118.9	86	3.0	7.57	5.0	6.0	8.0	6.0			
	173.7	59	2.8	5.18	5.0	6.0	8.0	5.0			
	194.0	53	3.0	4.64	5.0	6.0	8.0	5.0			
	25.3	398	0.8	55.25	1.0	6.0	7.0	9.0	PA/PF 22 90L4B / 90L4C	33	176
	30.5	331	0.9	45.90	1.0	6.0	7.0	9.0			
	32.7	308	1.1	42.79	2.0	6.0	7.0	9.0			
	39.4	256	1.3	35.55	3.0	6.0	7.0	8.0			
	40.4	250	1.4	34.67	4.0	6.0	7.0	8.0			
	47.7	211	1.4	29.34	4.0	6.0	7.0	8.0			
	48.6	207	1.8	28.80	4.0	6.0	7.0	8.0			
	56.7	178	1.4	24.69	4.0	6.0	7.0	8.0			
	58.9	171	1.9	23.77	4.0	6.0	7.0	8.0			
	70.0	144	2.0	20.00	4.0	6.0	7.0	8.0			
	83.6	121	2.8	16.74	4.0	6.0	7.0	7.0			
	40.1	244	0.8	69.74	1.0	6.0	7.0	11.0	PA/PF 22 80M2C / 80M2D	19	176
	50.7	193	1.3	55.25	1.0	6.0	7.0	9.0			
	61.0	160	1.4	45.90	1.0	6.0	7.0	9.0			
	65.4	149	1.7	42.79	2.0	6.0	7.0	9.0			
	78.8	124	2.0	35.55	3.0	6.0	7.0	8.0			
	95.4	103	2.2	29.34	4.0	6.0	7.0	8.0			
	113.4	86	2.2	24.69	4.0	6.0	7.0	8.0			

P_1 [kW]	n_2 [Min^{-1}]	M_2 [Nm]	f_B	i_{ges}	F_R [N]	F_A [N]	$F_{R\,GR}$ [N]	$F_{A\,GR}$ [N]	Tip / Type / Typ IE2 / IE3	Kg	mm
1.10	140.6	74	0.9	6.40	-	-	-	-	PA/PF 21 90L6C / 90L6D	35	160
	245.2	42	1.7	3.67	-	-	-	-			
	291.3	36	1.8	3.09	-	-	-	-			
	332.1	31	2.6	2.71	-	-	-	-			
	371.9	28	2.8	2.42	-	-	-	-			
	432.7	24	3.0	2.08	-	-	-	-			
	177.2	58	1.0	7.90	-	4.0	-	-	PA/PF 21 90L4B / 90L4C	35	160
	218.8	47	1.4	6.40	-	4.0	-	-			
	381.5	27	2.5	3.67	-	4.0	-	-			
	453.1	23	2.7	3.09	-	4.0	-	-			
	274.5	37	0.8	10.20	-	-	-	-	PA/PF 21 80M2C / 80M2D	31	160
	354.4	29	1.6	7.90	-	-	-	-			
	608.7	17	2.6	4.60	-	-	-	-			
	47.9	213	0.8	18.80	1.0	4.0	5.0	6.0	PA/PF 12 90L6C / 90L6D	24	172
	53.8	190	0.9	16.74	2.0	4.0	5.0	6.0			
	67.2	152	1.0	13.39	2.0	4.0	5.0	6.0			
	84.3	121	1.2	10.68	2.0	4.0	5.0	5.0			
	93.3	109	1.3	9.65	2.0	4.0	5.0	5.0			
	114.6	89	1.5	7.85	2.0	4.0	5.0	5.0			
	123.5	83	1.6	7.29	2.0	4.0	5.0	5.0			
	137.8	74	1.8	6.53	2.0	4.0	5.0	5.0			
	155.7	65	2.0	5.78	2.0	4.0	5.0	5.0			
	182.6	56	2.2	4.93	1.0	4.0	5.0	5.0			
	200.4	51	2.4	4.49	1.0	4.0	5.0	4.0			
	208.8	49	2.4	4.31	1.0	4.0	5.0	4.0			
	226.1	45	2.7	3.98	1.0	4.0	5.0	4.0			
	265.5	38	3.0	3.39	1.0	4.0	5.0	4.0			
	65.8	150	1.1	21.27	1.0	4.0	5.0	6.0	PA/PF 12 90L4B / 90L4C	24	172
	74.5	133	1.2	18.80	1.0	4.0	5.0	6.0			
	83.6	118	1.3	16.74	2.0	4.0	5.0	6.0			
	104.6	94	1.6	13.39	2.0	4.0	5.0	6.0			
	131.1	75	1.8	10.68	2.0	4.0	5.0	5.0			
	145.1	68	2.0	9.65	2.0	4.0	5.0	5.0			
	178.3	55	2.4	7.85	2.0	4.0	5.0	5.0			
	192.0	51	2.4	7.29	2.0	4.0	5.0	5.0			
	214.4	46	2.7	6.53	2.0	4.0	5.0	5.0			
	242.2	41	3.0	5.78	2.0	4.0	5.0	5.0			
	58.5	167	0.8	47.86	1.0	4.0	5.0	8.0	PA/PF 12 80M2C / 80M2D	20	172
	73.1	134	1.0	38.29	1.0	4.0	5.0	7.0			
	89.9	109	1.2	31.15	1.0	4.0	5.0	7.0			
	108.0	91	1.1	25.92	1.0	4.0	5.0	7.0			
	131.6	74	1.7	21.27	1.0	4.0	5.0	6.0			
	148.9	66	1.9	18.80	1.0	4.0	5.0	6.0			
	167.3	58	2.0	16.74	2.0	4.0	5.0	6.0			
	209.1	47	2.4	13.39	2.0	4.0	5.0	6.0			
	262.2	37	2.7	10.68	2.0	4.0	5.0	5.0			
	290.2	34	3.0	9.65	2.0	4.0	5.0	5.0			
	250.0	41	1.1	3.60	-	-	-	-	PA/PF 11 90L6C / 90L6D	20	158
	283.0	37	1.1	3.18	-	-	-	-			
	318.0	33	1.7	2.83	-	-	-	-			
	387.9	27	1.9	2.32	-	-	-	-			
	441.2	23	2.6	2.04	-	-	-	-			
	497.2	21	2.8	1.81	-	-	-	-			
	584.4	18	3.0	1.54	-	-	-	-			
	388.9	26	1.8	3.60	-	3.0	-	-	PA/PF 11 90L4B / 90L4C	20	158
	440.3	23	1.7	3.18	-	3.0	-	-			
	494.7	21	2.6	2.83	-	3.0	-	-			
	603.4	17	2.8	2.32	-	3.0	-	-			
	345.7	29	0.8	8.10	-	-	-	-	PA/PF 11 80M2C / 80M2D	16	158
	777.8	13	2.8	3.60	-	-	-	-			
	880.5	12	2.6	3.18	-	-	-	-			
	130.6	78	0.8	6.89	2.0	3.0	3.0	4.0	PA/PF 02 90L6C / 90L6D	22	168
	161.6	63	0.9	5.57	2.0	3.0	3.0	3.0			
	186.7	55	1.1	4.82	2.0	3.0	2.0	3.0			
	230.8	44	1.3	3.90	2.0	3.0	2.0	3.0			
	265.5	38	1.4	3.39	2.0	3.0	2.0	3.0			
	303.0	34	1.4	2.97	2.0	3.0	2.0	3.0			

P_1 [kW]	n_2 [Min^{-1}]	M_2 [Nm]	f_B	i_{ges}	F_R [N]	F_A [N]	$F_{R\,GR}$ [N]	$F_{A\,GR}$ [N]	Tip / Type / Typ IE2 / IE3	Kg	mm
1.10	109.3 124.6 140.8 151.0 170.7 179.5 203.2 251.3 290.5 359.0 413.0 471.4	92 81 72 67 59 56 50 40 35 28 24 21	0.8 0.8 0.9 1.0 1.1 1.1 1.2 1.4 1.6 1.9 2.1 2.2	12.81 11.24 9.94 9.27 8.20 7.80 6.89 5.57 4.82 3.90 3.39 2.97	2.0 2.0 2.0 2.0 2.0 2.0 2.0 2.0 2.0 2.0 2.0 2.0	3.0 3.0 3.0 3.0 3.0 3.0 3.0 3.0 3.0 3.0 3.0 3.0	3.0 3.0 3.0 3.0 3.0 3.0 3.0 3.0 2.0 2.0 2.0 2.0	5.0 4.0 4.0 4.0 4.0 4.0 4.0 3.0 3.0 3.0 3.0 3.0	**PA/PF 02 90L4B / 90L4C**	22	168
	114.7 136.0 175.5 218.6 249.1 281.7 302.0 341.5 359.0 406.4 502.7 580.9 717.9	85 72 56 45 39 35 32 29 27 24 19 17 14	0.8 0.8 1.0 1.2 1.3 1.4 1.5 1.7 1.8 1.9 2.2 2.6 3.0	24.41 20.59 15.95 12.81 11.24 9.94 9.27 8.20 7.80 6.89 5.57 4.82 3.90	2.0 2.0 2.0 2.0 2.0 2.0 2.0 2.0 2.0 2.0 2.0 2.0 2.0	3.0 3.0 3.0 3.0 3.0 3.0 3.0 3.0 3.0 3.0 3.0 3.0 3.0	3.0 3.0 3.0 3.0 3.0 3.0 3.0 3.0 3.0 3.0 3.0 2.0 2.0	5.0 5.0 5.0 5.0 4.0 4.0 4.0 4.0 4.0 4.0 3.0 3.0 3.0	**PA/PF 02 80M2C / 80M2D**	18	168
1.50	0.5	24488	0.8	2719.64	101.0	120.0	-	-	**PA/PF 103/53 90L4C / 90L4D**	822	218
	0.7 0.8 1.0	17449 14300 11236	0.9 1.1 1.4	4223.52 3461.37 2719.64	101.0 101.0 101.0	120.0 120.0 120.0	- -	- -	**PA/PF 103/53 90L2B / 90L2C**	822	218
	0.5 0.6 0.8 1.0 1.1 1.4 1.9	25126 20863 16935 13932 12070 9483 6910	0.8 1.0 1.2 1.5 1.7 2.2 3.0	1702.50 1413.66 1147.52 944.01 817.82 642.57 468.19	95.0 95.0 95.0 95.0 95.0 95.0 95.0	59.0 59.0 59.0 59.0 59.0 59.0 59.0	- 120.0 120.0 120.0 120.0 120.0 120.0	- 120.0 120.0 120.0 120.0 120.0 120.0	**PA/PF 103/52 100L6C / 100L6D**	813	216
	2.0	6052	2.5	1413.66	60.0	29.0	120.0	120.0	**PA/PF 103/52 90L2B / 90L2C**	803	216
	1.0 1.3	11216 9085	0.8 1.0	2714.80 2199.04	66.0 66.0	80.0 80.0	- -	- -	**PA/PF 93/43 90L2B / 90L2C**	570	218
	0.8 1.1 1.2 1.6 2.0 2.7 3.1	16101 11983 11169 8086 6743 4913 4250	0.8 1.1 1.1 1.6 1.9 2.6 3.0	1090.99 811.95 756.80 547.88 456.91 332.89 287.97	60.0 63.0 63.0 65.0 66.0 62.0 62.0	80.0 80.0 80.0 80.0 80.0 80.0 80.0	89.0 91.0 91.0 92.0 93.0 93.0 93.0	80.0 80.0 80.0 80.0 80.0 80.0 80.0	**PA/PF 93/42 100L6C / 100L6D**	565	216
	1.1 1.3 1.7 1.8 2.6 3.1	11964 10047 7477 6969 5045 4208	1.0 1.2 1.6 1.8 2.4 2.9	1299.17 1090.99 811.95 756.80 547.88 456.91	57.0 60.0 63.0 63.0 65.0 66.0	80.0 80.0 80.0 80.0 80.0 80.0	87.0 89.0 91.0 91.0 92.0 93.0	80.0 80.0 80.0 80.0 80.0 80.0	**PA/PF 93/42 90L4C / 90L4D**	555	216
	2.2 2.6 3.4 3.7	5562 4671 3476 3240	1.7 2.0 2.7 2.9	1299.17 1090.99 811.95 756.80	57.0 60.0 63.0 63.0	80.0 80.0 80.0 80.0	87.0 89.0 91.0 91.0	80.0 80.0 80.0 80.0	**PA/PF 93/42 90L2B / 90L2C**	555	216
	1.7 2.1 2.4 3.3 3.8 4.5	7750 6463 5527 4073 3483 2968	1.1 1.3 1.5 2.1 2.4 2.8	525.11 437.93 374.50 276.00 236.03 201.09	42.0 43.0 44.0 45.0 45.0 44.0	56.0 54.0 53.0 59.0 59.0 59.0	61.0 62.0 62.0 63.0 63.0 63.0	65.0 65.0 65.0 65.0 65.0 65.0	**PA/PF 83/42 100L6C / 100L6D**	386	216

P_1 [kW]	n_2 [Min^{-1}]	M_2 [Nm]	f_B	i_{ges}	F_R [N]	F_A [N]	$F_{R\,GR}$ [N]	$F_{A\,GR}$ [N]	Tip / Type / Typ IE2 / IE3	Kg	mm
1.50	2.7 3.2 3.7	4836 4033 3449	1.7 2.0 2.3	525.11 437.93 374.50	42.0 43.0 44.0	56.0 54.0 53.0	61.0 62.0 62.0	65.0 65.0 65.0	**PA/PF 83/42 90L4C / 90L4D**	376	216
	5.3	2248	2.7	525.11	42.0	56.0	61.0	65.0	**PA/PF 83/42 90L2B / 90L2C**	376	216
	1.2	10665	0.8	722.63	38.0	58.0	58.0	65.0	**PA/PF 83/32 100L6C / 100L6D**	371	214
	1.2 1.6 1.9	10608 8264 6655	0.8 1.0 1.2	1151.94 897.44 722.63	33.0 33.0 38.0	60.0 60.0 58.0	57.0 55.0 58.0	65.0 65.0 65.0	**PA/PF 83/32 90L4C / 90L4D**	361	214
	1.7 2.0 2.4 3.1 3.9	7207 5852 4932 3842 3094	0.8 1.0 1.2 1.6 2.0	1683.27 1366.81 1151.94 897.44 722.63	33.0 33.0 33.0 33.0 38.0	60.0 60.0 60.0 60.0 58.0	- 53.0 57.0 55.0 58.0	- 65.0 65.0 65.0 65.0	**PA/PF 83/32 90L2B / 90L2C**	361	214
	4.2	3293	2.8	216.49	44.0	44.0	62.0	65.0	**PA/PF 83 100L6C / 100L6D**	341	201
	4.0 5.3 6.4 7.2	3341 2525 2083 1840	1.6 2.1 2.5 2.9	226.38 171.10 141.16 124.66	27.0 27.0 27.0 27.0	26.0 26.0 26.0 26.0	39.0 40.0 40.0 40.0	50.0 50.0 50.0 50.0	**PA/PF 73/32 100L6C / 100L6D**	264	214
	6.2	2085	2.4	226.38	27.0	26.0	39.0	50.0	**PA/PF 73/32 90L4C / 90L4D**	254	214
	2.0 2.6 3.2	6752 5117 4133	0.8 1.0 1.3	457.52 346.75 280.08	23.0 25.0 27.0	28.0 27.0 27.0	36.0 38.0 39.0	50.0 50.0 50.0	**PA/PF 73/22 100L6C / 100L6D**	253	214
	2.5 3.1 4.0 5.0	5216 4213 3193 2579	1.0 1.2 1.6 1.9	566.43 457.52 346.75 280.08	20.0 23.0 25.0 27.0	28.0 28.0 27.0 27.0	37.0 38.0 39.0 40.0	50.0 50.0 50.0 50.0	**PA/PF 73/22 90L4C / 90L4D**	243	214
	2.6 3.2 3.8 4.9 6.1 8.1	4698 3795 3153 2425 1959 1485	0.8 1.0 1.2 1.6 1.9 2.6	1097.40 886.40 736.40 566.43 457.52 346.75	20.0 20.0 20.0 20.0 23.0 25.0	28.0 28.0 28.0 28.0 28.0 27.0	36.0 33.0 35.0 35.0 36.0 38.0	50.0 50.0 50.0 50.0 50.0 50.0	**PA/PF 73/22 90L2B / 90L2C**	243	214
	4.4 5.4 7.2 9.0	3127 2526 1892 1528	1.8 2.3 2.8 2.7	205.59 166.07 124.38 100.47	21.0 21.0 21.0 21.0	7.0 7.0 7.0 7.0	39.0 39.0 40.0 40.0	50.0 50.0 50.0 50.0	**PA/PF 73 100L6C / 100L6D**	234	197
	3.2 4.0 5.2 5.9	4177 3324 2557 2266	0.8 1.0 1.3 1.5	283.00 225.22 173.24 153.52	12.0 12.0 12.0 12.0	39.0 39.0 39.0 39.0	28.0 28.0 - -	45.0 45.0 - -	**PA/PF 63/22 100L6C / 100L6D**	172	214
	3.3 3.8 4.9 6.2 8.1 9.1	3962 3388 2606 2074 1595 1414	0.8 0.9 1.2 1.5 2.0 2.3	430.20 367.90 283.00 225.22 173.24 153.52	12.0 12.0 12.0 12.0 12.0 12.0	39.0 39.0 39.0 39.0 39.0 39.0	27.0 28.0 28.0 28.0 - -	45.0 45.0 45.0 45.0 - -	**PA/PF 63/22 90L4C / 90L4D**	162	214
	3.8 5.1 6.5 7.6 9.9 12.4	3116 2373 1842 1575 1212 964	0.8 1.0 1.3 1.5 2.0 2.5	727.77 554.24 430.20 367.90 283.00 225.22	12.0 12.0 12.0 12.0 12.0 12.0	39.0 39.0 39.0 39.0 39.0 39.0	25.0 26.0 27.0 28.0 28.0 28.0	45.0 45.0 45.0 45.0 45.0 45.0	**PA/PF 63/22 90L2B / 90L2C**	162	214
	3.4 4.2 5.0 6.2 8.3 10.3	4039 3261 2751 2221 1644 1327	0.9 1.2 1.4 1.7 2.3 2.5	265.56 214.41 180.86 146.02 108.08 87.26	18.0 19.0 17.0 17.0 17.0 17.0	28.0 27.0 31.0 31.0 31.0 31.0	26.0 27.0 27.0 27.0 28.0 28.0	45.0 45.0 45.0 45.0 45.0 45.0	**PA/PF 63 100L6C / 100L6D**	153	193

P_1 [kW]	n_2 [Min^{-1}]	M_2 [Nm]	f_B	i_{ges}	F_R [N]	F_A [N]	$F_{R\,GR}$ [N]	$F_{A\,GR}$ [N]	Tip / Type / Typ IE2 / IE3	Kg	mm
1.50	3.8 4.7 5.3 6.5	3585 2894 2554 2062	0.9 1.1 1.4 1.8	372.70 300.91 265.56 214.41	14.0 17.0 18.0 19.0	28.0 28.0 28.0 27.0	24.0 26.0 26.0 27.0	45.0 45.0 45.0 45.0	**PA/PF 63 90L4C / 90L4D**	143	193
	7.5 9.3 10.5 13.1	1713 1383 1221 986	1.4 1.8 2.3 2.8	372.70 300.91 265.56 214.41	14.0 17.0 18.0 19.0	28.0 28.0 28.0 27.0	24.0 26.0 26.0 27.0	45.0 45.0 45.0 45.0	**PA/PF 63 90L2B / 90L2C**	143	193
	6.2 7.2 9.2	2188 1866 1466	0.9 1.0 1.3	146.01 124.52 97.84	10.0 10.0 10.0	24.0 24.0 24.0	- - -	- - -	**PA/PF 52/12 100L6C / 100L6D**	114	212
	6.4 7.2 9.6 11.2 14.3	2070 1833 1374 1172 921	0.9 1.0 1.3 1.6 2.0	219.87 194.67 146.01 124.52 97.84	10.0 10.0 10.0 10.0 10.0	24.0 24.0 24.0 24.0 24.0	- - - - -	- - - - -	**PA/PF 52/12 90L4C / 90L4D**	104	212
	7.9 9.9 12.7 14.4 19.2 22.5	1572 1256 975 864 648 552	0.9 1.1 1.4 1.6 2.1 2.5	354.34 283.16 219.87 194.67 146.01 124.52	10.0 10.0 10.0 10.0 10.0 10.0	24.0 24.0 24.0 24.0 24.0 24.0	- - - - - -	- - - - - -	**PA/PF 52/12 90L2B / 90L2C**	104	212
	6.5 8.5 9.4 11.3 13.8 15.3	2121 1609 1451 1212 993 896	1.1 1.5 1.6 1.6 2.0 2.2	139.42 105.77 95.41 79.69 65.31 58.91	13.0 11.0 11.0 11.0 11.0 11.0	24.0 24.0 24.0 24.0 24.0 24.0	19.0 19.0 19.0 - - -	40.0 40.0 40.0 - - -	**PA/PF 53 100L6C / 100L6D**	117	189
	4.8 5.7 5.9 7.5 7.9 10.0 13.2 14.7 17.6	2830 2363 2276 1788 1707 1341 1017 918 766	0.8 0.8 0.8 1.0 1.1 1.7 2.2 2.4 2.4	294.23 245.73 236.60 185.90 177.45 139.42 105.77 95.41 79.69	10.0 10.0 10.0 12.0 12.0 13.0 11.0 11.0 11.0	24.0 24.0 24.0 24.0 24.0 24.0 24.0 24.0 24.0	19.0 19.0 17.0 18.0 18.0 19.0 19.0 19.0 -	40.0 40.0 40.0 40.0 40.0 40.0 40.0 40.0 -	**PA/PF 53 90L4C / 90L4D**	107	189
	7.1 7.5 9.5 11.4 11.8 15.1 15.8 20.1	1804 1722 1353 1130 1088 855 816 641	0.8 0.8 1.3 1.3 1.3 1.6 1.8 2.6	392.31 374.48 294.23 245.73 236.60 185.90 177.45 139.42	10.0 10.0 10.0 10.0 10.0 12.0 12.0 13.0	24.0 24.0 24.0 24.0 24.0 24.0 24.0 24.0	18.0 18.0 17.0 18.0 17.0 18.0 18.0 19.0	40.0 40.0 40.0 40.0 40.0 40.0 40.0 40.0	**PA/PF 53 90L2B / 90L2C**	107	189
	10.4 11.5 12.6 15.1 16.7 18.4 23.4 25.0 27.7 28.0	1342 1213 1104 919 831 756 594 556 503 496	1.3 1.4 1.5 2.2 2.4 2.7 2.9 2.6 2.6 2.9	86.88 78.53 71.47 59.50 53.79 48.95 38.46 36.00 32.54 32.12	14.0 14.0 14.0 14.0 14.0 14.0 14.0 14.0 14.0 14.0	24.0 24.0 24.0 24.0 24.0 24.0 24.0 24.0 24.0 24.0	20.0 20.0 20.0 20.0 20.0 20.0 20.0 20.0 20.0 20.0	40.0 40.0 40.0 40.0 40.0 40.0 40.0 40.0 40.0 39.0	**PA/PF 52 100L6C / 100L6D**	98	188
	16.1 17.8 19.6	853 771 702	2.0 2.1 2.3	86.88 78.53 71.47	14.0 14.0 14.0	24.0 24.0 24.0	20.0 20.0 20.0	40.0 40.0 40.0	**PA/PF 52 90L4C / 90L4D**	88	188
	67.8 99.0 163.6	208 143 86	1.5 2.4 2.7	13.27 9.09 5.50	- - -	- - -	- - -	- - -	**PA/PF 51 100L6C / 100L6D**	59	166
	105.5	133	2.2	13.27	-	6.0	-	-	**PA/PF 51 90L4C / 90L4D**	49	166
	10.3	1315	1.0	87.79	3.0	12.0	-	-	**PA/PF 42/12 100L6C / 100L6D**	96	212

P_1 [kW]	n_2 [Min^{-1}]	M_2 [Nm]	f_B	i_{ges}	F_R [N]	F_A [N]	$F_{R\,GR}$ [N]	$F_{A\,GR}$ [N]	Tip / Type / Typ IE2 / IE3	Kg	mm
1.50	8.3 10.0 12.0 15.9	1592 1322 1094 826	0.8 0.9 1.1 1.5	169.11 140.44 116.26 87.79	3.0 3.0 3.0 3.0	12.0 12.0 12.0 12.0	- - - -	- - - -	**PA/PF 42/12 90L4C / 90L4D**	86	212
	12.2 16.6 19.9 24.1 31.9	1019 750 623 516 389	0.9 1.2 1.5 1.8 2.3	229.62 169.11 140.44 116.26 87.79	3.0 3.0 3.0 3.0 3.0	12.0 12.0 12.0 12.0 12.0	- - - - -	- - - - -	**PA/PF 42/12 90L2B / 90L2C**	86	212
	9.5 11.2 12.8 15.5 18.5 22.0	1444 1217 1066 886 738 622	0.9 1.1 1.2 1.4 1.5 1.8	94.91 80.01 70.10 58.22 48.55 40.91	3.0 3.0 3.0 3.0 3.0 3.0	12.0 12.0 12.0 12.0 12.0 12.0	11.0 11.0 11.0 - - -	14.0 14.0 13.0 - - -	**PA/PF 43 100L6C / 100L6D**	84	185
	9.9 10.8 13.0 14.8 17.5 20.0 24.0 28.8 34.2	1362 1243 1033 913 770 674 560 467 393	0.8 1.0 1.1 1.4 1.6 1.9 2.1 2.2 2.6	141.63 129.27 107.36 94.91 80.01 70.10 58.22 48.55 40.91	3.0 3.0 3.0 3.0 3.0 3.0 3.0 3.0 3.0	12.0 12.0 12.0 12.0 12.0 12.0 12.0 12.0 12.0	11.0 10.0 11.0 11.0 11.0 11.0 - - -	15.0 11.0 14.0 14.0 14.0 13.0 - - -	**PA/PF 43 90L4C / 90L4D**	74	185
	10.1 10.6 12.1 12.8 13.7 15.3 16.5 19.8 21.7 26.1 29.5 35.0 39.9	1280 1214 1063 1008 940 841 781 651 594 494 436 368 322	0.8 0.8 0.8 0.9 1.0 0.9 1.1 1.2 1.6 1.7 2.2 2.5 3.0	278.52 264.02 231.31 219.26 204.49 182.86 169.82 141.63 129.27 107.36 94.91 80.01 70.10	3.0 3.0 3.0 3.0 3.0 3.0 3.0 3.0 3.0 3.0 3.0 3.0 3.0	12.0 12.0 12.0 12.0 12.0 12.0 12.0 12.0 12.0 12.0 12.0 12.0 12.0	9.0 9.0 10.0 10.0 9.0 11.0 10.0 10.0 10.0 11.0 11.0 11.0 11.0	16.0 16.0 15.0 15.0 13.0 15.0 13.0 13.0 11.0 14.0 14.0 14.0 13.0	**PA/PF 43 90L2B / 90L2C**	74	185
	12.0 14.8 17.7 21.8 25.5 29.5 30.7 36.5 36.9	1156 936 787 638 545 471 452 381 377	1.0 1.1 1.5 2.0 2.4 2.4 2.4 2.5 2.4	74.87 60.64 50.99 41.30 35.26 30.47 29.28 24.68 24.42	8.0 8.0 7.0 7.0 7.0 7.0 7.0 7.0 7.0	12.0 12.0 12.0 12.0 12.0 12.0 12.0 12.0 12.0	11.0 11.0 11.0 11.0 11.0 12.0 11.0 12.0 11.0	12.0 11.0 10.0 10.0 10.0 10.0 9.0 10.0 9.0	**PA/PF 42 100L6C / 100L6D**	69	184
	13.3 16.5 18.7 23.1	1032 836 735 596	0.8 1.0 1.6 1.7	105.08 85.10 74.87 60.64	6.0 7.0 8.0 8.0	12.0 12.0 12.0 12.0	10.0 11.0 11.0 11.0	12.0 12.0 12.0 11.0	**PA/PF 42 90L4C / 90L4D**	59	184
	26.6 32.9 37.4 46.2	501 405 357 289	1.3 1.5 2.5 2.6	105.08 85.10 74.87 60.64	6.0 7.0 8.0 8.0	12.0 12.0 12.0 12.0	10.0 11.0 11.0 11.0	12.0 12.0 12.0 11.0	**PA/PF 42 90L2B / 90L2C**	59	184
	85.3 125.3 209.8 232.0 263.2	165 113 67 61 54	1.2 1.8 2.4 2.5 2.7	10.55 7.18 4.29 3.88 3.42	- - - - -	- - - - -	- - - - -	- - - - -	**PA/PF 41 100L6C / 100L6D**	50	164
	94.6 132.7	148 106	0.9 1.8	14.80 10.55	- -	4.0 4.0	- -	- -	**PA/PF 41 90L4C / 90L4D**	40	164
	189.2 265.4	73 52	1.4 2.8	14.80 10.55	- -	- -	- -	- -	**PA/PF 41 90L2B / 90L2C**	40	164
	17.0	774	0.8	82.19	5.0	9.0	-	-	**PA/PF 32/12 90L4C / 90L4D**	57	212

P_1 [kW]	n_2 [Min^{-1}]	M_2 [Nm]	f_B	i_{ges}	F_R [N]	F_A [N]	$F_{R\,GR}$ [N]	$F_{A\,GR}$ [N]	Tip / Type / Typ IE2 / IE3	Kg	mm
1.50	22.2 34.1	560 365	0.8 1.3	126.22 82.19	5.0 5.0	9.0 9.0	- -	- -	**PA/PF 32/12 90L2B / 90L2C**	57	212
	20.9 25.0 31.7	616 516 406	0.8 0.8 1.0	133.98 112.18 88.29	6.0 6.0 6.0	9.0 9.0 9.0	9.0 - -	16.0 - -	**PA/PF 33 90L2B / 90L2C**	53	181
	19.5 24.2 28.9 29.6 33.0 33.9 39.0 43.5 48.3 54.1 55.5 60.0	714 575 481 470 421 410 357 319 288 257 251 232	1.0 1.1 1.1 1.4 1.5 1.1 1.9 2.2 2.3 2.2 2.7 2.3	46.22 37.22 31.16 30.45 27.24 26.53 23.10 20.67 18.64 16.64 16.23 15.01	6.0 6.0 5.0 5.0 5.0 5.0 5.0 6.0 6.0 6.0 6.0 6.0	9.0 9.0 9.0 9.0 9.0 9.0 9.0 9.0 9.0 9.0 9.0 9.0	9.0 9.0 9.0 - - 9.0 9.0 9.0 9.0 9.0 9.0 9.0	12.0 12.0 11.0 - - 11.0 11.0 10.0 10.0 9.0 9.0 9.0	**PA/PF 32 100L6C / 100L6D**	54	180
	19.3 21.8 24.4 30.2 30.3 36.1 37.6 42.4 44.9 46.0 51.4 52.8 60.6	714 631 565 455 454 381 366 324 306 299 268 261 227	0.8 1.0 1.1 1.2 1.5 1.2 1.6 1.2 1.7 2.1 2.2 1.7 2.8	72.71 64.26 57.49 46.29 46.22 38.76 37.22 33.00 31.16 30.45 27.24 26.53 23.10	4.0 6.0 6.0 6.0 6.0 6.0 6.0 5.0 5.0 5.0 5.0 5.0 5.0	8.0 9.0 9.0 9.0 9.0 9.0 9.0 9.0 9.0 9.0 9.0 9.0 9.0	9.0 9.0 9.0 9.0 9.0 9.0 9.0 9.0 9.0 - - 9.0 9.0	14.0 12.0 12.0 12.0 12.0 11.0 12.0 11.0 11.0 - - 11.0 11.0	**PA/PF 32 90L4C / 90L4D**	44	180
	34.5 38.5 43.6 48.7 60.5 60.6 72.2 75.2 84.8 89.9 105.5	387 346 306 274 221 220 185 177 157 148 126	1.0 1.2 1.6 1.7 1.8 2.3 1.8 2.5 1.8 2.6 2.6	81.27 72.71 64.26 57.49 46.29 46.22 38.76 37.22 33.00 31.16 26.53	4.0 4.0 6.0 6.0 6.0 6.0 6.0 6.0 5.0 5.0 5.0	8.0 8.0 9.0 9.0 9.0 9.0 9.0 9.0 9.0 9.0 9.0	9.0 9.0 9.0 9.0 9.0 9.0 9.0 9.0 9.0 9.0 9.0	14.0 14.0 12.0 12.0 12.0 12.0 11.0 12.0 11.0 11.0 11.0	**PA/PF 32 90L2B / 90L2C**	44	180
	109.8 186.3 245.2 271.9	129 76 58 52	0.9 1.4 2.0 2.1	8.20 4.83 3.67 3.31	- - - -	- - - -	- - - -	- - - -	**PA/PF 31 100L6C / 100L6D**	41	162
	137.3 170.7 289.9 381.5	102 82 48 37	0.9 1.3 2.0 3.0	10.20 8.20 4.83 3.67	- - - -	3.0 3.0 3.0 3.0	- - - -	- - - -	**PA/PF 31 90L4C / 90L4D**	31	162
	274.5 341.5	50 40	1.4 2.0	10.20 8.20	- -	- -	- -	- -	**PA/PF 31 90L2B / 90L2C**	31	162
	43.2	298	0.9	64.80	1.0	6.0	7.0	10.0	**PA/PF 23 90L2B / 90L2C**	41	177

P_1 [kW]	n_2 [Min^{-1}]	M_2 [Nm]	f_B	i_{ges}	F_R [N]	F_A [N]	$F_{R\,GR}$ [N]	$F_{A\,GR}$ [N]	Tip / Type / Typ IE2 / IE3	Kg	mm
1.50	31.3	445	0.9	28.80	1.0	6.0	7.0	8.0	PA/PF 22 100L6C / 100L6D	43	176
	37.9	367	0.9	23.77	2.0	6.0	7.0	7.0			
	45.0	309	1.0	20.00	3.0	6.0	7.0	7.0			
	53.8	259	1.4	16.74	4.0	6.0	7.0	7.0			
	61.3	227	1.6	14.67	4.0	6.0	7.0	7.0			
	73.8	188	1.8	12.19	4.0	6.0	7.0	7.0			
	82.6	168	2.0	10.90	4.0	6.0	7.0	7.0			
	106.4	131	2.1	8.46	1.0	6.0	8.0	6.0			
	118.9	117	2.2	7.57	1.0	6.0	8.0	6.0			
	131.2	106	2.5	6.86	1.0	6.0	8.0	6.0			
	138.2	101	2.4	6.51	1.0	6.0	8.0	6.0			
	156.0	89	2.5	5.77	1.0	6.0	8.0	5.0			
	173.7	80	2.1	5.18	1.0	6.0	8.0	5.0			
	194.0	72	2.2	4.64	1.0	6.0	8.0	5.0			
	225.6	62	2.4	3.99	1.0	6.0	8.0	5.0			
	255.0	55	2.5	3.53	1.0	6.0	8.0	5.0			
	321.4	43	2.8	2.80	1.0	6.0	7.0	4.0			
	32.7	420	0.8	42.79	1.0	6.0	6.0	8.0	PA/PF 22 90L4C / 90L4D	33	176
	39.4	349	0.9	35.55	1.0	6.0	7.0	8.0			
	40.4	341	1.0	34.67	1.0	6.0	7.0	8.0			
	47.7	288	1.0	29.34	1.0	6.0	7.0	7.0			
	48.6	283	1.3	28.80	1.0	6.0	7.0	8.0			
	56.7	243	1.0	24.69	1.0	6.0	7.0	7.0			
	58.9	233	1.4	23.77	2.0	6.0	7.0	7.0			
	70.0	196	1.5	20.00	3.0	6.0	7.0	7.0			
	83.6	164	2.1	16.74	4.0	6.0	7.0	7.0			
	95.4	144	2.3	14.67	4.0	6.0	7.0	7.0			
	114.8	120	2.7	12.19	4.0	6.0	7.0	7.0			
	128.4	107	3.0	10.90	4.0	6.0	7.0	7.0			
	50.7	263	0.9	55.25	1.0	6.0	7.0	9.0	PA/PF 22 90L2B / 90L2C	33	176
	61.0	219	1.0	45.90	1.0	6.0	7.0	9.0			
	65.4	204	1.3	42.79	1.0	6.0	6.0	8.0			
	78.8	169	1.5	35.55	1.0	6.0	7.0	8.0			
	80.8	165	1.6	34.67	1.0	6.0	7.0	8.0			
	95.4	140	1.6	29.34	1.0	6.0	7.0	7.0			
	97.2	137	2.1	28.80	1.0	6.0	7.0	8.0			
	113.4	118	1.6	24.69	1.0	6.0	7.0	7.0			
	117.8	113	2.2	23.77	2.0	6.0	7.0	7.0			
	140.0	95	2.3	20.00	3.0	6.0	7.0	7.0			
	245.2	58	1.2	3.67	-	-	-	-	PA/PF 21 100L6C / 100L6D	45	160
	291.3	48	1.3	3.09	-	-	-	-			
	332.1	42	1.9	2.71	-	-	-	-			
	371.9	38	2.0	2.42	-	-	-	-			
	432.7	33	2.2	2.08	-	-	-	-			
	486.5	29	2.3	1.85	-	-	-	-			
	616.4	23	2.8	1.46	-	-	-	-			
	177.2	79	0.8	7.90	-	4.0	-	-	PA/PF 21 90L4C / 90L4D	35	160
	218.8	64	1.0	6.40	-	4.0	-	-			
	381.5	37	1.8	3.67	-	4.0	-	-			
	453.1	31	2.0	3.09	-	4.0	-	-			
	516.6	27	2.8	2.71	-	4.0	-	-			
	578.5	24	3.0	2.42	-	4.0	-	-			
	354.4	39	1.2	7.90	-	-	-	-	PA/PF 21 90L2B / 90L2C	35	160
	437.5	32	1.6	6.40	-	-	-	-			
	762.9	18	2.9	3.67	-	-	-	-			
	67.2	207	0.8	13.39	1.0	4.0	5.0	5.0	PA/PF 12 100L6C / 100L6D	34	172
	84.3	165	0.9	10.68	2.0	4.0	5.0	5.0			
	93.3	149	1.0	9.65	2.0	4.0	5.0	5.0			
	114.6	121	1.1	7.85	2.0	4.0	5.0	5.0			
	123.5	113	1.2	7.29	2.0	4.0	5.0	5.0			
	137.8	101	1.3	6.53	2.0	3.0	5.0	5.0			
	155.7	89	1.4	5.78	2.0	3.0	5.0	5.0			
	182.6	76	1.6	4.93	2.0	3.0	5.0	4.0			
	200.4	69	1.8	4.49	2.0	3.0	5.0	4.0			
	208.8	67	1.8	4.31	2.0	3.0	5.0	4.0			
	226.1	61	1.9	3.98	2.0	3.0	5.0	4.0			
	265.5	52	2.2	3.39	1.0	4.0	5.0	4.0			
	304.1	46	2.4	2.96	1.0	4.0	5.0	4.0			

P_1 [kW]	n_2 [Min^{-1}]	M_2 [Nm]	f_B	i_{ges}	F_R [N]	F_A [N]	$F_{R\,GR}$ [N]	$F_{A\,GR}$ [N]	Tip / Type / Typ IE2 / IE3	Kg	mm
1.50	65.8	205	0.8	21.27	1.0	4.0	5.0	6.0	PA/PF 12 90L4C / 90L4D	24	172
	74.5	181	0.9	18.80	1.0	4.0	5.0	6.0			
	83.6	161	1.0	16.74	1.0	4.0	5.0	5.0			
	104.6	129	1.2	13.39	1.0	4.0	5.0	5.0			
	131.1	103	1.3	10.68	2.0	4.0	5.0	5.0			
	145.1	93	1.5	9.65	2.0	4.0	5.0	5.0			
	178.3	76	1.7	7.85	2.0	4.0	5.0	5.0			
	192.0	70	1.8	7.29	2.0	4.0	5.0	5.0			
	214.4	63	2.0	6.53	2.0	3.0	5.0	5.0			
	242.2	56	2.2	5.78	2.0	3.0	5.0	5.0			
	284.0	47	2.4	4.93	2.0	3.0	5.0	4.0			
	311.8	43	2.7	4.49	2.0	3.0	5.0	4.0			
	324.8	41	2.7	4.31	2.0	3.0	5.0	4.0			
	351.8	38	3.0	3.98	2.0	3.0	5.0	4.0			
	131.6	101	1.3	21.27	1.0	4.0	-	-	PA/PF 12 90L2B / 90L2C	24	172
	148.9	90	1.4	18.80	1.0	4.0	-	-			
	167.3	80	1.5	16.74	1.0	4.0	-	-			
	209.1	64	1.8	13.39	1.0	4.0	5.0	5.0			
	262.2	51	2.0	10.68	2.0	4.0	5.0	5.0			
	290.2	46	2.2	9.65	2.0	4.0	5.0	5.0			
	356.7	37	2.7	7.85	2.0	4.0	5.0	5.0			
	384.1	35	2.7	7.29	2.0	4.0	5.0	5.0			
	318.0	44	1.3	2.83	-	-	-	-	PA/PF 11 100L6C / 100L6D	30	158
	387.9	36	1.4	2.32	-	-	-	-			
	441.2	32	1.9	2.04	-	-	-	-			
	497.2	28	2.0	1.81	-	-	-	-			
	584.4	24	2.2	1.54	-	-	-	-			
	666.7	21	2.5	1.35	-	-	-	-			
	388.9	36	1.3	3.60	-	3.0	-	-	PA/PF 11 90L4C / 90L4D	20	158
	440.3	32	1.3	3.18	-	3.0	-	-			
	494.7	28	1.9	2.83	-	3.0	-	-			
	603.4	23	2.1	2.32	-	3.0	-	-			
	686.3	20	2.8	2.04	-	3.0	-	-			
	773.5	18	3.0	1.81	-	3.0	-	-			
	777.8	18	2.1	3.60	-	-	-	-	PA/PF 11 90L2B / 90L2C	20	158
	880.5	16	1.9	3.18	-	-	-	-			
	989.4	14	2.9	2.83	-	-	-	-			
	170.7	81	0.8	8.20	1.0	3.0	3.0	4.0	PA/PF 02 90L4C / 90L4D	22	168
	179.5	77	0.8	7.80	1.0	3.0	2.0	3.0			
	203.2	68	0.9	6.89	1.0	3.0	2.0	3.0			
	251.3	55	1.0	5.57	1.0	3.0	2.0	3.0			
	290.5	47	1.2	4.82	1.0	3.0	2.0	3.0			
	359.0	38	1.4	3.90	2.0	2.0	2.0	3.0			
	413.0	33	1.5	3.39	2.0	2.0	2.0	3.0			
	471.4	29	1.6	2.97	1.0	2.0	2.0	3.0			
	218.6	61	0.9	12.81	1.0	3.0	3.0	5.0	PA/PF 02 90L2B / 90L2C	22	168
	249.1	54	1.0	11.24	1.0	3.0	3.0	4.0			
	281.7	47	1.0	9.94	1.0	3.0	3.0	4.0			
	302.0	44	1.1	9.27	1.0	3.0	3.0	4.0			
	341.5	39	1.2	8.20	1.0	3.0	3.0	4.0			
	359.0	37	1.3	7.80	1.0	3.0	2.0	3.0			
	406.4	33	1.4	6.89	1.0	3.0	2.0	3.0			
	502.7	27	1.6	5.57	1.0	3.0	2.0	3.0			
	580.9	23	1.9	4.82	1.0	3.0	2.0	3.0			
	717.9	19	2.2	3.90	2.0	2.0	2.0	3.0			
	826.0	16	2.4	3.39	2.0	2.0	2.0	3.0			
	942.8	14	2.5	2.97	1.0	2.0	2.0	3.0			
2.20	1.0	16479	0.9	2719.64	101.0	120.0	-	-	PA/PF 103/53 90L2D	822	218
	0.8	24838	0.8	1147.52	100.0	120.0	120.0	120.0	PA/PF 103/52 112M6C / 112M6D	821	216
	1.0	20433	1.0	944.01	95.0	59.0	120.0	120.0			
	1.1	17702	1.2	817.82	95.0	59.0	120.0	120.0			
	1.4	13909	1.5	642.57	95.0	59.0	120.0	120.0			
	1.9	10134	2.1	468.19	95.0	59.0	120.0	120.0			
	2.6	7383	2.8	341.11	95.0	59.0	120.0	120.0			

P_1 [kW]	n_2 [Min^{-1}]	M_2 [Nm]	f_B	i_{ges}	F_R [N]	F_A [N]	$F_{R\,GR}$ [N]	$F_{A\,GR}$ [N]	Tip / Type / Typ IE2 / IE3	Kg	mm
2.20	0.8 1.0 1.2 1.5 1.7 2.2	22995 19093 15499 12750 11046 8679	0.9 1.0 1.3 1.6 1.8 2.3	1702.50 1413.66 1147.52 944.01 817.82 642.57	89.0 89.0 95.0 97.0 99.0 100.0	120.0 120.0 120.0 120.0 120.0 120.0	120.0 120.0 120.0 120.0 120.0 120.0	120.0 120.0 120.0 120.0 120.0 120.0	**PA/PF 103/52 100L4B / 100L4C**	813	216
	2.0 2.4 3.0 3.4	8877 7206 5928 5135	1.7 2.1 2.6 3.0	1413.66 1147.52 944.01 817.82	89.0 95.0 97.0 99.0	120.0 120.0 120.0 120.0	120.0 120.0 120.0 120.0	120.0 120.0 120.0 120.0	**PA/PF 103/52 90L2D**	803	216
	1.2 1.6 2.0 2.7 3.1 3.7	16381 11859 9890 7206 6233 5210	0.8 1.1 1.3 1.8 2.1 2.5	756.80 547.88 456.91 332.89 287.97 240.68	60.0 63.0 64.0 66.0 57.0 57.0	80.0 80.0 80.0 80.0 80.0 80.0	89.0 91.0 92.0 93.0 93.0 93.0	80.0 80.0 80.0 80.0 80.0 80.0	**PA/PF 93/42 112M6C / 112M6D**	573	216
	1.3 1.7 1.8 2.6 3.1 4.2	14735 10967 10222 7400 6171 4496	0.8 1.1 1.2 1.6 2.0 2.7	1090.99 811.95 756.80 547.88 456.91 332.89	51.0 59.0 60.0 63.0 64.0 66.0	80.0 80.0 80.0 80.0 80.0 80.0	83.0 88.0 89.0 91.0 92.0 93.0	80.0 80.0 80.0 80.0 80.0 80.0	**PA/PF 93/42 100L4B / 100L4C**	565	216
	2.2 2.6 3.4 3.7 5.1	8158 6851 5098 4752 3440	1.1 1.4 1.8 2.0 2.7	1299.17 1090.99 811.95 756.80 547.88	51.0 51.0 59.0 60.0 63.0	80.0 80.0 80.0 80.0 80.0	87.0 89.0 91.0 91.0 92.0	80.0 80.0 80.0 80.0 80.0	**PA/PF 93/42 90L2D**	555	216
	2.1 2.4 3.3 3.8 4.5 6.0	9479 8106 5974 5109 4353 3225	0.9 1.0 1.4 1.6 1.9 2.6	437.93 374.50 276.00 236.03 201.09 149.01	41.0 42.0 44.0 44.0 44.0 42.0	50.0 49.0 46.0 45.0 44.0 56.0	60.0 61.0 62.0 62.0 63.0 63.0	65.0 65.0 65.0 65.0 65.0 65.0	**PA/PF 83/42 112M6C / 112M6D**	394	216
	2.7 3.2 3.7 5.1 5.9 7.0	7092 5915 5058 3728 3188 2716	1.1 1.4 1.6 2.1 2.5 2.9	525.11 437.93 374.50 276.00 236.03 201.09	38.0 41.0 42.0 44.0 44.0 44.0	51.0 50.0 49.0 46.0 45.0 44.0	58.0 60.0 61.0 62.0 62.0 63.0	65.0 65.0 65.0 65.0 65.0 65.0	**PA/PF 83/42 100L4B / 100L4C**	386	216
	5.3 6.4 7.5	3297 2750 2352	1.8 2.2 2.6	525.11 437.93 374.50	38.0 41.0 42.0	51.0 50.0 49.0	61.0 62.0 62.0	65.0 65.0 65.0	**PA/PF 83/42 90L2D**	376	216
	1.9	9760	0.8	722.63	30.0	51.0	53.0	65.0	**PA/PF 83/32 100L4B / 100L4C**	371	214
	2.4 3.1 3.9	7233 5635 4538	0.8 1.1 1.3	1151.94 897.44 722.63	30.0 30.0 30.0	51.0 51.0 51.0	57.0 55.0 58.0	65.0 65.0 65.0	**PA/PF 83/32 90L2D**	361	214
	4.2 6.6	4830 3049	1.9 2.5	216.49 136.67	44.0 44.0	44.0 44.0	62.0 63.0	65.0 65.0	**PA/PF 83 112M6C / 112M6D**	349	201
	6.5	3054	2.9	216.49	44.0	44.0	62.0	65.0	**PA/PF 83 100L4B / 100L4C**	341	201
	4.0 5.3 6.4 7.2	4900 3704 3055 2698	1.1 1.4 1.7 1.9	226.38 171.10 141.16 124.66	26.0 27.0 27.0 27.0	23.0 26.0 26.0 26.0	39.0 40.0 40.0 40.0	50.0 50.0 50.0 50.0	**PA/PF 73/32 112M6C / 112M6D**	272	214
	6.2 8.2 9.9 11.2	3058 2311 1907 1684	1.6 2.2 2.6 3.0	226.38 171.10 141.16 124.66	26.0 27.0 27.0 27.0	23.0 26.0 26.0 26.0	38.0 40.0 40.0 40.0	50.0 50.0 50.0 50.0	**PA/PF 73/32 100L4B / 100L4C**	264	214
	12.4	1421	2.7	226.38	26.0	23.0	38.0	50.0	**PA/PF 73/32 90L2D**	254	214
	3.2	6062	0.9	280.08	24.0	24.0	38.0	50.0	**PA/PF 73/22 112M6C / 112M6D**	261	214

P_1 [kW]	n_2 [Min^{-1}]	M_2 [Nm]	f_B	i_{ges}	F_R [N]	F_A [N]	$F_{R\,GR}$ [N]	$F_{A\,GR}$ [N]	Tip / Type / Typ IE2 / IE3	Kg	mm
2.20	3.1 4.0 5.0	6179 4683 3783	0.8 1.1 1.3	457.52 346.75 280.08	22.0 22.0 24.0	24.0 24.0 24.0	36.0 36.0 38.0	50.0 50.0 50.0	PA/PF 73/22 100L4B / 100L4C	253	214
	3.8 4.9 6.1 8.1 10.0	4624 3557 2873 2177 1759	0.8 1.1 1.3 1.7 2.2	736.40 566.43 457.52 346.75 280.08	22.0 22.0 22.0 22.0 22.0	24.0 24.0 24.0 24.0 24.0	35.0 35.0 36.0 36.0 38.0	50.0 50.0 50.0 50.0 50.0	PA/PF 73/22 90L2D	243	214
	4.4 5.4 7.2 9.0 9.9	4587 3705 2775 2241 2038	1.2 1.6 1.9 1.9 2.7	205.59 166.07 124.38 100.47 91.33	26.0 27.0 28.0 28.0 21.0	23.0 23.0 22.0 22.0 7.0	39.0 39.0 40.0 40.0 40.0	50.0 50.0 50.0 50.0 50.0	PA/PF 73 112M6C / 112M6D	242	197
	6.8 8.4 11.3 13.9	2900 2343 1755 1417	1.8 2.4 2.8 2.8	205.59 166.07 124.38 100.47	26.0 27.0 28.0 28.0	23.0 23.0 22.0 22.0	39.0 39.0 40.0 40.0	50.0 50.0 50.0 50.0	PA/PF 73 100L4B / 100L4C	234	197
	5.2 5.9	3750 3323	0.9 1.0	173.24 153.52	12.0 12.0	39.0 39.0	- -	- -	PA/PF 63/22 112M6C / 112M6D	180	214
	4.9 6.2 8.1 9.1	3822 3042 2340 2074	0.8 1.1 1.4 1.5	283.00 225.22 173.24 153.52	13.0 12.0 12.0 12.0	24.0 39.0 39.0 39.0	23.0 - - -	45.0 - - -	PA/PF 63/22 100L4B / 100L4C	172	214
	6.5 7.6 9.9 12.4 16.2 18.2	2701 2310 1777 1414 1088 964	0.9 1.1 1.4 1.7 2.2 2.5	430.20 367.90 283.00 225.22 173.24 153.52	13.0 13.0 13.0 12.0 12.0 12.0	24.0 24.0 24.0 39.0 39.0 39.0	- - 23.0 - - -	- - 45.0 - - -	PA/PF 63/22 90L2D	162	214
	4.2 5.0 6.2 8.3 10.3 11.6 14.3	4783 4035 3258 2411 1947 1729 1405	0.8 1.0 1.2 1.6 1.7 2.2 2.7	214.41 180.86 146.02 108.08 87.26 77.49 62.96	16.0 18.0 19.0 20.0 20.0 14.0 14.0	24.0 24.0 23.0 22.0 21.0 28.0 28.0	26.0 27.0 27.0 28.0 28.0 28.0 28.0	45.0 45.0 45.0 45.0 45.0 45.0 43.0	PA/PF 63 112M6C / 112M6D	161	193
	5.3 6.5 7.7 9.6 13.0 16.0	3746 3025 2551 2060 1525 1231	1.0 1.2 1.4 1.8 2.4 2.6	265.56 214.41 180.86 146.02 108.08 87.26	14.0 16.0 18.0 19.0 20.0 20.0	24.0 24.0 24.0 23.0 22.0 21.0	24.0 26.0 27.0 27.0 28.0 28.0	45.0 45.0 45.0 45.0 45.0 45.0	PA/PF 63 100L4B / 100L4C	153	193
	7.5 9.3 10.5 13.1	2513 2029 1791 1446	1.0 1.2 1.5 1.9	372.70 300.91 265.56 214.41	14.0 14.0 14.0 16.0	24.0 24.0 24.0 24.0	24.0 26.0 24.0 26.0	45.0 45.0 45.0 45.0	PA/PF 63 90L2D	143	193
	18.5	1104	2.4	48.75	20.0	17.0	28.0	38.0	PA/PF 62 112M6C / 112M6D	163	192
	9.2	2150	0.9	97.84	10.0	24.0	-	-	PA/PF 52/12 112M6C / 112M6D	122	212
	9.6 11.2 14.3	2016 1719 1351	0.9 1.1 1.4	146.01 124.52 97.84	10.0 10.0 10.0	24.0 24.0 24.0	- - -	- - -	PA/PF 52/12 100L4B / 100L4C	114	212
	9.9 12.7 14.4 19.2 22.5 28.6	1843 1431 1267 950 810 637	0.8 1.0 1.1 1.5 1.7 2.2	283.16 219.87 194.67 146.01 124.52 97.84	10.0 10.0 10.0 10.0 10.0 10.0	24.0 24.0 24.0 24.0 24.0 24.0	- - - - - -	-- - - - -	PA/PF 52/12 90L2D	104	212
	6.5 8.5 9.4 11.3 13.8 15.3	3110 2360 2129 1778 1457 1314	0.8 1.0 1.1 1.1 1.4 1.5	139.42 105.77 95.41 79.69 65.31 58.91	11.0 13.0 13.0 10.0 10.0 10.0	24.0 24.0 24.0 24.0 24.0 24.0	18.0 19.0 19.0 18.0 18.0 -	40.0 40.0 40.0 40.0 40.0 -	PA/PF 53 112M6C / 112M6D	125	189

P_1 [kW]	n_2 [Min^{-1}]	M_2 [Nm]	f_B	i_{ges}	F_R [N]	F_A [N]	$F_{R\,GR}$ [N]	$F_{A\,GR}$ [N]	Tip / Type / Typ IE2 / IE3	Kg	mm
2.20	7.9 10.0 13.2 14.7 17.6 21.4 23.8	2503 1967 1492 1346 1124 921 831	0.8 1.1 1.5 1.7 1.7 2.1 2.3	177.45 139.42 105.77 95.41 79.69 65.31 58.91	10.0 11.0 13.0 13.0 10.0 10.0 10.0	24.0 24.0 24.0 24.0 24.0 24.0 24.0	18.0 18.0 19.0 19.0 18.0 18.0 -	40.0 40.0 40.0 40.0 40.0 40.0 -	**PA/PF 53 100L4B / 100L4C**	117	189
	9.5 11.4 11.8 15.1 15.8 20.1 26.5 29.3 35.1	1984 1657 1595 1254 1197 940 713 643 537	0.9 0.9 0.9 1.1 1.2 1.8 2.4 2.6 2.6	294.23 245.73 236.60 185.90 177.45 139.42 105.77 95.41 79.69	10.0 10.0 10.0 10.0 10.0 11.0 13.0 13.0 10.0	24.0 24.0 24.0 24.0 24.0 24.0 24.0 24.0 24.0	17.0 18.0 17.0 18.0 18.0 18.0 19.0 19.0 18.0	40.0 40.0 40.0 40.0 40.0 40.0 40.0 40.0 40.0	**PA/PF 53 90L2D**	107	189
	10.4 11.5 12.6 15.1 16.7 18.4 23.4 25.0 27.7 28.0	1968 1779 1619 1348 1218 1109 871 815 737 727	0.9 0.9 1.0 1.5 1.6 1.8 2.0 1.8 1.8 2.0	86.88 78.53 71.47 59.50 53.79 48.95 38.46 36.00 32.54 32.12	13.0 13.0 14.0 14.0 14.0 14.0 14.0 14.0 14.0 14.0	24.0 24.0 24.0 24.0 24.0 24.0 24.0 24.0 24.0 24.0	19.0 19.0 19.0 20.0 20.0 20.0 20.0 20.0 20.0 20.0	40.0 40.0 40.0 40.0 40.0 40.0 40.0 40.0 40.0 39.0	**PA/PF 52 112M6C / 112M6D**	106	188
	16.1 17.8 19.6 23.5 26.0 28.6 36.4 38.9 43.0 43.6	1252 1131 1030 857 775 705 554 519 469 463	1.4 1.4 1.5 2.2 2.5 2.7 3.0 2.7 2.7 3.0	86.88 78.53 71.47 59.50 53.79 48.95 38.46 36.00 32.54 32.12	13.0 13.0 14.0 14.0 14.0 14.0 14.0 14.0 14.0 14.0	24.0 24.0 24.0 24.0 24.0 24.0 24.0 24.0 24.0 24.0	19.0 19.0 19.0 20.0 20.0 20.0 20.0 20.0 20.0 20.0	40.0 40.0 40.0 40.0 40.0 40.0 40.0 40.0 40.0 39.0	**PA/PF 52 100L4B / 100L4C**	98	188
	32.2 35.7 39.2	607 549 499	2.2 2.2 2.4	86.88 78.53 71.47	13.0 13.0 14.0	24.0 24.0 24.0	19.0 19.0 19.0	40.0 40.0 40.0	**PA/PF 52 90L2D**	88	188
	67.8 99.0 163.6	305 209 126	1.0 1.6 1.8	13.27 9.09 5.50	- - -	- - -	- - -	- - -	**PA/PF 51 112M6C / 112M6D**	67	166
	105.5 154.0 254.5	195 134 81	1.5 2.4 2.7	13.27 9.09 5.50	- - -	6.0 6.0 6.0	- - -	- - -	**PA/PF 51 100L4B / 100L4C**	59	166
	211.0	96	2.3	13.27	-	-	-	-	**PA/PF 51 90L2D**	49	166
	15.9	1212	1.0	87.79	3.0	12.0	-	-	**PA/PF 42/12 100L4B / 100L4C**	96	212
	16.6 19.9 24.1 31.9	1100 914 756 571	0.8 1.0 1.2 1.6	169.11 140.44 116.26 87.79	3.0 3.0 3.0 3.0	12.0 12.0 12.0 12.0	- - - -	- - - -	**PA/PF 42/12 90L2D**	86	212
	12.8 15.5 18.5 22.0	1564 1299 1083 913	0.8 0.9 1.0 1.2	70.10 58.22 48.55 40.91	3.0 3.0 3.0 3.0	12.0 12.0 12.0 12.0	9.0 9.0 - -	8.0 6.0 - -	**PA/PF 43 112M6C / 112M6D**	92	185
	14.8 17.5 20.0 24.0 28.8 34.2	1339 1129 989 821 685 577	0.9 1.1 1.3 1.4 1.5 1.8	94.91 80.01 70.10 58.22 48.55 40.91	1.0 1.0 3.0 3.0 3.0 3.0	12.0 12.0 12.0 12.0 12.0 12.0	9.0 10.0 9.0 9.0 - -	9.0 10.0 8.0 6.0 - -	**PA/PF 43 100L4B / 100L4C**	84	185

P_1 [kW]	n_2 [Min^{-1}]	M_2 [Nm]	f_B	i_{ges}	F_R [N]	F_A [N]	$F_{R\,GR}$ [N]	$F_{A\,GR}$ [N]	Tip / Type / Typ IE2 / IE3	Kg	mm
2.20	16.5 19.8 21.7 26.1 29.5 35.0 39.9 48.1 57.7 68.4	1145 955 872 724 640 540 473 393 327 276	0.8 0.8 1.1 1.2 1.5 1.7 2.0 2.3 2.4 2.9	169.82 141.63 129.27 107.36 94.91 80.01 70.10 58.22 48.55 40.91	1.0 1.0 1.0 1.0 1.0 1.0 3.0 3.0 3.0 3.0	12.0 12.0 12.0 12.0 12.0 12.0 12.0 12.0 12.0 12.0	10.0 10.0 10.0 - 9.0 10.0 - 9.0 - -	13.0 13.0 11.0 - 9.0 10.0 - 6.0 - -	**PA/PF 43 90L2D**	74	185
	14.8 17.7 21.8 25.5 29.5 30.7 36.5 36.9 41.2	1373 1155 935 799 690 663 559 553 495	0.8 1.0 1.3 1.6 1.6 1.6 1.7 1.6 2.3	60.64 50.99 41.30 35.26 30.47 29.28 24.68 24.42 21.85	6.0 8.0 8.0 7.0 7.0 7.0 7.0 7.0 6.0	12.0 12.0 12.0 12.0 12.0 12.0 12.0 12.0 12.0	11.0 11.0 11.0 11.0 11.0 11.0 11.0 11.0 12.0	10.0 10.0 10.0 10.0 10.0 9.0 9.0 9.0 9.0	**PA/PF 42 112M6C / 112M6D**	77	184
	18.7 23.1 27.5 33.9 39.7 45.9 47.8 56.7 57.3	1079 874 735 595 508 439 422 356 352	1.1 1.1 1.5 2.0 2.4 2.5 2.4 2.5 2.4	74.87 60.64 50.99 41.30 35.26 30.47 29.28 24.68 24.42	3.0 6.0 8.0 8.0 7.0 7.0 7.0 7.0 7.0	12.0 12.0 12.0 12.0 12.0 12.0 12.0 12.0 12.0	10.0 11.0 11.0 11.0 11.0 11.0 11.0 11.0 11.0	10.0 10.0 10.0 10.0 10.0 10.0 9.0 9.0 9.0	**PA/PF 42 100L4B / 100L4C**	69	184
	26.6 32.9 37.4 46.2	734 595 523 424	0.9 1.0 1.7 1.8	105.08 85.10 74.87 60.64	3.0 3.0 3.0 6.0	12.0 12.0 12.0 12.0	10.0 11.0 10.0 11.0	12.0 12.0 10.0 10.0	**PA/PF 42 90L2D**	59	184
	85.3 125.3 209.8 232.0 263.2	243 165 99 89 79	0.8 1.2 1.6 1.7 1.9	10.55 7.18 4.29 3.88 3.42	- - - - -	- - - - -	- - - - -	- - - - -	**PA/PF 41 112M6C / 112M6D**	58	164
	132.7 195.0 326.3 360.8 409.4	155 106 63 57 50	1.2 1.8 2.5 2.5 2.8	10.55 7.18 4.29 3.88 3.42	- - - - -	4.0 4.0 4.0 4.0 4.0	- - - - -	- - - - -	**PA/PF 41 100L4B / 100L4C**	50	164
	189.2 265.4	107 76	0.9 1.9	14.80 10.55	- -	- -	- -	- -	**PA/PF 41 90L2D**	40	164
	34.1	535	0.9	82.19	5.0	9.0	-	-	**PA/PF 32/12 90L2D**	57	212
	28.9 29.6 33.0 33.9 39.0 43.5 48.3 54.1 55.5 60.0 62.0 76.9	706 690 617 601 523 468 422 377 368 340 329 265	0.8 1.0 1.0 0.8 1.3 1.5 1.6 1.5 1.8 1.6 2.1 2.8	31.16 30.45 27.24 26.53 23.10 20.67 18.64 16.64 16.23 15.01 14.52 11.70	5.0 5.0 5.0 5.0 5.0 5.0 5.0 4.0 4.0 4.0 4.0 4.0	9.0 9.0 9.0 9.0 9.0 9.0 9.0 9.0 9.0 8.0 8.0 8.0	9.0 - - 9.0 9.0 9.0 9.0 9.0 9.0 9.0 9.0 9.0	10.0 - - 10.0 10.0 10.0 10.0 9.0 9.0 9.0 9.0 9.0	**PA/PF 32 112M6C / 112M6D**	62	212

P_1 [kW]	n_2 [Min^{-1}]	M_2 [Nm]	f_B	i_{ges}	F_R [N]	F_A [N]	$F_{R\,GR}$ [N]	$F_{A\,GR}$ [N]	Tip / Type / Typ IE2 / IE3	Kg	mm
2.20	30.3	666	1.0	46.22	3.0	9.0	9.0	11.0	PA/PF 32 100L4B / 100L4C	54	180
	37.6	536	1.1	37.22	4.0	9.0	9.0	10.0			
	44.9	449	1.1	31.16	5.0	9.0	9.0	10.0			
	46.0	439	1.5	30.45	5.0	9.0	-	-			
	51.4	392	1.5	27.24	5.0	9.0	-	-			
	52.8	382	1.1	26.53	5.0	9.0	9.0	10.0			
	60.6	333	1.9	23.10	5.0	9.0	9.0	10.0			
	67.7	298	2.2	20.67	5.0	9.0	9.0	10.0			
	75.1	269	2.3	18.64	5.0	9.0	9.0	10.0			
	84.1	240	2.2	16.64	4.0	9.0	9.0	9.0			
	86.3	234	2.7	16.23	4.0	9.0	9.0	9.0			
	93.3	216	2.3	15.01	4.0	8.0	9.0	9.0			
	38.5	508	0.8	72.71	3.0	9.0	9.0	14.0	PA/PF 32 90L2D	44	180
	43.6	449	1.1	64.26	3.0	9.0	9.0	12.0			
	48.7	402	1.2	57.49	3.0	9.0	9.0	12.0			
	60.5	323	1.3	46.29	3.0	9.0	9.0	12.0			
	60.6	323	1.6	46.22	3.0	9.0	9.0	11.0			
	72.2	271	1.3	38.76	4.0	9.0	9.0	11.0			
	75.2	260	1.7	37.22	4.0	9.0	9.0	10.0			
	84.8	231	1.3	33.00	5.0	9.0	9.0	11.0			
	89.9	218	1.8	31.16	5.0	9.0	9.0	10.0			
	92.0	213	2.3	30.45	5.0	9.0	-	-			
	102.8	190	2.4	27.24	5.0	9.0	-	-			
	105.5	185	1.8	26.53	5.0	9.0	9.0	10.0			
	121.2	161	3.0	23.10	5.0	9.0	9.0	10.0			
	186.3	111	0.9	4.83	-	-	-	-	PA/PF 31 112M6C / 112M6D	49	162
	245.2	84	1.4	3.67	-	-	-	-			
	271.9	76	1.4	3.31	-	-	-	-			
	170.7	121	0.9	8.20	-	3.0	-	-	PA/PF 31 100L4B / 100L4C	41	162
	289.9	71	1.4	4.83	-	3.0	-	-			
	381.5	54	2.0	3.67	-	3.0	-	-			
	423.0	49	2.2	3.31	-	3.0	-	-			
	274.5	74	0.9	10.20	-	-	-	-	PA/PF 31 90L2D	31	162
	341.5	59	1.3	8.20	-	-	-	-			
	579.7	35	2.1	4.83	-	-	-	-			
	53.8	379	0.9	16.74	1.0	6.0	7.0	6.0	PA/PF 22 112M6C / 112M6D	41	176
	61.3	332	1.1	14.67	2.0	6.0	7.0	6.0			
	73.8	276	1.3	12.19	2.0	6.0	7.0	6.0			
	82.6	247	1.3	10.90	3.0	5.0	7.0	6.0			
	106.4	192	1.4	8.46	3.0	5.0	7.0	6.0			
	118.9	171	1.5	7.57	3.0	5.0	7.0	6.0			
	131.2	155	1.7	6.86	3.0	5.0	8.0	6.0			
	138.2	147	1.6	6.51	3.0	5.0	8.0	5.0			
	156.0	131	1.7	5.77	3.0	5.0	8.0	5.0			
	173.7	117	1.4	5.18	3.0	4.0	8.0	5.0			
	194.0	105	1.5	4.64	3.0	4.0	8.0	5.0			
	225.6	90	1.6	3.99	3.0	4.0	8.0	5.0			
	255.0	80	1.7	3.53	3.0	4.0	8.0	5.0			
	321.4	63	1.9	2.80	3.0	4.0	7.0	4.0			
	48.6	415	0.9	28.80	1.0	6.0	7.0	6.0	PA/PF 22 100L4B / 100L4C	43	176
	58.9	342	1.0	23.77	1.0	6.0	7.0	6.0			
	70.0	288	1.0	20.00	1.0	6.0	7.0	6.0			
	83.6	241	1.4	16.74	1.0	6.0	7.0	6.0			
	95.4	211	1.6	14.67	2.0	6.0	7.0	6.0			
	114.8	176	1.9	12.19	2.0	6.0	7.0	6.0			
	128.4	157	2.0	10.90	3.0	5.0	7.0	6.0			
	165.5	122	2.1	8.46	3.0	5.0	7.0	6.0			
	184.9	109	2.3	7.57	3.0	5.0	7.0	6.0			
	204.1	99	2.6	6.86	3.0	5.0	8.0	6.0			
	215.1	94	2.4	6.51	3.0	5.0	8.0	5.0			
	242.6	83	2.6	5.77	3.0	5.0	8.0	5.0			
	270.3	75	2.1	5.18	3.0	4.0	8.0	5.0			
	301.7	67	2.2	4.64	3.0	4.0	8.0	5.0			
	350.9	57	2.4	3.99	3.0	4.0	8.0	5.0			
	396.6	51	2.6	3.53	3.0	4.0	8.0	5.0			
	500.0	40	2.9	2.80	3.0	4.0	7.0	4.0			

P_1 [kW]	n_2 [Min^{-1}]	M_2 [Nm]	f_B	i_{ges}	F_R [N]	F_A [N]	$F_{R\,GR}$ [N]	$F_{A\,GR}$ [N]	Tip / Type / Typ IE2 / IE3	Kg	mm
2.20	65.4	299	0.9	42.79	1.0	6.0	6.0	8.0	PA/PF 22 90L2D	33	176
	78.8	248	1.0	35.55	1.0	6.0	7.0	8.0			
	80.8	242	1.1	34.67	1.0	6.0	7.0	8.0			
	95.4	205	1.1	29.34	1.0	6.0	7.0	7.0			
	97.2	201	1.4	28.80	1.0	6.0	7.0	6.0			
	113.4	173	1.1	24.69	1.0	6.0	7.0	7.0			
	117.8	166	1.5	23.77	1.0	6.0	7.0	6.0			
	140.0	140	1.5	20.00	1.0	6.0	7.0	6.0			
	167.3	117	2.2	16.74	1.0	6.0	7.0	6.0			
	190.9	103	2.5	14.67	2.0	6.0	7.0	6.0			
	229.7	85	2.9	12.19	2.0	6.0	7.0	6.0			
	245.2	84	0.8	3.67	-	-	-	-	PA/PF 21 112M6C / 112M6D	53	160
	291.3	71	0.9	3.09	-	-	-	-			
	332.1	62	1.3	2.71	-	-	-	-			
	371.9	56	1.4	2.42	-	-	-	-			
	432.7	48	1.5	2.08	-	-	-	-			
	486.5	43	1.6	1.85	-	-	-	-			
	616.4	34	1.9	1.46	-	-	-	-			
	381.5	54	1.3	3.67	-	4.0	-	-	PA/PF 21 100L4B / 100L4C	45	160
	453.1	45	1.4	3.09	-	4.0	-	-			
	516.6	40	1.9	2.71	-	4.0	-	-			
	578.5	36	2.1	2.42	-	4.0	-	-			
	673.1	31	2.2	2.08	-	4.0	-	-			
	756.8	27	2.4	1.85	-	4.0	-	-			
	958.9	21	2.8	1.46	-	4.0	-	-			
	354.4	57	0.8	7.90	-	-	-	-	PA/PF 21 90L2D	35	160
	437.5	46	1.1	6.40	-	-	-	-			
	762.9	27	1.9	3.67	-	-	-	-			
	906.1	22	2.1	3.09	-	-	-	-			
	1033.2	20	3.0	2.71	-	-	-	-			
	114.6	178	0.8	7.85	1.0	3.0	5.0	4.0	PA/PF 12 112M6C / 112M6D	42	172
	123.5	165	0.8	7.29	1.0	3.0	5.0	4.0			
	137.8	148	0.9	6.53	1.0	3.0	5.0	4.0			
	155.7	131	1.0	5.78	1.0	3.0	5.0	4.0			
	182.6	112	1.1	4.93	1.0	3.0	5.0	4.0			
	200.4	102	1.2	4.49	1.0	3.0	5.0	4.0			
	208.8	98	1.2	4.31	2.0	3.0	5.0	4.0			
	226.1	90	1.3	3.98	1.0	3.0	5.0	4.0			
	265.5	77	1.5	3.39	2.0	3.0	5.0	4.0			
	304.1	67	1.6	2.96	2.0	2.0	5.0	4.0			
	104.6	189	0.8	13.39	1.0	3.0	5.0	5.0	PA/PF 12 100L4B / 100L4C	34	172
	131.1	151	0.9	10.68	1.0	3.0	5.0	5.0			
	145.1	136	1.0	9.65	1.0	3.0	5.0	5.0			
	178.3	111	1.2	7.85	1.0	3.0	5.0	4.0			
	192.0	103	1.2	7.29	1.0	3.0	5.0	4.0			
	214.4	92	1.4	6.53	1.0	3.0	5.0	4.0			
	242.2	82	1.5	5.78	1.0	3.0	5.0	4.0			
	284.0	70	1.7	4.93	1.0	3.0	5.0	4.0			
	311.8	63	1.9	4.49	1.0	3.0	5.0	4.0			
	324.8	61	1.8	4.31	2.0	3.0	5.0	4.0			
	351.8	56	2.0	3.98	1.0	3.0	5.0	4.0			
	413.0	48	2.3	3.39	2.0	3.0	5.0	4.0			
	473.0	42	2.5	2.96	2.0	2.0	5.0	4.0			
	131.6	149	0.9	21.27	1.0	3.0	-	-	PA/PF 12 90L2D	24	172
	148.9	131	0.9	18.80	1.0	3.0	-	-			
	167.3	117	1.0	16.74	1.0	3.0	-	-			
	209.1	94	1.2	13.39	1.0	3.0	5.0	5.0			
	262.2	75	1.4	10.68	1.0	3.0	5.0	5.0			
	290.2	67	1.5	9.65	1.0	3.0	5.0	5.0			
	356.7	55	1.8	7.85	1.0	3.0	5.0	4.0			
	384.1	51	1.9	7.29	1.0	3.0	5.0	4.0			
	428.8	46	2.1	6.53	1.0	3.0	5.0	4.0			
	484.4	40	2.3	5.78	1.0	3.0	5.0	4.0			
	568.0	34	2.6	4.93	1.0	3.0	5.0	4.0			
	623.6	31	2.9	4.49	1.0	3.0	5.0	4.0			
	649.7	30	2.8	4.31	2.0	3.0	5.0	4.0			

P_1 [kW]	n_2 [Min^{-1}]	M_2 [Nm]	f_B	i_{ges}	F_R [N]	F_A [N]	$F_{R\,GR}$ [N]	$F_{A\,GR}$ [N]	Tip / Type / Typ IE2 / IE3	Kg	mm
2.20	318.0 387.9 441.2 497.2 584.4 666.7	65 53 47 42 35 31	0.9 0.9 1.3 1.4 1.5 1.7	2.83 2.32 2.04 1.81 1.54 1.35	- - - - - -	- - - - - -	- - - - - -	- - - - - -	**PA/PF 11 112M6C / 112M6D**	38	158
	494.7 603.4 686.3 773.5 909.1 1037.0	42 34 30 27 23 20	1.3 1.4 1.9 2.1 2.2 2.5	2.83 2.32 2.04 1.81 1.54 1.35	- - - - - -	3.0 3.0 3.0 3.0 3.0 3.0	- - - - - -	- - - - - -	**PA/PF 11 100L4B / 100L4C**	30	158
	777.8 880.5 989.4 1206.9 1372.5	26 23 20 17 15	1.4 1.3 2.0 2.2 3.0	3.60 3.18 2.83 2.32 2.04	- - - - -	- - - - -	- - - - -	- - - - -	**PA/PF 11 90L2D**	20	158
	302.0 341.5 359.0 406.4 502.7 580.9 717.9 826.0 942.8	65 57 55 48 39 34 27 24 21	0.8 0.8 0.9 1.0 1.1 1.3 1.5 1.6 1.7	9.27 8.20 7.80 6.89 5.57 4.82 3.90 3.39 2.97	1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0	3.0 3.0 3.0 3.0 3.0 3.0 3.0 3.0 3.0	3.0 3.0 2.0 2.0 2.0 2.0 2.0 2.0 2.0	4.0 4.0 3.0 3.0 3.0 3.0 3.0 3.0 3.0	**PA/PF 02 90L2D**	22	168
3.00	1.0 1.1 1.4 1.9 2.6 3.0 3.7	27864 24139 18966 13819 10068 8753 7221	0.8 0.9 1.1 1.5 2.1 2.4 2.9	944.01 817.82 642.57 468.19 341.11 296.56 244.66	89.0 89.0 89.0 89.0 89.0 89.0 89.0	120.0 120.0 120.0 120.0 120.0 120.0 120.0	120.0 120.0 120.0 120.0 120.0 120.0 120.0	120.0 120.0 120.0 120.0 120.0 120.0 120.0	**PA/PF 103/52 132S6A**	843	216
	1.0 1.2 1.5 1.7 2.2 3.0	26037 21135 17387 15062 11835 8623	0.8 0.9 1.2 1.3 1.7 2.3	1413.66 1147.52 944.01 817.82 642.57 468.19	- 85.0 92.0 94.0 98.0 100.0	- 120.0 120.0 120.0 120.0 120.0	120.0 120.0 120.0 120.0 120.0 120.0	120.0 120.0 120.0 120.0 120.0 120.0	**PA/PF 103/52 100L4C / 100L4D**	813	216
	1.4 1.6 2.0 2.4 3.0 3.4 4.4	17455 14578 12105 9826 8083 7003 5502	0.9 1.0 1.3 1.5 1.9 2.2 2.8	2038.56 1702.50 1413.66 1147.52 944.01 817.82 642.57	89.0 89.0 89.0 89.0 89.0 89.0 89.0	120.0 120.0 120.0 120.0 120.0 120.0 120.0	- - 120.0 120.0 120.0 120.0 120.0	- - 120.0 120.0 120.0 120.0 120.0	**PA/PF 103/52 100L2C / 100L2D**	813	216
	5.6	4748	2.7	160.87	66.0	66.0	93.0	80.0	**PA/PF 93/52 132S6A**	624	216
	1.6 2.0 2.7 3.1 3.7 4.9	16171 13486 9826 8500 7104 5372	0.8 0.9 1.3 1.5 1.8 2.4	547.88 456.91 332.89 287.97 240.68 182.00	51.0 51.0 51.0 51.0 51.0 51.0	80.0 80.0 80.0 80.0 80.0 80.0	89.0 90.0 92.0 92.0 93.0 93.0	80.0 80.0 80.0 80.0 80.0 80.0	**PA/PF 93/42 132S6A**	595	216
	1.7 1.8 2.6 3.1 4.2 4.9 5.8	14954 13939 10091 8415 6131 5304 4433	0.8 0.9 1.2 1.4 2.0 2.3 2.8	811.95 756.80 547.88 456.91 332.89 287.97 240.68	- 53.0 60.0 62.0 64.0 65.0 66.0	- 80.0 80.0 80.0 80.0 77.0 74.0	88.0 84.0 89.0 90.0 92.0 92.0 93.0	80.0 80.0 80.0 80.0 80.0 80.0 80.0	**PA/PF 93/42 100L4C / 100L4D**	565	216
	2.2 2.6 3.4 3.7 5.1 6.1	11124 9342 6952 6480 4691 3912	0.8 1.0 1.3 1.4 2.0 2.4	1299.17 1090.99 811.95 756.80 547.88 456.91	51.0 51.0 51.0 51.0 51.0 51.0	80.0 80.0 80.0 80.0 80.0 80.0	87.0 83.0 88.0 84.0 89.0 90.0	80.0 80.0 80.0 80.0 80.0 80.0	**PA/PF 93/42 100L2C / 100L2D**	565	216

P_1 [kW]	n_2 [Min^{-1}]	M_2 [Nm]	f_B	i_{ges}	F_R [N]	F_A [N]	$F_{R\,GR}$ [N]	$F_{A\,GR}$ [N]	Tip / Type / Typ IE2 / IE3	Kg	mm
3.00	4.8	5719	2.6	187.99	66.0	58.0	92.0	80.0	**PA/PF 93 132S6A**	550	205
	2.4 3.3 3.8 4.5 6.0 7.1	11054 8147 6967 5935 4398 3747	0.8 1.0 1.2 1.4 1.9 2.2	374.50 276.00 236.03 201.09 149.01 126.95	38.0 38.0 38.0 38.0 38.0 38.0	51.0 51.0 51.0 51.0 51.0 51.0	- 61.0 61.0 62.0 63.0 63.0	- 65.0 65.0 65.0 65.0 65.0	**PA/PF 83/42 132S6A**	416	216
	2.7 3.2 3.7 5.1 5.9 7.0 9.4	9671 8066 6897 5083 4347 3704 2744	0.8 1.0 1.2 1.6 1.8 2.2 2.9	525.11 437.93 374.50 276.00 236.03 201.09 149.01	30.0 35.0 38.0 42.0 43.0 44.0 44.0	45.0 45.0 45.0 44.0 43.0 42.0 39.0	58.0 60.0 61.0 62.0 62.0 63.0 63.0	65.0 65.0 65.0 65.0 65.0 65.0 65.0	**PA/PF 83/42 100L4C / 100L4D**	386	216
	5.3 6.4 7.5 10.1 11.9	4496 3750 3207 2363 2021	1.4 1.6 1.9 2.6 3.0	525.11 437.93 374.50 276.00 236.03	38.0 38.0 38.0 38.0 38.0	51.0 51.0 51.0 51.0 51.0	53.0 56.0 58.0 61.0 61.0	65.0 65.0 65.0 65.0 65.0	**PA/PF 83/42 100L2C / 100L2D**	386	216
	3.1 3.9	7684 6188	0.8 1.0	897.44 722.63	30.0 30.0	51.0 51.0	55.0 53.0	65.0 65.0	**PA/PF 83/32 100L2C / 100L2D**	371	214
	4.2 5.5 6.6 8.7	6586 5010 4158 3163	1.4 1.9 1.9 3.0	216.49 164.68 136.67 103.97	44.0 44.0 44.0 44.0	44.0 44.0 44.0 44.0	62.0 60.0 63.0 62.0	65.0 65.0 65.0 65.0	**PA/PF 83 132S6A**	371	201
	6.5 10.2	4164 2629	2.1 2.8	216.49 136.67	43.0 45.0	42.0 39.0	62.0 63.0	65.0 65.0	**PA/PF 83 100L4C / 100L4D**	341	201
	4.0 5.3 6.4 7.2	6682 5050 4167 3680	0.8 1.0 1.3 1.4	226.38 171.10 141.16 124.66	26.0 26.0 26.0 26.0	23.0 23.0 23.0 23.0	37.0 40.0 40.0 40.0	50.0 50.0 50.0 50.0	**PA/PF 73/32 132S6A**	294	214
	6.2 8.2 9.9 11.2	4169 3151 2600 2296	1.2 1.6 1.9 2.2	226.38 171.10 141.16 124.66	23.0 - - -	21.0 - - -	37.0 40.0 40.0 40.0	50.0 50.0 50.0 50.0	**PA/PF 73/32 100L4C / 100L4D**	264	214
	12.4 16.4	1938 1465	2.0 2.6	226.38 171.10	26.0 26.0	23.0 23.0	37.0 40.0	50.0 50.0	**PA/PF 73/32 100L2C / 100L2D**	264	214
	4.0 5.0	6386 5158	0.8 1.0	346.75 280.08	- 20.0	- 20.0	36.0 35.0	50.0 50.0	**PA/PF 73/22 100L4C / 100L4D**	253	214
	4.9 6.1 8.1 10.0	4850 3918 2969 2398	0.8 1.0 1.3 1.6	566.43 457.52 346.75 280.08	22.0 22.0 22.0 22.0	24.0 24.0 24.0 24.0	35.0 36.0 36.0 35.0	50.0 50.0 50.0 50.0	**PA/PF 73/22 100L2C / 100L2D**	253	214
	4.4 5.4 7.2 7.2 9.0 9.9 12.0	6255 5052 3789 3784 3057 2778 2276	0.9 1.2 1.6 1.4 1.4 2.0 2.5	205.59 166.07 124.55 124.38 100.47 91.33 74.80	26.0 26.0 26.0 26.0 26.0 26.0 26.0	23.0 23.0 23.0 23.0 23.0 23.0 23.0	37.0 38.0 40.0 39.0 40.0 40.0 40.0	50.0 50.0 50.0 50.0 50.0 50.0 50.0	**PA/PF 73 132S6A**	264	197
	6.8 8.4 11.3 13.9 15.3	3955 3195 2393 1933 1757	1.3 1.8 2.1 2.1 3.0	205.59 166.07 124.38 100.47 91.33	24.0 26.0 27.0 27.0 28.0	21.0 21.0 20.0 20.0 20.0	37.0 38.0 39.0 40.0 40.0	50.0 50.0 50.0 50.0 50.0	**PA/PF 73 100L4C / 100L4D**	234	197
	13.6 16.9	1890 1527	2.1 2.8	205.59 166.07	26.0 26.0	23.0 23.0	37.0 38.0	50.0 50.0	**PA/PF 73 100L2C / 100L2D**	234	197
	6.2 8.1 9.1	4148 3191 2828	0.8 1.0 1.1	225.22 173.24 153.52	- - -	- - -	- - -	- - -	**PA/PF 63/22 100L4C / 100L4D**	172	214

P_1 [kW]	n_2 [Min^{-1}]	M_2 [Nm]	f_B	i_{ges}	F_R [N]	F_A [N]	$F_{R\,GR}$ [N]	$F_{A\,GR}$ [N]	Tip / Type / Typ IE2 / IE3	Kg	mm
3.00	7.6 9.9 12.4 16.2 18.2	3150 2423 1928 1483 1315	0.8 1.0 1.3 1.6 1.9	367.90 283.00 225.22 173.24 153.52	13.0 13.0 13.0 13.0 13.0	24.0 24.0 24.0 24.0 24.0	- 23.0 - - -	- 45.0 - - -	**PA/PF 63/22 100L2C / 100L2D**	172	214
	6.2 6.8 8.4 11.6 14.3 16.7 17.7 20.7	4442 4039 3262 2357 1915 1638 1546 1322	0.9 1.0 1.2 1.6 2.0 2.4 2.5 2.9	146.02 132.78 107.21 77.49 62.96 53.84 50.83 43.47	14.0 14.0 14.0 14.0 14.0 14.0 14.0 14.0	24.0 24.0 24.0 24.0 24.0 24.0 24.0 24.0	26.0 27.0 28.0 28.0 28.0 28.0 28.0 28.0	45.0 45.0 45.0 44.0 42.0 40.0 40.0 38.0	**PA/PF 63 132S6A**	183	193
	6.5 7.7 9.6 13.0 16.0 18.1 22.2	4124 3479 2809 2079 1679 1491 1211	0.9 1.1 1.3 1.8 1.9 2.5 3.0	214.41 180.86 146.02 108.08 87.26 77.49 62.96	12.0 15.0 17.0 19.0 19.0 20.0 20.0	21.0 21.0 21.0 21.0 20.0 20.0 19.0	23.0 25.0 26.0 27.0 28.0 28.0 28.0	45.0 45.0 45.0 45.0 45.0 44.0 42.0	**PA/PF 63 100L4C / 100L4D**	153	193
	10.5 13.1 15.5 19.2 25.9 32.1	2442 1971 1663 1343 994 802	1.1 1.4 1.7 2.1 2.8 3.0	265.56 214.41 180.86 146.02 108.08 87.26	14.0 14.0 14.0 14.0 14.0 14.0	24.0 24.0 24.0 24.0 24.0 24.0	- 23.0 25.0 26.0 27.0 28.0	- 45.0 45.0 45.0 45.0 45.0	**PA/PF 63 100L2C / 100L2D**	153	193
	18.5 24.3	1506 1145	1.8 2.8	48.75 37.08	20.0 20.0	17.0 17.0	28.0 28.0	38.0 34.0	**PA/PF 62 132S6A**	185	192
	28.7	958	2.6	48.75	-	-	-	-	**PA/PF 62 100L4C / 100L4D**	155	192
	11.2 14.3	2344 1842	0.8 1.0	124.52 97.84	- -	- -	- -	- -	**PA/PF 52/12 100L4C / 100L4D**	114	212
	14.4 19.2 22.5 28.6	1727 1296 1105 868	0.8 1.1 1.3 1.6	194.67 146.01 124.52 97.84	10.0 10.0 10.0 10.0	24.0 24.0 24.0 24.0	- - - -	- - - -	**PA/PF 52/12 100L2C / 100L2D**	114	212
	10.0 13.2 14.7 17.6 21.4 23.8	2682 2035 1835 1533 1256 1133	0.8 1.1 1.2 1.2 1.5 1.7	139.42 105.77 95.41 79.69 65.31 58.91	7.0 11.0 12.0 - - -	24.0 24.0 24.0 - - -	16.0 17.0 18.0 18.0 18.0 -	40.0 40.0 40.0 40.0 40.0 -	**PA/PF 53 100L4C / 100L4D**	117	189
	15.1 15.8 20.1 26.5 29.3 35.1 42.9 47.5	1709 1632 1282 973 877 733 601 542	0.8 0.9 1.3 1.7 1.9 1.9 2.4 2.7	185.90 177.45 139.42 105.77 95.41 79.69 65.31 58.91	10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0	24.0 24.0 24.0 24.0 24.0 24.0 24.0 24.0	18.0 18.0 16.0 17.0 18.0 18.0 18.0 -	40.0 40.0 40.0 40.0 40.0 40.0 40.0 -	**PA/PF 53 100L2C / 100L2D**	117	189
	15.1 16.7 18.4 22.3 23.4 24.5 28.0 31.2 34.1 37.4 37.7 41.6	1838 1661 1512 1246 1188 1134 992 891 816 744 738 669	1.1 1.2 1.3 1.6 1.5 1.8 1.5 2.4 2.4 2.4 2.7 3.0	59.50 53.79 48.95 40.34 38.46 36.71 32.12 28.85 26.43 24.09 23.89 21.65	13.0 13.0 13.0 13.0 13.0 13.0 13.0 13.0 13.0 13.0 13.0 13.0	24.0 24.0 24.0 24.0 24.0 24.0 24.0 24.0 24.0 24.0 24.0 24.0	19.0 19.0 19.0 19.0 20.0 19.0 20.0 19.0 20.0 20.0 20.0 20.0	40.0 40.0 40.0 39.0 40.0 38.0 39.0 36.0 37.0 34.0 36.0 34.0	**PA/PF 52 132S6A**	128	188

P_1 [kW]	n_2 [Min^{-1}]	M_2 [Nm]	f_B	i_{ges}	F_R [N]	F_A [N]	$F_{R\,GR}$ [N]	$F_{A\,GR}$ [N]	Tip / Type / Typ IE2 / IE3	Kg	mm
3.00	16.1 17.8 19.6 23.5 26.0 28.6 36.4 38.9 43.0 43.6	1707 1543 1404 1169 1057 962 756 707 639 631	1.0 1.0 1.1 1.6 1.8 2.0 2.2 2.0 2.0 2.2	86.88 78.53 71.47 59.50 53.79 48.95 38.46 36.00 32.54 32.12	12.0 13.0 13.0 13.0 13.0 14.0 14.0 14.0 14.0 14.0	24.0 24.0 24.0 24.0 24.0 24.0 24.0 24.0 24.0 24.0	18.0 19.0 19.0 19.0 19.0 19.0 20.0 20.0 20.0 20.0	40.0 40.0 40.0 40.0 40.0 40.0 40.0 40.0 39.0 39.0	**PA/PF 52 100L4C / 100L4D**	98	188
	32.2 35.7 39.2 47.1 52.1	828 748 681 567 513	1.6 1.6 1.8 2.5 2.8	86.88 78.53 71.47 59.50 53.79	13.0 13.0 13.0 13.0 13.0	24.0 24.0 24.0 24.0 24.0	18.0 19.0 19.0 19.0 19.0	40.0 40.0 40.0 40.0 40.0	**PA/PF 52 100L2C / 100L2D**	98	188
	99.0 132.0	285 214	1.2 2.0	9.09 6.82	- -	- -	- -	- -	**PA/PF 51 132S6A**	89	166
	105.5 154.0 254.5	266 182 110	1.1 1.8 2.0	13.27 9.09 5.50	- - -	- - -	- - -	- - -	**PA/PF 51 100L4C / 100L4D**	59	166
	211.0 308.0	131 90	1.7 2.7	13.27 9.09	- -	- -	- -	- -	**PA/PF 51 100L2C / 100L2D**	59	166
	24.1 31.9	1032 779	0.9 1.2	116.26 87.79	3.0 3.0	12.0 12.0	- -	- -	**PA/PF 42/12 100L2C / 100L2D**	96	212
	17.5 20.0 24.0 28.8 34.2	1539 1348 1120 934 787	0.8 0.9 1.0 1.1 1.3	80.01 70.10 58.22 48.55 40.91	0.4 0.3 - - -	0.3 0.3 - - -	9.0 9.0 9.0 - -	7.0 8.0 6.0 - -	**PA/PF 43 100L4C / 100L4D**	84	185
	21.7 26.1 29.5 35.0 39.9 48.1 57.7 68.4	1189 987 873 736 645 535 446 376	0.8 0.9 1.1 1.3 1.5 1.7 1.8 2.1	129.27 107.36 94.91 80.01 70.10 58.22 48.55 40.91	1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0	12.0 12.0 12.0 12.0 12.0 12.0 12.0 12.0	- 10.0 9.0 9.0 9.0 - -	- 10.0 7.0 8.0 6.0 - -	**PA/PF 43 100L2C / 100L2D**	84	185
	21.8 25.5 30.7 34.8 36.9 41.2 41.9 50.2 50.9 59.6 62.6	1276 1089 904 799 754 675 664 554 546 466 444	1.0 1.2 1.2 1.6 1.2 1.7 1.8 1.9 2.3 2.8 2.7	41.30 35.26 29.28 25.88 24.42 21.85 21.50 17.93 17.69 15.10 14.38	3.0 3.0 3.0 3.0 3.0 3.0 3.0 3.0 3.0 3.0 3.0	12.0 12.0 12.0 12.0 12.0 12.0 12.0 12.0 12.0 12.0 12.0	11.0 11.0 11.0 11.0 11.0 11.0 11.0 11.0 11.0 12.0 12.0	9.0 9.0 9.0 6.0 8.0 8.0 6.0 6.0 8.0 8.0 8.0	**PA/PF 42 132S6A**	99	184
	18.7 23.1 27.5 33.9 39.7 45.9 47.8 56.7 57.3 64.1	1471 1191 1002 811 693 599 575 485 480 429	0.8 0.8 1.1 1.5 1.8 1.8 1.8 1.8 1.8 2.6	74.87 60.64 50.99 41.30 35.26 30.47 29.28 24.68 24.42 21.85	- 0.4 1.0 3.0 5.0 7.0 6.0 6.0 6.0 6.0	- 0.4 12.0 12.0 12.0 12.0 12.0 12.0 12.0 12.0	10.0 10.0 10.0 11.0 11.0 11.0 11.0 11.0 11.0 11.0	10.0 8.0 9.0 9.0 9.0 9.0 9.0 9.0 8.0 8.0	**PA/PF 42 100L4C / 100L4D**	69	184
	37.4 46.2 54.9 67.8 79.4 91.9 95.6 113.5 114.7	713 578 486 394 336 290 279 235 233	1.2 1.3 1.7 2.3 2.8 2.8 2.8 2.9 2.8	74.87 60.64 50.99 41.30 35.26 30.47 29.28 24.68 24.42	3.0 3.0 3.0 3.0 3.0 3.0 3.0 3.0 3.0	12.0 12.0 12.0 12.0 12.0 12.0 12.0 12.0 12.0	10.0 10.0 10.0 11.0 11.0 11.0 11.0 11.0 11.0	10.0 8.0 9.0 9.0 9.0 9.0 9.0 9.0 9.0	**PA/PF 42 100L2C / 100L2D**	69	184

P_1 [kW]	n_2 [Min^{-1}]	M_2 [Nm]	f_B	i_{ges}	F_R [N]	F_A [N]	$F_{R\,GR}$ [N]	$F_{A\,GR}$ [N]	Tip / Type / Typ IE2 / IE3	Kg	mm
3.00	125.3 170.8	225 165	0.9 1.2	7.18 5.27	- -	- -	- -	- -	PA/PF 41 132S6A	80	164
	409.4 360.8 326.3 195.0 132.7	69 78 86 144 212	2.0 1.9 1.8 1.3 0.9	3.42 3.88 4.29 7.18 10.55	- - - - -	- - - - -	- - - - -	- - - - -	PA/PF 41 100L4C / 100L4D	50	164
	265.4 390.0 652.7 721.6	104 71 42 38	1.4 2.0 2.8 2.9	10.55 7.18 4.29 3.88	- - - -	- - - -	- - - -	- - - -	PA/PF 41 100L2C / 100L2D	50	164
	55.5 62.0 76.9 91.9 114.1 163.9	501 448 361 302 244 170	1.3 1.6 2.1 2.2 2.8 2.8	16.23 14.52 11.70 9.79 7.89 5.49	3.0 3.0 3.0 3.0 3.0 3.0	9.0 9.0 9.0 9.0 9.0 9.0	9.0 9.0 9.0 9.0 - 10.0	9.0 9.0 8.0 8.0 - 7.0	PA/PF 32 132S6A	84	180
	37.6 44.9 46.0 51.4 52.8 60.6 67.7 75.1 84.1 86.3 93.3 96.4	731 612 598 535 521 454 406 366 327 319 295 285	0.8 0.8 1.1 1.1 0.8 1.4 1.6 1.7 1.6 2.0 1.7 2.4	37.22 31.16 30.45 27.24 26.53 23.10 20.67 18.64 16.64 16.23 15.01 14.52	- - - - - 4.0 4.0 4.0 4.0 4.0 4.0 4.0	- - - - - 8.0 8.0 8.0 8.0 8.0 8.0 8.0	9.0 9.0 - - 9.0 9.0 9.0 9.0 9.0 9.0 9.0 9.0	10.0 10.0 - - 10.0 9.0 9.0 9.0 9.0 9.0 9.0 9.0	PA/PF 32 100L4C / 100L4D	54	180
	60.6 75.2 89.9 92.0 102.8 105.5 121.2 135.5 150.2 168.3 186.5	440 355 297 290 260 253 220 197 178 159 143	1.2 1.3 1.3 1.7 1.8 1.3 2.2 2.5 2.7 2.5 2.7	46.22 37.22 31.16 30.45 27.24 26.53 23.10 20.67 18.64 16.64 15.01	3.0 3.0 3.0 3.0 3.0 3.0 3.0 3.0 3.0 3.0 3.0	9.0 9.0 9.0 9.0 9.0 9.0 9.0 9.0 9.0 9.0 9.0	9.0 9.0 9.0 - - 9.0 9.0 9.0 9.0 9.0 9.0	11.0 10.0 10.0 - - 10.0 9.0 9.0 9.0 9.0 9.0	PA/PF 32 100L2C / 100L2D	54	180
	432.7 511.4	65 55	2.7 2.9	2.08 1.76	- -	- -	- -	- -	PA/PF 31 132S6A	71	162
	289.9 381.5 423.0	97 74 66	1.0 1.5 1.6	4.83 3.67 3.31	- - -	- - -	- - -	- - -	PA/PF 31 100L4C / 100L4D	41	162
	341.5 579.7 762.9 845.9	81 48 36 33	1.0 1.6 2.3 2.4	8.20 4.83 3.67 3.31	- - - -	- - - -	- - - -	- - - -	PA/PF 31 100L2C / 100L2D	41	162
	83.6 95.4 114.8 128.4 165.5 184.9 204.1 215.1 242.6 270.3 301.7 350.9 396.6 500.0	329 288 239 214 166 149 135 128 113 102 91 78 69 55	1.0 1.2 1.4 1.5 1.6 1.7 1.9 1.8 1.9 1.6 1.6 1.8 1.9 2.1	16.74 14.67 12.19 10.90 8.46 7.57 6.86 6.51 5.77 5.18 4.64 3.99 3.53 2.80	0.3 0.4 0.3 0.3 1.0 2.0 2.0 2.0 3.0 2.0 2.0 2.0 2.0 2.0	0.3 0.3 0.3 5.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 3.0	7.0 7.0 7.0 7.0 7.0 7.0 7.0 7.0 7.0 7.0 8.0 8.0 8.0 7.0	6.0 6.0 6.0 6.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 4.0	PA/PF 22 100L4C / 100L4D	43	176

P_1 [kW]	n_2 [Min^{-1}]	M_2 [Nm]	f_B	i_{ges}	F_R [N]	F_A [N]	$F_{R\,GR}$ [N]	$F_{A\,GR}$ [N]	Tip / Type / Typ IE2 / IE3	Kg	mm
3.00	80.8	330	0.8	34.67	1.0	6.0	7.0	8.0	PA/PF 22 100L2C / 100L2D	43	176
	97.2	274	1.0	28.80	1.0	6.0	7.0	6.0			
	117.8	226	1.1	23.77	1.0	6.0	7.0	6.0			
	140.0	191	1.1	20.00	1.0	6.0	7.0	6.0			
	167.3	160	1.6	16.74	1.0	6.0	7.0	6.0			
	190.9	140	1.8	14.67	1.0	6.0	7.0	6.0			
	229.7	116	2.2	12.19	1.0	6.0	7.0	6.0			
	256.9	104	2.3	10.90	1.0	6.0	7.0	6.0			
	331.0	81	2.4	8.46	1.0	6.0	7.0	5.0			
	369.9	72	2.6	7.57	1.0	6.0	7.0	5.0			
	408.2	65	3.0	6.86	1.0	6.0	7.0	5.0			
	430.1	62	2.8	6.51	1.0	6.0	7.0	5.0			
	485.3	55	3.0	5.77	1.0	6.0	7.0	5.0			
	540.5	49	2.4	5.18	1.0	6.0	7.0	5.0			
	603.4	44	2.6	4.64	1.0	6.0	8.0	5.0			
	701.8	38	2.8	3.99	1.0	6.0	8.0	5.0			
	793.2	34	3.0	3.53	1.0	6.0	8.0	5.0			
	381.5	74	0.9	3.67	-	-	-	-	PA/PF 21 100L4C / 100L4D	45	160
	453.1	62	1.0	3.09	-	-	-	-			
	516.6	54	1.4	2.71	-	-	-	-			
	578.5	49	1.5	2.42	-	-	-	-			
	673.1	42	1.6	2.08	-	-	-	-			
	756.8	37	1.7	1.85	-	-	-	-			
	958.9	29	2.0	1.46	-	-	-	-			
	437.5	63	0.8	6.40	-	-	-	-	PA/PF 21 100L2C / 100L2D	45	160
	762.9	36	1.4	3.67	-	-	-	-			
	906.1	31	1.5	3.09	-	-	-	-			
	1033.2	27	2.2	2.71	-	-	-	-			
	1157.0	24	2.3	2.42	-	-	-	-			
	1346.2	21	2.5	2.08	-	-	-	-			
	1513.5	18	2.7	1.85	-	-	-	-			
	178.3	151	0.9	7.85	0.2	0.2	5.0	4.0	PA/PF 12 100L4C / 100L4D	34	172
	192.0	140	0.9	7.29	0.2	0.2	5.0	4.0			
	214.4	126	1.0	6.53	0.2	0.2	5.0	4.0			
	242.2	111	1.1	5.78	0.2	0.2	5.0	4.0			
	284.0	95	1.2	4.93	0.2	0.2	5.0	4.0			
	311.8	86	1.4	4.49	0.2	0.2	5.0	4.0			
	324.8	83	1.4	4.31	0.4	2.0	5.0	4.0			
	351.8	77	1.5	3.98	0.2	2.0	5.0	4.0			
	413.0	65	1.7	3.39	1.0	2.0	5.0	4.0			
	473.0	57	1.8	2.96	1.0	2.0	5.0	4.0			
	209.1	128	0.9	13.39	1.0	3.0	5.0	5.0	PA/PF 12 100L2C / 100L2D	34	172
	262.2	102	1.0	10.68	1.0	3.0	5.0	5.0			
	290.2	92	1.1	9.65	1.0	3.0	5.0	5.0			
	356.7	75	1.3	7.85	1.0	3.0	5.0	4.0			
	384.1	69	1.4	7.29	1.0	3.0	5.0	4.0			
	428.8	62	1.5	6.53	1.0	3.0	5.0	4.0			
	484.4	55	1.7	5.78	1.0	3.0	5.0	4.0			
	568.0	47	1.9	4.93	1.0	3.0	5.0	4.0			
	623.6	43	2.1	4.49	1.0	3.0	5.0	4.0			
	649.7	41	2.1	4.31	1.0	3.0	5.0	4.0			
	703.5	38	2.3	3.98	1.0	3.0	5.0	4.0			
	826.0	32	2.6	3.39	1.0	3.0	5.0	4.0			
	945.9	28	2.8	2.96	1.0	3.0	5.0	4.0			
	494.7	57	1.0	2.83	-	-	-	-	PA/PF 11 100L4C / 100L4D	30	158
	603.4	47	1.0	2.32	-	-	-	-			
	686.3	41	1.4	2.04	-	-	-	-			
	773.5	36	1.5	1.81	-	-	-	-			
	909.1	31	1.6	1.54	-	-	-	-			
	1037.0	27	1.8	1.35	-	-	-	-			
	989.4	28	1.5	2.83	-	-	-	-	PA/PF 11 100L2C / 100L2D	30	158
	1206.9	23	1.6	2.32	-	-	-	-			
	1372.5	20	2.2	2.04	-	-	-	-			
	1547.0	18	2.3	1.81	-	-	-	-			
	1818.2	15	2.5	1.54	-	-	-	-			
	2074.1	13	2.9	1.35	-	-	-	-			

P_1 [kW]	n_2 [Min^{-1}]	M_2 [Nm]	f_B	i_{ges}	F_R [N]	F_A [N]	$F_{R\,GR}$ [N]	$F_{A\,GR}$ [N]	Tip / Type / Typ IE2 / IE3	Kg	mm
4.00	1.4 1.9 2.6 3.0 3.7 4.9	25288 18426 13424 11671 9629 7272	0.8 1.1 1.6 1.8 2.2 2.9	642.57 468.19 341.11 296.56 244.66 184.77	101.0 89.0 89.0 89.0 89.0 89.0	112.0 120.0 120.0 120.0 120.0 120.0	120.0 120.0 120.0 120.0 120.0 120.0	120.0 120.0 120.0 120.0 120.0 120.0	**PA/PF 103/52 132M6A**	843	216
	1.5 1.7 2.2 3.0 4.1 4.7	23182 20083 15780 11497 8377 7283	0.9 1.0 1.3 1.7 2.4 2.7	944.01 817.82 642.57 468.19 341.11 296.56	83.0 89.0 94.0 98.0 100.0 101.0	120.0 120.0 120.0 120.0 116.0 112.0	120.0 120.0 120.0 120.0 120.0 120.0	120.0 120.0 120.0 120.0 120.0 120.0	**PA/PF 103/52 112M4C / 112M4D**	821	216
	1.6 2.0 2.4 3.0 3.4 4.4 6.0	19437 16139 13101 10778 9337 7336 5345	0.8 0.9 1.2 1.4 1.6 2.1 2.8	1702.50 1413.66 1147.52 944.01 817.82 642.57 468.19	83.0 83.0 83.0 83.0 89.0 94.0 98.0	120.0 120.0 120.0 120.0 120.0 120.0 120.0	- 120.0 120.0 120.0 120.0 120.0 120.0	- 120.0 120.0 120.0 120.0 120.0 120.0	**PA/PF 103/52 112M2B / 112M2C**	821	216
	4.3	8411	2.9	207.36	100.0	96.0	120.0	120.0	**PA/PF 103 132M6A**	769	209
	5.6 7.1	6331 5012	2.0 2.6	160.87 127.35	66.0 66.0	66.0 66.0	93.0 -	80.0 -	**PA/PF 93/52 132M6A**	624	216
	2.7 3.1 3.7 4.9	13101 11333 9472 7163	1.0 1.1 1.4 1.8	332.89 287.97 240.68 182.00	62.0 64.0 65.0 66.0	75.0 74.0 71.0 67.0	90.0 91.0 92.0 93.0	80.0 80.0 80.0 80.0	**PA/PF 93/42 132M6A**	595	216
	2.6 3.1 4.2 4.9 5.8 7.7	13454 11220 8175 7072 5910 4469	0.9 1.1 1.5 1.7 2.1 2.7	547.88 456.91 332.89 287.97 240.68 182.00	54.0 59.0 62.0 64.0 65.0 66.0	80.0 78.0 75.0 74.0 71.0 67.0	85.0 88.0 90.0 91.0 92.0 93.0	80.0 80.0 80.0 80.0 80.0 80.0	**PA/PF 93/42 112M4C / 112M4D**	573	216
	3.4 3.7 5.1 6.1 8.4 9.7	9270 8640 6255 5216 3801 3288	1.0 1.1 1.5 1.8 2.4 2.8	811.95 756.80 547.88 456.91 332.89 287.97	54.0 54.0 54.0 59.0 62.0 64.0	80.0 80.0 80.0 78.0 75.0 74.0	88.0 84.0 85.0 88.0 90.0 91.0	80.0 80.0 80.0 80.0 80.0 80.0	**PA/PF 93/42 112M2B / 112M2C**	573	216
	4.8 8.2	7625 4432	1.9 2.7	187.99 109.25	66.0 66.0	58.0 58.0	92.0 93.0	80.0 80.0	**PA/PF 93 132M6A**	550	205
	3.3 3.8 4.5 6.0 7.1	10862 9289 7914 5864 4996	0.8 0.9 1.1 1.4 1.7	276.00 236.03 201.09 149.01 126.95	39.0 41.0 42.0 44.0 38.0	40.0 39.0 39.0 37.0 51.0	59.0 60.0 61.0 62.0 63.0	65.0 65.0 65.0 65.0 65.0	**PA/PF 83/42 132M6A**	416	216
	3.7 5.1 5.9 7.0 9.4 11.0	9197 6778 5796 4938 3659 3118	0.9 1.2 1.4 1.6 2.2 2.6	374.50 276.00 236.03 201.09 149.01 126.95	33.0 39.0 41.0 42.0 44.0 38.0	39.0 40.0 39.0 39.0 37.0 51.0	55.0 59.0 60.0 61.0 62.0 -	65.0 65.0 65.0 65.0 65.0 -	**PA/PF 83/42 112M4C / 112M4D**	394	216
	5.3 6.4 7.5 10.1 11.9 13.9	5995 5000 4276 3151 2695 2296	1.0 1.2 1.4 1.9 2.3 2.6	525.11 437.93 374.50 276.00 236.03 201.09	33.0 33.0 33.0 39.0 41.0 42.0	39.0 39.0 39.0 40.0 39.0 39.0	53.0 56.0 55.0 59.0 60.0 61.0	65.0 65.0 65.0 65.0 65.0 65.0	**PA/PF 83/42 112M2B / 112M2C**	394	216
	4.2 5.5 6.6 8.7 11.2	8781 6680 5544 4217 3271	1.1 1.4 1.4 2.3 2.9	216.49 164.68 136.67 103.97 80.63	42.0 44.0 44.0 44.0 44.0	39.0 37.0 37.0 44.0 44.0	61.0 60.0 62.0 62.0 63.0	65.0 65.0 65.0 65.0 65.0	**PA/PF 83 132M6A**	371	201

P_1 [kW]	n_2 [Min^{-1}]	M_2 [Nm]	f_B	i_{ges}	F_R [N]	F_A [N]	$F_{R\,GR}$ [N]	$F_{A\,GR}$ [N]	Tip / Type / Typ IE2 / IE3	Kg	mm
4.00	6.5 10.2	5553 3505	1.6 2.1	216.49 136.67	42.0 44.0	39.0 37.0	61.0 62.0	65.0 65.0	PA/PF 83 112M4C / 112M4D	349	201
	12.9	2654	2.5	216.49	42.0	39.0	61.0	65.0	PA/PF 83 112M2B / 112M2C	349	201
	18.5 22.3	2008 1665	2.8 2.6	48.76 40.43	44.0 44.0	25.0 25.0	- -	- -	PA/PF 82 132M6A	363	200
	5.3 6.4 7.2	6734 5555 4906	0.8 0.9 1.1	171.10 141.16 124.66	26.0 26.0 26.0	23.0 23.0 23.0	33.0 - -	50.0 - -	PA/PF 73/32 132M6A	294	214
	6.2 8.2 9.9 11.2	5559 4202 3466 3061	0.9 1.2 1.4 1.6	226.38 171.10 141.16 124.66	19.0 26.0 26.0 26.0	17.0 23.0 23.0 23.0	61.0 33.0 - -	65.0 50.0 - -	PA/PF 73/32 112M4C / 112M4D	272	214
	12.4 16.4 19.8 22.5	2585 1953 1612 1423	1.5 1.9 2.4 2.7	226.38 171.10 141.16 124.66	19.0 26.0 26.0 26.0	17.0 23.0 23.0 23.0	34.0 33.0 - -	50.0 50.0 - -	PA/PF 73/32 112M2B / 112M2C	272	214
	8.1 10.0	3959 3198	1.0 1.2	346.75 280.08	22.0 22.0	24.0 24.0	36.0 35.0	50.0 50.0	PA/PF 73/22 112M2B / 112M2C	261	214
	5.4 7.2 7.2 9.0 9.9 12.0 14.9 17.2 19.7	6736 5052 5045 4075 3705 3034 2451 2121 1853	0.9 1.2 1.0 1.0 1.5 1.8 2.4 2.8 3.0	166.07 124.55 124.38 100.47 91.33 74.80 60.42 52.28 45.67	24.0 26.0 26.0 27.0 27.0 27.0 26.0 26.0 26.0	18.0 18.0 18.0 18.0 18.0 18.0 23.0 23.0 23.0	37.0 40.0 39.0 39.0 39.0 40.0 40.0 40.0 40.0	50.0 50.0 50.0 50.0 50.0 50.0 47.0 46.0 44.0	PA/PF 73 132M6A	264	197
	6.8 8.4 11.3 13.9 15.3 18.7	5273 4259 3190 2577 2342 1919	1.0 1.3 1.6 1.6 2.3 2.8	205.59 166.07 124.38 100.47 91.33 74.80	21.0 24.0 26.0 27.0 27.0 27.0	18.0 18.0 18.0 18.0 18.0 18.0	62.0 37.0 39.0 39.0 39.0 40.0	65.0 50.0 50.0 50.0 50.0 50.0	PA/PF 73 112M4C / 112M4D	242	197
	13.6 16.9 22.5 27.9	2521 2036 1525 1232	1.6 2.1 2.5 2.5	205.59 166.07 124.38 100.47	21.0 24.0 26.0 27.0	18.0 18.0 18.0 18.0	35.0 37.0 39.0 39.0	50.0 50.0 50.0 50.0	PA/PF 73 112M2B / 112M2C	242	197
	20.6 27.2	1800 1362	2.4 2.5	43.70 33.08	27.0 27.0	14.0 13.0	39.0 -	41.0 -	PA/PF 72 132M6A	254	196
	8.1 9.1	4254 3770	0.8 0.8	173.24 153.52	13.0 13.0	24.0 24.0	- -	- -	PA/PF 63/22 112M4C / 112M4D	180	214
	9.9 12.4 16.2 18.2	3231 2571 1978 1753	0.8 0.9 1.2 1.4	283.00 225.22 173.24 153.52	13.0 13.0 13.0 13.0	24.0 24.0 24.0 24.0	- - - -	- - - -	PA/PF 63/22 112M2B / 112M2C	180	214
	8.4 11.6 14.3 16.7 17.7 20.7 24.9 29.1	4349 3143 2554 2184 2062 1763 1466 1253	0.9 1.2 1.5 1.8 1.9 2.2 2.6 3.0	107.21 77.49 62.96 53.84 50.83 43.47 36.14 30.90	19.0 19.0 19.0 20.0 20.0 14.0 14.0 14.0	19.0 18.0 18.0 18.0 18.0 24.0 24.0 24.0	24.0 27.0 28.0 28.0 28.0 28.0 28.0 28.0	40.0 42.0 40.0 39.0 38.0 37.0 35.0 34.0	PA/PF 63 132M6A	183	193
	7.7 9.6 13.0 16.0 18.1 22.2 26.0 27.5	4639 3745 2772 2238 1988 1615 1381 1304	0.8 1.0 1.3 1.4 1.9 2.3 2.7 2.8	180.86 146.02 108.08 87.26 77.49 62.96 53.84 50.83	9.0 14.0 17.0 19.0 19.0 19.0 20.0 20.0	18.0 18.0 19.0 19.0 18.0 18.0 18.0 18.0	21.0 24.0 26.0 27.0 27.0 28.0 28.0 28.0	45.0 45.0 44.0 42.0 42.0 40.0 39.0 38.0	PA/PF 63 112M4C / 112M4D	161	193

P_1 [kW]	n_2 [Min^{-1}]	M_2 [Nm]	f_B	i_{ges}	F_R [N]	F_A [N]	$F_{R\,GR}$ [N]	$F_{A\,GR}$ [N]	Tip / Type / Typ IE2 / IE3	Kg	mm
4.00	10.5	3256	0.8	265.56	9.0	18.0	24.0	45.0	PA/PF 63 112M2B / 112M2C	161	193
	13.1	2629	1.1	214.41	9.0	18.0	23.0	45.0			
	15.5	2217	1.3	180.86	9.0	18.0	21.0	45.0			
	19.2	1790	1.6	146.02	14.0	18.0	24.0	45.0			
	25.9	1325	2.1	108.08	17.0	19.0	26.0	44.0			
	32.1	1070	2.3	87.26	19.0	19.0	27.0	42.0			
	36.1	950	3.0	77.49	19.0	18.0	27.0	42.0			
	18.5	2008	1.3	48.75	20.0	17.0	28.0	38.0	PA/PF 62 132M6A	185	192
	24.3	1527	2.1	37.08	20.0	17.0	28.0	34.0			
	28.7	1277	2.0	48.75	20.0	17.0	28.0	38.0	PA/PF 62 112M4C / 112M4D	163	192
	19.2	1727	0.8	146.01	10.0	24.0	-	-	PA/PF 52/12 112M2B / 112M2C	122	212
	22.5	1473	0.9	124.52	10.0	24.0	-	-			
	28.6	1158	1.2	97.84	10.0	24.0	-	-			
	13.2	2713	0.8	105.77	8.0	24.0	16.0	40.0	PA/PF 53 112M4C / 112M4D	125	189
	14.7	2447	0.9	95.41	9.0	24.0	17.0	40.0			
	17.6	2044	0.9	79.69	11.0	24.0	18.0	40.0			
	21.4	1675	1.1	65.31	12.0	24.0	18.0	40.0			
	23.8	1511	1.3	58.91	10.0	24.0	-	-			
	20.1	1709	1.0	139.42	8.0	24.0	16.0	40.0	PA/PF 53 112M2B / 112M2C	125	189
	26.5	1297	1.3	105.77	8.0	24.0	16.0	40.0			
	29.3	1170	1.4	95.41	9.0	24.0	17.0	40.0			
	35.1	977	1.4	79.69	11.0	24.0	18.0	40.0			
	42.9	801	1.8	65.31	12.0	24.0	18.0	40.0			
	47.5	722	2.0	58.91	10.0	24.0	-	-			
	15.1	2450	0.8	59.50	13.0	24.0	19.0	40.0	PA/PF 52 132M6A	128	188
	16.7	2215	0.9	53.79	13.0	24.0	19.0	40.0			
	18.4	2016	1.0	48.95	13.0	24.0	19.0	40.0			
	22.3	1661	1.2	40.34	14.0	24.0	19.0	39.0			
	23.4	1584	1.1	38.46	14.0	24.0	19.0	39.0			
	24.5	1512	1.3	36.71	14.0	24.0	19.0	38.0			
	28.0	1323	1.1	32.12	14.0	24.0	20.0	37.0			
	31.2	1188	1.8	28.85	14.0	24.0	19.0	36.0			
	34.1	1088	1.8	26.43	14.0	24.0	20.0	36.0			
	37.4	992	1.8	24.09	13.0	24.0	20.0	34.0			
	37.7	984	2.0	23.89	13.0	24.0	20.0	35.0			
	41.6	892	2.2	21.65	13.0	24.0	20.0	34.0			
	46.0	806	2.5	19.57	13.0	24.0	20.0	33.0			
	50.5	733	2.7	17.81	13.0	24.0	20.0	32.0			
	16.1	2276	0.8	86.88	13.0	24.0	18.0	40.0	PA/PF 52 112M4C / 112M4D	106	188
	17.8	2057	0.8	78.53	13.0	24.0	19.0	40.0			
	19.6	1872	0.8	71.47	13.0	24.0	19.0	40.0			
	23.5	1559	1.2	59.50	13.0	24.0	19.0	40.0			
	26.0	1409	1.4	53.79	13.0	24.0	19.0	40.0			
	28.6	1282	1.5	48.95	13.0	24.0	19.0	40.0			
	36.4	1007	1.7	38.46	14.0	24.0	19.0	39.0			
	38.9	943	1.5	36.00	14.0	24.0	19.0	39.0			
	43.0	852	1.5	32.54	14.0	24.0	20.0	38.0			
	43.6	841	1.7	32.12	14.0	24.0	20.0	37.0			
	53.0	692	2.7	26.43	14.0	24.0	20.0	36.0			
	32.2	1104	1.2	86.88	13.0	24.0	18.0	40.0	PA/PF 52 112M2B / 112M2C	106	188
	35.7	998	1.2	78.53	13.0	24.0	19.0	40.0			
	39.2	908	1.3	71.47	13.0	24.0	19.0	40.0			
	47.1	756	1.9	59.50	13.0	24.0	19.0	40.0			
	52.1	683	2.1	53.79	13.0	24.0	19.0	40.0			
	57.2	622	2.3	48.95	13.0	24.0	19.0	40.0			
	72.8	489	2.6	38.46	14.0	24.0	19.0	39.0			
	77.8	457	2.3	36.00	14.0	24.0	19.0	39.0			
	86.0	413	2.3	32.54	14.0	24.0	20.0	38.0			
	87.2	408	2.6	32.12	14.0	24.0	20.0	37.0			
	99.0	380	0.9	9.09	-	-	-	-	PA/PF 51 132M6A	89	166
	132.0	285	1.5	6.82	-	-	-	-			
	222.8	169	2.5	4.04	-	-	-	-			
	105.5	355	0.8	13.27	-	6.0	-	-	PA/PF 51 112M4C / 112M4D	67	166
	154.0	243	1.3	9.09	-	6.0	-	-			
	254.5	147	1.5	5.50	-	6.0	-	-			

P_1 [kW]	n_2 [Min^{-1}]	M_2 [Nm]	f_B	i_{ges}	F_R [N]	F_A [N]	$F_{R\,GR}$ [N]	$F_{A\,GR}$ [N]	Tip / Type / Typ IE2 / IE3	Kg	mm
4.00	211.0	175	1.3	13.27	-	-	-	-	PA/PF 51 112M2B / 112M2C	67	166
	308.0	120	2.0	9.09	-	-	-	-			
	509.1	72	2.3	5.50	-	-	-	-			
	31.9	1039	0.9	87.79	3.0	12.0	-	-	PA/PF 42/12 112M2B / 112M2C	104	184
	24.0	1493	0.8	58.22	1.0	12.0	9.0	6.0	PA/PF 43 112M4C / 112M4D	92	185
	28.8	1245	0.8	48.55	1.0	12.0	-	-			
	34.2	1049	1.0	40.91	1.0	12.0	-	-			
	29.5	1164	0.8	94.91	1.0	12.0	9.0	9.0	PA/PF 43 112M2B / 112M2C	92	185
	35.0	981	1.0	80.01	1.0	12.0	9.0	7.0			
	39.9	859	1.1	70.10	1.0	12.0	9.0	8.0			
	48.1	714	1.2	58.22	1.0	12.0	9.0	6.0			
	57.7	595	1.3	48.55	1.0	12.0	-	-			
	68.4	502	1.6	40.91	1.0	12.0	-	-			
	25.5	1452	0.9	35.26	2.0	11.0	11.0	7.0	PA/PF 42 132M6A	99	184
	30.7	1206	0.9	29.28	2.0	10.0	11.0	7.0			
	34.8	1066	1.2	25.88	4.0	11.0	11.0	6.0			
	36.9	1006	0.9	24.42	3.0	10.0	11.0	7.0			
	41.2	900	1.3	21.85	5.0	11.0	11.0	8.0			
	41.9	885	1.4	21.50	6.0	10.0	11.0	6.0			
	50.2	738	1.4	17.93	6.0	10.0	11.0	6.0			
	50.9	728	1.7	17.69	6.0	10.0	11.0	8.0			
	59.6	622	2.1	15.10	3.0	12.0	11.0	7.0			
	62.6	592	2.1	14.38	3.0	12.0	11.0	7.0			
	73.3	505	2.5	12.27	3.0	12.0	11.0	7.0			
	88.3	420	2.9	10.19	3.0	12.0	11.0	6.0			
	27.5	1336	0.8	50.99	2.0	11.0	9.0	7.0	PA/PF 42 112M4C / 112M4D	77	184
	33.9	1082	1.1	41.30	2.0	11.0	10.0	7.0			
	39.7	924	1.3	35.26	2.0	11.0	11.0	7.0			
	45.9	798	1.4	30.47	2.0	11.0	11.0	8.0			
	47.8	767	1.3	29.28	2.0	10.0	11.0	7.0			
	56.7	646	1.4	24.68	4.0	11.0	11.0	8.0			
	57.3	640	1.3	24.42	3.0	10.0	11.0	7.0			
	64.1	572	1.9	21.85	5.0	11.0	11.0	8.0			
	79.1	463	2.6	17.69	6.0	10.0	11.0	8.0			
	37.4	951	0.9	74.87	2.0	11.0	10.0	10.0	PA/PF 42 112M2B / 112M2C	77	184
	46.2	770	1.0	60.64	2.0	11.0	10.0	8.0			
	54.9	648	1.3	50.99	2.0	11.0	9.0	7.0			
	67.8	525	1.7	41.30	2.0	11.0	10.0	7.0			
	79.4	448	2.1	35.26	2.0	11.0	11.0	7.0			
	91.9	387	2.1	30.47	2.0	11.0	11.0	8.0			
	95.6	372	2.1	29.28	2.0	10.0	11.0	7.0			
	113.5	314	2.2	24.68	4.0	11.0	11.0	8.0			
	114.7	310	2.1	24.42	3.0	10.0	11.0	7.0			
	128.1	278	3.0	21.85	5.0	11.0	11.0	8.0			
	170.8	220	0.9	5.27	-	-	-	-	PA/PF 41 132M6A	80	164
	292.2	129	2.4	3.08	-	-	-	-			
	360.0	105	2.7	2.50	-	-	-	-			
	420.6	89	2.9	2.14	-	-	-	-			
	195.0	192	1.0	7.18	-	5.0	-	-	PA/PF 41 112M4C / 112M4D	58	164
	326.3	115	1.4	4.29	-	5.0	-	-			
	360.8	104	1.4	3.88	-	5.0	-	-			
	409.4	91	1.5	3.42	-	5.0	-	-			
	265.4	139	1.0	10.55	-	-	-	-	PA/PF 41 112M2B / 112M2C	58	164
	390.0	95	1.5	7.18	-	-	-	-			
	652.7	56	2.1	4.29	-	-	-	-			
	721.6	51	2.2	3.88	-	-	-	-			
	818.7	45	2.4	3.42	-	-	-	-			
	55.5	668	1.0	16.23	4.0	7.0	9.0	8.0	PA/PF 32 132M6A	84	180
	62.0	598	1.2	14.52	4.0	7.0	9.0	8.0			
	76.9	482	1.5	11.70	4.0	6.0	9.0	8.0			
	91.9	403	1.7	9.79	3.0	6.0	9.0	8.0			
	114.1	325	2.1	7.89	3.0	9.0	9.0	7.0			
	133.9	277	2.3	6.72	3.0	9.0	9.0	7.0			
	158.2	234	2.7	5.69	3.0	9.0	10.0	7.0			
	163.9	226	2.1	5.49	3.0	9.0	10.0	7.0			
	203.6	182	2.7	4.42	3.0	9.0	10.0	6.0			

P_1 [kW]	n_2 [Min^{-1}]	M_2 [Nm]	f_B	i_{ges}	F_R [N]	F_A [N]	$F_{R\,GR}$ [N]	$F_{A\,GR}$ [N]	Tip / Type / Typ IE2 / IE3	Kg	mm
4.00	46.0	798	0.8	30.45	1.0	7.0	-	-	PA/PF 32 112M4C / 112M4D	62	180
	51.4	714	0.8	27.24	1.0	7.0	-	-			
	60.6	605	1.0	23.10	1.0	7.0	9.0	8.0			
	67.7	541	1.2	20.67	2.0	7.0	9.0	8.0			
	75.1	488	1.3	18.64	2.0	7.0	9.0	8.0			
	84.1	436	1.2	16.64	3.0	7.0	9.0	8.0			
	86.3	425	1.5	16.23	4.0	7.0	9.0	8.0			
	93.3	393	1.3	15.01	3.0	7.0	9.0	8.0			
	96.4	380	1.8	14.52	4.0	7.0	9.0	8.0			
	119.7	306	2.3	11.70	4.0	6.0	9.0	8.0			
	143.0	256	2.5	9.79	3.0	6.0	9.0	8.0			
	60.6	587	0.9	46.22	1.0	7.0	9.0	11.0	PA/PF 32 112M2B / 112M2C	62	180
	75.2	473	0.9	37.22	1.0	7.0	9.0	10.0			
	89.9	396	1.0	31.16	1.0	7.0	9.0	10.0			
	92.0	387	1.3	30.45	1.0	7.0	-	-			
	102.8	346	1.3	27.24	1.0	7.0	-	-			
	105.5	337	1.0	26.53	1.0	7.0	9.0	10.0			
	121.2	293	1.6	23.10	1.0	7.0	9.0	8.0			
	135.5	263	1.9	20.67	2.0	7.0	9.0	8.0			
	150.2	237	2.0	18.64	2.0	7.0	9.0	8.0			
	168.3	211	1.9	16.64	3.0	7.0	9.0	8.0			
	172.5	206	2.4	16.23	4.0	7.0	9.0	8.0			
	186.5	191	2.0	15.01	3.0	7.0	9.0	8.0			
	192.8	184	2.8	14.52	4.0	7.0	9.0	8.0			
	432.7	87	2.0	2.08	-	-	-	-	PA/PF 31 132M6A	71	162
	511.4	74	2.1	1.76	-	-	-	-			
	647.5	58	2.6	1.39	-	-	-	-			
	289.9	129	0.8	4.83	-	3.0	-	-	PA/PF 31 112M4C / 112M4D	49	162
	381.5	98	1.1	3.67	-	3.0	-	-			
	423.0	89	1.2	3.31	-	3.0	-	-			
	542.6	69	2.7	2.58	-	3.0	-	-			
	673.1	56	3.0	2.08	-	3.0	-	-			
	579.7	64	1.2	4.83	-	-	-	-	PA/PF 31 112M2B / 112M2C	49	162
	762.9	48	1.7	3.67	-	-	-	-			
	845.9	44	1.8	3.31	-	-	-	-			
	83.6	438	0.8	16.74	1.0	4.0	6.0	5.0	PA/PF 22 112M4C / 112M4D	41	176
	95.4	384	0.9	14.67	1.0	4.0	7.0	5.0			
	114.8	319	1.0	12.19	1.0	4.0	7.0	5.0			
	128.4	286	1.1	10.90	1.0	4.0	7.0	5.0			
	165.5	222	1.2	8.46	1.0	4.0	7.0	5.0			
	184.9	198	1.2	7.57	1.0	4.0	7.0	5.0			
	204.1	180	1.4	6.86	1.0	4.0	7.0	5.0			
	215.1	171	1.3	6.51	1.0	4.0	7.0	5.0			
	242.6	151	1.4	5.77	1.0	4.0	7.0	5.0			
	270.3	136	1.2	5.18	1.0	3.0	7.0	5.0			
	301.7	122	1.2	4.64	1.0	3.0	7.0	4.0			
	350.9	105	1.3	3.99	2.0	3.0	7.0	4.0			
	396.6	92	1.4	3.53	2.0	3.0	8.0	4.0			
	500.0	73	1.6	2.80	2.0	3.0	7.0	4.0			
	97.2	366	0.8	28.80	1.0	4.0	7.0	6.0	PA/PF 22 112M2B / 112M2C	41	176
	117.8	302	0.8	23.77	1.0	4.0	7.0	6.0			
	140.0	254	0.9	20.00	1.0	4.0	7.0	6.0			
	167.3	213	1.2	16.74	1.0	4.0	6.0	5.0			
	190.9	186	1.4	14.67	1.0	4.0	7.0	5.0			
	229.7	155	1.6	12.19	1.0	4.0	7.0	5.0			
	256.9	138	1.7	10.90	1.0	4.0	7.0	5.0			
	331.0	107	1.8	8.46	1.0	4.0	7.0	5.0			
	369.9	96	1.9	7.57	1.0	4.0	7.0	5.0			
	408.2	87	2.2	6.86	1.0	4.0	7.0	5.0			
	430.1	83	2.1	6.51	1.0	4.0	7.0	5.0			
	485.3	73	2.2	5.77	1.0	4.0	7.0	5.0			
	540.5	66	1.8	5.18	1.0	3.0	7.0	5.0			
	603.4	59	1.9	4.64	1.0	3.0	7.0	4.0			
	701.8	51	2.1	3.99	2.0	3.0	7.0	4.0			
	793.2	45	2.2	3.53	2.0	3.0	8.0	4.0			
	1000.0	36	2.5	2.80	2.0	3.0	7.0	4.0			

P_1 [kW]	n_2 [Min^{-1}]	M_2 [Nm]	f_B	i_{ges}	F_R [N]	F_A [N]	$F_{R\,GR}$ [N]	$F_{A\,GR}$ [N]	Tip / Type / Typ IE2 / IE3	Kg	mm
4.00	453.1	83	0.8	3.09	-	3.0	-	-	PA/PF 21 112M4C / 112M4D	53	160
	516.6	72	1.1	2.71	-	3.0	-	-			
	578.5	65	1.1	2.42	-	3.0	-	-			
	673.1	56	1.2	2.08	-	3.0	-	-			
	756.8	49	1.3	1.85	-	3.0	-	-			
	958.9	39	1.5	1.46	-	3.0	-	-			
	762.9	48	1.1	3.67	-	-	-	-	PA/PF 21 112M2B / 112M2C	53	160
	906.1	41	1.2	3.09	-	-	-	-			
	1033.2	36	1.6	2.71	-	-	-	-			
	1157.0	32	1.7	2.42	-	-	-	-			
	1346.2	27	1.9	2.08	-	-	-	-			
	1513.5	24	2.0	1.85	-	-	-	-			
	1917.8	19	2.4	1.46	-	-	-	-			
	214.4	167	0.8	6.53	1.0	3.0	5.0	4.0	PA/PF 12 112M4C / 112M4D	42	172
	242.2	148	0.8	5.78	1.0	3.0	5.0	4.0			
	284.0	126	0.9	4.93	1.0	3.0	5.0	4.0			
	311.8	115	1.0	4.49	1.0	3.0	5.0	3.0			
	324.8	111	1.0	4.31	1.0	3.0	5.0	4.0			
	351.8	102	1.1	3.98	1.0	3.0	5.0	3.0			
	413.0	87	1.3	3.39	1.0	3.0	5.0	3.0			
	473.0	76	1.4	2.96	1.0	3.0	5.0	3.0			
	262.2	136	0.8	10.68	1.0	3.0	5.0	5.0	PA/PF 12 112M2B / 112M2C	42	172
	290.2	123	0.8	9.65	1.0	3.0	5.0	5.0			
	356.7	100	1.0	7.85	1.0	3.0	5.0	4.0			
	384.1	93	1.0	7.29	1.0	3.0	5.0	4.0			
	428.8	83	1.2	6.53	1.0	3.0	5.0	4.0			
	484.4	73	1.3	5.78	1.0	3.0	5.0	4.0			
	568.0	63	1.4	4.93	1.0	3.0	5.0	4.0			
	623.6	57	1.6	4.49	1.0	3.0	5.0	3.0			
	649.7	55	1.6	4.31	1.0	3.0	5.0	4.0			
	703.5	51	1.7	3.98	1.0	3.0	5.0	3.0			
	826.0	43	1.9	3.39	1.0	3.0	5.0	3.0			
	945.9	38	2.1	2.96	1.0	3.0	5.0	3.0			
	603.4	62	0.8	2.32	-	2.0	-	-	PA/PF 11 112M4C / 112M4D	38	158
	686.3	55	1.1	2.04	-	2.0	-	-			
	773.5	48	1.1	1.81	-	2.0	-	-			
	909.1	41	1.2	1.54	-	2.0	-	-			
	1037.0	36	1.4	1.35	-	2.0	-	-			
	989.4	37	1.1	2.83	-	-	-	-	PA/PF 11 112M2B / 112M2C	38	158
	1206.9	31	1.2	2.32	-	-	-	-			
	1372.5	27	1.6	2.04	-	-	-	-			
	1547.0	24	1.8	1.81	-	-	-	-			
	1818.2	20	1.9	1.54	-	-	-	-			
	2074.1	18	2.1	1.35	-	-	-	-			
5.50	1.9	25335	0.8	468.19	100.0	104.0	120.0	120.0	PA/PF 103/52 132M6B	843	216
	2.6	18459	1.1	341.11	83.0	120.0	120.0	120.0			
	3.0	16048	1.3	296.56	83.0	120.0	120.0	120.0			
	3.7	13239	1.6	244.66	83.0	120.0	120.0	120.0			
	4.9	9999	2.1	184.77	83.0	120.0	120.0	120.0			
	5.8	8376	2.5	154.79	83.0	120.0	120.0	120.0			
	2.2	21697	0.9	642.57	85.0	120.0	120.0	120.0	PA/PF 103/52 132S4A / 132S4B	843	216
	3.0	15809	1.3	468.19	94.0	116.0	120.0	120.0			
	4.1	11518	1.7	341.11	98.0	111.0	120.0	120.0			
	4.7	10014	2.0	296.56	99.0	108.0	120.0	120.0			
	5.7	8261	2.4	244.66	100.0	104.0	120.0	120.0			
	2.4	18014	0.8	1147.52	85.0	120.0	120.0	120.0	PA/PF 103/52 132S2B / 132S2C	843	216
	3.0	14819	1.0	944.01	85.0	120.0	120.0	120.0			
	3.4	12838	1.2	817.82	85.0	120.0	120.0	120.0			
	4.4	10087	1.5	642.57	85.0	120.0	120.0	120.0			
	6.0	7350	2.1	468.19	94.0	116.0	120.0	120.0			
	8.2	5355	2.8	341.11	98.0	111.0	120.0	120.0			
	4.3	11565	2.1	207.36	100.0	96.0	120.0	120.0	PA/PF 103 132M6B	769	209
	5.6	8705	1.5	160.87	66.0	66.0	93.0	80.0	PA/PF 93/52 132M6B	624	216
	7.1	6891	1.9	127.35	66.0	66.0	-	-			

P_1 [kW]	n_2 [Min^{-1}]	M_2 [Nm]	f_B	i_{ges}	F_R [N]	F_A [N]	$F_{R\,GR}$ [N]	$F_{A\,GR}$ [N]	Tip / Type / Typ IE2 / IE3	Kg	mm
5.50	8.7 11.0	5432 4300	2.2 2.8	160.87 127.35	66.0 66.0	66.0 66.0	93.0 -	80.0 -	PA/PF 93/52 132S4A / 132S4B	624	216
	3.1 3.7 4.9	15583 13024 9849	0.8 1.0 1.3	287.97 240.68 182.00	61.0 63.0 54.0	69.0 67.0 80.0	89.0 91.0 93.0	80.0 80.0 80.0	PA/PF 93/42 132M6B	595	216
	3.1 4.2 4.9 5.8 7.7	15428 11240 9724 8127 6145	0.8 1.1 1.3 1.5 2.0	456.91 332.89 287.97 240.68 182.00	58.0 58.0 61.0 63.0 54.0	69.0 69.0 69.0 67.0 80.0	88.0 88.0 89.0 91.0 93.0	80.0 80.0 80.0 80.0 80.0	PA/PF 93/42 132S4A / 132S4B	595	216
	3.7 5.1 6.1 8.4 9.7 11.6	11880 8601 7173 5226 4521 3778	0.8 1.1 1.3 1.8 2.1 2.5	756.80 547.88 456.91 332.89 287.97 240.68	58.0 58.0 58.0 58.0 61.0 63.0	69.0 69.0 69.0 69.0 69.0 67.0	84.0 85.0 88.0 88.0 89.0 91.0	80.0 80.0 80.0 80.0 80.0 80.0	PA/PF 93/42 132S2B / 132S2C	595	216
	4.8 8.2 9.6	10485 6093 5211	1.4 2.0 2.8	187.99 109.25 93.43	64.0 66.0 66.0	65.0 58.0 54.0	92.0 93.0 93.0	80.0 80.0 80.0	PA/PF 93 132M6B	550	205
	7.4 12.8	6630 3853	2.1 3.0	187.99 109.25	64.0 66.0	65.0 58.0	92.0 93.0	80.0 80.0	PA/PF 93 132S4A / 132S4B	550	205
	4.5 6.0 7.1	10882 8063 6870	0.8 1.0 1.2	201.09 149.01 126.95	33.0 33.0 33.0	39.0 39.0 39.0	61.0 62.0 63.0	65.0 65.0 65.0	PA/PF 83/42 132M6B	416	216
	5.1 5.9 7.0 9.4 11.0	9319 7970 6790 5031 4287	0.9 1.0 1.2 1.6 1.9	276.00 236.03 201.09 149.01 126.95	32.0 36.0 33.0 33.0 33.0	34.0 34.0 39.0 39.0 39.0	54.0 57.0 61.0 62.0 63.0	65.0 65.0 65.0 65.0 65.0	PA/PF 83/42 132S4A / 132S4B	416	216
	6.4 7.5 10.1 11.9 13.9 18.8	6875 5879 4333 3705 3157 2339	0.9 1.0 1.4 1.6 1.9 2.6	437.93 374.50 276.00 236.03 201.09 149.01	32.0 32.0 32.0 36.0 33.0 33.0	34.0 34.0 34.0 34.0 39.0 39.0	56.0 55.0 54.0 57.0 61.0 62.0	65.0 65.0 65.0 65.0 65.0 65.0	PA/PF 83/42 132S2B / 132S2C	416	216
	4.2 5.5 6.6 8.7 11.2 12.8 14.6	12075 9185 7623 5799 4497 3915 3446	0.8 1.0 1.0 1.7 2.1 2.4 2.7	216.49 164.68 136.67 103.97 80.63 70.19 61.79	38.0 41.0 43.0 44.0 42.0 42.0 42.0	35.0 34.0 34.0 33.0 39.0 39.0 39.0	58.0 60.0 61.0 62.0 63.0 63.0 63.0	65.0 65.0 65.0 65.0 65.0 65.0 65.0	PA/PF 83 132M6B	371	201
	6.5 8.5 10.2 13.5	7635 5808 4820 3667	1.2 1.5 1.5 2.5	216.49 164.68 136.67 103.97	38.0 41.0 43.0 44.0	35.0 34.0 34.0 33.0	58.0 60.0 61.0 62.0	65.0 65.0 65.0 65.0	PA/PF 83 132S4A / 132S4B	371	201
	12.9 17.0 20.5	3649 2776 2304	1.9 2.4 2.4	216.49 164.68 136.67	38.0 41.0 43.0	35.0 34.0 34.0	58.0 60.0 61.0	65.0 65.0 65.0	PA/PF 83 132S2B / 132S2C	371	201
	18.5 22.3	2761 2289	2.0 1.9	48.76 40.43	44.0 44.0	25.0 25.0	63.0 -	65.0 -	PA/PF 82 132M6B	363	200
	28.7 34.6	1756 1456	3.0 2.8	48.76 40.43	44.0 44.0	25.0 25.0	63.0 -	65.0 -	PA/PF 82 132S4A / 132S4B	363	200
	7.2	6746	0.8	124.66	19.0	17.0	-	-	PA/PF 73/32 132M6B	294	214
	8.2 9.9 11.2	5777 4766 4209	0.9 1.0 1.2	171.10 141.16 124.66	18.0 19.0 19.0	14.0 17.0 17.0	33.0 - -	50.0 - -	PA/PF 73/32 132S4A / 132S4B	294	214
	12.4 16.4 19.8 22.5	3554 2686 2216 1957	1.1 1.4 1.7 1.9	226.38 171.10 141.16 124.66	18.0 18.0 19.0 19.0	14.0 14.0 17.0 17.0	34.0 33.0 - -	50.0 50.0 - -	PA/PF 73/32 132S2B / 132S2C	294	214

P_1 [kW]	n_2 [Min^{-1}]	M_2 [Nm]	f_B	i_{ges}	F_R [N]	F_A [N]	$F_{R\,GR}$ [N]	$F_{A\,GR}$ [N]	Tip / Type / Typ IE2 / IE3	Kg	mm
5.50	7.2	6947	0.8	124.55	24.0	16.0	37.0	50.0	PA/PF 73 132M6B	264	197
	7.2	6937	0.8	124.38	24.0	16.0	37.0	50.0			
	9.9	5094	1.1	91.33	26.0	16.0	38.0	49.0			
	12.0	4172	1.3	74.80	27.0	16.0	39.0	48.0			
	14.9	3370	1.8	60.42	27.0	16.0	39.0	46.0			
	17.2	2916	2.0	52.28	28.0	16.0	40.0	44.0			
	19.7	2547	2.2	45.67	21.0	18.0	40.0	44.0			
	23.9	2102	2.5	37.68	21.0	18.0	40.0	42.0			
	27.1	1856	2.8	33.27	21.0	18.0	40.0	41.0			
	8.4	5857	1.0	166.07	19.0	14.0	34.0	50.0	PA/PF 73 132S4A / 132S4B	264	197
	11.2	4392	1.3	124.55	24.0	16.0	37.0	50.0			
	11.3	4386	1.1	124.38	24.0	16.0	37.0	50.0			
	13.9	3543	1.1	100.47	25.0	16.0	38.0	50.0			
	15.3	3221	1.7	91.33	26.0	16.0	38.0	49.0			
	18.7	2638	2.0	74.80	27.0	16.0	39.0	48.0			
	23.2	2131	2.7	60.42	27.0	16.0	39.0	46.0			
	26.8	1844	3.0	52.28	28.0	16.0	40.0	44.0			
	13.6	3466	1.2	205.59	19.0	14.0	35.0	50.0	PA/PF 73 132S2B / 132S2C	264	197
	16.9	2800	1.5	166.07	19.0	14.0	34.0	50.0			
	22.5	2100	2.0	124.55	24.0	16.0	37.0	50.0			
	22.5	2097	1.8	124.38	24.0	16.0	37.0	50.0			
	27.9	1694	1.8	100.47	25.0	16.0	38.0	50.0			
	30.7	1540	2.6	91.33	26.0	16.0	38.0	49.0			
	20.6	2474	1.7	43.70	27.0	14.0	39.0	41.0	PA/PF 72 132M6B	254	196
	27.2	1873	1.8	33.08	27.0	14.0	40.0	37.0			
	32.0	1574	2.6	43.70	27.0	14.0	39.0	41.0	PA/PF 72 132S4A / 132S4B	254	196
	42.3	1191	2.7	33.08	27.0	14.0	40.0	37.0			
	11.6	4322	0.9	77.49	17.0	16.0	26.0	39.0	PA/PF 63 132M6B	183	193
	14.3	3512	1.1	62.96	18.0	16.0	27.0	38.0			
	16.7	3003	1.3	53.84	19.0	16.0	27.0	37.0			
	17.7	2835	1.4	50.83	19.0	16.0	27.0	37.0			
	20.7	2424	1.6	43.47	20.0	16.0	28.0	36.0			
	24.9	2016	1.9	36.14	20.0	16.0	28.0	34.0			
	29.1	1723	2.2	30.90	9.0	18.0	28.0	33.0			
	34.2	1469	2.3	26.33	9.0	18.0	28.0	31.0			
	41.0	1225	2.7	21.97	9.0	18.0	28.0	29.0			
	43.2	1161	2.9	20.81	9.0	18.0	28.0	29.0			
	10.5	4683	0.8	132.78	9.0	15.0	21.0	41.0	PA/PF 63 132S4A / 132S4B	183	193
	13.1	3781	1.0	107.21	14.0	16.0	24.0	40.0			
	18.1	2733	1.4	77.49	17.0	16.0	26.0	39.0			
	22.2	2220	1.7	62.96	18.0	16.0	27.0	38.0			
	26.0	1899	1.9	53.84	19.0	16.0	27.0	37.0			
	27.5	1793	2.1	50.83	19.0	16.0	27.0	37.0			
	32.2	1533	2.4	43.47	20.0	16.0	28.0	36.0			
	38.7	1275	2.9	36.14	20.0	16.0	28.0	34.0			
	15.5	3049	0.9	180.86	9.0	15.0	21.0	45.0	PA/PF 63 132S2B / 132S2C	183	193
	19.2	2462	1.1	146.02	9.0	15.0	24.0	45.0			
	21.1	2238	1.3	132.78	9.0	15.0	21.0	41.0			
	26.1	1807	1.6	107.21	14.0	16.0	24.0	40.0			
	36.1	1306	2.2	77.49	17.0	16.0	26.0	39.0			
	44.5	1061	2.6	62.96	18.0	16.0	27.0	38.0			
	18.5	2760	1.0	48.75	19.0	16.0	28.0	36.0	PA/PF 62 132M6B	185	192
	24.3	2100	1.5	37.08	20.0	16.0	28.0	34.0			
	28.7	1756	1.4	48.75	19.0	16.0	28.0	36.0	PA/PF 62 132S4A / 132S4B	185	192
	37.8	1336	2.3	37.08	20.0	16.0	28.0	34.0			
	57.4	852	2.2	48.75	19.0	16.0	28.0	36.0	PA/PF 62 132S2B / 132S2C	185	192

P_1 [kW]	n_2 [Min^{-1}]	M_2 [Nm]	f_B	i_{ges}	F_R [N]	F_A [N]	$F_{R\,GR}$ [N]	$F_{A\,GR}$ [N]	Tip / Type / Typ IE2 / IE3	Kg	mm
5.50	22.3	2284	0.9	40.34	13.0	24.0	19.0	39.0	PA/PF 52 132M6B	128	188
	23.4	2178	0.8	38.46	13.0	24.0	19.0	38.0			
	24.5	2079	1.0	36.71	13.0	24.0	19.0	38.0			
	28.0	1819	0.8	32.12	13.0	24.0	19.0	36.0			
	31.2	1634	1.3	28.85	14.0	24.0	19.0	36.0			
	34.1	1497	1.3	26.43	14.0	24.0	19.0	35.0			
	37.4	1364	1.3	24.09	14.0	24.0	20.0	34.0			
	37.7	1353	1.5	23.89	14.0	24.0	20.0	34.0			
	41.6	1226	1.6	21.65	14.0	24.0	20.0	33.0			
	46.0	1108	1.8	19.57	13.0	24.0	20.0	33.0			
	50.5	1008	2.0	17.81	13.0	24.0	20.0	32.0			
	64.3	792	2.5	13.99	13.0	24.0	20.0	29.0			
	66.9	762	2.6	13.46	13.0	24.0	20.0	29.0			
	23.5	2143	0.9	59.50	11.0	24.0	18.0	40.0	PA/PF 52 132S4A / 132S4B	128	188
	26.0	1937	1.0	53.79	12.0	24.0	18.0	40.0			
	28.6	1763	1.1	48.95	12.0	24.0	18.0	40.0			
	34.7	1453	1.3	40.34	13.0	24.0	19.0	39.0			
	36.4	1385	1.2	38.46	13.0	24.0	19.0	38.0			
	38.1	1322	1.5	36.71	13.0	24.0	19.0	38.0			
	43.6	1157	1.2	32.12	13.0	24.0	19.0	36.0			
	48.5	1039	1.9	28.85	14.0	24.0	19.0	36.0			
	53.0	952	2.0	26.43	14.0	24.0	19.0	35.0			
	58.1	868	1.9	24.09	14.0	24.0	20.0	34.0			
	58.6	860	2.2	23.89	14.0	24.0	20.0	34.0			
	64.7	780	2.4	21.65	14.0	24.0	20.0	33.0			
	71.5	705	2.7	19.57	13.0	24.0	20.0	33.0			
	78.6	641	3.0	17.81	13.0	24.0	20.0	32.0			
	47.1	1039	1.4	59.50	11.0	24.0	18.0	40.0	PA/PF 52 132S2B / 132S2C	128	188
	52.1	940	1.5	53.79	12.0	24.0	18.0	40.0			
	57.2	855	1.7	48.95	12.0	24.0	18.0	40.0			
	69.4	705	2.1	40.34	13.0	24.0	19.0	39.0			
	72.8	672	1.9	38.46	13.0	24.0	19.0	38.0			
	76.3	641	2.3	36.71	13.0	24.0	19.0	38.0			
	87.2	561	1.9	32.12	13.0	24.0	19.0	36.0			
	132.0	392	1.1	6.82	-	-	-	-	PA/PF 51 132M6B	89	166
	222.8	232	1.9	4.04	-	-	-	-			
	271.9	190	2.7	3.31	-	-	-	-			
	314.7	164	2.9	2.86	-	-	-	-			
	154.0	334	1.0	9.09	-	6.0	-	-	PA/PF 51 132S4A / 132S4B	89	166
	205.3	251	1.6	6.82	-	6.0	-	-			
	346.5	149	2.8	4.04	-	6.0	-	-			
	308.0	165	1.5	9.09	-	-	-	-	PA/PF 51 132S2B / 132S2C	89	166
	410.6	123	2.5	6.82	-	-	-	-			
	34.8	1465	0.9	25.88	1.0	8.0	11.0	6.0	PA/PF 42 132M6B	99	184
	41.2	1237	0.9	21.85	1.0	9.0	11.0	7.0			
	41.9	1217	1.0	21.50	1.0	8.0	11.0	6.0			
	50.2	1015	1.0	17.93	1.0	8.0	11.0	6.0			
	50.9	1002	1.2	17.69	2.0	8.0	11.0	7.0			
	59.6	855	1.5	15.10	3.0	8.0	11.0	7.0			
	62.6	814	1.5	14.38	4.0	8.0	11.0	7.0			
	73.3	695	1.8	12.27	5.0	8.0	11.0	7.0			
	88.3	577	2.1	10.19	2.0	11.0	11.0	6.0			
	105.9	481	2.3	8.50	2.0	11.0	12.0	6.0			
	123.8	412	2.7	7.27	2.0	11.0	11.0	6.0			
	167.9	304	2.8	5.36	2.0	11.0	11.0	5.0			
	33.9	1488	0.8	41.30	1.0	8.0	9.0	5.0	PA/PF 42 132S4A / 132S4B	99	184
	39.7	1270	1.0	35.26	1.0	8.0	10.0	6.0			
	47.8	1055	1.0	29.28	1.0	8.0	10.0	6.0			
	54.1	932	1.3	25.88	1.0	8.0	11.0	6.0			
	57.3	880	1.0	24.42	1.0	8.0	11.0	6.0			
	64.1	787	1.4	21.85	1.0	9.0	11.0	7.0			
	65.1	774	1.5	21.50	1.0	8.0	11.0	6.0			
	78.1	646	1.5	17.93	1.0	8.0	11.0	6.0			
	79.1	637	1.9	17.69	2.0	8.0	11.0	7.0			
	92.7	544	2.3	15.10	3.0	8.0	11.0	7.0			
	97.4	518	2.2	14.38	4.0	8.0	11.0	7.0			
	114.1	442	2.7	12.27	5.0	8.0	11.0	7.0			

P_1 [kW]	n_2 [Min^{-1}]	M_2 [Nm]	f_B	i_{ges}	F_R [N]	F_A [N]	$F_{R\,GR}$ [N]	$F_{A\,GR}$ [N]	Tip / Type / Typ IE2 / IE3	Kg	mm
5.50	54.9	891	0.9	50.99	1.0	8.0	9.0	7.0	PA/PF 42 132S2B / 132S2C	99	184
	67.8	721	1.2	41.30	1.0	8.0	9.0	5.0			
	79.4	616	1.5	35.26	1.0	8.0	10.0	6.0			
	95.6	511	1.5	29.28	1.0	8.0	10.0	6.0			
	108.2	452	2.1	25.88	1.0	8.0	11.0	6.0			
	113.5	431	1.6	24.68	1.0	8.0	11.0	6.0			
	114.7	427	1.5	24.42	1.0	8.0	11.0	6.0			
	128.1	382	2.2	21.85	1.0	9.0	11.0	7.0			
	130.2	376	2.4	21.50	1.0	8.0	11.0	6.0			
	156.2	313	2.4	17.93	1.0	8.0	11.0	6.0			
	158.3	309	2.9	17.69	2.0	8.0	11.0	7.0			
	292.2	177	1.7	3.08	-	-	-	-	PA/PF 41 132M6B	80	164
	360.0	144	2.0	2.50	-	-	-	-			
	420.6	123	2.1	2.14	-	-	-	-			
	494.5	105	2.2	1.82	-	-	-	-			
	552.1	94	2.2	1.63	-	-	-	-			
	600.0	86	2.3	1.50	-	-	-	-			
	638.3	81	2.3	1.41	-	-	-	-			
	265.7	194	1.0	5.27	-	4.0	-	-	PA/PF 41 132S4A / 132S4B	80	164
	454.5	113	2.6	3.08	-	4.0	-	-			
	560.0	92	2.9	2.50	-	5.0	-	-			
	390.0	130	1.1	7.18	-	-	-	-	PA/PF 41 132S2B / 132S2C	80	164
	531.3	95	1.6	5.27	-	-	-	-			
	62.0	822	0.9	14.52	2.0	5.0	9.0	7.0	PA/PF 32 132M6B	84	180
	76.9	662	1.1	11.70	2.0	5.0	9.0	7.0			
	91.9	554	1.2	9.79	2.0	5.0	9.0	7.0			
	114.1	447	1.5	7.89	3.0	5.0	-	-			
	133.9	381	1.7	6.72	3.0	5.0	9.0	7.0			
	158.2	322	2.0	5.69	3.0	5.0	9.0	6.0			
	163.9	311	1.5	5.49	3.0	5.0	9.0	6.0			
	170.1	300	2.2	5.29	3.0	5.0	9.0	6.0			
	203.6	250	1.9	4.42	3.0	5.0	9.0	6.0			
	240.0	212	2.3	3.75	1.0	7.0	10.0	6.0			
	303.0	168	2.7	2.97	1.0	7.0	9.0	6.0			
	86.3	585	1.1	16.23	2.0	5.0	9.0	7.0	PA/PF 32 132S4A / 132S4B	84	180
	96.4	523	1.3	14.52	2.0	5.0	9.0	7.0			
	119.7	421	1.7	11.70	2.0	5.0	9.0	7.0			
	143.0	353	1.8	9.79	2.0	5.0	9.0	7.0			
	177.4	284	2.3	7.89	3.0	5.0	9.0	7.0			
	208.3	242	2.5	6.72	3.0	5.0	9.0	7.0			
	246.0	205	2.9	5.69	3.0	5.0	9.0	6.0			
	255.0	198	2.3	5.49	3.0	5.0	9.0	6.0			
	316.7	159	2.9	4.42	3.0	5.0	9.0	6.0			
	172.5	284	1.7	16.23	2.0	5.0	9.0	7.0	PA/PF 32 132S2B / 132S2C	84	180
	192.8	254	2.0	14.52	2.0	5.0	9.0	7.0			
	239.3	204	2.6	11.70	2.0	5.0	9.0	7.0			
	286.0	171	2.9	9.79	2.0	5.0	9.0	7.0			
	432.7	120	1.4	2.08	-	-	-	-	PA/PF 31 132M6B	71	162
	511.4	101	1.6	1.76	-	-	-	-			
	647.5	80	1.9	1.39	-	-	-	-			
	542.6	95	2.0	2.58	-	4.0	-	-	PA/PF 31 132S4A / 132S4B	71	162
	673.1	76	2.2	2.08	-	3.0	-	-			
	795.5	65	2.3	1.76	-	3.0	-	-			
	1007.2	51	2.8	1.39	-	3.0	-	-			
	1085.3	47	3.0	2.58	-	-	-	-	PA/PF 31 132S2B / 132S2C	71	162
7.50	2.6	25171	0.8	341.11	100.0	94.0	120.0	120.0	PA/PF 103/52 160M6B / 160M6C	879	216
	3.0	21883	1.0	296.56	101.0	91.0	120.0	120.0			
	3.7	18054	1.2	244.66	85.0	120.0	120.0	120.0			
	4.9	13634	1.5	184.77	85.0	120.0	120.0	120.0			
	5.8	11422	1.8	154.79	85.0	120.0	120.0	120.0			
	7.3	9058	2.3	122.75	85.0	120.0	120.0	120.0			
	8.5	7784	2.7	105.49	85.0	120.0	120.0	120.0			

P_1 [kW]	n_2 [Min^{-1}]	M_2 [Nm]	f_B	i_{ges}	F_R [N]	F_A [N]	$F_{R\,GR}$ [N]	$F_{A\,GR}$ [N]	Tip / Type / Typ IE2 / IE3	Kg	mm
7.50	3.0 4.1 4.7 5.7 7.6 9.0	21558 15706 13655 11265 8508 7127	0.9 1.3 1.5 1.8 2.4 2.8	468.19 341.11 296.56 244.66 184.77 154.79	86.0 94.0 96.0 98.0 100.0 101.0	106.0 103.0 101.0 99.0 94.0 91.0	120.0 120.0 120.0 120.0 120.0 120.0	120.0 120.0 120.0 120.0 120.0 120.0	**PA/PF 103/52 132M4C / 132M4D**	843	218
	3.0 3.4 4.4 6.0 8.2 9.4 11.4	20208 17507 13755 10022 7302 6348 5237	0.8 0.9 1.1 1.5 2.1 2.4 2.9	944.01 817.82 642.57 468.19 341.11 296.56 244.66	86.0 86.0 86.0 86.0 94.0 96.0 98.0	106.0 106.0 106.0 106.0 103.0 101.0 99.0	120.0 120.0 120.0 120.0 120.0 120.0 120.0	120.0 120.0 120.0 120.0 120.0 120.0 120.0	**PA/PF 103/52 132S2C / 132S2D**	843	218
	4.3 6.6	15771 10383	1.5 2.3	207.36 136.52	100.0 100.0	96.0 96.0	120.0 120.0	120.0 120.0	**PA/PF 103 160M6B / 160M6C**	805	209
	6.8	9972	2.3	207.36	100.0	96.0	120.0	120.0	**PA/PF 103 132M4C / 132M4D**	769	209
	5.6 7.1 8.4	11871 9397 7937	1.1 1.4 1.6	160.87 127.35 107.56	66.0 66.0 66.0	66.0 66.0 66.0	93.0 90.0 91.0	80.0 80.0 80.0	**PA/PF 93/52 160M6B / 160M6C**	660	216
	8.7 11.0	7407 5864	1.6 2.1	160.87 127.35	66.0 66.0	66.0 66.0	93.0 90.0	80.0 80.0	**PA/PF 93/52 132M4C / 132M4D**	624	216
	17.4	3444	2.7	160.87	66.0	66.0	93.0	80.0	**PA/PF 93/52 132S2C / 132S2D**	624	216
	4.9	13430	1.0	182.00	58.0	69.0	93.0	80.0	**PA/PF 93/42 160M6B / 160M6C**	631	216
	4.2 4.9 5.8 7.7	15328 13259 11082 8380	0.8 0.9 1.1 1.5	332.89 287.97 240.68 182.00	55.0 55.0 59.0 58.0	62.0 62.0 61.0 69.0	88.0 85.0 88.0 93.0	80.0 80.0 80.0 80.0	**PA/PF 93/42 132M4C / 132M4D**	595	216
	5.1 6.1 8.4 9.7 11.6 15.4	11728 9781 7126 6164 5152 3896	0.8 0.9 1.3 1.5 1.8 2.4	547.88 456.91 332.89 287.97 240.68 182.00	55.0 55.0 55.0 55.0 59.0 58.0	62.0 62.0 62.0 62.0 61.0 69.0	85.0 88.0 88.0 85.0 88.0 93.0	80.0 80.0 80.0 80.0 80.0 80.0	**PA/PF 93/42 132S2C / 132S2D**	595	216
	4.8 7.3 8.2 9.6 12.4 14.6	14298 9353 8309 7106 5508 4690	1.0 1.6 1.5 2.1 2.6 2.8	187.99 122.97 109.25 93.43 72.42 61.66	62.0 65.0 65.0 64.0 64.0 64.0	60.0 56.0 56.0 65.0 65.0 65.0	90.0 91.0 92.0 93.0 93.0 -	80.0 80.0 80.0 80.0 80.0 -	**PA/PF 93 160M6B / 160M6C**	586	205
	7.4 12.8	9041 5254	1.5 2.2	187.99 109.25	62.0 65.0	60.0 56.0	90.0 92.0	80.0 80.0	**PA/PF 93 132M4C / 132M4D**	550	205
	14.9	4321	2.5	187.99	62.0	60.0	90.0	80.0	**PA/PF 93 132S2C / 132S2D**	550	205
	6.0 7.1	10996 9368	0.8 0.9	149.01 126.95	32.0 32.0	34.0 34.0	62.0 -	65.0 -	**PA/PF 83/42 160M6B / 160M6C**	452	216
	7.0 9.4 11.0	9259 6861 5845	0.9 1.2 1.4	201.09 149.01 126.95	32.0 32.0 32.0	29.0 34.0 34.0	54.0 62.0 -	65.0 65.0 -	**PA/PF 83/42 132M4C / 132M4D**	416	216
	7.5 10.1 11.9 13.9 18.8 22.1	8017 5908 5053 4305 3190 2718	0.8 1.0 1.2 1.4 1.9 2.2	374.50 276.00 236.03 201.09 149.01 126.95	32.0 32.0 32.0 32.0 32.0 32.0	29.0 29.0 29.0 29.0 34.0 34.0	55.0 54.0 57.0 54.0 62.0 -	65.0 65.0 65.0 65.0 65.0 -	**PA/PF 83/42 132S2C / 132S2D**	416	216
	8.7 11.2 12.8 14.6 17.5 20.3	7907 6132 5338 4699 3918 3372	1.2 1.5 1.8 2.0 2.4 2.8	103.97 80.63 70.19 61.79 51.52 44.34	42.0 44.0 44.0 44.0 38.0 38.0	30.0 30.0 29.0 29.0 35.0 35.0	61.0 62.0 62.0 62.0 62.0 62.0	65.0 65.0 65.0 65.0 65.0 62.0	**PA/PF 83 160M6B / 160M6C**	407	201

P_1 [kW]	n_2 [Min^{-1}]	M_2 [Nm]	f_B	i_{ges}	F_R [N]	F_A [N]	$F_{R\,GR}$ [N]	$F_{A\,GR}$ [N]	Tip / Type / Typ IE2 / IE3	Kg	mm
7.50	6.5	10411	0.9	216.49	37.0	30.0	58.0	65.0	PA/PF 83 132M4C / 132M4D	371	201
	8.5	7920	1.1	164.68	37.0	30.0	58.0	65.0			
	10.2	6573	1.1	136.67	42.0	30.0	61.0	65.0			
	13.5	5000	1.8	103.97	42.0	30.0	61.0	65.0			
	17.4	3878	2.3	80.63	44.0	30.0	62.0	65.0			
	19.9	3376	2.7	70.19	44.0	29.0	62.0	65.0			
	22.7	2972	3.0	61.79	44.0	29.0	62.0	65.0			
	12.9	4977	1.4	216.49	37.0	30.0	58.0	65.0	PA/PF 83 132S2C / 132S2D	371	201
	17.0	3786	1.8	164.68	37.0	30.0	58.0	65.0			
	20.5	3142	1.8	136.67	42.0	30.0	61.0	65.0			
	26.9	2390	2.9	103.97	42.0	30.0	61.0	65.0			
	18.5	3765	1.5	48.76	44.0	25.0	63.0	65.0	PA/PF 82 160M6B / 160M6C	399	200
	22.3	3122	1.4	40.43	44.0	25.0	63.0	61.0			
	28.0	2479	2.8	32.10	44.0	25.0	-	-			
	28.7	2395	2.2	48.76	44.0	25.0	63.0	65.0	PA/PF 82 132M4C / 132M4D	363	200
	34.6	1986	2.1	40.43	44.0	25.0	63.0	61.0			
	9.9	6500	0.8	141.16	18.0	14.0	-	-	PA/PF 73/32 132M4C / 132M4D	294	214
	11.2	5740	0.9	124.66	18.0	14.0	-	-			
	12.4	4846	0.8	226.38	18.0	14.0	34.0	50.0	PA/PF 73/32 132S2C / 132S2D	294	214
	16.4	3663	1.0	171.10	18.0	14.0	33.0	50.0			
	19.8	3022	1.3	141.16	18.0	14.0	-	-			
	22.5	2669	1.4	124.66	18.0	14.0	-	-			
	12.0	5689	1.0	74.80	25.0	14.0	38.0	45.0	PA/PF 73 160M6B / 160M6C	300	197
	14.9	4595	1.3	60.42	26.0	14.0	39.0	43.0			
	17.2	3976	1.5	52.28	27.0	14.0	39.0	42.0			
	19.7	3473	1.6	45.67	27.0	14.0	39.0	41.0			
	23.9	2866	1.8	37.68	28.0	14.0	40.0	40.0			
	27.1	2530	2.1	33.27	19.0	14.0	40.0	41.0			
	31.7	2156	2.4	28.35	19.0	14.0	40.0	39.0			
	38.5	1779	3.0	23.39	19.0	14.0	40.0	34.0			
	11.2	5990	0.9	124.55	19.0	12.0	34.0	46.0	PA/PF 73 132M4C / 132M4D	264	197
	11.3	5982	0.8	124.38	22.0	13.0	37.0	50.0			
	13.9	4832	0.8	100.47	22.0	13.0	36.0	46.0			
	15.3	4392	1.2	91.33	24.0	13.0	37.0	45.0			
	18.7	3597	1.5	74.80	25.0	14.0	38.0	45.0			
	23.2	2906	1.9	60.42	26.0	14.0	39.0	43.0			
	26.8	2514	2.2	52.28	27.0	14.0	39.0	42.0			
	30.7	2196	2.4	45.67	27.0	14.0	39.0	41.0			
	37.2	1812	2.8	37.68	28.0	14.0	40.0	40.0			
	13.6	4726	0.9	205.59	19.0	12.0	35.0	50.0	PA/PF 73 132S2C / 132S2D	264	197
	16.9	3818	1.1	166.07	19.0	12.0	34.0	50.0			
	22.5	2863	1.5	124.55	19.0	12.0	34.0	46.0			
	22.5	2859	1.3	124.38	22.0	13.0	37.0	50.0			
	27.9	2310	1.3	100.47	22.0	13.0	36.0	46.0			
	30.7	2099	1.9	91.33	24.0	13.0	37.0	45.0			
	37.4	1719	2.4	74.80	25.0	14.0	38.0	45.0			
	20.6	3374	1.3	43.70	27.0	14.0	39.0	41.0	PA/PF 72 160M6B / 160M6C	290	196
	27.2	2554	1.3	33.08	27.0	14.0	40.0	37.0			
	31.5	2207	1.9	28.58	27.0	14.0	40.0	36.0			
	41.4	1677	2.5	21.72	27.0	14.0	-	-			
	41.6	1671	2.8	21.64	27.0	14.0	-	-			
	32.0	2146	1.9	43.70	27.0	14.0	39.0	41.0	PA/PF 72 132M4C / 132M4D	254	196
	42.3	1625	2.0	33.08	27.0	14.0	40.0	37.0			
	64.1	1041	3.0	43.70	27.0	14.0	39.0	41.0	PA/PF 72 132S2C / 132S2D	254	196
	14.3	4788	0.8	62.96	17.0	14.0	26.0	35.0	PA/PF 63 160M6B / 160M6C	219	193
	16.7	4095	0.9	53.84	18.0	14.0	26.0	35.0			
	17.7	3866	1.0	50.83	18.0	14.0	27.0	34.0			
	20.7	3306	1.2	43.47	19.0	14.0	27.0	34.0			
	24.9	2749	1.4	36.14	19.0	14.0	28.0	33.0			
	29.1	2350	1.6	30.90	20.0	14.0	28.0	32.0			
	34.2	2003	1.7	26.33	20.0	14.0	28.0	31.0			
	41.0	1671	2.0	21.97	20.0	13.0	28.0	29.0			
	43.2	1583	2.1	20.81	9.0	15.0	28.0	29.0			
	51.8	1320	2.5	17.36	9.0	15.0	28.0	27.0			

P_1 [kW]	n_2 [Min^{-1}]	M_2 [Nm]	f_B	i_{ges}	F_R [N]	F_A [N]	$F_{R\ GR}$ [N]	$F_{A\ GR}$ [N]	Tip / Type / Typ IE2 / IE3	Kg	mm
7.50	18.1	3727	1.0	77.49	14.0	14.0	24.0	36.0	PA/PF 63 132M4C / 132M4D	183	193
	22.2	3028	1.2	62.96	17.0	14.0	26.0	35.0			
	26.0	2589	1.4	53.84	18.0	14.0	26.0	35.0			
	27.5	2444	1.5	50.83	18.0	14.0	27.0	34.0			
	32.2	2091	1.8	43.47	19.0	14.0	27.0	34.0			
	38.7	1738	2.1	36.14	19.0	14.0	28.0	33.0			
	45.3	1486	2.4	30.90	20.0	14.0	28.0	32.0			
	53.2	1266	2.5	26.33	20.0	14.0	28.0	31.0			
	63.7	1057	3.0	21.97	20.0	13.0	28.0	29.0			
	19.2	3357	0.8	146.02	14.0	14.0	24.0	45.0	PA/PF 63 132S2C / 132S2D	183	193
	21.1	3052	0.9	132.78	14.0	14.0	21.0	41.0			
	26.1	2464	1.1	107.21	14.0	14.0	24.0	40.0			
	36.1	1781	1.6	77.49	14.0	14.0	24.0	36.0			
	44.5	1447	1.9	62.96	17.0	14.0	26.0	35.0			
	52.0	1238	2.3	53.84	18.0	14.0	26.0	35.0			
	55.1	1168	2.4	50.83	18.0	14.0	27.0	34.0			
	64.4	999	2.8	43.47	19.0	14.0	27.0	34.0			
	24.3	2863	1.1	37.08	19.0	14.0	28.0	33.0	PA/PF 62 160M6B / 160M6C	221	192
	49.6	1402	2.3	18.16	19.0	16.0	28.0	28.0			
	57.0	1220	2.6	15.80	19.0	16.0	28.0	27.0			
	64.7	1074	3.0	13.91	19.0	16.0	28.0	26.0			
	28.7	2394	1.0	48.75	19.0	14.0	28.0	36.0	PA/PF 62 132M4C / 132M4D	185	192
	37.8	1821	1.7	37.08	19.0	14.0	28.0	33.0			
	57.4	1161	1.6	48.75	19.0	14.0	28.0	36.0	PA/PF 62 132S2C / 132S2D	185	192
	75.5	883	2.6	37.08	19.0	14.0	28.0	33.0			
	34.1	2041	1.0	26.43	13.0	24.0	19.0	33.0	PA/PF 52 160M6B / 160M6C	164	188
	37.7	1845	1.1	23.89	13.0	24.0	19.0	32.0			
	41.6	1672	1.2	21.65	13.0	24.0	19.0	32.0			
	46.0	1511	1.3	19.57	13.0	24.0	19.0	31.0			
	50.5	1375	1.5	17.81	13.0	24.0	19.0	30.0			
	64.3	1080	1.9	13.99	12.0	24.0	20.0	29.0			
	66.9	1039	1.9	13.46	12.0	23.0	20.0	28.0			
	85.1	817	2.3	10.58	11.0	24.0	20.0	27.0			
	101.9	682	2.6	8.83	11.0	24.0	20.0	26.0			
	123.5	563	2.9	7.29	11.0	24.0	-	-			
	160.7	432	2.8	5.60	11.0	24.0	-	-			
	28.6	2404	0.8	48.95	12.0	24.0	18.0	40.0	PA/PF 52 132M4C / 132M4D	128	188
	34.7	1981	1.0	40.34	11.0	24.0	18.0	37.0			
	36.4	1889	0.9	38.46	12.0	24.0	18.0	36.0			
	38.1	1803	1.1	36.71	12.0	24.0	18.0	36.0			
	43.6	1578	0.9	32.12	13.0	24.0	19.0	35.0			
	48.5	1417	1.4	28.85	13.0	24.0	19.0	34.0			
	53.0	1298	1.5	26.43	13.0	24.0	19.0	34.0			
	58.1	1183	1.4	24.09	13.0	24.0	19.0	33.0			
	58.6	1173	1.6	23.89	13.0	24.0	19.0	33.0			
	64.7	1063	1.8	21.65	13.0	24.0	19.0	32.0			
	71.5	961	2.0	19.57	13.0	24.0	19.0	32.0			
	78.6	875	2.2	17.81	13.0	24.0	20.0	31.0			
	100.1	687	2.8	13.99	12.0	24.0	20.0	29.0			
	104.0	661	2.8	13.46	12.0	23.0	20.0	29.0			
	47.1	1417	1.0	59.50	12.0	24.0	18.0	40.0	PA/PF 52 132S2C / 132S2D	128	188
	52.1	1281	1.1	53.79	12.0	24.0	18.0	40.0			
	57.2	1166	1.3	48.95	12.0	24.0	18.0	40.0			
	69.4	961	1.5	40.34	11.0	24.0	18.0	37.0			
	72.8	916	1.4	38.46	12.0	24.0	18.0	36.0			
	76.3	874	1.7	36.71	12.0	24.0	18.0	36.0			
	87.2	765	1.4	32.12	13.0	24.0	19.0	35.0			
	97.1	687	2.2	28.85	13.0	24.0	19.0	34.0			
	105.9	630	2.3	26.43	13.0	24.0	19.0	34.0			
	116.2	574	2.2	24.09	13.0	24.0	19.0	33.0			
	117.2	569	2.6	23.89	13.0	24.0	19.0	33.0			
	129.3	516	2.8	21.65	13.0	24.0	19.0	32.0			

P_1 [kW]	n_2 [Min^{-1}]	M_2 [Nm]	f_B	i_{ges}	F_R [N]	F_A [N]	$F_{R\ GR}$ [N]	$F_{A\ GR}$ [N]	Tip / Type / Typ IE2 / IE3	Kg	mm
7.50	222.8	317	1.4	4.04	-	-	-	-	PA/PF 51 160M6B / 160M6C	125	166
	271.9	259	2.0	3.31	-	-	-	-			
	314.7	224	2.1	2.86	-	-	-	-			
	360.0	196	2.3	2.50	-	-	-	-			
	436.9	161	2.5	2.06	-	-	-	-			
	494.5	143	2.5	1.82	-	-	-	-			
	548.8	129	2.7	1.64	-	-	-	-			
	584.4	121	2.7	1.54	-	-	-	-			
	625.0	113	2.8	1.44	-	-	-	-			
	725.8	97	3.0	1.24	-	-	-	-			
	205.3	342	1.2	6.82	-	6.0	-	-	PA/PF 51 132M4C / 132M4D	89	166
	346.5	203	2.0	4.04	-	6.0	-	-			
	423.0	166	3.0	3.31	-	6.0	-	-			
	308.0	224	1.1	9.09	-	-	-	-	PA/PF 51 132M2C / 132M2D	89	166
	410.6	168	1.8	6.82							
	50.9	1366	0.9	17.69	1.0	7.0	11.0	6.0	PA/PF 42 160M6B / 160M6C	135	184
	59.6	1166	1.1	15.10	1.0	7.0	11.0	6.0			
	62.6	1110	1.1	14.38	1.0	7.0	11.0	6.0			
	73.3	947	1.3	12.27	1.0	7.0	11.0	6.0			
	88.3	787	1.6	10.19	2.0	7.0	11.0	6.0			
	105.9	656	1.7	8.50	3.0	7.0	11.0	6.0			
	123.8	561	2.0	7.27	4.0	6.0	11.0	6.0			
	145.4	478	2.4	6.19	1.0	8.0	12.0	6.0			
	167.9	414	2.1	5.36	1.0	8.0	11.0	5.0			
	196.5	354	2.3	4.58	1.0	8.0	11.0	5.0			
	230.8	301	2.4	3.90	1.0	8.0	11.0	5.0			
	257.1	270	2.6	3.50	1.0	8.0	10.0	5.0			
	280.4	248	2.6	3.21	1.0	8.0	10.0	5.0			
	298.0	233	2.7	3.02	1.0	8.0	10.0	5.0			
	54.1	1271	1.0	25.88	1.0	7.0	10.0	4.0	PA/PF 42 132M4C / 132M4D	99	184
	64.1	1073	1.0	21.85	1.0	7.0	10.0	5.0			
	65.1	1056	1.1	21.50	1.0	7.0	10.0	5.0			
	78.1	881	1.1	17.93	1.0	7.0	11.0	5.0			
	79.1	869	1.4	17.69	1.0	7.0	11.0	6.0			
	92.7	742	1.7	15.10	1.0	7.0	11.0	6.0			
	97.4	706	1.6	14.38	1.0	7.0	11.0	6.0			
	114.1	603	2.0	12.27	1.0	7.0	11.0	6.0			
	137.4	500	2.3	10.19	2.0	7.0	11.0	6.0			
	164.7	417	2.6	8.50	3.0	7.0	11.0	6.0			
	192.6	357	3.0	7.27	4.0	6.0	11.0	6.0			
	67.8	984	0.9	41.30	1.0	7.0	9.0	5.0	PA/PF 42 132S2C / 132S2D	99	184
	79.4	840	1.1	35.26	1.0	7.0	10.0	6.0			
	95.6	697	1.1	29.28	1.0	7.0	10.0	6.0			
	108.2	616	1.5	25.88	1.0	7.0	10.0	4.0			
	113.5	588	1.2	24.68	1.0	7.0	11.0	6.0			
	114.7	582	1.1	24.42	1.0	7.0	11.0	6.0			
	128.1	520	1.6	21.85	1.0	7.0	10.0	5.0			
	130.2	512	1.7	21.50	1.0	7.0	10.0	5.0			
	156.2	427	1.8	17.93	1.0	7.0	11.0	5.0			
	158.3	421	2.1	17.69	1.0	7.0	11.0	6.0			
	185.4	360	2.6	15.10	1.0	7.0	11.0	6.0			
	194.7	343	2.6	14.38	1.0	7.0	11.0	6.0			
	292.2	241	1.3	3.08	-	-	-	-	PA/PF 41 160M6B / 160M6C	116	164
	360.0	196	1.5	2.50	-	-	-	-			
	420.6	168	1.6	2.14	-	-	-	-			
	494.5	143	1.6	1.82	-	-	-	-			
	552.1	128	1.6	1.63	-	-	-	-			
	600.0	118	1.7	1.50	-	-	-	-			
	638.3	111	1.7	1.41	-	-	-	-			
	454.5	154	1.9	3.08	-	4.0	-	-	PA/PF 41 132M4C / 132M4D	80	164
	560.0	125	2.2	2.50	-	4.0	-	-			
	654.2	107	2.3	2.14	-	4.0	-	-			
	769.2	91	2.4	1.82	-	4.0	-	-			
	858.9	82	2.4	1.63	-	4.0	-	-			
	933.3	75	2.5	1.50	-	4.0	-	-			
	992.9	71	2.5	1.41	-	4.0	-	-			

P_1 [kW]	n_2 [Min^{-1}]	M_2 [Nm]	f_B	i_{ges}	F_R [N]	F_A [N]	$F_{R\,GR}$ [N]	$F_{A\,GR}$ [N]	Tip / Type / Typ IE2 / IE3	Kg	mm
7.50	390.0 531.3 909.1	177 130 76	0.8 1.1 2.9	7.18 5.27 3.08	- - -	- - -	- - -	- - -	PA/PF 41 132S2C / 132S2D	80	164
	86.3 96.4 119.7 143.0 177.4 208.3 246.0 255.0 264.7 316.7 373.3 471.4	797 713 575 481 388 330 279 270 260 217 184 146	0.8 0.9 1.2 1.3 1.7 1.8 2.2 1.7 2.5 2.1 2.5 3.0	16.23 14.52 11.70 9.79 7.89 6.72 5.69 5.49 5.29 4.42 3.75 2.97	1.0 1.0 1.0 1.0 1.0 1.0 2.0 1.0 3.0 2.0 2.0 2.0	4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0	8.0 9.0 9.0 9.0 9.0 9.0 9.0 9.0 9.0 9.0 9.0 9.0	6.0 6.0 6.0 6.0 6.0 6.0 6.0 6.0 6.0 6.0 6.0 5.0	PA/PF 32 132M4C / 132M4D	84	180
	172.5 192.8 239.3 286.0 354.9 416.7 510.0	387 346 279 233 188 160 131	1.3 1.5 1.9 2.1 2.6 2.9 2.6	16.23 14.52 11.70 9.79 7.89 6.72 5.49	1.0 1.0 1.0 1.0 1.0 1.0 1.0	4.0 4.0 4.0 4.0 4.0 4.0 4.0	8.0 9.0 9.0 9.0 9.0 9.0 9.0	6.0 6.0 6.0 6.0 6.0 6.0 6.0	PA/PF 32 132S2C / 132S2D	84	180
	542.6 673.1 795.5 1007.2	129 104 88 70	1.4 1.6 1.7 2.1	2.58 2.08 1.76 1.39	- - - -	3.0 3.0 4.0 4.0	- - - -	- - - -	PA/PF 31 132M4C / 132M4D	71	162
	1085.3 1346.2 1590.9	64 51 43	2.2 2.4 2.6	2.58 2.08 1.76	- - -	3.0 3.0 4.0	- - -	- - -	PA/PF 31 132S2C / 132S2D	71	162
9.20	3.0 3.7 4.9 5.8 7.3 8.5	26844 22146 16725 14011 11111 9549	0.8 0.9 1.3 1.5 1.9 2.2	296.56 244.66 184.77 154.79 122.75 105.49	86.0 86.0 86.0 86.0 86.0 86.0	106.0 106.0 106.0 106.0 106.0 106.0	120.0 120.0 120.0 120.0 120.0 120.0	120.0 120.0 120.0 120.0 120.0 120.0	PA/PF 103/52 160M6	879	216
	3.0 4.1 4.7 5.7 7.6 9.0	26444 19266 16750 13819 10436 8743	0.8 1.0 1.2 1.4 1.9 2.3	468.19 341.11 296.56 244.66 184.77 154.79	- 90.0 93.0 96.0 99.0 100.0	- 97.0 96.0 94.0 90.0 88.0	120.0 120.0 120.0 120.0 120.0 120.0	120.0 120.0 120.0 120.0 120.0 120.0	PA/PF 103/52 132M4	843	216
	4.4 6.0 8.2 9.4 11.4	16873 12294 8957 7787 6424	0.9 1.2 1.7 2.0 2.4	642.57 468.19 341.11 296.56 244.66	86.0 86.0 86.0 86.0 86.0	106.0 106.0 106.0 106.0 106.0	120.0 120.0 120.0 120.0 120.0	120.0 120.0 120.0 120.0 120.0	PA/PF 103/52 132M2	843	216
	4.3 6.6 11.0	19346 12737 7600	1.3 1.9 2.8	207.36 136.52 81.46	100.0 100.0 100.0	96.0 96.0 96.0	120.0 120.0 120.0	120.0 120.0 120.0	PA/PF 103 160M6	805	209
	6.8	12233	1.9	207.36	98.0	92.0	120.0	120.0	PA/PF 103 132M4	769	209
	13.5	5847	3.0	207.36	100.0	96.0	120.0	120.0	PA/PF 103 132M2	769	209
	8.7 11.0	9086 7193	1.3 1.7	160.87 127.35	- -	- -	88.0 90.0	80.0 80.0	PA/PF 93/52 132M4	624	216
	17.4 22.0	4224 3344	2.2 2.8	160.87 127.35	66.0 66.0	66.0 66.0	88.0 90.0	80.0 80.0	PA/PF 93/52 132M2	624	216
	4.9	16474	0.8	182.00	55.0	62.0	87.0	80.0	PA/PF 93/42 160M6	631	216
	4.9 5.8 7.7	16265 13594 10280	0.8 0.9 1.2	287.97 240.68 182.00	- 54.0 -	- 57.0 -	85.0 85.0 87.0	80.0 80.0 80.0	PA/PF 93/42 132M4	595	216

P_1 [kW]	n_2 [Min^{-1}]	M_2 [Nm]	f_B	i_{ges}	F_R [N]	F_A [N]	$F_{R\,GR}$ [N]	$F_{A\,GR}$ [N]	Tip / Type / Typ IE2 / IE3	Kg	mm
9.20	6.1 8.4 9.7 11.6 15.4	11998 8741 7562 6320 4779	0.8 1.1 1.2 1.5 1.9	456.91 332.89 287.97 240.68 182.00	55.0 55.0 55.0 55.0 55.0	62.0 62.0 62.0 62.0 62.0	- - 85.0 85.0 87.0	- - 80.0 80.0 80.0	**PA/PF 93/42 132M2**	595	216
	4.8 7.3 8.2 9.6 12.4 14.6 16.7 19.3	17538 11472 10192 8717 6756 5753 5015 4350	0.8 1.3 1.2 1.7 2.1 2.3 2.6 2.9	187.99 122.97 109.25 93.43 72.42 61.66 53.75 46.63	62.0 62.0 62.0 62.0 62.0 62.0 62.0 62.0	60.0 60.0 60.0 60.0 60.0 60.0 60.0 60.0	88.0 91.0 92.0 92.0 93.0 92.0 92.0 93.0	80.0 80.0 80.0 80.0 80.0 80.0 80.0 80.0	**PA/PF 93 160M6**	586	205
	7.4 12.8 15.0	11090 6445 5512	1.3 1.8 2.5	187.99 109.25 93.43	59.0 64.0 65.0	56.0 53.0 52.0	88.0 92.0 92.0	80.0 80.0 80.0	**PA/PF 93 132M4**	550	205
	14.9 25.6	5301 3081	2.0 2.9	187.99 109.25	62.0 62.0	60.0 60.0	88.0 92.0	80.0 80.0	**PA/PF 93 132M2**	550	205
	25.4	3360	3.0	35.47	66.0	39.0	-	-	**PA/PF 92 160M6**	575	204
	9.4 11.0	8416 7170	1.0 1.1	149.01 126.95	- -	- -	- -	- -	**PA/PF 83/42 132M4**	416	216
	10.1 11.9 13.9 18.8 22.1	7247 6198 5280 3913 3334	0.8 1.0 1.2 1.6 1.8	276.00 236.03 201.09 149.01 126.95	32.0 32.0 32.0 32.0 32.0	29.0 29.0 29.0 29.0 29.0	54.0 57.0 54.0 - -	65.0 65.0 65.0 - -	**PA/PF 83/42 132M2**	416	216
	8.7 11.2 12.8 14.6 17.5 20.3 23.1 27.7	9700 7522 6548 5765 4807 4137 3639 3035	1.0 1.3 1.4 1.6 2.0 2.3 2.6 3.0	103.97 80.63 70.19 61.79 51.52 44.34 39.01 32.53	37.0 37.0 37.0 37.0 37.0 37.0 37.0 37.0	30.0 30.0 30.0 30.0 30.0 30.0 30.0 30.0	58.0 60.0 61.0 62.0 62.0 62.0 63.0 62.0	65.0 65.0 65.0 65.0 64.0 62.0 61.0 56.0	**PA/PF 83 160M6**	407	201
	8.5 10.2 13.5 17.4 19.9 22.7 27.2	9715 8062 6133 4757 4141 3645 3039	0.9 0.9 1.5 1.9 2.2 2.5 2.9	164.68 136.67 103.97 80.63 70.19 61.79 51.52	32.0 - 41.0 43.0 43.0 44.0 44.0	26.0 - 28.0 27.0 27.0 27.0 27.0	54.0 61.0 60.0 61.0 62.0 62.0 62.0	65.0 65.0 65.0 65.0 65.0 65.0 65.0	**PA/PF 83 132M4**	371	201
	12.9 17.0 20.5 26.9 34.7	6105 4644 3854 2932 2274	1.1 1.5 1.5 2.4 3.0	216.49 164.68 136.67 103.97 80.63	37.0 37.0 37.0 37.0 37.0	30.0 30.0 30.0 30.0 30.0	58.0 54.0 61.0 60.0 61.0	65.0 65.0 65.0 65.0 65.0	**PA/PF 83 132M2**	371	201
	18.5 22.3 28.0 33.8	4618 3829 3040 2521	1.2 1.1 2.3 2.6	48.76 40.43 32.10 26.62	44.0 44.0 44.0 44.0	25.0 25.0 25.0 25.0	63.0 63.0 63.0 63.0	65.0 61.0 56.0 54.0	**PA/PF 82 160M6**	399	200
	28.7 34.6	2938 2436	1.8 1.7	48.76 40.43	44.0 -	26.0 -	63.0 63.0	65.0 61.0	**PA/PF 82 132M4**	363	200
	57.4 69.3	1425 1181	2.8 2.7	48.76 40.43	44.0 44.0	25.0 25.0	63.0 63.0	65.0 61.0	**PA/PF 82 132M2**	363	200
	16.4 19.8 22.5	4493 3707 3273	0.8 1.0 1.2	171.10 141.16 124.66	18.0 18.0 18.0	14.0 14.0 14.0	33.0 - -	50.0 - -	**PA/PF 73/32 132M2**	294	200

P_1 [kW]	n_2 [Min^{-1}]	M_2 [Nm]	f_B	i_{ges}	F_R [N]	F_A [N]	$F_{R\,GR}$ [N]	$F_{A\,GR}$ [N]	Tip / Type / Typ IE2 / IE3	Kg	mm
9.20	12.0	6978	0.8	74.80	19.0	12.0	37.0	42.0	PA/PF 73 160M6	300	197
	14.9	5637	1.1	60.42	19.0	12.0	38.0	41.0			
	17.2	4877	1.2	52.28	19.0	12.0	39.0	40.0			
	19.7	4261	1.3	45.67	19.0	12.0	39.0	40.0			
	23.9	3515	1.5	37.68	19.0	12.0	39.0	38.0			
	27.1	3104	1.7	33.27	19.0	12.0	40.0	38.0			
	31.7	2645	2.0	28.35	19.0	12.0	40.0	36.0			
	38.5	2182	2.4	23.39	19.0	12.0	40.0	34.0			
	43.6	1927	2.7	20.66	19.0	12.0	-	-			
	11.2	7347	0.8	124.55	11.0	9.0	31.0	42.0	PA/PF 73 132M4	264	197
	15.3	5388	1.0	91.33	21.0	11.0	35.0	42.0			
	18.7	4413	1.2	74.80	23.0	12.0	37.0	42.0			
	23.2	3564	1.6	60.42	25.0	12.0	38.0	41.0			
	26.8	3084	1.8	52.28	26.0	13.0	39.0	40.0			
	30.7	2694	2.0	45.67	27.0	13.0	39.0	40.0			
	37.2	2223	2.2	37.68	27.0	13.0	39.0	38.0			
	42.1	1963	2.5	33.27	28.0	13.0	40.0	38.0			
	49.4	1672	3.0	28.35	28.0	13.0	40.0	36.0			
	16.9	4683	0.9	166.07	19.0	12.0	34.0	50.0	PA/PF 73 132M2	264	197
	22.5	3512	1.2	124.55	19.0	12.0	34.0	46.0			
	22.5	3507	1.1	124.38	19.0	12.0	31.0	42.0			
	27.9	2833	1.1	100.47	19.0	12.0	36.0	46.0			
	30.7	2575	1.6	91.33	19.0	12.0	35.0	42.0			
	37.4	2109	1.9	74.80	19.0	12.0	37.0	42.0			
	46.3	1704	2.5	60.42	19.0	12.0	38.0	41.0			
	53.6	1474	2.9	52.28	19.0	12.0	39.0	40.0			
	20.6	4139	1.0	43.70	27.0	14.0	39.0	40.0	PA/PF 72 160M6	290	196
	27.2	3133	1.1	33.08	27.0	14.0	40.0	37.0			
	31.5	2707	1.6	28.58	27.0	14.0	40.0	36.0			
	41.4	2057	2.1	21.72	27.0	14.0	39.0	32.0			
	41.6	2050	2.3	21.64	27.0	14.0	-	-			
	53.5	1594	2.7	16.83	27.0	14.0	39.0	30.0			
	32.0	2633	1.5	43.70	28.0	13.0	39.0	40.0	PA/PF 72 132M4	254	196
	42.3	1993	1.6	33.08	27.0	13.0	40.0	37.0			
	64.1	1277	2.4	43.70	27.0	14.0	39.0	40.0	PA/PF 72 132M2	254	196
	84.6	967	2.5	33.08	27.0	14.0	40.0	37.0			
	16.7	5023	0.8	53.84	14.0	14.0	25.0	33.0	PA/PF 63 160M6	219	193
	17.7	4742	0.8	50.83	14.0	14.0	26.0	32.0			
	20.7	4056	1.0	43.47	14.0	14.0	26.0	32.0			
	24.9	3372	1.1	36.14	14.0	14.0	27.0	31.0			
	29.1	2883	1.3	30.90	14.0	14.0	27.0	31.0			
	34.2	2456	1.4	26.33	14.0	14.0	28.0	30.0			
	41.0	2050	1.6	21.97	14.0	14.0	28.0	29.0			
	43.2	1941	1.7	20.81	14.0	14.0	28.0	29.0			
	51.8	1620	2.1	17.36	14.0	14.0	28.0	27.0			
	18.1	4571	0.8	77.49	10.0	11.0	22.0	33.0	PA/PF 63 132M4	183	193
	22.2	3714	1.0	62.96	14.0	12.0	24.0	33.0			
	26.0	3176	1.2	53.84	16.0	13.0	25.0	33.0			
	27.5	2999	1.2	50.83	17.0	13.0	26.0	32.0			
	32.2	2564	1.4	43.47	18.0	13.0	26.0	32.0			
	38.7	2132	1.7	36.14	19.0	13.0	27.0	31.0			
	45.3	1823	2.0	30.90	19.0	13.0	27.0	31.0			
	53.2	1553	2.1	26.33	20.0	13.0	28.0	30.0			
	63.7	1296	2.5	21.97	20.0	13.0	28.0	29.0			
	67.3	1228	2.6	20.81	20.0	13.0	28.0	29.0			
	21.1	3744	0.8	132.78	14.0	14.0	21.0	41.0	PA/PF 63 132M2	183	193
	26.1	3023	0.9	107.21	14.0	14.0	24.0	40.0			
	36.1	2185	1.3	77.49	14.0	14.0	22.0	33.0			
	44.5	1775	1.6	62.96	14.0	14.0	24.0	33.0			
	52.0	1518	1.9	53.84	14.0	14.0	25.0	33.0			
	55.1	1433	2.0	50.83	14.0	14.0	26.0	32.0			
	64.4	1226	2.3	43.47	14.0	14.0	26.0	32.0			
	77.5	1019	2.8	36.14	14.0	14.0	27.0	31.0			
	24.3	3512	0.9	37.08	19.0	14.0	27.0	31.0	PA/PF 62 160M6	221	192
	49.6	1720	1.9	18.16	19.0	14.0	28.0	28.0			
	57.0	1497	2.1	15.80	19.0	14.0	28.0	27.0			
	64.7	1317	2.5	13.91	19.0	14.0	28.0	26.0			
	77.6	1099	2.9	11.60	19.0	14.0	28.0	25.0			

P_1 [kW]	n_2 [Min^{-1}]	M_2 [Nm]	f_B	i_{ges}	F_R [N]	F_A [N]	$F_{R\,GR}$ [N]	$F_{A\,GR}$ [N]	Tip / Type / Typ IE2 / IE3	Kg	mm
9.20	28.7 37.8 77.1	2937 2234 1094	0.9 1.3 2.8	48.75 37.08 18.16	- 19.0 20.0	- 13.0 13.0	28.0 27.0 28.0	36.0 31.0 28.0	**PA/PF 62 132M4**	185	192
	57.4 75.5	1424 1083	1.3 2.1	48.75 37.08	19.0 19.0	14.0 14.0	28.0 27.0	36.0 31.0	**PA/PF 62 132M2**	185	192
	34.1 37.7 41.6 46.0 50.5 64.3 66.9 85.1 101.9 123.5 139.8 160.7 194.8	2503 2263 2051 1854 1687 1325 1275 1002 836 690 610 530 438	0.8 0.9 1.0 1.1 1.2 1.5 1.5 1.8 2.1 2.4 2.6 2.3 2.9	26.43 23.89 21.65 19.57 17.81 13.99 13.46 10.58 8.83 7.29 6.44 5.60 4.62	12.0 12.0 12.0 12.0 12.0 12.0 12.0 12.0 12.0 12.0 12.0 12.0 12.0	24.0 24.0 24.0 24.0 24.0 24.0 24.0 24.0 24.0 24.0 24.0 24.0 24.0	19.0 19.0 19.0 19.0 19.0 20.0 20.0 20.0 20.0 20.0 20.0 20.0 20.0	33.0 32.0 32.0 32.0 31.0 29.0 28.0 27.0 26.0 23.0 23.0 22.0 21.0	**PA/PF 52 160M6**	164	188
	34.7 38.1 48.5 53.0 58.1 58.6 64.7 71.5 78.6 100.1 104.0 132.3	2430 2212 1738 1592 1451 1439 1304 1179 1073 843 811 637	0.8 0.9 1.2 1.2 1.2 1.3 1.5 1.6 1.8 2.3 2.3 2.8	40.34 36.71 28.85 26.43 24.09 23.89 21.65 19.57 17.81 13.99 13.46 10.58	4.0 6.0 9.0 13.0 11.0 13.0 13.0 12.0 12.0 11.0 11.0 11.0	24.0 24.0 24.0 24.0 24.0 24.0 24.0 24.0 24.0 22.0 22.0 21.0	17.0 18.0 18.0 19.0 19.0 19.0 19.0 19.0 19.0 20.0 20.0 20.0	35.0 35.0 33.0 33.0 32.0 32.0 32.0 31.0 30.0 29.0 28.0 27.0	**PA/PF 52 132M4**	128	188
	47.1 52.1 57.2 69.4 72.8 76.3 87.2 97.1 105.9 116.2 117.2 129.3 143.1 157.2	1739 1572 1430 1179 1124 1073 939 843 772 704 698 633 572 520	0.8 0.9 1.0 1.2 1.1 1.4 1.1 1.8 1.9 1.8 2.1 2.3 2.5 2.8	59.50 53.79 48.95 40.34 38.46 36.71 32.12 28.85 26.43 24.09 23.89 21.65 19.57 17.81	12.0 12.0 12.0 12.0 12.0 12.0 12.0 12.0 12.0 12.0 12.0 12.0 12.0 12.0	24.0 24.0 24.0 24.0 24.0 24.0 24.0 24.0 24.0 24.0 24.0 24.0 24.0 24.0	18.0 18.0 18.0 17.0 19.0 18.0 19.0 18.0 19.0 19.0 19.0 19.0 19.0 19.0	40.0 40.0 40.0 35.0 38.0 35.0 36.0 33.0 33.0 32.0 32.0 32.0 31.0 30.0	**PA/PF 52 132M2**	128	188
	222.8 271.9 314.7 360.0 436.9 494.5 548.8 584.4 625.0 725.8	388 318 275 240 198 175 158 148 138 119	1.1 1.6 1.7 1.9 2.0 2.0 2.2 2.2 2.3 2.4	4.04 3.31 2.86 2.50 2.06 1.82 1.64 1.54 1.44 1.24	- - - - - - - - - -	- - - - - - - - - -	- - - - - - - - - -	- - - - - - - - - -	**PA/PF 51 160M6**	125	166
	205.3 346.5 423.0 489.5 560.0 679.6 769.2	419 248 204 176 154 127 112	1.0 1.7 2.4 2.6 2.8 3.0 3.0	6.82 4.04 3.31 2.86 2.50 2.06 1.82	- - - - - - -	- - - - - - -	- - - - - - -	- - - - - - -	**PA/PF 51 132M4**	89	166
	308.0 410.6 693.1	275 207 122	0.9 1.5 2.5	9.09 6.82 4.04	- - -	- - -	- - -	- - -	**PA/PF 51 132M2**	89	166

P_1 [kW]	n_2 [Min^{-1}]	M_2 [Nm]	f_B	i_{ges}	F_R [N]	F_A [N]	$F_{R\,GR}$ [N]	$F_{A\,GR}$ [N]	Tip / Type / Typ IE2 / IE3	Kg	mm
9.20	59.6	1430	0.9	15.10	1.0	7.0	11.0	5.0	PA/PF 42 160M6	135	184
	62.6	1362	0.9	14.38	1.0	7.0	11.0	5.0			
	73.3	1162	1.1	12.27	1.0	7.0	11.0	5.0			
	88.3	965	1.3	10.19	1.0	7.0	11.0	5.0			
	105.9	805	1.4	8.50	1.0	7.0	11.0	5.0			
	123.8	689	1.6	7.27	1.0	7.0	11.0	5.0			
	145.4	586	1.9	6.19	1.0	7.0	11.0	5.0			
	167.9	508	1.7	5.36	1.0	7.0	11.0	5.0			
	196.5	434	1.9	4.58	1.0	7.0	11.0	5.0			
	230.8	369	2.0	3.90	1.0	7.0	10.0	5.0			
	257.1	332	2.1	3.50	1.0	7.0	10.0	5.0			
	280.4	304	2.1	3.21	1.0	7.0	10.0	5.0			
	298.0	286	2.2	3.02	1.0	7.0	10.0	5.0			
	54.1	1559	0.8	25.88	0.3	0.2	7.0	3.0	PA/PF 42 132M4	99	184
	64.1	1316	0.8	21.85	0.4	0.2	10.0	4.0			
	65.1	1295	0.9	21.50	1.0	0.2	10.0	4.0			
	78.1	1080	0.9	17.93	1.0	0.2	10.0	4.0			
	79.1	1066	1.1	17.69	1.0	0.2	10.0	4.0			
	92.7	910	1.4	15.10	1.0	0.2	11.0	5.0			
	97.4	866	1.3	14.38	1.0	0.2	11.0	5.0			
	114.1	739	1.6	12.27	1.0	0.2	11.0	5.0			
	137.4	614	1.9	10.19	1.0	0.2	11.0	5.0			
	164,7	512	2.1	8.50	1.0	6.0	11.0	5.0			
	192.6	438	2.5	7.27	2.0	6.0	11.0	5.0			
	226.2	373	2.9	6.19	3.0	6.0	11.0	5.0			
	261.2	323	2.5	5.36	2.0	5.0	11.0	5.0			
	305.7	276	2.8	4.58	3.0	5.0	11.0	5.0			
	359.0	235	3.0	3.90	3.0	5.0	10.0	5.0			
	79.4	1030	0.9	35.26	1.0	7.0	10.0	6.0	PA/PF 42 132M2	99	184
	95.6	856	0.9	29.28	1.0	7.0	10.0	6.0			
	108.2	756	1.2	25.88	1.0	7.0	7.0	3.0			
	113.5	721	0.9	24.68	1.0	7.0	11.0	6.0			
	114.7	714	0.9	24.42	1.0	7.0	11.0	7.0			
	128.1	638	1.3	21.85	1.0	7.0	10.0	4.0			
	130.2	628	1.4	21.50	1.0	7.0	10.0	4.0			
	156.2	524	1.4	17.93	1.0	7.0	10.0	4.0			
	158.3	517	1.7	17.69	1.0	7.0	10.0	4.0			
	185.4	441	2.1	15.10	1.0	7.0	11.0	5.0			
	194.7	420	2.1	14.38	1.0	7.0	11.0	5.0			
	228.2	359	2.5	12.27	1.0	7.0	11.0	5.0			
	274.8	298	3.0	10.19	1.0	7.0	11.0	5.0			
	292.2	296	1.0	3.08	-	-	-	-	PA/PF 41 160M6	116	164
	360.0	240	1.2	2.50	-	-	-	-			
	420.6	206	1.3	2.14	-	-	-	-			
	494.5	175	1.3	1.82	-	-	-	-			
	552.1	157	1.3	1.63	-	-	-	-			
	600.0	144	1.4	1.50	-	-	-	-			
	638.3	136	1.4	1.41	-	-	-	-			
	454.5	189	1.5	3.08	-	-	-	-	PA/PF 41 132M4	80	164
	560.0	154	1.8	2.50	-	-	-	-			
	654.2	132	1.9	2.14	-	-	-	-			
	769.2	112	2.0	1.82	-	-	-	-			
	858.9	100	2.0	1.63	-	-	-	-			
	933.3	92	2.1	1.50	-	-	-	-			
	992.9	87	2.1	1.41	-	-	-	-			
	531.3	160	0.9	5.27	-	-	-	-	PA/PF 41 132M2	80	164
	909.1	93	2.4	3.08	-	-	-	-			
	1120.0	76	2.7	2.50	-	-	-	-			
	1308.4	65	2.9	2.14	-	-	-	-			
	96.4	875	0.8	14.52	0.3	0.2	7.0	5.0	PA/PF 32 132M4	84	180
	119.7	705	1.0	11.70	0.4	0.2	8.0	5.0			
	143.0	590	1.1	9.79	0.4	0.2	9.0	5.0			
	177.4	475	1.4	7.89	0.4	0.2	9.0	5.0			
	208.3	405	1.5	6.72	0.4	0.2	9.0	5.0			
	246.0	343	1.8	5.69	0.3	3.0	9.0	5.0			
	255.0	331	1.4	5.49	0.4	0.3	9.0	5.0			
	264.7	319	2.0	5.29	1.0	4.0	9.0	6.0			
	316.7	266	1.7	4.42	1.0	3.0	9.0	5.0			
	373.3	226	2.0	3.75	2.0	3.0	9.0	5.0			
	471.4	179	2.4	2.97	2.0	3.0	9.0	5.0			

P_1 [kW]	n_2 [Min^{-1}]	M_2 [Nm]	f_B	i_{ges}	F_R [N]	F_A [N]	$F_{R\,GR}$ [N]	$F_{A\,GR}$ [N]	Tip / Type / Typ IE2 / IE3	Kg	mm
9.20	172.5 192.8 239.3 286.0 354.9 416.7 492.1 510.0 633.5	474 424 342 286 231 196 166 160 129	1.0 1.2 1.6 1.7 2.2 2.3 2.8 2.1 2.7	26.23 14.52 11.70 9.79 7.89 6.72 5.69 5.49 4.42	1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0	4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0	8.0 7.0 8.0 9.0 9.0 9.0 9.0 9.0 9.0	6.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0	PA/PF 32 132M2	84	180
	542.6 673.1 795.5 1007.2	159 128 108 85	1.2 1.3 1.4 1.7	2.58 2.08 1.76 1.39	- - - -	- - - -	- - - -	- - - -	PA/PF 31 132M4	71	162
	1085.3 1346.2 1590.9 2014.4	78 63 53 42	1.8 2.0 2.1 2.6	2.58 2.08 1.76 1.39	- - - -	- - - -	- - - -	- - - -	PA/PF 31 132M2	71	162
11.0	3.7 4.9 5.8 7.3 8.5	26479 19997 16752 13285 11417	0.8 1.1 1.3 1.6 1.8	244.66 184.77 154.79 122.75 105.49	100.0 101.0 86.0 86.0 86.0	81.0 79.0 106.0 106.0 106.0	120.0 120.0 120.0 120.0 120.0	120.0 120.0 120.0 120.0 120.0	PA/PF 103/52 160L6B / 160L6D	879	216
	4.1 4.7 5.7 7.6 9.0 11.4 13.3	23036 20027 16522 12478 10453 8290 7124	0.9 1.0 1.2 1.6 1.9 2.4 2.8	341.11 296.56 244.66 184.77 154.79 122.75 105.49	84.0 89.0 94.0 97.0 99.0 100.0 101.0	91.0 90.0 89.0 87.0 85.0 81.0 79.0	120.0 120.0 120.0 120.0 120.0 120.0 120.0	120.0 120.0 120.0 120.0 120.0 120.0 120.0	PA/PF 103/52 160M4C	879	216
	4.4 6.0 8.2 9.4 11.4 15.2	20174 14699 10709 9311 7681 5801	0.8 1.0 1.4 1.6 2.0 2.6	642.57 468.19 341.11 296.56 244.66 184.77	84.0 84.0 84.0 89.0 94.0 97.0	91.0 91.0 91.0 90.0 89.0 87.0	- 120.0 120.0 120.0 120.0 120.0	- 120.0 120.0 120.0 120.0 120.0	PA/PF 103/52 160M2B / 160M2C	879	216
	4.3 6.6 11.0 12.8	23131 15229 9087 7855	1.1 1.6 2.4 2.7	207.36 136.52 81.46 70.42	100.0 100.0 100.0 100.0	96.0 96.0 96.0 96.0	120.0 120.0 120.0 120.0	120.0 120.0 120.0 119.0	PA/PF 103 160L6B / 160L6D	805	209
	6.8 10.3	14626 9629	1.6 2.4	207.36 136.52	96.0 100.0	88.0 83.0	120.0 120.0	120.0 120.0	PA/PF 103 160M4C	805	209
	13.5	6991	2.5	207.36	96.0	88.0	120.0	120.0	PA/PF 103 160M2B / 160M2C	805	209
	7.1 8.4	13783 11641	0.9 1.1	127.35 107.56	62.0 64.0	52.0 51.0	90.0 91.0	80.0 80.0	PA/PF 93/52 160L6B / 160L6D	660	216
	8.7 11.0 13.0	10864 8600 7264	1.1 1.4 1.7	160.87 127.35 107.56	59.0 62.0 64.0	52.0 52.0 51.0	88.0 90.0 91.0	80.0 80.0 80.0	PA/PF 93/52 160M4C	660	216
	17.4 22.0 26.0	5051 3998 3377	1.8 2.3 2.7	160.87 127.35 107.56	59.0 62.0 64.0	52.0 52.0 51.0	88.0 90.0 91.0	80.0 80.0 80.0	PA/PF 93/52 160M2B / 160M2C	660	216
	5.8 7.7	16254 12291	0.8 1.0	240.68 182.00	57.0 57.0	52.0 52.0	85.0 87.0	80.0 80.0	PA/PF 93/42 160M4C	631	216
	8.4 9.7 11.6 15.4	10451 9041 7556 5714	0.9 1.0 1.2 1.6	332.89 287.97 240.68 182.00	57.0 57.0 57.0 57.0	52.0 52.0 52.0 52.0	- 85.0 85.0 87.0	- 80.0 80.0 80.0	PA/PF 93/42 160M2B / 160M2C	631	216
	7.3 8.2 9.6 12.4 14.6 16.7 19.3 22.8	13717 12187 10422 8078 6878 5996 5201 4402	1.1 1.0 1.4 1.7 1.9 2.1 2.5 2.9	122.97 109.25 93.43 72.42 61.66 53.75 46.63 39.46	63.0 63.0 64.0 65.0 62.0 62.0 62.0 62.0	52.0 51.0 50.0 48.0 60.0 60.0 60.0 60.0	91.0 91.0 92.0 92.0 92.0 92.0 93.0 93.0	80.0 80.0 80.0 80.0 80.0 80.0 80.0 80.0	PA/PF 93 160L6B / 160L6D	586	205

P_1 [kW]	n_2 [Min^{-1}]	M_2 [Nm]	f_B	i_{ges}	F_R [N]	F_A [N]	$F_{R\,GR}$ [N]	$F_{A\,GR}$ [N]	Tip / Type / Typ IE2 / IE3	Kg	mm
11.0	7.4 11.4 12.8 15.0 19.3 22.7	13260 8674 7706 6590 5108 4349	1.1 1.6 1.5 2.1 2.6 2.9	187.99 122.97 109.25 93.43 72.42 61.66	56.0 63.0 63.0 64.0 65.0 62.0	52.0 52.0 51.0 50.0 48.0 60.0	86.0 91.0 91.0 92.0 92.0 92.0	80.0 80.0 80.0 80.0 80.0 80.0	**PA/PF 93 160M4C**	586	205
	14.9 22.8 25.6	6338 4146 3683	1.7 2.6 2.4	187.99 122.97 109.25	56.0 63.0 63.0	52.0 52.0 51.0	86.0 91.0 91.0	80.0 80.0 80.0	**PA/PF 93 160M2B / 160M2C**	586	205
	25.4	4017	2.5	35.47	66.0	39.0	93.0	80.0	**PA/PF 92 160L6B / 160L6D**	575	204
	9.4 11.0	10063 8573	0.8 0.9	149.01 126.95	32.0 32.0	29.0 29.0	- -	- -	**PA/PF 83/42 160M4C**	452	216
	11.9 13.9 18.8 22.1	7410 6313 4678 3986	0.8 1.0 1.3 1.5	236.03 201.09 149.01 126.95	32.0 32.0 32.0 32.0	29.0 29.0 29.0 29.0	- 54.0 - -	- 65.0 - -	**PA/PF 83/42 160M2B / 160M2C**	452	216
	8.7 11.2 12.8 14.6 17.5 20.3 23.1 27.7 32.2	11598 8994 7830 6893 5747 4946 4351 3629 3122	0.8 1.0 1.2 1.4 1.6 1.9 2.2 2.5 2.7	103.97 80.63 70.19 61.79 51.52 44.34 39.01 32.53 27.99	38.0 41.0 42.0 43.0 44.0 44.0 37.0 37.0 37.0	25.0 26.0 26.0 26.0 25.0 25.0 30.0 30.0 30.0	58.0 60.0 61.0 62.0 62.0 62.0 63.0 62.0 63.0	65.0 65.0 65.0 65.0 64.0 62.0 61.0 56.0 54.0	**PA/PF 83 160L6B / 160L6D**	407	201
	8.5 13.5 17.4 19.9 22.7 27.2 31.6	11615 7333 5687 4951 4358 3634 3127	0.8 1.3 1.6 1.8 2.1 2.5 2.8	164.68 103.97 80.63 70.19 61.79 51.52 44.34	25.0 38.0 41.0 42.0 43.0 44.0 44.0	22.0 25.0 26.0 26.0 26.0 25.0 25.0	50.0 58.0 60.0 61.0 62.0 62.0 62.0	65.0 65.0 65.0 65.0 65.0 64.0 62.0	**PA/PF 83 160M4C**	407	201
	17.0 26.9 34.7 39.9	5552 3505 2718 2366	1.2 2.0 2.5 2.9	164.68 103.97 80.63 70.19	25.0 38.0 41.0 42.0	22.0 25.0 26.0 26.0	50.0 58.0 60.0 61.0	65.0 65.0 65.0 65.0	**PA/PF 83 160M2B/ 160M2C**	407	201
	18.5 22.3 28.0 33.8	5522 4579 3635 3015	1.0 1.0 1.9 2.2	48.76 40.43 32.10 26.62	44.0 44.0 44.0 44.0	25.0 25.0 25.0 25.0	62.0 63.0 62.0 63.0	63.0 61.0 56.0 54.0	**PA/PF 82 160L6B / 160L6D**	399	200
	28.7 34.6 43.6	3512 2912 2312	1.5 1.4 2.9	48.76 40.43 32.10	44.0 44.0 44.0	25.0 25.0 25.0	62.0 63.0 62.0	63.0 61.0 56.0	**PA/PF 82 160M4C**	399	200
	57.4 69.3	1704 1413	2.4 2.2	48.76 40.43	44.0 44.0	25.0 25.0	62.0 63.0	63.0 61.0	**PA/PF 82 160M2B/ 160M2C**	399	200
	14.9 17.2 19.7 23.9 27.1 31.7 38.5 43.6 50.0	6740 5832 5094 4203 3711 3162 2609 2305 2009	0.9 1.0 1.1 1.2 1.4 1.7 2.0 2.3 2.6	60.42 52.28 45.67 37.68 33.27 28.35 23.39 20.66 18.01	24.0 25.0 26.0 27.0 27.0 27.0 28.0 19.0 19.0	11.0 11.0 12.0 12.0 12.0 12.0 12.0 12.0 12.0	37.0 38.0 38.0 39.0 39.0 40.0 40.0 - -	39.0 39.0 38.0 37.0 36.0 35.0 34.0 - -	**PA/PF 73 160L6B / 160L6D**	300	197
	18.7 23.2 26.8 30.7 37.2 42.1 49.4 59.9	5276 4262 3687 3221 2658 2347 2000 1650	1.0 1.3 1.5 1.7 1.9 2.1 2.5 3.0	74.80 60.42 52.28 45.67 37.68 33.27 28.35 23.39	21.0 24.0 25.0 26.0 27.0 27.0 27.0 28.0	10.0 11.0 11.0 12.0 12.0 12.0 12.0 12.0	36.0 37.0 38.0 38.0 39.0 39.0 40.0 40.0	39.0 39.0 39.0 38.0 37.0 36.0 35.0 34.0	**PA/PF 73 160M4C**	300	197

P_1 [kW]	n_2 [Min^{-1}]	M_2 [Nm]	f_B	i_{ges}	F_R [N]	F_A [N]	$F_{R\,GR}$ [N]	$F_{A\,GR}$ [N]	Tip / Type / Typ IE2 / IE3	Kg	mm
11.0	22.5	4199	1.0	124.55	21.0	10.0	31.0	42.0	**PA/PF 73 160M2B / 160M2C**	300	197
	37.4	2522	1.6	74.80	21.0	10.0	36.0	39.0			
	46.3	2037	2.1	60.42	24.0	11.0	37.0	39.0			
	53.6	1763	2.4	52.28	25.0	11.0	38.0	39.0			
	61.3	1540	2.7	45.67	26.0	12.0	38.0	38.0			
	74.3	1270	3.0	37.68	27.0	12.0	39.0	37.0			
	20.6	4949	0.9	43.70	26.0	12.0	39.0	38.0	**PA/PF 72 160L6B / 160L6D**	290	196
	27.2	3746	0.9	33.08	27.0	12.0	39.0	36.0			
	31.5	3237	1.3	28.58	27.0	12.0	40.0	36.0			
	41.4	2460	1.7	21.72	27.0	14.0	39.0	32.0			
	41.6	2451	1.9	21.64	27.0	14.0	37.0	31.0			
	53.5	1906	2.2	16.83	27.0	14.0	39.0	31.0			
	62.8	1623	2.6	14.33	27.0	14.0	37.0	30.0			
	72.1	1414	3.0	12.49	27.0	14.0	35.0	28.0			
	32.0	3148	1.3	43.70	26.0	12.0	39.0	38.0	**PA/PF 72 160M4C**	290	196
	42.3	2383	1.4	33.08	27.0	12.0	39.0	36.0			
	49.0	2059	2.0	28.58	27.0	12.0	40.0	36.0			
	64.5	1565	2.6	21.72	27.0	14.0	39.0	32.0			
	64.7	1559	2.9	21.64	27.0	14.0	37.0	31.0			
	64.1	1527	2.0	43.70	26.0	12.0	39.0	38.0	**PA/PF 72 160M2B / 160M2C**	290	196
	84.6	1156	2.1	33.08	27.0	12.0	39.0	36.0			
	20.7	4849	0.8	43.47	17.0	12.0	26.0	30.0	**PA/PF 63 160L6B / 160L6D**	219	193
	24.9	4031	1.0	36.14	18.0	12.0	27.0	30.0			
	29.1	3447	1.1	30.90	19.0	12.0	27.0	29.0			
	34.2	2937	1.1	26.33	19.0	12.0	27.0	29.0			
	41.0	2451	1.4	21.97	20.0	12.0	28.0	28.0			
	43.2	2321	1.4	20.81	20.0	12.0	28.0	28.0			
	51.8	1936	1.7	17.36	14.0	14.0	28.0	27.0			
	22.2	4441	0.8	62.96	10.0	10.0	22.0	30.0	**PA/PF 63 160M4C**	219	193
	26.0	3798	1.0	53.84	14.0	11.0	24.0	30.0			
	27.5	3585	1.0	50.83	15.0	11.0	25.0	30.0			
	32.2	3066	1.2	43.47	17.0	12.0	26.0	30.0			
	38.7	2549	1.4	36.14	18.0	12.0	27.0	30.0			
	45.3	2179	1.6	30.90	19.0	12.0	27.0	29.0			
	53.2	1857	1.7	26.33	19.0	12.0	27.0	29.0			
	63.7	1550	2.1	21.97	20.0	12.0	28.0	28.0			
	67.3	1468	2.2	20.81	20.0	12.0	28.0	28.0			
	80.6	1224	2.6	17.36	14.0	14.0	28.0	27.0			
	36.1	2613	1.1	77.49	10.0	10.0	22.0	33.0	**PA/PF 63 160M2B / 160M2C**	219	193
	44.5	2123	1.3	62.96	10.0	10.0	22.0	30.0			
	52.0	1815	1.5	53.84	14.0	11.0	24.0	30.0			
	55.1	1714	1.6	50.83	15.0	11.0	25.0	30.0			
	64.4	1466	1.9	43.47	17.0	12.0	26.0	30.0			
	77.5	1218	2.3	36.14	18.0	12.0	27.0	30.0			
	90.6	1042	2.6	30.90	19.0	12.0	27.0	29.0			
	106.3	888	2.7	26.33	19.0	12.0	27.0	29.0			
	24.3	4199	0.8	37.08	18.0	12.0	26.0	30.0	**PA/PF 62 160L6B / 160L6D**	221	192
	49.6	2057	1.6	18.16	20.0	12.0	28.0	27.0			
	57.0	1789	1.8	15.80	20.0	12.0	28.0	26.0			
	64.7	1575	2.1	13.91	19.0	14.0	28.0	26.0			
	77.6	1314	2.5	11.60	19.0	14.0	28.0	25.0			
	85.6	1191	2.7	10.52	19.0	14.0	28.0	24.0			
	141.7	719	2.8	6.35	19.0	14.0	25.0	20.0			
	37.8	2671	1.1	37.08	18.0	12.0	26.0	30.0	**PA/PF 62 160M4C**	221	192
	77.1	1308	2.4	18.16	20.0	12.0	28.0	27.0			
	88.6	1138	2.6	15.80	20.0	12.0	28.0	26.0			
	75.5	1295	1.8	37.08	18.0	12.0	26.0	30.0	**PA/PF 62 160M2B / 160M2C**	221	192

P_1 [kW]	n_2 [Min^{-1}]	M_2 [Nm]	f_B	i_{ges}	F_R [N]	F_A [N]	$F_{R\,GR}$ [N]	$F_{A\,GR}$ [N]	Tip / Type / Typ IE2 / IE3	Kg	mm
11.0	41.6	2452	0.8	21.65	11.0	24.0	19.0	31.0	PA/PF 52 160L6B / 160L6D	164	188
	46.0	2216	0.9	19.57	12.0	24.0	19.0	30.0			
	50.5	2017	1.0	17.81	12.0	23.0	19.0	30.0			
	64.3	1584	1.3	13.99	11.0	21.0	19.0	28.0			
	66.9	1524	1.3	13.46	11.0	22.0	19.0	28.0			
	85.1	1198	1.5	10.58	10.0	20.0	20.0	26.0			
	101.9	1000	1.8	8.83	10.0	19.0	20.0	25.0			
	123.5	826	2.0	7.29	12.0	24.0	20.0	23.0			
	139.8	729	2.2	6.44	12.0	24.0	20.0	23.0			
	160.7	634	1.9	5.60	12.0	24.0	20.0	22.0			
	194.8	523	2.4	4.62	12.0	24.0	20.0	21.0			
	220.6	462	2.6	4.08	12.0	24.0	20.0	20.0			
	245.2	416	2.7	3.67	12.0	24.0	20.0	20.0			
	261.6	390	2.7	3.44	12.0	24.0	20.0	19.0			
	278.6	366	2.8	3.23	12.0	24.0	18.0	19.0			
	323.7	315	3.0	2.78	12.0	24.0	18.0	18.0			
	53.0	1904	1.0	26.43	8.0	24.0	26.0	30.0	PA/PF 52 160M4C	164	188
	58.6	1721	1.1	23.89	9.0	24.0	28.0	27.0			
	64.7	1560	1.2	21.65	11.0	24.0	28.0	26.0			
	71.5	1410	1.4	19.57	12.0	24.0	26.0	30.0			
	78.6	1283	1.5	17.81	12.0	23.0	28.0	27.0			
	100.1	1008	1.9	13.99	11.0	21.0	28.0	26.0			
	104.0	970	1.9	13.46	11.0	22.0	26.0	30.0			
	132.3	762	2.3	10.58	10.0	20.0	28.0	27.0			
	158.6	636	2.6	8.83	10.0	19.0	28.0	26.0			
	192.0	525	3.0	7.29	12.0	24.0	20.0	23.0			
	250.0	403	2.9	5.60	12.0	24.0	20.0	22.0			
	72.8	1344	0.9	38.46	8.0	24.0	-	-	PA/PF 52 160M2B / 160M2C	164	188
	105.9	923	1.6	26.43	8.0	24.0	18.0	32.0			
	117.2	835	1.7	23.89	9.0	24.0	18.0	31.0			
	129.3	756	1.9	21.65	11.0	24.0	19.0	31.0			
	143.1	684	2.1	19.57	12.0	24.0	19.0	30.0			
	157.2	622	2.3	17.81	12.0	23.0	19.0	30.0			
	200.1	489	3.0	13.99	11.0	21.0	19.0	28.0			
	208.0	470	3.0	13.46	11.0	22.0	19.0	28.0			
	222.8	464	0.9	4.04	-	-	-	-	PA/PF 51 160L6B / 160L6D	125	166
	271.9	381	1.4	3.31	-	-	-	-			
	314.7	329	1.5	2.86	-	-	-	-			
	360.0	287	1.6	2.50	-	-	-	-			
	436.9	237	1.7	2.06	-	-	-	-			
	494.5	209	1.7	1.82	-	-	-	-			
	548.8	189	1.8	1.64	-	-	-	-			
	584.4	177	1.8	1.54	-	-	-	-			
	625.0	166	1.9	1.44	-	-	-	-			
	725.8	143	2.0	1.24	-	-	-	-			
	346.5	297	1.4	4.04	-	5.0	-	-	PA/PF 51 160M4C	125	166
	423.0	243	2.0	3.31	-	5.0	-	-			
	489.5	210	2.2	2.86	-	5.0	-	-			
	560.0	184	2.3	2.50	-	5.0	-	-			
	679.6	151	2.5	2.06	-	5.0	-	-			
	769.2	134	2.5	1.82	-	6.0	-	-			
	853.7	121	2.7	1.64	-	6.0	-	-			
	909.1	113	2.7	1.54	-	6.0	-	-			
	972.2	106	2.9	1.44	-	6.0	-	-			
	1129.0	91	3.0	1.24	-	6.0	-	-			
	693.1	146	2.1	4.04	-	-	-	-	PA/PF 51 160M2B / 160M2C	125	166
	59.6	1710	0.8	15.10	1.0	5.0	10.0	4.0	PA/PF 42 160L6B / 160L6D	135	184
	73.3	1390	0.9	12.27	1.0	5.0	10.0	4.0			
	88.3	1154	1.1	10.19	1.0	5.0	11.0	5.0			
	105.9	963	1.2	8.50	1.0	5.0	11.0	5.0			
	123.8	823	1.4	7.27	1.0	5.0	11.0	5.0			
	145.4	701	1.6	6.19	1.0	5.0	11.0	5.0			
	167.9	607	1.4	5.36	1.0	5.0	10.0	5.0			
	196.5	519	1.6	4.58	2.0	5.0	10.0	5.0			
	230.8	442	1.7	3.90	2.0	5.0	10.0	5.0			
	257.1	396	1.8	3.50	3.0	5.0	10.0	5.0			
	280.4	364	1.8	3.21	3.0	5.0	10.0	5.0			
	298.0	342	1.9	3.02	3.0	5.0	10.0	5.0			

P_1 [kW]	n_2 [Min^{-1}]	M_2 [Nm]	f_B	i_{ges}	F_R [N]	F_A [N]	$F_{R\,GR}$ [N]	$F_{A\,GR}$ [N]	Tip / Type / Typ IE2 / IE3	Kg	mm
11.0	79.1	1274	0.9	17.69	1.0	5.0	9.0	3.0	PA/PF 42 160M4C	135	184
	92.7	1088	1.1	15.10	1.0	5.0	10.0	4.0			
	97.4	1036	1.1	14.38	1.0	5.0	10.0	4.0			
	114.1	884	1.4	12.27	1.0	5.0	10.0	4.0			
	137.4	734	1.6	10.19	1.0	5.0	11.0	5.0			
	164.7	612	1.8	8.50	1.0	5.0	11.0	5.0			
	192.6	524	2.1	7.27	1.0	5.0	11.0	5.0			
	226.2	446	2.4	6.19	1.0	5.0	11.0	5.0			
	261.2	386	2.1	5.36	1.0	5.0	10.0	5.0			
	305.7	330	2.3	4.58	2.0	5.0	10.0	5.0			
	359.0	281	2.5	3.90	2.0	5.0	10.0	5.0			
	400.0	252	2.6	3.50	3.0	5.0	10.0	5.0			
	436.1	231	2.7	3.21	3.0	5.0	10.0	5.0			
	463.6	218	2.8	3.02	3.0	5.0	10.0	5.0			
	95.6	1023	0.8	29.28	1.0	5.0	-	-	PA/PF 42 160M2B / 160M2C	135	184
	113.5	862	0.8	24.68	1.0	5.0	-	-			
	128.1	763	1.1	21.85	1.0	5.0	10.0	4.0			
	158.3	618	1.5	17.69	1.0	5.0	9.0	3.0			
	185.4	528	1.8	15.10	1.0	5.0	10.0	4.0			
	194.7	502	1.8	14.38	1.0	5.0	10.0	4.0			
	228.2	429	2.1	12.27	1.0	5.0	10.0	4.0			
	274.8	356	2.5	10.19	1.0	5.0	11.0	5.0			
	329.4	297	2.8	8.50	1.0	5.0	11.0	5.0			
	292.2	354	0.9	3.08	-	-	-	-	PA/PF 41 160L6B / 160L6D	116	164
	360.0	287	1.0	2.50	-	-	-	-			
	420.6	246	1.1	2.14	-	-	-	-			
	494.5	209	1.1	1.82	-	-	-	-			
	552.1	187	1.1	1.63	-	-	-	-			
	600.0	172	1.2	1.50	-	-	-	-			
	638.3	162	1.2	1.41	-	-	-	-			
	454.5	226	1.3	3.08	-	3.0	-	-	PA/PF 41 160M4C	116	164
	560.0	184	1.5	2.50	-	3.0	-	-			
	654.2	157	1.6	2.14	-	3.0	-	-			
	769.2	134	1.7	1.82	-	4.0	-	-			
	858.9	120	1.7	1.63	-	4.0	-	-			
	933.3	110	1.7	1.50	-	4.0	-	-			
	992.9	104	1.7	1.41	-	4.0	-	-			
	909.1	112	2.0	3.08	-	-	-	-	PA/PF 41 160M2B / 160M2C	116	164
	1120.0	91	2.3	2.50	-	-	-	-			
	1308.4	77	2.4	2.14	-	-	-	-			
	1538.5	66	2.6	1.82	-	-	-	-			
	1717.8	59	2.6	1.63	-	-	-	-			
	1866.7	54	2.7	1.50	-	-	-	-			
	1985.8	51	2.7	1.41	-	-	-	-			
15.0	4.9	27269	0.8	184.77	100	75.0	120.0	120.0	PA/PF 103/52 180L6A / 180L6B	920	216
	5.8	22844	0.9	154.79	84	91.0	120.0	120.0			
	7.3	18116	1.2	122.75	84	91.0	120.0	120.0			
	8.5	15568	1.3	105.49	84	91.0	120.0	120.0			
	5.7	22531	0.9	244.66	85.0	79.0	120.0	120.0	PA/PF 103/52 160L4B	879	216
	7.6	17015	1.2	184.77	93.0	79.0	120.0	120.0			
	9.0	14255	1.4	154.79	96.0	78.0	120.0	120.0			
	11.4	11304	1.8	122.75	98.0	76.0	120.0	120.0			
	13.3	9714	2.1	105.49	100.0	75.0	120.0	120.0			
	6.0	20045	0.8	468.19	85.0	79.0	-	-	PA/PF 103/52 160M2C / 160M2D	879	216
	8.2	14604	1.0	341.11	85.0	79.0	120.0	120.0			
	9.4	12697	1.2	296.56	85.0	79.0	120.0	120.0			
	11.4	10475	1.5	244.66	85.0	79.0	120.0	120.0			
	15.2	7911	1.9	184.77	93.0	79.0	120.0	120.0			
	18.1	6627	2.3	154.79	96.0	78.0	120.0	120.0			
	22.8	5255	2.9	122.75	98.0	76.0	120.0	120.0			
	4.3	31542	0.8	207.36	101.0	72.0	120.0	120.0	PA/PF 103 180L6A / 180L6B	846	209
	6.6	20766	1.2	136.52	101.0	70.0	120.0	120.0			
	11.0	12391	1.7	81.46	96.0	88.0	120.0	120.0			
	12.8	10712	2.0	70.42	96.0	88.0	120.0	119.0			
	14.8	9241	2.3	60.75	96.0	88.0	120.0	113.0			
	17.0	8062	2.6	53.00	96.0	88.0	120.0	109.0			
	19.9	6895	3.0	45.33	96.0	88.0	120.0	104.0			

P_1 [kW]	n_2 [Min^{-1}]	M_2 [Nm]	f_B	i_{ges}	F_R [N]	F_A [N]	$F_{R\,GR}$ [N]	$F_{A\,GR}$ [N]	Tip / Type / Typ IE2 / IE3	Kg	mm
15.0	6.8 10.3 17.2 19.9	19944 13131 7835 6773	1.2 1.8 2.6 3.0	207.36 136.52 81.46 70.42	90.0 98.0 101.0 101.0	79.0 77.0 72.0 70.0	120.0 120.0 120.0 120.0	120.0 120.0 120.0 119.0	**PA/PF 103 160L4B**	805	209
	13.5 20.5	9533 6276	1.8 2.8	207.36 136.52	90.0 98.0	79.0 77.0	120.0 120.0	120.0 120.0	**PA/PF 103 160M2C / 160M2D**	805	209
	8.4	15874	0.8	107.56	59.0	52.0	91.0	80.0	**PA/PF 93/52 180L6A / 180L6B**	701	216
	8.7 11.0 13.0	14814 11728 9905	0.8 1.0 1.2	160.87 127.35 107.56	59.0 59.0 59.0	52.0 52.0 52.0	88.0 90.0 91.0	80.0 80.0 80.0	**PA/PF 93/52 160L4B**	660	216
	17.4 22.0 26.0	6887 5452 4605	1.3 1.7 2.0	160.87 127.35 107.56	59.0 59.0 59.0	52.0 52.0 52.0	88.0 90.0 91.0	80.0 80.0 80.0	**PA/PF 93/52 160M2C / 160M2D**	660	216
	9.7 11.6 15.4	12329 10304 7792	0.8 0.9 1.2	287.97 240.68 182.00	57.0 57.0 57.0	52.0 52.0 52.0	- 85.0 87.0	- 80.0 80.0	**PA/PF 93/42 160M2C / 160M2D**	631	216
	7.3 9.6 12.4 14.6 16.7 19.3 22.8 28.8	18705 14212 11016 9379 8176 7093 6002 4752	0.8 1.0 1.3 1.4 1.6 1.8 2.1 2.7	122.97 93.43 72.42 61.66 53.75 46.63 39.46 31.24	59.0 62.0 64.0 65.0 65.0 66.0 56.0 56.0	46.0 46.0 45.0 44.0 43.0 42.0 52.0 52.0	88.0 90.0 92.0 92.0 92.0 93.0 93.0 91.0	80.0 80.0 80.0 80.0 80.0 80.0 80.0 80.0	**PA/PF 93 180L6A / 180L6B**	527	205
	7.4 11.4 12.8 15.0 19.3 22.7 26.0 30.0	18081 11828 10508 8986 6966 5931 5170 4485	0.8 1.2 1.1 1.6 1.9 2.1 2.4 2.7	187.99 122.97 109.25 93.43 72.42 61.66 53.75 46.63	45.0 59.0 60.0 62.0 64.0 65.0 65.0 66.0	43.0 46.0 46.0 46.0 45.0 44.0 43.0 42.0	80.0 88.0 89.0 90.0 92.0 92.0 92.0 93.0	80.0 80.0 80.0 80.0 80.0 80.0 80.0 80.0	**PA/PF 93 160L4B**	586	205
	14.9 22.8 25.6 30.0	8643 5654 5023 4295	1.2 1.9 1.7 2.5	187.99 122.97 109.25 93.43	45.0 59.0 60.0 62.0	43.0 46.0 46.0 46.0	80.0 88.0 89.0 90.0	80.0 80.0 80.0 80.0	**PA/PF 93 160M2C / 160M2D**	586	205
	25.4	5478	1.8	35.47	66.0	39.0	93.0	80.0	**PA/PF 92 180L6A / 180L6B**	616	204
	39.5	3484	2.8	35.47	66.0	39.0	93.0	80.0	**PA/PF 92 160L4B**	575	204
	18.8 22.1	6380 5435	1.0 1.1	149.01 126.95	32.0 32.0	29.0 29.0	- -	- -	**PA/PF 83/42 160M2C / 160M2D**	452	216
	11.2 12.8 14.6 17.5 20.3 23.1 27.7 32.2 36.9 42.9	12265 10677 9399 7837 6745 5934 4948 4258 3708 3193	0.8 0.9 1.0 1.2 1.4 1.6 1.8 2.0 2.3 2.6	80.63 70.19 61.79 51.52 44.34 39.01 32.53 27.99 24.38 20.99	37.0 40.0 41.0 42.0 43.0 44.0 44.0 45.0 25.0 25.0	21.0 22.0 22.0 23.0 23.0 22.0 22.0 22.0 22.0 22.0	58.0 59.0 60.0 61.0 62.0 62.0 62.0 63.0 63.0 62.0	63.0 62.0 62.0 60.0 59.0 58.0 56.0 54.0 53.0 50.0	**PA/PF 83 180L6A / 180L6B**	448	201
	13.5 17.4 19.9 22.7 27.2 31.6 35.9 43.0 50.0	10000 7755 6751 5943 4955 4265 3752 3129 2692	0.9 1.2 1.3 1.5 1.8 2.1 2.4 2.7 3.0	103.97 80.63 70.19 61.79 51.52 44.34 39.01 32.53 27.99	31.0 37.0 40.0 41.0 42.0 43.0 44.0 44.0 45.0	20.0 21.0 22.0 22.0 23.0 23.0 22.0 22.0 22.0	54.0 58.0 59.0 60.0 61.0 62.0 62.0 62.0 63.0	64.0 63.0 62.0 62.0 60.0 59.0 58.0 56.0 54.0	**PA/PF 83 160L4B**	407	201

P_1 [kW]	n_2 [Min^{-1}]	M_2 [Nm]	f_B	i_{ges}	F_R [N]	F_A [N]	$F_{R\,GR}$ [N]	$F_{A\,GR}$ [N]	Tip / Type / Typ IE2 / IE3	Kg	mm
15.0	17.0 26.9 34.7 39.9 45.3 54.3	7571 4780 3707 3227 2841 2369	0.9 1.5 1.8 2.1 2.4 2.9	164.68 103.97 80.63 70.19 61.79 51.52	31.0 31.0 37.0 40.0 41.0 42.0	22.0 20.0 21.0 22.0 22.0 23.0	50.0 50.0 58.0 59.0 60.0 61.0	65.0 65.0 63.0 62.0 62.0 60.0	**PA/PF 83 160M2C / 160M2D**	407	201
	28.0 33.8 54.3	4957 4111 2557	1.4 1.6 2.7	32.10 26.62 16.56	44.0 45.0 44.0	22.0 22.0 25.0	62.0 63.0 58.0	56.0 54.0 46.0	**PA/PF 82 180L6A / 180L6B**	440	200
	28.7 34.6 43.6 52.6	4790 3971 3153 2615	1.1 1.0 2.1 2.4	48.76 40.43 32.10 26.62	43.0 44.0 44.0 45.0	23.0 22.0 22.0 22.0	61.0 62.0 62.0 63.0	60.0 58.0 56.0 54.0	**PA/PF 82 160L4B**	399	200
	57.4 69.3	2323 1926	1.7 1.6	48.76 40.43	43.0 44.0	23.0 22.0	61.0 62.0	60.0 58.0	**PA/PF 82 160M2C / 160M2D**	399	200
	19.7 23.9 27.1 31.7 38.5 43.6 50.0	6947 5732 5061 4312 3558 3143 2740	0.8 0.9 1.0 1.2 1.5 1.7 1.9	45.67 37.68 33.27 28.35 23.39 20.66 18.01	24.0 25.0 26.0 27.0 27.0 16.0 16.0	9.0 10.0 10.0 10.0 10.0 6.0 6.0	37.0 38.0 39.0 39.0 39.0 - -	34.0 34.0 34.0 33.0 32.0 - -	**PA/PF 73 180L6A / 180L6B**	341	197
	23.2 26.8 30.7 37.2 42.1 49.4 59.9 67.8 77.7	5811 5028 4393 3624 3200 2727 2250 1987 1732	1.0 1.1 1.2 1.4 1.6 1.8 2.2 2.5 2.9	60.42 52.28 45.67 37.68 33.27 28.35 23.39 20.66 18.01	19.0 22.0 24.0 25.0 26.0 27.0 27.0 16.0 16.0	7.0 8.0 9.0 10.0 10.0 10.0 10.0 9.0 9.0	34.0 36.0 37.0 38.0 39.0 39.0 39.0 - -	34.0 34.0 34.0 34.0 34.0 33.0 32.0 - -	**PA/PF 73 160L4B**	300	197
	37.4 46.3 53.6 61.3 74.3 84.2 98.8	3439 2778 2404 2100 1732 1530 1303	1.2 1.5 1.8 1.9 2.2 2.5 2.9	74.80 60.42 52.28 45.67 37.68 33.27 28.35	19.0 19.0 22.0 24.0 25.0 26.0 27.0	7.0 7.0 8.0 9.0 10.0 10.0 10.0	36.0 34.0 36.0 37.0 38.0 39.0 39.0	39.0 34.0 34.0 34.0 34.0 34.0 33.0	**PA/PF 73 160M2C / 160M2D**	300	197
	31.5 41.4 41.6 53.5 62.8 72.1 83.0 140.2	4414 3354 3342 2599 2213 1929 1674 991	1.0 1.3 1.4 1.6 1.9 2.2 2.9 2.9	28.58 21.72 21.64 16.83 14.33 12.49 10.84 6.42	27.0 27.0 27.0 28.0 28.0 26.0 26.0 26.0	10.0 10.0 10.0 11.0 10.0 12.0 12.0 12.0	39.0 39.0 37.0 37.0 36.0 35.0 33.0 -	33.0 32.0 31.0 30.0 29.0 28.0 26.0 -	**PA/PF 72 180L6A / 180L6B**	331	196
	32.0 42.3 49.0 64.5 64.7 83.2 97.7	4293 3249 2807 2134 2126 1653 1408	0.9 1.0 1.4 1.9 2.1 2.5 2.9	43.70 33.08 28.58 21.72 21.64 16.83 14.33	24.0 26.0 27.0 27.0 27.0 28.0 28.0	9.0 10.0 10.0 10.0 10.0 11.0 10.0	37.0 39.0 39.0 39.0 37.0 39.0 37.0	35.0 34.0 33.0 32.0 31.0 31.0 30.0	**PA/PF 72 160L4B**	290	196
	64.1 84.6 98.0 128.9	2082 1576 1362 1035	1.5 1.6 2.3 3.0	43.70 33.08 28.58 21.72	24.0 26.0 27.0 27.0	9.0 10.0 10.0 10.0	37.0 39.0 39.0 39.0	35.0 34.0 33.0 32.0	**PA/PF 72 160M2C / 160M2D**	290	196
	34.2 41.0 43.2 51.8	4005 3342 3165 2641	0.8 1.0 1.1 1.3	26.33 21.97 20.81 17.36	18.0 19.0 19.0 10.0	10.0 10.0 11.0 10.0	27.0 27.0 27.0 -	26.0 26.0 26.0 -	**PA/PF 63 180L6A / 180L6B**	260	193

P_1 [kW]	n_2 [Min^{-1}]	M_2 [Nm]	f_B	i_{ges}	F_R [N]	F_A [N]	$F_{R\,GR}$ [N]	$F_{A\,GR}$ [N]	Tip / Type / Typ IE2 / IE3	Kg	mm
15.0	27.5	4889	0.8	50.83	12.0	9.0	25.0	30.0	PA/PF 63 160L4B	219	193
	32.2	4181	0.9	43.47	12.0	9.0	23.0	26.0			
	38.7	3476	1.1	36.14	15.0	9.0	25.0	27.0			
	45.3	2972	1.2	30.90	17.0	10.0	26.0	27.0			
	53.2	2532	1.3	26.33	18.0	10.0	27.0	26.0			
	63.7	2113	1.5	21.97	19.0	10.0	27.0	26.0			
	67.3	2002	1.6	20.81	19.0	11.0	27.0	26.0			
	80.6	1670	1.9	17.36	10.0	10.0	28.0	27.0			
	36.1	3563	0.8	77.49	12.0	9.0	22.0	33.0	PA/PF 63 160M2C / 160M2D	219	193
	44.5	2895	1.0	62.96	12.0	9.0	22.0	30.0			
	52.0	2475	1.1	53.84	12.0	9.0	24.0	30.0			
	55.1	2337	1.2	50.83	12.0	9.0	25.0	30.0			
	64.4	1999	1.4	43.47	12.0	9.0	23.0	26.0			
	77.5	1662	1.7	36.14	15.0	9.0	25.0	27.0			
	90.6	1421	1.9	30.90	17.0	10.0	26.0	27.0			
	106.3	1211	2.0	26.33	18.0	10.0	27.0	26.0			
	127.4	1010	2.4	21.97	19.0	10.0	27.0	26.0			
	134.6	957	2.5	20.81	19.0	11.0	27.0	26.0			
	161.3	798	3.0	17.36	10.0	10.0	28.0	27.0			
	49.6	2804	1.2	18.16	19.0	11.0	28.0	26.0	PA/PF 62 180L6A / 180L6B	262	192
	57.0	2440	1.3	15.80	20.0	11.0	28.0	25.0			
	64.7	2148	1.5	13.91	20.0	11.0	28.0	24.0			
	77.6	1791	1.8	11.60	20.0	11.0	28.0	24.0			
	85.6	1625	2.0	10.52	20.0	10.0	28.0	23.0			
	102.5	1356	2.3	8.78	18.0	12.0	28.0	22.0			
	119.2	1166	2.8	7.55	18.0	12.0	28.0	22.0			
	141.7	981	2.1	6.35	18.0	12.0	25.0	20.0			
	170.1	817	2.4	5.29	18.0	12.0	25.0	19.0			
	37.8	3642	0.8	37.08	15.0	9.0	25.0	27.0	PA/PF 62 160L4B	221	192
	77.1	1784	1.7	18.16	19.0	11.0	28.0	26.0			
	88.6	1552	1.9	15.80	20.0	11.0	28.0	25.0			
	100.6	1366	2.3	13.91	20.0	11.0	28.0	24.0			
	120.7	1139	2.7	11.60	20.0	11.0	28.0	24.0			
	133.1	1033	3.0	10.52	20.0	10.0	28.0	23.0			
	75.5	1767	1.3	37.08	15.0	9.0	25.0	27.0	PA/PF 62 160M2C / 160M2D	221	192
	154.2	865	2.7	18.16	19.0	11.0	28.0	26.0			
	177.2	753	3.0	15.80	20.0	11.0	28.0	25.0			
	66.9	2079	0.9	13.46	10.0	19.0	19.0	19.0	PA/PF 52 180L6A / 180L6B	201	188
	85.1	1634	1.1	10.58	10.0	18.0	18.0	20.0			
	101.9	1364	1.3	8.83	9.0	17.0	17.0	20.0			
	123.5	1126	1.5	7.29	9.0	16.0	16.0	20.0			
	139.8	995	1.6	6.44	9.0	16.0	16.0	20.0			
	160.7	865	1.4	5.60	8.0	15.0	15.0	20.0			
	194.8	713	1.8	4.62	8.0	14.0	14.0	20.0			
	220.6	630	1.9	4.08	8.0	14.0	14.0	20.0			
	245.2	567	2.0	3.67	8.0	13.0	13.0	20.0			
	261.6	531	2.0	3.44	7.0	13.0	13.0	20.0			
	278.6	499	2.0	3.23	8.0	24.0	12.0	18.0			
	323.7	429	2.2	2.78	8.0	24.0	12.0	18.0			
	58.6	2347	0.8	23.89	2.0	21.0	12.0	29.0	PA/PF 52 160L4B	164	188
	64.7	2127	0.9	21.65	2.0	21.0	15.0	29.0			
	71.5	1922	1.0	19.57	4.0	21.0	16.0	28.0			
	78.6	1749	1.1	17.81	5.0	20.0	17.0	28.0			
	100.1	1374	1.4	13.99	8.0	19.0	18.0	27.0			
	104.0	1322	1.4	13.46	10.0	19.0	19.0	27.0			
	132.3	1039	1.7	10.58	10.0	18.0	20.0	25.0			
	158.6	867	1.9	8.83	9.0	17.0	20.0	24.0			
	192.0	716	2.2	7.29	9.0	16.0	20.0	23.0			
	217.4	633	2.4	6.44	9.0	16.0	20.0	23.0			
	250.0	550	2.1	5.60	8.0	15.0	20.0	22.0			
	303.0	454	2.6	4.62	8.0	14.0	20.0	21.0			
	343.1	401	2.8	4.08	8.0	14.0	20.0	20.0			
	381.5	360	2.9	3.67	8.0	13.0	20.0	20.0			
	407.0	338	3.0	3.44	7.0	13.0	20.0	19.0			
	433.4	317	3.0	3.23	8.0	24.0	18.0	19.0			

P_1 [kW]	n_2 [Min^{-1}]	M_2 [Nm]	f_B	i_{ges}	F_R [N]	F_A [N]	$F_{R\,GR}$ [N]	$F_{A\,GR}$ [N]	Tip / Type / Typ IE2 / IE3	Kg	mm
15.0	105.9	1259	1.1	26.43	2.0	21.0	18.0	32.0	PA/PF 52 160M2C / 160M2D	164	188
	117.2	1138	1.3	23.89	2.0	21.0	12.0	29.0			
	129.3	1031	1.4	21.65	2.0	21.0	15.0	29.0			
	143.1	932	1.6	19.57	4.0	21.0	16.0	28.0			
	157.2	849	1.7	17.81	5.0	20.0	17.0	28.0			
	200.1	667	2.2	13.99	8.0	19.0	18.0	27.0			
	208.0	641	2.2	13.46	10.0	19.0	19.0	27.0			
	264.7	504	2.7	10.58	10.0	18.0	20.0	25.0			
	317.1	421	3.0	8.83	9.0	17.0	20.0	24.0			
	360.0	392	1.1	2.50	-	-	-	-	PA/PF 51 180L6A / 180L6B	166	166
	436.9	323	1.2	2.06	-	-	-	-			
	494.5	285	1.3	1.82	-	-	-	-			
	548.8	257	1.3	1.64	-	-	-	-			
	584.4	241	1.3	1.54	-	-	-	-			
	625.0	226	1.4	1.44	-	-	-	-			
	725.8	194	1.5	1.24	-	-	-	-			
	346.5	405	1.0	4.04	-	5.0	-	-	PA/PF 51 160L4B	125	166
	423.0	332	1.5	3.31	-	5.0	-	-			
	489.5	287	1.6	2.86	-	5.0	-	-			
	560.0	251	1.7	2.50	-	5.0	-	-			
	679.6	207	1.8	2.06	-	4.0	-	-			
	769.2	183	1.9	1.82	-	5.0	-	-			
	853.7	164	2.0	1.64	-	5.0	-	-			
	909.1	154	2.0	1.54	-	5.0	-	-			
	972.2	144	2.1	1.44	-	5.0	-	-			
	1129.0	124	2.2	1.24	-	5.0	-	-			
	693.1	199	1.6	4.04	-	-	-	-	PA/PF 51 160M2C / 160M2D	125	166
	845.9	163	2.3	3.31	-	-	-	-			
	979.0	141	2.5	2.86	-	-	-	-			
	1120.0	123	2.6	2.50	-	-	-	-			
	1359.2	102	2.9	2.06	-	-	-	-			
	1538.5	90	2.9	1.82	-	-	-	-			
	92.7	1483	0.8	15.10	1.0	4.0	3.0	2.0	PA/PF 42 160L4B	135	184
	97.4	1413	0.8	14.38	1.0	4.0	5.0	2.0			
	114.1	1205	1.0	12.27	1.0	4.0	7.0	3.0			
	137.4	1001	1.2	10.19	1.0	4.0	8.0	3.0			
	164.7	835	1.3	8.50	1.0	4.0	8.0	3.0			
	192.6	714	1.5	7.27	1.0	4.0	9.0	4.0			
	226.2	608	1.8	6.19	1.0	4.0	9.0	4.0			
	261.2	527	1.6	5.36	1.0	4.0	9.0	4.0			
	305.7	450	1.7	4.58	1.0	4.0	9.0	4.0			
	359.0	383	1.8	3.90	1.0	4.0	9.0	4.0			
	400.0	344	1.9	3.50	1.0	4.0	9.0	4.0			
	436.1	315	2.0	3.21	1.0	4.0	9.0	4.0			
	463.6	297	2.0	3.02	1.0	4.0	9.0	4.0			
	128.1	1041	0.8	21.85	1.0	4.0	10.0	4.0	PA/PF 42 160M2C / 160M2D	135	184
	158.3	843	1.1	17.69	1.0	4.0	9.0	3.0			
	185.4	719	1.3	15.10	1.0	4.0	3.0	2.0			
	194.7	685	1.3	14.38	1.0	4.0	5.0	2.0			
	228.2	585	1.6	12.27	1.0	4.0	7.0	3.0			
	274.8	485	1.8	10.19	1.0	4.0	8.0	3.0			
	329.4	405	2.0	8.50	1.0	4.0	8.0	3.0			
	385.1	346	2.4	7.27	1.0	4.0	9.0	4.0			
	452.3	295	2.8	6.19	1.0	4.0	9.0	4.0			
	522.4	255	2.4	5.36	1.0	4.0	9.0	4.0			
	611.4	218	2.7	4.58	1.0	4.0	9.0	4.0			
	717.9	186	2.9	3.90	1.0	4.0	9.0	4.0			
	800.0	167	3.0	3.50	1.0	4.0	9.0	4.0			
	454.5	309	0.9	3.08	-	3.0	-	-	PA/PF 41 160L4B	116	164
	560.0	251	1.1	2.50	-	3.0	-	-			
	654.2	215	1.2	2.14	-	3.0	-	-			
	769.2	183	1.2	1.82	-	3.0	-	-			
	858.9	163	1.2	1.63	-	3.0	-	-			
	933.3	150	1.3	1.50	-	3.0	-	-			
	992.9	141	1.3	1.41	-	3.0	-	-			

P_1 [kW]	n_2 [Min^{-1}]	M_2 [Nm]	f_B	i_{ges}	F_R [N]	F_A [N]	$F_{R\,GR}$ [N]	$F_{A\,GR}$ [N]	Tip / Type / Typ IE2 / IE3	Kg	mm
15.0	909.1 1120.0 1308.4 1538.5 1717.8 1866.7 1985.8	152 123 106 90 80 74 70	1.4 1.7 1.8 1.9 1.9 1.9 2.0	3.08 2.50 2.14 1.82 1.63 1.50 1.41	- - - - - - -	- - - - - - -	- - - - - - -	- - - - - - -	PA/PF 41 160M2C / 160M2D	116	164
18.5	7.6 9.0 11.4 13.3	20986 17581 13942 11981	1.0 1.1 1.4 1.7	184.77 154.79 122.75 105.49	88.0 92.0 96.0 98.0	72.0 73.0 72.0 71.0	120.0 120.0 120.0 120.0	120.0 120.0 120.0 120.0	PA/PF 103/52 180M4A / 180M4B	920	218
	8.2 9.4 11.4 15.2 18.1 22.8 26.5	18011 15659 12919 9756 8173 6481 5570	0.8 1.0 1.2 1.6 1.9 2.3 2.7	341.11 296.56 244.66 184.77 154.79 122.75 105.49	88.0 88.0 88.0 88.0 92.0 96.0 98.0	72.0 72.0 72.0 72.0 73.0 72.0 71.0	120.0 120.0 120.0 120.0 120.0 120.0 120.0	120.0 120.0 120.0 120.0 120.0 120.0 120.0	PA/PF 103/52 160M2D / 160L2C	879	218
	6.6 8.0 11.0 12.8 14.8 17.0 19.9 23.7	25612 21119 15282 13211 11397 9943 8504 7123	0.9 1.2 1.4 1.6 1.8 2.1 2.5 2.9	136.52 112.57 81.46 70.42 60.75 53.00 45.33 37.97	101.0 101.0 90.0 90.0 90.0 90.0 90.0 90.0	67.0 66.0 79.0 79.0 79.0 79.0 79.0 79.0	120.0 - 120.0 120.0 120.0 120.0 120.0 120.0	120.0 - 119.0 116.0 113.0 109.0 104.0 95.0	PA/PF 103 200L6B / 200L6C	904	209
	6.8 10.3 17.2 19.9 23.0	24598 16195 9663 8354 7206	0.9 1.4 2.1 2.4 2.8	207.36 136.52 81.46 70.42 60.75	95.0 95.0 100.0 101.0 101.0	72.0 72.0 69.0 67.0 66.0	120.0 120.0 120.0 120.0 120.0	120.0 120.0 119.0 116.0 113.0	PA/PF 103 180M4A / 180M4B	846	209
	13.5 20.5	11758 7741	1.5 2.3	207.36 136.52	95.0 95.0	72.0 72.0	120.0 120.0	120.0 120.0	PA/PF 103 160M2D / 160L2C	805	209
	11.0 13.0	14464 12216	0.8 1.0	127.35 107.56	51.0 58.0	40.0 41.0	83.0 87.0	80.0 80.0	PA/PF 93/52 180M4A / 180M4B	701	216
	17.4 22.0 26.0	8494 6724 5679	1.1 1.4 1.6	160.87 127.35 107.56	51.0 51.0 58.0	40.0 40.0 41.0	88.0 83.0 87.0	80.0 80.0 80.0	PA/PF 93/52 160M2D / 160L2C	660	216
	15.4	9610	1.0	182.00	57.0	52.0	87.0	80.0	PA/PF 93/42 160M2D / 160L2C	631	216
	12.4 14.6 16.7 19.3 22.8 28.8 33.2 39.2	13586 11568 10084 8748 7403 5861 5084 4302	1.0 1.2 1.3 1.5 1.7 2.2 2.5 3.0	72.42 61.66 53.75 46.63 39.46 31.24 27.10 22.93	63.0 64.0 65.0 65.0 66.0 45.0 45.0 45.0	42.0 41.0 41.0 40.0 39.0 43.0 43.0 43.0	91.0 91.0 92.0 92.0 93.0 91.0 82.0 81.0	80.0 80.0 80.0 80.0 80.0 80.0 74.0 72.0	PA/PF 93 200L6B / 200L6C	685	205
	11.4 12.8 15.0 19.3 22.7 26.0 30.0 35.5	14587 12960 11083 8591 7314 6376 5531 4681	1.0 0.9 1.3 1.6 1.7 1.9 2.2 2.6	122.97 109.25 93.43 72.42 61.66 53.75 46.63 39.46	54.0 60.0 60.0 63.0 64.0 65.0 65.0 66.0	41.0 42.0 42.0 42.0 41.0 41.0 40.0 39.0	85.0 89.0 89.0 91.0 91.0 92.0 92.0 93.0	80.0 80.0 80.0 80.0 80.0 80.0 80.0 80.0	PA/PF 93 180M4A / 180M4B	527	205
	14.9 22.8 25.6 30.0 38.7 45.4	10659 6973 6195 5298 4106 3496	1.0 1.5 1.4 2.0 2.5 2.8	187.99 122.97 109.25 93.43 72.42 61.66	54.0 54.0 60.0 60.0 63.0 64.0	41.0 41.0 42.0 42.0 42.0 41.0	80.0 85.0 89.0 89.0 91.0 91.0	80.0 80.0 80.0 80.0 80.0 80.0	PA/PF 93 160M2D / 160L2C	586	205
	25.4 30.7	6756 5580	1.5 2.0	35.47 29.30	66.0 66.0	39.0 39.0	93.0 -	80.0 -	PA/PF 92 200L6B / 200L6C	674	204

P_1 [kW]	n_2 [Min^{-1}]	M_2 [Nm]	f_B	i_{ges}	F_R [N]	F_A [N]	$F_{R\,GR}$ [N]	$F_{A\,GR}$ [N]	Tip / Type / Typ IE2 / IE3	Kg	mm
18.5	39.5	4297	2.2	35.47	66.0	39.0	93.0	80.0	PA/PF 92 180M4A / 180M4B	616	204
	18.8 22.1	7868 6703	0.8 0.9	149.01 126.95	32.0 32.0	29.0 29.0	- -	- -	PA/PF 83/42 160M2D / 160L2C	452	216
	14.6 17.5 20.3 23.1 27.7 32.2 36.9 42.9	11592 9665 8318 7318 6103 5251 4574 3938	0.8 1.0 1.1 1.3 1.5 1.6 1.8 2.1	61.79 51.52 44.34 39.01 32.53 27.99 24.38 20.99	39.0 41.0 42.0 43.0 44.0 44.0 44.0 31.0	19.0 20.0 20.0 21.0 21.0 20.0 20.0 20.0	59.0 60.0 61.0 61.0 62.0 62.0 63.0 62.0	58.0 57.0 56.0 55.0 54.0 52.0 51.0 50.0	PA/PF 83 200L6B / 200L6C	506	201
	17.4 19.9 22.7 27.2 31.6 35.9 43.0 50.0 57.4	9565 8326 7330 6112 5260 4628 3859 3320 2892	0.9 1.1 1.2 1.5 1.7 1.9 2.2 2.4 2.8	80.63 70.19 61.79 51.52 44.34 39.01 32.53 27.99 24.38	32.0 36.0 39.0 41.0 42.0 43.0 44.0 44.0 44.0	17.0 19.0 19.0 20.0 20.0 21.0 21.0 20.0 20.0	55.0 57.0 59.0 60.0 61.0 61.0 62.0 62.0 63.0	58.0 58.0 58.0 57.0 56.0 55.0 54.0 52.0 51.0	PA/PF 83 180M4A / 180M4B	448	201
	26.9 34.7 39.9 45.3 54.3 63.1	5895 4572 3980 3504 2921 2514	1.2 1.5 1.7 2.0 2.3 2.7	103.97 80.63 70.19 61.79 51.52 44.34	32.0 32.0 36.0 39.0 41.0 42.0	17.0 17.0 19.0 19.0 20.0 20.0	54.0 55.0 57.0 59.0 60.0 61.0	64.0 58.0 58.0 58.0 57.0 56.0	PA/PF 83 160M2D / 160L2C	407	201
	28.0 33.8 34.0 41.0 54.3 63.0	6114 5070 5041 4181 3154 2722	1.1 1.3 1.4 1.8 2.2 2.5	32.10 26.62 26.47 21.95 16.56 14.29	44.0 44.0 43.0 43.0 43.0 43.0	21.0 20.0 23.0 23.0 23.0 23.0	62.0 62.0 - - 58.0 54.0	54.0 52.0 - - 46.0 43.0	PA/PF 82 200L6B / 200L6C	498	200
	28.7 34.6 43.6 52.6	5907 4898 3889 3225	0.9 0.8 1.7 2.0	48.76 40.43 32.10 26.62	44.0 44.0 44.0 44.0	21.0 21.0 21.0 20.0	61.0 62.0 62.0 62.0	60.0 58.0 54.0 52.0	PA/PF 82 180M4A / 180M4B	440	200
	57.4 69.3 87.2	2865 2376 1886	1.4 1.3 2.7	48.76 40.43 32.10	44.0 44.0 44.0	21.0 21.0 21.0	61.0 62.0 62.0	60.0 58.0 54.0	PA/PF 82 160M2D / 160L2C	399	200
	27.1 31.7 38.5 43.6 50.0	6242 5319 4388 3876 3379	0.8 1.0 1.2 1.4 1.6	33.27 28.35 23.39 20.66 18.01	25.0 26.0 26.0 19.0 19.0	8.0 9.0 9.0 7.0 7.0	35.0 36.0 36.0 27.0 28.0	31.0 31.0 31.0 26.0 26.0	PA/PF 73 200L6B / 200L6C	399	197
	23.2 26.8 30.7 37.2 42.1 49.4 59.9 67.8 77.7	7167 6202 5418 4470 3947 3363 2775 2451 2136	0.8 0.9 1.0 1.1 1.3 1.5 1.8 2.0 2.3	60.42 52.28 45.67 37.68 33.27 28.35 23.39 20.66 18.01	11.0 17.0 20.0 23.0 25.0 26.0 26.0 19.0 19.0	4.0 5.0 7.0 8.0 8.0 9.0 9.0 7.0 7.0	25.0 29.0 31.0 34.0 35.0 36.0 36.0 27.0 28.0	30.0 31.0 31.0 31.0 31.0 31.0 31.0 26.0 26.0	PA/PF 73 180M4A / 180M4B	341	197
	37.4 46.3 53.6 61.3 74.3 84.2 98.8 119.7	4241 3426 2964 2590 2137 1886 1608 1326	1.0 1.3 1.4 1.6 1.8 2.0 2.4 2.9	74.80 60.42 52.28 45.67 37.68 33.27 28.35 23.39	11.0 11.0 17.0 20.0 23.0 25.0 26.0 26.0	4.0 4.0 5.0 7.0 8.0 8.0 9.0 9.0	36.0 25.0 29.0 31.0 34.0 35.0 36.0 36.0	39.0 30.0 31.0 31.0 31.0 31.0 31.0 31.0	PA/PF 73 160M2D / 160L2C	300	197

P_1 [kW]	n_2 [Min^{-1}]	M_2 [Nm]	f_B	i_{ges}	F_R [N]	F_A [N]	$F_{R\ GR}$ [N]	$F_{A\ GR}$ [N]	Tip / Type / Typ IE2 / IE3	Kg	mm
18.5	31.5	5443	0.8	28.58	26.0	9.0	37.0	32.0	PA/PF 72 200L6B / 200L6C	389	196
	41.6	4122	1.1	21.64	27.0	9.0	37.0	31.0			
	53.5	3205	1.3	16.83	27.0	10.0	37.0	30.0			
	62.8	2729	1.6	14.33	27.0	10.0	36.0	29.0			
	72.1	2379	1.8	12.49	27.0	10.0	35.0	28.0			
	83.0	2065	2.4	10.84	24.0	9.0	33.0	26.0			
	95.1	1802	2.7	9.46	24.0	9.0	29.0	24.0			
	140.2	1223	2.4	6.42	24.0	9.0	27.0	22.0			
	160.7	1067	2.8	5.60	24.0	9.0	27.0	22.0			
	32.0	5294	0.8	43.70	26.0	9.0	37.0	35.0	PA/PF 72 180M4A / 180M4B	331	196
	42.3	4008	0.8	33.08	26.0	9.0	39.0	34.0			
	49.0	3462	1.2	28.58	26.0	9.0	37.0	32.0			
	64.5	2631	1.5	21.72	27.0	10.0	39.0	32.0			
	64.7	2622	1.7	21.64	27.0	9.0	37.0	31.0			
	83.2	2039	2.0	16.83	27.0	10.0	37.0	30.0			
	97.7	1736	2.3	14.33	27.0	10.0	36.0	29.0			
	112.1	1513	2.7	12.49	27.0	10.0	35.0	28.0			
	64.1	2568	1.2	43.70	26.0	9.0	37.0	35.0	PA/PF 72 160M2D / 160L2C	290	196
	84.6	1944	1.3	33.08	26.0	9.0	39.0	34.0			
	98.0	1679	1.8	28.58	26.0	9.0	37.0	32.0			
	128.9	1276	2.4	21.72	27.0	10.0	39.0	32.0			
	129.4	1272	2.7	21.64	27.0	9.0	37.0	31.0			
	53.2	3123	1.0	26.33	16.0	9.0	26.0	24.0	PA/PF 63 180M4A / 180M4B	260	193
	63.7	2606	1.2	21.97	18.0	9.0	26.0	24.0			
	67.3	2469	1.3	20.81	18.0	9.0	27.0	24.0			
	80.6	2059	1.6	17.36	12.0	9.0	-	-			
	44.5	3570	0.8	62.96	16.0	9.0	22.0	30.0	PA/PF 63 160M2D / 160L2C	219	193
	52.0	3053	0.9	53.84	16.0	9.0	24.0	30.0			
	55.1	2882	1.0	50.83	16.0	9.0	25.0	30.0			
	64.4	2465	1.1	43.47	16.0	9.0	23.0	26.0			
	77.5	2049	1.4	36.14	16.0	9.0	21.0	24.0			
	90.6	1752	1.6	30.90	16.0	9.0	24.0	24.0			
	106.3	1493	1.6	26.33	16.0	9.0	26.0	24.0			
	127.4	1246	2.0	21.97	18.0	9.0	26.0	24.0			
	134.6	1180	2.1	20.81	18.0	9.0	27.0	24.0			
	161.3	984	2.5	17.36	12.0	9.0	24.0	23.0			
	64.7	2649	1.2	13.91	19.0	10.0	28.0	23.0	PA/PF 62 200L6B / 200L6C	320	192
	77.6	2209	1.5	11.60	20.0	10.0	28.0	23.0			
	85.6	2004	1.6	10.52	20.0	10.0	28.0	22.0			
	102.5	1672	1.9	8.78	20.0	9.0	27.0	22.0			
	119.2	1438	2.3	7.55	20.0	9.0	27.0	21.0			
	141.7	1209	1.7	6.35	20.0	9.0	25.0	20.0			
	170.1	1008	2.0	5.29	20.0	9.0	25.0	19.0			
	197.4	869	2.5	4.56	15.0	9.0	23.0	18.0			
	221.7	773	2.6	4.06	15.0	9.0	23.0	18.0			
	230.2	745	2.8	3.91	15.0	9.0	23.0	18.0			
	241.5	709	3.0	3.72	15.0	9.0	23.0	17.0			
	77.1	2200	1.4	18.16	19.0	10.0	27.0	24.0	PA/PF 62 180M4A / 180M4B	262	192
	88.6	1914	1.6	15.80	19.0	10.0	27.0	24.0			
	100.6	1685	1.8	13.91	19.0	10.0	28.0	23.0			
	120.7	1405	2.2	11.60	20.0	10.0	28.0	23.0			
	133.1	1274	2.4	10.52	20.0	10.0	28.0	22.0			
	159.5	1064	2.8	8.78	20.0	9.0	27.0	22.0			
	220.5	769	2.5	6.35	20.0	9.0	25.0	20.0			
	264.7	641	2.9	5.29	20.0	9.0	25.0	19.0			
	75.5	2179	1.0	37.08	19.0	10.0	25.0	27.0	PA/PF 62 160M2D / 160L2C	221	192
	154.2	1067	2.2	18.16	19.0	10.0	27.0	24.0			
	177.2	928	2.5	15.80	19.0	10.0	27.0	24.0			
	201.3	817	2.9	13.91	19.0	10.0	28.0	23.0			

P_1 [kW]	n_2 [Min^{-1}]	M_2 [Nm]	f_B	i_{ges}	F_R [N]	F_A [N]	$F_{R\,GR}$ [N]	$F_{A\,GR}$ [N]	Tip / Type / Typ IE2 / IE3	Kg	mm
18.5	104.0	1631	1.1	13.46	5.0	18.0	15.0	26.0	PA/PF 52 180M4A / 180M4B	201	188
	132.3	1282	1.4	10.58	7.0	17.0	16.0	24.0			
	158.6	1070	1.6	8.83	9.0	16.0	17.0	24.0			
	192.0	883	1.8	7.29	9.0	15.0	18.0	23.0			
	217.4	780	1.9	6.44	8.0	15.0	19.0	22.0			
	250.0	678	1.7	5.60	8.0	14.0	18.0	21.0			
	303.0	560	2.1	4.62	8.0	13.0	18.0	20.0			
	343.1	494	2.3	4.08	8.0	13.0	18.0	20.0			
	381.5	445	2.4	3.67	7.0	13.0	18.0	19.0			
	407.0	417	2.4	3.44	7.0	12.0	18.0	19.0			
	433.4	391	2.5	3.23	7.0	12.0	18.0	19.0			
	503.6	337	2.6	2.78	7.0	12.0	18.0	18.0			
	105.9	1553	0.9	26.43	5.0	18.0	18.0	32.0	PA/PF 52 160M2D / 160L2C	164	188
	117.2	1404	1.0	23.89	5.0	18.0	12.0	29.0			
	129.3	1272	1.1	21.65	5.0	18.0	15.0	29.0			
	143.1	1150	1.3	19.57	5.0	18.0	9.0	27.0			
	157.2	1046	1.4	17.81	5.0	18.0	11.0	27.0			
	200.1	822	1.8	13.99	5.0	18.0	13.0	25.0			
	208.0	791	1.8	13.46	5.0	18.0	15.0	26.0			
	264.7	622	2.2	10.58	7.0	17.0	16.0	24.0			
	317.1	519	2.5	8.83	9.0	16.0	17.0	24.0			
	384.1	428	2.8	7.29	9.0	15.0	18.0	23.0			
	434.8	378	3.0	6.44	8.0	15.0	19.0	22.0			
	500.0	329	2.7	5.60	8.0	14.0	18.0	21.0			
	560.0	309	1.4	2.50	-	4.0	-	-	PA/PF 51 180M4A / 180M4B	166	166
	679.6	255	1.5	2.06	-	4.0	-	-			
	769.2	225	1.5	1.82	-	5.0	-	-			
	853.7	203	1.6	1.64	-	5.0	-	-			
	909.1	190	1.6	1.54	-	5.0	-	-			
	972.2	178	1.7	1.44	-	5.0	-	-			
	1129.0	153	1.8	1.24	-	5.0	-	-			
	693.1	246	1.3	4.04	-	-	-	-	PA/PF 51 160M2D / 160L2C	125	166
	845.9	202	1.9	3.31	-	-	-	-			
	979.0	174	2.0	2.86	-	-	-	-			
	1120.0	152	2.1	2.50	-	-	-	-			
	1359.2	125	2.3	2.06	-	-	-	-			
	1538.5	111	2.3	1.82	-	-	-	-			
	1707.3	100	2.5	1.64	-	-	-	-			
	1818.2	94	2.5	1.54	-	-	-	-			
	1944.4	88	2.6	1.44	-	-	-	-			
	2258.1	76	2.8	1.24	-	-	-	-			
	158.3	1039	0.9	17.69	1.0	4.0	9.0	3.0	PA/PF 42 160M2D / 160L2C	135	184
	185.4	887	1.1	15.10	1.0	4.0	3.0	2.0			
	194.7	845	1.0	14.38	1.0	4.0	5.0	2.0			
	228.2	721	1.3	12.27	1.0	4.0	7.0	3.0			
	274.8	599	1.5	10.19	1.0	4.0	8.0	3.0			
	329.4	499	1.6	8.50	1.0	4.0	8.0	3.0			
	385.1	427	1.9	7.27	1.0	4.0	9.0	4.0			
	452.3	364	2.2	6.19	1.0	4.0	9.0	4.0			
	522.4	315	2.0	5.36	1.0	4.0	9.0	4.0			
	611.4	269	2.2	4.58	1.0	4.0	9.0	4.0			
	717.9	229	2.3	3.90	1.0	4.0	9.0	4.0			
	800.0	206	2.5	3.50	1.0	4.0	9.0	4.0			
	872.3	189	2.5	3.21	1.0	4.0	9.0	4.0			
	927.2	177	2.6	3.02	1.0	4.0	9.0	4.0			
	909.1	188	1.2	3.08	-	-	-	-	PA/PF 41 160M2D / 160L2C	116	164
	1120.0	152	1.4	2.50	-	-	-	-			
	1308.4	130	1.4	2.14	-	-	-	-			
	1538.5	111	1.5	1.82	-	-	-	-			
	1717.8	99	1.5	1.63	-	-	-	-			
	1866.7	91	1.6	1.50	-	-	-	-			
	1985.8	86	1.6	1.41	-	-	-	-			
22.0	7.6	24956	0.8	184.77	81.0	66.0	120.0	120.0	PA/PF 103/52 180M4B / 180L4B	920	216
	9.0	20907	1.0	154.79	88.0	67.0	120.0	120.0			
	11.4	16579	1.2	122.75	94.0	67.0	120.0	120.0			
	13.3	14248	1.4	105.49	96.0	67.0	120.0	120.0			

P_1 [kW]	n_2 [Min^{-1}]	M_2 [Nm]	f_B	i_{ges}	F_R [N]	F_A [N]	$F_{R\,GR}$ [N]	$F_{A\,GR}$ [N]	Tip / Type / Typ IE2 / IE3	Kg	mm
22.0	9.4 11.4 15.2 18.1 22.8 26.5	18622 15363 11602 9720 7708 6624	0.8 1.0 1.3 1.6 2.0 2.3	296.56 244.66 184.77 154.79 122.75 105.49	81.0 81.0 81.0 88.0 94.0 96.0	66.0 66.0 66.0 67.0 67.0 67.0	120.0 120.0 120.0 120.0 120.0 120.0	120.0 120.0 120.0 120.0 120.0 120.0	**PA/PF 103/52 180M2A**	920	216
	6.6 8.0 11.0 12.8 14.8 17.0 19.9 23.7	30457 25114 18173 15710 13553 11824 10113 8471	0.8 1.0 1.2 1.3 1.5 1.8 2.1 2.5	136.52 112.57 81.46 70.42 60.75 53.00 45.33 37.97	100.0 100.0 101.0 95.0 95.0 95.0 95.0 95.0	65.0 63.0 62.0 72.0 72.0 72.0 72.0 72.0	120.0 - 120.0 120.0 120.0 120.0 120.0 120.0	120.0 - 115.0 113.0 110.0 107.0 104.0 95.0	**PA/PF 103 200L6C / 200L6D**	904	209
	6.8 10.3 17.2 19.9 23.0 26.4	29252 19258 11491 9934 8570 7477	0.8 1.2 1.8 2.0 2.3 2.7	207.36 136.52 81.46 70.42 60.75 53.00	92.0 92.0 99.0 100.0 100.0 101.0	67.0 67.0 66.0 65.0 63.0 62.0	120.0 120.0 120.0 120.0 120.0 120.0	120.0 120.0 115.0 113.0 110.0 107.0	**PA/PF 103 180M4B / 180L4B**	846	209
	13.5 20.5 34.4	13982 9205 5493	1.3 1.9 2.8	207.36 136.52 81.46	92.0 92.0 99.0	67.0 67.0 66.0	120.0 120.0 120.0	120.0 120.0 115.0	**PA/PF 103 180M2A**	846	209
	13.0	14528	0.8	107.56	51.0	40.0	87.0	80.0	**PA/PF 93/52 180M4B / 180L4B**	701	216
	17.4 22.0 26.0	10101 7997 6754	0.9 1.2 1.4	160.87 127.35 107.56	51.0 51.0 51.0	40.0 40.0 40.0	- 83.0 87.0	- 80.0 80.0	**PA/PF 93/52 180M2A**	701	216
	12.4 14.6 16.7 19.3 22.8 28.8 33.2 39.2 46.9	16157 13756 11991 10403 8803 6970 6046 5116 4277	0.9 1.0 1.1 1.2 1.5 1.8 2.1 2.5 3.0	72.42 61.66 53.75 46.63 39.46 31.24 27.10 22.93 19.17	61.0 63.0 64.0 64.0 65.0 66.0 54.0 54.0 54.0	39.0 39.0 39.0 38.0 38.0 37.0 41.0 41.0 41.0	89.0 91.0 91.0 92.0 92.0 91.0 82.0 81.0 75.0	80.0 80.0 80.0 80.0 80.0 80.0 74.0 72.0 67.0	**PA/PF 93 200L6C / 200L6D**	685	205
	11.4 12.8 15.0 19.3 22.7 26.0 30.0 35.5 44.8	17347 15412 13180 10216 8698 7582 6578 5567 4407	0.8 0.8 1.1 1.3 1.5 1.6 1.9 2.2 2.8	122.97 109.25 93.43 72.42 61.66 53.75 46.63 39.46 31.24	48.0 57.0 57.0 61.0 63.0 64.0 64.0 65.0 66.0	36.0 38.0 38.0 39.0 39.0 39.0 38.0 38.0 37.0	81.0 89.0 87.0 89.0 91.0 91.0 92.0 92.0 91.0	80.0 80.0 80.0 80.0 80.0 80.0 80.0 80.0 80.0	**PA/PF 93 180M4B / 180L4B**	527	205
	14.9 22.8 25.6 30.0 38.7 45.4 52.1 60.0	12676 8292 7367 6300 4883 4158 3624 3144	0.8 1.3 1.2 1.7 2.1 2.3 2.6 2.9	187.99 122.97 109.25 93.43 72.42 61.66 53.75 46.63	48.0 48.0 57.0 57.0 61.0 63.0 64.0 64.0	36.0 36.0 38.0 38.0 39.0 39.0 39.0 38.0	80.0 81.0 88.0 87.0 89.0 91.0 91.0 92.0	80.0 80.0 80.0 80.0 80.0 80.0 80.0 80.0	**PA/PF 93 180M2A**	527	205
	25.4 30.7 54.6	8034 6636 3730	1.3 1.7 3.0	35.47 29.30 16.47	66.0 66.0 66.0	39.0 39.0 39.0	93.0 - 74.0	80.0 - 66.0	**PA/PF 92 200L6C / 200L6D**	674	204
	39.5	5110	1.9	35.47	66.0	39.0	93.0	80.0	**PA/PF 92 180M4B / 180L4B**	616	204
	78.9	2478	3.0	35.47	66.0	39.0	93.0	80.0	**PA/PF 92 180M2A**	616	204

P_1 [kW]	n_2 [Min^{-1}]	M_2 [Nm]	f_B	i_{ges}	F_R [N]	F_A [N]	$F_{R\,GR}$ [N]	$F_{A\,GR}$ [N]	Tip / Type / Typ IE2 / IE3	Kg	mm
22.0	17.5	11494	0.8	51.52	38.0	17.0	58.0	54.0	PA/PF 83 200L6C / 200L6D	506	201
	20.3	9892	0.9	44.34	41.0	18.0	60.0	53.0			
	23.1	8703	1.1	39.01	42.0	19.0	61.0	53.0			
	27.7	7257	1.2	32.53	43.0	19.0	61.0	52.0			
	32.2	6244	1.4	27.99	44.0	19.0	62.0	51.0			
	36.9	5439	1.5	24.38	44.0	19.0	62.0	50.0			
	42.9	4683	1.8	20.99	44.0	19.0	61.0	48.0			
	17.4	11374	0.8	80.63	25.0	14.0	51.0	53.0	PA/PF 83 180M4B / 180L4B	448	201
	19.9	9902	0.9	70.19	32.0	15.0	54.0	54.0			
	22.7	8717	1.0	61.79	35.0	16.0	56.0	54.0			
	27.2	7268	1.2	51.52	38.0	17.0	58.0	54.0			
	31.6	6255	1.4	44.34	41.0	18.0	60.0	53.0			
	35.9	5503	1.6	39.01	42.0	19.0	61.0	53.0			
	43.0	4589	1.9	32.53	43.0	19.0	61.0	52.0			
	50.0	3948	2.1	27.99	44.0	19.0	62.0	51.0			
	57.4	3439	2.3	24.38	44.0	19.0	62.0	50.0			
	66.7	2961	2.7	20.99	44.0	19.0	61.0	48.0			
	26.9	7011	1.0	103.97	25.0	14.0	54.0	64.0	PA/PF 83 180M2A	448	201
	34.7	5437	1.3	80.63	25.0	14.0	51.0	53.0			
	39.9	4733	1.4	70.19	32.0	15.0	54.0	54.0			
	45.3	4166	1.6	61.79	35.0	16.0	56.0	54.0			
	54.3	3474	2.0	51.52	38.0	17.0	58.0	54.0			
	63.1	2990	2.3	44.34	41.0	18.0	60.0	53.0			
	71.8	2630	2.6	39.01	42.0	19.0	61.0	53.0			
	86.1	2193	3.0	32.53	43.0	19.0	61.0	52.0			
	28.0	7270	1.0	32.10	45.0	19.0	62.0	54.0	PA/PF 82 200L6C / 200L6D	498	200
	33.8	6029	1.1	26.62	45.0	19.0	62.0	52.0			
	34.0	5995	1.2	26.47	45.0	19.0	-	-			
	41.0	4972	1.5	21.95	45.0	19.0	-	-			
	54.3	3751	1.8	16.56	45.0	19.0	58.0	46.0			
	63.0	3237	2.1	14.29	44.0	21.0	54.0	43.0			
	75.9	2684	2.8	11.85	44.0	21.0	52.0	41.0			
	28.7	7025	0.8	48.76	45.0	19.0	61.0	60.0	PA/PF 82 180M4B / 180L4B	440	200
	43.6	4625	1.4	32.10	45.0	19.0	62.0	54.0			
	52.6	3835	1.7	26.62	45.0	19.0	62.0	52.0			
	84.5	2386	2.8	16.56	45.0	19.0	58.0	46.0			
	57.4	3407	1.2	48.76	45.0	19.0	61.0	60.0	PA/PF 82 180M2A	440	200
	69.3	2825	1.1	40.43	45.0	19.0	62.0	58.0			
	87.2	2243	2.2	32.10	45.0	19.0	62.0	54.0			
	105.2	1860	2.6	26.62	45.0	19.0	62.0	52.0			
	31.7	6325	0.8	28.35	22.0	7.0	32.0	29.0	PA/PF 73 200L6C / 200L6D	399	197
	38.5	5218	1.0	23.39	24.0	8.0	33.0	29.0			
	43.6	4609	1.1	20.66	11.0	4.0	27.0	26.0			
	50.0	4018	1.3	18.01	11.0	4.0	28.0	26.0			
	26.8	7375	0.8	52.28	15.0	4.0	29.0	31.0	PA/PF 73 180M4B / 180L4B	341	197
	30.7	6443	0.8	45.67	15.0	4.0	24.0	28.0			
	37.2	5315	0.9	37.68	19.0	6.0	28.0	29.0			
	42.1	4693	1.1	33.27	21.0	6.0	30.0	29.0			
	49.4	3999	1.3	28.35	22.0	7.0	32.0	29.0			
	59.9	3300	1.5	23.39	24.0	8.0	33.0	29.0			
	67.8	2914	1.7	20.66	11.0	4.0	27.0	26.0			
	77.7	2541	2.0	18.01	11.0	4.0	28.0	26.0			
	37.4	5044	0.8	74.80	15.0	4.0	-	-	PA/PF 73 180M2A	341	197
	46.3	4074	1.1	60.42	15.0	4.0	25.0	30.0			
	53.6	3525	1.2	52.28	15.0	4.0	29.0	31.0			
	61.3	3080	1.3	45.67	15.0	4.0	24.0	28.0			
	74.3	2541	1.5	37.68	19.0	6.0	28.0	29.0			
	84.2	2243	1.7	33.27	21.0	6.0	30.0	29.0			
	98.8	1912	2.0	28.35	22.0	7.0	32.0	29.0			
	119.7	1577	2.4	23.39	24.0	8.0	33.0	29.0			
	135.5	1393	2.7	20.66	11.0	4.0	20.0	23.0			

P_1 [kW]	n_2 [Min^{-1}]	M_2 [Nm]	f_B	i_{ges}	F_R [N]	F_A [N]	$F_{R\,GR}$ [N]	$F_{A\,GR}$ [N]	Tip / Type / Typ IE2 / IE3	Kg	mm
22.0	41.6	4901	1.0	21.64	25.0	8.0	34.0	29.0	PA/PF 72 200L6C / 200L6D	389	196
	53.5	3812	1.1	16.83	25.0	9.0	34.0	28.0			
	62.8	3246	1.3	14.33	25.0	9.0	34.0	28.0			
	72.1	2829	1.5	12.49	25.0	9.0	34.0	27.0			
	83.0	2455	2.0	10.84	24.0	9.0	33.0	26.0			
	95.1	2143	2.3	9.46	26.0	9.0	29.0	24.0			
	109.6	1860	2.6	8.21	26.0	9.0	29.0	24.0			
	129.7	1572	2.9	6.94	26.0	9.0	29.0	23.0			
	140.2	1454	2.0	6.42	26.0	9.0	27.0	22.0			
	160.7	1268	2.3	5.60	26.0	9.0	27.0	22.0			
	185.2	1101	2.8	4.86	26.0	9.0	26.0	21.0			
	219.0	931	3.0	4.11	26.0	9.0	25.0	20.0			
	49.0	4117	1.0	28.58	23.0	8.0	33.0	30.0	PA/PF 72 180M4B / 180L4B	331	196
	64.5	3129	1.3	21.72	25.0	8.0	34.0	29.0			
	64.7	3118	1.4	21.64	25.0	8.0	37.0	31.0			
	83.2	2425	1.7	16.83	25.0	9.0	34.0	28.0			
	97.7	2065	2.0	14.33	25.0	9.0	34.0	28.0			
	112.1	1799	2.3	12.49	25.0	9.0	34.0	27.0			
	129.2	1562	3.0	10.84	24.0	9.0	33.0	26.0			
	218.1	925	3.0	6.42	26.0	9.0	27.0	22.0			
	64.1	3054	1.0	43.70	23.0	8.0	37.0	35.0	PA/PF 72 180M2A	331	196
	84.6	2311	1.1	33.08	23.0	8.0	39.0	34.0			
	98.0	1997	1.5	28.58	23.0	8.0	33.0	30.0			
	128.9	1518	2.0	21.72	25.0	8.0	34.0	29.0			
	129.4	1512	2.3	21.64	25.0	9.0	37.0	31.0			
	166.4	1176	2.6	16.83	25.0	9.0	34.0	28.0			
	53.2	3714	0.9	26.33	14.0	7.0	21.0	22.0	PA/PF 63 180M4B / 180L4B	260	193
	63.7	3099	1.0	21.97	16.0	7.0	22.0	22.0			
	67.3	2936	1.1	20.81	17.0	8.0	24.0	23.0			
	80.6	2449	1.3	17.36	11.0	7.0	-	-			
	106.3	1775	1.4	26.33	14.0	7.0	21.0	22.0	PA/PF 63 180M2A	260	193
	127.4	1481	1.6	21.97	16.0	7.0	22.0	22.0			
	134.6	1403	1.7	20.81	17.0	8.0	24.0	23.0			
	161.3	1171	2.1	17.36	11.0	7.0	-	-			
	64.7	3151	1.0	13.91	20.0	9.0	26.0	22.0	PA/PF 62 200L6C / 200L6D	320	192
	77.6	2627	1.2	11.60	20.0	9.0	26.0	22.0			
	85.6	2383	1.4	10.52	20.0	9.0	26.0	21.0			
	102.5	1989	1.6	8.78	20.0	9.0	26.0	21.0			
	119.2	1710	1.9	7.55	20.0	9.0	25.0	20.0			
	141.7	1438	1.4	6.35	20.0	8.0	24.0	19.0			
	170.1	1198	1.6	5.29	20.0	8.0	24.0	19.0			
	197.4	1033	2.1	4.56	19.0	10.0	23.0	18.0			
	221.7	920	2.2	4.06	19.0	10.0	23.0	18.0			
	230.2	886	2.4	3.91	19.0	10.0	23.0	18.0			
	241.9	843	2.5	3.72	19.0	10.0	23.0	17.0			
	271.1	752	2.8	3.32	19.0	10.0	21.0	16.0			
	77.1	2616	1.2	18.16	18.0	8.0	25.0	23.0	PA/PF 62 180M4B / 180L4B	262	192
	88.6	2276	1.3	15.80	18.0	9.0	26.0	23.0			
	100.6	2004	1.5	13.91	19.0	9.0	26.0	22.0			
	120.7	1671	1.8	11.60	19.0	9.0	26.0	22.0			
	133.1	1516	2.0	10.52	20.0	9.0	26.0	21.0			
	159.5	1265	2.4	8.78	20.0	9.0	26.0	21.0			
	185.4	1088	2.9	7.55	20.0	9.0	25.0	20.0			
	220.5	915	2.1	6.35	20.0	8.0	24.0	19.0			
	264.7	762	2.5	5.29	20.0	8.0	24.0	19.0			
	75.5	2591	0.9	37.08	18.0	8.0	25.0	27.0	PA/PF 62 180M2A	262	192
	154.2	1269	1.8	18.16	18.0	8.0	25.0	23.0			
	177.2	1104	2.1	15.80	18.0	9.0	26.0	23.0			
	201.3	972	2.4	13.91	19.0	9.0	26.0	22.0			
	241.4	811	2.9	11.60	19.0	9.0	26.0	22.0			

P_1 [kW]	n_2 [Min^{-1}]	M_2 [Nm]	f_B	i_{ges}	F_R [N]	F_A [N]	$F_{R\,GR}$ [N]	$F_{A\,GR}$ [N]	Tip / Type / Typ IE2 / IE3	Kg	mm
22.0	104.0	1939	1.0	13.46	2.0	15.0	10.0	25.0	**PA/PF 52 180M4B / 180L4B**	201	188
	132.3	1524	1.2	10.58	2.0	15.0	13.0	24.0			
	158.6	1272	1.3	8.83	5.0	15.0	14.0	23.0			
	192.0	1050	1.5	7.29	7.0	14.0	16.0	22.0			
	217.4	928	1.6	6.44	8.0	14.0	16.0	22.0			
	250.0	807	1.5	5.60	8.0	13.0	15.0	21.0			
	303.0	666	1.8	4.62	7.0	13.0	16.0	20.0			
	343.1	588	1.9	4.08	7.0	12.0	17.0	19.0			
	381.5	529	2.0	3.67	7.0	12.0	17.0	19.0			
	407.0	496	2.0	3.44	7.0	12.0	17.0	19.0			
	433.4	465	2.1	3.23	7.0	12.0	17.0	18.0			
	503.6	401	2.2	2.78	7.0	11.0	17.0	18.0			
	208.0	941	1.5	13.46	2.0	15.0	10.0	25.0	**PA/PF 52 180M2A**	201	188
	264.7	739	1.8	10.58	2.0	15.0	13.0	24.0			
	317.1	617	2.1	8.83	5.0	15.0	14.0	23.0			
	384.1	509	2.3	7.29	7.0	14.0	16.0	22.0			
	434.8	450	2.5	6.44	8.0	14.0	16.0	22.0			
	500.0	391	2.3	5.60	8.0	13.0	15.0	21.0			
	606.1	323	2.8	4.62	7.0	13.0	16.0	20.0			
	686.3	285	3.0	4.08	7.0	12.0	17.0	19.0			
	560.0	368	1.2	2.50	-	3.0	-	-	**PA/PF 51 180M4B / 180L4B**	166	166
	679.6	303	1.3	2.06	-	3.0	-	-			
	769.2	268	1.3	1.82	-	5.0	-	-			
	853.7	241	1.3	1.64	-	5.0	-	-			
	909.1	226	1.4	1.54	-	5.0	-	-			
	972.2	212	1.4	1.44	-	5.0	-	-			
	1129.0	182	1.5	1.24	-	5.0	-	-			
	1120.0	181	1.8	2.50	-	-	-	-	**PA/PF 51 180M2A**	166	166
	1359.2	149	1.9	2.06	-	-	-	-			
	1538.5	132	2.0	1.82	-	-	-	-			
	1707.3	119	2.1	1.64	-	-	-	-			
	1818.2	112	2.1	1.54	-	-	-	-			
	1944.4	104	2.2	1.44	-	-	-	-			
	2258.1	90	2.3	1.24	-	-	-	-			
30.0	11.0	24782	0.9	81.46	100.0	58.0	120.0	107.0	**PA/PF 103 225M6B / 225M6C**	977	209
	12.8	21423	1.0	70.42	100.0	57.0	120.0	105.0			
	14.8	18481	1.1	60.75	101.0	55.0	120.0	104.0			
	17.0	16124	1.3	53.00	92.0	67.0	120.0	101.0			
	19.9	13790	1.5	45.33	92.0	67.0	120.0	99.0			
	23.7	11551	1.8	37.97	92.0	67.0	120.0	95.0			
	30.4	9011	2.3	29.62	92.0	67.0	111.0	88.0			
	35.5	7706	2.7	25.33	92.0	67.0	107.0	86.0			
	10.3	26262	0.9	136.52	95.0	59.0	120.0	120.0	**PA/PF 103 200L4C / 200L4D**	904	209
	12.4	21654	1.1	112.57	95.0	59.0	-	-			
	17.2	15670	1.3	81.46	95.0	59.0	120.0	107.0			
	19.9	13546	1.5	70.42	97.0	59.0	120.0	105.0			
	23.0	11686	1.7	60.75	98.0	58.0	120.0	104.0			
	26.4	10195	2.0	53.00	100.0	58.0	120.0	101.0			
	30.9	8720	2.3	45.33	100.0	57.0	120.0	99.0			
	36.9	7304	2.7	37.97	101.0	55.0	120.0	95.0			
	20.5	12553	1.4	136.52	95.0	59.0	120.0	120.0	**PA/PF 103 200L2B / 200L2C**	904	209
	24.9	10351	1.7	112.57	95.0	59.0	-	-			
	34.4	7490	2.1	81.46	95.0	59.0	120.0	107.0			
	39.8	6475	2.3	70.42	97.0	59.0	120.0	105.0			
	46.1	5586	2.7	60.75	98.0	58.0	120.0	104.0			
	16.7	16352	0.8	53.75	61.0	34.0	84.0	80.0	**PA/PF 93 225M6B / 225M6C**	758	205
	19.3	14186	0.9	46.63	62.0	34.0	84.0	80.0			
	22.8	12005	1.1	39.46	64.0	34.0	84.0	79.0			
	28.8	9504	1.3	31.24	65.0	34.0	83.0	76.0			
	33.2	8244	1.6	27.10	65.0	33.0	82.0	74.0			
	39.2	6976	1.8	22.93	66.0	33.0	81.0	72.0			
	46.9	5832	2.2	19.17	48.0	36.0	75.0	67.0			

P_1 [kW]	n_2 [Min^{-1}]	M_2 [Nm]	f_B	i_{ges}	F_R [N]	F_A [N]	$F_{R\,GR}$ [N]	$F_{A\,GR}$ [N]	Tip / Type / Typ IE2 / IE3	Kg	mm
30.0	19.3 22.7 26.0 30.0 35.5 44.8 51.7 61.1	13931 11861 10340 8970 7591 6009 5213 4411	1.0 1.1 1.2 1.4 1.6 2.0 2.3 2.8	72.42 61.66 53.75 46.63 39.46 31.24 27.10 22.93	55.0 59.0 61.0 62.0 64.0 65.0 65.0 66.0	32.0 33.0 34.0 34.0 34.0 34.0 33.0 33.0	80.0 83.0 84.0 84.0 84.0 83.0 82.0 81.0	80.0 80.0 80.0 80.0 79.0 76.0 74.0 72.0	**PA/PF 93 200L4C / 200L4D**	685	205
	22.8 38.7 45.4 52.1 60.0 71.0	11307 6659 5670 4942 4288 3628	0.9 1.5 1.7 1.9 2.2 2.6	122.97 72.42 61.66 53.75 46.63 39.46	55.0 55.0 59.0 61.0 62.0 64.0	32.0 32.0 33.0 34.0 34.0 34.0	81.0 80.0 83.0 84.0 84.0 84.0	80.0 80.0 80.0 80.0 80.0 79.0	**PA/PF 93 200L2B / 200L2C**	685	205
	30.7 54.6 62.7 72.6 115.7	9049 5087 4435 3827 2403	1.3 2.2 2.6 2.9 2.7	29.30 16.47 14.36 12.39 7.78	66.0 66.0 66.0 66.0 66.0	39.0 39.0 39.0 39.0 39.0	- 74.0 72.0 70.0 -	- 66.0 64.0 61.0 -	**PA/PF 92 225M6B / 225M6C**	747	204
	39.5 47.8	6968 5756	1.4 1.9	35.47 29.30	66.0 66.0	39.0 39.0	93.0 -	80.0 -	**PA/PF 92 200L4C / 200L4D**	674	204
	78.9 95.6	3380 2792	2.2 2.9	35.47 29.30	66.0 66.0	39.0 39.0	80.0 -	92.0 -	**PA/PF 92 200L2B / 200L2C**	674	204
	23.1 27.7 32.2 36.9 42.9	11868 9896 8515 7417 6386	0.8 0.9 1.0 1.1 1.3	39.01 32.53 27.99 24.38 20.99	38.0 41.0 42.0 43.0 43.0	14.0 15.0 16.0 16.0 17.0	52.0 - 55.0 55.0 55.0	47.0 - 47.0 46.0 45.0	**PA/PF 83 225M6B / 225M6C**	579	201
	22.7 27.2 31.6 35.9 43.0 50.0 57.4 66.7	11886 9911 8529 7504 6258 5384 4690 4038	0.8 0.9 1.0 1.2 1.4 1.5 1.7 2.0	61.79 51.52 44.34 39.01 32.53 27.99 24.38 20.99	24.0 31.0 36.0 38.0 41.0 42.0 43.0 43.0	10.0 12.0 13.0 14.0 15.0 16.0 16.0 17.0	41.0 46.0 50.0 52.0 54.0 55.0 55.0 55.0	45.0 47.0 47.0 47.0 47.0 47.0 46.0 45.0	**PA/PF 83 200L4C / 200L4D**	506	201
	45.3 54.3 63.1 71.8 86.1 100.0 114.8	5682 4737 4077 3587 2991 2574 2242	1.2 1.4 1.7 1.9 2.2 2.4 2.7	61.79 51.52 44.34 39.01 32.53 27.99 24.38	24.0 31.0 36.0 38.0 41.0 42.0 43.0	10.0 12.0 13.0 14.0 15.0 16.0 16.0	41.0 46.0 50.0 52.0 54.0 55.0 55.0	45.0 47.0 47.0 47.0 47.0 47.0 46.0	**PA/PF 83 200L2B / 200L2C**	506	201
	34.0 41.0 54.3 63.0 75.9 87.1 101.8 121.6 144.9	8175 6779 5115 4414 3660 3190 2730 2286 1918	0.8 1.1 1.4 1.6 2.0 2.3 2.5 2.9 2.4	26.47 21.95 16.56 14.29 11.85 10.33 8.84 7.40 6.21	43.0 43.0 43.0 43.0 45.0 45.0 45.0 45.0 45.0	17.0 17.0 17.0 17.0 19.0 19.0 19.0 19.0 19.0	- - 55.0 54.0 52.0 - - 46.0 43.0	- - 44.0 43.0 41.0 - - 36.0 35.0	**PA/PF 82 225M6B / 225M6C**	571	200
	43.6 52.6 52.9 63.8 84.5 98.0	6306 5230 5200 4312 3253 2807	1.0 1.2 1.3 1.7 2.0 2.3	32.10 26.62 26.47 21.95 16.56 14.29	43.0 43.0 43.0 43.0 43.0 43.0	17.0 17.0 17.0 17.0 17.0 17.0	- - - - 55.0 54.0	- - - - 44.0 43.0	**PA/PF 82 200L4C / 200L4D**	498	200
	87.2 105.2 105.8 127.6	3059 2536 2522 2091	1.6 1.9 2.0 2.6	32.10 26.62 26.47 21.95	43.0 43.0 43.0 43.0	17.0 17.0 17.0 17.0	62.0 62.0 - -	54.0 52.0 - -	**PA/PF 82 200L2B / 200L2C**	498	200
	43.6 50.0	6285 5479	0.8 1.0	20.66 18.01	18.0 20.0	6.0 6.0	27.0 28.0	26.0 26.0	**PA/PF 73 225M6B / 225M6C**	472	200

P_1 [kW]	n_2 [Min^{-1}]	M_2 [Nm]	f_B	i_{ges}	F_R [N]	F_A [N]	$F_{R\,GR}$ [N]	$F_{A\,GR}$ [N]	Tip / Type / Typ IE2 / IE3	Kg	mm
30.0	42.1	6400	0.8	33.27	11.0	3.0	18.0	24.0	PA/PF 73 200L4C / 200L4D	399	197
	49.4	5454	0.9	28.35	14.0	4.0	22.0	25.0			
	59.9	4499	1.1	23.39	17.0	5.0	25.0	25.0			
	67.8	3974	1.3	20.66	18.0	6.0	27.0	26.0			
	77.7	3464	1.4	18.01	20.0	6.0	28.0	26.0			
	61.3	4199	1.0	45.67	11.0	3.0	24.0	28.0	PA/PF 73 200L2B / 200L2C	399	197
	74.3	3465	1.1	37.68	11.0	3.0	28.0	29.0			
	84.2	3059	1.2	33.27	11.0	3.0	18.0	24.0			
	98.8	2607	1.5	28.35	14.0	4.0	22.0	25.0			
	119.7	2151	1.8	23.39	17.0	5.0	25.0	25.0			
	135.5	1900	2.0	20.66	18.0	6.0	27.0	26.0			
	155.5	1656	2.3	18.01	20.0	6.0	28.0	26.0			
	53.5	5198	0.8	16.83	21.0	7.0	29.0	26.0	PA/PF 72 225M6B / 225M6C	462	196
	62.8	4426	1.0	14.33	21.0	7.0	30.0	26.0			
	72.1	3858	1.1	12.49	22.0	8.0	30.0	25.0			
	83.0	3348	1.5	10.84	21.0	8.0	29.0	25.0			
	95.1	2922	1.7	9.46	22.0	8.0	29.0	24.0			
	109.6	2536	1.9	8.21	21.0	8.0	29.0	24.0			
	129.7	2143	2.1	6.94	20.0	7.0	29.0	23.0			
	140.2	1983	1.5	6.42	20.0	7.0	27.0	22.0			
	160.7	1730	1.7	5.60	20.0	7.0	27.0	22.0			
	185.2	1501	2.0	4.86	20.0	7.0	26.0	21.0			
	219.0	1269	2.2	4.11	23.0	8.0	25.0	20.0			
	233.2	1192	2.3	3.86	23.0	8.0	23.0	19.0			
	261.6	1062	2.4	3.44	23.0	8.0	23.0	18.0			
	276.1	1007	2.4	3.26	23.0	8.0	-	-			
	326.1	852	2.6	2.76	23.0	8.0	-	-			
	64.7	4251	1.1	21.64	21.0	7.0	37.0	31.0	PA/PF 72 200L4C / 200L4D	389	196
	83.2	3306	1.2	16.83	21.0	7.0	29.0	26.0			
	97.7	2815	1.4	14.33	21.0	7.0	30.0	26.0			
	112.1	2454	1.7	12.49	22.0	8.0	30.0	25.0			
	129.2	2130	2.2	10.84	21.0	8.0	29.0	25.0			
	148.0	1858	2.5	9.46	22.0	8.0	29.0	24.0			
	170.5	1613	2.9	8.21	21.0	8.0	29.0	24.0			
	218.1	1261	2.2	6.42	20.0	7.0	27.0	22.0			
	250.0	1100	2.6	5.60	20.0	7.0	27.0	22.0			
	288.1	955	3.0	4.86	20.0	7.0	26.0	21.0			
	98.0	2723	1.1	28.58	21.0	7.0	33.0	30.0	PA/PF 72 200L2B / 200L2C	389	196
	129.4	2062	1.7	21.64	21.0	7.0	34.0	29.0			
	166.4	1604	1.9	16.83	21.0	7.0	29.0	26.0			
	195.4	1365	2.3	14.33	21.0	7.0	30.0	26.0			
	224.2	1190	2.6	12.49	27.0	8.0	-	-			
	64.7	4296	0.8	13.91	18.0	7.0	21.0	20.0	PA/PF 62 225M6B / 225M6C	393	192
	77.6	3583	0.9	11.60	18.0	7.0	22.0	20.0			
	85.6	3249	1.0	10.52	18.0	7.0	21.0	19.0			
	102.5	2712	1.2	8.78	19.0	8.0	22.0	19.0			
	119.2	2332	1.4	7.55	19.0	8.0	22.0	19.0			
	141.7	1961	1.0	6.35	18.0	7.0	21.0	18.0			
	170.1	1634	1.2	5.29	18.0	7.0	21.0	18.0			
	197.4	1408	1.6	4.56	18.0	7.0	21.0	17.0			
	221.7	1254	1.6	4.06	18.0	7.0	21.0	17.0			
	230.2	1208	1.7	3.91	18.0	7.0	21.0	17.0			
	241.9	1149	1.9	3.72	17.0	7.0	21.0	17.0			
	271.1	1025	2.0	3.32	17.0	7.0	21.0	16.0			
	303.0	917	2.2	2.97	18.0	8.0	20.0	16.0			
	100.6	2733	1.1	13.91	18.0	7.0	21.0	20.0	PA/PF 62 200L4C / 200L4D	320	192
	120.7	2279	1.4	11.60	18.0	7.0	22.0	20.0			
	133.1	2067	1.5	10.52	18.0	7.0	21.0	19.0			
	159.5	1725	1.7	8.78	19.0	8.0	22.0	19.0			
	185.4	1483	2.1	7.55	19.0	8.0	22.0	19.0			
	220.5	1248	1.5	6.35	18.0	7.0	21.0	18.0			
	264.7	1039	1.8	5.29	18.0	7.0	21.0	18.0			
	307.0	896	2.3	4.56	18.0	7.0	21.0	17.0			
	344.8	798	2.4	4.06	18.0	7.0	21.0	17.0			
	358.1	768	2.6	3.91	18.0	7.0	21.0	17.0			
	376.3	731	2.8	3.72	17.0	7.0	21.0	17.0			
	421.7	652	3.0	3.32	17.0	7.0	21.0	16.0			

P_1 [kW]	n_2 [Min^{-1}]	M_2 [Nm]	f_B	i_{ges}	F_R [N]	F_A [N]	$F_{R\,GR}$ [N]	$F_{A\,GR}$ [N]	Tip / Type / Typ IE2 / IE3	Kg	mm
30.0	201.3 241.4 266.2 318.9 440.9 529.3	1325 1105 1002 837 605 504	1.8 2.1 2.3 2.7 2.4 2.8	13.91 11.60 10.52 8.78 6.35 5.29	18.0 18.0 18.0 19.0 18.0 18.0	7.0 7.0 7.0 8.0 7.0 7.0	16.0 18.0 18.0 19.0 19.0 19.0	18.0 18.0 18.0 18.0 17.0 17.0	**PA/PF 62 200L2B / 200L2C**	320	192
	343.1	802	1.4	4.08	2.0	15.0	17.0	19.0	**PA/PF 52 200L4C / 200L4D**	263	188
37.0	12.4 17.2 19.9 23.0 26.4 30.9 36.9 47.3	26707 19326 16707 14413 12574 10755 9008 7027	0.9 1.1 1.2 1.4 1.6 1.9 2.2 2.8	112.57 81.46 70.42 60.75 53.00 45.33 37.97 29.62	91.0 91.0 94.0 96.0 98.0 99.0 100.0 101.0	53.0 53.0 54.0 54.0 54.0 53.0 52.0 51.0	- 120.0 120.0 120.0 120.0 119.0 115.0 111.0	- 100.0 99.0 98.0 96.0 95.0 92.0 88.0	**PA/PF 103 225M4A / 225M4B**	977	209
	20.5 24.9 34.4 39.8 46.1 52.8 61.8	15482 12766 9238 7986 6889 6010 5141	1.1 1.4 1.7 1.9 2.2 2.5 3.0	136.52 112.57 81.46 70.42 60.75 53.00 45.33	91.0 91.0 91.0 94.0 96.0 98.0 99.0	53.0 53.0 53.0 54.0 54.0 54.0 53.0	120.0 - 120.0 120.0 120.0 120.0 119.0	120.0 - 100.0 99.0 98.0 96.0 95.0	**PA/PF 103 200L2C / 200L2D**	904	209
	19.3 22.7 26.0 30.0 35.5 44.8 51.7 61.1 73.0	17182 14629 12752 11063 9362 7412 6429 5440 4548	0.8 0.9 1.0 1.1 1.3 1.6 1.9 2.2 2.7	72.42 61.66 53.75 46.63 39.46 31.24 27.10 22.93 19.17	47.0 54.0 57.0 60.0 62.0 64.0 65.0 65.0 66.0	26.0 28.0 29.0 30.0 31.0 31.0 31.0 31.0 30.0	64.0 70.0 72.0 75.0 77.0 77.0 77.0 76.0 75.0	76.0 77.0 76.0 76.0 75.0 73.0 71.0 69.0 67.0	**PA/PF 93 225M4A / 225M4B**	758	205
	22.8 38.7 45.4 52.1 60.0 71.0 89.6 103.0	13945 8213 6993 6095 5288 4475 3543 3073	0.8 1.2 1.4 1.5 1.8 2.1 2.6 3.0	122.97 72.42 61.66 53.75 46.63 39.46 31.24 27.10	47.0 47.0 54.0 57.0 60.0 62.0 64.0 65.0	26.0 26.0 28.0 29.0 30.0 31.0 31.0 31.0	81.0 64.0 70.0 72.0 75.0 77.0 77.0 77.0	80.0 76.0 77.0 76.0 76.0 75.0 73.0 71.0	**PA/PF 93 200L2C / 200L2D**	685	205
	47.8 85.0	7099 3991	1.5 2.7	29.30 16.47	66.0 66.0	30.0 30.0	- 74.0	- 66.0	**PA/PF 92 225M4A / 225M4B**	747	204
	78.9 95.6	4168 3443	1.8 2.4	35.47 29.30	66.0 66.0	30.0 30.0	93.0 -	80.0 -	**PA/PF 92 200L2C / 200L2D**	674	204
	31.6 35.9 43.0 50.0 57.4 66.7	10520 9255 7718 6641 5784 4980	0.8 1.0 1.1 1.2 1.4 1.6	44.34 39.01 32.53 27.99 24.38 20.99	28.0 32.0 35.0 37.0 38.0 39.0	9.0 11.0 12.0 13.0 14.0 15.0	39.0 42.0 46.0 48.0 49.0 50.0	42.0 43.0 43.0 43.0 43.0 43.0	**PA/PF 83 225M4A / 225M4B**	579	201
	45.3 54.3 63.1 71.8 86.1 100.0 114.8 133.4	7007 5843 5028 4424 3689 3174 2765 2380	1.0 1.2 1.3 1.5 1.8 1.9 2.2 2.6	61.79 51.52 44.34 39.01 32.53 27.99 24.38 20.99	28.0 28.0 28.0 32.0 35.0 37.0 38.0 39.0	9.0 9.0 9.0 11.0 12.0 13.0 14.0 15.0	41.0 46.0 39.0 42.0 46.0 48.0 49.0 50.0	45.0 47.0 42.0 43.0 43.0 43.0 43.0 43.0	**PA/PF 83 200L2C / 200L2D**	506	201
	52.9 63.8 84.5 98.0 118.1 135.5 225.4	6414 5318 4012 3462 2871 2503 1505	1.0 1.4 1.6 1.9 2.5 2.7 2.9	26.47 21.95 16.56 14.29 11.85 10.33 6.21	40.0 40.0 40.0 40.0 39.0 39.0 35.0	15.0 15.0 15.0 15.0 15.0 15.0 14.0	- - 51.0 50.0 49.0 49.0 43.0	- - 42.0 41.0 40.0 39.0 35.0	**PA/PF 82 225M4A / 225M4B**	571	200

P_1 [kW]	n_2 [Min^{-1}]	M_2 [Nm]	f_B	i_{ges}	F_R [N]	F_A [N]	$F_{R\,GR}$ [N]	$F_{A\,GR}$ [N]	Tip / Type / Typ IE2 / IE3	Kg	mm
37.0	87.2	3772	1.3	32.10	40.0	15.0	-	-	**PA/PF 82 200L2C / 200L2D**	498	200
	105.2	3128	1.5	26.62	40.0	15.0	-	-			
	105.8	3111	1.6	26.47	40.0	15.0	-	-			
	127.6	2580	2.1	21.95	40.0	15.0	-	-			
	169.1	1946	2.6	16.56	40.0	15.0	51.0	42.0			
	195.9	1679	3.0	14.29	40.0	15.0	50.0	41.0			
	59.9	5549	0.9	23.39	11.0	3.0	18.0	22.0	**PA/PF 73 225M4A / 225M4B**	472	197
	67.8	4902	1.0	20.66	13.0	4.0	20.0	23.0			
	77.7	4273	1.2	18.01	15.0	5.0	23.0	23.0			
	61.3	5179	0.8	45.67	11.0	3.0	24.0	28.0	**PA/PF 73 200L2C / 200L2D**	399	197
	74.3	4273	0.9	37.68	11.0	3.0	24.0	28.0			
	84.2	3773	1.0	33.27	11.0	3.0	18.0	24.0			
	98.8	3215	1.2	28.35	11.0	3.0	22.0	25.0			
	119.7	2653	1.4	23.39	11.0	3.0	18.0	22.0			
	135.5	2343	1.6	20.66	13.0	4.0	20.0	23.0			
	155.5	2042	1.9	18.01	15.0	5.0	23.0	23.0			
	83.2	4078	1.0	16.83	17.0	5.0	24.0	24.0	**PA/PF 72 225M4A / 225M4B**	462	196
	97.7	3472	1.2	14.33	18.0	6.0	26.0	24.0			
	112.1	3026	1.3	12.49	19.0	6.0	27.0	24.0			
	129.2	2627	1.8	10.84	19.0	6.0	26.0	23.0			
	148.0	2292	2.1	9.46	19.0	7.0	27.0	23.0			
	170.5	1989	2.3	8.21	20.0	7.0	27.0	22.0			
	201.7	1682	2.6	6.94	20.0	7.0	27.0	22.0			
	218.1	1556	1.8	6.42	18.0	6.0	25.0	21.0			
	250.0	1357	2.1	5.60	19.0	7.0	25.0	21.0			
	288.1	1178	2.5	4.86	18.0	7.0	25.0	20.0			
	340.6	996	2.7	4.11	18.0	7.0	25.0	20.0			
	362.7	935	2.8	3.86	21.0	7.0	23.0	19.0			
	407.0	834	2.9	3.44	21.0	7.0	23.0	18.0			
	429.4	790	3.0	3.26	21.0	7.0	-	-			
	98.0	3359	0.9	28.58	17.0	5.0	33.0	30.0	**PA/PF 72 200L2C / 200L2D**	389	196
	129.4	2543	1.3	21.64	17.0	5.0	34.0	29.0			
	166.4	1978	1.6	16.83	17.0	5.0	24.0	24.0			
	195.4	1684	1.8	14.33	18.0	6.0	26.0	24.0			
	224.2	1468	2.1	12.49	19.0	6.0	27.0	24.0			
	258.3	1274	2.8	10.84	19.0	6.0	26.0	23.0			
	436.1	754	2.8	6.42	18.0	6.0	25.0	21.0			
	100.6	3370	0.9	13.91	14.0	5.0	16.0	18.0	**PA/PF 62 225M4A / 225M4B**	393	196
	120.7	2811	1.1	11.60	16.0	6.0	18.0	18.0			
	133.1	2549	1.2	10.52	15.0	6.0	18.0	18.0			
	159.5	2127	1.4	8.78	16.0	6.0	19.0	18.0			
	185.4	1829	1.7	7.55	17.0	7.0	20.0	18.0			
	220.5	1539	1.3	6.35	16.0	6.0	19.0	17.0			
	264.7	1282	1.5	5.29	16.0	7.0	19.0	17.0			
	307.0	1105	1.9	4.56	16.0	7.0	20.0	16.0			
	344.8	984	1.9	4.06	16.0	7.0	20.0	16.0			
	358.1	947	2.1	3.91	16.0	7.0	20.0	16.0			
	376.3	901	2.3	3.72	16.0	7.0	20.0	16.0			
	421.7	804	2.5	3.32	16.0	7.0	19.0	16.0			
	471.4	720	2.7	2.97	16.0	7.0	19.0	15.0			
	201.3	1635	1.4	13.91	14.0	5.0	16.0	18.0	**PA/PF 62 200L2C / 200L2D**	320	196
	241.4	1363	1.7	11.60	16.0	6.0	18.0	18.0			
	266.2	1236	1.9	10.52	15.0	6.0	18.0	18.0			
	318.9	1032	2.2	8.78	16.0	6.0	19.0	18.0			
	370.9	887	2.7	7.55	170	7.0	20.0	18.0			
	440.9	746	2.0	6.35	16.0	6.0	19.0	17.0			
	529.3	622	2.3	5.29	16.0	7.0	19.0	17.0			
	614.0	536	3.0	4.56	16.0	7.0	20.0	16.0			
	689.7	477	3.0	4.06	16.0	7.0	20.0	16.0			
45.0	17.2	23505	0.9	81.46	90.0	48.0	120.0	100.0	**PA/PF 103 225M4B / 225M4C**	977	209
	19.9	20319	1.0	70.42	90.0	48.0	108.0	91.0			
	23.0	17529	1.1	60.75	93.0	49.0	110.0	91.0			
	26.4	15293	1.3	53.00	96.0	49.0	112.0	91.0			
	30.9	13080	1.5	45.33	97.0	50.0	113.0	90.0			
	36.9	10956	1.8	37.97	99.0	49.0	111.0	88.0			
	47.3	8547	2.3	29.62	100.0	48.0	107.0	85.0			
	55.3	7309	2.7	25.33	101.0	48.0	104.0	83.0			

P_1 [kW]	n_2 [Min^{-1}]	M_2 [Nm]	f_B	i_{ges}	F_R [N]	F_A [N]	$F_{R\,GR}$ [N]	$F_{A\,GR}$ [N]	Tip / Type / Typ IE2 / IE3	Kg	mm
45.0	24.9 34.4 39.8 46.1 52.8 61.8 73.7	15526 11235 9713 8379 7310 6252 5237	1.1 1.4 1.6 1.8 2.1 2.4 2.9	112.57 81.46 70.42 60.75 53.00 45.33 37.97	90.0 90.0 90.0 93.0 96.0 97.0 99.0	48.0 48.0 48.0 49.0 49.0 50.0 49.0	- 120.0 108.0 110.0 112.0 113.0 111.0	- 100.0 91.0 91.0 91.0 90.0 88.0	**PA/PF 103 225M2B**	977	209
	26.0 30.0 35.5 44.8 51.7 61.1 73.0	15509 13455 11386 9014 7820 6616 5531	0.8 0.9 1.1 1.4 1.6 1.8 2.2	53.75 46.63 39.46 31.24 27.10 22.93 19.17	52.0 56.0 59.0 62.0 63.0 64.0 65.0	24.0 26.0 27.0 28.0 28.0 29.0 28.0	60.0 64.0 67.0 70.0 71.0 71.0 71.0	70.0 70.0 70.0 69.0 68.0 67.0 65.0	**PA/PF 93 225M4B / 225M4C**	758	205
	38.7 45.4 52.1 60.0 71.0 89.6 103.3 122.1	9988 8504 7413 6431 5442 4309 3738 3163	1.0 1.1 1.3 1.4 1.7 2.2 2.5 2.9	72.42 61.66 53.75 46.63 39.46 31.24 27.10 22.93	52.0 52.0 52.0 56.0 59.0 62.0 63.0 64.0	24.0 24.0 24.0 26.0 27.0 28.0 28.0 29.0	64.0 70.0 72.0 75.0 77.0 77.0 77.0 76.0	76.0 77.0 76.0 76.0 75.0 73.0 71.0 69.0	**PA/PF 93 225M2B**	758	205
	47.8 85.0 97.5 113.0 179.9	8634 4853 4232 3651 2293	1.2 2.2 2.5 2.9 2.7	29.30 16.47 14.36 12.39 7.78	65.0 65.0 63.0 62.0 66.0	28.0 28.0 28.0 27.0 30.0	- 70.0 69.0 68.0 54.0	- 64.0 62.0 60.0 49.0	**PA/PF 92 225M4B / 225M4C**	747	204
	95.6	4188	2.0	29.30	65.0	28.0	-	-	**PA/PF 92 225M2B**	747	204
	35.9 43.0 50.0 57.4 66.7	11256 9386 8076 7035 6057	0.8 0.9 1.0 1.1 1.3	39.01 32.53 27.99 24.38 20.99	27.0 27.0 30.0 32.0 34.0	9.0 9.0 10.0 11.0 12.0	42.0 36.0 40.0 42.0 44.0	43.0 39.0 39.0 40.0 40.0	**PA/PF 83 225M4B / 225M4C**	579	201
	45.3 54.3 63.1 71.8 86.1 100.0 114.8 133.4	8522 7106 6116 5380 4487 3860 3363 2895	0.8 1.0 1.1 1.3 1.4 1.6 1.8 2.1	61.79 51.52 44.34 39.01 32.53 27.99 24.38 20.99	27.0 27.0 27.0 27.0 27.0 30.0 32.0 34.0	9.0 9.0 9.0 9.0 9.0 10.0 11.0 12.0	41.0 46.0 50.0 39.0 36.0 40.0 42.0 44.0	45.0 47.0 47.0 42.0 39.0 39.0 40.0 40.0	**PA/PF 83 225M2B**	579	201
	52.9 63.8 84.5 98.0 118.1 135.5 158.4 189.2 225.4	7800 6468 4880 4211 3492 3044 2605 2181 1830	0.8 1.1 1.3 1.6 2.0 2.3 2.5 2.9 2.4	26.47 21.95 16.56 14.29 11.85 10.33 8.84 7.40 6.21	36.0 36.0 36.0 37.0 36.0 36.0 36.0 35.0 33.0	14.0 14.0 14.0 14.0 14.0 14.0 14.0 14.0 13.0	- - 46.0 47.0 46.0 46.0 45.0 44.0 42.0	- - 40.0 39.0 38.0 37.0 36.0 35.0 34.0	**PA/PF 82 225M4B / 225M4C**	571	200
	105.8 127.6 169.1 195.9	3783 3137 2367 2042	1.3 1.8 2.1 2.4	26.47 21.95 16.56 14.29	36.0 36.0 36.0 37.0	14.0 14.0 14.0 14.0	- - 46.0 47.0	- - 40.0 39.0	**PA/PF 82 225M2B**	571	200
	67.8 77.7	5961 5197	0.8 1.0	20.66 18.01	6.0 10.0	1.0 2.0	13.0 16.0	19.0 20.0	**PA/PF 73 225M4B / 225M4C**	472	197
	84.2 98.8 119.7 135.5 155.5	4589 3910 3226 2850 2484	0.8 1.0 1.2 1.3 1.5	33.27 28.35 23.39 20.66 18.01	6.0 6.0 6.0 6.0 10.0	1.0 1.0 1.0 1.0 2.0	18.0 22.0 18.0 13.0 16.0	24.0 25.0 22.0 19.0 20.0	**PA/PF 73 225M2B**	472	197

P_1 [kW]	n_2 [Min^{-1}]	M_2 [Nm]	f_B	i_{ges}	F_R [N]	F_A [N]	$F_{R\,GR}$ [N]	$F_{A\,GR}$ [N]	Tip / Type / Typ IE2 / IE3	Kg	mm
45.0	83.2	4960	0,8	16.83	14.0	4.0	24.0	24.0	**PA/PF 72 225M4B / 225M4C**	462	196
	97.7	4223	1.0	14.33	14.0	4.0	21.0	22.0			
	112.1	3681	1.1	12.49	16.0	5.0	22.0	22.0			
	129.2	3194	1.5	10.84	16.0	5.0	23.0	21.0			
	148.0	2788	1.7	9.46	17.0	5.0	24.0	21.0			
	170.5	2419	1.9	8.21	17.0	6.0	24.0	21.0			
	201.7	2045	2.1	6.94	18.0	6.0	25.0	21.0			
	218.1	1892	1.5	6.42	16.0	6.0	23.0	20.0			
	250.0	1650	1.7	5.60	17.0	6.0	23.0	20.0			
	288.1	1432	2.0	4.86	17.0	6.0	23.0	19.0			
	340.6	1211	2.2	4.11	17.0	6.0	23.0	19.0			
	362.7	1137	2.3	3.86	17.0	6.0	23.0	19.0			
	407.0	1014	2.4	3.44	17.0	6.0	23.0	18.0			
	429.4	961	2.4	3.26	17.0	5.0	-	-			
	507.2	813	2.6	2.76	17.0	5.0	-	-			
	166.4	2405	1.3	16.83	14.0	4.0	24.0	24.0	**PA/PF 72 225M2B**	462	196
	195.4	2048	1.5	14.33	14.0	4.0	21.0	22.0			
	224.2	1785	1.7	12.49	16.0	5.0	22.0	22.0			
	258.3	1549	2.3	10.84	16.0	5.0	23.0	21.0			
	296.0	1352	2.6	9.46	17.0	5.0	24.0	21.0			
	341.0	1173	3.0	8.21	17.0	6.0	24.0	21.0			
	436.1	918	2.3	6.42	16.0	6.0	23.0	20.0			
	500.0	800	2.7	5.60	17.0	6.0	23.0	20.0			
	100.6	4099	0.8	13.91	14.0	6.0	16.0	18.0	**PA/PF 62 225M4B / 225M4C**	393	192
	120.7	3418	0.9	11.60	12.0	4.0	13.0	16.0			
	133.1	3100	1.0	10.52	14.0	6.0	18.0	18.0			
	159.5	2587	1.2	8.78	14.0	5.0	15.0	16.0			
	185.4	2225	1.4	7.55	14.0	6.0	17.0	16.0			
	220.5	1871	1.0	6.35	14.0	6.0	19.0	17.0			
	264.7	1559	1.2	5.29	14.0	6.0	17.0	16.0			
	307.0	1344	1.5	4.56	15.0	6.0	17.0	15.0			
	344.8	1196	1.6	4.06	15.0	6.0	18.0	15.0			
	358.1	1152	1.7	3.91	15.0	6.0	18.0	15.0			
	376.3	1096	1.9	3.72	15.0	6.0	18.0	15.0			
	421.7	978	2.0	3.32	15.0	6.0	18.0	15.0			
	471.4	875	2.2	2.97	15.0	6.0	18.0	15.0			
	201.3	1988	1.2	13.91	14.0	6.0	16.0	18.0	**PA/PF 62 225M2B**	393	192
	241.4	1658	1.4	11.60	12.0	4.0	13.0	16.0			
	266.2	1504	1.6	10.52	14.0	6.0	18.0	18.0			
	318.9	1255	1.8	8.78	14.0	5.0	15.0	16.0			
	370.9	1079	2.2	7.55	14.0	6.0	17.0	16.0			
	440.9	908	1.6	6.35	14.0	6.0	19.0	17.0			
	529.3	756	1.9	5.29	14.0	6.0	17.0	16.0			
	614.0	652	2.4	4.56	15.0	6.0	17.0	15.0			
	689.7	580	2.5	4.06	15.0	6.0	18.0	15.0			
	716.1	559	2.7	3.91	15.0	6.0	18.0	15.0			
	752.7	532	2.9	3.72	15.0	6.0	18.0	15.0			
55.0	19.9	24835	0.8	70.42	83.0	41.0	89.0	82.0	**PA/PF 103 250M4A / 250M4B**	1150	209
	23.0	21425	0.9	60.75	88.0	43.0	94.0	83.0			
	26.4	18691	1.1	53.00	92.0	44.0	99.0	84.0			
	30.9	15986	1.3	45.33	95.0	45.0	102.0	84.0			
	36.9	13391	1.5	37.97	97.0	45.0	103.0	83.0			
	47.3	10446	1.9	29.62	99.0	45.0	102.0	81.0			
	55.3	8933	2.2	25.33	100.0	45.0	100.0	80.0			
	66.0	7484	2.7	21.22	97.0	44.0	97.0	77.0			
	39.8	11871	1.3	70.42	83.0	41.0	89.0	82.0	**PA/PF 103 250M2A**	1150	209
	46.1	10241	1.5	60.75	88.0	43.0	94.0	83.0			
	52.8	8934	1.7	53.00	92.0	44.0	99.0	84.0			
	61.8	7641	2.0	45.33	95.0	45.0	102.0	84.0			
	73.7	6401	2.4	37.97	97.0	45.0	103.0	83.0			
	94.5	4993	3.0	29.62	99.0	45.0	102.0	81.0			
	72.4	6969	2.4	19.35	76.0	35.0	96.0	77.0	**PA/PF 102 250M4A / 250M4B**	1150	208
	84.3	5982	2.9	16.61	76.0	35.0	94.0	75.0			
	72.2	6773	1.8	38.77	51.0	40.0	-	-	**PA/PF 102 250M2A**	1150	208

P_1 [kW]	n_2 [Min^{-1}]	M_2 [Nm]	f_B	i_{ges}	F_R [N]	F_A [N]	$F_{R\,GR}$ [N]	$F_{A\,GR}$ [N]	Tip / Type / Typ IE2 / IE3	Kg	mm
55.0	35.5 44.8 51.7 61.1 73.0	13916 11017 9557 8087 6761	0.9 1.1 1.3 1.5 1.8	39.46 31.24 27.10 22.93 19.17	55.0 59.0 60.0 61.0 61.0	22.0 25.0 25.0 26.0 26.0	55.0 61.0 63.0 65.0 65.0	64.0 64.0 64.0 63.0 62.0	**PA/PF 93 250M4A / 250M4B**	931	205
	45.4 52.1 60.0 71.0 89.6 103.3 122.1 146.1	10394 9061 7861 6652 5266 4568 3865 3232	0.9 1.0 1.2 1.4 1.8 2.0 2.4 2.9	61.66 53.75 46.63 39.46 31.24 27.10 22.93 19.17	55.0 55.0 55.0 55.0 59.0 60.0 61.0 61.0	22.0 22.0 22.0 22.0 25.0 25.0 26.0 26.0	70.0 60.0 64.0 55.0 61.0 63.0 65.0 65.0	77.0 70.0 70.0 64.0 64.0 64.0 63.0 62.0	**PA/PF 93 250M2A**	931	205
	85.0 97.5 113.0 133.3 179.9 208.6	5932 5172 4463 3782 2802 2417	1.8 2.1 2.4 2.7 2.2 2.9	16.47 14.36 12.39 10.50 7.78 6.71	61.0 60.0 59.0 58.0 65.0 65.0	26.0 26.0 26.0 26.0 28.0 28.0	66.0 65.0 64.0 63.0 54.0 53.0	61.0 60.0 58.0 56.0 49.0 48.0	**PA/PF 92 250M4A / 250M4B**	920	204
	170.0	2877	2.8	16.47	61.0	26.0	66.0	61.0	**PA/PF 92 250M2A**	920	204
	84.5 98.0 118.1 135.5 158.4 189.2 225.4 263.7 314.6 384.6 482.8	5964 5147 4268 3721 3184 2665 2237 1913 1603 1311 1044	1.1 1.3 1.7 1.8 2.1 2.3 1.9 2.5 2.7 3.0 3.0	16.56 14.29 11.85 10.33 8.84 7.40 6.21 5.31 4.45 3.64 2.90	31.0 32.0 33.0 33.0 33.0 33.0 31.0 31.0 30.0 30.0 29.0	11.0 12.0 12.0 13.0 13.0 13.0 12.0 12.0 12.0 12.0 11.0	41.0 42.0 42.0 42.0 43.0 42.0 40.0 39.0 38.0 37.0 35.0	37.0 37.0 36.0 36.0 35.0 34.0 32.0 32.0 30.0 29.0 28.0	**PA/PF 82 250M4A / 250M4B**	744	200
	169.1 195.9 236.3 271.1 450.9	2893 2496 2070 1805 1085	1.7 2.0 2.6 2.9 3.0	16.56 14.29 11.85 10.33 6.21	31.0 32.0 33.0 33.0 31.0	11.0 12.0 12.0 13.0 12.0	41.0 42.0 42.0 42.0 40.0	37.0 37.0 36.0 36.0 32.0	**PA/PF 82 250M2A**	744	200
75.0	26.4 30.9 36.9 47.3 55.3 66.0	25488 21800 18260 14245 12181 10205	0.8 0.9 1.1 1.4 1.6 2.0	53.00 45.33 37.97 29.62 25.33 21.22	69.0 78.0 84.0 89.0 89.0 89.0	33.0 36.0 38.0 39.0 40.0 40.0	71.0 78.0 84.0 89.0 90.0 90.0	70.0 72.0 73.0 73.0 73.0 72.0	**PA/PF 103 280M4B / 280M4C**	1350	209
	46.1 52.8 61.8 73.7 94.5 110.5	13965 12183 10420 8728 6809 5823	1.1 1.2 1.5 1.7 2.2 2.6	60.75 53.00 45.33 37.97 29.62 25.33	69.0 69.0 78.0 84.0 89.0 89.0	33.0 33.0 36.0 38.0 39.0 40.0	94.0 71.0 78.0 84.0 89.0 90.0	83.0 70.0 72.0 73.0 73.0 73.0	**PA/PF 103 280M2B / 280M2C**	1350	209
	72.4 84.3 98.0 118.1	9504 8158 7018 5820	1.8 2.1 2.4 2.7	19.35 16.61 14.29 11.85	90.0 88.0 86.0 84.0	40.0 40.0 39.0 38.0	90.0 89.0 86.0 84.0	72.0 71.0 69.0 67.0	**PA/PF 102 280M4B / 280M4C**	1350	208
	72.2 144.7	9235 4609	1.3 2.8	38.77 19.35	90.0 90.0	40.0 40.0	- 90.0	- 72.0	**PA/PF 102 280M2B / 280M2C**	1350	208
	44.8 51.7 61.1 73.0	15024 13033 11027 9219	0.8 0.9 1.1 1.3	31.24 27.10 22.93 19.17	45.0 48.0 51.0 52.0	18.0 19.0 21.0 22.0	43.0 47.0 51.0 54.0	55.0 56.0 57.0 56.0	**PA/PF 93 280M4B / 280M4C**	1131	205
	52.1 60.0 71.0 89.6 103.3 122.1 146.1	12356 10719 9071 7181 6230 5271 4407	0.8 0.9 1.0 1.3 1.5 1.8 2.1	53.75 46.63 39.46 31.24 27.10 22.93 19.17	45.0 45.0 45.0 45.0 48.0 51.0 52.0	18.0 18.0 18.0 18.0 19.0 21.0 22.0	60.0 64.0 55.0 43.0 47.0 51.0 54.0	70.0 70.0 64.0 55.0 56.0 57.0 56.0	**PA/PF 93 280M2B / 280M2C**	1131	205

P_1 [kW]	n_2 [Min^{-1}]	M_2 [Nm]	f_B	i_{ges}	F_R [N]	F_A [N]	$F_{R\,GR}$ [N]	$F_{A\,GR}$ [N]	Tip / Type / Typ IE2 / IE3	Kg	mm
75.0	85.0 97.5 113.0 133.3 179.9 208.6 246.5	8089 7053 6085 5157 3821 3296 2790	1.3 1.5 1.7 2.0 1.6 2.1 2.6	16.47 14.36 12.39 10.50 7.78 6.71 5.68	54.0 54.0 54.0 53.0 50.0 49.0 48.0	23.0 23.0 23.0 23.0 22.0 21.0 21.0	57.0 57.0 58.0 57.0 54.0 53.0 52.0	56.0 56.0 55.0 53.0 49.0 48.0 47.0	**PA/PF 92 280M4B / 280M4C**	1120	204
	170.0 195.0 226.0 359.9	3923 3421 2951 1853	2.1 2.4 2.7 2.5	16.47 14.36 12.39 7.78	54.0 54.0 54.0 50.0	23.0 23.0 23.0 22.0	57.0 57.0 57.0 54.0	56.0 56.0 53.0 49.0	**PA/PF 92 280M2B / 280M2C**	1120	204
	98.0 118.1 135.5 158.4 189.2 225.4 263.7 314.6 384.6 482.8	7018 5820 5074 4342 3634 3050 2608 2186 1788 1424	0.9 1.2 1.4 1.5 1.7 1.4 1.8 2.0 2.2 2.2	14.29 11.85 10.33 8.84 7.40 6.21 5.31 4.45 3.64 2.90	24.0 26.0 27.0 28.0 29.0 27.0 28.0 28.0 27.0 27.0	8.0 9.0 10.0 10.0 11.0 10.0 11.0 11.0 11.0 11.0	32.0 34.0 35.0 36.0 37.0 35.0 35.0 35.0 35.0 34.0	32.0 32.0 32.0 32.0 32.0 30.0 29.0 29.0 28.0 27.0	**PA/PF 82 280M4B / 280M4C**	944	200
	195.9 236.3 271.1 316.7 378.4 450.9 527.3	3404 2823 2461 2106 1763 1479 1265	1.5 1.9 2.1 2.4 2.7 2.2 2.9	14.29 11.85 10.33 8.84 7.40 6.21 5.31	24.0 26.0 27.0 28.0 29.0 27.0 28.0	8.0 9.0 10.0 10.0 11.0 10.0 11.0	32.0 34.0 35.0 36.0 37.0 35.0 35.0	32.0 32.0 32.0 32.0 32.0 30.0 29.0	**PA/PF 82 280M2B / 280M2C**	944	200
90.0	30.9 36.9 47.3 55.3 66.0	26160 21912 17093 14618 12246	0.8 0.9 1.2 1.4 1.6	45.33 37.97 29.62 25.33 21.22	58.0 67.0 77.0 81.0 83.0	29.0 32.0 35.0 36.0 37.0	60.0 69.0 77.0 81.0 83.0	63.0 66.0 68.0 68.0 68.0	**PA/PF 103 280M4C / 280M4D**	1350	209
	46.1 52.8 61.8 73.7 94.5 110.5 132.0	16758 14620 12504 10474 8171 6987 5853	0.9 1.0 1.2 1.5 1.9 2.2 2.6	60.75 53.00 45.33 37.97 29.62 25.33 21.22	58.0 58.0 58.0 67.0 77.0 81.0 83.0	29.0 29.0 29.0 32.0 35.0 36.0 37.0	- 71.0 60.0 69.0 77.0 81.0 37.0	- 70.0 63.0 66.0 68.0 68.0 68.0	**PA/PF 103 280M2C / 280M2D**	1350	209
	72.4 84.3 98.0 118.1 140.8 186.4	11404 9789 8422 6984 5858 4426	1.5 1.8 2.0 2.3 2.6 2.5	19.35 16.61 14.29 11.85 9.94 7.51	84.0 83.0 82.0 81.0 79.0 73.0	37.0 37.0 37.0 37.0 36.0 33.0	85.0 85.0 83.0 81.0 79.0 73.0	68.0 67.0 66.0 64.0 63.0 58.0	**PA/PF 102 280M4C / 280M4D**	1350	208
	72.2 144.7 168.6	11083 5531 4748	1.1 2.3 2.8	38.77 19.35 16.61	84.0 84.0 83.0	37.0 37.0 37.0	- 85.0 85.0	- 68.0 67.0	**PA/PF 102 280M2C / 280M2D**	1350	208
	51.7 61.1 73.0	15639 13233 11063	0.8 0.9 1.1	27.10 22.93 19.17	45.0 45.0 45.0	18.0 18.0 18.0	47.0 51.0 54.0	56.0 57.0 56.0	**PA/PF 93 280M4C / 280M4D**	1131	205
	71.0 89.6 103.3 122.1 146.1	10885 8617 7475 6325 5288	0.9 1.1 1.2 1.5 1.8	39.46 31.24 27.10 22.93 19.17	45.0 45.0 45.0 45.0 45.0	18.0 18.0 18.0 18.0 18.0	- 43.0 47.0 51.0 54.0	- 55.0 56.0 57.0 56.0	**PA/PF 93 280M2C / 280M2D**	1131	205
	85.0 97.5 113.0 133.3 179.9 208.6 246.5 398.9	9707 8463 7302 6188 4585 3955 3348 2069	1.1 1.3 1.5 1.6 1.3 1.8 2.2 2.7	16.47 14.36 12.39 10.50 7.78 6.71 5.68 3.51	48.0 49.0 50.0 50.0 47.0 46.0 46.0 43.0	20.0 21.0 21.0 21.0 20.0 20.0 20.0 19.0	50.0 51.0 52.0 53.0 50.0 50.0 49.0 47.0	53.0 52.0 52.0 51.0 47.0 46.0 45.0 41.0	**PA/PF 92 280M4C / 280M4D**	1120	204

P_1 [kW]	n_2 [Min^{-1}]	M_2 [Nm]	f_B	i_{ges}	F_R [N]	F_A [N]	$F_{R\,GR}$ [N]	$F_{A\,GR}$ [N]	Tip / Type / Typ IE2 / IE3	Kg	mm
90.0	170.0 195.0 226.0 266.7 359.9 417.3	4708 4105 3542 3001 2224 1918	1.7 2.0 2.3 2.6 2.1 2.8	16.47 14.36 12.39 10.50 7.78 6.71	48.0 49.0 50.0 50.0 47.0 46.0	20.0 21.0 21.0 21.0 20.0 20.0	50.0 51.0 52.0 53.0 50.0 50.0	53.0 53.0 53.0 51.0 47.0 46.0	**PA/PF 92 280M2C / 280M2D**	1120	204
	98.0 118.1 135.5 158.4 189.2 225.4 263.7 314.6 384.6 482.8	8422 6984 6088 5210 4361 3660 3130 2623 2145 1709	0.8 1.0 1.1 1.3 1.4 1.2 1.5 1.7 1.8 1.8	14.29 11.85 10.33 8.84 7.40 6.21 5.31 4.45 3.64 2.90	21.0 21.0 21.0 21.0 21.0 21.0 21.0 21.0 21.0 21.0	7.0 7.0 7.0 7.0 7.0 7.0 7.0 7.0 7.0 7.0	32.0 34.0 35.0 36.0 37.0 35.0 35.0 35.0 35.0 34.0	32.0 32.0 32.0 32.0 32.0 30.0 29.0 29.0 28.0 27.0	**PA/PF 82 280M4C / 280M4D**	944	200
	195.9 236.3 271.1 316.7 378.4 450.9 527.3 629.2 769.2 965.5	4085 3387 2953 2527 2115 1775 1518 1272 1041 829	1.2 1.6 1.8 2.0 2.2 1.8 2.4 2.6 2.9 2.9	14.29 11.85 10.33 8.84 7.40 6.21 5.31 4.45 3.64 2.90	21.0 21.0 21.0 21.0 21.0 21.0 21.0 21.0 21.0 21.0	7.0 7.0 7.0 7.0 7.0 7.0 7.0 7.0 7.0 7.0	32.0 34.0 35.0 36.0 37.0 35.0 35.0 35.0 35.0 34.0	31.0 32.0 32.0 32.0 32.0 30.0 29.0 29.0 28.0 27.0	**PA/PF 82 280M2C / 280M2D**	944	200
110	47.3 55.3 66.0	20892 17866 14967	1.0 1.1 1.3	29.62 25.33 21.22	60.0 67.0 72.0	29.0 31.0 32.0	62.0 68.0 72.0	60.0 61.0 62.0	**PA/PF 103 315S4C**	1715	209
	52.8 61.8 73.7 94.5 110.5 132.0	17869 15283 12801 9986 8540 7154	0.9 1.0 1.2 1.5 1.8 2.1	53.00 45.33 37.97 29.62 25.33 21.22	60.0 60.0 60.0 60.0 67.0 72.0	29.0 29.0 29.0 29.0 31.0 32.0	71.0 60.0 69.0 62.0 68.0 72.0	70.0 63.0 66.0 60.0 61.0 62.0	**PA/PF 103 315S2C**	1715	209
	72.4 84.3 98.0 118.1 140.8 186.4 224.7 267.7 327.1	13939 11965 10294 8536 7160 5410 4488 3767 3083	1.2 1.5 1.6 1.8 2.1 2.1 2.6 2.8 3.0	19.35 16.61 14.29 11.85 9.94 7.51 6.23 5.23 4.28	76.0 77.0 77.0 76.0 75.0 70.0 68.0 66.0 84.0	34.0 34.0 34.0 34.0 34.0 32.0 31.0 30.0 37.0	76.0 77.0 78.0 77.0 75.0 70.0 68.0 66.0 62.0	63.0 63.0 63.0 61.0 60.0 56.0 54.0 53.0 49.0	**PA/PF 102 315S4C**	1715	208
	72.2 144.7 168.6 195.9 236.3	13545 6760 5803 4993 4140	0.9 1.9 2.3 2.5 1.8	38.77 19.35 16.61 14.29 11.85	76.0 76.0 77.0 77.0 76.0	34.0 34.0 34.0 34.0 34.0	- 76.0 77.0 78.0 77.0	- 63.0 63.0 63.0 61.0	**PA/PF 102 315S2C**	1715	208
	113.0 133.3 208.6 246.5 398.9	8925 7564 4834 4092 2528	1.2 1.3 1.5 1.8 2.2	12.39 10.50 6.71 5.68 3.51	44.0 45.0 43.0 43.0 41.0	18.0 19.0 18.0 18.0 18.0	45.0 47.0 46.0 46.0 45.0	48.0 48.0 44.0 43.0 40.0	**PA/PF 92 315S4C**	1485	204
	226.0 266.7 417.3 493.0	4329 3668 2344 1984	1.9 2.1 2.3 2.8	12.39 10.50 6.71 5.68	44.0 45.0 43.0 43.0	18.0 19.0 18.0 18.0	45.0 47.0 46.0 46.0	48.0 48.0 44.0 43.0	**PA/PF 92 315S2C**	1485	204
132	47.3 55.3 66.0	25070 21439 17961	0.8 0.9 1.1	29.62 25.33 21.22	60.0 60.0 60.0	29.0 29.0 29.0	62.0 68.0 72.0	60.0 61.0 62.0	**PA/PF 103 315M4C / 315M4B**	1715	209
	61.8 73.7 94.5 110.5 132.0	18339 15362 11984 10248 8585	0.8 1.0 1.3 1.5 1.8	45.33 37.97 29.62 25.33 21.22	60.0 60.0 60.0 60.0 60.0	29.0 29.0 29.0 29.0 29.0	60.0 69.0 62.0 68.0 72.0	63.0 66.0 60.0 61.0 62.0	**PA/PF 103 315M2C / 315M2B**	1715	209

P_1 [kW]	n_2 [Min^{-1}]	M_2 [Nm]	f_B	i_{ges}	F_R [N]	F_A [N]	$F_{R\,GR}$ [N]	$F_{A\,GR}$ [N]	Tip / Type / Typ IE2 / IE3	Kg	mm
132	72.4	16726	1.0	19.35	69.0	31.0	76.0	63.0	PA/PF 102 315M4C / 315M4B	1715	208
	84.3	14358	1.2	16.61	69.0	31.0	68.0	58.0			
	98.0	12352	1.3	14.29	71.0	31.0	71.0	59.0			
	118.1	10243	1.5	11.85	71.0	32.0	72.0	58.0			
	140.8	8592	1.7	9.94	71.0	32.0	72.0	57.0			
	186.4	6492	1.7	7.51	66.0	30.0	67.0	53.0			
	224.7	5385	2.1	6.23	65.0	29.0	66.0	52.0			
	267.7	4521	2.3	5.23	64.0	29.0	64.0	51.0			
	327.1	3700	2.5	4.28	62.0	28.0	62.0	49.0			
	72.2	16254	0.8	38.77	69.0	31.0	-	-	PA/PF 102 315M2C / 315M2B	1715	208
	144.7	8113	1.6	19.35	69.0	31.0	76.0	63.0			
	168.6	6964	1.9	16.61	69.0	31.0	68.0	58.0			
	195.9	5991	2.1	14.29	71.0	31.0	71.0	59.0			
	236.3	4968	2.4	11.85	71.0	32.0	72.0	58.0			
	281.7	4167	2.7	9.94	71.0	32.0	72.0	57.0			
	372.8	3149	2.7	7.51	66.0	30.0	67.0	53.0			
	113.0	10710	1.0	12.39	38.0	15.0	37.0	45.0	PA/PF 92 315M4C / 315M4B	1485	204
	133.3	9076	1.1	10.50	40.0	16.0	41.0	45.0			
	208.6	5800	1.2	6.71	39.0	16.0	41.0	42.0			
	246.5	4910	1.5	5.68	40.0	17.0	42.0	41.0			
	398.9	3034	1.8	3.51	39.0	17.0	42.0	39.0			
	226.0	5195	1.5	12.39	38.0	15.0	37.0	45.0	PA/PF 92 315M2C / 315M2B	1485	204
	266.7	4402	1.7	10.50	40.0	16.0	41.0	45.0			
	417.3	2813	1.9	6.71	39.0	16.0	41.0	42.0			
	493.0	2381	2.3	5.68	40.0	17.0	42.0	41.0			
	797.7	1472	2.9	3.51	39.0	17.0	42.0	39.0			
160	55.3	25987	0.8	25.33	60.0	29.0	68.0	61.0	PA/PF 103 315L4C / 315L4A	1715	209
	66.0	21771	0.9	21.22	60.0	29.0	72.0	62.0			
	73.7	18620	0.8	37.97	60.0	29.0	-	-	PA/PF 103 315L2C / 315L2A	1715	209
	94.5	14526	1.0	29.62	60.0	29.0	62.0	60.0			
	110.5	12422	1.2	25.33	60.0	29.0	68.0	61.0			
	132.0	10406	1.5	21.22	60.0	29.0	72.0	62.0			
	72.4	20274	0.8	19.35	56.0	26.0	76.0	63.0	PA/PF 102 315L4C / 315L4A	1715	208
	84.3	17403	1.0	16.61	56.0	26.0	56.0	53.0			
	98.0	14973	1.1	14.29	60.0	27.0	61.0	54.0			
	118.1	12416	1.3	11.85	64.0	28.0	64.0	54.0			
	140.8	10415	1.4	9.94	66.0	29.0	66.0	54.0			
	186.4	7869	1.4	7.51	62.0	27.0	62.0	51.0			
	224.7	6528	1.8	6.23	61.0	28.0	62.0	50.0			
	267.7	5480	1.9	5.23	61.0	27.0	61.0	49.0			
	327.1	4484	2.1	4.28	59.0	27.0	59.0	47.0			
	144.7	9833	1.3	19.35	56.0	26.0	-	-	PA/PF 102 315L2C / 315L2A	1715	208
	168.6	8441	1.6	16.61	56.0	26.0	56.0	53.0			
	195.9	7262	1.7	14.29	60.0	27.0	61.0	54.0			
	236.3	6022	2.0	11.85	64.0	28.0	64.0	54.0			
	281.7	5051	2.3	9.94	66.0	29.0	66.0	54.0			
	372.8	3816	2.2	7.51	62.0	27.0	62.0	51.0			
	449.4	3166	2.8	6.23	61.0	28.0	62.0	50.0			
	535.4	2658	3.0	5.23	61.0	27.0	61.0	49.0			
	113.0	12982	0.8	12.39	27.0	11.0	27.0	39.0	PA/PF 92 315L4C / 315L4A	1485	204
	133.3	11002	0.9	10.50	33.0	13.0	32.0	41.0			
	208.6	7031	1.0	6.71	34.0	14.0	35.0	39.0			
	246.5	5951	1.2	5.68	35.0	15.0	37.0	39.0			
	398.9	3678	1.5	3.51	36.0	16.0	39.0	37.0			
	226.0	6296	1.3	12.39	27.0	11.0	27.0	39.0	PA/PF 92 315L2C / 315L2A	1485	204
	266.7	5336	1.4	10.50	33.0	13.0	32.0	41.0			
	417.3	3410	1.6	6.71	34.0	14.0	35.0	39.0			
	493.0	2886	1.9	5.68	35.0	15.0	37.0	39.0			
	797.7	1784	2.4	3.51	36.0	16.0	39.0	37.0			

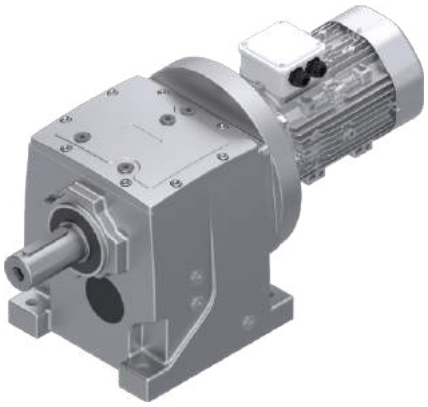
P_1 [kW]	n_2 [Min^{-1}]	M_2 [Nm]	f_B	i_{ges}	F_R [N]	F_A [N]	$F_{R\,GR}$ [N]	$F_{A\,GR}$ [N]	Tip / Type / Typ IE2 / IE3	Kg	mm
200	94.5 110.5 132.0	18157 15527 13008	0.8 1.0 1.2	29.62 25.33 21.22	60.0 60.0 60.0	29.0 29.0 29.0	- - -	- - -	**PA/PF 103 315L2D / 315L2C**	1715	209
	84.3 98.0 118.1 140.8 186.4 224.7 267.7 327.1	21754 18716 15520 13019 9836 8160 6850 5606	0.8 0.9 1.0 1.2 1.1 1.4 1.5 1.7	16.61 14.29 11.85 9.94 7.51 6.23 5.23 4.28	- - - - - - - -	- - - - - - - -	- - - - - - - -	- - - - - - - -	**PA/PF 102 315L4D / 315L4C**	1715	208
	144.7 168.6 195.9 236.3 281.7 372.8 449.4 535.4 654.2	12292 10551 9077 7527 6314 4771 3957 3322 2719	1.0 1.3 1.4 1.6 1.8 1.8 2.2 2.4 2.6	19.35 16.61 14.29 11.85 9.94 7.51 6.23 5.23 4.28	56.0 56.0 56.0 56.0 56.0 56.0 56.0 56.0 56.0	26.0 26.0 26.0 26.0 26.0 26.0 26.0 26.0 26.0	- 56.0 61.0 64.0 66.0 62.0 62.0 61.0 59.0	- 53.0 54.0 54.0 54.0 51.0 50.0 49.0 47.0	**PA/PF 102 315L2D / 315L2C**	1715	208
	398.9 246.5 208.6	4597 7439 8788	1.2 1.0 0.8	3.51 5.68 6.71	- - -	- - -	- - -	- - -	**PA/PF 92 315L4D / 315L4C**	1485	204
	226.0 266.7 417.3 493.0 797.7	7870 6670 4262 3608 2230	1.0 1.2 1.3 1.5 1.9	12.39 10.50 6.71 5.68 3.51	27.0 27.0 27.0 27.0 27.0	11.0 11.0 11.0 11.0 11.0	27.0 32.0 35.0 37.0 39.0	39.0 41.0 39.0 39.0 37.0	**PA/PF 92 315L2D / 315L2C**	1485	204

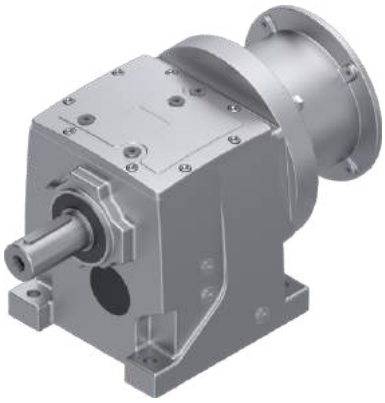


Ölçü Tabloları

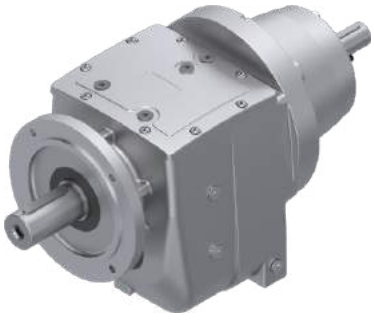
Dimension Tables

Maßtabelles



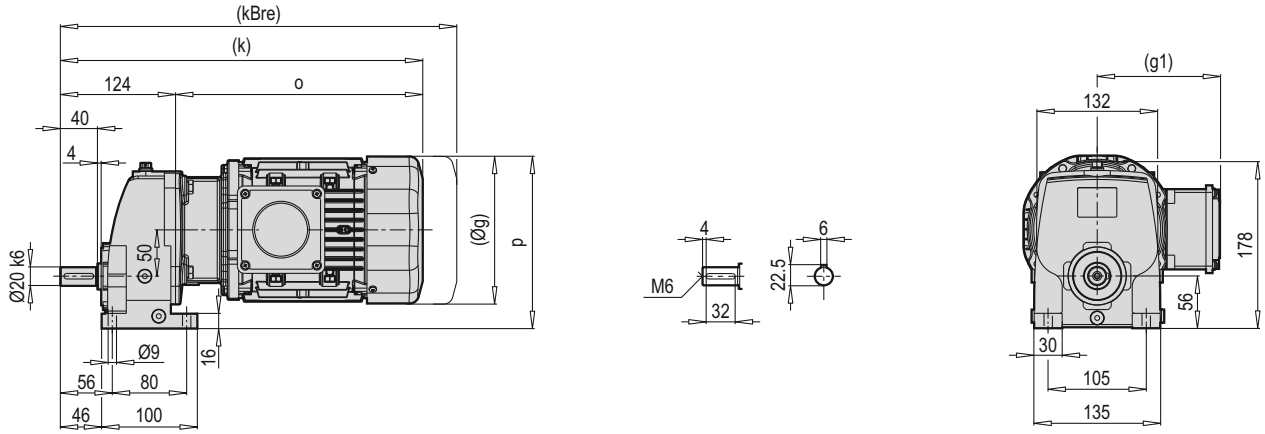




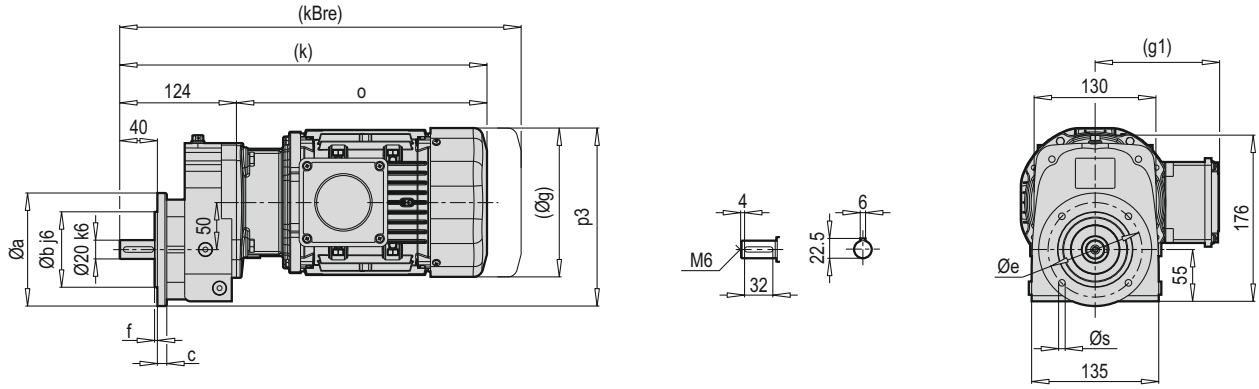


PA / PF

PA 11



PF 11

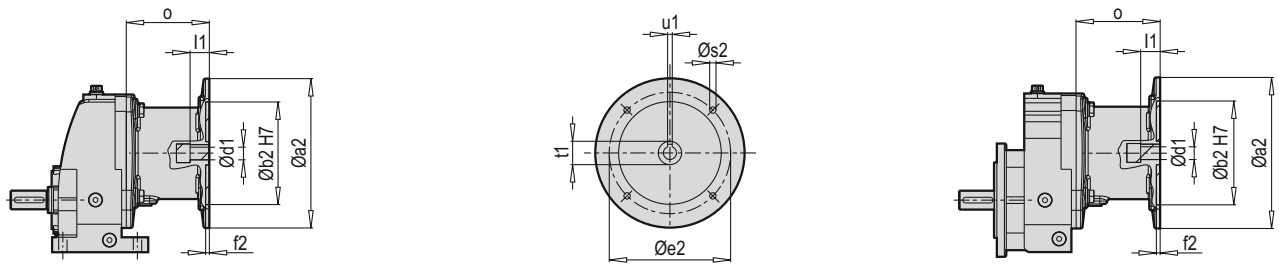


a	b	c	e	f	s
120	80	10	100	3	7
140	95	10	115	3	9

	63 M	71 M	80 M	90 S/L	100 L	112 M		
g	126	138	172	182	202	220		
g1	97	104	131	130	153	159		
k	322	364	390	456	507	502		
kBre	381	427	460	464	591	602		
o	198	240	266	332	383	378		
p	169	175	192	197	207	216		
p3	168	175	206	211	221	230		

Not : (...) İşaretli 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.

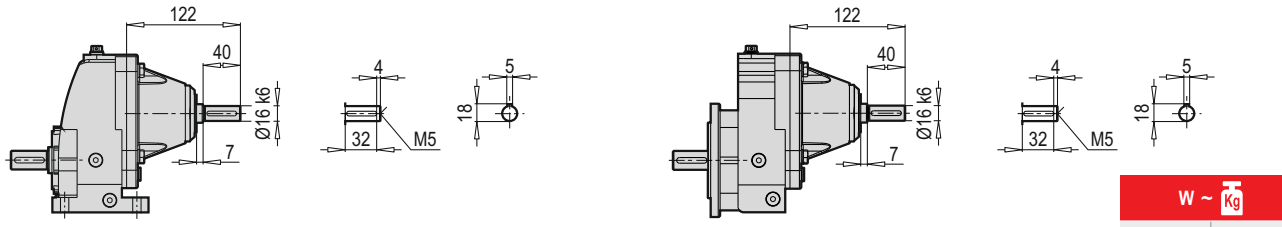
PA 11 — IEC — PF 11



Tip / Type Typ	IEC	Øa2	Øb2	Øe2	f2	Øs2	Ød1	l1	t1	u1	o
PA/PF 11	63	140	95	115	4	M8	11	23	12.8	4	85
	71	160	110	130	4	M8	14	35	16.3	5	89
	80	200	130	165	4	M10	19	53	21.8	6	106
	90	200	130	165	4	M10	24	53	27.3	8	106
	100	250	180	215	5	M12	28	64	31.3	8	132
	112	250	180	215	5	M12	28	64	31.3	8	132

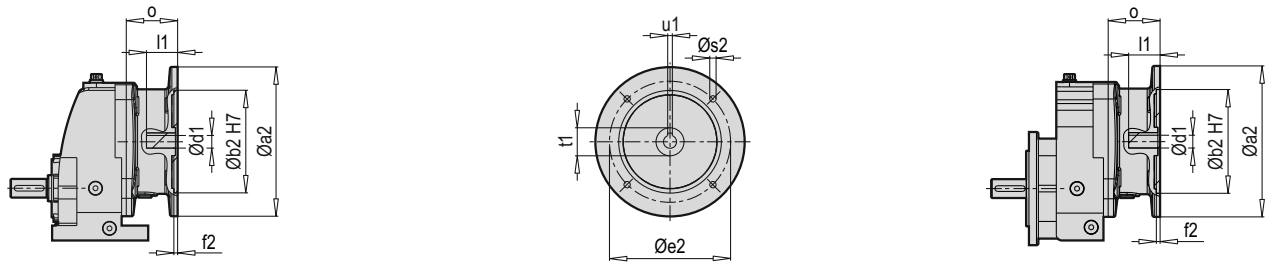
Kg	
IEC	PA/PF 11
63	11
71	12
80	16
90	16
100	23
112	23

PA 11 — W — PF 11



W ~ Kg	
PA/PF 11	10

PA 11 — PAM B5/B14 — PF 11



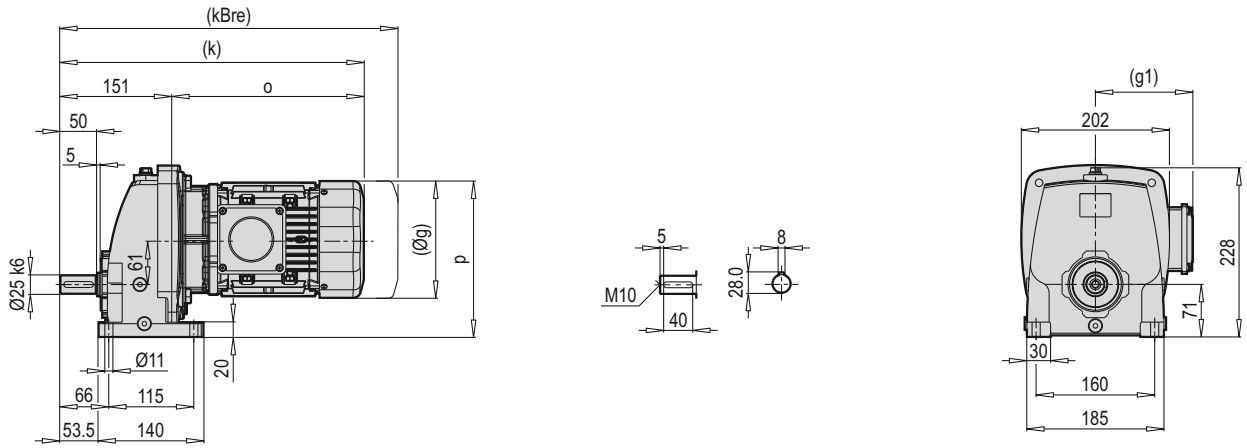
Tip / Type Typ	PAM B5	Øa2	Øb2	Øe2	f2	Øs2	Ød1	l1	t1	u1	o
PA/PF 11	63	140	95	115	4	M8	11	23	12.8	4	85
	71	160	110	130	4	M8	14	33	16.3	5	55
	80	200	130	165	4	M10	19	45	21.8	6	74
	90	200	130	165	4	M10	24	53	27.3	8	74
	100	250	180	215	5	M12	28	63	31.3	8	132
	112	250	180	215	5	M12	28	63	31.3	8	132

~ Kg	
PAM B5	PA/PF 11
63	10
71	10
80	11
90	11
100	18
112	18

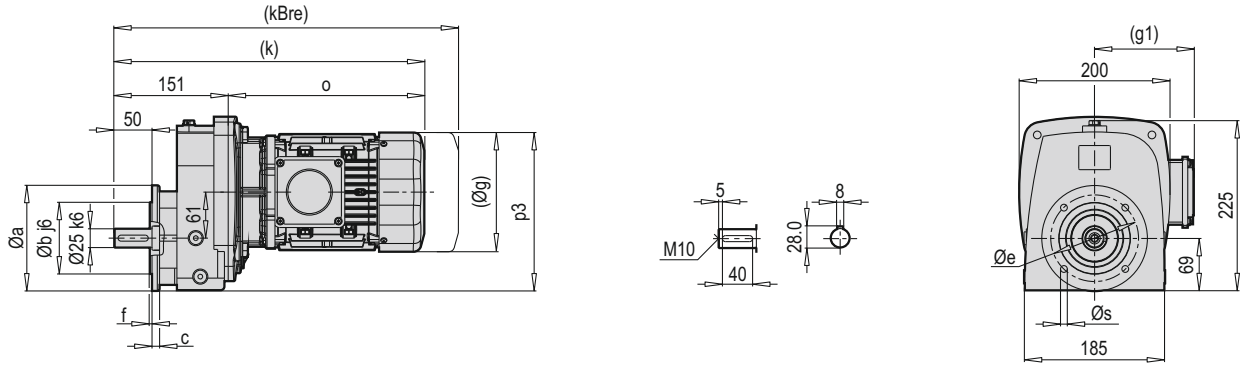
Tip / Type Typ	PAM B14	Øa2	Øb2	Øe2	f2	Øs2	Ød1	l1	t1	u1	o
PA/PF 11	63	91	60	75	4	6	11	27	12.8	4	60
	71	106	70	85	4	6.5	14	34	16.3	5	55
	80	121	80	100	4	6.5	19	45	21.8	6	74
	90	141	95	115	4	9	24	53	27.3	8	74
	100	161	110	130	5	9	28	66	31.3	8	75
	112	161	110	130	5	9	28	66	31.3	8	75

~ Kg	
PAM B14	PA/PF 11
63	9
71	9
80	10
90	10
100	11
112	11

PA 21



PF 21

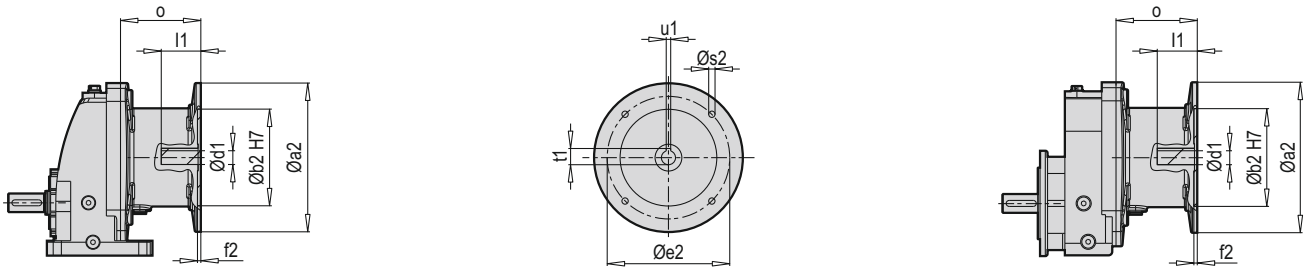


a	b	c	e	f	s
140	95	10	115	3	9
160	110	10	130	3.5	9

	90 S/L	100 L	112 M					
g	182	202	220					
g1	130	153	159					
k	477	528	523					
kBre	545	612	623					
o	326	377	372					
p	223	233	242					
p3	232	242	251					

Not : (...) İşaretli 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.

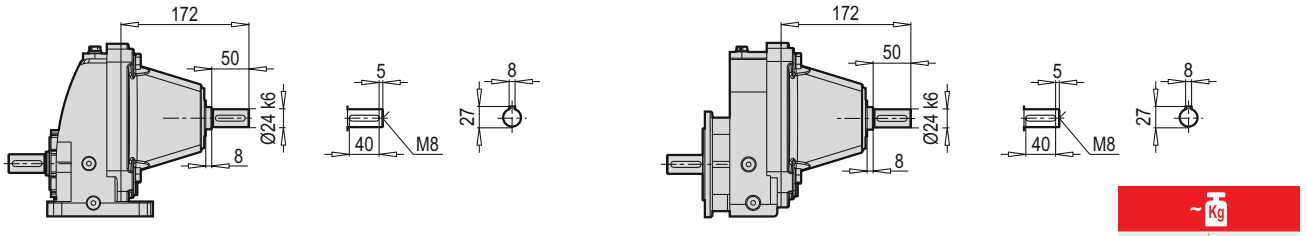
PA 21 — IEC — PF 21



Tip / Type Typ	IEC	Øa2	Øb2	Øe2	f2	Øs2	Ød1	l1	t1	u1	o
PA/PF 21	71	160	110	130	4	M8	14	35	16.3	5	88
	80	200	130	165	4.5	M10	19	53	21.8	6	108
	90	200	130	165	4.5	M10	24	63	27.3	8	108
	100	250	180	215	5	M12	28	63	31.3	8	125
	112	250	180	215	5	M12	28	63	31.3	8	125

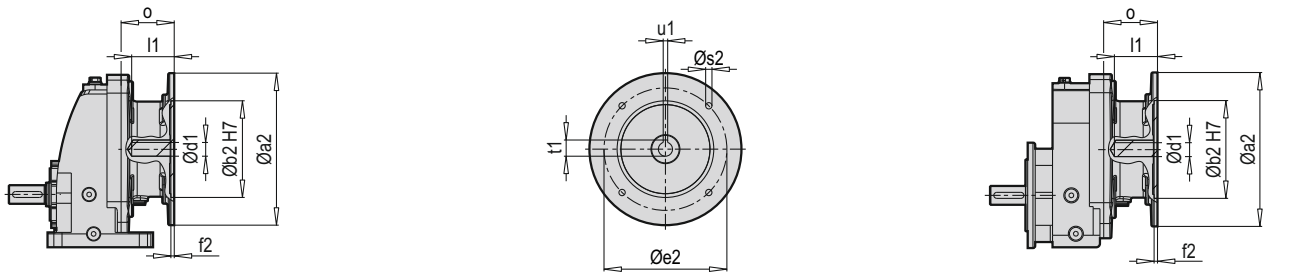
~ Kg	
IEC	PA/PF 21
71	21
80	25
90	25
100	29
112	29

PA 21 — W — PF 21



~ Kg	
PA/PF 21	23

PA 21 — PAM B5/B14 — PF 21



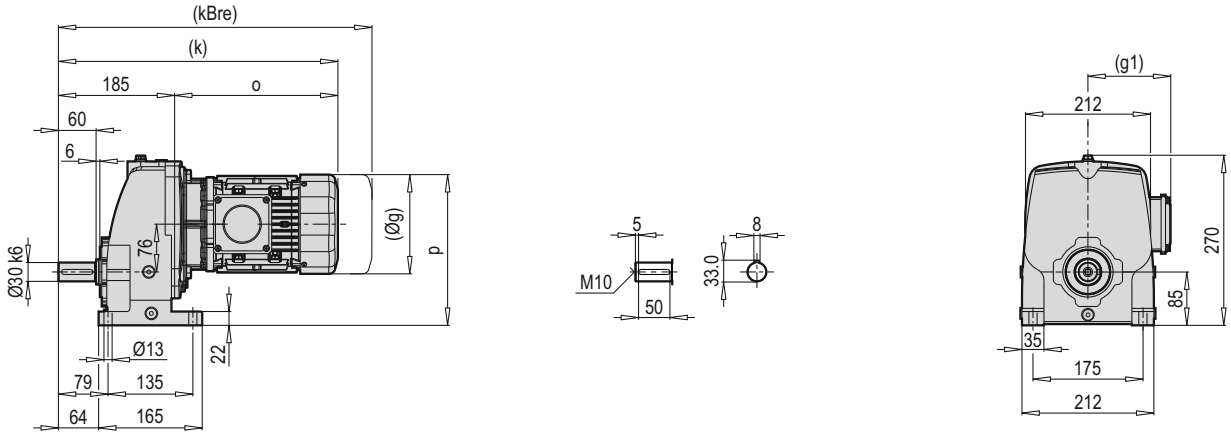
Tip / Type Typ	PAM B5	Øa2	Øb2	Øe2	f2	Øs2	Ød1	l1	t1	u1	o
PA/PF 21	71	160	110	130	4	M8	14	34	16.3	5	88
	80	200	130	165	4.5	M10	19	53	21.8	6	108
	90	200	130	165	4.5	M10	24	53	27.3	8	108
	100	250	180	215	5	M12	28	63	31.3	8	125
	112	250	180	215	5	M12	28	63	31.3	8	125

~ Kg	
PAM B5	PA/PF 21
71	19
80	20
90	20
100	21
112	21

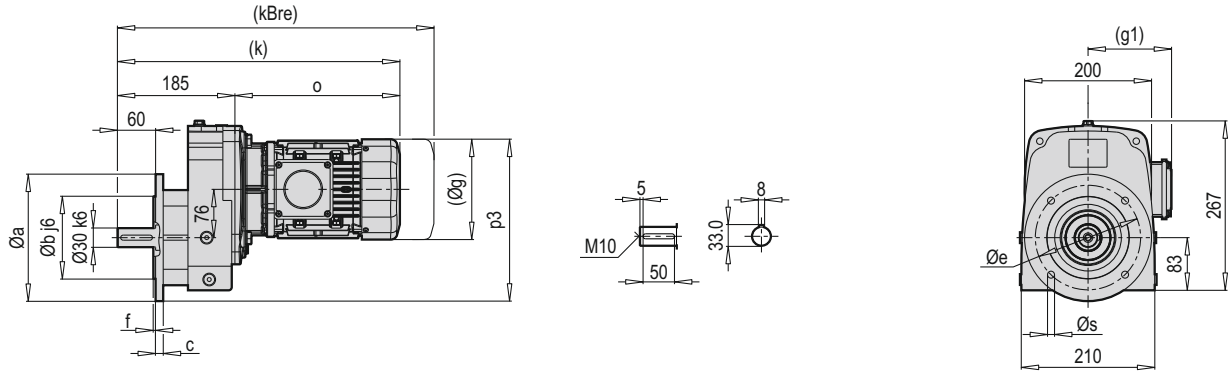
Tip / Type Typ	PAM B14	Øa2	Øb2	Øe2	f2	Øs2	Ød1	l1	t1	u1	o
PA/PF 21	71	106	70	85	4	6.5	14	32	16.3	5	55
	80	121	80	100	4	6.5	19	50	21.8	6	72
	90	141	95	115	4	9	24	56	27.3	8	72
	100	161	110	130	5	9	28	66	31.3	8	75
	112	161	110	130	5	9	28	66	31.3	8	75

~ Kg	
PAM B14	PA/PF 21
71	17
80	18
90	18
100	20
112	20

PA 31



PF 31

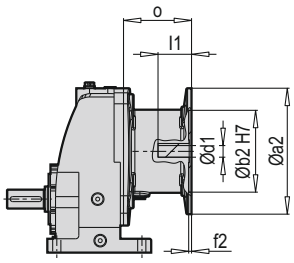


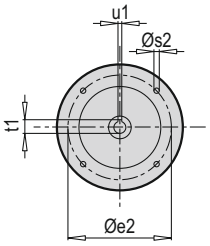
a	b	c	e	f	s
200	130	12	165	3.5	11

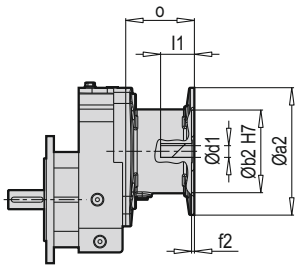
	100 L	112 M	132 S/M					
g	202	220	271					
g1	153	159	188					
k	562	557	632					
kBre	646	657	731/759					
o	377	372	447					
p	262	271	297					
p3	277	286	312					

Not : (...) İşaretli 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.

PA 31 — IEC — PF 31



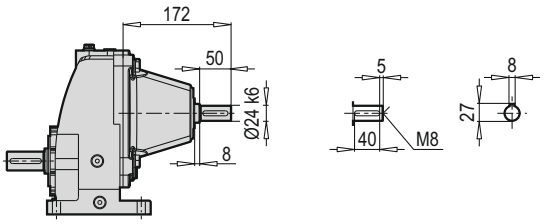


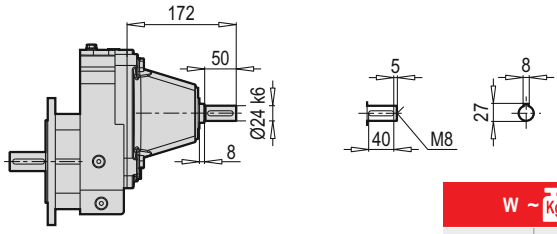


Tip / Type Typ	IEC	Øa2	Øb2	Øe2	f2	Øs2	Ød1	l1	t1	u1	o
PA/PF 31	71	160	110	130	4	M8	14	35	16.3	5	88
	80	200	130	165	4.5	M10	19	53	21.8	6	108
	90	200	130	165	4.5	M10	24	53	27.3	8	108
	100	250	180	215	5	M12	28	63	31.3	8	125
	112	250	180	215	5	M12	28	63	31.3	8	125
	132	300	230	265	5	M12	38	85	41.3	10	156

~ Kg	
IEC	PA/PF 31
71	26
80	30
90	30
100	34
112	34
132	44

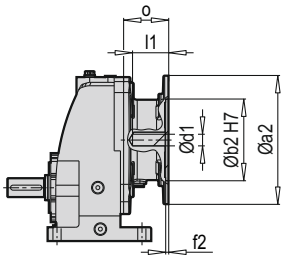
PA 31 — W — PF 31

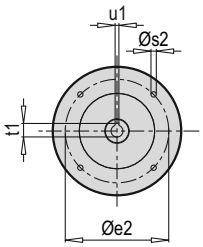


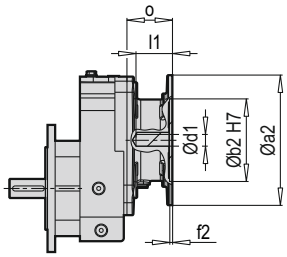


W ~ Kg	
PA/PF 31	28

PA 31 — PAM B5/B14 — PF 31







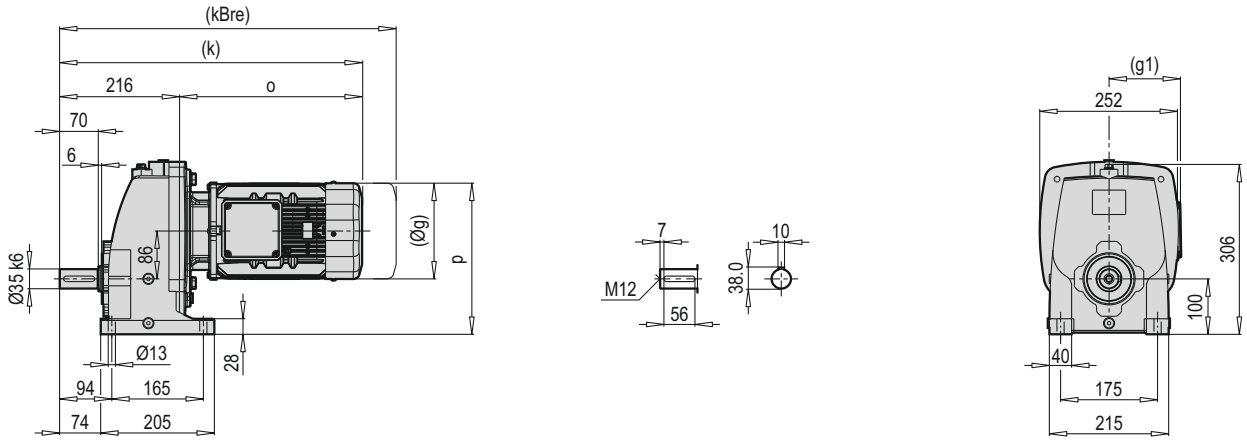
Tip / Type Typ	PAM B5	Øa2	Øb2	Øe2	f2	Øs2	Ød1	l1	t1	u1	o
PA/PF 31	71	160	110	130	4	M8	14	30	16.3	5	88
	80	200	130	165	4.5	M10	19	53	21.8	6	108
	90	200	130	165	4.5	M10	24	53	27.3	8	108
	100	250	180	215	5	M12	28	63	31.3	8	125
	112	250	180	215	5	M12	28	63	31.3	8	125
	132	300	230	265	5	M12	38	83	41.3	10	94

~ Kg	
PAM B5	PA/PF 31
71	24
80	25
90	25
100	26
112	26
132	36

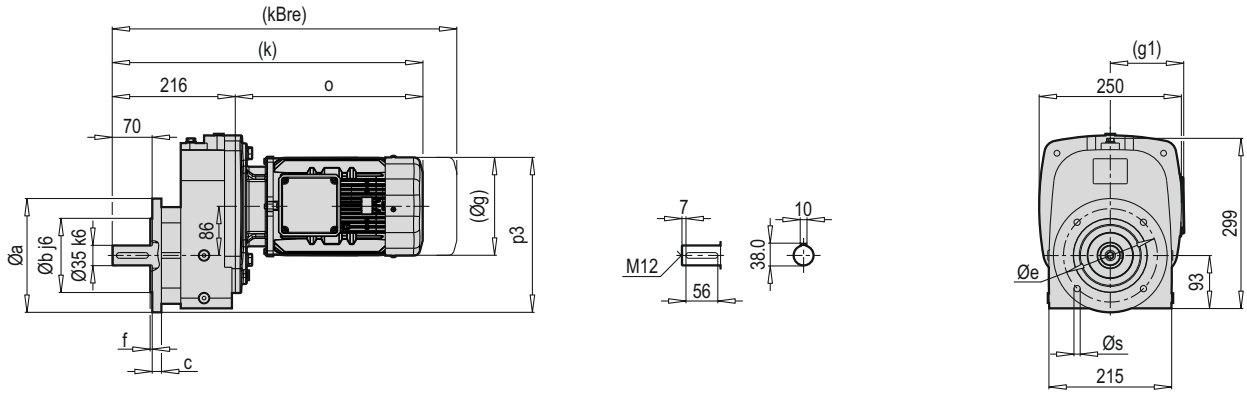
Tip / Type Type	PAM B14	Øa2	Øb2	Øe2	f2	Øs2	Ød1	l1	t1	u1	o
PA/PF 31	71	106	70	85	4	6.5	14	32	16.3	5	55
	80	121	80	100	4	6.5	19	50	21.8	6	72
	90	141	95	115	4	9	24	56	27.3	8	72
	100	161	110	130	5	9	28	66	31.3	8	75
	112	161	110	130	5	9	28	66	31.3	8	75
	132	200	130	165	5	11	38	80	41.3	10	94

~ Kg	
PAM B14	PA/PF 31
71	22
80	23
90	23
100	25
112	25
132	29

PA 41



PF 41

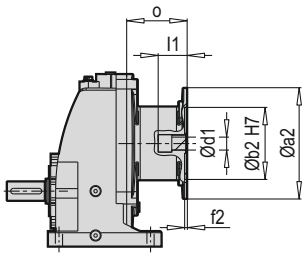


a	b	c	e	f	s
200	130	16	165	3.5	11
250	180	16	215	4	14

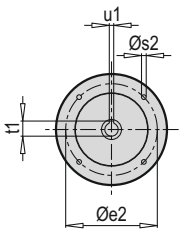
	112 M	132 S/M	160 M/L					
g	220	271	322					
g1	159	188	214					
k	596	658	746					
kBre	696	757/777	851					
o	380	442	530					
p	296	322	347					
p3	321	347	372					

Not : (...) İşaretli 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.

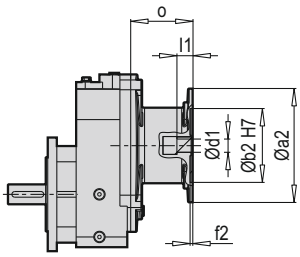
PA 41



IEC



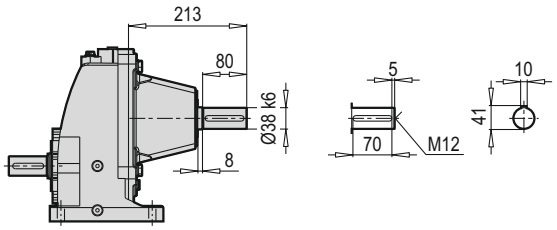
PF 41



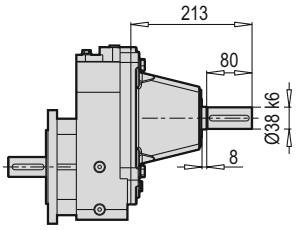
Tip / Type Typ	IEC	Øa2	Øb2	Øe2	f2	Øs2	Ød1	l1	t1	u1	o
PA/PF 41	90	200	130	165	4.5	M10	24	52	27.3	8	109
	100	250	180	215	5	M12	28	63	31.3	8	134
	112	250	180	215	5	M12	28	63	31.3	8	134
	132	300	230	265	5	M12	38	85	41.3	10	190
	160	350	250	300	6	M16	42	117	45.3	12	194

~ Kg	
IEC	PA/PF 41
90	43
100	50
112	50
132	64
160	75

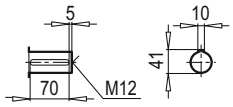
PA 41



W

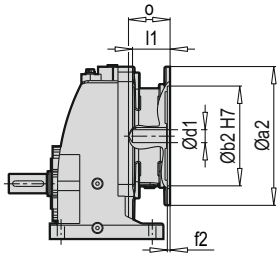


PF 41

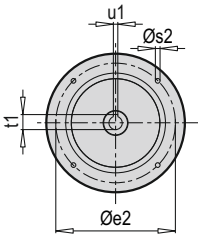


W ~ Kg	
PA/PF 41	48

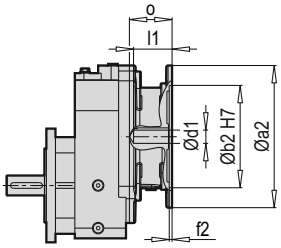
PA 41



PAM B5/B14



PF 41



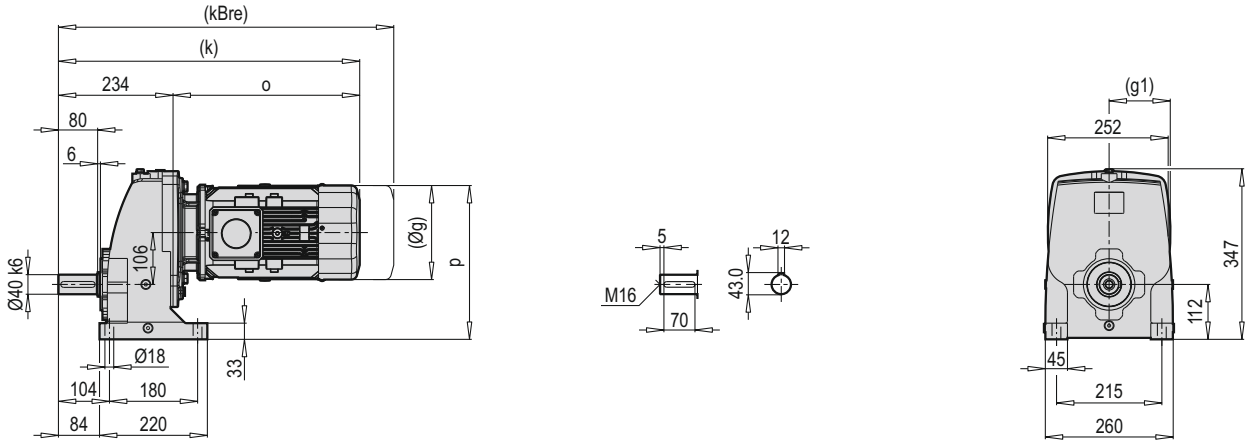
Tip / Type Typ	PAM B5	Øa2	Øb2	Øe2	f2	Øs2	Ød1	l1	t1	u1	o
PA/PF 41	90	200	130	165	4.5	M10	24	52	27.3	8	109
	100	250	180	215	5	M12	28	63	31.3	8	134
	112	250	180	215	5	M12	28	63	31.3	8	134
	132	300	230	265	5	M12	38	85	41.3	10	190
	160	350	250	300	6	M16	42	117	45.3	12	194

~ Kg	
PAM B5	PA/PF 41
90	37
100	38
112	38
132	47
160	55

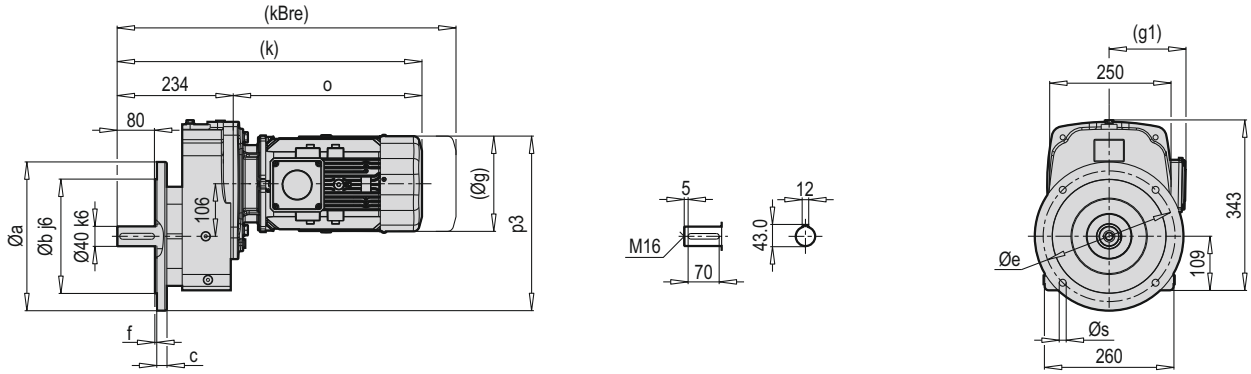
Tip / Type Typ	PAM B14	Øa2	Øb2	Øe2	f2	Øs2	Ød1	l1	t1	u1	o
PA/PF 41	90	141	95	115	4	9	24	56	27.3	8	72
	100	161	110	130	5	9	28	66	31.3	8	75
	112	161	110	130	5	9	28	66	31.3	8	75
	132	201	130	165	5	11	38	87	41.3	10	94

~ Kg	
PAM B14	PA/PF 41
90	36
100	37
112	37
132	42

PA 51



PF 51

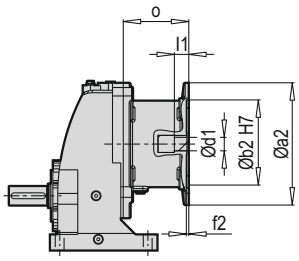


a	b	c	e	f	s
250	180	20	215	4	14
300	230	20	265	4	14

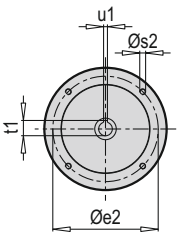
	112 M	132 S/M	160 M/L	180 M/L				
g	220	271	322	363				
g1	159	188	214	249				
k	614	676	764	858				
kBre	714	775/795	869	959				
o	380	442	530	624				
p	328	354	379	400				
p3	366	391	417	438				

Not : (...) İşaretli 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.

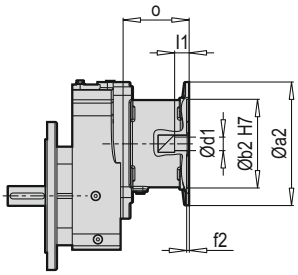
PA 51



IEC



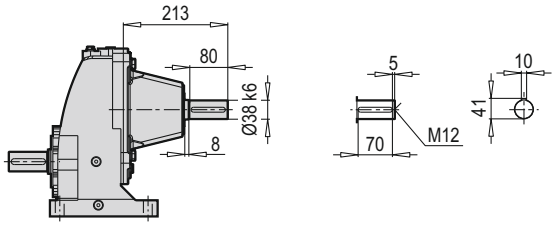
PF 51



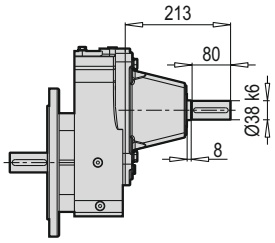
Tip / Type	IEC	Øa2	Øb2	Øe2	f2	Øs2	Ød1	l1	t1	u1	o
PA/PF 51	90	200	130	165	4.5	M10	24	52	27.3	8	109
	100	250	180	215	5	M12	28	63	31.3	8	134
	112	250	180	215	5	M12	28	63	31.3	8	134
	132	300	230	265	5	M12	38	85	41.3	10	190
	160	350	250	300	6	M16	42	117	45.3	12	194
	180	350	250	300	6	M16	48	117	51.8	14	194

~ Kg	
IEC	PA/PF 51
90	53
100	60
112	60
132	75
160	85
180	85

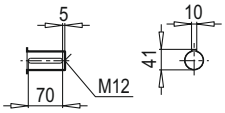
PA 51



W

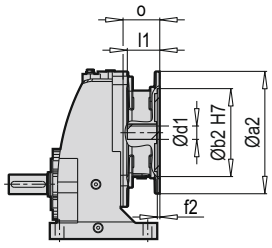


PF 51

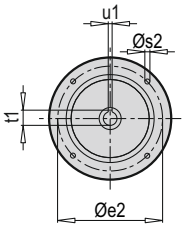


W ~ Kg	
PA/PF 51	58

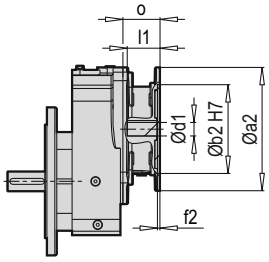
PA 51



PAM B5/B14



PF 51



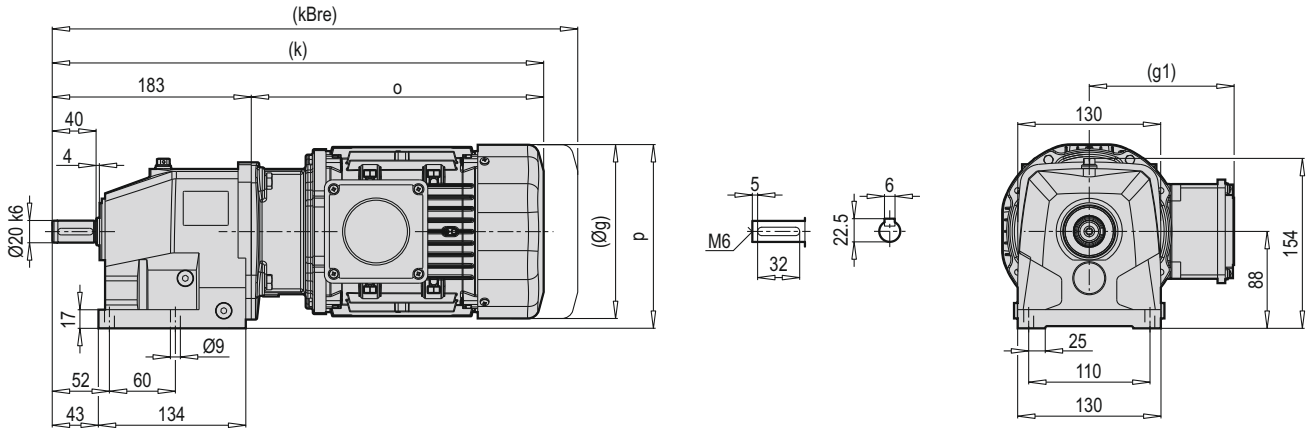
Tip / Type Typ	PAM B5	Øa2	Øb2	Øe2	f2	Øs2	Ød1	l1	t1	u1	o
PA/PF 51	90	200	130	165	4.5	M10	24	52	27.3	8	109
	100	250	180	215	5	M12	28	63	31.3	8	134
	112	250	180	215	5	M12	28	63	31.3	8	134
	132	300	230	265	5	M12	38	85	41.3	10	190
	160	350	250	300	6	M16	42	117	45.3	12	194
	180	350	250	300	6	M16	48	117	51.8	14	194

~ Kg	
PAM B5	PA/PF 51
90	46
100	47
112	47
132	56
160	64
180	64

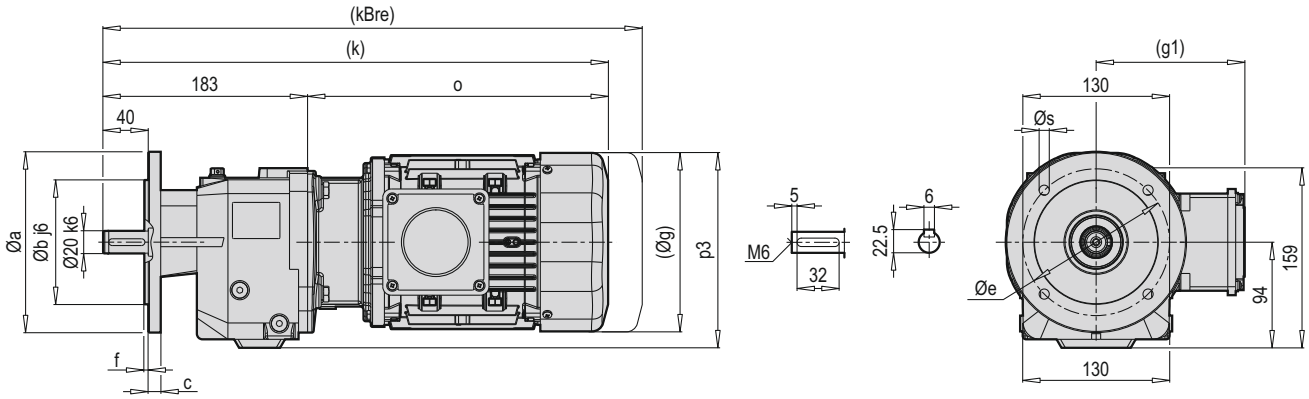
Tip / Type Typ	PAM B14	Øa2	Øb2	Øe2	f2	Øs2	Ød1	l1	t1	u1	o
PA/PF 51	90	141	95	115	4	9	24	56	27.3	8	72
	100	161	110	130	5	9	28	66	31.3	8	75
	112	161	110	130	5	9	28	66	31.3	8	75
	132	201	130	165	5	11	38	87	41.3	10	94

~ Kg	
PAM B14	PA/PF 51
90	45
100	46
112	46
132	51

PA 02



PF 02

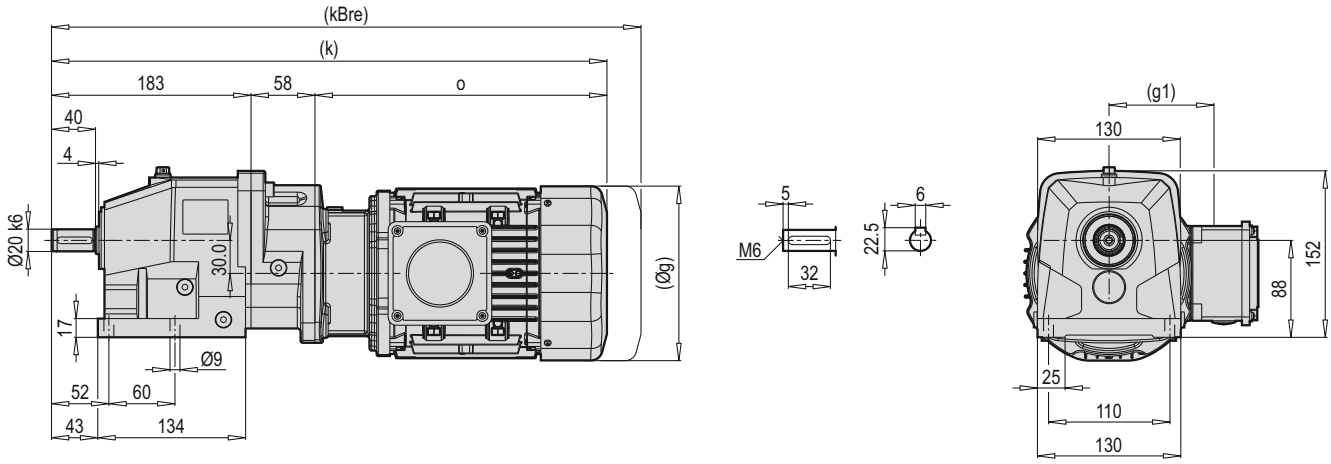


a	b	c	e	f	s
120	80	11	100	3	7
140	95	11	115	3	9
160	110	11	130	3.5	9

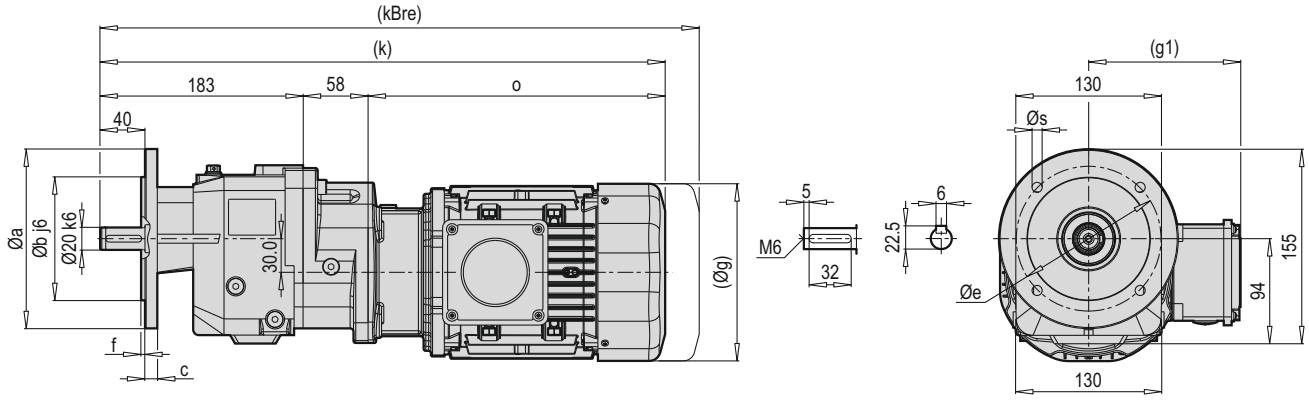
	63 M	71 M	80 M	90 S/L				
g	126	138	172	182				
g1	97	103	131	131				
k	378	420	449	515				
kBre	437	483	519	523				
o	197	239	266	332				
p	144	150	174	179				
p3	157	163	180	185				

Not : (...) İşaretli 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.

PA 03



PF 03



a	b	c	e	f	s
120	80	11	100	3	7
140	95	11	115	3	9
160	110	11	130	3.5	9

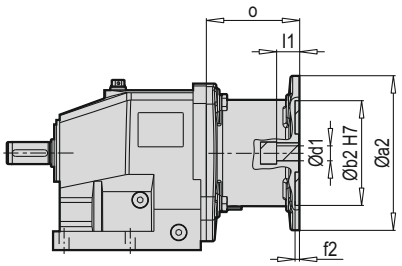
	63 M	71 M						
g	126	138						
g1	97	103						
k	436	478						
kBre	495	540						
o	197	239						
p								
p3								

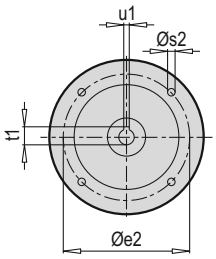
Not : (...) İşaretli olan ölçüler Motor markasına göre farklılık gösterir.
Note : The dimensions which have (...) sign vary depending on the motor.
Hinweis: (...) Die gekennzeichneten Maße unterscheiden sich je nach Motormarke.

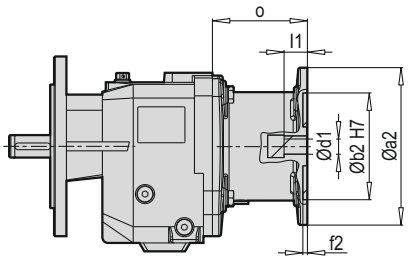
PA 02
PA 03

IEC

PF 02
PF 03



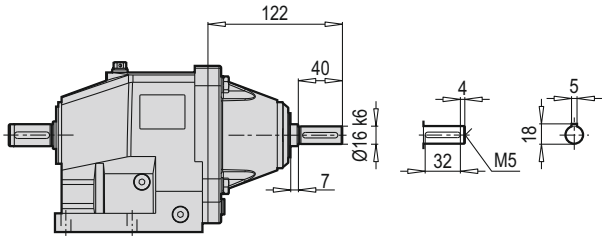




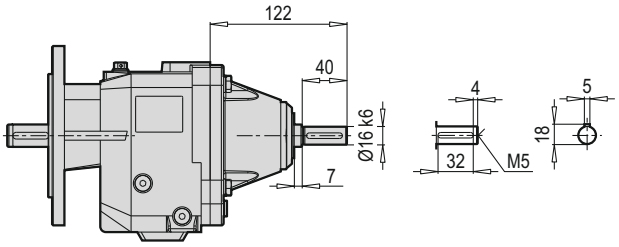
Tip / Type Typ	IEC	Øa2	Øb2	Øe2	f2	Øs2	Ød1	l1	t1	u1	o
PA/PF 02-03	63	140	95	115	4	M8	11	23	12.8	4	85
PA/PF 02-03	71	160	110	130	4	M8	14	35	16.3	5	89
PA/PF 02	80	200	130	165	4	M10	19	53	21.8	6	106
PA/PF 02	90	200	130	165	4	M10	24	64	27.3	8	106

~ Kg		
IEC	PA/PF 02	PA/PF 03
63	14	18
71	15	19
80	18	-
90	18	-

PA 02
PA 03



PF 02
PF 03

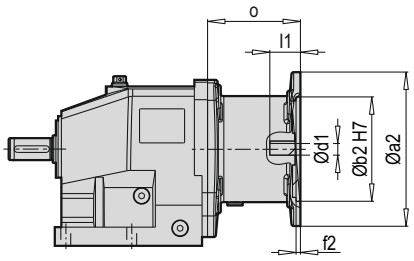


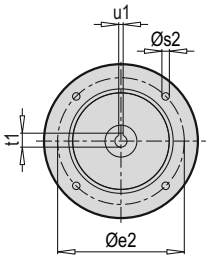
W ~ Kg	
PA/PF 02	12
PA/PF 03	17

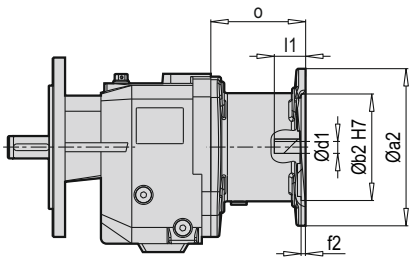
PA 02
PA 03

PAM B5/B14

PF 02
PF 03







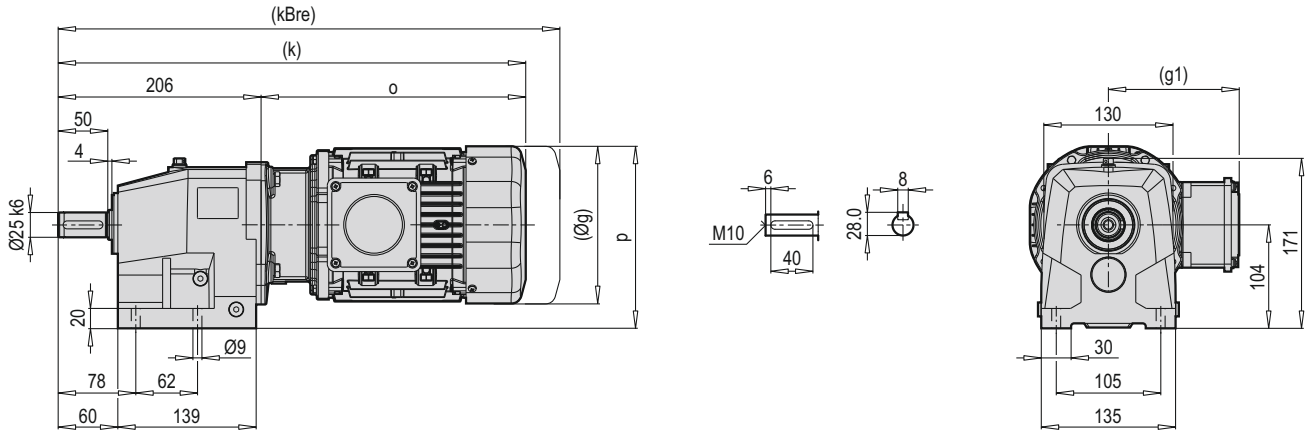
Tip / Type Typ	PAM B5	Øa2	Øb2	Øe2	f2	Øs2	Ød1	l1	t1	u1	PA/PF 02 PA/PF 03 o
PA/PF 02-03	63	140	95	115	4	M8	11	23	12.8	4	85
PA/PF 02-03	71	160	110	130	4	M8	14	33	16.3	5	55
PA/PF 02	80	200	130	165	4	M10	19	45	21.8	6	74
PA/PF 02	90	200	130	165	4	M10	24	53	27.3	8	74

~ Kg		
PAM B5	PA/PF 02	PA/PF 03
63	12	16
71	12	16
80	13	-
90	13	-

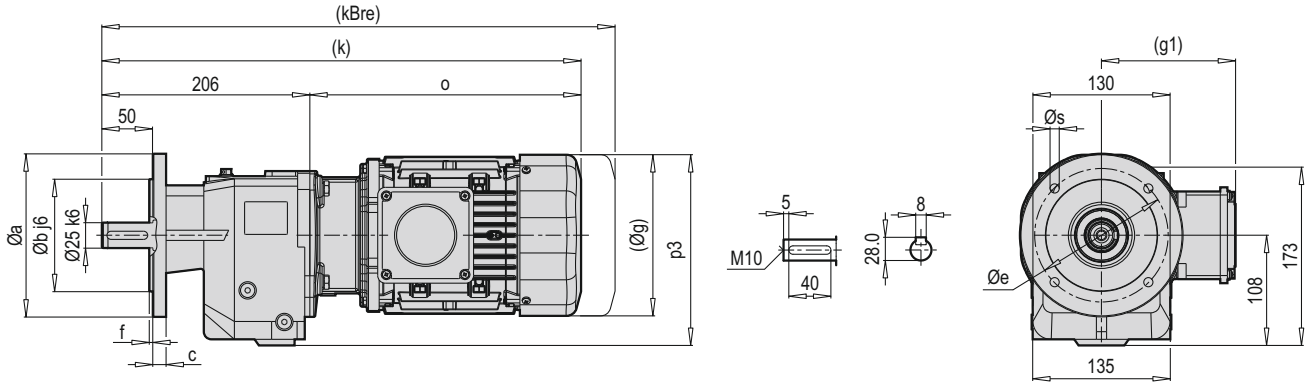
Tip / Type Typ	PAM B14	Øa2	Øb2	Øe2	f2	Øs2	Ød1	l1	t1	u1	PA/PF 02 PA/PF 03 o
PA/PF 02-03	63	91	60	75	4.0	6	11	27	12.8	4	60
PA/PF 02-03	71	106	70	85	4.0	6.5	14	34	16.3	5	55
PA/PF 02	80	121	80	100	4.0	6.5	19	45	21.8	6	74
PA/PF 02	90	141	95	115	4.0	9	24	53	27.3	8	74

~ Kg		
PAM B14	PA/PF 02	PA/PF 03
63	11	15
71	11	15
80	12	-
90	12	-

PA 12



PF 12

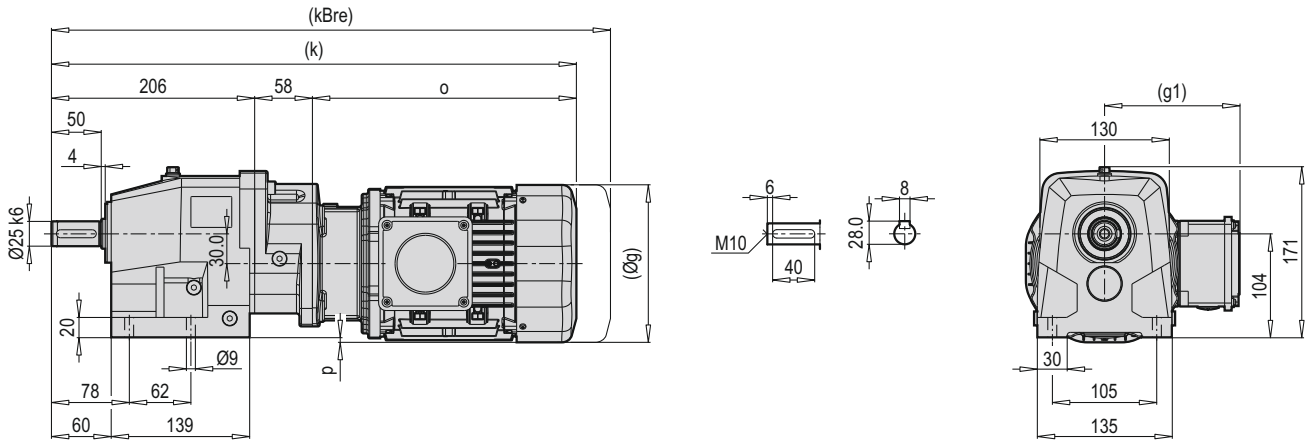


a	b	c	e	f	s
120	80	13	100	3	7
140	95	13	115	3	9
160	110	13	130	3.5	9

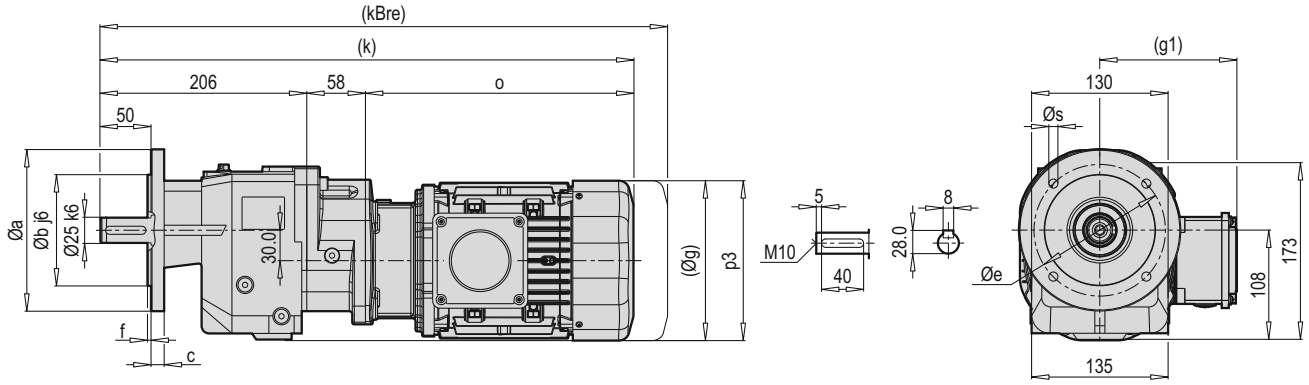
	63 M	71 M	80 M	90 S/L	100 L	112 M		
g	126	138	172	182	202	220		
g1	97	104	131	130	153	159		
k	402	444	472	538	589	584		
kBre	461	507	542	546	673	684		
o	198	240	266	332	383	378		
p	162	168	190	195	205	214		
p3	171	177	194	199	209	218		

Not : (...) İşaretli 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.

PA 13



PF 13



a	b	c	e	f	s
120	80	13	100	3	7
140	95	13	115	3	9
160	110	13	130	3.5	9

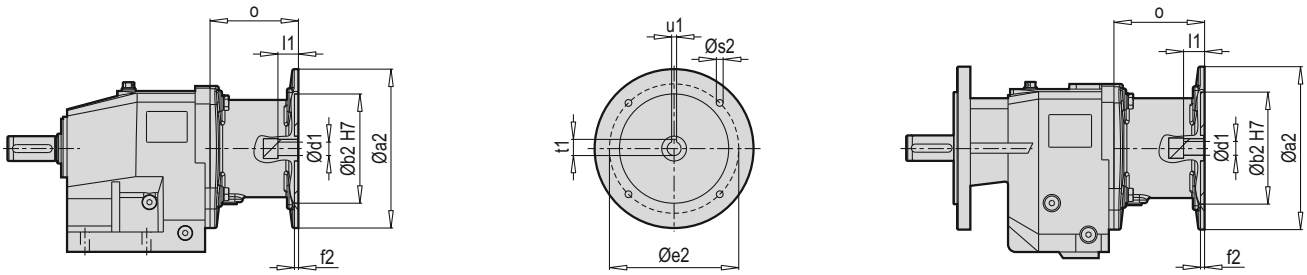
	63 M	71 M						
g	126	138						
g1	97	104						
k	402	444						
kBre	519	565						
o	198	245						
p								
p3								

Not : (...) İşaretli 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.

PA 12
PA 13

IEC

PF 12
PF 13



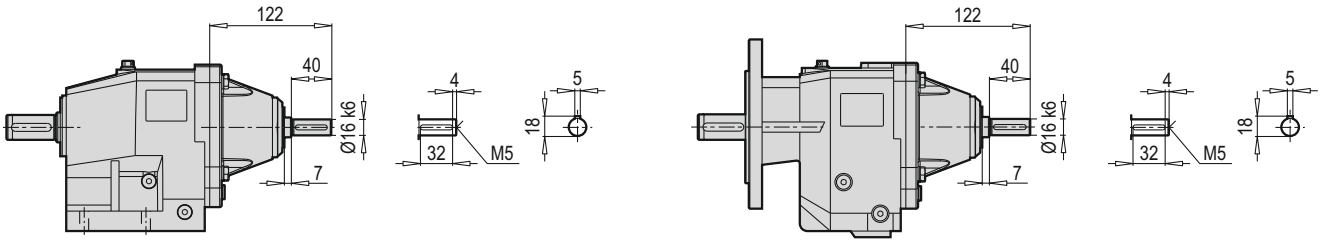
Tip / Type Typ	IEC	Øa2	Øb2	Øe2	f2	Øs2	Ød1	l1	t1	u1	o
PA/PF 12-13	63	140	95	115	4	M8	11	23	12.8	4	85
PA/PF 12-13	71	160	110	130	4	M8	14	35	16.3	5	89
PA/PF 12	80	200	130	165	4	M10	19	53	21.8	6	106
PA/PF 12	90	200	130	165	4	M10	24	53	27.3	8	106
PA/PF 12	100	250	180	215	5	M12	28	64	31.3	8	132
PA/PF 12	112	250	180	215	5	M12	28	64	31.3	8	132

~ Kg		
IEC	PA/PF 12	PA/PF 13
63	16	21
71	17	22
80	20	-
90	20	-
100	27	-
112	27	-

PA 12
PA 13

W

PF 12
PF 13

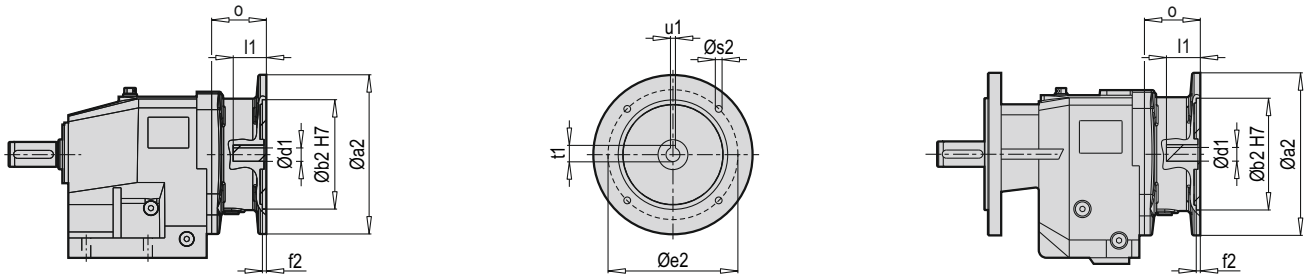


W ~ Kg	
PA/PF 12	15
PA/PF 13	20

PA 12
PA 13

PAM B5/B14

PF 12
PF 13



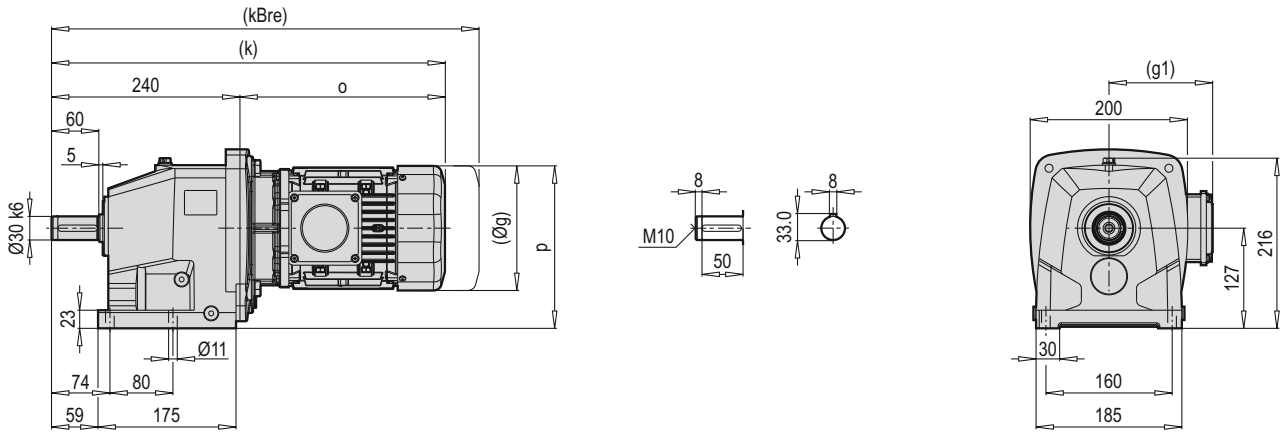
Tip / Type Typ	PAM B5	Øa2	Øb2	Øe2	f2	Øs2	Ød1	l1	t1	u1	o
PA/PF 12-13	63	140	95	115	4	M8	11	23	12.8	4	85
PA/PF 12-13	71	160	110	130	4	M8	14	33	16.3	5	55
PA/PF 12	80	200	130	165	4	M10	19	45	21.8	6	74
PA/PF 12	90	200	130	165	4	M10	24	53	27.3	8	74
PA/PF 12	100	250	180	215	5	M12	28	63	31.3	8	132
PA/PF 12	112	250	180	215	5	M12	28	63	31.3	8	132

~ Kg		
PAM B5	PA/PF 12	PA/PF 13
63	14	19
71	14	19
80	15	-
90	15	-
100	22	-
112	22	-

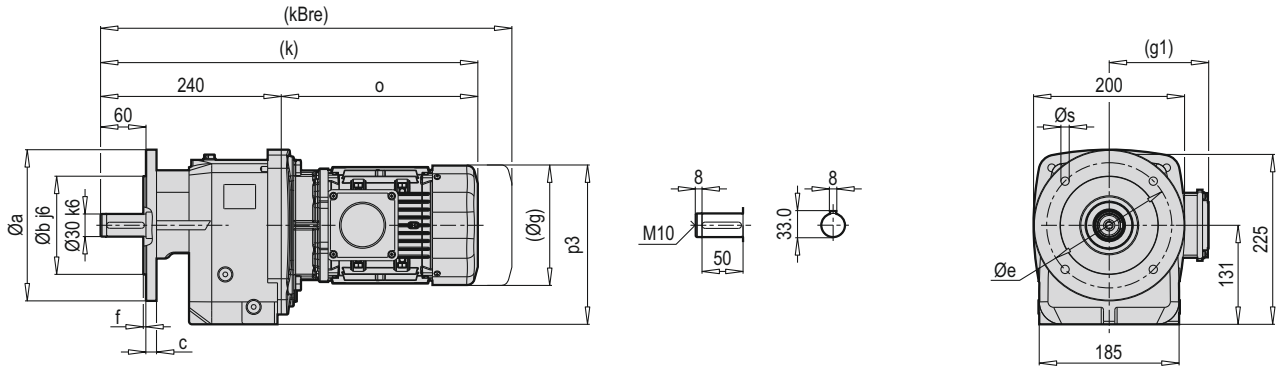
Tip / Type Typ	PAM B14	Øa2	Øb2	Øe2	f2	Øs2	Ød1	l1	t1	u1	o
PA/PF 12-13	63	91	60	75	4	6	11	27	12.8	4	60
PA/PF 12-13	71	106	70	85	4	6.5	14	34	16.3	5	55
PA/PF 12	80	121	80	100	4	6.5	19	45	21.8	6	74
PA/PF 12	90	141	95	115	4	9	24	53	27.3	8	74
PA/PF 12	100	161	110	130	5	9	28	66	31.3	8	75
PA/PF 12	112	161	110	130	5	9	28	66	31.3	8	75

~ Kg		
PAM B14	PA/PF 12	PA/PF 13
63	13	18
71	13	18
80	14	-
90	14	-
100	15	-
112	15	-

PA 22



PF 22

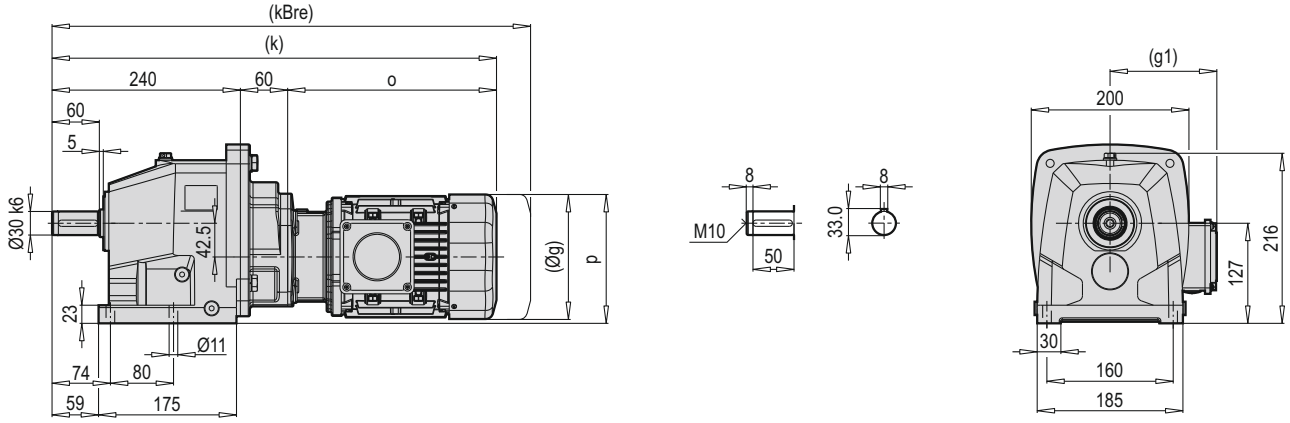


a	b	c	e	f	s
160	110	14	130	3.5	9
200	130	14	165	3.5	11

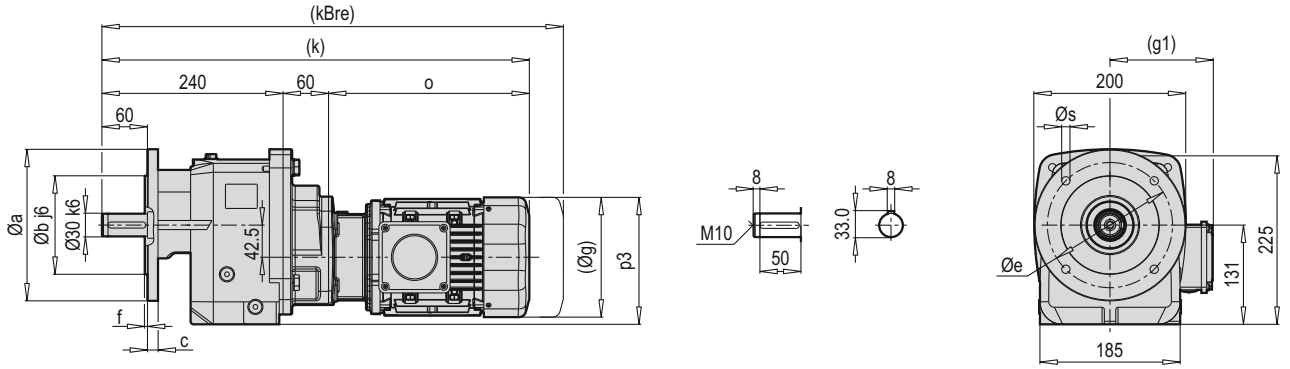
	71 M	80 M	90 S/L	100 L	112 M			
g	140	172	182	202	220			
g1	119	131	130	153	159			
k	476	500	566	617	612			
kBre	536	570	634	701	712			
o	236	260	326	377	372			
p	226	213	218	228	237			
p3	226	217	222	232	241			

Not : (...) İşaretli 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.

PA 23



PF 23



a	b	c	e	f	s
160	110	14	130	3.5	9
200	130	14	165	3.5	11

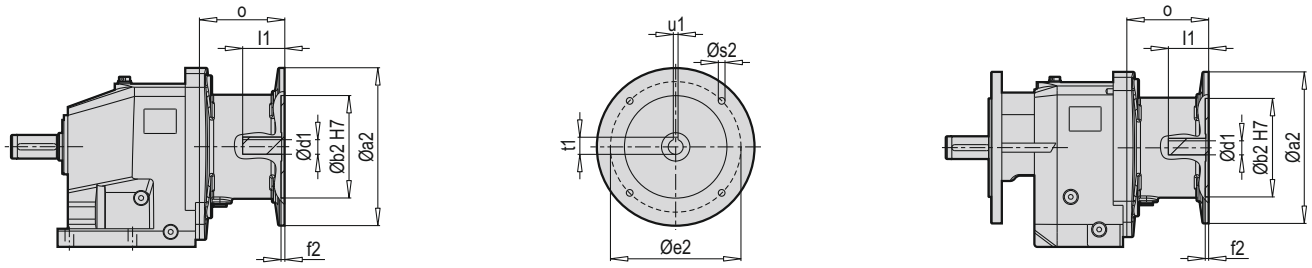
	63 M	71 M	80 M					
g	124	140	172					
g1	111	119	131					
k	498	540	566					
kBre	550	600	636					
o	198	240	266					
p	150	159	171					
p3	154	163	175					

Not : (...) İşaretli 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.

PA 22
PA 23

IEC

PF 22
PF 23



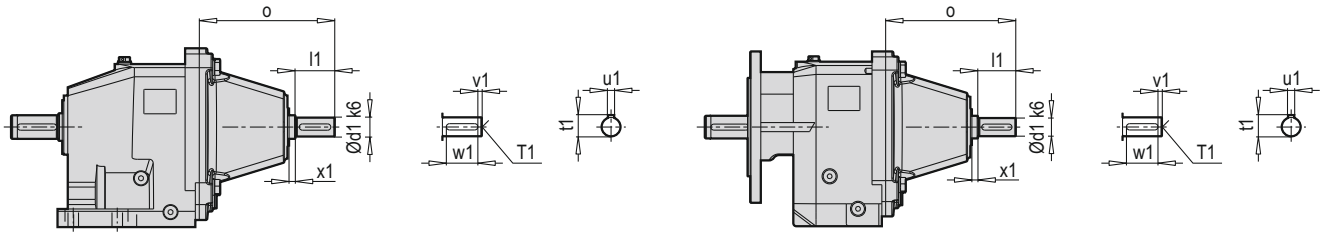
Tip / Type Typ	IEC	Øa2	Øb2	Øe2	f2	Øs2	Ød1	l1	t1	u1	PA/PF 22 o	PA/PF 23 o
PA/PF 23	63	140	95	115	3.5	M8	11	23	12.8	4	-	85
PA/PF 22-23	71	160	110	130	4.0	M8	14	30	16.3	5	88	89
PA/PF 22-23	80	200	130	165	4.0	M10	19	40	21.8	6	107	105
PA/PF 22-23	90	200	130	165	4.0	M10	24	50	27.3	8	107	105
PA/PF 22	100	250	180	215	5.0	M12	28	60	31.3	8	124	-
PA/PF 22	112	250	180	215	5.0	M12	28	60	31.3	8	124	-

~ Kg		
IEC	PA/PF 22	PA/PF 23
63	-	33
71	28	34
80	32	37
90	32	37
100	36	-
112	36	-

PA 22
PA 23

W

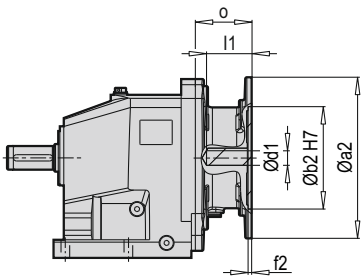
PF 22
PF 23



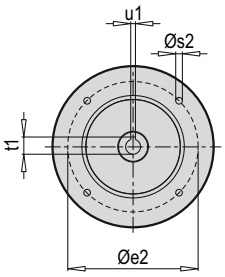
Tip / Type / Typ	Ød1	x1	l1	o	T1	t1	u1	v1	w1
PA/PF 22	24	8	50	172	M8	27	8	5	40
PA/PF 23	16	7	40	122	M5	18	5	4	32

W ~ Kg	
PA/PF 22	30
PA/PF 23	32

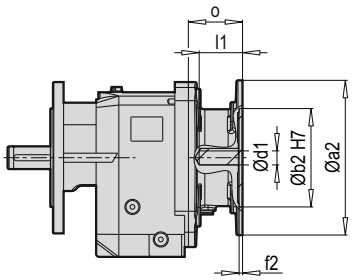
PA 22
PA 23



PAM B5/B14



PF 22
PF 23



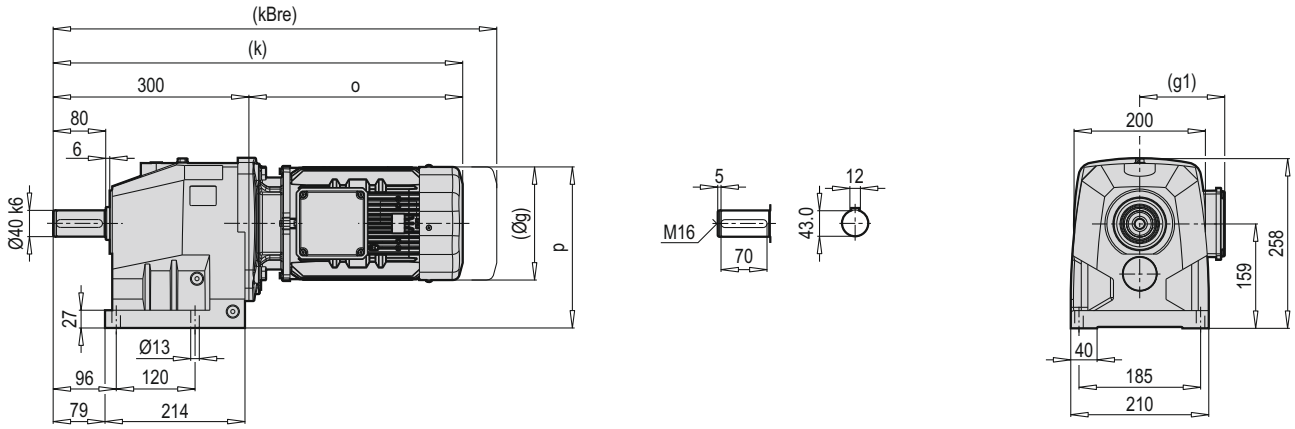
Tip / Type Typ	PAM B5	Øa2	Øb2	Øe2	f2	Øs2	Ød1	l1	t1	u1	PA/PF 22 o	PA/PF 23 o
PA/PF 23	63	140	95	115	3.5	M8	11	23	12.8	4	-	85
PA/PF 22-23	71	160	110	130	4.0	M8	14	30	16.3	5	88	55
PA/PF 22-23	80	200	130	165	4.0	M10	19	40	21.8	6	72	74
PA/PF 22-23	90	200	130	165	4.0	M10	24	50	27.3	8	72	74
PA/PF 22	100	250	180	215	5.0	M12	28	60	31.3	8	75	-
PA/PF 22	112	250	180	215	5.0	M12	28	60	31.3	8	75	-

~ Kg		
PAM B5	PA/PF 22	PA/PF 23
63	-	31
71	26	31
80	27	32
90	27	32
100	28	-
112	28	-

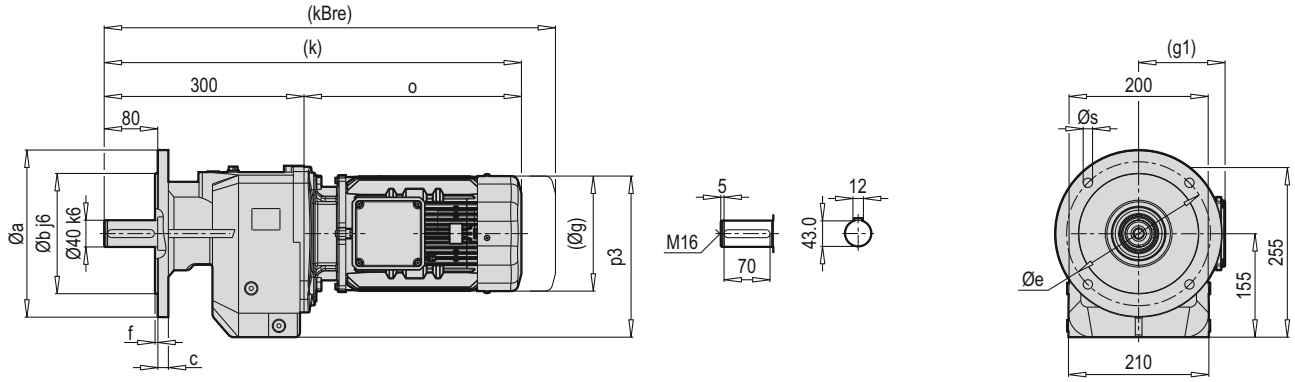
Tip / Type Typ	PAM B14	Øa2	Øb2	Øe2	f2	Øs2	Ød1	l1	t1	u1	PA/PF 22 o	PA/PF 23 o
PA/PF 23	63	90	60	75	4.0	6	11	23	12.8	4	-	60
PA/PF 22-23	71	105	70	85	4.0	7	14	30	16.3	5	88	55
PA/PF 22-23	80	120	80	100	4.0	7	19	40	21.8	6	72	74
PA/PF 22-23	90	140	95	115	4.0	9	24	50	27.3	8	72	74
PA/PF 22	100	160	110	130	5.0	9	28	60	31.3	8	75	-
PA/PF 22	112	160	110	130	5.0	9	28	60	31.3	8	75	-

~ Kg		
PAM B14	PA/PF 22	PA/PF 23
63	-	30
71	24	30
80	25	31
90	25	31
100	27	-
112	27	-

PA 32



PF 32

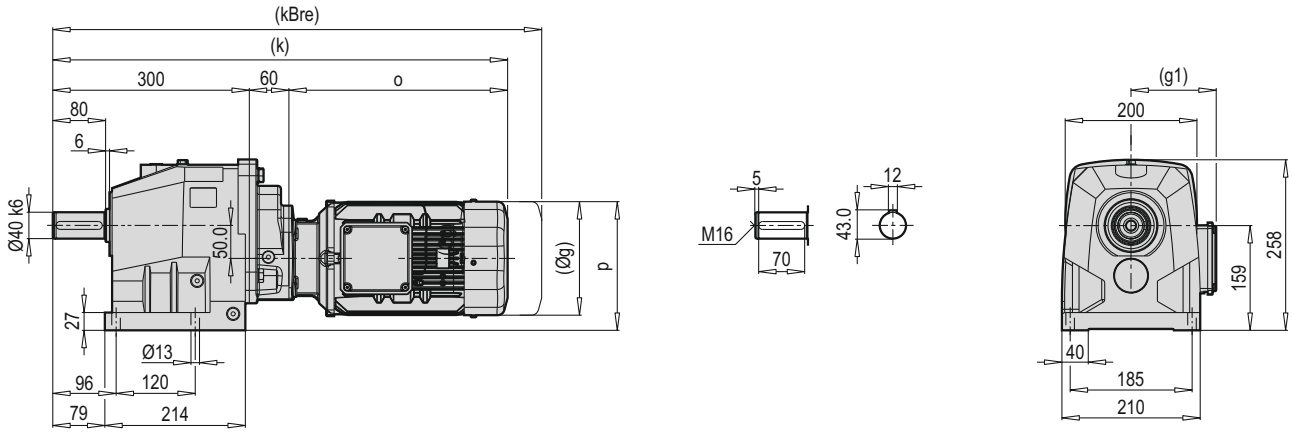


a	b	c	e	f	s
200	130	16	165	3.5	11
250	180	16	215	4.0	14

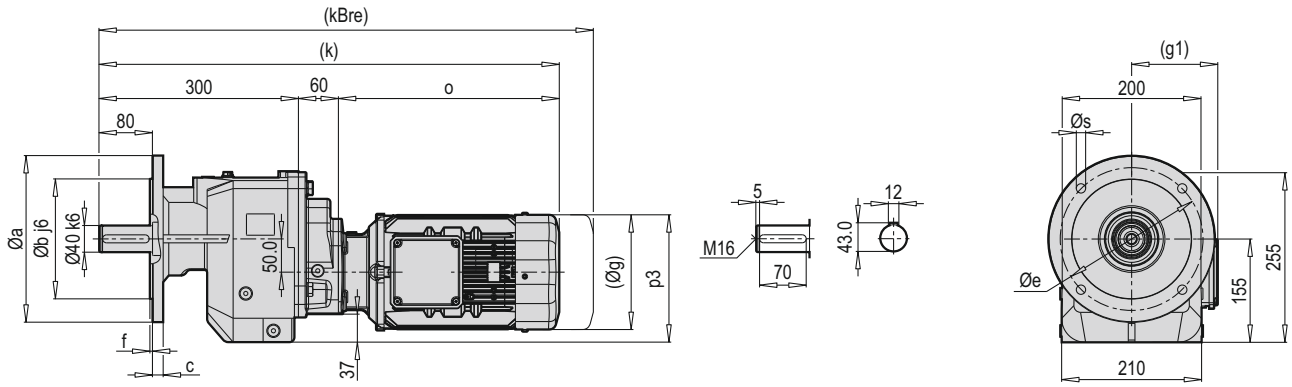
	71 M	80 M	90 S/L	100 L	112 M	132 S/M		
g	140	172	182	202	220	271		
g1	119	131	130	153	159	188		
k	536	560	626	677	672	747		
kBre	596	630	694	761	772	846/874		
o	236	260	326	377	372	447		
p	260	245	250	260	269	295		
p3	260	241	246	256	265	291		

Not : (...) İşaretli 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.

PA 33



PF 33



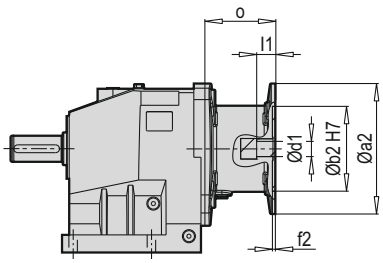
a	b	c	e	f	s
200	130	16	165	3.5	11
250	180	16	215	4.0	14

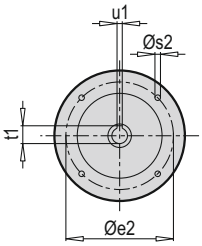
	63 M	71 M	80 M					
g	124	140	172					
g1	111	119	131					
k	558	600	626					
kBre	610	660	696					
o	198	240	266					
p	169	178	195					
p3	165	174	191					

Not : (...) İşaretli 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.

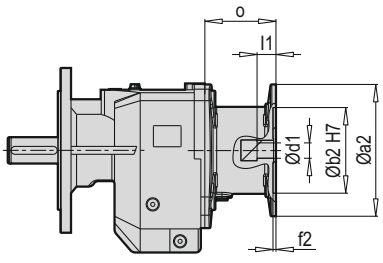
IEC

PA 32
PA 33





PF 32
PF 33

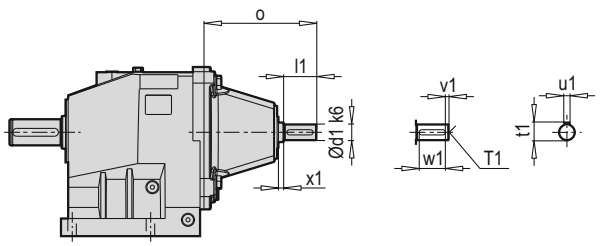


Tip / Type Typ	IEC	Øa2	Øb2	Øe2	f2	Øs2	Ød1	l1	t1	u1	PA/PF 32 o	PA/PF 33 o
PA/PF 33	63	140	95	115	3.5	M8	11	23	12.8	4	-	85
PA/PF 32-33	71	160	110	130	4.0	M8	14	30	16.3	5	88	89
PA/PF 32-33	80	200	130	165	4.0	M10	19	40	21.8	6	107	105
PA/PF 32-33	90	200	130	165	4.0	M10	24	50	27.3	8	107	105
PA/PF 32-33	100	250	180	215	5.0	M12	28	60	31.3	8	124	130
PA/PF 32-33	112	250	180	215	5.0	M12	28	60	31.3	8	124	130
PA/PF 32	132	300	230	265	5.0	M12	38	80	41.3	10	156	-

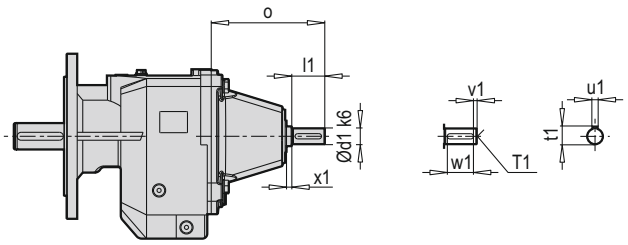
~ Kg		
IEC	PA/PF 32	PA/PF 33
63	-	46
71	40	47
80	44	50
90	44	50
100	48	57
112	48	57
132	57	-

W

PA 32
PA 33



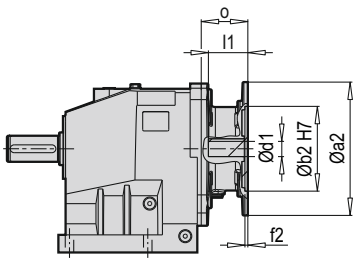
PF 32
PF 33



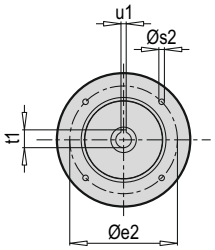
Tip / Type / Typ	Ød1	x1	l1	o	T1	t1	u1	v1	w1
PA/PF 32	24	8	50	172	M8	27	8	5	40
PA/PF 33	16	7	40	122	M5	18	5	4	32

W ~ Kg	
PA/PF 32	42
PA/PF 33	45

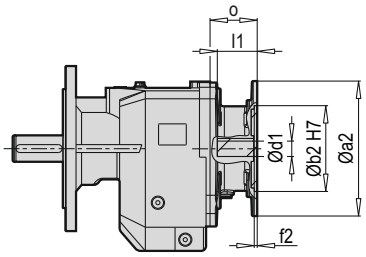
PA 32
PA 33



PAM B5/B14



PF 32
PF 33



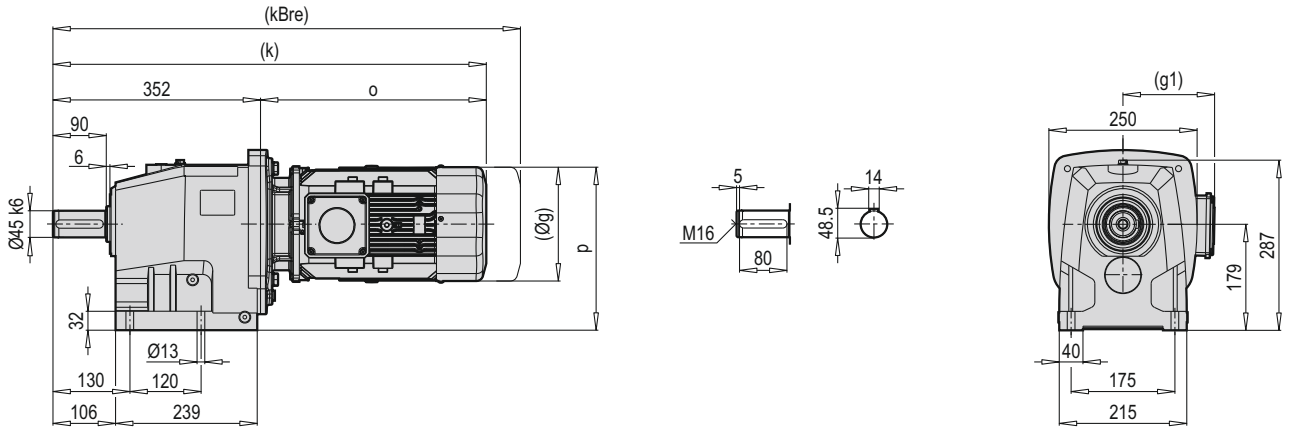
Tip / Type Typ	PAM B5	Øa2	Øb2	Øe2	f2	Øs2	Ød1	l1	t1	u1	PA/PF 32 o	PA/PF 33 o
PA/PF 33	63	140	95	115	3.5	M8	11	23	12.8	4	-	85
PA/PF 32-33	71	160	110	130	4.0	M8	14	30	16.3	5	88	55
PA/PF 32-33	80	200	130	165	4.0	M10	19	40	21.8	6	72	74
PA/PF 32-33	90	200	130	165	4.0	M10	24	50	27.3	8	72	74
PA/PF 32-33	100	250	180	215	5.0	M12	28	60	31.3	8	75	132
PA/PF 32-33	112	250	180	215	5.0	M12	28	60	31.3	8	75	132
PA/PF 32	132	300	230	265	5.0	M12	38	80	41.3	10	94	-

~ Kg		
PAM B5	PA/PF 32	PA/PF 33
63	-	43
71	37	43
80	38	44
90	38	44
100	39	51
112	39	51
132	49	-

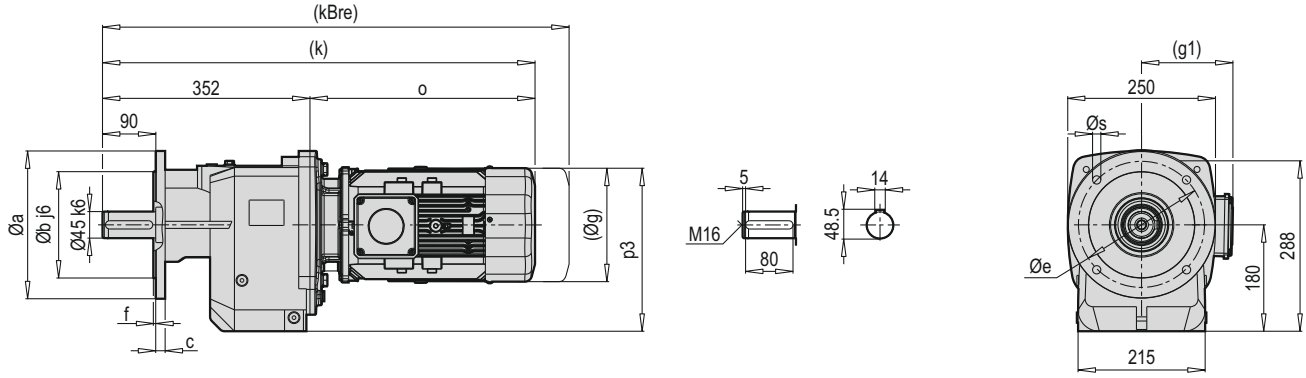
Tip / Type Typ	PAM B14	Øa2	Øb2	Øe2	f2	Øs2	Ød1	l1	t1	u1	PA/PF 32 o	PA/PF 33 o
PA/PF 33	63	90	60	75	4.0	6	11	23	12.8	4	-	60
PA/PF 32-33	71	105	70	85	4.0	7	14	30	16.3	5	88	55
PA/PF 32-33	80	120	80	100	4.0	7	19	40	21.8	6	72	74
PA/PF 32-33	90	140	95	115	4.0	9	24	50	27.3	8	72	74
PA/PF 32-33	100	160	110	130	5.0	9	28	60	31.3	8	75	75
PA/PF 32-33	112	160	110	130	5.0	9	28	60	31.3	8	75	75
PA/PF 32	132	200	130	165	5.0	11	38	80	41.3	10	94	-

~ Kg		
PAM B14	PA/PF 32	PA/PF 33
63	-	42
71	35	42
80	36	43
90	36	43
100	38	44
112	38	44
132	42	-

PA 42



PF 42

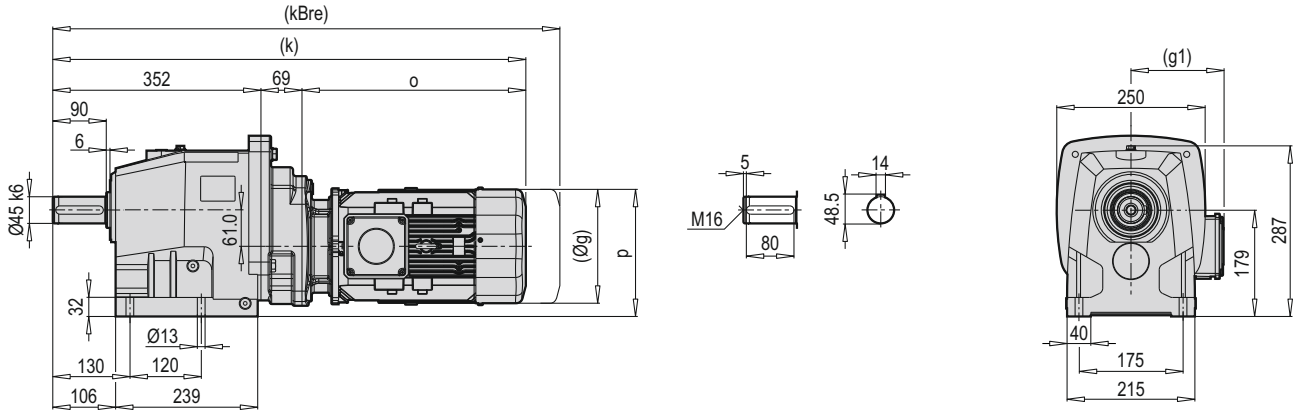


a	b	c	e	f	s
200	130	16	165	3.5	11
250	180	16	215	4.0	14

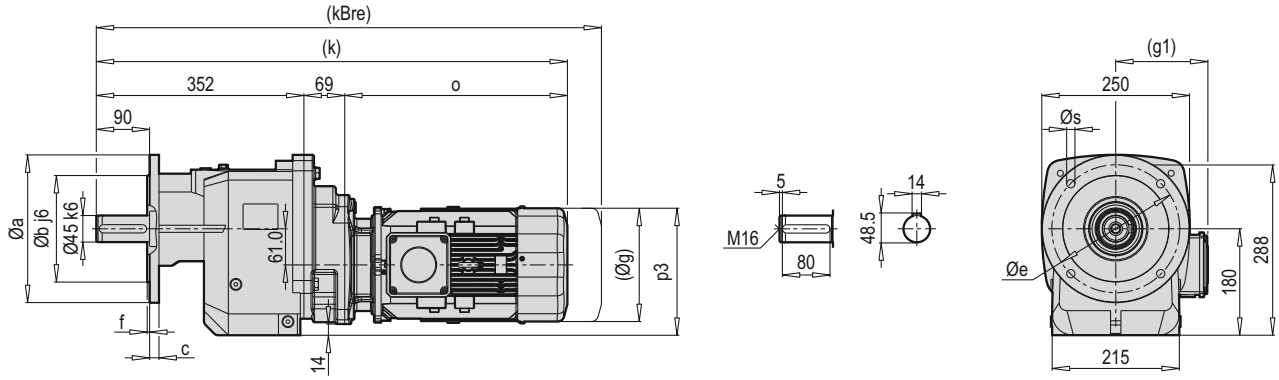
	90 S/L	100 L	112 M	132 S/M	160 M/L			
g	182	202	220	271	322			
g1	130	153	159	188	214			
k	682	733	732	794	882			
kBre	750	817	832	893/913	987			
o	330	381	380	442	530			
p	270	280	289	314	340			
p3	271	281	290	315	341			

Not : (...) İşaretli 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.

PA 43



PF 43



a	b	c	e	f	s
200	130	16	165	3.5	11
250	180	16	215	4.0	14

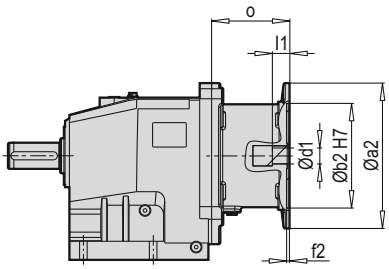
	71 M	80 M	90 S/L	100 L	112 M			
g	140	172	182	202	220			
g1	119	131	130	153	159			
k	657	681	747	798	793			
kBre	717	751	815	882	893			
o	236	260	326	377	372			
p	187	204	209	219	228			
p3	188	205	210	220	229			

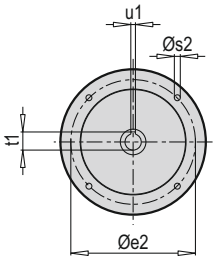
Not : (...) İşaretli olan ölçüler Motor markasına göre farklılık gösterir.
Note : The dimensions which have (...) sign vary depending on the motor.
Hinweis: (...) Die gekennzeichneten Maße unterscheiden sich je nach Motormarke.

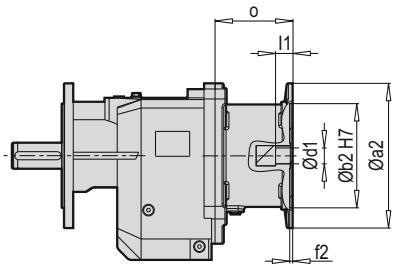
PA 42
PA 43

IEC

PF 42
PF 43







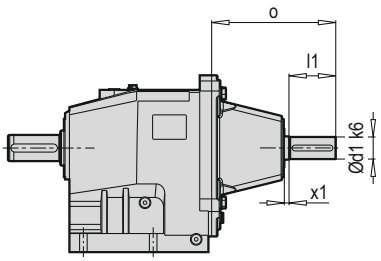
Tip / Type Typ	IEC	Øa2	Øb2	Øe2	f2	Øs2	Ød1	l1	t1	u1	PA/PF 42 o	PA/PF 43 o
PA/PF 43	71	160	110	130	4.0	M8	14	30	16.3	5	-	88
PA/PF 43	80	200	130	165	4.0	M10	19	40	21.8	6	-	107
PA/PF 42-43	90	200	130	165	4.0	M10	24	50	27.3	8	109	107
PA/PF 42-43	100	250	180	215	5.0	M12	28	60	31.3	8	133	124
PA/PF 42-43	112	250	180	215	5.0	M12	28	60	31.3	8	133	124
PA/PF 42	132	300	230	265	5.0	M12	38	80	41.3	10	190	-
PA/PF 42	160	350	250	300	6.0	M16	42	110	45.3	12	194	-

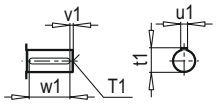
~ Kg		
IEC	PA/PF 42	PA/PF 43
71	-	71
80	-	75
90	62	75
100	70	79
112	70	79
132	84	-
160	95	-

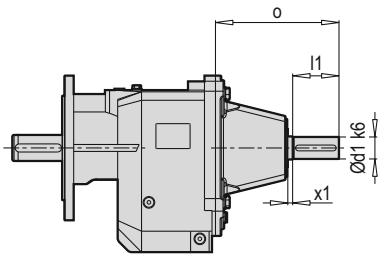
PA 42
PA 43

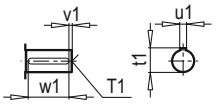
W

PF 42
PF 43





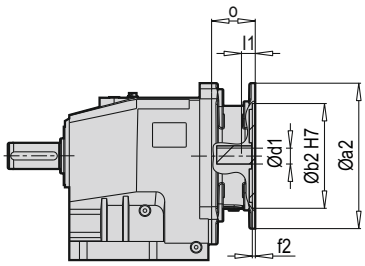




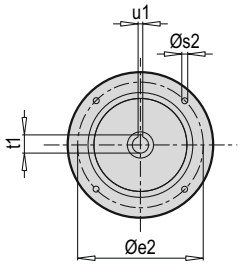
Tip / Type / Typ	Ød1	x1	l1	o	T1	t1	u1	v1	w1
PA/PF 42	38	8	80	213	M12	41	10	5	70
PA/PF 43	24	8	50	172	M8	27	8	5	40

W ~ Kg	
PA/PF 42	68
PA/PF 43	73

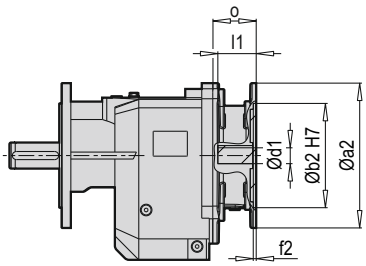
PA 42
PA 43



PAM B5/B14



PF 42
PF 43



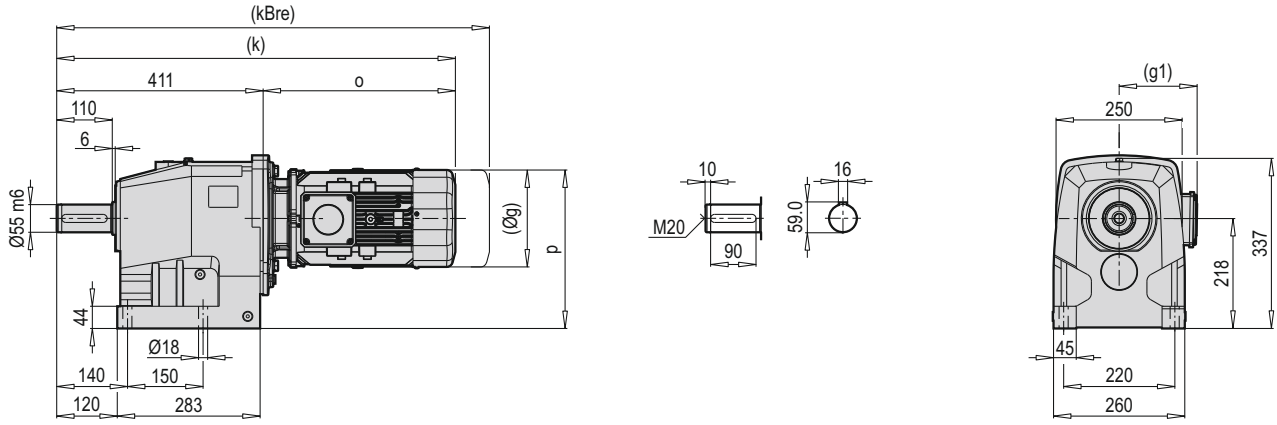
Tip / Type Typ	PAM B5	Øa2	Øb2	Øe2	f2	Øs2	Ød1	l1	t1	u1	PA/PF 42 o	PA/PF 43 o
PA/PF 43	71	160	110	130	4.0	M8	14	30	16.3	5	-	88
PA/PF 43	80	200	130	165	4.0	M10	19	40	21.8	6	-	72
PA/PF 42-43	90	200	130	165	4.0	M10	24	50	27.3	8	72	72
PA/PF 42-43	100	250	180	215	5.0	M12	28	60	31.3	8	75	75
PA/PF 42-43	112	250	180	215	5.0	M12	28	60	31.3	8	75	75
PA/PF 42	132	300	230	265	5.0	M12	38	80	41.3	10	94	-
PA/PF 42	160	350	250	300	6.0	M16	42	110	45.3	12	120	-

~ Kg		
PAM B5	PA/PF 42	PA/PF 43
71	-	67
80	-	68
90	56	68
100	57	69
112	57	69
132	66	-
160	74	-

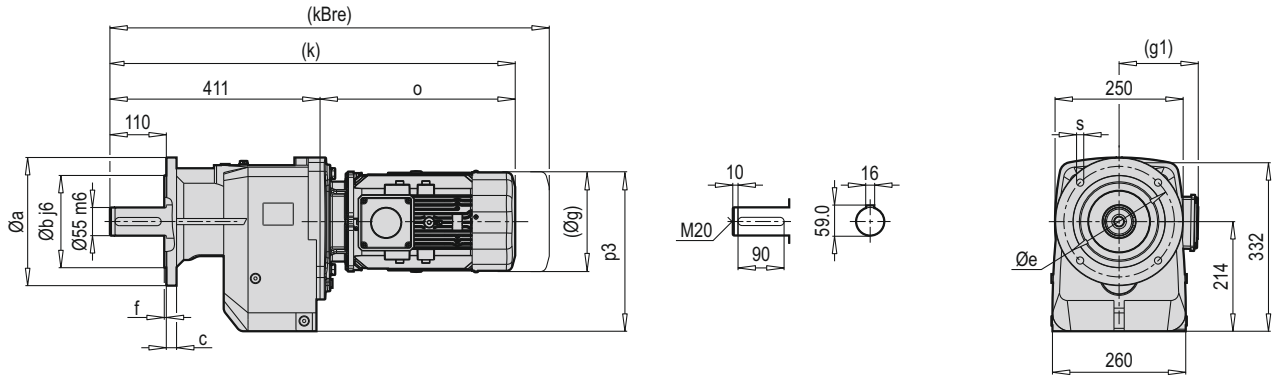
Tip / Type Typ	PAM B14	Øa2	Øb2	Øe2	f2	Øs2	Ød1	l1	t1	u1	PA/PF 42 o	PA/PF 43 o
PA/PF 43	71	105	70	85	4.0	7	14	30	16.3	5	-	55
PA/PF 43	80	120	80	100	4.0	7	19	40	21.8	6	-	74
PA/PF 42-43	90	140	95	115	4.0	9	24	50	27.3	8	72	74
PA/PF 42-43	100	160	110	130	5.0	9	28	60	31.3	8	75	75
PA/PF 42-43	112	160	110	130	5.0	9	28	60	31.3	8	75	-
PA/PF 42	132	200	130	165	5.0	11	38	80	41.3	10	94	-

~ Kg		
PAM B14	PA/PF 42	PA/PF 43
71	-	65
80	-	66
90	55	66
100	56	68
112	56	-
132	61	-

PA 52



PF 52

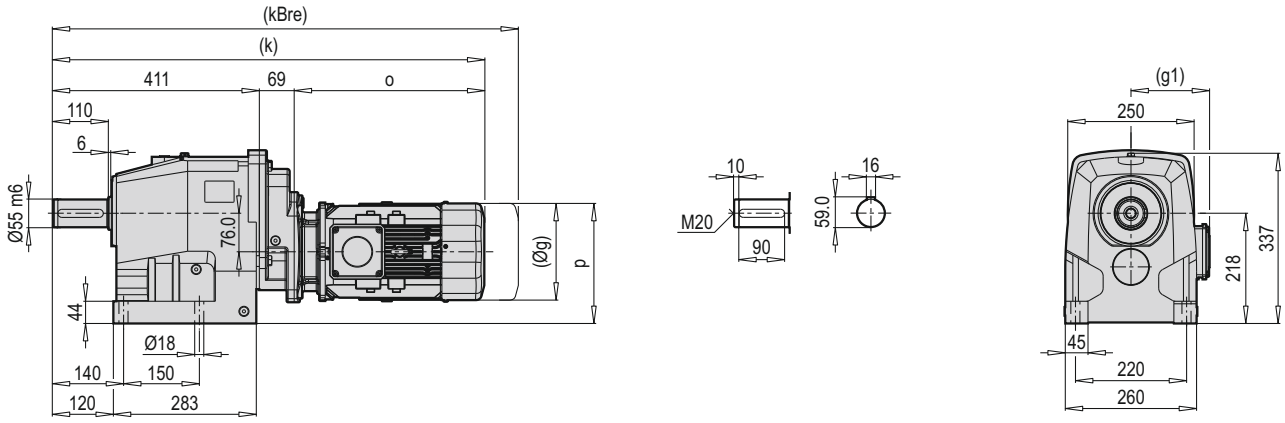


a	b	c	e	f	s
250	180	20	215	4.0	14
300	230	20	265	4.0	14

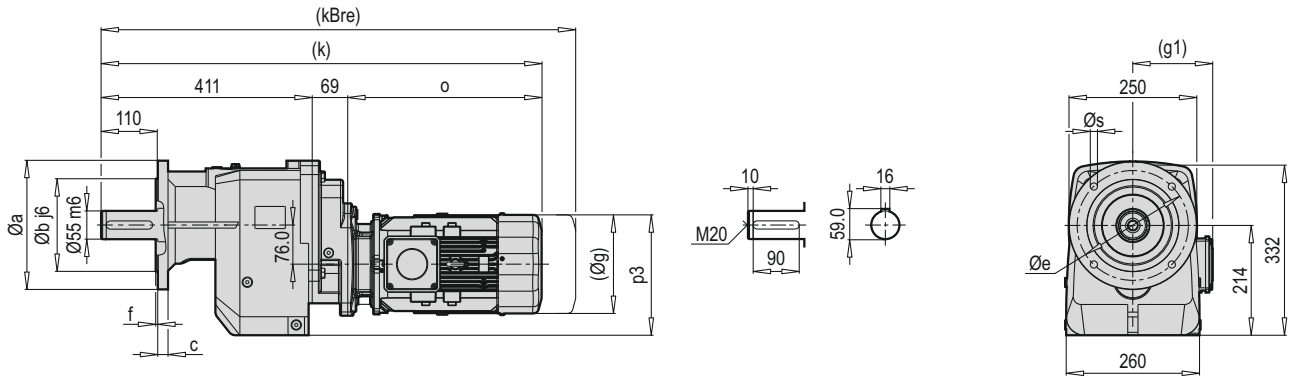
	90 S/L	100 L	112 M	132 S/M	160 M/L	180 M/L		
g	182	202	220	271	322	363		
g1	130	153	159	188	214	249		
k	741	792	791	853	941	1035		
kBre	809	876	891	952/972	1046	1035		
o	330	381	380	442	530	624		
p	309	319	328	353	379	400		
p3	304	314	323	348	374	395		

Not : (...) İşaretli 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.

PA 53



PF 53



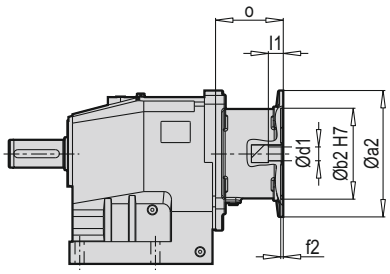
a	b	c	e	f	s
250	180	20	215	4.0	14
300	230	20	265	4.0	14

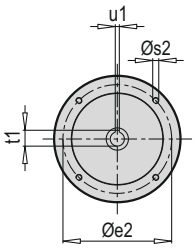
	71 M	80 M	90 S/L	100 L	112 M			
g	140	172	182	202	220			
g1	119	131	130	153	159			
k	716	740	806	857	852			
kBre	776	810	874	941	952			
o	236	260	326	377	372			
p	211	228	233	243	252			
p3	207	224	229	239	248			

Not : (...) İşaretli 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.

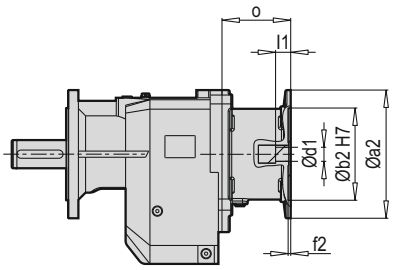
IEC

PA 52
PA 53





PF 52
PF 53

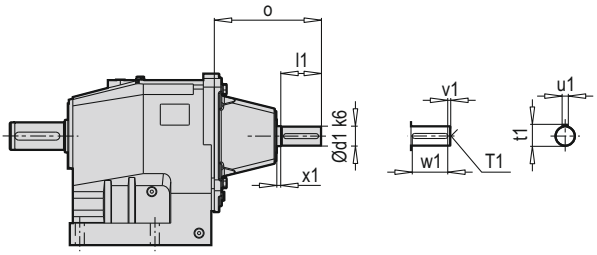


Tip / Type Typ	IEC	Øa2	Øb2	Øe2	f2	Øs2	Ød1	l1	t1	u1	PA/PF 52 o	PA/PF 53 o
PA/PF 53	71	160	110	130	4.0	M8	14	30	16.3	5	-	88
PA/PF 53	80	200	130	165	4.0	M10	19	40	21.8	6	-	107
PA/PF 52-53	90	200	130	165	4.0	M10	24	50	27.3	8	109	107
PA/PF 52-53	100	250	180	215	5.0	M12	28	60	31.3	8	133	124
PA/PF 52-53	112	250	180	215	5.0	M12	28	60	31.3	8	133	124
PA/PF 52	132	300	230	265	5.0	M12	38	80	41.3	10	190	-
PA/PF 52	160	350	250	300	6.0	M16	42	110	45.3	12	194	-
PA/PF 52	180	350	250	300	6.0	M16	48	110	51.8	14	194	-

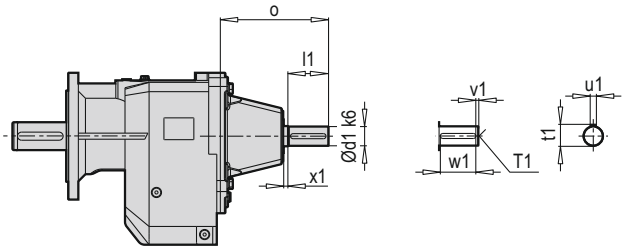
~ Kg		
IEC	PA/PF 52	PA/PF 53
71	-	106
80	-	110
90	93	110
100	101	114
112	101	114
132	116	-
160	126	-
180	126	-

W

PA 52
PA 53



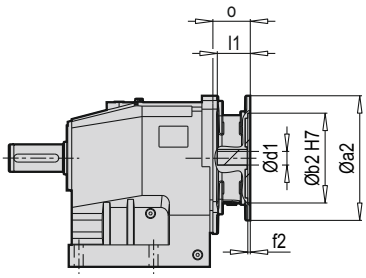
PF 52
PF 53



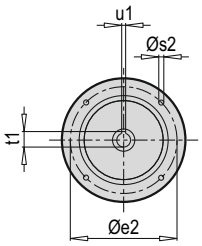
Tip / Type / Typ	Ød1	x1	l1	o	T1	t1	u1	v1	w1
PA/PF 52	38	8	80	213	M12	41	10	5	70
PA/PF 53	24	8	50	172	M8	27	8	5	40

W ~ Kg	
PA/PF 52	99
PA/PF 53	108

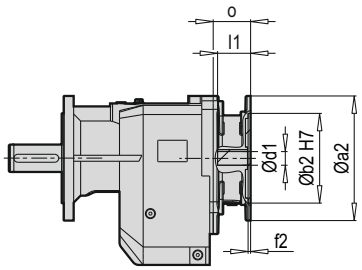
PA 52
PA 53



PAM B5/B14



PF 52
PF 53



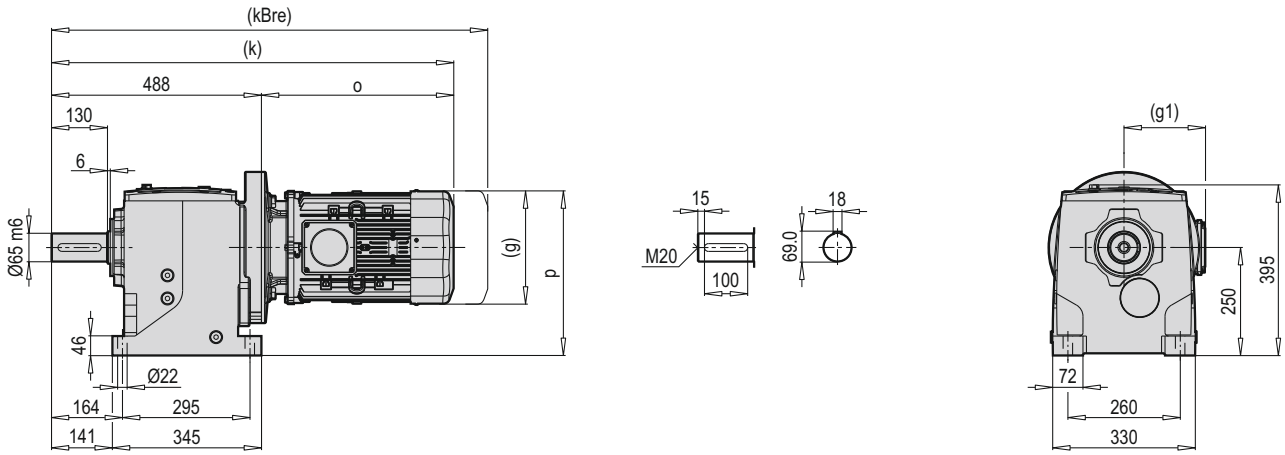
Tip / Type Typ	PAM B5	Øa2	Øb2	Øe2	f2	Øs2	Ød1	l1	t1	u1	PA/PF 52 o	PA/PF 53 o
PA/PF 53	71	160	110	130	4.0	M8	14	30	16.3	5	-	88
PA/PF 53	80	200	130	165	4.0	M10	19	40	21.8	6	-	72
PA/PF 52-53	90	200	130	165	4.0	M10	24	50	27.3	8	72	72
PA/PF 52-53	100	250	180	215	5.0	M12	28	60	31.3	8	75	75
PA/PF 52-53	112	250	180	215	5.0	M12	28	60	31.3	8	75	75
PA/PF 52	132	300	230	265	5.0	M12	38	80	41.3	10	94	-
PA/PF 52	160	350	250	300	6.0	M16	42	110	45.3	12	120	-
PA/PF 52	180	350	250	300	6.0	M16	48	110	51.8	14	120	-

~ Kg		
PAM B5	PA/PF 52	PA/PF 53
71	-	100
80	-	101
90	85	101
100	86	102
112	86	102
132	95	-
160	103	-
180	103	-

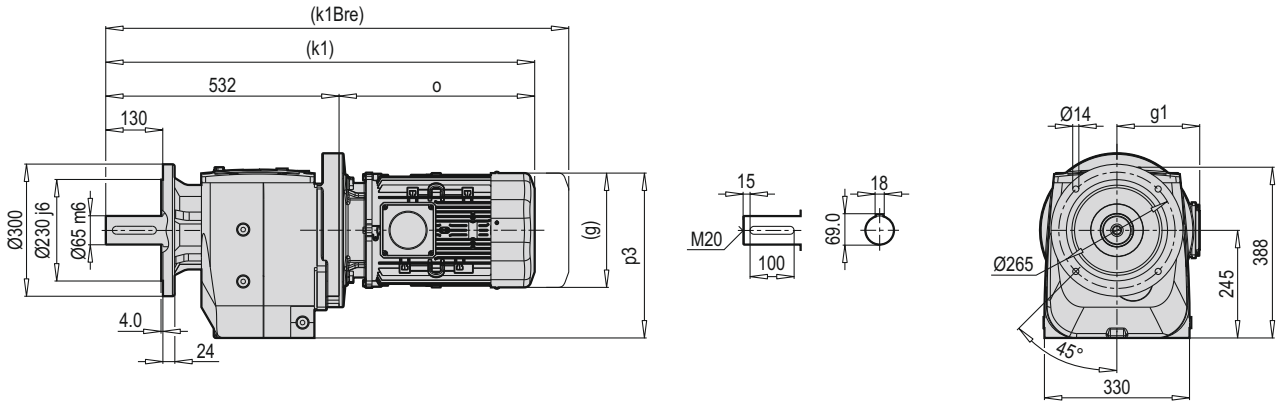
Tip / Type Typ	PAM B14	Øa2	Øb2	Øe2	f2	Øs2	Ød1	l1	t1	u1	PA/PF 52 o	PA/PF 53 o
PA/PF 53	71	105	70	85	4.0	7	14	30	16.3	5	-	55
PA/PF 53	80	120	80	100	4.0	7	19	40	21.8	6	-	74
PA/PF 52-53	90	140	95	115	4.0	9	24	50	27.3	8	72	74
PA/PF 52-53	100	160	110	130	5.0	9	28	60	31.3	8	75	75
PA/PF 52-53	112	160	110	130	5.0	9	28	60	31.3	8	75	75
PA/PF 52	132	200	130	165	5.0	11	38	80	41.3	10	94	-

~ Kg		
PAM B14	PA/PF 52	PA/PF 53
71	-	98
80	-	99
90	84	99
100	85	101
112	85	101
132	89	-

PA 62



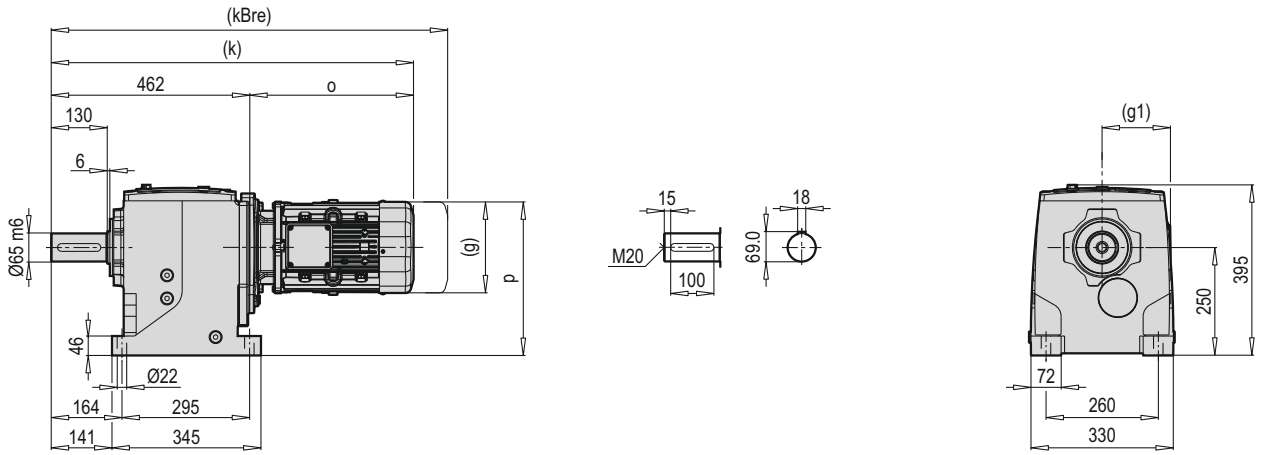
PF 62



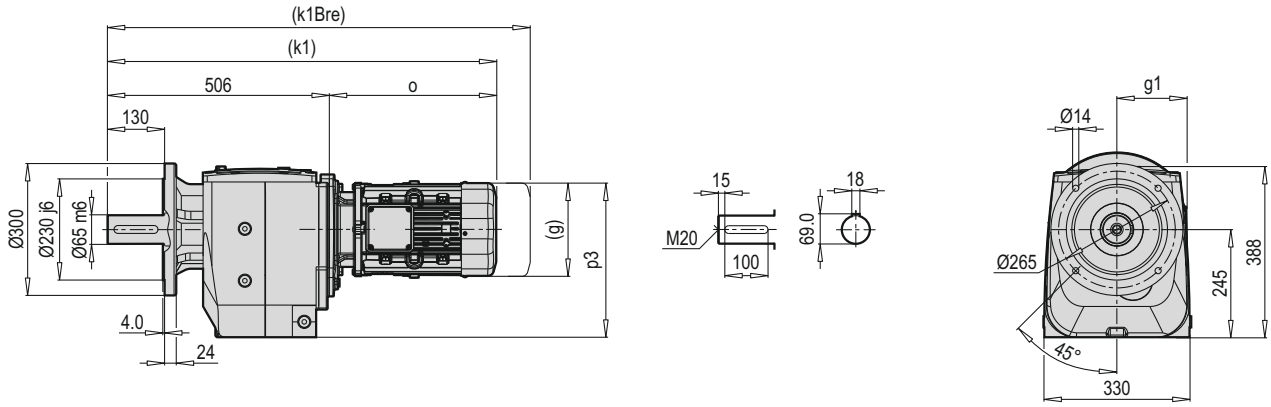
	112 M	132 S	132 M	160 M/L	180 M/L	200 L	225 S/M	
g	220	271	271	322	363	363	456	
g1	159	188	188	214	249	249	260	
k	867	933	933	1018	1112	1121	1188	
kBre	967	1033	1053	1123	1231	1239	1360	
k1	911	977	977	1062	1156	1165	1232	
k1Bre	1011	1077	1097	1167	1275	1283	1404	
o	379	445	445	530	624	633	700	
p	360	386	386	411	432	432	485	
p3	355	381	381	406	427	427	485	

Not : (...) İşaretli 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.

PA 63



PF 63

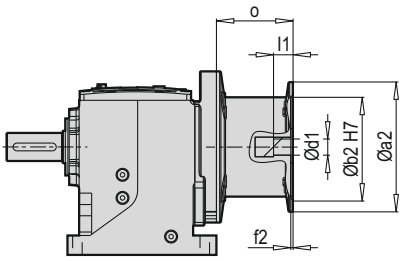


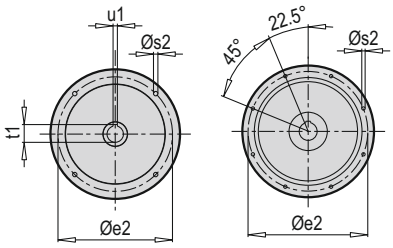
	90 S/L	100 L	112 M	132 S/M	160 M/L	180 M/L		
g	182	202	220	271	322	363		
g1	130	153	159	188	214	249		
k	792	843	842	904	992	1062		
kBre	860	927	942	1003/1023	1097	1187		
k1	836	887	886	948	1036	1130		
k1Bre	904	971	986	1047/1127	1141	1231		
o	330	381	380	442	530	624		
p	341	351	360	385	410	431		
p3	336	346	355	380	405	426		

Not : (...) İşaretli 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.

IEC

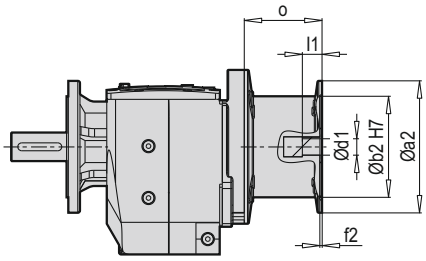
PA 62
PA 63





IEC 90...200 | IEC 225

PF 62
PF 63

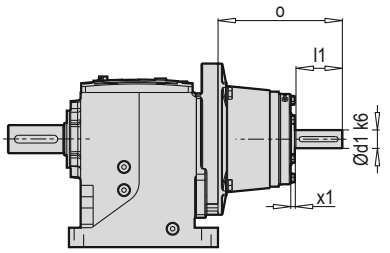


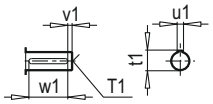
Tip / Type Typ	IEC	Øa2	Øb2	Øe2	f2	Øs2	Ød1	l1	t1	u1	PA/PF 62 o	PA/PF 63 o
PA/PF 63	90	200	130	165	4.0	M10	24	50	27.3	8	-	109
PA/PF 62-63	100	250	180	215	5.0	M12	28	60	31.3	8	127	133
PA/PF 62-63	112	250	180	215	5.0	M12	28	60	31.3	8	127	133
PA/PF 62-63	132	300	230	265	5.0	M12	38	80	41.3	10	177	190
PA/PF 62-63	160	350	250	300	6.0	M16	42	110	45.3	12	266	194
PA/PF 62-63	180	350	250	300	6.0	M16	48	110	51.8	14	266	194
PA/PF 62	200	400	300	350	6.0	M16	55	110	59.3	16	229	-
PA/PF 62	225	450	350	400	6.0	M16	60	140	64.4	18	303	-

~ Kg		
IEC	PA/PF 62	PA/PF 63
90	-	151
100	167	159
112	167	159
132	181	173
160	207	184
180	207	184
200	222	-
225	237	-

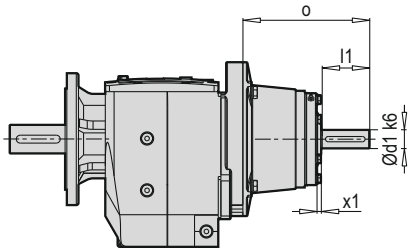
W

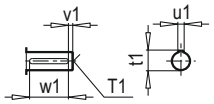
PA 62
PA 63





PF 62
PF 63





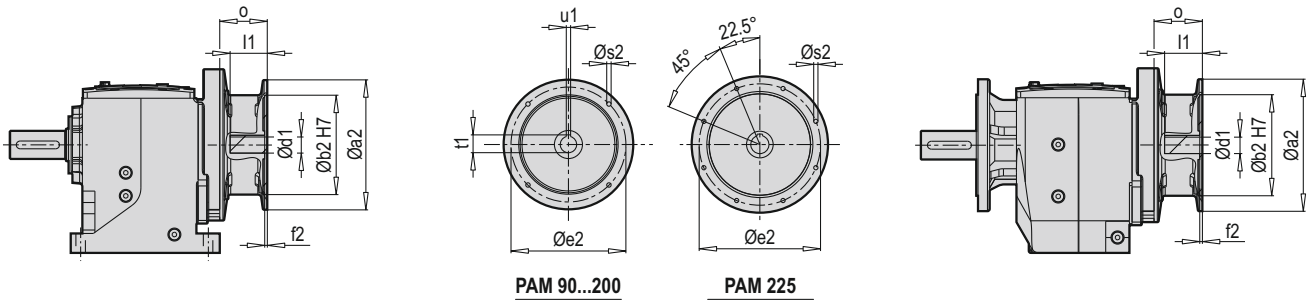
Tip / Type / Typ	Ød1	x1	l1	o	T1	t1	u1	v1	w1
PA/PF 62	42	8	110	288	M16	45	12	10	90
PA/PF 63	38	8	80	213	M12	41	10	5	70

W ~ Kg	
PA/PF 62	180
PA/PF 63	156

PA 62
PA 63

PAM B5/B14

PF 62
PF 63



PAM 90...200

PAM 225

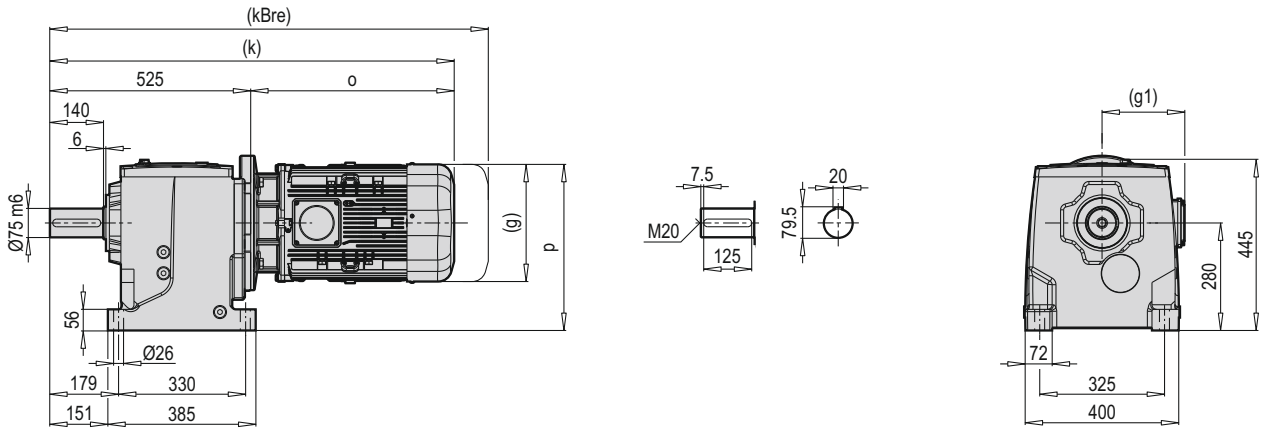
Tip / Type Typ	PAM B5	Øa2	Øb2	Øe2	f2	Øs2	Ød1	l1	t1	u1	PA/PF 62 o	PA/PF 63 o
PA/PF 63	90	200	130	165	4.0	M10	24	50	27.3	8	-	72
PA/PF 62-63	100	250	180	215	5.0	M12	28	60	31.3	8	75	75
PA/PF 62-63	112	250	180	215	5.0	M12	28	60	31.3	8	75	75
PA/PF 62-63	132	300	230	265	5.0	M12	38	80	41.3	10	110	94
PA/PF 62-63	160	350	250	300	6.0	M16	42	110	45.3	12	145	120
PA/PF 62-63	180	350	250	300	6.0	M16	48	110	51.8	14	145	120
PA/PF 62	200	400	300	350	6.0	M16	55	110	59.3	16	157	-
PA/PF 62	225	450	350	400	6.0	M16	60	140	64.4	18	183	-

~ kg		
PAM B5	PA/PF 62	PA/PF 63
90	-	140
100	146	141
112	146	141
132	157	150
160	174	158
180	174	158
200	181	-
225	191	-

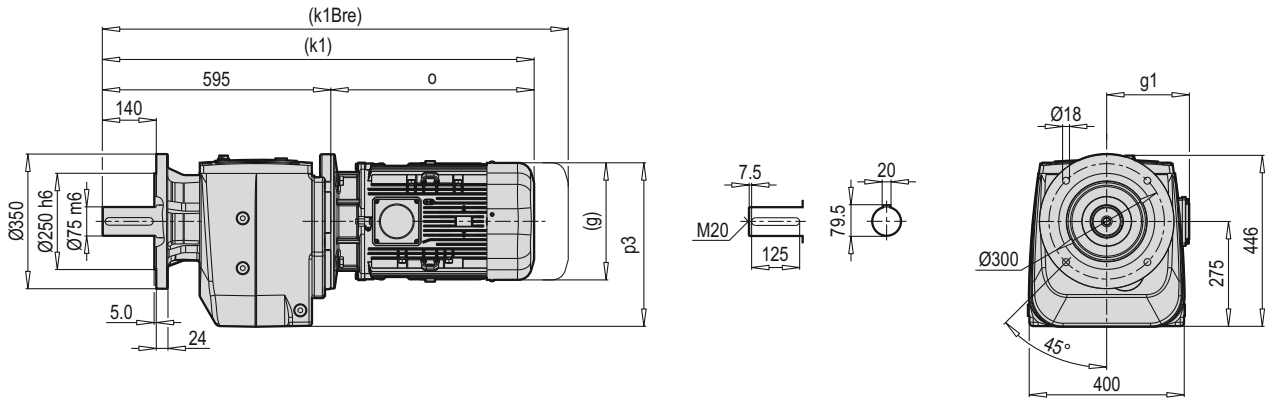
Tip / Type Typ	PAM B14	Øa2	Øb2	Øe2	f2	Øs2	Ød1	l1	t1	u1	PA/PF 62 o	PA/PF 63 o
PA/PF 63	90	140	95	115	4.0	9	24	50	27.3	8	-	72
PA/PF 62-63	100	160	110	130	5.0	9	28	60	31.3	8	75	75
PA/PF 62-63	112	160	110	130	5.0	9	28	60	31.3	8	75	75
PA/PF 62-63	132	200	130	165	5.0	11	38	80	41.3	10	110	94

~ kg		
PAM B14	PA/PF 62	PA/PF 63
90	-	139
100	145	140
112	145	140
132	152	145

PA 72



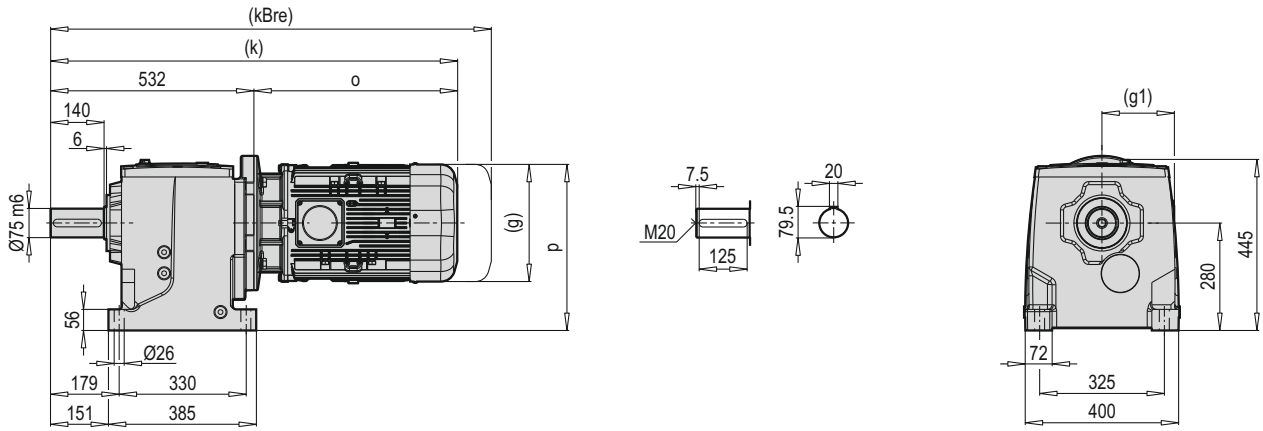
PF 72



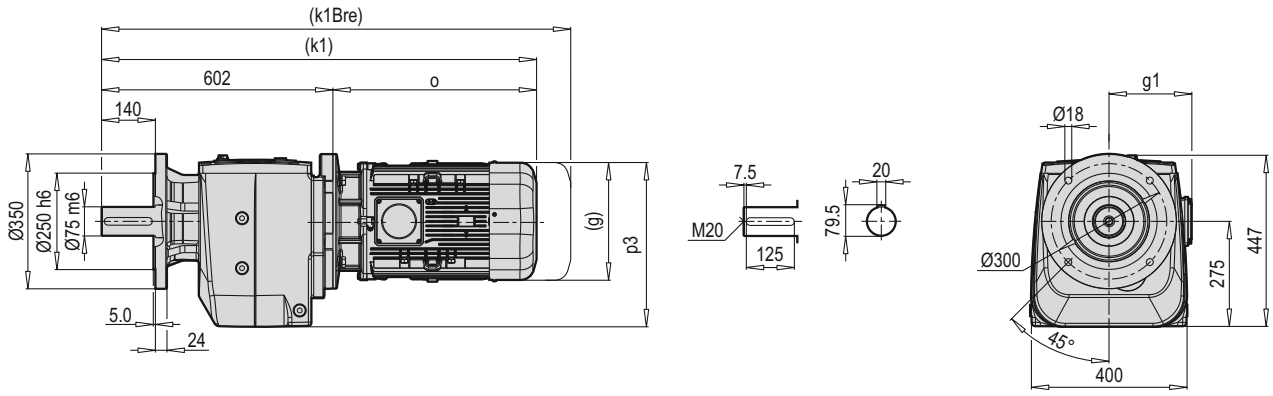
	132 M	160 M/L	180 M/L	200 L	225 S/M			
g	271	322	363	363	456			
g1	188	214	249	249	260			
k	970	1055	1149	1158	1225			
kBre	1090	1160	1268	1276	1397			
k1	1050	1125	1219	1228	1290			
k1Bre	1160	1230	1338	1346	1462			
o	445	530	624	633	700			
p	416	441	462	462	479			
p3	408	433	670	670	479			

Not : (...) İşaretli 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.

PA 73



PF 73



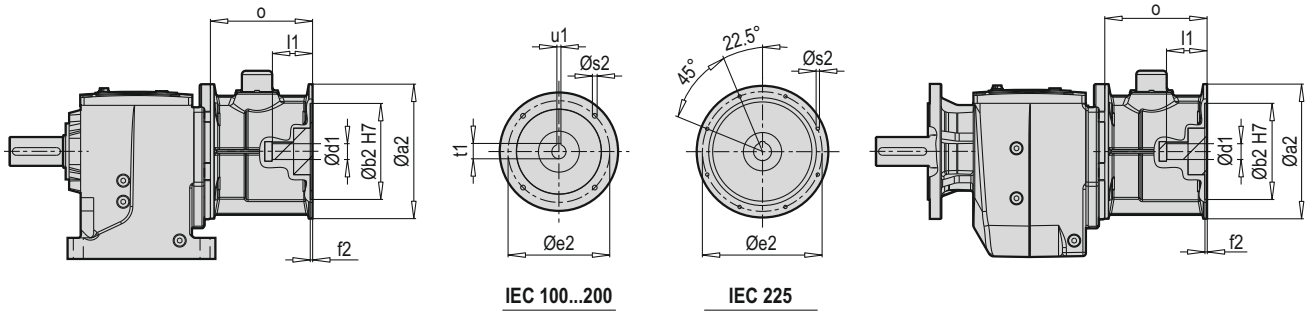
	100 L	112 M	132 S	132 M	160 M/L	180 M/L	200 L	225 S/M
g	202	220	271	271	322	363	363	456
g1	153	159	188	188	214	249	249	260
k	912	911	977	977	1062	1156	1165	1232
kBre	996	1011	1077	1097	1167	1275	1275	1404
k1	982	981	1047	1047	1132	1226	1235	1297
k1Bre	1066	1081	1147	1167	1236	1345	1353	1469
o	380	379	445	445	530	624	633	700
p	381	390	415	415	441	461	461	479
p3	373	382	407	407	433	453	452	474

Not : (...) İşaretli 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.

PA 72
PA 73

IEC

PF 72
PF 73



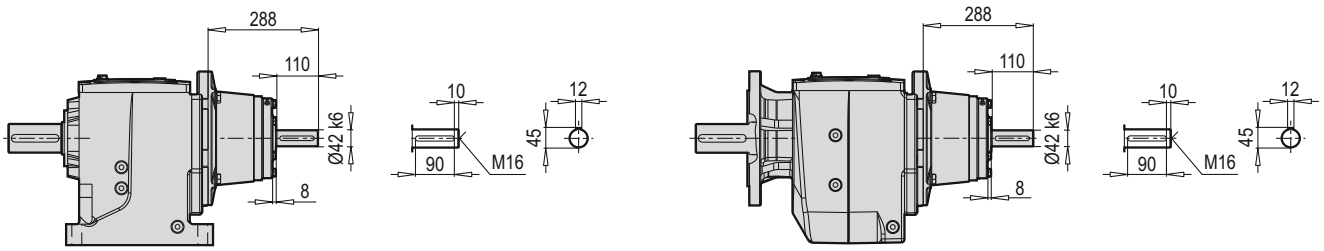
Tip / Type Typ	IEC	Øa2	Øb2	Øe2	f2	Øs2	Ød1	l1	t1	u1	o
PA/PF 73	100	250	180	215	5.0	M12	28	60	31.3	8	127
PA/PF 73	112	250	180	215	5.0	M12	28	60	31.3	8	127
PA/PF 72-73	132	300	230	265	5.0	M12	38	80	41.3	10	177
PA/PF 72-73	160	350	250	300	6.0	M16	42	110	45.3	12	266
PA/PF 72-73	180	350	250	300	6.0	M16	48	110	51.8	14	266
PA/PF 72-73	200	400	300	350	6.0	M16	55	110	59.3	16	229
PA/PF 72-73	225	450	350	400	6.0	M16	60	140	64.4	18	303

~ Kg		
IEC	PA/PF 72	PA/PF 73
100	-	250
112	-	250
132	253	264
160	279	290
180	279	290
200	294	305
225	310	320

PA 72
PA 73

W

PF 72
PF 73

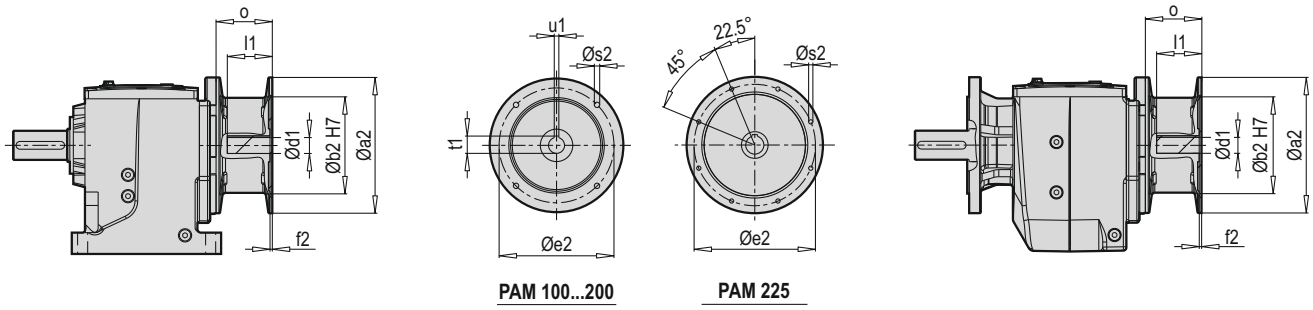


W ~ Kg	
PA/PF 72	252
PA/PF 73	263

PA 72
PA 73

PAM B5/B14

PF 72
PF 73



PAM 100...200

PAM 225

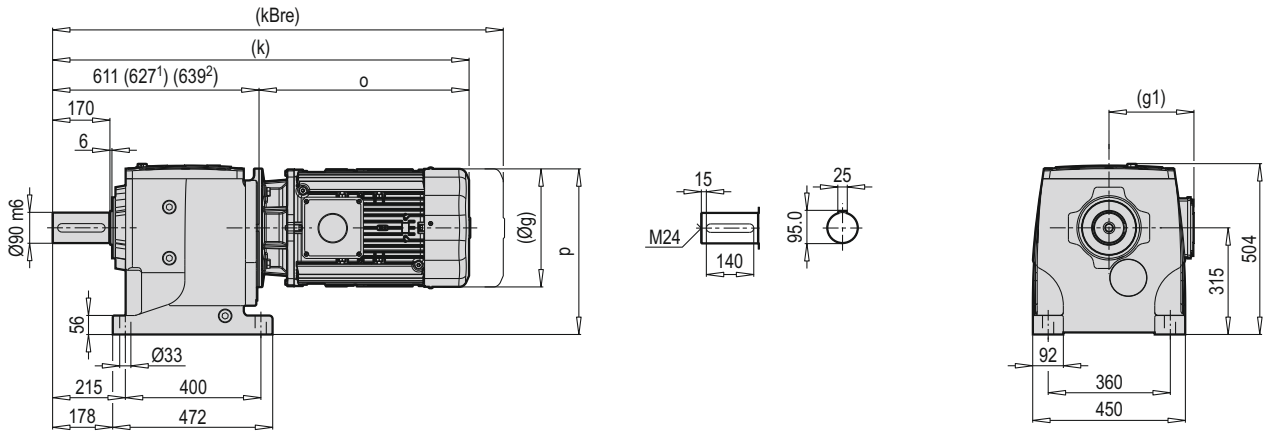
Tip / Type Typ	PAM B5	Øa2	Øb2	Øe2	f2	Øs2	Ød1	l1	t1	u1	o
PA/PF 73	100	250	180	215	5.0	M12	28	60	31.3	8	75
PA/PF 73	112	250	180	215	5.0	M12	28	60	31.3	8	75
PA/PF 72-73	132	300	230	265	5.0	M12	38	80	41.3	10	110
PA/PF 72-73	160	350	250	300	6.0	M16	42	110	45.3	12	145
PA/PF 72-73	180	350	250	300	6.0	M16	48	110	51.8	14	145
PA/PF 72-73	200	400	300	350	6.0	M16	55	110	59.3	16	157
PA/PF 72-73	225	450	350	400	6.0	M16	60	140	64.4	18	183

~ Kg		
PAM B5	PA/PF 72	PA/PF 73
100	-	225
112	-	225
132	226	236
160	243	253
180	243	253
200	250	260
225	260	270

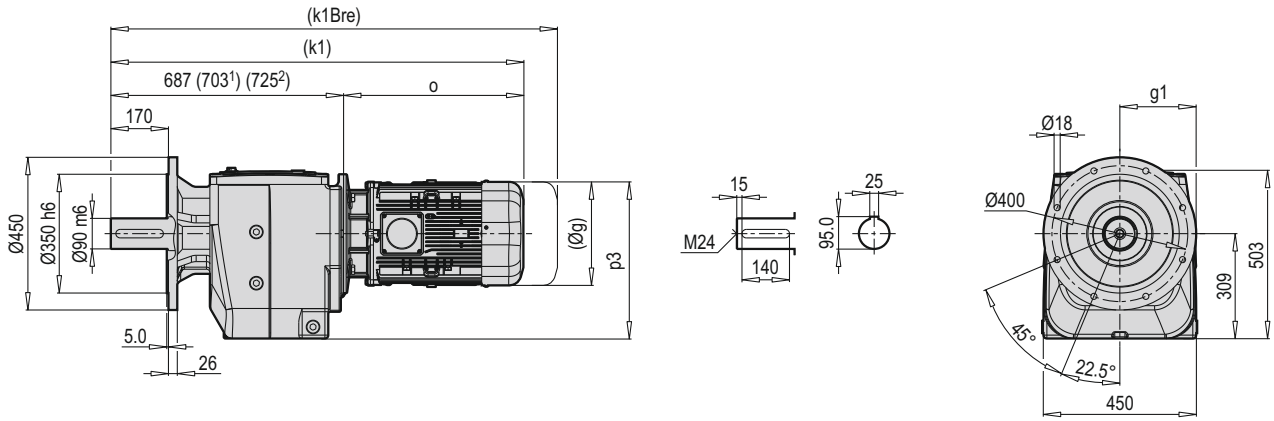
Tip / Type Typ	PAM B14	Øa2	Øb2	Øe2	f2	Øs2	Ød1	l1	t1	u1	o
PA/PF 73	100	160	110	130	5.0	9	28	60	31.3	8	75
PA/PF 73	112	160	110	130	5.0	9	28	60	31.3	8	75
PA/PF 72-73	132	200	130	165	5.0	11	38	80	41.3	10	110

~ Kg		
PAM B14	PA/PF 72	PA/PF 73
100	-	224
112	-	224
132	221	231

PA 82



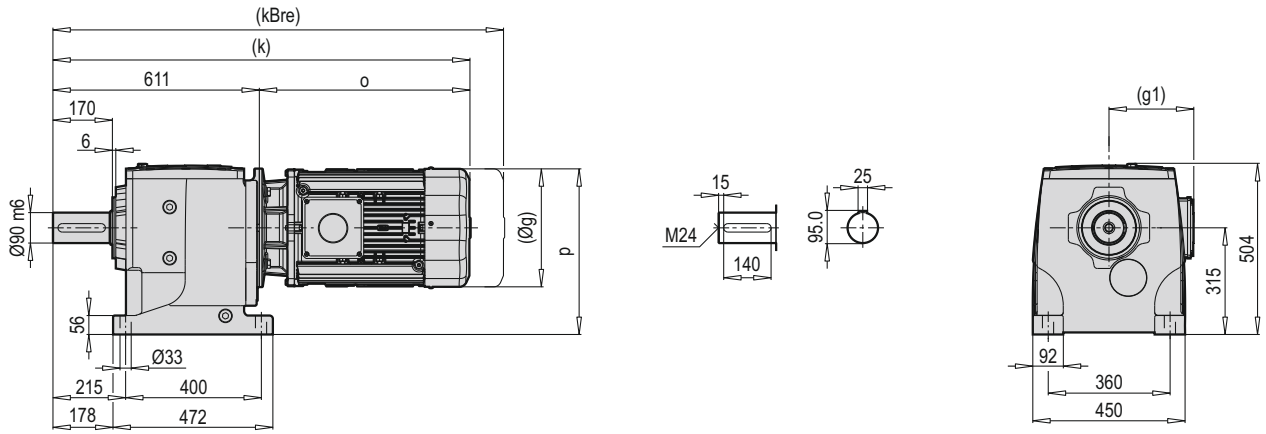
PF 82



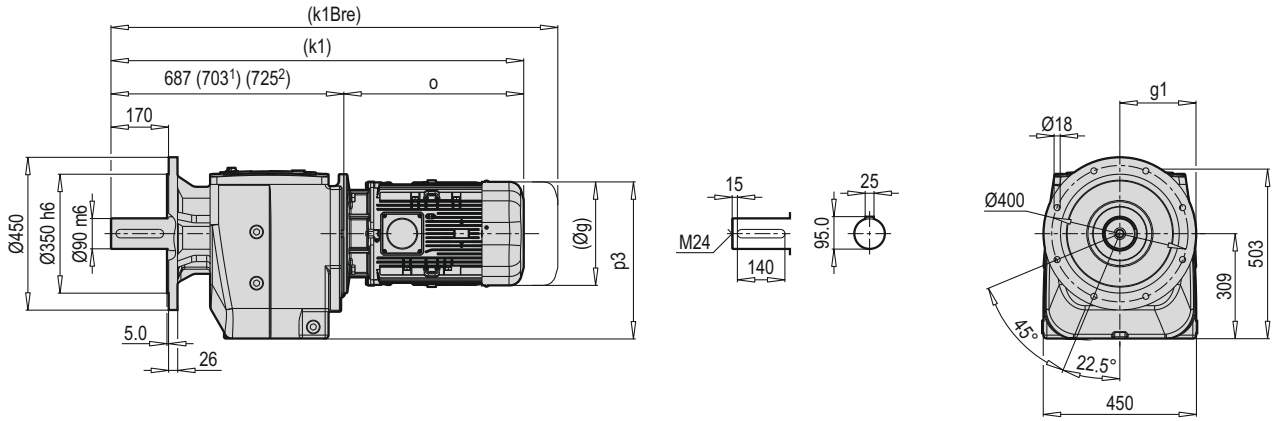
	132 M	160 M/L	180 M/L	200 L	225 S/M	250 M [1)]	280 M [2)]	
g	271	322	363	363	456	495	510	
g1	188	214	249	249	260	392	372	
k	1056	1141	1235	1244	1311	1271	1527	
kBre	1176	1246	1354	1362	1483	1401	-	
k1	1132	1217	1311	1320	1387	1347	1613	
k1Bre	1252	1322	1430	1438	1559	1477	-	
o	445	530	624	633	700	644	888	
p	451	476	497	497	514	575	564	
p3	445	470	491	491	508	569	561	

Not : (...) İşaretli 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.

PA 83



PF 83

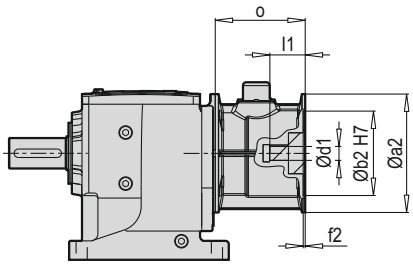


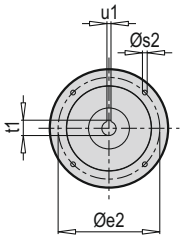
	100 L	112 M	132 S	132 M	160 M/L	180 M/L	200 L	225 S/M
g	202	220	271	271	322	363	363	456
g1	153	159	188	188	214	249	249	260
k	991	990	1056	1056	1141	1235	1244	1311
kBre	1075	1090	1156	1176	1246	1354	1362	1483
k1	1067	1066	1132	1132	1217	1311	1320	1387
k1Bre	1151	1166	1232	1252	1322	1430	1438	1559
o	380	379	445	445	530	624	633	700
p	416	425	450	450	476	470	497	514
p3	410	419	444	444	470	491	491	508

Not : (...) İşaretli 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.

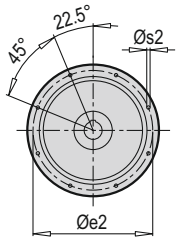
IEC

PA 82
PA 83



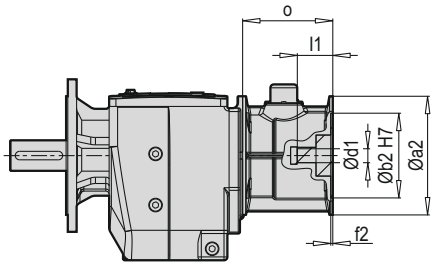


IEC 100...200



IEC 225...280

PF 82
PF 83

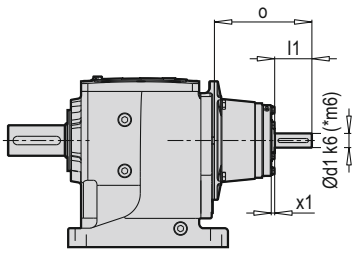


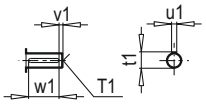
Tip / Type Typ	IEC	Øa2	Øb2	Øe2	f2	Øs2	Ød1	l1	t1	u1	o
PA/PF 83	100	250	180	215	5.0	M12	28	60	31.3	8	127
PA/PF 83	112	250	180	215	5.0	M12	28	60	31.3	8	127
PA/PF 82-83	132	300	230	265	5.0	M12	38	80	41.3	10	177
PA/PF 82-83	160	350	250	300	6.0	M16	42	110	45.3	12	266
PA/PF 82-83	180	350	250	300	6.0	M16	48	110	51.8	14	266
PA/PF 82-83	200	400	300	350	6.0	M16	55	110	59.3	16	229
PA/PF 82-83	225	450	350	400	6.0	M16	60	140	64.4	18	303
PA/PF 82	250	550	450	500	6.0	M16	65	140	69.4	18	304
PA/PF 82	280	550	450	500	6.0	M16	75	140	79.9	20	304

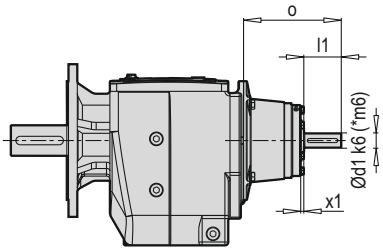
~ Kg		
IEC	PA/PF 82	PA/PF 83
100	-	366
112	-	366
132	371	379
160	398	406
180	398	406
200	412	421
225	428	437
250	487	-
280	487	-

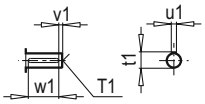
W

PA 82
PA 83









PF 82
PF 83

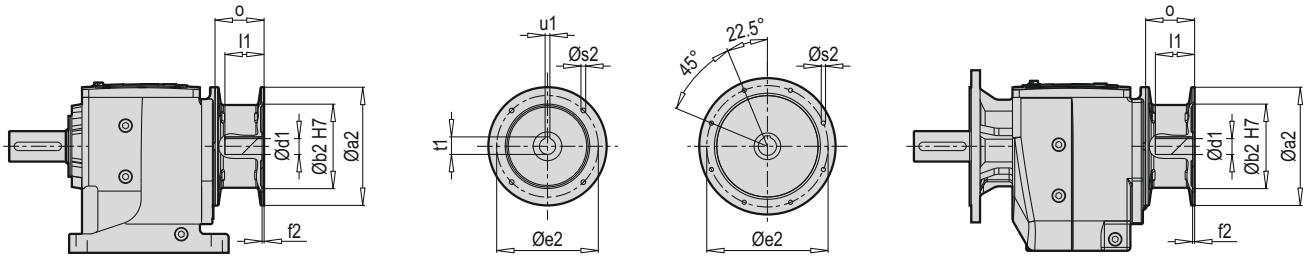
Tip / Type / Typ	Ød1	x1	l1	o	T1	t1	u1	v1	w1
PA/PF 82	65*	12	140	397	M20	69	18	15	110
PA/PF 83	42	8	110	288	M16	45	12	10	90

W ~ Kg	
PA/PF 82	449
PA/PF 83	378

PA 82
PA 83

PAM B5/B14

PF 82
PF 83



PAM 100...200

PAM 225...280

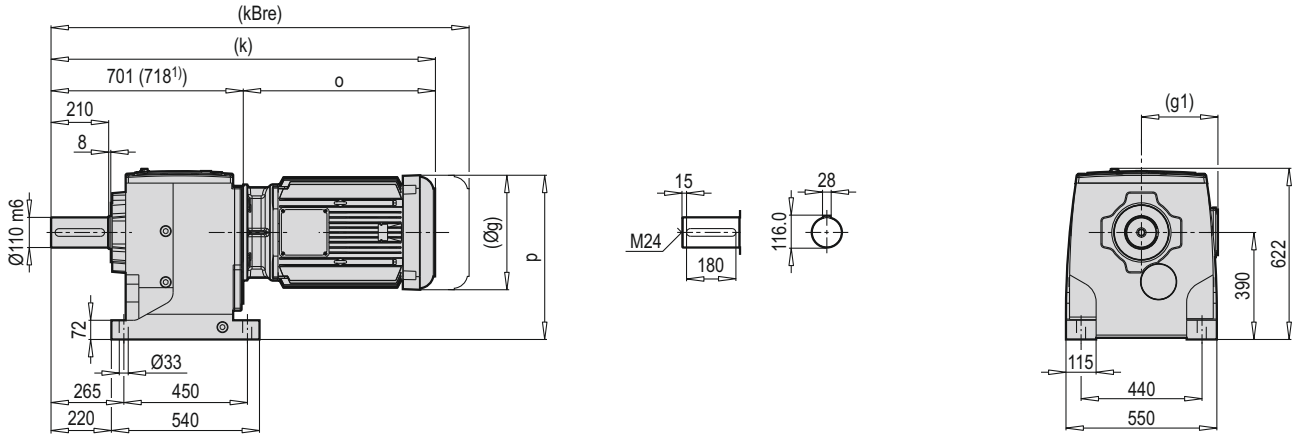
Tip / Type Typ	PAM B5	Øa2	Øb2	Øe2	f2	Øs2	Ød1	l1	t1	u1	o
PA/PF 83	100	250	180	215	5.0	M12	28	60	31.3	8	75
PA/PF 83	112	250	180	215	5.0	M12	28	60	31.3	8	75
PA/PF 82-83	132	300	230	265	5.0	M12	38	80	41.3	10	110
PA/PF 82-83	160	350	250	300	6.0	M16	42	110	45.3	12	145
PA/PF 82-83	180	350	250	300	6.0	M16	48	110	51.8	14	145
PA/PF 82-83	200	400	300	350	6.0	M16	55	110	59.3	16	157
PA/PF 82-83	225	450	350	400	6.0	M16	60	140	64.4	18	183
PA/PF 82	250	550	450	500	6.0	M16	65	140	69.4	18	202
PA/PF 82	280	550	450	500	6.0	M16	75	140	79.9	20	202

~ kg		
PAM B5	PA/PF 82	PA/PF 83
100	-	332
112	-	332
132	335	343
160	352	360
180	352	360
200	359	367
225	369	377
250	429	-
280	429	-

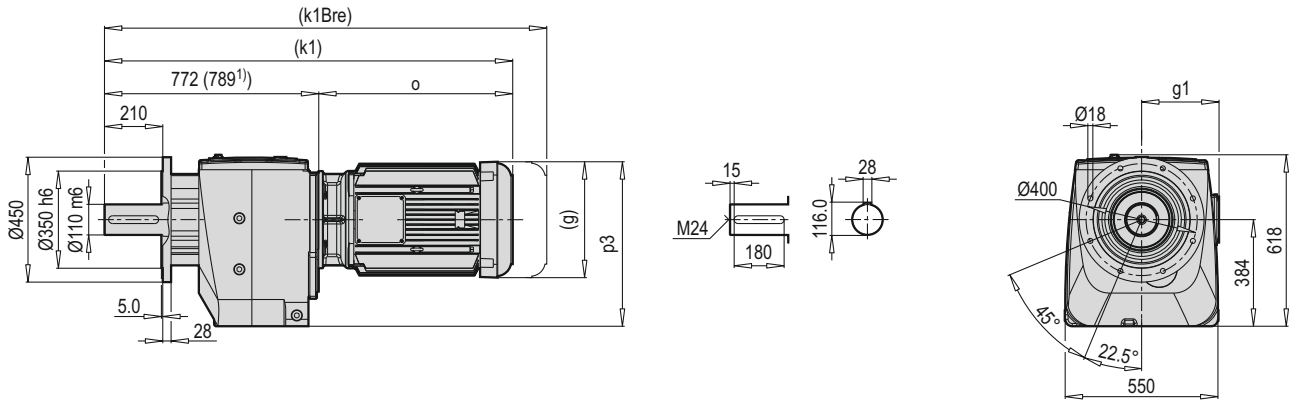
Tip / Type Typ	PAM B14	Øa2	Øb2	Øe2	f2	Øs2	Ød1	l1	t1	u1	o
PA/PF 83	100	160	110	130	5.0	9	28	60	31.3	8	75
PA/PF 83	112	160	110	130	5.0	9	28	60	31.3	8	75
PA/PF 82-83	132	200	130	165	5.0	11	38	80	41.3	10	110

~ kg		
PAM B14	PA/PF 82	PA/PF 83
100	-	331
112	-	331
132	330	338

PA 92



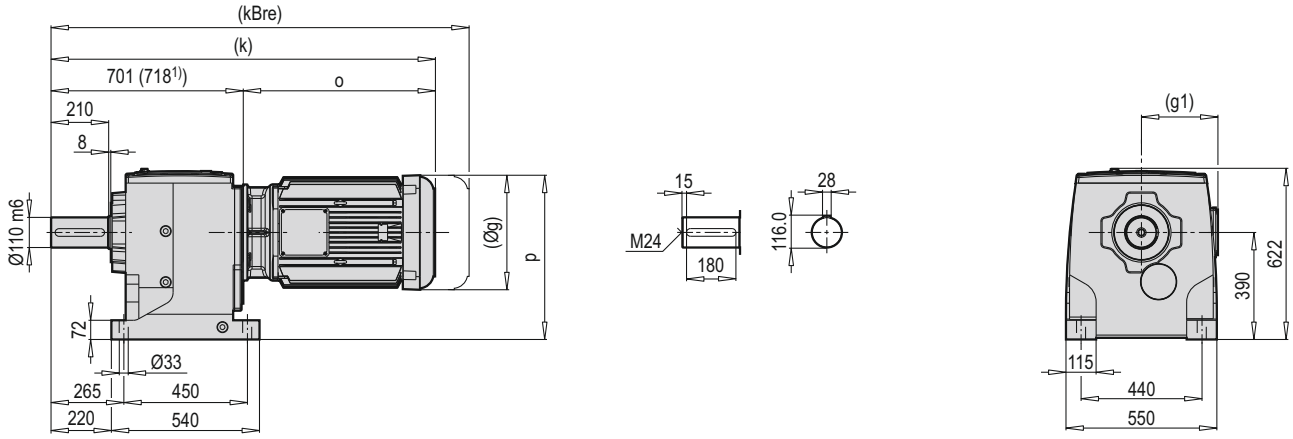
PF 92



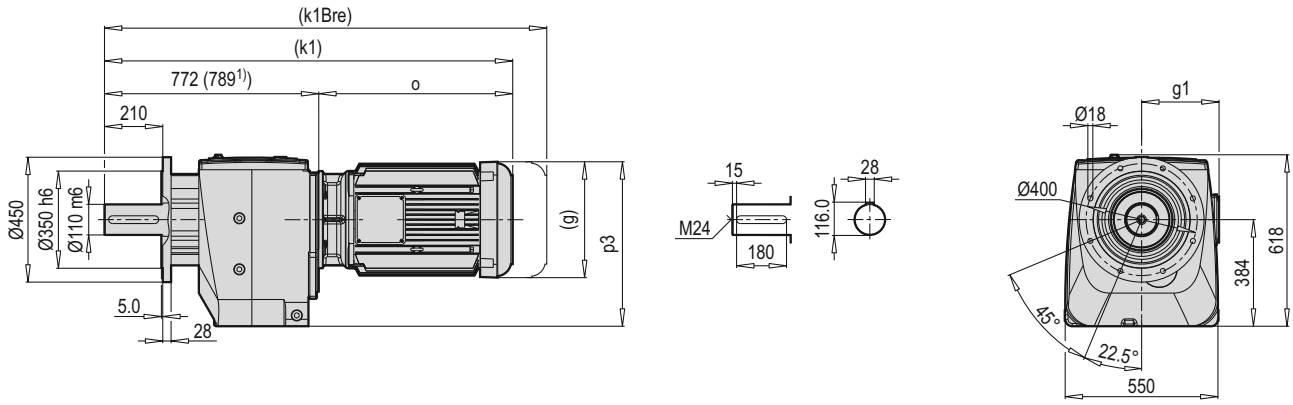
	180 M/L	200 L	225 S/M	250 M [1]	280 M[1]	315 S [1]	315 M [1]	
g	363	363	456	495	510	-	-	
g1	249	249	260	392	372	-	-	
k	1325	1334	1404	1362	1606	-	-	
kBre	1444	1452	1576	1492	-	-	-	
k1	1396	1405	1475	1433	1677	-	-	
k1Bre	1515	1523	1647	1563	-	-	-	
o	624	633	700	644	888	-	-	
p	572	572	622	650	682	-	-	
p3	566	566	616	644	676	-	-	

Not : (...) İşaretli 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.

PA 93



PF 93



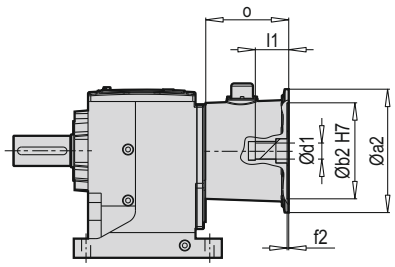
	132 S	132 M	160 M/L	180 M/L	200 L	225 S/M	250 M [1)]	280 M [1)]
g	271	271	322	363	363	456	495	510
g1	188	188	214	249	249	260	392	372
k	1146	1146	1231	1325	1334	1404	1362	1606
kBre	1246	1266	1336	1444	1452	1576	1492	-
k1	1217	1217	1302	1396	1405	1475	1433	1677
k1Bre	1317	1337	1407	1515	1523	1647	1563	-
o	445	445	530	624	633	700	644	888
p	526	526	551	572	572	622	650	682
p3	519	519	544	565	565	616	644	676

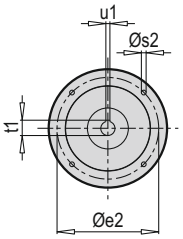
Not : (...) İşaretli olan ölçüler Motor markasına göre farklılık gösterir.
Note : The dimensions which have (...) sign vary depending on the motor.
Hinweis: (...) Die gekennzeichneten Maße unterscheiden sich je nach Motormarke.

PA 92
PA 93

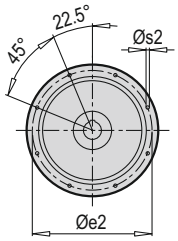
IEC

PF 92
PF 93

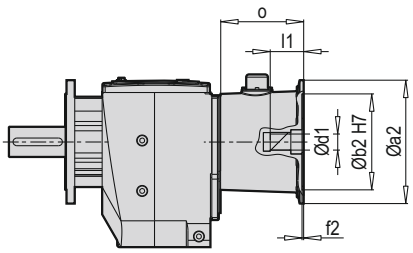




IEC 132...200



IEC 225...315



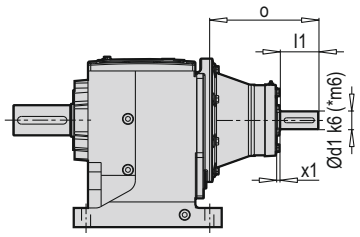
Tip / Type Typ	IEC	Øa2	Øb2	Øe2	f2	Øs2	Ød1	l1	t1	u1	o
PA/PF 93	132	300	230	265	5.0	M12	38	80	41.3	10	177
PA/PF 92-93	160	350	250	300	6.0	M16	42	110	45.3	12	266
PA/PF 92-93	180	350	250	300	6.0	M16	48	110	51.8	14	266
PA/PF 92-93	200	400	300	350	6.0	M16	55	110	59.3	16	229
PA/PF 92-93	225	450	350	400	6.0	M16	60	140	64.4	18	303
PA/PF 92-93	250	550	450	500	6.0	M16	65	140	69.4	18	304
PA/PF 92-93	280	550	450	500	6.0	M16	75	140	79.9	20	304
PA/PF 92	315	660	550	600	7.0	M20	80	170	85.4	22	382

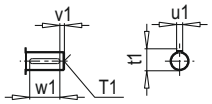
~ Kg		
IEC	PA/PF 92	PA/PF 93
132	-	569
160	584	596
180	584	596
200	599	611
225	615	626
250	673	685
280	673	685
315	758	-

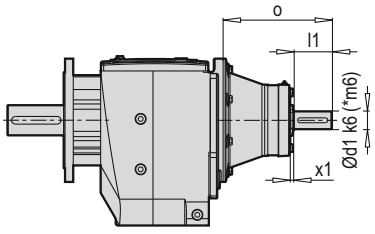
PA 92
PA 93

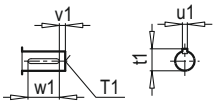
W

PF 92
PF 93









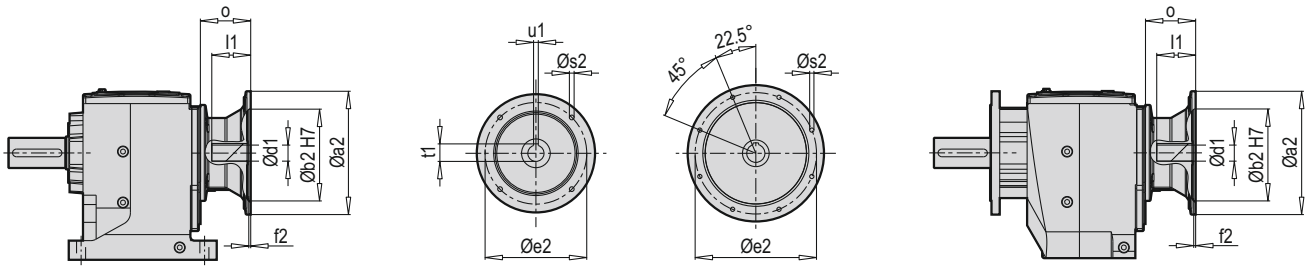
Tip / Type / Typ	Ød1	x1	l1	o	T1	t1	u1	v1	w1
PA/PF 92	65*	12	140	397	M20	69	18	15	110
PA/PF 93	42	8	110	288	M16	45	12	10	90

W ~ Kg	
PA/PF 92	610
PA/PF 93	568

PA 92
PA 93

PAM B5/B14

PF 92
PF 93



PAM 132...200

PAM 225...315

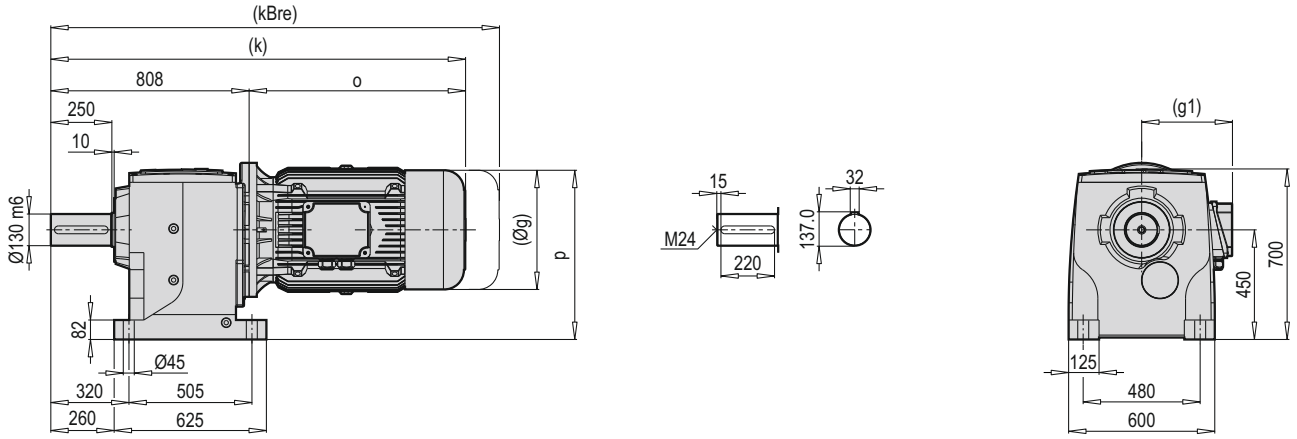
Tip / Type Typ	PAM B5	Øa2	Øb2	Øe2	f2	Øs2	Ød1	l1	t1	u1	o
PA/PF 93	132	300	230	265	5.0	M12	38	80	41.3	10	110
PA/PF 92-93	160	350	250	300	6.0	M16	42	110	45.3	12	145
PA/PF 92-93	180	350	250	300	6.0	M16	48	110	51.8	14	145
PA/PF 92-93	200	400	300	350	6.0	M16	55	110	59.3	16	157
PA/PF 92-93	225	450	350	400	6.0	M16	60	140	64.4	18	183
PA/PF 92-93	250	550	450	500	6.0	M16	65	140	69.4	18	202
PA/PF 92-93	280	550	450	500	6.0	M16	75	140	79.9	20	202
PA/PF 92	315	660	550	600	7.0	M20	80	170	85.4	22	-

~ Kg		
PAM B5	PA/PF 92	PA/PF 93
132	-	522
160	528	539
180	528	539
200	535	546
225	545	556
250	605	616
280	605	616
315	-	-

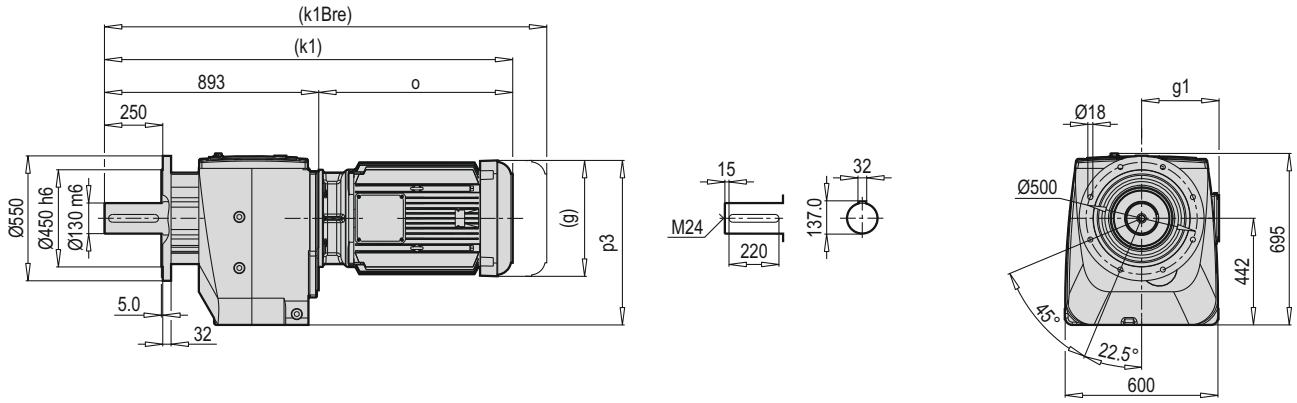
Tip / Type Typ	PAM B14	Øa2	Øb2	Øe2	f2	Øs2	Ød1	l1	t1	u1	o
PA/PF 93	132	200	130	165	5.0	11	38	80	41.3	10	110

~ Kg	
PAM B14	PA/PF 93
132	517

PA 102



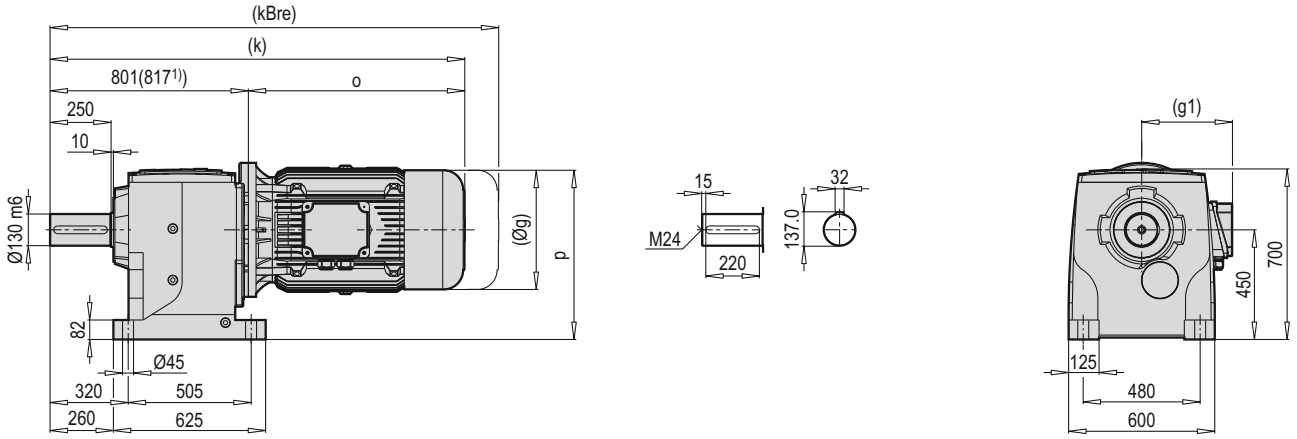
PF 102



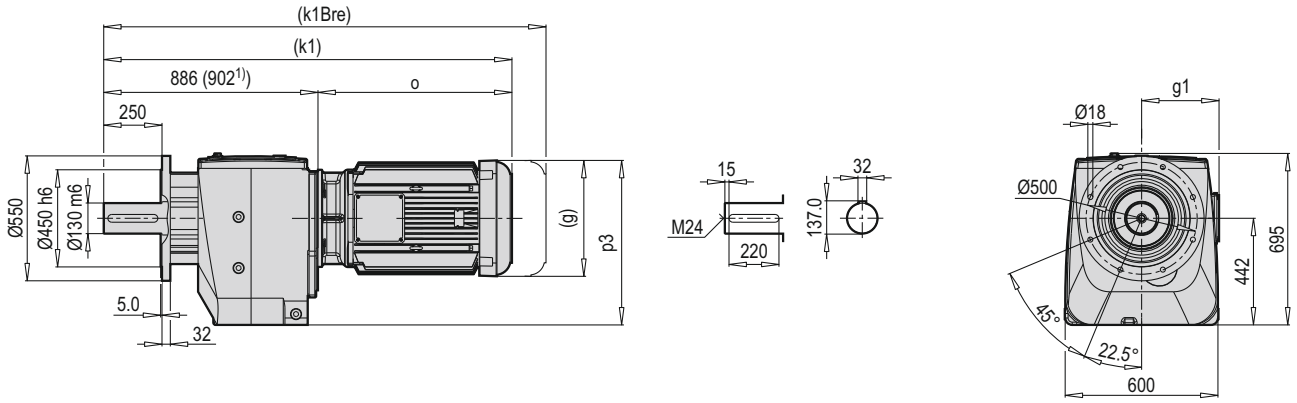
	250 M	280 M	315 S	315 M				
g	495	510	-	-				
g1	392	372	-	-				
k	1452	1696	-	-				
kBre	1582	-	-	-				
k1	1537	1781	-	-				
k1Bre	1667	-	-	-				
o	644	888	-	-				
p	702	754	-	-				
p3	706	758	-	-				

Not : (...) İşaretli 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.

PA 103



PF 103



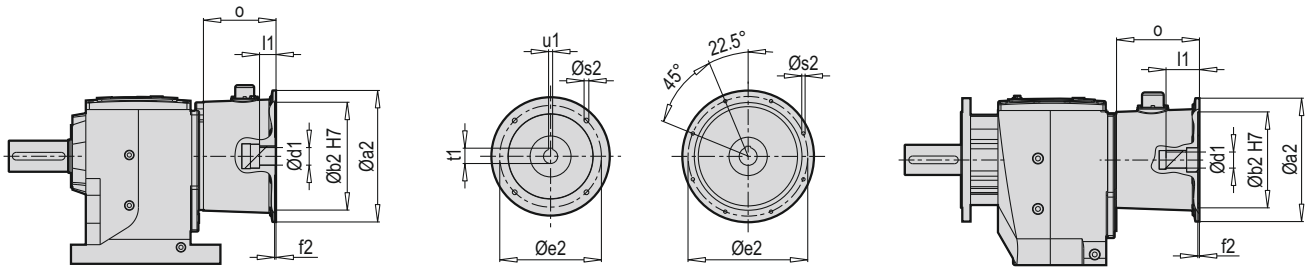
	132 S	132 M	160 M/L	180 M/L	200 L	225 S/M	250 M 1)	280 M 1)	315 S 1)	315 M 1)
g	271	271	322	363	363	456	495	510	-	-
g1	188	188	214	249	249	260	392	372	-	-
k	1246	1246	1331	1425	1434	1501	1461	1705	-	-
kBre	1346	1366	1436	1544	1552	1673	1591	-	-	-
k1	1317	1317	1402	1496	1505	1586	1546	1790	-	-
k1Bre	1417	1437	1507	1615	1623	1758	1676	-	-	-
o	445	445	530	624	633	700	644	888	-	-
p	585	585	611	632	632	702	710	754	-	-
p3	579	579	604	625	625	706	710	758	-	-

Not : (...) İşaretli 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.

PA 102
PA 103

IEC

PF 102
PF 103



IEC 132...200

IEC 225...315

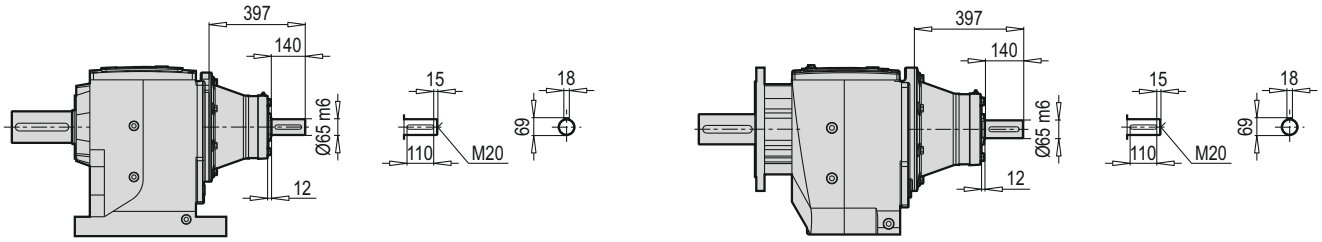
Tip / Type Typ	IEC	Øa2	Øb2	Øe2	f2	Øs2	Ød1	l1	t1	u1	o
PA/PF 103	132	300	230	265	5.0	M12	38	80	41.3	10	177
PA/PF 103	160	350	250	300	6.0	M16	42	110	45.3	12	266
PA/PF 103	180	350	250	300	6.0	M16	48	110	51.8	14	266
PA/PF 103	200	400	300	350	6.0	M16	55	110	59.3	16	229
PA/PF 103	225	450	350	400	6.0	M16	60	140	64.4	18	303
PA/PF 102-103	250	550	450	500	6.0	M16	65	140	69.4	18	304
PA/PF 102-103	280	550	450	500	6.0	M16	75	140	79.9	20	304
PA/PF 102-103	315	660	550	600	7.0	M20	80	170	85.4	22	382

~ Kg		
IEC	PA/PF 102	PA/PF 103
132	-	801
160	-	828
180	-	828
200	-	843
225	-	859
250	907	917
280	907	917
315	992	1002

PA 102
PA 103

W

PF 102
PF 103

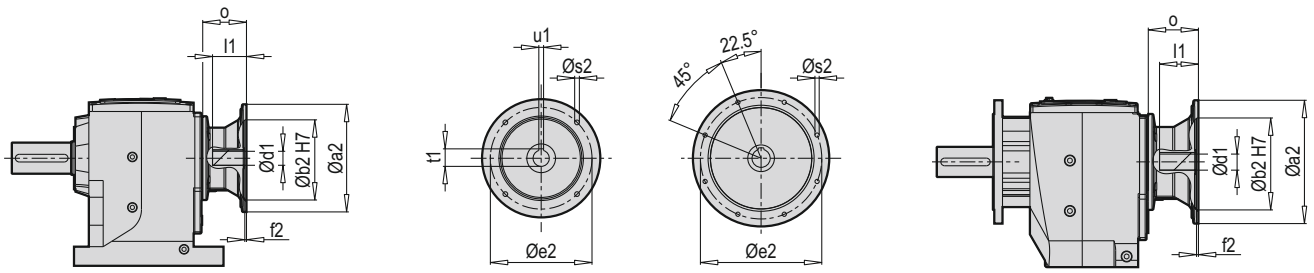


W ~ Kg	
PA/PF 102	870
PA/PF 103	880

PA 102
PA 103

PAM B5/B14

PF 102
PF 103



PAM 132...200

PAM 225...315

Tip / Type Typ	PAM B5	Øa2	Øb2	Øe2	f2	Øs2	Ød1	l1	t1	u1	o
PA/PF 103	132	300	230	265	5.0	M12	38	80	41.3	10	110
PA/PF 103	160	350	250	300	6.0	M16	42	110	45.3	12	145
PA/PF 103	180	350	250	300	6.0	M16	48	110	51.8	14	145
PA/PF 103	200	400	300	350	6.0	M16	55	110	59.3	16	157
PA/PF 103	225	450	350	400	6.0	M16	60	140	64.4	18	183
PA/PF 102-103	250	550	450	500	6.0	M16	65	140	69.4	18	202
PA/PF 102-103	280	550	450	500	6.0	M16	75	140	79.9	20	202
PA/PF 102-103	315	660	550	600	7.0	M20	80	170	85.4	22	-

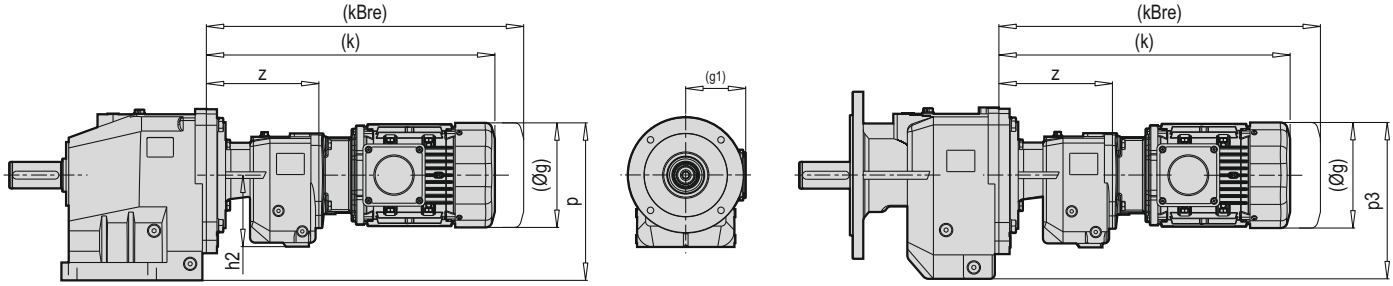
~ Kg		
PAM B5	PA/PF 102	PA/PF 103
132	-	741
160	-	758
180	-	758
200	-	765
225	-	775
250	826	835
280	826	835
315	-	-

Tip / Type Typ	PAM B14	Øa2	Øb2	Øe2	f2	Øs2	Ød1	l1	t1	u1	o
PA/PF 103	132	200	130	165	5.0	11	38	80	41.3	10	110

~ Kg	
PAM B14	PA/PF 103
132	736

PA 12/02 **PA 32/12**
PA 22/02 **PA 42/12**
PA 52/12

PF 12/02 **PF 32/12**
PF 22/02 **PF 42/12**
PF 52/12



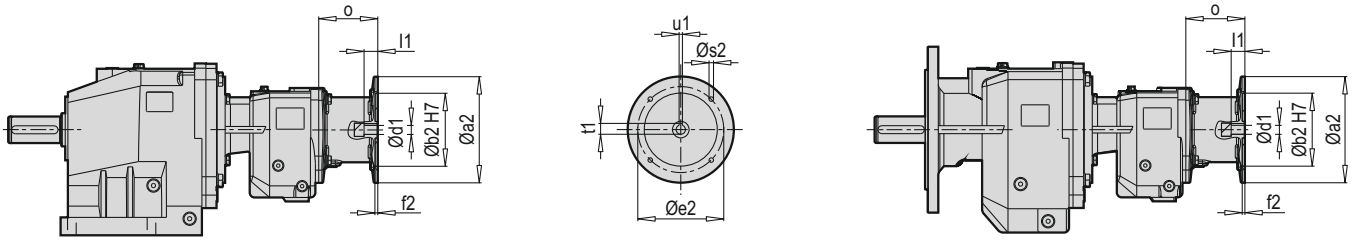
Tip / Type / Typ	Motor	g	g1	h2	z	k	kBre	p	p3
PA/PF 12/02	63 M 71 M	124 140	111 119	91	143	341 383	393 443	166 174	170 178
PA/PF 22/02	63 M 71 M 80 M	124 140 172	111 119 130.5	91	159	357 399 426	409 459 488	189 197 213	193 201 217
PA/PF 32/12	63 M 71 M 80 M	124 140 172	111 119 130.5	108	172	370 412 439	422 472 501	221 229 245	217 225 241
PA/PF 42/12	63 M 71 M 80 M	124 140 172	111 119 130.5	108	176	374 416 443	426 476 505	241 249 265	242 250 266
PA/PF 52/12	63 M 71 M 80 M	124 140 172	111 119 130.5	108	176	374 416 443	426 476 505	280 288 304	276 284 300

Not : (...) İşaretli 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.

PA 12/02 **PA 32/12**
PA 22/02 **PA 42/12**
PA 52/12

IEC

PF 12/02 **PF 32/12**
PF 22/02 **PF 42/12**
PF 52/12



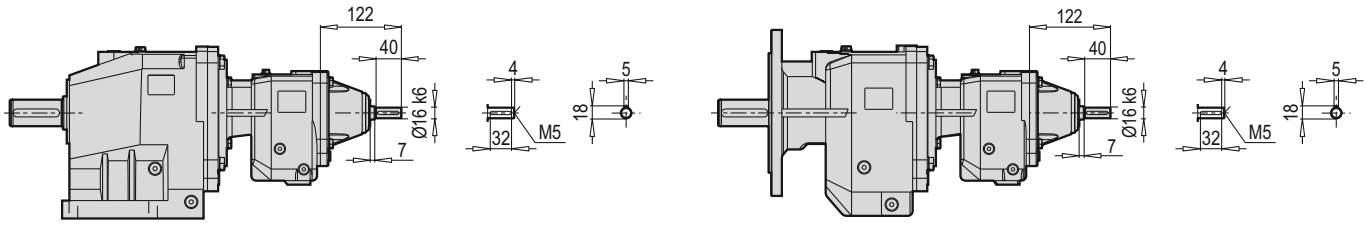
Tip / Type / Typ	IEC	Øa2	Øb2	Øe2	f2	Øs2	Ød1	l1	t1	u1	o
PA/PF 12/02 - 22/02 - 32/12 - 42/12 - 52/12	**63**	140	95	115	3.5	M8	11	23	12.8	4	85
PA/PF 12/02 - 22/02 - 32/12 - 42/12 - 52/12	**71**	160	110	130	4.0	M8	14	30	16.3	5	89
PA/PF 12/02 - 22/02 - 32/12 - 42/12 - 52/12	**80**	200	130	165	4.0	M10	19	40	21.8	6	105
PA/PF 12/02 - 22/02 - 32/12 - 42/12 - 52/12	**90**	200	130	165	4.0	M10	24	50	27.3	8	105
PA/PF 32/12 - 42/12 - 52/12	**100**	250	180	215	5.0	M12	28	60	31.3	8	130
PA/PF 32/12 - 42/12 - 52/12	**112**	250	180	215	5.0	M12	28	60	31.3	8	130

~ Kg					
IEC	PA/PF 12/02	PA/PF 22/02	PA/PF 32/12	PA/PF 42/12	PA/PF 52/12
63	24	37	51	69	100
71	25	38	52	70	101
80	28	42	55	73	104
90	28	42	55	73	104
100	-	-	62	80	111
112	-	-	62	80	111

PA 12/02 **PA 32/12**
PA 22/02 **PA 42/12**
PA 52/12

W

PF 12/02 **PF 32/12**
PF 22/02 **PF 42/12**
PF 52/12

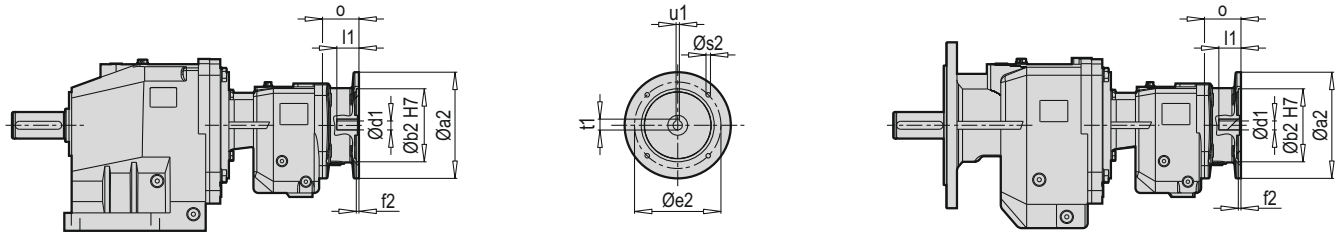


W ~ Kg	
PA/PF 12/02	23
PA/PF 22/02	36
PA/PF 32/12	50
PA/PF 42/12	68
PA/PF 52/12	99

PA 12/02 **PA 32/12**
PA 22/02 **PA 42/12**
PA 52/12

PAM B5/B14

PF 12/02 **PF 32/12**
PF 22/02 **PF 42/12**
PF 52/12



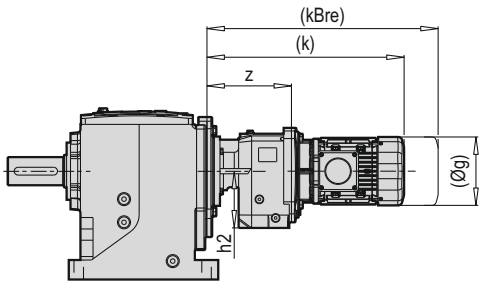
Tip / Type / Typ	PAM B5	Øa2	Øb2	Øe2	f2	Øs2	Ød1	l1	t1	u1	o
PA/PF 12/02 - 22/02 - 32/12 - 42/12 - 52/12	63	140	95	115	3.5	M8	11	23	12.8	4	85
PA/PF 12/02 - 22/02 - 32/12 - 42/12 - 52/12	71	160	110	130	4.0	M8	14	30	16.3	5	55
PA/PF 12/02 - 22/02 - 32/12 - 42/12 - 52/12	80	200	130	165	4.0	M10	19	40	21.8	6	74
PA/PF 12/02 - 22/02 - 32/12 - 42/12 - 52/12	90	200	130	165	4.0	M10	24	50	27.3	8	74
PA/PF 32/12 - 42/12 - 52/12	100	250	180	215	5.0	M12	28	60	31.3	8	132
PA/PF 32/12 - 42/12 - 52/12	112	250	180	215	5.0	M12	28	60	31.3	8	132

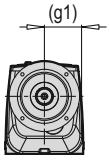
~ Kg					
PAM B5	PA/PF 12/02	PA/PF 22/02	PA/PF 32/12	PA/PF 42/12	PA/PF 52/12
63	22	34	47	65	94
71	22	34	47	65	94
80	23	35	48	66	95
90	23	35	48	66	95
100	-	-	55	73	102
112	-	-	55	73	102

Tip / Type / Typ	PAM B14	Øa2	Øb2	Øe2	f2	Øs2	Ød1	l1	t1	u1	o
PA/PF 12/02 - 22/02 - 32/12 - 42/12 - 52/12	63	90	60	75	4.0	6	11	23	12.8	4	60
PA/PF 12/02 - 22/02 - 32/12 - 42/12 - 52/12	71	105	70	85	4.0	7	14	30	16.3	5	55
PA/PF 12/02 - 22/02 - 32/12 - 42/12 - 52/12	80	120	80	100	4.0	7	19	40	21.8	6	74
PA/PF 12/02 - 22/02 - 32/12 - 42/12 - 52/12	90	140	95	115	4.0	9	24	50	27.3	8	74
PA/PF 32/12 - 42/12 - 52/12	100	160	110	130	5.0	9	28	60	31.3	8	75
PA/PF 32/12 - 42/12 - 52/12	112	160	110	130	5.0	9	28	60	31.3	8	75

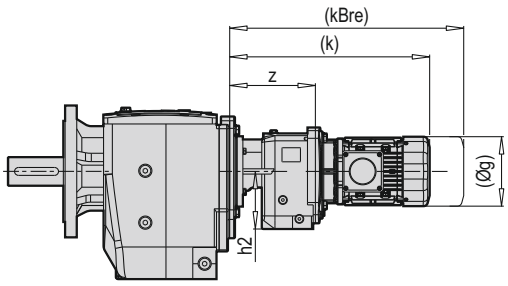
~ Kg					
PAM B14	PA/PF 12/02	PA/PF 22/02	PA/PF 32/12	PA/PF 42/12	PA/PF 52/12
63	21	33	46	64	93
71	21	33	46	64	93
80	22	34	47	65	94
90	22	34	47	65	94
100	-	-	48	66	95
112	-	-	48	66	95

PA 63/22 PA 73/32
PA 73/22 PA 83/32





PF 63/22 PF 73/32
PF 73/22 PF 83/32



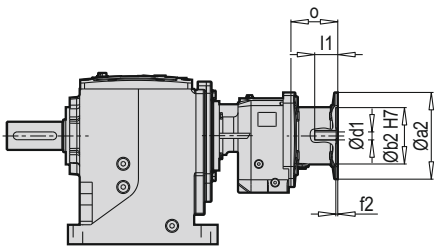
Tip / Type / Typ	Motor	g	g1	h2	z	k	kBre	p	p3
PA/PF 63/22	71 M 80 M 90 S/L 100 L	140 172 182 202	119 127 151 160	127	196	432 458 481/501 529	492 520 554/574 610	320 336 341 351	315 331 336 346
PA/PF 73/22	71 M 80 M 90 S/L 100 L	140 172 182 202	119 127 151 160	127	196	432 458 481/501 529	492 520 554/574 610	350 366 371 381	342 358 363 373
PA/PF 73/32	80 M 90 S/L 100 L 112 M 132 S/M	172 182 202 220 270.5	127 151 160 168 182	159	238	500 523/543 571 616 623/658	562 596/616 652 696 731/799	366 371 381 390 415	358 363 373 382 407
PA/PF 83/32	80 M 90 S/L 100 L 112 M 132 S/M	172 182 202 220 270.5	127 151 160 168 182	159	238	500 523/543 571 616 623/658	562 596/616 652 696 731/799	401 406 416 425 450	395 400 410 419 444

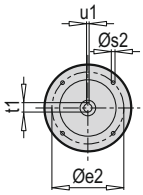
Not : (...) İşaretli olan ölçüler Motor markasına göre farklılık gösterir.
Note : The dimensions which have (...) sign vary depending on the motor.
Hinweis: (...) Die gekennzeichneten Maße unterscheiden sich je nach Motormarke.

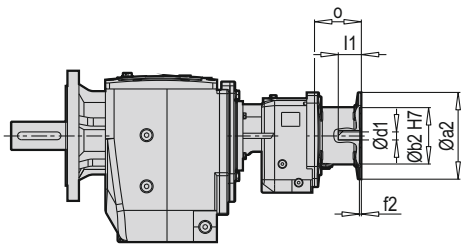
PA 63/22 PA 73/32
PA 73/22 PA 83/32

IEC

PF 63/22 PF 73/32
PF 73/22 PF 83/32







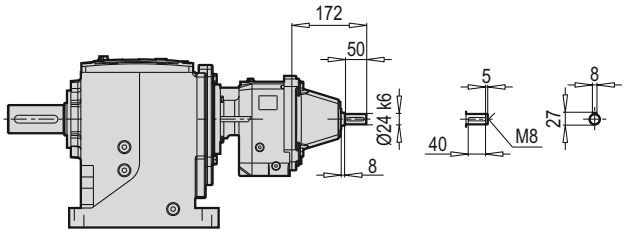
Tip / Type / Typ	IEC	Øa2	Øb2	Øe2	f2	Øs2	Ød1	l1	t1	u1	o
PA/PF 63/22 - 73/22 - 83/32	**71**	160	110	130	4.0	M8	14	30	16.3	5	88
PA/PF 63/22 - 73/22 - 83/32	**80**	200	130	165	4.0	M10	19	40	21.8	6	107
PA/PF 63/22 - 73/22 - 73/32 - 83/32	**90**	200	130	165	4.0	M10	24	50	27.3	8	107
PA/PF 63/22 - 73/22 - 73/32 - 83/32	**100**	250	180	215	5.0	M12	28	60	31.3	8	124
PA/PF 63/22 - 73/22 - 73/32 - 83/32	**112**	250	180	215	5.0	M12	28	60	31.3	8	124
PA/PF 73/32 - 83/32	**132**	300	230	265	5.0	M12	38	80	41.3	10	156

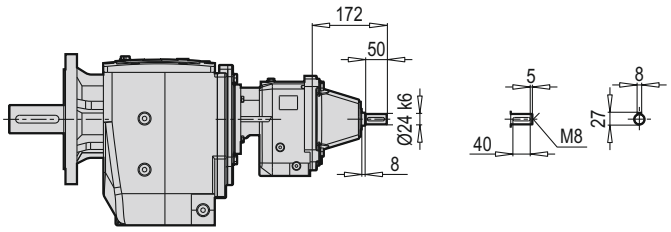
~ Kg				
IEC	PA/PF 63/22	PA/PF 73/22	PA/PF 73/32	PA/PF 83/32
71	164	249	-	376
80	168	253	-	381
90	168	253	265	381
100	172	257	269	385
112	172	257	269	385
132	-	-	278	394

PA 63/22 PA 73/32
PA 73/22 PA 83/32

W

PF 63/22 PF 73/32
PF 73/22 PF 83/32



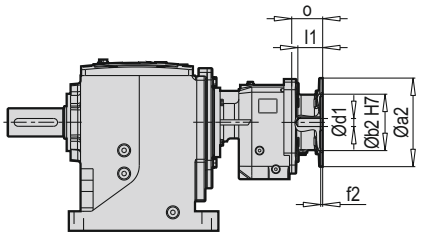


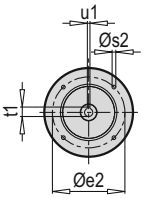
W ~ Kg	
PA/PF 63/22	166
PA/PF 73/22	251
PA/PF 73/32	263
PA/PF 83/32	378

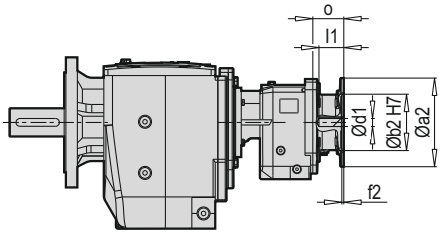
PA 63/22 PA 73/32
PA 73/22 PA 83/32

PAM B5/B14

PF 63/22 PF 73/32
PF 73/22 PF 83/32







Tip / Type / Typ	PAM B5	Øa2	Øb2	Øe2	f2	Øs2	Ød1	l1	t1	u1	o
PA/PF 63/22 - 73/22 - 83/32	71	160	110	130	4.0	M8	14	30	16.3	5	88
PA/PF 63/22 - 73/22 - 83/32	80	200	130	165	4.0	M10	19	40	21.8	6	72
PA/PF 63/22 - 73/22 - 73/32 - 83/32	90	200	130	165	4.0	M10	24	50	27.3	8	72
PA/PF 63/22 - 73/22 - 73/32 - 83/32	100	250	180	215	5.0	M12	28	60	31.3	8	75
PA/PF 63/22 - 73/22 - 73/32 - 83/32	112	250	180	215	5.0	M12	28	60	31.3	8	75
PA/PF 73/32 - 83/32	132	300	230	265	5.0	M12	38	80	41.3	10	94

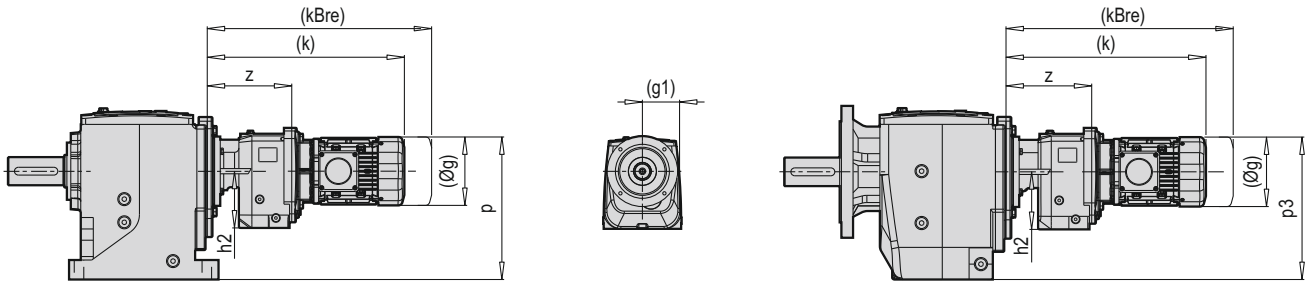
~ Kg				
PAM B5	PA/PF 63/22	PA/PF 73/22	PA/PF 73/32	PA/PF 83/32
71	155	236	-	354
80	156	237	-	355
90	156	237	248	355
100	157	238	249	356
112	157	238	249	356
132	-	-	259	366

Tip / Type / Typ	PAM B14	Øa2	Øb2	Øe2	f2	Øs2	Ød1	l1	t1	u1	o
PA/PF 63/22 - 73/22 - 83/32	71	105	70	85	4.0	7	14	30	16.3	5	88
PA/PF 63/22 - 73/22 - 83/32	80	120	80	100	4.0	7	19	40	21.8	6	72
PA/PF 63/22 - 73/22 - 73/32 - 83/32	90	140	95	115	4.0	9	24	50	27.3	8	72
PA/PF 63/22 - 73/22 - 73/32 - 83/32	100	160	110	130	5.0	9	28	60	31.3	8	75
PA/PF 63/22 - 73/22 - 73/32 - 83/32	112	160	110	130	5.0	9	28	60	31.3	8	75
PA/PF 73/32 - 83/32	132	200	130	165	5.0	11	38	80	41.3	10	94

~ Kg				
PAM B14	PA/PF 63/22	PA/PF 73/22	PA/PF 73/32	PA/PF 83/32
71	153	234	-	352
80	154	235	-	353
90	154	235	246	353
100	156	237	248	355
112	156	237	248	355
132	-	-	252	359

PA 83/42 PA 93/52
PA 93/42 PA 103/52

PF 83/42 PF 93/52
PF 93/42 PF 103/52



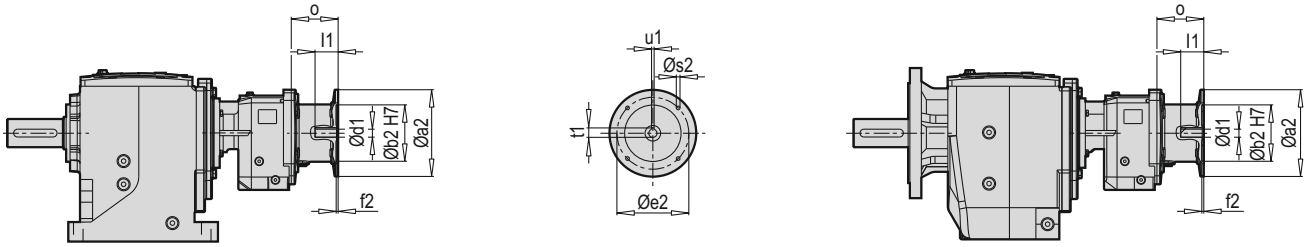
Tip / Type / Typ	Motor	g	g1	h2	z	k	kBre	p	p3
PA/PF 83/42	90 S/L 100 L 112 M 132 S/M	182 202 220 270.5	151 160 168 182	179	282	547/567 595 640 647/682	620/640 676 720 755/896	406 416 425 450	400 410 419 444
PA/PF 93/42	90 S/L 100 L 112 M 132 S/M	182 202 220 270.5	151 160 168 182	179	282	547/567 595 640 647/682	620/640 676 720 755/896	481 491 500 525	475 485 494 519
PA/PF 93/52	90 S/L 100 L 112 M 132 S/M 160 M/L 180 M/L	182 202 220 270.5 321.5 363	151 160 168 182 200 248	218	321	586/606 634 679 686/721 826 900	659/679 715 759 794/862 978 1062	481 491 500 525 550.5 571	475 485 494 519 544.5 565
PA/PF 103/52	90 S/L 100 L 112 M 132 S/M 160 M/L 180 M/L	182 202 220 270.5 321.5 363	151 160 168 182 200 248	218	321	586/606 634 679 686/721 826 900	659/679 715 759 794/862 978 1062	541 551 560 585 610 631	536 546 555 580 605 626

Not : (...) İşaretli 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.

PA 83/42 PA 93/52
PA 93/42 PA 103/52

IEC

PF 83/42 PF 93/52
PF 93/42 PF 103/52



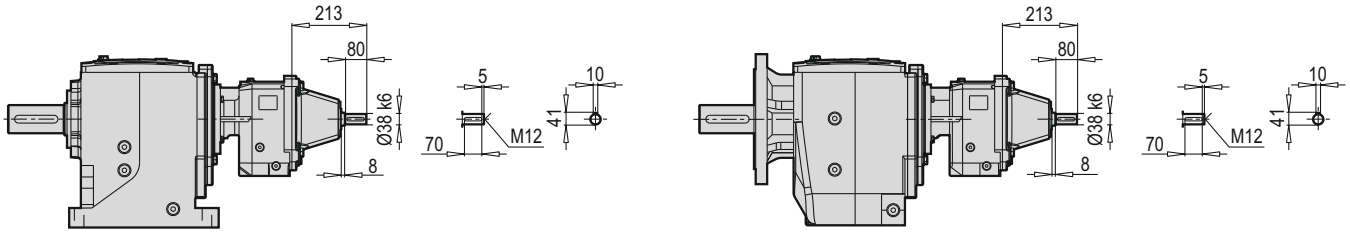
Tip / Type / Typ	IEC	Øa2	Øb2	Øe2	f2	Øs2	Ød1	l1	t1	u1	o
PA/PF 83/42 - 93/42 - 103/52	**90**	200	130	165	4.0	M10	24	50	27.3	8	109
PA/PF 83/42 - 93/42 - 93/52 - 103/52	**100**	250	180	215	5.0	M12	28	60	31.3	8	133
PA/PF 83/42 - 93/42 - 93/52 - 103/52	**112**	250	180	215	5.0	M12	28	60	31.3	8	133
PA/PF 83/42 - 93/42 - 93/52 - 103/52	**132**	300	230	265	5.0	M12	38	80	41.3	10	190
PA/PF 83/42 - 93/42 - 93/52 - 103/52	**160**	350	250	300	6.0	M16	42	110	45.3	12	194
PA/PF 93/52 - 103/52	**180**	350	250	300	6.0	M16	48	110	51.8	14	194

~ Kg				
IEC	PA/PF 83/42	PA/PF 93/42	PA/PF 93/52	PA/PF 103/52
90	400	589	-	852
100	407	597	628	860
112	407	597	628	860
132	422	612	642	875
160	432	622	653	885
180	-	622	653	885

PA 83/42 PA 93/52
PA 93/42 PA 103/52

W

PF 83/42 PF 93/52
PF 93/42 PF 103/52

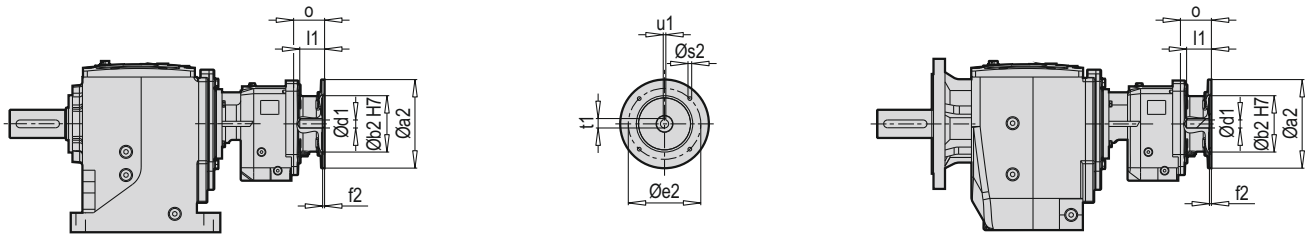


W ~ Kg	
PA/PF 83/42	405
PA/PF 93/42	595
PA/PF 93/52	625
PA/PF 103/52	858

PA 83/42 PA 93/52
PA 93/42 PA 103/52

PAM B5/B14

PF 83/42 PF 93/52
PF 93/42 PF 103/52



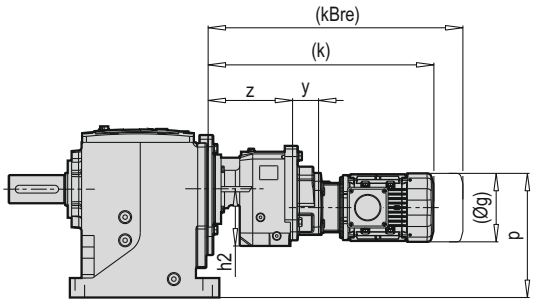
Tip / Type / Typ	PAM B5	Øa2	Øb2	Øe2	f2	Øs2	Ød1	l1	t1	u1	o
PA/PF 83/42 - 93/42 - 103/52	90	200	130	165	4.0	M10	24	50	27.3	8	72
PA/PF 83/42 - 93/42 - 93/52 - 103/52	100	250	180	215	5.0	M12	28	60	31.3	8	75
PA/PF 83/42 - 93/42 - 93/52 - 103/52	112	250	180	215	5.0	M12	28	60	31.3	8	75
PA/PF 83/42 - 93/42 - 93/52 - 103/52	132	300	230	265	5.0	M12	38	80	41.3	10	94
PA/PF 83/42 - 93/42 - 93/52 - 103/52	160	350	250	300	6.0	M16	42	110	45.3	12	120
PA/PF 93/52 - 103/52	180	350	250	300	6.0	M16	48	110	51.8	14	120

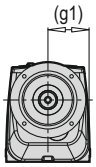
~ Kg				
PAM B5	PA/PF 83/42	PA/PF 93/42	PA/PF 93/52	PA/PF 103/52
90	373	552	-	800
100	374	553	582	801
112	374	553	582	801
132	383	562	591	810
160	391	570	599	818
180	-	570	599	818

Tip / Type / Typ	PAM B14	Øa2	Øb2	Øe2	f2	Øs2	Ød1	l1	t1	u1	o
PA/PF 83/42 - 93/42 - 103/52	90	140	95	115	4.0	9	24	50	27.3	8	72
PA/PF 83/42 - 93/42 - 93/52 - 103/52	100	160	110	130	5.0	9	28	60	31.3	8	75
PA/PF 83/42 - 93/42 - 93/52 - 103/52	112	160	110	130	5.0	9	28	60	31.3	8	75
PA/PF 83/42 - 93/42 - 93/52 - 103/52	132	200	130	165	5.0	11	38	80	41.3	10	94

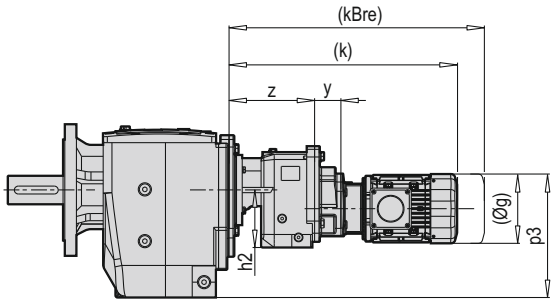
~ Kg				
PAM B14	PA/PF 83/42	PA/PF 93/42	PA/PF 93/52	PA/PF 103/52
90	372	551	-	799
100	373	552	582	800
112	373	552	582	800
132	378	557	586	805

PA 63/23 PA 83/33 PA 93/43 PA 103/53
PA 73/23





PF 63/23 PF 83/33 PF 93/43 PF 103/53
PF 73/23



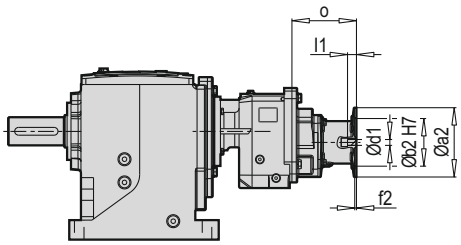
Tip / Type / Typ	Motor	g	g1	h2	z	y	k	kBre	P	P3
PA/PF 63/23	63 M 71 M 80 M	124 140 172	111 119 130.5	127	196	60	423 496 523	475 556 585	270 278 294	265 273 289
PA/PF 73/23	63 M 71 M	124 140	111 119	131	225	60	556 583	616 645	230 238	292 300
PA/PF 83/33	63 M 71 M	124 140	111 119	155	219	60	616 646	676 705	327 335	389 397
PA/PF 93/43	71 M 80 M 90 M	140 172 182	119 130.5 130	180	281	69	585 610 676	654 679 745	400 416 421	394 412 417
PA/PF 103/53	71 M 80 M 90 M	140 172 182	119 130.5 130	214	320	69	624 649 715	693 718 784	444 460 465	439 455 460

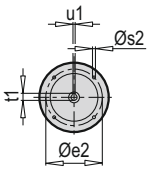
Not : (...) İşaretli olan ölçüler Motor markasına göre farklılık gösterir.
Note : The dimensions which have (...) sign vary depending on the motor.
Hinweis: (...) Die gekennzeichneten Maße unterscheiden sich je nach Motormarke.

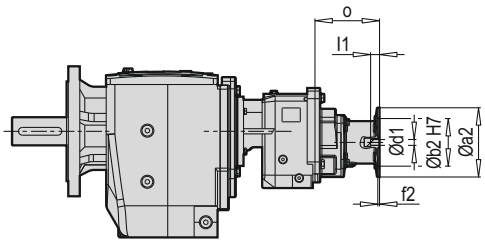
PA 63/23 PA 83/33 PA 93/43 PA 103/53
PA 73/23

IEC

PF 63/23 PF 83/33 PF 93/43 PF 103/53
PF 73/23







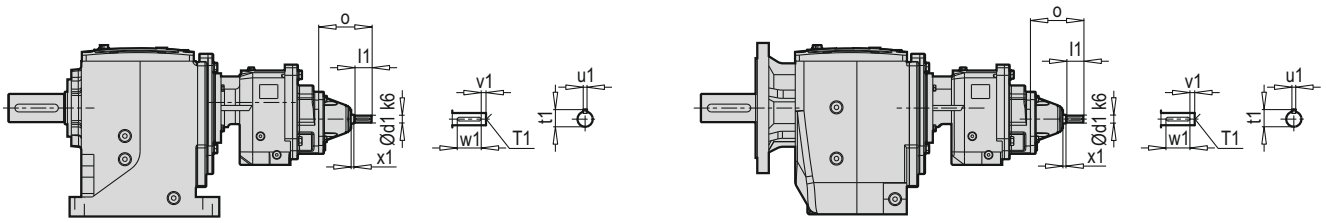
Tip / Type / Typ	IEC	Øa2	Øb2	Øe2	f2	Øs2	Ød1	l1	t1	u1	PA/PF 63/23 73/23 83/33 o	PA/PF 93/43 103/53 o
PA/PF 63/23-73/23-83/33	**63**	140	95	115	3.5	M8	11	23	12.8	4	85	-
PA/PF 63/23-73/23-83/33-93/43-103/53	**71**	160	110	130	4.0	M8	14	30	16.3	5	89	88
PA/PF 63/23-73/23-83/33-93/43-103/53	**80**	200	130	165	4.0	M10	19	40	21.8	6	105	107
PA/PF 63/23-73/23-83/33-93/43-103/53	**90**	200	130	165	4.0	M10	24	50	27.3	8	105	107
PA/PF 93/43-103/53	**100**	250	180	215	5.0	M12	28	60	31.3	8	-	124
PA/PF 93/43-103/53	**112**	250	180	215	5.0	M12	28	60	31.3	8	-	124

~ Kg					
IEC	PA/PF 63/23	PA/PF 73/23	PA/PF 83/33	PA/PF 93/43	PA/PF 103/53
63	169	254	383	-	-
71	170	255	384	598	865
80	173	258	387	602	869
90	173	258	387	602	869
100	-	-	-	606	873
112	-	-	-	606	873

PA 63/23 PA 83/33 PA 93/43 PA 103/53
PA 73/23

W

PF 63/23 PF 83/33 PF 93/43 PF 103/53
PF 73/23



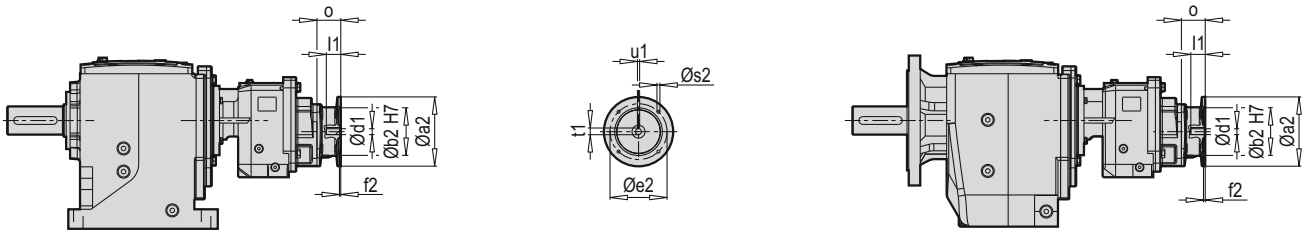
Tip / Type / Typ	Ød1	x1	l1	o	T1	t1	u1	v1	w1
PA/PF 63/23 PA/PF 73/23 PA/PF 83/33	16	7	40	122	M5	18	5	4	32
PA/PF 93/43 PA/PF 103/53	24	8	50	172	M8	27	8	5	40

W ~ Kg	
PA/PF 63/23	168
PA/PF 73/23	253
PA/PF 83/33	382
PA/PF 93/43	600
PA/PF 103/53	867

PA 63/23 PA 83/33 PA 93/43 PA 103/53
PA 73/23

PAM B5/B14

PF 63/23 PF 83/33 PF 93/43 PF 103/53
PF 73/23



Tip / Type / Typ	PAM B5	Øa2	Øb2	Øe2	f2	Øs2	Ød1	l1	t1	u1	PA/PF 63/23 73/23 83/33 o	PA/PF 93/43 103/53 o
PA/PF 63/23 - 73/23 - 83/33	63	140	95	115	3.5	M8	11	23	12.8	4	85	-
PA/PF 63/23 - 73/23 - 83/33 - 93/43 - 103/53	71	160	110	130	4.0	M8	14	30	16.3	5	55	88
PA/PF 63/23 - 73/23 - 83/33 - 93/43 - 103/53	80	200	130	165	4.0	M10	19	40	21.8	6	74	72
PA/PF 63/23 - 73/23 - 83/33 - 93/43 - 103/53	90	200	130	165	4.0	M10	24	50	27.3	8	74	72
PA/PF 93/43 - 103/53	100	250	180	215	5.0	M12	28	60	31.3	8	-	75
PA/PF 93/43 - 103/53	112	250	180	215	5.0	M12	28	60	31.3	8	-	75

~ Kg					
PAM B5	PA/PF 63/23	PA/PF 73/23	PA/PF 83/33	PA/PF 93/43	PA/PF 103/53
63	160	241	360	-	-
71	160	241	360	563	815
80	161	242	361	564	816
90	161	242	361	564	816
100	-	-	-	565	817
112	-	-	-	565	817

Tip / Type / Typ	PAM B14	Øa2	Øb2	Øe2	f2	Øs2	Ød1	l1	t1	u1	PA/PF 63/23 73/23 83/33 o	PA/PF 93/43 103/53 o
PA/PF 63/23 - 73/23 - 83/33	63	90	60	75	4.0	6	11	23	12.8	4	60	-
PA/PF 63/23 - 73/23 - 83/33 - 93/43 - 103/53	71	105	70	85	4.0	7	14	30	16.3	5	55	88
PA/PF 63/23 - 73/23 - 83/33 - 93/43 - 103/53	80	120	80	100	4.0	7	19	40	21.8	6	74	72
PA/PF 63/23 - 73/23 - 83/33 - 93/43 - 103/53	90	140	95	115	4.0	9	24	50	27.3	8	74	72
PA/PF 93/43 - 103/53	100	160	110	130	5.0	9	28	60	31.3	8	-	75
PA/PF 93/43 - 103/53	112	160	110	130	5.0	9	28	60	31.3	8	-	75

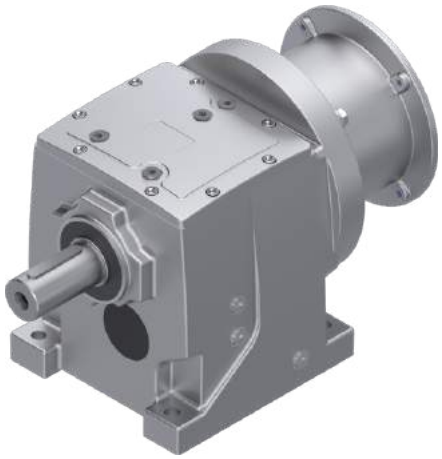
~ Kg					
PAM B14	PA/PF 63/23	PA/PF 73/23	PA/PF 83/33	PA/PF 93/43	PA/PF 103/53
63	159	240	359	-	-
71	159	240	359	561	813
80	160	241	360	562	814
90	160	241	360	562	814
100	-	-	-	564	816
112	-	-	-	564	816



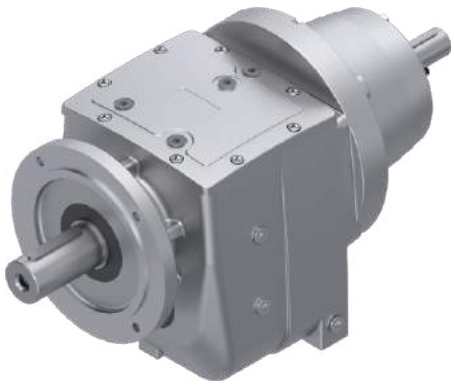
W - IEC ve PAM Adaptörü Seçim Tabloları

Selection Of W-IEC and PAM Adapters

Auswahltabelle von W - PAM - IEC Adapters







PA / PF

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 yada PAM adaptörlü girişler için geçerli olan servis faktörü doğrudan motor montajlı redüktörler ile aynıdır. IEC ve PAM montajlı redüktörlerin servis faktörü fB motorlu seçim sayfalarından bulunabilir.

Service factor fB 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 fB für Antriebe mit IEC- oder PAM-Adapter ist der gleiche wie für Getriebe mit Motordirektanschluss. Den Betriebsfaktor fB für Getriebe mit IEC- und PAM-Adapter finden Sie auf den Motorauswahltabellen.

Max. Giriş Gücü
Max. Input Power
Max. Antriebsleistung

Tip Type Typ	i_{ges}	4-pol. 50 Hz 1400 rpm n_2 [min^{-1}]	M_{amax} f_B=1 4 - pol. [Nm]	W P_{1max} - $f_B \geq 1$ 4 - pol. 1400rpm [kW]	6 - pol. 930rpm [kW]	8 - pol. 700rpm [kW]	12 - pol. 465rpm [kW]	IEC - PAM f_B ⇨ 55 - 156							
PA 32 PF 32	81.27	17.20	515	0.93	0.62	0.46	0.31	71	80	90*					
	72.71	19.30	560	1.13	0.75	0.56	0.38	71	80	90*					
	64.26	21.80	640	1.46	0.97	0.73	0.48		80	90*					
	57.49	24.40	613	1.56	1.04	0.78	0.52		80						
	46.29	30.20	533	1.69	1.12	0.84	0.56		80						
	46.22	30.30	672	2.13	1.42	1.07	0.71				100*	112*			
	38.76	36.10	446	1.69	1.12	0.84	0.56								
				.	.										
				.	.										
				9.20	*6.07*										
				9.20	*6.07*										

IEC motor büyüklükleri ve IEC standart çıkışları DIN EN 50347' e göredir.
IEC motor sizes and IEC standart outputs as per DIN EN 50347
IEC-Motorgrößen und IEC-Standart-Abtriebe entsprechen DIN EN 50347.

Tip W azami tahrik gücü hesaplanırken italik olmayan değerler alınmıştır. P_{1max} ile f_B = 1

P_{1max} value which is non-italicis 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

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 P1max in Spalte W darf nicht überschritten werden.

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 >1verwendet.

Max.çıkış momenti
Max.output torque
Abtriebsdrehmoment

Çıkış Devri
Output speed
Leistungsgeschwindigkeit

71	80
71	80
	80
	80
	80

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 Motorgröße und der Wechselkurse ist.

Redüktör Tahvili
Reduction ratio
Verkleinerungsfaktor

Redüktör Tipi
Gear unit type
Getriebetyp

Tip Type Typ	i_{ges}	4-pol. 50 Hz 1400 rpm n_2 [min^{-1}]	M_{amax} f_B=1 4 - pol. [Nm]	W P_{1max} - $f_B \geq 1$ 4 - pol. 1400rpm [kW]	6 - pol. 930rpm [kW]	8 - pol. 700rpm [kW]	12 - pol. 465rpm [kW]	IEC - PAM f_B ⇨ 55 - 156							
PA 03 **PF 03** **W** mm 170 + **IEC - PAM** mm 170 - 171	312.98	4.50	89	0.04	0.03	0.02	0.01	63*	71*						
	274.18	5.10	89	0.05	0.03	0.02	0.02	63*	71*						
	212.39	6.60	106	0.07	0.05	0.04	0.02	63*	71*						
	170.56	8.20	108	0.09	0.06	0.05	0.03	63*	71*						
	151.24	9.30	110	0.11	0.07	0.05	0.04	63*	71*						
	124.74	11.20	106	0.12	0.08	0.06	0.04	63*	71*						
	105.24	13.30	95	0.13	0.09	0.07	0.04	63*	71*						
	81.52	17.20	106	0.19	0.13	0.10	0.06	63	71*						
	65.46	21.40	110	0.25	0.16	0.12	0.08	63	71*						
PA 02 **PF 02** **W** mm 170 + **IEC - PAM** mm 170 - 171	73.03	19.20	89	0.18	0.12	0.09	0.06	63	71*						
	61.24	22.90	89	0.21	0.14	0.11	0.07	63	71*						
	53.64	26.10	89	0.24	0.16	0.12	0.08	63	71*						
	41.56	33.70	99	0.35	0.23	0.17	0.12	63	71*						
	33.37	42.00	96	0.42	0.28	0.21	0.14	63	71	80*					
	29.59	47.30	92	0.46	0.30	0.23	0.15		71	80*					
	27.52	50.90	87	0.46	0.31	0.23	0.15	63	71	80*					
	24.41	57.40	89	0.53	0.36	0.27	0.18		71	80*					
	23.14	60.50	78	0.49	0.33	0.25	0.16	63	71						
	20.59	**68.00**	74	0.53	0.35	0.26	0.17	63	71	80*	90*				
	15.95	**87.80**	72	0.66	0.44	0.33	0.22	63	71	80*	90				
	12.81	**109.30**	70	0.80	0.53	0.40	0.27	63	71	80	90*				
	11.24	**124.60**	67	0.87	0.58	0.44	0.29	63	71	80	90*				
	9.94	**140.80**	64	0.94	0.63	0.47	0.31	63	71	80	90*				
	9.27	**151.00**	65	1.03	0.68	0.51	0.34	63	71	80	90*				
	8.20	**170.70**	63	1.13	0.75	0.56	0.37	63	71	80	90*				
	7.80	**179.50**	63	1.18	0.79	0.59	0.39	63	71	80	90*				
	6.89	**203.20**	61	1.30	0.86	0.65	0.43	63	71	80	90*				
	5.57	**251.30**	57	*1.50*	*0.96*	*0.75*	*0.48*	63	71	80	90				
	4.82	**290.50**	57	*1.50*	*0.96*	*0.75*	*0.48*	63	71	80	90				
	3.90	**359.00**	53	*1.50*	*0.96*	*0.75*	*0.48*	63	71	80	90				
	3.39	**413.00**	51	*1.50*	*0.96*	*0.75*	*0.48*	63	71	80	90				
	2.97	**471.40**	46	*1.50*	*0.96*	*0.75*	*0.48*	63	71	80	90				

	IEC - PAM bağlantısı yoktur / No IEC - PAM assembling on empty fields / Keine IEC - PAM-Verbindung
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80*	**IEC - PAM bağlantısı yapılacaksa P_{1max} değerleri aşılmamalıdır -** Do not exceed the P_{1max} values indicated on fields with asterix / Bei IEC - PAM-Verbindungen, sollten die P_{1max}-Werte nicht überschritten werden.

Tip Type Typ	i_{ges}	4-pol. 50 Hz 1400 rpm n_2 [min^{-1}]	M_{amax} f_B=1 4 - pol. [Nm]	W P_{1max} - $f_B \geq 1$ 4 - pol. 1400rpm [kW]	6 - pol. 930rpm [kW]	8 - pol. 700rpm [kW]	12 - pol. 465rpm [kW]	IEC - PAM f_B ⇨ 55 - 156							
PA 12/02 **PF 12/02** W mm 212 + IEC - PAM mm 212 - 213	2796.33	0.50	180	0.05	0.03	0.03	0.02	63*	71*						
	2054.09	0.68	180	0.05	0.03	0.03	0.02	63*	71*						
	1591.20	0.88	180	0.06	0.04	0.03	0.02	63*	71*						
	1277.78	1.10	180	0.06	0.04	0.03	0.02	63*	71*						
	1053.91	1.30	180	0.07	0.04	0.03	0.02	63*	71*						
	886.01	1.60	180	0.07	0.04	0.03	0.02	63*	71*						
	619.95	2.30	180	0.08	0.05	0.04	0.03	63*	71*						
	536.07	**2.60**	180	0.09	0.06	0.04	0.03	63*	71*	80*	90*				
	430.48	**3.30**	180	0.10	0.07	0.05	0.03	63*	71*	80*	90*				
	340.07	**4.10**	180	0.12	0.08	0.06	0.04	63*	71*	80*	90*				
	263.85	**5.30**	180	0.14	0.09	0.07	0.05	63*	71*	80*	90*				
	213.21	**6.60**	180	0.16	0.11	0.08	0.05	63*	71*	80*	90*				
	165.75	**8.40**	180	0.20	0.13	0.10	0.07	63	71*	80*	90*				
	133.10	**10.50**	164	0.22	0.14	0.11	0.07	63	71*	80*	90*				
	109.78	**12.80**	164	0.26	0.17	0.13	0.09	63	71*	80*	90*				
	92.29	**15.20**	164	0.30	0.20	0.15	0.10	63	71*	80*	90*				
PA 13 **PF 13** W mm 174 + IEC - PAM mm 174 - 175	420.39	3.30	167	0.06	0.04	0.03	0.02	63*	71*						
	369.18	3.80	176	0.07	0.05	0.03	0.02	63*	71*						
	313.35	4.50	167	0.08	0.05	0.04	0.03	63*	71*						
	275.17	5.10	176	0.09	0.06	0.05	0.03	63*	71*						
	244.64	5.70	177	0.11	0.07	0.05	0.04	63*	71*						
	195.71	7.20	194	0.15	0.10	0.07	0.05	63*	71*						
	159.23	8.80	167	0.15	0.10	0.08	0.05	63*	71*						
	132.48	10.60	148	0.16	0.11	0.08	0.05	63*	71*						
	108.73	12.90	177	0.24	0.16	0.12	0.08	63	71*						
	85.57	16.40	176	0.30	0.20	0.15	0.10	63	71*						
	68.46	20.40	196	*0.37*	*0.24*	*0.19*	*0.12*	63	71						

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Tip Type Typ	i_{ges}	4-pol. 50 Hz 1400 rpm n_2 [min^{-1}]	M_{amax} f_B=1 4 - pol. [Nm]	W P_{1max} - $f_B \geq 1$ 4 - pol. 1400rpm [kW]	6 - pol. 930rpm [kW]	8 - pol. 700rpm [kW]	12 - pol. 465rpm [kW]	IEC - PAM f_B ⇨ 55 - 156							
PA 12 **PF 12** W mm 174 + IEC - PAM mm 174 - 175	72.60	19.30	139	0.28	0.19	0.14	0.09	63	71*						
	61.31	22.80	154	0.37	0.24	0.18	0.12	63	71						
	53.84	26.00	176	0.48	0.32	0.24	0.16	63	71						
	47.86	29.30	177	0.54	0.36	0.27	0.18		71	80*					
	43.07	32.50	162	0.55	0.37	0.28	0.18	63	71						
	38.29	36.60	184	0.70	0.47	0.35	0.23		71	80*					
	35.04	40.00	149	0.62	0.41	0.31	0.21	63	71						
	31.15	44.90	165	0.78	0.52	0.39	0.26		71	80					
	29.16	48.00	124	0.62	0.41	0.31	0.21	63	71						
	25.92	54.00	137	0.77	0.51	0.39	0.26		71	80					
	21.27	**65.80**	167	1.15	0.76	0.58	0.38	63	71	80	90*				
	18.80	**74.50**	161	1.26	0.83	0.63	0.42	63	71	80	90*				
	16.74	**83.60**	154	1.35	0.90	0.67	0.45	63	71	80	90*	100*	112*		
	13.39	**104.60**	149	1.63	1.08	0.82	0.54	63	71	80	90	100*	112*		
	10.68	**131.10**	134	1.84	1.22	0.92	0.61	63	71	80	90	100*	112*		
	9.65	**145.10**	135	2.05	1.36	1.03	0.68	63	71	80	90	100*	112*		
	7.85	**178.30**	131	2.45	1.63	1.22	0.81	63	71	80	90	100*	112*		
	7.29	**192.00**	124	2.49	1.66	1.25	0.83	63	71	80	90	100*	112*		
	6.53	**214.40**	126	2.83	1.88	1.41	0.94	63	71	80	90	100*	112*		
	5.78	**242.20**	122	3.09	2.06	1.55	1.03	63	71	80	90	100	112*		
	4.93	**284.00**	116	3.45	2.29	1.72	1.15	63	71	80	90	100	112*		
	4.49	**311.80**	118	3.85	2.56	1.93	1.28	63	71	80	90	100	112*		
	4.31	**324.80**	112	3.81	2.53	1.90	1.27	63	71	80	90	100	112*		
	3.98	**351.80**	114	*4.00*	*2.64*	*2.00*	*1.32*	63	71	80	90	100	112		
	3.39	**413.00**	109	*4.00*	*2.64*	*2.00*	*1.32*	63	71	80	90	100	112		
	2.96	**473.00**	105	*4.00*	*2.64*	*2.00*	*1.32*	63	71	80	90	100	112		
PA 11 **PF 11** W mm 159 + IEC - PAM mm 159	9.11	153.70	23	0.37	0.25	0.19	0.12	63	71						
	8.10	172.80	30	0.54	0.36	0.27	0.18		71	80*					
	3.60	**388.90**	42	1.71	1.14	0.86	0.57	63	71	80	90				
	3.18	**440.30**	40	1.84	1.22	0.92	0.61	63	71	80	90				
	2.83	**494.70**	54	2.80	1.86	1.40	0.93	63	71	80	90	100*	112*		
	2.32	**603.40**	48	*3.00*	*1.98*	*1.50*	*0.99*	63	71	80	90	100	112*		
	2.04	**686.30**	58	*3.00*	*1.98*	*1.50*	*0.99*	63	71	80	90	100	112*		
	1.81	**773.50**	55	*3.00*	*1.98*	*1.50*	*0.99*	63	71	80	90	100	112*		
	1.54	**909.10**	50	*3.00*	*1.98*	*1.50*	*0.99*	63	71	80	90	100	112*		
	1.35	**1037.00**	50	*3.00*	*1.98*	*1.50*	*0.99*	63	71	80	90	100	112*		

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PA 22/02 **PF 22/02** W mm 213 + IEC - PAM mm 212 - 213	2531.66	0.55	340	0.06	0.03	0.03	0.02	63*	71*						
	2122.90	0.66	340	0.06	0.04	0.03	0.02	63*	71*						
	1778.23	0.79	340	0.07	0.04	0.03	0.02	63*	71*						
	1440.59	0.97	340	0.07	0.04	0.04	0.02	63*	71*						
	1156.84	1.20	340	0.08	0.05	0.04	0.02	63*	71*						
	881.08	**1.60**	340	0.10	0.06	0.05	0.03	63*	71*	80*	90*				
	682.53	**2.10**	340	0.11	0.07	0.06	0.03	63*	71*	80*	90*				
	552.93	**2.50**	340	0.13	0.08	0.07	0.04	63*	71*	80*	90*				
	444.02	**3.20**	340	0.15	0.09	0.08	0.05	63*	71*	80*	90*				
	344.50	**4.10**	340	0.18	0.12	0.09	0.06	63	71*	80*	90*				
	284.14	**4.90**	340	0.22	0.14	0.11	0.07	63	71*	80*	90*				
	238.88	**5.90**	340	0.25	0.16	0.12	0.08	63	71*	80*	90*				
	167.14	**8.40**	340	0.34	0.22	0.17	0.11	63	71*	80*	90*				
	135.06	**10.40**	340	0.41	0.27	0.20	0.13	63	71	80*	90*				
	117.62	**11.90**	340	0.46	0.30	0.23	0.15	63	71	80*	90*				
PA 23 **PF 23** W mm 178 + IEC - PAM mm 178 - 179	516.35	2.70	274	0.08	0.05	0.04	0.03	63*	71*						
	417.44	3.40	340	0.12	0.08	0.06	0.04	63*	71*						
	323.31	4.30	340	0.15	0.10	0.08	0.05	63*	71*						
	261.93	5.30	340	0.19	0.13	0.10	0.06	63	71*						
	217.60	6.40	340	0.23	0.15	0.11	0.08	63	71*						
	179.61	7.80	312	0.25	0.17	0.13	0.08	63	71*						
	151.11	9.30	294	0.29	0.19	0.14	0.09	63	71*						
	124.10	**11.30**	340	0.40	0.27	0.20	0.13	63	71	80*	90*				
	100.53	**13.90**	340	0.50	0.33	0.25	0.16	63	71	80*	90*				
	88.24	**15.90**	340	0.56	0.38	0.28	0.19	63	71	80*	90*				
	78.00	**17.90**	340	0.64	0.42	0.32	0.21	63	71	80*	90*				
	64.80	**21.60**	340	*0.75*	*0.50*	*0.38*	*0.25*	63	71	80	90*				

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PA 22 **PF 22** **W** mm 178 + **IEC - PAM** mm 178 - 179	86.26	16.20	250	0.42	0.28	0.21	0.14	71	80*						
	69.74	20.10	263	0.55	0.37	0.28	0.18	71	80*						
	55.25	25.30	320	0.85	0.56	0.42	0.28	71	80	90*					
	45.90	30.50	292	0.93	0.62	0.47	0.31	71	80	90*					
	42.79	32.70	340	1.16	0.77	0.58	0.39		80	90*					
	35.55	39.40	330	1.36	0.90	0.68	0.45		80	90*					
	34.67	40.40	340	1.44	0.96	0.72	0.48			90*	100*	112*			
	29.34	47.70	292	1.46	0.97	0.73	0.48		80	90*					
	28.80	48.60	374	1.90	1.26	0.95	0.63			90	100*	112*			
	24.69	56.70	246	1.46	0.97	0.73	0.49		80	90*					
	23.77	58.90	326	2.01	1.34	1.01	0.67			90	100*	112*			
	20.00	70.00	285	2.09	1.39	1.04	0.69			90	100*	112*			
	16.74	**83.60**	339	2.97	1.97	1.48	0.99	71	80	90	100*	112*			
	14.67	**95.40**	337	3.37	2.24	1.68	1.12	71	80	90	100	112*			
	12.19	**114.80**	329	3.96	2.63	1.98	1.31	71	80	90	100	112*			
	10.90	**128.40**	317	*4.00*	*2.64*	*2.00*	*1.32*	71	80	90	100	112			
	8.46	**165.50**	259	*4.00*	*2.64*	*2.00*	*1.32*	71	80	90	100	112			
	7.57	**184.90**	246	*4.00*	*2.64*	*2.00*	*1.32*	71	80	90	100	112			
	6.86	**204.10**	255	*4.00*	*2.64*	*2.00*	*1.32*	71	80	90	100	112			
	6.51	**215.10**	228	*4.00*	*2.64*	*2.00*	*1.32*	71	80	90	100	112			
	5.77	**242.60**	215	*4.00*	*2.64*	*2.00*	*1.32*	71	80	90	100	112			
	5.18	**270.30**	159	*4.00*	*2.64*	*2.00*	*1.32*	71	80	90	100	112			
	4.64	**301.70**	150	*4.00*	*2.64*	*2.00*	*1.32*	71	80	90	100	112			
	3.99	**350.90**	139	*4.00*	*2.64*	*2.00*	*1.32*	71	80	90	100	112			
	3.53	**396.60**	131	*4.00*	*2.64*	*2.00*	*1.32*	71	80	90	100	112			
	2.80	**500.00**	115	*4.00*	*2.64*	*2.00*	*1.32*			90	100	112			
PA 21 **PF 21** **W** mm 161 + **IEC - PAM** mm 161	10.20	137.30	40	0.57	0.38	0.29	0.19	71	80*	90*					
	7.90	177.20	60	1.11	0.74	0.56	0.37		80	90*					
	6.40	218.80	65	1.49	0.99	0.74	0.49			90*	100*	112*			
	4.60	**304.30**	56	1.78	1.19	0.89	0.59	71	80						
	3.67	**381.50**	68	2.72	1.80	1.36	0.90	71	80	90	100*	112*			
	3.09	**453.10**	62	2.94	1.95	1.47	0.98	71	80	90	100*	112*			
	2.71	**516.60**	77	*4.00*	*2.64*	*2.00*	*1.32*	71	80	90	100	112			
	2.42	**578.50**	73	*4.00*	*2.64*	*2.00*	*1.32*	71	80	90	100	112			
	2.08	**673.10**	68	*4.00*	*2.64*	*2.00*	*1.32*	71	80	90	100	112			
	1.85	**756.80**	64	*4.00*	*2.64*	*2.00*	*1.32*	71	80	90	100	112			
	1.46	**958.90**	60	*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 yapılacaksa P_{1max} değerleri aşılmamalıdır -** Do not exceed the P_{1max} values indicated on fields with asterix / Bei IEC - PAM-Verbindungen, sollten die P_{1max}-Werte nicht überschritten werden.

Tip Type Typ	i_{ges}	4-pol. 50 Hz 1400 rpm n_2 [min^{-1}]	M_{amax} f_B=1 4 - pol. [Nm]	W P_{1max} - $f_B \geq 1$ 4 - pol. 1400rpm [kW]	6 - pol. 930rpm [kW]	8 - pol. 700rpm [kW]	12 - pol. 465rpm [kW]	IEC - PAM f_B ⇨ 55 - 156							
PA 32/12 **PF 32/12** W mm 213 + IEC - PAM mm 212 - 213	2702.77	0.52	620	0.07	0.04	0.04	0.02	63*	71*						
	2003.62	0.70	620	0.09	0.05	0.04	0.03	63*	71*						
	1602.89	0.87	620	0.10	0.06	0.05	0.03	63*	71*						
	1304.13	1.10	620	0.11	0.07	0.05	0.03	63*	71*						
	1080.92	**1.30**	620	0.12	0.08	0.06	0.04	63*	71*	80*	90*				
	868.98	**1.60**	620	0.14	0.09	0.07	0.05	63*	71*	80*	90*				
	699.71	**2.00**	620	0.17	0.11	0.08	0.05	63*	71*	80*	90*				
	554.87	**2.50**	620	0.20	0.13	0.10	0.06	63	71*	80*	90*	100*	112*		
	446.08	**3.10**	620	0.24	0.16	0.12	0.08	63	71*	80*	90*	100*	112*		
	362.93	**3.90**	620	0.29	0.19	0.15	0.09	63	71*	80*	90*	100*	112*		
	267.35	**5.20**	620	0.38	0.25	0.19	0.12	63	71	80*	90*	100*	112*		
	215.28	**6.50**	620	0.46	0.30	0.23	0.15	63	71	80*	90*	100*	112*		
	167.16	**8.40**	620	0.58	0.38	0.29	0.19	63	71	80*	90*	100*	112*		
	148.00	**9.50**	620	0.65	0.43	0.33	0.21	63	71	80*	90*	100*	112*		
	126.22	**11.10**	620	0.75	0.50	0.38	0.25	63	71	80	90*	100*	112*		
	82.19	**17.00**	620	1.10	0.73	0.55	0.37	63	71	80	90*	100*	112*		
PA 33 **PF 33** W mm 182 + IEC - PAM mm 182 - 183	740.46	1.90	570	0.11	0.07	0.06	0.04	63*	71*						
	662.46	2.10	560	0.12	0.08	0.06	0.04	63*	71*						
	585.48	2.40	634	0.16	0.11	0.08	0.05	63*	71*						
	523.81	2.70	672	0.19	0.12	0.09	0.06	63	71*						
	421.10	3.30	672	0.23	0.16	0.12	0.08	63	71*						
	339.07	4.10	651	0.28	0.19	0.14	0.09	63	71*						
	248.21	5.60	672	0.40	0.26	0.20	0.13	63	71						
	206.97	**6.80**	672	0.48	0.32	0.24	0.16	63	71	80*	90*				
	166.39	**8.40**	672	0.59	0.39	0.30	0.20	63	71	80*	90*				
	133.98	**10.40**	651	0.71	0.47	0.36	0.24	63	71	80*	90*				
	112.18	**12.50**	548	0.72	0.48	0.36	0.24	63	71	80*	90*				
	88.29	**15.90**	537	0.89	0.59	0.45	0.30	63	71	80	90*	100*	112*		

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Tip Type Typ	i_{ges}	4-pol. 50 Hz 1400 rpm n_2 [min^{-1}]	M_{amax} f_B=1 4 - pol. [Nm]	W P_{1max} - $f_B \geq 1$ 4 - pol. 1400rpm [kW]	6 - pol. 930rpm [kW]	8 - pol. 700rpm [kW]	12 - pol. 465rpm [kW]	IEC - PAM f_B ⇨ 55 - 156							
PA 32 **PF 32** W mm 182 + IEC - PAM mm 182 - 183	81.27	17.20	515	0.93	0.62	0.46	0.31	71	80	90*					
	72.71	19.30	560	1.13	0.75	0.56	0.38	71	80	90*					
	64.26	21.80	640	1.46	0.97	0.73	0.48		80	90*					
	57.49	24.40	613	1.56	1.04	0.78	0.52		80	90					
	46.29	30.20	533	1.69	1.12	0.84	0.56		80	90					
	46.22	30.30	672	2.13	1.42	1.07	0.71			90	100*	112*			
	38.76	36.10	446	1.69	1.12	0.84	0.56		80	90					
	37.22	37.60	589	2.32	1.54	1.16	0.77			90	100*	112*			
	33.00	42.40	380	1.69	1.12	0.84	0.56		80	90					
	31.16	44.90	512	2.41	1.60	1.20	0.80			90	100*	112*			
	30.45	**46.00**	639	3.08	2.04	1.54	1.02	71	80	90	100	112*			
	27.24	**51.40**	602	3.24	2.15	1.62	1.08	71	80	90	100	112*			
	26.53	52.80	436	2.41	1.60	1.20	0.80			90	100*	112*			
	23.10	**60.60**	630	4.00	2.66	2.00	1.33	71	80	90	100	112			
	20.67	**67.70**	658	4.67	3.10	2.33	1.55	71	80	90	100	112			
	18.64	**75.10**	631	4.96	3.30	2.48	1.65	71	80	90	100	112			
	16.64	**84.10**	530	4.67	3.10	2.33	1.55	71	80	90	100	112			
	16.23	**86.30**	639	5.77	3.83	2.89	1.92	71	80	90	100	112	132*		
	15.01	**93.30**	508	4.96	3.30	2.48	1.65	71	80	90	100	112			
	14.52	**96.40**	672	6.78	4.51	3.39	2.25	71	80	90	100	112	132*		
	11.70	**119.70**	710	8.90	5.91	4.45	2.95	71	80	90	100	112	132*		
	9.79	**143.00**	647	*9.20*	*6.07*	*4.60*	*3.04*	71	80	90	100	112	132		
	7.89	**177.40**	655	*9.20*	*6.07*	*4.60*	*3.04*			90	100	112	132		
	6.72	**208.30**	604	*9.20*	*6.07*	*4.60*	*3.04*			90	100	112	132		
	5.69	**246.00**	604	*9.20*	*6.07*	*4.60*	*3.04*			90	100	112	132		
	5.49	**255.00**	448	*9.20*	*6.07*	*4.60*	*3.04*	71	80	90	100	112	132		
	5.29	**264.70**	639	*9.20*	*6.07*	*4.60*	*3.04*			90	100	112	132		
	4.42	**316.70**	463	*9.20*	*6.07*	*4.60*	*3.04*			90	100	112	132		
	3.75	**373.30**	459	*9.20*	*6.07*	*4.60*	*3.04*			90	100	112	132		
	2.97	**471.40**	436	*9.20*	*6.07*	*4.60*	*3.04*			90	100	112	132		
PA 31 **PF 31** W mm 163 + IEC - PAM mm 163	10.20	137.30	90	1.29	0.86	0.65	0.43		80	90*					
	8.20	170.70	105	1.88	1.25	0.94	0.62			90	100*	112*			
	4.83	**289.90**	98	2.97	1.98	1.49	0.99	71	80	90	100*	112*			
	3.67	**381.50**	110	4.39	2.92	2.20	1.46	71	80	90	100	112			
	3.31	**423.00**	105	4.65	3.09	2.33	1.54	71	80	90	100	112			
	2.58	**542.60**	185	*9.20*	*6.07*	*4.60*	*3.04*	71	80	90	100	112	132		
	2.08	**673.10**	165	*9.20*	*6.07*	*4.60*	*3.04*			90	100	112	132		
	1.76	**795.50**	150	*9.20*	*6.07*	*4.60*	*3.04*			90	100	112	132		
	1.39	**1007.20**	143	*9.20*	*6.07*	*4.60*	*3.04*						132		

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Tip Type Typ	i_{ges}	4-pol. 50 Hz 1400 rpm n_2 [min^{-1}]	M_{amax} f_B=1 4 - pol. [Nm]	W P_{1max} - $f_B \geq 1$ 4 - pol. 1400rpm [kW]	6 - pol. 930rpm [kW]	8 - pol. 700rpm [kW]	12 - pol. 465rpm [kW]	IEC - PAM f_B ⇨ 55 - 156							
PA 42/12 **PF 42/12** W mm 213 + IEC - PAM mm 212 - 213	2560.48	0.55	1200	0.11	0.07	0.05	0.03	63*	71*						
	2161.45	0.65	1200	0.12	0.07	0.06	0.04	63*	71*						
	1561.18	0.90	1200	0.15	0.09	0.08	0.05	63*	71*						
	1393.57	1.00	1200	0.17	0.10	0.08	0.05	63*	71*						
	1114.85	1.30	1200	0.20	0.12	0.10	0.06	63	71*						
	750.00	**1.90**	1200	0.27	0.18	0.14	0.09	63	71*	80*	90*				
	670.92	2.10	1200	0.30	0.19	0.15	0.10		71*	80*					
	550.63	**2.50**	1200	0.36	0.23	0.18	0.12	63	71*	80*	90*				
	433.11	**3.20**	1200	0.45	0.29	0.22	0.14	63	71	80*	90*	100*	112*		
	346.69	**4.00**	1200	0.55	0.36	0.27	0.18	63	71	80*	90*	100*	112*		
	276.49	**5.10**	1200	0.68	0.44	0.34	0.22	63	71	80*	90*	100*	112*		
	229.62	**6.10**	1200	0.77	0.51	0.38	0.25	63	71	80	90*	100*	112*		
	169.11	**8.30**	1200	1.04	0.69	0.52	0.35	63	71	80	90*	100*	112*		
	140.44	**10.00**	1200	1.25	0.83	0.63	0.42	63	71	80	90*	100*	112*		
	116.26	**12.00**	1200	1.51	1.01	0.76	0.50	63	71	80	90	100*	112*		
	87.79	**15.90**	1200	2.00	1.33	1.00	0.67	63	71	80	90	100*	112*		
PA 43 **PF 43** W mm 186 + IEC - PAM mm 186 - 187	1071.82	1.30	960	0.13	0.09	0.07	0.04	71*	80*	90*					
	868.02	1.60	860	0.15	0.10	0.07	0.05	71*	80*	90*					
	763.70	1.80	1031	0.20	0.13	0.10	0.07	71*	80*	90*					
	618.49	2.30	1112	0.26	0.18	0.13	0.09	71*	80*	90*					
	528.04	2.70	990	0.27	0.18	0.14	0.09	71*	80*	90*					
	421.21	3.30	1186	0.41	0.27	0.21	0.14	71	80*	90*					
	359.61	3.90	1286	0.52	0.35	0.26	0.17	71	80*	90*					
	298.65	4.70	1118	0.55	0.36	0.27	0.18	71	80*	90*					
	278.52	5.00	1279	0.67	0.45	0.34	0.22		80*	90*					
	264.02	5.30	1267	0.70	0.47	0.35	0.23	71	80*	90*					
	231.31	6.10	1116	0.71	0.47	0.35	0.23		80*	90*					
	219.26	6.40	1200	0.80	0.53	0.40	0.27	71	80	90*					
	204.49	6.80	1289	0.92	0.61	0.46	0.31		80	90*					
	182.86	7.70	1017	0.82	0.54	0.41	0.27	71	80	90*					
	169.82	8.20	1166	1.01	0.67	0.50	0.33		80	90*					
	141.63	9.90	1053	1.09	0.72	0.54	0.36		80	90*					
	129.27	**10.80**	1240	1.41	0.93	0.70	0.47	71	80	90*	100*	112*			
	107.36	**13.00**	1116	1.52	1.01	0.76	0.51	71	80	90	100*	112*			
	94.91	**14.80**	1240	1.92	1.27	0.96	0.64	71	80	90	100*	112*			
	80.01	**17.50**	1230	2.25	1.50	1.13	0.75	71	80	90	100*	112*			
	70.10	**20.00**	1260	2.63	1.75	1.32	0.88	71	80	90	100*	112*			
	58.22	**24.00**	1166	2.94	1.95	1.47	0.98	71	80	90	100*	112*			
	48.55	**28.80**	1045	3.16	2.10	1.58	1.05	71	80	90	100	112*			
	40.91	**34.20**	1041	3.73	2.48	1.87	1.24	71	80	90	100	112*			

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Tip Type Typ	i_{ges}	4-pol. 50 Hz 1400 rpm n_2 [min^{-1}]	M_{amax} f_B=1 4 - pol. [Nm]	W P_{1max} - $f_B \geq 1$ 4 - pol. 1400rpm [kW]	6 - pol. 930rpm [kW]	8 - pol. 700rpm [kW]	12 - pol. 465rpm [kW]	IEC - PAM f_B ⇨ 55 - 156							
PA 42 **PF 42** W mm 186 + IEC - PAM mm 186 - 187	105.08	13.30	862	1.20	0.80	0.60	0.40	90*							
	85.10	16.50	796	1.37	0.91	0.69	0.46	90*							
	74.87	18.70	1080	2.11	1.40	1.06	0.70	90	100*	112*					
	60.64	23.10	1004	2.43	1.61	1.21	0.81	90	100*	112*					
	50.99	27.50	1098	3.16	2.10	1.58	1.05		100	112*	132*				
	41.30	33.90	1186	4.21	2.80	2.10	1.40		100	112	132*				
	35.26	39.70	1228	5.11	3.39	2.55	1.70		100	112	132*				
	30.47	**45.90**	1078	5.19	3.45	2.59	1.72	90	100	112					
	29.28	47.80	1021	5.11	3.40	2.56	1.70		100	112	132*				
	25.88	54.10	1243	7.04	4.68	3.52	2.34				132*				
	24.68	**56.70**	891	5.29	3.52	2.65	1.76	90	100	112					
	24.42	57.30	858	5.15	3.42	2.58	1.71		100	112	132*				
	21.85	**64.10**	1096	7.35	4.88	3.68	2.44	90	100	112	132*	160*			
	21.50	65.10	1163	7.93	5.27	3.96	2.63				132*				
	17.93	78.10	998	8.16	5.42	4.08	2.71				132*				
	17.69	**79.10**	1186	9.83	6.53	4.91	3.26	90	100	112	132	160*			
	15.10	**92.70**	1244	12.08	8.02	6.04	4.01	90	100	112	132	160*			
	14.38	**97.40**	1158	11.81	7.84	5.90	3.92	90	100	112	132	160*			
	12.27	**114.10**	1196	14.29	9.49	7.14	4.75	90	100	112	132	160*			
	10.19	**137.40**	1167	*15.00*	*9.90*	*7.50*	*4.95*	90	100	112	132	160			
	8.50	**164.70**	1076	*15.00*	*9.90*	*7.50*	*4.95*	90	100	112	132	160			
	7.27	**192.60**	1076	*15.00*	*9.90*	*7.50*	*4.95*	90	100	112	132	160			
	6.19	**226.20**	1075	*15.00*	*9.90*	*7.50*	*4.95*	90	100	112	132	160			
	5.36	**261.20**	817	*15.00*	*9.90*	*7.50*	*4.95*	90	100	112	132	160			
	4.58	**305.70**	772	*15.00*	*9.90*	*7.50*	*4.95*	90	100	112	132	160			
	3.90	**359.00**	700	*15.00*	*9.90*	*7.50*	*4.95*	90	100	112	132	160			
	3.50	**400.00**	665	*15.00*	*9.90*	*7.50*	*4.95*				132	160			
	3.21	**436.10**	620	*15.00*	*9.90*	*7.50*	*4.95*				132	160			
	3.02	**463.60**	604	*15.00*	*9.90*	*7.50*	*4.95*				132	160			
PA 41 **PF 41** W mm 165 + IEC - PAM mm 165	14.80	94.60	133	1.32	0.88	0.66	0.44	90							
	10.55	132.70	190	2.64	1.75	1.32	0.88	90	100*	112*					
	7.18	195.00	190	3.88	2.58	1.94	1.29		100	112*	132*				
	5.27	265.70	195	5.42	3.60	2.71	1.80				132*				
	4.29	**326.30**	155	5.30	3.52	2.65	1.76	90	100	112					
	3.88	**360.80**	145	5.48	3.64	2.74	1.82	90	100	112					
	3.42	**409.40**	140	6.00	3.99	3.00	1.99	90	100	112					
	3.08	**454.50**	290	13.80	9.17	6.90	4.58	90	100	112	132	160*			
	2.50	**560.00**	271	*15.00*	*9.90*	*7.50*	*4.95*	90	100	112	132	160			
	2.14	**654.20**	248	*15.00*	*9.90*	*7.50*	*4.95*	90	100	112	132	160			
	1.82	**769.20**	223	*15.00*	*9.90*	*7.50*	*4.95*	90	100	112	132	160			
	1.63	**858.90**	200	*15.00*	*9.90*	*7.50*	*4.95*				132	160			
	1.50	**933.30**	190	*15.00*	*9.90*	*7.50*	*4.95*				132	160			
	1.41	**992.90**	180	*15.00*	*9.90*	*7.50*	*4.95*				132	160			

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63	**IEC - PAM bağlantısı yapılır /** IEC - PAM assembling available on numbered fields / IEC - PAM-Verbindung möglich
80*	**IEC - PAM bağlantısı yapılacaksa P_{1max} değerleri aşılmamalıdır -** Do not exceed the P_{1max} values indicated on fields with asterix / Bei IEC - PAM-Verbindungen, sollten die P_{1max}-Werte nicht überschritten werden.

Tip Type Typ	i_{ges}	4-pol. 50 Hz 1400 rpm n_2 [min^{-1}]	M_{amax} f_B=1 4 - pol. [Nm]	W P_{1max} - $f_B \geq 1$ 4 - pol. 1400rpm [kW]	6 - pol. 930rpm [kW]	8 - pol. 700rpm [kW]	12 - pol. 465rpm [kW]	IEC - PAM f_B ⇨ 55 - 156							
PA 52/12 **PF 52/12** W mm 213 + IEC - PAM mm 212 - 213	2635.45	0.53	1830	0.14	0.09	0.07	0.04	63*	71*						
	2108.36	0.66	1830	0.17	0.10	0.08	0.05	63*	71*						
	1715.38	0.82	1830	0.20	0.12	0.10	0.06	63	71*						
	1427.20	0.98	1830	0.23	0.14	0.11	0.07	63	71*						
	1143.76	1.20	1830	0.27	0.18	0.14	0.09		71*	80*					
	920.36	**1.50**	1830	0.33	0.21	0.17	0.11	63	71*	80*	90*				
	690.27	**2.00**	1830	0.43	0.28	0.21	0.14	63	71	80*	90*				
	542.36	**2.60**	1830	0.53	0.35	0.27	0.17	63	71	80*	90*				
	491.74	**2.80**	1830	0.59	0.38	0.29	0.19	63	71	80*	90*	100*	112		
	354.34	**4.00**	1830	0.76	0.50	0.38	0.25	63	71	80	90*	100*	112*		
	283.16	**4.90**	1830	0.95	0.63	0.47	0.31	63	71	80	90*	100*	112*		
	219.87	**6.40**	1830	1.22	0.81	0.61	0.41	63	71	80	90*	100*	112*		
	194.67	**7.20**	1830	1.38	0.92	0.69	0.46	63	71	80	90*	100*	112*		
	146.01	**9.60**	1830	1.84	1.22	0.92	0.61	63	71	80	90	100*	112*		
	124.52	**11.20**	1830	2.15	1.43	1.08	0.72	63	71	80	90	100*	112*		
	97.84	**14.30**	1830	2.74	1.82	1.37	0.91	63	71	80	90	100*	112*		
PA 53 **PF 53** W mm 190 + IEC - PAM mm 190 - 191	728.98	1.90	1595	0.32	0.21	0.16	0.11		80*	90*					
	606.94	2.30	1882	0.45	0.30	0.23	0.15		80*	90*					
	548.64	2.60	1911	0.51	0.34	0.26	0.17		80*	90*					
	499.30	2.80	1920	0.56	0.37	0.28	0.19		80*	90*					
	392.31	3.60	1823	0.68	0.45	0.34	0.23		80*	90*					
	374.48	3.70	1920	0.75	0.50	0.38	0.25		80*	90*					
	294.23	4.80	2227	1.11	0.74	0.55	0.37		80	90*					
	245.73	5.70	1859	1.11	0.74	0.55	0.37		80	90*					
	236.60	**5.90**	1920	1.19	0.79	0.59	0.40	71	80	90*	100*	112*			
	185.90	**7.50**	1820	1.44	0.95	0.72	0.48	71	80	90*	100*	112*			
	177.45	**7.90**	1920	1.59	1.05	0.79	0.53	71	80	90	100*	112*			
	139.42	**10.00**	2232	2.35	1.56	1.17	0.78	71	80	90	100*	112*			
	105.77	**13.20**	2224	3.08	2.05	1.54	1.02	71	80	90	100	112*			
	95.41	**14.70**	2231	3.43	2.28	1.71	1.14	71	80	90	100	112*			
	79.69	**17.60**	1862	3.43	2.28	1.71	1.14	71	80	90	100	112			
	65.31	**21.40**	1920	*4.00*	*2.64*	*2.00*	*1.32*	71	80	90	100	112			
	58.91	**23.80**	1920	*4.00*	*2.64*	*2.00*	*1.32*	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_{1max} değerleri aşılmamalıdır -** Do not exceed the P_{1max} values indicated on fields with asterix / Bei IEC - PAM-Verbindungen, sollten die P_{1max}-Werte nicht überschritten werden.

Tip Type Typ	i_{ges}	4-pol. 50 Hz 1400 rpm n_2 [min^{-1}]	M_{amax} f_B=1 4 - pol. [Nm]	W P_{1max} - $f_B \geq 1$ 4 - pol. 1400rpm [kW]	6 - pol. 930rpm [kW]	8 - pol. 700rpm [kW]	12 - pol. 465rpm [kW]	IEC - PAM f_B ⇨ 55 - 156							
PA 52 **PF 52** W mm 190 + IEC - PAM mm 190 - 191	86.88	16.10	1721	2.90	1.93	1.45	0.96	90	100*	112*					
	78.53	17.80	1596	2.98	1.98	1.49	0.99	90	100	112*					
	71.47	19.60	1588	3.26	2.16	1.63	1.08	90	100	112*					
	59.50	23.50	1893	4.66	3.10	2.33	1.55		100	112	132*				
	53.79	26.00	1911	5.21	3.46	2.60	1.73		100	112	132*				
	48.95	28.60	1920	5.75	3.82	2.88	1.91		100	112	132*				
	40.34	34.70	1911	6.94	4.61	3.47	2.31				132*				
	38.46	36.40	1668	6.36	4.22	3.18	2.11		100	112	132*				
	36.71	38.10	1920	7.67	5.09	3.83	2.55				132*				
	36.00	**38.90**	1396	5.68	3.78	2.84	1.89	90	100	112					
	32.54	**43.00**	1260	5.68	3.77	2.84	1.89	90	100	112					
	32.12	43.60	1393	6.36	4.22	3.18	2.11		100	112	132*				
	28.85	48.50	2024	10.28	6.83	5.14	3.42				132				
	26.43	**53.00**	1893	10.50	6.97	5.25	3.49	90	100	112	132	160*			
	24.09	58.10	1689	10.28	6.83	5.14	3.41				132				
	23.89	**58.60**	1911	11.73	7.79	5.86	3.89	90	100	112	132	160*			
	21.65	**64.70**	1893	12.82	8.51	6.41	4.26	90	100	112	132	160*			
	19.57	**71.50**	1911	14.32	9.51	7.16	4.75	90	100	112	132	160*			
	17.81	**78.60**	1920	15.80	10.50	7.90	5.25	90	100	112	132	160			
	13.99	**100.10**	1920	20.12	13.36	10.06	6.68	90	100	112	132	160			
	13.46	**104.00**	1851	20.16	13.39	10.08	6.70	90	100	112	132	160	180*		
	10.58	**132.30**	1761	*22.00*	*14.52*	*11.00*	*7.26*	90	100	112	132	160	180		
	8.83	**158.60**	1676	*22.00*	*14.52*	*11.00*	*7.26*	90	100	112	132	160	180		
	7.29	**192.00**	1565	*22.00*	*14.52*	*11.00*	*7.26*		100	112	132	160	180		
	6.44	**217.40**	1498	*22.00*	*14.52*	*11.00*	*7.26*		100	112	132	160	180		
	5.60	**250.00**	1170	*22.00*	*14.52*	*11.00*	*7.26*	90	100	112	132	160	180		
	4.62	**303.00**	1195	*22.00*	*14.52*	*11.00*	*7.26*		100	112	132	160	180		
	4.08	**343.10**	1127	*22.00*	*14.52*	*11.00*	*7.26*		100	112	132	160	180		
	3.67	**381.50**	1057	*22.00*	*14.52*	*11.00*	*7.26*					160	180		
	3.44	**407.00**	1009	*22.00*	*14.52*	*11.00*	*7.26*					160	180		
	3.23	**433.40**	959	*22.00*	*14.52*	*11.00*	*7.26*					160	180		
	2.78	**503.60**	888	*22.00*	*14.52*	*11.00*	*7.26*					160	180		
PA 51 **PF 51** W mm 167 + IEC - PAM mm 167	13.27	105.50	290	3.20	2.13	1.60	1.06	90	100	112*					
	9.09	154.00	320	5.16	3.43	2.58	1.71		100	112	132*				
	6.82	205.30	400	8.60	5.71	4.30	2.86				132*				
	5.50	**254.50**	220	5.86	3.90	2.93	1.95	90	100	112					
	4.04	**346.50**	410	14.88	9.88	7.44	4.94	90	100	112	132	160*			
	3.31	**423.00**	492	21.79	14.47	10.90	7.24	90	100	112	132	160			
	2.86	**489.50**	456	*22.00*	*14.52*	*11.00*	*7.26*	90	100	112	132	160			
	2.50	**560.00**	426	*22.00*	*14.52*	*11.00*	*7.26*	90	100	112	132	160	180		
	2.06	**679.60**	382	*22.00*	*14.52*	*11.00*	*7.26*		100	112	132	160	180		
	1.82	**769.20**	341	*22.00*	*14.52*	*11.00*	*7.26*	90	100	112	132	160	180		
	1.64	**853.70**	325	*22.00*	*14.52*	*11.00*	*7.26*					160	180		
	1.54	**909.10**	310	*22.00*	*14.52*	*11.00*	*7.26*					160	180		
	1.44	**972.20**	305	*22.00*	*14.52*	*11.00*	*7.26*					160	180		
	1.24	**1129.00**	275	*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 yapılacaksa P_{1max} değerleri aşılmamalıdır -** Do not exceed the P_{1max} values indicated on fields with asterix / Bei IEC - PAM-Verbindungen, sollten die P_{1max}-Werte nicht überschritten werden.

Tip Type Typ	i_{ges}	4-pol. 50 Hz 1400 rpm n_2 [min^{-1}]	M_{amax} f_B=1 4 - pol. [Nm]	W P_{1max} - $f_B \geq 1$ 4 - pol. 1400rpm [kW]	6 - pol. 930rpm [kW]	8 - pol. 700rpm [kW]	12 - pol. 465rpm [kW]	IEC - PAM f_B ⇨ 55 - 156							
PA 63/23 **PF 63/23** W mm 219 + IEC - PAM mm 218 - 219	13313.68	0.11	3200	0.08	0.04	0.04	0.02	63*	71*						
	11060.60	0.13	3200	0.08	0.05	0.04	0.02	63*	71*						
	8135.65	0.17	3200	0.10	0.06	0.05	0.03	63*	71*						
	6681.18	**0.21**	3200	0.11	0.07	0.06	0.03	63*	71*	80*	90*				
	5394.24	**0.26**	3200	0.13	0.08	0.06	0.04	63*	71*	80*	90*				
	4370.02	**0.32**	3200	0.15	0.09	0.07	0.05	63*	71*	80*	90*				
	3390.53	**0.41**	3200	0.18	0.11	0.09	0.06	63	71*	80*	90*				
	2816.75	**0.50**	3200	0.21	0.13	0.10	0.07	63	71*	80*	90*				
	2162.48	**0.65**	3200	0.26	0.16	0.13	0.08	63	71*	80*	90*				
	1677.79	**0.83**	3200	0.32	0.21	0.16	0.10	63	71*	80*	90*				
	1410.80	**1.00**	3200	0.37	0.24	0.19	0.12	63	71	80*	90*				
	1066.44	**1.30**	3200	0.48	0.31	0.24	0.16	63	71	80*	90*				
PA 63/22 **PF 63/22** W mm 215 + IEC - PAM mm 214 - 215	**851.02**	**1.60**	3200	0.59	0.39	0.30	0.19	71	80*	90*	100*	112*			
	727.77	**1.90**	3200	0.68	0.45	0.34	0.22	71	80*	90*	100*	112*			
	554.24	**2.50**	3200	0.85	0.56	0.42	0.28	71	80	90*	100*	112*			
	430.20	**3.30**	3200	1.09	0.72	0.55	0.36	71	80	90*	100*	112*			
	367.90	**3.80**	3200	1.28	0.85	0.64	0.42	71	80	90*	100*	112*			
	283.00	**4.90**	3200	1.66	1.10	0.83	0.55	71	80	90	100*	112*			
	225.22	**6.20**	3200	2.08	1.38	1.04	0.69	71	80	90	100*	112*			
	173.24	**8.10**	3200	2.71	1.80	1.35	0.90	71	80	90	100*	112*			
	153.52	**9.10**	3200	3.06	2.03	1.53	1.01	71	80	90	100	112*			

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Tip Type Typ	i_{ges}	4-pol. 50 Hz 1400 rpm n_2 [min^{-1}]	M_{amax} f_B=1 4 - pol. [Nm]	W P_{1max} - $f_B \geq 1$ 4 - pol. 1400rpm [kW]	6 - pol. 930rpm [kW]	8 - pol. 700rpm [kW]	12 - pol. 465rpm [kW]	IEC - PAM f_B ⇨ 55 - 156							
PA 63 **PF 63** W mm 194 + IEC - PAM mm 194 - 195	372.70	3.80	3200	1.26	0.84	0.63	0.42	90*							
	300.91	4.70	3200	1.56	1.04	0.78	0.52	90							
	265.56	5.30	3640	2.01	1.33	1.00	0.67	90	100*	112*					
	214.41	6.50	3640	2.49	1.65	1.24	0.83	90	100*	112*					
	180.86	7.70	3660	2.97	1.97	1.48	0.99		100*	112*	132*				
	146.02	9.60	3700	3.71	2.47	1.86	1.23		100	112*	132*				
	132.78	10.50	3700	4.09	2.71	2.04	1.36				132*				
	108.08	**13.00**	3650	4.95	3.29	2.48	1.64	90	100	112					
	107.21	13.10	3700	5.06	3.36	2.53	1.68				132*				
	87.26	**16.00**	3200	5.38	3.57	2.69	1.79	90	100	112					
	77.49	**18.10**	3700	7.00	4.65	3.50	2.32	90	100	112	132*	160*			
	62.96	**22.20**	3670	8.55	5.68	4.27	2.84	90	100	112	132*	160*			
	53.84	**26.00**	3700	10.07	6.69	5.04	3.35	90	100	112	132	160*			
	50.83	**27.50**	3700	10.67	7.09	5.34	3.54	90	100	112	132	160*			
	43.47	**32.20**	3680	12.40	8.24	6.21	4.12	90	100	112	132	160*			
	36.14	**38.70**	3690	14.97	9.94	7.48	4.97	90	100	112	132	160			
	30.90	**45.30**	3590	17.03	11.31	8.52	5.66	90	100	112	132	160			
	26.33	**53.20**	3200	17.82	11.84	8.91	5.92	90	100	112	132	160	180*		
	21.97	**63.70**	3200	21.35	14.18	10.68	7.09	90	100	112	132	160	180*		
	20.81	**67.28**	3200	*22.00*	*14.52*	*11.00*	*7.26*	90	100	112	132	160	180		
	17.36	**80.60**	3200	*22.00*	*14.52*	*11.00*	*7.26*	90	100	112	132	160	180		
PA 62 **PF 62** W mm 194 + IEC - PAM mm 194 - 195	48.75	28.70	2510	7.55	5.01	3.77	2.51	100	112	132*					
	37.08	37.80	3010	11.90	7.91	5.95	3.95			132	160*	180*			
	18.16	**77.10**	3077	24.84	16.50	12.42	8.25	100	112	132	160	180			
	15.80	**88.60**	3004	27.87	18.51	13.94	9.26	100	112	132	160	180			
	13.91	**100.60**	3080	32.46	21.56	16.23	10.78	100	112	132	160	180	200	225*	
	11.60	**120.70**	3077	38.89	25.83	19.44	12.92	100	112	132	160	180	200	225*	
	10.52	**133.10**	3093	43.10	28.63	21.55	14.32	100	112	132	160	180	200	225*	
	8.78	**159.50**	3012	*45.00*	*29.70*	*22.50*	*14.85*	100	112	132	160	180	200	225	
	7.55	**185.40**	3120	*45.00*	*29.70*	*22.50*	*14.85*	100	112	132	160	180	200	225	
	6.35	**220.50**	1930	44.56	29.60	22.28	14.80	100	112	132	160	180	200	225	
	5.29	**264.70**	1882	*45.00*	*29.70*	*22.50*	*14.85*	100	112	132	160	180	200	225	
	4.56	**307.00**	2081	*45.00*	*29.70*	*22.50*	*14.85*	100	112	132	160	180	200	225	
	4.06	**344.80**	1885	*45.00*	*29.70*	*22.50*	*14.85*					180	200	225	
	3.91	**358.10**	2009	*45.00*	*29.70*	*22.50*	*14.85*			132	160	180	200	225	
	3.72	**376.30**	2030	*45.00*	*29.70*	*22.50*	*14.85*			132	160	180	200	225	
	3.32	**421.70**	1980	*45.00*	*29.70*	*22.50*	*14.85*			132	160	180	200	225	
	2.97	**471.40**	1960	*45.00*	*29.70*	*22.50*	*14.85*					180	200	225	

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Tip Type Typ	i_{ges}	4-pol. 50 Hz 1400 rpm n_2 [min^{-1}]	M_{amax} f_B=1 4 - pol. [Nm]	W P_{1max} - $f_B \geq 1$ 4 - pol. 1400rpm [kW]	6 - pol. 930rpm [kW]	8 - pol. 700rpm [kW]	12 - pol. 465rpm [kW]	IEC - PAM f_B ⇨ 55 - 156							
PA 73/23 **PF 73/23** W mm 219 + IEC - PAM mm 218 - 219	13435.41	0.10	5000	0.09	0.07	0.05	0.03	63*	71*						
	11303.83	0.12	5000	0.10	0.07	0.05	0.04	63*	71*						
	8164.87	0.17	5000	0.13	0.09	0.06	0.04	63*	71*	80*	90*				
	6600.95	**0.21**	5000	0.15	0.10	0.08	0.05	63*	71*	80*	90*				
	5483.87	**0.26**	5000	0.17	0.12	0.09	0.06	63*	71*	80*	90*				
	4429.50	**0.32**	5000	0.21	0.14	0.10	0.07	63	71*	80*	90*				
PA 73/22 **PF 73/22** W mm 215 + IEC - PAM mm 214 - 215	3433.54	0.41	5000	0.25	0.17	0.13	0.09	71*	80*	90*					
	2773.38	0.50	5000	0.30	0.21	0.15	0.10	71*	80*	90*					
	2194.98	0.64	5000	0.37	0.25	0.19	0.13		80*	90*					
	1772.96	0.79	5000	0.45	0.30	0.23	0.15		80*	90*					
	1252.41	**1.10**	5000	0.63	0.42	0.31	0.21	71	80*	90*	100*	112*			
	1097.40	**1.30**	5000	0.71	0.47	0.35	0.24	71	80*	90*	100*	112*			
	886.40	**1.60**	5000	0.83	0.55	0.41	0.27	71	80	90*	100*	112*			
	736.40	**1.90**	5000	1.00	0.66	0.50	0.33	71	80	90*	100*	112*			
	566.43	**2.50**	5000	1.29	0.86	0.65	0.43	71	80	90*	100*	112*			
	457.52	**3.10**	5000	1.60	1.06	0.80	0.53	71	80	90	100*	112*			
	346.75	**4.00**	5000	2.11	1.40	1.06	0.70	71	80	90	100*	112*			
	280.08	**5.00**	5000	2.62	1.74	1.31	0.87	71	80	90	100*	112*			
PA 73/32 **PF 73/32** W mm 215 + IEC - PAM mm 214 - 215	**226.38**	**6.20**	5000	3.24	2.15	1.62	1.08	90	100	112*	132*				
	171.10	**8.20**	5000	4.28	2.85	2.14	1.42	90	100	112	132*				
	141.16	**9.90**	5000	5.19	3.45	2.60	1.72	90	100	112	132*				
	124.66	**11.20**	5000	5.88	3.91	2.94	1.95	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_{1max} değerleri aşılmamalıdır -** Do not exceed the P_{1max} values indicated on fields with asterix / Bei IEC - PAM-Verbindungen, sollten die P_{1max}-Werte nicht überschritten werden.

Tip Type Typ	i_{ges}	4-pol. 50 Hz 1400 rpm n_2 [min^{-1}]	M_{amax} f_B=1 4 - pol. [Nm]	W P_{1max} - $f_B \geq 1$ 4 - pol. 1400rpm [kW]	6 - pol. 930rpm [kW]	8 - pol. 700rpm [kW]	12 - pol. 465rpm [kW]	IEC - PAM f_B ⇨ 55 - 156							
PA 73 **PF 73** W mm 198 + IEC - PAM mm 198 - 199	205.59	6.80	5330	3.80	2.52	1.90	1.26	100	112*	132*					
	166.07	8.40	5630	4.97	3.30	2.48	1.65	100	112	132*					
	124.55	11.20	5620	6.61	4.39	3.31	2.20			132*	160*	180*			
	124.38	**11.30**	5000	5.89	3.91	2.95	1.96	100	112	132*					
	100.47	**13.90**	4000	5.84	3.88	2.92	1.94	100	112	132*					
	91.33	**15.30**	5330	8.56	5.68	4.28	2.84	100	112	132*					
	74.80	**18.70**	5330	10.45	6.94	5.22	3.47	100	112	132	160*	180*			
	60.42	**23.20**	5650	13.71	9.11	6.85	4.55	100	112	132	160*	180*			
	52.28	**26.80**	5560	15.59	10.36	7.80	5.18	100	112	132	160	180*			
	45.67	**30.70**	5370	17.24	11.45	8.62	5.73	100	112	132	160	180*	200*	225*	
	37.68	**37.20**	5000	19.45	12.92	9.73	6.46	100	112	132	160	180*	200*	225*	
	33.27	**42.10**	5000	22.03	14.64	11.02	7.32	100	112	132	160	180*	200*	225*	
	28.35	**49.40**	5000	25.85	17.17	12.93	8.59	100	112	132	160	180	200*	225*	
	23.39	**59.90**	5000	31.34	20.82	15.67	10.41	100	112	132	160	180	200	225*	
	20.66	**67.80**	5000	35.48	23.57	17.74	11.78	100	112	132	160	180	200	225*	
	18.01	**77.70**	5000	40.70	27.04	20.35	13.52	100	112	132	160	180	200	225*	
PA 72 **PF 72** W mm 198 + IEC - PAM mm 198 - 199	43.70	32.00	4050	13.59	9.03	6.79	4.51	132	160*	180*					
	33.08	42.30	3217	14.26	9.47	7.13	4.74	132	160*	180*					
	28.58	49.00	4053	20.79	13.81	10.39	6.91		160	180*	200*				
	21.64	64.70	4492	30.43	20.21	15.22	10.11		160	180	200				
	21.72	**64.50**	4053	27.36	18.17	13.68	9.09	132	160	180					
	16.83	**83.20**	4053	35.30	23.45	17.65	11.73	132	160	180	200	225*			
	14.33	**97.70**	4053	41.46	27.54	20.73	13.77	132	160	180	200	225*			
	12.49	**112.10**	4053	47.57	31.60	23.79	15.80	132	160	180	200	225			
	10.84	**129.20**	4677	*55.00*	*36.30*	*27.50*	*18.15*	132	160	180	200	225			
	9.46	**148.00**	4708	*55.00*	*36.30*	*27.50*	*18.15*	132	160	180	200	225			
	8.21	**170.50**	4657	*55.00*	*36.30*	*27.50*	*18.15*	132	160	180	200	225			
	6.94	**201.70**	4292	*55.00*	*36.30*	*27.50*	*18.15*	132	160	180	200	225			
	6.42	**218.10**	2770	*55.00*	*36.30*	*27.50*	*18.15*	132	160	180	200	225			
	5.60	**250.00**	2831	*55.00*	*36.30*	*27.50*	*18.15*	132	160	180	200	225			
	4.86	**288.10**	2910	*55.00*	*36.30*	*27.50*	*18.15*	132	160	180	200	225			
	4.11	**340.60**	2673	*55.00*	*36.30*	*27.50*	*18.15*	132	160	180	200	225			
	3.86	**362.70**	2589	*55.00*	*36.30*	*27.50*	*18.15*					225			
	3.44	**407.00**	2423	*55.00*	*36.30*	*27.50*	*18.15*	132	160	180	200	225			
	3.26	**429.40**	2333	*55.00*	*36.30*	*27.50*	*18.15*					225			
	2.76	**507.20**	2135	*55.00*	*36.30*	*27.50*	*18.15*	132	160	180	200	225			

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63	**IEC - PAM bağlantısı yapılır /** IEC - PAM assembling available on numbered fields / IEC - PAM-Verbindung möglich
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Tip Type Typ	i_{ges}	4-pol. 50 Hz 1400 rpm n_2 [min^{-1}]	M_{amax} f_B=1 4 - pol. [Nm]	W P_{1max} - $f_B \geq 1$ 4 - pol. 1400rpm [kW]	6 - pol. 930rpm [kW]	8 - pol. 700rpm [kW]	12 - pol. 465rpm [kW]	IEC - PAM f_B ⇨ 55 - 156							
PA 83/33	12787.88	0.11	8000	0.13	0.09	0.07	0.05	63*	71*						
PF 83/33	**10858.81**	**0.13**	8000	0.15	0.10	0.07	0.05	63*	71*	80*	90*				
W	**8572.29**	**0.16**	8000	0.18	0.12	0.09	0.06	63*	71*	80*	90*				
mm	**6931.18**	**0.20**	8000	0.21	0.14	0.10	0.07	63	71*	80*	90*				
219	**5432.52**	**0.26**	8000	0.26	0.17	0.13	0.09	63	71*	80*	90*				
+	**4548.59**	**0.31**	8000	0.30	0.20	0.15	0.10	63	71*	80*	90*				
IEC - PAM															
mm															
218 - 219															
PA 83/32	3552.27	0.39	8000	0.37	0.25	0.19	0.12		80*	90*					
PF 83/32	2860.33	0.49	8000	0.45	0.30	0.23	0.15		80*	90*					
W	2039.02	0.69	8000	0.62	0.41	0.31	0.21		80*	90*					
mm	**1683.27**	**0.83**	8000	0.74	0.49	0.37	0.25	71	80*	90*	100*	112*			
215	1366.81	1.00	8000	0.86	0.57	0.43	0.28			90*	100*	112*			
+	**1151.94**	**1.20**	8000	1.02	0.68	0.51	0.34	71	80	90*	100*	112*			
IEC - PAM	**897.44**	**1.60**	8000	1.31	0.87	0.65	0.43	71	80	90*	100*	112*	132*		
mm	**722.63**	**1.90**	8000	1.62	1.08	0.81	0.54	71	80	90	100*	112*	132*		
214 - 215															
PA 83/42	**525.11**	**2.70**	8000	2.23	1.48	1.12	0.74	90	100*	112*	132*	160*			
PF 83/42	**437.93**	**3.20**	8000	2.68	1.78	1.34	0.89	90	100*	112*	132*	160*			
W	**374.50**	**3.70**	8000	3.13	2.08	1.57	1.04	90	100	112*	132*	160*			
mm	**276.00**	**5.10**	8000	4.25	2.82	2.12	1.41	90	100	112	132*	160*			
217	**236.03**	**5.90**	8000	4.97	3.30	2.48	1.65	90	100	112	132*	160*			
+	**201.09**	**7.00**	8000	5.83	3.87	2.92	1.94	90	100	112	132*	160*			
IEC - PAM	**149.01**	**9.40**	8000	7.87	5.23	3.94	2.61	90	100	112	132*	160*			
mm	**126.95**	**11.00**	8000	9.24	6.14	4.62	3.07	90	100	112	132	160*			
216 - 217															

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Tip Type Typ	i_{ges}	4-pol. 50 Hz 1400 rpm n_2 [min^{-1}]	M_{amax} f_B=1 4 - pol. [Nm]	W P_{1max} - $f_B \geq 1$ 4 - pol. 1400rpm [kW]	6 - pol. 930rpm [kW]	8 - pol. 700rpm [kW]	12 - pol. 465rpm [kW]	IEC - PAM f_B ⇨ 55 - 148							
PA 83 **PF 83** W mm 202 + IEC - PAM mm 202 - 203	216.49	6.50	8890	6.02	4.00	3.01	2.00	100	112	132*					
	164.68	8.50	8930	7.95	5.28	3.97	2.64			132*	160*	180*			
	136.67	10.20	7380	7.92	5.26	3.96	2.63	100	112	132*					
	103.97	13.50	9180	12.94	8.60	6.47	4.30			132	160*	180*			
	80.63	**17.40**	8980	16.30	10.85	8.16	5.42	100	112	132	160	180*			
	70.19	**19.90**	8960	18.71	12.43	9.36	6.22	100	112	132	160	180*			
	61.79	**22.70**	9000	21.35	14.18	10.68	7.09	100	112	132	160	180*	200*	225*	
	51.52	**27.20**	8930	25.41	16.88	12.70	8.44	100	112	132	160	180	200*	225*	
	44.34	**31.60**	8890	29.39	19.52	14.70	9.76	100	112	132	160	180	200*	225*	
	39.01	**35.90**	9000	33.82	22.47	16.91	11.23	100	112	132	160	180	200	225*	
	32.53	**43.00**	8550	38.50	25.60	19.27	12.80	100	112	132	160	180	200	225*	
	27.99	**50.00**	8130	42.58	28.29	21.29	14.14	100	112	132	160	180	200	225*	
	24.38	**57.40**	8000	*45.00*	*29.70*	*22.50*	*14.85*	100	112	132	160	180	200	225	
	20.99	**66.70**	8000	*45.00*	*29.70*	*22.50*	*14.85*	100	112	132	160	180	200	225	
PA 82 **PF 82** W mm 202 + IEC - PAM mm 202 - 203	48.76	28.70	5320	16.00	10.62	8.00	5.31	132	160	180*					
	40.43	34.60	4144	15.03	9.98	7.51	4.99	132	160	180*					
	32.10	43.60	6591	30.10	20.00	15.05	10.00		160	180	200				
	26.62	52.60	6357	35.01	23.26	17.50	11.63		160	180	200				
	26.47	52.90	6591	36.50	24.25	18.25	12.12				200	225*			
	21.95	63.80	7246	48.39	32.15	24.20	16.07				200	225			
	16.56	**84.50**	6579	58.24	38.69	29.12	19.34	132	160	180	200	225	250		
	14.29	**98.00**	6581	67.51	44.85	33.76	22.42	132	160	180	200	225	250	280*	
	11.85	**118.10**	7135	*75.00*	*49.50*	*37.50*	*24.75*	132	160	180	200	225	250	280*	
	10.33	**135.50**	6866	*75.00*	*49.50*	*37.50*	*24.75*	132	160	180	200	225	250	280*	
	8.84	**158.40**	6569	*75.00*	*49.50*	*37.50*	*24.75*	132	160	180	200	225	250	280*	
	7.40	**189.20**	6256	*75.00*	*49.50*	*37.50*	*24.75*	132	160	180	200	225	250	280*	
	6.21	**225.40**	4304	*75.00*	*49.50*	*37.50*	*24.75*	132	160	180	200	225	250	280*	
	5.31	**263.70**	4784	*75.00*	*49.50*	*37.50*	*24.75*	132	160	180	200	225	250	280*	
	4.45	**314.60**	4344	*75.00*	*49.50*	*37.50*	*24.75*	132	160	180	200	225	250	280*	
	3.64	**384.60**	3950	*75.00*	*49.50*	*37.50*	*24.75*	132	160	180	200	225	250	280*	
	2.90	**482.80**	3127	*75.00*	*49.50*	*37.50*	*24.75*	132	160	180	200	225	250	280*	

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PA 93/43	13926.28	0.10	12200	0.17	0.11	0.08	0.05	71*	80*	90*					
PF 93/43	11275.92	0.12	12200	0.20	0.13	0.10	0.06	71*	80*	90*					
W	8526.73	0.16	12200	0.25	0.16	0.12	0.08	71*	80*	90*					
mm	**6948.97**	**0.20**	12200	0.30	0.19	0.15	0.10	71*	80*	90*	100*	112*			
219	**5771.01**	**0.24**	12200	0.35	0.23	0.17	0.11	71*	80*	90*	100*	112*			
+	**4300.67**	**0.33**	12200	0.46	0.30	0.23	0.15	71	80*	90*	100*	112*			
IEC - PAM	**3730.70**	**0.38**	12200	0.52	0.34	0.26	0.17	71	80*	90*	100*	112*			
mm	**2714.80**	**0.52**	12200	0.70	0.46	0.35	0.23	71	80*	90*	100*	112*			
218 - 219	**2199.04**	**0.64**	12200	0.81	0.54	0.41	0.27	71	80	90*	100*	112*			
PA 93/42	1644.01	0.85	12200	1.09	0.72	0.54	0.36		100*	112*	132*				
PF 93/42	**1299.17**	**1.10**	12200	1.38	0.91	0.69	0.46	90*	100*	112*					
W	**1090.99**	**1.30**	12200	1.64	1.09	0.82	0.54	90	100*	112*	132*	160*			
mm	**811.95**	**1.70**	12200	2.20	1.46	1.10	0.73	90	100*	112*	132*	160*			
217	**756.80**	**1.80**	12200	2.36	1.57	1.18	0.78	90	100*	112*	132*	160*			
+	**547.88**	**2.60**	12200	3.26	2.17	1.63	1.08	90	100	112*	132*	160*			
IEC - PAM	**456.91**	**3.10**	12200	3.91	2.60	1.96	1.30	90	100	112*	132*	160*			
mm	**332.89**	**4.20**	12200	5.37	3.57	2.69	1.78	90	100	112	132*	160*			
216 - 217	**287.97**	**4.90**	12200	6.21	4.13	3.11	2.06	90	100	112	132*	160*			
	240.68	**5.80**	12200	7.43	4.94	3.72	2.47	90	100	112	132*	160*			
	182.00	**7.70**	12200	9.83	6.53	4.91	3.26	90	100	112	132	160*			
PA 93/52	**160.87**	**8.70**	12200	11.12	7.39	5.56	3.69	100	112	132	160*	180*			
PF 93/52	**127.35**	**11.00**	12200	14.04	9.33	7.02	4.66	100	112	132	160*	180*			
W	**107.56**	**13.00**	12200	16.63	11.05	8.31	5.52				160	180*			
mm															
217															
+															
IEC - PAM															
mm															
216 - 217															

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Tip Type Typ	i_{ges}	4-pol. 50 Hz 1400 rpm n_2 [min^{-1}]	M_{amax} f_B=1 4 - pol. [Nm]	W P_{1max} - $f_B \geq 1$ 4 - pol. 1400rpm [kW]	6 - pol. 930rpm [kW]	8 - pol. 700rpm [kW]	12 - pol. 465rpm [kW]	IEC - PAM f_B ⇨ 55 - 148							
PA 93 **PF 93**	187.99	7.40	13980	10.90	7.24	5.45	3.62	132	160*	180*					
	122.97	11.40	13950	16.63	11.05	8.32	5.52		160	180*	200*				
	109.25	12.80	11560	15.51	10.30	7.76	5.15	132	160	180*					
W mm 206	**93.43**	**15.00**	14000	21.97	14.59	10.98	7.30	132	160	180*					
	72.42	**19.30**	13400	27.13	18.02	13.56	9.01	132	160	180	200*	225*			
+	**61.66**	**22.70**	12700	30.19	20.06	15.10	10.03	132	160	180	200	225*	250*		
	53.75	**26.00**	12250	33.41	22.19	16.71	11.10	132	160	180	200	225*	250*	280*	
IEC - PAM mm 206 - 207	**46.63**	**30.00**	12200	38.35	25.48	19.18	12.74	132	160	180	200	225*	250*	280*	
	39.46	**35.50**	12200	45.32	30.11	22.66	15.05	132	160	180	200	225*	250*	280*	
	31.24	**44.80**	12200	57.25	38.03	28.62	19.02	132	160	180	200	225	250	280*	
	27.10	**51.70**	12200	66.00	43.84	33.00	21.92	132	160	180	200	225	250	280*	
	22.93	**61.10**	12200	*75.00*	*49.50*	*37.50*	*24.75*	132	160	180	200	225	250	280*	
	19.17	**73.00**	12200	*75.00*	*49.50*	*37.50*	*24.75*	132	160	180	200	225	250	280*	
PA 92 **PF 92**	35.47	39.50	9640	39.84	26.47	19.92	13.23	160	180	200					
	29.30	47.80	10775	53.91	35.81	26.96	17.91			200	225				
	16.47	**85.00**	10613	94.46	62.75	47.23	31.38		180	200	225	250	280		
W mm 206	**14.36**	**97.50**	10774	109.99	73.06	54.99	36.53		180	200	225	250	280		
	12.39	**113.00**	10592	125.32	83.25	62.66	41.63		180	200	225	250	280	315*	
+	**10.50**	**133.30**	10112	141.18	93.78	70.59	46.89		180	200	225	250	280	315*	
	7.78	**179.90**	6085	114.66	76.17	57.33	38.08		180	200	225	250	280		
IEC - PAM mm 206 - 207	**6.71**	**208.60**	7012	153.19	101.77	76.60	50.88		180	200	225	250	280	315*	
	5.68	**246.50**	7212	*160.00*	*105.60*	*80.00*	*52.80*		180	200	225	250	280	315*	
	3.51	**398.90**	5572	*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_{1max} değerleri aşılmamalıdır -** Do not exceed the P_{1max} values indicated on fields with asterix / Bei IEC - PAM-Verbindungen, sollten die P_{1max}-Werte nicht überschritten werden.

Tip Type Typ	i_{ges}	4-pol. 50 Hz 1400 rpm n_2 [min^{-1}]	M_{amax} f_B=1 4 - pol. [Nm]	W P_{1max} - $f_B \geq 1$ 4 - pol. 1400rpm [kW]	6 - pol. 930rpm [kW]	8 - pol. 700rpm [kW]	12 - pol. 465rpm [kW]	IEC - PAM f_B ⇨ 55 - 148							
PA 103/53 **PF 103/53** W mm 219 + IEC - PAM mm 218 - 219	**14373.83**	**0.10**	20000	0.24	0.16	0.12	0.08	71*	80*	90*	100*	112*			
	11293.72	**0.12**	20000	0.30	0.19	0.15	0.10	71*	80*	90*	100*	112*			
	8470.29	**0.17**	20000	0.39	0.25	0.19	0.12	71	80*	90*	100*	112*			
	7155.29	**0.20**	20000	0.45	0.29	0.22	0.15	71	80*	90*	100*	112*			
	5796.64	**0.24**	20000	0.55	0.36	0.27	0.18	71	80*	90*	100*	112*			
	4223.52	**0.33**	20000	0.73	0.48	0.37	0.24	71	80*	90*	100*	112*			
	3461.37	**0.40**	20000	0.85	0.56	0.42	0.28	71	80	90*	100*	112*			
	2719.64	**0.51**	20000	1.08	0.72	0.54	0.36	71	80	90*	100*	112*			
PA 103/52 **PF 103/52** W mm 217 + IEC - PAM mm 216 - 217	2038.56	0.69	20000	1.44	0.96	0.72	0.48		100*	112*	132*				
	1702.50	0.82	20000	1.72	1.14	0.86	0.57		100*	112*	132*				
	1413.66	**0.99**	20000	2.07	1.38	1.04	0.69	90	100*	112*					
	1147.52	**1.20**	20000	2.56	1.70	1.28	0.85	90	100*	112*	132*	160*			
	944.01	**1.50**	20000	3.11	2.06	1.55	1.03	90	100	112*	132*	160*			
	817.82	**1.70**	20000	3.59	2.38	1.79	1.19	90	100	112*	132*	160*	180*		
	642.57	**2.20**	20000	4.56	3.03	2.28	1.52	90	100	112	132*	160*	180*		
	468.19	**3.00**	20000	6.26	4.16	3.13	2.08	90	100	112	132*	160*	180*		
	341.11	**4.10**	20000	8.60	5.71	4.30	2.85		100	112	132*	160*	180*		
	296.56	**4.70**	20000	9.89	6.57	4.94	3.28	90	100	112	132	160*	180*		
	244.66	**5.70**	20000	11.98	7.96	5.99	3.98		100	112	132	160*	180*		
	184.77	**7.60**	20000	15.87	10.54	7.93	5.27		100	112	132	160	180*		
	154.79	**9.00**	20000	18.94	12.58	9.47	6.29		100	112	132	160	180*		
	122.75	**11.40**	20000	*22.00*	*14.52*	*11.00*	*7.26*					160	180		
	105.49	**13.30**	20000	*22.00*	*14.52*	*11.00*	*7.26*					160	180		

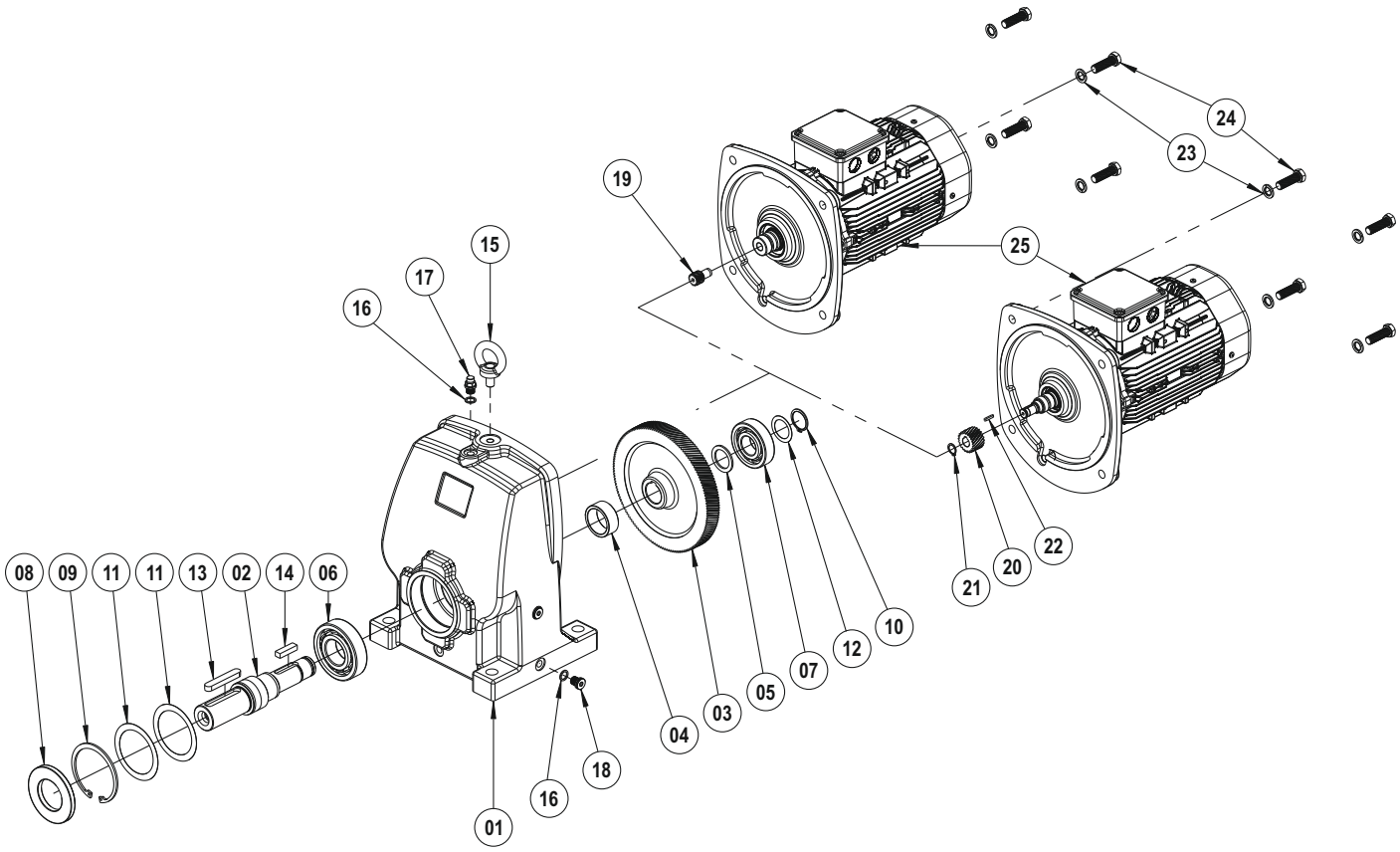
	IEC - PAM bağlantısı yoktur / No IEC - PAM assembling on empty fields / Keine IEC - PAM-Verbindung
63	**IEC - PAM bağlantısı yapılır /** IEC - PAM assembling available on numbered fields / IEC - PAM-Verbindung möglich
80*	**IEC - PAM bağlantısı yapılacaksa P_{1max} değerleri aşılmamalıdır -** Do not exceed the P_{1max} values indicated on fields with asterix / Bei IEC - PAM-Verbindungen, sollten die P_{1max}-Werte nicht überschritten werden.

Tip Type Typ	i_{ges}	4-pol. 50 Hz 1400 rpm n_2 [min^{-1}]	M_{amax} f_B=1 4 - pol. [Nm]	W P_{1max} - $f_B \geq 1$ 4 - pol. 1400rpm [kW]	6 - pol. 930rpm [kW]	8 - pol. 700rpm [kW]	12 - pol. 465rpm [kW]	IEC - PAM f_B ⇨ 55 - 148							
PA 103 **PF 103** W mm 210 + IEC - PAM mm 210 - 211	207.36	6.80	23160	16.37	10.88	8.19	5.44	132	160	180*					
	136.52	10.30	23000	24.70	16.41	12.35	8.20		160	180	200*				
	112.57	12.40	23160	30.16	20.04	15.08	10.02				200*	225*			
	81.46	**17.20**	20500	36.89	24.51	18.45	12.25	132	160	180	200	225*			
	70.42	**19.90**	20000	41.64	27.66	20.82	13.83	132	160	180	200	225*	250*		
	60.75	**23.00**	20000	48.26	32.06	24.13	16.03	132	160	180	200	225	250*	280*	
	53.00	**26.40**	20000	55.32	36.75	27.66	18.37	132	160	180	200	225	250*	280*	315*
	45.33	**30.90**	20000	64.68	42.97	32.34	21.48	132	160	180	200	225	250	280*	315*
	37.97	**36.90**	20000	77.22	51.29	38.61	25.65	132	160	180	200	225	250	280*	315*
	29.62	**47.30**	20000	98.99	65.75	49.49	32.88	132	160	180	200	225	250	280	315*
	25.33	**55.30**	20000	*110.00*	*72.60*	*55.00*	*36.30*	132	160	180	200	225	250	280	315*
	21.22	**66.00**	20000	*110.00*	*72.60*	*55.00*	*36.30*	132	160	180	200	225	250	280	315*
PA 102 **PF 102** W mm 210 + IEC - PAM mm 210 - 211	38.77	36.10	16059	60.72	40.34	30.36	20.17								
	19.35	**72.40**	16808	127.34	84.59	63.67	42.29	250	280	315					
	16.61	**84.30**	17367	153.28	101.82	76.64	50.91	250	280	315*					
	14.29	**98.00**	16620	170.50	113.26	85.25	56.63	250	280	315*					
	11.85	**118.10**	15773	195.13	129.62	97.56	64.81	250	280	315*					
	9.94	**140.80**	15004	*200.00*	*132.00*	*100.00*	*66.00*	250	280	315					
	7.51	**186.40**	11270	*200.00*	*132.00*	*100.00*	*66.00*	250	280	315					
	6.23	**224.70**	11491	*200.00*	*132.00*	*100.00*	*66.00*	250	280	315					
	5.23	**267.70**	10602	*200.00*	*132.00*	*100.00*	*66.00*	250	280	315					
	4.28	**327.10**	9387	*200.00*	*132.00*	*100.00*	*66.00*			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_{1max} değerleri aşılmamalıdır -** Do not exceed the P_{1max} values indicated on fields with asterix / Bei IEC - PAM-Verbindungen, sollten die P_{1max}-Werte nicht überschritten werden.

TR GENEL PARÇA LİSTESİ | EN GENERAL PART LIST | DE ALLGEMEINE STUCKLISTE

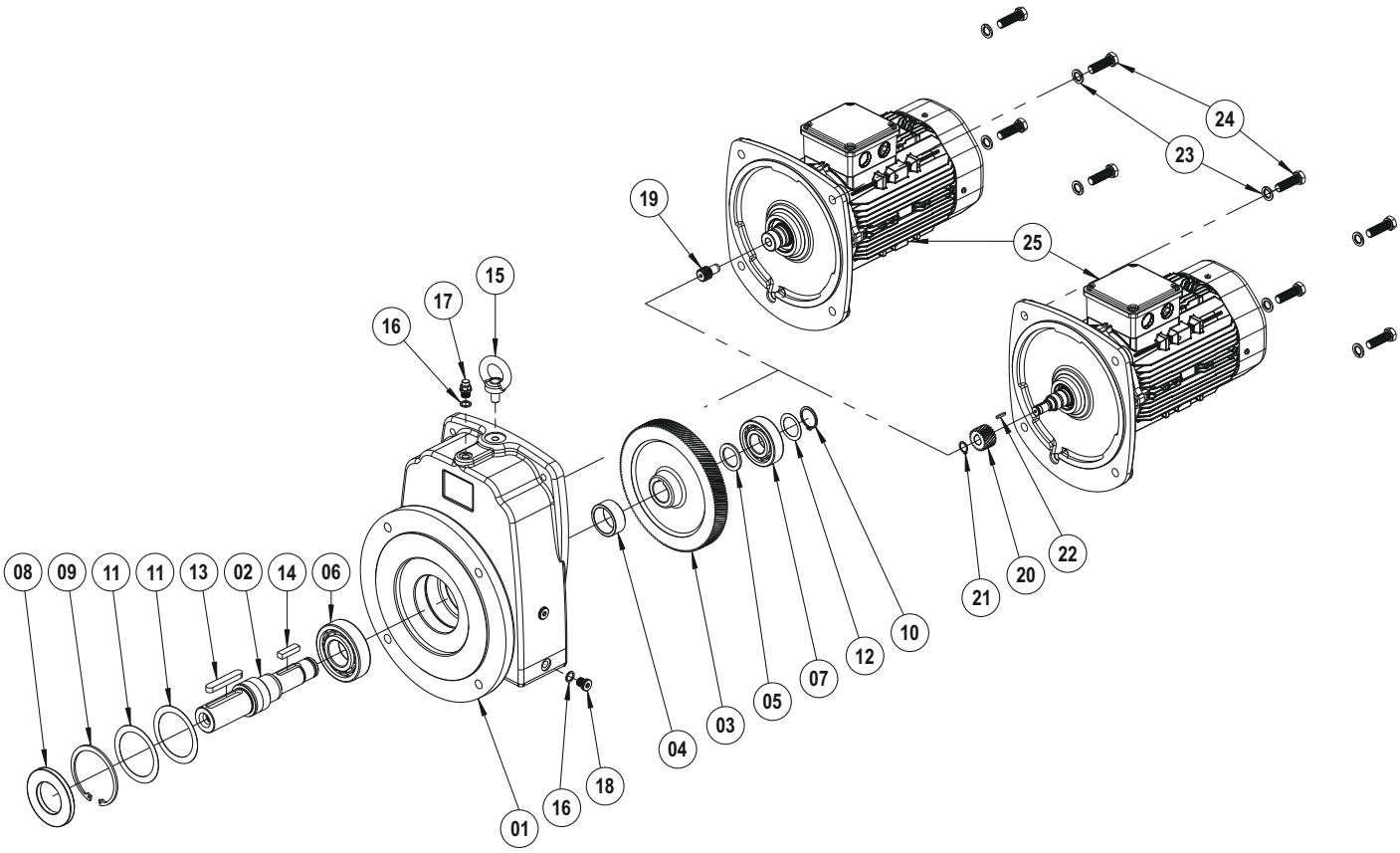
PA 11 ... 51



	TR	EN	DE
01	Gövde	Gear Case	Gehäuse
02	Çıkış Mili	Output Solid Shaft	Abtriebswelle
03	Z2 Dişlisi	Driving Gear	Antriebsrad
04	Burç	Spacer	Distanzbuchse
05	Rondela	Washer	Distanzscheibe
06	Rulman	Bearing	Kugellager
07	Rulman	Bearing	Kugellager
08	Yağ Keçesi	Oil Seal	Öldichtung
09	Segman (DIN 472)	Circlip (DIN 472)	Sicherungsring (DIN 472)
10	Segman (DIN 471)	Circlip (DIN 471)	Sicherungsring (DIN 471)
11	Layner	Shim	Passscheibe
12	Layner	Shim	Passscheibe
13	Kama	Key	Passfeder
14	Kama	Key	Passfeder
15	Mapa	Eye Bolt	Ringschraube
16	Rondela (DIN 7603)	Washer (DIN 7603)	Distanzscheibe (DIN 7603)
17	Havalandırma Tapası	Vent Plug	Entlüftungsstopfen
18	Yağ Tapası	Oil Plug	Ölstöpsel
19	Z1 Dişlisi	Driving Pinion	Antriebsritzel
20	Z1 Dişlisi (Kamalı)	Driving Pinion (With Key)	Antriebsritzel (Mit Passfeder)
21	Segman (DIN 471)	Circlip (DIN 471)	Sicherungsring (DIN 471)
22	Kama	Key	Passfeder
23	Rondela (DIN 127)	Washer (DIN 127)	Distanzscheibe (DIN 127)
24	Cıvata (DIN 933)	Bolt (DIN 933)	Verschrauben (DIN 933)
25	Motor	Motor	Motor

TR GENEL PARÇA LİSTESİ | EN GENERAL PART LIST | DE ALLGEMEINE STUCKLISTE

PF 11 ... 51



	TR	EN	DE
01	Gövde	Gear Case	Gehäuse
02	Çıkış Mili	Output Solid Shaft	Abtriebswelle
03	Z2 Dişlisi	Driving Gear	Antriebsrad
04	Burç	Spacer	Distanzbuchse
05	Rondela	Washer	Distanzscheibe
06	Rulman	Bearing	Kugellager
07	Rulman	Bearing	Kugellager
08	Yağ Keçesi	Oil Seal	Öldichtung
09	Segman (DIN 472)	Circlip (DIN 472)	Sicherungsring (DIN 472)
10	Segman (DIN 471)	Circlip (DIN 471)	Sicherungsring (DIN 471)
11	Layner	Shim	Passscheibe
12	Layner	Shim	Passscheibe
13	Kama	Key	Passfeder
14	Kama	Key	Passfeder
15	Mapa	Eye Bolt	Ringschraube
16	Rondela (DIN 7603)	Washer (DIN 7603)	Distanzscheibe (DIN 7603)
17	Havalandırma Tapası	Vent Plug	Entlüftungsstopfen
18	Yağ Tapası	Oil Plug	Ölstöpsel
19	Z1 Dişlisi	Driving Pinion	Antriebsritzel
20	Z1 Dişlisi (Kamalı)	Driving Pinion (With Key)	Antriebsritzel (Mit Passfeder)
21	Segman (DIN 471)	Circlip (DIN 471)	Sicherungsring (DIN 471)
22	Kama	Key	Passfeder
23	Rondela (DIN 127)	Washer (DIN 127)	Distanzscheibe (DIN 127)
24	Cıvata (DIN 933)	Bolt (DIN 933)	Verschrauben (DIN 933)
25	Motor	Motor	Motor

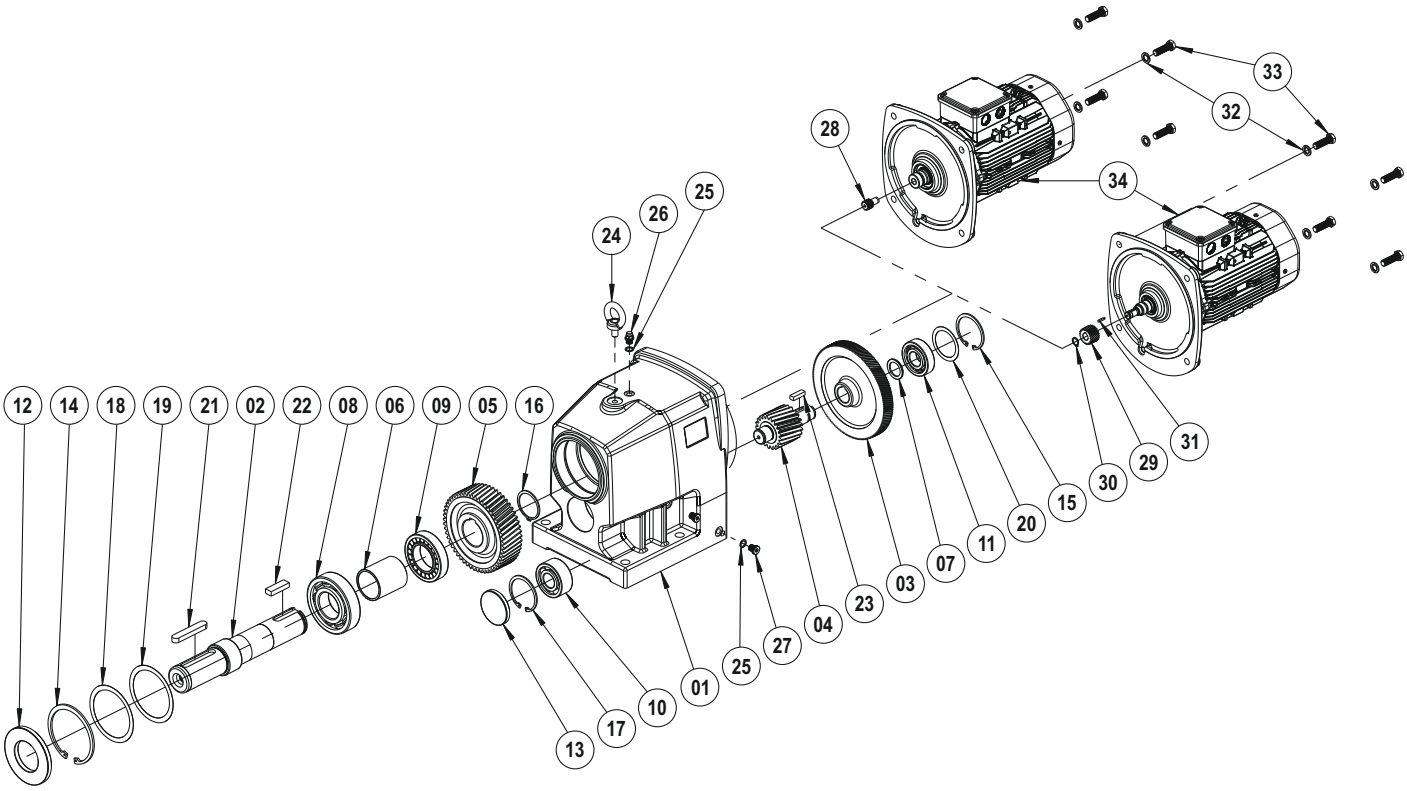
PGR DRIVE TECHNOLOGIES

TR GENEL PARÇA LİSTESİ

EN GENERAL PART LIST

DE ALLGEMEINE STUCKLISTE

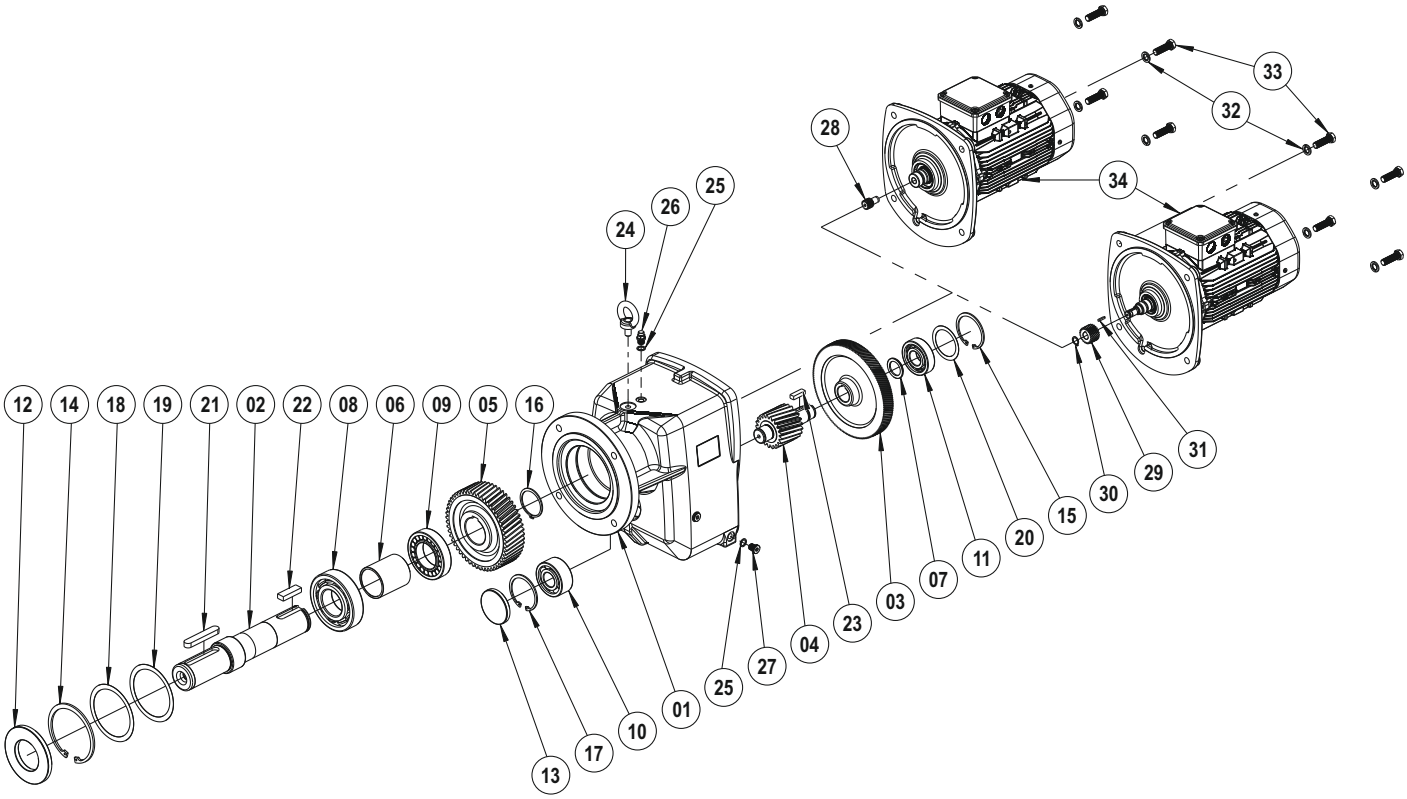
PA 12 ... 52



01	Gövde	**01**	Gear Case	**01**	Gehäuse
02	Çıkış Mili	**02**	Output Solid Shaft	**02**	Abtriebswelle
03	Z2 Dişlisi	**03**	Driving Gear	**03**	Antriebsrad
04	Z3 Dişlisi	**04**	Pinion Shaft	**04**	Ritzelwelle
05	Z4 Dişlisi	**05**	Driven Gear	**05**	Abtriebsrad
06	Burç	**06**	Spacer	**06**	Distanzbuchse
07	Rondela	**07**	Washer	**07**	Distanzscheibe
08	Rulman	**08**	Bearing	**08**	Kugellager
09	Rulman	**09**	Bearing	**09**	Kugellager
10	Rulman	**10**	Bearing	**10**	Kugellager
11	Rulman	**11**	Bearing	**11**	Kugellager
12	Yağ Keçesi	**12**	Oil Seal	**12**	Öldichtung
13	Yağ Kapağı	**13**	Oil Cover	**13**	Ölabdeckung
14	Segman (DIN 472)	**14**	Circlip (DIN 472)	**14**	Sicherungsring (DIN 472)
15	Segman (DIN 472)	**15**	Circlip (DIN 472)	**15**	Sicherungsring (DIN 472)
16	Segman (DIN 471)	**16**	Circlip (DIN 471)	**16**	Sicherungsring (DIN 471)
17	Segman (DIN 472)	**17**	Circlip (DIN 472)	**17**	Sicherungsring (DIN 472)
18	Layner	**18**	Shim	**18**	Passscheibe
19	Layner	**19**	Shim	**19**	Passscheibe
20	Layner	**20**	Shim	**20**	Passscheibe
21	Kama	**21**	Key	**21**	Passfeder
22	Kama	**22**	Key	**22**	Passfeder
23	Kama	**23**	Key	**23**	Passfeder
24	Mapa	**24**	Eye Bolt	**24**	Ringschraube
25	Rondela (DIN 7603)	**25**	Washer (DIN 7603)	**25**	Distanzscheibe (DIN 7603)
26	Havalandırma Tapası	**26**	Vent Plug	**26**	Entlüftungsstopfen
27	Yağ Tapası	**27**	Oil Plug	**27**	Ölstöpsel
28	Z1 Dişlisi	**28**	Driving Pinion	**28**	Antriebsritzel
29	Z1 Dişlisi (Kamalı)	**29**	Driving Pinion (With Key)	**29**	Antriebsritzel (Mit Passfeder)
30	Segman (DIN 471)	**30**	Circlip (DIN 471)	**30**	Sicherungsring (DIN 471)
31	Kama	**31**	Key	**31**	Passfeder
32	Rondela (DIN 127)	**32**	Washer (DIN 127)	**32**	Distanzscheibe (DIN 127)
33	Cıvata (DIN 933)	**33**	Bolt (DIN 933)	**33**	Verschrauben (DIN 933)
34	Motor	**34**	Motor	**34**	Motor

TR GENEL PARÇA LİSTESİ	EN GENERAL PART LIST	DE ALLGEMEINE STUCKLISTE

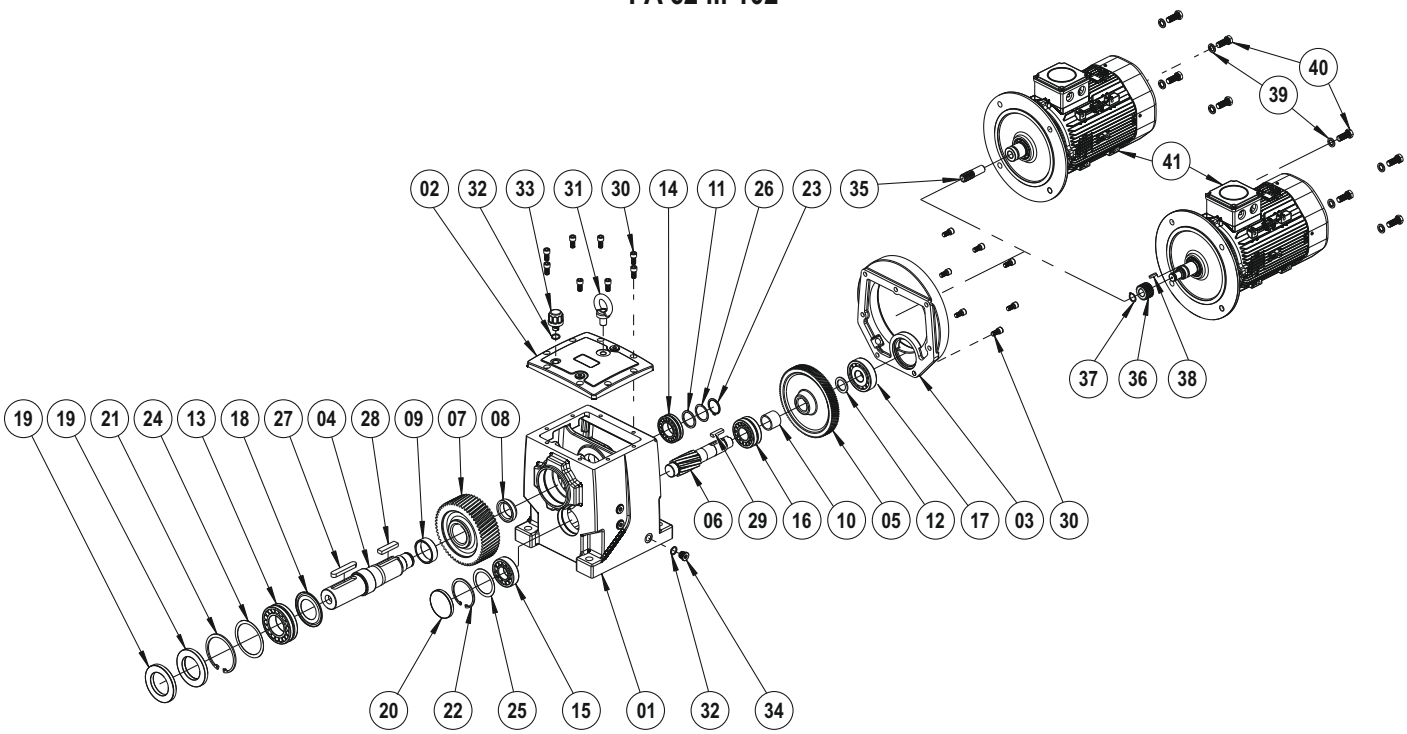
PF 12 ... 52



01	Gövde	01	Gear Case	01	Gehäuse
02	Çıkış Mili	02	Output Solid Shaft	02	Abtriebswelle
03	Z2 Dişlisi	03	Driving Gear	03	Antriebsrad
04	Z3 Dişlisi	04	Pinion Shaft	04	Ritzelwelle
05	Z4 Dişlisi	05	Driven Gear	05	Abtriebsrad
06	Burç	06	Spacer	06	Distanzbuchse
07	Rondela	07	Washer	07	Distanzscheibe
08	Rulman	08	Bearing	08	Kugellager
09	Rulman	09	Bearing	09	Kugellager
10	Rulman	10	Bearing	10	Kugellager
11	Rulman	11	Bearing	11	Kugellager
12	Yağ Keçesi	12	Oil Seal	12	Öldichtung
13	Yağ Kapağı	13	Oil Cover	13	Ölabdeckung
14	Segman (DIN 472)	14	Circlip (DIN 472)	14	Sicherungsring (DIN 472)
15	Segman (DIN 472)	15	Circlip (DIN 472)	15	Sicherungsring (DIN 472)
16	Segman (DIN 471)	16	Circlip (DIN 471)	16	Sicherungsring (DIN 471)
17	Segman (DIN 472)	17	Circlip (DIN 472)	17	Sicherungsring (DIN 472)
18	Layner	18	Shim	18	Passscheibe
19	Layner	19	Shim	19	Passscheibe
20	Layner	20	Shim	20	Passscheibe
21	Kama	21	Key	21	Passfeder
22	Kama	22	Key	22	Passfeder
23	Kama	23	Key	23	Passfeder
24	Mapa	24	Eye Bolt	24	Ringschraube
25	Rondela (DIN 7603)	25	Washer (DIN 7603)	25	Distanzscheibe (DIN 7603)
26	Havalandırma Tapası	26	Vent Plug	26	Entlüftungsstopfen
27	Yağ Tapası	27	Oil Plug	27	Ölstöpsel
28	Z1 Dişlisi	28	Driving Pinion	28	Antriebsritzel
29	Z1 Dişlisi (Kamalı)	29	Driving Pinion (With Key)	29	Antriebsritzel (Mit Passfeder)
30	Segman (DIN 471)	30	Circlip (DIN 471)	30	Sicherungsring (DIN 471)
31	Kama	31	Key	31	Passfeder
32	Rondela (DIN 127)	32	Washer (DIN 127)	32	Distanzscheibe (DIN 127)
33	Cıvata (DIN 933)	33	Bolt (DIN 933)	33	Verschrauben (DIN 933)
34	Motor	34	Motor	34	Motor

TR GENEL PARÇA LİSTESİ	EN GENERAL PART LIST	DE ALLGEMEINE STUCKLISTE

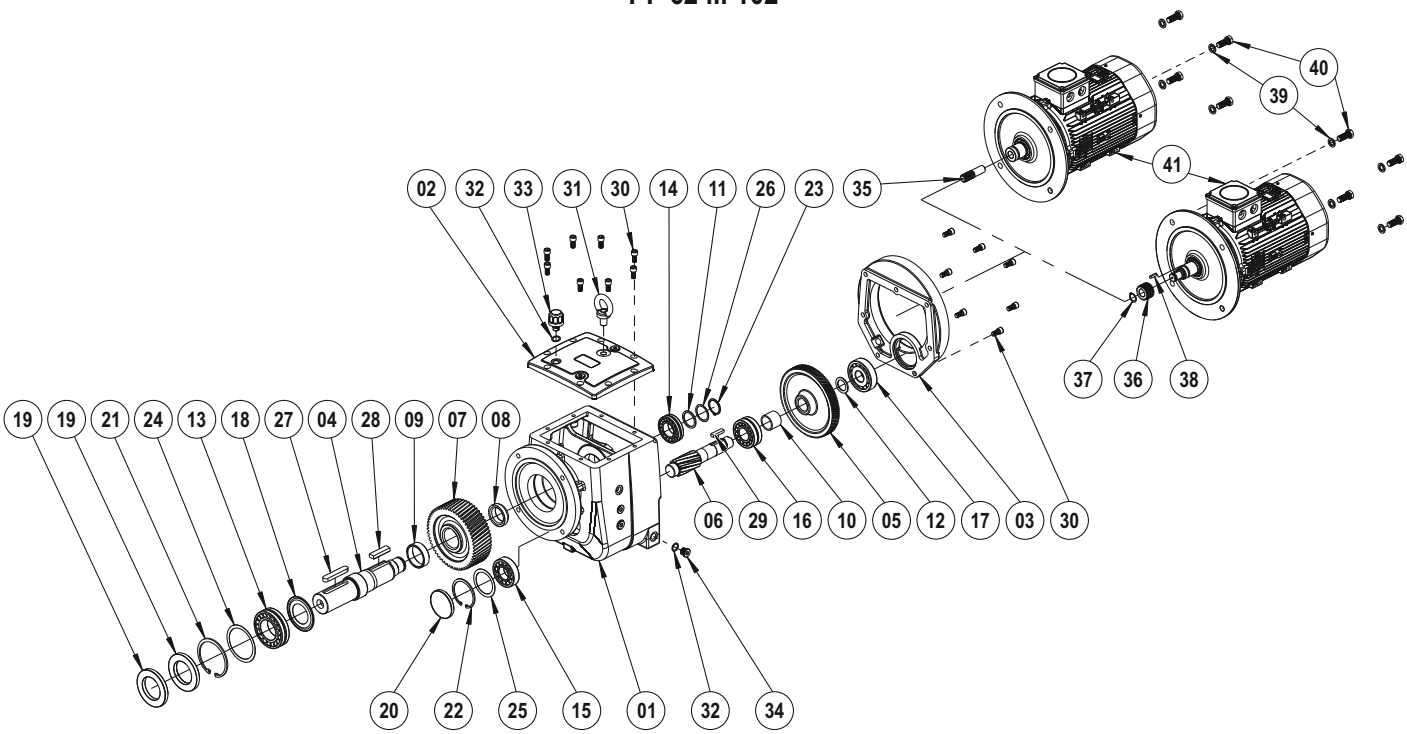
PA 62 ... 102



01	Gövde	01	Gear Case	01	Gehäuse
02	Kapak	02	Cover	02	Abdeckung
03	Ara Bağlantı Flanşı	03	Intermediate Flange	03	Zwischenflansch
04	Çıkış Mili	04	Output Solid Shaft	04	Abtriebswelle
05	Z2 Dişlisi	05	Driving Gear	05	Antriebsrad
06	Z3 Dişlisi	06	Pinion Shaft	06	Ritzelwelle
07	Z4 Dişlisi	07	Driven Gear	07	Abtriebsrad
08	Burç	08	Spacer	08	Distanzbuchse
09	Burç	09	Spacer	09	Distanzbuchse
10	Burç	10	Spacer	10	Distanzbuchse
11	Rondela	11	Washer	11	Distanzscheibe
12	Rondela	12	Washer	12	Distanzscheibe
13	Rulman	13	Bearing	13	Kugellager
14	Rulman	14	Bearing	14	Kugellager
15	Rulman	15	Bearing	15	Kugellager
16	Rulman	16	Bearing	16	Kugellager
17	Rulman	17	Bearing	17	Kugellager
18	Nilos-Ring	18	Nilos-Ring	18	Nilos-Ring
19	Yağ Keçesi	19	Oil Seal	19	Öldichtung
20	Yağ Kapağı	20	Oil Cover	20	Ölabdeckung
21	Segman (DIN 472)	21	Circlip (DIN 472)	21	Sicherungsring (DIN 472)
22	Segman (DIN 472)	22	Circlip (DIN 472)	22	Sicherungsring (DIN 472)
23	Segman (DIN 471)	23	Circlip (DIN 471)	23	Sicherungsring (DIN 471)
24	Layner	24	Shim	24	Passscheibe
25	Layner	25	Shim	25	Passscheibe
26	Layner	26	Shim	26	Passscheibe
27	Kama	27	Key	27	Passfeder
28	Kama	28	Key	28	Passfeder
29	Kama	29	Key	29	Passfeder
30	Cıvata (DIN 912)	30	Bolt (DIN 912)	30	Verschrauben (DIN 912)
31	Mapa	31	Eye Bolt	31	Ringschraube
32	Rondela (DIN 7603)	32	Washer (DIN 7603)	32	Distanzscheibe (DIN 7603)
33	Havalandırma Tapası	33	Vent Plug	33	Entlüftungsstopfen
34	Yağ Tapası	34	Oil Plug	34	Ölstöpsel
35	Z1 Dişlisi	35	Driving Pinion	35	Antriebsritzel
36	Z1 Dişlisi (Kamalı)	36	Driving Pinion (With Key)	36	Antriebsritzel (Mit Passfeder)
37	Segman (DIN 471)	37	Circlip (DIN 471)	37	Sicherungsring (DIN 471)
38	Kama	38	Key	38	Passfeder
39	Rondela (DIN 127)	39	Washer (DIN 127)	39	Distanzscheibe (DIN 127)
40	Cıvata (DIN 933)	40	Bolt (DIN 933)	40	Verschrauben (DIN 933)
41	Motor	41	Motor	41	Motor

TR GENEL PARÇA LİSTESİ | EN GENERAL PART LIST | DE ALLGEMEINE STUCKLISTE

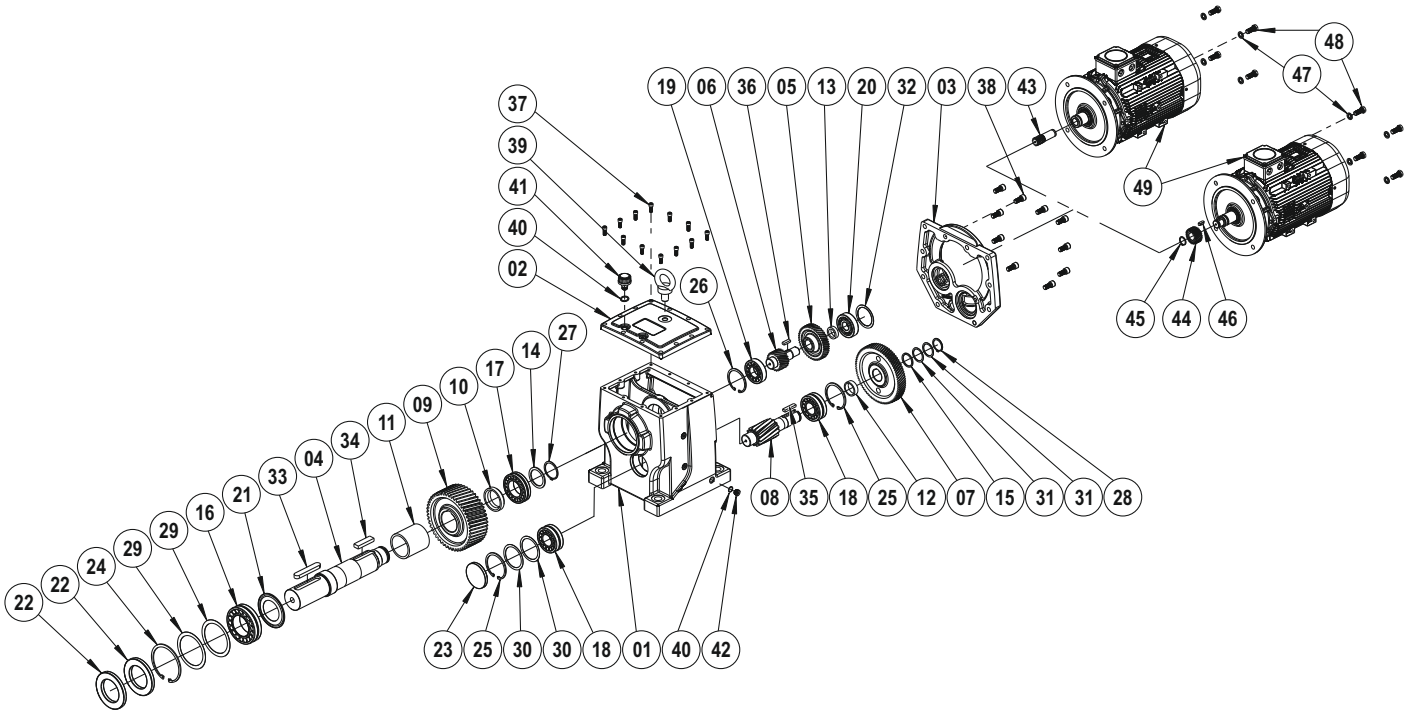
PF 62 ... 102



01	Gövde	01	Gear Case	01	Gehäuse
02	Kapak	02	Cover	02	Abdeckung
03	Ara Bağlantı Flanşı	03	Intermediate Flange	03	Zwischenflansch
04	Çıkış Mili	04	Output Solid Shaft	04	Abtriebswelle
05	Z2 Dişlisi	05	Driving Gear	05	Antriebsrad
06	Z3 Dişlisi	06	Pinion Shaft	06	Ritzelwelle
07	Z4 Dişlisi	07	Driven Gear	07	Abtriebsrad
08	Burç	08	Spacer	08	Distanzbuchse
09	Burç	09	Spacer	09	Distanzbuchse
10	Burç	10	Spacer	10	Distanzbuchse
11	Rondela	11	Washer	11	Distanzscheibe
12	Rondela	12	Washer	12	Distanzscheibe
13	Rulman	13	Bearing	13	Kugellager
14	Rulman	14	Bearing	14	Kugellager
15	Rulman	15	Bearing	15	Kugellager
16	Rulman	16	Bearing	16	Kugellager
17	Rulman	17	Bearing	17	Kugellager
18	Nilos-Ring	18	Nilos-Ring	18	Nilos-Ring
19	Yağ Keçesi	19	Oil Seal	19	Öldichtung
20	Yağ Kapağı	20	Oil Cover	20	Ölabdeckung
21	Segman (DIN 472)	21	Circlip (DIN 472)	21	Sicherungsring (DIN 472)
22	Segman (DIN 472)	22	Circlip (DIN 472)	22	Sicherungsring (DIN 472)
23	Segman (DIN 471)	23	Circlip (DIN 471)	23	Sicherungsring (DIN 471)
24	Layner	24	Shim	24	Passscheibe
25	Layner	25	Shim	25	Passscheibe
26	Layner	26	Shim	26	Passscheibe
27	Kama	27	Key	27	Passfeder
28	Kama	28	Key	28	Passfeder
29	Kama	29	Key	29	Passfeder
30	Cıvata (DIN 912)	30	Bolt (DIN 912)	30	Verschrauben (DIN 912)
31	Mapa	31	Eye Bolt	31	Ringschraube
32	Rondela (DIN 7603)	32	Washer (DIN 7603)	32	Distanzscheibe (DIN 7603)
33	Havalandırma Tapası	33	Vent Plug	33	Entlüftungsstopfen
34	Yağ Tapası	34	Oil Plug	34	Ölstöpsel
35	Z1 Dişlisi	35	Driving Pinion	35	Antriebsritzel
36	Z1 Dişlisi (Kamalı)	36	Driving Pinion (With Key)	36	Antriebsritzel (Mit Passfeder)
37	Segman (DIN 471)	37	Circlip (DIN 471)	37	Sicherungsring (DIN 471)
38	Kama	38	Key	38	Passfeder
39	Rondela (DIN 127)	39	Washer (DIN 127)	39	Distanzscheibe (DIN 127)
40	Cıvata (DIN 933)	40	Bolt (DIN 933)	40	Verschrauben (DIN 933)
41	Motor	41	Motor	41	Motor

TR GENEL PARÇA LİSTESİ | EN GENERAL PART LIST | DE ALLGEMEINE STUCKLISTE

PA 63 ... 103

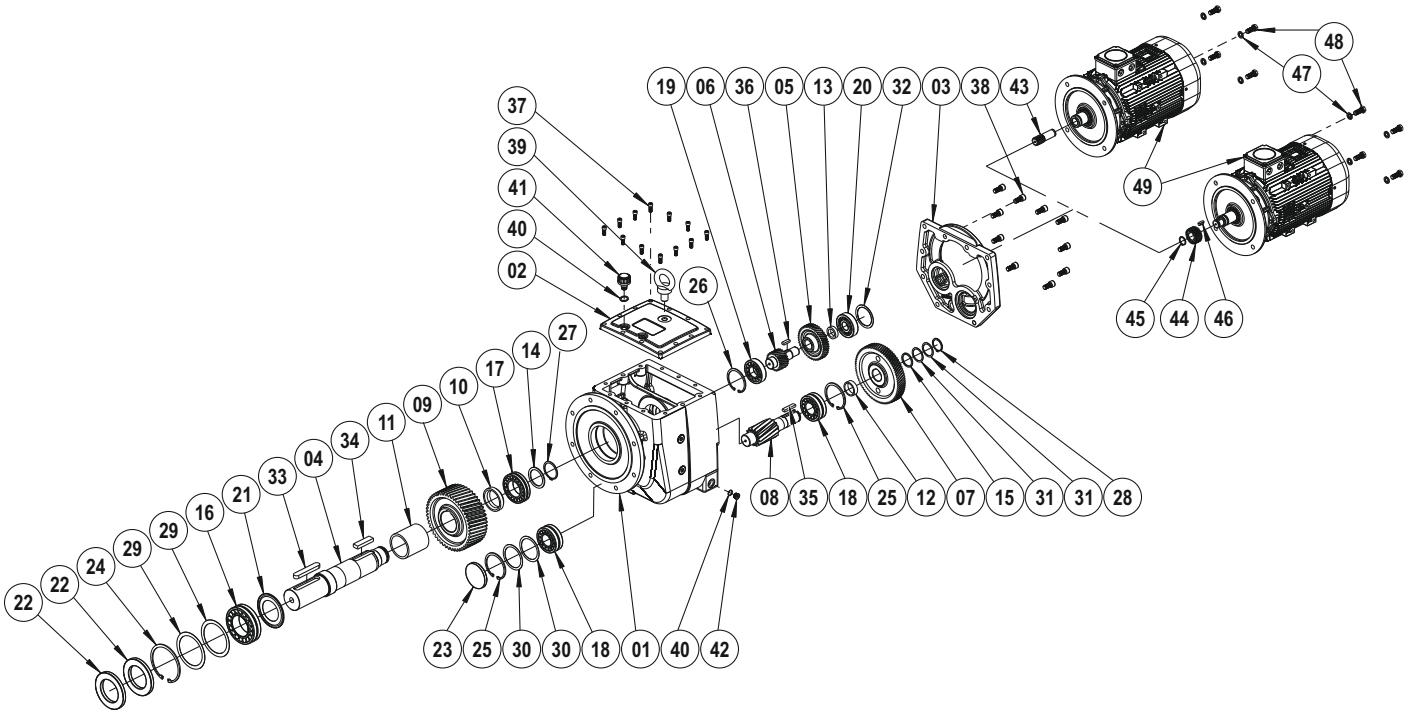


01	Gövde	**26**	Segman (DIN 472)	**01**	Gear Case	**26**	Circlip (DIN 472)
02	Kapak	**27**	Segman (DIN 471)	**02**	Cover	**27**	Circlip (DIN 471)
03	Ara Bağlantı Flanşı	**28**	Segman (DIN 471)	**03**	Intermediate Flange	**28**	Circlip (DIN 471)
04	Çıkış Mili	**29**	Layner	**04**	Output Solid Shaft	**29**	Shim
05	Z2 Dişlisi	**30**	Layner	**05**	Driving Gear	**30**	Shim
06	Z3 Dişlisi	**31**	Layner	**06**	Pinion Shaft	**31**	Shim
07	Z4 Dişlisi	**32**	Layner	**07**	Driven Gear	**32**	Shim
08	Z5 Dişlisi	**33**	Kama	**08**	Pinion Shaft	**33**	Key
09	Z6 Dişlisi	**34**	Kama	**09**	Driven Gear	**34**	Key
10	Burç	**35**	Kama	**10**	Spacer	**35**	Key
11	Burç	**36**	Kama	**11**	Spacer	**36**	Key
12	Burç	**37**	Cıvata (DIN 912)	**12**	Spacer	**37**	Bolt (DIN 912)
13	Burç	**38**	Cıvata (DIN 912)	**13**	Spacer	**38**	Bolt (DIN 912)
14	Rondela	**39**	Mapa	**14**	Washer	**39**	Eye Bolt
15	Rondela	**40**	Rondela (DIN 7603)	**15**	Washer	**40**	Washer (DIN 7603)
16	Rulman	**41**	Havalandırma Tapası	**16**	Bearing	**41**	Vent Plug
17	Rulman	**42**	Yağ Tapası	**17**	Bearing	**42**	Oil Plug
18	Rulman	**43**	Z1 Dişlisi	**18**	Bearing	**43**	Driving Pinion
19	Rulman	**44**	Z1 Dişlisi (Kamalı)	**19**	Bearing	**44**	Driving Pinion (With Key)
20	Rulman	**45**	Segman (DIN 471)	**20**	Bearing	**45**	Circlip (DIN 471)
21	Nilos-Ring	**46**	Kama	**21**	Nilos-Ring	**46**	Key
22	Yağ Keçesi	**47**	Rondela (DIN 127)	**22**	Oil Seal	**47**	Washer (DIN 127)
23	Yağ Kapağı	**48**	Cıvata (DIN 933)	**23**	Oil Cover	**48**	Bolt (DIN 933)
24	Segman (DIN 472)	**49**	Motor	**24**	Circlip (DIN 472)	**49**	Motor
25	Segman (DIN 472)			**25**	Circlip (DIN 472)		

01	Gehäuse	**26**	Sicherungsring (DIN 472)	**01**	Gehäuse	**26**	Sicherungsring (DIN 472)
02	Abdeckung	**27**	Sicherungsring (DIN 471)	**02**	Abdeckung	**27**	Sicherungsring (DIN 471)
03	Zwischenflansch	**28**	Sicherungsring (DIN 471)	**03**	Zwischenflansch	**28**	Sicherungsring (DIN 471)
04	Abtriebswelle	**29**	Passscheibe	**04**	Abtriebswelle	**29**	Passscheibe
05	Antriebsrad	**30**	Passscheibe	**05**	Antriebsrad	**30**	Passscheibe
06	Ritzelwelle	**31**	Passscheibe	**06**	Ritzelwelle	**31**	Passscheibe
07	Abtriebsrad	**32**	Passscheibe	**07**	Abtriebsrad	**32**	Passscheibe
08	Ritzelwelle	**33**	Passfeder	**08**	Ritzelwelle	**33**	Passfeder
09	Abtriebsrad	**34**	Passfeder	**09**	Abtriebsrad	**34**	Passfeder
10	Distanzbuchse	**35**	Passfeder	**10**	Distanzbuchse	**35**	Passfeder
11	Distanzbuchse	**36**	Passfeder	**11**	Distanzbuchse	**36**	Passfeder
12	Distanzbuchse	**37**	Verschrauben (DIN 912)	**12**	Distanzbuchse	**37**	Verschrauben (DIN 912)
13	Distanzbuchse	**38**	Verschrauben (DIN 912)	**13**	Distanzbuchse	**38**	Verschrauben (DIN 912)
14	Distanzscheibe	**39**	Ringschraube	**14**	Distanzscheibe	**39**	Ringschraube
15	Distanzscheibe	**40**	Distanzscheibe (DIN 7603)	**15**	Distanzscheibe	**40**	Distanzscheibe (DIN 7603)
16	Kugellager	**41**	Entlüftungsstopfen	**16**	Kugellager	**41**	Entlüftungsstopfen
17	Kugellager	**42**	Ölstöpsel	**17**	Kugellager	**42**	Ölstöpsel
18	Kugellager	**43**	Antriebsritzel	**18**	Kugellager	**43**	Antriebsritzel
19	Kugellager	**44**	Antriebsritzel (Mit Passfeder)	**19**	Kugellager	**44**	Antriebsritzel (Mit Passfeder)
20	Kugellager	**45**	Sicherungsring (DIN 471)	**20**	Kugellager	**45**	Sicherungsring (DIN 471)
21	Nilos-Ring	**46**	Passfeder	**21**	Nilos-Ring	**46**	Passfeder
22	Öldichtung	**47**	Distanzscheibe (DIN 127)	**22**	Öldichtung	**47**	Distanzscheibe (DIN 127)
23	Ölabdeckung	**48**	Verschrauben (DIN 933)	**23**	Ölabdeckung	**48**	Verschrauben (DIN 933)
24	Sicherungsring (DIN 472)	**49**	Motor	**24**	Sicherungsring (DIN 472)	**49**	Motor
25	Sicherungsring (DIN 472)			**25**	Sicherungsring (DIN 472)		

TR GENEL PARÇA LİSTESİ | EN GENERAL PART LIST | DE ALLGEMEINE STUCKLISTE

PF 63 ... 103

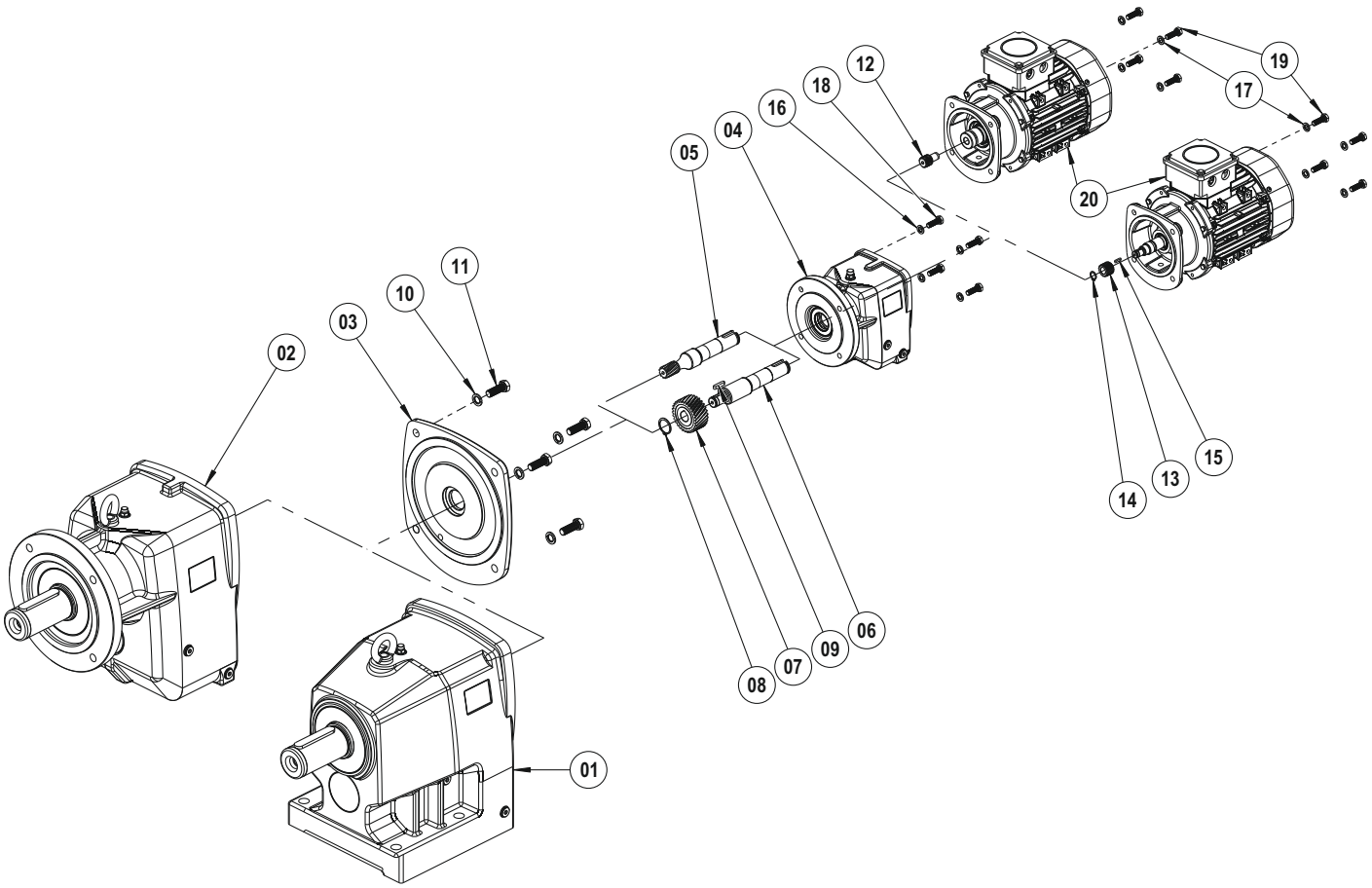


01	Gövde	**26**	Segman (DIN 472)	**01**	Gear Case	**26**	Circlip (DIN 472)
02	Kapak	**27**	Segman (DIN 471)	**02**	Cover	**27**	Circlip (DIN 471)
03	Ara Bağlantı Flanşı	**28**	Segman (DIN 471)	**03**	Intermediate Flange	**28**	Circlip (DIN 471)
04	Çıkış Mili	**29**	Layner	**04**	Output Solid Shaft	**29**	Shim
05	Z2 Dişlisi	**30**	Layner	**05**	Driving Gear	**30**	Shim
06	Z3 Dişlisi	**31**	Layner	**06**	Pinion Shaft	**31**	Shim
07	Z4 Dişlisi	**32**	Layner	**07**	Driven Gear	**32**	Shim
08	Z5 Dişlisi	**33**	Kama	**08**	Pinion Shaft	**33**	Key
09	Z6 Dişlisi	**34**	Kama	**09**	Driven Gear	**34**	Key
10	Burç	**35**	Kama	**10**	Spacer	**35**	Key
11	Burç	**36**	Kama	**11**	Spacer	**36**	Key
12	Burç	**37**	Cıvata (DIN 912)	**12**	Spacer	**37**	Bolt (DIN 912)
13	Burç	**38**	Cıvata (DIN 912)	**13**	Spacer	**38**	Bolt (DIN 912)
14	Rondela	**39**	Mapa	**14**	Washer	**39**	Eye Bolt
15	Rondela	**40**	Rondela (DIN 7603)	**15**	Washer	**40**	Washer (DIN 7603)
16	Rulman	**41**	Havalandırma Tapası	**16**	Bearing	**41**	Vent Plug
17	Rulman	**42**	Yağ Tapası	**17**	Bearing	**42**	Oil Plug
18	Rulman	**43**	Z1 Dişlisi	**18**	Bearing	**43**	Driving Pinion
19	Rulman	**44**	Z1 Dişlisi (Kamalı)	**19**	Bearing	**44**	Driving Pinion (With Key)
20	Rulman	**45**	Segman (DIN 471)	**20**	Bearing	**45**	Circlip (DIN 471)
21	Nilos-Ring	**46**	Kama	**21**	Nilos-Ring	**46**	Key
22	Yağ Keçesi	**47**	Rondela (DIN 127)	**22**	Oil Seal	**47**	Washer (DIN 127)
23	Yağ Kapağı	**48**	Cıvata (DIN 933)	**23**	Oil Cover	**48**	Bolt (DIN 933)
24	Segman (DIN 472)	**49**	Motor	**24**	Circlip (DIN 472)	**49**	Motor
25	Segman (DIN 472)			**25**	Circlip (DIN 472)		

01	Gehäuse	**26**	Sicherungsring (DIN 472)
02	Abdeckung	**27**	Sicherungsring (DIN 471)
03	Zwischenflansch	**28**	Sicherungsring (DIN 471)
04	Abtriebswelle	**29**	Passscheibe
05	Antriebsrad	**30**	Passscheibe
06	Ritzelwelle	**31**	Passscheibe
07	Abtriebsrad	**32**	Passscheibe
08	Ritzelwelle	**33**	Passfeder
09	Abtriebsrad	**34**	Passfeder
10	Distanzbuchse	**35**	Passfeder
11	Distanzbuchse	**36**	Passfeder
12	Distanzbuchse	**37**	Verschrauben (DIN 912)
13	Distanzbuchse	**38**	Verschrauben (DIN 912)
14	Distanzscheibe	**39**	Ringschraube
15	Distanzscheibe	**40**	Distanzscheibe (DIN 7603)
16	Kugellager	**41**	Entlüftungsstopfen
17	Kugellager	**42**	Ölstöpsel
18	Kugellager	**43**	Antriebsritzel
19	Kugellager	**44**	Antriebsritzel (Mit Passfeder)
20	Kugellager	**45**	Sicherungsring (DIN 471)
21	Nilos-Ring	**46**	Passfeder
22	Öldichtung	**47**	Distanzscheibe (DIN 127)
23	Ölabdeckung	**48**	Verschrauben (DIN 933)
24	Sicherungsring (DIN 472)	**49**	Motor
25	Sicherungsring (DIN 472)		

TR GENEL PARÇA LİSTESİ | EN GENERAL PART LIST | DE ALLGEMEINE STUCKLISTE

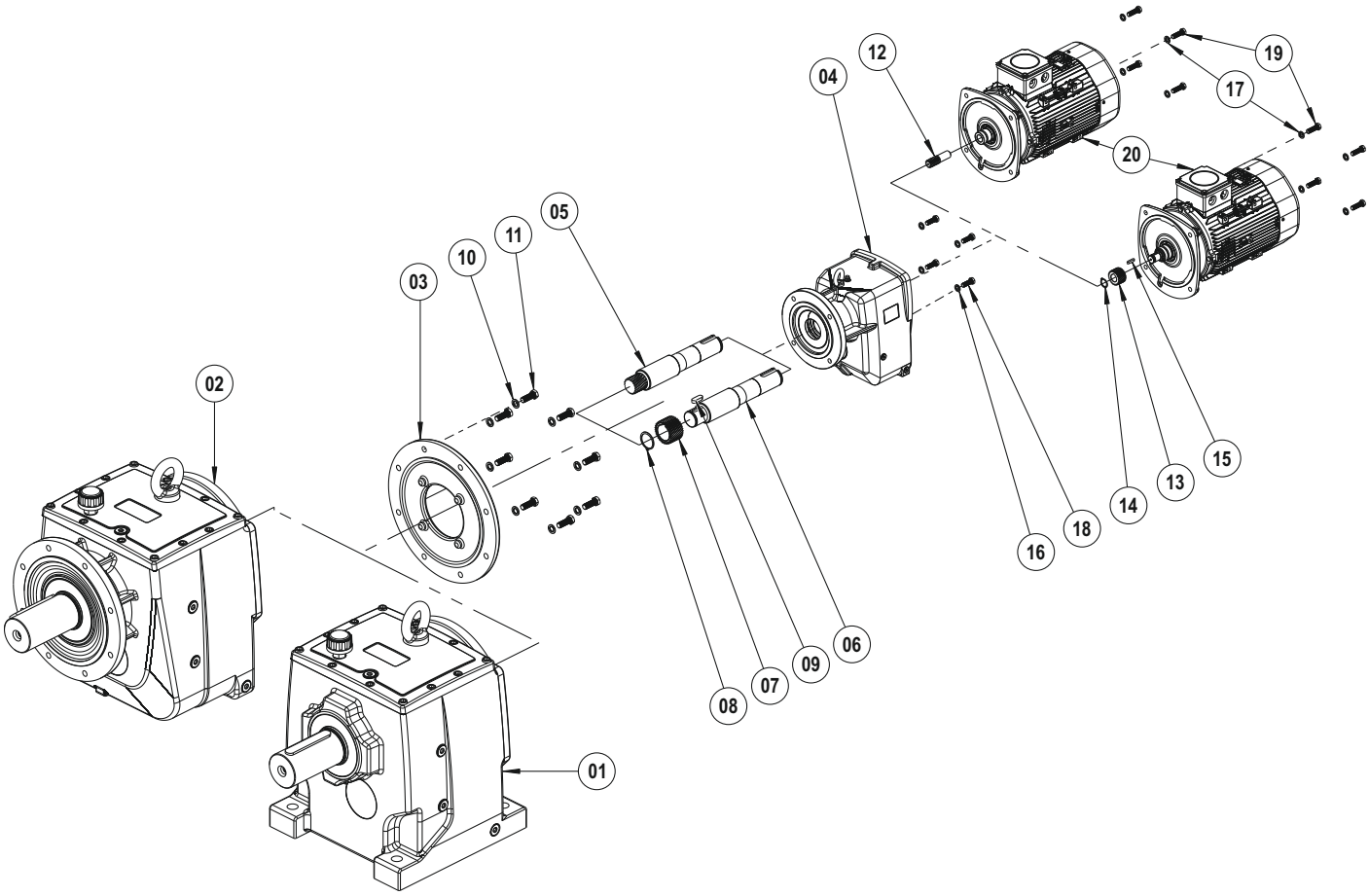
PA / PF 12/02 ... 52/12



01	PA Montajlı Redüktör	**01**	PA Mounted Gear Unit	**01**	PA Montiertes Getriebe
02	PF Montajlı Redüktör	**02**	PF Mounted Gear Unit	**02**	PF Montiertes Getriebe
03	Ara Bağlantı Flanşı	**03**	Intermediate Flange	**03**	Zwischenflansch
04	PF Montajlı Redüktör	**04**	PF Mounted Gear Unit	**04**	PF Montiertes Getriebe
05	Ara Mil (Dişlili)	**05**	Intermediate Shaft (With Gear)	**05**	Übertragungswelle (mit Zahnrad)
06	Ara Mil (Kamalı)	**06**	Intermediate Shaft (With Key)	**06**	Übertragungswelle (mit Passfeder)
07	Ara Dişli (Kamalı)	**07**	Intermadiate Gear (With Key)	**07**	Zwischengetriebe (mit Passfeder)
08	Segman (DIN 471)	**08**	Circlip (DIN 471)	**08**	Sicherungsring (DIN 471)
09	Kama	**09**	Key	**09**	Passfeder
10	Rondela (DIN 127)	**10**	Washer (DIN 127)	**10**	Distanzscheibe (DIN 127)
11	Cıvata (DIN 933)	**11**	Bolt (DIN 933)	**11**	Verschrauben (DIN 933)
12	Z1 Dişlisi	**12**	Driving Pinion	**12**	Antriebsritzel
13	Z1 Dişlisi (Kamalı)	**13**	Driving Pinion (With Key)	**13**	Antriebsritzel (Mit Passfeder)
14	Segman (DIN 471)	**14**	Circlip (DIN 471)	**14**	Sicherungsring (DIN 471)
15	Kama	**15**	Key	**15**	Passfeder
16	Rondela (DIN 127)	**16**	Washer (DIN 127)	**16**	Distanzscheibe (DIN 127)
17	Rondela (DIN 127)	**17**	Washer (DIN 127)	**17**	Distanzscheibe (DIN 127)
18	Cıvata (DIN 933)	**18**	Bolt (DIN 933)	**18**	Verschrauben (DIN 933)
19	Cıvata (DIN 933)	**19**	Bolt (DIN 933)	**19**	Verschrauben (DIN 933)
20	Motor	**20**	Motor	**20**	Motor

TR GENEL PARÇA LİSTESİ | EN GENERAL PART LIST | DE ALLGEMEINE STUCKLISTE

PA / PF 63/22 ... 103/52

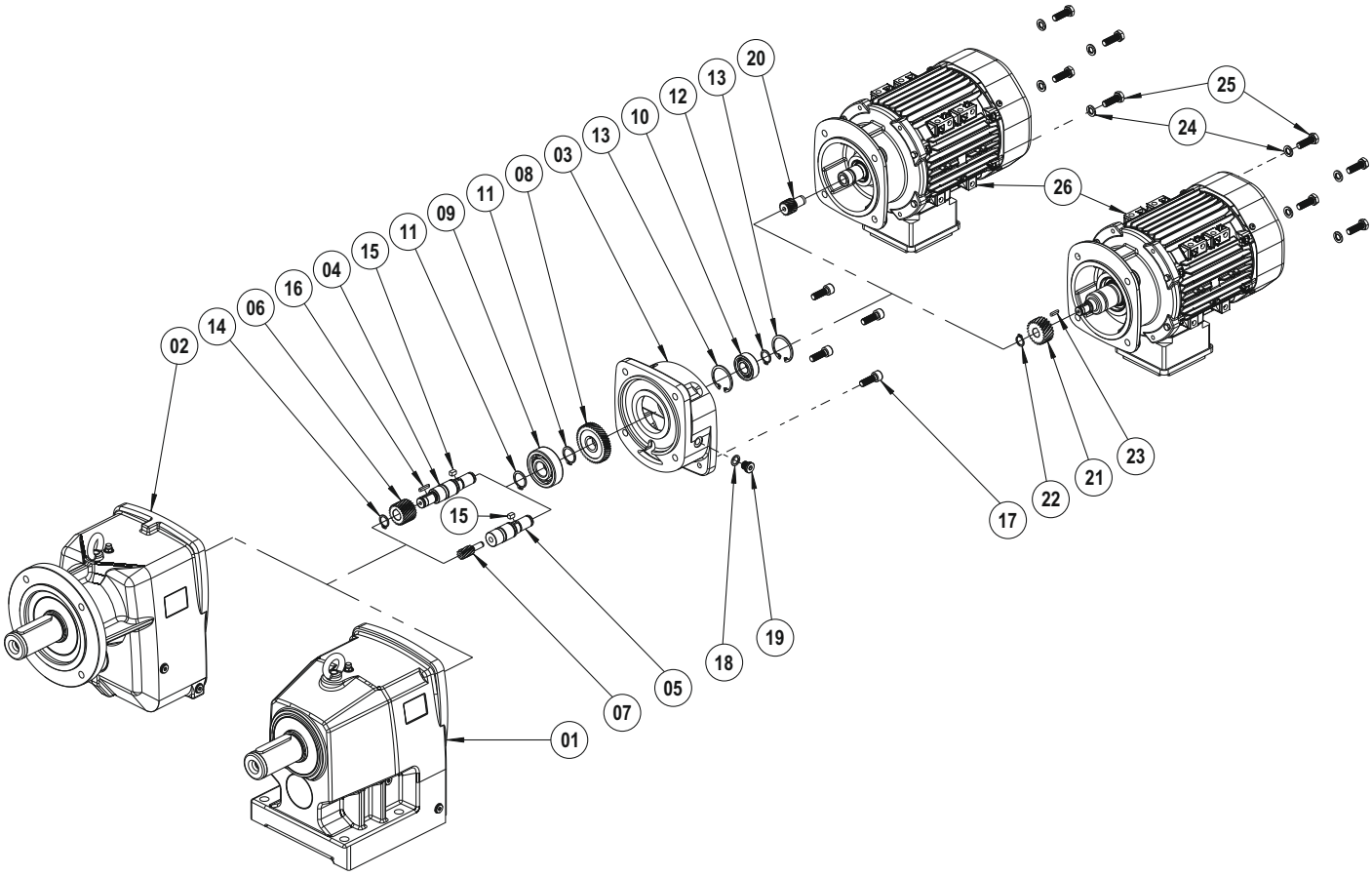


01	PA Montajlı Redüktör	01	PA Mounted Gear Unit	01	PA Montiertes Getriebe
02	PF Montajlı Redüktör	02	PF Mounted Gear Unit	02	PF Montiertes Getriebe
03	Ara Bağlantı Flanşı	03	Intermediate Flange	03	Zwischenflansch
04	PF Montajlı Redüktör	04	PF Mounted Gear Unit	04	PF Montiertes Getriebe
05	Ara Mil (Dişlili)	05	Intermediate Shaft (With Gear)	05	Übertragungswelle (mit Zahnrad)
06	Ara Mil (Kamalı)	06	Intermediate Shaft (With Key)	06	Übertragungswelle (mit Passfeder)
07	Ara Dişli (Kamalı)	07	Intermadiate Gear (With Key)	07	Zwischengetriebe (mit Passfeder)
08	Segman (DIN 471)	08	Circlip (DIN 471)	08	Sicherungsring (DIN 471)
09	Kama	09	Key	09	Passfeder
10	Rondela (DIN 127)	10	Washer (DIN 127)	10	Distanzscheibe (DIN 127)
11	Cıvata (DIN 933)	11	Bolt (DIN 933)	11	Verschrauben (DIN 933)
12	Z1 Dişlisi	12	Driving Pinion	12	Antriebsritzel
13	Z1 Dişlisi (Kamalı)	13	Driving Pinion (With Key)	13	Antriebsritzel (Mit Passfeder)
14	Segman (DIN 471)	14	Circlip (DIN 471)	14	Sicherungsring (DIN 471)
15	Kama	15	Key	15	Passfeder
16	Rondela (DIN 127)	16	Washer (DIN 127)	16	Distanzscheibe (DIN 127)
17	Rondela (DIN 127)	17	Washer (DIN 127)	17	Distanzscheibe (DIN 127)
18	Cıvata (DIN 933)	18	Bolt (DIN 933)	18	Verschrauben (DIN 933)
19	Cıvata (DIN 933)	19	Bolt (DIN 933)	19	Verschrauben (DIN 933)
20	Motor	20	Motor	20	Motor

TR GENEL PARÇA LİSTESİ | EN GENERAL PART LIST | DE ALLGEMEINE STUCKLISTE

PA / PF 03 ... 53

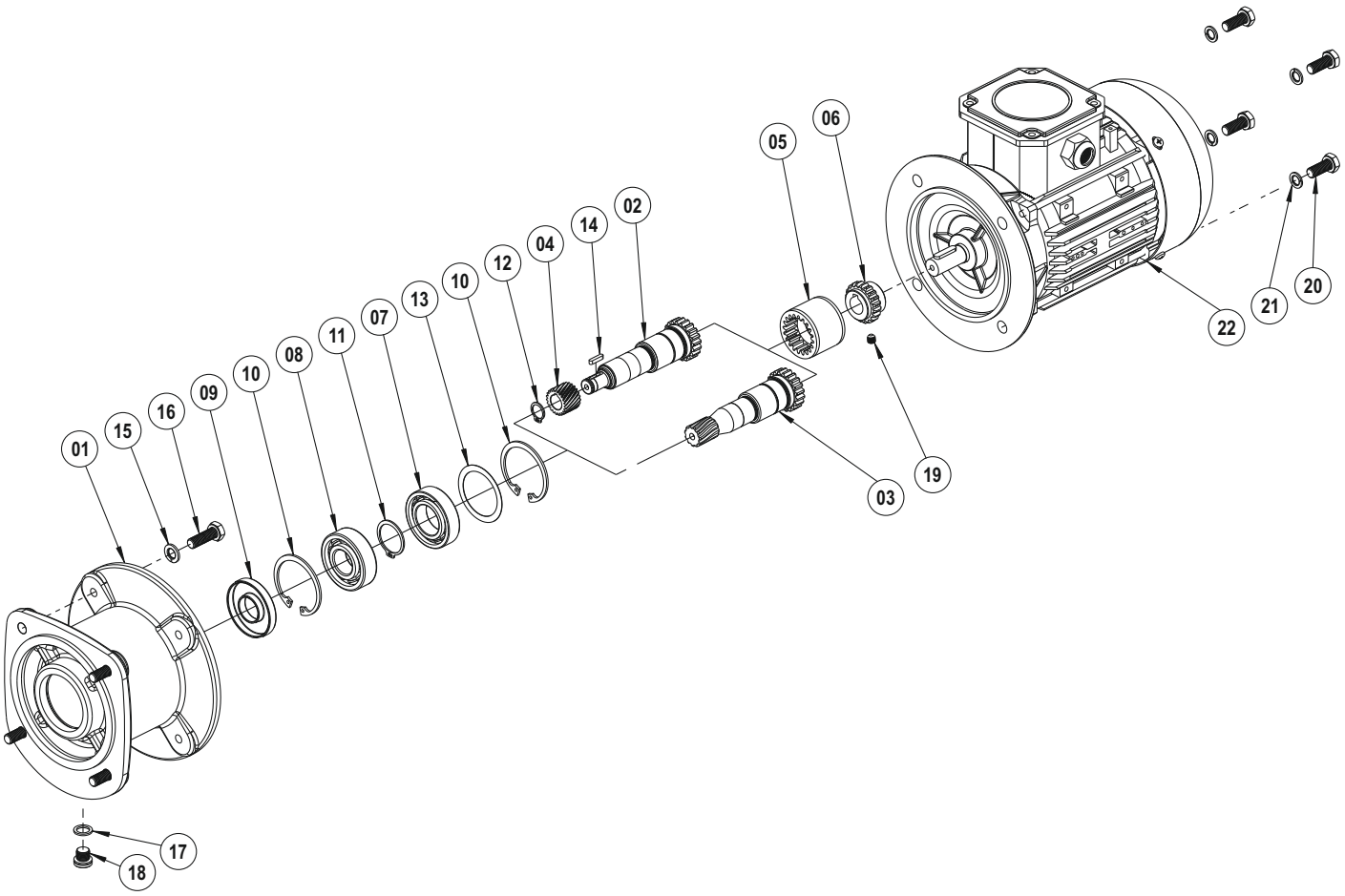
İndirgeyici Gövde / Reduction Gear Case



01	PA Montajlı Redüktör	01	PA Mounted Gear Unit	01	PA Montiertes Getriebe
02	PF Montajlı Redüktör	02	PF Mounted Gear Unit	02	PF Montiertes Getriebe
03	İndirgeyici Gövde	03	Reduction Gear Case	03	Anbaugehäuse
04	Ara Mil (Kamalı)	04	Intermediate Shaft (With Key)	04	Übertragungswelle (mit Zahnrad)
05	Ara Mil	05	Intermediate Shaft	05	Übertragungswelle
06	Ara Dişli (Kamalı)	06	Intermadiate Gear (With Key)	06	Zwischengetriebe (mit Passfeder)
07	Ara Dişli	07	Intermadiate Gear	07	Zwischengetriebe
08	Z2 Dişlisi	08	Driving Gear	08	Abtriebsrad
09	Rulman	09	Bearing	09	Kugellager
10	Rulman	10	Bearing	10	Kugellager
11	Segman (DIN 471)	11	Circlip (DIN 471)	11	Sicherungsring (DIN 471)
12	Segman (DIN 471)	12	Circlip (DIN 471)	12	Sicherungsring(DIN 471)
13	Segman (DIN 472)	13	Circlip (DIN 472)	13	Sicherungsring(DIN 472)
14	Segman (DIN 471)	14	Circlip (DIN 471)	14	Sicherungsring(DIN 471)
15	Kama	15	Key	15	Passfeder
16	Kama	16	Key	16	Passfeder
17	Cıvata (DIN 912)	17	Bolt (DIN 912)	17	Verschrauben (DIN 912)
18	Rondela (DIN 7603)	18	Washer (DIN 7603)	18	Distanzscheibe (DIN 7603)
19	Yağ Tapası	19	Oil Plug	19	Ölstöpsel
20	Z1 Dişlisi	20	Driving Pinion	20	Antriebsritzel
21	Z1 Dişlisi (Kamalı)	21	Driving Pinion (With Key)	21	Antriebsritzel (Mit Passfeder)
22	Segman (DIN 471)	22	Circlip (DIN 471)	22	Sicherungsring (DIN 471)
23	Kama	23	Key	23	Passfeder
24	Rondela (DIN 127)	24	Washer (DIN 127)	24	Distanzscheibe (DIN 127)
25	Cıvata (DIN 933)	25	Bolt (DIN 933)	25	Verschrauben (DIN 933)
26	Motor	26	Motor	26	Motor

TR GENEL PARÇA LİSTESİ | EN GENERAL PART LIST | DE ALLGEMEINE STUCKLISTE

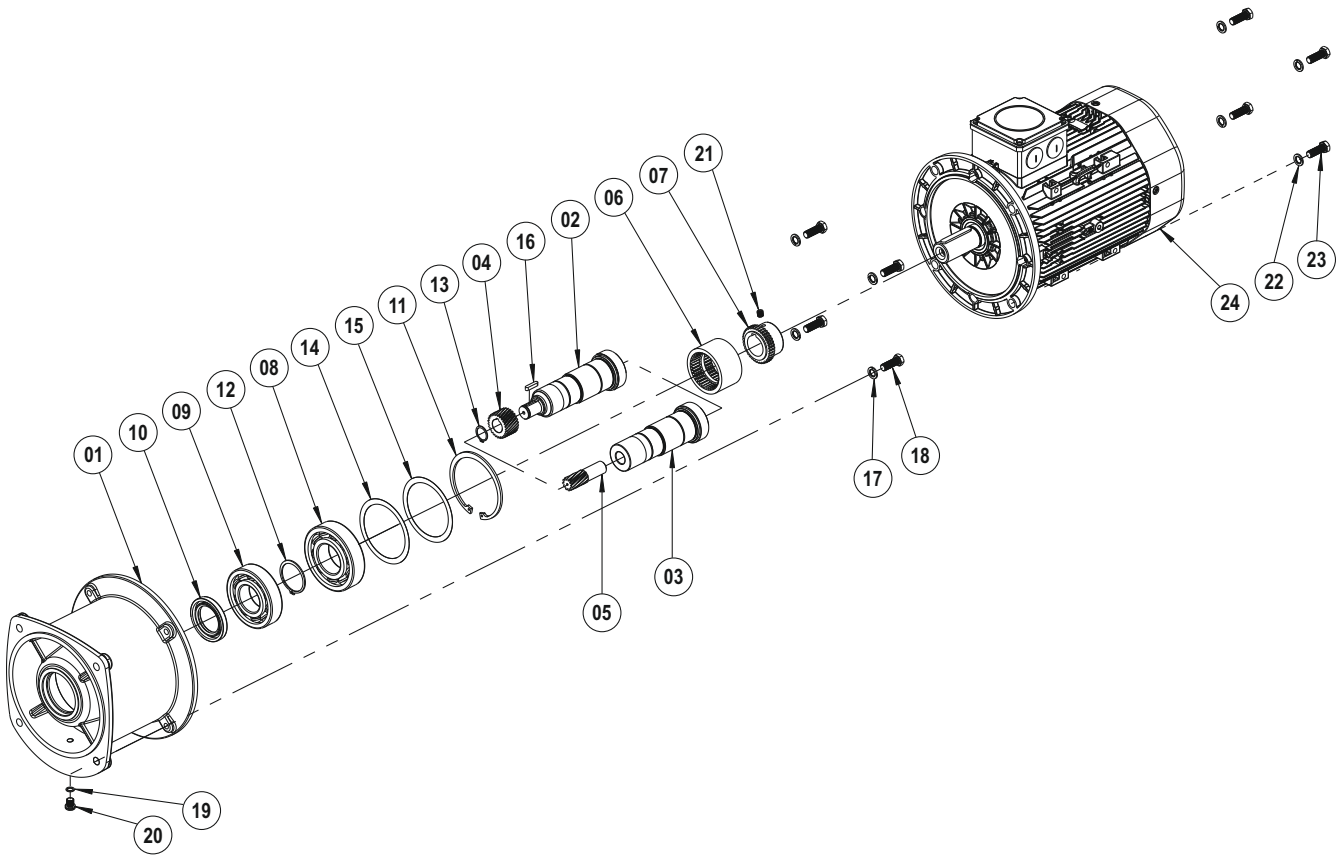
IEC 63 ... 112



	TR	EN	DE
01	Gövde	Gear Case	Gehäuse
02	IEC Mili (Kamalı)	IEC Shaft (With Key)	IEC Welle (mit Passfeder)
03	IEC Mili (Dişlili)	IEC Shaft (With Gear)	IEC Welle (mit Zahnrad)
04	Z1 Dişlisi (Kamalı)	Driving Pinion (With Key)	Antriebsritzel (Mit Passfeder)
05	Plastik Kaplin	Plastic Coupling	Kupplung (Plastik)
06	Metal Kaplin	Metal Coupling	Kupplung (Metall)
07	Rulman	Bearing	Kugellager
08	Rulman	Bearing	Kugellager
09	Yağ Keçesi	Oil Seal	Öldichtung
10	Segman (DIN 472)	Circlip (DIN 472)	Sicherungsring (DIN 472)
11	Segman (DIN 471)	Circlip (DIN 471)	Sicherungsring (DIN 471)
12	Segman (DIN 471)	Circlip (DIN 471)	Sicherungsring (DIN 471
13	Layner	Shim	Passscheibe
14	Kama	Key	Passfeder
15	Rondela (DIN 127)	Washer (DIN 127)	Distanzscheibe (DIN 127)
16	Cıvata (DIN 933)	Bolt (DIN 933)	Verschrauben (DIN 933)
17	Rondela (DIN 7603)	Washer (DIN 7603)	Distanzscheibe (DIN 7603)
18	Yağ Tapası	Oil Plug	Ölstöpsel
19	Cıvata (DIN 916)	Bolt (DIN 916)	Verschrauben (DIN 916)
20	Cıvata (DIN 933)	Bolt (DIN 933)	Verschrauben (DIN 933)
21	Rondela (DIN 127)	Washer (DIN 127)	Distanzscheibe (DIN 127)
22	Motor	Motor	Motor

TR GENEL PARÇA LİSTESİ | EN GENERAL PART LIST | DE ALLGEMEINE STUCKLISTE

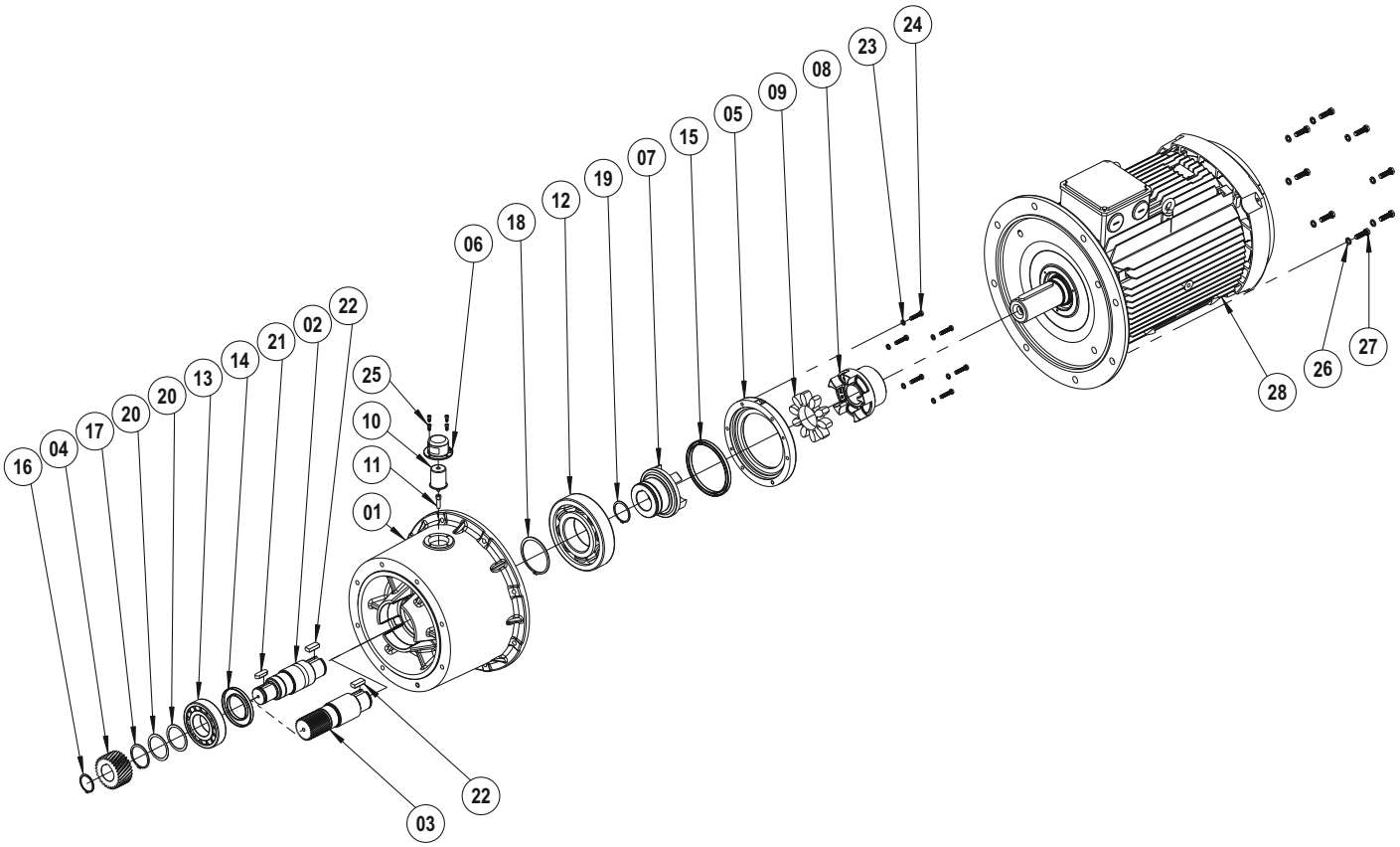
IEC 132 ... 180



	TR	EN	DE
01	Gövde	Gear Case	Gehäuse
02	IEC Mili (Kamalı)	IEC Shaft (With Key)	IEC Welle (mit Passfeder)
03	IEC Mili	IEC Shaft	IEC Welle
04	Z1 Dişlisi (Kamalı)	Driving Pinion (With Key)	Antriebsritzel (Mit Passfeder)
05	Z1 Dişlisi	Driving Pinion	Antriebsritzel
06	Plastik Kaplin	Plastic Coupling	Kupplung (Plastik)
07	Metal Kaplin	Metal Coupling	Kupplung (Metall)
08	Rulman	Bearing	Kugellager
09	Rulman	Bearing	Kugellager
10	Yağ Keçesi	Oil Seal	Öldichtung
11	Segman (DIN 472)	Circlip (DIN 472)	Sicherungsring (DIN 472)
12	Segman (DIN 471)	Circlip (DIN 471)	Sicherungsring (DIN 471)
13	Segman (DIN 471)	Circlip (DIN 471)	Sicherungsring (DIN 471
14	Layner	Shim	Passscheibe
15	Layner	Shim	Passscheibe
16	Kama	Key	Passfeder
17	Rondela (DIN 127)	Washer (DIN 127)	Distanzscheibe (DIN 127)
18	Cıvata (DIN 933)	Bolt (DIN 933)	Verschrauben (DIN 933)
19	Rondela (DIN 7603)	Washer (DIN 7603)	Distanzscheibe (DIN 7603)
20	Yağ Tapası	Oil Plug	Ölstöpsel
21	Cıvata (DIN 916)	Bolt (DIN 916)	Verschrauben (DIN 933)
22	Rondela (DIN 127)	Washer (DIN 127)	Distanzscheibe (DIN 127)
23	Cıvata (DIN 933)	Bolt (DIN 933)	Verschrauben (DIN 933)
24	Motor	Motor	Motor

TR GENEL PARÇA LİSTESİ | EN GENERAL PART LIST | DE ALLGEMEINE STUCKLISTE

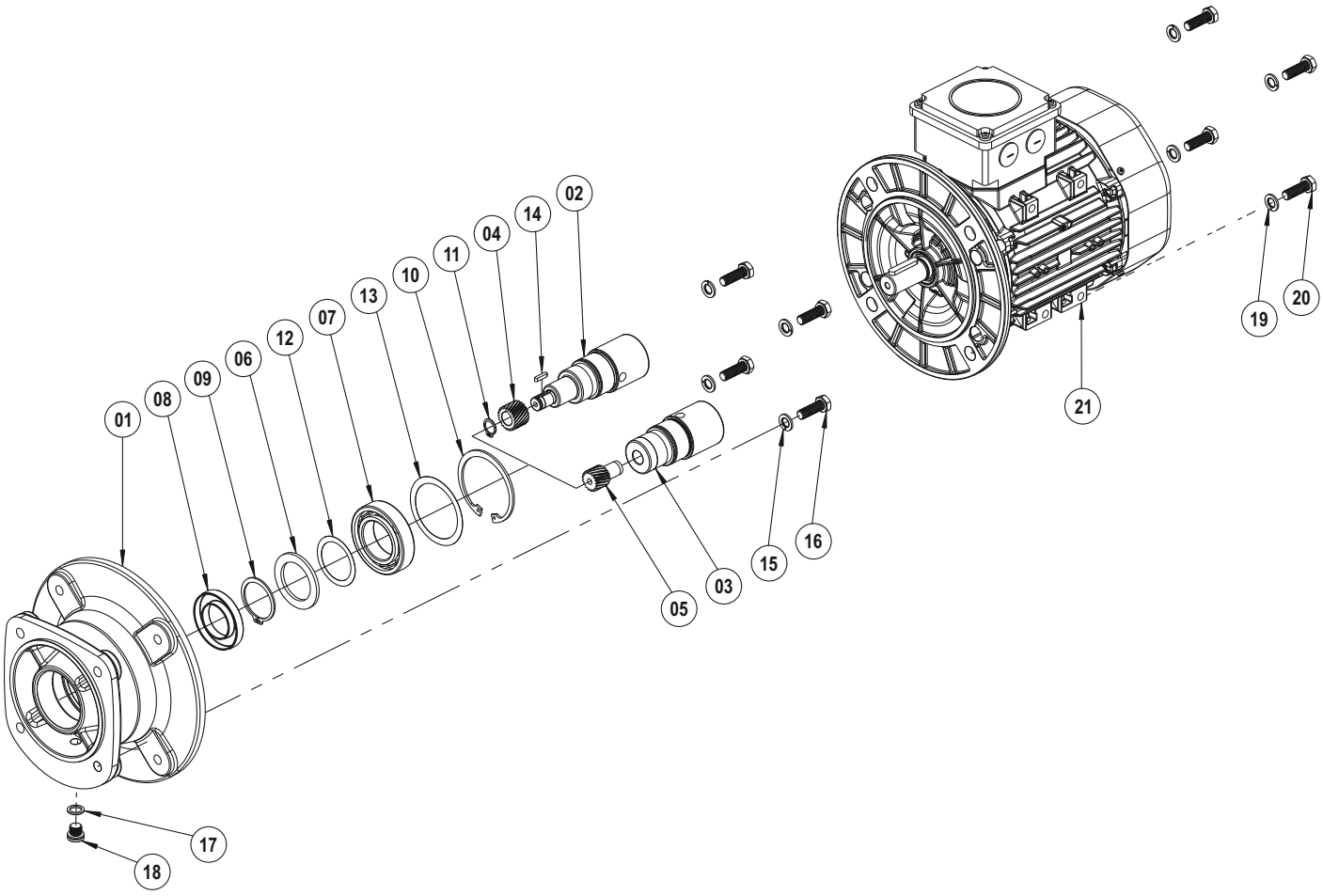
IEC 160 ... 315



	TR	EN	DE
01	Gövde	Gear Case	Gehäuse
02	IEC Mili (Kamalı)	IEC Shaft (With Key)	IEC Welle (mit Passfeder)
03	IEC Mili (Dişlili)	IEC Shaft (With Gear)	IEC Welle (mit Zahnrad)
04	Z1 Dişlisi (Kamalı)	Driving Pinion (With Key)	Antriebsritzel (Mit Passfeder)
05	Rulman Flanşı	Bearing Flange	Kugellagerflansch
06	Yağlama Kapağı	Lubrication Cover	Schmierdeckel
07	Kaplin (Redüktör Tarafı)	Coupling (Gearbox Side)	Kupplung (Getriebeseite)
08	Kaplin (Motor Tarafı)	Coupling (Motor Side)	Kupplung (Motorseite)
09	Spider	Spider	Spider
10	Otomatik Yağlayıcı Tüpü	Automatic Lubricator	Automatischer Schmierstoffgeber
11	Otomatik Yağlayıcı Adaptörü	Automatic Lubricator Adapter	Automatischer Schmierstoffgeber Verlängerung
12	Rulman	Bearing	Kugellager
13	Rulman	Bearing	Kugellager
14	Yağ Keçesi	Oil Seal	Öldichtung
15	Yağ Keçesi	Oil Seal	Öldichtung
16	Segman (DIN 471)	Circlip (DIN 471)	Sicherungsring (DIN 471)
17	Segman (DIN 471)	Circlip (DIN 471)	Sicherungsring (DIN 471)
18	Segman (DIN 471)	Circlip (DIN 471)	Sicherungsring (DIN 471)
19	Segman (DIN 471)	Circlip (DIN 471)	Sicherungsring (DIN 471)
20	Layner	Shim	Passscheibe
21	Kama	Key	Passfeder
22	Kama	Key	Passfeder
23	Rondela (DIN 127)	Washer (DIN 127)	Distanzscheibe (DIN 127)
24	Cıvata (DIN 933)	Bolt (DIN 933)	Verschrauben (DIN 933)
25	Cıvata (DIN 912)	Bolt (DIN 912)	Verschrauben (DIN 912)
26	Rondela (DIN 127)	Washer (DIN 127)	Distanzscheibe (DIN 127)
27	Cıvata (DIN 933)	Bolt (DIN 933)	Verschrauben (DIN 912)
28	Motor	Motor	Motor

TR GENEL PARÇA LİSTESİ | EN GENERAL PART LIST | DE ALLGEMEINE STUCKLISTE

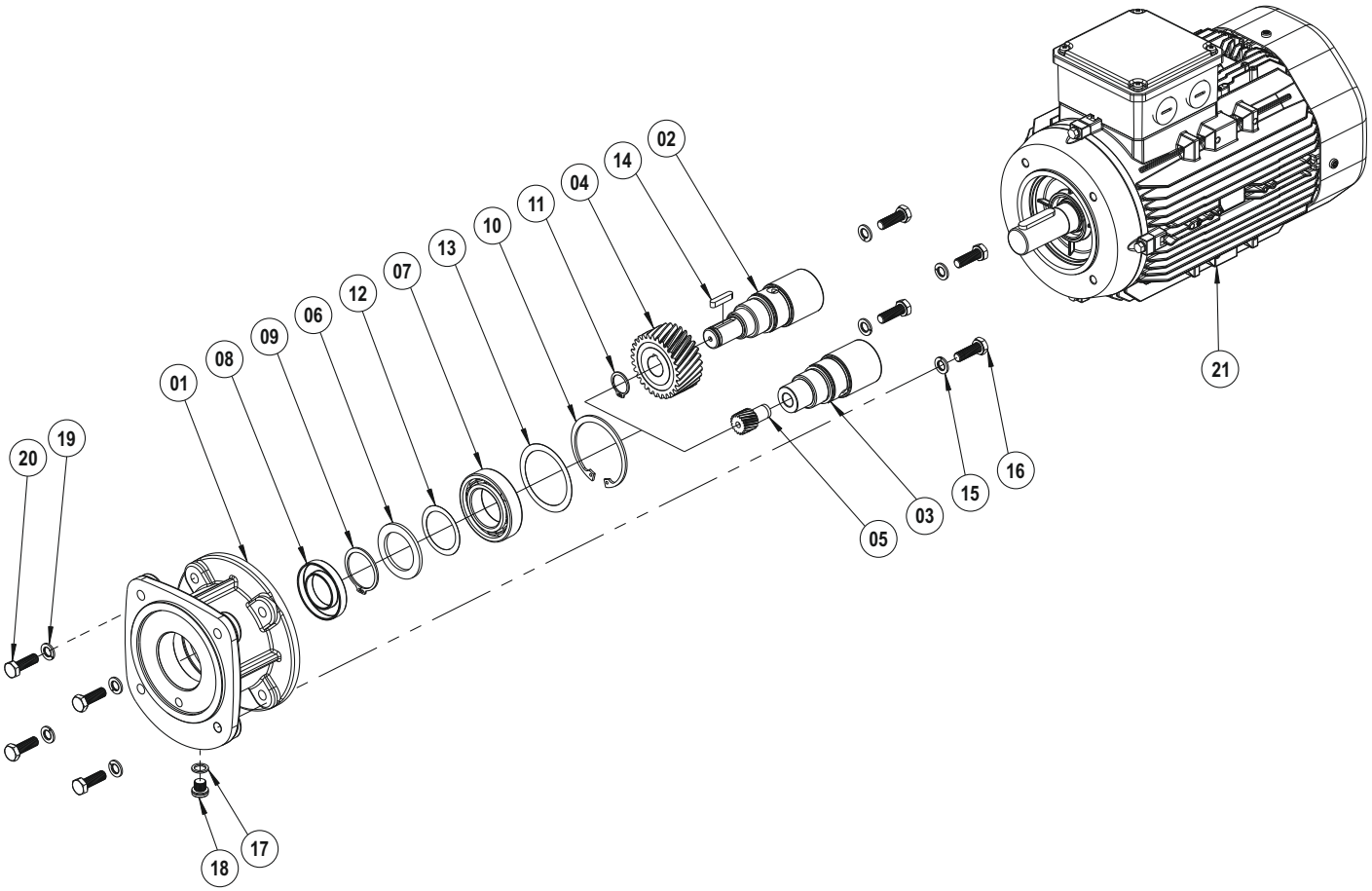
PAM B5 / 63 ... 315



01	Gövde	**01**	Gear Case	**01**	Gehäuse
02	PAM Mili (Kamalı)	**02**	PAM Shaft (With Key)	**02**	PAM Welle (mit Passfeder)
03	PAM Mili	**03**	PAM Shaft	**03**	PAM Welle
04	Z1 Dişlisi (Kamalı)	**04**	Driving Pinion (With Key)	**04**	Antriebsritzel (Mit Passfeder)
05	Z1 Dişlisi	**05**	Driving Pinion	**05**	Antriebsritzel
06	Rondela	**06**	Washer	**06**	Distanzscheibe
07	Rulman	**07**	Bearing	**07**	Kugellager
08	Yağ Keçesi	**08**	Oil Seal	**08**	Öldichtung
09	Segman (DIN 471)	**09**	Circlip (DIN 471)	**09**	Sicherungsring (DIN 471)
10	Segman (DIN 472)	**10**	Circlip (DIN 472)	**10**	Sicherungsring (DIN 472)
11	Segman (DIN 471)	**11**	Circlip (DIN 471)	**11**	Sicherungsring (DIN 471)
12	Layner	**12**	Shim	**12**	Passscheibe
13	Layner	**13**	Shim	**13**	Passscheibe
14	Kama	**14**	Key	**14**	Passfeder
15	Rondela (DIN 127)	**15**	Washer (DIN 127)	**15**	Distanzscheibe (DIN 127)
16	Cıvata (DIN 933)	**16**	Bolt (DIN 933)	**16**	Verschrauben (DIN 933)
17	Rondela (DIN 7603)	**17**	Washer (DIN 7603)	**17**	Distanzscheibe (DIN 7603)
18	Yağ Tapası	**18**	Oil Plug	**18**	Ölstöpsel
19	Rondela (DIN 127)	**19**	Washer (DIN 127)	**19**	Distanzscheibe (DIN 127)
20	Cıvata (DIN 933)	**20**	Bolt (DIN 933)	**20**	Verschrauben (DIN 933)
21	Motor	**21**	Motor	**21**	Motor

TR GENEL PARÇA LİSTESİ | EN GENERAL PART LIST | DE ALLGEMEINE STUCKLISTE

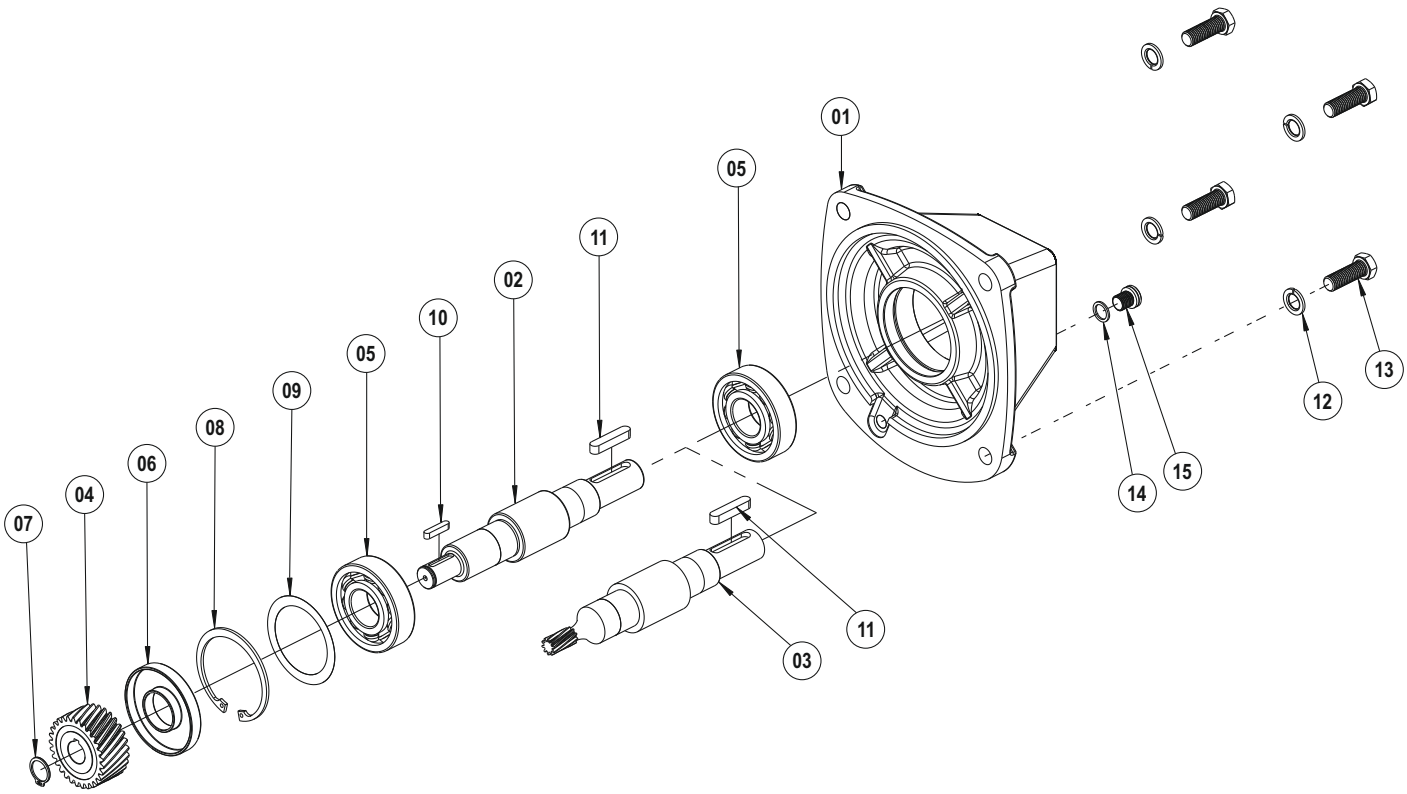
PAM B14 / 63 ... 132



	TR	EN	DE
01	Gövde	Gear Case	Gehäuse
02	PAM Mili (Kamalı)	PAM Shaft (With Key)	PAM Welle (mit Passfeder)
03	PAM Mili	PAM Shaft	PAM Welle
04	Z1 Dişlisi (Kamalı)	Driving Pinion (With Key)	Antriebsritzel (Mit Passfeder)
05	Z1 Dişlisi	Driving Pinion	Antriebsritzel
06	Rondela	Washer	Distanzscheibe
07	Rulman	Bearing	Kugellager
08	Yağ Keçesi	Oil Seal	Öldichtung
09	Segman (DIN 471)	Circlip (DIN 471)	Sicherungsring (DIN 471)
10	Segman (DIN 472)	Circlip (DIN 472)	Sicherungsring (DIN 472)
11	Segman (DIN 471)	Circlip (DIN 471)	Sicherungsring (DIN 471)
12	Layner	Shim	Passscheibe
13	Layner	Shim	Passscheibe
14	Kama	Key	Passfeder
15	Rondela (DIN 127)	Washer (DIN 127)	Distanzscheibe (DIN 127)
16	Cıvata (DIN 933)	Bolt (DIN 933)	Verschrauben (DIN 933)
17	Rondela (DIN 7603)	Washer (DIN 7603)	Distanzscheibe (DIN 7603)
18	Yağ Tapası	Oil Plug	Ölstöpsel
19	Rondela (DIN 127)	Washer (DIN 127)	Distanzscheibe (DIN 127)
20	Cıvata (DIN 933)	Bolt (DIN 933)	Verschrauben (DIN 933)
21	Motor	Motor	Motor

TR GENEL PARÇA LİSTESİ | EN GENERAL PART LIST | DE ALLGEMEINE STUCKLISTE

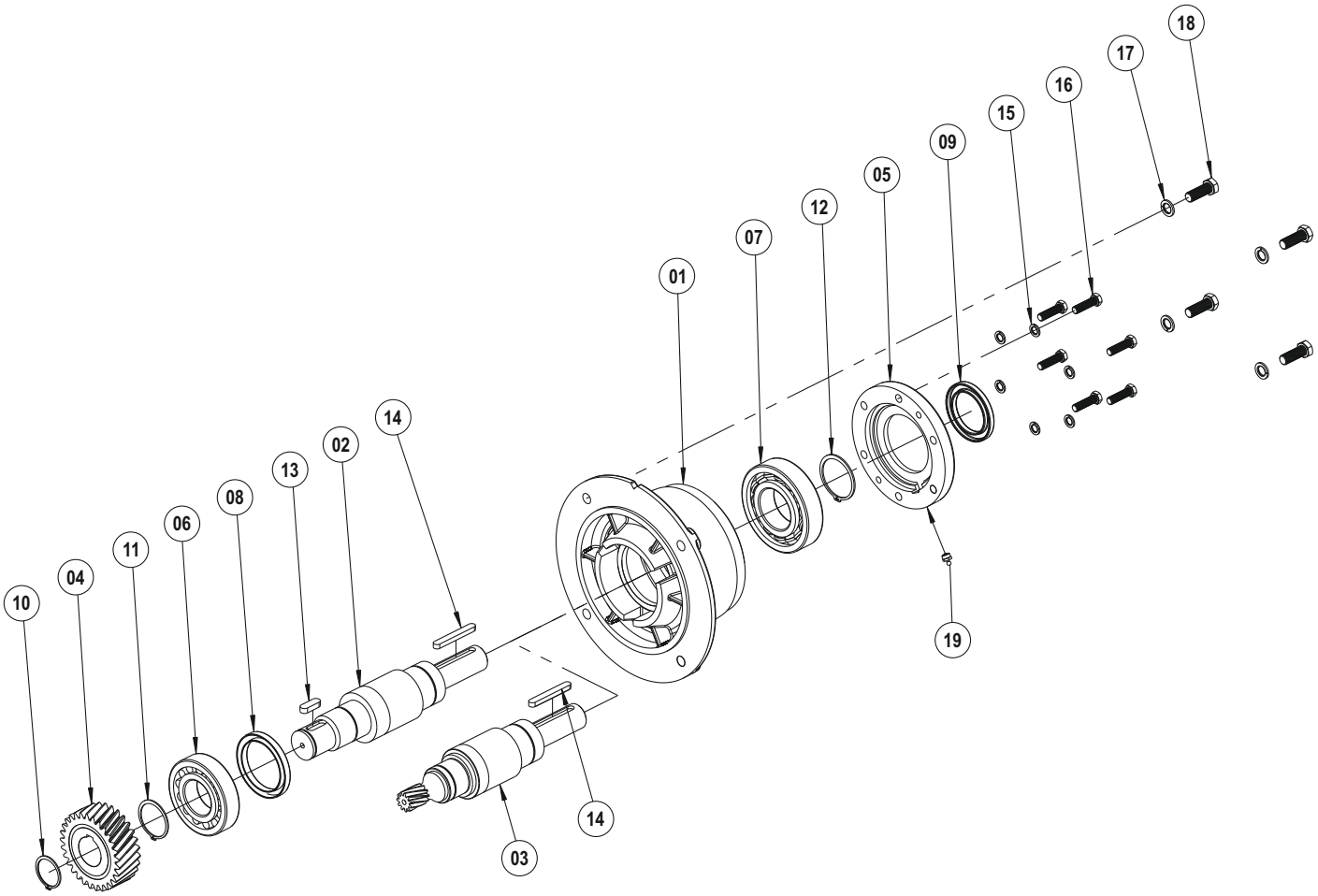
W 122 - 172 - 213



01	Gövde	01	Gear Case	01	Gehäuse
02	W Mili (Kamalı)	02	W Shaft (With Key)	02	W Welle (mit Passfeder)
03	W Mili (Dişlili)	03	W Shaft (With Gear)	03	W Welle (mit Zahnrad)
04	Z1 Dişlisi (Kamalı)	04	Driving Pinion (With Key)	04	Antriebsritzel (Mit Passfeder)
05	Rulman	05	Bearing	05	Kugellager
06	Yağ Keçesi	06	Oil Seal	06	Öldichtung
07	Segman (DIN 471)	07	Circlip (DIN 471)	07	Sicherungsring (DIN 471)
08	Segman (DIN 472)	08	Circlip (DIN 472)	08	Sicherungsring (DIN 472)
09	Layner	09	Shim	09	Passscheibe
10	Kama	10	Key	10	Passfeder
11	Kama	11	Key	11	Passfeder
12	Rondela (DIN 127)	12	Washer (DIN 127)	12	Distanzscheibe (DIN 127)
13	Cıvata (DIN 933)	13	Bolt (DIN 933)	13	Verschrauben (DIN 933)
14	Rondela (DIN 7603)	14	Washer (DIN 7603)	14	Distanzscheibe (DIN 7603)
15	Yağ Tapası	15	Oil Plug	15	Ölstöpsel

TR GENEL PARÇA LİSTESİ | EN GENERAL PART LIST | DE ALLGEMEINE STUCKLISTE

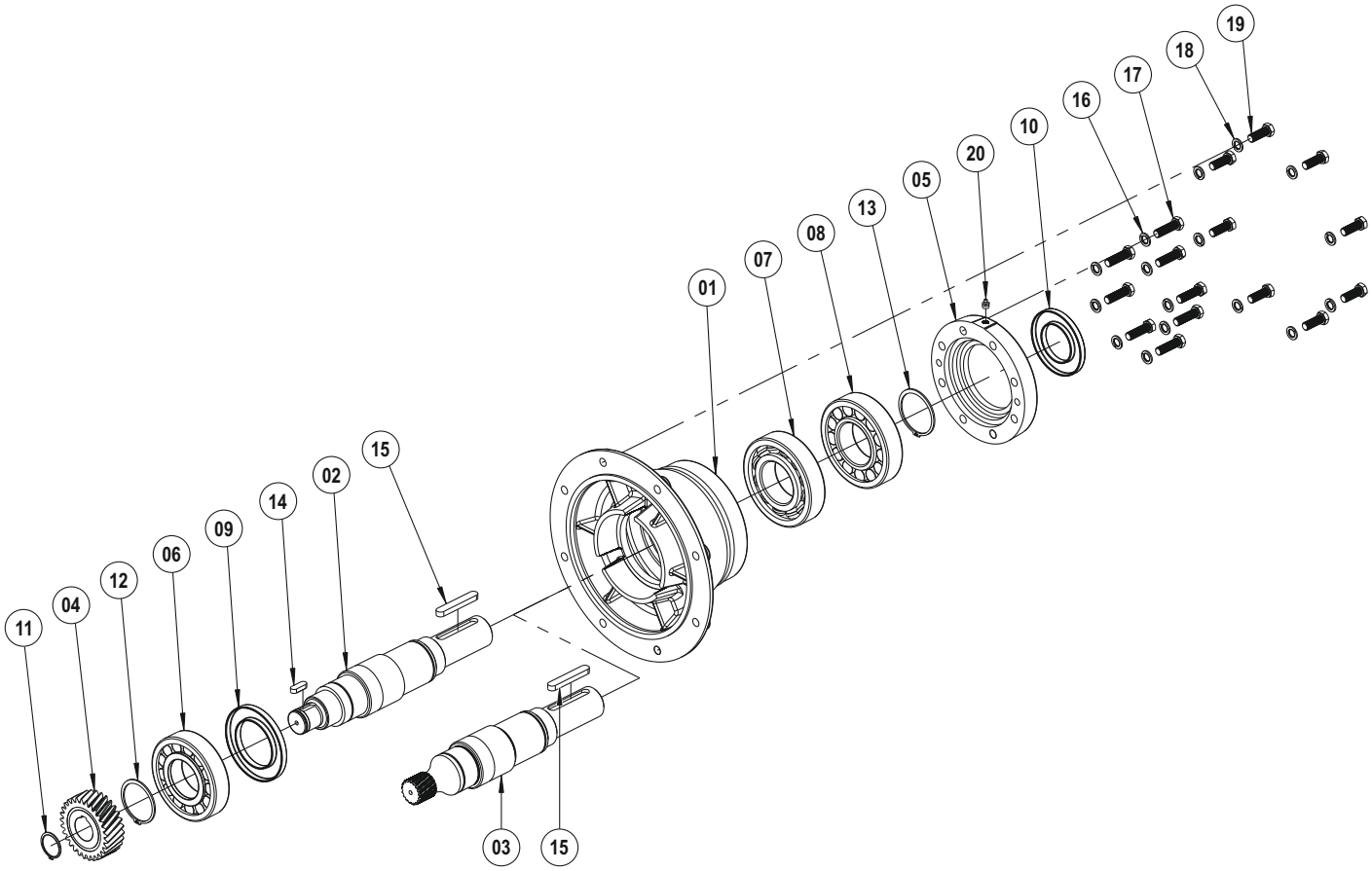
W 288



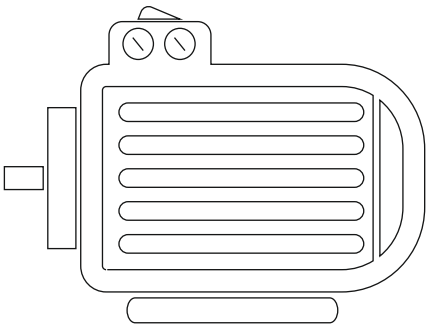
01	Gövde	01	Gear Case	01	Gehäuse
02	W Mili (Kamalı)	02	W Shaft (With Key)	02	W Welle (mit Passfeder)
03	W Mili (Dişlili)	03	W Shaft (With Gear)	03	W Welle (mit Zahnrad)
04	Z1 Dişlisi (Kamalı)	04	Driving Pinion (With Key)	04	Antriebsritzel (Mit Passfeder)
05	Rulman Flanşı	05	Bearing Flange	05	Kugellagerflansch
06	Rulman	06	Bearing	06	Kugellager
07	Rulman	07	Bearing	07	Kugellager
08	Yağ Keçesi	08	Oil Seal	08	Öldichtung
09	Yağ Keçesi	09	Oil Seal	09	Öldichtung
10	Segman (DIN 471)	10	Circlip (DIN 471)	10	Sicherungsring (DIN 471)
11	Segman (DIN 471)	11	Circlip (DIN 471)	11	Sicherungsring (DIN 471)
12	Segman (DIN 471)	12	Circlip (DIN 471)	12	Sicherungsring (DIN 471)
13	Kama	13	Key	13	Passfeder
14	Kama	14	Key	14	Passfeder
15	Rondela (DIN 127)	15	Washer (DIN 127)	15	Distanzscheibe (DIN 127)
16	Cıvata (DIN 933)	16	Bolt (DIN 933)	16	Verschrauben (DIN 933)
17	Rondela (DIN 127)	17	Washer (DIN 127)	17	Distanzscheibe (DIN 127)
18	Cıvata (DIN 933)	18	Bolt (DIN 933)	18	Verschrauben (DIN 933)
19	Gresörlük	19	Grease Nipple	19	Schmiernippel

TR GENEL PARÇA LİSTESİ | EN GENERAL PART LIST | DE ALLGEMEINE STUCKLISTE

W 397



01	Gövde	01	Gear Case	01	Gehäuse
02	W Mili (Kamalı)	02	W Shaft (With Key)	02	W Welle (mit Passfeder)
03	W Mili (Dişlili)	03	W Shaft (With Gear)	03	W Welle (mit Zahnrad)
04	Z1 Dişlisi (Kamalı)	04	Driving Pinion (With Key)	04	Antriebsritzel (Mit Passfeder)
05	Rulman Flanşı	05	Bearing Flange	05	Kugellagerflansch
06	Rulman	06	Bearing	06	Kugellager
07	Rulman	07	Bearing	07	Kugellager
08	Rulman	08	Bearing	08	Kugellager
09	Yağ Keçesi	09	Oil Seal	09	Öldichtung
10	Yağ Keçesi	10	Oil Seal	10	Öldichtung
11	Segman (DIN 471)	11	Circlip (DIN 471)	11	Sicherungsring (DIN 471)
12	Segman (DIN 471)	12	Circlip (DIN 471)	12	Sicherungsring (DIN 471)
13	Segman (DIN 471)	13	Circlip (DIN 471)	13	Sicherungsring (DIN 471)
14	Kama	14	Key	14	Passfeder
15	Kama	15	Key	15	Passfeder
16	Rondela (DIN 127)	16	Washer (DIN 127)	16	Distanzscheibe (DIN 127)
17	Cıvata (DIN 933)	17	Bolt (DIN 933)	17	Verschrauben (DIN 933)
18	Rondela (DIN 127)	18	Washer (DIN 127)	18	Distanzscheibe (DIN 127)
19	Cıvata (DIN 933)	19	Bolt (DIN 933)	19	Verschrauben (DIN 933)
20	Gresörlük	20	Grease Nipple	20	Schmiernippel



ÜÇ FAZLI MOTORLAR

THREE PHASE MOTORS

IE3

ELEKTRİKSEL ÖZELLİKLER - 50 Hz / ELECTRICAL CHARACTERISTICS AT 50 Hz

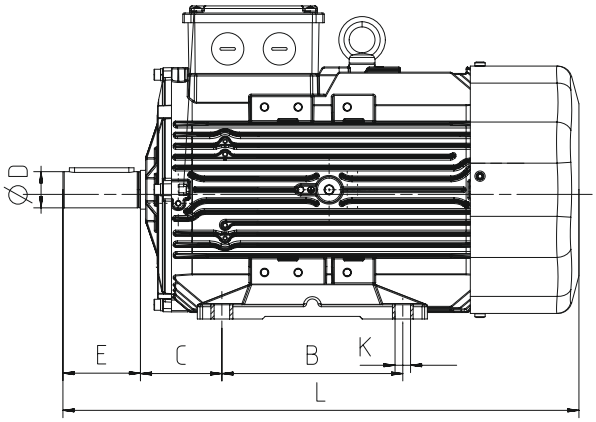
	MOTOR TİPİ MOTOR TYPE	GÖVDE TİPİ HOUSING TYPE	NOMİNAL RATED VALUES					KALKIŞTAKİ DEĞERLER STARTING VALUES				Devrilme Momenti Oranı Breakdown Torque Ratio	VERİM* EFFICIENCY* η%			Cos φ	J	Ağırlık Weight (B3)	Ses Basınç Seviyesi Sound Pressure Level
			GÜÇ POWER		DEVİR SPEED	AKIM CURRENT	MOMENT TORQUE	AKIM CURRENT I_A / I_N		MOMENT TORQUE M_A / M_N									
			kW	HP	rpm	A	Nm	⅄	Δ	⅄	Δ	Mk/ Mn	4/4	3/4	2/4	4/4	kgm²	kg	dBA **
	2 kutup 3000 d/dak / 2 pole 3000 rpm																		
230/400V	Q3H80M2C	Aluminium	0,75	1,0	2890	1,6	2,5	8,3	-	3,7	-	4,2	80,7	79,8	76,1	0,85	0,0014	13	57
230/400V	Q3H80M2D	Aluminium	1,1	1,5	2890	2,3	3,6	9,1	-	3,9	-	4,3	82,7	82,2	79,3	0,85	0,0017	13	57
230/400V	Q3H90L2C	Aluminium	1,5	2,0	2910	3,3	4,9	10,9	-	5,2	-	5,4	84,2	83,3	80,5	0,80	0,0023	16	62
230/400V	Q3H90L2D	Aluminium	2,2	3,0	2917	4,3	7,2	9,2	-	3,1	-	4,9	85,9	86,4	85,2	0,87	0,0028	19	62
230/400V	Q3H100L2D	Aluminium	3,0	4,0	2890	5,9	9,9	8,1	-	3,2	-	3,5	87,1	88,1	87,7	0,85	0,0031	25	66
400/690V	Q3H112M2C	Aluminium	4,0	5,5	2936	7,5	13,0	3,6	10,9	1,6	4,8	5,7	88,1	88,1	85,8	0,85	0,0064	29	68
400/690V	Q3H132S2C	Aluminium	5,5	7,5	2918	10,5	18,0	3,6	10,7	1,2	3,7	5,1	89,2	89,0	87,2	0,86	0,0077	37	69
400/690V	Q3H132S2D	Aluminium	7,5	10,0	2918	13,9	24,5	3,6	10,8	1,4	4,3	5,4	90,1	90,3	89,1	0,88	0,0093	43	69
400/690V	Q3H160M2C	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	0,0352	65	70
400/690V	Q3H160M2DE	Aluminium	15,0	20,0	2930	27,9	48,9	3,5	10,5	1,2	3,7	5,2	91,9	91,3	89,8	0,84	0,0402	79	71
400/690V	Q3H160L2C	Aluminium	18,5	25,0	2960	32,8	59,9	3,6	10,8	1,1	3,4	4,8	92,4	92,5	91,6	0,89	0,0481	96	70
400/690V	Q3H180M2A	Aluminium	22,0	30,0	2961	39,1	70,7	3,5	10,5	1,1	3,2	5,2	92,7	92,5	91,3	0,87	0,0587	114	77
400/690V	Q3H200L2C	Aluminium	30,0	40,0	2955	50,3	97,0	3,5	10,5	1,0	3,0	4,5	93,3	93,2	92,2	0,92	0,1028	153	78
400/690V	Q3H200L2D	Aluminium	37,0	50,0	2960	61,9	119,4	3,3	9,9	1,0	2,9	4,4	93,7	94,4	94,0	0,92	0,1138	166	78
400/690V	Q3E225M2B	Aluminium	45,0	60,0	2965	77,1	144,9	2,8	8,6	0,9	2,4	3,8	94,0	93,7	92,2	0,85	0,2350	249	80
400/690V	Q3E250M2A	Aluminium	55,0	75,0	2970	92,1	176,7	2,7	8	0,8	2,5	3,1	94,3	94,1	92,9	0,92	0,50903	279	81
400/690V	Q3EP250M2C	Cast Iron	55,0	75,0	2982	93,8	176,1	2,3	7,0	0,9	2,7	3,4	94,3	94,0	92,6	0,90	0,4870	488	81
400/690V	Q3EP280M2C	Cast Iron	75,0	100,0	2975	124,9	240,7	2,8	8,4	0,7	2,2	4,4	94,7	94,2	93,1	0,92	0,5400	585	82
400/690V	Q3EP280M2D	Cast Iron	90,0	125,0	2975	150,7	288,9	2,8	8,6	0,8	2,4	5,4	95,0	94,7	93,7	0,93	0,6450	596	82
400/690V	Q3EP315S2C	Cast Iron	110,0	127,0	2.983	187	358	2,4	7,2	0,6	1,7	2,6	95,2	95,2	94,0	0,89	2,19900	963	83
400/690V	Q3EP315M2B	Cast Iron	132,0	152,0	2.983	224	418	2,5	7,5	0,6	1,8	2,6	95,4	95,4	94,4	0,89	2,37790	1.007	83
400/690V	Q3EP315L2A	Cast Iron	160,0	184,0	2.983	271	513	2,5	7,5	0,6	1,8	2,6	95,6	95,6	94,4	0,89	2,62170	1.065	83
400/690V	Q3EP315L2C	Cast Iron	200,0	230,0	2.983	339	641	2,5	7,5	0,6	1,9	2,6	95,8	95,8	94,9	0,89	2,90860	1.180	83
400/690V	Q3EP355M2C	Cast Iron	250,0	280,0	2.983	419	800	2,4	7,3	0,6	1,7	2,5	95,8	95,8	94,7	0,90	3,81300	1.612	91
400/690V	Q3EP355L2B	Cast Iron	315,0	353,0	2.984	527	1.008	2,4	7,3	0,6	1,8	2,5	95,8	95,7	94,4	0,90	4,52000	1.771	91
400/690V	Q3EP355L2C	Cast Iron	355,0	398,0	2.981	594	1.137	2,6	7,9	0,7	2,2	2,5	95,8	95,8	95,0	0,90	5,58000	2.002	91
	4 kutup 1500 d/dak / 4 pole 1500 rpm																		
230/400V	Q3H80M4D	Aluminium	0,75	1,0	1445	1,7	5,0	6,7	-	2,8	-	3,4	82,5	83,2	80,6	0,77	0,00261	13	52
230/400V	Q3H90L4C	Aluminium	1,1	1,5	1447	2,6	7,3	7,2	-	3,1	-	3,7	82,7	82,4	89,5	0,74	0,00328	15	54
230/400V	Q3H90L4D	Aluminium	1,5	2,0	1449	3,5	9,9	8,1	-	3,6	-	4,2	85,3	85,0	82,1	0,76	0,00526	20	53
230/400V	Q3H100L4C	Aluminium	2,2	3,0	1443	4,9	14,6	9,5	-	5,0	-	5,5	86,7	84,3	80,6	0,75	0,00690	25	55
230/400V	Q3H100L4D	Aluminium	3,0	4,0	1446	6,2	19,9	8,4	-	3,3	-	3,8	87,7	88,0	87,0	0,81	0,01059	31	56
400/690V	Q3H112M4D	Aluminium	4,0	5,5	1452	8,2	26,5	3,0	9,1	1,1	3,3	4,1	88,6	88,8	87,3	0,80	0,01383	32	54
400/690V	Q3H132S4B	Aluminium	5,5	7,5	1467	10,6	35,8	2,8	8,5	0,7	2,0	3,8	89,6	89,1	87,6	0,84	0,03560	53	60
400/690V	Q3H132M4D	Aluminium	7,5	10,0	1467	15,2	48,8	2,7	8,2	0,8	2,3	3,8	90,4	90,7	89,6	0,80	0,04030	58	60
400/690V	Q3H160M4C	Aluminium	11,0	15,0	1470	21,0	71,3	2,7	8,0	0,7	2,1	3,8	91,4	91,5	90,4	0,83	0,05940	84	63
400/690V	Q3H160L4B	Aluminium	15,0	20,0	1477	30,9	97,1	2,6	7,8	0,9	2,8	3,3	92,1	92,0	90,8	0,76	0,09005	101	62
400/690V	Q3H180M4B	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	0,11398	118	67
400/690V	Q3H180L4B	Aluminium	22,0	30,0	1485	41,6	141,7	3,1	9,2	0,9	2,8	3,6	93,0	93,1	92,3	0,83	0,18660	158	68
400/690V	Q3H200L4D	Aluminium	30,0	40,0	1475	54,8	195,5	2,7	8,0	0,8	2,5	3,1	93,6	94,6	94,8	0,85	0,22166	194	68
400/690V	Q3E225M4B	Aluminium	37,0	50,0	1485	68,6	237,9	2,9	8,8	1,0	3,1	3,7	93,9	93,8	92,6	0,84	0,36400	280	71
400/690V	Q3E225M4C	Aluminium	45,0	60,0	1485	83,1	289,4	3,0	9,2	1,0	3,1	3,7	94,2	94,0	93,3	0,83	0,43500	276	71
400/690V	Q3E250M4B	Cast Iron	55,0	75,0	1487	106,9	353,2	3,0	9,2	1,0	3,1	3,7	94,6	94,4	93,5	0,79	0,90782	506	72
400/690V	Q3EP280M4C	Cast Iron	75,0	100,0	1485	138,9	482,3	2,6	7,8	1,0	3,0	3,2	95,0	94,8	94,0	0,82	1,06100	638	73
400/690V	Q3EP280M4D	Cast Iron	90,0	125,0	1485	163,5	578,7	2,6	7,9	1,0	3,0	3,2	95,2	95,0	93,9	0,86	1,14760	653	73
400/690V	Q3EP315S4C	Cast Iron	110,0	127,0	1.489	194	705	2,5	7,5	0,7	2,0	2,5	95,4	95,4	94,7	0,86	3,46500	867	70
400/690V	Q3EP315M4B	Cast Iron	132,0	152,0	1.489	232	846	2,5	7,6	0,7	2,1	2,5	95,6	95,6	95,0	0,86	3,96600	993	70
400/690V	Q3EP315L4A	Cast Iron	160,0	184,0	1.489	274	1.026	2,5	7,6	0,7	2,2	2,5	95,8	95,8	95,4	0,88	4,88320	1.165	70
400/690V	Q3EP315L4C	Cast Iron	200,0	230,0	1.489	346	1.282	2,7	8,2	0,7	2,2	2,5	96,0	96,0	95,5	0,87	5,23440	1.223	70
400/690V	Q3EP355M4C	Cast Iron	250,0	280,0	1.491	422	1.601	2,5	7,5	0,6	1,9	2,4	96,0	96,0	95,5	0,89	9,30600	1.692	82
400/690V	Q3EP355L4B	Cast Iron	315,0	353,0	1.491	532	2.017	2,5	7,5	0,6	1,9	2,4	96,0	96,0	95,5	0,89	10,06700	1.879	82
400/690V	Q3EP355L4C	Cast Iron	355,0	398,0	1.491	600	2.273	2,5	7,5	0,7	2,0	2,3	96,0	96,0	95,5	0,89	11,90000	1.953	82

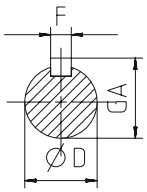
* IEC 60034-2-1' e göre / According to IEC 60034-2-1
** Ses Basınç Seviyeleri motordan 1m uzaklıktan ölçülmüştür. / The sound pressure measurements are taken 1m away from the motor
*** Tolerans +3 dBA / Tolerance +3 dBA

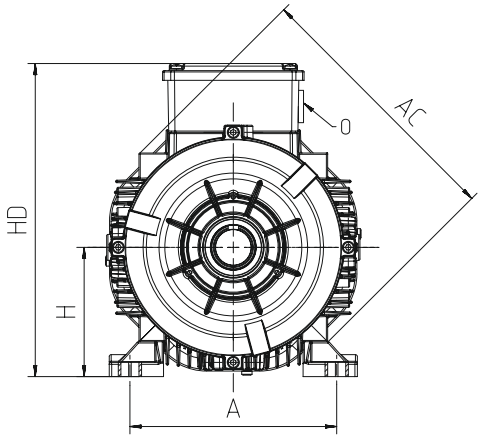
	MOTOR TİPİ MOTOR TYPE	GÖVDE TİPİ HOUSING TYPE	NOMİNAL RATED VALUES					KALKIŞTAKİ DEĞERLER STARTING VALUES				Devrilme Momenti Oranı Breakdown Torque Ratio	VERİM* EFFICIENCY* η%			Cos φ	J	Ağırlık Weight (B3)	Ses Basınç Seviyesi Sound Pressure Level
			GÜÇ POWER		DEVİR SPEED	AKIM CURRENT	MOMENT TORQUE	AKIM CURRENT I_A / I_N		MOMENT TORQUE M_A / M_N									
			kW	HP	rpm	A	Nm	⅄	Δ	⅄	Δ	Mk/ Mn	4/4	3/4	2/4	4/4	kgm^2	kg	dBA **
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







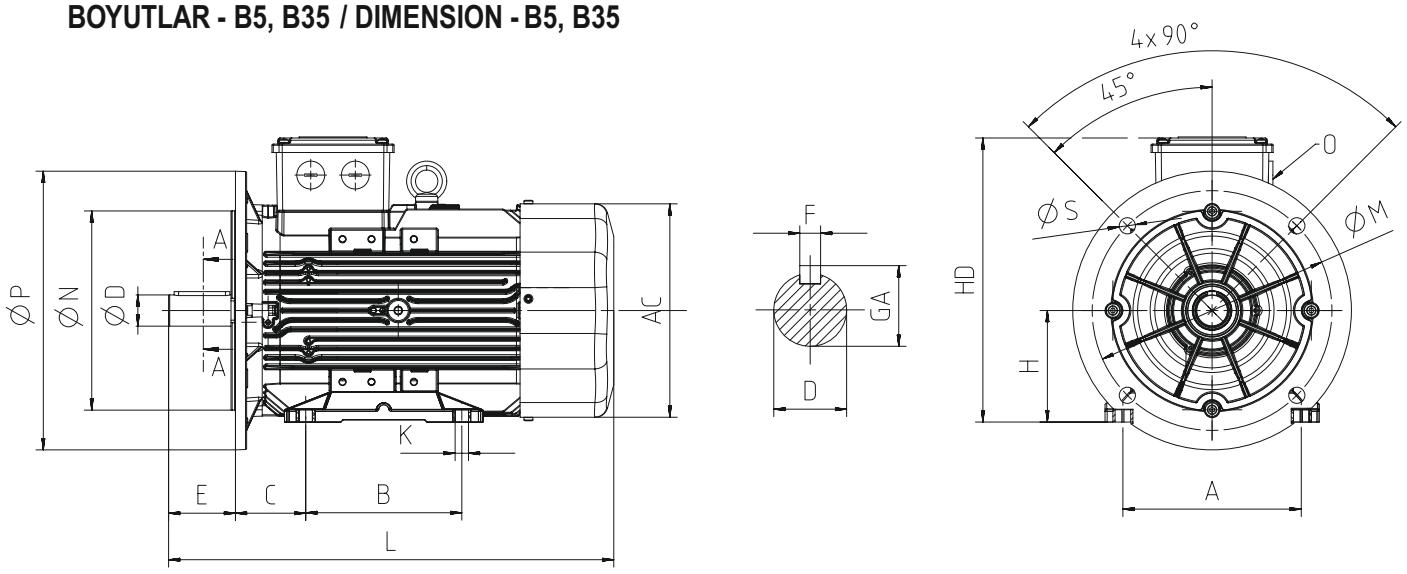
				Ana Boyutlar Main Dimensions			Ayaklı Motorlar Foot Mounted Motors						Mil Shaft				Rulman Bearing		Keçe Seal	
Güç Power (kW)	Kutup sayısı Number of Poles	Motor Tipi Motor Type	Gövde Tipi Housing Type	AC	L	O	B	A	H	HD	K	C	D(1)	E	GA	F(2)	Kasnak Tarafı Drive Side	Kasnak Tarafı Aksi Non drive Side	Kasnak Tarafı Drive Side	Kasnak Tarafı Aksi Non drive 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

				Ana Boyutlar Main Dimensions			Ayaklı Motorlar Foot Mounted Motors						Mil Shaft				Rulman Bearing		Keçe Seal	
Güç Power (kW)	Kutup sayısı Number of Poles	Motor Tipi Motor Type	Gövde Tipi Housing Type	AC	L	O	B	A	H	HD	K	C	D(1)	E	GA	F(2)	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	6315-2Z	6313-2Z	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



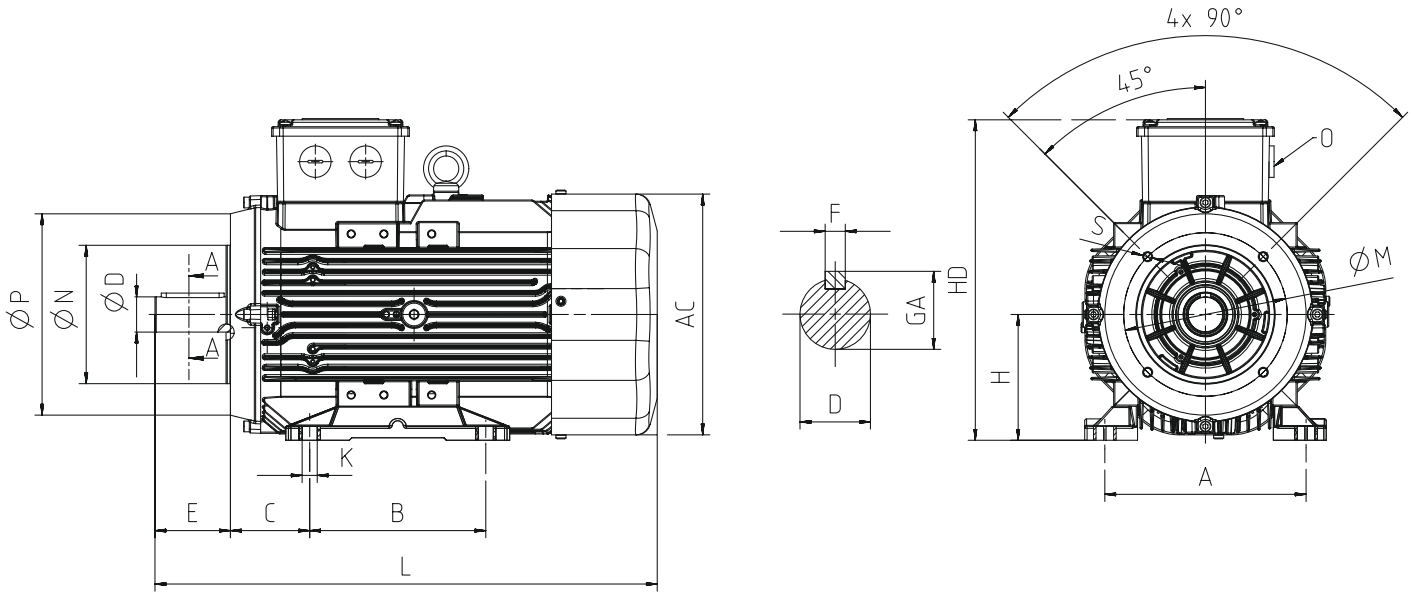
				Ana Boyutlar Main Dimensions			Ayaklı Motorlar Foot Mounted Motors					Mil Shaft				Rulman Bearing		Keçe Seal		Flanş (FA) (B5) Flange (FA) (B5)				
Güç Power (kW)	Kutup sayısı Number of Poles	Motor Tipi Motor Type	Gövde Tipi Housing Type	AC	L	O	B	A	H	HD	K	D(1)	E	GA	F(2)	Kasnak Tarafı Drive Side	Kasnak Tarafı Aksi Non drive Side	Kasnak Tarafı Drive Side	Kasnak Tarafı Aksi Non drive Side	P	N(3)	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"

				Ana Boyutlar Main Dimensions			Ayaklı Motorlar Foot Mounted Motors					Mil Shaft				Rulman Bearing		Keçe Seal		Flanş (FA) (B5) Flange (FA) (B5)				
Güç Power (kW)	Kutup sayısı Number of Poles	Motor Tipi Motor Type	Gövde Tipi Housing Type	AC	L	O	B	A	H	HD	K	D(1)	E	GA	F(2)	Kasnak Tarafı Drive Side	Kasnak Tarafı Aksi Non drive Side	Kasnak Tarafı Drive Side	Kasnak Tarafı Aksi Non drive Side	P	N(3)	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	6315-2Z	6313-2Z	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"

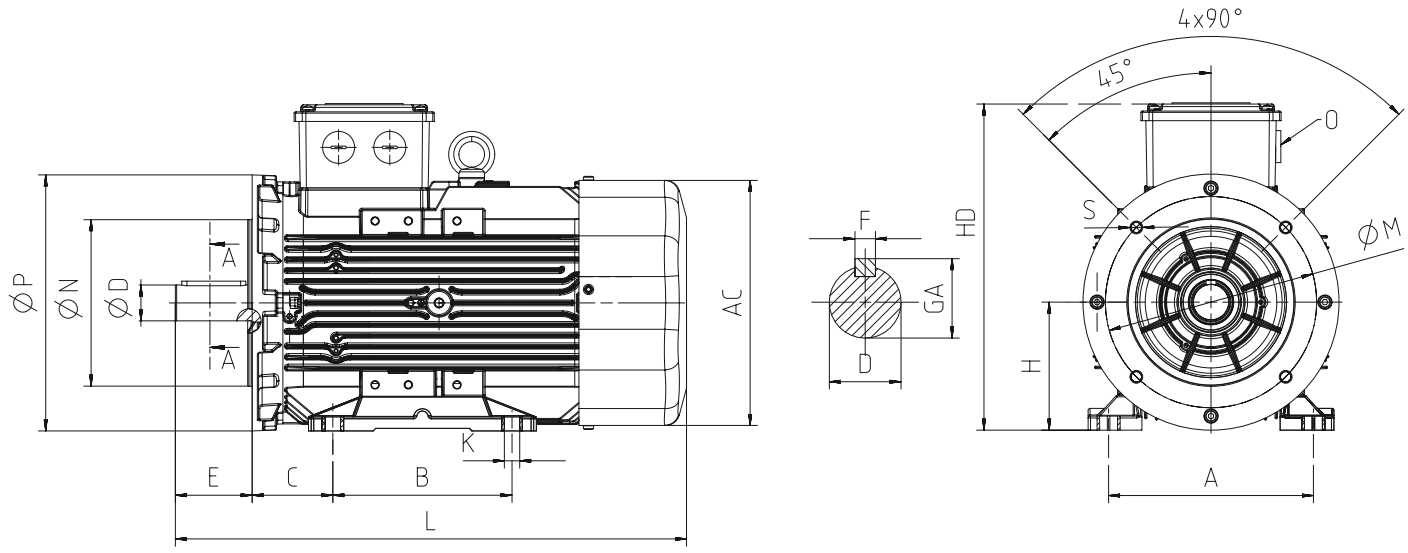
BOYUTLAR - B14a, B34a / DIMENSION - B14a, B34a



				Ana Boyutlar Main Dimensions			Ayaklı Motorlar Foot Mounted Motors					Mil Shaft				Rulman Bearing		Keçe Seal		Flanş (FC) (B14a) Flange (FC) (B14a)				
Güç Power (kW)	Kutup sayısı Number of Poles	Motor Tipi Motor Type	Gövde Tipi Housing Type	AC	L	O	B	A	H	HD	K	D(1)	E	GA	F(2)	Kasnak Tarafı Drive Side	Kasnak Tarafı Aksi Non drive Side	Kasnak Tarafı Drive Side	Kasnak Tarafı Aksi Non drive Side	P	N(3)	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



				Ana Boyutlar Main Dimensions			Ayaklı Motorlar Foot Mounted Motors					Mil Shaft				Rulman Bearing		Keçe Seal		Flanş (FB) (B14b) Flange (FB) (B14b)				
Güç Power (kW)	Kutup sayısı Number of Poles	Motor Tipi Motor Type	Gövde Tipi Housing Type	AC	L	O	B	A	H	HD	K	D(1)	E	GA	F(2)	Kasnak Tarafı Drive Side	Kasnak Tarafı Aksi Non drive Side	Kasnak Tarafı Drive Side	Kasnak Tarafı Aksi Non drive Side	P	N(3)	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"

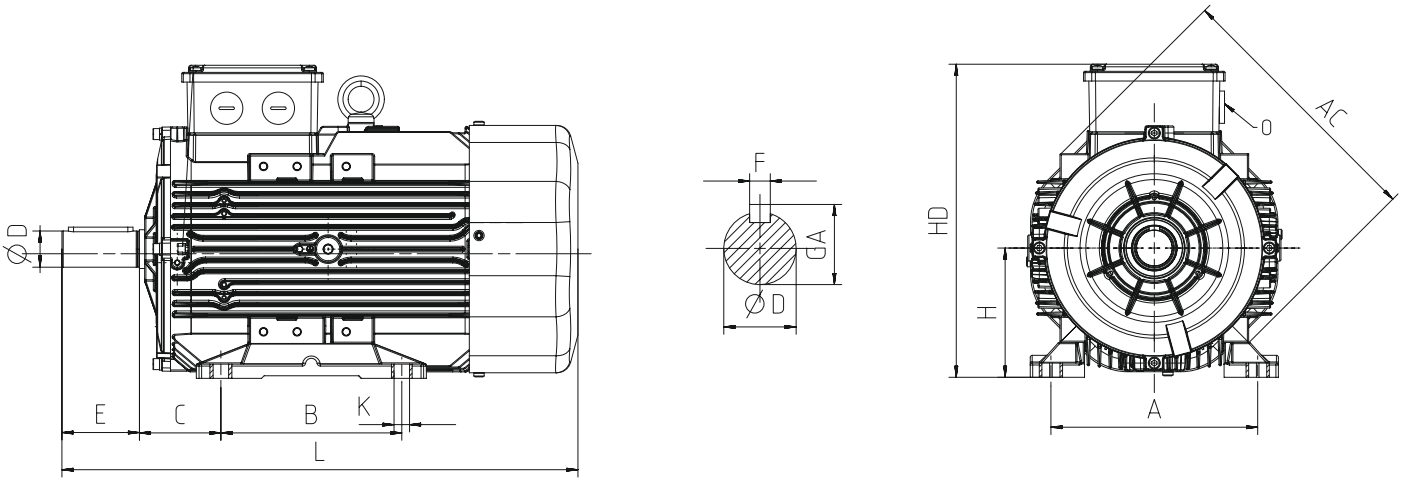
ÜÇ FAZLI MOTORLAR - KOMPAKT
THREE PHASE MOTORS - COMPACT

ELEKTRİKSEL ÖZELLİKLER - 50 Hz / ELECTRICAL CHARACTERISTICS AT 50 Hz

	MOTOR TİPİ MOTOR TYPE	GÖVDE TİPİ HOUSING TYPE	NOMİNAL RATED VALUES					KALKIŞTAKİ DEĞERLER STARTING VALUES				Devrilme Momenti Oranı Breakdown Torque Ratio	VERİM* EFFICIENCY* η%			Cos φ	J	Ağırlık Weight (B3)	Ses Basınç Seviyesi Sound Pressure Level
			GÜÇ POWER		DEVİR SPEED	AKIM CURRENT	MOMENT TORQUE	AKIM CURRENT I_A / I_N		MOMENT TORQUE M_A / M_N									
			kW	HP	rpm	A	Nm	⅄	Δ	⅄	Δ	Mk/ Mn	4/4	3/4	2/4	4/4	kgm²	kg	dBA **
	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
230/400V	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
400/690V	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
400/690V	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
400/690V	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
400/690V	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
400/690V	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
400/690V	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
400/690V	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
230/400V	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
400/690V	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
400/690V	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
400/690V	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
400/690V	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

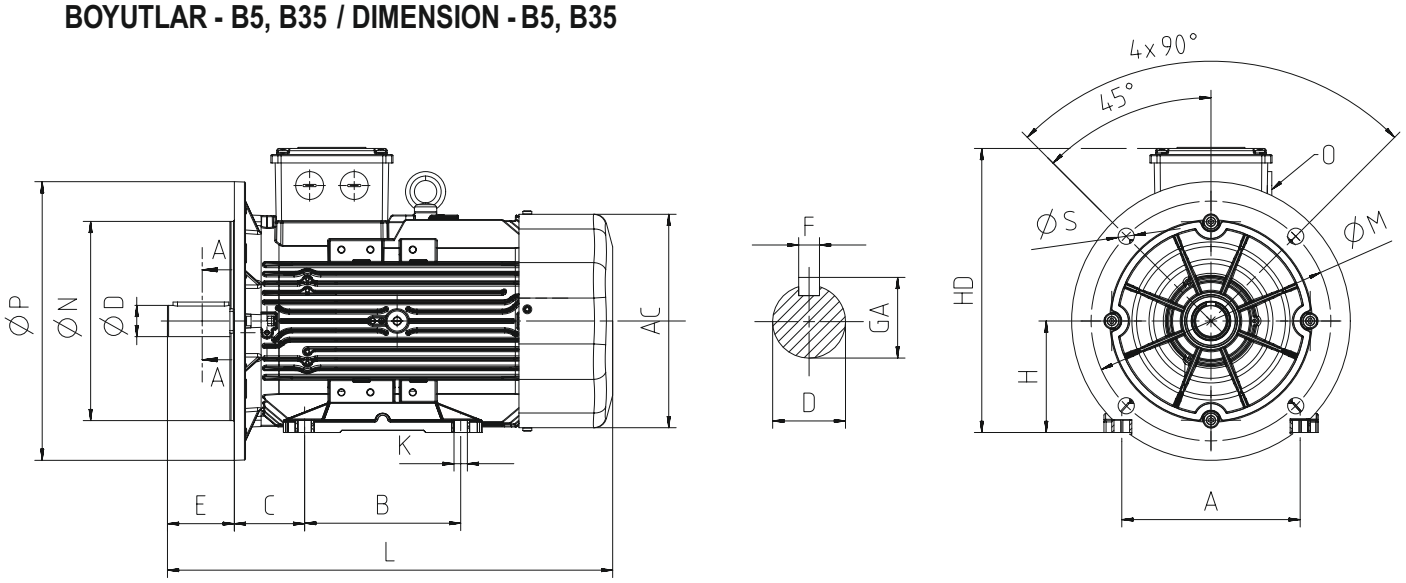
BOYUTLAR - B3 / DIMENSION - B3



				Ana Boyutlar Main Dimensions			Ayaklı Motorlar Foot Mounted Motors						Mil Shaft				Rulman Bearing		Keçe Seal	
Güç Power (kW)	Kutup sayısı Number of Poles	Motor Tipi Motor Type	Gövde Tipi Housing Type	AC	L	O	B	A	H	HD	K	C	D(1)	E	GA	F(2)	Kasnak Tarafı Drive Side	Kasnak Tarafı Aksi Non drive Side	Kasnak Tarafı Drive Side	Kasnak Tarafı Aksi Non drive 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

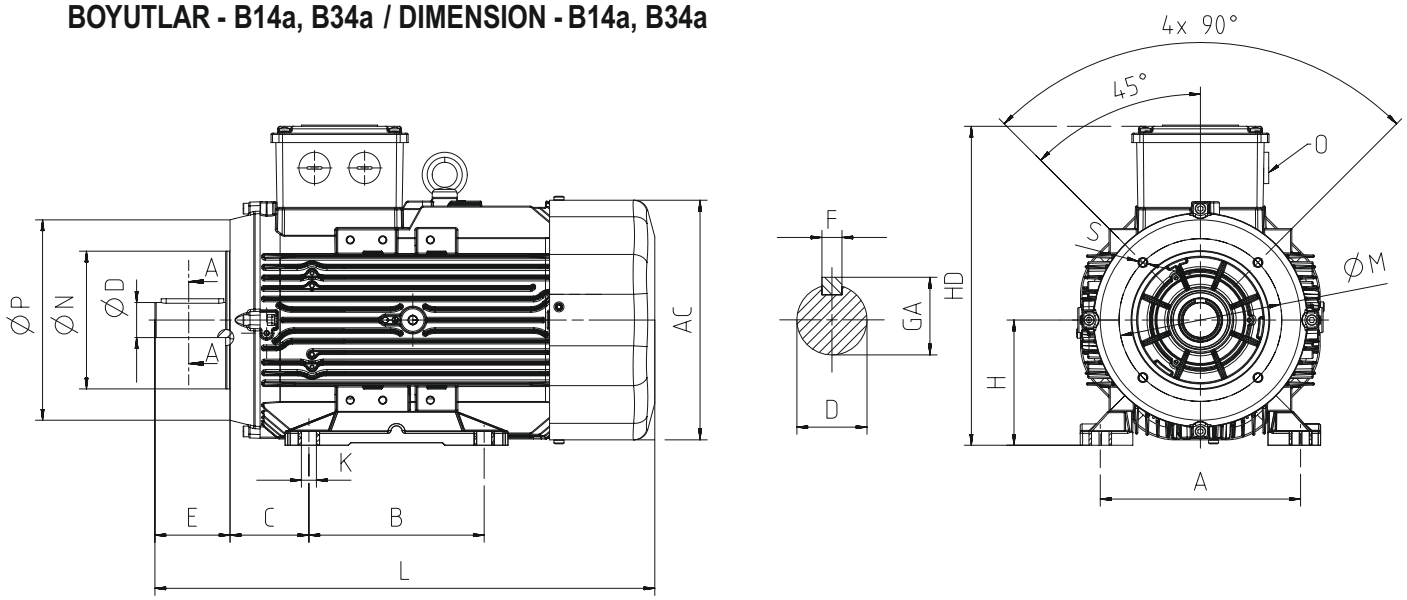
BOYUTLAR - B5, B35 / DIMENSION - B5, B35



				Ana Boyutlar Main Dimensions			Ayaklı Motorlar Foot Mounted Motors					Mil Shaft				Rulman Bearing		Keçe Seal		Flanş (FA) (B5) Flange (FA) (B5)				
Güç Power (kW)	Kutup sayısı Number of Poles	Motor Tipi Motor Type	Gövde Tipi Housing Type	AC	L	O	B	A	H	HD	K	D(1)	E	GA	F(2)	Kasnak Tarafı Drive Side	Kasnak Tarafı Aksi Non drive Side	Kasnak Tarafı Drive Side	Kasnak Tarafı Aksi Non drive Side	P	N(3)	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"

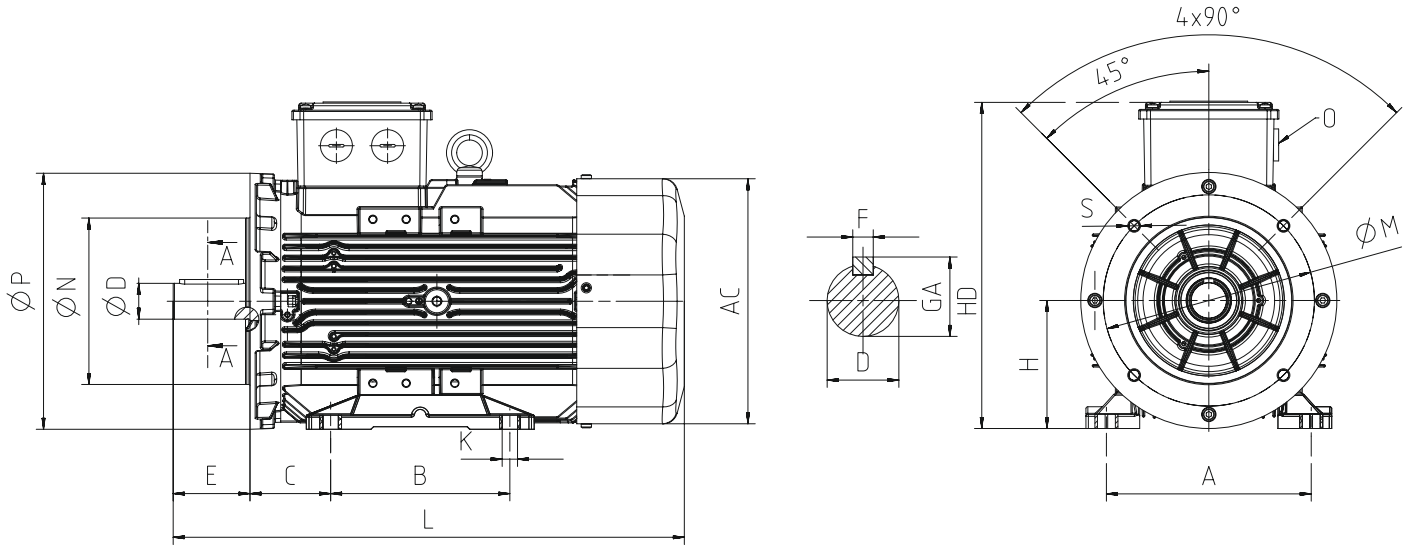
BOYUTLAR - B14a, B34a / DIMENSION - B14a, B34a



				Ana Boyutlar Main Dimensions			Ayaklı Motorlar Foot Mounted Motors					Mil Shaft				Rulman Bearing		Keçe Seal		Flanş (FC) (B14a) Flange (FC) (B14a)				
Güç Power (kW)	Kutup sayısı Number of Poles	Motor Tipi Motor Type	Gövde Tipi Housing Type	AC	L	O	B	A	H	HD	K	D(1)	E	GA	F(2)	Kasnak Tarafı Drive Side	Kasnak Tarafı Aksi Non drive Side	Kasnak Tarafı Drive Side	Kasnak Tarafı Aksi Non drive Side	P	N(3)	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



				Ana Boyutlar Main Dimensions			Ayaklı Motorlar Foot Mounted Motors					Mil Shaft				Rulman Bearing		Keçe Seal		Flanş (FB) (B14b) Flange (FB) (B14b)				
Güç Power (kW)	Kutup sayısı Number of Poles	Motor Tipi Motor Type	Gövde Tipi Housing Type	AC	L	O	B	A	H	HD	K	D(1)	E	GA	F(2)	Kasnak Tarafı Drive Side	Kasnak Tarafı Aksi Non drive Side	Kasnak Tarafı Drive Side	Kasnak Tarafı Aksi Non drive Side	P	N(3)	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

ÜÇ FAZLI MOTORLAR
THREE PHASE MOTORS

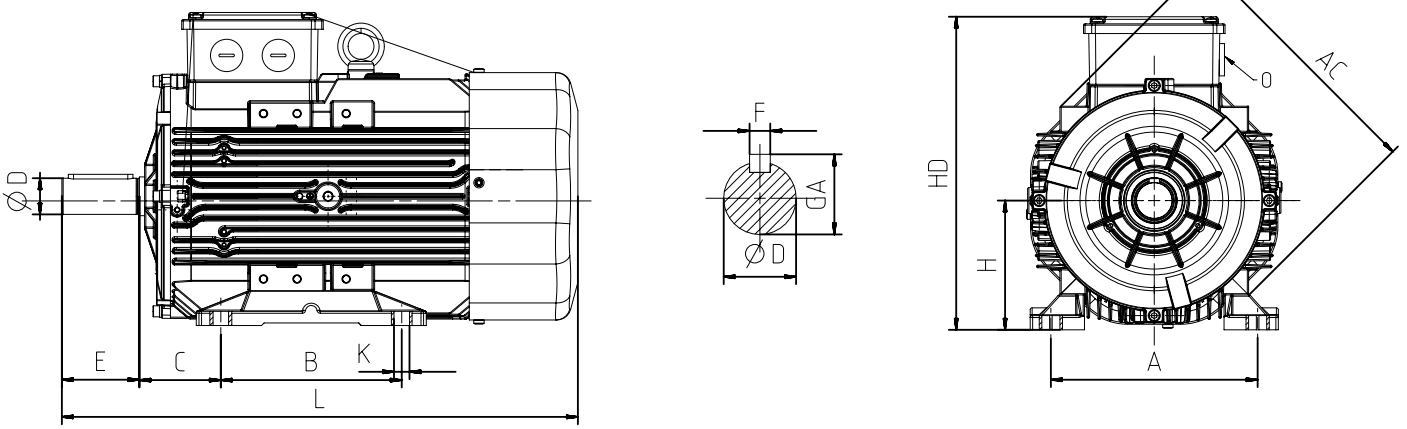
ELEKTRİKSEL ÖZELLİKLER - 50 Hz / ELECTRICAL CHARACTERISTICS AT 50 Hz

	MOTOR TİPİ MOTOR TYPE	GÖVDE TİPİ HOUSING TYPE	NOMİNAL RATED VALUES					KALKIŞTAKİ DEĞERLER STARTING VALUES				Devrilme Momenti Oranı Breakdown Torque Ratio	VERİM* EFFICIENCY* η%			Cos φ	J	Ağırlık Weight (B3)	Ses Basınç Seviyesi Sound Pressure Level
			GÜÇ POWER		DEVİR SPEED	AKIM CURRENT	MOMENT TORQUE	AKIM CURRENT I_A / I_N		MOMENT TORQUE M_A / M_N									
			kW	HP	rpm	A	Nm	⅄	Δ	⅄	Δ	Mk/ Mn	4/4	3/4	2/4	4/4	kgm²	kg	dBA **
	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 MOTOR TYPE	GÖVDE TİPİ HOUSING TYPE	NOMİNAL RATED VALUES					KALKIŞTAKİ DEĞERLER STARTING VALUES				Devrilme Momenti Oranı Breakdown Torque Ratio	VERİM* EFFICIENCY* η%			Cos φ	J	Ağırlık Weight (B3)	Ses Basınç Seviyesi Sound Pressure Level
			GÜÇ POWER		DEVİR SPEED	AKIM CURRENT	MOMENT TORQUE	AKIM CURRENT I_A / I_N		MOMENT TORQUE M_A / M_N									
			kW	HP	rpm	A	Nm	⅄	Δ	⅄	Δ	Mk/ Mn	4/4	3/4	2/4	4/4	kgm²	kg	dBA **
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	1.480	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	1.480	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	1.480	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	1.480	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	1.485	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	8730,0	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



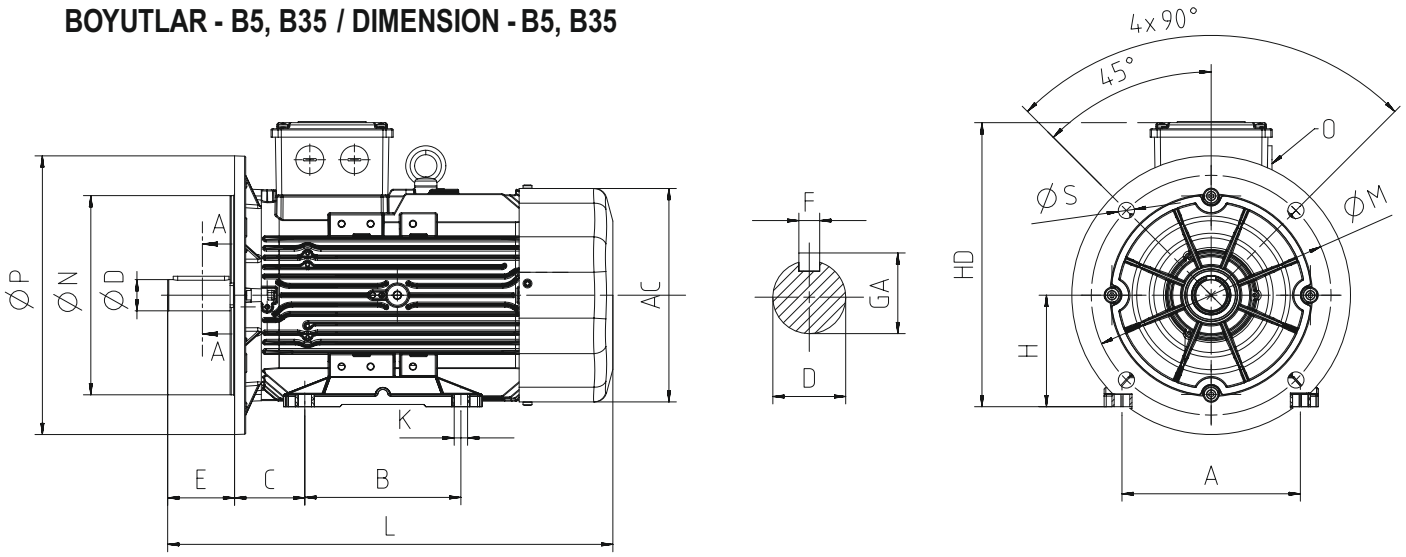
				Ana Boyutlar Main Dimensions			Ayaklı Motorlar Foot Mounted Motors						Mil Shaft				Rulman Bearing		Keçe Seal	
Güç Power (kW)	Kutup sayısı Number of Poles	Motor Tipi Motor Type	Gövde Tipi Housing Type	AC	L	O	B	A	H	HD	K	C	D(1)	E	GA	F(2)	Kasnak Tarafı Drive Side	Kasnak Tarafı Aksi Non drive Side	Kasnak Tarafı Drive Side	Kasnak Tarafı Aksi Non drive 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	6201-2Z	6201-2Z	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	6208-2Z	6206-2Z	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

				Ana Boyutlar Main Dimensions			Ayaklı Motorlar Foot Mounted Motors						Mil Shaft				Rulman Bearing		Keçe Seal	
Güç Power (kW)	Kutup sayısı Number of Poles	Motor Tipi Motor Type	Gövde Tipi Housing Type	AC	L	O	B	A	H	HD	K	C	D(1)	E	GA	F(2)	Kasnak Tarafı Drive Side	Kasnak Tarafı Aksi Non drive Side	Kasnak Tarafı Drive Side	Kasnak Tarafı Aksi 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	6315-2Z	6313-2Z	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

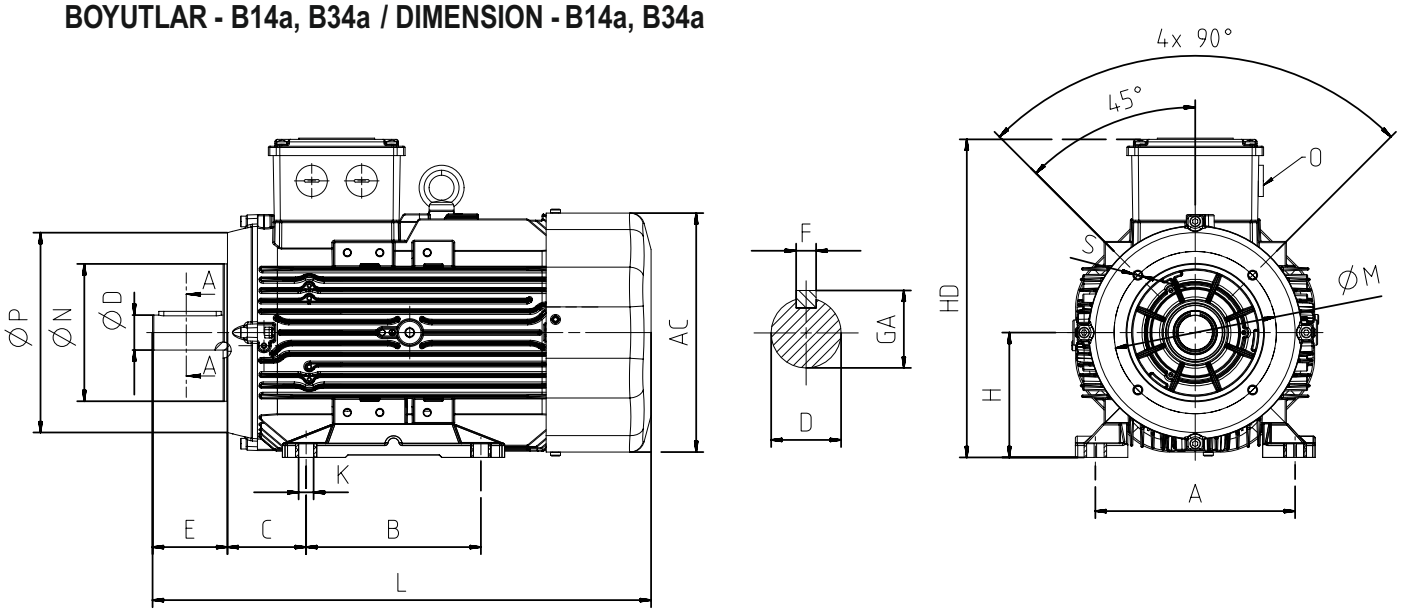


				Ana Boyutlar Main Dimensions			Ayaklı Motorlar Foot Mounted Motors					Mil Shaft				Rulman Bearing		Keçe Seal		Flanş (FA) (B5) Flange (FA) (B5)				
Güç Power (kW)	Kutup sayısı Number of Poles	Motor Tipi Motor Type	Gövde Tipi Housing Type	AC	L	O	B	A	H	HD	K	D(1)	E	GA	F(2)	Kasnak Tarafı Drive Side	Kasnak Tarafı Aksi Non drive Side	Kasnak Tarafı Drive Side	Kasnak Tarafı Aksi Non drive Side	P	N(3)	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	6201-2Z	6201-2Z	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	1 9	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	6208-2Z	6206-2Z	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"

				Ana Boyutlar Main Dimensions			Ayaklı Motorlar Foot Mounted Motors					Mil Shaft				Rulman Bearing		Keçe Seal		Flanş (FA) (B5) Flange (FA) (B5)				
Güç Power (kW)	Kutup sayısı Number of Poles	Motor Tipi Motor Type	Gövde Tipi Housing Type	AC	L	O	B	A	H	HD	K	D(1)	E	GA	F(2)	Kasnak Tarafı Drive Side	Kasnak Tarafı Aksi Non drive Side	Kasnak Tarafı Drive Side	Kasnak Tarafı Aksi Non drive Side	P	N(3)	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	6315-2Z	6313-2Z	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

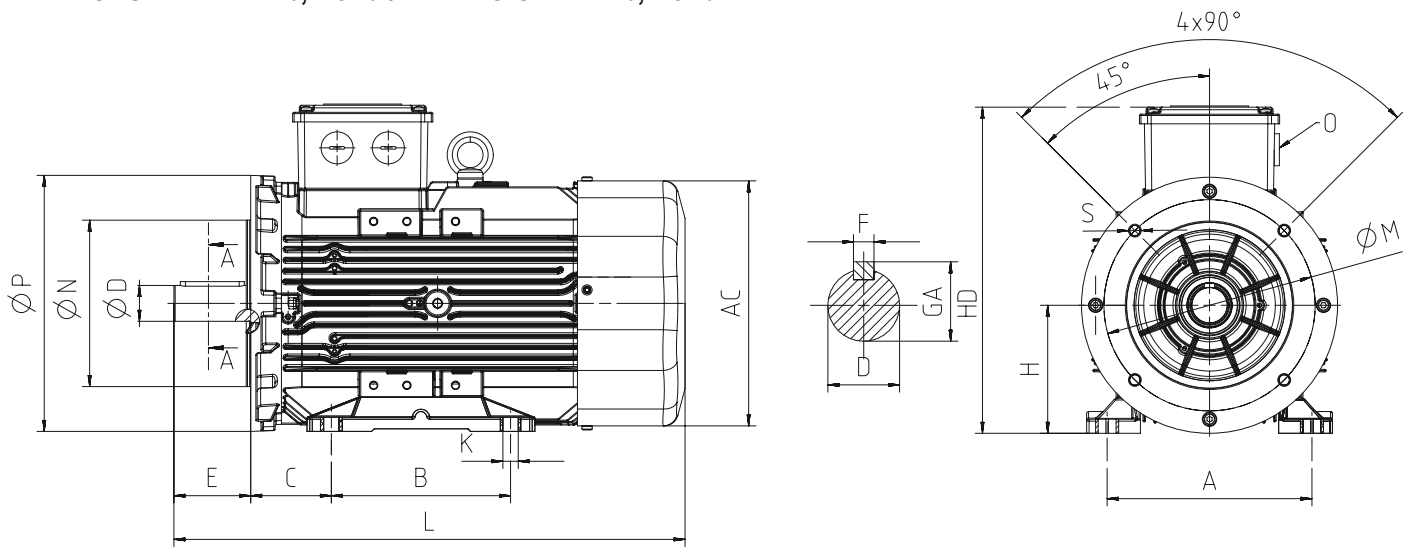
BOYUTLAR - B14a, B34a / DIMENSION - B14a, B34a



				Ana Boyutlar Main Dimensions			Ayaklı Motorlar Foot Mounted Motors					Mil Shaft				Rulman Bearing		Keçe Seal		Flanş (FC) (B14a) Flange (FC) (B14a)				
Güç Power (kW)	Kutup sayısı Number of Poles	Motor Tipi Motor Type	Gövde Tipi Housing Type	AC	L	O	B	A	H	HD	K	D(1)	E	GA	F(2)	Kasnak Tarafı Drive Side	Kasnak Tarafı Aksi Non drive Side	Kasnak Tarafı Drive Side	Kasnak Tarafı Aksi Non drive Side	P	N(3)	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	6201-2Z	6201-2Z	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	6208-2Z	6206-2Z	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



				Ana Boyutlar Main Dimensions			Ayaklı Motorlar Foot Mounted Motors					Mil Shaft				Rulman Bearing		Keçe Seal		Flanş (FB) (B14b) Flange (FB) (B14b)				
Güç Power (kW)	Kutup sayısı Number of Poles	Motor Tipi Motor Type	Gövde Tipi Housing Type	AC	L	O	B	A	H	HD	K	D(1)	E	GA	F(2)	Kasnak Tarafı Drive Side	Kasnak Tarafı Aksi Non drive Side	Kasnak Tarafı Drive Side	Kasnak Tarafı Aksi Non drive Side	P	N(3)	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	6201-2Z	6201-2Z	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	6208-2Z	6206-2Z	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"

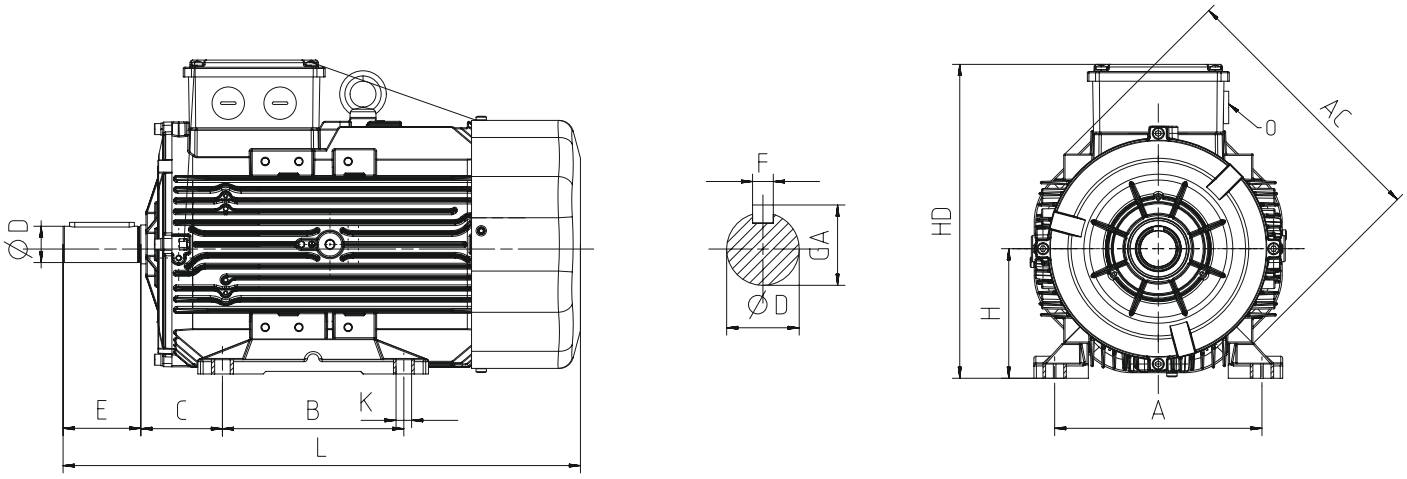
ÜÇ FAZLI MOTORLAR - KOMPAKT
THREE PHASE MOTORS - COMPACT

ELEKTRİKSEL ÖZELLİKLER - 50 Hz / ELECTRICAL CHARACTERISTICS AT 50 Hz

	MOTOR TİPİ MOTOR TYPE	GÖVDE TİPİ HOUSING TYPE	NOMİNAL RATED VALUES					KALKIŞTAKİ DEĞERLER STARTING VALUES				Devrilme Momenti Oranı Breakdown Torque Ratio	VERİM* EFFICIENCY* η%			Cos φ	J	Ağırlık Weight (B3)	Ses Basınç Seviyesi Sound Pressure Level
			GÜÇ POWER		DEVİR SPEED	AKIM CURRENT	MOMENT TORQUE	AKIM CURRENT I_A / I_N		MOMENT TORQUE M_A / M_N									
			kW	HP	rpm	A	Nm	λ	Δ	λ	Δ	Mk/ Mn	4/4	3/4	2/4	4/4	kgm²	kg	dBA **
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
230/400V	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
230/400V	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
400/690V	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
400/690V	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
400/690V	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
400/690V	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
400/690V	Q2H132M2C	Aluminium	18,5	15,0	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
400/690V	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
400/690V	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
400/690V	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
400/690V	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
400/690V	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
400/690V	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
400/690V	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
230/400V	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
230/400V	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
230/400V	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
230/400V	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
230/400V	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
400/690V	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
400/690V	Q2H160L4B	Aluminium	18,5	15,0	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
400/690V	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
400/690V	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
400/690V	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
400/690V	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
400/690V	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

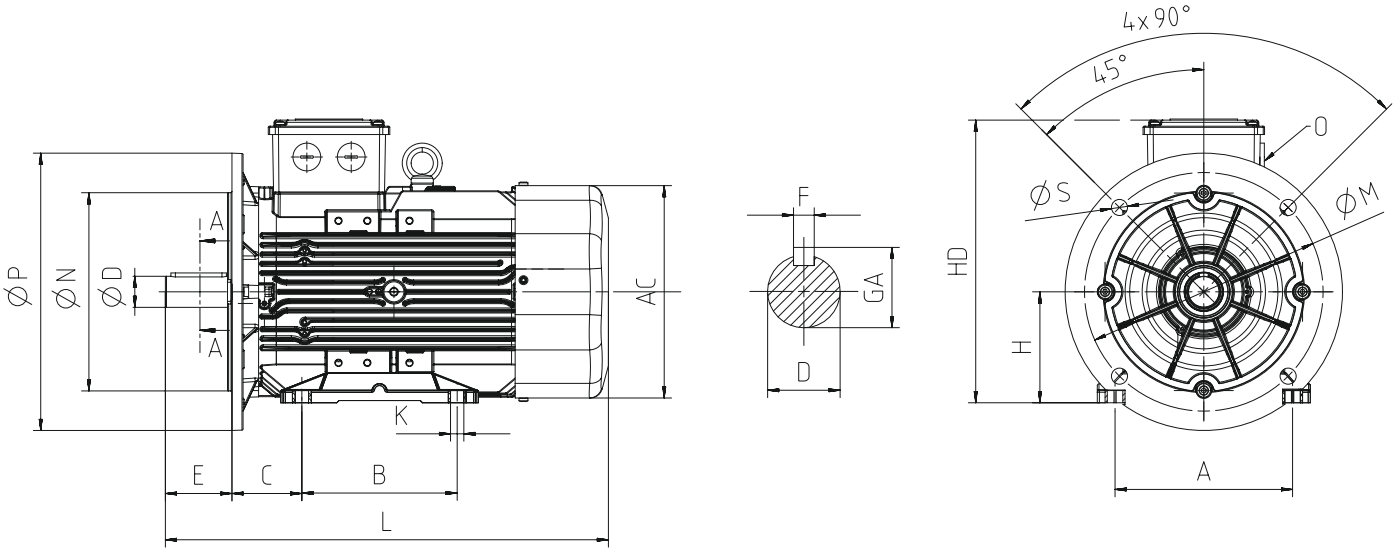
BOYUTLAR - B3 / DIMENSION - B3



				Ana Boyutlar Main Dimensions			Ayaklı Motorlar Foot Mounted Motors						Mil Shaft				Rulman Bearing		Keçe Seal	
Güç Power (kW)	Kutup sayısı Number of Poles	Motor Tipi Motor Type	Gövde Tipi Housing Type	AC	L	O	B	A	H	HD	K	C	D(1)	E	GA	F(2)	Kasnak Tarafı Drive Side	Kasnak Tarafı Aksi Non drive Side	Kasnak Tarafı Drive Side	Kasnak Tarafı Aksi Non drive 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

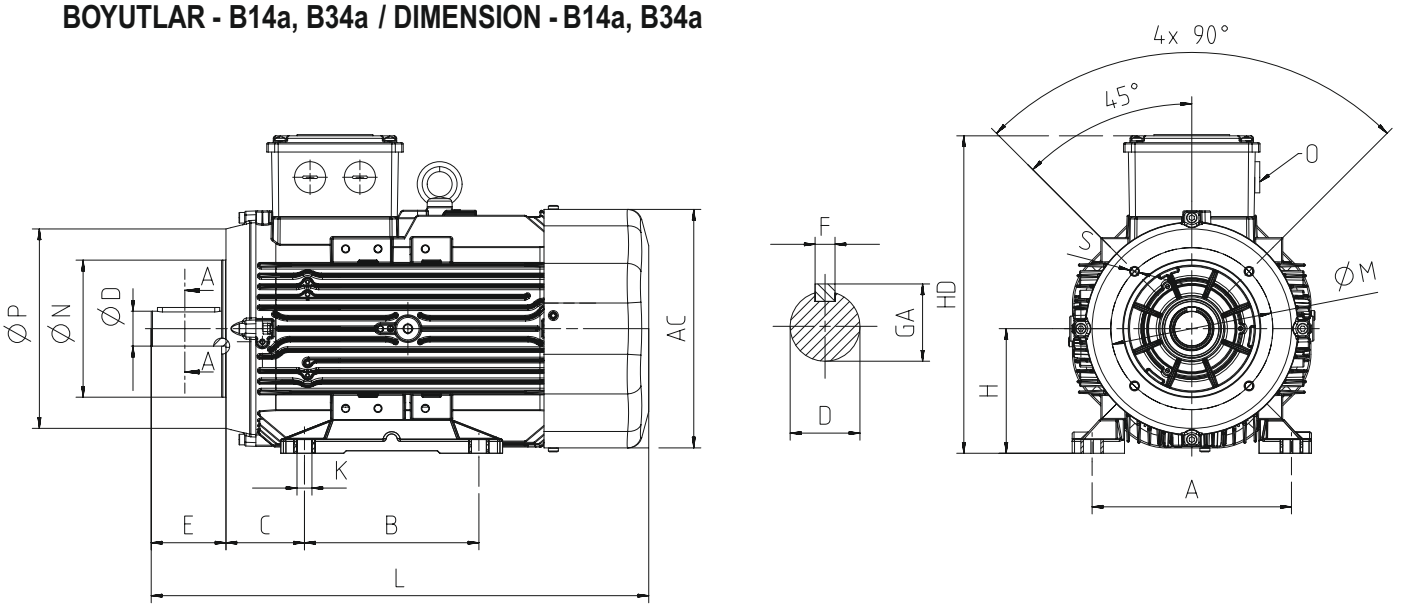
BOYUTLAR - B5, B35 / DIMENSION - B5, B35



				Ana Boyutlar Main Dimensions			Ayaklı Motorlar Foot Mounted Motors					Mil Shaft				Rulman Bearing		Keçe Seal		Flanş (FA) (B5) Flange (FA) (B5)				
Güç Power (kW)	Kutup sayısı Number of Poles	Motor Tipi Motor Type	Gövde Tipi Housing Type	AC	L	O	B	A	H	HD	K	D(1)	E	GA	F(2)	Kasnak Tarafı Drive Side	Kasnak Tarafı Aksi Non drive Side	Kasnak Tarafı Drive Side	Kasnak Tarafı Aksi Non drive Side	P	N(3)	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

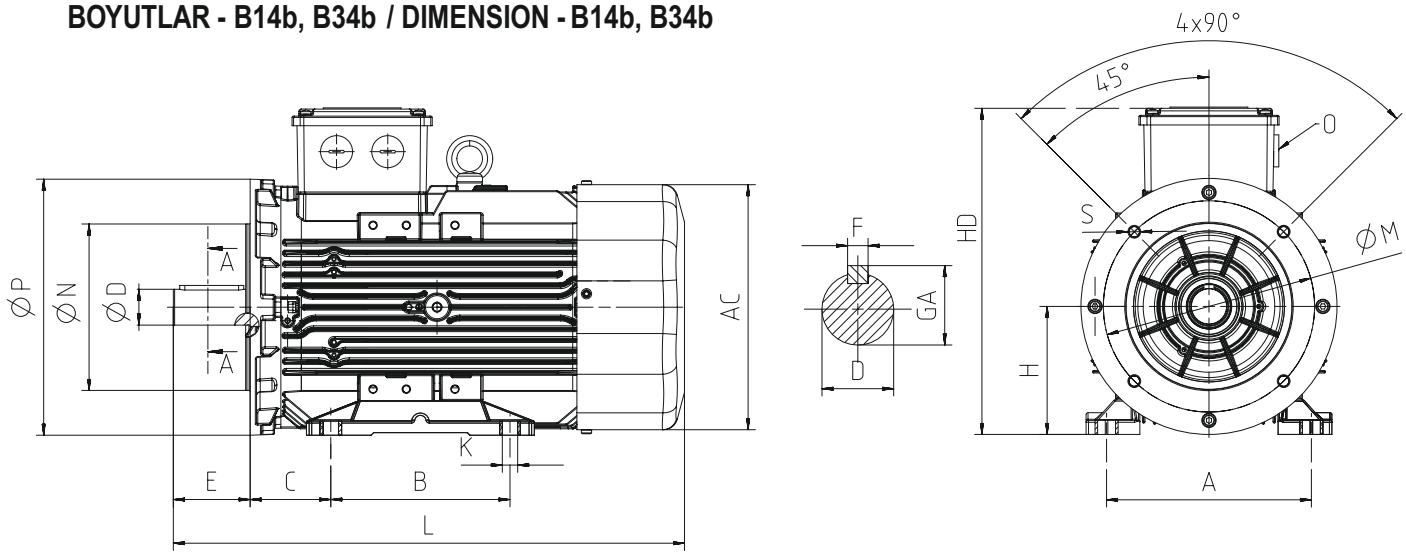


				Ana Boyutlar Main Dimensions			Ayaklı Motorlar Foot Mounted Motors					Mil Shaft				Rulman Bearing		Keçe Seal		Flanş (FC) (B14a) Flange (FC) (B14a)				
Güç Power (kW)	Kutup sayısı Number of Poles	Motor Tipi Motor Type	Gövde Tipi Housing Type	AC	L	O	B	A	H	HD	K	D(1)	E	GA	F(2)	Kasnak Tarafı Drive Side	Kasnak Tarafı Aksi Non drive Side	Kasnak Tarafı Drive Side	Kasnak Tarafı Aksi Non drive Side	P	N(3)	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"

ÜÇ FAZLI MOTORLAR - KOMPAKT
THREE PHASE MOTORS - COMPACT

BOYUTLAR - B14b, B34b / DIMENSION - B14b, B34b



				Ana Boyutlar Main Dimensions			Ayaklı Motorlar Foot Mounted Motors					Mil Shaft				Rulman Bearing		Keçe Seal		Flanş (FB) (B14b) Flange (FB) (B14b)				
Güç Power (kW)	Kutup sayısı Number of Poles	Motor Tipi Motor Type	Gövde Tipi Housing Type	AC	L	O	B	A	H	HD	K	D(1)	E	GA	F(2)	Kasnak Tarafı Drive Side	Kasnak Tarafı Aksi Non drive Side	Kasnak Tarafı Drive Side	Kasnak Tarafı Aksi Non drive Side	P	N(3)	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

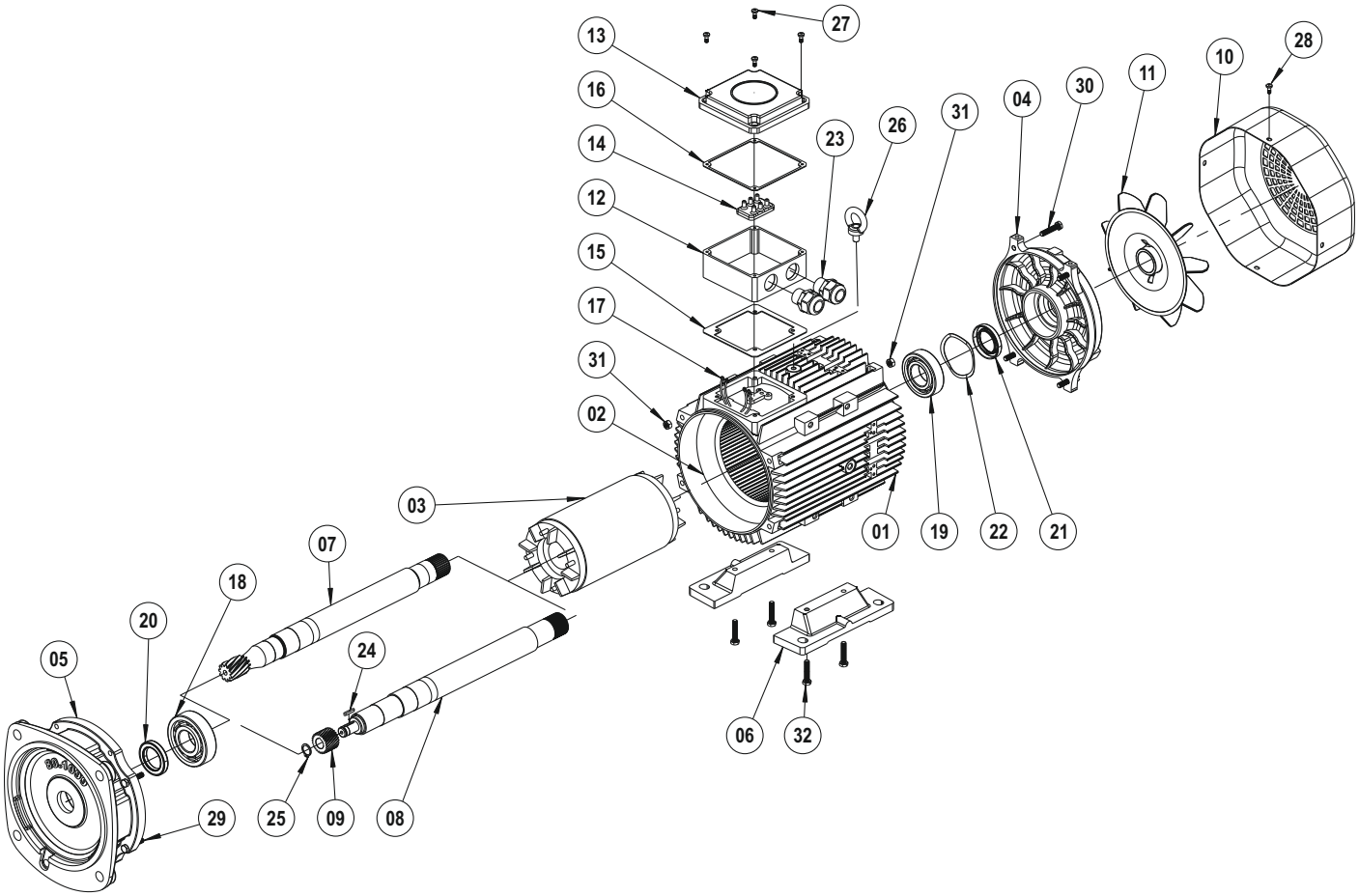
(1) Toleranslar 28 mm'ye kadar DIN EN 50347 "j6", 28 mm ve üzeri "k6" / Tolerance DIN EN 50347 "j6" up to 28mm, "k6" above 28mm
(2) DIN 6885'e göre / According to DIN 6885
(3) Tolerans DIN EN 50347 "j6" / Tolerance DIN EN 50347 "j6"



TR MOTOR PARÇA LİSTESİ

EN MOTOR PART LIST

DE ERSATZTEILLISTE FÜR MOTOR

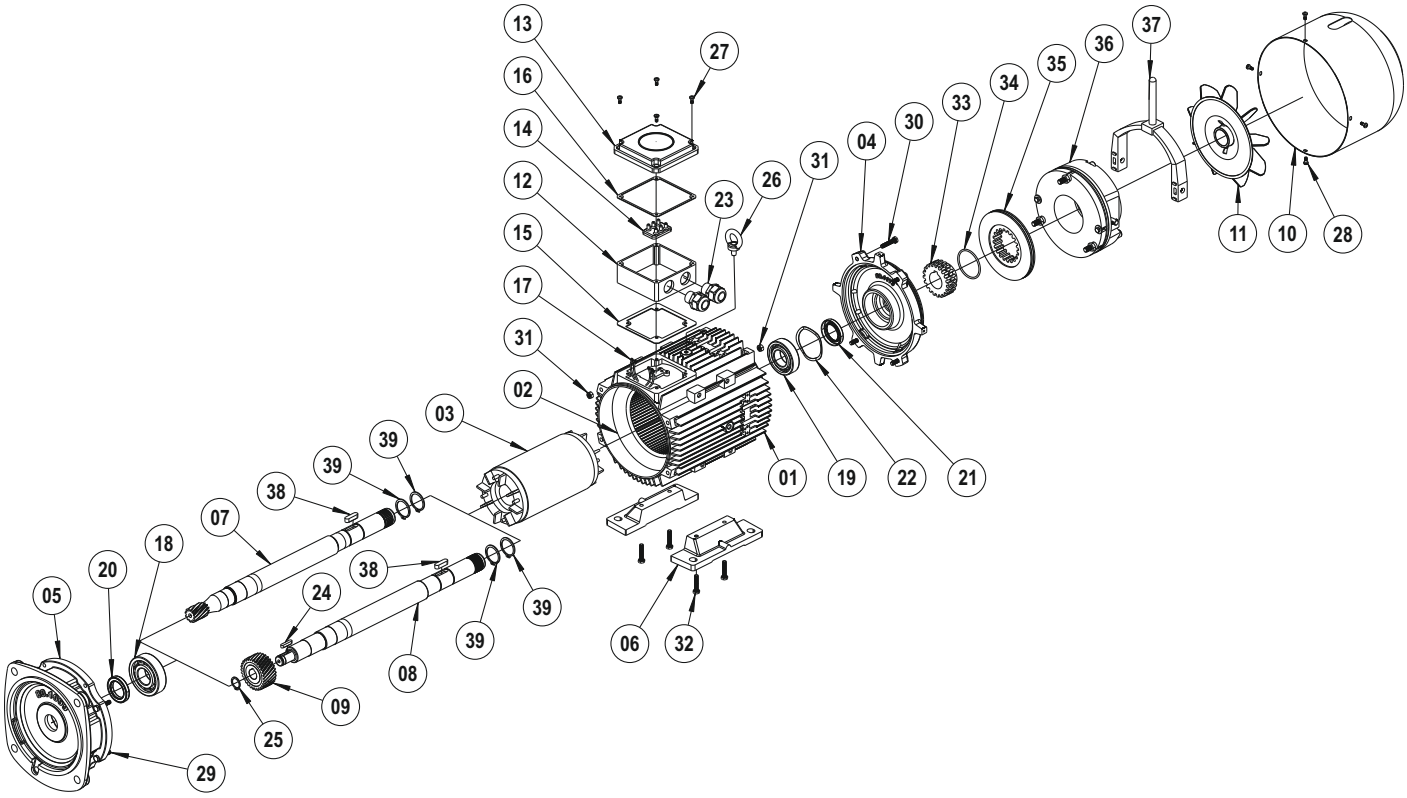


	TR	EN	DE
01	Gövde	Housing	Gehäuse
02	Sargılı Stator	Wound Stator	gewickelter Stator
03	Rotor	Rotor	Rotor
04	Motor Arka Kapağı	Nondrive - Endshield	B-Lagerschild
05	PGR Motor Bağlantı Flanşı	Moter Connection Flange	Moter-Anschlussflansch
06	Ayak	Foot	Fuß
07	Motor Mili (Yekpare)	Drive Shaft (Gearcut)	Antriebswelle (verzahnt)
08	Motor Mili (Çakma)	Drive Shaft (Plain)	Antriebswelle (glatt)
09	Z1 Dişlisi	Z1 Gear	Antriebsritzel
10	Fan Kapağı	Fan Cover	Lüfterhaube
11	Fan	Fan	Lüfter
12	Terminal Kutusu	Terminal Box	Klemmkasten
13	Terminal Kutu Kapağı	Terminal Box Cover	Klemmkastendeckel
14	Klemens Plakası	Terminal Plate	Anschlussplatte
15	Terminal Contası Alt	Terminal Gasket Down	Klemmkastendichtung unten
16	Terminal Contası Üst	Terminal Gasket Up	Klemmkastendichtung oben
17	Kablo Grubu	Lead Cables	Kabelbaum
18	Ön Rulman	Bal Bearing (Drive-Side)	Kugellager (Antriebsseite)
19	Arka Rulman	Bal Bearing (Non-Drive-Side)	Kugellager (Nicht-Antriebsseite)
20	Keçe (Ön)	Seal Ring (Front)	Dichtungsring (Vorne)
21	Keçe (Arka)	Seal Ring (Back)	Dichtungsring (Hinten)
22	Rulman Gergi Yayı	Bearing Shim	Stützscheibe
23	Rakor	Conduit	Gewindemuffe
24	Kama	Key	Passfeder
25	Segman	Circilip DIN 471	Sicherungsring DIN 471
26	Mapa	Eye Bolt	Augenschraube
27	Yıldız Başlı Civata	Pan Head Secrews	Kreuzschlitzschraube
28	Yıldız Başlı Civata	Pan Head Secrews	Kreuzschlitzschraube
29	Civata DIN 933	Bolt	Schraube DIN 933
30	Civata DIN 933	Bolt	Schraube DIN 933
31	Somun	Nut	Schraubenmutter
32	Civata DIN 933	Bolt	Schraube DIN 933

TR FRENLİ MOTOR PARÇA LİSTESİ

EN BRAKE MOTOR PART LIST

DE ERSATZTEILLISTE FÜR MOTOR MIT BREMSE

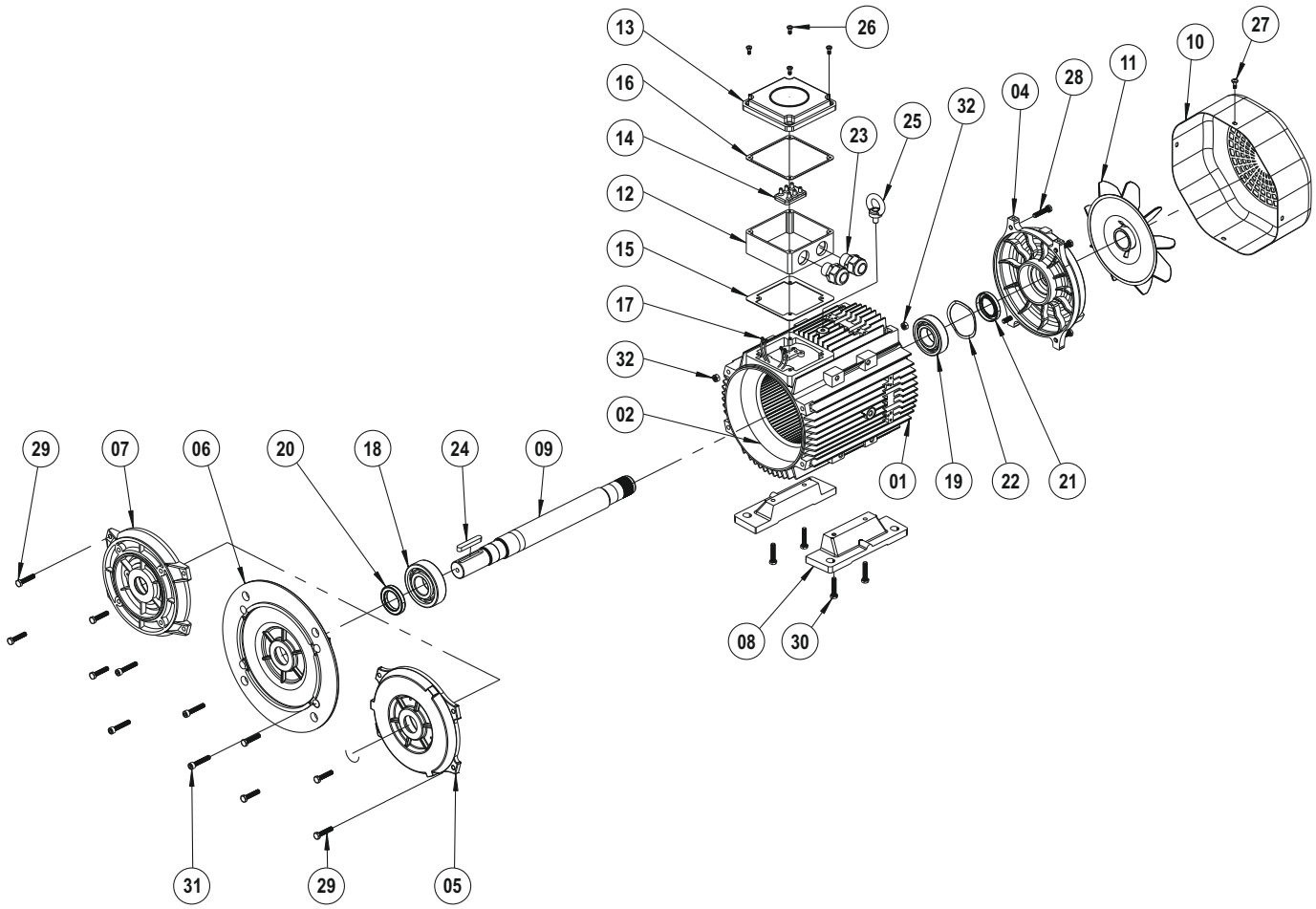


01	Gövde	01	Housing	01	Gehäuse
02	Sargılı Stator	02	Wound Stator	02	gewickelter Stator
03	Rotor	03	Rotor	03	Rotor
04	Fren Flanşı	04	Brake Connection Flange	04	Bremsflansch
05	PGR Motor Bağlantı Flanşı	05	Motor Connection Flange	05	Moter-Anschlussflansch
06	Ayak	06	Foot	06	Fuβ
07	Motor Mili (Yekpare)	07	Drive Shaft (Gearcut)	07	Antriebswelle (verzahnt)
08	Motor Mili (Çakma)	08	Drive Shaft (Plain)	08	Antriebswelle (glatt)
09	Z1 Dişlisi	09	Z1 Gear	09	Antriebsritzel
10	Fan Kapağı	10	Fan Cover	10	Lüfterhaube
11	Fan	11	Fan	11	Lüfter
12	Terminal Kutusu	12	Terminal Box	12	Klemmkasten
13	Terminal Kutu Kapağı	13	Terminal Box Cover	13	Klemmkastendeckel
14	Klemens Plakası	14	Terminal Plate	14	Anschlussplatte
15	Terminal Contası Alt	15	Terminal Gasket Down	15	Klemmkastendichtung unten
16	Terminal Contası Üst	16	Terminal Gasket Up	16	Klemmkastendichtung oben
17	Kablo Grubu	17	Lead Cables	17	Kabelbaum
18	Ön Rulman	18	Bal Bearing (Drive-Side)	18	Kugellager (Antriebsseite)
19	Arka Rulman	19	Bal Bearing (Non-Drive-Side)	19	Kugellager (Nicht-Antriebsseite)
20	Keçe (Ön)	20	Seal Ring (Front)	20	Dichtungsring (Vorne)
21	Keçe (Arka)	21	Seal Ring (Back)	21	Dichtungsring (Hinten)
22	Rulman Gergi Yayı	22	Bearing Shim	22	Stützscheibe
23	Rakor	23	Conduit	23	Gewindemuffe
24	Kama	24	Key	24	Passfeder
25	Segman	25	Circilip DIN 471	25	Sicherungsring DIN 471
26	Mapa	26	Eye Bolt	26	Augenschraube
27	Yıldız Başlı Civata	27	Pan Head Screws	27	Kreuzschlitzschraube
28	Yıldız Başlı Civata	28	Pan Head Screws	28	Kreuzschlitzschraube
29	Civata DIN 933	29	Bolt	29	Schraube DIN 933
30	Civata DIN 933	30	Bolt	30	Schraube DIN 933
31	Somun	31	Nut	31	Schraubenmutter
32	Civata DIN 933	32	Bolt	32	Schraube DIN 933
33	Fren Kaplini	33	Coupling	33	Kupplung
34	O-Ring	34	O-Ring	34	O-Ring
35	Fren Balatası	35	Brake Lining	35	Bremsbelag
36	Fren	36	Brake	36	Bremse
37	Manuel Kolu	37	Hand Release	37	Handauslöser
38	Kama	38	Key	38	Passfeder
39	Segman DIN 471	39	Circilip DIN 471	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

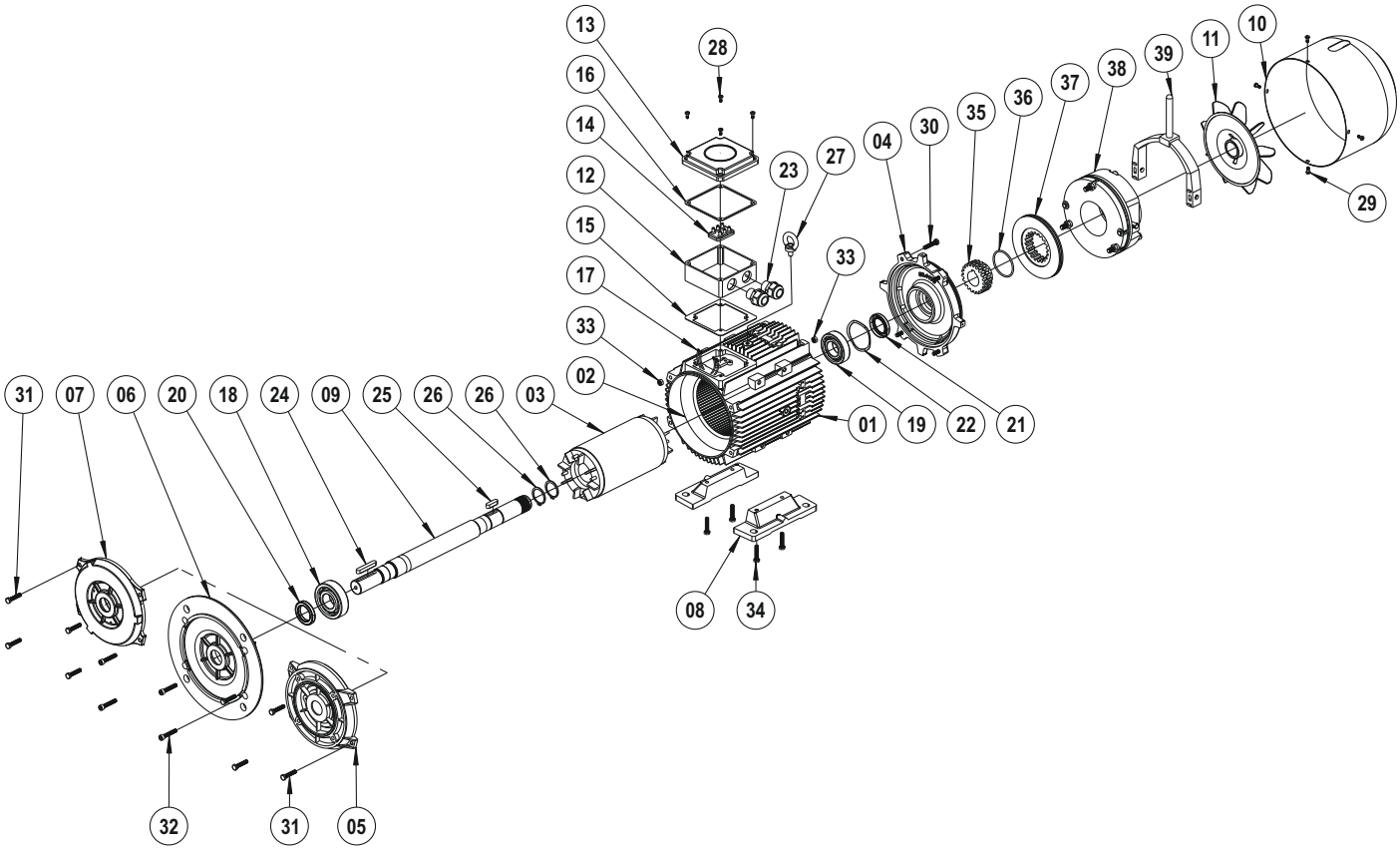


	TR	EN	DE
01	Gövde	Housing	Gehäuse
02	Sargılı Stator	Wound Stator	gewickelter Stator
03	Rotor	Rotor	Rotor
04	Motor Arka Kapağı	Nondrive - Endshield	B-Lagerschild
05	B3 Motor Bağlantı Flanşı	Flange	B3 Flansch
06	B5 Motor Bağlantı Flanşı	Flange	B5 Flansch
07	B14 Motor Bağlantı Flanşı	Flange	B14 Flansch
08	Ayak	Foot	Fuß
09	Motor Mili (Standart)	Drive Shaft (standard)	Antriebswelle (standart)
10	Fan Kapağı	Fan Cover	Lüfterhaube
11	Fan	Fan	Lüfter
12	Terminal Kutusu	Terminal Box	Klemmkasten
13	Terminal Kutu Kapağı	Terminal Box Cover	Klemmkastendeckel
14	Klemens Plakası	Terminal Plate	Anschlussplatte
15	Terminal Contası Alt	Terminal Gasket Down	Klemmkastendichtung unten
16	Terminal Contası Üst	Terminal Gasket Up	Klemmkastendichtung oben
17	Kablo Grubu	Lead Cables	Kabelbaum
18	Ön Rulman	Bal Bearing (Drive-Side)	Kugellager (Antriebsseite)
19	Arka Rulman	Bal Bearing (Non-Drive-Side)	Kugellager (Nicht-Antriebsseite)
20	Keçe (Ön)	Seal Ring (Front)	Dichtungsring (Vorne)
21	Keçe (Arka)	Seal Ring (Back)	Dichtungsring (Hinten)
22	Rulman Gergi Yayı	Bearing Shim	Stützscheibe
23	Rakor	Conduit	Gewindemuffe
24	Kama	Key	Passfeder
25	Mapa	Eye Bolt	Augenschraube
26	Yıldız Başlı Civata	Pan Head Screws	Kreuzschlitzschraube
27	Yıldız Başlı Civata	Pan Head Screws	Kreuzschlitzschraube
28	Civata DIN 933	Bolt	Schraube DIN 933
29	Civata DIN 933	Bolt	Schraube DIN 933
30	Civata DIN 933	Bolt	Schraube DIN 933
31	Civata DIN 912	Bolt	Schraube DIN 912
32	Somun	Nut	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)
21	Keçe (Arka)
22	Rulman Gergi Yayı
23	Rakor
24	Kama
25	Kama
26	Segman
27	Mapa
28	Yıldız Başlı Civata
29	Yıldız Başlı Civata
30	Civata DIN 933
31	Civata DIN 933
32	Civata DIN 912
33	Somun
34	Civata DIN 933
35	Fren Kaplini
36	O-Ring
37	Fren Balatası
38	Fren
39	Manuel Kolu

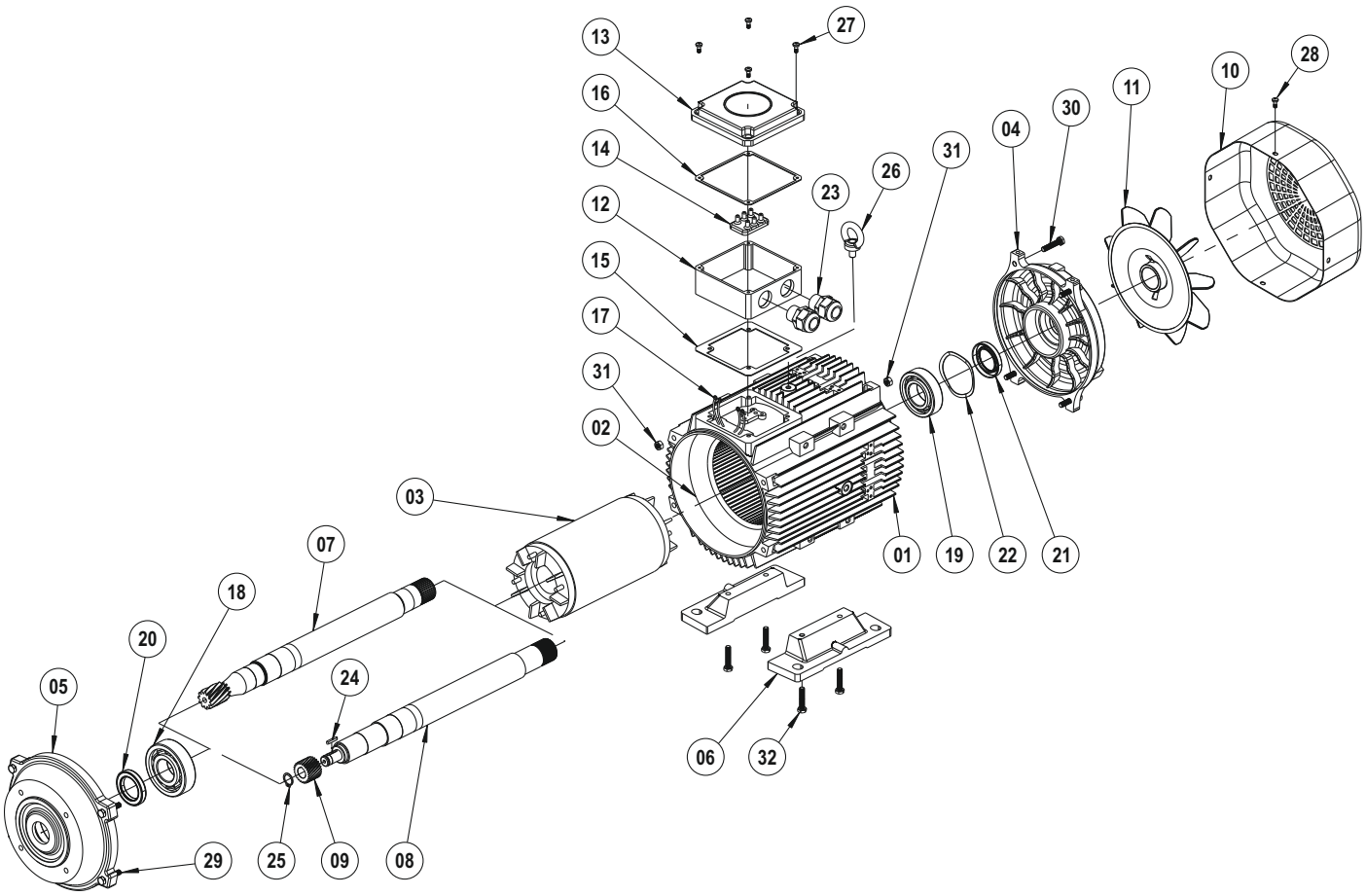
01	Housing
02	Wound Stator
03	Rotor
04	Brake Connection Flange
05	Flange
06	Flange
07	Flange
08	Foot
09	Drive Shaft (standard)
10	Fan Cover
11	Fan
12	Terminal Box
13	Terminal Box Cover
14	Terminal Plate
15	Terminal Gasket Down
16	Terminal Gasket Up
17	Lead Cables
18	Bal Bearing (Drive-Side)
19	Bal Bearing (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)
19	Kugellager (Nicht-Antriebsseite)
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

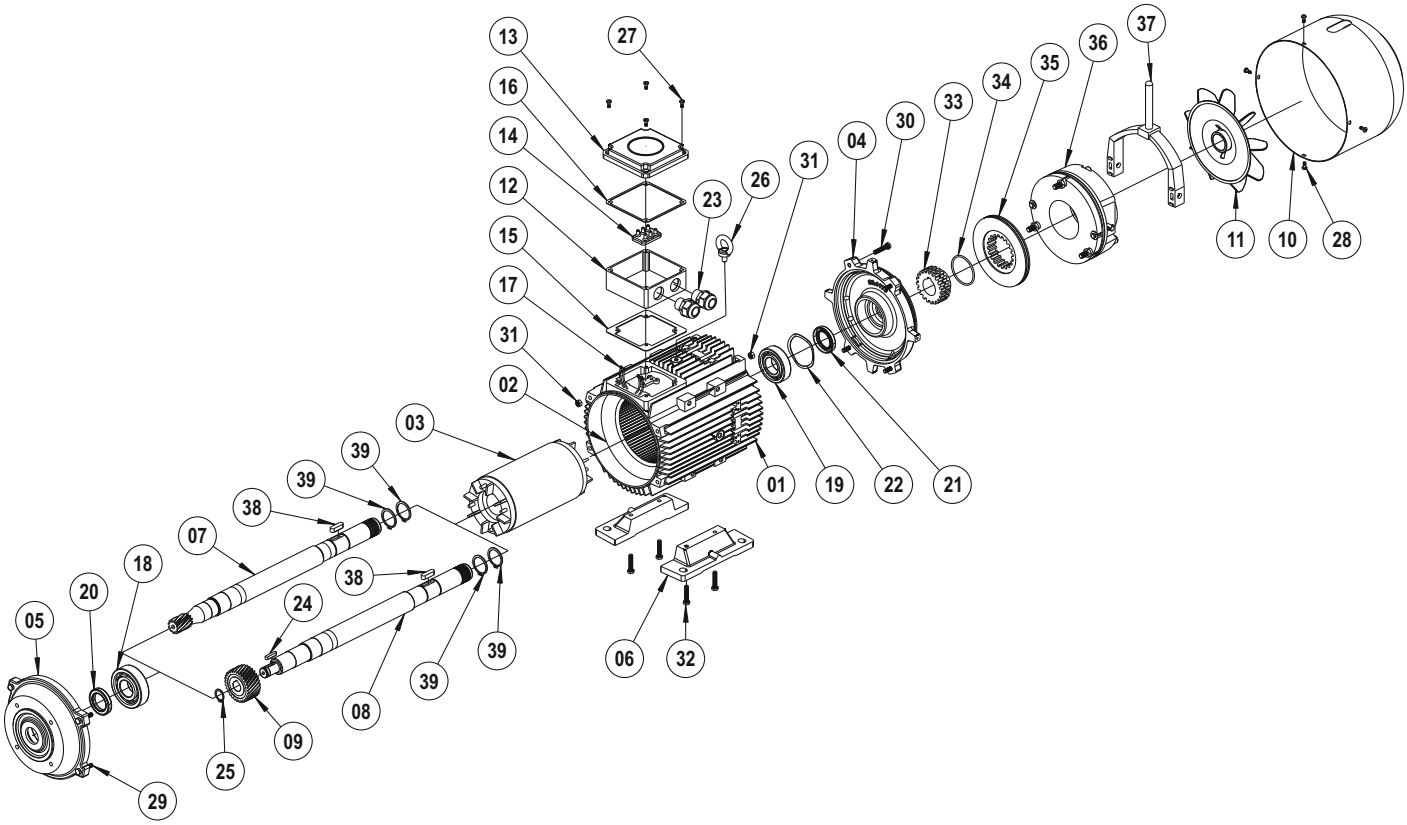


01	Gövde	01	Housing	01	Gehäuse
02	Sargılı Stator	02	Wound Stator	02	gewickelter Stator
03	Rotor	03	Rotor	03	Rotor
04	Motor Arka Kapağı	04	Nondrive - Endshield	04	B-Lagerschild
05	PGR Motor Bağlantı Flanşı	05	Moter Connection Flange	05	Moter-Anschlussflansch
06	Ayak	06	Foot	06	Fuß
07	Motor Mili (Yekpare)	07	Drive Shaft (Gearcut)	07	Antriebswelle (verzahnt)
08	Motor Mili (Çakma)	08	Drive Shaft (Plain)	08	Antriebswelle (glatt)
09	Z1 Dişlisi	09	Z1 Gear	09	Antriebsritzel
10	Fan Kapağı	10	Fan Cover	10	Lüfterhaube
11	Fan	11	Fan	11	Lüfter
12	Terminal Kutusu	12	Terminal Box	12	Klemmkasten
13	Terminal Kutu Kapağı	13	Terminal Box Cover	13	Klemmkastendeckel
14	Klemens Plakası	14	Terminal Plate	14	Anschlussplatte
15	Terminal Contası Alt	15	Terminal Gasket Down	15	Klemmkastendichtung unten
16	Terminal Contası Üst	16	Terminal Gasket Up	16	Klemmkastendichtung oben
17	Kablo Grubu	17	Lead Cables	17	Kabelbaum
18	Ön Rulman	18	Bal Bearing (Drive-Side)	18	Kugellager (Antriebsseite)
19	Arka Rulman	19	Bal Bearing (Non-Drive-Side)	19	Kugellager (Nicht-Antriebsseite)
20	Keçe (Ön)	20	Seal Ring (Front)	20	Dichtungsring (Vorne)
21	Keçe (Arka)	21	Seal Ring (Back)	21	Dichtungsring (Hinten)
22	Rulman Gergi Yayı	22	Bearing Shim	22	Stützscheibe
23	Rakor	23	Conduit	23	Gewindemuffe
24	Kama	24	Key	24	Passfeder
25	Segman	25	Circilip DIN 471	25	Sicherungsring DIN 471
26	Mapa	26	Eye Bolt	26	Augenschraube
27	Yıldız Başlı Civata	27	Pan Head Screws	27	Kreuzschlitzschraube
28	Yıldız Başlı Civata	28	Pan Head Screws	28	Kreuzschlitzschraube
29	Civata DIN 933	29	Bolt	29	Schraube DIN 933
30	Civata DIN 933	30	Bolt	30	Schraube DIN 933
31	Somun	31	Nut	31	Schraubenmutter
32	Civata DIN 933	32	Bolt	32	Schraube DIN 933

TR FRENLİ MOTOR PARÇA LİSTESİ

EN THE MOTOR PART LIST WITH BRAKE

DE ERSATZTEILLISTE FÜR MOTOR MIT BREMSE

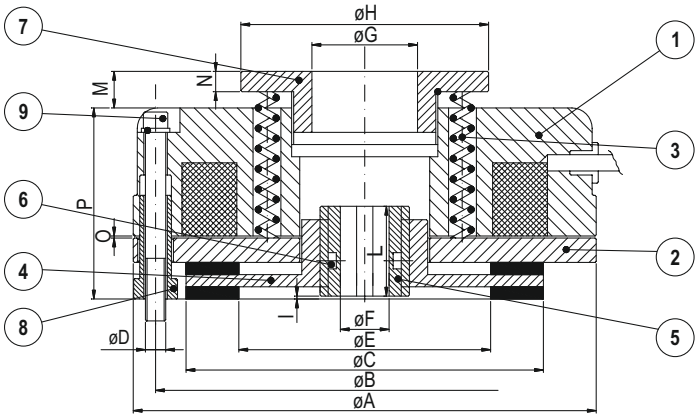


01	Gövde	**01**	Housing	**01**	Gehäuse
02	Sargılı Stator	**02**	Wound Stator	**02**	gewickelter Stator
03	Rotor	**03**	Rotor	**03**	Rotor
04	Fren Flanşı	**04**	Brake Connection Flange	**04**	Bremsflansch
05	PGR Motor Bağlantı Flanşı	**05**	Flange	**05**	Moter-Anschlussflansch
06	Ayak	**06**	Foot	**06**	Fuβ
07	Motor Mili (Yekpare)	**07**	Drive Shaft (Gearcut)	**07**	Antriebswelle (verzahnt)
08	Motor Mili (Çakma)	**08**	Drive Shaft (Plain)	**08**	Antriebswelle (glatt)
09	Z1 Dişlisi	**09**	Z1 Gear	**09**	Antriebsritzel
10	Fan Kapağı	**10**	Fan Cover	**10**	Lüfterhaube
11	Fan	**11**	Fan	**11**	Lüfter
12	Terminal Kutusu	**12**	Terminal Box	**12**	Klemmkasten
13	Terminal Kutu Kapağı	**13**	Terminal Box Cover	**13**	Klemmkastendeckel
14	Klemens Plakası	**14**	Terminal Plate	**14**	Anschlussplatte
15	Terminal Contası Alt	**15**	Terminal Gasket Down	**15**	Klemmkastendichtung unten
16	Terminal Contası Üst	**16**	Terminal Gasket Up	**16**	Klemmkastendichtung oben
17	Kablo Grubu	**17**	Lead Cables	**17**	Kabelbaum
18	Ön Rulman	**18**	Bal Bearing (Drive-Side)	**18**	Kugellager (Antriebsseite)
19	Arka Rulman	**19**	Bal Bearing (Non-Drive-Side)	**19**	Kugellager (Nicht-Antriebsseite)
20	Keçe (Ön)	**20**	Seal Ring (Front)	**20**	Dichtungsring (Vorne)
21	Keçe (Arka)	**21**	Seal Ring (Back)	**21**	Dichtungsring (Hinten)
22	Rulman Gergi Yayı	**22**	Bearing Shim	**22**	Stützscheibe
23	Rakor	**23**	Conduit	**23**	Gewindemuffe
24	Kama	**24**	Key	**24**	Passfeder
25	Segman	**25**	Circilip DIN 471	**25**	Sicherungsring DIN 471
26	Mapa	**26**	Eye Bolt	**26**	Augenschraube
27	Yıldız Başlı Civata	**27**	Pan Head Screws	**27**	Kreuzschlitzschraube
28	Yıldız Başlı Civata	**28**	Pan Head Screws	**28**	Kreuzschlitzschraube
29	Civata DIN 933	**29**	Bolt	**29**	Schraube DIN 933
30	Civata DIN 933	**30**	Bolt	**30**	Schraube DIN 933
31	Somun	**31**	Nut	**31**	Schraubenmutter
32	Civata DIN 933	**32**	Bolt	**32**	Schraube DIN 933
33	Fren Kaplini	**33**	Coupling	**33**	Kupplung
34	O-Ring	**34**	O-Ring	**34**	O-Ring
35	Fren Balatası	**35**	Brake Lining	**35**	Bremsbelag
36	Fren	**36**	Brake	**36**	Bremse
37	Manuel Kolu	**37**	Hand Release	**37**	Handauslöser
38	Kama	**38**	Key	**38**	Passfeder
39	Segman	**39**	Circilip DIN 471	**39**	Sicherungsring DIN 471

TR FREN PARÇA LİSTESİ

EN BRAKE PART LIST

DE BREMSE-TEILELISTE



1 Elektro mıknatıs
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 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 / Statisches Bremsmoment (Nm)	5	12	16	20	40	60	90	180	200	400	300	600	900
Motorun Max. Hızı / Max Speed of the motor / Höchstgeschwindigkeit des Motors (rpm)	3000	3000	3000	3000	3000	3000	3000	3000	1500	1500	1500	1500	1500
Giriş Gücü / Input Power / Eingangsleistung (W)	15	20	25	30	45	50	55	55	60	60	65	65	65
Max. Ses / Max noisiness / 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 Tollerance hole till size K3 H7, others + 0,01/-0,01 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 12	11-14 15	11-15	14-25	24-25 28	25-30 34	25-30 34	25 H40 34 H60	24-34	34 H60 48	44-45 48	44-45 48	44-45 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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