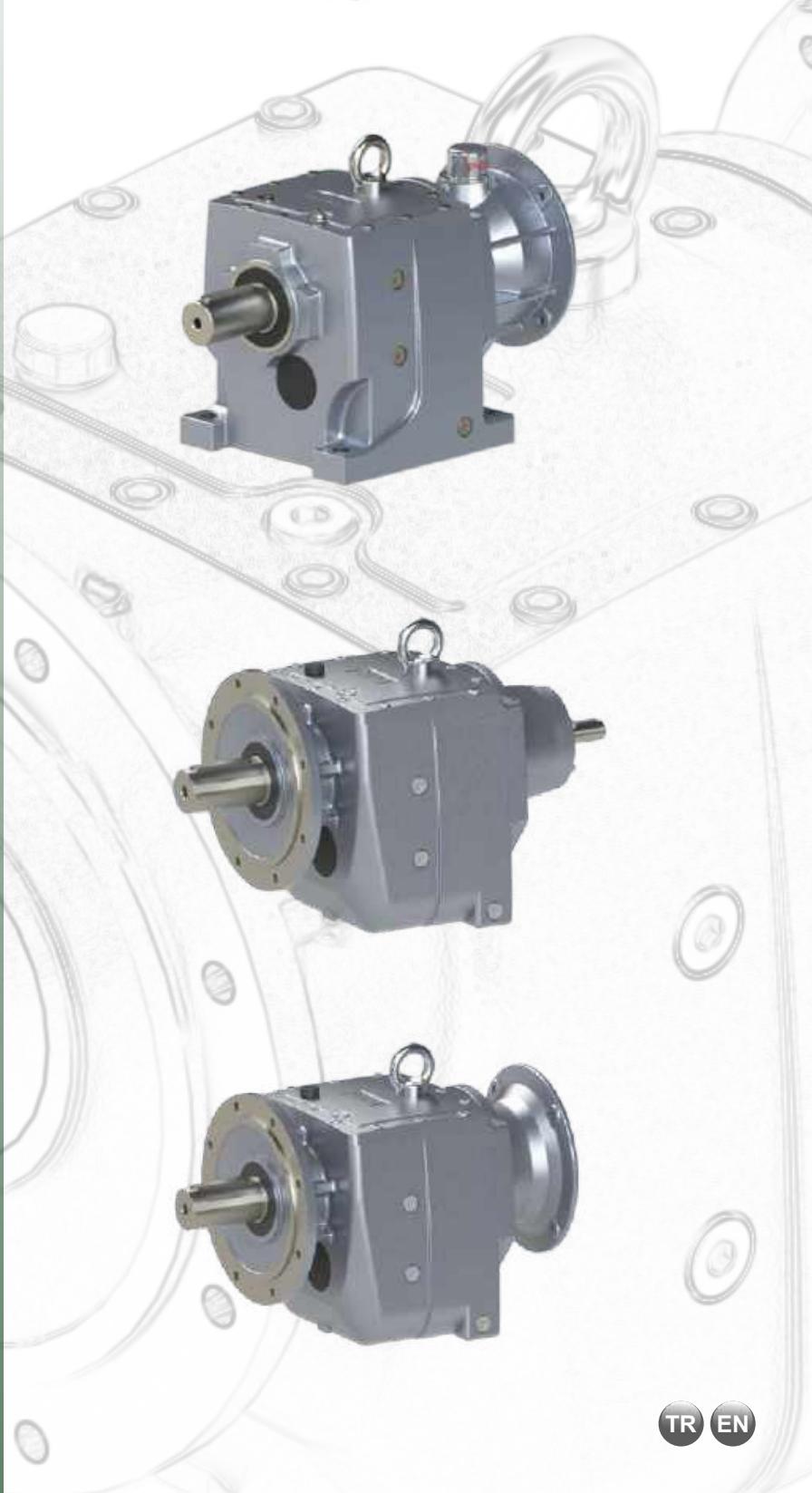




Helisel Dişlili Redüktör

Helical Gear Units

PA/PF SERIES





Kataloğumuzda yer alan bilgileri, önceden haber vermemeksizin kısmen veya tamamen değiştirme veya iptal etme hakkını saklı tutmaktayız.

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TR

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OUR QUALITY POLICY

To achieve the best quality of its products, POLAT GROUP REDÜKTÖR A.Ş. adopts with its own quality politics by following the technological developments of its sector, in order to keep up the stabilization on its own market share ensuring the customers' gladness increasing permanently by answering the customers' wishes and expectations completely at the right time to have the well-educated staffs increase their performance by providing a peaceful working place and making better the quality management system all the time.

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.

TR

TEKNİK BİLGİLER

EN

EXPLANATORY NOTES
Dişli Ünitesini Seçme

Bir dişli unitesini seçerken PGR üç fazlı asenkron AC motorlarını veya tek fazlı AC motorları kullanılır ve teknik olarak kıyaslanabilen motorlar için de geçerlidir. Başka motorlar kullanırken, lütfen PGR'e danışınız. Bir dişli unitesini seçme ile ilgili aşağıdaki önemli ana esaslara bağlı kalınmazsa, aşırı bir yük durumunun olması muhtemeldir. Bu durumda, tüm garantiler geçersizdir. Şüpheli durumda, lütfen dişli ünitesi tasarımını kontrol etmek için birlikte çalışabileceğiniz teknik bilgilerden sorumlu PGR satış ofisi ile irtibata geçiniz. Karşılıklı çıkarlarımız açısından, dişli ünitelerde aşırı yüklemenin neden olduğu tüm problemler her durumda, önlenmelidir.

Kriter

Seçme kriteri aşağıdakilerden oluşur:

1. Termal olarak transfer edilebilen güç (termal sınır)

Dişli unitesinin aşırı ısınmaması için, bu güç transferi (3 saat) daha uzun bir çalışma zamanını aşmamalıdır. Aşağıdaki maddelerden iki veya daha fazlasının geçerli olması durumunda çalışma durumunu kontrol ediniz.

- Ortam sıcaklığı > 40°C
- Dönme hızı $n_1 > 1500 \text{ min}^{-1}$
- Motor gücü $P_1 > 100 \text{ kW}$
- W kovalı ve IEC adaptörlü redüktörler
- Dik olarak montajı yapılan redüktörler (sayfa 28-31)
- Tahvil oranı $i_{top} < 20$ (Polat konik dişili için $i_{top} < 40$)

2. Mekanik olarak transfer edilebilen güç "P"

Bu güç, katalogdaki ilgili tablodaki servis faktörü f_B tarafından göz önüne alınır. Bir sonraki bölüm, gereklili servis faktörünün saptanmasını tanımlar.

Genel olarak, dişli unitesi ekleme, ısı radyasyonu, dar yer vs gibi özel montaj koşulları olduğunda bize danışınız. Özel ölçüler (veya su soğutucusu) termal aşırı yüküne karşı var olduğunda; lütfen PGR'e danışınız.

Giriş gücü ve servis faktörü

Her bir uygulama için gerekli giriş gücü, hesaplama ile saptanır. Motor anma gücü (P_1), bu giriş gücünden sonra seçilir. Normal olarak, belirli uygulama özel çalışma koşullarına ait güvenlik faktörleri gözleneceği ve anma motor çıkış seviyeleri genellikle standart çıkış seviyesi aralığında olduğu için motorun anma gücü istenilen güpten biraz daha yüksektir.

Montajı yapılacak 3 fazlı bir AC motorun anma gücünü seçerken kısa dönem ve seyrek tork tesirini göz önüne almak gerekmekz. Bir frekans inventörü üzerindeki 3 fazlı bir AC motor çalıştırırken ilave faktörler anma çıkış gücünün seçimini etkiler. Motorun aksine, kısa dönem ve seyrek tork tesiri öncemi derecede dişli unitesinin seçimini etkiler. Dişli unitesi servis faktörü f_B bu kısa dönem ve seyrek tork tesirini ve ayrıca yeteri doğrulukla dişli unitesi üzerinde etkileri göz önüne alır.

4. sayfadaki **diyagram 1** çalışma saatine veya güne bağlı olarak yük sınıflandırması, devir ve minimum servis faktörü arasındaki ilişkiye sunmaktadır.

Selecting Gear Unit

Gear unit selection includes PGR's three-phase AC motor or single phase AC motor and technically equal different motor could be applied. If you intend to use a motor other than PGR please contact with PGR. There are some condition for selecting gear unit and these condition must be considered overloading could be happened badly if restrictions are not considered. In these situations, all guarantees could be invalidated. Under suspicious situation please refer to PGR sales office department which is responsible for giving technical information to you.

Conditions

The conditions of selecting gear unit are as the following:

1. Thermal Limit

Thermal transfer power should not be exceeded over running time (3 hours) to prevent overheated gear unit. In case of any suspicion please contact PGR.

- Ambient temperature > 40°C
- Rotational speed $n_1 > 1500 \text{ min}^{-1}$
- Input power $P_1 > 100 \text{ kW}$
- With W-cylinder and IEC adapter gear units
- Vertical mounting position (see page 28-31)
- Reduction ratio $i_{top} < 20$ (for helical-bevel gear units $i_{top} < 40$)

2. Power transfer with service factor "P"

Service factor (f_B) is important for power transfer, determination of minimum service factor will be provided at the following section.

In special operating conditions; eg. heat radiation in bounded field (little space) which is required special devices (oil cooler or water cooler) please contact PGR

Input power and service factor

For every application, the requiring input power could be calculated. After determining input power, the rated motor power (P_1) is selected. Normally motor power is greater than the required input power because the safety factor is used according to operating conditions.

Selecting a motor type is important for right calculation for instance; three phase AC motor which is mounted to gear unit, affecting infrequent torque could not be considered but if you mount three-phase AC motor on frequency inverter latest available factor effects the output power. Besides of motor type short and infrequent torque impression effects selecting gear unit for that service factor is considered.

Diagram 1 which is shown on page 4, presents relation between types of load, revolution per hour and minimum service factor depend on operation hours or day.

TR

SERVİS FAKTÖRÜ

Diyagram 1, günlük çalışma zamanına bağlı gerekli minimum servis faktörü f_B min, 'Z' saatteki çevrimleri ve uygulama yükü sınıflandırması 'U', 'M', 'H' gösterir. Çalışma düzgünliğine ve kütle hız faktörüne bağlı olarak, üç yük sınıflandırması belirlenmiştir. Hareket ettiren makineden gelen etkiler çalışma düzgünliği sınıflandırmasında tanımlanırken, kütle hız faktörü en fazla olan yük üzerinde etkili olur.

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

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

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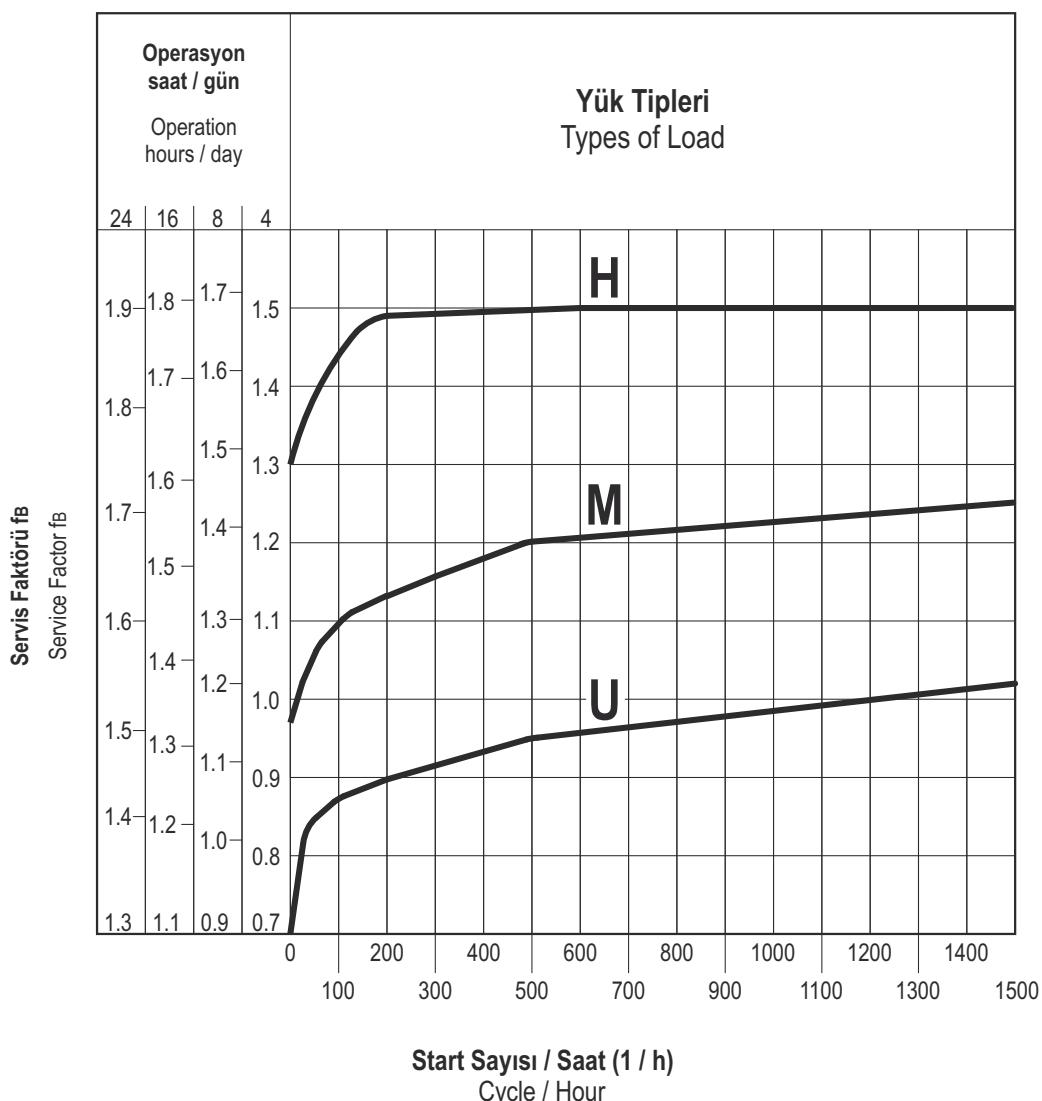
SERVICE FACTOR

Diagram 1 shows requiring minimum service factor depend on revolution per hours 'Z' and types of load 'U', 'M' or 'H'. In the following section the information regarding mass acceleration factor how it effects and the relation between load classification will be explained. Forces or loads which are applied from driven machine to gear unit while determine load classification, mass acceleration factor is played important role on the high load classification which is designated with 'H' sign.

Note : Service factor f_B which is acquired from diagram should be modified with factor "k" that, depends on driver type.

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

Diyagram - 1



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TEKNİK BİLGİLER

EN

EXPLANATORY NOTES

Dişli Ünitesini Seçme

Bir çalışmanın sınıflandırılması :

a) Düzgün çalışma (U)

Küçük karıştırıcılar, asansörler, konveyörler, montaj bantları, doldurma makineleri, bantlı konveyörler, temizleme makineleri, fanlar, test makineleri.

b) Yumuşak şoklar, düzgün olmayan çalışma (M)

Ağır konveyör bantları, dejirmenler, ahır gübre makineleri, vinç hareketli mekanizmalar, bükme makineleri, çimento karıştırıcıları, dişli makineleri, ahşap işleme makineleri için sürücüler, vinçler, kayar kapılar, dengeleme makineleri.

c) Ağır şoklar, aşırı düzgün olmayan çalışma (H)

Taş kırıcılar, eksantrik pressler, doğrayıcılar, presler, taşlama milleri, çekiçli kırıcılar, kağıt öğütücüleri, ağır karıştırıcılar, delme makineleri, katlama makineleri, dönen tezgahlar, yatay karıştırıcılar, kesiciler, vibratörler, santrifüj makineleri, döner tablalar.

Yük sınıflandırması, çalışma düzgünlüğünden ve aşağıdaki tabloya göre kütle hız faktörü 'maf' den belirlenir. Burada, çalışma veya kütle hız faktöründen gelen daha yüksek sınıf yük sınıflandırmasında geçerlidir. (Örnek: aşırı düzgün olmayan çalışma ve maf = 2,8 gibi durumda yük sınıfı 'M' olarak belirlenir).

Yük Sınıfı	Çalışma	Kütle hız faktörü
U	Düzgün çalışma	maf ≤ 0.25
M	Düzgün olmayan çalışma	0.25 < maf ≤ 3
H	Aşırı düzgün olmayan çalışma	3 < maf ≤ 10

Selecting a Gear Unit

Operation classification;

a) Uniform application (U)

Small agitators, elevators, conveyors, assembly belts, filling machines, conveyor belts, cleaning machines, fans, testing machines.

b) Moderate shocks, non-uniform application (M)

Heavy conveyors belts, mills, stall dunging machines, crane traveling mechanisms, bending machines, cement mixers, gear pumps, decoulers, tapping units, packaging machines, feed drives for wood processing machines, hoists, winches sliding doors, balancing machines.

c) Heavy shocks, extreme non-uniform application (H)

Stone crusher, eccentric presses, choppers, presses, spindle grinding mills, hammer mills, shredders, heavy mixers, punching machines, folding machines, rolling stands, tumbling barrels, shears, vibrators, centrifuges, roller tables.

Load classification is obtained from operation class and mass acceleration factor (maf). For this reason in any situation you must use the greater factor for calculation. (Eg: heavy - shock and maf = 2,8 load classification must be 'M')

Load Classification	Operation	Mass Acceleration Factor
U	Uniform application	maf ≤ 0.25
M	Non-uniform application	0.25 < maf ≤ 3
H	Extreme non-uniform application	3 < maf ≤ 10

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

i_{ges} = Toplam dişli ünitesi oranı

$J_{ex,red}$ = Hareket motoru üzerindeki azaltılmış tüm dış kütle atalet momenti

J_{ex} = Tüm dış kütle atalet momenti

J_{mot} = Motorun kütle atalet momenti

Kütle hız faktörü maf, çıkış tarafındaki dış kütleler ile giriş tarafındaki yüksek hız kütlelerin arasındaki ilişkisi gösterir. Kütle hız faktörü, başlatma ve frenleme işlemlerine ve titresime göre dişli ünitesindeki tork tesir seviyesini önemli derecede etkiler. Örneğin; bantlı konveyör sistemlerinde dış kütle atalet momenti taşıyan ürün kadar yük uygular. $maf > 10$ ise, transfer elemanlarında büyük bir oynama, yük sınıflamasında belirsizlik varsa veya şüphedeyseniz, PGR'e danışınız.

Servis faktörü f_B , maksimum dişli ünitesi çıkış momenti M_{max} ile montajlanmış motor gücü P_i , çıkış hızı n_2 ve dişli ünitesi verimi (η) sonucu ortaya çıkan momenti M_a arasındaki ilişkide.

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

Technically mass acceleration factor maf mass different between external output-side and high speed input-side. maf plays more important role at the level of torque propulsive than in the gear unit. It is mostly effected at start-up, braking operation and vibration. Please contact PGR where maf is greater than 10 and if there be large fluctions in transfer elements and vibration in the system.

Calculation of service factor is illuminated below. It depends on maximum output moment of gear unit and the output moment which is calculated from motor power, rotation speed and efficiency.

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

Dişli ünitesini doğru şekilde seçtiğinizde, çıkış ve hız genel açıklamalarından alınan servis faktörü f_B , diyagram 1'e göre minimum servis faktörü $f_{B\min}$ 'den büyük veya eşittir.

If selection of gear unit is correctly done, service factor which is taken from selection of gear motors table, must be greater than minimum service factor $f_{B\min}$ which is taken from diagram-1 (see page 4) according to types of load.

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

Helisel, parallel mil ve helisel konik dişli ünitelerinde her bir kademe için çok yüksek bir seviyede verimlilik vardır (her bir kademe için yaklaşık %98 veya $\eta = 0,98$). Bu yüzden hesaplamalarda verim $\eta = 1,0$ alınması yeterli doğru sonuçlara ulaşmasına yardımcı olur. Helisel sonsuz dişiler ile ilgili dişli ünitesi verimliliği, herbir çıkış hızı n_2 'ye ait çıkış ve dış oran tablolardında listelenmiştir. W kovani montajlı (serbest hareket mil) redüktörde çıkış gücü aşağıdaki formülden hesaplanır.

Efficiency is approximately 98% at helical, helical bevel parallel shaft gear units. For that reason efficiency could be taken $\eta = 1$ it shows that efficiency does not affect the calculation. But, for helical worm gear efficiency is given at table which depends on output speed and gear ratio.
With W cylinder (free drive shafts);

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

Burada, azami hareket gücü $P_{1\max}$ aşılamaz.

Value which calculated from formula P_1 , must be less than $P_{1\max}$ which is taken from the selection of W cylinder selection tables.

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

W ve IEC tipi redüktörler için performans tablosunda herbir çıkış devri n_2 , maksimum çıkış momenti M_{\max} , maksimum motor gücü $P_{1\max}$ listelenmiştir.

$P_{1\max}$ is shown at performance table for W cylinder (with free input shaft) and IEC adapter.

Hareketli tarafa fren bağlandığında, (frenli motorlar gibi) fren momenti de bir dişli ünitesini seçmede göz önüne alınmalıdır. Gezinti hareketleri, çember dişli, döner tablalar, kapı hareketleri, karıştırıcılar ve yüzey havalandırıcı ile ilgili uygulamalarda sıkça karşılaşılan yüksek dış kütle atalet momentli ($m_{af} > 2$) kullanımlarda frenleme momentinin, seçilen anma momentinin 1,2 katını aşmasına öneriz. Daha yüksek frenleme torkları kullanılacaksa, bu durum dişli ünitesini seçerken göz önünde bulundurulmalıdır. Lütfen PGR'e danışınız.

In selecting gear units brake can be optionally equipped which it is attached to the shaft or solid. It must be considered because of break torque. Application which have high external mass moment of inertia such as $m_{af} > 2$. We suggest break torque does not overrun 1,2 times motor torque.

Radyal ve Eksenel Kuvvetler

Cıktı momenti ve hız genel açıklamalarındaki tablolarda, çıkış mili üzerine izin verilen radyal kuvvetler F_R ve eksenel kuvvetler F_A listelenmiştir. Tercihen güçlendirilmiş çıkış mili yatakları bir çok dişli ünitesi tipi için geçerlidir. Güçlendirilmiş yataklardaki radyal ve eksenel kuvvetler tablolarda $F_{R\text{ GR}}$ ve $F_{A\text{ GR}}$ olarak belirtilmiştir. Listelenen radyal ve eksenel kuvvetler, mil çıkışlı ayak ve flanş bağlantılı dişli üniteleri için uygulanır. Radyal ve eksenel kuvvetler, bu kuvvetlerden biri 0 (sıfır)'a eşit iken hesaplanmıştır.

Ayrıca, radyal ve eksenel kuvvetlere ait bir servis faktörü $f_B = 1$ çıkış gücü ve devir açıklamalı genel tablolarda verilen kuvvetlerin temeline dayanır. Darbeli tipli kuvvetlerin olduğu ve aşırı çalışmalı (>8 saat/gün) uygulamalarda uygun servis faktörü $f_B > 1$ radyal ve eksenel kuvvetler için de göz önünde bulundurulmalıdır. Izin verilen kuvvetler F_A ve F_R belirli oranda azaltılır.

Axial and Radial Forces

Permissible forces on the output shaft are given at the selection of gear motor. F_R represents radial load and F_A represents axial load. $F_{R\text{ GR}}$ and $F_{A\text{ GR}}$ represents permissible load with reinforced bearings. These values are calculated when one of them is equal to zero.

In selecting gear motor tables service factor is given with permissible axial and radial load but it must be considered when operating times is greater than 8 hours and service factor must be greater than 1 for that reason permissible radial and axial loads are reduced.

TR

TEKNİK BİLGİLER

Listelenen radyal kuvvetler, milin ucunun orta kısmında etki eden bir kuvvette karşılık gelir. İzin verilen kuvvetleri saptarken, uygulanan kuvvetin hiç istenmeyen yönü ve dönme yönü varsayıldı. Tam bir hesaplama için, daha yüksek radyal ve eksenel kuvvetler muhtemeldir bu yüzden lütfen bize istenen servis süresinin yanı sıra gerçek güç ve dönme yönünün detaylarını da belirtiniz.

Transfer elemanları, çıkış miline eklenirse, ilgili faktör f_z radyal kuvveti saptamada göz önüne alınmalıdır.

fz için Tablo

Transfer Elemanları	Faktör fz	Açıklama
Dişiler	1.1	$z \leq 17$ dış
Zincir Disiler	1.4	$z \leq 13$ dış
Zincir Disiler	1.2	$z \leq 20$ dış
Dar V-Kayış Makaralar	1.7	ön gerilim kuvveti
Düz kayış Makaralar	2.5	

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

$$F_{rvorth} = \frac{2 \cdot M_2}{d_0} f_z \leq F_R$$

M_2 : Dişli ünitesi çıkış momenti [Nm]

f_z : Tablodan alınan katsayı

d_0 : Etkili daire çapı [mm]

F_R : Devir ve çıkış gücü tablolardan alınan müsaade edilebilir radyal kuvvet [kN]

F_{Rvorth} : Mil üzerindeki radyal kuvvet [kN]

Kuvvet mil ortasına uygulanmazsa, herhangi bir 'X' noktasında izin verilen radyal kuvvet **formül I ve II** kullanılarak hesaplanır.

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EXPLANATORY NOTES

Axial and radial forces are calculated where force acting on the middle of the shaft end see page 34-36. Direction of rotation is played important role in calculation. For that reason these forces are calculated and the value of the result is found from forces to the shaft worse. Hence, please explain details in your orders.

For belt-pulley operations or any other motion transfer applications f_z factor must be considered while calculating radial and axial load.

fz values are shown at table.

Transfer Elements	Factor fz	Notice
Gears	1.1	$z \leq 17$ teeth
Chain Sprockets	1.4	$z \leq 13$ teeth
Chain Sprockets	1.2	$z \leq 20$ teeth
Narrow V-belt pulleys	1.7	by
Flat belt pulleys	2.5	Pre-Tensionning

Radial load is determined with following formula;

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_{Rvorth} : Radial force on the gear unit shaft [kN]

The formula which is mentioned above is used when force is not acting on the middle of shaft. In other situations the following formula is applied

Formül / Formula - I

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

Formül / Formula - II

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

X mil bileziğinden kuvvet uygulama noktasına olan uzaklık [mm]
X noktası - mil kararlılığı

F_{RXW} izin verilen radyal yük [kN]

F_R hız ve çıkış tabloları ve milin ortasına uygulanan kuvvetten alınan radyal kuvvet [kN]
X Noktası - yatak servis ömrü

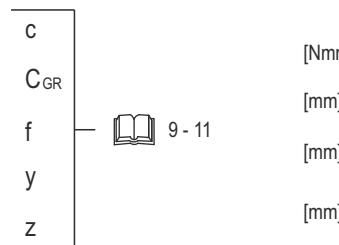
F_{RXL} izin verilen radyal yük [kN]

X distance from the shaft collar to the point of force application [mm]
point X - shaft stability

F_{RXW} permitted overhung force [kN]

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 overhung load [kN]

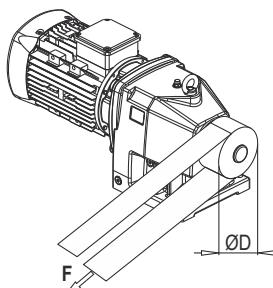


Belirtilmedir ki, hesaplamlarda **formül I** yatak servis ömrünü, **formül II** ise mil kararlığını hesaplama kullanılır. Hesaplamlar sonucunda küçük değer dikkate alınmalıdır.

Notify that, **formula I** and **formula II** are applied for calculating radial load where **formula I** is used for service life and **formula II** is used for shaft stability. After the calculations were done some points should be taken into consideration.

TR

RADYAL YÜK HESABI



RADYAL YÜKLERİN HESABI

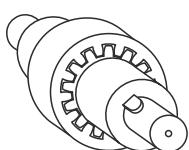
Radyal yük $F(N)$ 'nun hesaplanmasıında gerekli tahrif momenti M (Nm), kasnak veya dişli çapı D (mm) olmak üzere aşağıdaki formüller kullanılır.

EN

CALCULATION OF RADIAL LOADS

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.

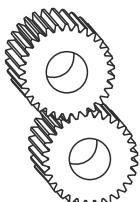


1 - Elastik Kaplin

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

1 - Elastik Coupling

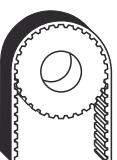
If elastic coupling is working in its reliable working area, the overhung loads can be neglected.

2 - Düz Dişli (20° kavrama açılı)

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

2 - For Spur Gear (Pressure angle 20°)3 - Küçük Hızlarda Zincir Dişli ($Z < 17$)

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

3 - For Chain Drive With Low Speed ($Z < 17$)

4 - Triger Kayış

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

4 - For Trigger Belt



5 - V Kayış

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

5 - For V Belt



6 - Gerdirme Makaralı Kayış

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

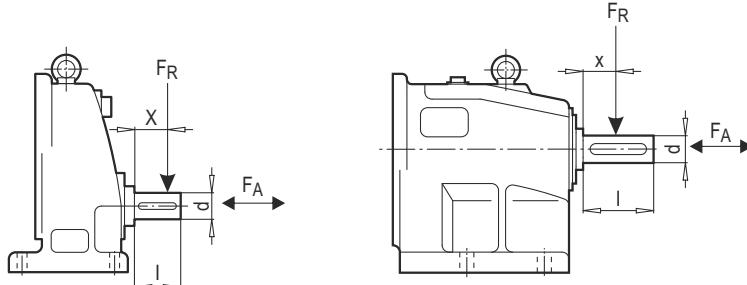
6 - Flat Belt With Spanning Pulley

TR

RADYAL YÜK HESABI

EN

CALCULATION OF RADIAL LOADS



ÇIKIŞ ŞAFTINDAKİ RADYAL VE EKSENEL YÜK HESAPLAMALARI İÇİN DEĞERLER

VALUE TABLE FOR RADIAL AND AXIAL LOADS AT OUTPUT SHAFT

Helisel dışılılı redüktör Helical gearboxes	y (mm)	z (mm)	c Normal Normal (Nmm)	c Güçlendirilmiş Reinforced (Nmm)	f (mm)	d (mm)	I (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.

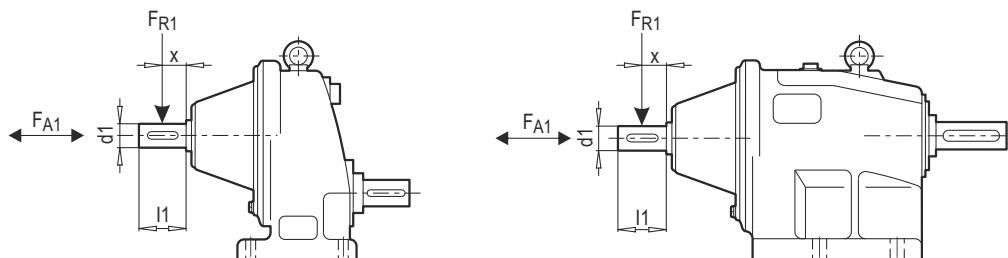
TR

RADYAL YÜK HESABI

EN

CALCULATION OF RADIAL LOADS

W



GİRİŞ ŞAFTINDAKİ RADYAL VE EKSENEL YÜK HESAPLAMALARI İÇİN DEĞERLER

VALUE TABLE FOR RADIAL AND AXIAL LOADS AT INPUT SHAFT f=0

Helisel dışılılı redüktör Helical gearboxes	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 x 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 x 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 x 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 x 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 x 10 ⁶	65 140
PA PF 102	224.5	294.5	1.66 x 10 ⁶	65	140

* W Adaptörlerde Güçlendirilmiş Rulman Kullanılmıştır. / * Reinforced bearing is used at W Adapters.

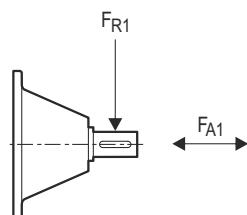
TR

RADYAL YÜK HESABI

EN

CALCULATION OF RADIAL LOADS

W



Tip Type	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	1.2	0.85	2.9	2.1	-	-	-	-	-	-
0.18	1.1	0.82	2.9	2.1	-	-	-	-	-	-
0.25	1.0	0.78	2.8	2.1	-	-	-	-	-	-
0.37	0.89	0.75	2.6	2.1	4.1	2.1	-	-	-	-
0.55	0.77	0.72	2.5	2.0	3.9	2.8	-	-	-	-
0.75	0.58	0.70	2.3	1.9	3.8	2.4	6.1	4.4	-	-
1.10	0.35	0.61	2.1	1.8	3.5	2.7	5.9	4.3	-	-
1.50	0.29	0.43	2.0	1.8	3.3	2.6	5.8	4.2	-	-
2.20	0.20	0.42	1.7	1.7	2.7	2.4	5.5	4.1	-	-
3.00	0.15	0.23	1.5	1.6	2.5	2.3	5.2	3.9	4.3	11.0
4.00	-	-	0.98	1.1	2.3	2.1	4.9	3.7	4.2	10.9
5.50	-	-	0.65	1.0	1.6	1.8	4.4	3.4	4.1	10.8
7.50	-	-	0.27	1.0	1.4	1.3	4.3	3.4	3.8	10.4
9.20	-	-	-	-	1.0	0.98	3.9	3.1	3.6	10.1
11.0	-	-	-	-	0.59	0.47	3.3	2.7	3.4	9.9
15.0	-	-	-	-	-	-	3.3	2.7	3.1	9.5
18.5	-	-	-	-	-	-	2.7	2.3	3.0	9.3
22.0	-	-	-	-	-	-	2.2	1.8	2.9	9.3
30.0	-	-	-	-	-	-	1.1	1.2	2.3	8.4
37.0	-	-	-	-	-	-	0.74	0.87	2.0	8.1
45.0	-	-	-	-	-	-	-	-	2.2	8.3
55.0	-	-	-	-	-	-	-	-	1.5	7.4
75.0	-	-	-	-	-	-	-	-	0.78	4.6
90.0	-	-	-	-	-	-	-	-	0.24	5.2

* W Adaptörlerde Güçlendirilmiş Rulman Kullanılmıştır.

* Reinforced bearing is used at W Adapters.

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



TR

KISALTMALAR

EN

ABBREVIATIONS

f_B	= Servis Faktörü (Mamax / Ma)	f_B	= Service factor (Mamax / Ma)
F_A	= Çıkış tarafındaki müsaade edilebilir eksenel yük [kN]	F_A	= Permissible thrust load at the output side [kN]
F_R	= Çıkış tarafındaki, milin orta noktasına etkiyen müsaade edilebilir radyal yük [kN]	F_R	= Permissible overhung load at the output side, force acting at the shaft's midpoint [kN]
F_D	= Reaksiyon yükü [kN]	F_D	= Reaction [kN]
i_{toplam}	= Dışlı ünitesindeki toplam tahvil oranı	i_{total}	= Gear units total ratio
i_{ges}	= Tahvil oranı	i_{ges}	= Reduction ratio
M₂	= Çıkış momenti [Nm]	M₂	= Output torque [Nm]
M_{amax}	= Müsaade edilebilir maksimum çıkış momenti [Nm]	M_{amax}	= Max. permissible output torque [Nm]
n₂	= Çıkış hızı [d/dk]	n₂	= Output speed [min ⁻¹]
P_e	= Mamax referans alınarak hesaplanan güç [kW]	P_e	= Calculated power [kW] with reference to Mamax
P_n	= Motor güç oranı [kW]	P_n	= Rated power of motor [kW]
η	= Verim [%]	η	= Efficiency [%]
kg	= Redüktörün ağırlığı	kg	= Weight of the geared motor

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

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

TR

PA/PF TANITIMI

POLAT HELİSEL DİŞLİLİ REDÜKTÖR (PA/PF)

2 ve 3 kademeli helisel tip redüktörle (PA/PF 62-63'den PA/PF 102-103'e) motor ve çıkış miline eşmerkezli olarak montaj edilmiştir. PA/PF 02'den 52'ye kadar 2 kademeli redüktörlerimiz mevcuttur. PA/PF 02'den PA/PF 52'ye kadar olan 2 kademeli redüktörlerimiz daha yüksek tahlil oranlarında gövde dayanımı artırarak 3 kademeli olarak üretilmekteydi.

Bu 3 kademeli redüktörler PA/PF 03 - PA/PF 53 adı altında dizayn edilmiştir. PA/PF 62/63 ve üzeri boyutlardaki helisel dişlili redüktörler aynı gövde içerisinde 2 veya 3 kademeli redüktörler haline getirilebilirler. Yüksek tahlil oranları için 4, 5 ve 6 kademeli helisel dişlili redüktörlerimiz de mevcuttur. Helisel dişlili redüktörlerin ayaklı ve flanslı versiyonları bulunmaktadır. Flanslı helisel tip redüktörlerde flanş gövdeyle bir döküm olduğundan dolayı flanş ile gövde arasında herhangi bir bağlantı civatısı mevcut değildir. 0,12 - 160 Kw'dan 26000 Nm'ye kadar çıkış oranı 11 farklı boyuttaki redüktörlerimizle elde edebiliyoruz.

EN

DESCRIPTION OF PA/PF

POLAT HELICAL GEARED MOTOR (PA/PF)

High quality Polat helical gears can be supplied foot or flange mounted products. Foot mounted is designated by 'PA' which is Polat foot mounted helical gear and flange mounted is designated by 'PF' which is Polat flange mounted helical gear.

There are available 2,3 or multistage designs. From PA/PF 02 to PA/PF 52 helical gear units are available in two stage reduction. These designs could be produced in three stage reduction at high ratio with increasing strength of unit case which are designated from PA/PF 03 to PA/PF 53.

Greater cases which are designated from PA/PF 62-63 to PA/PF 102-103 to and three stage helical gear units are designed input and output shaft concentrically. Polat multistage helical gear units are designed for high reduction ratios. At flange mounted helical gears, flange is intended on case for strength mounted or installation. Approximately 26000 Nm moment could be obtained with eleven different sizes of Polat helical gear unit altering from 0,12 kW to 160 kW.

Helisel Dişli Redüktör:

0,12 kW dan 160 kW' ya kadar
26000 Nm' ye kadar çıkış momenti bulunur.

Helical Gear Reducer :

Approx. 26000 Nm output moment
altering power from 0,12 kW to 160 kW.

MAX. MÜSAADE EDİLEBİLİR ÇIKIŞ MOMENTİ M_{max} .

MAX. PERMISSIBLE OUTPUT TORQUES M_{max} .



147 - 169

Bir, İki ve Üç kademeli helisel dişlili redüktör

Helical gear boxes single, double and triple reduction

Tip / Type	M_{max} (Nm)	Tip / Type	M_{max} (Nm)	Tip / Type	M_{max} (Nm)	Tip / Type	M_{max} (Nm)	Tip / Type	M_{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				

W ve IEC Adaptör

W kovanlı redüktörlerin max. tahrik gücü geçerli olan çıkış devri ve tahliv oranına göre tablolarda verilmiştir. (Bknz 147-169) IEC adaptörlü dişli ünitelerinde, her gövde büyülüğünün standart gücü DIN EN 50347'ye göre verilir. P1 değeri W ve IEC seçim sayfalarında listelenmiştir. Bu listedeki değerlerden fazla bir güç istenirse özel hesaplamalar gerekmektedir. Lütfen danışınız.

W kovanlı redüktörlerin giriş mili rulmanları düzenli olarak yağılmalıdır. 2 kademeli redüktörlerden PA/PF 62, PD/PM 62 ve üst gövdeler, 3 kademeli redüktörlerden PA/PF 73, PD/PM 73, PKD 6390 ve üst gövdeler için her 4000 çalışma saatinden yaklaşık 20-25 gr gres içeren otomatik yağlayıcı kullanılarak giriş şafıflı rulmanı yağlama olmasını öneririz. Kullanılan yağlayıcı Petamo GHY 133 N'dır. Ayrıca W kovanlı redüktörlerde bu yağlayıcısından ayrı opsiyon olarak dişli ünitesinin soğumasını sağlamak için dış fan da mevcuttur. Lütfen danışınız.

Otomatik yağlayıcı üniteleri IEC 160 motor büyülüğünden başlayarak en düşük 2 kademeli redüktörlerden PA/PF 62, PD/PM 62, 3 kademeli redüktörlerden PA/PF 73, PD/PM 73, PKD 6390 gövdelerine bağlanmaktadır. Bu otomatik yağlayıcı rulmanlara kalıcı bir yağlama sağlar. Redüktörü çalıştırıldan önce devreye sokulmalıdır. Günlük ortalama 8 saat çalışırsa yılda 1 kez, bunun dışındaki çalışma saatlerinde 6 ayda bir değiştirilmelidir. Otomatik yağlayıcı içindeki gres dış ortam sıcaklığı 0° C - 40° C arasındaki çalışma uygundur. Çok uzun süreli çalışmalarında ve belirtilen dış ortam sıcaklığı değişimlerinde daha özel yağlayıcı kullanılmalıdır. Lütfen danışınız.

Otomatik yağlayıcı IEC'ler belirtilen çalışma şartları içerisinde dikey montaj pozisyonunda (M2 ve M4) önerilmez. Bu gibi durumlarda direkt motor montajı önerilir. Eğer motor boyutu 160 ve daha büyük IEC'ler dikey montaj pozisyonunda kullanılacaksa, kullanım şartları göz önünde bulundurularak tarafımızdan kontrol edilmeli ve onaylanmalıdır. Lütfen buna dikkat ediniz. Dikey montaj pozisyonu çalışmalarında (M2) sızdırmazlık elemanlarının ömrü azaltılabilir. Bu gibi durumlarda daha kısa aralıklarla bakım yapılmalıdır. 2 kademeli redüktörlerden PA/PF 52, PD/PM 52'ye kadar ve 3 kademeli redüktörlerden PA/PF 63, PD/PM 63, PKD 5390'a kadar olan IEC adaptörlü dişli üniteleri çalışma ömrü süresince sızdırmazlığa sahip yağılmış rulman içerir. Bunlar için bakım süreleri kullanım kılavuzunda önerilen bakım süreleri geçerlidir.

Motor boyutu 63'ten 180'e kadar olan IEC adaptörün kaplini arzaya karşı emniyetli değildir. Fakat otomatik yağlayıcı kullanılan IEC 160-180 ve daha büyük boyutlu adaptörlerdeki kaplinler arzaya karşı emniyetlidir. Kaldırma, asansör ve bu gibi insan yaralanmalarına neden olabilecek çalışmalar için özel hesaplamalar gerekmektedir. Lütfen PGR'ye danışınız. Direk motor montajlı redüktörle karşılaşmak gerekirse IEC ilave mil kaplinine ve extra rulman yataklamasına sahiptir. Direk motor montajına göre IEC bağlantılı redüktörlerde güç kayıpları daha fazladır. PGR olarak biz direk motor montajını öneririz. Bu size sadece teknik avantaj değil finansal olarak da avantaj sağlar.

W and IEC Adapter for Gear Units

Selection of W cylinder (with free input shaft) and IEC adapter are listed on page 147-169. Maximum power are given according to gear reduction ratio and output speed. Gear units with IEC adapter standard power is specified according to DIN EN 50347. For other power values which are not shown on table, special calculation for operating safety limits is required. For these cases, please contact PGR.

Polat gear unit series such as PA/PF 62, PD/PM 62 and greater case which are 2 stage reducers, PA/PF 73, PD/PM 73, PKD 6390 and greater case which are 3 stage reducers with W adapter (with free input shaft) input solid shaft bearings must be lubricated orderly. Automatic lubricator could be used for increasing service life of bearings. This unit includes approximately 20-25g grease and it supplies fresh grease at every 4000 running hours. PGR recommends using Petamo GHY 133 N type of lubrication. At the same time, fan option is available for cool gear unit to safe operation. For this option contact PGR

Automatic lubricator design is used from IEC160 motor size and greater motor size to small gear units which are for 2 stage reducers PA/PF 62, PD/PM 62 and for 3 stage reducers PA/PF 73, PD/PM 73 and PKD 6390. This unit provides permanent lubrication to bearings. Automatic lubricator must be changed once a year for where gear unit is run 8 hours or less at daily operation for other running hours it must be changed every 6 months. Automatic lubricator must be actuated before starting the reducers. Grease is acceptable between 0 °C - 40 °C operation conditions. At long - term running and exception from specified ambient temperature special lubricant must be used. Please, consult us.

Under determined operating conditions, IEC with automatic lubricator is not suggested for vertical mounting positions (M2 and M4 mounting positions). For these cases direct motor mounting should be applied. If IEC 160 and greater size will be used at vertical mounting positions, it must be controlled by PGR for suitable and safe operations with considering actual operating conditions. For mounting position M2 (vertical alignment) life cycle of seals are effected badly for that reason maintenance of these reducer must be at shorter times from which maintenance time is determined at manual. 2 stage reducers up to PA/PF 52, PD/PM 52 and 3 stage reducer up to PA/PF 63, PD/PM 63, PKD 5390 gear units are included seals for bearings as long as their service life. For these gear units maintenance time is valid as the time is specified at manual.

Coupling is used for installing motor to IEC adapter. At from IEC 63 to IEC 180, coupling is not safe for important application since human injuries could occur. But IEC 160 - IEC 180 with automatic lubricator and greater size of IEC adapter is safe for application but on the other hand for operations where accident could be caused personnel damage special calculation is required, please consult us. Direct motor mounting has a lot of advantage according to mounting of IEC adapter. At gear units with IEC adapter has additional solid shaft coupling and bearing seats for that reason power losses are greater than direct motor mounting. Last but not least direct motor coupling not only has technical advantages but also financial advantages.

TR

KULLANIM ALANLARI

EN

APPLICATION AREAS

UYGULAMALAR

KARIŞTIRICILAR

- * Saf Sıvılar
- * Sıvılar ve Katılar
- * Değişken Yoğunluklu Sıvılar

HAVALANDIRMA TERTİBATLARI

- * Santrifüj
- * Lob
- * Pervane

MAYALAMA VE DAMITMA

- * Şişeleme Mekanizması
- * Mayalama Kazanları - Kesintisiz İş
- * Fırınlar, Ocaklar - Kesintisiz İş
- * Ezme, Karışım Kazanları - Kesintisiz İş
- * Ölçü Haznesi - Sık Sık Başlama

TOPRAK İŞLEME MAKİNELERİ

- * Tuğla Presi
- * Briket Makinesi
- * Çamur Karma Makinesi

KOMPRESÖRLER

- * Santrifüj
- * Lob
- * Çok Pistonlu
- * Tek Pistonlu

KONVEYÖRLER - GENEL MAKSATLI

- * Üniform Yüklü
- * Üniform Yüklü Olmayan
- * Pistonlu veya Kariştırıcılı

VİNÇLER

- * Kuru Havuz
- Ana Kaldırmavinci
- Yardımcı Vinç
- Direkli Vinç
- Döndürme İşi
- Çekme İşi
- * Endüstriyel İşi
- Ana Kaldırma Vinci

ASANSÖRLER

- * Kova
- * Santrifuj Boşaltma
- * Yürüyen Merdiven
- * Taşıma, Nakliye
- * Yerçekimi Boşaltım

KIRMA MAKİNELERİ

- * Taş ya da Maden

APPLICATIONS

AGITATORS (MIXERS)

- * Pure Liquids
- * Liquids and Solids
- * Liquids - Variable Density

BLOWERS

- * Centrifugal
- * Lobe
- * Vane

BREWING AND DISTILLING

- * Bottling Machinery
- * Brew Kettles - Continuous Duty
- * Cookers - Continuous Duty
- * Mash Tubs - Continuous Duty
- * Scale Hopper - Frequent Starts

CLAY WORKING MACHINERY

- * Brick Press
- * Briquette Machine
- * Pug Mill

COMPRESSORS

- * Centrifugal
- * Lobe
- * Reciprocating, Multi-Cylinder
- * Reciprocating, Single-Cylinder

CONVEYORS - GENERAL PURPOSE

- * Uniformly Loaded or Fed
- * Not Uniformly fed
- * Reciprocating Or Shaker

CRANES

- * Dry Dock
- Main Hoist
- Auxiliary Hoist
- Boom Hoist
- Slewing Drive
- Traction Drive
- * Industrial Duty
- Main Hoist

ELEVATORS

- * Bucket
- * Centrifugal Discharge
- * Escalators
- * Freight
- * Gravity Discharge

CRUSHER

- * Stone or Ore

UYGULAMALAR**TARAMA MAKİNELERİ**

- * Kablo Bobinleri
- * Konveyörler
- * Pompalar
- * İstifleme Makineleri
- * Vinçler

EKSTRUİDERLER

- * Genel
- * Plastikler
 - Değişken Hızlı Tahrik
 - Sabit Hızlı Tahrik
- * Kauçuk, Lastik
 - Kesintisiz Vida İşlemleri
 - Kesintili Vida İşlemleri

FANLAR

- * Santrifüj
- * Yüksek Emişli
- * İndükleşmiş Çekiş
- * Endüstriyel ve Maden Ocağı

BESLEME ÜNİTELERİ

- * Palet
- * Bant
- * Disk
- * Pistonlu
- * Vida

GIDA ENDÜSTRİSİ

- * Hububat Fırını
- * Hamur Karıştırıcı
- * Kiyma Makinesi
- * Dilimleyici

METAL İŞLEMELERİ

- * Çekme Makinesi Taşıma ve Ana Tahrik
- * Hammadde İticileri
- * Makaslar
- * Tel Çekme
- * Tel Sarıgi Makinesi
- * Salgı Tezgahı
 - Geri Dönmesiz
 - Tek Tahrik
 - Grup Tahrik

DÖNER İŞLEMELER

- * Küresel ve Çubuk
- Düz Halka Dişli
- Helisel Halka Dişli
- Doğrudan Bağlı
- * Çimento Fırını
- * Kurutucular ve Soğutucular

APPLICATIONS**DREDGES**

- * Cable Reels
- * Conveyors
- * Pumps
- * Stackers
- * Winches

EXTRUDERS

- * General
- * Plastics
 - Variable Speed Drive
 - Fixed Speed Drive
- *Rubber
 - Continuous Screw Operation
 - Intermittent Screw Operation

FANS

- * Centrifugal
- * Forced Draft
- * Induced Draft
- * Industrial and Mine

FEEDERS

- * Apron
- * Belt
- * Disc
- * Reciprocating
- * Screw

FOOD INDUSTRY

- * Cereal Cooker
- * Dough Mixer
- * Meat Grinder
- * Slicer

METAL MILLS

- * Draw Bench Carriage and Main Drive
- * Slab Pushers
- * Shears
- * Wire Drawing
- * Wire Winding Machine
- * Runout Table
 - Non-Reversing
 - Individual Drives
 - Group Drives

MILLS (ROTARY TYPE)

- * Ball and Rod
- Spur Ring Gear
- Helical Ring Gear
- Direct Connected
- * Cement Kilns
- * Dryers and Coolers

TR

KULLANIM ALANLARI

EN

APPLICATION AREAS

UYGULAMALAR

KERESTE ENDÜSTRİSİ

- * Kabuk Soyucular
- Besleme Tamburu
- Ana Tahrik
- * Konveyörler
- Brülor
- Ana Yük veya Ağır Yük
- Ana Kütük
- Hizar ve Taşıma Bandı
- Kalink Dilim
- Taşıma
- * Kesme Testereleri
- Zincir
- Sürükleme
- * İndirme Boşaltma Tamburları
- * Uzun Deste
- * Tomruk Çekme-Eğme
- * Kütük Döndürme Aygıtları
- * Sıralama Tablası
- * Taşıma
- Zincir
- Kreynyolu
- * Tabla Tahriki

KAĞIT İŞLEMELERİ

- * Karıştırıcı
- * Saf çözeltiler İçin Karıştırıcı
- * Kabuk Soyma Tromelleri
- * Mekanik Kabuk Soyuçu
- * Dövücü - Öğütücü
- * Düzleştirme Makinesi
- * Kalenderleme
- * Yüzey Pürüzlendirici
- * Çentik Besleyici
- * Kaplama Merdanesi
- * Konveyörler
- Çentik, Kabuk, Kimyasal
 Kalink Dilimler İçeren Kütükler
- * Kesici
- * Silindir Kalıpları
- * Kurutucu
- Kağıt Makinesi
- Konveyör Tip
- * Kabartmalı Basıcı
- * Ekstruder
- * Kağıt Merdaneleri
- * Presler
- * Hamurlaştırıcı
- * Pompalar

FİLTRELER

- * Havalı Yıkama
- * Döner - Taş veya Çakıl
- * Hareketli Su Girişи

APPLICATIONS

LUMBER INDUSTRY

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

PAPER MILLS

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

SCREENS

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

UYGULAMALAR**PLASTİK ENDÜSTRİSİ**
İLK İŞLEMLER

- * Yoğun İç Karıştırıcılar
- Harmanlayıcı
- Kesintisiz Karıştırıcı

PLASTİK ENDÜSTRİSİ
İKİNCİL İŞLEMLER

- * Hacim Kalıpçıları
- * Kaplama
- * Tabaka
- * Boru
- * Ön Plastikleştirme
- * Rot
- * Saç, Plaka
- * Borular

POMPALAR

- * Santrifüj
- * Oranlama
- * Pistonlu
 - Tek Tesirli - 3 veya daha fazla Silindir
 - Çift Tesirli - 2 veya daha fazla Silindir
- * Döner
 - Şanzuman Tipi
 - Lob
 - Pervane

KAUÇUK - LASTİK ENDÜSTRİSİ

- * Yoğun İç Karıştırıcılar
 - Harmanlayıcılar
 - Kesintisiz Karıştırıcılar
- * Karıştırma İşlemi
 - 2 Yumuşak Merdane
 - 1 veya 2 Oluklu Merdane
- * Toplu İşleme - 2 Yumuşak Silindir
- * Kırıcı ve Isıtıcı - 2 Merdane, 1 Oluklu Merdane
- * Kırıcı - 2 Oluklu Merdane
- * Tutma, Besleme, Karıştırma İşlemi - 2 Merdane
- * Arıtıcı - 2 Merdane
- * Kalenderler

ATIK SU BOŞALTIM EKİPMANLARI

- * Çubuklu Elek
- * Kimyasal Besleme Üniteleri
- * Su Boşaltma Eleği
- * Köpük Kesici
- * Yavaş veya Hızlı Karıştırıcılar
- * Tortu Toplayıcı
- * Koyulaştırıcı
- * Vakumlu Filtre

KOMPAKTÖRLER**ÇEKİTMELER - YAVAŞ VE KUVVETLİ****APPLICATIONS****PLASTIC INDUSTRY**
PRIMARY PROCESSING

- * Intensive Internal Mixers
- Batch Mixers
- Continuous Mixers

PLASTIC INDUSTRY
SECONDARY PROCESSING

- * Blow Molders
- * Coating
- * Film
- * Pipe
- * Pre-Plasticizers
- * Rods
- * Sheet
- * Tubing

PUMPS

- * Centrifugal
- * Proportioning
- * Reciprocating
 - Single Acting - 3 or more cylinders
 - Double Acting - 2 or more cylinders
- * Rotary
 - Gear Type
 - Lobe
 - Vane

RUBBER INDUSTRY

- * Intensive Internal Mixers
- Batch Mixers
- Continuous Mixers
- * Mixing Mill
 - 2 Smooth Rolls
 - 1 or 2 corrugated Rolls
- * Batch Drop Mill - 2 Smooth Rolls
- * Cracker Warmer-2 Rolls,1 Corr. Roll
- * Cracker - 2 Corrugated Rolls
- * Holding, Feed and Blend Mill - 2 Rolls
- * Refiner - 2 Rolls
- * Calenders

SEWAGE DISPOSAL EQUIPMENT

- * Bar Screens
- * Chemical Feeders
- * Dewatering Screen
- * Scum Breaker
- * Slow or Rapid Mixers
- * Sludge Collector
- * Thickener
- * Vacuum Filter

COMPACTORS**PULLERS - BARGE HAUL**

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KULLANIM ALANLARI

EN

APPLICATION AREAS

UYGULAMALAR
ŞEKER ENDÜSTRİSİ

- * Pancar Dilimleme Aleti
- * Kamış Bıçakları
- * Kırmızı Makineleri

TEKSTİL ENDÜSTRİSİ

- * Harman Ölçer
- * Kalenderler
- * Şablonlar
- * Kuru Konserveler
- * Boyama Makinesi
- * Dokuma Tezgahları
- * Çamaşır Sıkma Makinesi - Merdane
- * Kaplama
- * Doldurma Makinesi
- * Haşıl Makinesi
- * Halat Yıkama Makinesi
- * Eğirme Makinesi
- * Germe Kurutma Makineleri
- * Yıkama Makineleri
- * Masura Sarıcısı

DAMPERLİ ARAÇLAR
APPLICATIONS
SUGAR INDUSTRY

- * Beet Slicer
- * Cane Knives
- * Crushers

TEXTILE INDUSTRY

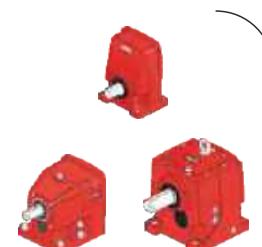
- * Batcher
- * Calenders
- * Cards
- * Dry Cans
- * Dyeing Machinery
- * Looms
- * Mangle
- * Napper
- * Pads
- * Siashers
- * Soapers
- * Spinners
- * Tenter Frames
- * Washers
- * Winders

ÇEKİCİ ARAÇLAR
CAR DUMPERS
ARITİCİLAR
CAR PULLERS
KONSERVE DOLUM MAKİNELERİ
CLARIFIERS
CAN FILLING MACHINES

REDÜKTÖR TİPİ / GEAR TYPE

Ayak Montajlı
Foot Mounted

PA 11...PA 51 = Tek kademeli, Ayak montajlı, Helisel dişlili redüktör
Single reduction, Foot mounted, Helical gearboxes



PA 02...PA 102 = İki kademeli, Ayak montajlı, Helisel dişlili redüktör
Double reduction, Foot mounted, Helical gearboxes



PA 03...PA 103 = Üç kademeli, Ayak montajlı, Helisel dişlili redüktör
Triple reduction, Foot mounted, Helical gearboxes



PA 02/12...PA 52/12 = Dört kademeli, Ayak montajlı, Helisel dişlili redüktör
Quadruple reduction, Foot mounted, Helical gearboxes



PA 63/22...PA 103/52 = Beş kademeli, Ayak montajlı, Helisel dişlili redüktör
Quintuple reduction, Foot mounted, Helical gearboxes



PA 63/23...PA 103/53 = Altı kademeli, Ayak montajlı, Helisel dişlili redüktör
Sixtuple reduction, Foot mounted, Helical gearboxes

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Flanş Montajlı
Flange Mounted

PF 11...PF 51 = Tek kademeli, Flanş montajlı, Helisel dişlili redüktör
Single reduction, Flange mounted, Helical gearboxes



PF 02...PF 102 = İki kademeli, Flanş montajlı, Helisel dişlili redüktör
Double reduction, Flange mounted, Helical gearboxes



PF 03...PF 103 = Üç kademeli, Flanş montajlı, Helisel dişlili redüktör
Triple reduction, Flange mounted, Helical gearboxes



25

PF 02/12...PF 52/12 = Dört kademeli, Flanş montajlı, Helisel dişlili redüktör
Quadruple reduction, Flange mounted, Helical gearboxes



PF 63/22...PF 103/52 = Beş kademeli, Flanş montajlı, Helisel dişlili redüktör
Quintuple reduction, Flange mounted, Helical gearboxes



PF 63/23...PF 103/53 = Altı kademeli, Flanş montajlı, Helisel dişlili redüktör
Sixtuple reduction, Flange mounted, Helical gearboxes



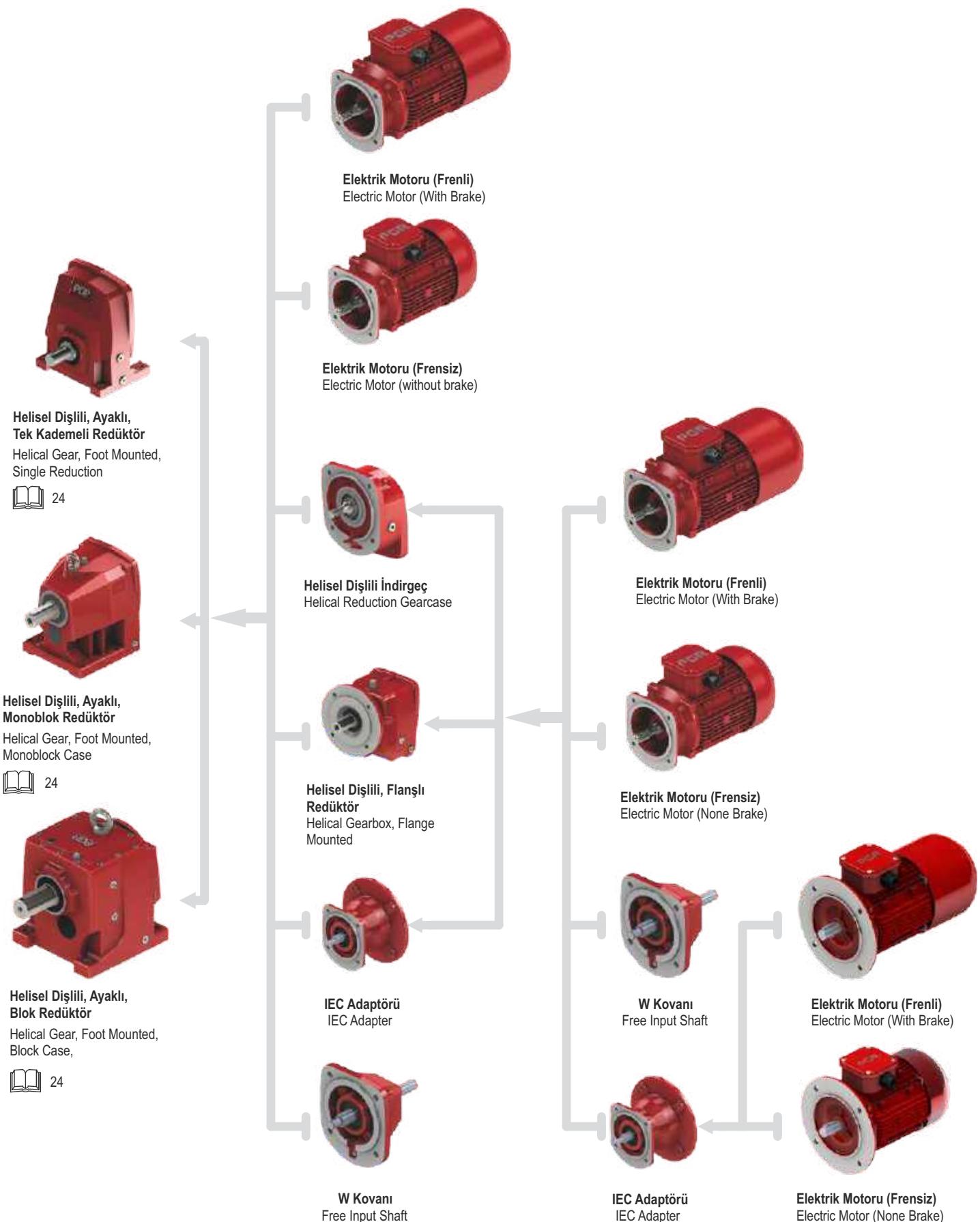
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KULLANILAN TERİMLER

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NOMENCLATURE

Giriş Aksamları Input Options	Motor Motor	Kutup Numarası Number of Poles	Motor Seçenekleri Motor Options
W = Motorsuz girişli redüktörler için aksam = With free input shaft	Üç fazlı motor Motor boyutu 63 - 315 EExell = Patlamaya karşı güvenliği artırılmış üç fazlı motor = Explosion proof three phase motor increased safety	2 = 2 Kutuplu = 2 - Poles 4 = 4 Kutuplu = 4 - Poles 6 = 6 Kutuplu = 6 - Poles 4 - 2 = 1:2 oranında hız değiştirici dahlander bağlantısı = Pole changing 1:2 Dahlander connection 8 - 2 = 1:4 oranında hız değiştirici ayrılmış sarmal dizilişli = Pole changing 1:4 Separate windings Diğer kutup kombinasyonları istendiğinde karşılaşacaktır Other pole combinations on request	BRE = Frenli = With brake EF = Tek fazlı, fanlı = Separate fan, single phase ZF = Çift fazlı, fanlı = Separate fan, double phase DF = Üç fazlı, fanlı = Separate fan, three phase IG = Enkoderli = With encoder KK/FK = Debriyajlı = With clutches SR = Toza karşı korumalı fren = Brake dust - proof TF = Termistörlü = Thermistor RG = Korozyon korumalı frenli = Brake corrosion - protected WU = Yumuşak kalkışlı rotor = Soft start rotor RLS = Geri dönmeye karşı kilitli = Backstop TW = Isıya duyarlı = Thermal trip HL = Manuel frenli motor = Brake motor with hand release F = Extra Fan = Auxiliary Fan
IEC = DIN 42677' ye göre standart motorlar için aksamalar = For assembly with IEC standard motors acc. to DIN 42677			
T = Turbo kapılı = Turbo coupling			



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PF MODÜLER SİSTEMİ

EN

MODULAR SYSTEM OF PF



Helisel Dişlili, Flanşlı,
Tek Kademeli Redüktör
Helical Gear, Flange
Mounted, Single Reduction

25



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

25



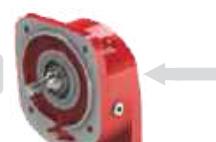
Helisel Dişlili, Flanşlı,
Blok Redüktör
Helical Gear, Flange Mounted,
Block Case

25

Elektrik Motoru (Frenli)
Electric Motor (With Brake)



Elektrik Motoru (Frensiz)
Electric Motor (without brake)



Helisel Dişlili İndirgeç
Helical Reduction Gearcase

Helisel Dişlili, Flanşlı
Redüktör
Helical Gearbox, Flange
Mounted



IEC Adaptörü
IEC Adapter



W Kovani
Free Input Shaft

Elektrik Motoru (Frenli)
Electric Motor (With Brake)

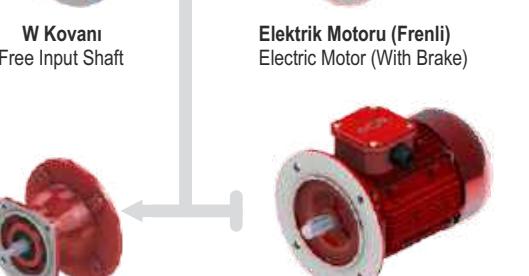


Elektrik Motoru (Frensiz)
Electric Motor (None Brake)



W Kovani
Free Input Shaft

IEC Adaptörü
IEC Adapter



Elektrik Motoru (Frenli)
Electric Motor (With Brake)

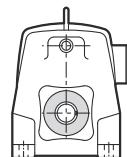
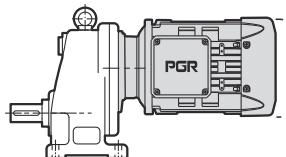


Elektrik Motoru (Frensiz)
Electric Motor (None Brake)

1) PA 11...PA 51

Ayak montajlı, Tek kademeli,
Helisel dişlili, Motorlu redüktör

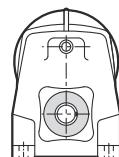
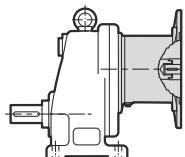
Helical geared motor, Foot mounted,
Single reduction



PA 11...PA 51

Ayak montajlı, Tek kademeli,
Helisel dişlili, IEC adaptörlü redüktör

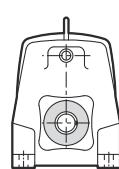
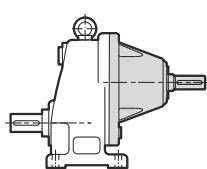
Helical gear unit, Foot mounted,
Single reduction, With IEC adapter



PA 11...PA 51

Ayak montajlı, Tek kademeli,
Helisel dişlili, W kovanlı redüktör

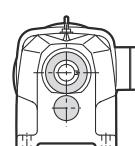
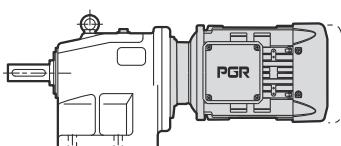
Helical gear unit, Foot mounted,
Single reduction, With free input shaft



2) PA 02...PA 52

Ayak montajlı, İki kademeli,
Helisel dişlili, Motorlu redüktör

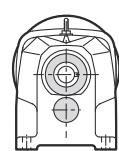
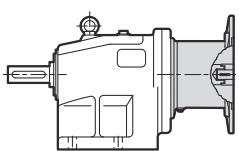
Helical geared motor, Foot mounted,
Double reduction



PA 02...PA 52

Ayak montajlı, İki kademeli,
Helisel dişlili, IEC adaptörlü redüktör

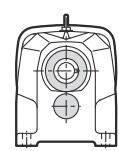
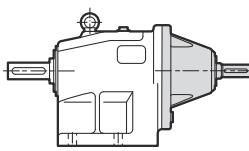
Helical gear unit, Foot mounted,
Double reduction, With IEC adapter



PA 02...PA 52

Ayak montajlı, İki kademeli,
Helisel dişlili, W kovanlı redüktör

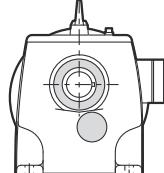
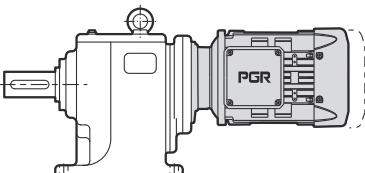
Helical gear unit, Foot mounted,
Double reduction, With free input shaft



3) PA 62...102 - PA 63...103

Ayak montajlı, İki kademeli - Üç kademeli,
Helisel dişlili, Motorlu redüktör

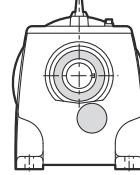
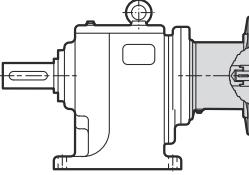
Helical geared motor, Foot mounted,
Double reduction - Triple reduction



PA 62...102 - PA 63...103

Ayak montajlı, İki kademeli - Üç kademeli,
Helisel dişlili, IEC adaptörlü redüktör

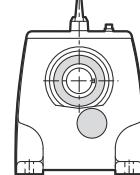
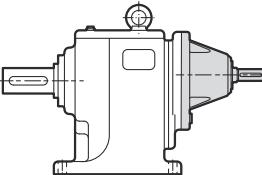
Helical gear unit, Foot mounted,
Double reduction - Triple reduction,
With IEC adapter



PA 62...102 - PA 63...103

Ayak montajlı, İki kademeli - Üç kademeli,
Helisel dişlili, W kovanlı redüktör

Helical gear unit, Foot mounted,
Double reduction - Triple reduction,
With free input shaft



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ÜRÜNLERİMİZ

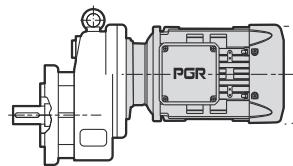
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PRODUCTS

1) PF 11...PF 51

Flanş montajlı, Tek kademeli,
Helisel dişlili, Motorlu redüktör

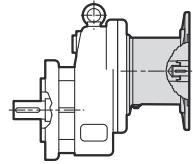
Helical geared motor, Flange mounted,
Single reduction



PF 11...PF 51

Flanş montajlı, Tek kademeli,
Helisel dişlili, IEC adaptörlü redüktör

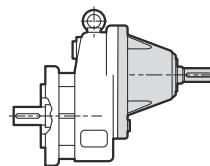
Helical gear unit, Flange mounted,
Single reduction, With IEC adapter



PF 11...PF 51

Flanş montajlı, Tek kademeli,
Helisel dişlili, W kovanlı redüktör

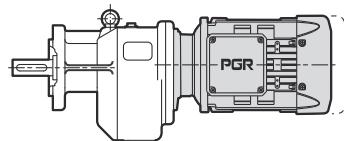
Helical gear unit, Flange mounted,
Single reduction, With free input shaft



2) PF 02...PF 52

Flanş montajlı, İki kademeli,
Helisel dişlili, Motorlu redüktör

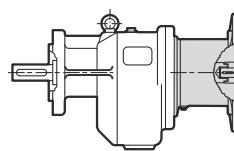
Helical geared motor, Flange mounted,
Double reduction



PF 02...PF 52

Flanş montajlı, İki kademeli,
Helisel dişlili, IEC adaptörlü redüktör

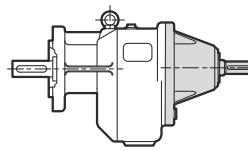
Helical gear unit, Flange mounted,
Double reduction, With IEC adapter



PF 02...PF 52

Flanş montajlı, İki kademeli,
Helisel dişlili, W kovanlı redüktör

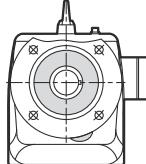
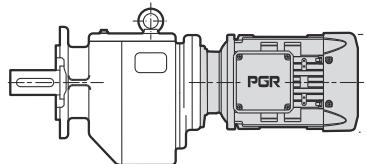
Helical gear unit, Flange mounted,
Double reduction, With free input shaft



3) PF 62...102 - PA 63...103

Flanş montajlı, İki kademeli - Üç kademeli,
Helisel dişlili, Motorlu redüktör

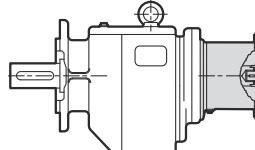
Helical geared motor, Flange mounted,
Double reduction - Triple reduction



PF 62...102 - PA 63...103

Flanş montajlı, İki kademeli - Üç kademeli,
Helisel dişlili, IEC adaptörlü redüktör

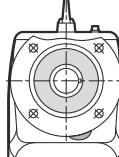
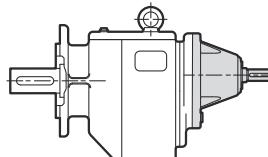
Helical gear unit, Flange mounted,
Double reduction - Triple reduction,
With IEC adapter



PF 62...102 - PA 63...103

Flanş montajlı, İki kademeli - Üç kademeli,
Helisel dişlili, W kovanlı redüktör

Helical gear unit, Flange mounted,
Double reduction - Triple reduction,
With free input shaft



TR

SİPARİŞ ÖRNEĞİ

EN

EXAMPLE FOR ORDERING

PA (PF)

103/52 817.82 -

132M / 4 BRE



PAM



IEC



W

Motorlu
With Motor

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

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

Gövde Büyüklüğü
Case Width

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

2
4
6
4 - 2
8 - 2

Motor Aksesuarları
Motor Accessories

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

Diğer Kutup
kombinasyonları
istendiğinde
karşılanacaktır.
Other pole
combinations
on request

21

İges: Tahvil Oranı

İges: Reduction Ratio



49 - 82

Gövde Büyüklüğü
Case Width

0
1
2
3
4
5
6
7
8
9
10

Kademe
Reduction

1
2
3



83 - 145

PF GÖVDE
PF CASEGövde Büyüklüğü
Case Width

0
1
2
3
4
5

Kademe
Reduction

2
3



Tip :POLAT Ayaklı Redüktör (POLAT Flanşlı Redüktör)

Type : POLAT Helical Foot Mounted Geared Motor (POLAT Helical Flange Mounted Geared Motor)

TR

MONTAJ POZİSYONLARI

M4 montaj pozisyonunda ilave yağlama ünitesi kullanılır.

Tabloda gösterilen bu montaj pozisyonları helisel dişlili reduktörlerin W kovarı ve IEC adaptör olanlar için geçerlidir.

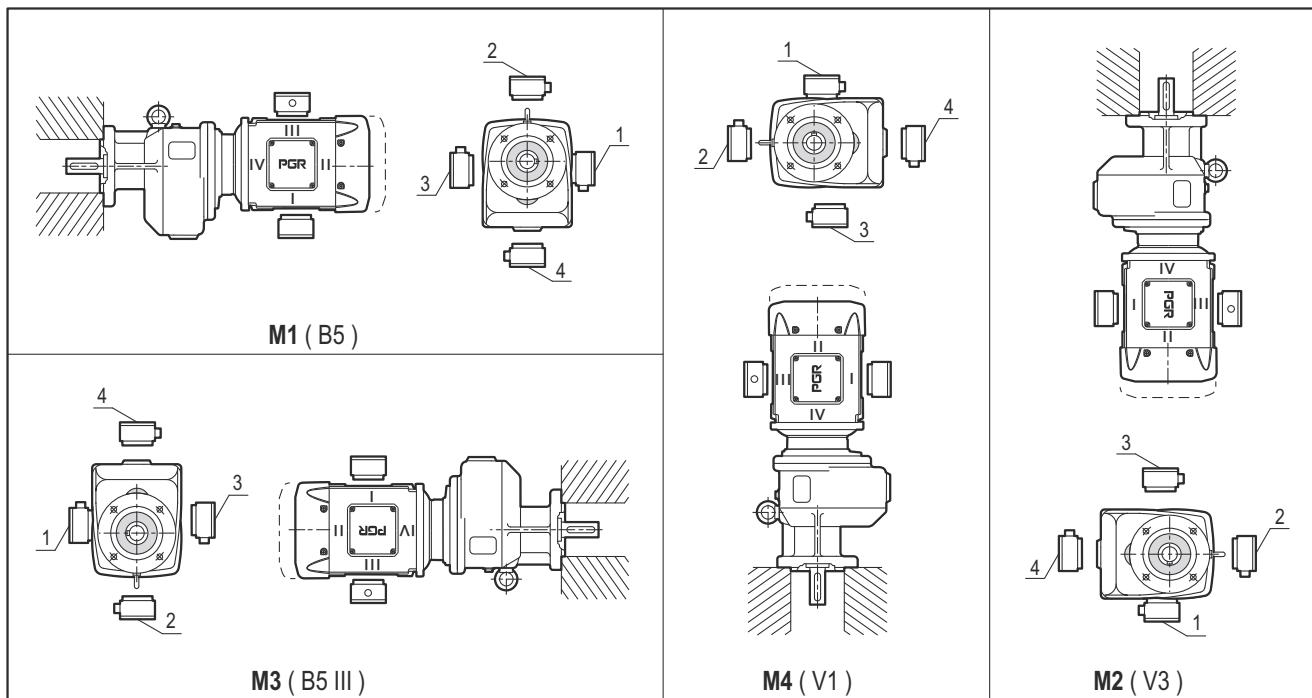
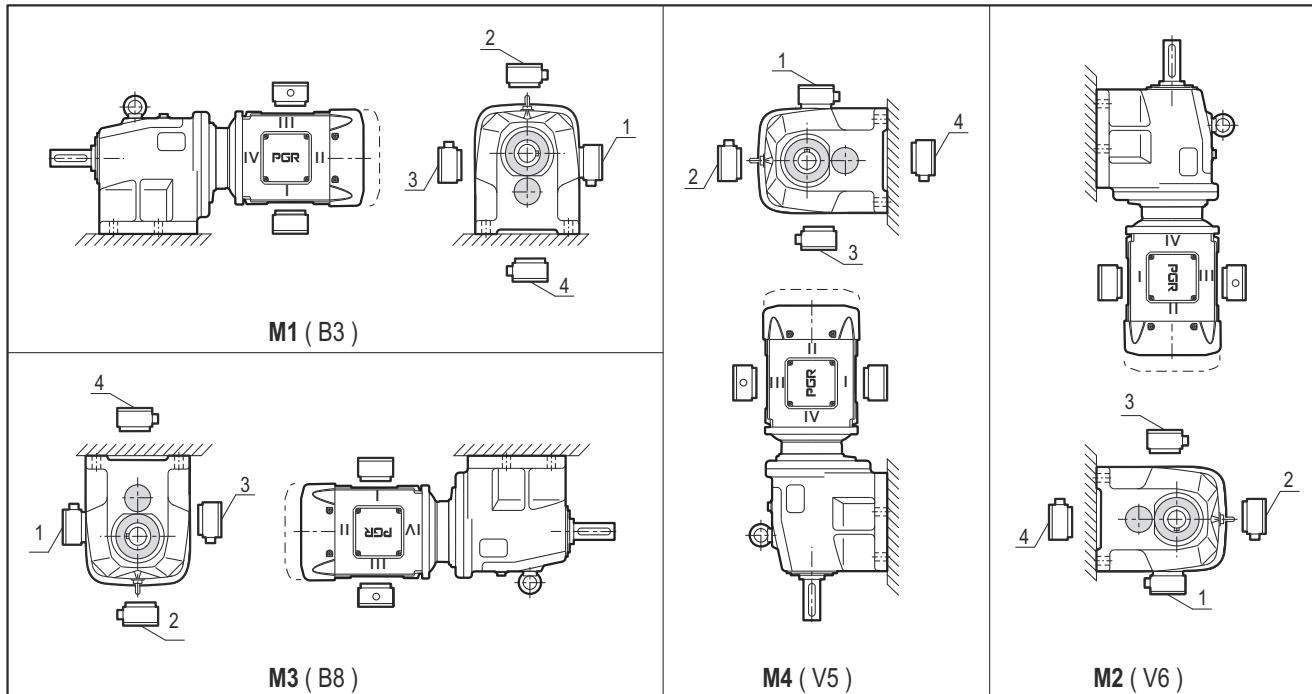
EN

MOUNTING POSITIONS

Mounting position M4 with additional lubricant volume

Mounting positions which are shown below are used for all types of helical gear units. (Type W cylinder, IEC adapter and geared motor)

32 - 33



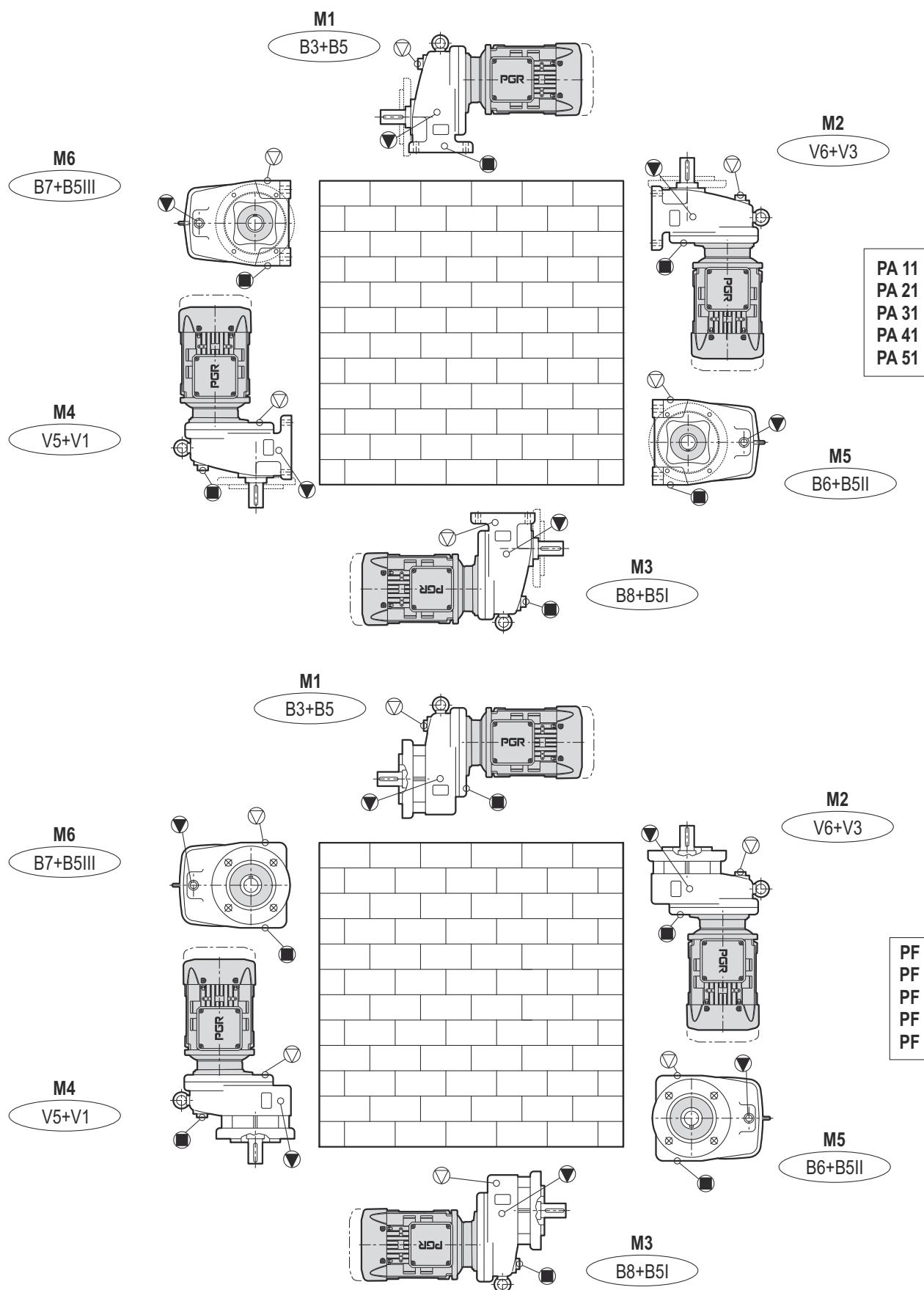
////// Montaj yüzeyi / Mounting surface

TR

MONTAJ POZİSYONLARI

EN

MOUNTING POSITIONS



VENT PLUG / Havalandırma tapası

DRAIN PLUG / Boşaltma tapası

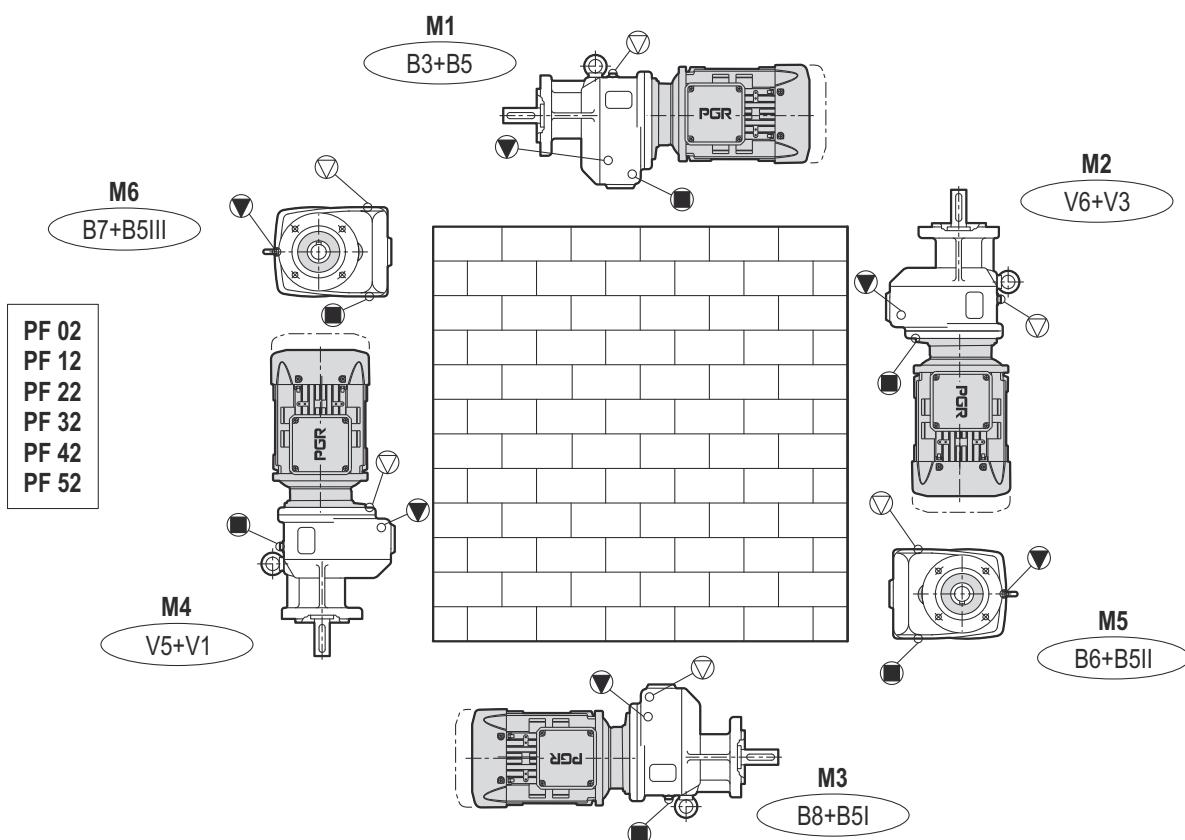
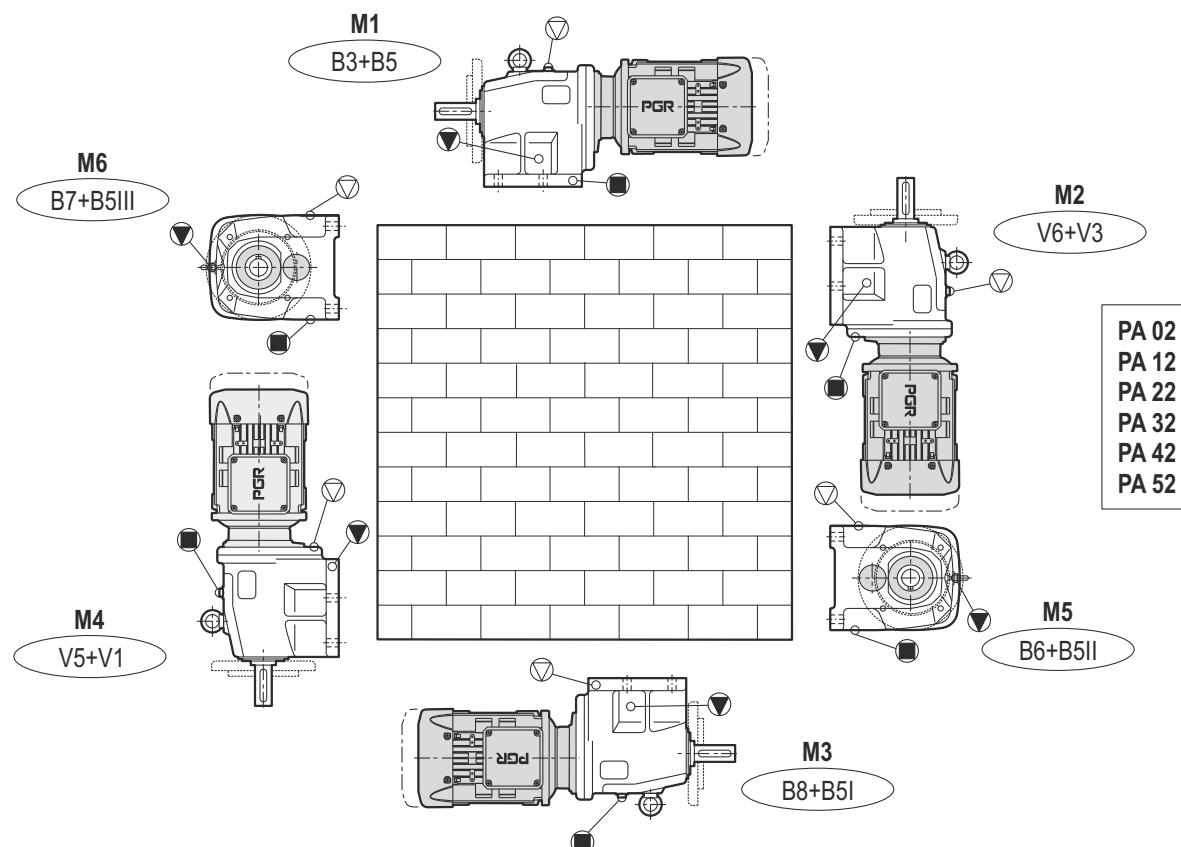
OIL LEVEL PLUG / Yağ Seviye tapası

TR

MONTAJ POZİSYONLARI

EN

MOUNTING POSITIONS



▽ Havalandırma tapası / Vent plug

□ Boşaltma tapası / Drain plug

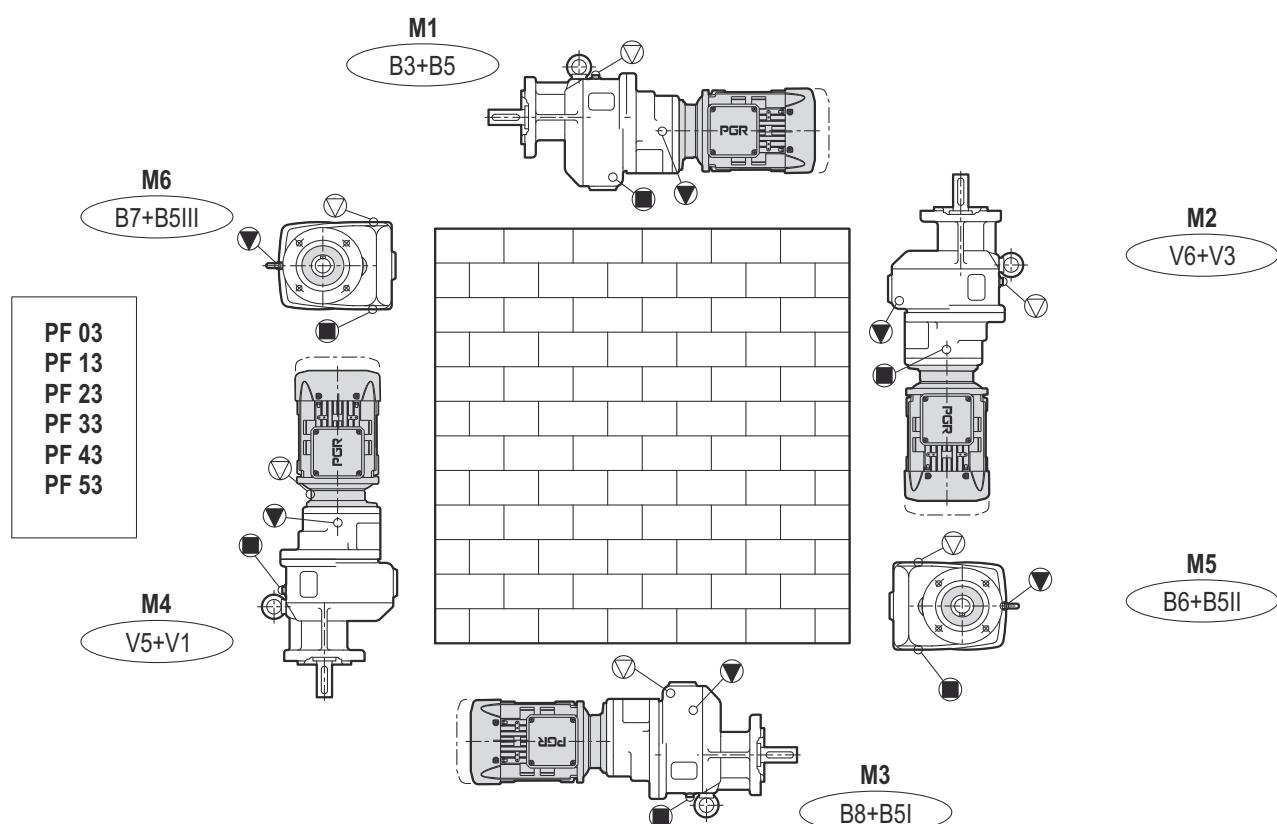
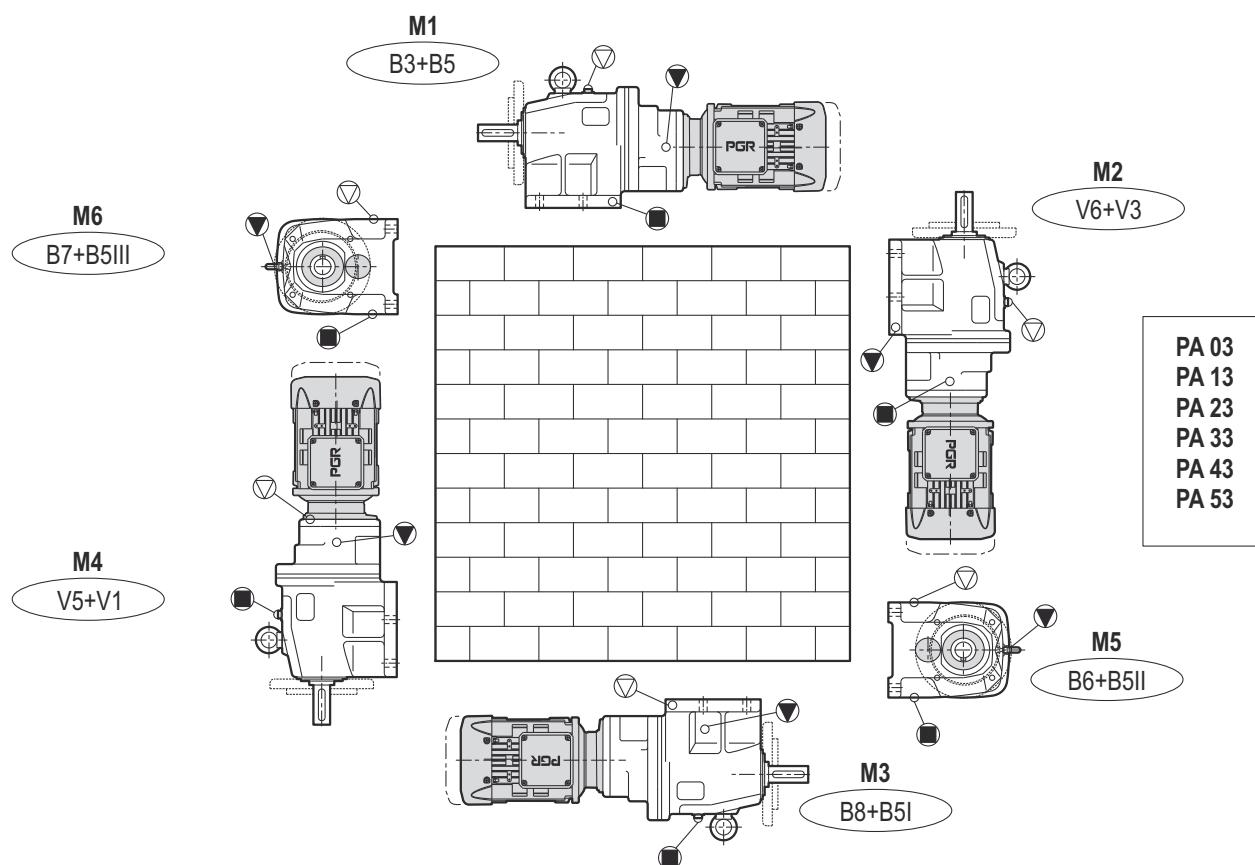
▽ Yağ Seviye tapası / Oil level

TR

MONTAJ POZİSYONLARI

EN

MOUNTING POSITIONS



Havalandırma tapası / Vent plug

Boşaltma tapası / Drain plug

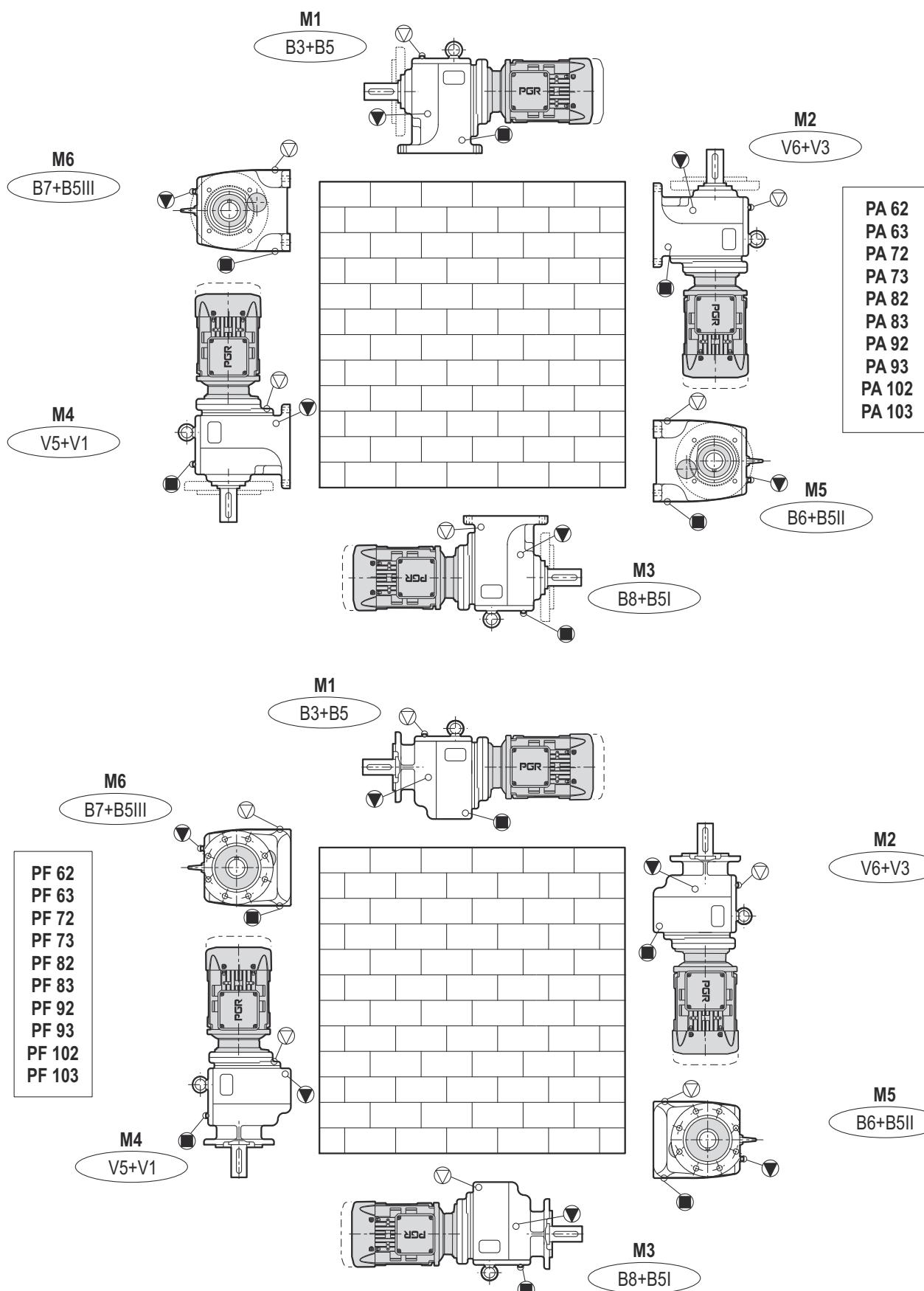
Yağ Seviye tapası / Oil level

TR

MONTAJ POZİSYONLARI

EN

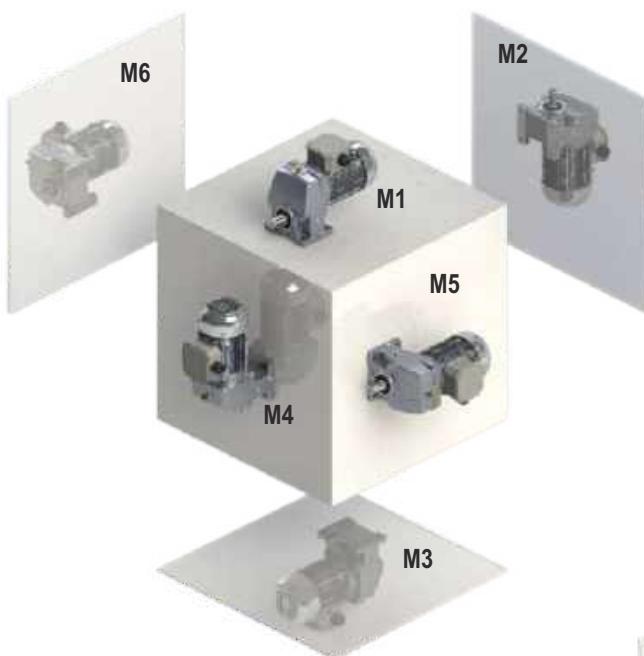
MOUNTING POSITIONS



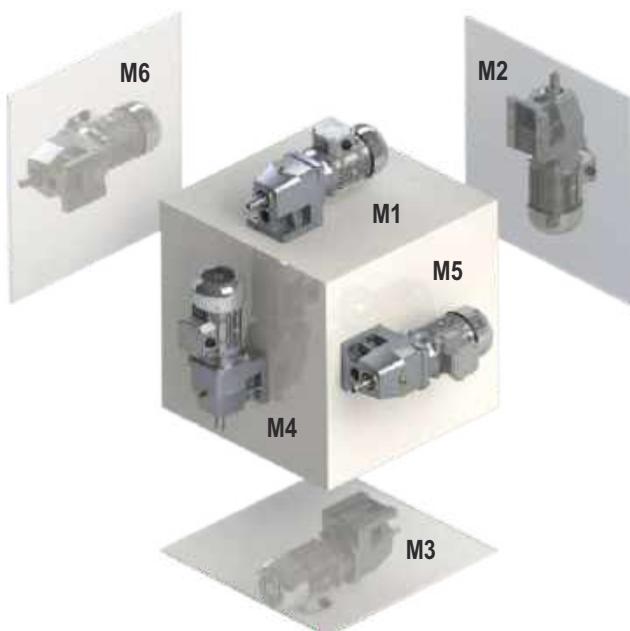
VENT PLUG / Havalandırma tapası

DRAIN PLUG / Boşaltma tapası

OIL LEVEL PLUG / Yağ Seviye tapası

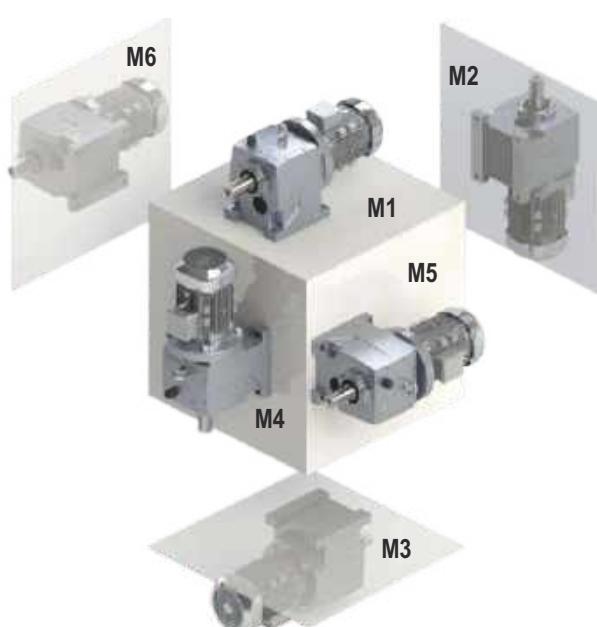


PA TEK KADEME
PA SINGLE REDUCTION



**PA İKİ VE ÜÇ KADEME
(MONOBLOK)**

PA DOUBLE AND TRIPLE
REDUCTION (MONOBLOC)



**PA İKİ VE ÜÇ KADEME
(BLOK)**

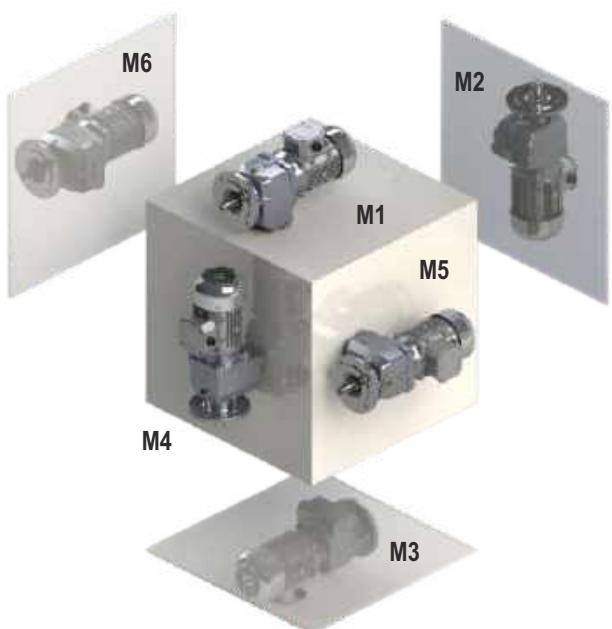
PA DOUBLE AND TRIPLE
REDUCTION (BLOC)

TR

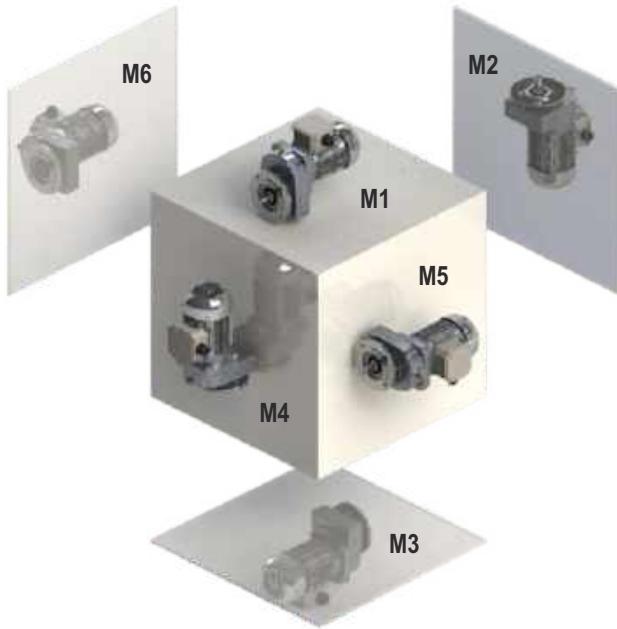
PF MONTAJ POZİSYONLARI

EN

PF MOUNTING POSITIONS



PF TEK KADEME
PF SINGLE REDUCTION

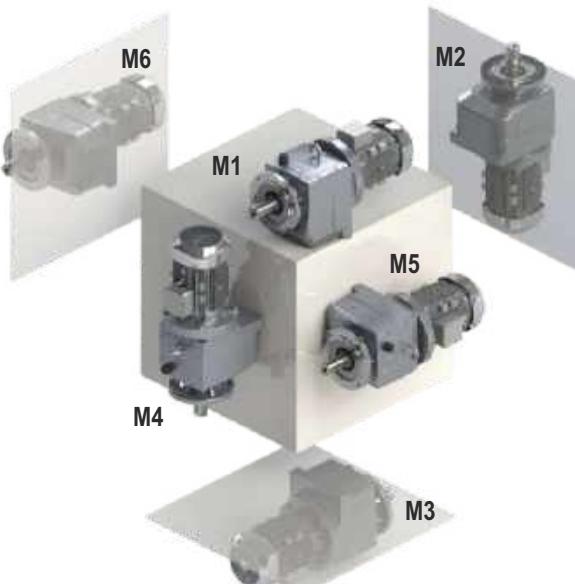


**PF İKİ VE ÜÇ KADEME
(MONOBLOK)**

PF DOUBLE AND TRIPLE
REDUCTION (MONOBLOCK)

**PF İKİ VE ÜÇ KADEME
(BLOK)**

PF DOUBLE AND TRIPLE
REDUCTION (BLOCK)



TR

YAĞLAMA

Çalıştırmadan veya uzun süreli olarak depoya kaldırılmıştan önce ventildeki tara sökülmüş, havalandırma tapası takılarak aşırı basınç ve yağ sızıntısı önlenmemelidir.

Redüktörler fabrikadan çalışmaya hazır ve mineral yağ doldurulmuş olarak gönderilirler. Bütün dişli üniteler aşağıdaki tablonun ortam sıcaklığı sütununda listesi verilen yağlayıcı (normal) ile dolu olarak sevk edilirler. Diğer ortam sıcaklıklarları için listede verilen yağlayıcılar ek ücret karşılığında temin edilebilir.

Yağlayıcı her 10 000 çalışma saatinde veya 2 yıl sonra değiştirilmelidir. Sentezik yağlar için yağ değişikliği her 20000 çalışma saatinde veya 4 yıl sonra yapılmalıdır. Zorlu çalışma koşullarında örneğin yüksek rutubet ve büyük sıcaklık değişimleri ve kötü çevre şartları gibi durumlarda daha kısa aralıklarla yağ değişimi yapılması tavsiye edilir. Yağ değişiminin üniteyi komple temizleme işlemi ile birleştirilmesi önerilir. Rulman içerisindeki gres her 10000 çalışma saatinde değiştirilmeli ve yeri gres ile更换malıdır. Bu işlem yapıldıktan rulmanın 1/3 ünün gresle dolu olması sağlanmalıdır.

EN

LUBRICATION

Lubricating oil properties and selection of oil must be done correctly for the reducers to have long life and to run with good performance. In order to prevent oil leakage during long period storage due to inner pressure, top plug should be removed according to assembly type and venting plug should be mounted.

Reducers are delivered as being filled with mineral oil. Properties of oils depending on ambient temperature are presented at the following table. Gear units which is W or IEC adapter type and gear motors are charged with lubricant. Ambient temperature plays an important role for choosing lubricant. Relation between ambient temperature and properties of oils are shown in table.

Lubricants must be changed every 10000 hour or after two years, but this time changes when synthetic oil is used. Lubricants must be changed every 20000 hours or after four years where synthetic oil is used. However, operating conditions should be considered for changing oil time eg. in aggressive environment severe temperature changing, oil must be changed frequently. For bearings grease should be changed every 10000 running time and it should be done with fresh grease and least 1/3 of bearing must be covered.

Not: Sentetik ve mineral yağlayıcılar birbirine karıştırılmamalıdır.

Not: Sentetik ve mineral yağlar混合 olmamalıdır.
Note: Consider that different kinds of oil (synthetic and mineral oil) should not be mixed

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

-30°C altında ve 60°C üzerindeki ortam sıcaklıklarında şafttaki sızdırmazlık elemanı için özel kalitedeki malzeme kullanılmalıdır.

Different materials should be used for sealing rings at operation temperature where temperature is below -30 °C and above 60 °C.

TR

YAĞ MİKTAR TABLOSU

EN

LUBRICATION LEVELS

(Litre) (L)	
 32 - 33	M1 M2 M3 M4 M5 M6
 28 - 31	(B3) (V6) (B8) (V5) (B6) (B7)
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

(Litre) (L)	
 32 - 33	M1 M2 M3 M4 M5 M6
 28 - 31	(B3) (V6) (B8) (V5) (B6) (B7)
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

(Litre) (L)	
 32 - 33	M1 M2 M3 M4 M5 M6
 28 - 31	(B3) (V6) (B8) (V5) (B6) (B7)
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

(Litre) (L)	
 32 - 33	M1 M2 M3 M4 M5 M6
 28 - 31	(B3) (V6) (B8) (V5) (B6) (B7)
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

(Litre) (L)	
 32 - 33	M1 M2 M3 M4 M5 M6
 28 - 31	(B3) (V6) (B8) (V5) (B6) (B7)
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

TR

YAĞ MİKTAR TABLOSU

EN

LUBRICATION LEVELS

(Litre) (L)	
32 - 33	M1 M2 M3 M4 M5 M6
28 - 31	(B5) (V3) (B5I) (VI) (B5II) (B5III)
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

(Litre) (L)	
32 - 33	M1 M2 M3 M4 M5 M6
28 - 31	(B5) (V3) (B5I) (VI) (B5II) (B5III)
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

(Litre) (L)	
32 - 33	M1 M2 M3 M4 M5 M6
28 - 31	(B5) (V3) (B5I) (VI) (B5II) (B5III)
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

(Litre) (L)	
32 - 33	M1 M2 M3 M4 M5 M6
28 - 31	(B5) (V3) (B5I) (VI) (B5II) (B5III)
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 34.00
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

(Litre) (L)	
32 - 33	M1 M2 M3 M4 M5 M6
28 - 31	(B5) (V3) (B5I) (VI) (B5II) (B5III)
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

TR

KİLİT

Opsiyonel olarak kilitlerimiz mevcuttur. Bu kilitler tek yöne dönmeye izin verirken, diğer yöne dönmeyi engeller. 80 gövde ve üzeri üç fazlı motorlar, W kovanları ve IEC adaptörleri yağılanması yapılmış kilit ile donatılabilir. Bu kilitler çıkartılabilir, merkezkaç kuvveti tarafından kontrol edilir ve yaklaşık olarak 900 d/dk üzerine çıktıktan sonra aşınmaya maruz kalır.

Kilit mekanizmalı redüktörler için çıkış şaftının veya milinin dönde yönünün verilmesi gereklidir. Dönde yönü çıkış şafetine veya çıkış miline göre düzenlenir.

Kararlaştırılan dönde yönü için, tarif edilen dönde yönü her zaman çıkış şafetine veya miline göre düzenlenir. Delik milli redüktörler için konik sıkıştırma tarafından belirlenir.

DİKKAT: Motoru ve sistemi çalıştırmadan önce redüktörün dönde yönünü kontrol ediniz. Redüktör üzerindeki oklar dönde yönünü gösterir.

Bloke edilen yön **CCW** ise Dönde Yönü **CW**

Bloke edilen yön **CW** ise Dönde Yönü **CCW**

CW : Saat yönü

CCW : Saat yönü tersi

EN

BACKSTOP

Backstop system is available for all types of helical gear unit. Lubricated backstop system could be used optionally for using motor size 80 and greater, W cylinder and IEC adapters. Backstop system permits just one direction rotation it resists, another direction rotation. Rotation speed is important for tear. Nearly 900 min⁻¹ and greater rotation speed influece abration.

Please, determine direction of rotation when you offer. Direction of rotation should be determined according to output shaft.

Arrows which is designated by 'CW' or 'CCW' shows locking direction when you have a view of the face of output shaft end

Precaution: When you receive gear units, please check direction of rotation before running or installation to avoid damage.

If Locking direction is **CCW**, Rotational direction is **CW**

If Locking direction is **CW**, Rotational direction is **CCW**

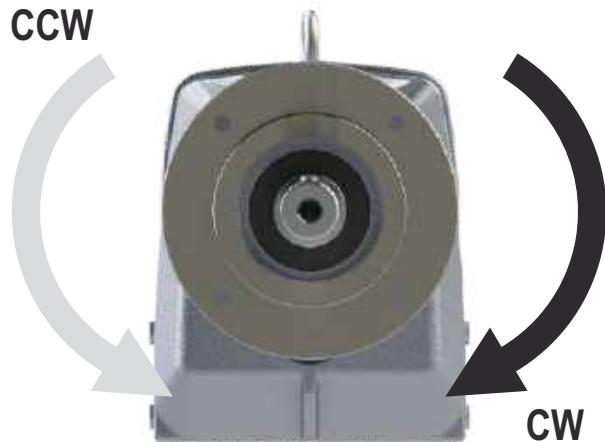
CW : Clockwise rotation

CCW : Counterclockwise rotation

PA



PF



TR

TOLERANSLAR

MOTOR VE REDÜKTÖRLERDE BOYUT - ÇİZİM BİLGİLERİ

Motor ölçülerini istenen opsiyona göre ölçülerini değiştirebilir.

DELİK MİLLİLER

Delik mil çapı toleransı için (DIN 748) ISO H7.
Müşteri mili çap toleransı ISO h6. "H" yükleme tipi bulunu-
yorsa ISO k6

IEC - ADAPTÖR

Flanş merkezi çap toleransı için ISO H7

GİRİŞ VE ÇIKIŞ ŞAFTLARI

Mil çapı toleransı (DIN 748) :

\varnothing 14 ile \varnothing 50 mm arası için ISO k6,
 \varnothing 50 mm üzeri için ISO m6

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

= \varnothing 13 - \varnothing 16	M5
> \varnothing 16 - \varnothing 21	M6
> \varnothing 21 - \varnothing 24	M8
> \varnothing 24 - \varnothing 30	M10
> \varnothing 30 - \varnothing 38	M12
> \varnothing 38 - \varnothing 50	M16
> \varnothing 50 - \varnothing 85	M20
> \varnothing 85 - \varnothing 130	M24



83 - 145

EN

TOLERANCES

DIMENSIONS OF GEARED MOTORS AND GEARBOXES - DRAWING INFORMATION

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 heavy-shock 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 \varnothing 14 - \varnothing 50 mm to ISO k6,
greater than \varnothing 50 mm to ISO m6.

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

= \varnothing 13 - \varnothing 16	M5
> \varnothing 16 - \varnothing 21	M6
> \varnothing 21 - \varnothing 24	M8
> \varnothing 24 - \varnothing 30	M10
> \varnothing 30 - \varnothing 38	M12
> \varnothing 38 - \varnothing 50	M16
> \varnothing 50 - \varnothing 85	M20
> \varnothing 85 - \varnothing 130	M24



83 - 145

Kama yatakları DIN 6885

Şaft boyu "h" DIN 747

Keyways are machined according to DIN 6885, sheet 1

Shaft heights are machined according to "h" to DIN 747

FLANSLAR

Flanş merkezi çap toleransı (DIN 42948);

< \varnothing 230 mm' ye kadar ISO j6,
> \varnothing 230 mm üzeri için ISO h6

FLANGES

Diameter tolerance of flange centering is machined according to (DIN 42948);

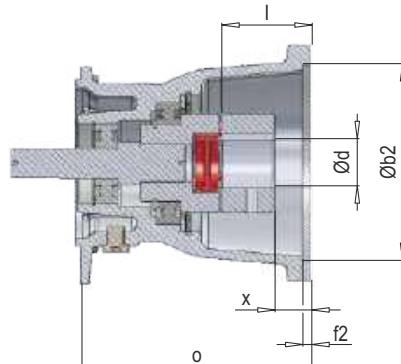
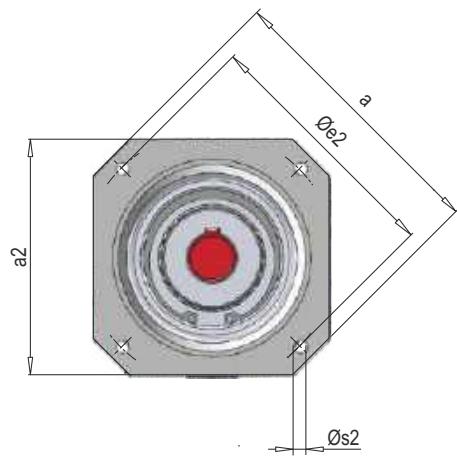
< \varnothing 230 mm to ISO j6,
> \varnothing 230 mm to ISO h6

TR

SERVOMOTOR ADAPTÖRÜ

EN

SERVOMOTOR ADAPTERS



Redüktör Tipi Gear Unit Type	Motor Büyüklüğü / Motor Size							Şaft Ebatı Shaft Size		Silindir Cylinder	M _{knom} [Nm]	Adaptör tipi Adapter type
	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 sıkıltırması ile yapılmaktadır.

Servo motor bağlantı adaptörünün bağlantısı flanşının farklı olması durumunda yüksek adetteki siparişler üretime alınır.

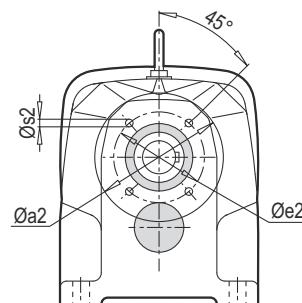
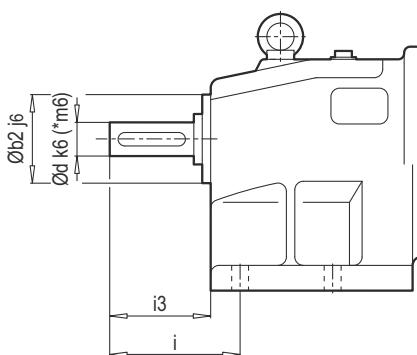
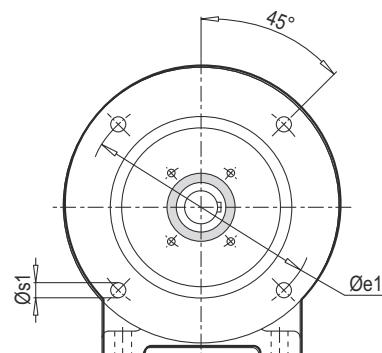
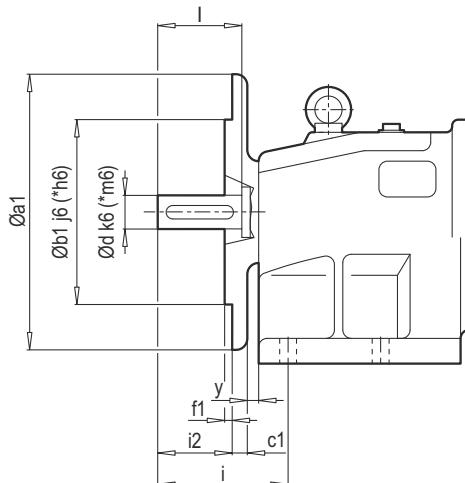
For connecting SEP adapter which is shown above on this page, servo motor's output shaft is designed with locking key. For connecting SEK type adapter, connecting is supplied with a clamp coupling sleeve. An intermediate flange is required when other servo motor types are used with IEC adapter. Offers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

TR

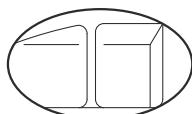
PA / B14 - B5

EN

PA / B14 - B5

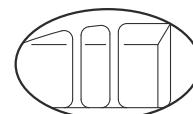
**B 14****B5**

94 - 117



PA 02-12-22

NOT : PA 02-12-22 Gövdelerde tek feder,
PA 32-42-52 Gövdelerde çift feder bulunmaktadır.



PA 32-42-52

NOTE : PA 02-12-22 Cases have single support,
PA 32-42-52 Cases have double support.

Tip / Type	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

EN ADDITIONAL LUBRICANT VOLUME FOR MOUNTING POSITION M4

Tip Type	Boyut Size	$\varnothing D$ [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				

Bu ilave yağ hacim ünitesinin kullanılması, dikey montaj pozisyonlarında (M4) ve kötü çalışma şartları altında bile havalandırma tapasından yağ sızmasını önerir. Dikey çalışma ortamlarında reduktör içindeki yağ köpüklenme yapabilir ve bu ünite ilave bir hacim sağlar.

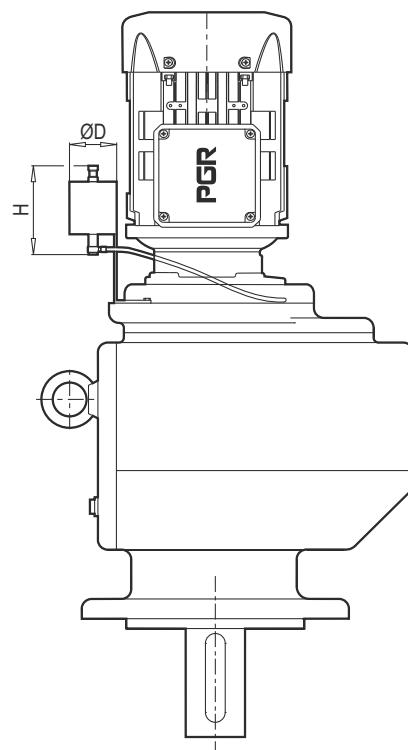
İlave yağ hacim ünitesi, tahlil oranı 20' den küçük helisel dişli üniteleri PA/PF42 ve daha üst gövdelerin dikey montaj pozisyonu uygulamalarında kullanımı önerilir.

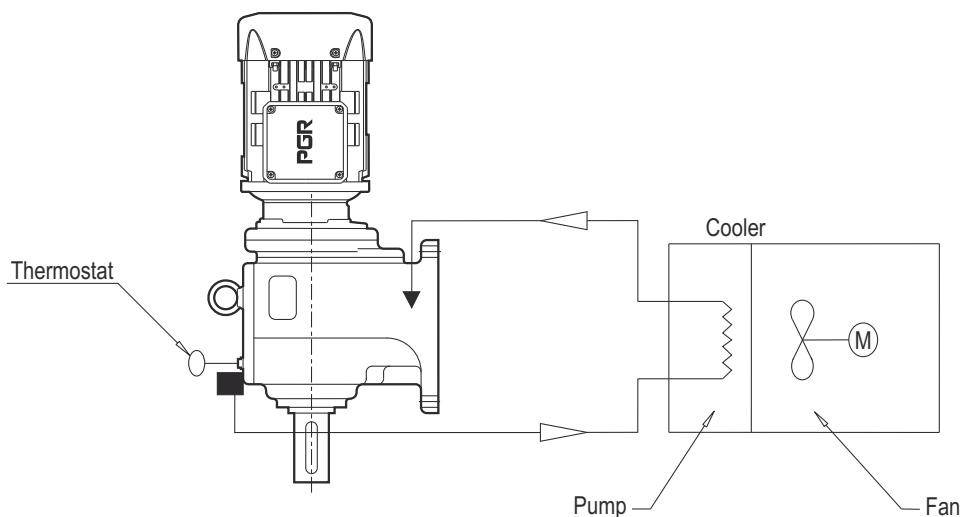
 34

Additional lubricant volume unit is used for preventing oil leakage from venting plug when gear unit is mounted with M4 mounting position. It is important because at vertical mounting position oil could be foamed.

PGR suggest that additional lubrication volume units should be used where gear reduction is less than 20 and for polat helical gear unit series such as PA/PF 42 and bigger cases when M4 vertical mounting position is applied.

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■ Çıkış = Emme hattı

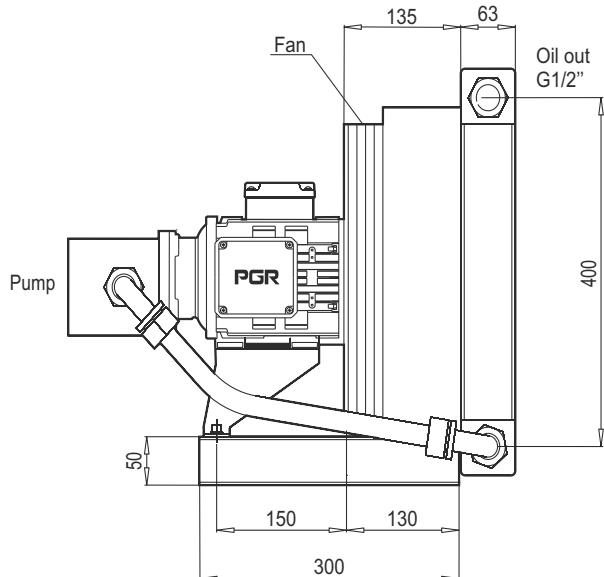
▼ Yağ seviyesi = Basınç hattı

Dişli ünitesi yağı, bir pompa tarafından çekilir ve bir ısı dönüştürücüsü boyunca akar. Yağ, bir fan tarafından yaratılan bir hava akımı ile soğutulur. Yağ, ısı dönüştürücünün dışına taşınır ve tekrar haznesine geri gönderilir. Sıcaklık bir termostat tarafından kontrol edilir. PGR, 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.



* Potansiyel patlayıcı atmosferli alanlar için uygun değildir.

Dizayn

Söğütücü : 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

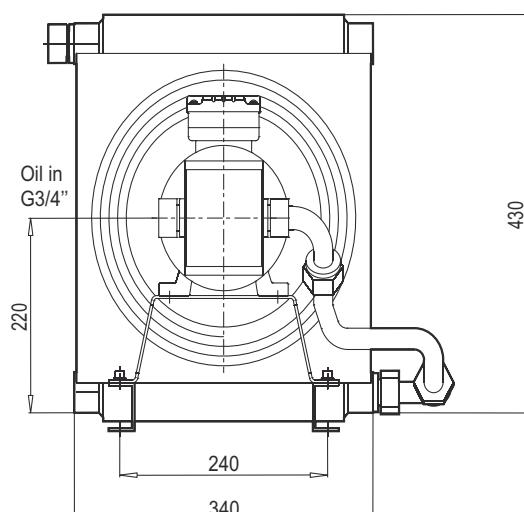
Yalıtım sınıfı : F

Sıcaklık sınıfı : B

Aşağıdaki özelliklerde mevcuttur:

- Özel voltaj 60 HZ - Özel motor

Ağırlık : 32 kg



* Not suited for areas with potentially explosive atmospheres

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

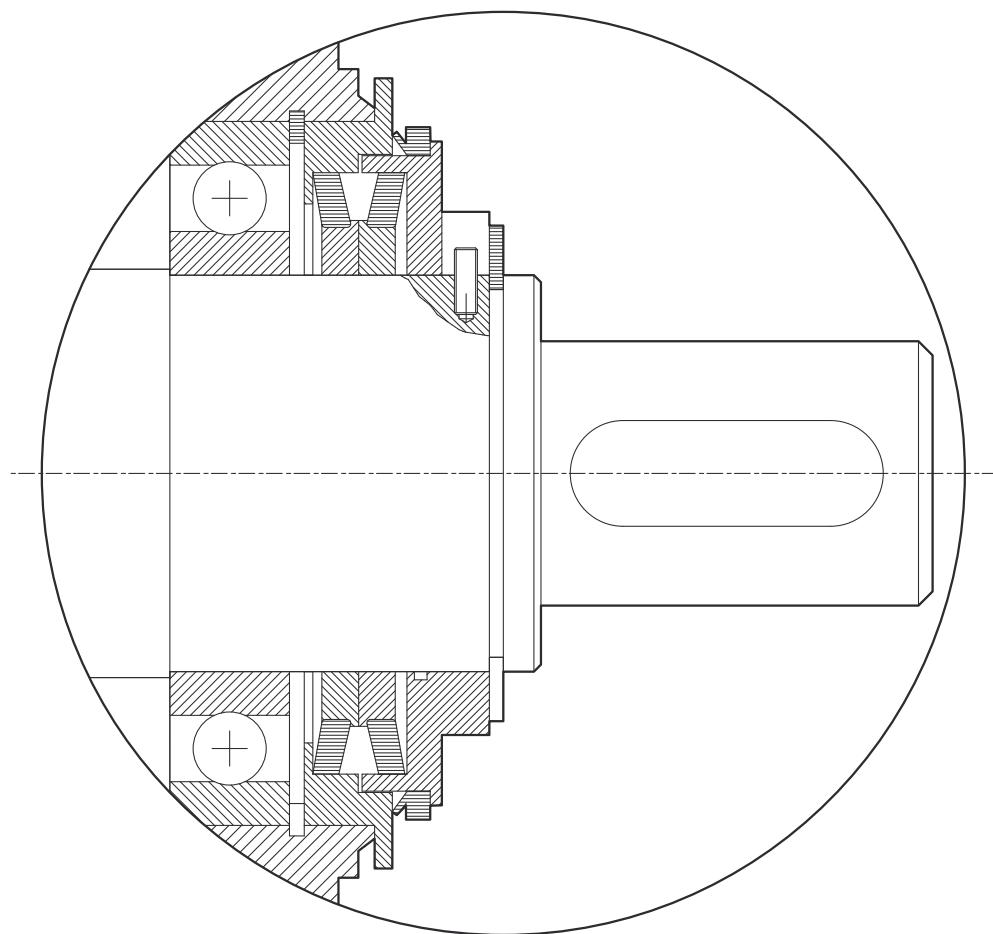
Weight : 32 kg

TR

MEKANİK KEÇE

EN

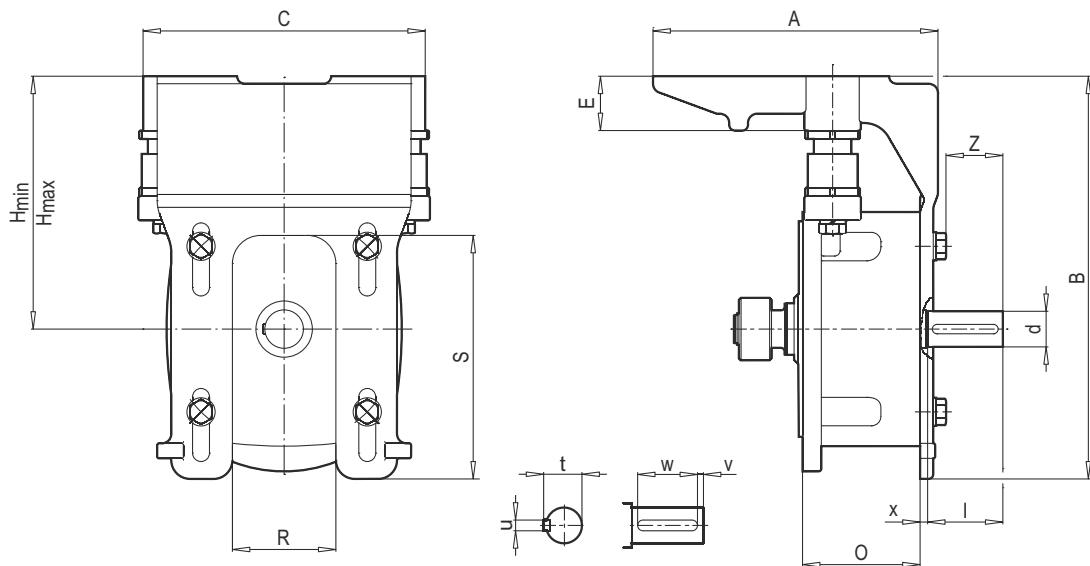
MECHANICAL SEAL



Özellikle aşırı çalışmalarla ve çok kötü çalışma koşullarında uygundur. Daldırmalı veya sulu çalışma ortamlarından etkilenmemektedir. Bu keçe tipi dış çevre koşullarından kesin koruma sağlar.

Seals are important to prevent oil leakage and for protection in bad environments. In hazardous environment and extreme operation conditions sealing must be considered. For that reason mechanical seals are applicable for using at hazardous environment, submerged operation.

Motor Platformu Ölçüleri Motor Platform Dimensions



Tip Type	Bağlantı boyutları ve platform ölçülerı Connection and platform dimensions											Mil Ölçüleri Shaft size					Flanş Flange
	A	B	C	E	R	S	H min	H max	Z	O	d I	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

Motor platform tasarımı PGR monoblok dişli ünitesi serilerinin tüm montaj pozisyonlarında kullanılabilir. 5 motor platformu boyutu tüm motor-redüktör kombinasyonlarını kapsar. Çok kademeli reduktörleri de karşılayan ayrı ayrı reduktörler için seçim tablolardan motor platformları bakılabilir.
(Sayfa 45-46 bakınız)

- * Her montaj pozisyonu için kullanılabilir.
- * Optimum kayış gerilimi için kolayca yönlendirilebilen yükseklik ayarlaması yapılabılır.
- * Sabitleme elemanları dahil olmak üzere korozyona karşı dirençlidir.
- * Hafif, vibrasyonu absorbe eden alüminyum yapı mevcuttur.
- * Birçok motor boyutu için kullanım kolaylığı sağlar.
- * Tabloya göre "I" oranının 1'e eşit olduğu durumlar için önerilir.
- * Her yöne 90°ye kadar eksen etrafında dönenbilme özelliğine sahiptir.

Assembling Motor Platform

Motor platform design could be used at all PGR monoblock gear unit series for all mounting positions. There are 5 motor platform designs. These platforms are provided with the possibility of using all motorgear unit series. Motor platform type, dimension and suitable belt type could be followed from table which is shown on page 45-46, on the other hand this table is valid for multi stage gear units.

- * It could be used for all mounting positions.
- * It could be adjusted for optimum belt-tension and height easily.
- * It has high corrosion resistance even fixing elements have this property.
- * Aluminum structure provide vibration absorbing and light weight.
- * It could be used with all motor type.
- * It is recommended to be used when "I" ratio equals to one.
- * It could be adjusted to all directions up to 90°.

MOTOR PLATFORMU

MOTOR PLATFORM INSTALLATION

Tip Type	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)

** Distance adjustment (Limited)

Seçim Örneği:

Çıkış gücü ve hızına göre gerekli olan dişli ünitesinin temel tipini ve gerekli çıkış gücü veya çıkış dönüş hızına dayanan çıkış gücü ve dişli oranını saptayınız.

Örnek :

0.25 kW , 19.4 d/dk = 72.60
PA 12 - 71 M

Bu esas dişli ünitesi tipi için, motor platformu MK I tayin edildiğini tablodan (yukarıya bakınız) saptayınız. Bu nedenle, tam tip tanımı PA 12-MK I - 71'dir.

MK I tablodan (sayfa 46) bant makarası ve bant tipi ile ilgili daha fazla bilgi alırsınız.

Esas boyutlar, tabloda gösterilmiştir (sayfa 44)

Example:

Motor platform assignment could be explained in one example hence, according to selecting gear unit reduction ratio, output speed and motor power is determined.

For instance ;

0.25 kW , 19.4 min⁻¹ , i = 72.60
PA 12 - 71 M

According to the above table type of gear unit (column) and motor type (row) are intersected. Hence, from this motor bracket MK I dimension should be used. Full designation is PA 12 - MK I - 71.

The following page shows more detail about belt pulley and type of belt (see page 46).

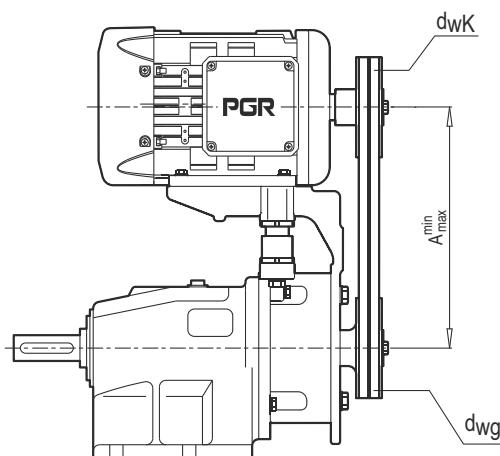
You can see dimension of belt length with motor platform assignment (Page 44)

TR

MOTOR PLATFORMU

EN

MOTOR PLATFORM INSTALLATION



	Motor	Çıkış Output (kW)	Ayar aralığı Adjustment range		Kayış uzunluğu Belt length	Mil merkezi uzaklığı Shaft centre distance A	Kayış sayısı Number of belts
			Amin	Amax			
MK I Kayış Tipi SPZ Belt type SPZ	63 M/4A	0.12	216	236	(dwg =80) (i = 1) Lw	223	1
	63 M/4B	0.18	216	236		223	1
	71 M/4A	0.25	224	244		229	1
	71 M/4B	0.37	224	244		229	1
	80 M/4A	0.55	233	253		243	1
	80 M/4B	0.75	233	253		243	1
	90 S/4A	1.10	243	263		249	1
	90 L/4A	1.50	243	263		249	2
	100 L/4A	2.20	253	273		260	2
	100 L/4B	3.00	253	273		260	3
MK II Kayış Tipi XPZ Belt type XPZ	80 M/4A	0.55	279	304	(dwg =112) (i = 1) Lw	289	1
	80 M/4B	0.75	279	304		289	1
	90 S/4A	1.10	289	314		299	1
	90 L/4A	1.50	289	314		299	1
	100 L/4A	2.20	299	324		314	1
	100 L/4B	3.00	299	324		314	2
	112 M/4B	4.00	311	336		324	2
MK III Kayış Tipi SPZ Belt type SPZ	90 S/4A	1.10	344	376	(dwg =160) (i = 1) Lw	360	1
	90 L/4B	1.50	344	376		360	1
	100 L/4A	2.20	354	386		374	1
	100 L/4B	3.00	354	386		374	1
	112 M/4B	4.00	366	398		380	2
	132 S/4C	5.50	386	418		405	2
	132 M/4B	7.50	386	418		405	3
	132 M/4	9.20	386	418		405	3
MK IV Kayış Tipi XPA Belt type XPA	112 M/4B	4.00	427	467	(dwg =200) (i = 1) Lw	436	1
	132 S/4C	5.50	447	487		461	1
	132 M/4B	7.50	447	487		461	2
	132 M/4	9.20	447	487		461	2
	160 M/4B	11.0	475	515		486	2
	160 L/4A	15.0	475	515		486	3
	180 M/4B	18.5	495	535		511	3
	180 L/4B	22.0	495	535		511	4
	200 L/4C	30.0	515	555		536	4
MK V Kayış Tipi SPA Belt type SPA	200 L/4C	30.0	665	715	(dwg =250) (i = 1) Lw	698	4
	225 S/4A	37.0	690	740		710	4
	225 M/4C	45.0	690	740		710	5





Motorlu Seçim Sayfaları

Selection Of Gearmotors

PA / PF



PA 11 ... 51



PF 11 ... 51



PA 02 ... 52



PF 02 ... 52



PA 03 ... 53



PF 03 ... 53



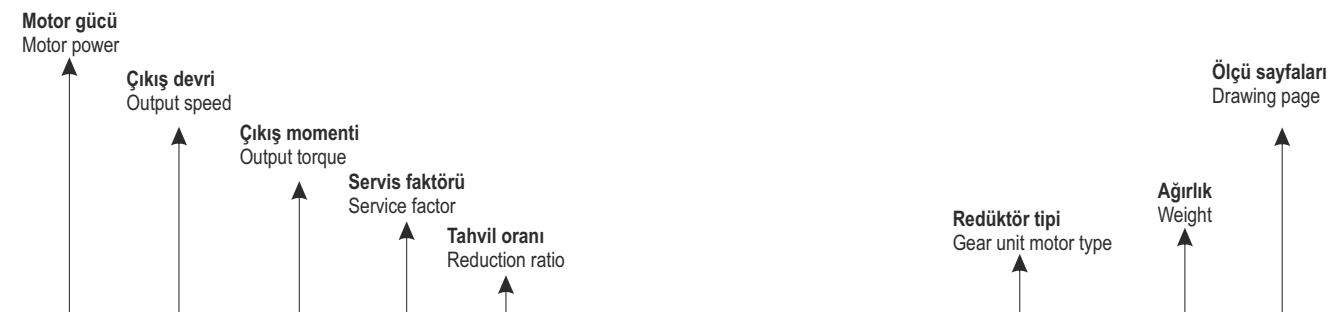
**PA 62 ... 102
63 ... 103**



**PF 62 ... 102
63 ... 103**

Motorlu redüktör performans tablolarının yapısı.

Notify about performance tables for Geared motor.

0.12 kW → Redüktör motor gücü
 Gear unit motor power


P ₁ [kW]	n ₂ [Min ⁻¹]	M ₂ [Nm]	f _B	i _{ges}	F _R [kN]	F _A [kN]	F _{R GR} [kN]	F _{A GR} [kN]	Tip / Type	Ağırlık Kg	Sayfa mm
0.12	3.1 3.6 4.2	* 207 * 216 * 204	0.8 0.8 0.8	420.39 369.18 313.35	3.0 3.0 3.0	4.0 4.0 4.0	5.0 5.0 5.0	15.0 15.0 15.0	PA 13 - 63M/4A PF 13 - 63M/4A	21	99

Servis Faktörü 0.8'e göre

Max. moment

Maximum output

 torque with f_B = 0.8

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_R = 0 (N)

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_A = 0 (N)

 F_R = 0 (N)

► 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)

► 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)

P ₁ [kW]	n ₂ [Min ⁻¹]	M ₂ [Nm]	f _B	i _{ges}	F _R [kN]	F _A [kN]	F _{R GR} [kN]	F _{A GR} [kN]	Tip / Type	Kg	Sayfa Page mm
0.12	0.9	808	1.5	1393.57	7.0	12.0	11.0	30.0	PA 42/12 - 63M/4A PF 42/12 - 63M/4A	67	138
	1.2	647	1.9	1114.85	8.0	12.0	11.0	30.0			
	1.8	435	2.8	750.00	8.0	12.0	11.0	29.0	PA 32/12 - 63M/4A PF 32/12 - 63M/4A	49	138
	2.4	319	3.8	550.63	8.0	12.0	12.0	27.0			
	3.0	251	4.8	433.11	8.0	12.0	12.0	25.0	PA 33 - 63M/6A PF 33 - 63M/6A	45	107
	1.0	756	0.8	1304.13	5.0	9.0	9.0	25.0			
	1.2	627	1.0	1080.92	6.0	9.0	9.0	25.0	PA 33 - 63M/4A PF 33 - 63M/4A	45	107
	1.2	*733	0.8	740.46	6.0	9.0	9.0	25.0			
	1.3	*697	0.8	662.46	6.0	9.0	9.0	25.0	PA 22/02 - 63M/4A PF 22/02 - 63M/4A	36	138
	1.5	*805	0.8	585.48	5.0	9.0	8.0	25.0			
	1.8	681	0.8	740.46	6.0	9.0	9.0	25.0	PA 23 - 63M/4A PF 23 - 63M/4A	33	103
	2.0	576	1.0	662.46	6.0	9.0	9.0	25.0			
	2.2	509	1.2	585.48	6.0	9.0	9.0	25.0	PA 23 - 63M/4A PF 23 - 63M/4A	33	103
	2.5	456	1.5	523.81	6.0	9.0	9.0	25.0			
	3.1	366	1.8	421.10	7.0	9.0	9.0	25.0	PA 23 - 63M/6A PF 23 - 63M/6A	33	103
	3.9	295	2.2	339.07	7.0	9.0	9.0	25.0			
	5.3	216	3.1	248.21	7.0	9.0	9.0	24.0	PA 12/02 - 63M/4A PF 12/02 - 63M/4A	24	138
	6.4	180	3.7	206.97	7.0	9.0	9.0	23.0			
	1.0	*425	0.8	1440.59	4.0	6.0	6.0	20.0	PA 12/02 - 63M/4A PF 12/02 - 63M/4A	24	138
	1.1	*411	0.8	1156.84	4.0	6.0	6.0	20.0			
	1.5	*426	0.8	881.08	4.0	6.0	6.0	20.0	PA 13 - 63M/6A PF 13 - 63M/6A	21	99
	1.7	*348	0.8	516.35	5.0	6.0	7.0	20.0			
	2.1	*430	0.8	417.44	4.0	6.0	6.0	20.0	PA 13 - 63M/4A PF 13 - 63M/4A	21	99
	2.6	336	0.8	516.35	5.0	6.0	7.0	20.0			
	3.2	363	0.9	417.44	4.0	6.0	7.0	20.0	PA 13 - 63M/4A PF 13 - 63M/4A	21	99
	4.1	281	1.2	323.31	5.0	6.0	7.0	19.0			
	5.0	228	1.5	261.93	5.0	6.0	7.0	18.0	PA 12 - 63M/6A PF 12 - 63M/6A	16	98
	6.1	189	1.8	217.60	5.0	6.0	7.0	17.0			
	7.3	156	2.0	179.61	5.0	6.0	7.0	16.0	PA 12 - 63M/4A PF 12 - 63M/4A	16	98
	8.7	131	2.2	151.11	5.0	6.0	7.0	15.0			
	10.6	108	3.1	124.10	5.0	6.0	7.0	15.0	PA 03 - 63M/4A PF 03 - 63M/4A	18	95
	13.1	87	3.9	100.53	5.0	6.0	8.0	14.0			
	1.0	*218	0.8	1277.78	3.0	4.0	5.0	15.0	PA 03 - 63M/4A PF 03 - 63M/4A	18	95
	1.2	*216	0.8	1053.91	3.0	4.0	5.0	15.0			
	1.5	*227	0.8	886.01	3.0	4.0	5.0	15.0	PA 02 - 63M/6A PF 02 - 63M/6A	14	94
	2.1	*213	0.8	420.39	3.0	4.0	5.0	15.0			
	2.3	*216	0.8	369.18	3.0	4.0	5.0	15.0	PA 02 - 63M/4A PF 02 - 63M/4A	14	94
	2.8	*212	0.8	313.35	3.0	4.0	5.0	15.0			
	3.1	*207	0.8	420.39	3.0	4.0	5.0	15.0	PA 02 - 63M/4A PF 02 - 63M/4A	14	94
	3.6	*216	0.8	369.18	3.0	4.0	5.0	15.0			
	4.2	*204	0.8	313.35	3.0	4.0	5.0	15.0	PA 02 - 63M/4A PF 02 - 63M/4A	14	94
	4.8	*216	0.8	275.17	3.0	4.0	5.0	15.0			
	5.4	*217	0.8	244.64	3.0	4.0	5.0	14.0	PA 02 - 63M/4A PF 02 - 63M/4A	14	94
	6.7	170	1.1	195.71	3.0	4.0	5.0	14.0			
	8.3	139	1.2	159.23	3.0	4.0	5.0	13.0	PA 02 - 63M/4A PF 02 - 63M/4A	14	94
	9.9	115	1.3	132.48	4.0	4.0	5.0	12.0			
	12.1	95	1.9	108.73	4.0	4.0	5.0	12.0	PA 02 - 63M/4A PF 02 - 63M/4A	14	94
	11.9	96	1.4	72.60	4.0	4.0	5.0	12.0			
	14.1	81	1.9	61.31	4.0	4.0	5.0	11.0	PA 02 - 63M/4A PF 02 - 63M/4A	14	94
	18.1	63	2.2	72.60	4.0	4.0	5.0	11.0			
	21.5	53	2.9	61.31	4.0	4.0	5.0	10.0	PA 02 - 63M/4A PF 02 - 63M/4A	14	94
	24.5	47	3.8	53.84	4.0	4.0	5.0	10.0			
	30.6	37	4.3	43.07	4.0	4.0	5.0	9.0	PA 02 - 63M/4A PF 02 - 63M/4A	14	94
	4.2	*108	0.8	312.98	2.0	3.0	3.0	6.0			
	4.8	*108	0.8	274.18	2.0	3.0	3.0	6.0	PA 02 - 63M/4A PF 02 - 63M/4A	14	94
	6.2	*131	0.8	212.39	2.0	3.0	3.0	6.0			
	7.7	*131	0.8	170.56	2.0	3.0	3.0	6.0	PA 02 - 63M/4A PF 02 - 63M/4A	14	94
	8.7	*134	0.8	151.24	2.0	3.0	3.0	6.0			
	10.6	109	1.0	124.74	2.0	3.0	3.0	6.0	PA 02 - 63M/4A PF 02 - 63M/4A	14	94
	11.8	97	0.9	73.03	2.0	3.0	3.0	6.0			
	14.1	81	1.1	61.24	2.0	3.0	3.0	6.0	PA 02 - 63M/4A PF 02 - 63M/4A	14	94
	16.1	71	1.3	53.64	2.0	3.0	3.0	6.0			

P ₁ [kW]	n ₂ [Min ⁻¹]	M ₂ [Nm]	f _B	i _{ges}	F _R [kN]	F _A [kN]	F _{R GR} [kN]	F _{A GR} [kN]	Tip / Type	Kg	Sayfa Page mm
0.12	18.0	64	1.4	73.03	2.0	3.0	3.0	6.0	PA 02 - 63M/4A PF 02 - 63M/4A	14	94
	21.5	53	1.7	61.24	2.0	3.0	3.0	6.0			
	24.6	47	1.9	53.64	2.0	3.0	3.0	6.0			
	31.7	36	2.7	41.56	2.0	3.0	3.0	6.0			
	39.5	29	3.3	33.37	2.0	3.0	3.0	6.0			
	47.9	24	3.6	27.52	2.0	3.0	3.0	6.0			
	56.9	20	3.9	23.14	2.0	3.0	3.0	6.0			
	64.0	18	4.1	20.59	2.0	3.0	3.0	6.0			
	82.6	14	5.2	15.95	2.0	3.0	3.0	6.0			
	102.8	11	6.3	12.81	2.0	3.0	3.0	5.0			
	117.2	10	6.8	11.24	2.0	3.0	3.0	5.0			
	132.6	9	7.4	9.94	2.0	3.0	3.0	5.0			
	142.1	8	8.1	9.27	2.0	3.0	3.0	5.0			
	160.7	7	8.8	8.20	2.0	3.0	3.0	5.0			
	169.0	7	9.3	7.80	2.0	3.0	3.0	5.0			
	191.2	6	10.2	6.89	2.0	3.0	3.0	5.0			
	236.6	5	11.8	5.57	2.0	3.0	3.0	4.0			
	273.2	4	13.6	4.82	2.0	3.0	3.0	4.0			
	338.1	3	15.5	3.90	2.0	3.0	3.0	4.0			
	388.2	3	16.3	3.39	2.0	3.0	3.0	4.0			
	444.0	3	16.9	2.97	2.0	3.0	2.0	3.0			
	465.5	2	16.4	2.83	-	4.0	-	-	PA 11 - 63M/4A PF 11 - 63M/4A	12	84
	567.8	2	17.6	2.32	-	3.0	-	-			
	645.7	2	18.3	2.04	-	3.0	-	-			
	727.7	2	18.9	1.81	-	3.0	-	-			
0.18	0.9	1419	1.3	1427.20	13.0	24.0	19.0	40.0	PA 52/12 - 63M/4B PF 52/12 - 63M/4B	96	138
	1.5	915	2.0	920.36	14.0	24.0	19.0	40.0			
	1.9	686	2.7	690.27	14.0	24.0	20.0	40.0			
	1.0	1385	0.9	1393.57	5.0	12.0	9.0	30.0	PA 42/12 - 63M/4B PF 42/12 - 63M/4B	67	138
	1.2	1108	1.1	1114.85	6.0	12.0	10.0	29.0			
	1.8	745	1.6	750.00	8.0	12.0	11.0	27.0			
	2.4	547	2.2	550.63	8.0	12.0	11.0	26.0			
	3.1	430	2.8	433.11	8.0	12.0	11.0	24.0			
	3.9	345	3.5	346.69	8.0	12.0	11.0	23.0			
	4.9	275	4.4	276.49	8.0	12.0	12.0	22.0			
	1.9	695	0.9	699.71	6.0	9.0	9.0	25.0	PA/PF 32/12 - 63M/4B	49	138
	2.3	748	0.8	585.48	6.0	9.0	9.0	25.0	PA 33 - 63M/4B PF 33 - 63M/4B	45	107
	2.6	669	1.0	523.81	6.0	9.0	9.0	25.0			
	3.2	538	1.2	421.10	6.0	9.0	9.0	25.0			
	4.0	433	1.5	339.07	7.0	9.0	9.0	25.0			
	5.4	317	2.1	248.21	7.0	9.0	9.0	23.0			
	6.5	264	2.5	206.97	7.0	9.0	9.0	22.0			
	8.1	213	3.2	166.39	7.0	9.0	9.0	21.0	PA/PF 32 - 71M/6A	41	106
	10.0	171	3.8	133.98	7.0	9.0	9.0	20.0			
	11.1	155	3.3	81.27	7.0	9.0	9.0	19.0			
	3.0	441	0.8	444.02	4.0	6.0	6.0	19.0			
	3.9	342	1.0	344.50	4.0	6.0	7.0	18.0			
	4.2	413	0.8	323.31	4.0	6.0	7.0	17.0			
	5.1	335	1.0	261.93	5.0	6.0	7.0	17.0	PA 23 - 63M/4B PF 23 - 63M/4B	33	103
	6.2	278	1.2	217.60	5.0	6.0	7.0	16.0			
	7.5	229	1.4	179.61	5.0	6.0	7.0	15.0			
	8.9	193	1.5	151.11	5.0	6.0	7.0	15.0			
	10.4	165	1.5	86.26	5.0	6.0	7.0	14.0			
	12.9	133	2.0	69.74	5.0	6.0	7.0	14.0			
	16.3	106	3.0	55.25	5.0	6.0	8.0	13.0	PA 22 - 71M/6A PF 22 - 71M/6A	30	102
	19.6	88	3.3	45.90	5.0	6.0	8.0	12.0			
	6.3	212	0.8	213.21	3.0	4.0	5.0	13.0	PA/PF 12/02 - 63M/4B	24	138
	6.9	250	0.8	195.71	3.0	4.0	4.0	13.0	PA 13 - 63M/4B PF 13 - 63M/4B	21	99
	8.5	203	0.8	159.23	3.0	4.0	5.0	12.0			
	10.2	169	0.9	132.48	3.0	4.0	5.0	12.0			
	12.4	139	1.3	108.73	3.0	4.0	5.0	11.0			
	12.4	139	1.0	72.60	3.0	4.0	5.0	11.0	PA 12 - 71M/6A PF 12 - 71M/6A	19	98
	14.7	117	1.3	61.31	4.0	4.0	5.0	11.0			

P ₁ [kW]	n ₂ [Min ⁻¹]	M ₂ [Nm]	f _B	i _{ges}	F _R [kN]	F _A [kN]	F _{R GR} [kN]	F _{A GR} [kN]	Tip / Type	Kg	Sayfa Page mm
0.18	18.5	93	1.5	72.60	4.0	4.0	5.0	10.0	PA 12 - 63M/4B PF 12 - 63M/4B	16	98
	21.9	78	2.0	61.31	4.0	4.0	5.0	10.0			
	25.0	69	2.6	53.84	4.0	4.0	5.0	10.0	PA 02 - 71M/6A PF 02 - 71M/6A	17	94
	31.2	55	2.9	43.07	4.0	4.0	5.0	9.0			
	38.4	45	3.3	35.04	4.0	4.0	5.0	9.0	PA/PF 03 - 63M/4B	18	95
	16.5	104	1.0	81.52	2.0	3.0	3.0	6.0			
	14.7	117	0.8	61.24	2.0	3.0	3.0	6.0	PA 02 - 71M/6A PF 02 - 71M/6A	17	94
	16.8	102	0.9	53.64	2.0	3.0	3.0	6.0			
	18.4	93	1.0	73.03	2.0	3.0	3.0	6.0	PA 02 - 63M/4B PF 02 - 63M/4B	14	94
	22.0	78	1.1	61.24	2.0	3.0	3.0	6.0			
	25.1	69	1.3	53.64	2.0	3.0	3.0	6.0	PA 02 - 63M/4B PF 02 - 63M/4B	14	94
	32.4	53	1.9	41.56	2.0	3.0	3.0	6.0			
	40.3	43	2.3	33.37	2.0	3.0	3.0	6.0	PA 02 - 63M/4B PF 02 - 63M/4B	14	94
	48.9	35	2.5	27.52	2.0	3.0	3.0	6.0			
	58.1	30	2.6	23.14	2.0	3.0	3.0	6.0	PA 02 - 63M/4B PF 02 - 63M/4B	14	94
	65.3	26	2.8	20.59	2.0	3.0	3.0	6.0			
	84.4	20	3.5	15.95	2.0	3.0	3.0	6.0	PA 02 - 63M/4B PF 02 - 63M/4B	14	94
	105.0	16	4.3	12.81	2.0	3.0	3.0	5.0			
	119.7	14	4.7	11.24	2.0	3.0	3.0	5.0	PA 02 - 63M/4B PF 02 - 63M/4B	14	94
	135.4	13	5.0	9.94	2.0	3.0	3.0	5.0			
	145.1	12	5.5	9.27	2.0	3.0	3.0	5.0	PA 02 - 63M/4B PF 02 - 63M/4B	14	94
	164.2	10	6.0	8.20	2.0	3.0	3.0	5.0			
	172.6	10	6.3	7.80	2.0	3.0	3.0	5.0	PA 11 - 63M/4B PF 11 - 63M/4B	12	84
	195.3	9	6.9	6.89	2.0	3.0	3.0	4.0			
	241.6	7	8.0	5.57	2.0	3.0	3.0	4.0	PA 11 - 63M/4B PF 11 - 63M/4B	12	84
	279.1	6	9.3	4.82	2.0	3.0	3.0	4.0			
	345.3	5	10.5	3.90	2.0	3.0	3.0	4.0	PA 11 - 63M/4B PF 11 - 63M/4B	12	84
	396.6	4	11.0	3.39	2.0	3.0	3.0	4.0			
	453.5	4	11.5	2.97	2.0	3.0	2.0	3.0	PA 11 - 63M/4B PF 11 - 63M/4B	12	84
	475.4	4	11.2	2.83	-	4.0	-	-			
	580.0	3	12.0	2.32	-	3.0	-	-	PA 11 - 63M/4B PF 11 - 63M/4B	12	84
	659.6	3	12.4	2.04	-	3.0	-	-			
	743.4	2	12.9	1.81	-	3.0	-	-	PA 11 - 63M/4B PF 11 - 63M/4B	12	84
0.25	1.0	2036	1.6	1410.80	19.0	45.0	27.0	45.0	PA 63/23 - 71M/4A PF 63/23 - 71M/4A	165	144
	1.3	1539	2.1	1066.44	20.0	45.0	28.0	45.0			
	1.0	2059	0.9	1427.20	11.0	24.0	18.0	40.0	PA 52/12 - 71M/4A PF 52/12 - 71M/4A	99	138
	1.5	1328	1.4	920.36	13.0	24.0	19.0	40.0			
	2.0	996	1.8	690.27	14.0	24.0	19.0	40.0			
	2.6	783	2.3	542.36	14.0	24.0	20.0	40.0			
	2.8	709	2.6	491.74	14.0	24.0	20.0	40.0			
	1.8	1312	0.8	763.70	5.0	12.0	10.0	25.0	PA 43 - 71M/4A PF 43 - 71M/4A	71	111
	2.2	1062	1.0	618.49	7.0	12.0	10.0	24.0			
	2.6	907	1.1	528.04	7.0	12.0	11.0	23.0			
	3.3	723	1.6	421.21	8.0	12.0	11.0	22.0			
	3.9	618	2.1	359.61	8.0	12.0	11.0	22.0			
	4.7	513	2.2	298.65	8.0	12.0	11.0	21.0			
	5.3	453	2.8	264.02	8.0	12.0	11.0	20.0			
	6.3	377	3.2	219.26	8.0	12.0	11.0	19.0	PA 32/12 - 71M/4A PF 32/12 - 71M/4A	52	138
	7.6	314	3.2	182.86	8.0	12.0	12.0	19.0			
	2.5	801	0.8	554.87	5.0	9.0	8.0	25.0	PA 32/12 - 71M/4A PF 32/12 - 71M/4A	52	138
	3.1	644	1.0	446.08	6.0	9.0	9.0	25.0			
	3.3	723	0.9	421.10	6.0	9.0	9.0	24.0	PA 33 - 71M/4A PF 33 - 71M/4A	48	107
	4.1	582	1.1	339.07	6.0	9.0	9.0	23.0			
	5.6	426	1.6	248.21	7.0	9.0	9.0	22.0			
	6.7	355	1.9	206.97	7.0	9.0	9.0	21.0			
	8.4	286	2.4	166.39	7.0	9.0	9.0	20.0			
	10.4	230	2.8	133.98	7.0	9.0	9.0	19.0	PA 32 - 71M/6B PF 32 - 71M/6B	43	106
	11.2	213	2.4	81.27	7.0	9.0	9.0	19.0			
	12.5	191	2.9	72.71	7.0	9.0	9.0	18.0			
	17.1	140	3.7	81.27	7.0	9.0	10.0	17.0	PA 32 - 71M/4A PF 32 - 71M/4A	41	106
	19.1	125	4.5	72.71	7.0	9.0	10.0	16.0			
	4.9	410	0.8	284.14	4.0	6.0	7.0	16.0	PA/PF 22/02 - 71M/4A	39	138
	5.3	450	0.8	261.93	4.0	6.0	6.0	16.0			
	6.4	374	0.9	217.60	4.0	6.0	7.0	15.0			
	7.7	308	1.0	179.61	5.0	6.0	7.0	15.0			
	9.2	260	1.1	151.11	5.0	6.0	7.0	14.0	PA 23 - 71M/4A PF 23 - 71M/4A	36	103

P ₁ [kW]	n ₂ [Min ⁻¹]	M ₂ [Nm]	f _B	i _{ges}	F _R [kN]	F _A [kN]	F _{R GR} [kN]	F _{A GR} [kN]	Tip / Type	Kg	Sayfa Page mm		
0.25	10.5	226	1.1	86.26	5.0	6.0	7.0	14.0	PA 22 - 71M/6B	32	102		
	13.0	183	1.4	69.74	5.0	6.0	7.0	13.0	PF 22 - 71M/6B				
	16.1	148	1.7	86.26	5.0	6.0	7.0	13.0	PA 22 - 71M/4A	30	102		
	19.9	120	2.2	69.74	5.0	6.0	7.0	12.0					
	25.2	95	3.4	55.25	5.0	6.0	8.0	11.0	PF 22 - 71M/4A				
	30.3	79	3.7	45.90	5.0	6.0	8.0	11.0					
	10.4	192	0.9	133.10	3.0	4.0	5.0	11.0	PA/PF 12/02 - 71M/4A	27	138		
	12.8	187	0.9	108.73	3.0	4.0	5.0	11.0	PA/PF 13 - 71M/4A	24	99		
	14.8	161	1.0	61.31	3.0	4.0	5.0	10.0	PA/PF 12 - 71M/6B	21	98		
	19.1	125	1.1	72.60	4.0	4.0	5.0	10.0	PA 12 - 71M/4A	19	98		
	22.7	105	1.5	61.31	4.0	4.0	5.0	10.0					
	25.8	92	1.9	53.84	4.0	4.0	5.0	9.0					
	32.3	74	2.2	43.07	4.0	4.0	5.0	9.0					
	39.7	60	2.5	35.04	4.0	4.0	5.0	8.0					
	47.7	50	2.5	29.16	4.0	4.0	5.0	8.0					
	17.1	140	0.8	81.52	2.0	3.0	3.0	6.0	PA 03 - 71M/4A	21	95		
	21.2	112	1.0	65.46	2.0	3.0	3.0	6.0	PF 03 - 71M/4A				
	22.7	105	0.8	61.24	2.0	3.0	3.0	6.0	PA 02 - 71M/4A	17	94		
	25.9	92	1.0	53.64	2.0	3.0	3.0	6.0					
	33.4	71	1.4	41.56	2.0	3.0	3.0	6.0					
	41.7	57	1.7	33.37	2.0	3.0	3.0	6.0					
	50.5	47	1.8	27.52	2.0	3.0	3.0	6.0					
	60.1	40	2.0	23.14	2.0	3.0	3.0	6.0					
	67.5	35	2.1	20.59	2.0	3.0	3.0	6.0					
	87.1	27	2.6	15.95	2.0	3.0	3.0	6.0					
	108.5	22	3.2	12.81	2.0	3.0	3.0	5.0					
	123.6	19	3.5	11.24	2.0	3.0	3.0	5.0					
	139.9	17	3.7	9.94	2.0	3.0	3.0	5.0					
	149.9	16	4.1	9.27	2.0	3.0	3.0	5.0					
	169.6	14	4.5	8.20	2.0	3.0	3.0	5.0					
	178.3	13	4.7	7.80	2.0	3.0	3.0	4.0					
	201.7	12	5.2	6.89	2.0	3.0	3.0	4.0					
	249.6	10	6.0	5.57	2.0	3.0	3.0	4.0					
	288.3	8	6.9	4.82	2.0	3.0	3.0	4.0					
	356.8	7	7.8	3.90	2.0	3.0	3.0	4.0					
	409.7	6	8.2	3.39	2.0	3.0	2.0	3.0					
	468.5	5	8.6	2.97	2.0	3.0	2.0	3.0					
	491.2	5	8.3	2.83	-	4.0	-	-	PA 11 - 71M/4A	15	84		
	599.1	4	8.9	2.32	-	3.0	-	-					
	681.4	4	9.3	2.04	-	3.0	-	-					
	768.0	3	9.6	1.81	-	3.0	-	-					
0.37	1.1	2883	1.7	1252.41	27.0	46.0	39.0	50.0	PA 73/22 - 71M/4B	242	140		
	1.2	2526	2.0	1097.40	27.0	45.0	39.0	50.0					
	1.5	2041	2.5	886.40	27.0	43.0	40.0	50.0					
	1.9	1695	2.9	736.40	28.0	41.0	40.0	50.0					
	2.4	1304	3.8	566.43	28.0	39.0	40.0	50.0					
	1.0	3248	1.0	1410.80	16.0	45.0	25.0	45.0	PA 63/23 - 71M/4B	167	144		
	1.3	2455	1.3	1066.44	18.0	45.0	27.0	45.0	PF 63/23 - 71M/4B				
	1.6	1959	1.6	851.02	19.0	45.0	27.0	45.0	PA 63/22 - 71M/4B	161	140		
	1.9	1675	1.9	727.77	19.0	43.0	28.0	45.0					
	2.5	1276	2.5	554.24	20.0	41.0	28.0	45.0					
	1.5	2331	0.8	606.94	10.0	24.0	17.0	40.0	PA 53 - 80M/6A	106	115		
	1.7	2107	0.9	548.64	11.0	24.0	18.0	40.0					
	1.8	1918	1.0	499.30	12.0	24.0	18.0	40.0					
	2.3	1507	1.2	392.31	13.0	24.0	19.0	40.0					
	2.5	1438	1.3	374.48	13.0	24.0	19.0	40.0					
	3.1	1130	2.0	294.23	13.0	24.0	19.0	40.0					
	5.8	611	3.1	236.60	14.0	24.0	20.0	40.0	PA/PF 53 - 71M/4B	106	115		
	2.0	1545	0.8	670.92	3.0	12.0	9.0	22.0	PA 42/12 - 71M/4B	72	138		
	2.5	1268	0.9	550.63	6.0	12.0	10.0	22.0	PF 42/12 - 71M/4B				
	3.2	997	1.2	433.11	7.0	12.0	10.0	21.0					

P ₁ [kW]	n ₂ [Min ⁻¹]	M ₂ [Nm]	f _B	i _{ges}	F _R [kN]	F _A [kN]	F _{R GR} [kN]	F _{A GR} [kN]	Tip / Type	Kg	Sayfa Page mm
0.37	3.3	1087	1.1	421.21	6.0	12.0	10.0	21.0	PA 43 - 71M/4B PF 43 - 71M/4B	73	111
	3.8	928	1.4	359.61	7.0	12.0	11.0	20.0			
	4.6	771	1.5	298.65	8.0	12.0	11.0	19.0			
	5.2	681	1.9	264.02	8.0	12.0	11.0	19.0			
	6.2	566	2.1	219.26	8.0	12.0	11.0	19.0			
	7.5	472	2.2	182.86	8.0	12.0	11.0	18.0			
	10.6	334	3.7	129.27	8.0	12.0	12.0	16.0			
	5.1	615	1.0	267.35	6.0	9.0	9.0	22.0	PA/PF 32/12 - 71M/4B	54	138
	5.5	641	1.0	248.21	6.0	9.0	9.0	21.0	PA 33 - 71M/4B PF 33 - 71M/4B	50	107
	6.6	534	1.3	206.97	6.0	9.0	9.0	20.0			
	8.2	429	1.6	166.39	7.0	9.0	9.0	19.0			
	10.2	346	1.9	133.98	7.0	9.0	9.0	18.0			
	11.3	312	1.6	81.27	7.0	9.0	9.0	18.0	PA 32 - 80M/6A PF 32 - 80M/6A	43	106
	12.7	279	2.0	72.71	7.0	9.0	9.0	17.0			
	14.3	247	2.6	64.26	7.0	9.0	9.0	17.0			
	16.8	210	2.5	81.27	7.0	9.0	9.0	16.0	PA 32 - 71M/4B	43	106
	18.8	188	3.0	72.71	7.0	9.0	9.0	16.0	PF 32 - 71M/4B		
	8.2	385	0.9	167.14	4.0	6.0	7.0	14.0	PA 22/02 - 71M/4B PF 22/02 - 71M/4B	41	138
	10.1	311	1.1	135.06	5.0	6.0	7.0	13.0			
	11.0	320	1.1	124.10	5.0	6.0	7.0	13.0	PA 23 - 71M/4B PF 23 - 71M/4B	38	103
	13.6	259	1.3	100.53	5.0	6.0	7.0	12.0			
	15.5	228	1.5	88.24	5.0	6.0	7.0	12.0			
	17.6	201	1.7	78.00	5.0	6.0	7.0	12.0			
	21.1	167	2.0	64.80	5.0	6.0	7.0	11.0			
	10.7	331	0.8	86.26	5.0	6.0	7.0	13.0	PA 22 - 80M/6A	32	102
	13.2	268	1.0	69.74	5.0	6.0	7.0	13.0	PF 22 - 80M/6A		
	15.9	223	1.1	86.26	5.0	6.0	7.0	12.0	PA 22 - 71M/4B PF 22 - 71M/4B	32	102
	19.6	180	1.5	69.74	5.0	6.0	7.0	12.0			
	24.8	143	2.2	55.25	5.0	6.0	7.0	11.0			
	29.8	118	2.5	45.90	5.0	6.0	7.0	10.0			
	14.8	212	0.8	92.29	3.0	4.0	5.0	10.0	PA/PF 12/02 - 71M/4B	29	138
	16.0	221	0.8	85.57	3.0	4.0	5.0	10.0	PA 13 - 71M/4B	26	99
	20.0	177	1.1	68.46	3.0	4.0	5.0	9.0	PF 13 - 71M/4B		
	22.3	158	1.0	61.31	3.0	4.0	5.0	9.0	PA 12 - 71M/4B PF 12 - 71M/4B	21	98
	25.4	139	1.3	53.84	3.0	4.0	5.0	9.0			
	28.6	124	1.4	47.86	4.0	4.0	5.0	9.0			
	31.8	111	1.5	43.07	4.0	4.0	5.0	8.0			
	35.8	99	1.9	38.29	4.0	4.0	5.0	8.0			
	39.1	90	1.6	35.04	4.0	4.0	5.0	8.0			
	43.9	80	2.1	31.15	4.0	4.0	5.0	8.0			
	47.0	75	1.6	29.16	4.0	4.0	5.0	8.0			
	52.8	67	2.0	25.92	3.0	4.0	5.0	8.0			
	64.4	55	3.0	21.27	3.0	4.0	5.0	7.0			
	72.8	49	3.3	18.80	3.0	4.0	5.0	7.0			
	81.8	43	3.6	16.74	3.0	4.0	5.0	7.0			
	102.2	35	4.3	13.39	3.0	4.0	5.0	6.0			
	32.9	107	0.9	41.56	2.0	3.0	3.0	6.0			
	41.0	86	1.1	33.37	2.0	3.0	3.0	6.0			
	46.3	76	1.2	29.59	2.0	3.0	3.0	6.0			
	49.7	71	1.2	27.52	2.0	3.0	3.0	6.0			
	56.1	63	1.4	24.41	2.0	3.0	3.0	6.0			
	59.2	60	1.3	23.14	2.0	3.0	3.0	6.0			
	66.5	53	1.4	20.59	2.0	3.0	3.0	6.0			
	85.8	41	1.7	15.95	2.0	3.0	3.0	5.0			
	106.9	33	2.1	12.81	2.0	3.0	3.0	5.0			
	121.8	29	2.3	11.24	2.0	3.0	3.0	5.0	PA 02 - 71M/4B PF 02 - 71M/4B	19	94
	137.8	26	2.5	9.94	2.0	3.0	3.0	5.0			
	147.7	24	2.7	9.27	2.0	3.0	3.0	5.0			
	167.0	21	3.0	8.20	2.0	3.0	3.0	4.0			
	175.6	20	3.1	7.80	2.0	3.0	3.0	4.0			
	198.7	18	3.4	6.89	2.0	3.0	3.0	4.0			
	245.9	14	4.0	5.57	2.0	3.0	3.0	4.0			
	284.0	12	4.6	4.82	2.0	3.0	3.0	4.0			
	351.4	10	5.2	3.90	2.0	3.0	3.0	4.0			
	403.5	9	5.4	3.39	2.0	3.0	2.0	3.0			
	461.5	8	5.7	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 [kN]	F _A [kN]	F _{R GR} [kN]	F _{A GR} [kN]	Tip / Type	Kg	Sayfa Page mm		
0.37	483.8	7	5.5	2.83	-	4.0	-	-	PA 11 - 71M/4B PF 11 - 71M/4B	17	84		
	590.2	6	5.9	2.32	-	3.0	-	-					
	671.2	5	6.1	2.04	-	3.0	-	-					
	756.4	5	6.3	1.81	-	3.0	-	-					
0.55	1.2	4008	2.0	1151.94	44.0	65.0	62.0	65.0	PA 83/32 - 80M/4A PF 83/32 - 80M/4A	360	140		
	1.6	3122	2.6	897.44	44.0	65.0	62.0	65.0					
	1.1	4357	1.1	1252.41	24.0	42.0	37.0	50.0	PA 73/22 - 80M/4A PF 73/22 - 80M/4A				
	1.3	3818	1.3	1097.40	25.0	41.0	38.0	50.0					
	1.6	3084	1.6	886.40	26.0	40.0	39.0	50.0					
	1.9	2562	2.0	736.40	27.0	39.0	39.0	50.0					
	2.5	1971	2.5	566.43	27.0	37.0	40.0	50.0					
	3.1	1592	3.1	457.52	28.0	35.0	40.0	50.0					
	1.3	3710	0.9	1066.44	14.0	43.0	24.0	45.0	PA/PF 63/23 - 80M/4A	167	144		
	1.6	2961	1.1	851.02	17.0	42.0	26.0	45.0	PA 63/22 - 80M/4A PF 63/22 - 80M/4A				
	1.9	2532	1.3	727.77	18.0	41.0	27.0	45.0					
	2.5	1928	1.7	554.24	19.0	39.0	27.0	45.0					
	3.3	1497	2.1	430.20	20.0	37.0	28.0	45.0					
	3.8	1280	2.5	367.90	20.0	36.0	28.0	45.0					
	2.0	2401	0.8	690.27	10.0	24.0	17.0	40.0	PA/PF 52/12 - 80M/4A	101	138		
	2.3	2277	0.8	606.94	10.0	24.0	17.0	40.0	PA 53 - 80M/4A PF 53 - 80M/4A				
	2.6	2058	0.9	548.64	11.0	24.0	18.0	40.0					
	2.8	1873	1.0	499.30	12.0	24.0	18.0	40.0					
	3.6	1472	1.2	392.31	13.0	24.0	19.0	40.0					
	3.7	1405	1.4	374.48	13.0	24.0	19.0	40.0					
	4.8	1104	2.0	294.23	13.0	24.0	19.0	40.0					
	5.7	922	2.0	245.73	14.0	24.0	20.0	40.0					
	5.9	888	2.2	236.60	14.0	24.0	20.0	40.0					
	7.5	697	2.6	185.90	14.0	24.0	20.0	40.0					
	7.9	666	2.9	177.45	14.0	24.0	20.0	40.0					
	10.0	523	3.8	139.42	14.0	24.0	20.0	40.0					
	3.2	1507	0.8	433.11	4.0	12.0	9.0	18.0	PA/PF 42/12 - 80M/4A	72	138		
	3.9	1349	1.0	359.61	5.0	12.0	9.0	18.0	PA 43 - 80M/4A PF 43 - 80M/4A				
	4.7	1120	1.0	298.65	6.0	12.0	10.0	18.0					
	5.0	1045	1.2	278.52	7.0	12.0	10.0	18.0					
	5.3	991	1.3	264.02	7.0	12.0	10.0	17.0					
	6.1	868	1.3	231.31	7.0	12.0	11.0	17.0					
	6.4	823	1.5	219.26	7.0	12.0	11.0	17.0					
	6.8	767	1.7	204.49	8.0	12.0	11.0	17.0					
	7.7	686	1.5	182.86	8.0	12.0	11.0	17.0					
	8.2	637	1.8	169.82	8.0	12.0	11.0	16.0					
	9.9	531	2.0	141.63	8.0	12.0	11.0	16.0					
	10.8	485	2.6	129.27	8.0	12.0	11.0	16.0					
	13.0	403	2.8	107.36	8.0	12.0	11.0	15.0					
	14.8	356	3.5	94.91	8.0	12.0	11.0	15.0					
	17.5	300	3.9	80.01	8.0	12.0	12.0	14.0					
	6.5	749	0.8	215.28	6.0	9.0	9.0	19.0	PA/PF 32/12 - 80M/4A	54	138		
	6.8	776	0.9	206.97	5.0	9.0	8.0	19.0	PA 33 - 80M/4A PF 33 - 80M/4A				
	8.4	624	1.1	166.39	6.0	9.0	9.0	18.0					
	10.4	503	1.3	133.98	6.0	9.0	9.0	17.0					
	11.3	464	1.1	81.27	6.0	9.0	9.0	17.0	PA 32 - 80M/6B PF 32 - 80M/6B	45	106		
	12.7	415	1.3	72.71	7.0	9.0	9.0	17.0					
	14.3	367	1.7	64.26	7.0	9.0	9.0	16.0					
	17.2	305	1.7	81.27	7.0	9.0	9.0	16.0					
	19.3	273	2.1	72.71	7.0	9.0	9.0	15.0					
	21.8	241	2.7	64.26	7.0	9.0	9.0	15.0	PA 32 - 80M/4A PF 32 - 80M/4A	43	106		
	24.4	216	2.8	57.49	7.0	9.0	9.0	15.0					
	30.2	174	3.1	46.29	7.0	9.0	9.0	14.0					
	11.9	409	0.8	117.62	4.0	6.0	7.0	12.0	PA/PF 22/02 - 80M/4A				
	13.9	377	0.9	100.53	4.0	6.0	7.0	11.0	PA 23 - 80M/4A	38	102		
	15.9	331	1.0	88.24	5.0	6.0	7.0	11.0	PF 23 - 80M/4A				

P ₁ [kW]	n ₂ [Min ⁻¹]	M ₂ [Nm]	f _B	i _{ges}	F _R [kN]	F _A [kN]	F _{R GR} [kN]	F _{A GR} [kN]	Tip / Type	Kg	Sayfa Page mm
0.55	16.2	324	0.8	86.26	5.0	6.0	7.0	11.0	PA 22 - 80M/4A PF 22 - 80M/4A	32	102
	20.1	262	1.0	69.74	5.0	6.0	7.0	11.0			
	25.3	207	1.5	55.25	5.0	6.0	7.0	10.0			
	30.5	172	1.7	45.90	5.0	6.0	7.0	10.0			
	32.7	161	2.1	42.79	5.0	6.0	7.0	10.0			
	39.4	133	2.5	35.55	5.0	6.0	7.0	9.0			
	47.7	110	2.7	29.34	5.0	6.0	7.0	9.0			
	56.7	93	2.7	24.69	5.0	6.0	8.0	9.0			
	29.2	180	1.0	47.86	3.0	4.0	5.0	8.0	PA 12 - 80M/4A PF 12 - 80M/4A	21	98
	36.6	144	1.3	38.29	3.0	4.0	5.0	8.0			
	44.9	117	1.4	31.15	3.0	4.0	5.0	7.0			
	54.0	97	1.4	25.92	3.0	4.0	5.0	7.0			
	65.8	80	2.1	21.27	3.0	4.0	5.0	7.0			
	74.5	71	2.3	18.80	3.0	4.0	5.0	7.0			
	83.6	63	2.5	16.74	3.0	4.0	5.0	7.0			
	104.5	50	3.0	13.39	3.0	4.0	5.0	6.0			
	131.1	40	3.3	10.68	3.0	4.0	5.0	6.0			
	145.1	36	3.7	9.65	3.0	4.0	5.0	6.0			
	47.3	111	0.8	29.59	2.0	3.0	3.0	6.0	PA 02 - 80M/4A PF 02 - 80M/4A	19	94
	57.4	92	1.0	24.41	2.0	3.0	3.0	5.0			
	68.0	77	1.0	20.59	2.0	3.0	3.0	5.0			
	87.8	60	1.2	15.95	2.0	3.0	3.0	5.0			
	109.3	48	1.5	12.81	2.0	3.0	3.0	5.0			
	124.5	42	1.6	11.24	2.0	3.0	3.0	5.0			
	140.9	37	1.7	9.94	2.0	3.0	3.0	5.0			
	151.0	35	1.9	9.27	2.0	3.0	3.0	4.0			
	170.8	31	2.0	8.20	2.0	3.0	3.0	4.0			
	179.6	29	2.2	7.80	2.0	3.0	3.0	4.0			
	203.2	26	2.4	6.89	2.0	3.0	3.0	4.0			
	251.4	21	2.7	5.57	2.0	3.0	3.0	4.0			
	290.4	18	3.2	4.82	2.0	3.0	3.0	4.0			
	359.3	15	3.6	3.90	2.0	3.0	2.0	3.0			
	412.6	13	3.8	3.39	2.0	3.0	2.0	3.0			
	471.9	11	3.9	2.97	2.0	3.0	2.0	3.0			
	494.7	11	3.8	2.83	-	3.0	-	-	PA 11 - 80M/4A PF 11 - 80M/4A	17	84
	603.4	9	4.1	2.32	-	3.0	-	-			
	686.3	8	4.3	2.04	-	3.0	-	-			
	773.5	7	4.4	1.81	-	3.0	-	-			
0.75	1.2	5579	1.4	1151.94	42.0	65.0	61.0	65.0	PA 83/32 - 80M/4B PF 83/32 - 80M/4B	362	140
	1.6	4346	1.8	897.44	43.0	65.0	62.0	65.0			
	1.9	3500	2.3	722.63	44.0	65.0	62.0	65.0			
	1.1	6066	0.8	1252.41	18.0	38.0	34.0	50.0	PA 73/22 - 80M/4B PF 73/22 - 80M/4B	244	140
	1.3	5315	0.9	1097.40	21.0	38.0	36.0	50.0			
	1.6	4293	1.2	886.40	23.0	38.0	37.0	50.0			
	1.9	3566	1.4	736.40	25.0	36.0	38.0	50.0			
	2.5	2743	1.8	566.43	27.0	35.0	39.0	50.0			
	3.1	2216	2.3	457.52	27.0	34.0	39.0	50.0			
	4.0	1679	3.0	346.75	28.0	32.0	40.0	50.0			
	1.6	4122	0.8	851.02	12.0	39.0	23.0	45.0	PA 63/22 - 80M/4B PF 63/22 - 80M/4B	163	140
	1.9	3525	0.9	727.77	15.0	38.0	25.0	45.0			
	2.5	2684	1.2	554.24	18.0	37.0	26.0	45.0			
	3.3	2084	1.5	430.20	19.0	35.0	27.0	45.0			
	3.8	1782	1.8	367.90	19.0	34.0	28.0	45.0			
	4.9	1371	2.3	283.00	20.0	32.0	28.0	45.0			
	6.2	1091	2.9	225.22	20.0	31.0	28.0	45.0			
	2.5	2886	1.1	372.70	17.0	36.0	26.0	45.0	PA 63 - 90S/6A PF 63 - 90S/6A	148	119
	3.1	2330	1.4	300.91	18.0	35.0	27.0	45.0			
	3.5	2056	1.8	265.56	19.0	34.0	27.0	45.0			
	4.3	1660	2.2	214.41	19.0	33.0	28.0	45.0			
	2.8	2554	0.8	499.30	9.0	24.0	17.0	40.0	PA 53 - 80M/4B PF 53 - 80M/4B	108	115
	3.6	2007	0.9	392.31	11.0	24.0	18.0	40.0			
	3.7	1916	1.0	374.48	12.0	24.0	18.0	40.0			
	4.8	1505	1.5	294.23	13.0	24.0	19.0	40.0			
	5.7	1257	1.5	245.73	13.0	24.0	19.0	40.0			
	5.9	1210	1.6	236.60	13.0	24.0	19.0	40.0			
	7.5	951	1.9	185.90	14.0	24.0	19.0	40.0			
	7.9	908	2.1	177.45	14.0	24.0	20.0	40.0			
	10.0	713	2.7	139.42	14.0	24.0	20.0	40.0			

P ₁ [kW]	n ₂ [Min ⁻¹]	M ₂ [Nm]	f _B	i _{ges}	F _R [kN]	F _A [kN]	F _{R GR} [kN]	F _{A GR} [kN]	Tip / Type	Kg	Sayfa Page mm
0.75	10.6 11.8	673 608	2.6 2.6	86.88 78.53	14.0 14.0	24.0 24.0	20.0 20.0	40.0 40.0	PA 52 - 90S/6A PF 52 - 90S/6A	93	114
	5.0 5.3 6.1 6.4 6.8 7.7 8.2 9.9 10.8 13.0 14.8 17.5 20.0	1425 1351 1183 1122 1046 936 869 725 661 549 486 409 359	0.9 0.9 0.9 1.1 1.2 1.1 1.3 1.5 1.9 2.0 2.6 2.9 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	4.0 5.0 6.0 6.0 7.0 7.0 7.0 8.0 8.0 8.0 8.0 8.0	12.0 12.0 12.0 12.0 12.0 12.0 12.0 12.0 12.0 12.0 12.0 12.0 12.0	9.0 9.0 10.0 10.0 10.0 11.0 11.0 11.0 11.0 11.0 11.0 11.0 11.0	16.0 16.0 15.0 15.0 15.0 15.0 15.0 15.0 15.0 14.0 14.0 14.0 13.0	PA 43 - 80M/4B PF 43 - 80M/4B	75	111
	8.8 10.9 12.4 15.3	814 659 580 470	1.1 1.2 1.9 2.1	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	15.0 15.0 15.0 14.0	PA 42 - 90S/6A PF 42 - 90S/6A	64	110
	8.4 10.4	851 685	0.8 0.9	166.39 133.98	5.0 6.0	9.0 9.0	8.0 9.0	17.0 16.0	PA 33 - 80M/4B PF 33 - 80M/4B	52	107
	11.4 12.7 14.4	629 563 498	0.8 1.0 1.3	81.27 72.71 64.26	6.0 6.0 6.0	9.0 9.0 9.0	9.0 9.0 9.0	16.0 16.0 15.0	PA 32 - 90S/6A PF 32 - 90S/6A	47	106
	17.2 19.3 21.8 24.4 30.2 36.1 42.4 60.6 67.7 75.1	416 372 329 294 237 198 169 118 106 95	1.2 1.5 1.9 2.1 2.3 2.2 2.3 3.1 3.1 3.2	81.27 72.71 64.26 57.49 46.29 38.76 33.00 23.10 20.67 18.64	7.0 7.0 7.0 7.0 7.0 6.0 6.0 6.0 5.0 5.0	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 10.0 10.0 10.0	15.0 15.0 15.0 14.0 13.0 13.0 12.0 11.0 11.0 11.0	PA 32 - 80M/4B PF 32 - 80M/4B	45	106
	15.9 17.9 21.6	451 399 332	0.8 0.9 1.0	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 23 - 80M/4B PF 23 - 80M/4B	40	103
	20.2	355	0.8	45.90	3.0	6.0	7.0	10.0	PA/PF 22 - 90S/6A	36	102
	25.3 30.5 32.7 39.4 47.7 56.7 83.6 95.4	283 235 219 182 150 126 86 75	1.1 1.2 1.6 1.8 1.9 1.9 2.9 3.0	55.25 45.90 42.79 35.55 29.34 24.69 16.74 14.67	5.0 5.0 5.0 5.0 5.0 5.0 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 7.0 8.0 8.0	10.0 9.0 9.0 9.0 9.0 8.0 8.0 7.0	PA 22 - 80M/4B PF 22 - 80M/4B	34	102
	36.6 44.9 54.0 65.8 74.5 83.6 104.5 131.1 145.1 178.3 192.1 214.3 242.0	196 159 133 109 96 86 69 55 49 40 37 33 30	0.9 1.0 1.0 1.5 1.7 1.8 2.2 2.5 2.7 3.1 3.4 3.1 3.2	38.29 31.15 25.92 21.27 18.80 16.74 13.39 10.68 9.65 7.85 7.29 6.53 5.78	1.0 1.0 2.0 3.0 3.0 3.0 3.0 3.0 3.0 2.0 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 4.0	5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0	7.0 7.0 7.0 7.0 6.0 6.0 6.0 6.0 6.0 5.0 5.0 5.0 5.0	PA 12 - 80M/4B PF 12 - 80M/4B	23	98

P ₁ [kW]	n ₂ [Min ⁻¹]	M ₂ [Nm]	f _B	i _{ges}	F _R [kN]	F _A [kN]	F _{R GR} [kN]	F _{A GR} [kN]	Tip / Type	Kg	Sayfa Page mm
0.75	87.8	82	0.9	15.95	2.0	3.0	3.0	5.0	PA 02 - 80M/4B PF 02 - 80M/4B	21	94
	109.3	66	1.1	12.81	2.0	3.0	3.0	5.0			
	124.5	58	1.2	11.24	2.0	3.0	3.0	4.0			
	140.9	51	1.3	9.94	2.0	3.0	3.0	4.0			
	151.0	47	1.4	9.27	2.0	3.0	3.0	4.0			
	170.8	42	1.5	8.20	2.0	3.0	3.0	4.0			
	179.6	40	1.6	7.80	2.0	3.0	3.0	4.0			
	203.2	35	1.7	6.89	2.0	3.0	3.0	4.0			
	251.4	28	2.0	5.57	2.0	3.0	3.0	4.0			
	290.4	25	2.3	4.82	2.0	3.0	3.0	4.0			
1.10	359.3	20	2.7	3.90	2.0	3.0	2.0	3.0	PA 11 - 80M/4B PF 11 - 80M/4B	19	84
	412.6	17	2.7	3.39	2.0	3.0	2.0	3.0			
	471.9	15	2.8	2.97	2.0	3.0	2.0	3.0			
	494.7	14	2.7	2.83	-	3.0	-	-			
	603.4	12	3.0	2.32	-	3.0	-	-			
	686.3	10	3.1	2.04	-	3.0	-	-			
	773.5	9	3.3	1.81	-	3.0	-	-			
	1.0	10532	1.9	1413.66	99.0	120.0	120.0	120.0	PA 103/52 - 90S/4A PF 103/52 - 90S/4A	808	142
	1.2	8549	2.3	1147.52	100.0	120.0	120.0	120.0			
	1.5	7033	2.8	944.01	101.0	120.0	120.0	120.0			
	1.1	9673	1.3	1299.17	62.0	80.0	90.0	80.0	PA 93/42 - 90S/4A PF 93/42 - 90S/4A	560	142
	1.3	8128	1.5	1090.99	63.0	80.0	91.0	80.0			
	1.7	6049	2.0	811.95	65.0	80.0	92.0	80.0			
	1.9	5638	2.2	756.80	65.0	80.0	92.0	80.0			
	2.6	4082	3.0	547.88	66.0	80.0	93.0	80.0			
	1.0	10183	0.8	1366.81	30.0	65.0	53.0	65.0	PA 83/32 - 90S/4A PF 83/32 - 90S/4A	364	140
	1.2	8582	0.9	1151.94	36.0	65.0	57.0	65.0			
	1.6	6686	1.2	897.44	39.0	65.0	59.0	65.0			
	2.0	5384	1.5	722.63	42.0	63.0	61.0	65.0			
	2.7	3912	2.0	525.11	44.0	59.0	62.0	65.0	PA 83/42 - 90S/4A PF 83/42 - 90S/4A	381	142
	3.2	3263	2.5	437.93	44.0	57.0	62.0	65.0			
	3.8	2790	2.9	374.50	45.0	55.0	63.0	65.0			
	1.6	6604	0.8	886.40	16.0	32.0	33.0	50.0	PA 73/22 - 90S/4A PF 73/22 - 90S/4A	246	140
	1.9	5486	0.9	736.40	20.0	32.0	35.0	50.0			
	2.5	4220	1.2	566.43	24.0	31.0	37.0	50.0			
	3.1	3409	1.5	457.52	26.0	31.0	38.0	50.0			
	4.1	2583	1.9	346.75	27.0	30.0	39.0	50.0			
	5.0	2087	2.4	280.08	27.0	29.0	40.0	50.0	PA/PF 73/32 - 90S/4A	257	140
	6.2	1687	3.0	226.38	28.0	27.0	40.0	50.0			
	2.5	4187	0.8	372.70	12.0	32.0	23.0	45.0	PA 63 - 90L/6B PF 63 - 90L/6B	150	119
	3.1	3381	0.9	300.91	16.0	32.0	25.0	45.0			
	3.5	2984	1.2	265.56	17.0	32.0	26.0	45.0			
	3.8	2777	1.2	372.70	17.0	31.0	26.0	45.0	PA 63 - 90S/4A PF 63 - 90S/4A	148	119
	4.7	2242	1.4	300.91	18.0	30.0	27.0	45.0			
	5.3	1979	1.8	265.56	19.0	30.0	27.0	45.0			
	6.6	1597	2.3	214.41	20.0	29.0	28.0	45.0			
	4.8	2192	1.0	294.23	11.0	24.0	17.0	40.0	PA 53 - 90S/4A PF 53 - 90S/4A	110	115
	5.7	1831	1.0	245.73	12.0	24.0	18.0	40.0			
	6.0	1763	1.1	236.60	12.0	24.0	18.0	40.0			
	7.6	1385	1.3	185.90	13.0	24.0	19.0	40.0			
	7.9	1322	1.5	177.45	13.0	24.0	19.0	40.0			
	10.1	1039	2.1	139.42	14.0	24.0	19.0	40.0			
	10.8	976	1.8	86.88	14.0	24.0	19.0	40.0	PA 52 - 90L/6B PF 52 - 90L/6B	95	114
	11.9	882	1.8	78.53	14.0	24.0	20.0	40.0			
	13.1	803	2.0	71.47	14.0	24.0	20.0	40.0			
	16.2	647	2.7	86.88	14.0	24.0	20.0	40.0	PA 52 - 90S/4A PF 52 - 90S/4A	93	114
	18.0	585	2.7	78.53	14.0	24.0	20.0	40.0			
	6.9	1523	0.8	204.49	3.0	12.0	9.0	13.0	PA 43 - 90S/4A PF 43 - 90S/4A	77	111
	8.3	1265	0.9	169.82	6.0	12.0	10.0	13.0			
	10.0	1055	1.0	141.63	7.0	12.0	10.0	13.0			
	11.0	956	0.8	85.10	7.0	12.0	11.0	13.0	PA 42 - 90L/6B PF 42 - 90L/6B	66	110
	12.5	841	1.3	74.87	7.0	12.0	11.0	13.0			

P ₁ [kW]	n ₂ [Min ⁻¹]	M ₂ [Nm]	f _B	i _{ges}	F _R [kN]	F _A [kN]	F _{R GR} [kN]	F _{A GR} [kN]	Tip / Type	Kg	Sayfa Page mm
1.10	13.4	783	1.1	105.08	7.0	12.0	11.0	13.0	PA 42 - 90S/4A PF 42 - 90S/4A	64	110
	16.6	634	1.3	85.10	8.0	12.0	11.0	13.0			
	18.8	558	1.9	74.87	8.0	12.0	11.0	13.0	PA 32 - 90S/4A PF 32 - 90S/4A	47	106
	23.3	452	2.2	60.64	8.0	12.0	11.0	12.0			
	14.6	722	0.9	64.26	6.0	9.0	9.0	14.0	PA/PF 32 - 90L/6B	49	106
	17.3	605	0.9	81.27	6.0	9.0	9.0	14.0			
	19.4	542	1.0	72.71	6.0	9.0	9.0	14.0			
	21.9	479	1.3	64.26	6.0	9.0	9.0	13.0			
	24.5	428	1.4	57.49	7.0	9.0	9.0	13.0			
	30.5	345	1.5	46.29	6.0	9.0	9.0	13.0			
	30.5	344	2.0	46.22	6.0	9.0	9.0	13.0			
	36.4	289	1.5	38.76	6.0	9.0	9.0	12.0			
	37.9	277	2.1	37.22	6.0	9.0	9.0	12.0			
	42.7	246	1.5	33.00	6.0	9.0	9.0	12.0			
	45.3	232	2.2	31.16	6.0	9.0	9.0	12.0			
	53.1	198	2.2	26.53	5.0	9.0	9.0	11.0			
	61.0	172	3.4	23.10	5.0	9.0	9.0	11.0			
	68.2	154	3.4	20.67	5.0	9.0	9.0	11.0			
	25.5	412	0.8	55.25	-	-	7.0	9.0	PA 22 - 90S/4A PF 22 - 90S/4A	36	102
	30.7	342	0.9	45.90	1.0	6.0	7.0	9.0			
	33.0	319	1.1	42.79	2.0	6.0	7.0	9.0			
	39.7	265	1.2	35.55	3.0	6.0	7.0	8.0			
	40.7	258	1.3	34.67	4.0	6.0	7.0	8.0			
	48.1	219	1.3	29.34	4.0	6.0	7.0	8.0			
	49.0	215	1.7	28.80	4.0	6.0	7.0	8.0			
	57.1	184	1.3	24.69	4.0	6.0	7.0	8.0			
	59.3	177	1.8	23.77	4.0	6.0	7.0	8.0			
	70.5	149	1.9	20.00	4.0	6.0	7.0	8.0			
	84.2	125	2.7	16.74	4.0	6.0	7.0	7.0			
	96.1	109	3.1	14.67	4.0	6.0	7.0	7.0			
	115.7	91	3.1	12.19	4.0	6.0	8.0	7.0			
	129.3	81	3.3	10.90	4.0	6.0	8.0	7.0			
	166.6	63	3.1	8.46	3.0	6.0	8.0	6.0			
	66.3	158	1.1	21.27	1.0	4.0	5.0	6.0	PA 12 - 90S/4A PF 12 - 90S/4A	25	98
	75.0	140	1.1	18.80	1.0	4.0	5.0	6.0			
	84.2	125	1.2	16.74	2.0	4.0	5.0	6.0			
	105.3	100	1.5	13.39	2.0	4.0	5.0	6.0			
	132.0	80	1.7	10.68	2.0	4.0	5.0	5.0			
	146.1	72	1.9	9.65	2.0	4.0	5.0	5.0			
	179.6	59	2.2	7.85	2.0	4.0	5.0	5.0			
	193.5	54	2.3	7.29	2.0	4.0	5.0	5.0			
	215.8	49	2.6	6.53	2.0	4.0	5.0	5.0			
	243.8	43	2.8	5.78	2.0	4.0	5.0	5.0			
	285.8	37	3.2	4.93	2.0	3.0	5.0	5.0			
	313.9	33	3.2	4.49	2.0	3.0	5.0	4.0			
	327.3	32	3.4	4.31	2.0	3.0	5.0	4.0			
	354.5	30	3.4	3.98	2.0	3.0	5.0	4.0			
	125.4	84	0.8	11.24	1.0	3.0	3.0	4.0	PA 02 - 90S/4A PF 02 - 90S/4A	23	94
	141.9	74	0.9	9.94	2.0	3.0	3.0	4.0			
	152.1	69	0.9	9.27	2.0	3.0	3.0	4.0			
	172.0	61	1.0	8.20	2.0	3.0	3.0	4.0			
	180.9	58	1.1	7.80	2.0	3.0	3.0	4.0			
	204.6	51	1.2	6.89	2.0	3.0	3.0	4.0			
	253.2	41	1.4	5.57	2.0	3.0	3.0	3.0			
	292.4	36	1.6	4.82	2.0	3.0	2.0	3.0			
	361.9	29	1.8	3.90	2.0	3.0	2.0	3.0			
	415.6	25	2.0	3.39	2.0	3.0	2.0	3.0			
	475.2	22	2.1	2.97	2.0	3.0	2.0	3.0			
	498.2	21	2.6	2.83	-	3.0	-	-	PA 11 - 90S/4A PF 11 - 90S/4A	21	84
	607.8	17	2.8	2.32	-	3.0	-	-			
	691.2	15	3.2	2.04	-	3.0	-	-			
	779.0	13	3.4	1.81	-	3.0	-	-			

P ₁ [kW]	n ₂ [Min ⁻¹]	M ₂ [Nm]	f _B	i _{ges}	F _R [kN]	F _A [kN]	F _{R GR} [kN]	F _{A GR} [kN]	Tip / Type	Kg	Sayfa Page mm
1.50	1.0	14261	1.4	1413.66	97.0	120.0	120.0	120.0	PA 103/52 - 90L/4A PF 103/52 - 90L/4A	810	142
	1.2	11576	1.7	1147.52	98.0	120.0	120.0	120.0			
	1.5	9523	2.1	944.01	100.0	120.0	120.0	120.0	PA 93/42 - 90L/4A PF 93/42 - 90L/4A	562	142
	1.7	8250	2.4	817.82	101.0	120.0	120.0	120.0			
	2.2	6482	3.1	642.57	101.0	120.0	120.0	120.0	PA 83/32 - 90L/4A PF 83/32 - 90L/4A	366	140
	1.1	13097	0.9	1299.17	57.0	80.0	87.0	80.0			
	1.3	11006	1.1	1090.99	60.0	80.0	89.0	80.0	PA 83/42 - 90L/4A PF 83/42 - 90L/4A	383	142
	1.7	8191	1.5	811.95	63.0	80.0	91.0	80.0			
	1.9	7635	1.6	756.80	63.0	80.0	91.0	80.0	PA 73/22 - 90L/4A PF 73/22 - 90L/4A	248	140
	2.6	5527	2.2	547.88	65.0	80.0	92.0	80.0			
	3.1	4609	2.6	456.91	66.0	80.0	93.0	80.0	PA/PF 83 - 100L/6A	349	127
	1.6	9053	0.9	897.44	33.0	60.0	55.0	65.0			
	2.0	7290	1.1	722.63	38.0	58.0	58.0	65.0	PA 73/32 - 90L/4A PF 73/32 - 90L/4A	259	140
	2.7	5297	1.5	525.11	42.0	56.0	61.0	65.0			
	3.2	4418	1.8	437.93	43.0	54.0	62.0	65.0	PA 73/32 - 90L/4A PF 73/32 - 90L/4A	242	123
	3.8	3778	2.1	374.50	44.0	53.0	62.0	65.0			
	5.1	2784	2.9	276.00	45.0	49.0	63.0	65.0	PA/PF 63 - 100L/6A	158	119
	6.0	2381	3.2	236.03	45.0	48.0	63.0	65.0			
	4.3	3299	2.7	216.49	44.0	51.0	62.0	65.0	PA 73 - 100L/6A PF 73 - 100L/6A	112	115
	2.5	5714	0.9	566.43	20.0	28.0	35.0	50.0			
	3.1	4616	1.1	457.52	23.0	28.0	36.0	50.0	PA 53 - 90L/4A PF 53 - 90L/4A	103	114
	4.1	3498	1.4	346.75	25.0	27.0	38.0	50.0			
	5.1	2826	1.8	280.08	27.0	27.0	39.0	50.0	PA 52 - 90L/4A PF 52 - 90L/4A	95	114
	6.3	2284	2.2	226.38	27.0	26.0	39.0	50.0			
	8.3	1726	2.9	171.10	28.0	25.0	40.0	50.0	PA 52 - 90L/4A PF 52 - 90L/4A	79	111
	10.1	1424	3.0	141.16	28.0	24.0	40.0	50.0			
	11.4	1258	3.0	124.66	28.0	23.0	40.0	50.0	PA/PF 43 - 90L/4A	66	110
	4.6	3133	1.7	205.59	26.0	27.0	39.0	50.0			
	5.7	2531	2.2	166.07	27.0	26.0	39.0	50.0	PA 42 - 90L/4A PF 42 - 90L/4A	13	109
	3.5	4047	0.9	265.56	13.0	29.0	24.0	45.0			
	3.8	3760	0.9	372.70	14.0	28.0	24.0	45.0	PA 42 - 90L/4A PF 42 - 90L/4A	13	109
	4.7	3036	1.1	300.91	17.0	28.0	26.0	45.0			
	5.3	2679	1.4	265.56	18.0	28.0	26.0	45.0	PA 42 - 90L/4A PF 42 - 90L/4A	13	109
	6.6	2163	1.7	214.41	19.0	27.0	27.0	45.0			
	13.2	1081	2.6	107.21	20.0	24.0	28.0	45.0	PA 42 - 90L/4A PF 42 - 90L/4A	13	109
	16.3	880	2.6	87.26	20.0	23.0	28.0	45.0			
	6.0	2387	0.8	236.60	10.0	24.0	17.0	40.0	PA 42 - 90L/4A PF 42 - 90L/4A	13	109
	7.6	1875	1.0	185.90	12.0	24.0	18.0	40.0			
	8.0	1790	1.1	177.45	12.0	24.0	18.0	40.0	PA 42 - 90L/4A PF 42 - 90L/4A	13	109
	10.2	1407	1.6	139.42	13.0	24.0	19.0	40.0			
	10.8	1324	1.3	86.88	13.0	24.0	19.0	40.0	PA 42 - 90L/4A PF 42 - 90L/4A	13	109
	12.0	1197	1.3	78.53	13.0	24.0	19.0	40.0			
	13.2	1089	1.5	71.47	13.0	24.0	19.0	40.0	PA 42 - 90L/4A PF 42 - 90L/4A	13	109
	16.3	876	2.0	86.88	14.0	24.0	20.0	40.0			
	18.1	792	2.0	78.53	14.0	24.0	20.0	40.0	PA 42 - 90L/4A PF 42 - 90L/4A	13	109
	19.9	721	2.2	71.47	14.0	24.0	20.0	40.0			
	39.4	363	3.3	36.00	14.0	24.0	20.0	40.0	PA 42 - 90L/4A PF 42 - 90L/4A	13	109
	43.6	328	3.3	32.54	14.0	24.0	20.0	40.0			
	11.0	1304	1.0	129.27	3.0	12.0	10.0	11.0	PA/PF 43 - 90L/4A	79	111
	13.5	1060	0.8	105.08	6.0	12.0	10.0	12.0	PA 42 - 90L/4A PF 42 - 90L/4A	13	109
	16.7	858	0.9	85.10	7.0	12.0	11.0	12.0			
	19.0	755	1.4	74.87	8.0	12.0	11.0	12.0	PA 42 - 90L/4A PF 42 - 90L/4A	13	109
	23.4	612	1.6	60.64	8.0	12.0	11.0	11.0			
	46.6	307	2.6	30.47	8.0	12.0	12.0	10.0	PA 42 - 90L/4A PF 42 - 90L/4A	13	109
	57.5	249	2.6	24.68	7.0	12.0	12.0	10.0			

P ₁ [kW]	n ₂ [Min ⁻¹]	M ₂ [Nm]	f _B	i _{ges}	F _R [kN]	F _A [kN]	F _{R GR} [kN]	F _{A GR} [kN]	Tip / Type	Kg	Sayfa Page mm
1.50	22.1	648	1.0	64.26	6.0	9.0	9.0	12.0	PA 32 - 90L/4A PF 32 - 90L/4A	49	106
	24.7	580	1.1	57.49	6.0	9.0	9.0	12.0			
	30.7	467	1.1	46.29	6.0	9.0	9.0	12.0			
	30.7	466	1.4	46.22	6.0	9.0	9.0	12.0			
	36.6	391	1.1	38.76	6.0	9.0	9.0	11.0			
	38.2	375	1.6	37.22	6.0	9.0	9.0	12.0			
	43.0	333	1.1	33.00	5.0	9.0	9.0	11.0			
	45.6	314	1.6	31.16	5.0	9.0	9.0	11.0			
	53.5	268	1.6	26.53	5.0	9.0	9.0	11.0			
	61.5	233	2.5	23.10	5.0	9.0	9.0	11.0			
1.50	68.7	208	2.5	20.67	5.0	9.0	9.0	10.0	PA 22 - 90L/4A PF 22 - 90L/4A	38	102
	76.2	188	2.5	18.64	5.0	9.0	9.0	10.0			
	33.2	432	0.8	42.79	0.3	0.4	6.0	8.0			
	39.9	359	0.9	35.55	0.3	0.4	7.0	8.0			
	41.0	350	1.0	34.67	0.3	0.4	7.0	8.0			
	48.4	296	1.0	29.34	0.4	6.0	7.0	7.0			
	49.3	291	1.3	28.80	1.0	6.0	7.0	8.0			
	57.5	249	1.0	24.69	1.0	6.0	7.0	7.0			
	59.7	240	1.4	23.77	2.0	6.0	7.0	7.0			
	71.0	202	1.4	20.00	3.0	6.0	7.0	7.0			
1.50	84.8	169	2.0	16.74	4.0	6.0	7.0	7.0	PA 12 - 90L/4A PF 12 - 90L/4A	27	98
	96.8	148	2.3	14.67	4.0	6.0	7.0	7.0			
	116.5	123	2.4	12.19	4.0	6.0	7.0	7.0			
	130.2	110	2.4	10.90	4.0	6.0	7.0	7.0			
	167.8	85	2.3	8.46	3.0	6.0	8.0	6.0			
	187.5	76	2.4	7.57	3.0	5.0	8.0	6.0			
	207.1	69	2.7	6.86	3.0	5.0	8.0	6.0			
	218.1	66	2.5	6.51	3.0	5.0	8.0	6.0			
	66.8	215	0.8	21.27	-	-	5.0	6.0			
	75.5	190	0.8	18.80	-	-	5.0	6.0			
1.50	84.8	169	0.9	16.74	-	-	5.0	5.0	PA 02 - 90L/4A PF 02 - 90L/4A	25	94
	106.0	135	1.1	13.39	1.0	4.0	5.0	5.0			
	132.9	108	1.2	10.68	2.0	4.0	5.0	5.0			
	147.1	97	1.4	9.65	2.0	4.0	5.0	5.0			
	180.8	79	1.7	7.85	2.0	4.0	5.0	5.0			
	194.8	74	1.7	7.29	2.0	4.0	5.0	5.0			
	217.3	66	1.9	6.53	2.0	3.0	5.0	5.0			
	245.5	58	2.1	5.78	2.0	3.0	5.0	5.0			
	287.8	50	2.3	4.93	2.0	3.0	5.0	4.0			
	316.1	45	2.4	4.49	2.0	3.0	5.0	4.0			
1.50	329.6	43	2.6	4.31	2.0	3.0	5.0	4.0	PA 21 - 90L/4A PF 21 - 90L/4A	31	86
	357.1	40	2.5	3.98	2.0	3.0	5.0	4.0			
	418.7	34	2.6	3.39	2.0	3.0	5.0	4.0			
	479.5	30	2.7	2.96	2.0	3.0	5.0	4.0			
	182.2	79	0.8	7.80	0.4	3.0	2.0	3.0			
	206.1	70	0.9	6.89	1.0	3.0	2.0	3.0			
	255.0	56	1.0	5.57	1.0	3.0	2.0	3.0			
	294.5	49	1.2	4.82	1.0	3.0	2.0	3.0			
	364.5	39	1.3	3.90	2.0	2.0	2.0	3.0			
	418.5	34	1.5	3.39	2.0	2.0	2.0	3.0			
1.50	478.6	30	1.5	2.97	1.0	2.0	2.0	3.0	PA 11 - 90L/4A PF 11 - 90L/4A	23	84
	524.3	27	2.3	2.71	-	4.0	-	-			
	586.0	24	2.4	2.42	-	4.0	-	-			
	501.8	29	1.9	2.83	-	3.0	-	-			
	612.1	23	2.1	2.32	-	3.0	-	-			
	696.1	21	2.4	2.04	-	3.0	-	-			
	784.5	18	2.5	1.81	-	3.0	-	-			
2.20	1.0	21065	0.9	1413.66	89.0	120.0	120.0	120.0	PA 103/52 - 100L/4A PF 103/52 - 100L/4A	818	142
	1.2	17099	1.2	1147.52	95.0	120.0	120.0	120.0			
	1.5	14066	1.4	944.01	97.0	120.0	120.0	120.0			
	1.7	12186	1.6	817.82	99.0	120.0	120.0	120.0			
	2.2	9575	2.1	642.57	100.0	120.0	120.0	120.0			
	3.0	6976	2.9	468.19	101.0	120.0	120.0	120.0			

P ₁ [kW]	n ₂ [Min ⁻¹]	M ₂ [Nm]	f _B	i _{ges}	F _R [kN]	F _A [kN]	F _{R GR} [kN]	F _{A GR} [kN]	Tip / Type	Kg	Sayfa Page mm
2.20	1.3	16257	0.8	1090.99	51.0	80.0	83.0	80.0	PA 93/42 - 100L/4A PF 93/42 - 100L/4A	570	142
	1.7	12099	1.0	811.95	59.0	80.0	88.0	80.0			
	1.9	11277	1.1	756.80	60.0	80.0	89.0	80.0			
	2.6	8164	1.5	547.88	63.0	80.0	91.0	80.0			
	3.1	6808	1.8	456.91	64.0	80.0	92.0	80.0			
	4.2	4960	2.5	332.89	66.0	80.0	93.0	80.0			
	4.9	4291	2.8	287.97	66.0	80.0	93.0	80.0			
	2.0	10768	0.7	722.63	30.0	51.0	53.0	65.0	PA/PF 83/32 - 100L/4A	375	140
	2.7	7825	1.0	525.11	38.0	51.0	58.0	65.0	PA 83/42 - 100L/4A PF 83/42 - 100L/4A	391	142
	3.2	6525	1.2	437.93	41.0	50.0	60.0	65.0			
	3.8	5580	1.4	374.50	42.0	49.0	61.0	65.0			
	5.1	4113	1.9	276.00	44.0	46.0	62.0	65.0			
	6.0	3517	2.3	236.03	44.0	45.0	62.0	65.0			
	7.0	2996	2.7	201.09	44.0	44.0	63.0	65.0			
	6.5	3226	2.8	216.49	44.0	44.0	62.0	65.0	PA/PF 83 - 100L/4A	349	127
	4.1	5167	1.0	346.75	22.0	24.0	36.0	50.0	PA 73/22 - 100L/4A	257	140
	5.0	4173	1.2	280.08	24.0	24.0	38.0	50.0	PF 73/22 - 100L/4A		
	6.2	3373	1.5	226.38	26.0	23.0	38.0	50.0	PA/PF 73/32 - 100L/4A	268	140
	6.9	3064	1.7	205.59	26.0	23.0	39.0	50.0	PA 73 - 100L/4A PF 73 - 100L/4A	242	123
	8.5	2474	2.3	166.07	27.0	23.0	39.0	50.0			
	11.3	1853	2.6	124.38	28.0	22.0	40.0	50.0			
	5.0	4217	0.8	283.00	13.0	24.0	23.0	45.0	PA/PF 63/22 - 100L/4A	176	140
	5.3	3957	0.9	265.56	14.0	24.0	24.0	45.0	PA 63 - 100L/4A PF 63 - 100L/4A	158	119
	6.6	3195	1.1	214.41	16.0	24.0	26.0	45.0			
	7.8	2695	1.4	180.86	18.0	24.0	27.0	45.0			
	9.7	2176	1.7	146.02	19.0	23.0	27.0	45.0			
	13.0	1610	2.3	108.08	20.0	22.0	28.0	45.0			
	16.2	1300	2.4	87.26	20.0	21.0	28.0	45.0			
	18.2	1155	2.9	77.49	20.0	21.0	28.0	45.0			
	22.4	938	3.1	62.96	20.0	20.0	28.0	43.0			
	10.1	2078	1.1	139.42	11.0	24.0	18.0	40.0	PA 53 - 100L/4A PF 53 - 100L/4A	121	115
	13.3	1576	1.4	105.77	13.0	24.0	19.0	40.0			
	14.8	1422	1.6	95.41	13.0	24.0	19.0	40.0			
	16.2	1295	1.3	86.88	13.0	24.0	19.0	40.0	PA 52 - 100L/4A PF 52 - 100L/4A	103	114
	18.0	1170	1.4	78.53	13.0	24.0	19.0	40.0			
	19.7	1065	1.5	71.47	14.0	24.0	19.0	40.0			
	23.7	887	2.1	59.50	14.0	24.0	20.0	40.0			
	26.2	801	2.4	53.79	14.0	24.0	20.0	40.0			
	28.8	729	2.6	48.95	14.0	24.0	20.0	40.0	PA 43 - 100L/4A PF 43 - 100L/4A	88	111
	14.9	1414	0.9	94.91	0.4	0.4	9.0	9.0			
	17.6	1192	1.0	80.01	1.0	12.0	10.0	10.0			
	18.8	1116	1.0	74.87	3.0	12.0	10.0	10.0	PA 42 - 100L/4A PF 42 - 100L/4A	74	110
	23.3	904	1.1	60.64	6.0	12.0	11.0	10.0			
	27.7	760	1.4	50.99	8.0	12.0	11.0	10.0			
	34.1	615	1.9	41.30	8.0	12.0	11.0	10.0			
	40.0	525	2.3	35.26	7.0	12.0	11.0	10.0			
	46.3	454	2.4	30.47	7.0	12.0	11.0	10.0			
	48.2	436	2.3	29.28	7.0	12.0	11.0	9.0			
	57.1	368	2.4	24.68	7.0	12.0	11.0	9.0			
	57.7	364	2.4	24.42	7.0	12.0	11.0	9.0	PA 32 - 100L/4A PF 32 - 100L/4A	58	106
	64.5	326	2.9	21.85	7.0	12.0	12.0	9.0			
	30.5	689	1.0	46.22	3.0	9.0	9.0	11.0			
	37.9	555	1.1	37.22	4.0	9.0	9.0	10.0			
	45.3	464	1.1	31.16	5.0	9.0	9.0	10.0			
	53.1	395	1.1	26.53	5.0	9.0	9.0	10.0			
	61.0	344	1.8	23.10	5.0	9.0	9.0	10.0			
	68.2	308	2.1	20.67	5.0	9.0	9.0	10.0			
	75.6	278	2.3	18.64	5.0	9.0	9.0	10.0			
	84.7	248	2.1	16.64	4.0	9.0	9.0	9.0			
	86.9	242	2.5	16.23	4.0	9.0	9.0	9.0			
	93.9	224	2.3	15.01	4.0	8.0	9.0	9.0			
	97.1	216	2.5	14.52	4.0	9.0	9.0	9.0			
	120.6	174	2.5	11.70	4.0	8.0	9.0	9.0			

P ₁ [kW]	n ₂ [Min ⁻¹]	M ₂ [Nm]	f _B	i _{ges}	F _R [kN]	F _A [kN]	F _{R GR} [kN]	F _{A GR} [kN]	Tip / Type	Kg	Sayfa Page mm
2.20	49.0	429	0.9	28.80	0.3	0.2	7.0	6.0	PA 22 - 100L/4A PF 22 - 100L/4A	47	102
	59.3	354	0.9	23.77	0.3	0.4	7.0	6.0			
	70.5	298	1.0	20.00	0.4	0.3	7.0	6.0			
	84.2	249	1.4	16.74	1.0	6.0	7.0	6.0			
	96.1	219	1.5	14.67	2.0	6.0	7.0	6.0			
	115.7	182	1.8	12.19	2.0	6.0	7.0	6.0			
	129.3	162	2.0	10.90	3.0	5.0	7.0	6.0			
	166.6	126	2.1	8.46	3.0	5.0	7.0	6.0			
	186.2	113	2.2	7.57	3.0	5.0	7.0	6.0			
	205.6	102	2.5	6.86	3.0	5.0	8.0	6.0			
	216.6	97	2.4	6.51	3.0	5.0	8.0	5.0			
	244.4	86	2.5	5.77	3.0	5.0	8.0	5.0			
	272.1	77	2.1	5.18	3.0	4.0	8.0	5.0			
	304.2	69	2.2	4.64	3.0	4.0	8.0	5.0			
3.00	105.3	200	0.7	13.39	0.2	0.2	5.0	5.0	PA 12 - 100L/4A PF 12 - 100L/4A	36	98
	132.0	159	0.8	10.68	0.2	0.2	5.0	5.0			
	146.1	144	0.9	9.65	0.2	0.2	5.0	5.0			
	179.6	117	1.1	7.85	0.2	3.0	5.0	4.0			
	193.5	109	1.1	7.29	1.0	3.0	5.0	4.0			
	215.8	97	1.3	6.53	1.0	3.0	5.0	4.0			
	243.8	86	1.4	5.78	1.0	3.0	5.0	4.0			
	285.8	74	1.6	4.93	1.0	3.0	5.0	4.0			
	313.9	67	1.8	4.49	1.0	3.0	5.0	4.0			
	327.3	64	1.7	4.31	2.0	3.0	5.0	4.0			
	354.5	59	1.9	3.98	1.0	3.0	5.0	4.0			
	415.7	51	2.2	3.39	2.0	3.0	5.0	4.0			
	476.1	44	2.4	2.96	2.0	2.0	5.0	4.0			
	520.6	40	1.9	2.71	-	4.0	-	-	PA 21 - 100L/4A PF 21 - 100L/4A	40	86
	581.9	36	2.0	2.42	-	4.0	-	-			
	676.8	31	2.2	2.08	-	4.0	-	-	PA 11 - 100L/4A PF 11 - 100L/4A	32	84
	763.8	28	2.3	1.85	-	3.0	-	-			
	498.2	42	1.3	2.83	-	3.0	-	-			
	607.8	35	1.4	2.32	-	3.0	-	-			
	691.2	30	1.9	2.04	-	3.0	-	-	PA 103/52 - 100L/4B PF 103/52 - 100L/4B	821	142
	779.0	27	2.0	1.81	-	2.0	-	-			
	1.2	23317	0.9	1147.52	85.0	120.0	120.0	120.0			
	1.5	19181	1.0	944.01	92.0	120.0	120.0	120.0			
	1.7	16617	1.2	817.82	94.0	120.0	120.0	120.0			
	2.2	13057	1.5	642.57	98.0	120.0	120.0	120.0			
	3.0	9513	2.1	468.19	100.0	120.0	120.0	120.0			
	4.1	6931	2.9	341.11	101.0	120.0	120.0	120.0			
	1.9	15377	0.8	756.80	53.0	80.0	84.0	80.0	PA 93/42 - 100L/4B PF 93/42 - 100L/4B	573	142
	2.6	11132	1.1	547.88	60.0	80.0	89.0	80.0			
	3.1	9284	1.3	456.91	62.0	80.0	90.0	80.0			
	4.2	6764	1.8	332.89	64.0	80.0	92.0	80.0			
	4.9	5851	2.1	287.97	65.0	77.0	92.0	80.0			
	5.9	4890	2.5	240.68	66.0	74.0	93.0	80.0	PA 83/42 - 100L/4B PF 83/42 - 100L/4B	394	142
	2.7	10670	0.7	525.11	30.0	45.0	53.0	65.0			
	3.2	8898	0.9	437.93	35.0	45.0	56.0	65.0			
	3.8	7610	1.1	374.50	38.0	45.0	58.0	65.0			
	5.1	5608	1.4	276.00	42.0	44.0	61.0	65.0			
	6.0	4796	1.7	236.03	43.0	43.0	61.0	65.0			
	7.0	4086	2.0	201.09	44.0	42.0	62.0	65.0			
	9.5	3028	2.5	149.01	44.0	39.0	63.0	65.0			
	11.1	2580	2.6	126.95	45.0	38.0	63.0	65.0			
	6.5	4399	2.0	216.49	43.0	42.0	62.0	65.0	PA 83 - 100L/4B PF 83 - 100L/4B	352	127
	10.3	2777	2.7	136.67	45.0	39.0	63.0	65.0			
	5.0	5691	0.9	280.08	20.0	20.0	35.0	50.0	PA/PF 73/22 - 100L/4B	260	140
	6.2	4600	1.1	226.38	23.0	21.0	37.0	50.0	PA/PF 73/32 - 100L/4B	271	140
	6.9	4178	1.3	205.59	24.0	21.0	37.0	50.0	PA 73 - 100L/4B PF 73 - 100L/4B	245	123
	8.5	3374	1.7	166.07	26.0	21.0	38.0	50.0			
	11.3	2527	1.9	124.38	27.0	20.0	39.0	50.0			
	14.0	2041	1.9	100.47	27.0	20.0	40.0	50.0			
	15.4	1856	2.3	91.33	28.0	20.0	40.0	50.0			

P ₁ [kW]	n ₂ [Min ⁻¹]	M ₂ [Nm]	f _B	i _{ges}	F _R [kN]	F _A [kN]	F _{R GR} [kN]	F _{A GR} [kN]	Tip / Type	Kg	Sayfa Page mm
3.00	6.6	4357	0.8	214.41	12.0	21.0	23.0	45.0	PA 63 - 100L/4B PF 63 - 100L/4B	161	119
	7.8	3675	1.0	180.86	15.0	21.0	25.0	45.0			
	9.7	2967	1.2	146.02	17.0	21.0	26.0	45.0			
	13.0	2196	1.7	108.08	19.0	21.0	27.0	45.0			
	16.2	1773	1.8	87.26	19.0	20.0	28.0	45.0			
	18.2	1574	2.1	77.49	20.0	20.0	28.0	44.0			
	22.4	1279	2.3	62.96	20.0	19.0	28.0	42.0			
	26.2	1094	2.4	53.84	20.0	19.0	28.0	40.0			
	27.7	1033	2.3	50.83	20.0	19.0	28.0	40.0			
	32.4	883	2.5	43.47	20.0	18.0	28.0	38.0			
	10.1	2833	0.8	139.42	7.0	24.0	16.0	40.0	PA 53 - 100L/4B PF 53 - 100L/4B	124	115
	13.3	2149	1.0	105.77	11.0	24.0	17.0	40.0			
	14.8	1939	1.2	95.41	12.0	24.0	18.0	40.0			
	16.2	1765	1.0	86.88	12.0	24.0	18.0	40.0			
	18.0	1596	1.0	78.53	13.0	24.0	19.0	40.0			
	19.7	1452	1.1	71.47	13.0	24.0	19.0	40.0			
	23.7	1209	1.6	59.50	13.0	24.0	19.0	40.0			
	26.2	1093	1.7	53.79	13.0	24.0	19.0	40.0			
	28.8	995	1.9	48.95	14.0	24.0	19.0	40.0			
	36.7	782	2.1	38.46	14.0	24.0	20.0	40.0			
	39.2	731	1.9	36.00	14.0	24.0	20.0	40.0	PA 52 - 100L/4B PF 52 - 100L/4B	106	114
	43.3	661	1.9	32.54	14.0	24.0	20.0	39.0			
	43.9	653	2.1	32.12	14.0	24.0	20.0	39.0			
	53.3	537	2.2	26.43	14.0	24.0	20.0	37.0			
	59.0	486	2.2	23.89	14.0	24.0	20.0	36.0			
	17.6	1626	0.8	80.01	0.4	0.3	9.0	7.0	PA 43 - 100L/4B PF 43 - 100L/4B	91	111
	20.1	1424	0.9	70.10	0.3	0.3	9.0	8.0			
	23.3	1232	0.8	60.64	0.4	0.4	10.0	8.0	PA 42 - 100L/4B PF 42 - 100L/4B	77	110
	27.7	1036	1.1	50.99	1.0	12.0	10.0	9.0			
	34.1	839	1.4	41.30	3.0	12.0	11.0	9.0			
	40.0	716	1.7	35.26	5.0	12.0	11.0	9.0			
	46.3	619	1.7	30.47	7.0	12.0	11.0	9.0			
	48.2	595	1.7	29.28	6.0	12.0	11.0	9.0			
	57.1	501	1.8	24.68	6.0	12.0	11.0	9.0			
	57.7	496	1.7	24.42	6.0	12.0	11.0	8.0			
	64.5	444	2.1	21.85	6.0	12.0	11.0	8.0			
	79.7	359	2.1	17.69	6.0	11.0	11.0	8.0			
	93.3	307	2.1	15.10	6.0	11.0	12.0	8.0	PA 32 - 100L/4B PF 32 - 100L/4B	61	106
	98.1	292	2.3	14.38	6.0	11.0	12.0	8.0			
	114.9	249	2.3	12.27	6.0	10.0	12.0	8.0			
	138.3	207	2.3	10.19	5.0	10.0	12.0	7.0			
	165.9	173	2.3	8.50	5.0	9.0	12.0	7.0			
	61.0	469	1.3	23.10	4.0	8.0	9.0	9.0			
	68.2	420	1.6	20.67	4.0	8.0	9.0	9.0			
	75.6	379	1.7	18.64	4.0	8.0	9.0	9.0			
	84.7	338	1.6	16.64	4.0	8.0	9.0	9.0			
	86.9	330	1.9	16.23	4.0	8.0	9.0	9.0			
	93.9	305	1.7	15.01	4.0	8.0	9.0	9.0			
	97.1	295	1.9	14.52	4.0	8.0	9.0	9.0			
	120.6	238	1.9	11.70	4.0	7.0	9.0	8.0			
	144.0	199	1.9	9.79	4.0	7.0	9.0	8.0			
	178.7	160	2.1	7.89	4.0	7.0	9.0	8.0			
	209.8	137	2.1	6.72	3.0	6.0	10.0	7.0			
	247.8	116	2.2	5.69	3.0	6.0	10.0	7.0			
	256.8	112	1.9	5.49	3.0	6.0	10.0	7.0			
	266.4	108	2.3	5.29	3.0	6.0	10.0	7.0			
	318.7	90	2.1	4.42	3.0	5.0	10.0	7.0			
	376.3	76	2.2	3.75	3.0	5.0	10.0	6.0			
	475.2	60	2.3	2.97	3.0	5.0	10.0	6.0			

P ₁ [kW]	n ₂ [Min ⁻¹]	M ₂ [Nm]	f _B	i _{ges}	F _R [kN]	F _A [kN]	F _{R GR} [kN]	F _{A GR} [kN]	Tip / Type	Kg	Sayfa Page mm
3.00	84.2	340	1.0	16.74	0.3	0.3	7.0	6.0	PA 22 - 100L/4B PF 22 - 100L/4B	50	102
	96.1	298	1.1	14.67	0.4	0.3	7.0	6.0			
	115.7	248	1.3	12.19	0.3	0.3	7.0	6.0			
	129.3	222	1.4	10.90	0.3	5.0	7.0	6.0			
	166.6	172	1.5	8.46	1.0	4.0	7.0	5.0			
	186.2	154	1.6	7.57	2.0	4.0	7.0	5.0			
	205.6	139	1.8	6.86	2.0	4.0	7.0	5.0			
	216.6	132	1.7	6.51	2.0	4.0	7.0	5.0			
	244.4	117	1.8	5.77	3.0	4.0	7.0	5.0			
	272.1	105	1.5	5.18	2.0	4.0	7.0	5.0			
	304.2	94	1.6	4.64	2.0	4.0	8.0	5.0			
	353.8	81	1.7	3.99	2.0	4.0	8.0	5.0			
	399.2	72	1.8	3.53	2.0	4.0	8.0	5.0			
	504.3	57	2.0	2.80	2.0	3.0	7.0	4.0			
4.00	179.6	160	0.8	7.85	0.2	0.2	5.0	4.0	PA 12 - 100L/4B PF 12 - 100L/4B	39	98
	193.5	148	0.8	7.29	0.2	0.2	5.0	4.0			
	215.8	133	0.9	6.53	0.2	0.2	5.0	4.0			
	243.8	118	1.0	5.78	0.2	0.2	5.0	4.0			
	285.8	100	1.2	4.93	0.2	0.2	5.0	4.0			
	313.9	91	1.3	4.49	0.2	0.2	5.0	4.0			
	327.3	88	1.3	4.31	0.4	2.0	5.0	4.0			
	354.5	81	1.4	3.98	0.2	2.0	5.0	4.0			
	415.7	69	1.6	3.39	1.0	2.0	5.0	4.0			
	476.1	60	1.7	2.96	1.0	2.0	5.0	4.0			
	546.5	52	1.9	2.58	-	4.0	-	-	PA 31 - 100L/4B PF 31 - 100L/4B	48	88
	677.9	42	2.1	2.08	-	4.0	-	-			
	801.1	36	2.2	1.76	-	4.0	-	-			
	520.6	55	1.4	2.71	-	4.0	-	-	PA 21 - 100L/4B PF 21 - 100L/4B	43	86
	581.9	49	1.5	2.42	-	4.0	-	-			
	676.8	42	1.6	2.08	-	3.0	-	-			
	763.8	38	1.7	1.85	-	3.0	-	-			
	498.2	58	0.9	2.83	-	2.0	-	-	PA 11 - 100L/4B PF 11 - 100L/4B	35	84
	607.8	47	1.0	2.32	-	2.0	-	-			
	691.2	41	1.4	2.04	-	2.0	-	-			
	779.0	37	1.5	1.81	-	2.0	-	-			
4.00	1.5	25218	0.8	944.01	83.0	120.0	120.0	120.0	PA 103/52 - 112M/4B PF 103/52 - 112M/4B	827	142
	1.7	21847	0.9	817.82	89.0	120.0	120.0	120.0			
	2.2	17165	1.2	642.57	94.0	120.0	120.0	120.0			
	3.1	12507	1.6	468.19	98.0	120.0	120.0	120.0			
	4.2	9112	2.2	341.11	100.0	116.0	120.0	120.0			
	4.8	7922	2.5	296.56	101.0	112.0	120.0	120.0			
	5.8	6536	3.1	244.66	101.0	108.0	120.0	120.0			
	7.7	4936	3.3	184.77	102.0	101.0	120.0	120.0			
	2.6	14636	0.8	547.88	54.0	80.0	85.0	80.0	PA 93/42 - 112M/4B PF 93/42 - 112M/4B	579	142
	3.1	12206	1.0	456.91	59.0	78.0	88.0	80.0			
	4.3	8893	1.4	332.89	62.0	75.0	90.0	80.0			
	5.0	7693	1.6	287.97	64.0	74.0	91.0	80.0			
	5.9	6429	1.9	240.68	65.0	71.0	92.0	80.0			
	7.9	4862	2.5	182.00	66.0	67.0	93.0	80.0			
	8.9	4297	2.8	160.87	66.0	66.0	93.0	80.0	PA/PF 93/52 - 112M/4B	608	142
	3.8	10004	0.8	374.50	33.0	39.0	55.0	65.0	PA 83/42 - 112M/4B PF 83/42 - 112M/4B	400	142
	5.2	7373	1.1	276.00	39.0	40.0	59.0	65.0			
	6.1	6305	1.3	236.03	41.0	39.0	60.0	65.0			
	7.1	5372	1.5	201.09	42.0	39.0	61.0	65.0			
	9.6	3981	2.0	149.01	44.0	37.0	62.0	65.0			
	6.6	5783	1.5	216.49	42.0	39.0	61.0	65.0	PA 83 - 112M/4B PF 83 - 112M/4B	360	127
	10.5	3651	2.0	136.67	44.0	37.0	62.0	65.0			
	17.7	2154	2.0	80.63	45.0	33.0	63.0	65.0			
	20.4	1875	2.0	70.19	45.0	32.0	63.0	65.0			
	23.1	1651	2.1	61.79	45.0	32.0	63.0	65.0			
	6.3	6047	0.8	226.38	19.0	17.0	34.0	50.0	PA/PF 73/32 - 112M/4B	278	140

P ₁ [kW]	n ₂ [Min ⁻¹]	M ₂ [Nm]	f _B	i _{ges}	F _R [kN]	F _A [kN]	F _{R GR} [kN]	F _{A GR} [kN]	Tip / Type	Kg	Sayfa Page mm
4.00	7.0	5492	1.0	205.59	21.0	18.0	35.0	50.0	PA 73 - 112M/4B PF 73 - 112M/4B	253	123
	8.6	4436	1.3	166.07	24.0	18.0	37.0	50.0			
	11.5	3323	1.4	124.38	26.0	18.0	39.0	50.0			
	14.2	2684	1.4	100.47	27.0	18.0	39.0	50.0			
	15.7	2440	1.7	91.33	27.0	18.0	39.0	50.0			
	19.1	1998	1.9	74.80	27.0	18.0	40.0	50.0			
	23.7	1614	1.9	60.42	28.0	17.0	40.0	47.0			
	27.4	1397	2.0	52.28	28.0	17.0	40.0	46.0			
	31.3	1220	2.1	45.67	28.0	16.0	40.0	44.0			
	38.0	1006	2.2	37.68	28.0	16.0	40.0	42.0			
	43.0	889	2.2	33.27	28.0	15.0	40.0	41.0			
	50.4	757	2.1	28.35	28.0	15.0	40.0	39.0			
	7.9	4831	0.8	180.86	9.0	18.0	21.0	45.0	PA 63 - 112M/4B PF 63 - 112M/4B	167	119
	9.8	3901	0.9	146.02	14.0	18.0	24.0	45.0			
	13.2	2887	1.3	108.08	17.0	19.0	26.0	44.0			
	16.4	2331	1.4	87.26	19.0	19.0	27.0	42.0			
	18.5	2070	1.7	77.49	19.0	18.0	27.0	42.0			
	22.7	1682	1.8	62.96	19.0	18.0	28.0	40.0			
	26.6	1438	1.9	53.84	20.0	18.0	28.0	39.0			
	28.1	1358	1.8	50.83	20.0	18.0	28.0	38.0			
	32.9	1161	1.9	43.47	20.0	17.0	28.0	37.0			
	39.6	965	1.8	36.14	20.0	17.0	28.0	35.0			
	46.3	826	1.9	30.90	20.0	16.0	28.0	34.0			
	29.3	1302	1.9	48.75	20.0	17.0	28.0	38.0	PA/PF 62 - 112M/4B	174	118
	13.5	2825	0.8	105.77	8.0	24.0	16.0	40.0	PA 53 - 112M/4B PF 53 - 112M/4B	131	115
	15.0	2549	0.9	95.41	9.0	24.0	17.0	40.0			
	17.9	2129	0.9	79.69	11.0	24.0	18.0	40.0			
	21.9	1745	1.1	65.31	12.0	24.0	18.0	40.0			
	24.0	1590	1.2	59.50	13.0	24.0	19.0	40.0	PA 52 - 112M/4B PF 52 - 112M/4B	112	104
	26.6	1437	1.3	53.79	13.0	24.0	19.0	40.0			
	29.2	1308	1.5	48.95	13.0	24.0	19.0	40.0			
	37.2	1027	1.6	38.46	14.0	24.0	19.0	39.0			
	39.7	962	1.4	36.00	14.0	24.0	19.0	39.0			
	43.9	869	1.4	32.54	14.0	24.0	20.0	38.0			
	44.5	858	1.6	32.12	14.0	24.0	20.0	37.0			
	54.1	706	2.6	26.43	14.0	24.0	20.0	36.0			
	59.8	638	2.5	23.89	14.0	24.0	20.0	35.0			
	66.0	578	2.8	21.65	14.0	24.0	20.0	34.0			
	73.1	523	2.8	19.57	14.0	24.0	20.0	33.0	PA/PF 43 - 112M/4B	98	111
	80.3	476	2.8	17.81	14.0	24.0	20.0	32.0			
	24.6	1555	0.7	58.22	0.4	0.3	9.0	6.0			
	28.0	1362	0.8	50.99	0.4	0.3	9.0	7.0			
	34.6	1103	1.1	41.30	1.0	0.3	10.0	7.0			
	40.6	942	1.3	35.26	1.0	0.3	11.0	7.0			
	46.9	814	1.3	30.47	2.0	11.0	11.0	8.0			
	48.8	782	1.3	29.28	2.0	10.0	11.0	7.0			
	57.9	659	1.4	24.68	4.0	11.0	11.0	8.0	PA 42 - 112M/4B PF 42 - 112M/4B	83	110
	58.6	652	1.3	24.42	3.0	10.0	11.0	7.0			
	65.5	584	1.9	21.85	5.0	11.0	11.0	8.0			
	80.8	473	2.4	17.69	6.0	10.0	11.0	8.0			
	94.7	404	2.4	15.10	5.0	10.0	11.0	7.0			
	99.5	384	2.6	14.38	5.0	10.0	11.0	7.0			
	116.5	328	2.6	12.27	5.0	9.0	12.0	7.0			
	61.9	617	1.0	23.10	1.0	7.0	9.0	8.0	PA 32 - 112M/4B PF 32 - 112M/4B	68	106
	69.2	552	1.2	20.67	2.0	7.0	9.0	8.0			
	76.7	498	1.3	18.64	2.0	7.0	9.0	8.0			
	85.9	445	1.2	16.64	3.0	7.0	9.0	8.0			
	88.1	434	1.5	16.23	4.0	7.0	9.0	8.0			
	95.3	401	1.3	15.01	3.0	7.0	9.0	8.0			
	98.5	388	1.7	14.52	4.0	7.0	9.0	8.0			
	122.3	312	2.1	11.70	4.0	6.0	9.0	8.0			
	146.0	262	2.1	9.79	3.0	6.0	9.0	8.0			
	181.2	211	2.4	7.89	3.0	6.0	9.0	7.0			
	212.8	179	2.4	6.72	3.0	6.0	9.0	7.0			
	251.3	152	2.5	5.69	3.0	6.0	10.0	7.0			
	260.5	147	2.1	5.49	3.0	5.0	10.0	7.0			
	270.2	141	2.6	5.29	3.0	5.0	10.0	7.0			
	323.2	118	2.4	4.42	3.0	5.0	10.0	6.0			
	381.7	100	2.5	3.75	3.0	5.0	10.0	6.0			
	481.9	79	2.6	2.97	3.0	5.0	10.0	6.0			

P ₁ [kW]	n ₂ [Min ⁻¹]	M ₂ [Nm]	f _B	i _{ges}	F _R [kN]	F _A [kN]	F _{R GR} [kN]	F _{A GR} [kN]	Tip / Type	Kg	Sayfa Page mm
4.00	85.4	447	0.8	16.74	0.3	0.2	6.0	5.0	PA 22 - 112M/4B PF 22 - 112M/4B	57	102
	97.5	392	0.9	14.67	0.3	0.2	7.0	5.0			
	117.3	326	1.0	12.19	0.3	0.2	7.0	5.0			
	131.1	291	1.1	10.90	0.3	0.2	7.0	5.0			
	169.0	226	1.1	8.46	0.3	0.2	7.0	5.0			
	188.9	202	1.2	7.57	0.3	0.2	7.0	5.0			
	208.5	183	1.4	6.86	0.3	4.0	7.0	5.0			
	219.6	174	1.3	6.51	0.3	4.0	7.0	5.0			
	247.9	154	1.4	5.77	1.0	4.0	7.0	5.0			
	276.0	138	1.1	5.18	1.0	3.0	7.0	5.0			
	308.5	124	1.2	4.64	1.0	3.0	7.0	4.0			
	358.8	106	1.3	3.99	2.0	3.0	7.0	4.0			
	404.9	94	1.4	3.53	2.0	3.0	8.0	4.0			
	511.4	75	1.5	2.80	2.0	3.0	7.0	4.0			
5.50	247.2	155	0.8	5.78	-	-	5.0	4.0	PA 12 - 112M/4B PF 12 - 112M/4B	46	98
	289.9	132	0.9	4.93	-	-	5.0	4.0			
	318.4	120	1.0	4.49	-	-	5.0	3.0			
	332.0	115	1.0	4.31	-	-	5.0	4.0			
	359.6	106	1.1	3.98	-	-	5.0	3.0			
	421.6	91	1.2	3.39	-	-	5.0	3.0			
	482.9	79	1.3	2.96	-	-	5.0	3.0			
	499.6	76	2.9	2.86	-	7.0	-	-	PA 51 - 112M/4B PF 51 - 112M/4B	73	92
	572.0	67	3.0	2.50	-	6.0	-	-			
	693.3	55	3.3	2.06	-	6.0	-	-			
	785.1	49	3.0	1.82	-	6.0	-	-			
	572.0	67	2.6	2.50	-	5.0	-	-	PA 41 - 112M/4B PF 41 - 112M/4B	64	90
	668.9	57	2.8	2.14	-	5.0	-	-			
	785.1	49	2.9	1.82	-	4.0	-	-			
5.50	554.3	69	2.1	2.58	-	4.0	-	-	PA 31 - 112M/4B PF 31 - 112M/4B	55	88
	687.5	56	2.4	2.08	-	4.0	-	-			
	812.5	47	2.5	1.76	-	4.0	-	-			
	528.0	72	1.1	2.71	-	3.0	-	-	PA 21 - 112M/4B PF 21 - 112M/4B	50	86
	590.2	65	1.1	2.42	-	3.0	-	-			
	686.4	56	1.2	2.08	-	3.0	-	-			
	774.6	49	1.3	1.85	-	3.0	-	-			
	978.4	39	1.5	1.46	-	3.0	-	-			
	616.4	62	0.8	2.32	-	2.0	-	-	PA 11 - 112M/4B PF 11 - 112M/4B	42	84
	701.0	54	1.1	2.04	-	2.0	-	-			
	790.1	48	1.1	1.81	-	2.0	-	-			
	928.6	41	1.2	1.54	-	2.0	-	-			
	1059.3	36	1.4	1.35	-	2.0	-	-			
5.50	2.2	23357	0.9	642.57	85.0	120.0	120.0	120.0	PA 103/52 - 132S/4C PF 103/52 - 132S/4C	844	142
	3.1	17018	1.2	468.19	94.0	116.0	120.0	120.0			
	4.2	12399	1.6	341.11	98.0	111.0	120.0	120.0			
	4.9	10780	1.9	296.56	99.0	108.0	120.0	120.0			
	5.9	8893	2.2	244.66	100.0	104.0	120.0	120.0			
	7.0	7537	3.1	207.36	101.0	100.0	120.0	120.0	PA/PF 103 - 132S/4C	773	135
	4.3	12100	1.0	332.89	58.0	69.0	88.0	80.0	PA 93/42 - 132S/4C PF 93/42 - 132S/4C	596	142
	5.0	10468	1.2	287.97	61.0	69.0	89.0	80.0			
	6.0	8749	1.4	240.68	63.0	67.0	91.0	80.0			
	7.7	6833	2.0	187.99	64.0	65.0	92.0	80.0	PA 93 - 132S/4C	554	131
	13.2	3971	2.9	109.25	66.0	58.0	93.0	80.0	PF 93 - 132S/4C		
	5.2	10033	0.8	276.00	32.0	34.0	54.0	65.0	PA 83/42 - 132S/4C	417	142
	6.1	8580	0.9	236.03	36.0	34.0	57.0	65.0	PF 83/42 - 132S/4C		
	6.7	7869	1.1	216.49	38.0	35.0	58.0	65.0	PA 83 - 132S/4C PF 83 - 132S/4C	375	127
	8.8	5986	1.5	164.68	41.0	34.0	60.0	65.0			
	10.6	4968	1.5	136.67	43.0	34.0	61.0	65.0			
	13.9	3779	2.4	103.97	44.0	33.0	62.0	65.0			
	17.9	2931	3.1	80.63	44.0	32.0	63.0	65.0			
	20.6	2551	3.3	70.19	45.0	31.0	63.0	65.0			
	23.4	2246	3.5	61.79	45.0	30.0	63.0	65.0			
	8.4	6219	0.8	171.10	18.0	14.0	33.0	50.0	PA/PF 73/32 - 132S/4C	294	140

P ₁ [kW]	n ₂ [Min ⁻¹]	M ₂ [Nm]	f _B	i _{ges}	F _R [kN]	F _A [kN]	F _{R GR} [kN]	F _{A GR} [kN]	Tip / Type	Kg	Sayfa Page mm
5.50	8.7	6036	0.9	166.07	19.0	14.0	34.0	50.0	PA 73 - 132S/4C PF 73 - 132S/4C	268	123
	11.6	4527	1.2	124.55	24.0	16.0	37.0	50.0			
	11.6	4521	1.1	124.38	24.0	16.0	37.0	50.0			
	14.4	3652	1.0	100.47	25.0	16.0	38.0	50.0			
	15.8	3320	1.6	91.33	26.0	16.0	38.0	49.0			
	19.3	2719	2.0	74.80	27.0	16.0	39.0	48.0			
	23.9	2196	2.6	60.42	27.0	16.0	39.0	46.0			
	27.6	1900	2.9	52.28	28.0	16.0	40.0	44.0			
	10.9	4827	0.8	132.78	9.0	15.0	21.0	41.0			
	13.4	3928	0.9	108.08	13.0	16.0	24.0	40.0			
	13.5	3897	0.9	107.21	14.0	16.0	24.0	40.0			
	16.6	3172	1.0	87.26	17.0	16.0	26.0	40.0			
	18.6	2817	1.3	77.49	17.0	16.0	26.0	39.0			
	23.0	2288	1.6	62.96	18.0	16.0	27.0	38.0			
	26.8	1957	1.9	53.84	19.0	16.0	27.0	37.0			
	28.4	1848	2.0	50.83	19.0	16.0	27.0	37.0			
	33.2	1580	2.3	43.47	20.0	16.0	28.0	36.0			
	40.0	1314	2.7	36.14	20.0	16.0	28.0	34.0			
	46.8	1123	2.9	30.90	20.0	15.0	28.0	33.0			
	29.6	1772	1.4	48.75	19.0	16.0	28.0	36.0	PA 62 - 132S/4C PF 62 - 132S/4C	189	118
	39.0	1348	2.2	37.08	20.0	16.0	28.0	34.0			
	24.3	2163	0.9	59.50	11.0	24.0	18.0	40.0			
	26.9	1955	1.0	53.79	12.0	24.0	18.0	40.0			
	29.5	1779	1.1	48.95	12.0	24.0	18.0	40.0			
	35.8	1466	1.3	40.34	13.0	24.0	19.0	39.0			
	37.6	1398	1.2	38.46	13.0	24.0	19.0	38.0			
	40.1	1309	1.1	36.71	13.0	24.0	19.0	38.0			
	39.4	1335	1.4	36.00	13.0	24.0	19.0	37.0			
	44.4	1183	1.1	32.54	13.0	24.0	19.0	38.0			
	45.0	1168	1.2	32.12	13.0	24.0	19.0	36.0			
	50.1	1049	1.9	28.85	14.0	24.0	19.0	36.0			
	54.7	961	2.0	26.43	14.0	24.0	19.0	35.0			
	60.0	876	1.9	24.09	14.0	24.0	20.0	34.0			
	60.5	869	2.2	23.89	14.0	24.0	20.0	34.0			
	66.7	787	2.4	21.65	14.0	24.0	20.0	33.0			
	73.8	711	2.7	19.57	13.0	24.0	20.0	33.0			
	81.1	647	2.9	17.81	13.0	24.0	20.0	32.0			
	35.0	1501	0.8	41.30	0.4	0.2	9.0	5.0	PA 42 - 132S/4C PF 42 - 132S/4C	100	110
	41.0	1282	1.0	35.26	0.4	0.2	10.0	6.0			
	47.4	1108	1.0	30.47	1.0	0.3	10.0	6.0			
	49.4	1064	1.0	29.28	1.0	0.3	10.0	6.0			
	55.8	941	1.3	25.88	1.0	0.3	11.0	6.0			
	58.6	897	1.0	24.68	1.0	0.3	11.0	6.0			
	59.2	888	1.0	24.42	1.0	0.3	11.0	6.0			
	66.1	794	1.4	21.85	1.0	9.0	11.0	7.0			
	67.2	781	1.5	21.50	1.0	0.3	11.0	6.0			
	80.6	652	1.5	17.93	1.0	8.0	11.0	6.0			
	81.7	643	1.8	17.69	2.0	8.0	11.0	7.0			
	95.7	549	2.3	15.10	3.0	8.0	11.0	7.0			
	100.5	523	2.2	14.38	4.0	8.0	11.0	7.0			
	117.7	446	2.7	12.27	5.0	8.0	11.0	7.0			
	141.8	370	2.8	10.19	5.0	8.0	11.0	6.0			
	170.0	309	2.7	8.50	5.0	8.0	12.0	6.0			
	62.6	840	0.8	23.10	0.4	0.3	8.0	7.0	PA 32 - 132S/4C PF 32 - 132S/4C	84	106
	69.9	751	0.9	20.67	0.4	0.3	9.0	7.0			
	77.5	678	0.9	18.64	0.4	0.3	9.0	7.0			
	86.8	605	0.9	16.64	0.4	0.3	9.0	7.0			
	89.0	590	1.1	16.23	0.4	0.3	9.0	7.0			
	96.3	546	0.9	15.01	0.4	0.3	9.0	7.0			
	99.5	528	1.3	14.52	0.3	5.0	9.0	7.0			
	123.6	425	1.7	11.70	2.0	5.0	9.0	7.0			
	147.6	356	1.8	9.79	2.0	5.0	9.0	7.0			
	183.1	287	2.3	7.89	3.0	5.0	9.0	7.0			
	215.0	244	2.5	6.72	3.0	5.0	9.0	7.0			
	254.0	207	2.7	5.69	3.0	5.0	9.0	6.0			
	263.2	200	2.2	5.49	3.0	5.0	9.0	6.0			
	273.0	192	2.8	5.29	3.0	5.0	9.0	6.0			
	326.6	161	2.5	4.42	3.0	5.0	9.0	6.0			
	385.7	136	2.7	3.75	3.0	4.0	10.0	6.0			
	487.0	108	2.8	2.97	3.0	4.0	9.0	6.0			

P ₁ [kW]	n ₂ [Min ⁻¹]	M ₂ [Nm]	f _B	i _{ges}	F _R [kN]	F _A [kN]	F _{R GR} [kN]	F _{A GR} [kN]	Tip / Type	Kg	Sayfa Page mm
5.50	504.9	104	3.1	2.86	-	6.0	-	-	PA/PF 51 - 132S/4C	90	92
	578.0	91	2.7	2.50	-	5.0	-	-	PA 41 - 132S/4C	81	90
	675.9	78	2.9	2.14	-	4.0	-	-	PF 41 - 132S/4C		
	793.3	66	3.1	1.82	-	4.0	-	-	PA 31 - 132S/4C	71	88
	560.1	94	2.0	2.58	-	4.0	-	-	PF 31 - 132S/4C		
7.50	3.1	23127	0.9	468.19	86.0	106.0	120.0	120.0	PA 103/52 - 132M/4B PF 103/52 - 132M/4B	855	142
	4.3	16850	1.2	341.11	94.0	103.0	120.0	120.0			
	4.9	14649	1.4	296.56	96.0	101.0	120.0	120.0			
	5.9	12086	1.7	244.66	98.0	99.0	120.0	120.0			
	7.8	9127	2.2	184.77	100.0	94.0	120.0	120.0			
	9.4	7646	2.6	154.79	101.0	91.0	120.0	120.0			
	7.0	10243	2.3	207.36	100.0	96.0	120.0	120.0	PA/PF 103 - 132M/4B	784	135
	5.0	14225	0.9	287.97	55.0	62.0	85.0	80.0	PA 93/42 - 132M/4B	607	142
	6.0	11889	1.0	240.68	59.0	61.0	88.0	80.0	PF 93/42 - 132M/4B		
	7.7	9286	1.5	187.99	62.0	60.0	90.0	80.0	PA 93 - 132M/4B	565	131
	13.3	5397	2.1	109.25	65.0	56.0	92.0	80.0	PF 93 - 132M/4B		
	15.5	4615	2.5	93.43	66.0	54.0	93.0	80.0	PA/PF 83/42 - 132M/4B	428	142
	7.2	9933	0.8	201.09	32.0	29.0	54.0	65.0			
	8.8	8135	1.1	164.68	37.0	30.0	58.0	65.0			
	13.9	5136	1.8	103.97	42.0	30.0	61.0	65.0			
	18.0	3983	2.3	80.63	44.0	30.0	62.0	65.0			
	20.7	3467	2.5	70.19	44.0	29.0	62.0	65.0	PA 83 - 132M/4B PF 83 - 132M/4B	386	127
	23.5	3052	2.6	61.79	44.0	29.0	62.0	65.0			
	11.7	6152	0.9	124.55	19.0	12.0	34.0	46.0			
	14.4	4963	0.8	100.47	22.0	13.0	36.0	46.0			
	15.9	4511	1.2	91.33	24.0	13.0	37.0	45.0			
	19.4	3695	1.4	74.80	25.0	14.0	38.0	45.0	PA 73 - 132M/4B PF 73 - 132M/4B	279	123
	24.0	2985	1.9	60.42	26.0	14.0	39.0	43.0			
	27.7	2583	2.2	52.28	27.0	14.0	39.0	42.0			
	31.8	2256	2.4	45.67	27.0	14.0	39.0	41.0			
	38.5	1861	2.5	37.68	28.0	14.0	40.0	40.0			
	33.2	2158	1.9	43.70	27.0	14.0	39.0	41.0	PA/PF 72 - 132M/4B	269	122
	18.7	3828	1.0	77.49	14.0	14.0	24.0	36.0	PA 63 - 132M/4B PF 63 - 132M/4B	195	119
	23.0	3110	1.2	62.96	17.0	14.0	26.0	35.0			
	26.9	2659	1.4	53.84	18.0	14.0	26.0	35.0			
	28.5	2511	1.5	50.83	18.0	14.0	27.0	34.0			
	33.4	2147	1.7	43.47	19.0	14.0	27.0	34.0			
	40.1	1785	2.0	36.14	19.0	14.0	28.0	33.0			
	46.9	1527	2.2	30.90	20.0	14.0	28.0	32.0			
	55.1	1301	2.3	26.33	20.0	14.0	28.0	31.0			
	66.0	1085	2.3	21.97	20.0	13.0	28.0	29.0			
	69.7	1028	2.3	20.81	20.0	13.0	28.0	29.0			
	39.1	1832	1.6	37.08	19.0	14.0	28.0	33.0	PA/PF 62 - 132M/4B	200	118
	35.9	1993	1.0	40.34	11.0	24.0	18.0	37.0	PA 52 - 132M/4B PF 52 - 132M/4B	140	114
	40.3	1778	0.8	36.71	12.0	24.0	18.0	36.0			
	39.5	1814	1.1	36.00	12.0	24.0	18.0	36.0			
	44.6	1607	0.8	32.54	12.0	24.0	19.0	35.0			
	50.3	1425	1.4	28.85	13.0	24.0	19.0	34.0			
	54.9	1306	1.4	26.43	13.0	24.0	19.0	34.0			
	60.2	1190	1.4	24.09	13.0	24.0	19.0	33.0			
	60.7	1180	1.6	23.89	13.0	24.0	19.0	33.0			
	67.0	1069	1.8	21.65	13.0	24.0	19.0	32.0			
	74.1	967	2.0	19.57	13.0	24.0	19.0	32.0			
	81.4	880	2.1	17.81	13.0	24.0	20.0	31.0			
	103.6	691	2.1	13.99	12.0	24.0	20.0	29.0			
	107.7	665	2.4	13.46	12.0	23.0	20.0	29.0			

P ₁ [kW]	n ₂ [Min ⁻¹]	M ₂ [Nm]	f _B	i _{ges}	F _R [kN]	F _A [kN]	F _{R GR} [kN]	F _{A GR} [kN]	Tip / Type	Kg	Sayfa Page mm
7.50	56.0	1279	1.0	25.88	0.4	0.2	10.0	4.0	PA 42 - 132M/4B PF 42 - 132M/4B	111	110
	66.4	1079	1.0	21.85	1.0	0.2	10.0	5.0			
	67.5	1062	1.1	21.50	1.0	0.2	10.0	5.0			
	80.9	886	1.1	17.93	1.0	0.2	11.0	5.0			
	82.0	874	1.4	17.69	1.0	0.2	11.0	6.0			
	96.0	746	1.7	15.10	1.0	0.2	11.0	6.0			
	100.9	710	1.6	14.38	1.0	0.2	11.0	6.0			
	118.1	606	2.0	12.27	1.0	7.0	11.0	6.0			
	142.3	503	2.0	10.19	2.0	7.0	11.0	6.0			
	170.6	420	2.0	8.50	3.0	7.0	11.0	6.0			
	199.5	359	2.1	7.27	4.0	6.0	11.0	6.0			
	234.1	306	2.3	6.19	4.0	6.0	12.0	6.0			
	270.7	265	2.0	5.36	4.0	6.0	11.0	5.0			
	316.5	226	2.2	4.58	4.0	6.0	11.0	5.0			
	371.5	193	2.3	3.90	4.0	6.0	11.0	5.0			
	89.3	802	0.8	16.23	-	-	8.0	6.0	PA 32 - 132M/4B PF 32 - 132M/4B	95	106
	99.8	717	0.9	14.52	-	-	9.0	6.0			
	124.0	578	1.2	11.70	-	-	9.0	6.0			
	148.1	484	1.3	9.79	-	-	9.0	6.0			
	183.7	390	1.7	7.89	1.0	4.0	9.0	6.0			
	215.8	332	1.8	6.72	1.0	4.0	9.0	6.0			
	254.8	281	2.0	5.69	2.0	4.0	9.0	6.0			
	264.1	271	1.6	5.49	1.0	4.0	9.0	6.0			
	274.0	261	2.1	5.29	3.0	4.0	9.0	6.0			
	327.7	219	1.8	4.42	2.0	4.0	9.0	6.0			
	387.0	185	2.0	3.75	2.0	4.0	9.0	6.0			
	488.6	147	2.1	2.97	2.0	4.0	9.0	5.0			
	506.6	141	2.3	2.86	-	6.0	-	-	PA/PF 51 - 132M/4B	101	92
	580.0	123	2.0	2.50	-	4.0	-	-	PA 41 - 132M/4B	92	90
	678.2	106	2.1	2.14	-	4.0	-	-	PF 41 - 132M/4B	82	88
	562.0	127	1.4	2.58	-	3.0	-	-	PA 31 - 132M/4B		
	697.1	103	1.6	2.08	-	3.0	-	-	PF 31 - 132M/4B		
9.20	4.3	20699	1.0	341.11	90.0	97.0	120.0	120.0	PA 103/52 - 132M/4 PF 103/52 - 132M/4	855	142
	4.9	17970	1.1	296.56	93.0	96.0	120.0	120.0			
	5.9	14825	1.3	244.66	96.0	94.0	120.0	120.0			
	7.8	11196	1.8	184.77	99.0	90.0	120.0	120.0			
	9.4	9379	2.1	154.79	100.0	88.0	120.0	120.0			
	11.8	7438	2.7	122.75	101.0	84.0	120.0	120.0			
	13.7	6392	3.1	105.49	101.0	81.0	120.0	120.0			
	7.0	12565	1.8	207.36	98.0	92.0	120.0	120.0	PA/PF 103 - 132M/4	784	135
	6.0	14584	0.8	240.68	54.0	57.0	85.0	80.0	PA/PF 93/42 - 132M/4	607	142
	7.7	11391	1.2	187.99	59.0	56.0	88.0	80.0	PA 93 - 132M/4 PF 93 - 132M/4	565	131
	13.3	6620	1.7	109.25	64.0	53.0	92.0	80.0			
	15.5	5662	2.5	93.43	65.0	52.0	92.0	80.0			
	20.0	4388	3.1	72.42	66.0	50.0	93.0	80.0			
	8.8	9979	0.9	164.68	32.0	26.0	54.0	65.0	PA 83 - 132M/4 PF 83 - 132M/4	386	127
	13.9	6300	1.5	103.97	41.0	28.0	60.0	65.0			
	18.0	4886	1.8	80.63	43.0	28.0	61.0	65.0			
	20.7	4253	2.1	70.19	43.0	27.0	62.0	65.0			
	23.5	3744	2.4	61.79	44.0	27.0	62.0	65.0			
	28.1	3122	2.9	51.52	44.0	27.0	62.0	65.0			
	29.7	2955	1.8	48.76	44.0	26.0	63.0	65.0	PA/PF 82 - 132M/4	378	126
	11.7	7537	0.7	124.38	11.0	9.0	31.0	42.0	PA 73 - 132M/4 PF 73 - 132M/4	279	123
	15.9	5534	1.0	91.33	21.0	11.0	35.0	42.0			
	19.4	4533	1.2	74.80	23.0	12.0	37.0	42.0			
	24.0	3661	1.5	60.42	25.0	12.0	38.0	41.0			
	27.7	3168	1.8	52.28	26.0	13.0	39.0	40.0			
	31.8	2767	1.9	45.67	27.0	13.0	39.0	40.0			
	38.5	2283	2.2	37.68	27.0	13.0	39.0	38.0			
	43.6	2016	2.5	33.27	28.0	13.0	40.0	38.0			
	51.1	1718	2.9	28.35	28.0	13.0	40.0	36.0			
	33.2	2648	1.5	43.70	27.0	13.0	39.0	40.0	PA 72 - 132M/4	269	122
	43.8	2005	1.6	33.08	28.0	13.0	40.0	37.0	PF 72 - 132M/4	269	122

P ₁ [kW]	n ₂ [Min ⁻¹]	M ₂ [Nm]	f _B	i _{ges}	F _R [kN]	F _A [kN]	F _{R GR} [kN]	F _{A GR} [kN]	Tip / Type	Kg	Sayfa Page mm
9.20	18.7	4695	0.8	77.49	10.0	11.0	22.0	33.0	PA 63 - 132M/4 PF 63 - 132M/4	195	119
	23.0	3815	1.0	62.96	14.0	12.0	24.0	33.0			
	26.9	3262	1.1	53.84	16.0	13.0	25.0	33.0			
	28.5	3080	1.2	50.83	17.0	13.0	26.0	32.0			
	33.4	2634	1.4	43.47	18.0	13.0	26.0	32.0			
	40.1	2190	1.7	36.14	19.0	13.0	27.0	31.0			
	46.9	1873	1.9	30.90	19.0	13.0	27.0	31.0			
	55.1	1595	2.0	26.33	20.0	13.0	28.0	30.0			
	66.0	1331	2.4	21.97	20.0	13.0	28.0	29.0			
	69.7	1261	2.5	20.81	20.0	13.0	28.0	29.0			
9.20	83.5	1052	2.9	17.36	20.0	12.0	28.0	27.0			
	39.1	2247	1.3	37.08	19.0	13.0	27.0	31.0	PA 62 - 132M/4 PF 62 - 132M/4	200	118
	79.9	1100	2.8	18.16	20.0	13.0	28.0	28.0			
	91.7	958	3.1	15.80	20.0	12.0	28.0	27.0			
9.20	35.9	2444	0.8	40.34	4.0	24.0	17.0	35.0	PA 52 - 132M/4 PF 52 - 132M/4	140	114
	39.5	2225	0.9	36.71	6.0	24.0	18.0	35.0			
	50.3	1748	1.2	28.85	9.0	24.0	18.0	33.0			
	54.9	1602	1.2	26.43	13.0	24.0	19.0	33.0			
	60.2	1460	1.2	24.09	11.0	24.0	19.0	32.0			
	60.7	1448	1.3	23.89	13.0	24.0	19.0	32.0			
	67.0	1312	1.4	21.65	13.0	24.0	19.0	32.0			
	74.1	1186	1.6	19.57	12.0	24.0	19.0	31.0			
	81.4	1079	1.8	17.81	12.0	24.0	19.0	30.0			
	103.6	848	2.3	13.99	11.0	22.0	20.0	29.0			
	107.7	816	2.3	13.46	11.0	22.0	20.0	28.0			
	137.1	641	2.7	10.58	11.0	21.0	20.0	27.0			
	164.2	535	3.1	8.83	10.0	19.0	20.0	26.0			
	56.0	1568	0.8	25.88	0.3	0.2	7.0	3.0	PA 42 - 132M/4 PF 42 - 132M/4	111	110
	66.4	1324	0.8	21.85	0.4	0.2	10.0	4.0			
	67.5	1303	0.9	21.50	1.0	0.2	10.0	4.0			
	80.9	1086	0.9	17.93	1.0	0.2	10.0	4.0			
	82.0	1072	1.1	17.69	1.0	0.2	10.0	4.0			
	96.0	915	1.4	15.10	1.0	0.2	11.0	5.0			
	100.9	871	1.3	14.38	1.0	0.2	11.0	5.0			
	118.1	744	1.6	12.27	1.0	0.2	11.0	5.0			
	142.3	618	1.9	10.19	1.0	0.2	11.0	5.0			
	170.6	515	2.1	8.50	1.0	6.0	11.0	5.0			
	199.5	440	2.4	7.27	2.0	6.0	11.0	5.0			
	234.1	375	2.9	6.19	3.0	6.0	11.0	5.0			
	270.7	325	2.5	5.36	2.0	5.0	11.0	5.0			
	316.5	278	2.8	4.58	3.0	5.0	11.0	5.0			
	371.5	236	3.0	3.90	3.0	5.0	10.0	5.0			
9.20	99.8	880	0.8	14.52	0.3	0.2	7.0	5.0	PA 32 - 132M/4 PF 32 - 132M/4	95	106
	124.0	709	1.0	11.70	0.4	0.2	8.0	5.0			
	148.1	593	1.1	9.79	0.4	0.2	9.0	5.0			
	183.7	478	1.4	7.89	0.4	0.2	9.0	5.0			
	215.8	407	1.5	6.72	0.4	0.2	9.0	5.0			
	254.8	345	1.8	5.69	0.3	3.0	9.0	5.0			
	264.1	333	1.3	5.49	0.4	0.3	9.0	5.0			
	274.0	321	2.0	5.29	1.0	4.0	9.0	6.0			
	327.7	268	1.7	4.42	1.0	3.0	9.0	5.0			
	387.0	227	2.0	3.75	2.0	3.0	9.0	5.0			
11.0	488.6	180	2.4	2.97	2.0	3.0	9.0	5.0			
	506.6	173	2.6	2.86	-	6.0	-	-	PA/PF 51 - 132M/4	101	92
	580.0	151	1.8	2.50	-	4.0	-	-	PA 41 - 132M/4	92	90
	678.2	130	1.9	2.14	-	4.0	-	-	PF 41 - 132M/4	92	90
	562.0	156	1.2	2.58	-	3.0	-	-	PA 31 - 132M/4	82	88
	697.1	126	1.3	2.08	-	3.0	-	-	PF 31 - 132M/4	82	88

P ₁ [kW]	n ₂ [Min ⁻¹]	M ₂ [Nm]	f _B	i _{ges}	F _R [kN]	F _A [kN]	F _{R GR} [kN]	F _{A GR} [kN]	Tip / Type	Kg	Sayfa Page mm
11.0	7.0 10.6	15023 9891	1.5 2.3	207.36 136.52	96.0 100.0	88.0 83.0	120.0 120.0	120.0 120.0	PA 103 - 160M/4B PF 103 - 160M/4B	812	135
	8.0	13186	0.9	182.00	57.0	52.0	87.0	80.0	PA/PF 93/42 - 160M/4B	638	142
	9.0 11.4 13.5	11654 9226 7793	1.0 1.3 1.6	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 93/52 - 160M/4B PF 93/52 - 160M/4B	667	142
	7.7 11.8 13.3 15.5 20.0	13620 8909 7915 6769 5247	1.0 1.6 1.5 2.1 2.6	187.99 122.97 109.25 93.43 72.42	56.0 63.0 63.0 64.0 65.0	52.0 52.0 51.0 50.0 48.0	86.0 91.0 91.0 92.0 92.0	80.0 80.0 80.0 80.0 80.0	PA 93 - 160M/4B PF 93 - 160M/4B	593	131
	8.8 13.9 18.0 20.7 23.5 28.1 32.7 37.2	11931 7532 5842 5085 4476 3733 3213 2826	0.7 1.2 1.5 1.8 2.0 2.4 2.8 2.8	164.68 103.97 80.63 70.19 61.79 51.52 44.34 39.01	25.0 38.0 41.0 42.0 43.0 44.0 44.0 45.0	22.0 25.0 26.0 26.0 26.0 25.0 25.0 25.0	50.0 58.0 60.0 61.0 62.0 62.0 62.0 63.0	65.0 65.0 65.0 65.0 65.0 64.0 62.0 61.0	PA 83 - 160M/4B PF 83 - 160M/4B	414	127
	29.7 35.9	3533 2929	1.5 1.4	48.76 40.43	44.0 44.0	25.0 25.0	62.0 63.0	63.0 61.0	PA 82 - 160M/4B PF 82 - 160M/4B	406	126
	15.9 19.4 24.0 27.7 31.8 38.5 43.6 51.1 62.0	6617 5419 4377 3788 3309 2730 2411 2054 1695	0.8 1.0 1.3 1.5 1.6 1.8 2.1 2.4 2.8	91.33 74.80 60.42 52.28 45.67 37.68 33.27 28.35 23.39	16.0 21.0 24.0 25.0 26.0 27.0 27.0 27.0 28.0	9.0 10.0 11.0 11.0 12.0 12.0 12.0 12.0 12.0	33.0 36.0 37.0 38.0 38.0 39.0 39.0 40.0 40.0	39.0 39.0 39.0 39.0 38.0 37.0 36.0 35.0 34.0	PA 73 - 160M/4B PF 73 - 160M/4B	307	123
	33.2 43.8 50.7	3166 2397 2071	1.3 1.3 2.0	43.70 33.08 28.58	26.0 27.0 27.0	12.0 12.0 12.0	39.0 39.0 40.0	38.0 36.0 36.0	PA 72 - 160M/4B PF 72 - 160M/4B	297	122
	23.0 26.9 28.5 33.4 40.1 46.9 55.1 66.0 69.7	4561 3901 3683 3149 2618 2239 1908 1592 1507	0.8 0.9 1.0 1.2 1.4 1.6 1.7 2.0 2.1	62.96 53.84 50.83 43.47 36.14 30.90 26.33 21.97 20.81	10.0 14.0 15.0 17.0 18.0 19.0 19.0 20.0 20.0	10.0 11.0 11.0 12.0 12.0 12.0 12.0 12.0 12.0	22.0 24.0 25.0 26.0 27.0 27.0 27.0 28.0 28.0	30.0 30.0 30.0 30.0 30.0 29.0 29.0 28.0 28.0	PA 63 - 160M/4B PF 63 - 160M/4B	226	119
	39.1 79.9 91.7 104.2 125.0 137.8	2687 1315 1145 1008 841 762	1.1 2.3 2.6 2.8 3.0 2.8	37.08 18.16 15.80 13.91 11.60 10.52	18.0 20.0 20.0 20.0 20.0 20.0	12.0 12.0 12.0 12.0 11.0 11.0	26.0 28.0 28.0 28.0 28.0 28.0	30.0 27.0 26.0 26.0 25.0 24.0	PA 62 - 160M/4B PF 62 - 160M/4B	228	118
	54.9 60.7 67.0 74.1 81.4 103.6 107.7 137.1 164.2	1915 1731 1569 1418 1290 1014 975 766 640	1.0 1.1 1.2 1.3 1.5 1.9 1.9 2.3 2.6	26.43 23.89 21.65 19.57 17.81 13.99 13.46 10.58 8.83	8.0 9.0 11.0 12.0 12.0 11.0 11.0 10.0 10.0	24.0 24.0 24.0 24.0 23.0 21.0 22.0 20.0 19.0	18.0 18.0 19.0 19.0 19.0 19.0 19.0 20.0 20.0	32.0 31.0 31.0 30.0 30.0 28.0 28.0 26.0 25.0	PA 52 - 160M/4B PF 52 - 160M/4B	171	114

P ₁ [kW]	n ₂ [Min ⁻¹]	M ₂ [Nm]	f _B	i _{ges}	F _R [kN]	F _A [kN]	F _{R GR} [kN]	F _{A GR} [kN]	Tip / Type	Kg	Sayfa Page mm
11.0	82.0	1282	0.9	17.69	0.4	0.2	9.0	3.0	PA 42 - 160M/4B PF 42 - 160M/4B	142	110
	96.0	1094	1.1	15.10	0.4	0.2	10.0	4.0			
	100.9	1041	1.1	14.38	1.0	0.2	10.0	4.0			
	118.1	889	1.3	12.27	1.0	0.2	10.0	4.0			
	142.3	738	1.6	10.19	1.0	0.2	11.0	5.0			
	170.6	616	1.7	8.50	1.0	0.2	11.0	5.0			
	199.5	527	2.0	7.27	1.0	0.2	11.0	5.0			
	234.1	449	2.4	6.19	1.0	5.0	11.0	5.0			
	270.7	388	2.1	5.36	1.0	5.0	10.0	5.0			
	316.5	332	2.3	4.58	2.0	5.0	10.0	5.0			
	371.5	283	2.5	3.90	2.0	5.0	10.0	5.0			
	414.3	254	2.6	3.50	3.0	5.0	10.0	5.0			
15.0	451.1	233	2.7	3.21	3.0	5.0	10.0	5.0	PA 51 - 160M/4B PF 51 - 160M/4B	132	92
	480.8	218	2.8	3.02	3.0	5.0	10.0	5.0			
	506.6	207	2.2	2.86	-	5.0	-	-			
	580.0	181	2.4	2.50	-	5.0	-	-			
	703.0	149	2.6	2.06	-	5.0	-	-			
15.0	580.0	181	1.5	2.50	-	3.0	-	-	PA 41 - 160M/4B PF 41 - 160M/4B	123	90
	678.2	155	1.6	2.14	-	3.0	-	-			
	5.9	24171	0.8	244.66	85.0	79.0	120.0	120.0	PA 103/52 - 160L/4A PF 103/52 - 160L/4A	895	142
	7.8	18254	1.1	184.77	93.0	79.0	120.0	120.0			
	9.4	15292	1.3	154.79	96.0	78.0	120.0	120.0			
	11.8	12127	1.6	122.75	98.0	76.0	120.0	120.0			
	13.7	10422	1.9	105.49	100.0	75.0	120.0	120.0			
	7.0	20486	1.1	207.36	90.0	79.0	120.0	120.0	PA 103 - 160L/4A PF 103 - 160L/4A	821	135
	10.6	13487	1.7	136.52	98.0	77.0	120.0	120.0			
	17.8	8048	2.2	81.46	101.0	72.0	120.0	120.0			
	20.6	6957	2.4	70.42	101.0	70.0	120.0	119.0			
	7.7	18572	0.8	187.99	45.0	43.0	80.0	80.0	PA 93 - 160L/4A PF 93 - 160L/4A	602	131
	11.8	12149	1.1	122.97	59.0	46.0	88.0	80.0			
	13.3	10793	1.1	109.25	60.0	46.0	89.0	80.0			
	15.5	9231	1.5	93.43	62.0	46.0	90.0	80.0			
	20.0	7155	1.9	72.42	64.0	45.0	92.0	80.0			
	23.5	6092	2.1	61.66	65.0	44.0	92.0	80.0			
	27.0	5311	2.3	53.75	65.0	43.0	92.0	80.0			
	31.1	4607	2.5	46.63	66.0	42.0	93.0	80.0			
15.0	13.9	10271	0.9	103.97	31.0	20.0	54.0	64.0	PA 83 - 160L/4A PF 83 - 160L/4A	423	127
	18.0	7966	1.1	80.63	37.0	21.0	58.0	63.0			
	20.7	6934	1.3	70.19	40.0	22.0	59.0	62.0			
	23.5	6104	1.5	61.79	41.0	22.0	60.0	62.0			
	28.1	5090	1.8	51.52	42.0	23.0	61.0	60.0			
	32.7	4381	2.0	44.34	43.0	23.0	62.0	59.0			
	37.2	3854	2.0	39.01	44.0	22.0	62.0	58.0			
	44.6	3213	2.2	32.53	44.0	22.0	62.0	56.0			
	51.8	2766	2.3	27.99	45.0	22.0	63.0	54.0			
	59.5	2409	2.2	24.38	45.0	21.0	63.0	53.0			
15.0	29.7	4817	1.1	48.76	43.0	23.0	61.0	60.0	PA 82 - 160L/4A PF 82 - 160L/4A	415	126
	35.9	3995	1.0	40.43	44.0	22.0	62.0	58.0			
	45.2	3171	2.1	32.10	44.0	22.0	62.0	56.0			
	54.5	2630	2.4	26.62	45.0	22.0	63.0	54.0			
	24.0	5969	0.9	60.42	19.0	7.0	34.0	34.0	PA 73 - 160L/4A PF 73 - 160L/4A	316	123
15.0	27.7	5165	1.1	52.28	22.0	8.0	36.0	34.0			
	31.8	4512	1.2	45.67	24.0	9.0	37.0	34.0			
	38.5	3722	1.3	37.68	25.0	10.0	38.0	34.0			
	43.6	3287	1.5	33.27	26.0	10.0	39.0	34.0			
	51.1	2801	1.8	28.35	27.0	10.0	39.0	33.0			
	62.0	2311	2.1	23.39	27.0	10.0	39.0	32.0			
	33.2	4317	0.9	43.70	24.0	9.0	37.0	35.0			
	43.8	3269	1.0	33.08	26.0	10.0	39.0	34.0			
	50.7	2824	1.4	28.58	27.0	10.0	39.0	33.0			
	67.0	2146	1.9	21.72	27.0	10.0	39.0	32.0			
15.0	86.1	1663	2.2	16.83	28.0	11.0	39.0	31.0	PA 72 - 160L/4A PF 72 - 160L/4A	306	122
	101.2	1416	2.3	14.33	28.0	10.0	37.0	30.0			

P ₁ [kW]	n ₂ [Min ⁻¹]	M ₂ [Nm]	f _B	i _{ges}	F _R [kN]	F _A [kN]	F _{R GR} [kN]	F _{A GR} [kN]	Tip / Type	Kg	Sayfa Page mm
15.0	33.4	4294	0.9	43.47	12.0	9.0	23.0	26.0	PA 63 - 160L/4A PF 63 - 160L/4A	235	119
	40.1	3570	1.0	36.14	15.0	9.0	25.0	27.0			
	46.9	3053	1.2	30.90	17.0	10.0	26.0	27.0			
	55.1	2601	1.2	26.33	18.0	10.0	27.0	26.0			
	66.0	2171	1.5	21.97	19.0	10.0	27.0	26.0			
	69.7	2056	1.6	20.81	19.0	11.0	27.0	26.0			
	39.1	3664	0.8	37.08	15.0	9.0	25.0	27.0	PA 62 - 160L/4A PF 62 - 160L/4A	237	118
	79.9	1794	1.7	18.16	19.0	11.0	28.0	26.0			
	91.7	1561	1.9	15.80	20.0	11.0	28.0	25.0			
	104.2	1375	2.1	13.91	20.0	11.0	28.0	24.0			
	125.0	1146	2.2	11.60	20.0	11.0	28.0	24.0			
15.0	137.8	1040	2.0	10.52	20.0	10.0	28.0	23.0	PA 52 - 160L/4A PF 52 - 160L/4A	180	114
	165.2	867	2.2	8.78	20.0	10.0	28.0	22.0			
	192.0	746	2.3	7.55	20.0	10.0	28.0	22.0			
	60.7	2361	0.8	23.89	1.0	1.0	12.0	29.0	PA 42 - 160L/4A PF 42 - 160L/4A	151	110
	67.0	2139	0.9	21.65	2.0	21.0	15.0	29.0			
	74.1	1933	1.0	19.57	4.0	21.0	16.0	28.0			
	81.4	1760	1.1	17.81	5.0	20.0	17.0	28.0			
	103.6	1383	1.4	13.99	8.0	19.0	18.0	27.0			
	107.7	1330	1.4	13.46	10.0	19.0	19.0	27.0			
	137.1	1045	1.7	10.58	10.0	18.0	19.0	25.0			
	164.2	873	1.9	8.83	9.0	17.0	20.0	24.0			
	199.0	720	2.1	7.29	9.0	16.0	20.0	23.0			
	225.3	636	2.2	6.44	9.0	16.0	20.0	23.0			
18.5	259.1	553	1.9	5.60	8.0	15.0	20.0	22.0	PA 51 - 160L/4A PF 51 - 160L/4A	141	92
	314.1	456	2.1	4.62	8.0	14.0	20.0	21.0			
	355.7	403	2.2	4.08	8.0	14.0	20.0	20.0			
	395.0	363	2.3	3.67	8.0	13.0	20.0	20.0			
	421.1	340	2.3	3.44	7.0	13.0	20.0	19.0			
	96.0	1492	0.8	15.10	0.1	0.1	3.0	2.0			
	100.9	1420	0.8	14.38	0.3	0.1	5.0	2.0			
	118.1	1212	1.0	12.27	0.3	0.1	7.0	3.0			
	142.3	1007	1.2	10.19	0.4	0.1	8.0	3.0			
	170.6	840	1.3	8.50	0.4	0.1	8.0	3.0			
18.5	199.5	718	1.5	7.27	0.4	0.1	9.0	4.0	PA 41 - 160L/4A PF 41 - 160L/4A	132	90
	234.1	612	1.8	6.19	0.4	0.1	9.0	4.0			
	270.7	529	1.5	5.36	0.4	0.2	9.0	4.0			
	316.5	453	1.7	4.58	0.4	0.2	9.0	4.0			
	371.5	386	1.8	3.90	0.4	0.2	9.0	4.0			
	414.3	346	1.9	3.50	0.4	4.0	9.0	4.0			
	451.1	318	2.0	3.21	1.0	4.0	9.0	4.0			
	480.8	298	2.0	3.02	1.0	4.0	9.0	4.0			
	506.6	283	1.6	2.86	-	5.0	-	-			
	580.0	247	1.7	2.50	-	5.0	-	-			
18.5	703.0	204	1.9	2.06	-	4.0	-	-	PA 103/52 - 180M/4B PF 103/52 - 180M/4B	931	142
	580.0	247	1.1	2.50	-	3.0	-	-			
	678.2	211	1.2	2.14	-	3.0	-	-			
	7.8	22514	0.9	184.77	88.0	72.0	120.0	120.0			
	9.4	18860	1.1	154.79	92.0	73.0	120.0	120.0			
	11.8	14957	1.3	122.75	96.0	72.0	120.0	120.0			
	13.7	12854	1.6	105.49	98.0	71.0	120.0	120.0			
	10.6	16634	1.4	136.52	95.0	72.0	120.0	120.0			
	17.8	9926	2.1	81.46	100.0	69.0	120.0	119.0			
	20.6	8580	2.3	70.42	101.0	67.0	120.0	116.0			
18.5	23.9	7402	2.7	60.75	101.0	66.0	120.0	113.0	PA 93/52 - 180M/4B PF 93/52 - 180M/4B	712	142
	27.4	6458	3.1	53.00	101.0	64.0	120.0	109.0			
	11.4	15517	0.8	127.35	51.0	40.0	83.0	80.0			
	13.5	13106	0.9	107.56	58.0	41.0	87.0	80.0			
	11.8	14983	0.9	122.97	54.0	41.0	85.0	80.0			
	15.5	11385	1.2	93.43	60.0	42.0	89.0	80.0			
	20.0	8824	1.5	72.42	63.0	42.0	91.0	80.0			
	23.5	7514	1.7	61.66	64.0	41.0	91.0	80.0			
	27.0	6550	1.9	53.75	65.0	41.0	92.0	80.0			
	31.1	5682	2.1	46.63	65.0	40.0	92.0	80.0			
	36.7	4808	2.5	39.46	66.0	39.0	93.0	80.0			

P ₁ [kW]	n ₂ [Min ⁻¹]	M ₂ [Nm]	f _B	i _{ges}	F _R [kN]	F _A [kN]	F _{R GR} [kN]	F _{A GR} [kN]	Tip / Type	Kg	Sayfa Page mm		
18.5	40.9	4322	2.2	35.47	66.0	39.0	93.0	80.0	PA/PF 92 - 180M/4B	623	130		
	18.0	9825	0.9	80.63	32.0	17.0	55.0	58.0	PA 83 - 180M/4B PF 83 - 180M/4B	455	127		
	20.7	8552	1.0	70.19	36.0	19.0	57.0	58.0					
	23.5	7529	1.2	61.79	39.0	19.0	59.0	58.0					
	28.1	6278	1.4	51.52	41.0	20.0	60.0	57.0					
	32.7	5403	1.6	44.34	42.0	20.0	61.0	56.0					
	37.2	4753	1.9	39.01	43.0	21.0	61.0	55.0					
	44.6	3963	2.2	32.53	44.0	21.0	62.0	54.0					
	51.8	3411	2.4	27.99	44.0	20.0	62.0	52.0					
	59.5	2971	2.7	24.38	44.0	20.0	63.0	51.0					
	69.1	2557	3.1	20.99	45.0	20.0	62.0	50.0					
	45.2	3911	1.7	32.10	44.0	21.0	62.0	54.0	PA 82 - 180M/4B	447	126		
	54.5	3244	2.0	26.62	44.0	20.0	62.0	52.0	PF 82 - 180M/4B	348	123		
	24.0	7362	0.8	60.42	11.0	4.0	25.0	30.0	PA 73 - 180M/4B PF 73 - 180M/4B				
	27.7	6370	0.9	52.28	17.0	5.0	29.0	31.0					
	31.8	5564	1.0	45.67	20.0	7.0	31.0	31.0					
	38.5	4591	1.1	37.68	23.0	8.0	34.0	31.0					
	43.6	4054	1.2	33.27	25.0	8.0	35.0	31.0					
	51.1	3455	1.4	28.35	26.0	9.0	36.0	31.0					
	62.0	2850	1.8	23.39	26.0	9.0	36.0	31.0					
	50.7	3483	1.2	28.58	26.0	9.0	37.0	32.0	PA 72 - 180M/4B PF 72 - 180M/4B	338	122		
	66.8	2637	1.7	21.64	27.0	9.0	37.0	31.0					
	86.1	2051	2.0	16.83	27.0	10.0	37.0	30.0					
	101.2	1746	2.3	14.33	27.0	10.0	36.0	29.0					
	116.0	1522	2.7	12.49	27.0	10.0	35.0	28.0					
	40.1	4403	0.8	36.14	11.0	7.0	21.0	24.0	PA 63 - 180M/4B PF 63 - 180M/4B	271	119		
	46.9	3766	1.0	30.90	14.0	8.0	24.0	24.0					
	55.1	3208	1.0	26.33	16.0	9.0	26.0	24.0					
	66.0	2677	1.2	21.97	18.0	9.0	26.0	24.0					
	69.7	2535	1.3	20.81	18.0	9.0	27.0	24.0					
	79.9	2212	1.4	18.16	19.0	10.0	27.0	24.0	PA 62 - 180M/4B PF 62 - 180M/4B	269	118		
	91.7	1926	1.6	15.80	19.0	10.0	27.0	24.0					
	104.2	1695	1.8	13.91	19.0	10.0	28.0	23.0					
	125.0	1414	2.2	11.60	20.0	10.0	28.0	23.0					
	137.8	1282	2.4	10.52	20.0	10.0	28.0	22.0					
	165.2	1069	2.8	8.78	20.0	9.0	27.0	22.0					
	192.0	920	3.3	7.55	20.0	9.0	27.0	21.0					
	228.4	773	2.5	6.35	20.0	9.0	25.0	20.0					
	274.0	645	2.9	5.29	20.0	9.0	25.0	19.0					
	74.1	2385	0.8	19.57	-	-	9.0	27.0					
	81.4	2170	0.9	17.81	-	-	11.0	27.0	PA 52 - 180M/4B PF 52 - 180M/4B	216	114		
	103.6	1705	1.1	13.99	2.0	17.0	13.0	25.0					
	107.7	1640	1.1	13.46	5.0	18.0	15.0	26.0					
	137.1	1289	1.4	10.58	7.0	17.0	16.0	24.0					
	164.2	1076	1.6	8.83	9.0	16.0	17.0	24.0					
	199.0	888	1.8	7.29	9.0	15.0	18.0	23.0					
	225.3	784	1.9	6.44	8.0	15.0	19.0	22.0					
	259.1	682	1.7	5.60	8.0	14.0	18.0	21.0					
	314.1	562	2.1	4.62	8.0	13.0	18.0	20.0					
	355.7	497	2.3	4.08	8.0	13.0	18.0	20.0					
	395.0	447	2.4	3.67	7.0	13.0	18.0	19.0					
	421.1	420	2.4	3.44	7.0	12.0	18.0	19.0					
	448.5	394	2.4	3.23	7.0	12.0	18.0	19.0					
	521.9	339	2.6	2.78	7.0	12.0	18.0	18.0					
	580.0	305	1.4	2.50	-	4.0	-	-	PA 51 - 180M/4B	177	92		
	703.0	251	1.5	2.06	-	4.0	-	-	PF 51 - 180M/4B	861	135		
22.0	7.8	26842	0.7	184.77	81.0	66.0	120.0	120.0	PA 103/52 - 180L/4B PF 103/52 - 180L/4B	939	142		
	9.3	22486	0.9	154.79	88.0	67.0	120.0	120.0					
	11.8	17832	1.1	122.75	94.0	67.0	120.0	120.0					
	13.7	15325	1.3	105.49	96.0	67.0	120.0	120.0					
	10.6	19832	1.2	136.52	92.0	67.0	120.0	120.0	PA 103 - 180L/4B PF 103 - 180L/4B	861	135		
	17.8	11834	1.7	81.46	99.0	66.0	120.0	115.0					
	20.5	10230	2.0	70.42	100.0	65.0	120.0	113.0					
	23.8	8826	2.3	60.75	100.0	63.0	120.0	110.0					
	27.3	7700	2.6	53.00	101.0	62.0	120.0	107.0					
	31.9	6585	3.0	45.33	101.0	61.0	120.0	104.0					

P ₁ [kW]	n ₂ [Min ⁻¹]	M ₂ [Nm]	f _B	i _{ges}	F _R [kN]	F _A [kN]	F _{R GR} [kN]	F _{A GR} [kN]	Tip / Type	Kg	Sayfa Page mm	
22.0	11.8	17864	0.8	122.97	48.0	36.0	81.0	80.0	PA 93 - 180L/4B PF 93 - 180L/4B	642	131	
	15.5	13573	1.0	93.43	57.0	38.0	87.0	80.0				
	20.0	10521	1.3	72.42	61.0	39.0	89.0	80.0				
	23.5	8958	1.4	61.66	63.0	39.0	91.0	80.0				
	26.9	7809	1.6	53.75	64.0	39.0	91.0	80.0				
	31.0	6774	1.8	46.63	64.0	38.0	92.0	80.0				
	36.7	5733	2.1	39.46	65.0	38.0	92.0	80.0				
	46.3	4538	2.7	31.24	66.0	37.0	91.0	80.0				
	40.8	5153	1.9	35.47	65.0	37.0	93.0	80.0	PA/PF 92 - 180L/4B	631	130	
	17.9	11714	0.8	80.63	25.0	14.0	51.0	53.0	PA 83 - 180L/4B PF 83 - 180L/4B	463	127	
	20.6	10196	0.9	70.19	32.0	15.0	54.0	54.0				
	23.4	8976	1.0	61.79	35.0	16.0	56.0	54.0				
	28.1	7484	1.2	51.52	38.0	17.0	58.0	54.0				
	32.6	6442	1.4	44.34	41.0	18.0	60.0	53.0				
	37.1	5667	1.6	39.01	42.0	19.0	61.0	53.0				
	44.5	4725	1.8	32.53	43.0	19.0	61.0	52.0				
	51.7	4067	2.0	27.99	44.0	19.0	62.0	51.0				
	59.3	3542	2.3	24.38	44.0	19.0	62.0	50.0	PA/PF 82 - 180L/4B	455	126	
	68.9	3049	2.6	20.99	44.0	19.0	61.0	48.0				
	87.3	2405	2.7	16.56	45.0	19.0	58.0	46.0				
	31.7	6634	0.8	45.67	15.0	4.0	24.0	28.0		PA 73 - 180L/4B PF 73 - 180L/4B	356	123
	38.4	5473	0.9	37.68	19.0	6.0	28.0	29.0				
	43.5	4833	1.0	33.27	21.0	6.0	30.0	29.0				
	51.0	4119	1.2	28.35	22.0	7.0	32.0	29.0				
	61.8	3398	1.5	23.39	24.0	8.0	33.0	29.0	PA 72 - 180L/4B PF 72 - 180L/4B	346	122	
	50.9	4132	1.0	28.58	23.0	8.0	33.0	30.0				
	66.9	3139	1.3	21.72	25.0	8.0	34.0	29.0				
	86.3	2433	1.7	16.83	25.0	9.0	34.0	28.0				
	100.8	2084	1.9	14.33	25.0	9.0	34.0	28.0				
	115.6	1817	2.2	12.49	25.0	9.0	34.0	27.0				
	133.3	1576	2.8	10.84	24.0	9.0	33.0	26.0				
	46.8	4494	0.8	30.90	11.0	6.0	18.0	22.0	PA 63 - 180L/4B PF 63 - 180L/4B	279	119	
	54.9	3829	0.8	26.33	14.0	7.0	21.0	22.0				
	65.8	3195	1.0	21.97	16.0	7.0	22.0	22.0				
	69.4	3026	1.1	20.81	17.0	8.0	24.0	23.0				
	79.6	2640	1.2	18.16	18.0	8.0	25.0	23.0	PA 62 - 180L/4B PF 62 - 180L/4B	277	118	
	91.4	2298	1.3	15.80	18.0	9.0	26.0	23.0				
	103.8	2023	1.5	13.91	19.0	9.0	26.0	22.0				
	124.5	1687	1.8	11.60	19.0	9.0	26.0	22.0				
	137.3	1530	2.0	10.52	20.0	9.0	26.0	21.0				
	164.7	1276	2.4	8.78	20.0	9.0	26.0	21.0				
	191.3	1098	2.8	7.55	20.0	9.0	25.0	20.0				
	227.6	923	2.1	6.35	20.0	8.0	24.0	19.0				
	273.0	770	2.5	5.29	20.0	8.0	24.0	19.0				
	317.2	662	2.8	4.56	19.0	8.0	23.0	18.0				
	356.0	590	2.9	4.06	19.0	8.0	23.0	18.0				
	369.3	569	2.9	3.91	19.0	8.0	23.0	18.0				
	388.7	541	3.0	3.72	19.0	8.0	23.0	17.0				
	103.2	2035	0.9	13.99	0.4	1.0	8.0	24.0	PA 52 - 180L/4B PF 52 - 180L/4B	224	114	
	107.3	1958	0.9	13.46	1.0	1.0	10.0	25.0				
	136.6	1538	1.1	10.58	2.0	15.0	13.0	24.0				
	163.6	1285	1.3	8.83	5.0	15.0	14.0	23.0				
	198.3	1060	1.5	7.29	7.0	14.0	16.0	22.0				
	224.5	936	1.6	6.44	8.0	14.0	16.0	22.0				
	258.2	814	1.4	5.60	8.0	13.0	15.0	21.0				
	313.0	671	1.8	4.62	7.0	13.0	16.0	20.0				
	354.4	593	1.9	4.08	7.0	12.0	17.0	19.0				
	393.6	534	2.0	3.67	7.0	12.0	17.0	19.0				
	419.6	501	2.0	3.44	7.0	12.0	17.0	19.0	PA 51 - 180L/4B PF 51 - 180L/4B	185	92	
	446.9	470	2.0	3.23	7.0	12.0	17.0	18.0				
	520.0	404	2.2	2.78	7.0	11.0	17.0	18.0				
	577.9	364	1.2	2.50	-	3.0	-	-	PA 51 - 180L/4B PF 51 - 180L/4B	185	92	
	700.5	300	1.3	2.06	-	3.0	-	-				

P ₁ [kW]	n ₂ [Min ⁻¹]	M ₂ [Nm]	f _B	i _{ges}	F _R [kN]	F _A [kN]	F _{R GR} [kN]	F _{A GR} [kN]	Tip / Type	Kg	Sayfa Page mm
30.0	17.9	15986	1.3	81.46	95.0	59.0	120.0	107.0	PA 103 - 200L/4C PF 103 - 200L/4C	927	135
	20.7	13818	1.4	70.42	97.0	59.0	120.0	105.0			
	24.0	11922	1.7	60.75	98.0	58.0	120.0	104.0			
	27.5	10401	1.9	53.00	100.0	58.0	120.0	101.0			
	32.2	8895	2.2	45.33	100.0	57.0	120.0	99.0			
	38.5	7451	2.7	37.97	101.0	55.0	120.0	95.0			
	20.2	14211	0.9	72.42	55.0	32.0	80.0	80.0	PA 93 - 200L/4C PF 93 - 200L/4C	708	131
	23.7	12101	1.0	61.66	59.0	33.0	83.0	80.0			
	27.2	10548	1.2	53.75	61.0	34.0	84.0	80.0			
	31.3	9150	1.3	46.63	62.0	34.0	84.0	80.0			
	37.0	7744	1.6	39.46	64.0	34.0	84.0	79.0			
	46.7	6130	2.0	31.24	65.0	34.0	83.0	76.0			
37.0	53.9	5318	2.3	27.10	65.0	33.0	82.0	74.0	PA 83 - 200L/4C PF 83 - 200L/4C	529	127
	63.7	4500	2.7	22.93	66.0	33.0	81.0	72.0			
	23.6	12125	0.7	61.79	24.0	10.0	41.0	45.0			
	28.3	10110	0.9	51.52	31.0	12.0	46.0	47.0			
	32.9	8701	1.0	44.34	36.0	13.0	50.0	47.0			
	37.4	7655	1.2	39.01	38.0	14.0	52.0	47.0			
	44.9	6383	1.3	32.53	41.0	15.0	54.0	47.0			
	52.2	5493	1.5	27.99	42.0	16.0	55.0	47.0			
	59.9	4785	1.7	24.38	43.0	16.0	55.0	46.0			
	69.6	4118	1.9	20.99	43.0	17.0	55.0	45.0			
88.2	88.2	3249	2.0	16.56	43.0	17.0	55.0	44.0	PA 82 - 200L/4C PF 82 - 200L/4C	521	126
	102.2	2803	2.3	14.29	43.0	17.0	54.0	43.0			
	123.2	2325	2.5	11.85	41.0	16.0	52.0	41.0			
43.9	43.9	6529	0.8	33.27	11.0	3.0	18.0	24.0	PA 73 - 200L/4C PF 73 - 200L/4C	422	123
	51.5	5564	0.9	28.35	14.0	4.0	22.0	25.0			
	62.4	4590	1.1	23.39	17.0	5.0	25.0	25.0			
	70.7	4053	1.2	20.66	18.0	6.0	27.0	26.0			
	81.1	3533	1.4	18.01	20.0	6.0	28.0	26.0			
	86.7	3303	1.2	16.83	21.0	7.0	29.0	26.0	PA 72 - 200L/4C PF 72 - 200L/4C	412	122
	101.9	2813	1.4	14.33	21.0	7.0	30.0	26.0			
	116.9	2452	1.7	12.49	22.0	8.0	30.0	25.0			
	134.7	2127	2.2	10.84	21.0	8.0	29.0	25.0			
	154.3	1856	2.4	9.46	22.0	8.0	29.0	24.0			
104.9	177.9	1610	2.5	8.21	21.0	8.0	29.0	24.0	PA 62 - 200L/4C PF 62 - 200L/4C	343	118
	210.2	1363	2.7	6.94	21.0	8.0	29.0	23.0			
	227.3	1260	2.2	6.42	20.0	7.0	27.0	22.0			
	260.8	1099	2.4	5.60	20.0	7.0	27.0	22.0			
	300.6	953	2.5	4.86	20.0	7.0	26.0	21.0			
	104.9	2730	1.1	13.91	18.0	7.0	21.0	20.0			
	125.8	2277	1.4	11.60	18.0	7.0	22.0	20.0			
	138.7	2065	1.5	10.52	18.0	7.0	21.0	19.0			
	166.4	1722	1.7	8.78	19.0	8.0	22.0	19.0			
	193.3	1482	2.1	7.55	19.0	8.0	22.0	19.0			
17.9	230.0	1246	1.5	6.35	18.0	7.0	21.0	18.0	PA 103 - 225S/4A PF 103 - 225S/4A	982	135
	275.9	1039	1.8	5.29	18.0	7.0	21.0	18.0			
	320.5	894	2.3	4.56	18.0	7.0	21.0	17.0			
	359.7	796	2.4	4.06	18.0	7.0	21.0	17.0			
	373.2	768	2.4	3.91	18.0	7.0	21.0	17.0			
	392.8	729	2.5	3.72	17.0	7.0	21.0	17.0			
	440.2	651	2.6	3.32	17.0	7.0	21.0	16.0			
	492.0	582	2.7	2.97	17.0	7.0	20.0	16.0			
	17.9	19716	1.0	81.46	91.0	53.0	120.0	100.0			
	20.7	17043	1.2	70.42	94.0	54.0	120.0	99.0			
24.0	24.0	14703	1.4	60.75	96.0	54.0	120.0	98.0	PA 103 - 225S/4A PF 103 - 225S/4A	982	135
	27.5	12828	1.6	53.00	98.0	54.0	120.0	96.0			
	32.2	10970	1.8	45.33	99.0	53.0	119.0	95.0			
	38.5	9190	2.2	37.97	100.0	52.0	115.0	92.0			
	49.3	7169	2.2	29.62	101.0	51.0	111.0	88.0			
	57.6	6131	2.3	25.33	101.0	50.0	107.0	86.0			

P ₁ [kW]	n ₂ [Min ⁻¹]	M ₂ [Nm]	f _B	i _{ges}	F _R [kN]	F _A [kN]	F _{R GR} [kN]	F _{A GR} [kN]	Tip / Type	Kg	Sayfa Page mm
37.0	20.2	17527	0.8	72.42	47.0	26.0	64.0	76.0	PA 93 - 225S/4A PF 93 - 225S/4A	763	131
	23.7	14924	0.9	61.66	54.0	28.0	70.0	77.0			
	27.2	13010	0.9	53.75	57.0	29.0	72.0	76.0			
	31.3	11285	1.1	46.63	60.0	30.0	75.0	76.0			
	37.0	9551	1.3	39.46	62.0	31.0	77.0	75.0			
	46.7	7561	1.6	31.24	64.0	31.0	77.0	73.0			
	53.9	6559	1.9	27.10	65.0	31.0	77.0	71.0			
	63.7	5550	2.2	22.93	65.0	31.0	76.0	69.0			
	76.2	4639	2.3	19.17	66.0	30.0	75.0	67.0			
	88.7	3985	2.1	16.47	66.0	30.0	74.0	66.0			
37.0	101.7	3475	2.2	14.36	66.0	29.0	72.0	64.0	PA 92 - 225S/4A PF 92 - 225S/4A	752	130
	117.8	2999	2.3	12.39	64.0	29.0	70.0	61.0			
	32.9	10732	0.8	44.34	28.0	9.0	39.0	42.0			
	37.4	9441	1.0	39.01	32.0	11.0	42.0	43.0			
	44.9	7872	1.1	32.53	35.0	12.0	46.0	43.0			
	52.2	6775	1.2	27.99	37.0	13.0	48.0	43.0			
	59.9	5901	1.4	24.38	38.0	14.0	49.0	43.0			
	69.6	5079	1.6	20.99	39.0	15.0	50.0	43.0			
	88.2	4007	1.6	16.56	40.0	15.0	51.0	42.0			
	102.2	3457	1.9	14.29	40.0	15.0	50.0	41.0			
37.0	123.2	2867	2.0	11.85	39.0	15.0	49.0	40.0	PA 82 - 225S/4A PF 82 - 225S/4A	576	126
	141.3	2501	2.1	10.33	39.0	15.0	49.0	39.0			
	165.2	2139	2.3	8.84	38.0	15.0	47.0	38.0			
	197.2	1792	2.4	7.40	37.0	15.0	46.0	36.0			
	235.3	1502	2.1	6.21	35.0	14.0	43.0	35.0			
	275.1	1284	2.3	5.31	34.0	14.0	42.0	33.0			
	62.4	5661	0.9	23.39	11.0	3.0	18.0	22.0	PA 73 - 225S/4A PF 73 - 225S/4A	477	123
	70.7	4999	1.0	20.66	13.0	4.0	20.0	23.0			
	81.1	4358	1.1	18.01	15.0	5.0	23.0	23.0			
37.0	86.7	4074	1.0	16.83	17.0	5.0	24.0	24.0	PA 72 - 225S/4A PF 72 - 225S/4A	467	122
	101.9	3469	1.2	14.33	18.0	6.0	26.0	24.0			
	116.9	3024	1.3	12.49	19.0	6.0	27.0	24.0			
	134.7	2623	1.8	10.84	19.0	6.0	26.0	23.0			
	154.3	2290	1.9	9.46	19.0	7.0	27.0	23.0			
	177.9	1986	2.0	8.21	20.0	7.0	27.0	22.0			
	210.2	1681	2.2	6.94	20.0	7.0	27.0	22.0			
	227.3	1554	1.8	6.42	18.0	6.0	25.0	21.0			
	260.8	1355	1.9	5.60	19.0	7.0	25.0	21.0			
	300.6	1175	2.0	4.86	18.0	7.0	25.0	20.0			
	355.3	995	2.2	4.11	18.0	7.0	25.0	20.0			
	104.9	3367	0.9	13.91	14.0	5.0	16.0	18.0	PA 62 - 225S/4A PF 62 - 225S/4A	398	118
	125.8	2808	1.1	11.60	16.0	6.0	18.0	18.0			
	138.7	2547	1.2	10.52	15.0	6.0	18.0	18.0			
	166.4	2124	1.4	8.78	16.0	6.0	19.0	18.0			
	193.3	1828	1.7	7.55	17.0	7.0	20.0	18.0			
	230.0	1536	1.3	6.35	16.0	6.0	19.0	17.0			
	275.9	1281	1.5	5.29	16.0	7.0	19.0	17.0			
	320.5	1102	1.8	4.56	16.0	7.0	20.0	16.0			
	359.7	982	1.9	4.06	16.0	7.0	20.0	16.0			
	373.2	947	2.0	3.91	16.0	7.0	20.0	16.0			
45.0	392.8	900	2.0	3.72	16.0	7.0	20.0	16.0	PA 103 - 225M/4C PF 103 - 225M/4C	1027	135
	440.2	803	2.1	3.32	16.0	7.0	19.0	16.0			
	492.0	718	2.2	2.97	16.0	7.0	19.0	15.0			
	20.7	20727	1.0	70.42	90.0	48.0	108.0	91.0			
	24.0	17882	1.1	60.75	93.0	49.0	110.0	91.0			
	27.5	15601	1.3	53.00	96.0	49.0	112.0	91.0			
	32.2	13342	1.5	45.33	97.0	50.0	113.0	90.0			
	38.5	11177	1.8	37.97	99.0	49.0	111.0	88.0			
	49.3	8719	2.3	29.62	100.0	48.0	107.0	85.0			
	57.6	7457	2.7	25.33	101.0	48.0	104.0	83.0			
	68.8	6246	3.2	21.22	101.0	46.0	101.0	81.0			

P ₁ [kW]	n ₂ [Min ⁻¹]	M ₂ [Nm]	f _B	i _{ges}	F _R [kN]	F _A [kN]	F _{R GR} [kN]	F _{A GR} [kN]	Tip / Type	Kg	Sayfa Page mm
45.0	27.2	15823	0.8	53.75	52.0	24.0	60.0	70.0	PA 93 - 225M/4C PF 93 - 225M/4C	808	131
	31.3	13726	0.9	46.63	56.0	26.0	64.0	70.0			
	37.0	11615	1.1	39.46	59.0	27.0	67.0	70.0			
	46.7	9195	1.3	31.24	62.0	28.0	70.0	69.0			
	53.9	7977	1.5	27.10	63.0	28.0	71.0	68.0			
	63.7	6750	1.8	22.93	64.0	29.0	71.0	67.0			
	76.2	5642	2.2	19.17	65.0	28.0	71.0	65.0			
	88.7	4846	2.2	16.47	65.0	28.0	70.0	64.0	PA 92 - 225M/4C PF 92 - 225M/4C	797	130
	101.7	4226	2.5	14.36	63.0	28.0	69.0	62.0			
	117.8	3647	2.9	12.39	62.0	27.0	68.0	60.0			
45.0	44.9	9574	0.9	32.53	27.0	9.0	36.0	39.0	PA 83 - 225M/4C PF 83 - 225M/4C	629	127
	52.2	8240	1.0	27.99	30.0	10.0	40.0	39.0			
	59.9	7177	1.1	24.38	32.0	11.0	42.0	40.0			
	69.6	6177	1.3	20.99	34.0	12.0	44.0	40.0			
	88.2	4874	1.3	16.56	36.0	14.0	46.0	40.0	PA 82 - 225M/4C PF 82 - 225M/4C	621	126
	102.2	4205	1.6	14.29	37.0	14.0	47.0	39.0			
	123.2	3487	2.0	11.85	36.0	14.0	46.0	38.0			
	141.3	3042	2.3	10.33	36.0	14.0	46.0	37.0			
	165.2	2602	2.5	8.84	36.0	14.0	45.0	36.0			
	197.2	2179	2.9	7.40	35.0	14.0	44.0	35.0			
45.0	235.3	1827	2.4	6.21	33.0	13.0	42.0	34.0	PA 73 - 225M/4C PF 73 - 225M/4C	522	123
	275.1	1562	3.1	5.31	33.0	13.0	41.0	33.0			
	70.7	6080	0.8	20.66	6.0	1.0	13.0	19.0			
	81.1	5300	0.9	18.01	10.0	2.0	16.0	20.0			
	101.9	4219	1.0	14.33	14.0	4.0	21.0	22.0	PA 72 - 225M/4C PF 72 - 225M/4C	512	122
	116.9	3678	1.1	12.49	16.0	5.0	22.0	22.0			
	134.7	3190	1.5	10.84	16.0	5.0	23.0	21.0			
	154.3	2785	1.7	9.46	17.0	5.0	24.0	21.0			
	177.9	2416	1.9	8.21	17.0	6.0	24.0	21.0			
	210.2	2044	2.1	6.94	18.0	6.0	25.0	21.0			
	227.3	1890	1.5	6.42	16.0	6.0	23.0	20.0			
	260.8	1648	1.7	5.60	17.0	6.0	23.0	20.0			
	300.6	1429	2.0	4.86	17.0	6.0	23.0	19.0			
	355.3	1210	2.2	4.11	17.0	6.0	23.0	19.0			
45.0	378.2	1136	2.3	3.86	17.0	6.0	23.0	19.0	PA 62 - 225M/4C PF 62 - 225M/4C	443	118
	425.0	1011	2.4	3.44	17.0	6.0	23.0	18.0			
	125.8	3415	0.9	11.60	12.0	4.0	13.0	16.0			
	166.4	2583	1.2	8.78	14.0	5.0	15.0	16.0			
	193.3	2223	1.4	7.55	14.0	6.0	17.0	16.0			
	275.9	1558	1.2	5.29	14.0	6.0	17.0	16.0			
	320.5	1341	1.6	4.56	15.0	6.0	17.0	15.0			
	359.7	1195	1.6	4.06	15.0	6.0	18.0	15.0			
	373.2	1152	1.7	3.91	15.0	6.0	18.0	15.0			
	392.8	1094	1.9	3.72	15.0	6.0	18.0	15.0			
45.0	440.2	976	2.0	3.32	15.0	6.0	18.0	15.0	PA 103 - 250M/4C PF 103 - 250M/4C	1180	135
	492.0	874	2.2	2.97	15.0	6.0	18.0	15.0			
	75.7	6939	2.4	19.35	97.0	44.0	96.0	77.0	PA 102 - 250M/4C PF 102 - 250M/4C	1171	134
	88.2	5957	2.9	16.61	95.0	43.0	94.0	75.0			
	37.1	14148	0.9	39.46	55.0	22.0	55.0	64.0	PA 93 - 250M/4C PF 93 - 250M/4C	961	131
	46.9	11200	1.1	31.24	59.0	25.0	61.0	64.0			
	54.1	9716	1.3	27.10	60.0	25.0	63.0	64.0			
	63.9	8222	1.5	22.93	61.0	26.0	65.0	63.0			
	76.4	6872	1.8	19.17	61.0	26.0	65.0	62.0			
55.0	89.0	5903	1.8	16.47	61.0	26.0	66.0	61.0	PA 92 - 250M/4C PF 92 - 250M/4C	950	130
	102.0	5148	2.1	14.36	60.0	26.0	65.0	60.0			
	118.2	4443	2.4	12.39	59.0	26.0	64.0	58.0			
	139.5	3765	2.7	10.50	58.0	26.0	63.0	56.0			

P ₁ [kW]	n ₂ [Min ⁻¹]	M ₂ [Nm]	f _B	i _{ges}	F _R [kN]	F _A [kN]	F _{R GR} [kN]	F _{A GR} [kN]	Tip / Type	Kg	Sayfa Page mm
55.0	88.5	5937	1.1	16.56	31.0	11.0	41.0	37.0	PA 82 - 250M/4C PF 82 - 250M/4C	774	126
	102.6	5122	1.3	14.29	32.0	12.0	42.0	37.0			
	123.7	4247	1.7	11.85	33.0	12.0	42.0	36.0			
	141.8	3705	1.9	10.33	33.0	13.0	42.0	36.0			
	165.8	3169	2.1	8.84	33.0	13.0	43.0	35.0			
	197.9	2655	2.4	7.40	33.0	13.0	42.0	34.0			
	236.1	2225	1.9	6.21	31.0	12.0	40.0	32.0			
	276.1	1903	2.5	5.31	31.0	12.0	39.0	32.0			
	329.5	1594	2.7	4.45	30.0	12.0	38.0	30.0			
	402.8	1304	3.0	3.64	30.0	12.0	37.0	29.0			
75.0	505.2	1040	3.0	2.90	29.0	11.0	35.0	28.0	PA 103 - 280M/4A PF 103 - 280M/4A	1360	135
	27.8	25738	0.8	53.00	69.0	33.0	71.0	70.0			
	32.5	22010	0.9	45.33	78.0	36.0	78.0	72.0			
	38.8	18438	1.1	37.97	84.0	38.0	84.0	73.0			
	49.8	14384	1.4	29.62	89.0	39.0	89.0	73.0			
	58.2	12301	1.6	25.33	89.0	40.0	90.0	73.0			
	69.5	10305	1.9	21.22	89.0	40.0	90.0	72.0			
	76.2	9399	1.8	19.35	90.0	40.0	90.0	72.0	PA 102 - 280M/4A PF 102 - 280M/4A	1351	134
	88.8	8068	2.1	16.61	88.0	40.0	89.0	71.0			
	103.3	6937	2.2	14.29	86.0	39.0	86.0	69.0			
	124.5	5755	2.3	11.85	84.0	38.0	84.0	67.0			
	148.3	4828	2.4	9.94	82.0	37.0	81.0	64.0			
	196.5	3646	2.2	7.51	76.0	35.0	75.0	60.0			
	47.2	15170	0.8	31.24	45.0	18.0	43.0	55.0	PA 93 - 280M/4A PF 93 - 280M/4A	1141	131
	54.4	13159	0.9	27.10	48.0	19.0	47.0	56.0			
	64.3	11136	1.1	22.93	51.0	21.0	51.0	57.0			
	76.9	9308	1.3	19.17	52.0	22.0	54.0	56.0			
	89.6	7995	1.3	16.47	54.0	23.0	57.0	56.0	PA 92 - 280M/4A PF 92 - 280M/4A	1130	130
	102.7	6972	1.5	14.36	54.0	23.0	57.0	56.0			
	119.0	6017	1.8	12.39	54.0	23.0	58.0	55.0			
	140.5	5099	2.0	10.50	53.0	23.0	57.0	53.0			
	189.6	3778	1.6	7.78	50.0	22.0	54.0	49.0			
	219.9	3257	2.0	6.71	49.0	21.0	53.0	48.0			
	259.5	2760	2.1	5.68	48.0	21.0	52.0	47.0			
	89.1	8041	0.8	16.56	21.0	7.0	29.0	31.0	PA 82 - 280M/4A PF 82 - 280M/4A	954	126
	103.3	6937	0.9	14.29	24.0	8.0	32.0	32.0			
	124.5	5752	1.2	11.85	26.0	9.0	34.0	32.0			
	142.7	5019	1.4	10.33	27.0	10.0	35.0	32.0			
	166.9	4292	1.5	8.84	28.0	10.0	36.0	32.0			
	199.2	3595	1.7	7.40	29.0	11.0	37.0	32.0			
	237.7	3013	1.4	6.21	27.0	10.0	35.0	30.0			
	277.9	2577	1.9	5.31	28.0	11.0	35.0	29.0			
	331.8	2159	2.0	4.45	28.0	11.0	35.0	29.0			
	405.5	1766	2.2	3.64	27.0	11.0	35.0	28.0			
90.0	508.7	1408	2.2	2.90	27.0	11.0	34.0	27.0	PA 103 - 280M/4B PF 103 - 280M/4B	1410	135
	32.7	26323	0.8	45.33	58.0	29.0	60.0	63.0			
	39.0	22051	0.9	37.97	67.0	32.0	69.0	66.0			
	50.0	17203	1.2	29.62	77.0	35.0	77.0	68.0			
	58.4	14711	1.4	25.33	81.0	36.0	81.0	68.0			
	69.7	12324	1.6	21.22	83.0	37.0	83.0	68.0			
	76.5	11240	1.5	19.35	84.0	37.0	85.0	68.0	PA 102 - 280M/4B PF 102 - 280M/4B	1401	134
	89.1	9649	1.8	16.61	83.0	37.0	85.0	67.0			
	103.6	8296	2.0	14.29	82.0	37.0	83.0	66.0			
	124.9	6882	2.3	11.85	81.0	37.0	81.0	64.0			
	148.8	5774	2.6	9.94	79.0	36.0	79.0	63.0			
	197.1	4360	2.4	7.51	73.0	33.0	73.0	58.0			
	237.6	3617	2.6	6.23	71.0	33.0	70.0	56.0			
	283.2	3035	2.7	5.23	69.0	32.0	68.0	54.0			
	89.9	9562	1.1	16.47	48.0	20.0	50.0	53.0	PA 92 - 280M/4B PF 92 - 280M/4B	1180	130
	103.1	8338	1.3	14.36	49.0	21.0	51.0	52.0			
	119.4	7196	1.5	12.39	50.0	21.0	52.0	52.0			
	141.0	6098	1.7	10.50	50.0	21.0	53.0	51.0			
	190.2	4518	1.3	7.78	47.0	20.0	50.0	47.0			
	220.6	3895	2.0	6.71	46.0	20.0	50.0	46.0			
	260.4	3301	2.2	5.68	46.0	20.0	49.0	45.0			
	421.6	2039	2.7	3.51	43.0	19.0	47.0	41.0			

P ₁ [kW]	n ₂ [Min ⁻¹]	M ₂ [Nm]	f _B	i _{ges}	F _R [kN]	F _A [kN]	F _{R GR} [kN]	F _{A GR} [kN]	Tip / Type	Kg	Sayfa Page mm
110	50.0	21026	1.0	29.62	60.0	29.0	62.0	60.0	PA 103 - 315S/4 PF 103 - 315S/4	1590	135
	58.4	17981	1.1	25.33	67.0	31.0	68.0	61.0			
	69.7	15063	1.3	21.22	72.0	32.0	72.0	62.0			
	76.5	13738	1.2	19.35	76.0	34.0	76.0	63.0	PA 102 - 315S/4 PF 102 - 315S/4	1581	134
	89.1	11793	1.5	16.61	77.0	34.0	77.0	63.0			
	103.6	10140	1.6	14.29	77.0	34.0	78.0	63.0			
	124.9	8412	1.9	11.85	76.0	34.0	77.0	61.0			
	148.8	7058	2.1	9.94	75.0	34.0	75.0	60.0			
	197.1	5329	2.0	7.51	70.0	32.0	70.0	56.0			
	237.6	4421	2.1	6.23	68.0	31.0	68.0	54.0			
	283.2	3709	2.3	5.23	66.0	30.0	66.0	53.0			
132	89.9	11687	0.9	16.47	41.0	16.0	40.0	48.0	PA 92 - 315S/4 PF 92 - 315S/4	1360	130
	103.1	10191	1.1	14.36	43.0	17.0	43.0	48.0			
	119.4	8795	1.2	12.39	44.0	18.0	45.0	48.0			
	141.0	7453	1.4	10.50	45.0	19.0	47.0	48.0			
	190.2	5522	1.1	7.78	43.0	18.0	45.0	45.0			
	220.6	4761	1.6	6.71	43.0	18.0	46.0	44.0			
	260.4	4035	1.8	5.68	43.0	18.0	46.0	43.0			
	421.6	2492	2.2	3.51	41.0	18.0	45.0	40.0			
	89.1	14151	1.2	16.61	69.0	31.0	68.0	58.0	PA 102 - 315M/4 PF 102 - 315M/4	1661	134
	103.6	12168	1.4	14.29	71.0	31.0	71.0	59.0			
	124.9	10094	1.6	11.85	71.0	32.0	72.0	58.0			
	148.8	8469	1.8	9.94	71.0	32.0	72.0	57.0			
	197.1	6395	1.8	7.51	66.0	30.0	67.0	53.0			
	237.6	5305	2.2	6.23	65.0	29.0	66.0	52.0			
	283.2	4451	2.4	5.23	64.0	29.0	64.0	51.0			
	345.5	3649	2.6	4.28	62.0	28.0	62.0	49.0			
160	119.4	10554	1.0	12.39	38.0	15.0	37.0	45.0	PA 92 - 315M/4 PF 92 - 315M/4	1440	130
	141.0	8943	1.1	10.50	40.0	16.0	41.0	45.0			
	220.6	5713	1.4	6.71	39.0	16.0	41.0	42.0			
	260.4	4842	1.5	5.68	40.0	17.0	42.0	41.0			
	421.6	2990	1.9	3.51	39.0	17.0	42.0	39.0			
	89.4	17096	1.0	16.61	56.0	26.0	56.0	53.0	PA 102 - 315M/4 PF 102 - 315M/4	1811	134
	104.0	14700	1.1	14.29	60.0	27.0	61.0	54.0			
	125.3	12194	1.3	11.85	64.0	28.0	64.0	54.0			
	149.3	10231	1.5	9.94	66.0	29.0	66.0	54.0			
	197.8	7725	1.5	7.51	62.0	27.0	62.0	51.0			
	238.4	6409	1.8	6.23	61.0	28.0	62.0	50.0			
	284.2	5377	2.0	5.23	61.0	27.0	61.0	49.0			
	346.7	4408	2.1	4.28	59.0	27.0	59.0	47.0			
	119.8	12750	0.8	12.39	27.0	11.0	27.0	39.0	PA 92 - 315M/4 PF 92 - 315M/4	1590	130
	141.4	10804	0.9	10.50	33.0	13.0	32.0	41.0			
	221.4	6902	1.1	6.71	34.0	14.0	35.0	39.0			
	261.3	5849	1.2	5.68	35.0	15.0	37.0	39.0			
	423.0	3613	1.5	3.51	36.0	16.0	39.0	37.0			

Ölçü Tabloları

Dimension Tables

PA / PF



PA/PF - MOTOR



PA/PF - IEC

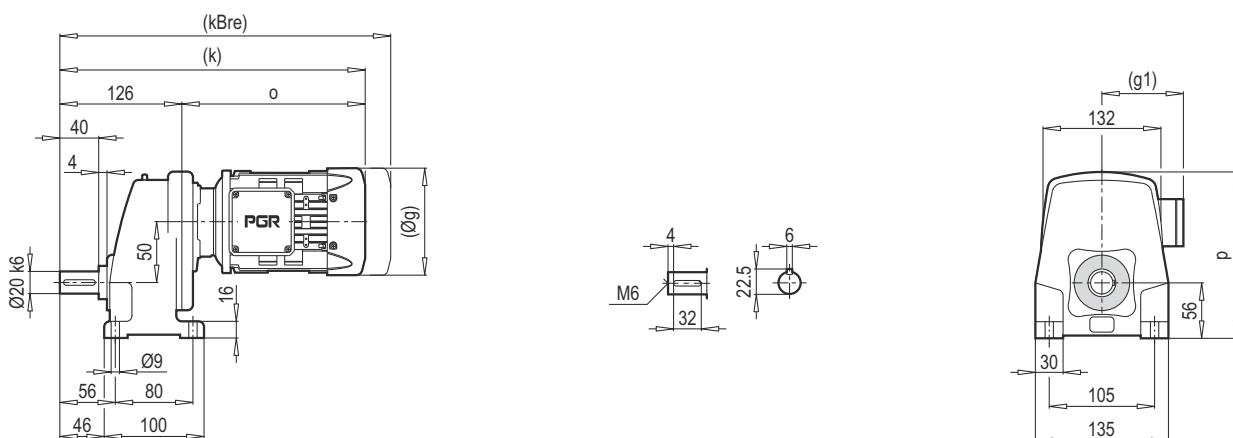


PA/PF - W

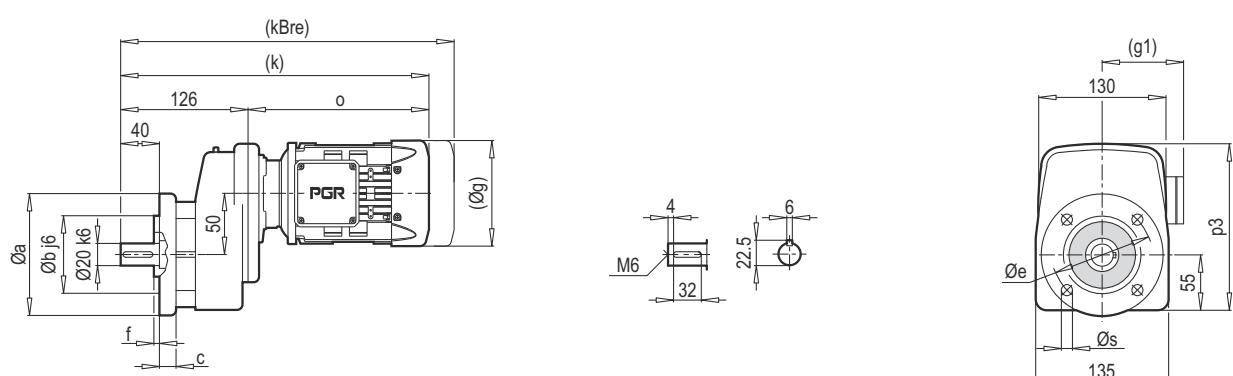


PA/PF - PAM

PA 11



PF 11

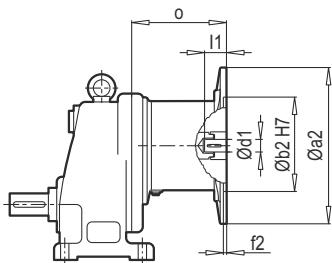


a	b	c	e	f	s
120	80	10	100	3.0	7
140	95	10	115	3.0	9

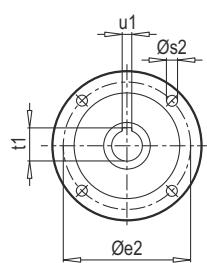
	63 M	71 M	80 M	90 S/L	100 L	112 M		
g	124	140	159	193	217	232		
g1	111	119	127	151	160	168		
k	324	366	393	416/436	464	509		
kBre	376	426	455	489/509	545	589		
o	198	240	267	290/310	338	383		
p	171	179	189	199	208	220		
p3	171	179	189	199	208	220		

Not : (...) işaretli olan ölçüler Motor markasına göre farklılık gösterir.
Note : The dimensions which have (...) sign vary depending on the motor brand.

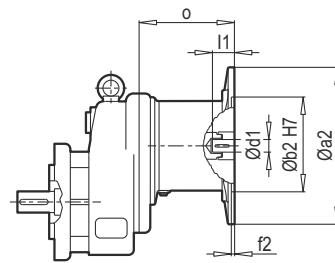
PA 11



IEC



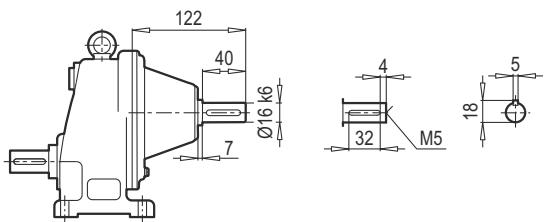
PF 11



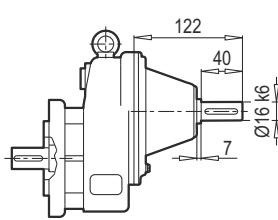
Tip / Type	IEC	Øa2	Øb2	Øe2	f2	Øs2	Ød1	I1	t1	u1	ø
PA/PF 11	63	140	95	115	3.5	M8	11	23	12.8	4	85
	71	160	110	130	4.0	M8	14	30	16.3	5	89
	80	200	130	165	4.0	M10	19	40	21.8	6	105
	90	200	130	165	4.0	M10	24	50	27.3	8	105
	100	250	180	215	5.0	M12	28	60	31.3	8	130
	112	250	180	215	5.0	M12	28	60	31.3	8	130

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

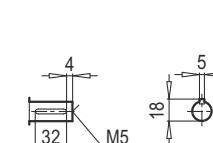
PA 11



W

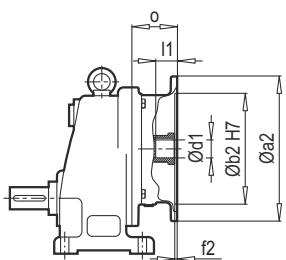


PF 11

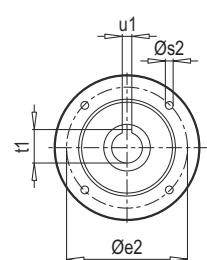


W ~ Kg	
PA/PF 11	10

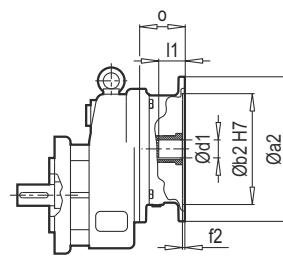
PA 11



PAM B5/B14



PF 11



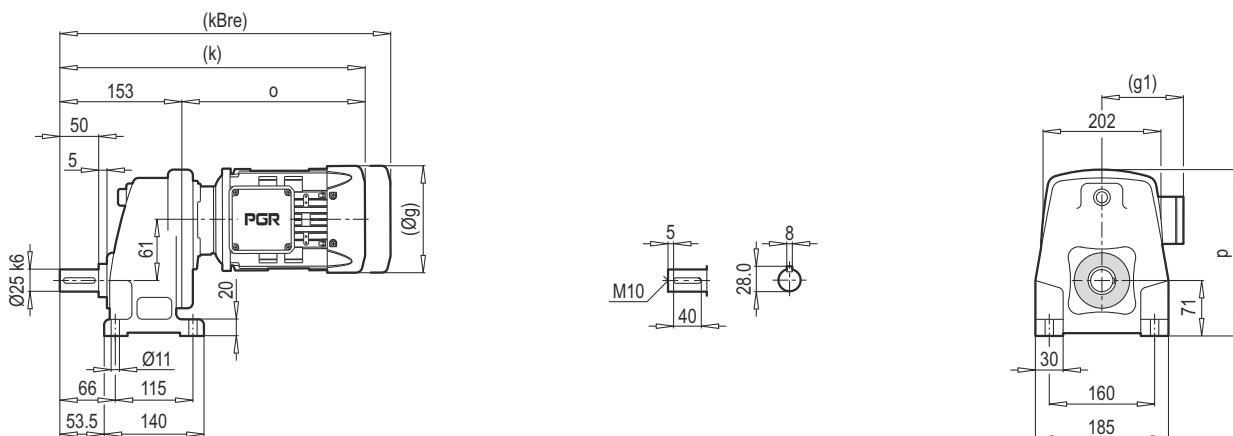
Tip / Type	PAM B5	Øa2	Øb2	Øe2	f2	Øs2	Ød1	I1	t1	u1	ø
PA/PF 11	63	140	95	115	3.5	M8	11	23	12.8	4	85
	71	160	110	130	4.0	M8	14	30	16.3	5	55
	80	200	130	165	4.0	M10	19	40	21.8	6	74
	90	200	130	165	4.0	M10	24	50	27.3	8	74
	100	250	180	215	5.0	M12	28	60	31.3	8	75
	112	250	180	215	5.0	M12	28	60	31.3	8	75

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

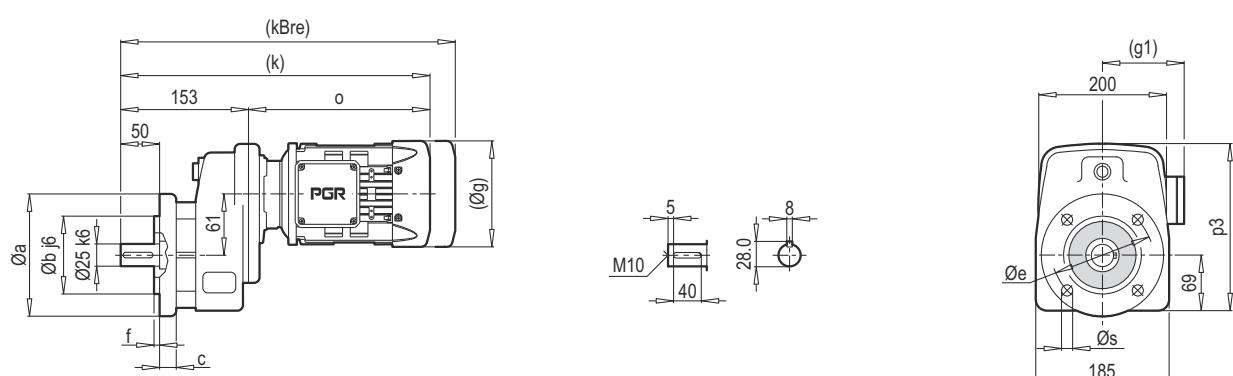
Tip / Type	PAM B14	Øa2	Øb2	Øe2	f2	Øs2	Ød1	I1	t1	u1	ø
PA/PF 11	63	90	60	75	4	6	11	23	12.8	4	60
	71	105	70	85	4	7	14	30	16.3	5	55
	80	120	80	100	4	7	19	40	21.8	6	74
	90	140	95	115	4	9	24	50	27.3	8	74
	100	160	110	130	5	9	28	60	31.3	8	75
	112	160	110	130	5	9	28	60	31.3	8	75

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

PA 21



PF 21

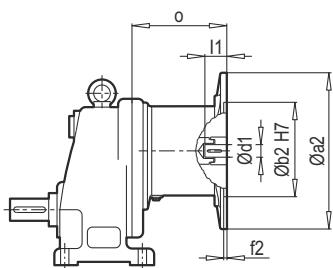


a	b	c	e	f	s
140	95	10	115	3.0	9
160	110	10	130	3.5	9

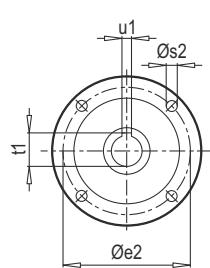
	90 L	100 L	112 M					
g	193	217	232					
g1	151	160	168					
k	458	486	531					
kBre	531	567	611					
o	305	333	378					
p	232	234	246					
p3	227	229	241					

Not : (...) işaretli olan ölçüler Motor markasına göre farklılık gösterir.
Note : The dimensions which have (...) sign vary depending on the motor brand.

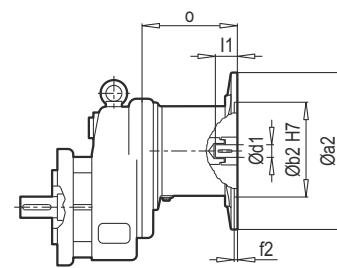
PA 21



IEC



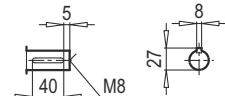
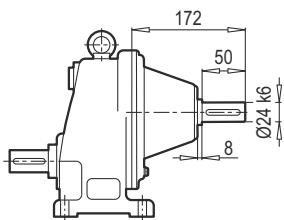
PF 21



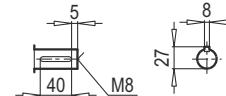
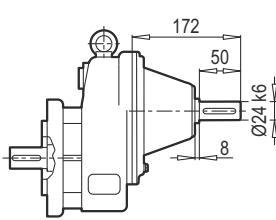
Tip / Type	IEC	Øa2	Øb2	Øe2	f2	Øs2	Ød1	l1	t1	u1	ø
PA/PF 21	71	160	110	130	4.0	M8	14	30	16.3	5	88
	80	200	130	165	4.0	M10	19	40	21.8	6	107
	90	200	130	165	4.0	M10	24	50	27.3	8	107
	100	250	180	215	5.0	M12	28	60	31.3	8	124
	112	250	180	215	5.0	M12	28	60	31.3	8	124

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

PA 21



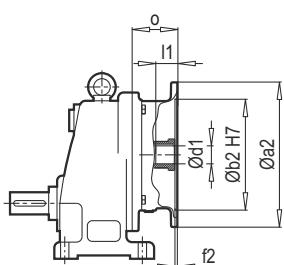
W



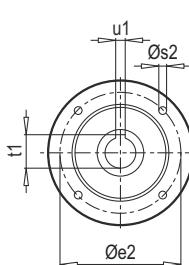
PF 21

W ~ Kg	
PA/PF 21	23

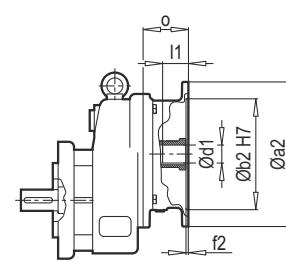
PA 21



PAM B5/B14



PF 21



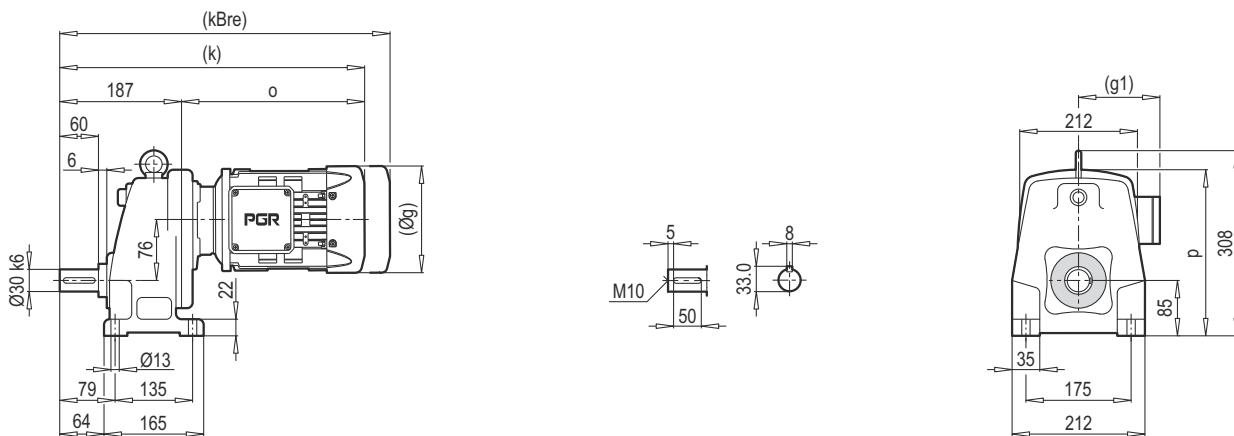
Tip / Type	PAM B5	Øa2	Øb2	Øe2	f2	Øs2	Ød1	l1	t1	u1	ø
PA/PF 21	71	160	110	130	4.0	M8	14	30	16.3	5	88
	80	200	130	165	4.0	M10	19	40	21.8	6	72
	90	200	130	165	4.0	M10	24	50	27.3	8	72
	100	250	180	215	5.0	M12	28	60	31.3	8	75
	112	250	180	215	5.0	M12	28	60	31.3	8	75

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

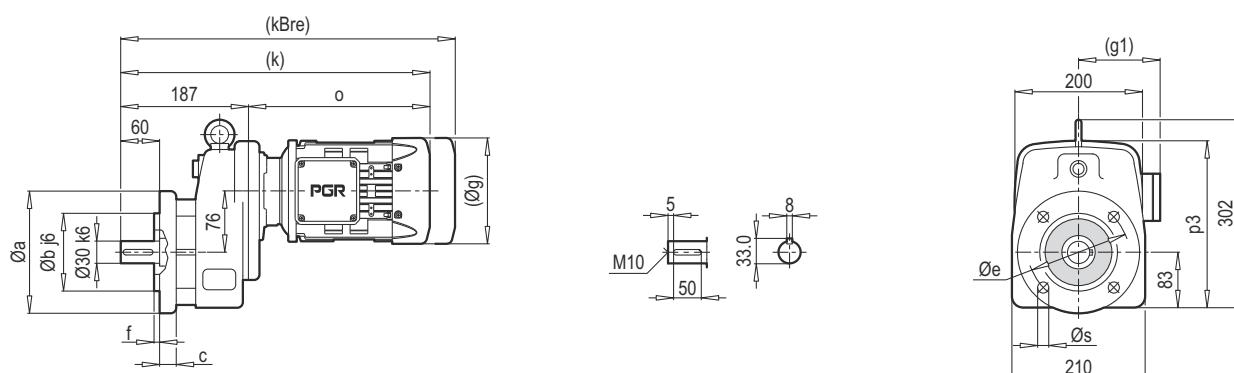
Tip / Type	PAM B14	Øa2	Øb2	Øe2	f2	Øs2	Ød1	l1	t1	u1	ø
PA/PF 21	71	105	70	85	4.0	7	14	30	16.3	5	88
	80	120	80	100	4.0	7	19	40	21.8	6	72
	90	140	95	115	4.0	9	24	50	27.3	8	72
	100	160	110	130	5.0	9	28	60	31.3	8	75
	112	160	110	130	5.0	9	28	60	31.3	8	75

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

PA 31



PF 31

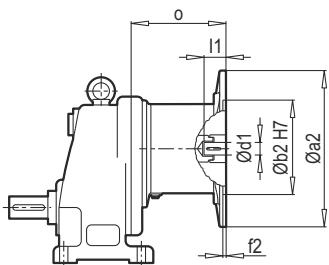


a	b	c	e	f	s
200	130	12	165	3.5	11

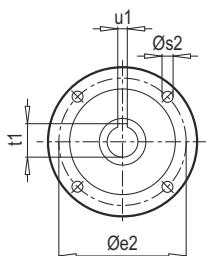
	100 L	112 M	132 S/M					
g	217	232	279					
g1	160	168	182					
k	520	565	572/607					
kBre	601	645	680/748					
o	333	378	385/420					
p	263	275	294					
p3	260	272	291					

Not : (...) işaretli olan ölçüler Motor markasına göre farklılık gösterir.
Note : The dimensions which have (...) sign vary depending on the motor brand.

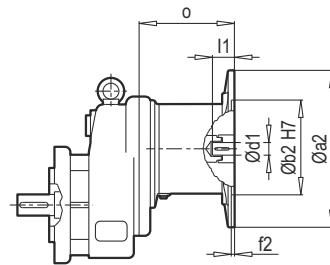
PA 31



IEC



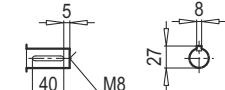
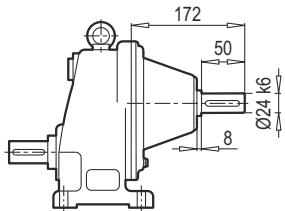
PF 31



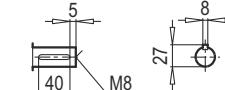
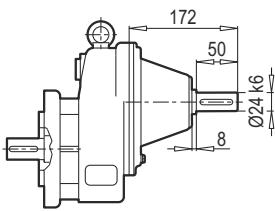
Tip / Type	IEC	Øa2	Øb2	Øe2	f2	Øs2	Ød1	I1	t1	u1	o
PA/PF 31	71	160	110	130	4.0	M8	14	30	16.3	5	88
	80	200	130	165	4.0	M10	19	40	21.8	6	107
	90	200	130	165	4.0	M10	24	50	27.3	8	107
	100	250	180	215	5.0	M12	28	60	31.3	8	124
	112	250	180	215	5.0	M12	28	60	31.3	8	124
	132	300	230	265	5.0	M12	38	80	41.3	10	156

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

PA 31



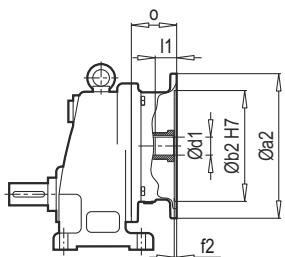
W



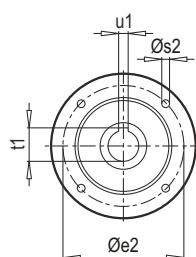
PF 31

W ~ Kg	
PA/PF 31	28

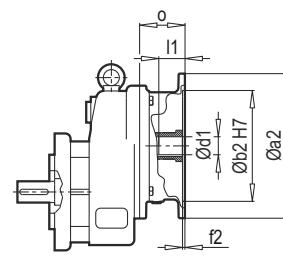
PA 31



PAM B5/B14



PF 31



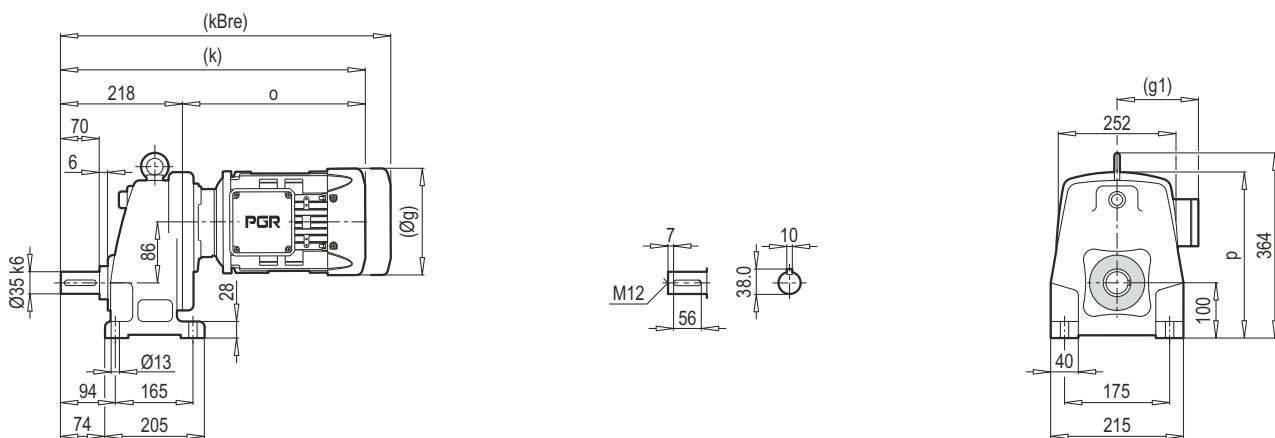
Tip / Type	PAM B5	Øa2	Øb2	Øe2	f2	Øs2	Ød1	I1	t1	u1	o
PA/PF 31	71	160	110	130	4.0	M8	14	30	16.3	5	88
	80	200	130	165	4.0	M10	19	40	21.8	6	72
	90	200	130	165	4.0	M10	24	50	27.3	8	72
	100	250	180	215	5.0	M12	28	60	31.3	8	75
	112	250	180	215	5.0	M12	28	60	31.3	8	75
	132	300	230	265	5.0	M12	38	80	41.3	10	94

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

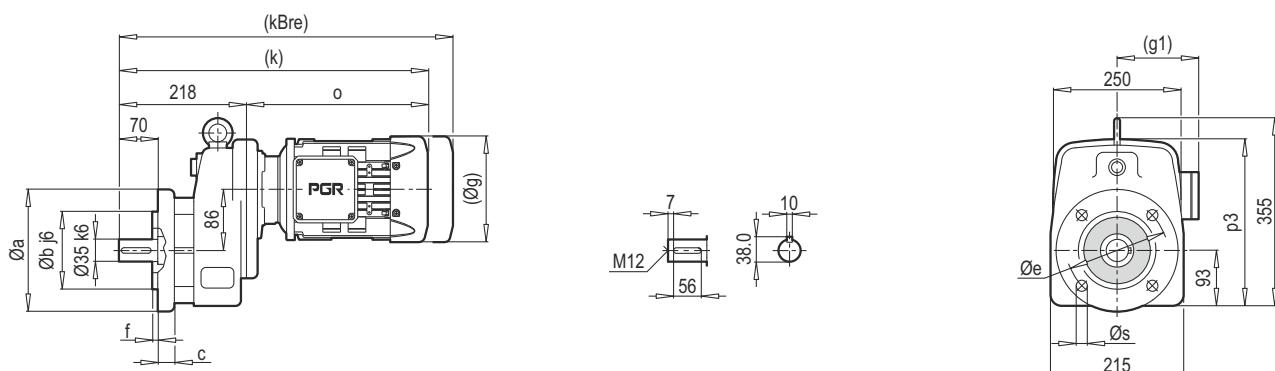
Tip / Type	PAM B14	Øa2	Øb2	Øe2	f2	Øs2	Ød1	I1	t1	u1	o
PA/PF 31	71	105	70	85	4.0	7	14	30	16.3	5	88
	80	120	80	100	4.0	7	19	40	21.8	6	72
	90	140	95	115	4.0	9	24	50	27.3	8	72
	100	160	110	130	5.0	9	28	60	31.3	8	75
	112	160	110	130	5.0	9	28	60	31.3	8	75
	132	200	130	165	5.0	11	38	80	41.3	10	94

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

PA 41



PF 41

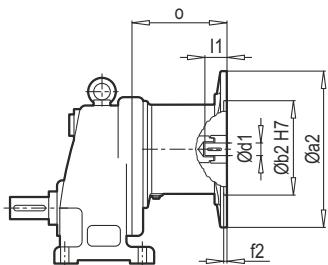


a	b	c	e	f	s
200	130	16	165	3.5	11
250	180	16	215	4.0	14

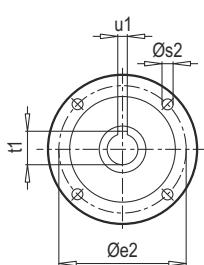
	112 M	132 S/M	160 M/L					
g	232	279	323					
g1	168	182	200					
k	576	583/618	723					
kBre	656	691/759	875					
o	358	365/400	505					
p	311	319	346					
p3	302	310	337					

Not : (...) İşareti olan ölçüler Motor markasına göre farklılık gösterir.
Note : The dimensions which have (...) sign vary depending on the motor brand.

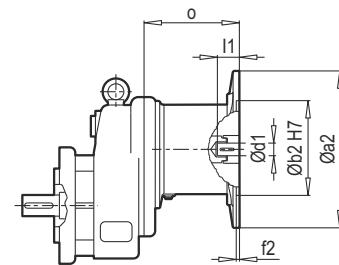
PA 41



IEC



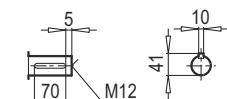
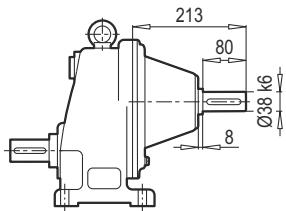
PF 41



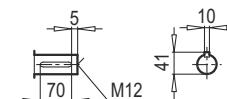
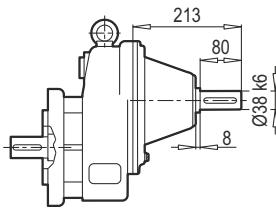
Tip / Type	IEC	Øa2	Øb2	Øe2	f2	Øs2	Ød1	l1	t1	u1	o
PA/PF 41	90	200	130	165	4.0	M10	24	50	27.3	8	109
	100	250	180	215	5.0	M12	28	60	31.3	8	133
	112	250	180	215	5.0	M12	28	60	31.3	8	133
	132	300	230	265	5.0	M12	38	80	41.3	10	190
	160	350	250	300	6.0	M16	42	110	45.3	12	194

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

PA 41



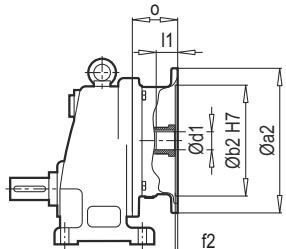
W



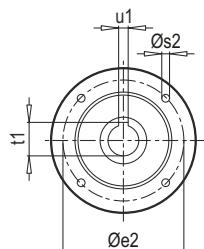
PF 41

W ~ Kg	
PA/PF 41	48

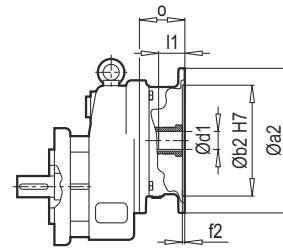
PA 41



PAM B5/B14



PF 41



Tip / Type	PAM B5	Øa2	Øb2	Øe2	f2	Øs2	Ød1	l1	t1	u1	o
PA/PF 41	90	200	130	165	4.0	M10	24	50	27.3	8	72
	100	250	180	215	5.0	M12	28	60	31.3	8	75
	112	250	180	215	5.0	M12	28	60	31.3	8	75
	132	300	230	265	5.0	M12	38	80	41.3	10	94
	160	350	250	300	6.0	M16	42	110	45.3	12	120

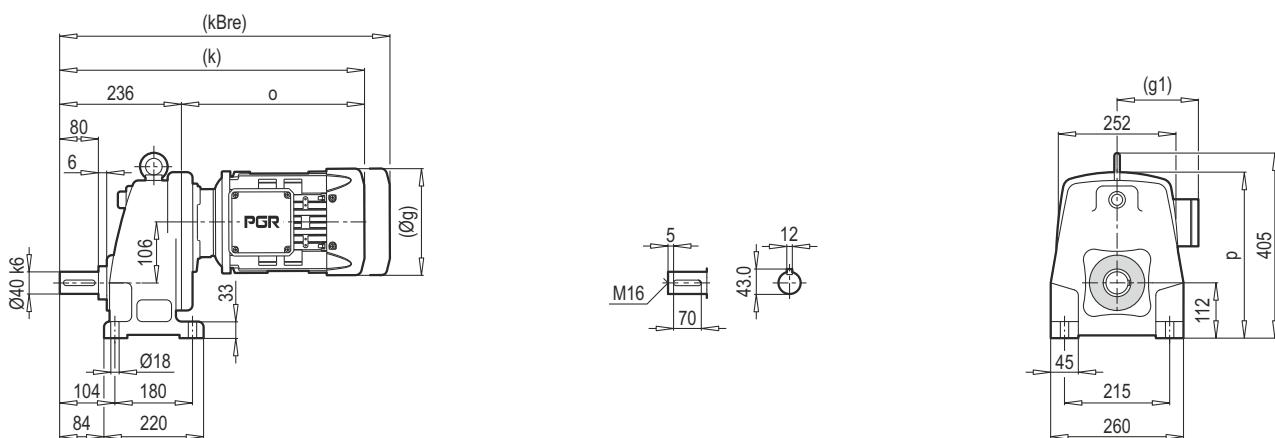
~ Kg	
PAM B5	PA/PF 41
90	37
100	38
112	38
132	47
160	55

Tip / Type	PAM B14	Øa2	Øb2	Øe2	f2	Øs2	Ød1	l1	t1	u1	o
PA/PF 41	90	140	95	115	4.0	9	24	50	27.3	8	72
	100	160	110	130	5.0	9	28	60	31.3	8	75
	112	160	110	130	5.0	9	28	60	31.3	8	75
	132	200	130	165	5.0	11	38	80	41.3	10	94

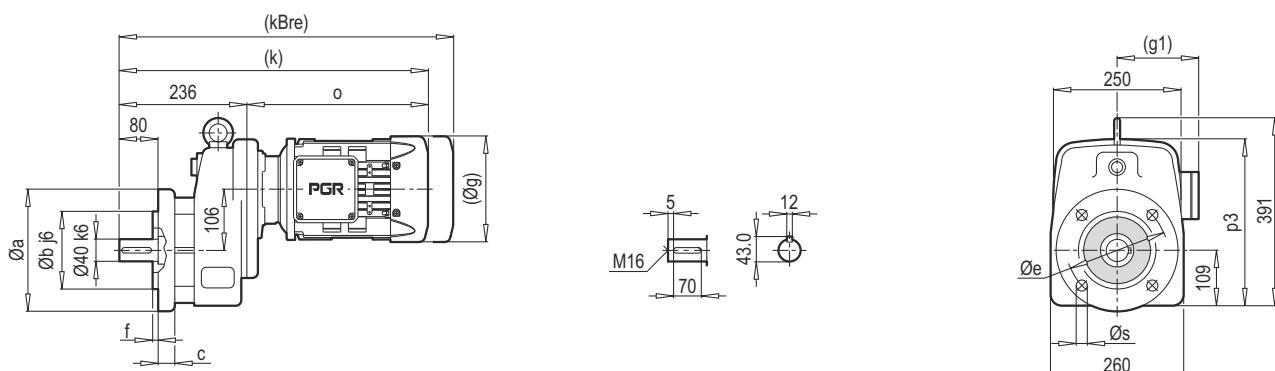
~ Kg	
PAM B14	PA/PF 41
90	36
100	37
112	37
132	42

PA/PF 51

PA 51



PF 51

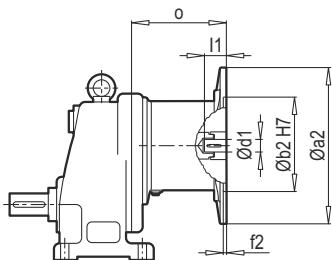


a	b	c	e	f	s
250	180	20	215	4.0	14
300	230	20	265	4.0	14

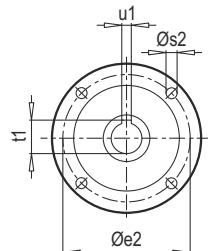
	112 M	132 S/M	160 M/L	180 M/L			
g	232	279	323	370			
g1	168	182	200	248			
k	594	601/636	741	815			
kBre	674	709/777	893	977			
o	358	365/400	505	579			
p	343	351	378	378			
p3	341	349	376	376			

Not : (...) İşareti olan ölçüler Motor markasına göre farklılık gösterir.
Note : The dimensions which have (...) sign vary depending on the motor brand.

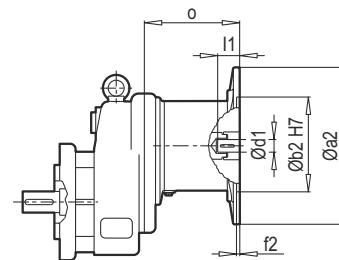
PA 51



IEC



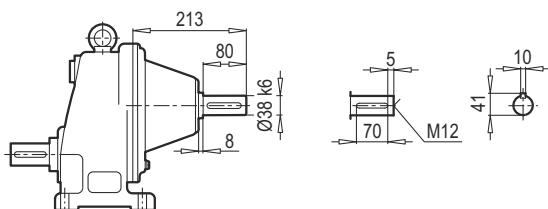
PF 51



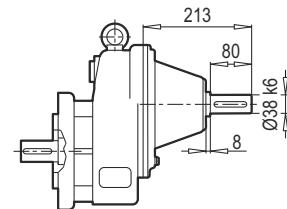
Tip / Type	IEC	Øa2	Øb2	Øe2	f2	Øs2	Ød1	I1	t1	u1	ø
PA/PF 51	90	200	130	165	4.0	M10	24	50	27.3	8	109
	100	250	180	215	5.0	M12	28	60	31.3	8	133
	112	250	180	215	5.0	M12	28	60	31.3	8	133
	132	300	230	265	5.0	M12	38	80	41.3	10	190
	160	350	250	300	6.0	M16	42	110	45.3	12	194
	180	350	250	300	6.0	M16	48	110	51.8	14	194

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

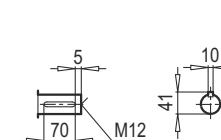
PA 51



W

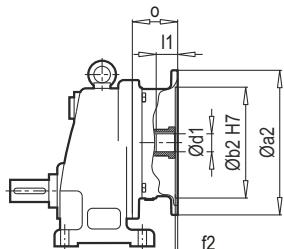


PF 51

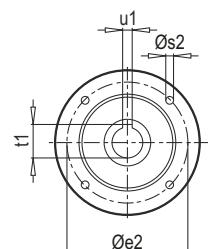


W ~ Kg	
PAM B5/B14	PA/PF 51
58	

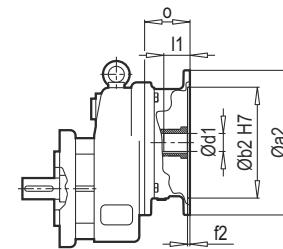
PA 51



PAM B5/B14



PF 51



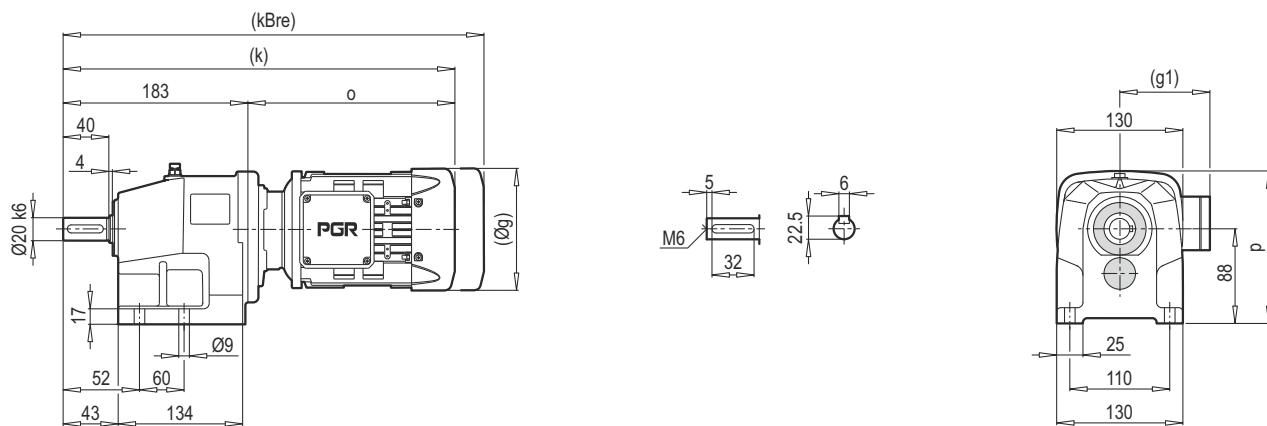
Tip / Type	PAM B5	Øa2	Øb2	Øe2	f2	Øs2	Ød1	I1	t1	u1	ø
PA/PF 51	90	200	130	165	4.0	M10	24	50	27.3	8	72
	100	250	180	215	5.0	M12	28	60	31.3	8	75
	112	250	180	215	5.0	M12	28	60	31.3	8	75
	132	300	230	265	5.0	M12	38	80	41.3	10	94
	160	350	250	300	6.0	M16	42	110	45.3	12	120
	180	350	250	300	6.0	M16	48	110	51.8	14	120

~ Kg	
PAM B5	PA/PF 51
46	
47	
47	
56	
64	
64	

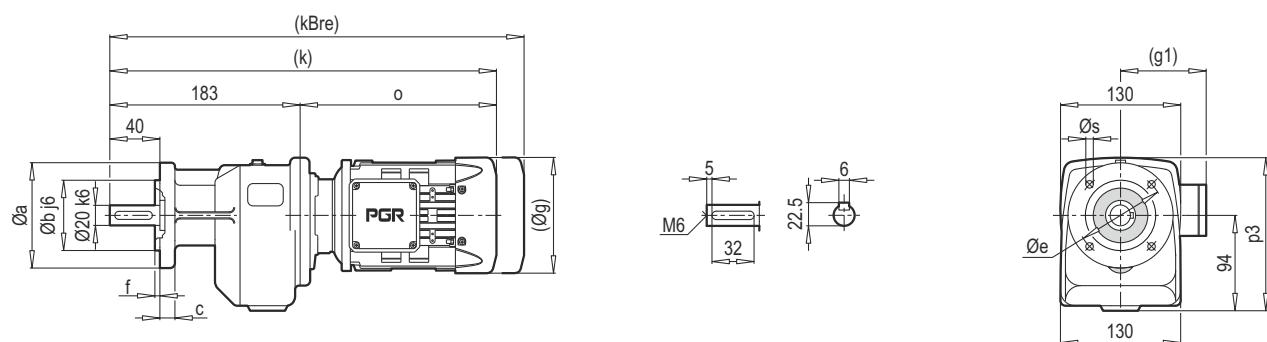
Tip / Type	PAM B14	Øa2	Øb2	Øe2	f2	Øs2	Ød1	I1	t1	u1	ø
PA/PF 51	90	140	95	115	4.0	9	24	50	27.3	8	72
	100	160	110	130	5.0	9	28	60	31.3	8	75
	112	160	110	130	5.0	9	28	60	31.3	8	75
	132	200	130	165	5.0	11	38	80	41.3	10	94

~ Kg	
PAM B14	PA/PF 51
45	
46	
46	
51	

PA 02



PF 02

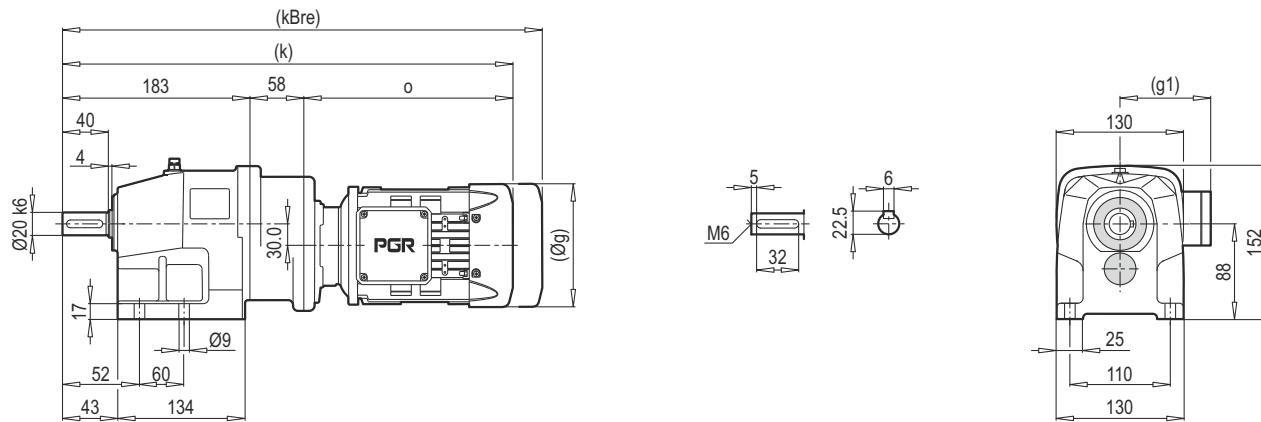


a	b	c	e	f	s
120	80	11	100	3.0	7
140	95	11	115	3.0	9
160	110	11	130	3.5	9

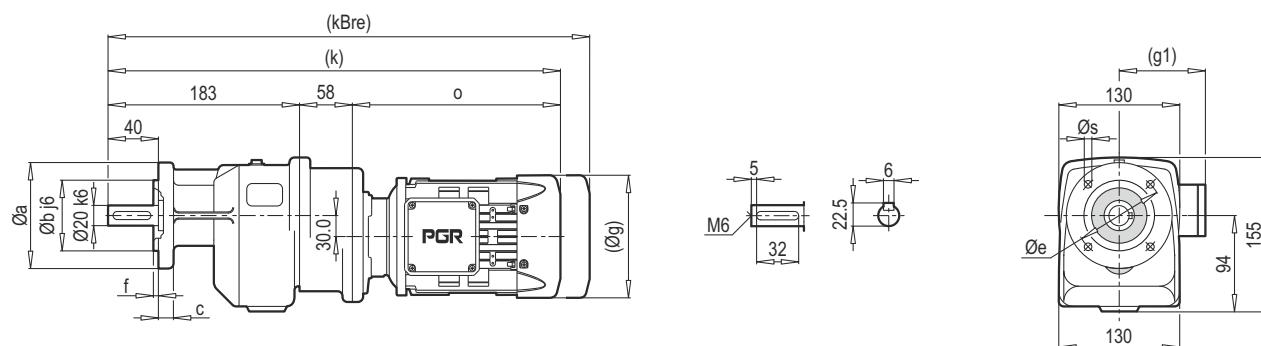
	63 M	71 M	80 M	90 S/L			
g	124	140	159	193			
g1	111	119	127	151			
k	381	423	450	473/493			
kBre	433	483	512	546/566			
o	198	240	267	290/310			
p	152	160	170	180			
p3	155	163	173	183			

Not : (...) İşaretli olan ölçüler Motor markasına göre farklılık gösterir.
Note : The dimensions which have (...) sign vary depending on the motor brand.

PA 03



PF 03



a	b	c	e	f	s
120	80	11	100	3.0	7
140	95	11	115	3.0	9
160	110	11	130	3.5	9

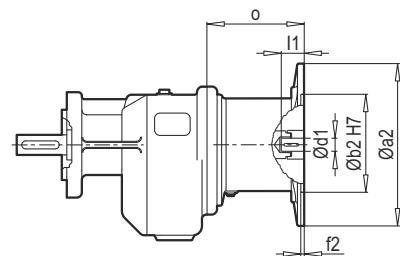
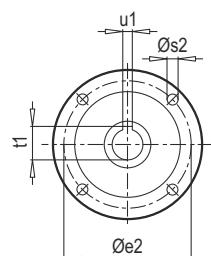
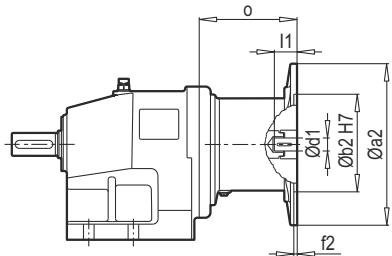
	63 M	71 M						
g	124	140						
g1	111	119						
k	439	481						
kBre	491	541						
o	198	240						
p								
p3								

Not : (...) işaretli olan ölçüler Motor markasına göre farklılık gösterir.
Note : The dimensions which have (...) sign vary depending on the motor brand.

PA 02
PA 03

IEC

PF 02
PF 03



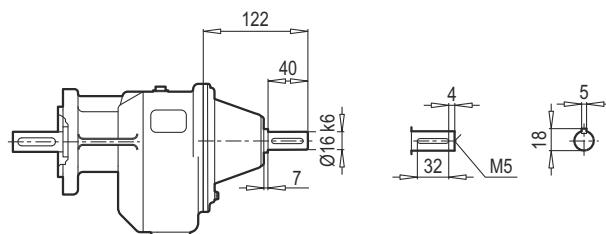
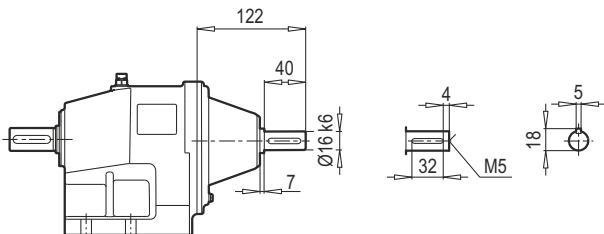
Tip / Type	IEC	$\varnothing a2$	$\varnothing b2$	$\varnothing e2$	f2	$\varnothing s2$	$\varnothing d1$	l1	t1	u1	O
PA/PF 02-03	63	140	95	115	3.5	M8	11	23	12.8	4	85
PA/PF 02-03	71	160	110	130	4.0	M8	14	30	16.3	5	89
PA/PF 02	80	200	130	165	4.0	M10	19	40	21.8	6	105
PA/PF 02	90	200	130	165	4.0	M10	24	50	27.3	8	105

$\sim \frac{\text{kg}}{\text{kg}}$		
IEC	PA/PF 02	PA/PF 03
63	14	18
71	15	19
80	18	-
90	18	-

PA 02
PA 03

W

PF 02
PF 03

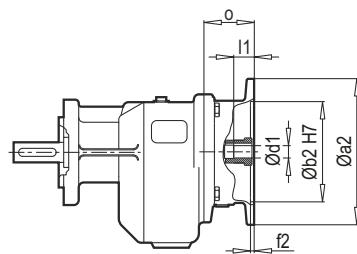
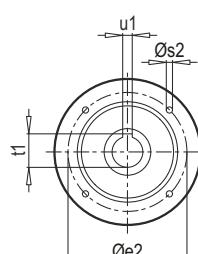
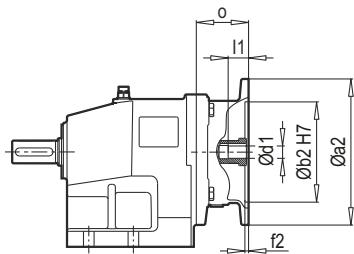


W ~ $\frac{\text{kg}}{\text{kg}}$	
PA/PF 02	12
PA/PF 03	17

PA 02
PA 03

PAM B5/B14

PF 02
PF 03



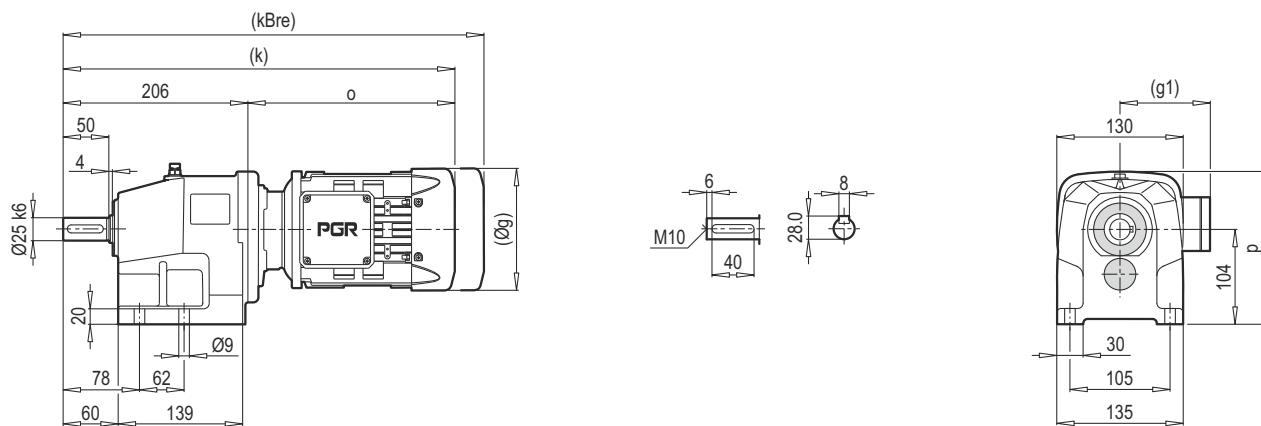
Tip / Type	PAM B5	Øa2	Øb2	Øe2	f2	Øs2	Ød1	l1	t1	u1	PA/PF 02 PA/PF 03 o
PA/PF 02-03	63	140	95	115	3.5	M8	11	23	12.8	4	85
PA/PF 02-03	71	160	110	130	4.0	M8	14	30	16.3	5	55
PA/PF 02	80	200	130	165	4.0	M10	19	40	21.8	6	74
PA/PF 02	90	200	130	165	4.0	M10	24	50	27.3	8	74

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

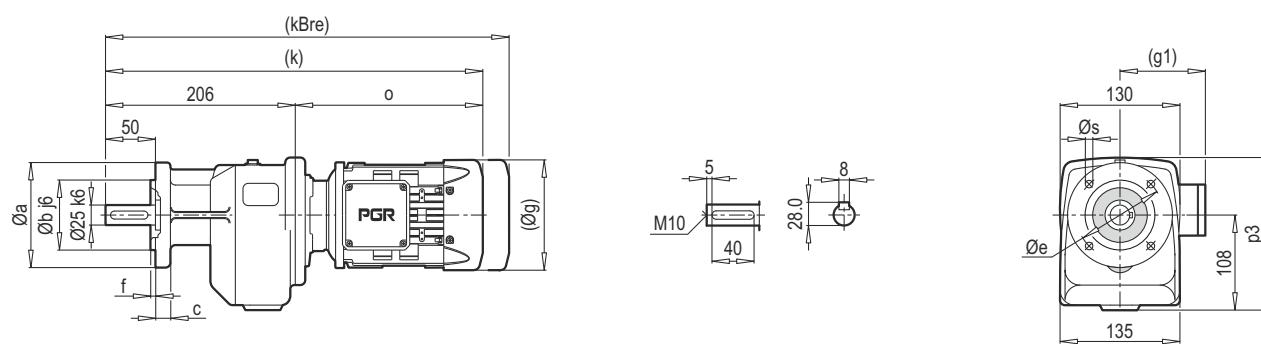
Tip / Type	PAM B14	Øa2	Øb2	Øe2	f2	Øs2	Ød1	l1	t1	u1	PA/PF 02 PA/PF 03 o
PA/PF 02-03	63	90	60	75	4.0	6	11	23	12.8	4	60
PA/PF 02-03	71	105	70	85	4.0	7	14	30	16.3	5	55
PA/PF 02	80	120	80	100	4.0	7	19	40	21.8	6	74
PA/PF 02	90	140	95	115	4.0	9	24	50	27.3	8	74

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

PA 12



PF 12

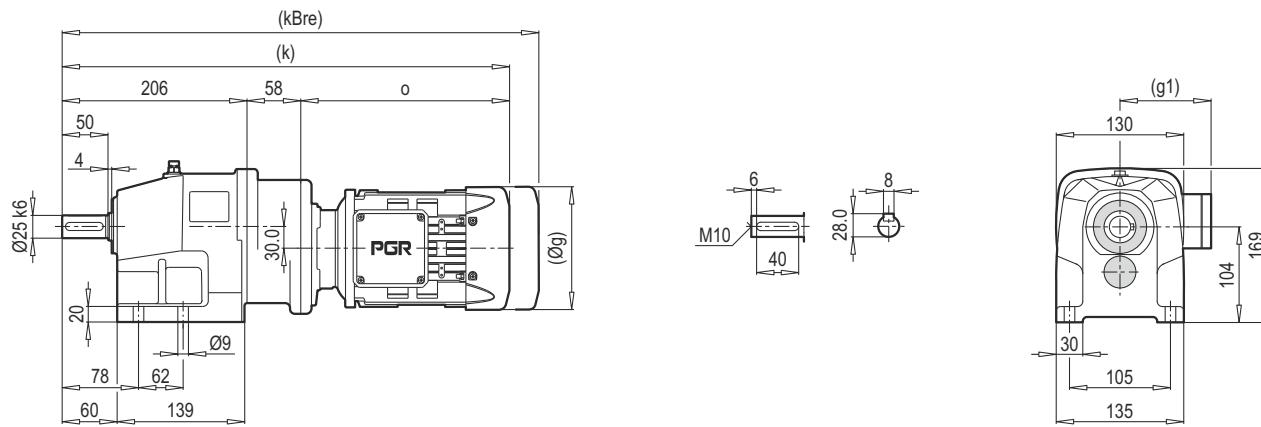


a	b	c	e	f	s
120	80	13	100	3.0	7
140	95	13	115	3.0	9
160	110	13	130	3.5	9

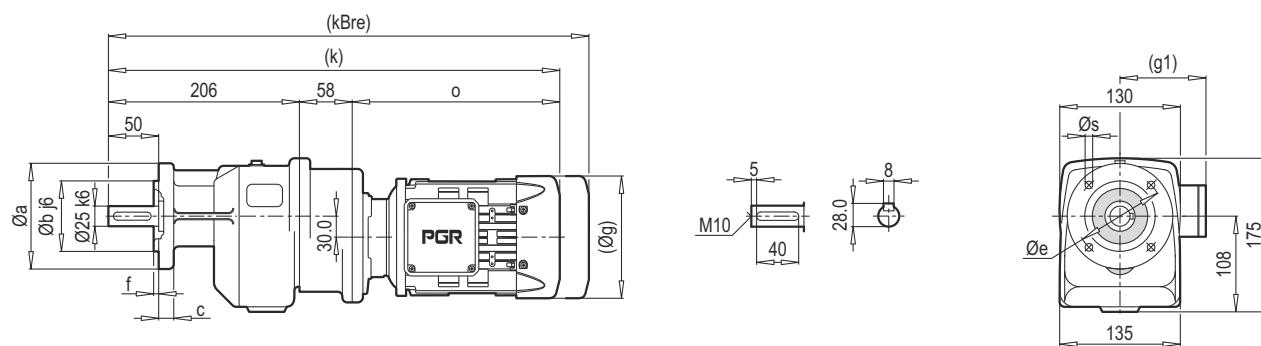
	63 M	71 M	80 M	90 S/L	100 L	112 M		
g	124	140	159	193	217	232		
g1	111	119	127	151	160	168		
k	404	446	473	496/516	544	589		
kBre	456	506	535	569/589	625	669		
o	198	240	267	290/310	338	383		
p	169	176	186	196	205	216		
p3	175	180	190	200	209	220		

Not : (...) İşaretli olan ölçüler Motor markasına göre farklılık gösterir.
Note : The dimensions which have (...) sign vary depending on the motor brand.

PA 13



PF 13



a	b	c	e	f	s
120	80	13	100	3.0	7
140	95	13	115	3.0	9
160	110	13	130	3.5	9

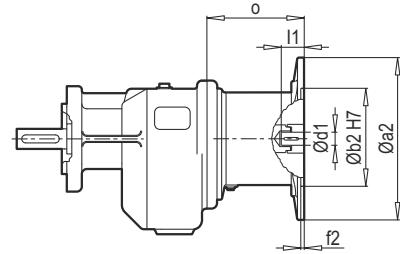
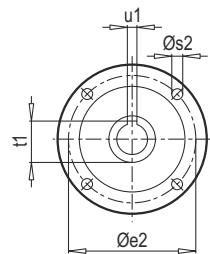
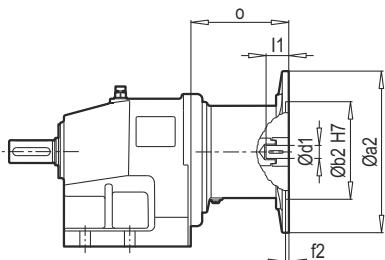
	63 M	71 M						
g	124	140						
g1	111	119						
k	462	504						
kBre	514	564						
o	198	240						

Not : (...) İşareti olan ölçüler Motor markasına göre farklılık gösterir.
Note : The dimensions which have (...) sign vary depending on the motor brand.

PA 12
PA 13

IEC

PF 12
PF 13



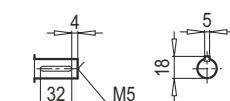
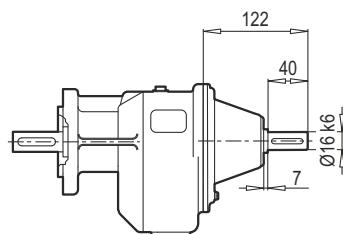
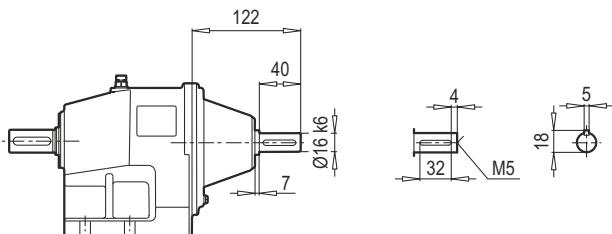
Tip / Type	IEC	Øa2	Øb2	Øe2	f2	Øs2	Ød1	l1	t1	u1	ø
PA/PF 12-13	63	140	95	115	3.5	M8	11	23	12.8	4	85
PA/PF 12-13	71	160	110	130	4.0	M8	14	30	16.3	5	89
PA/PF 12	80	200	130	165	4.0	M10	19	40	21.8	6	105
PA/PF 12	90	200	130	165	4.0	M10	24	50	27.3	8	105
PA/PF 12	100	250	180	215	5.0	M12	28	60	31.3	8	130
PA/PF 12	112	250	180	215	5.0	M12	28	60	31.3	8	130

~ 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

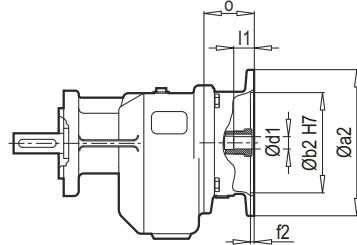
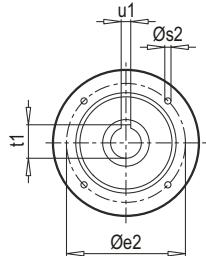
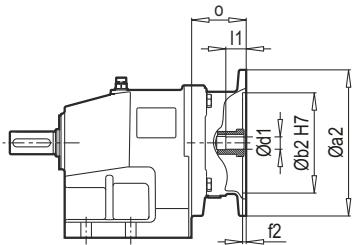


W ~ Kg	
PA/PF 12	15
PA/PF 13	20

PA 12
PA 13

PAM B5/B14

PF 12
PF 13



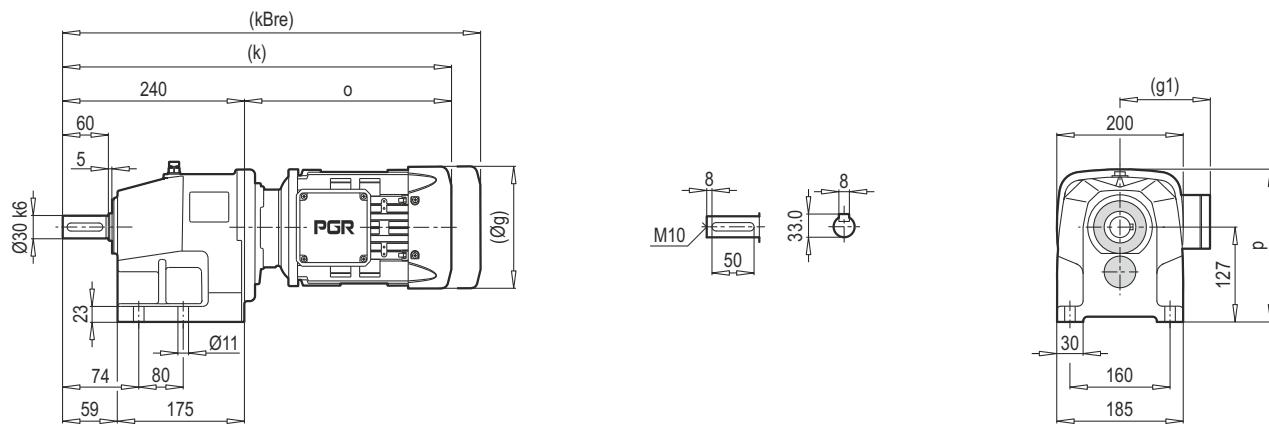
Tip / Type	PAM B5	Øa2	Øb2	Øe2	f2	Øs2	Ød1	l1	t1	u1	ø
PA/PF 12-13	63	140	95	115	3.5	M8	11	23	12.8	4	85
PA/PF 12-13	71	160	110	130	4.0	M8	14	30	16.3	5	55
PA/PF 12	80	200	130	165	4.0	M10	19	40	21.8	6	74
PA/PF 12	90	200	130	165	4.0	M10	24	50	27.3	8	74
PA/PF 12	100	250	180	215	5.0	M12	28	60	31.3	8	75
PA/PF 12	112	250	180	215	5.0	M12	28	60	31.3	8	75

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

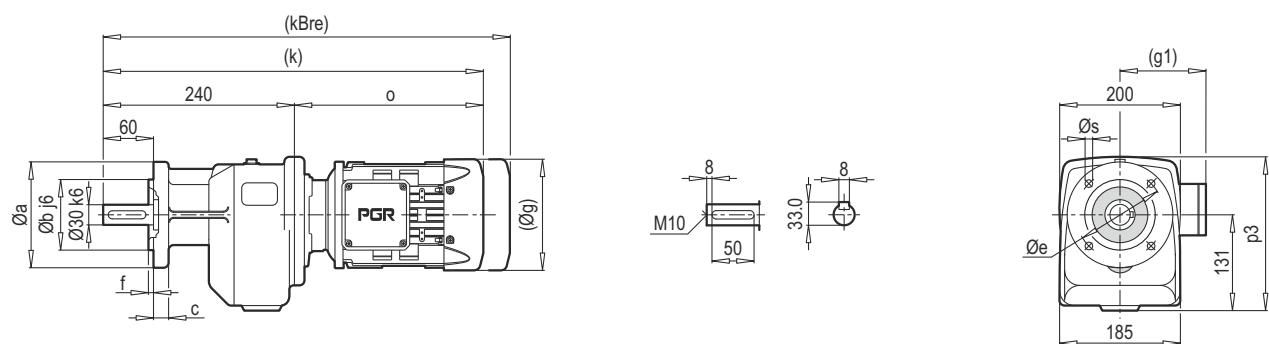
Tip / Type	PAM B14	Øa2	Øb2	Øe2	f2	Øs2	Ød1	l1	t1	u1	ø
PA/PF 12-13	63	90	60	75	4.0	6	11	23	12.8	4	60
PA/PF 12-13	71	105	70	85	4.0	7	14	30	16.3	5	55
PA/PF 12	80	120	80	100	4.0	7	19	40	21.8	6	74
PA/PF 12	90	140	95	115	4.0	9	24	50	27.3	8	74
PA/PF 12	100	160	110	130	5.0	9	28	60	31.3	8	75
PA/PF 12	112	160	110	130	5.0	9	28	60	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

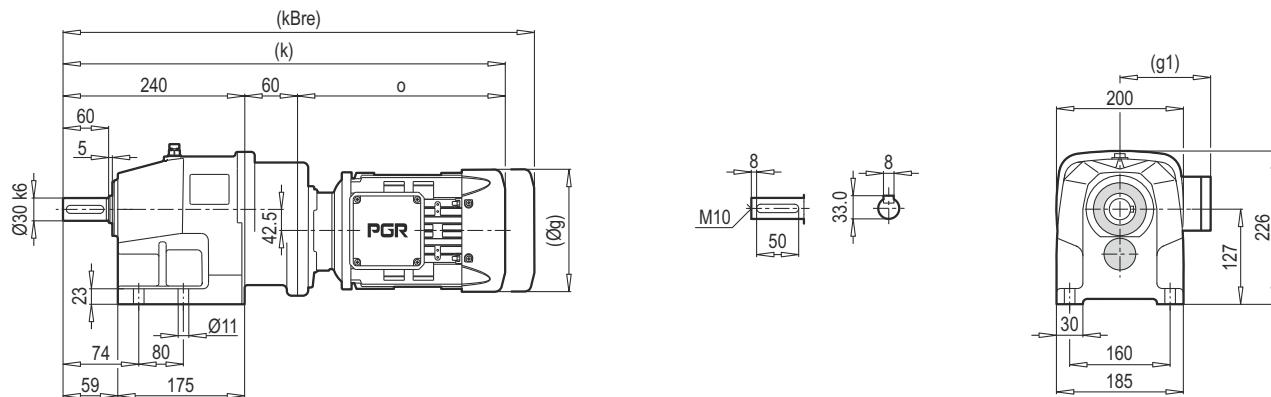


a	b	c	e	f	s
160	110	14	130	3.5	9
200	130	14	165	3.5	11

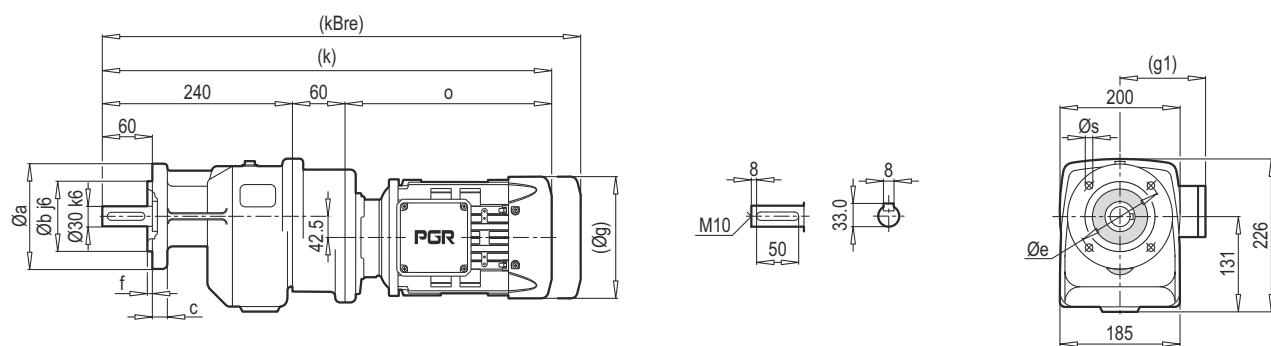
	71 M	80 M	90 S/L	100 L	112 M		
g	140	159	193	217	232		
g1	119	127	151	160	168		
k	476	502	525/545	573	618		
kBre	536	564	598/618	654	698		
o	236	262	285/305	333	378		
p	226	226	226	228	240		
p3	226	226	226	228	240		

Not : (...) İşaretli olan ölçüler Motor markasına göre farklılık gösterir.
Note : The dimensions which have (...) sign vary depending on the motor brand.

PA 23



PF 23



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

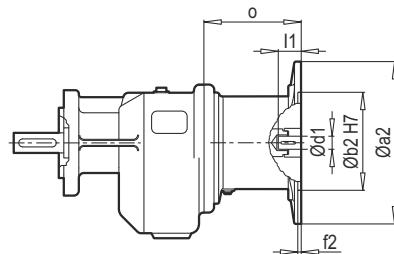
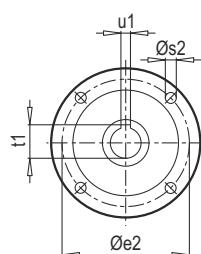
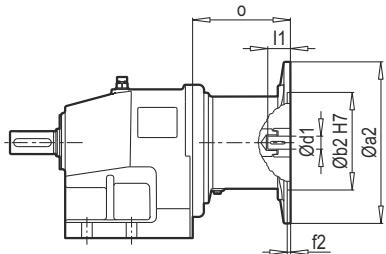
	63 M	71 M	80 M					
g	124	140	159					
g1	111	119	127					
k	498	540	567					
kBre	550	600	629					
o	198	240	267					

Not : (...) İşaretli olan ölçüler Motor markasına göre farklılık gösterir.
Note : The dimensions which have (...) sign vary depending on the motor brand.

PA 22
PA 23

IEC

PF 22
PF 23



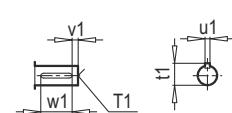
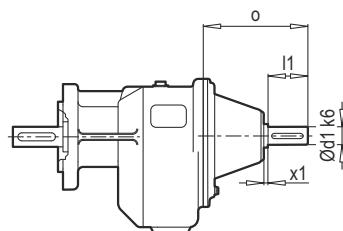
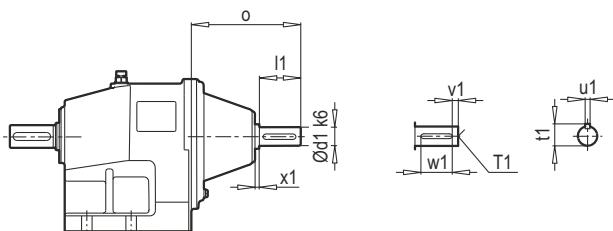
Tip / Type	IEC	Øa2	Øb2	Øe2	f2	Øs2	Ød1	I1	t1	u1	PA/PF 22 o	PA/PF 23 o
PA/PF 23	63	140	95	115	3.5	M8	11	23	12.8	4	-	85
PA/PF 22-23	71	160	110	130	4.0	M8	14	30	16.3	5	88	89
PA/PF 22-23	80	200	130	165	4.0	M10	19	40	21.8	6	107	105
PA/PF 22-23	90	200	130	165	4.0	M10	24	50	27.3	8	107	105
PA/PF 22	100	250	180	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



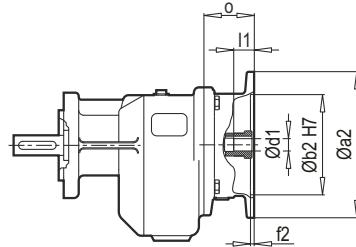
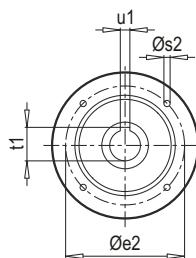
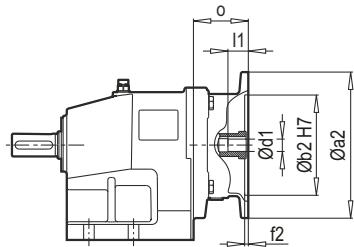
Tip / Type	Ød1	x1	I1	o	T1	t1	u1	v1	w1
PA/PF 22	24	8	50	172	M8	27	8	5	40
PA/PF 23	16	7	40	122	M5	18	5	4	32

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

PA 22
PA 23

PAM B5/B14

PF 22
PF 23



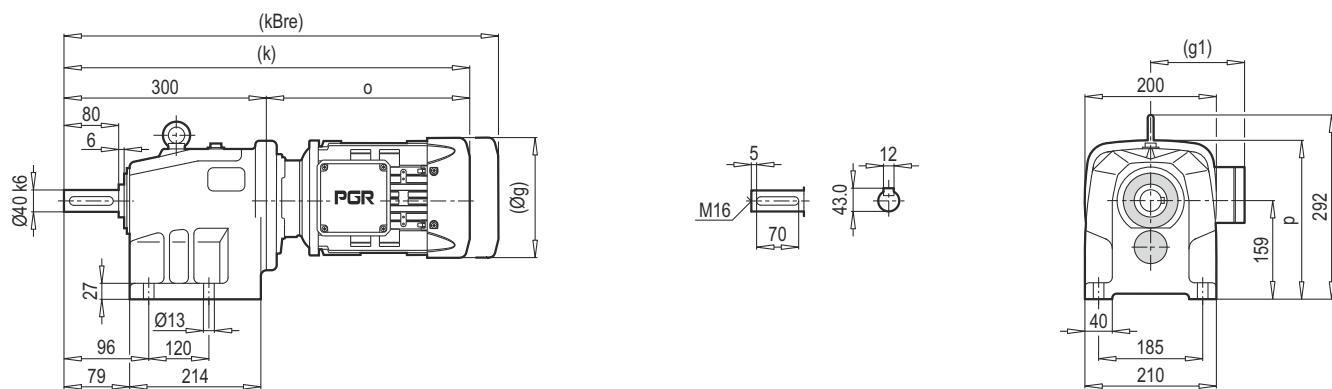
Tip / Type	PAM B5	Øa2	Øb2	Øe2	f2	Øs2	Ød1	l1	t1	u1	PA/PF 22 o	PA/PF 23 o
PA/PF 23	63	140	95	115	3.5	M8	11	23	12.8	4	-	85
PA/PF 22-23	71	160	110	130	4.0	M8	14	30	16.3	5	88	55
PA/PF 22-23	80	200	130	165	4.0	M10	19	40	21.8	6	72	74
PA/PF 22-23	90	200	130	165	4.0	M10	24	50	27.3	8	72	74
PA/PF 22	100	250	180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

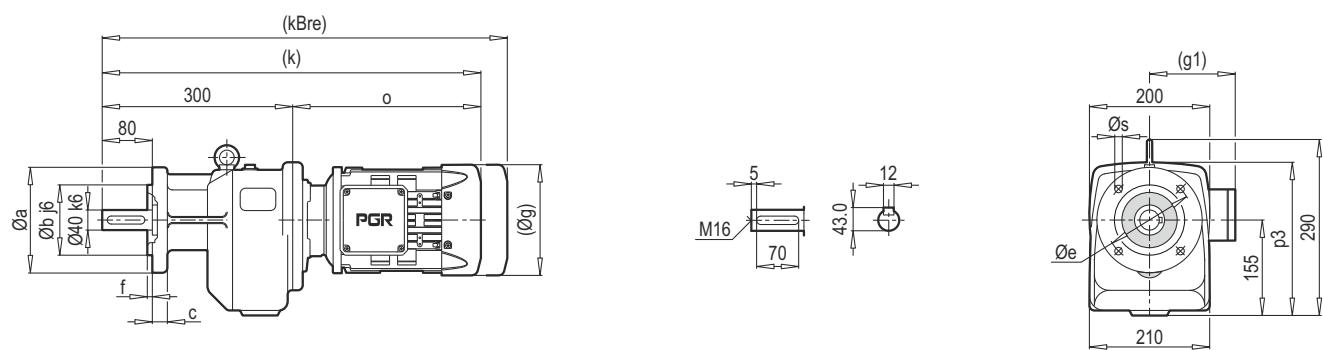
Tip / Type	PAM B14	Øa2	Øb2	Øe2	f2	Øs2	Ød1	l1	t1	u1	PA/PF 22 o	PA/PF 23 o
PA/PF 23	63	90	60	75	4.0	6	11	23	12.8	4	-	60
PA/PF 22-23	71	105	70	85	4.0	7	14	30	16.3	5	88	55
PA/PF 22-23	80	120	80	100	4.0	7	19	40	21.8	6	72	74
PA/PF 22-23	90	140	95	115	4.0	9	24	50	27.3	8	72	74
PA/PF 22	100	160	110	130	5.0	9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

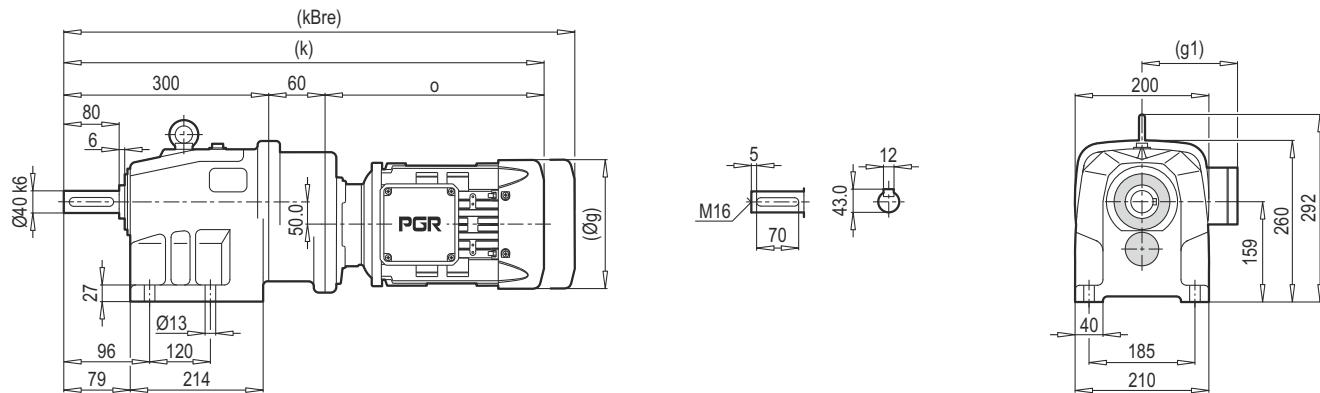


a	b	c	e	f	s
200	130	16	165	3.5	11
250	180	16	215	4.0	14

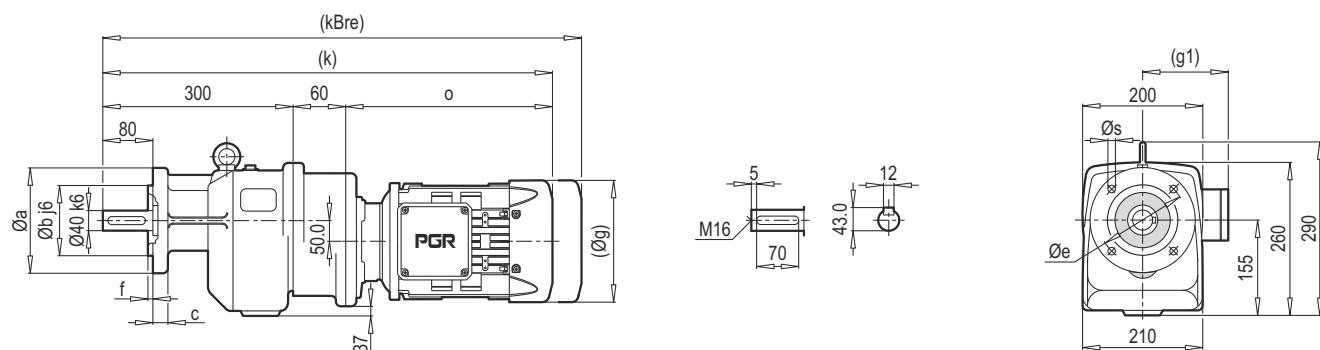
	71 M	80 M	90 S/L	100 L	112 M	132 S/M		
g	140	159	193	217	232	279		
g1	119	127	151	160	168	182		
k	536	562	585/605	633	678	685/720		
kBre	596	624	658/678	714	758	793/861		
o	236	262	285/305	333	378	385/420		
p	260	260	260	260	271	290		
p3	260	260	260	260	271	290		

Not : (...) İşareti olan ölçüler Motor markasına göre farklılık gösterir.
 Note : The dimensions which have (...) sign vary depending on the motor brand.

PA 33



PF 33



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

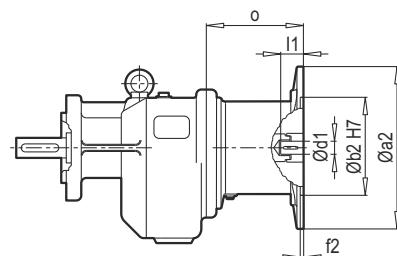
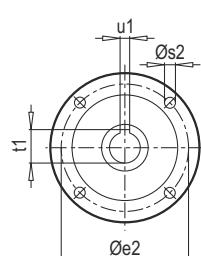
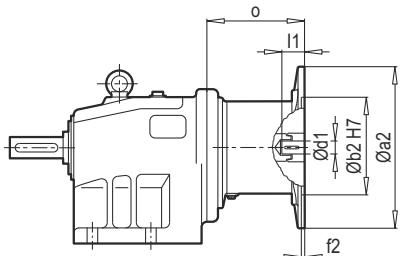
	63 M	71 M	80 M					
g	124	140	159					
g1	111	119	127					
k	558	600	627					
kBre	610	660	689					
o	198	240	267					

Not : (...) işaretli olan ölçüler Motor markasına göre farklılık gösterir.
Note : The dimensions which have (...) sign vary depending on the motor brand.

PA 32
PA 33

IEC

PF 32
PF 33



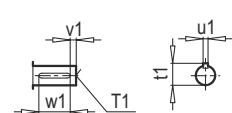
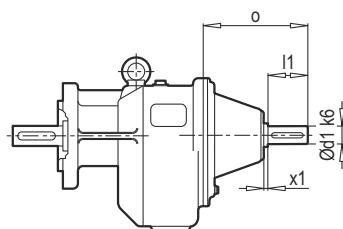
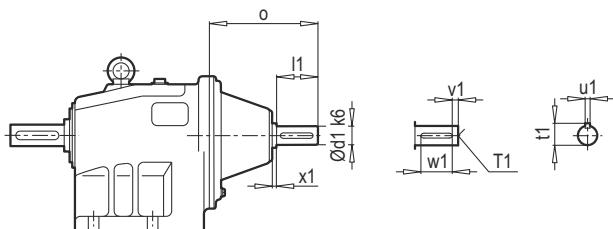
Tip / Type	IEC	Øa2	Øb2	Øe2	f2	Øs2	Ød1	I1	t1	u1	PA/PF 32 o	PA/PF 33 o
PA/PF 33	63	140	95	115	3.5	M8	11	23	12.8	4	-	85
PA/PF 32-33	71	160	110	130	4.0	M8	14	30	16.3	5	88	89
PA/PF 32-33	80	200	130	165	4.0	M10	19	40	21.8	6	107	105
PA/PF 32-33	90	200	130	165	4.0	M10	24	50	27.3	8	107	105
PA/PF 32-33	100	250	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	-

PA 32
PA 33

W

PF 32
PF 33



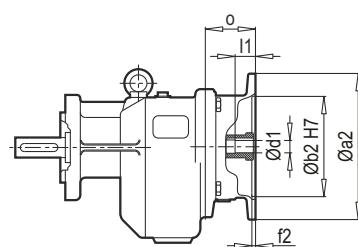
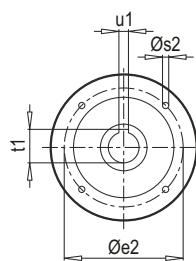
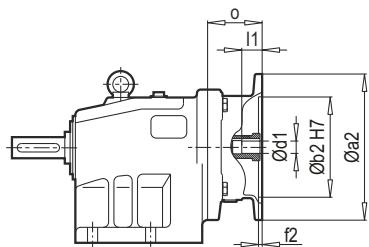
Tip / Type	Ød1	x1	I1	o	T1	t1	u1	v1	w1
PA/PF 32	24	8	50	172	M8	27	8	5	40
PA/PF 33	16	7	40	122	M5	18	5	4	32

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

PA 32
PA 33

PAM B5/B14

PF 32
PF 33



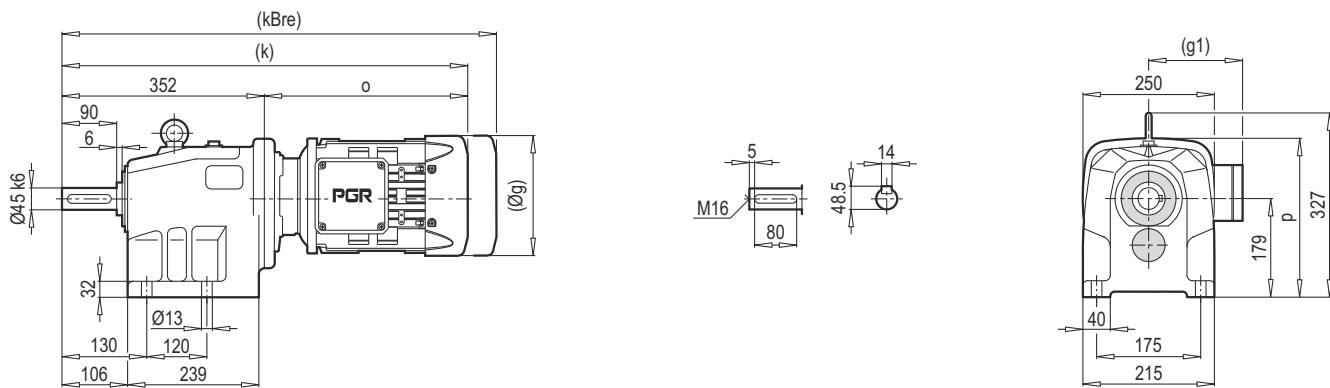
Tip / Type	PAM B5	Øa2	Øb2	Øe2	f2	Øs2	Ød1	I1	t1	u1	PA/PF 32 o	PA/PF 33 o
PA/PF 33	63	140	95	115	3.5	M8	11	23	12.8	4	-	85
PA/PF 32-33	71	160	110	130	4.0	M8	14	30	16.3	5	88	55
PA/PF 32-33	80	200	130	165	4.0	M10	19	40	21.8	6	72	74
PA/PF 32-33	90	200	130	165	4.0	M10	24	50	27.3	8	72	74
PA/PF 32-33	100	250	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	-

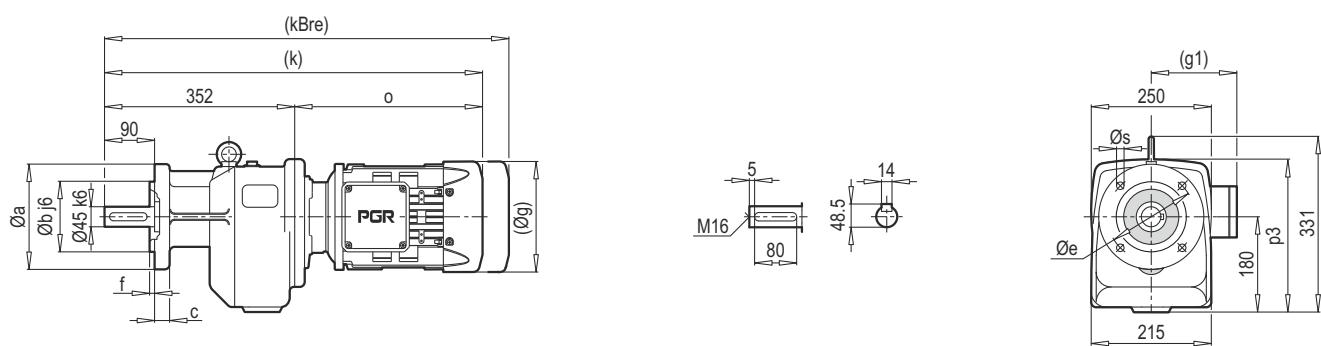
Tip / Type	PAM B14	Øa2	Øb2	Øe2	f2	Øs2	Ød1	I1	t1	u1	PA/PF 32 o	PA/PF 33 o
PA/PF 33	63	90	60	75	4.0	6	11	23	12.8	4	-	60
PA/PF 32-33	71	105	70	85	4.0	7	14	30	16.3	5	88	55
PA/PF 32-33	80	120	80	100	4.0	7	19	40	21.8	6	72	74
PA/PF 32-33	90	140	95	115	4.0	9	24	50	27.3	8	72	74
PA/PF 32-33	100	160	110	130	5.0	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

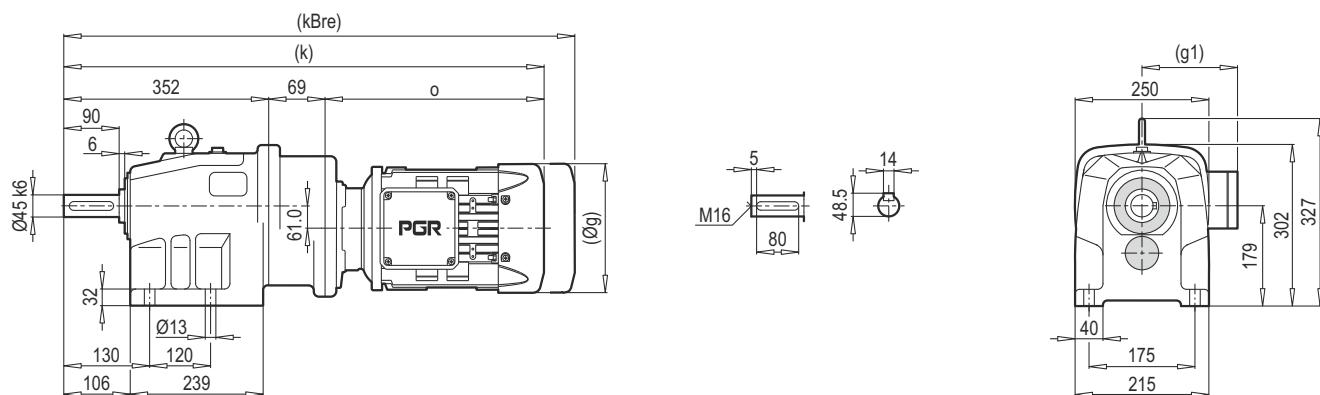


a	b	c	e	f	s
200	130	16	165	3.5	11
250	180	16	215	4.0	14

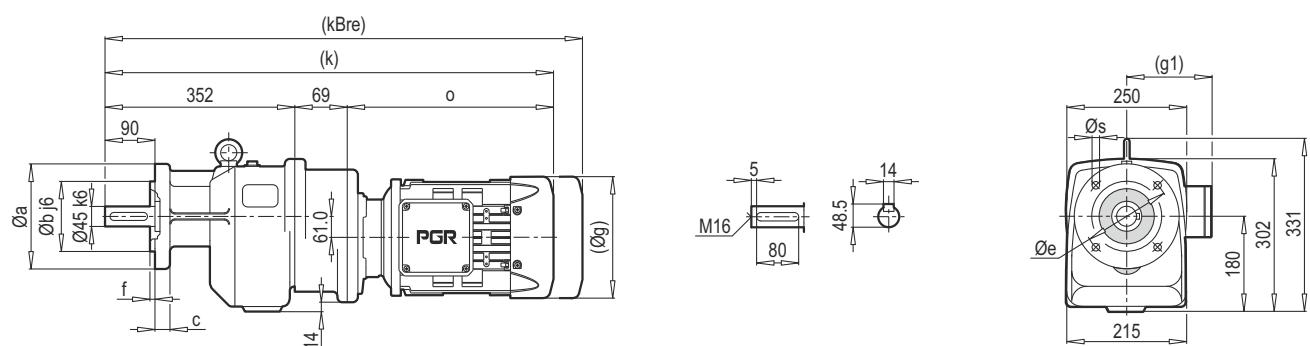
	90 S/L	100 L	112 M	132 S/M	160 M/L		
g	193	217	232	279	323		
g1	151	160	168	182	200		
k	617/637	665	710	717/752	857		
kBre	690/710	746	790	825/893	1009		
o	265/285	313	358	365/400	505		
p	302	302	302	310	337		
p3	302	302	302	310	337		

Not : (...) işaretli olan ölçüler Motor markasına göre farklılık gösterir.
Note : The dimensions which have (...) sign vary depending on the motor brand.

PA 43



PF 43



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

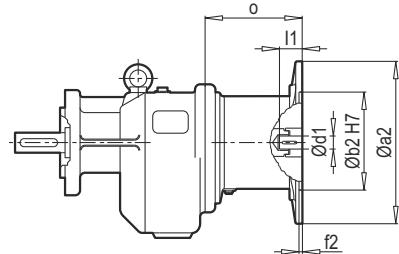
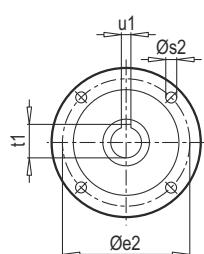
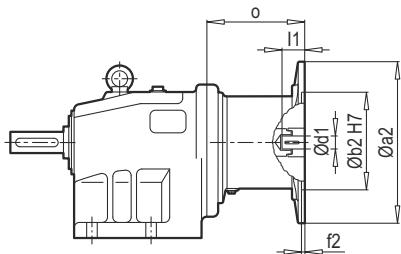
	71 M	80 M	90 S/L	100 L	112 M			
g	140	159	193	217	232			
g1	119	127	151	160	168			
k	657	683	706/726	754	799			
kBre	717	745	779/799	835	879			
o	236	262	285/305	333	378			

Not : (...) İşaretli olan ölçüler Motor markasına göre farklılık gösterir.
Note : The dimensions which have (...) sign vary depending on the motor brand.

PA 42
PA 43

IEC

PF 42
PF 43



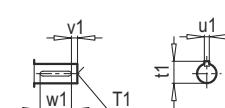
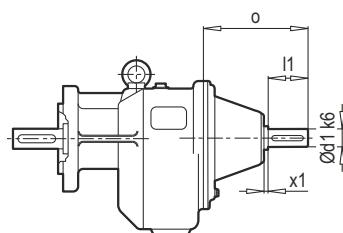
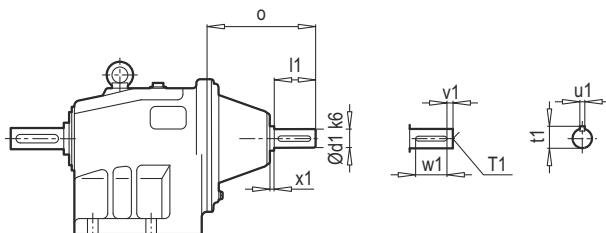
Tip / Type	IEC	Øa2	Øb2	Øe2	f2	Øs2	Ød1	I1	t1	u1	PA/PF 42 o	PA/PF 43 o
PA/PF 43	71	160	110	130	4.0	M8	14	30	16.3	5	-	88
PA/PF 43	80	200	130	165	4.0	M10	19	40	21.8	6	-	107
PA/PF 42-43	90	200	130	165	4.0	M10	24	50	27.3	8	109	107
PA/PF 42-43	100	250	180	215	5.0	M12	28	60	31.3	8	133	124
PA/PF 42-43	112	250	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



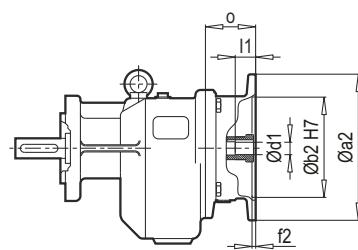
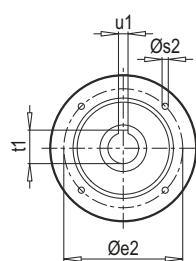
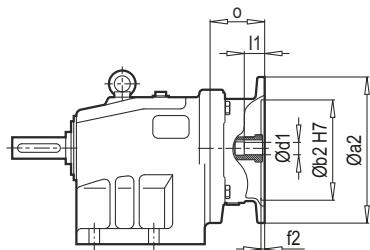
Tip / Type	Ød1	x1	I1	o	T1	t1	u1	v1	w1
PA/PF 42	38	8	80	213	M12	41	10	5	70
PA/PF 43	24	8	50	172	M8	27	8	5	40

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

PA 42
PA 43

PAM B5/B14

PF 42
PF 43

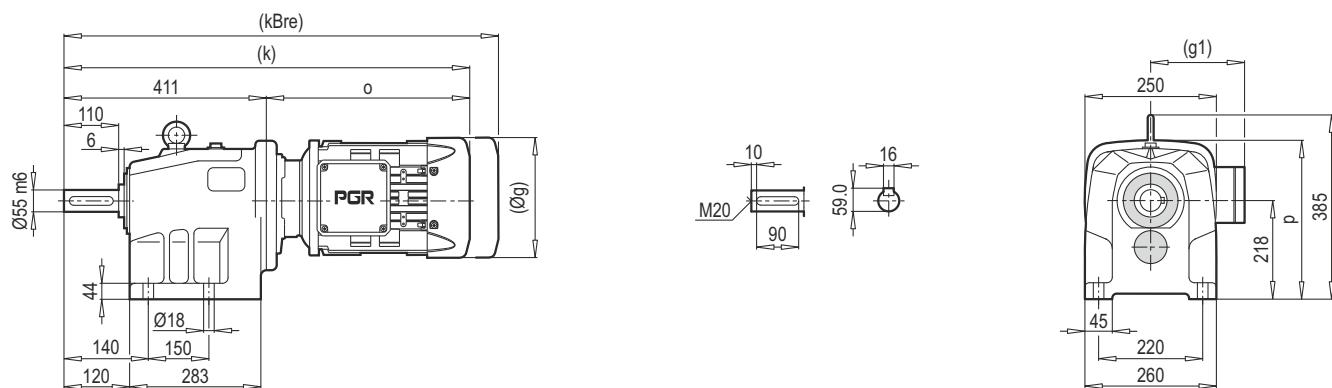
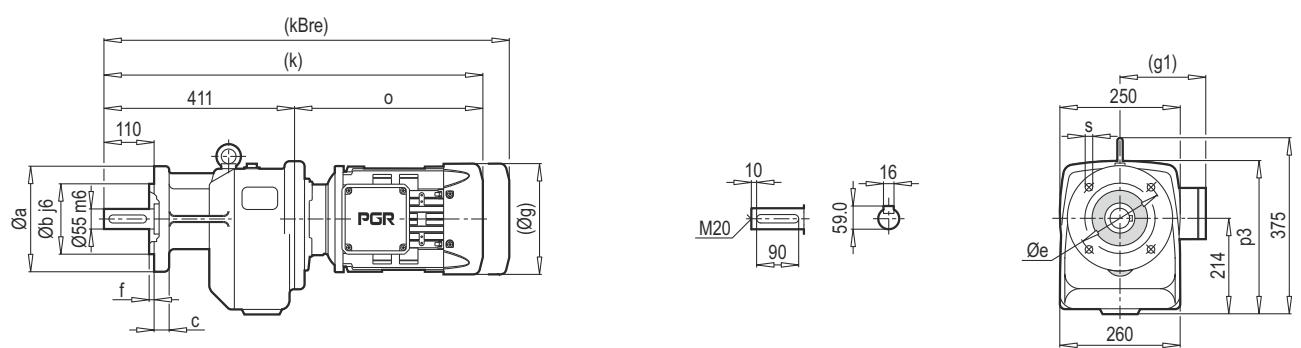


Tip / Type	PAM B5	Øa2	Øb2	Øe2	f2	Øs2	Ød1	l1	t1	u1	PA/PF 42 o	PA/PF 43 o
PA/PF 43	71	160	110	130	4.0	M8	14	30	16.3	5	-	88
PA/PF 43	80	200	130	165	4.0	M10	19	40	21.8	6	-	72
PA/PF 42-43	90	200	130	165	4.0	M10	24	50	27.3	8	72	72
PA/PF 42-43	100	250	180	215	5.0	M12	28	60	31.3	8	75	75
PA/PF 42-43	112	250	180	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	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	-

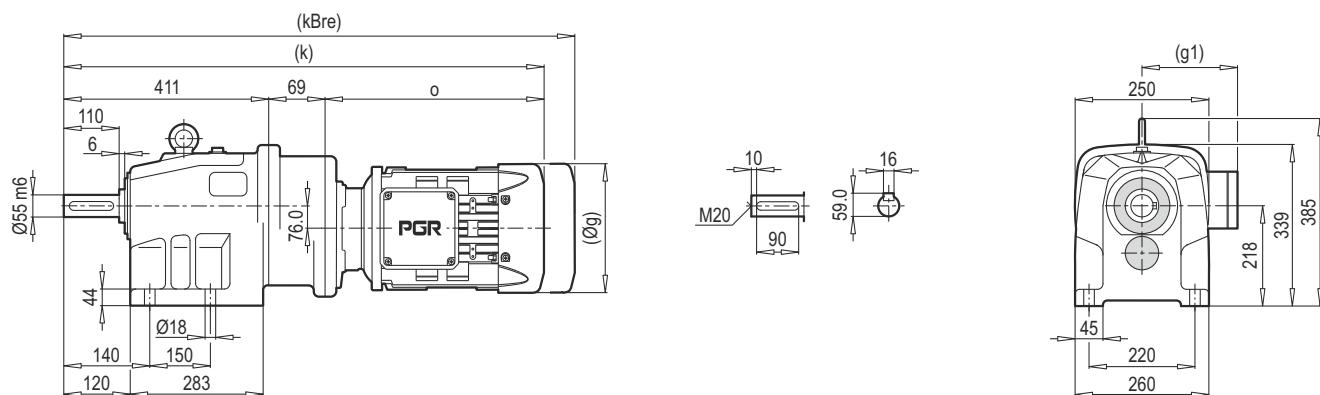
PA 52

PF 52


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

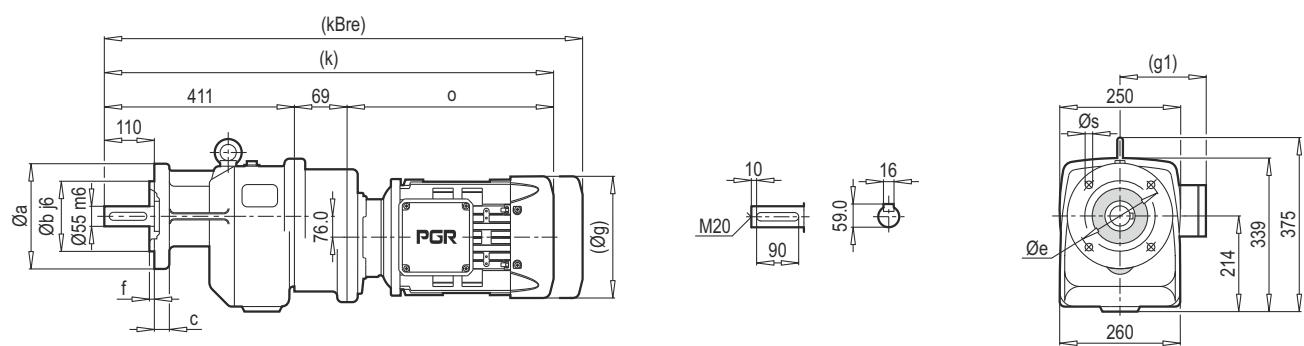
	90 S/L	100 L	112 M	132 S/M	160 M/L	180 M/L		
g	193	217	232	279	323	370		
g1	151	160	168	182	200	248		
k	676/696	724	769	776/811	916	990		
kBre	749/769	805	849	884/952	1068	1152		
o	265/285	313	358	365/400	505	579		
p	339	339	339	347	374	374		
p3	339	339	339	347	374	374		

Not : (...) İşaretli olan ölçüler Motor markasına göre farklılık gösterir.
Note : The dimensions which have (...) sign vary depending on the motor brand.

PA 53



PF 53



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

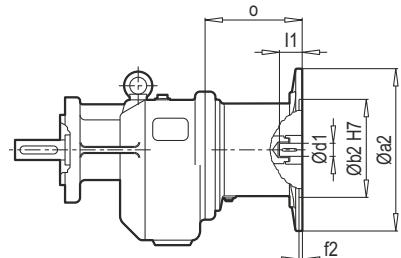
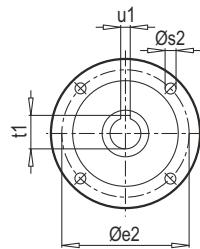
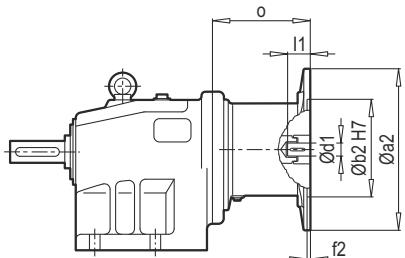
	71 M	80 M	90 S/L	100 L	112 M		
g	140	159	193	217	232		
g1	119	127	151	160	168		
k	716	742	765/785	813	858		
kBre	776	804	838/858	894	938		
o	236	262	285/305	333	378		

Not : (...) İşaretli olan ölçüler Motor markasına göre farklılık gösterir.
Note : The dimensions which have (...) sign vary depending on the motor brand.

PA 52
PA 53

IEC

PF 52
PF 53



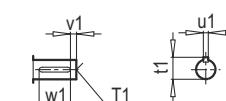
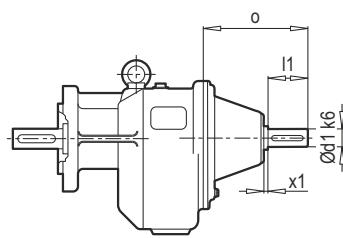
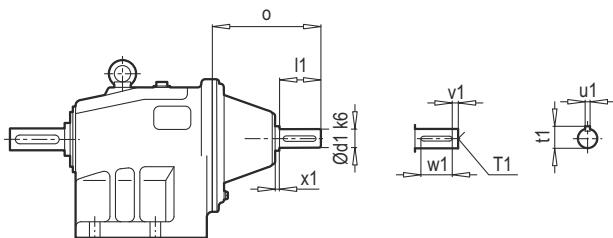
Tip / Type	IEC	Øa2	Øb2	Øe2	f2	Øs2	Ød1	I1	t1	u1	PA/PF 52 o	PA/PF 53 o
PA/PF 53	71	160	110	130	4.0	M8	14	30	16.3	5	-	88
PA/PF 53	80	200	130	165	4.0	M10	19	40	21.8	6	-	107
PA/PF 52-53	90	200	130	165	4.0	M10	24	50	27.3	8	109	107
PA/PF 52-53	100	250	180	215	5.0	M12	28	60	31.3	8	133	124
PA/PF 52-53	112	250	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	-

PA 52
PA 53

W

PF 52
PF 53



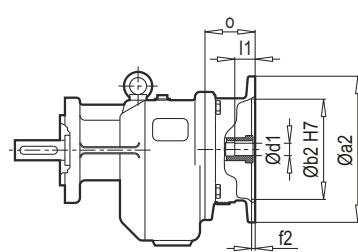
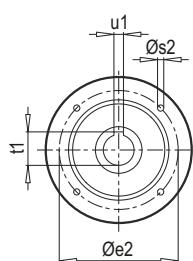
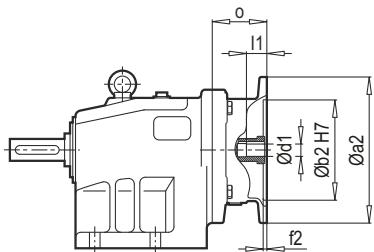
Tip / Type	Ød1	x1	I1	ø	T1	t1	u1	v1	w1
PA/PF 52	38	8	80	213	M12	41	10	5	70
PA/PF 53	24	8	50	172	M8	27	8	5	40

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

PA 52
PA 53

PAM B5/B14

PF 52
PF 53



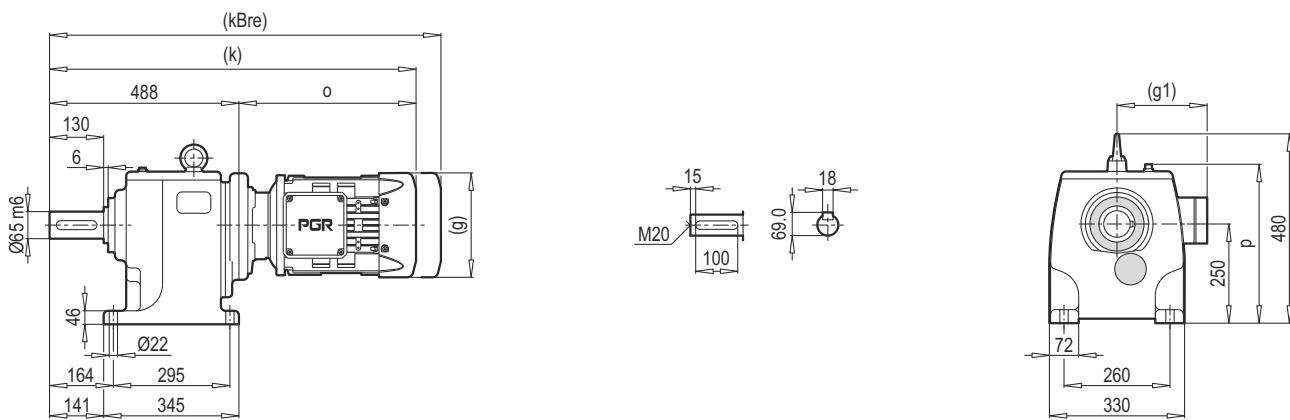
Tip / Type	PAM B5	Øa2	Øb2	Øe2	f2	Øs2	Ød1	I1	t1	u1	PA/PF 52 o	PA/PF 53 o
PA/PF 53	71	160	110	130	4.0	M8	14	30	16.3	5	-	88
PA/PF 53	80	200	130	165	4.0	M10	19	40	21.8	6	-	72
PA/PF 52-53	90	200	130	165	4.0	M10	24	50	27.3	8	72	72
PA/PF 52-53	100	250	180	215	5.0	M12	28	60	31.3	8	75	75
PA/PF 52-53	112	250	180	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	-

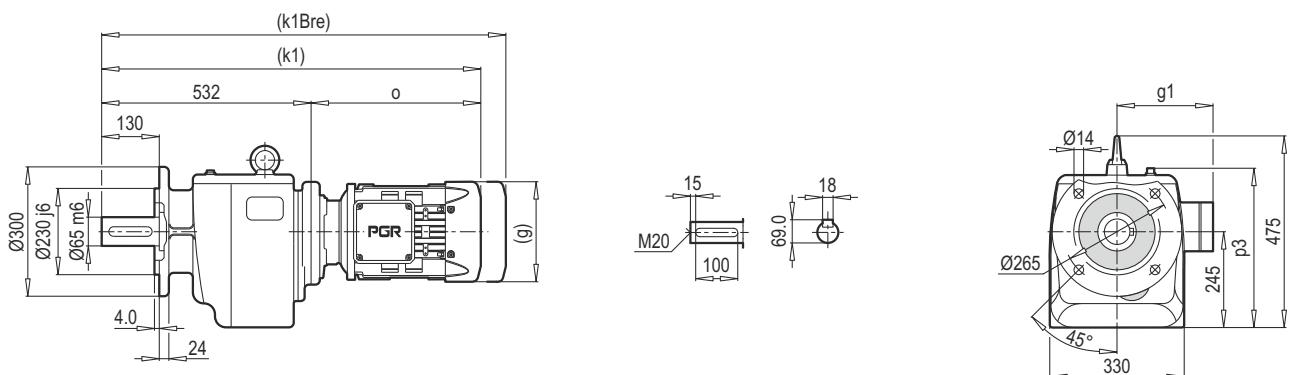
Tip / Type	PAM B14	Øa2	Øb2	Øe2	f2	Øs2	Ød1	I1	t1	u1	PA/PF 52 o	PA/PF 53 o
PA/PF 53	71	105	70	85	4.0	7	14	30	16.3	5	-	55
PA/PF 53	80	120	80	100	4.0	7	19	40	21.8	6	-	74
PA/PF 52-53	90	140	95	115	4.0	9	24	50	27.3	8	72	74
PA/PF 52-53	100	160	110	130	5.0	9	28	60	31.3	8	75	75
PA/PF 52-53	112	160	110	130	5.0	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

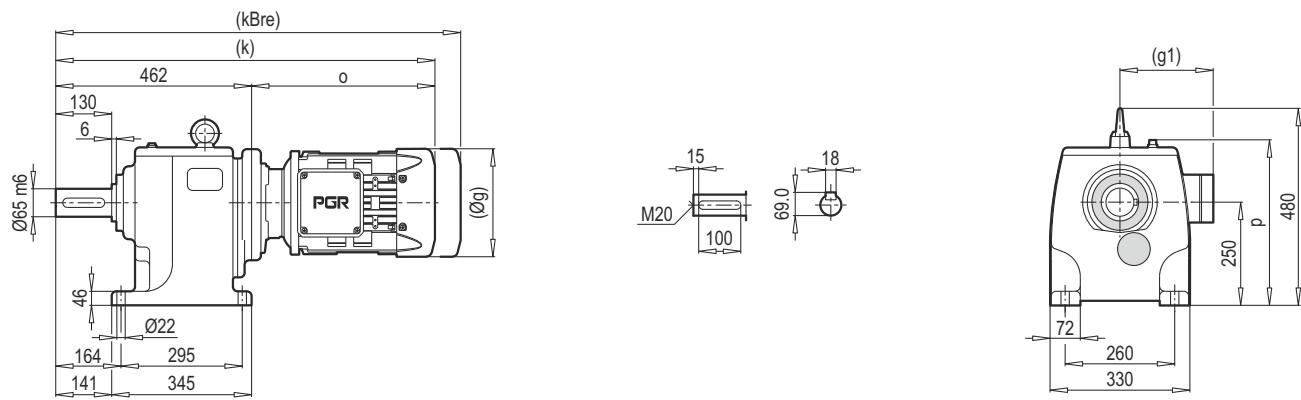


	112 M	132 S	132 M	160 M/L	180 M/L	200 L	225 S/M	
g	232	279	279	323	370	415	456	
g1	168	182	182	200	248	260	260	
k	848	851	886	952	1011	1106	1188	
kBre	928	959	1027	1104	1173	1253	1360	
k1	892	895	930	996	1055	1150	1232	
k1Bre	972	1003	1071	1148	1217	1297	1404	
o	360	363	398	464	523	618	700	
p	400	400	400	425	425	449	485	
p3	395	395	395	420	420	449	485	

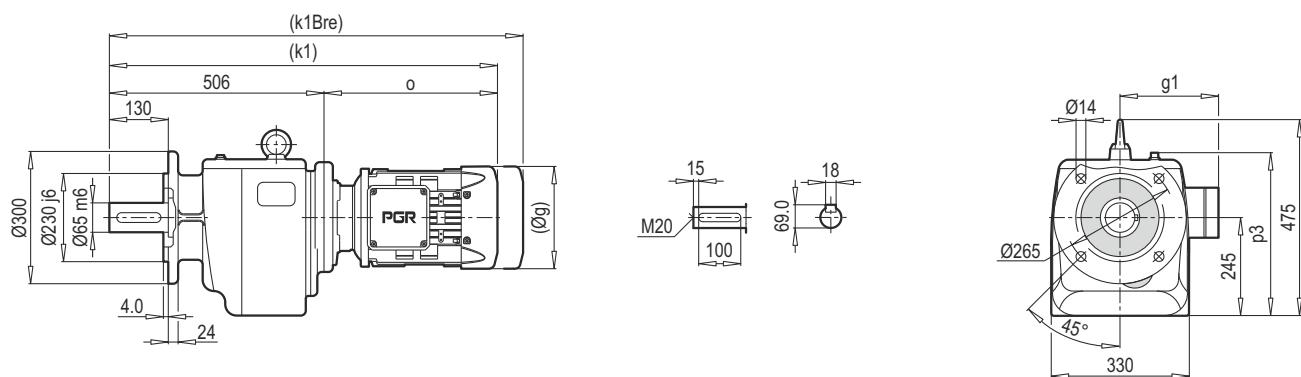
Not : (...) İşareti olan ölçüler Motor markasına göre farklılık gösterir.

Note : The dimensions which have (...) sign vary depending on the motor brand.

PA 63



PF 63

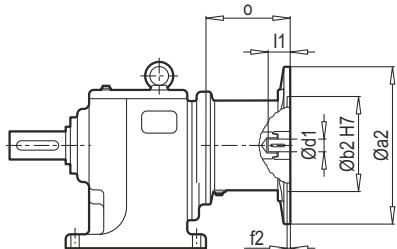


	90 S/L	100 L	112 M	132 S/M	160 M/L	180 M/L		
g	193	217	232	279	323	370		
g1	151	160	168	182	200	248		
k	727/747	775	820	827/862	967	1041		
kBre	800/820	856	900	935/1003	1119	1203		
k1	771/791	819	864	871/906	1011	1085		
k1Bre	844/864	900	944	979/1047	1163	1247		
o	265/285	313	358	365/400	505	579		
p	400	400	400	400	410	410		
p3	395	395	395	395	405	405		

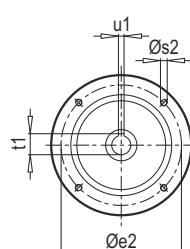
Not : (...) İşareti olan ölçüler Motor markasına göre farklılık gösterir.

Note : The dimensions which have (...) sign vary depending on the motor brand.

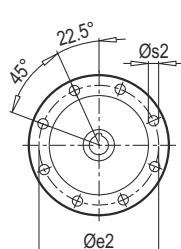
PA 62
PA 63



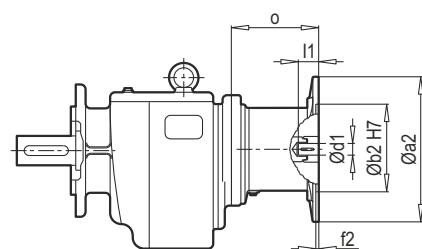
IEC



IEC 90...200



IEC 225



PF 62
PF 63

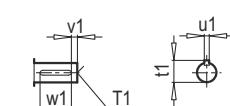
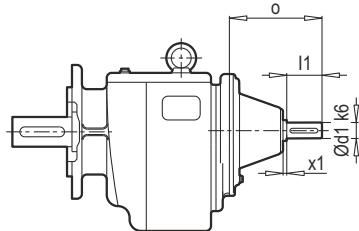
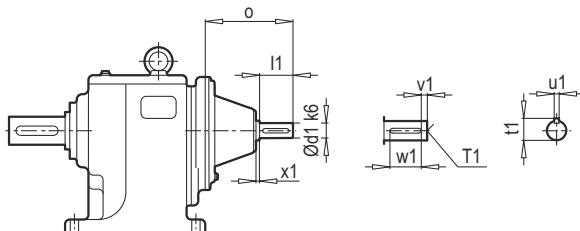
Tip / Type	IEC	Øa2	Øb2	Øe2	f2	Øs2	Ød1	I1	t1	u1	PA/PF 62 o	PA/PF 63 o
PA/PF 63	90	200	130	165	4.0	M10	24	50	27.3	8	-	109
PA/PF 62-63	100	250	180	215	5.0	M12	28	60	31.3	8	127	133
PA/PF 62-63	112	250	180	215	5.0	M12	28	60	31.3	8	127	133
PA/PF 62-63	132	300	230	265	5.0	M12	38	80	41.3	10	177	190
PA/PF 62-63	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	-

PA 62
PA 63

W

PF 62
PF 63



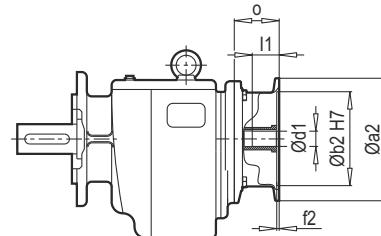
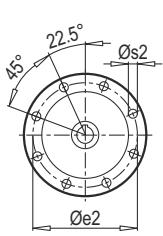
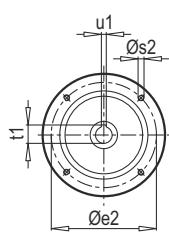
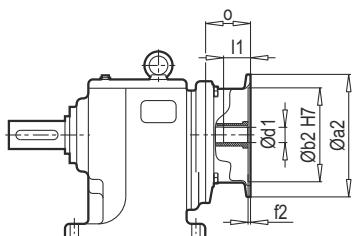
Tip / Type	Ød1	x1	I1	o	T1	t1	u1	v1	w1
PA/PF 62	42	8	110	288	M16	45	12	10	90
PA/PF 63	38	8	80	213	M12	41	10	5	70

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

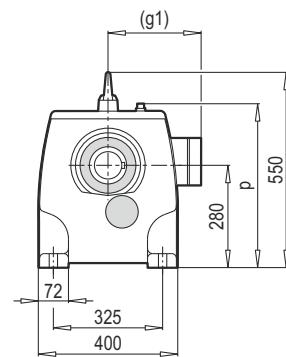
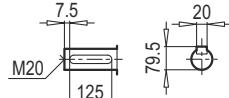
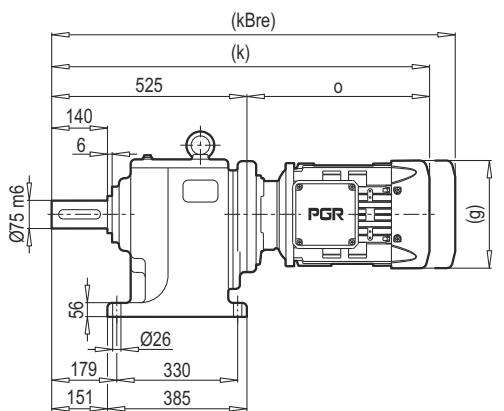
Tip / Type	PAM B5	Øa2	Øb2	Øe2	f2	Øs2	Ød1	I1	t1	u1	PA/PF 62 o	PA/PF 63 o
PA/PF 63	90	200	130	165	4.0	M10	24	50	27.3	8	-	72
PA/PF 62-63	100	250	180	215	5.0	M12	28	60	31.3	8	75	75
PA/PF 62-63	112	250	180	215	5.0	M12	28	60	31.3	8	75	75
PA/PF 62-63	132	300	230	265	5.0	M12	38	80	41.3	10	110	94
PA/PF 62-63	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	-

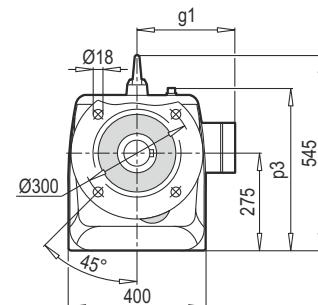
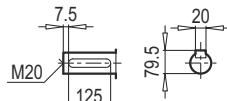
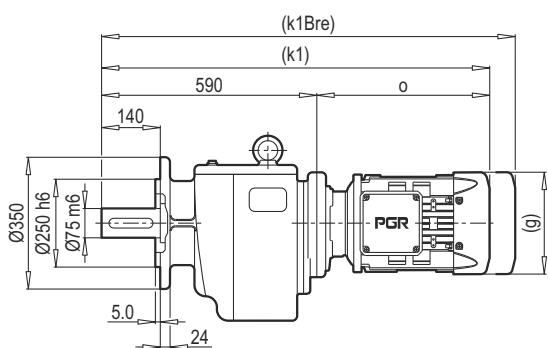
Tip / Type	PAM B14	Øa2	Øb2	Øe2	f2	Øs2	Ød1	I1	t1	u1	PA/PF 62 o	PA/PF 63 o
PA/PF 63	90	140	95	115	4.0	9	24	50	27.3	8	-	72
PA/PF 62-63	100	160	110	130	5.0	9	28	60	31.3	8	75	75
PA/PF 62-63	112	160	110	130	5.0	9	28	60	31.3	8	75	75
PA/PF 62-63	132	200	130	165	5.0	11	38	80	41.3	10	110	94

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

PA 72



PF 72

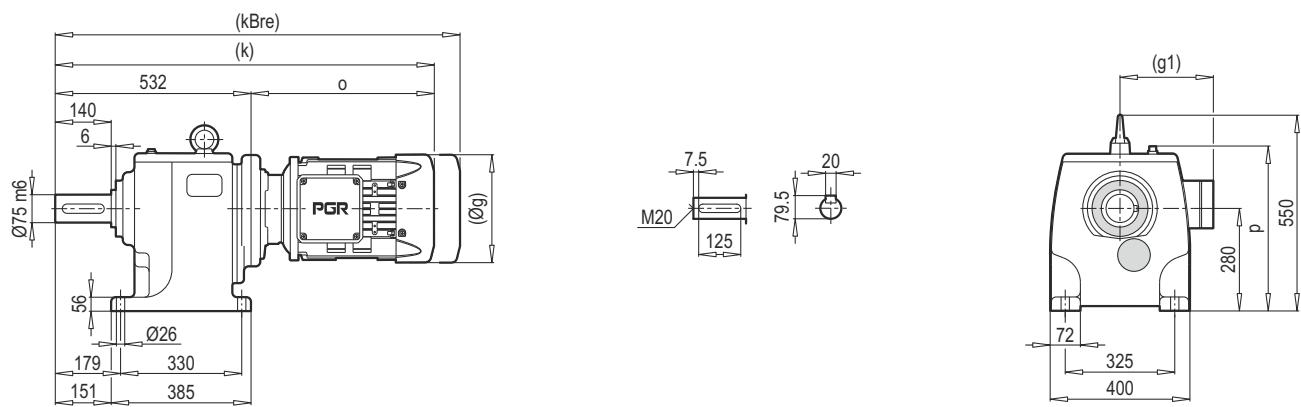


	132 M	160 M/L	180 M/L	200 L	225 S/M		
g	279	323	370	415	456		
g1	182	200	248	260	260		
k	923	989	1048	1143	1225		
kBre	1064	1141	1210	1290	1397		
k1	988	1054	1113	1208	1290		
k1Bre	1129	1206	1275	1355	1462		
o	398	464	523	618	700		
p	447	455	459	479	479		
p3	442	450	450	479	479		

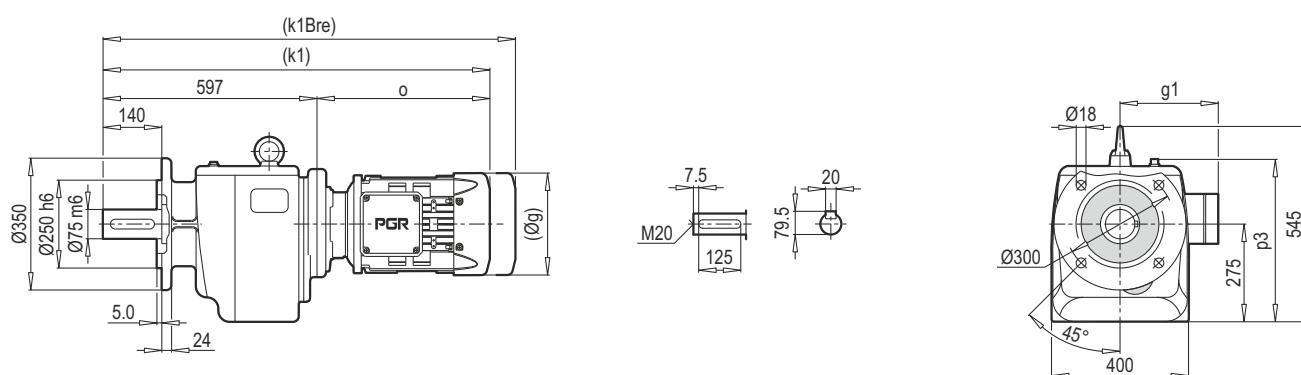
Not : (...) İşareti olan ölçüler Motor markasına göre farklılık gösterir.

Note : The dimensions which have (...) sign vary depending on the motor brand.

PA 73



PF 73

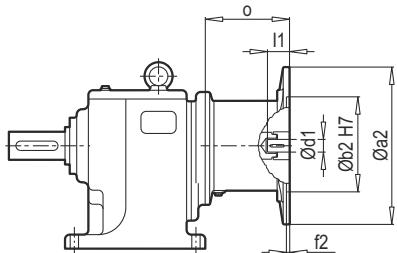


	100 L	112 M	132 S	132 M	160 M/L	180 M/L	200 L	225 S/M
g	217	232	279	279	323	370	415	456
g1	160	168	182	182	200	248	260	260
k	844	892	895	930	996	1055	1150	1232
kBre	925	972	1003	1071	1148	1217	1297	1404
k1	909	957	960	995	1061	1120	1215	1297
k1Bre	990	1037	1068	1136	1213	1282	1362	1469
o	312	360	363	398	464	523	618	700
p	447	447	447	447	455	455	479	479
p3	442	442	442	442	450	450	474	474

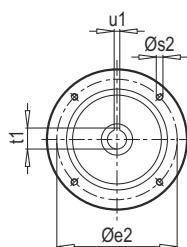
Not : (...) işaretli olan ölçüler Motor markasına göre farklılık gösterir.

Note : The dimensions which have (...) sign vary depending on the motor brand.

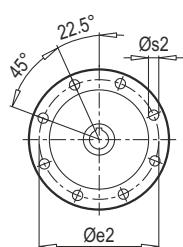
PA 72
PA 73



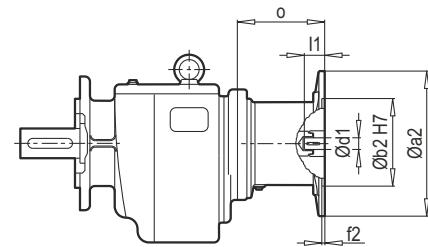
IEC



IEC 100...200



IEC 225



PF 72
PF 73

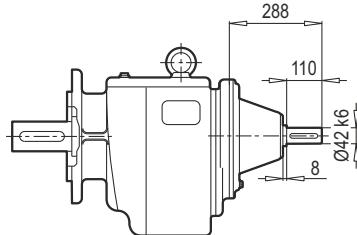
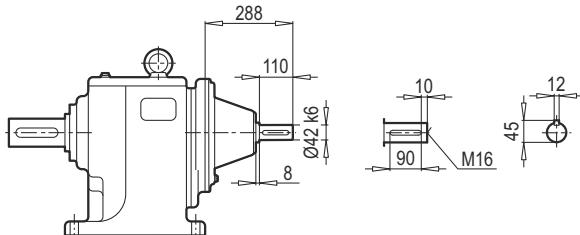
Tip / Type	IEC	Øa2	Øb2	Øe2	f2	Øs2	Ød1	I1	t1	u1	o
PA/PF 73	100	250	180	215	5.0	M12	28	60	31.3	8	127
PA/PF 73	112	250	180	215	5.0	M12	28	60	31.3	8	127
PA/PF 72-73	132	300	230	265	5.0	M12	38	80	41.3	10	177
PA/PF 72-73	160	350	250	300	6.0	M16	42	110	45.3	12	266
PA/PF 72-73	180	350	250	300	6.0	M16	48	110	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

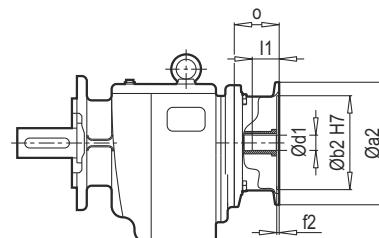
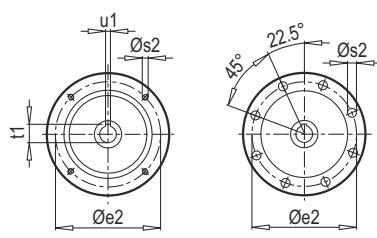
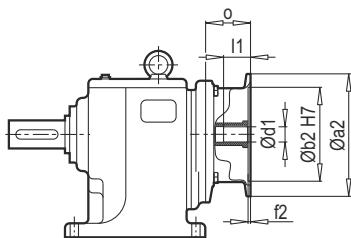


W ~ Kg	
PA/PF 72	252
PA/PF 73	263

PA 72
PA 73

PAM B5/B14

PF 72
PF 73



PAM 100...200

PAM 225

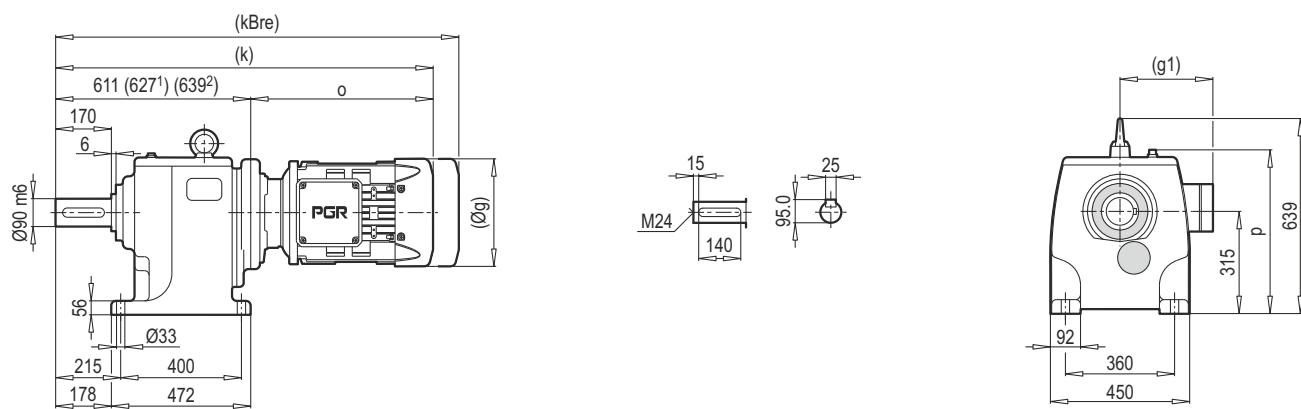
Tip / Type	PAM B5	Øa2	Øb2	Øe2	f2	Øs2	Ød1	I1	t1	u1	ø
PA/PF 73	100	250	180	215	5.0	M12	28	60	31.3	8	75
PA/PF 73	112	250	180	215	5.0	M12	28	60	31.3	8	75
PA/PF 72-73	132	300	230	265	5.0	M12	38	80	41.3	10	110
PA/PF 72-73	160	350	250	300	6.0	M16	42	110	45.3	12	145
PA/PF 72-73	180	350	250	300	6.0	M16	48	110	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

~ \bar{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

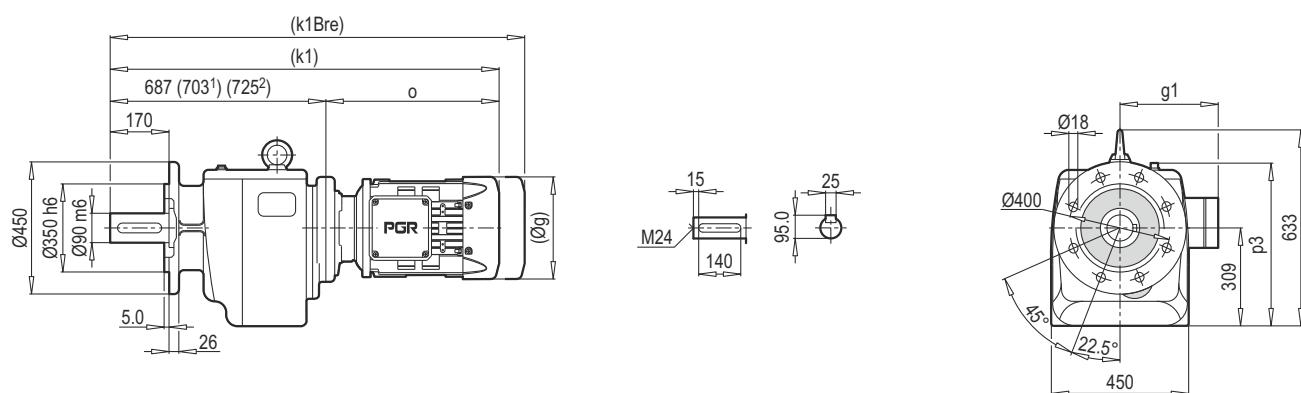
Tip / Type	PAM B14	Øa2	Øb2	Øe2	f2	Øs2	Ød1	I1	t1	u1	ø
PA/PF 73	100	160	110	130	5.0	9	28	60	31.3	8	75
PA/PF 73	112	160	110	130	5.0	9	28	60	31.3	8	75
PA/PF 72-73	132	200	130	165	5.0	11	38	80	41.3	10	110

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

PA 82



PF 82

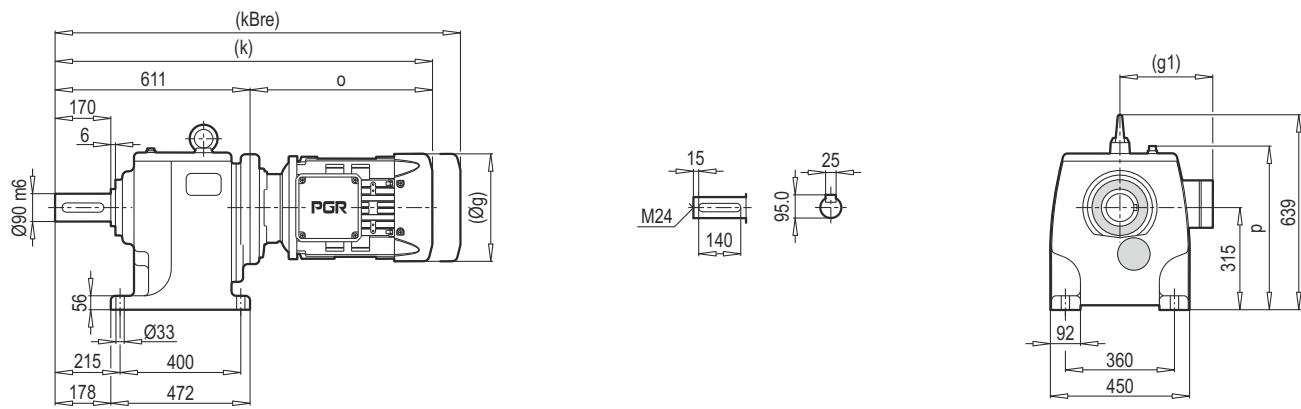


	132 M	160 M/L	180 M/L	200 L	225 S/M	250 M ¹⁾	280 M ²⁾	
g	279	323	370	415	456	495	510	
g1	182	200	248	260	260	392	372	
k	1009	1075	1134	1229	1311	1271	1527	
kBre	1150	1227	1296	1376	1483	1401	-	
k1	1085	1151	1210	1305	1387	1347	1613	
k1Bre	1226	1303	1372	1452	1559	1477	-	
o	398	464	523	618	700	644	888	
p	512	512	512	514	514	575	564	
p3	506	506	506	508	508	569	561	

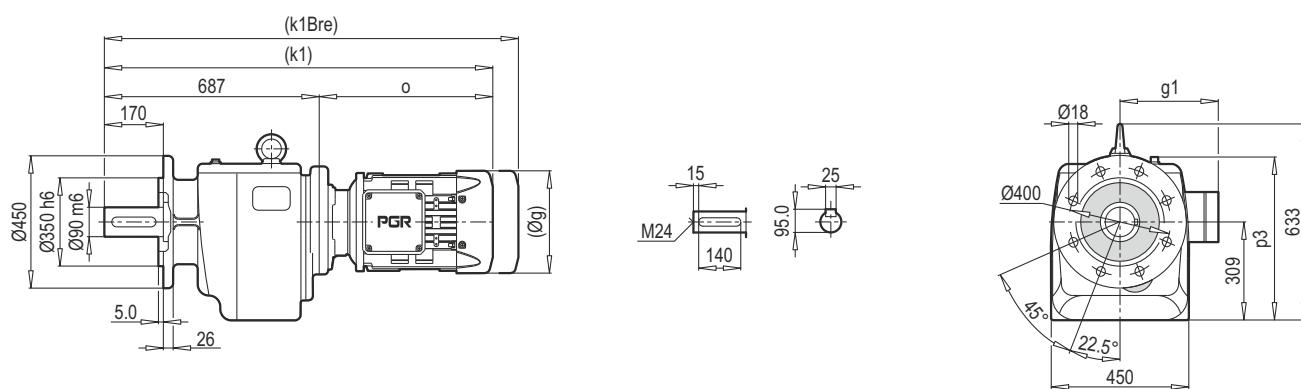
Not : (...) İşareti olan ölçüler Motor markasına göre farklılık gösterir.

Note : The dimensions which have (...) sign vary depending on the motor brand.

PA 83



PF 83



	100 L	112 M	132 S	132 M	160 M/L	180 M/L	200 L	225 S/M
g	217	232	279	279	323	370	415	456
g1	160	168	182	182	200	248	260	260
k	923	971	974	1009	1075	1134	1229	1311
kBre	1004	1051	1082	1150	1227	1296	1376	1483
k1	999	1047	1050	1085	1151	1210	1305	1387
k1Bre	1080	1127	1158	1226	1303	1372	1452	1559
o	312	360	363	398	464	523	618	700
p	512	512	512	512	512	512	514	514
p3	506	506	506	506	506	506	508	508

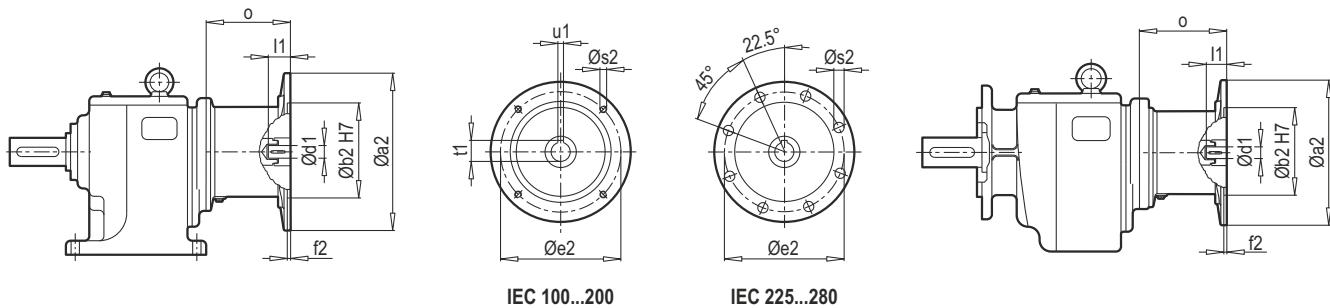
Not : (...) İşareti olan ölçüler Motor markasına göre farklılık gösterir.

Note : The dimensions which have (...) sign vary depending on the motor brand.

PA 82
PA 83

IEC

PF 82
PF 83



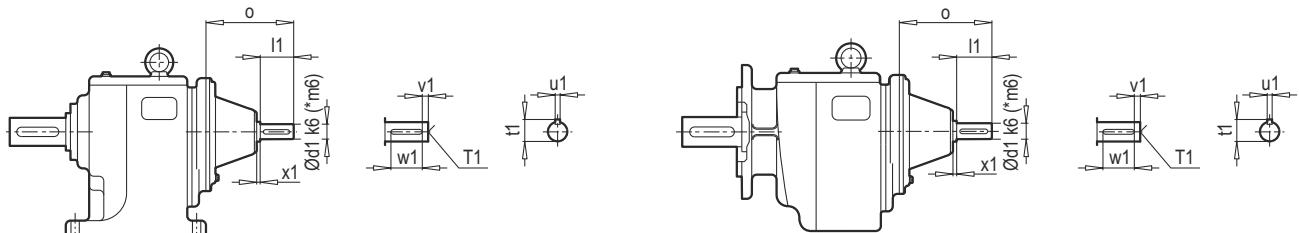
Tip / Type	IEC	Øa2	Øb2	Øe2	f2	Øs2	Ød1	l1	t1	u1	Ø
PA/PF 83	100	250	180	215	5.0	M12	28	60	31.3	8	127
PA/PF 83	112	250	180	215	5.0	M12	28	60	31.3	8	127
PA/PF 82-83	132	300	230	265	5.0	M12	38	80	41.3	10	177
PA/PF 82-83	160	350	250	300	6.0	M16	42	110	45.3	12	266
PA/PF 82-83	180	350	250	300	6.0	M16	48	110	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	-

PA 82
PA 83

W

PF 82
PF 83



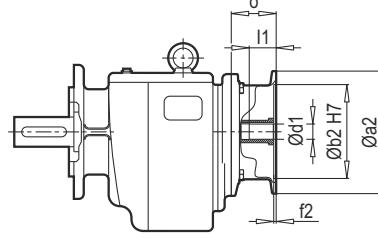
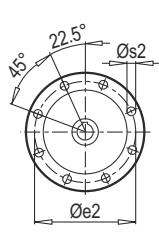
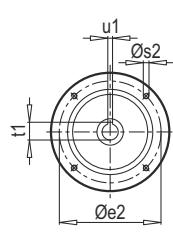
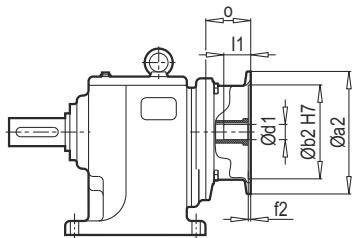
Tip / Type	Ød1	x1	l1	Ø	T1	t1	u1	v1	w1
PA/PF 82	65*	12	140	397	M20	69	18	15	110
PA/PF 83	42	8	110	288	M16	45	12	10	90

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

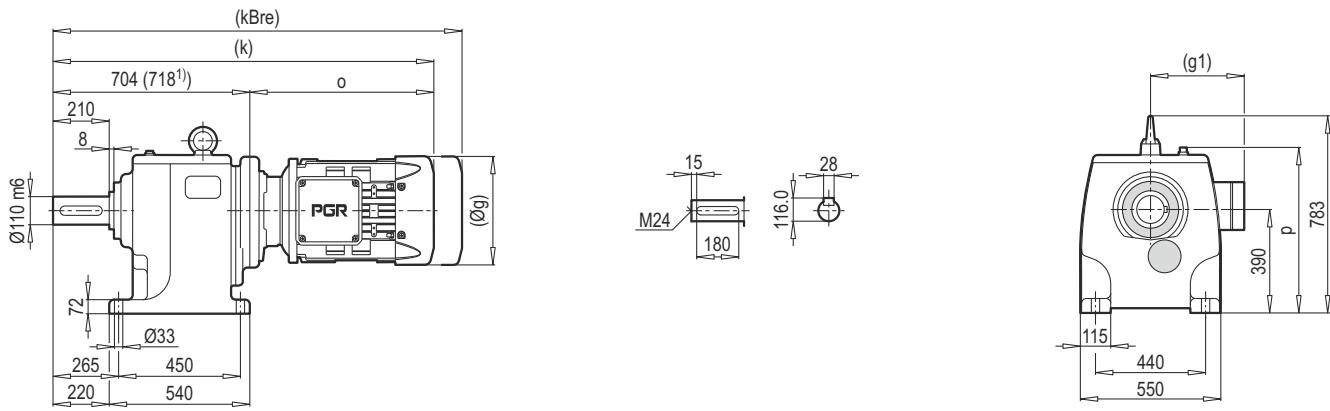
Tip / Type	PAM B5	Øa2	Øb2	Øe2	f2	Øs2	Ød1	I1	t1	u1	o
PA/PF 83	100	250	180	215	5.0	M12	28	60	31.3	8	75
PA/PF 83	112	250	180	215	5.0	M12	28	60	31.3	8	75
PA/PF 82-83	132	300	230	265	5.0	M12	38	80	41.3	10	110
PA/PF 82-83	160	350	250	300	6.0	M16	42	110	45.3	12	145
PA/PF 82-83	180	350	250	300	6.0	M16	48	110	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	-

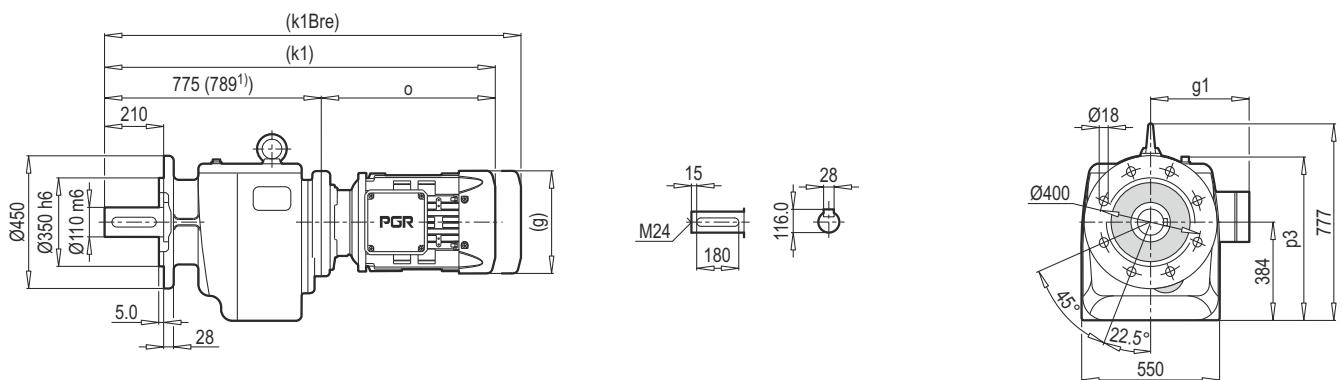
Tip / Type	PAM B14	Øa2	Øb2	Øe2	f2	Øs2	Ød1	I1	t1	u1	o
PA/PF 83	100	160	110	130	5.0	9	28	60	31.3	8	75
PA/PF 83	112	160	110	130	5.0	9	28	60	31.3	8	75
PA/PF 82-83	132	200	130	165	5.0	11	38	80	41.3	10	110

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

PA 92



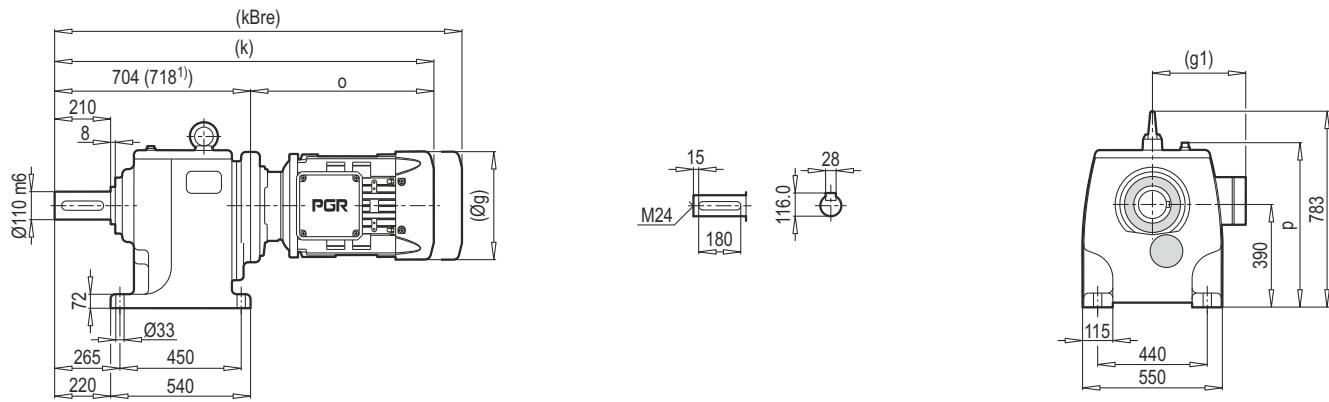
PF 92



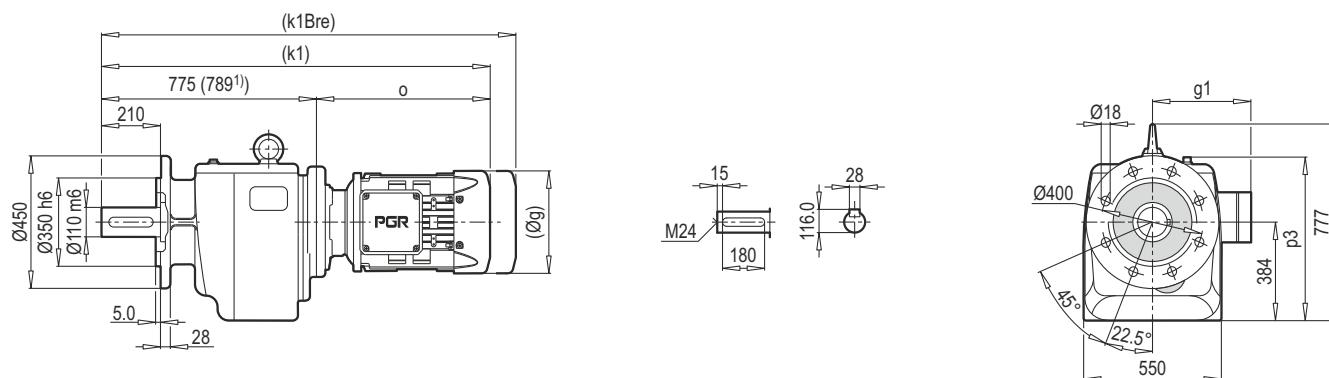
	180 M/L	200 L	225 S/M	250 M 1)	280 M ¹⁾	315 S ¹⁾	315 M ¹⁾	
g	370	415	456	495	510	-	-	
g1	248	260	260	392	372	-	-	
k	1227	1322	1404	1362	1606	-	-	
kBre	1389	1469	1576	1492	-	-	-	
k1	1298	1393	1475	1433	1677	-	-	
k1Bre	1460	1540	1647	1563	-	-	-	
o	523	618	700	644	888	-	-	
p	622	622	622	650	682	-	-	
p3	616	616	616	644	676	-	-	

Not : (...) işaretli olan ölçüler Motor markasına göre farklılık gösterir.
Note : The dimensions which have (...) sign vary depending on the motor brand.

PA 93



PF 93



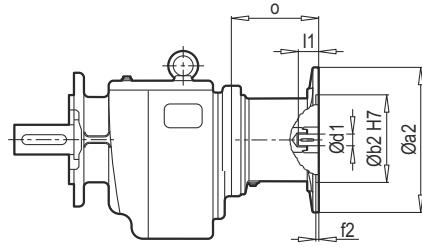
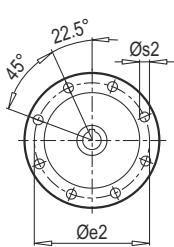
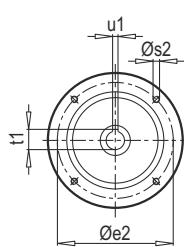
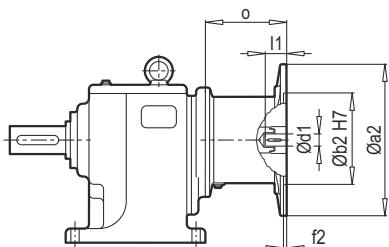
	132 S	132 M	160 M/L	180 M/L	200 L	225 S/M	250 M ¹⁾	280 M ¹⁾
g	279	279	323	370	415	456	495	510
g1	182	182	200	248	260	260	392	372
k	1067	1102	1168	1227	1322	1404	1362	1606
kBre	1175	1243	1320	1389	1469	1576	1492	-
k1	1138	1173	1239	1298	1393	1475	1433	1677
k1Bre	1246	1303	1391	1460	1540	1647	1563	-
o	363	398	464	523	618	700	644	888
p	622	622	622	622	622	622	650	682
p3	616	616	616	616	616	616	644	676

Not : (...) İşareti olan ölçüler Motor markasına göre farklılık gösterir.
Note : The dimensions which have (...) sign vary depending on the motor brand.

PA 92
PA 93

IEC

PF 92
PF 93



IEC 132...200

IEC 225...315

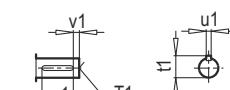
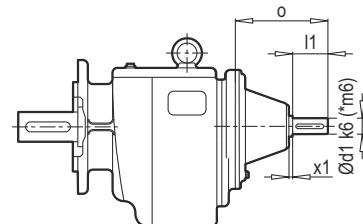
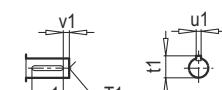
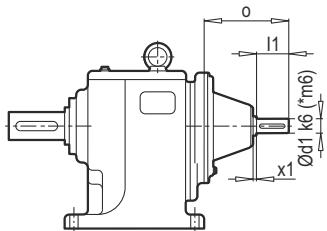
Tip / Type	IEC	Øa2	Øb2	Øe2	f2	Øs2	Ød1	l1	t1	u1	ø
PA/PF 93	132	300	230	265	5.0	M12	38	80	41.3	10	177
PA/PF 92-93	160	350	250	300	6.0	M16	42	110	45.3	12	266
PA/PF 92-93	180	350	250	300	6.0	M16	48	110	51.8	14	266
PA/PF 92-93	200	400	300	350	6.0	M16	55	110	59.3	16	229
PA/PF 92-93	225	450	350	400	6.0	M16	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



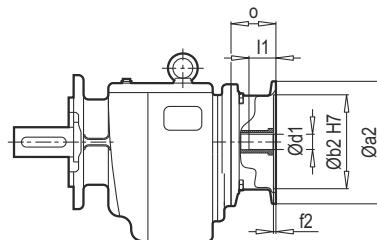
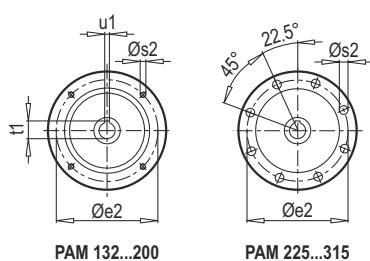
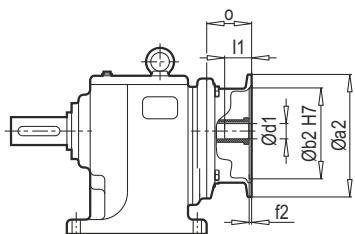
Tip / Type	Ød1	x1	l1	ø	T1	t1	u1	v1	w1
PA/PF 92	65*	12	140	397	M20	69	18	15	110
PA/PF 93	42	8	110	288	M16	45	12	10	90

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

PA 92
PA 93

PAM B5/B14

PF 92
PF 93



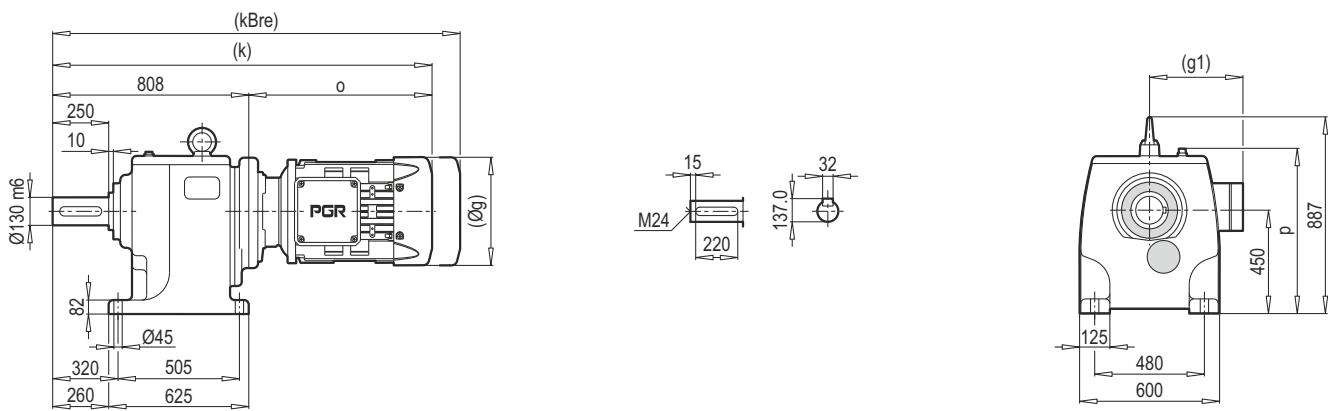
Tip / Type	PAM B5	Øa2	Øb2	Øe2	f2	Øs2	Ød1	I1	t1	u1	o
PA/PF 93	132	300	230	265	5.0	M12	38	80	41.3	10	110
PA/PF 92-93	160	350	250	300	6.0	M16	42	110	45.3	12	145
PA/PF 92-93	180	350	250	300	6.0	M16	48	110	51.8	14	145
PA/PF 92-93	200	400	300	350	6.0	M16	55	110	59.3	16	157
PA/PF 92-93	225	450	350	400	6.0	M16	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	-	-

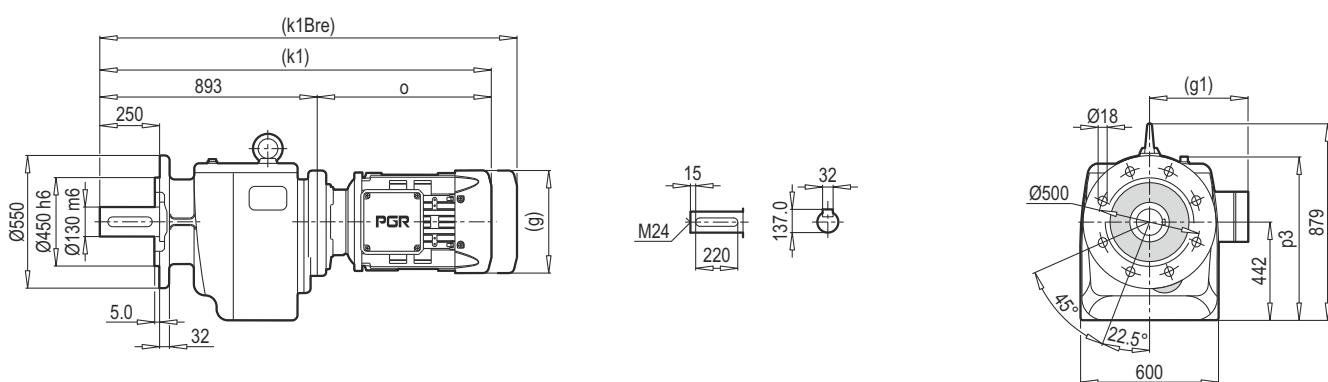
Tip / Type	PAM B14	Øa2	Øb2	Øe2	f2	Øs2	Ød1	I1	t1	u1	o
PA/PF 93	132	200	130	165	5.0	11	38	80	41.3	10	110

~ Kg	
PAM B14	PA/PF 93
132	517

PA 102



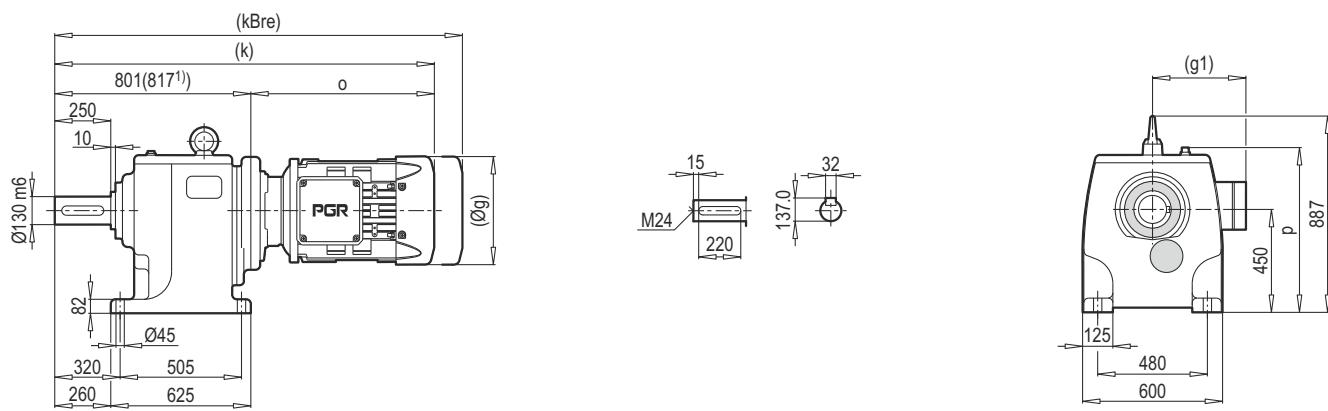
PF 102



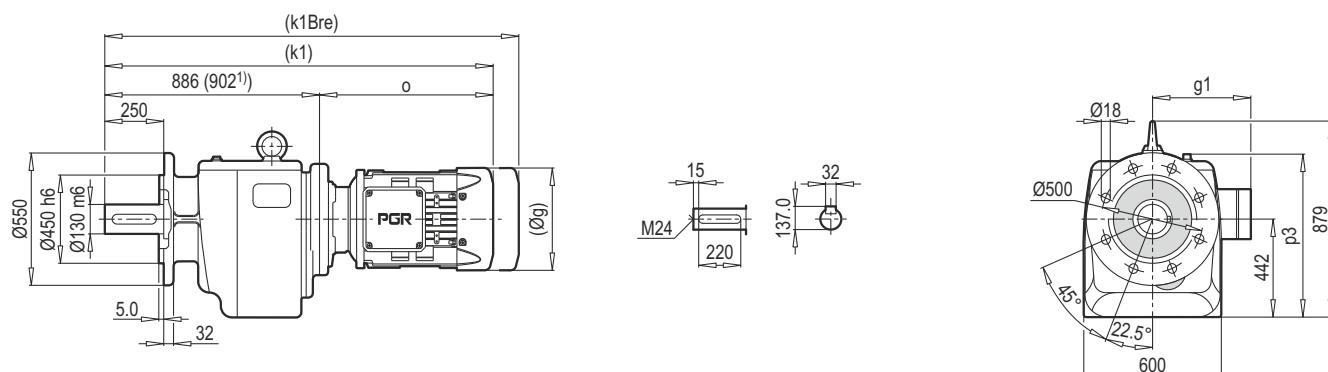
	250 M	280 M	315 S	315 M			
g	495	510	-	-			
g1	392	372	-	-			
k	1452	1696	-	-			
kBre	1582	-	-	-			
k1	1537	1781	-	-			
k1Bre	1667	-	-	-			
o	644	888	-	-			
p	702	754	-	-			
p3	706	758	-	-			

Not : (...) işaretli olan ölçüler Motor markasına göre farklılık gösterir.
Note : The dimensions which have (...) sign vary depending on the motor brand.

PA 103



PF 103



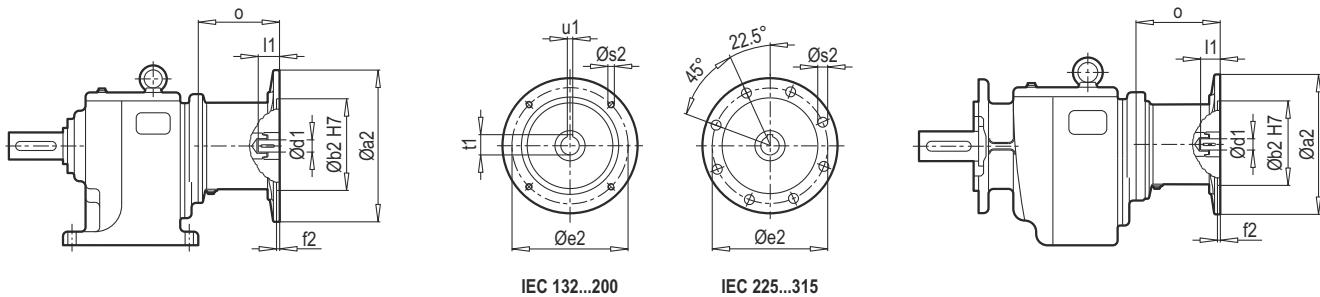
	132 S	132 M	160 M/L	180 M/L	200 L	225 S/M	250 M ¹⁾	280 M ¹⁾	315 S ¹⁾	315 M ¹⁾
g	279	279	323	370	415	456	495	510	-	-
g1	182	182	200	248	260	260	392	372	-	-
k	1164	1199	1265	1324	1419	1501	1461	1705	-	-
kBre	1272	1340	1417	1486	1566	1673	1591	-	-	-
k1	1249	1284	1350	1409	1504	1586	1546	1790	-	-
k1Bre	1357	1425	1502	1571	1651	1758	1676	-	-	-
o	363	398	464	523	618	700	644	888	-	-
p	702	702	702	702	702	702	710	754	-	-
p3	706	706	706	706	706	706	710	758	-	-

Not : (...) işaretli olan ölçüler Motor markasına göre farklılık gösterir.
Note : The dimensions which have (...) sign vary depending on the motor brand.

PA 102
PA 103

IEC

PF 102
PF 103



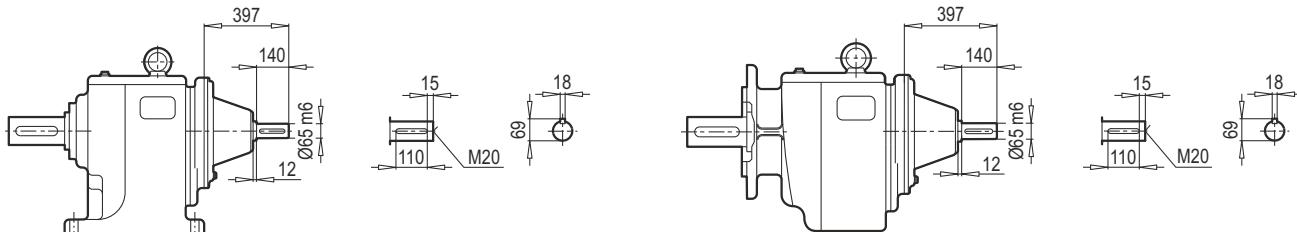
Tip / Type	IEC	Øa2	Øb2	Øe2	f2	Øs2	Ød1	l1	t1	u1	Ø
PA/PF 103	132	300	230	265	5.0	M12	38	80	41.3	10	177
PA/PF 103	160	350	250	300	6.0	M16	42	110	45.3	12	266
PA/PF 103	180	350	250	300	6.0	M16	48	110	51.8	14	266
PA/PF 103	200	400	300	350	6.0	M16	55	110	59.3	16	229
PA/PF 103	225	450	350	400	6.0	M16	60	140	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

W ~ 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

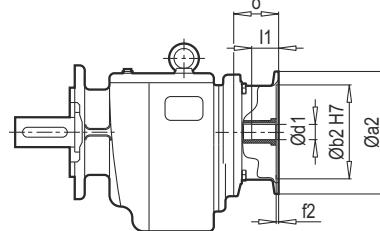
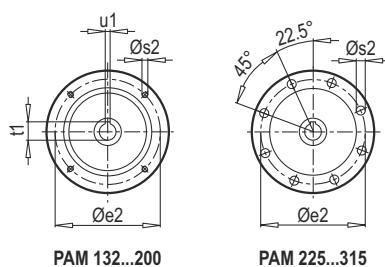
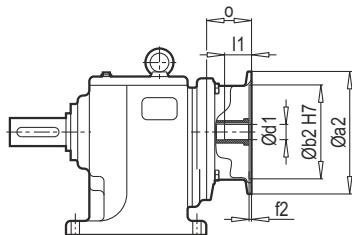


W ~ kg	
PA/PF 102	870
PA/PF 103	880

PA 102
PA 103

PAM B5/B14

PF 102
PF 103



Tip / Type	PAM B5	Øa2	Øb2	Øe2	f2	Øs2	Ød1	I1	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	-

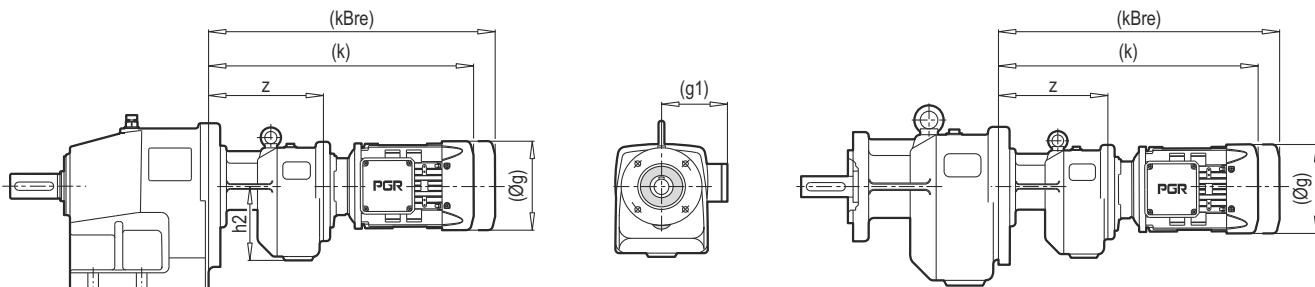
~ Kg		
PAM B5	PA/PF 102	PA/PF 103
132	-	741
160	-	758
180	-	758
200	-	765
225	-	775
250	826	835
280	826	835
315	-	-

Tip / Type	PAM B14	Øa2	Øb2	Øe2	f2	Øs2	Ød1	I1	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	Motor	g	g1	h2	z	k	kBre
PA/PF 12/02	63 M 71 M	124 140	111 119	91	143	341 383	393 443
PA/PF 22/02	63 M 71 M 80 M	124 140 159	111 119 127	91	159	357 399 426	409 459 488
PA/PF 32/12	63 M 71 M 80 M	124 140 159	111 119 127	108	172	370 412 439	422 472 501
PA/PF 42/12 PA/PF 52/12	63 M 71 M 80 M	124 140 159	111 119 127	108	176	374 416 443	426 476 505

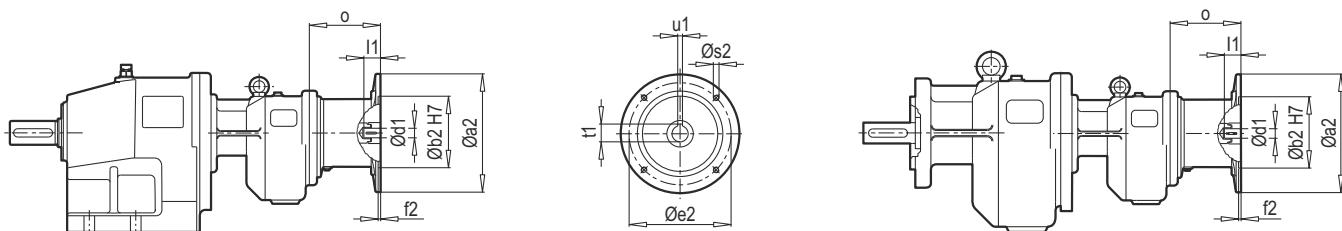
Not : (...) İşareti olan ölçüler Motor markasına göre farklılık gösterir.

Note : The dimensions which have (...) sign vary depending on the motor brand.

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

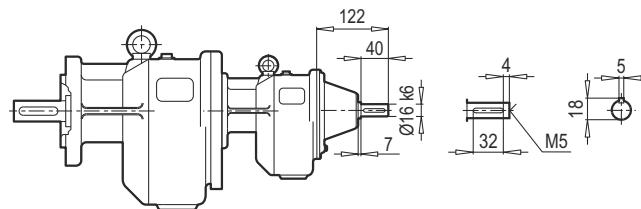
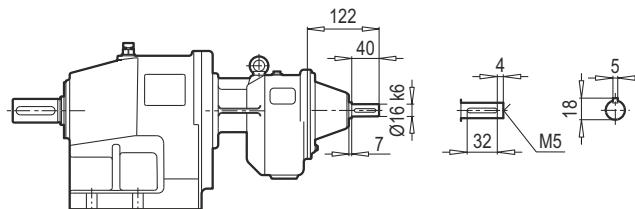


Tip / Type	IEC	Øa2	Øb2	Øe2	f2	Øs2	Ød1	I1	t1	u1	o	~ Kg
IEC	PA/PF 12/02	PA/PF 22/02	PA/PF 32/12	PA/PF 42/12	PA/PF 52/12							
PA/PF 12/02 - 22/02 - 32/12 - 42/12 - 52/12	63	140	95	115	3.5	M8	11	23	12.8	4	85	24
PA/PF 12/02 - 22/02 - 32/12 - 42/12 - 52/12	71	160	110	130	4.0	M8	14	30	16.3	5	89	37
PA/PF 12/02 - 22/02 - 32/12 - 42/12 - 52/12	80	200	130	165	4.0	M10	19	40	21.8	6	105	51
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	69
PA/PF 32/12 - 42/12 - 52/12	100	250	180	215	5.0	M12	28	60	31.3	8	130	70
PA/PF 32/12 - 42/12 - 52/12	112	250	180	215	5.0	M12	28	60	31.3	8	130	100

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

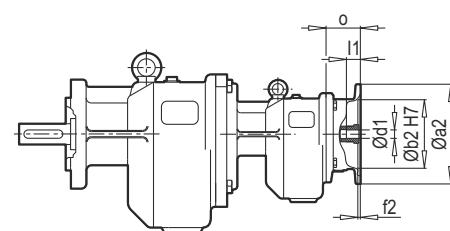
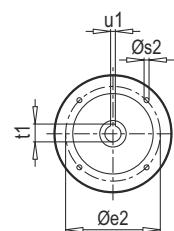
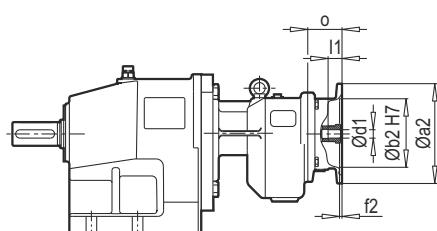


W ~ Kg	
PA/PF 12/02	23
PA/PF 22/02	36
PA/PF 32/12	50
PA/PF 42/12	68
PA/PF 52/12	99

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	PAM B5	Øa2	Øb2	Øe2	f2	Øs2	Ød1	I1	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

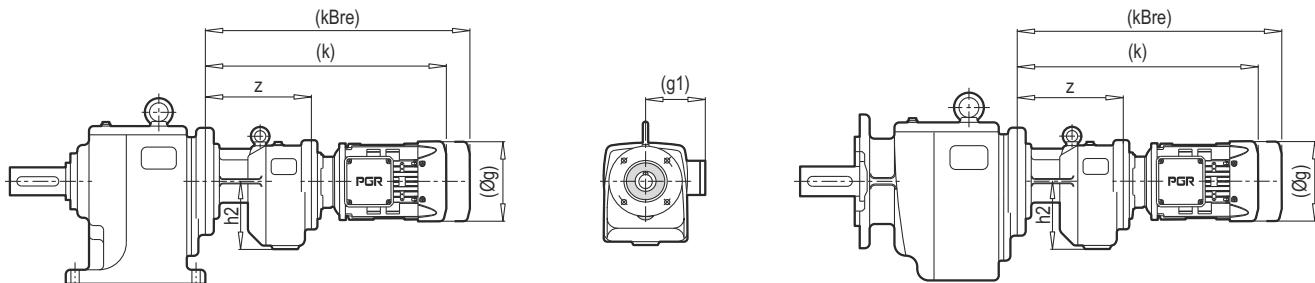
~ Kg						
PAM B5	PA/PF 12/02	PA/PF 22/02	PA/PF 32/12	PA/PF 42/12	PA/PF 52/12	
63	22	34	47	65	94	
71	22	34	47	65	94	
80	23	35	48	66	95	
90	23	35	48	66	95	
100	-	-	55	73	102	
112	-	-	55	73	102	

Tip / Type	PAM B14	Øa2	Øb2	Øe2	f2	Øs2	Ød1	I1	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



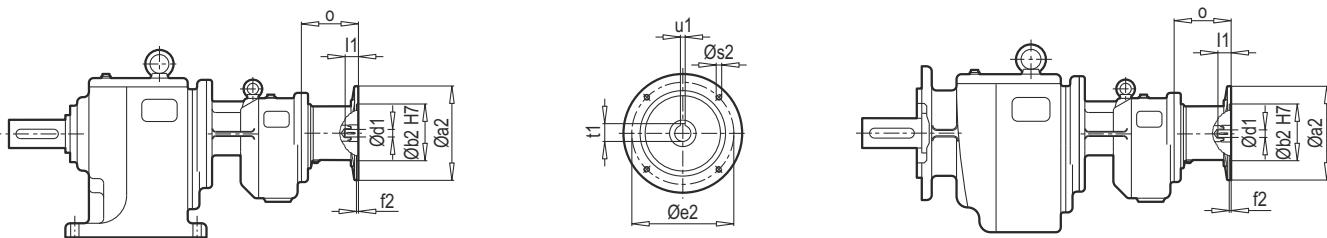
Tip / Type	Motor	g	g1	h2	z	k	kBre
PA/PF 63/22	71 M	140	119			432	492
PA/PF 73/22	80 M	159	127			458	520
	90 S/L	193	151			481/501	554/574
	100 L	217	160			529	610
PA/PF 73/32	80 M	159	127			500	562
PA/PF 83/32	90 S/L	193	151			523/543	596/616
	100 L	217	160			571	652
	112 M	232	168			616	696
	132 S/M	279	182			623/658	731/799

Not : (...) İşareti olan ölçüler Motor markasına göre farklılık gösterir.
Note : The dimensions which have (...) sign vary depending on the motor brand.

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



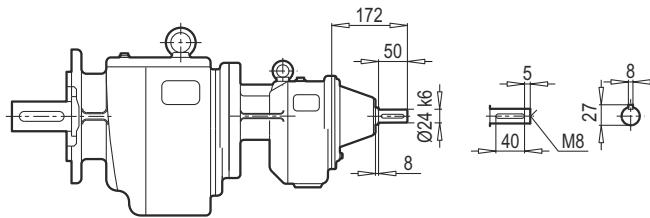
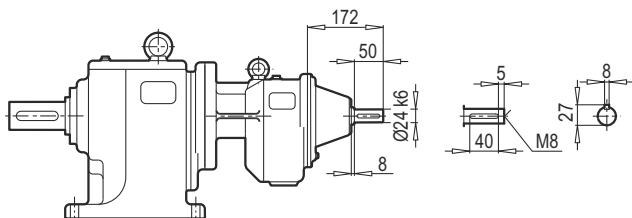
Tip / Type	IEC	Øa2	Øb2	Øe2	f2	Øs2	Ød1	I1	t1	u1	Ø
PA/PF 63/22 - 73/22 - 83/32	71	160	110	130	4.0	M8	14	30	16.3	5	88
PA/PF 63/22 - 73/22 - 83/32	80	200	130	165	4.0	M10	19	40	21.8	6	107
PA/PF 63/22 - 73/22 - 73/32 - 83/32	90	200	130	165	4.0	M10	24	50	27.3	8	107
PA/PF 63/22 - 73/22 - 73/32 - 83/32	100	250	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

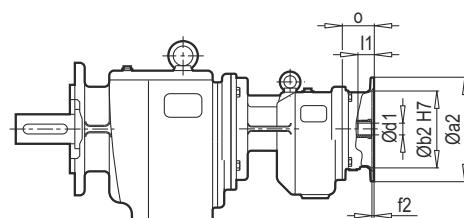
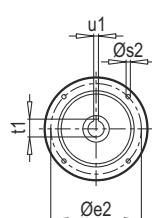
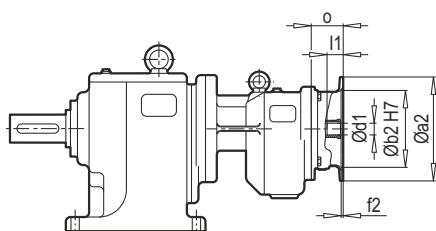


W ~ Kg	
PA/PF 63/22	166
PA/PF 73/22	251
PA/PF 73/32	263
PA/PF 83/32	378

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	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

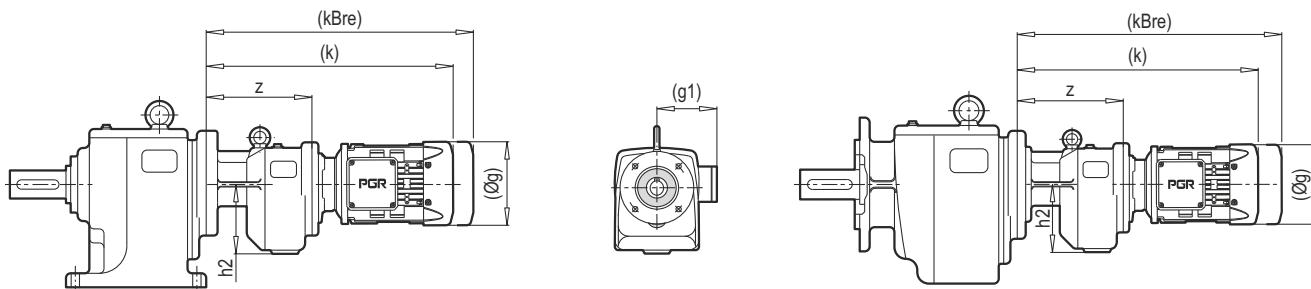
~ Kg					
PAM B5	PA/PF 63/22	PA/PF 73/22	PA/PF 73/32	PA/PF 83/32	
71	155	236	-	354	
80	156	237	-	355	
90	156	237	248	355	
100	157	238	249	356	
112	157	238	249	356	
132	-	-	259	366	

Tip / Type	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**



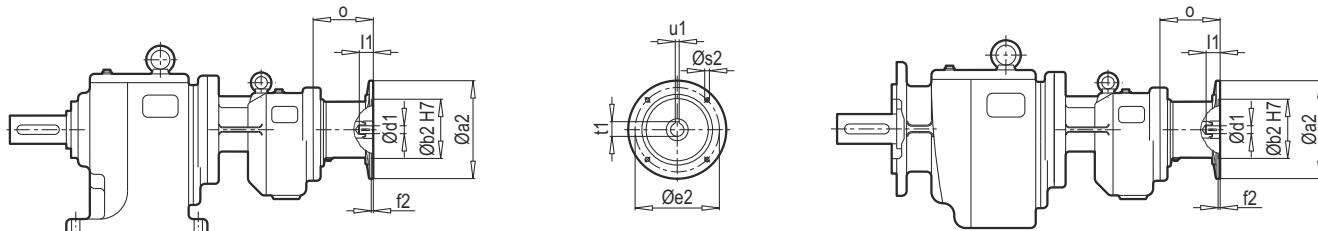
Tip / Type	Motor	g	g1	h2	z	k	kBre
PA/PF 83/42	90 S/L	193	151			547/567	620/640
PA/PF 93/42	100 L	217	160			595	676
	112 M	232	168			640	720
	132 S/M	279	182	179	282	647/682	755/896
PA/PF 93/52	90 S/L	193	151			586/606	659/679
PA/PF 103/52	100 L	217	160			634	715
	112 M	232	168			679	759
	132 S/M	279	182	218	321	686/721	794/862
	160 M/L	323	200			826	978
	180 M/L	370	248			900	1062

**Not : (...) İşareti olan ölçüler Motor markasına göre farklılık gösterir.
Note : The dimensions which have (...) sign vary depending on the motor brand.**

**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**



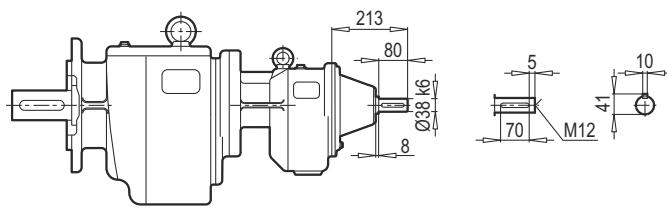
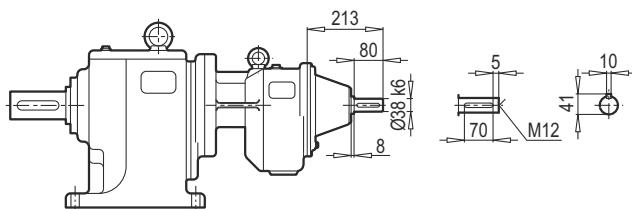
Tip / Type	IEC	Øa2	Øb2	Øe2	f2	Øs2	Ød1	l1	t1	u1	Ø
PA/PF 83/42 - 93/42 - 103/52	90	200	130	165	4.0	M10	24	50	27.3	8	109
PA/PF 83/42 - 93/42 - 93/52 - 103/52	100	250	180	215	5.0	M12	28	60	31.3	8	133
PA/PF 83/42 - 93/42 - 93/52 - 103/52	112	250	180	215	5.0	M12	28	60	31.3	8	133
PA/PF 83/42 - 93/42 - 93/52 - 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

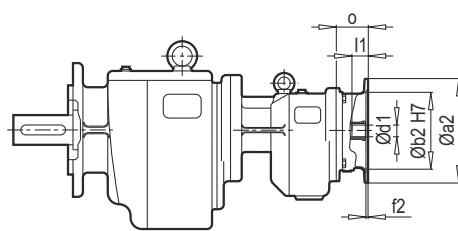
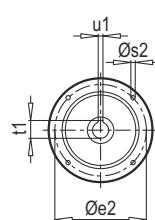
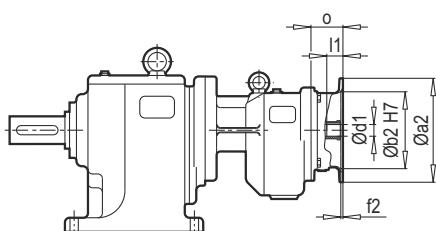


W ~ Kg	
PA/PF 83/42	405
PA/PF 93/42	595
PA/PF 93/52	625
PA/PF 103/52	858

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



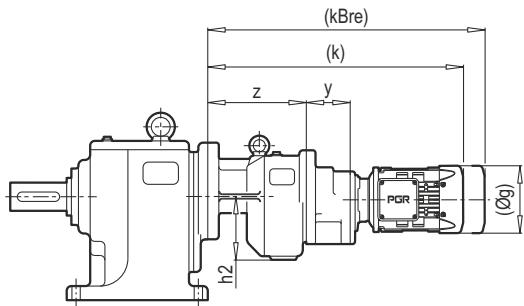
Tip / Type	PAM B5	Øa2	Øb2	Øe2	f2	Øs2	Ød1	I1	t1	u1	o
PA/PF 83/42 - 93/42 - 103/52	90	200	130	165	4.0	M10	24	50	27.3	8	72
PA/PF 83/42 - 93/42 - 93/52 - 103/52	100	250	180	215	5.0	M12	28	60	31.3	8	75
PA/PF 83/42 - 93/42 - 93/52 - 103/52	112	250	180	215	5.0	M12	28	60	31.3	8	75
PA/PF 83/42 - 93/42 - 93/52 - 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

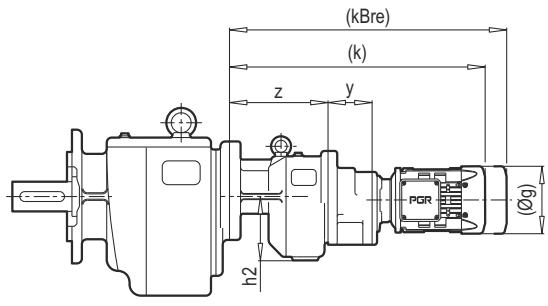
Tip / Type	PAM B14	Øa2	Øb2	Øe2	f2	Øs2	Ød1	I1	t1	u1	o
PA/PF 83/42 - 93/42 - 103/52	90	140	95	115	4.0	9	24	50	27.3	8	72
PA/PF 83/42 - 93/42 - 93/52 - 103/52	100	160	110	130	5.0	9	28	60	31.3	8	75
PA/PF 83/42 - 93/42 - 93/52 - 103/52	112	160	110	130	5.0	9	28	60	31.3	8	75
PA/PF 83/42 - 93/42 - 93/52 - 103/52	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



PF 63/23



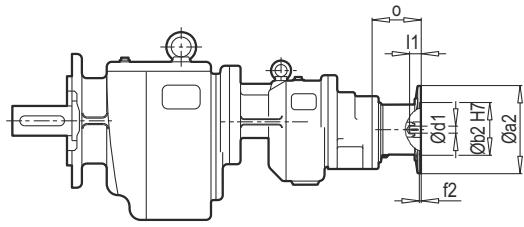
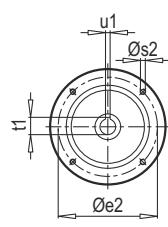
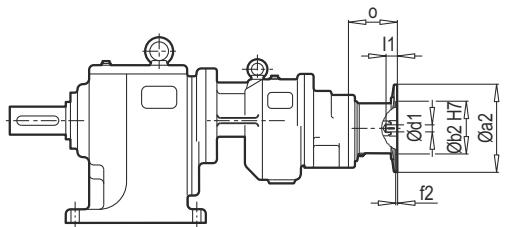
Tip / Type	Motor	g	g1	h2	z	y	k	kBre
PA/PF 63/23	71 M 80 M	140 159	119 127	127	196	60	496 523	556 585

Not : (...) İşareti olan ölçüler Motor markasına göre farklılık gösterir.
Note : The dimensions which have (...) sign vary depending on the motor brand.

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



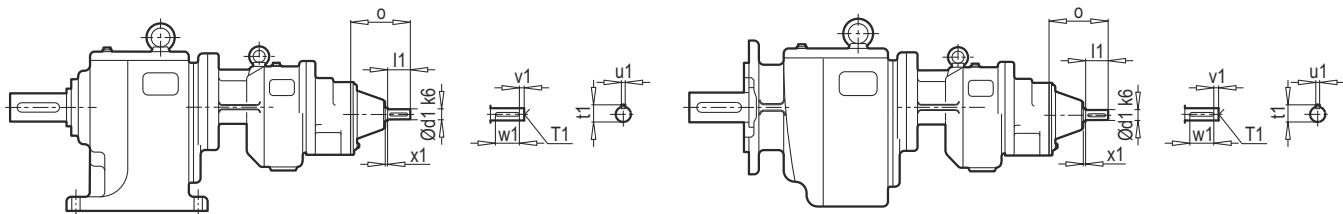
Tip / Type	IEC	Øa2	Øb2	Øe2	f2	Øs2	Ød1	I1	t1	u1	PA/PF 63/23 73/23 83/33 o	PA/PF 93/43 103/53 o
PA/PF 63/23-73/23-83/33	63	140	95	115	3.5	M8	11	23	12.8	4	85	-
PA/PF 63/23-73/23-83/33-93/43-103/53	71	160	110	130	4.0	M8	14	30	16.3	5	89	88
PA/PF 63/23-73/23-83/33-93/43-103/53	80	200	130	165	4.0	M10	19	40	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

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



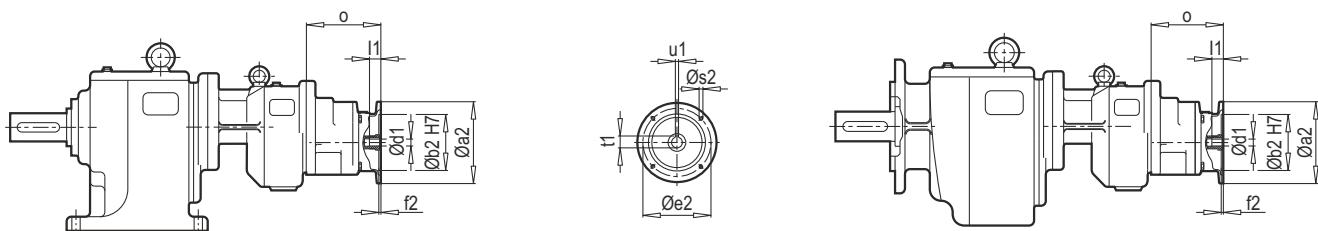
Tip / Type	Ød1	x1	I1	o	T1	t1	u1	v1	w1
PA/PF 63/23 PA/PF 73/23 PA/PF 83/33	16	7	40	122	M5	18	5	4	32
PA/PF 93/43 PA/PF 103/53	24	8	50	172	M8	27	8	5	40

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	PAM B5	Øa2	Øb2	Øe2	f2	Øs2	Ød1	I1	t1	u1	PA/PF 63/23 73/23 83/33	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	PAM B14	Øa2	Øb2	Øe2	f2	Øs2	Ød1	I1	t1	u1	PA/PF 63/23 73/23 83/33	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

PA / PF

PA
TEK KADEME
SINGLE REDUCTION



PF
TEK KADEME
SINGLE REDUCTION



PA
İKİ KADEME
DOUBLE REDUCTION



PF
İKİ KADEME
DOUBLE REDUCTION



PA
ÜÇ KADEME
TRIPLE REDUCTION



PF
ÜÇ KADEME
TRIPLE REDUCTION



W - IEC ve PAM adaptörü için performans tablolarının yapısı

Performance tables for W - IEC and PAM adapter type

PA 32

→ Redüktör Tipi / Gear unit type

PF 32

Motor gövde büyülüğu ile IEC gövde büyülüğu aynı olan IEC montajlı redüktörler için Servis faktörü f_B motor seçim sayfalarından alınabilir.

Service factor f_B could be checked from selection of geared motor tables. Because this value is the same for geared motor and geared motor with IEC adapters.

IEC motor büyülükleri ve IEC standart çıkışları DIN 50347'e göredir.

According to DIN EN 50347 IEC motor sizes.

Tip Type	Tahvil Reduction i_{ges}	Çıkış Hızı Output speed 4-pol. 50 Hz 1400rpm n_2 [min ⁻¹]	M _{max} $f_B = 1$ 4 - pol. [Nm]	Max. Giriş Gücü Max. Input Power				IEC - PAM $f_B \Rightarrow$ 49 - 82	DIN 42677' ye göre IEC Adaptör Bağlanacak Motor Boyutu				
				P_{1max} W $f_B \geq 1$					According to DIN 42677 IEC motor power depending on the number of motor poles				
				4 - pol. 1400rpm [kW]	6 - pol. 930rpm [kW]	8 - pol. 700rpm [kW]	12 - pol. 465rpm [kW]						
PA 32	81.27	17.20	515	0.93	0.62	0.46	0.31						
PF 32	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	71	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	4.60	3.04						
				9.20	6.07	4.60	3.04						

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

P_{1max} value which is *non-italic* is calculated when service factor f_B is equal to one.

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.

Max. çıkış momenti
Max.output torque
while service factor $f_B = 1$

Çıkış Devri
Output speed

Redüktör Tahvili
Reduction ratio

Redüktör Tipi
Gear unit type

Yıldız işaret: Dikkat
Tip W sütunundaki P_{1max} değerlerini aşmamalıdır.

Star sign is shown precautions
which is value of P_{1max} must be
greater than drive power.

Rakamlı alanlar IEC adaptörünün,
IEC motor büyülüği 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.

W - IEC - PAM

Tip Type	Tahvil Reduction i_{ges}	Çıkış Hızı Output speed 4-pol. 50 Hz 1400rpm n_2 [min $^{-1}$]	M _{max} $f_B = 1$	Max. Giriş Gücü Max. Input Power				IEC - PAM				DIN 42677' ye göre IEC Adaptöre Bağlanacak Motor Boyutu				
				P_{1max}		W		$f_B \geq 1$		$f_B \Rightarrow$ 49 - 82		According to DIN 42677 IEC motor power depending on the number of motor poles				
				4 - pol. 1400rpm [kW]	6 - pol. 930rpm [kW]	8 - pol. 700rpm [kW]	12 - pol. 465rpm [kW]									
PA 03 PF 03 W mm 96 + IEC - PAM mm 96-97	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 96 + IEC - PAM mm 96 - 97	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

63 [] IEC - PAM bağlantısı yapılır - IEC - PAM assembling available on numbered fields

80* [] IEC - PAM bağlantısı yapılacaksız P_{1max} değerleri aşılmamalıdır - Do not exceed the P_{1max} values indicated on fields with asterisk

W - IEC - PAM

Tip Type	Tahvil Reduction i_{ges}	Çıkış Hızı Output speed 4-pol. 50 Hz 1400rpm n_2 [min $^{-1}$]	M_{max} $f_B = 1$	Max. Giriş Gücü Max. Input Power				IEC - PAM				DIN 42677' ye göre IEC Adaptöre Bağlanacak Motor Boyutu			
				P_{1max}		W	$f_B \geq 1$	$f_B \Rightarrow$		49 - 82		According to DIN 42677 IEC motor power depending on the number of motor poles			
				4 - pol. 1400rpm [kW]	6 - pol. 930rpm [kW]	8 - pol. 700rpm [kW]	12 - pol. 465rpm [kW]								
PA 12/02 PF 12/02	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*						
	W	1277.78	1.10	180	0.06	0.04	0.03	0.02	63*	71*					
	↔ mm	1053.91	1.30	180	0.07	0.04	0.03	0.02	63*	71*					
	139	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*					
	IEC - PAM	536.07	2.60	180	0.09	0.06	0.04	0.03	63*	71*	80*	90*			
	↔ mm	430.48	3.30	180	0.10	0.07	0.05	0.03	63*	71*	80*	90*			
	139	340.07	4.10	180	0.12	0.08	0.06	0.04	63*	71*	80*	90*			
	138-139	263.85	5.30	180	0.14	0.09	0.07	0.05	63*	71*	80*	90*			
	139	213.21	6.60	180	0.16	0.11	0.08	0.05	63*	71*	80*	90*			
	139	165.75	8.40	180	0.20	0.13	0.10	0.07	63	71*	80*	90*			
	139	133.10	10.50	164	0.22	0.14	0.11	0.07	63	71*	80*	90*			
	139	109.78	12.80	164	0.26	0.17	0.13	0.09	63	71*	80*	90*			
	139	92.29	15.20	164	0.30	0.20	0.15	0.10	63	71*	80*	90*			
PA 13 PF 13	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*						
	W	275.17	5.10	176	0.09	0.06	0.05	0.03	63*	71*					
	↔ mm	244.64	5.70	177	0.11	0.07	0.05	0.04	63*	71*					
	100	195.71	7.20	194	0.15	0.10	0.07	0.05	63*	71*					
	100	159.23	8.80	167	0.15	0.10	0.08	0.05	63*	71*					
	IEC - PAM	132.48	10.60	148	0.16	0.11	0.08	0.05	63*	71*					
	↔ mm	108.73	12.90	177	0.24	0.16	0.12	0.08	63	71*					
	100 - 101	85.57	16.40	176	0.30	0.20	0.15	0.10	63	71*					
	100 - 101	68.46	20.40	196	0.37	0.24	0.19	0.12	63	71					

 IEC - PAM bağlantısı yoktur - No IEC - PAM assembling on empty fields

 63 IEC - PAM bağlantısı yapılır - IEC - PAM assembling available on numbered fields

 80* IEC - PAM bağlantısı yapılmaksa P_{1max} değerleri aşılmamalıdır - Do not exceed the P_{1max} values indicated on fields with asterisk

W - IEC - PAM

Tip Type	Tahvil Reduction i _{ges}	Çıkış Hızı Output speed 4-pol. 50 Hz 1400rpm n ₂ [min ⁻¹]	M _{max} f _B = 1	Max. Giriş Gücü Max. Input Power				IEC - PAM				DIN 42677' ye göre IEC Adaptöre Bağlanacak Motor Boyutu				
				P _{1max} W		f _B ≥ 1		f _B ⇒ 49 - 82		According to DIN 42677 IEC motor power depending on the number of motor poles						
				4 - pol. 1400rpm [kW]	6 - pol. 930rpm [kW]	8 - pol. 700rpm [kW]	12 - pol. 465rpm [kW]									
PA 12 PF 12	W 100 + IEC - PAM 100 - 101	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 85 + IEC - PAM 85	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*		

IEC - PAM bağlantısı yoktur - No IEC - PAM assembling on empty fields

63 IEC - PAM bağlantısı yapılır - IEC - PAM assembling available on numbered fields

80* IEC - PAM bağlantısı yapılacaksızda P_{1max} değerleri aşılmamalıdır - Do not exceed the P_{1max} values indicated on fields with asterisk

W - IEC - PAM

Tip Type	Tahvil Reduction i _{ges}	Çıkış Hızı Output speed 4-pol. 50 Hz 1400rpm n ₂ [min ⁻¹]	M _{max} f _B = 1 4 - pol. [Nm]	Max. Giriş Gücü Max. Input Power				IEC - PAM			DIN 42677' ye göre IEC Adaptöre Bağlanacak Motor Boyutu			
				P _{1max}	W	f _B ≥ 1	4 - pol. 1400rpm [kW]	6 - pol. 930rpm [kW]	8 - pol. 700rpm [kW]	12 - pol. 465rpm [kW]				
				4.06	0.03	0.03	0.02	0.02	0.02	0.02	63*	71*	63*	
PA 22/02		2531.66	0.55	340	0.06	0.03	0.03	0.02	0.02	0.02	63*	71*		
PF 22/02		2122.90	0.66	340	0.06	0.04	0.03	0.02	0.02	0.02	63*	71*		
		1778.23	0.79	340	0.07	0.04	0.03	0.02	0.02	0.02	63*	71*		
		1440.59	0.97	340	0.07	0.04	0.04	0.02	0.02	0.02	63*	71*		
	W	1156.84	1.20	340	0.08	0.05	0.04	0.02	0.02	0.02	63*	71*		
	mm	881.08	1.60	340	0.10	0.06	0.05	0.03	0.03	0.03	63*	71*	80*	90*
	+	682.53	2.10	340	0.11	0.07	0.06	0.03	0.03	0.03	63*	71*	80*	90*
	IEC - PAM	552.93	2.50	340	0.13	0.08	0.07	0.04	0.04	0.04	63*	71*	80*	90*
	mm	444.02	3.20	340	0.15	0.09	0.08	0.05	0.05	0.05	63*	71*	80*	90*
	+	344.50	4.10	340	0.18	0.12	0.09	0.06	0.06	0.06	63	71*	80*	90*
	IEC - PAM	284.14	4.90	340	0.22	0.14	0.11	0.07	0.07	0.07	63	71*	80*	90*
	mm	238.88	5.90	340	0.25	0.16	0.12	0.08	0.08	0.08	63	71*	80*	90*
	+	167.14	8.40	340	0.34	0.22	0.17	0.11	0.11	0.11	63	71*	80*	90*
	IEC - PAM	135.06	10.40	340	0.41	0.27	0.20	0.13	0.13	0.13	63	71	80*	90*
	mm	117.62	11.90	340	0.46	0.30	0.23	0.15	0.15	0.15	63	71	80*	90*
PA 23		516.35	2.70	274	0.08	0.05	0.04	0.03			63*	71*		
PF 23		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*		
	W	217.60	6.40	340	0.23	0.15	0.11	0.08			63	71*		
	mm	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*		
	IEC - PAM	124.10	11.30	340	0.40	0.27	0.20	0.13			63	71	80*	90*
	mm	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*
	IEC - PAM	78.00	17.90	340	0.64	0.42	0.32	0.21			63	71	80*	90*
	mm	64.80	21.60	340	0.75	0.50	0.38	0.25			63	71	80	90*

IEC - PAM bağlantısı yoktur - No IEC - PAM assembling on empty fields

63 IEC - PAM bağlantısı yapılır - IEC - PAM assembling available on numbered fields

80* IEC - PAM bağlantısı yapılacaksa P_{1max} değerleri aşılmamalıdır - Do not exceed the P_{1max} values indicated on fields with asterisk

W - IEC - PAM

Tip Type	Tahvil Reduction i _{ges}	Çıkış Hızı Output speed 4-pol. 50 Hz 1400rpm n ₂ [min ⁻¹]	M _{max} f _B = 1 4 - pol. [Nm]	Max. Giriş Gücü Max. Input Power				IEC - PAM				DIN 42677' ye göre IEC Adaptöre Bağlanacak Motor Boyutu				
				P _{1max}		W		f _B ≥ 1		f _B ⇒ 49 - 82		According to DIN 42677 IEC motor power depending on the number of motor poles				
				4 - pol. 1400rpm [kW]	6 - pol. 930rpm [kW]	8 - pol. 700rpm [kW]	12 - pol. 465rpm [kW]									
PA 22 PF 22 W + IEC - PAM 	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			90*	100*	112*				
	34.67	40.40	340	1.44	0.96	0.72	0.48		80	90*						
	29.34	47.70	292	1.46	0.97	0.73	0.48			90	100*	112*				
	28.80	48.60	374	1.90	1.26	0.95	0.63			80	90*					
	24.69	56.70	246	1.46	0.97	0.73	0.49				90	100*	112*			
	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 + IEC - PAM 	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

63 IEC - PAM bağlantısı yapılır - IEC - PAM assembling available on numbered fields

80* IEC - PAM bağlantısı yapılmaksa P_{1max} değerleri aşılmamalıdır - Do not exceed the P_{1max} values indicated on fields with asterisk

W - IEC - PAM

Tip Type	Tahvil Reduction i _{ges}	Çıkış Hızı Output speed 4-pol. 50 Hz 1400rpm n ₂ [min ⁻¹]	M _{max} f _B = 1 4 - pol. [Nm]	Max. Giriş Gücü Max. Input Power				IEC - PAM				DIN 42677' ye göre IEC Adaptöre Bağlanacak Motor Boyutu				
				P _{1max} W		f _B ≥ 1		f _B ⇒ 49 - 82		According to DIN 42677 IEC motor power depending on the number of motor poles						
				4 - pol. 1400rpm [kW]	6 - pol. 930rpm [kW]	8 - pol. 700rpm [kW]	12 - pol. 465rpm [kW]									
PA 32/12 PF 32/12	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*							
	W	1304.13	1.10	620	0.11	0.07	0.05	63*	71*							
	↔ mm	1080.92	1.30	620	0.12	0.08	0.06	63*	71*	80*	90*					
	↔ mm	868.98	1.60	620	0.14	0.09	0.07	63*	71*	80*	90*					
	+	699.71	2.00	620	0.17	0.11	0.08	63*	71*	80*	90*					
	IEC - PAM	554.87	2.50	620	0.20	0.13	0.10	63	71*	80*	90*	100*	112*			
	↔ mm	446.08	3.10	620	0.24	0.16	0.12	63	71*	80*	90*	100*	112*			
	↔ mm	362.93	3.90	620	0.29	0.19	0.15	63	71*	80*	90*	100*	112*			
	↔ mm	267.35	5.20	620	0.38	0.25	0.19	63	71	80*	90*	100*	112*			
	↔ mm	215.28	6.50	620	0.46	0.30	0.23	63	71	80*	90*	100*	112*			
	↔ mm	167.16	8.40	620	0.58	0.38	0.29	63	71	80*	90*	100*	112*			
	↔ mm	148.00	9.50	620	0.65	0.43	0.33	63	71	80*	90*	100*	112*			
	↔ mm	126.22	11.10	620	0.75	0.50	0.38	63	71	80	90*	100*	112*			
	↔ mm	82.19	17.00	620	1.10	0.73	0.55	63	71	80	90*	100*	112*			
PA 33 PF 33	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*							
	W	523.81	2.70	672	0.19	0.12	0.09	63	71*							
	↔ mm	421.10	3.30	672	0.23	0.16	0.12	63	71*							
	↔ mm	339.07	4.10	651	0.28	0.19	0.14	63	71*							
	↔ mm	248.21	5.60	672	0.40	0.26	0.20	63	71							
	↔ mm	206.97	6.80	672	0.48	0.32	0.24	63	71	80*	90*					
	↔ mm	166.39	8.40	672	0.59	0.39	0.30	63	71	80*	90*					
	↔ mm	133.98	10.40	651	0.71	0.47	0.36	63	71	80*	90*					
IEC - PAM	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*			

IEC - PAM bağlantısı yoktur - No IEC - PAM assembling on empty fields

63 IEC - PAM bağlantısı yapılır - IEC - PAM assembling available on numbered fields

80* IEC - PAM bağlantısı yapılacaksızda P_{1max} değerleri aşılmamalıdır - Do not exceed the P_{1max} values indicated on fields with asterisk

W - IEC - PAM

Tip Type	Tahvil Reduction i _{ges}	Çıkış Hızı Output speed 4-pol. 50 Hz 1400rpm n ₂ [min ⁻¹]	M _{max} f _B = 1 4 - pol. [Nm]	Max. Giriş Gücü Max. Input Power				IEC - PAM				DIN 42677' ye göre IEC Adaptöre Bağlanacak Motor Boyutu			
				P _{1max}		W	f _B ≥ 1	f _B ⇒ 49 - 82		According to DIN 42677 IEC motor power depending on the number of motor poles					
				4 - pol. 1400rpm [kW]	6 - pol. 930rpm [kW]	8 - pol. 700rpm [kW]	12 - pol. 465rpm [kW]	71	80	90*					
PA 32 PF 32	W mm 108	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		
		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		
		11.70	119.70	710	8.90	5.91	4.45	2.95	71	80	90	100	112		
		9.79	143.00	647	9.20	6.07	4.60	3.04	71	80	90	100	112		
		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			
PA 31 PF 31	W mm 89	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			
		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		
IEC - PAM	mm 89	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			

IEC - PAM bağlantısı yoktur - No IEC - PAM assembling on empty fields

63 IEC - PAM bağlantısı yapılır - IEC - PAM assembling available on numbered fields

80* IEC - PAM bağlantısı yapılacaksızda P_{1max} değerleri aşılmamalıdır - Do not exceed the P_{1max} values indicated on fields with asterisk

W - IEC - PAM

Tip Type	Tahvil Reduction i_{ges}	Çıkış Hızı Output speed 4-pol. 50 Hz 1400rpm n_2 [min $^{-1}$]	Mamax $f_B = 1$	Max. Giriş Gücü Max. Input Power				IEC - PAM				DIN 42677' ye göre IEC Adaptöre Bağlanacak Motor Boyutu				
				P_{1max}		W		$f_B \geq 1$		$f_B \Rightarrow$ 49 - 82		According to DIN 42677 IEC motor power depending on the number of motor poles				
				4 - pol. 1400rpm [kW]	6 - pol. 930rpm [kW]	8 - pol. 700rpm [kW]	12 - pol. 465rpm [kW]									
PA 42/12 PF 42/12	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*							
	W	1393.57	1.00	1200	0.17	0.10	0.08	63*	71*							
	↔ mm	1114.85	1.30	1200	0.20	0.12	0.10	63	71*							
	139	750.00	1.90	1200	0.27	0.18	0.14	63	71*	80*	90*					
	+	670.92	2.10	1200	0.30	0.19	0.15	63	71*	80*						
	IEC - PAM	550.63	2.50	1200	0.36	0.23	0.18	63	71*	80*	90*					
	↔ mm	433.11	3.20	1200	0.45	0.29	0.22	63	71	80*	90*	100*	112*			
	138-139	346.69	4.00	1200	0.55	0.36	0.27	63	71	80*	90*	100*	112*			
	139	276.49	5.10	1200	0.68	0.44	0.34	63	71	80*	90*	100*	112*			
	+	229.62	6.10	1200	0.77	0.51	0.38	63	71	80	90*	100*	112*			
	IEC - PAM	169.11	8.30	1200	1.04	0.69	0.52	63	71	80	90*	100*	112*			
	↔ mm	140.44	10.00	1200	1.25	0.83	0.63	63	71	80	90*	100*	112*			
	139	116.26	12.00	1200	1.51	1.01	0.76	63	71	80	90	100*	112*			
	+	87.79	15.90	1200	2.00	1.33	1.00	63	71	80	90	100*	112*			
PA 43 PF 43	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*						
	W	618.49	2.30	1112	0.26	0.18	0.13	0.09	71*	80*	90*					
	↔ mm	528.04	2.70	990	0.27	0.18	0.14	0.09	71*	80*	90*					
	112	421.21	3.30	1186	0.41	0.27	0.21	0.14	71	80*	90*					
	139	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*					
	IEC - PAM	278.52	5.00	1279	0.67	0.45	0.34	0.22	71	80*	90*					
	↔ mm	264.02	5.30	1267	0.70	0.47	0.35	0.23	71	80*	90*					
	112-113	231.31	6.10	1116	0.71	0.47	0.35	0.23	71	80*	90*					
	139	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	71	80	90*					
	IEC - PAM	182.86	7.70	1017	0.82	0.54	0.41	0.27	71	80	90*					
	↔ mm	169.82	8.20	1166	1.01	0.67	0.50	0.33	71	80	90*					
	139	141.63	9.90	1053	1.09	0.72	0.54	0.36	71	80	90*					
	+	129.27	10.80	1240	1.41	0.93	0.70	0.47	71	80	90*	100*	112*			
	139	107.36	13.00	1116	1.52	1.01	0.76	0.51	71	80	90	100*	112*			
	139	94.91	14.80	1240	1.92	1.27	0.96	0.64	71	80	90	100*	112*			
	139	80.01	17.50	1230	2.25	1.50	1.13	0.75	71	80	90	100*	112*			
	139	70.10	20.00	1260	2.63	1.75	1.32	0.88	71	80	90	100*	112*			
	139	58.22	24.00	1166	2.94	1.95	1.47	0.98	71	80	90	100*	112*			
	139	48.55	28.80	1045	3.16	2.10	1.58	1.05	71	80	90	100	112*			
	139	40.91	34.20	1041	3.73	2.48	1.87	1.24	71	80	90	100	112*			

IEC - PAM bağlantısı yoktur - No IEC - PAM assembling on empty fields

63 IEC - PAM bağlantısı yapılır - IEC - PAM assembling available on numbered fields

80* IEC - PAM bağlantısı yapılacaksızda P_{1max} değerleri aşılmamalıdır - Do not exceed the P_{1max} values indicated on fields with asterisk

W - IEC - PAM

Tip Type	Tahvil Reduction i_{ges}	Çıkış Hızı Output speed 4-pol. 50 Hz 1400rpm n_2 [min $^{-1}$]	Mamax $f_B = 1$ 4 - pol. [Nm]	Max. Giriş Gücü Max. Input Power				IEC - PAM				DIN 42677' ye göre IEC Adaptöre Bağlanacak Motor Boyutu				
				P_{1max}		W		$f_B \geq 1$		$f_B \Rightarrow$ 49 - 82		According to DIN 42677 IEC motor power depending on the number of motor poles				
				4 - pol. 1400rpm [kW]	6 - pol. 930rpm [kW]	8 - pol. 700rpm [kW]	12 - pol. 465rpm [kW]									
PA 42 PF 42	W 112 + IEC - PAM 112-113	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	90	100	112					
		24.68	56.70	891	5.29	3.52	2.65	1.76	100	112	132*					
		24.42	57.30	858	5.15	3.42	2.58	1.71	90	100	112	132*				
		21.85	64.10	1096	7.35	4.88	3.68	2.44	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 91 + IEC - PAM 91	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				

IEC - PAM bağlantısı yoktur - No IEC - PAM assembling on empty fields

63 IEC - PAM bağlantısı yapılır - IEC - PAM assembling available on numbered fields

80* IEC - PAM bağlantısı yapılmaksa P_{1max} değerleri aşılmamalıdır - Do not exceed the P_{1max} values indicated on fields with asterisk

W - IEC - PAM

Tip Type	Tahvil Reduction i_{ges}	Çıkış Hızı Output speed 4-pol. 50 Hz 1400rpm $n_2 [\text{min}^{-1}]$	Mamax $f_B = 1$ 4 - pol. [Nm]	Max. Giriş Gücü Max. Input Power				IEC - PAM				DIN 42677' ye göre IEC Adaptöre Bağlanacak Motor Boyutu					
				$P_{1\max}$		W		$f_B \geq 1$		$f_B \Rightarrow$		49 - 82		According to DIN 42677 IEC motor power depending on the number of motor poles			
				4 - pol. 1400rpm [kW]	6 - pol. 930rpm [kW]	8 - pol. 700rpm [kW]	12 - pol. 465rpm [kW]										
PA 52/12 PF 52/12	W mm 139 + IEC - PAM mm 138-139	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 116 + IEC - PAM mm 116-117	728.98	1.90	1595	0.32	0.21	0.16	0.11									
		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

63 IEC - PAM bağlantısı yapılır - IEC - PAM assembling available on numbered fields

80* IEC - PAM bağlantısı yapılacaksa $P_{1\max}$ değerleri aşılmamalıdır - Do not exceed the $P_{1\max}$ values indicated on fields with asterisk

W - IEC - PAM

Tip Type	Tahvil Reduction i _{ges}	Çıkış Hızı Output speed 4-pol. 50 Hz 1400rpm n ₂ [min ⁻¹]	M _{max} f _B = 1	Max. Giriş Gücü Max. Input Power				IEC - PAM				DIN 42677' ye göre IEC Adaptöre Bağlanacak Motor Boyutu				
				P _{1max} W		f _B ≥ 1		f _B ⇒ 49 - 82		According to DIN 42677 IEC motor power depending on the number of motor poles						
				4 - pol. 1400rpm [kW]	6 - pol. 930rpm [kW]	8 - pol. 700rpm [kW]	12 - pol. 465rpm [kW]									
PA 52 PF 52	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	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				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

63 IEC - PAM bağlantısı yapılır - IEC - PAM assembling available on numbered fields

80* IEC - PAM bağlantısı yapılmaksa P_{1max} değerleri aşılmamalıdır - Do not exceed the P_{1max} values indicated on fields with asterisk

W - IEC - PAM

Tip Type	Tahvil Reduction i_{ges}	Çıkış Hızı Output speed 4-pol. 50 Hz 1400rpm n_2 [min $^{-1}$]	M _{max} $f_B = 1$ 4 - pol. [Nm]	Max. Giriş Gücü Max. Input Power				IEC - PAM				DIN 42677' ye göre IEC Adaptöre Bağlanacak Motor Boyutu				
				P_{1max}		W		$f_B \geq 1$		$f_B \Rightarrow$  49 - 82		According to DIN 42677 IEC motor power depending on the number of motor poles				
				4 - pol. 1400rpm [kW]	6 - pol. 930rpm [kW]	8 - pol. 700rpm [kW]	12 - pol. 465rpm [kW]									
PA 63/23 PF 63/23	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*							
	W  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	63	71*	80*	90*					
	IEC - PAM  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*					
IEC - PAM	 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	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*				
	W  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*			
	IEC - PAM  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*				

 IEC - PAM bağlantısı yoktur - No IEC - PAM assembling on empty fields

 63 IEC - PAM bağlantısı yapılır - IEC - PAM assembling available on numbered fields

 80* IEC - PAM bağlantısı yapılacaksız P_{1max} değerleri aşılmamalıdır - Do not exceed the P_{1max} values indicated on fields with asterisk

W - IEC - PAM

Tip Type	Tahvil Reduction i_{ges}	Çıkış Hızı Output speed 4-pol. 50 Hz 1400rpm n_2 [min $^{-1}$]	Mamax $f_B = 1$ 4 - pol. [Nm]	Max. Giriş Gücü Max. Input Power				IEC - PAM				DIN 42677' ye göre IEC Adaptöre Bağlanacak Motor Boyutu				
				P1max		W	$f_B \geq 1$	$f_B \Rightarrow$ 49 - 82		According to DIN 42677 IEC motor power depending on the number of motor poles						
				4 - pol. 1400rpm [kW]	6 - pol. 930rpm [kW]	8 - pol. 700rpm [kW]	12 - pol. 465rpm [kW]									
PA 63 PF 63	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	132*	160*				
	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	48.75	28.70	2510	7.55	5.01	3.77	2.51									
	37.08	37.80	3010	11.90	7.91	5.95	3.95	100	112	132*						
	18.16	77.10	3077	24.84	16.50	12.42	8.25				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				
	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			

IEC - PAM bağlantısı yoktur - No IEC - PAM assembling on empty fields

63 IEC - PAM bağlantısı yapılır - IEC - PAM assembling available on numbered fields

80* IEC - PAM bağlantısı yapılacaksızda P1max değerleri aşılmamalıdır - Do not exceed the P1max values indicated on fields with asterisk

W - IEC - PAM

Tip Type	Tahvil Reduction i_{ges}	Çıkış Hızı Output speed 4-pol. 50 Hz 1400rpm n_2 [min ⁻¹]	M _{max} $f_B = 1$ 4 - pol. [Nm]	Max. Giriş Gücü Max. Input Power				IEC - PAM				DIN 42677' ye göre IEC Adaptöre Bağlanacak Motor Boyutu			
				P_{1max}		W		$f_B \geq 1$		$f_B \Rightarrow$ 49 - 82		According to DIN 42677 IEC motor power depending on the number of motor poles			
				4 - pol. 1400rpm [kW]	6 - pol. 930rpm [kW]	8 - pol. 700rpm [kW]	12 - pol. 465rpm [kW]								
PA 73/23	13435.41	0.10	5000	0.09	0.07	0.05	0.03	63*	71*						
PF 73/23	11303.83	0.12	5000	0.10	0.07	0.05	0.04	63*	71*						
W mm ↔ 145	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	0.05	63*	71*	80*	90*				
5483.87	0.26	5000	0.17	0.12	0.09	0.06	0.06	63*	71*	80*	90*				
+	4429.50	0.32	5000	0.21	0.14	0.10	0.07	63	71*	80*	90*				
IEC - PAM mm ↔ 144-145															
PA 73/22	3433.54	0.41	5000	0.25	0.17	0.13	0.09	71*	80*	90*					
PF 73/22	2773.38	0.50	5000	0.30	0.21	0.15	0.10	71*	80*	90*					
W mm ↔ 141	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	226.38	6.20	5000	3.24	2.15	1.62	1.08								
PF 73/32	171.10	8.20	5000	4.28	2.85	2.14	1.42	90	100	112*	132*				
W mm ↔ 141	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 mm ↔ 140-141															
<p> IEC - PAM bağlantısı yoktur - No IEC - PAM assembling on empty fields</p> <p>63 IEC - PAM bağlantısı yapılır - IEC - PAM assembling available on numbered fields</p> <p>80* IEC - PAM bağlantısı yapılacaksa P_{1max} değerleri aşılmamalıdır - Do not exceed the P_{1max} values indicated on fields with asterisk</p>															

W - IEC - PAM

Tip Type	Tahvil Reduction i _{ges}	Çıkış Hizi Output speed 4-pol. 50 Hz 1400rpm n ₂ [min ⁻¹]	M _{amax} f _B = 1	Max. Giriş Gücü Max. Input Power				IEC - PAM				DIN 42677' ye göre IEC Adaptöre Bağlanacak Motor Boyutu				
				P1max W f _B ≥ 1				f _B ⇒ 49 - 82				According to DIN 42677 IEC motor power depending on the number of motor poles				
				4 - pol. 1400rpm [Nm]	4 - pol. 1400rpm [kW]	6 - pol. 930rpm [kW]	8 - pol. 700rpm [kW]	12 - pol. 465rpm [kW]								
PA 73	205.59	6.80	5330	3.80	2.52	1.90	1.26	100	112*	132*						
PF 73	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*				
	W	124.38	11.30	5000	5.89	3.91	2.95	1.96	100	112	132*					
	↔ mm	100.47	13.90	4000	5.84	3.88	2.92	1.94	100	112	132*					
	↔ 124	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*			
	IEC - PAM	60.42	23.20	5650	13.71	9.11	6.85	4.55	100	112	132	160*	180*			
	↔ mm	52.28	26.80	5560	15.59	10.36	7.80	5.18	100	112	132	160	180*			
	↔ 124-125	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	43.70	32.00	4050	13.59	9.03	6.79	4.51	132	160*	180*						
PF 72	33.08	42.30	3217	14.26	9.47	7.13	4.74	132	160*	180*						
	W	28.58	49.00	4053	20.79	13.81	10.39	6.91		160	180*	200*				
	↔ mm	21.64	64.70	4492	30.43	20.21	15.22	10.11		160	180	200				
	↔ 124	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*			
	IEC - PAM	14.33	97.70	4053	41.46	27.54	20.73	13.77	132	160	180	200	225*			
	↔ mm	12.49	112.10	4053	47.57	31.60	23.79	15.80	132	160	180	200	225			
	↔ 124-125	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			

IEC - PAM bağlantı yoktur - No IEC - PAM assembling on empty fields

63 IEC - PAM bağlantısı yapılır - IEC - PAM assembling available on numbered fields

80* IEC - PAM bağlantıları yapılacağsa P1max değerleri aşılmamalıdır - Do not exceed the P1max values indicated on fields with asterisk

W - IEC - PAM

Tip Type	Tahvil Reduction i_{ges}	Çıkış Hızı Output speed 4-pol. 50 Hz 1400rpm n_2 [min $^{-1}$]	M _{max} $f_B = 1$	Max. Giriş Gücü Max. Input Power				IEC - PAM				DIN 42677' ye göre IEC Adaptöre Bağlanacak Motor Boyutu			
				P_{1max}		W		$f_B \geq 1$		$f_B \Rightarrow$  49 - 82		According to DIN 42677 IEC motor power depending on the number of motor poles			
				4 - pol. 1400rpm [kW]	6 - pol. 930rpm [kW]	8 - pol. 700rpm [kW]	12 - pol. 465rpm [kW]								
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  6931.18	8572.29	0.16	8000	0.18	0.12	0.09	0.06	63*	71*	80*	90*				
 145	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  144-145															
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  1683.27	2039.02	0.69	8000	0.62	0.41	0.31	0.21			80*	90*				
 141	1366.81	1.00	8000	0.86	0.57	0.43	0.28	71	80*	90*	100*	112*			
+	1151.94	1.20	8000	1.02	0.68	0.51	0.34	71	80	90*	100*	112*			
IEC - PAM  140-141	897.44	1.60	8000	1.31	0.87	0.65	0.43	71	80	90*	100*	112*	132*		
	722.63	1.90	8000	1.62	1.08	0.81	0.54	71	80	90	100*	112*	132*		
PA 83/42	525.11	2.70	8000	2.23	1.48	1.12	0.74								
PF 83/42	437.93	3.20	8000	2.68	1.78	1.34	0.89	90	100*	112*	132*	160*			
W  374.50	276.00	3.70	8000	3.13	2.08	1.57	1.04	90	100*	112*	132*	160*			
 143	236.03	5.10	8000	4.25	2.82	2.12	1.41	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  142-143	149.01	9.40	8000	7.87	5.23	3.94	2.61	90	100	112	132*	160*			
	126.95	11.00	8000	9.24	6.14	4.62	3.07	90	100	112	132	160*			

 IEC - PAM bağlantısı yoktur - No IEC - PAM assembling on empty fields

 63 IEC - PAM bağlantısı yapılır - IEC - PAM assembling available on numbered fields

 80* IEC - PAM bağlantısı yapılacaksa P_{1max} değerleri aşılmamalıdır - Do not exceed the P_{1max} values indicated on fields with asterisk

W - IEC - PAM

Tip Type	Tahvil Reduction i_{ges}	Çıkış Hızı Output speed 4-pol. 50 Hz 1400rpm n_2 [min $^{-1}$]	M _{max} $f_B = 1$	Max. Giriş Gücü Max. Input Power				IEC - PAM $f_B \Rightarrow$ 49 - 82					DIN 42677' ye göre IEC Adaptöre Bağlanacak Motor Boyutu According to DIN 42677 IEC motor power depending on the number of motor poles														
				P_{1max}		W																					
				4 - pol. 1400rpm [kW]	6 - pol. 930rpm [kW]	8 - pol. 700rpm [kW]	12 - pol. 465rpm [kW]																				
PA 83 PF 83	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	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*													

IEC - PAM bağlantısı yoktur - No IEC - PAM assembling on empty fields

63 IEC - PAM bağlantısı yapılır - IEC - PAM assembling available on numbered fields

80* IEC - PAM bağlantısı yapılmaksa P_{1max} değerleri aşılmamalıdır - Do not exceed the P_{1max} values indicated on fields with asterisk

W - IEC - PAM

Tip Type	Tahvil Reduction    145	Çıkış Hızı Output speed 4-pol. 50 Hz 1400rpm n_2 [min $^{-1}$]	M _{max} $f_B = 1$ 4 - pol. [Nm]	Max. Giriş Gücü Max. Input Power				IEC - PAM				DIN 42677' ye göre IEC Adaptöre Bağlanacak Motor Boyutu			
				P_{1max}		W		$f_B \geq 1$		$f_B \Rightarrow$  49 - 82		According to DIN 42677 IEC motor power depending on the number of motor poles			
				4 - pol. 1400rpm [kW]	6 - pol. 930rpm [kW]	8 - pol. 700rpm [kW]	12 - pol. 465rpm [kW]	71*	80*	90*					
PA 93/43 PF 93/43    145	13926.28	0.10	12200	0.17	0.11	0.08	0.05	71*	80*	90*					
	11275.92	0.12	12200	0.20	0.13	0.10	0.06	71*	80*	90*					
	8526.73	0.16	12200	0.25	0.16	0.12	0.08	71*	80*	90*					
	6948.97	0.20	12200	0.30	0.19	0.15	0.10	71*	80*	90*	100*	112*			
	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*			
	3730.70	0.38	12200	0.52	0.34	0.26	0.17	71	80*	90*	100*	112*			
	2714.80	0.52	12200	0.70	0.46	0.35	0.23	71	80*	90*	100*	112*			
	2199.04	0.64	12200	0.81	0.54	0.41	0.27	71	80	90*	100*	112*			
PA 93/42 PF 93/42    143	1644.01	0.85	12200	1.09	0.72	0.54	0.36		100*	112*	132*				
	1299.17	1.10	12200	1.38	0.91	0.69	0.46	90*	100*	112*					
	1090.99	1.30	12200	1.64	1.09	0.82	0.54	90	100*	112*	132*	160*			
	811.95	1.70	12200	2.20	1.46	1.10	0.73	90	100*	112*	132*	160*			
	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*			
	456.91	3.10	12200	3.91	2.60	1.96	1.30	90	100	112*	132*	160*			
	332.89	4.20	12200	5.37	3.57	2.69	1.78	90	100	112	132*	160*			
	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 PF 93/52    143	160.87	8.70	12200	11.12	7.39	5.56	3.69		100	112	132	160*	180*		
	127.35	11.00	12200	14.04	9.33	7.02	4.66	100	112	132	160*	180*			
	107.56	13.00	12200	16.63	11.05	8.31	5.52				160	180*			

 IEC - PAM bağlantısı yoktur - No IEC - PAM assembling on empty fields

 63 IEC - PAM bağlantısı yapılır - IEC - PAM assembling available on numbered fields

 80* IEC - PAM bağlantısı yapılmaksa P_{1max} değerleri aşılmamalıdır - Do not exceed the P_{1max} values indicated on fields with asterisk

W - IEC - PAM

Tip Type	Tahvil Reduction i_{ges}	Çıkış Hızı Output speed 4-pol. 50 Hz 1400rpm n_2 [min $^{-1}$]	M _{max} $f_B = 1$	Max. Giriş Gücü Max. Input Power				IEC - PAM							DIN 42677' ye göre IEC Adaptöre Bağlanacak Motor Boyutu										
				P_{1max}		W		$f_B \geq 1$				According to DIN 42677 IEC motor power depending on the number of motor poles													
				4 - pol. 1400rpm [kW]	6 - pol. 930rpm [kW]	8 - pol. 700rpm [kW]	12 - pol. 465rpm [kW]	132	160*	180*	200*	132	160	180*	200*	225*	250*	280*	132	160	180*	200	225*	250*	280*
PA 93 PF 93 W mm 132 + IEC - PAM mm 132-133	187.99	7.40	13980	10.90	7.24	5.45	3.62	132	160*	180*	200*	132	160	180*	200*	225*	250*	280*	132	160	180*	200	225*	250*	280*
	122.97	11.40	13950	16.63	11.05	8.32	5.52	132	160	180*	200*	132	160	180*	200*	225*	250*	280*	132	160	180*	200	225*	250*	280*
	109.25	12.80	11560	15.51	10.30	7.76	5.15	132	160	180*	200*	132	160	180*	200*	225*	250*	280*	132	160	180*	200	225*	250*	280*
	93.43	15.00	14000	21.97	14.59	10.98	7.30	132	160	180*	200*	132	160	180*	200*	225*	250*	280*	132	160	180*	200	225*	250*	280*
	72.42	19.30	13400	27.13	18.02	13.56	9.01	132	160	180*	200*	132	160	180*	200*	225*	250*	280*	132	160	180*	200	225*	250*	280*
	61.66	22.70	12700	30.19	20.06	15.10	10.03	132	160	180*	200*	132	160	180*	200*	225*	250*	280*	132	160	180*	200	225*	250*	280*
	53.75	26.00	12250	33.41	22.19	16.71	11.10	132	160	180*	200*	132	160	180*	200*	225*	250*	280*	132	160	180*	200	225*	250*	280*
	46.63	30.00	12200	38.35	25.48	19.18	12.74	132	160	180*	200*	132	160	180*	200*	225*	250*	280*	132	160	180*	200	225*	250*	280*
	39.46	35.50	12200	45.32	30.11	22.66	15.05	132	160	180*	200*	132	160	180*	200*	225*	250*	280*	132	160	180*	200	225*	250*	280*
	31.24	44.80	12200	57.25	38.03	28.62	19.02	132	160	180*	200*	132	160	180*	200*	225	250	280*	132	160	180*	200	225	250	280*
	27.10	51.70	12200	66.00	43.84	33.00	21.92	132	160	180*	200*	132	160	180*	200*	225	250	280*	132	160	180*	200	225	250	280*
	22.93	61.10	12200	75.00	49.50	37.50	24.75	132	160	180*	200*	132	160	180*	200*	225	250	280*	132	160	180*	200	225	250	280*
	19.17	73.00	12200	75.00	49.50	37.50	24.75	132	160	180*	200*	132	160	180*	200*	225	250	280*	132	160	180*	200	225	250	280*
PA 92 PF 92 W mm 132 + IEC - PAM mm 132-133	35.47	39.50	9640	39.84	26.47	19.92	13.23	160	180	200	225	180	200	225	250	280	315*	315*	180	200	225	250	280	315*	315*
	29.30	47.80	10775	53.91	35.81	26.96	17.91	180	200	225	250	180	200	225	250	280	315*	315*	180	200	225	250	280	315*	315*
	16.47	85.00	10613	94.46	62.75	47.23	31.38	180	200	225	250	180	200	225	250	280	315*	315*	180	200	225	250	280	315*	315*
	14.36	97.50	10774	109.99	73.06	54.99	36.53	180	200	225	250	180	200	225	250	280	315*	315*	180	200	225	250	280	315*	315*
	12.39	113.00	10592	125.32	83.25	62.66	41.63	180	200	225	250	180	200	225	250	280	315*	315*	180	200	225	250	280	315*	315*
	10.50	133.30	10112	141.18	93.78	70.59	46.89	180	200	225	250	180	200	225	250	280	315*	315*	180	200	225	250	280	315*	315*
	7.78	179.90	6085	114.66	76.17	57.33	38.08	180	200	225	250	180	200	225	250	280	315*	315*	180	200	225	250	280	315*	315*
	6.71	208.60	7012	153.19	101.77	76.60	50.88	180	200	225	250	180	200	225	250	280	315*	315*	180	200	225	250	280	315*	315*
	5.68	246.50	7212	160.00	105.60	80.00	52.80	180	200	225	250	180	200	225	250	280	315*	315*	180	200	225	250	280	315*	315*
	3.51	398.90	5572	160.00	105.60	80.00	52.80																		

IEC - PAM bağlantısı yoktur - No IEC - PAM assembling on empty fields

63 IEC - PAM bağlantısı yapılır - IEC - PAM assembling available on numbered fields

80* IEC - PAM bağlantısı yapılmaksa P_{1max} değerleri aşılmamalıdır - Do not exceed the P_{1max} values indicated on fields with asterisk

W - IEC - PAM

Tip Type	Tahvil Reduction iges	Çıkış Hızı Output speed 4-pol. 50 Hz 1400rpm n2 [min ⁻¹]	Mamax $f_B = 1$ 4 - pol. [Nm]	Max. Giriş Gücü Max. Input Power				IEC - PAM						DIN 42677' ye göre IEC Adaptöre Bağlanacak Motor Boyutu			
				P1max		W	$f_B \geq 1$	f_B ⇒ 49 - 82						According to DIN 42677 IEC motor power depending on the number of motor poles			
				4 - pol. 1400rpm [kW]	6 - pol. 930rpm [kW]	8 - pol. 700rpm [kW]	12 - pol. 465rpm [kW]	71*	80*	90*	100*	112*	71*	80*	90*	100*	112*
PA 103/53	14373.83	0.10	20000	0.24	0.16	0.12	0.08										
PF 103/53	11293.72	0.12	20000	0.30	0.19	0.15	0.10										
W mm ↔	8470.29	0.17	20000	0.39	0.25	0.19	0.12										
↔ 145	7155.29	0.20	20000	0.45	0.29	0.22	0.15										
+ IEC - PAM mm ↔	5796.64	0.24	20000	0.55	0.36	0.27	0.18										
↔ 144-145	4223.52	0.33	20000	0.73	0.48	0.37	0.24										
IEC - PAM mm ↔ 144-145	3461.37	0.40	20000	0.85	0.56	0.42	0.28										
	2719.64	0.51	20000	1.08	0.72	0.54	0.36										
PA 103/52	2038.56	0.69	20000	1.44	0.96	0.72	0.48										
PF 103/52	1702.50	0.82	20000	1.72	1.14	0.86	0.57										
W mm ↔	1413.66	0.99	20000	2.07	1.38	1.04	0.69										
↔ 143	1147.52	1.20	20000	2.56	1.70	1.28	0.85										
+ IEC - PAM mm ↔	944.01	1.50	20000	3.11	2.06	1.55	1.03										
↔ 142-143	817.82	1.70	20000	3.59	2.38	1.79	1.19										
IEC - PAM mm ↔ 142-143	642.57	2.20	20000	4.56	3.03	2.28	1.52										
	468.19	3.00	20000	6.26	4.16	3.13	2.08										
	341.11	4.10	20000	8.60	5.71	4.30	2.85										
	296.56	4.70	20000	9.89	6.57	4.94	3.28										
	244.66	5.70	20000	11.98	7.96	5.99	3.98										
	184.77	7.60	20000	15.87	10.54	7.93	5.27										
	154.79	9.00	20000	18.94	12.58	9.47	6.29										
	122.75	11.40	20000	22.00	14.52	11.00	7.26										
	105.49	13.30	20000	22.00	14.52	11.00	7.26										

IEC - PAM bağlantısı yoktur - No IEC - PAM assembling on empty fields

63 IEC - PAM bağlantısı yapılır - IEC - PAM assembling available on numbered fields

80* IEC - PAM bağlantısı yapılmaksa P1max değerleri aşılmamalıdır - Do not exceed the P1max values indicated on fields with asterisk

W - IEC - PAM

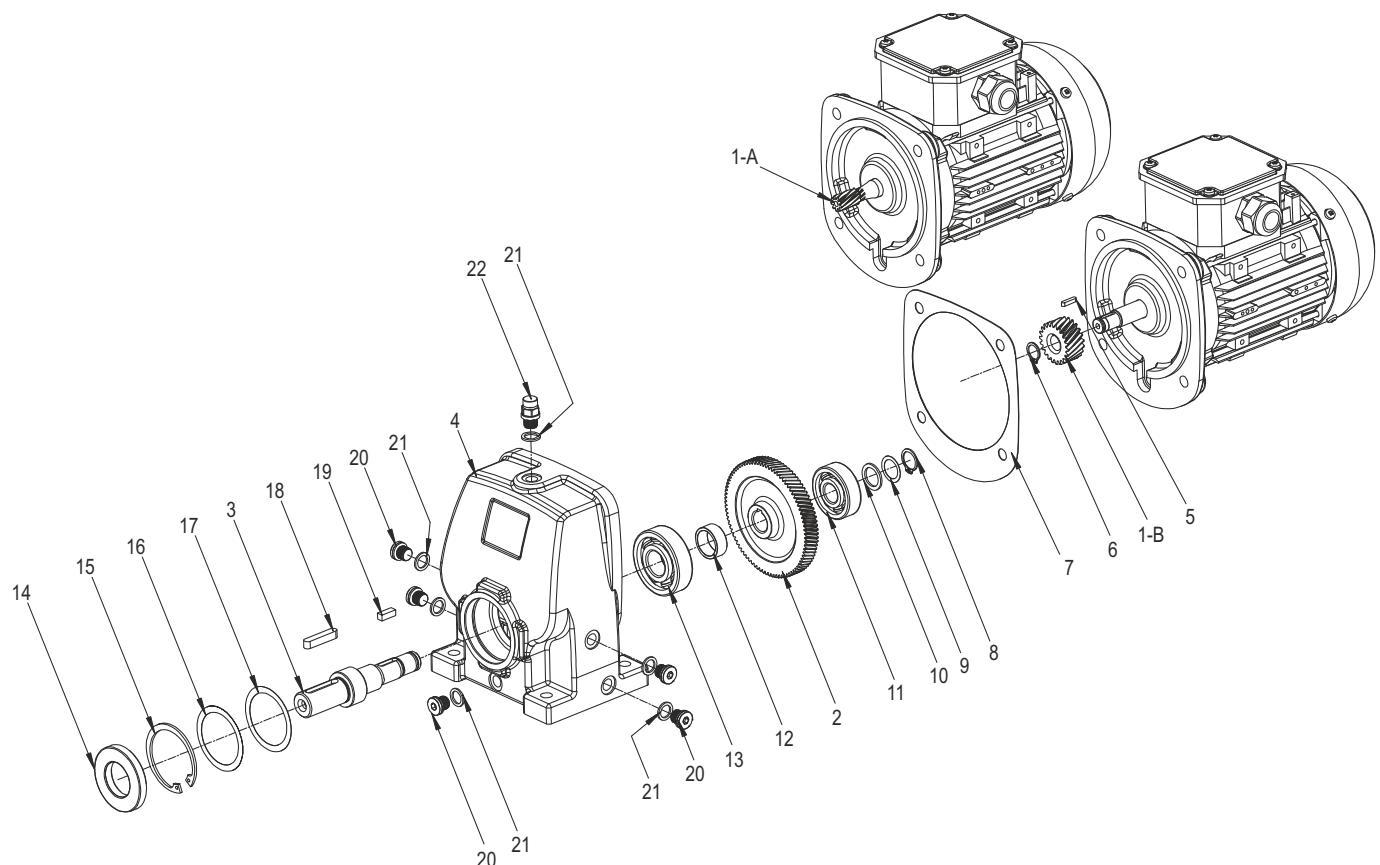
Tip Type	Tahvil Reduction i_{ges}	Çıkış Hızı Output speed 4-pol. 50 Hz 1400rpm n_2 [min $^{-1}$]	Mamax $f_B = 1$ 4 - pol. [Nm]	Max. Giriş Gücü Max. Input Power				IEC - PAM								DIN 42677' ye göre IEC Adaptöre Bağlanacak Motor Boyutu											
				P1max		W	$f_B \geq 1$	According to DIN 42677 IEC motor power depending on the number of motor poles																			
				4 - pol. 1400rpm [kW]	6 - pol. 930rpm [kW]	8 - pol. 700rpm [kW]	12 - pol. 465rpm [kW]	f_B ⇒ 49 - 82																			
PA 103 PF 103 W 136	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 136	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

63 IEC - PAM bağlantısı yapılır - IEC - PAM assembling available on numbered fields

80* IEC - PAM bağlantısı yapılacaksa P1max değerleri aşılmamalıdır - Do not exceed the P1max values indicated on fields with asterisk

PA 11 ... 51



1-A	Z1 Dişlisi (Yekpare)
1-B	Z1 Dişlisi (Çakma)
2	Z2 Dişlisi
3	Çıkış mili
4	Gövde
5	Kama
6	Segman
7	Conta
8	Segman
9	Layner
10	Rondela
11	Rulman
12	Ara Burcu
13	Rulman
14	Yağ keçesi
15	Segman
16	Layner
17	Layner
18	Kama
19	Kama
20	Yağ tapası
21	Tapa Rondelasi
22	Havalandırma Tapası

1-A	Pinion, gearcut
1-B	Pinion, plain
2	Driving Gear
3	Solid Shaft
4	Gear Case
5	Key
6	Circlip
7	Gasket
8	Circlip
9	Shim
10	Washer
11	Bearing
12	Supporting Disc
13	Bearing
14	Oil seal
15	Circlip
16	Shim
17	Shim
18	Key
19	Key
20	Oil plug
21	Washer
22	Vent plug

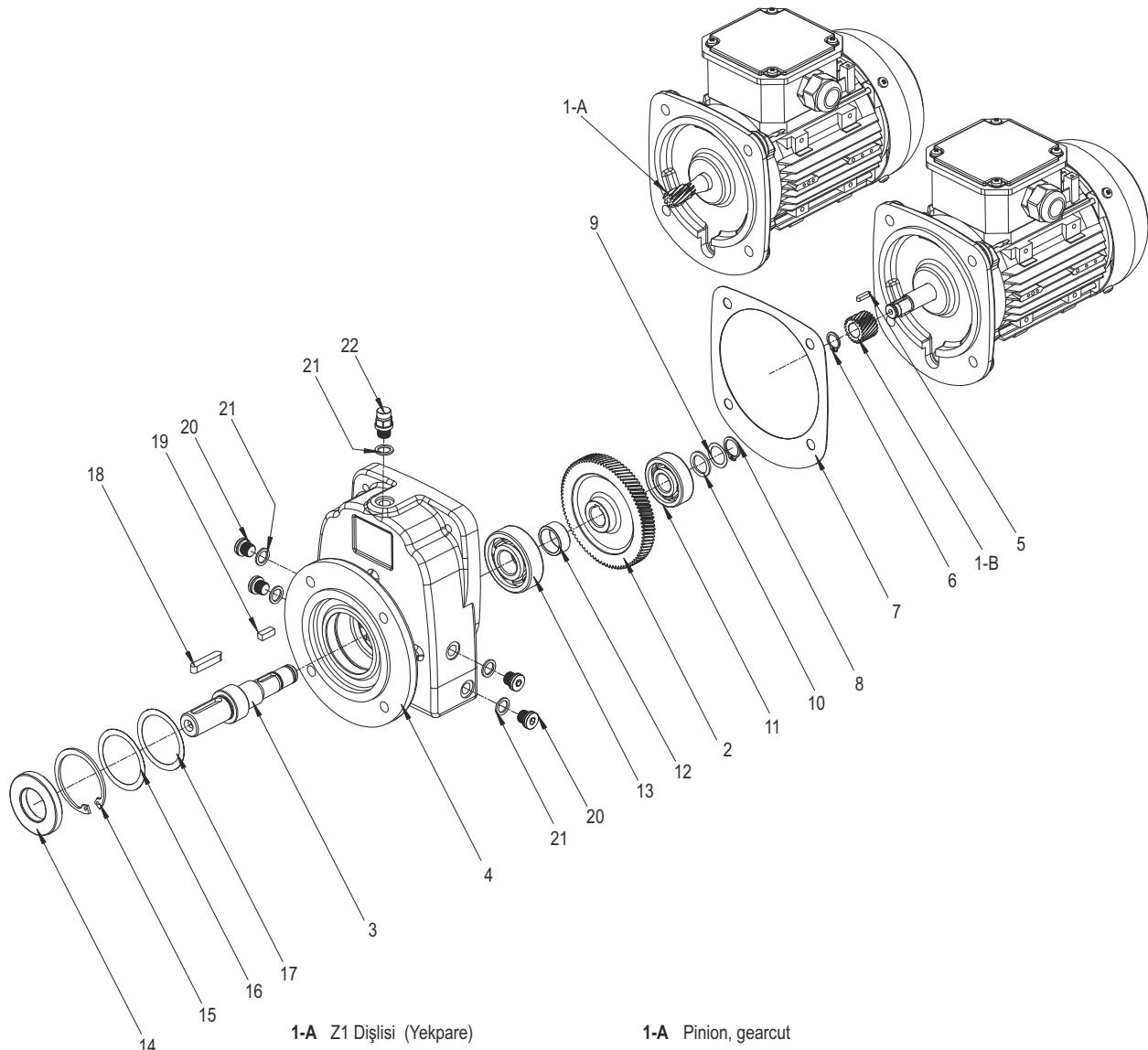
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GENEL PARÇA LİSTESİ

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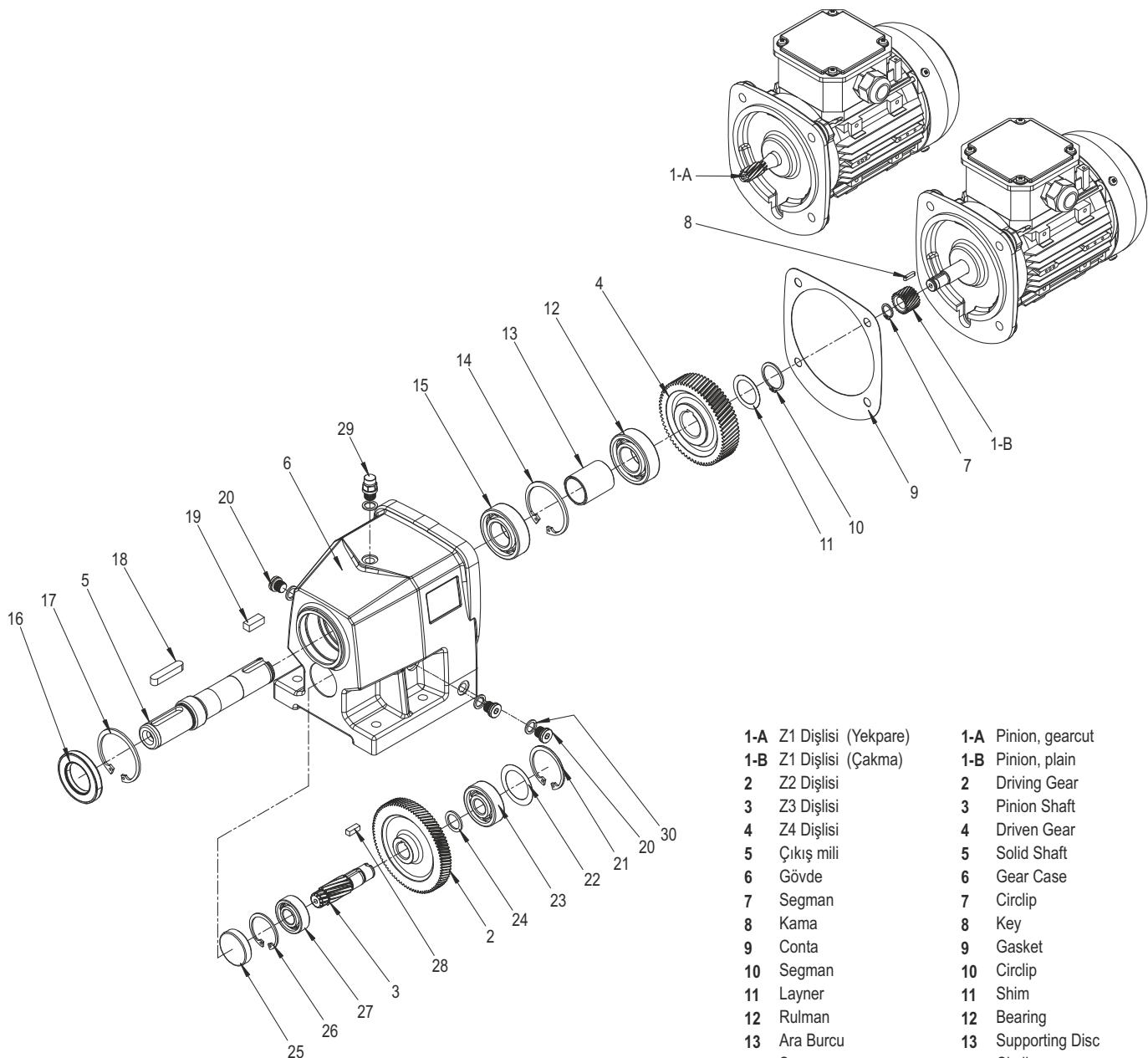
GENERAL PART LIST

PF 11 ... 51



1-A	Z1 Dıslısı (Yekpare)	1-A	Pinion, gearcut
1-B	Z1 Dıslısı (Çakma)	1-B	Pinion, plain
2	Z2 Dıslısı	2	Driving Gear
3	Çıkış Mili	3	Solid Shaft
4	Gövde	4	Gear Case
5	Kama	5	Key
6	Segman	6	Circlip
7	Conta	7	Gasket
8	Segman	8	Circlip
9	Layner	9	Shim
10	Rondela	10	Washer
11	Rulman	11	Bearing
12	Ara Burcu	12	Supporting Disc
13	Rulman	13	Bearing
14	Yağ keçesi	14	Oil seal
15	Segman	15	Circlip
16	Layner	16	Shim
17	Layner	17	Shim
18	Kama	18	Key
19	Kama	19	Key
20	Yağ Tapası	20	Oil plug
21	Tapa Rondelası	21	Washer
22	Havalandırma Tapası	22	Vent plug

PA 12 ... 52



1-A	Z1 Dıshısı (Yekpare)	1-A	Pinion, gearcut
1-B	Z1 Dıshısı (Çakma)	1-B	Pinion, plain
2	Z2 Dıshısı	2	Driving Gear
3	Z3 Dıshısı	3	Pinion Shaft
4	Z4 Dıshısı	4	Driven Gear
5	Çıkış mili	5	Solid Shaft
6	Gövde	6	Gear Case
7	Segman	7	Circlip
8	Kama	8	Key
9	Conta	9	Gasket
10	Segman	10	Circlip
11	Layner	11	Shim
12	Rulman	12	Bearing
13	Ara Burcu	13	Supporting Disc
14	Segman	14	Circlip
15	Rulman	15	Bearing
16	Yağ keçesi	16	Oil seal
17	Segman	17	Circlip
18	Kama	18	Key
19	Kama	19	Key
20	Tapa	20	Oil plug
21	Segman	21	Circlip
22	Layner	22	Shim
23	Rulman	23	Bearing
24	Z3 Ayar Rondelasi	24	Z3 Washer
25	Yağ kapağı	25	Oil Filler Cup
26	Segman	26	Circlip
27	Rulman	27	Bearing
28	Kama	28	Key
29	Havalandırma Tapası	29	Vent plug
30	Tapa Rondelasi	30	Washer

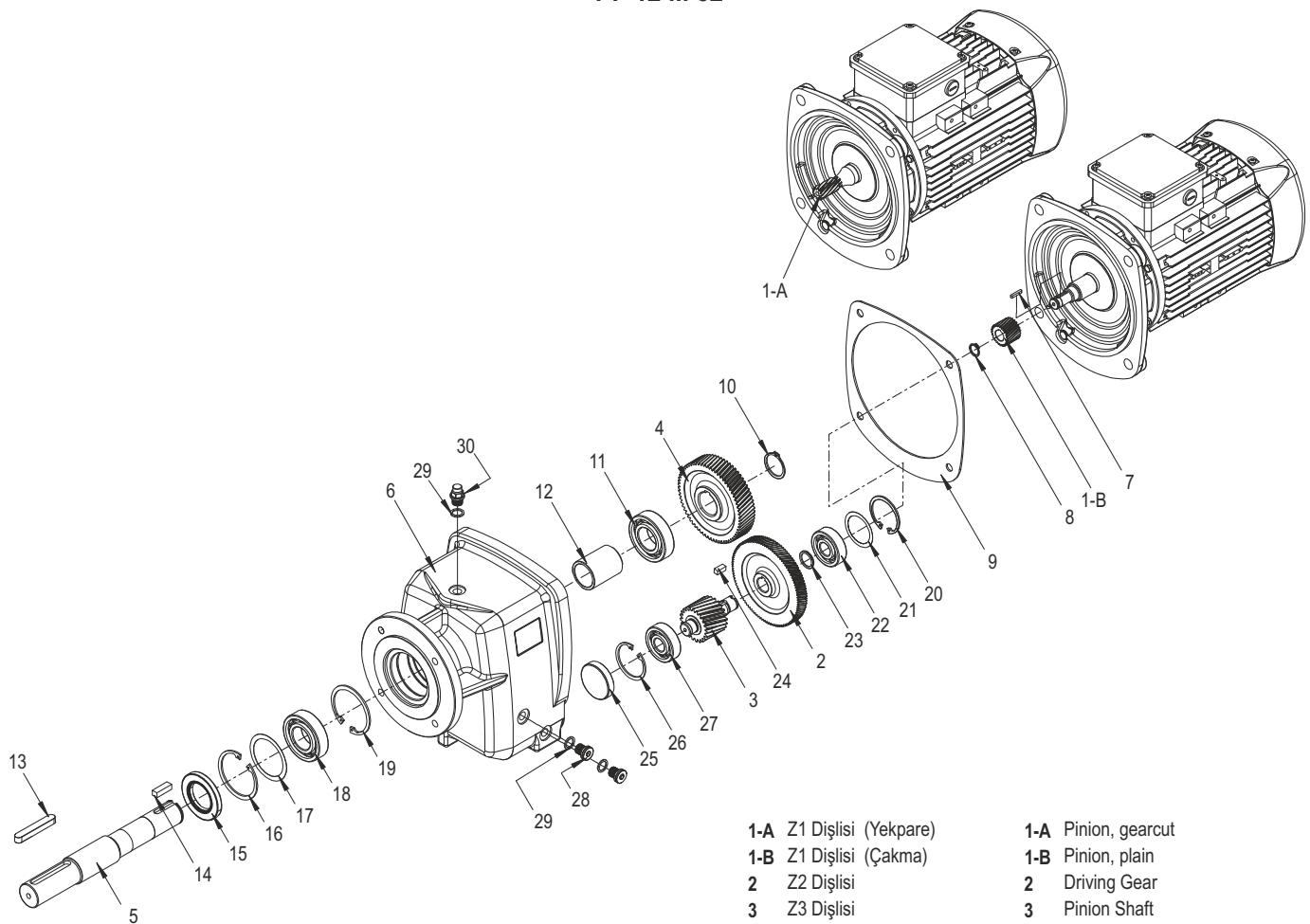
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GENEL PARÇA LİSTESİ

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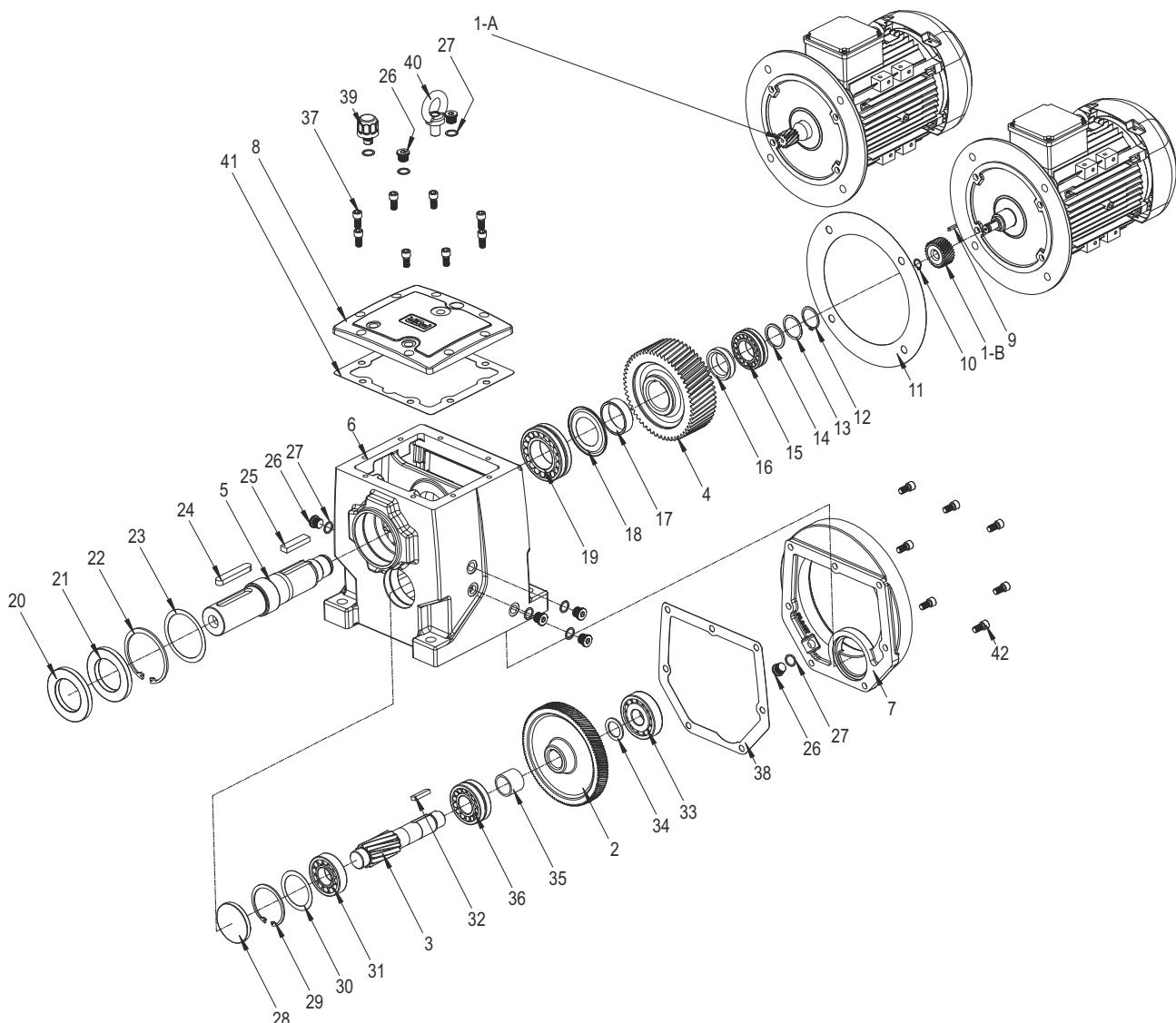
GENERAL PART LIST

PF 12 ... 52



1-A	Z1 Dişli (Yekpare)	1-A	Pinion, gearcut
1-B	Z1 Dişli (Çakma)	1-B	Pinion, plain
2	Z2 Dişli	2	Driving Gear
3	Z3 Dişli	3	Pinion Shaft
4	Z4 Dişli	4	Driven Gear
5	Çıkış Mili	5	Solid Shaft
6	Gövde	6	Gear Case
7	Kama	7	Key
8	Segman	8	Circlip
9	Conta	9	Gasket
10	Segman	10	Circlip
11	Rulman	11	Bearing
12	Ara Burcu	12	Supporting Disc
13	Kama	13	Key
14	Kama	14	Key
15	Yağ keçesi	15	Oil seal
16	Segman	16	Circlip
17	Layner	17	Shim
18	Rulman	18	Bearing
19	Segman	19	Circlip
20	Segman	20	Circlip
21	Layner	21	Shim
22	Rulman	22	Bearing
23	Rondela	23	Rondela
24	Kama	24	Key
25	Yağ kapağı	25	Oil Filler Cup
26	Segman	26	Circlip
27	Rulman	27	Bearing
28	Tapa	28	Oil plug
29	Tapa Rondelası	29	Washer
30	Havalandırma Tapası	30	Vent plug

PA 62 ... 102



1-A Z1 Dişlişi (Yekpare)	22 Segman	1-A Pinion, gearcut	22 Circlip
1-B Z1 Dişlişi (Çakma)	23 Layner	1-B Pinion, plain	23 Shim
2 Z2 Dişlişi	24 Kama	2 Driving Gear	24 Key
3 Z3 Dişlişi	25 Kama	3 Pinion Shaft	25 Key
4 Z4 Dişlişi	26 Tapa	4 Driven Gear	26 Oil plug
5 Çıkış mili	27 Tapa Rondelasi	5 Solid Shaft	27 Washer
6 Gövde	28 Yağ kapağı	6 Gear Case	28 Oil Filler Cup
7 Ara Bağlantı Flanşı	29 Segman	7 Intermediate Flange	29 Circlip
8 Gövde Kapağı	30 Layner	8 Gear Case Cover	30 Shim
9 Kama	31 Rulman	9 Key	31 Bearing
10 Segman	32 Kama	10 Circlip	32 Key
11 Conta	33 Rulman	11 Gasket	33 Bearing
12 Segman	34 Rondela	12 Circlip	34 Washer
13 Layner	35 Burç	13 Shim	35 Spacer
14 Rondela	36 Rulman	14 Washer	36 Bearing
15 Rulman	37 Alyan Başlı Civata	15 Bearing	37 Socket head screw
16 Çıkış Mili Konik Burcu	38 Conta	16 Spacer	38 Gasket
17 Çıkış Mili Ara Burcu	39 Havalandırma Tapası	17 Spacer	39 Vent plug
18 Nilosring	40 Halkalı Civata	18 Nilosring	40 Eyebolt
19 Rulman	41 Conta	19 Bearing	41 Gasket
20 Yağ keçesi	42 Alyan Başlı Civata	20 Oil seal	42 Socket head screw
21 Yağ keçesi		21 Oil seal	

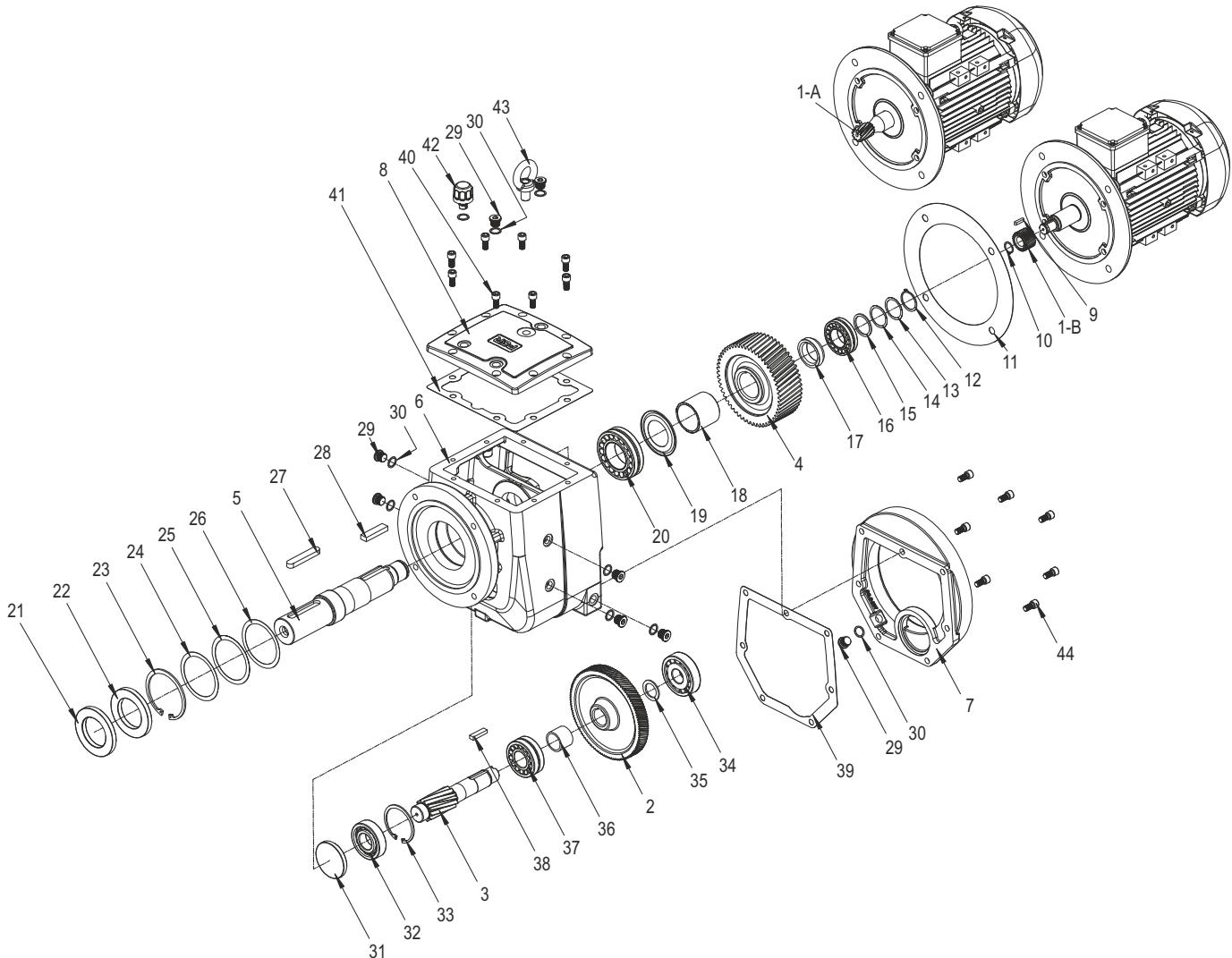
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GENEL PARCA LİSTESİ

EN

GENERAL PART LIST

PF 62 ... 102



1-A	Z1 Dışılı (Yekpare)	23	Segman	1-A	Pinion, gearcut	23	Circlip
1-B	Z1 Dışılı (Çakma)	24	Layner	1-B	Pinion, plain	24	Shim
2	Z2 Dışılı	25	Layner	2	Driving Gear	25	Shim
3	Z3 Dışılı	26	Layner	3	Pinion Shaft	26	Shim
4	Z4 Dışılı	27	Kama	4	Driven Gear	27	Key
5	Çıkış mili	28	Kama	5	Solid Shaft	28	Key
6	Gövde	29	Tapa	6	Gear Case	29	Oil plug
7	Ara Bağlantı Flanşı	30	Tapa Rondelası	7	Intermediate Flange	30	Washer
8	Gövde Kapağı	31	Yağ kapağı	8	Gear Case Cover	31	Oil Filler Cup
9	Kama	32	Rulman	9	Key	32	Bearing
10	Segman	33	Segman	10	Circlip	33	Circlip
11	Conta	34	Rulman	11	Gasket	34	Bearing
12	Segman	35	Rondela	12	Circlip	35	Washer
13	Layner	36	Burç	13	Shim	36	Spacer
14	Layner	37	Rulman	14	Shim	37	Bearing
15	Z6 Rondela	38	Kama	15	Washer	38	Key
16	Rulman	39	Conta	16	Bearing	39	Gasket
17	Çıkış Mili Konik Burcu	40	Alyan Başlı Civata	17	Spacer	40	Socket head screw
18	Çıkış Mili Ara Burcu	41	Conta	18	Spacer	41	Gasket
19	Nilosring	42	Havalandırma Tapası	19	Nilosring	42	Vent plug
20	Rulman	43	Halkalı Civata	20	Bearing	43	Eyebolt
21	Yağ keçesi	44	Alyan Başlı Civata	21	Oil seal	44	Socket head screw
22	Yağ keçesi			22	Oil seal		

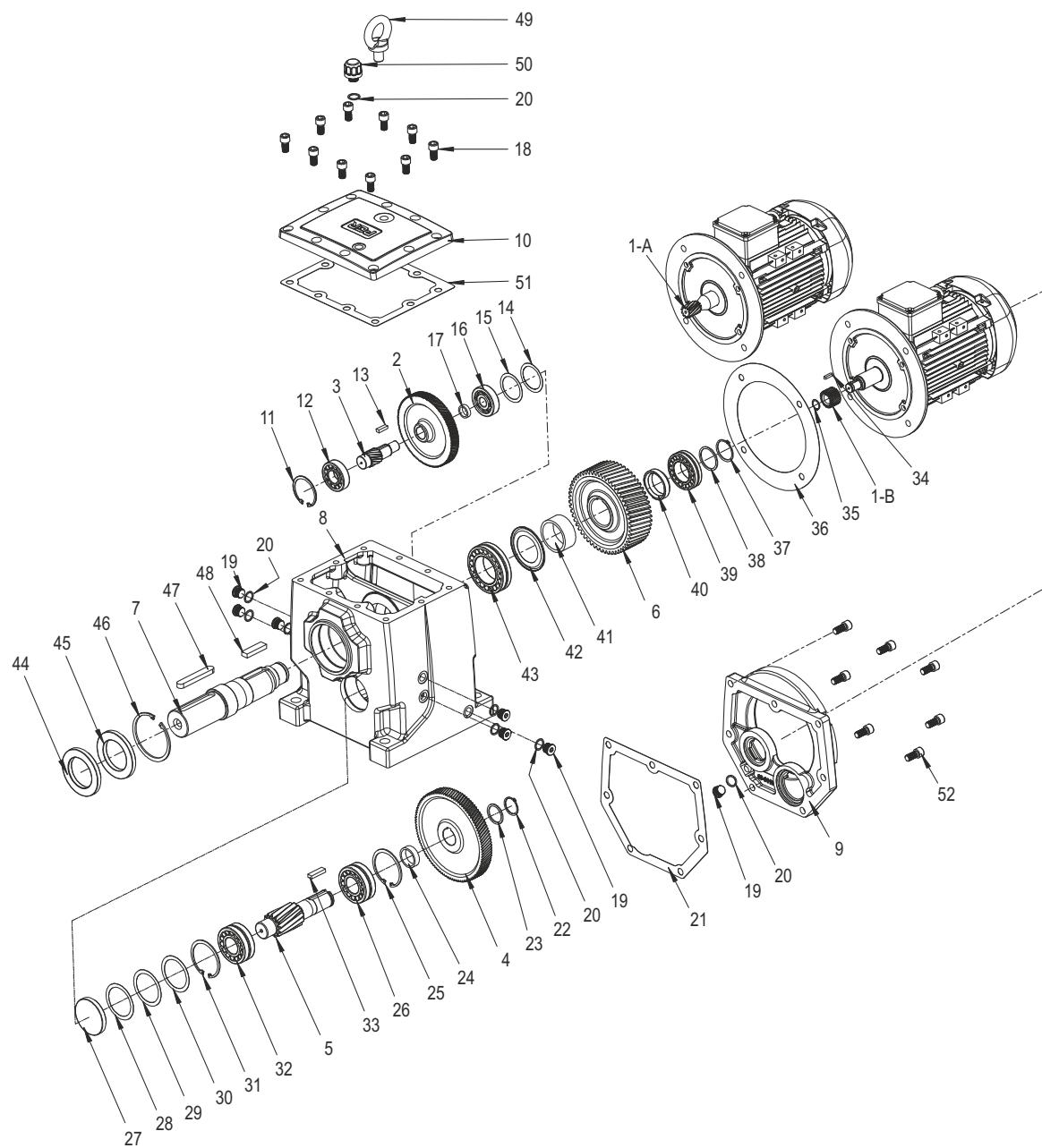
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GENEL PARÇA LİSTESİ

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GENERAL PART LIST

PA 63 ... 103



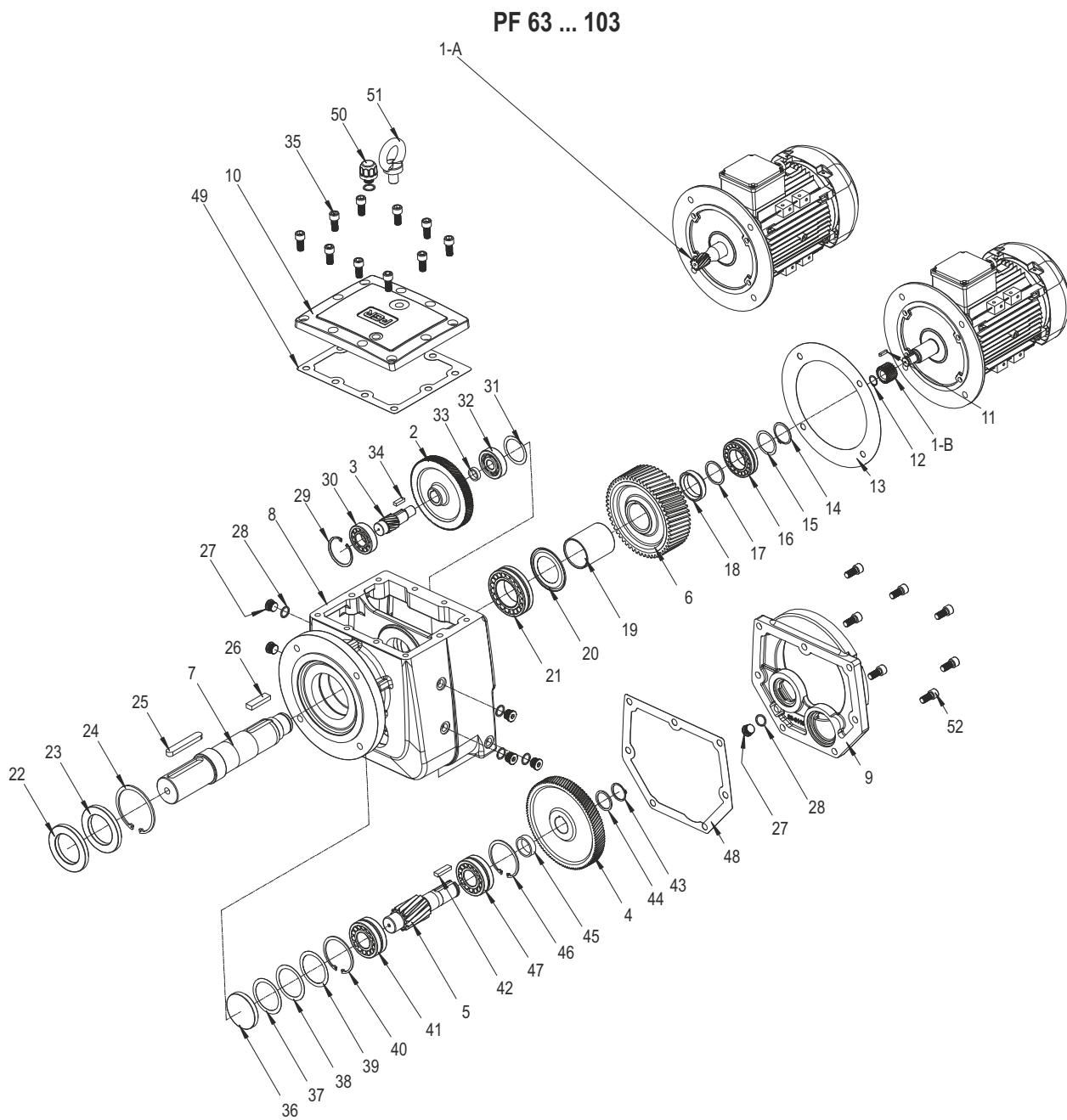
1-A Z1 Dişlisi (Yekpare)	18 Alyan Başlı Civata	36 Conta	1-A Pinion, gearcut	18 Socket head screw	36 Gasket
1-B Z1 Dişlisi (Çakma)	19 Tapa	37 Segman	1-B Pinion, plain	19 Oil plug	37 Circlip
2 Z2 Dişlisi	20 Tapa Rondelasi	38 Rondela	2 Driving Gear	20 Washer	38 Washer
3 Z3 Dişlisi	21 Conta	39 Rulman	3 Pinion Shaft	21 Gasket	39 Bearing
4 Z4 Dişlisi	22 Segman	40 Konik burç	4 Driven Gear	22 Circlip	40 ...
5 Z5 Dişlisi	23 Rondela	41 Burç	5 Output pinion shaft	23 Washer	41 Spacer
6 Z6 Dişlisi	24 Burç	42 Nilosring	6 Output gear	24 Spacer	42 Nilosring
7 Çıkış mili	25 Segman	43 Rulman	7 Solid Shaft	25 Circlip	43 Bearing
8 Gövde	26 Rulman	44 Yağ keçesi	8 Gear Case	26 Bearing	44 Oil seal
9 Ara Bağlantı Flanşısı	27 Yağ kapağı	45 Yağ keçesi	9 Intermediate Flange	27 Oil Filler Cup	45 Oil seal
10 Üst kapak	28 Layner	46 Segman	10 Gear Case Cover	28 Shim	46 Circlip
11 Segman	29 Layner	47 Kama	11 Circlip	29 Shim	47 Key
12 Rulman	30 Layner	48 Kama	12 Bearing	30 Shim	48 Key
13 Kama	31 Segman	49 Halkalı Civata	13 Key	31 Circlip	49 Eyebolt
14 Layner	32 Rulman	50 Havalandırma Tapası	14 Shim	32 Bearing	50 Vent plug
15 Layner	33 Kama	51 Conta	15 Shim	33 Key	51 Gasket
16 Rulman	34 Kama	52 Alyan Başlı Civata	16 Bearing	34 Key	52 Socket head screw
17 Rondela	35 Segman		17 Washer	35 Circlip	

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GENEL PARÇA LİSTESİ

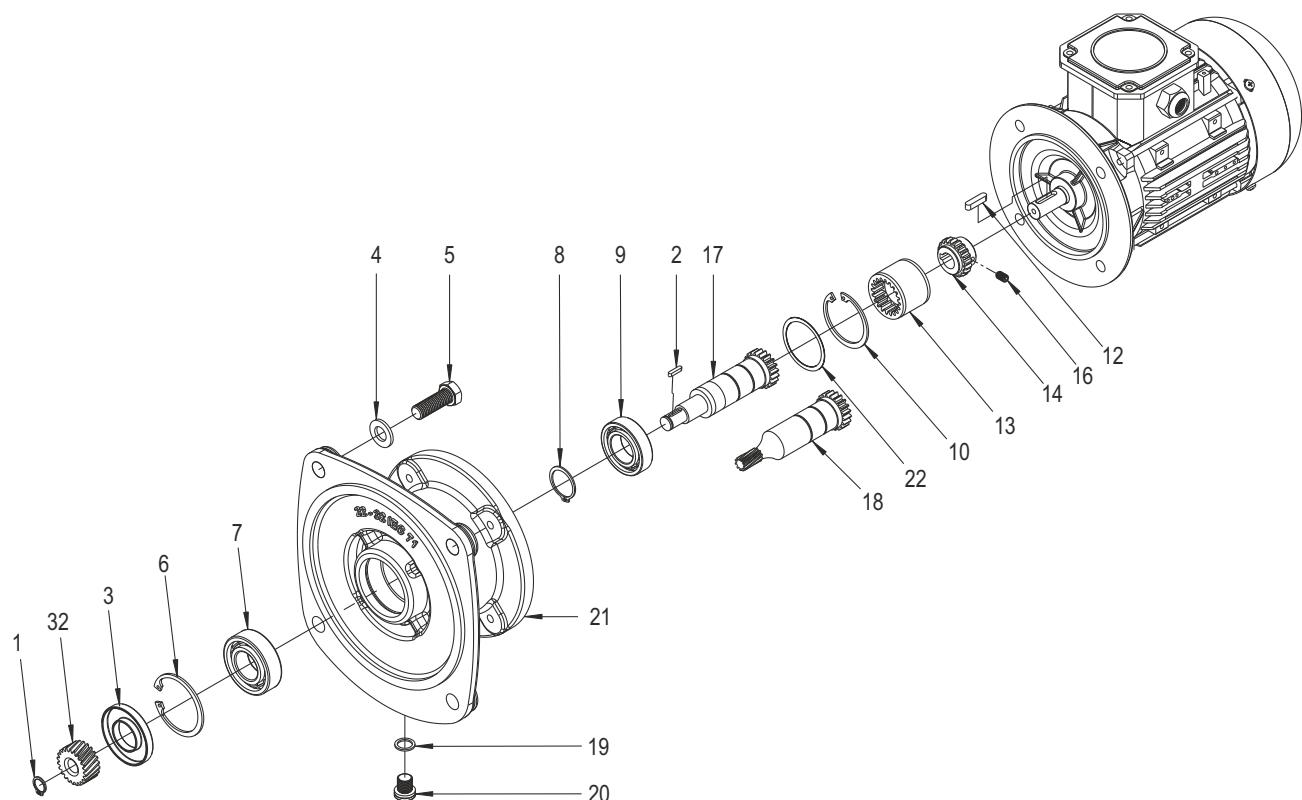
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GENERAL PART LIST



1-A Z1 Dişlisi (Yekpare)	18 Konik Burç	36 Yağ Kapağı	1-A Pinion, gearcut	18 Spacer	36 Oil Filler Cup
1-B Z1 Dişlisi (Çakma)	19 Çıkış Mili Ara Burcu	37 Layner	1-B Pinion, plain	19 Spacer	37 Shim
2 Z2 Dişlisi	20 Nilosring	38 Layner	2 Driving Gear	20 Nilosring	38 Shim
3 Z3 Dişlisi	21 Rulman	39 Layner	3 Pinion Shaft	21 Bearing	39 Shim
4 Z4 Dişlisi	22 Yağ Keçesi	40 Segman	4 Driven Gear	22 Oil seal	40 Circlip
5 Z5 Dişlisi	23 Yağ Keçesi	41 Rulman	5 Output pinion shaft	23 Oil seal	41 Bearing
6 Z6 Dişlisi	24 Segman	42 Kama	6 Output Gear	24 Circlip	42 Key
7 Çıkış Mili	25 Kama	43 Segman	7 Solid Shaft	25 Key	43 Circlip
8 Gövde	26 Kama	44 Rondela	8 Gear Case	26 Key	44 Washer
9 Ara Bağlantı Flanşı	27 Tapa	45 Burç	9 Intermediate Flange	27 Oil plug	45 Spacer
10 Üst kapak	28 Tapa Rondelasi	46 Segman	10 Gear Case Cover	28 Washer	46 Circlip
11 Kama	29 Segman	47 Rulman	11 Key	29 Circlip	47 Bearing
12 Segman	30 Rulman	48 Conta	12 Circlip	30 Bearing	48 Gasket
13 Conta	31 Layner	49 Conta	13 Gasket	31 Shim	49 Gasket
14 Segman	32 Rulman	50 Havalandırma Tapası	14 Circlip	32 Bearing	50 Vent plug
15 Layner	33 Rondela	51 Halkalı Civata	15 Shim	33 Washer	51 Eyebolt
16 Rulman	34 Kama	52 Alyan Başlı Civata	16 Bearing	34 Key	52 Socket head screw
17 Rondela	35 Alyan Başlı Civata	53 Alyan Başlı Civata	17 Washer	35 Socket head screw	

IEC 63...112



1. Segman	1. Circlip
2. Kama	2. Key
3. Yağ Keçesi	3. Oil Seal
4. Yaylı Rondela	4. Spring Washer
5. Altıköşe Başlı Civata	5. Bolt
6. Segman	6. Circlip
7. Rulman	7. Bearing
8. Segman	8. Circlip
9. Rulman	9. Bearing
10. Segman	10. Circlip
12. Kama	12. Key
13. Kaplin	13. Coupling
14. Kaplin	14. Coupling
16. Setuskur Civata	16. Set Screw
17. IEC Mili Çakma	17. Input Shaft, Plain
18. IEC Mili Yekpare	18. Input Shaft, Gearcut
19. Rondela	19. Washer
20. Yağ Tapası	20. Oil Plug
21. IEC Gövde	21. IEC Adapter
22. Layner	22. Shim
32. Z1 Dişlisi	32. Pinion

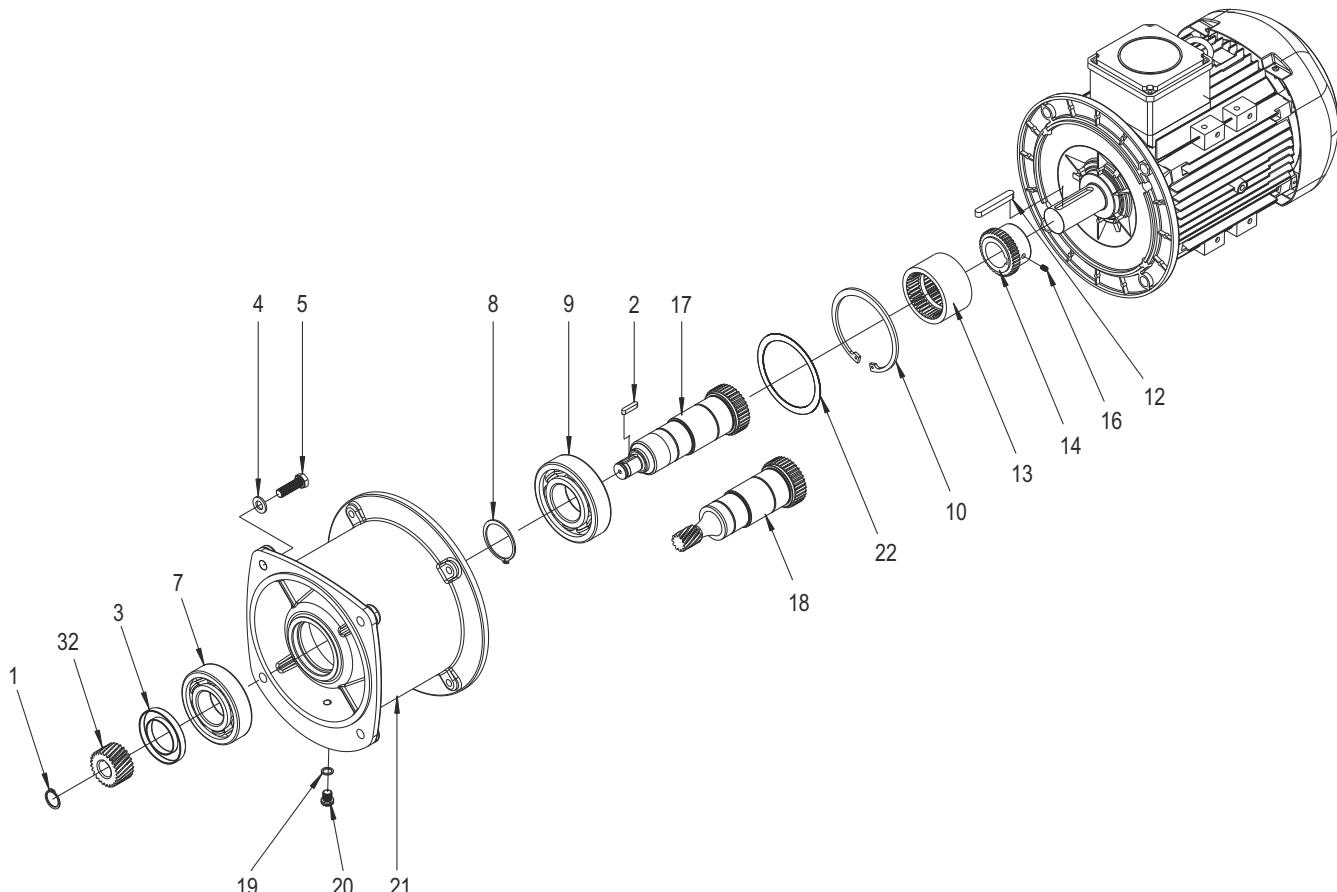
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GENEL PARÇA LİSTESİ

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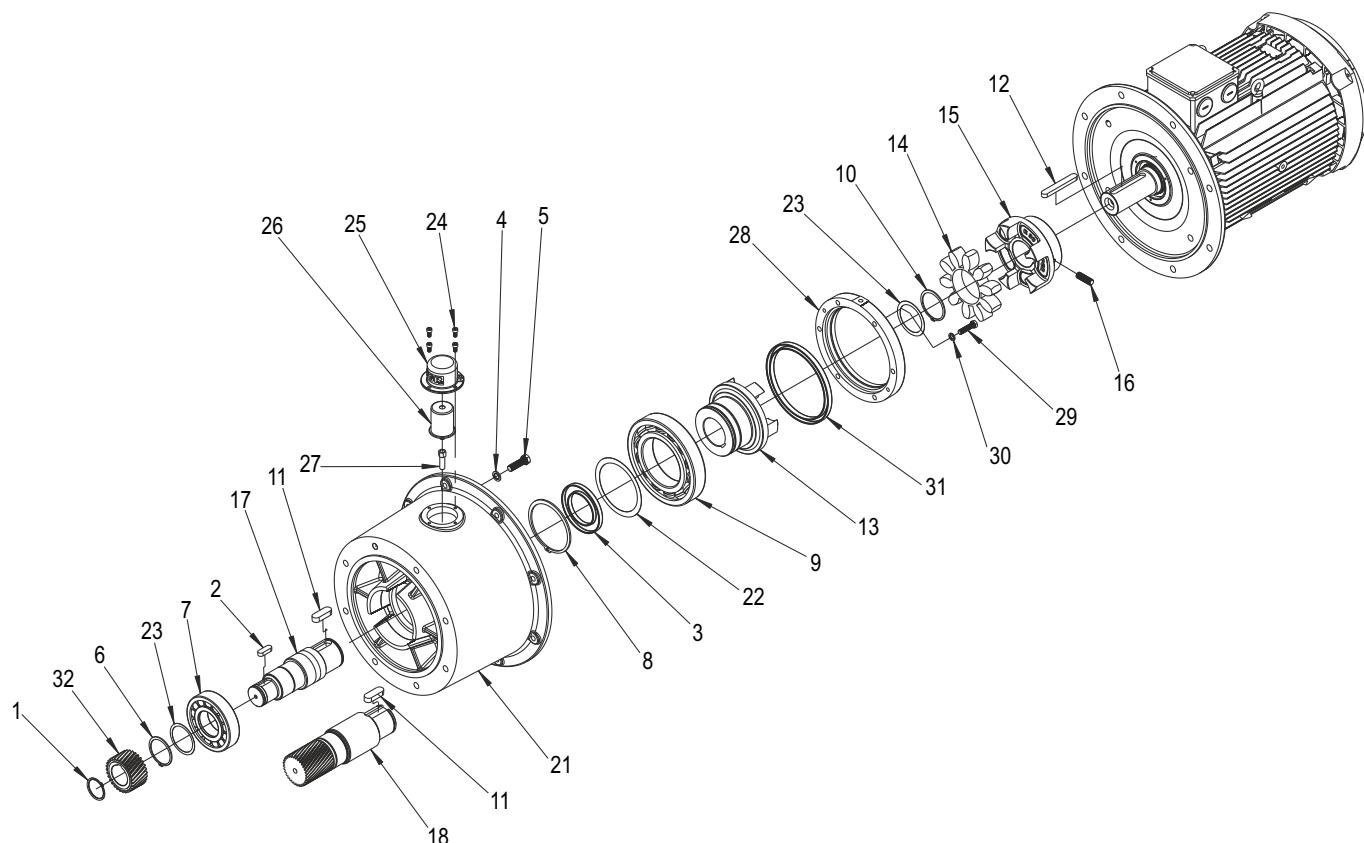
GENERAL PART LIST

IEC 132...180



- | | |
|--------------------------|--------------------------|
| 1. Segman | 1. Circlip |
| 2. Kama | 2. Key |
| 3. Şaft Keçesi | 3. Shaft Seal |
| 4. Yaylı Rondela | 4. Spring Washer |
| 5. Altıköşe Başlı Civata | 5. Bolt |
| 7. Rulman | 7. Bearing |
| 8. Segman | 8. Circlip |
| 9. Rulman | 9. Bearing |
| 10. Segman | 10. Circlip |
| 12. Kama | 12. Key |
| 13. Kaplin | 13. Coupling |
| 14. Kaplin | 14. Coupling |
| 16. Setuskur Civata | 16. Set Screw |
| 17. IEC Mili Çakma | 17. Input Shaft, Plain |
| 18. IEC Mili Yekpare | 18. Input Shaft, Gearcut |
| 19. Rondela | 19. Washer |
| 20. Yağ Tapası | 20. Oil Plug |
| 21. IEC Gövde | 21. IEC Adapter |
| 22. Layner | 22. Shim |
| 32. Z1 Dışlısı | 32. Pinion |

IEC 160...315



- | | |
|---------------------------|--------------------------|
| 1. Segman | 1. Circlip |
| 2. Kama | 2. Key |
| 3. Şaft Keçesi | 3. Shaft Seal |
| 4. Yayılı Rondela | 4. Spring Washer |
| 5. Altıköşe Başlı Civata | 5. Bolt |
| 6. Segman | 6. Circlip |
| 7. Rulman | 7. Bearing |
| 8. Segman | 8. Circlip |
| 9. Rulman | 9. Bearing |
| 10. Segman | 10. Circlip |
| 11. Kama | 11. Key |
| 12. Kama | 12. Key |
| 13. Kaplin | 13. Coupling |
| 14. Kaplin | 14. Coupling |
| 15. Kaplin | 15. Coupling |
| 16. Setskur Civata | 16. Set Screw |
| 17. IEC Mili Çakma | 17. Input Shaft, Plain |
| 18. IEC Mili Yekpare | 18. Input Shaft, Gearcut |
| 21. IEC Gövde | 21. IEC Adapter |
| 22. Layner | 22. Shim |
| 23. Layner | 23. Shim |
| 24. Alyan Başlı Civata | 24. Socket Head Screw |
| 25. Kapak | 25. Cover |
| 26. Otomatik Yağlayıcı | 26. Automatic Lubricator |
| 27. Adaptör | 27. Adapter |
| 28. Rulman Kapağı | 28. Bearing Cover |
| 29. Altıköşe Başlı Civata | 29. Bolt |
| 30. Yağlı Rondela | 30. Spring Washer |
| 31. Yağ Keçesi | 31. Oil Seal |
| 32. Z1 Dışlısı | 32. Pinion |

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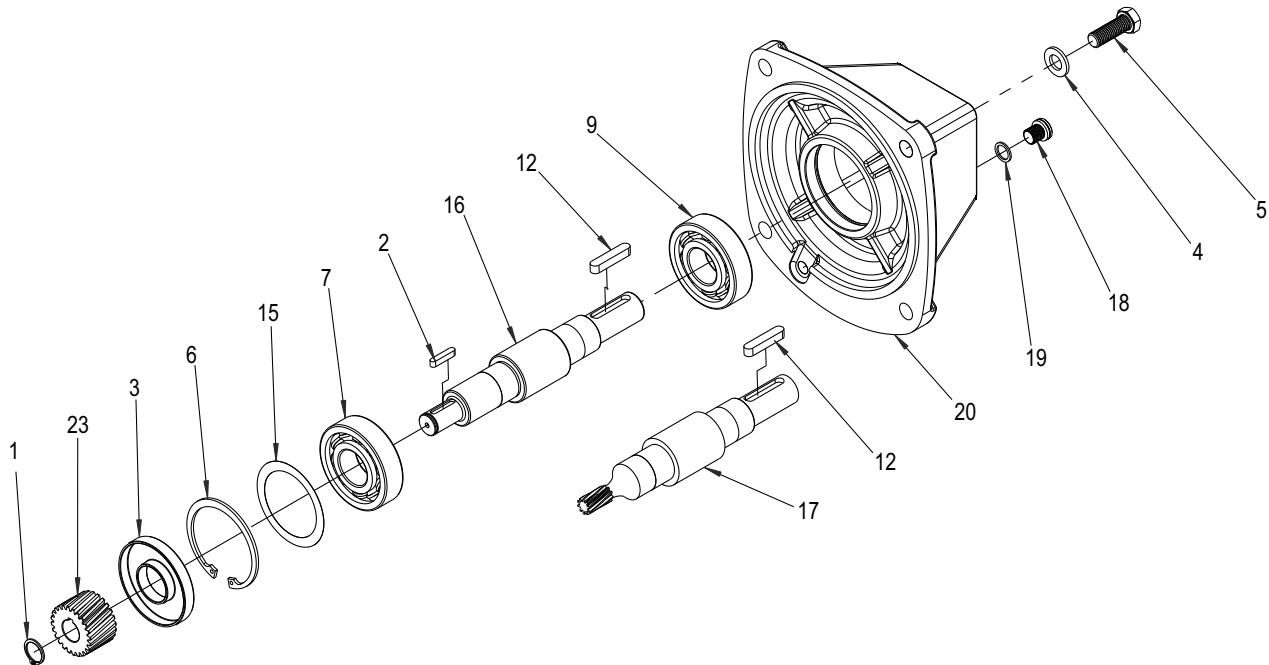
GENEL PARÇA LİSTESİ

EN

GENERAL PART LIST

PA/PF 12...52
PA/PF 13...63

W 122 - 172 - 213



1. Segman
2. Kama
3. Yağ Keçesi
4. Yaylı Rondela
5. Altıköşe Başlı Civata
6. Segman
7. Rulman
9. Rulman
12. Kama
15. Layner
16. W Mili Çakma
17. W Mili Yekpare
18. Yağ Tapası
19. Rondela
20. W Gövdesi
23. Z1 Dışlısı

1. Circlip
2. Key
3. Oil Seal
4. Spring Seal
5. Bolt
6. Circlip
7. Bearing
9. Bearing
12. Key
15. Shim
16. Input Shaft, Plain
17. Input Shaft, Gearcut
18. Oil Plug
19. Washer
20. W Input Housing
23. Pinion

TR

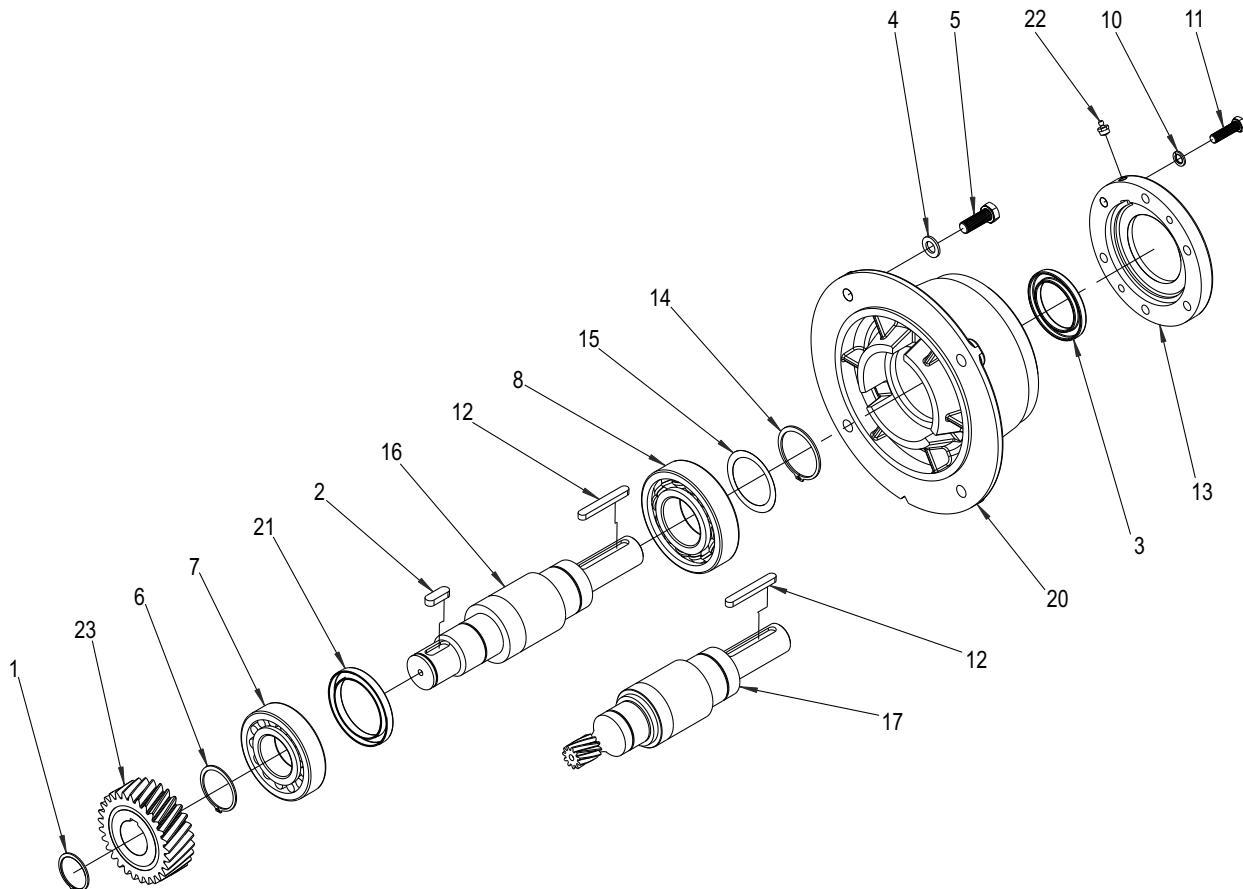
GENEL PARÇA LİSTESİ

EN

GENERAL PART LIST

PA/PF 62...72 - PA/PF 73...93

W 288



- | | |
|----------------------------------|---------------------------------|
| 1. Segman | 1. Circlip |
| 2. Kama | 2. Key |
| 3. Yağ Keçesi | 3. Oil Seal |
| 4. Yaylı Rondela | 4. Spring Washer |
| 5. Altıköşe Başlı Civata | 5. Bolt |
| 6. Segman | 6. Circlip |
| 7. Rulman | 7. Bearing |
| 8. Rulman | 8. Bearing |
| 10. Yaylı Rondela | 10. Spring Washer |
| 11. Altıköşe Başlı Civata | 11. Bolt |
| 12. Kama | 12. Key |
| 13. Rulman Kapağı | 13. Bearing Cover |
| 14. Segman | 14. Circlip |
| 15. Layner | 15. Shim |
| 16. W Mili Çakma | 16. Input Shaft, Plain |
| 17. W Mili Yekpare | 17. Input Shaft, Gearcut |
| 20. W Gövdlesi | 20. W Input Housing |
| 21. Yağ Keçesi | 21. Oil Seal |
| 22. Gresörük | 22. Grease Nipple |
| 23. Z1 Dışılısı | 23. Pinion |

TR

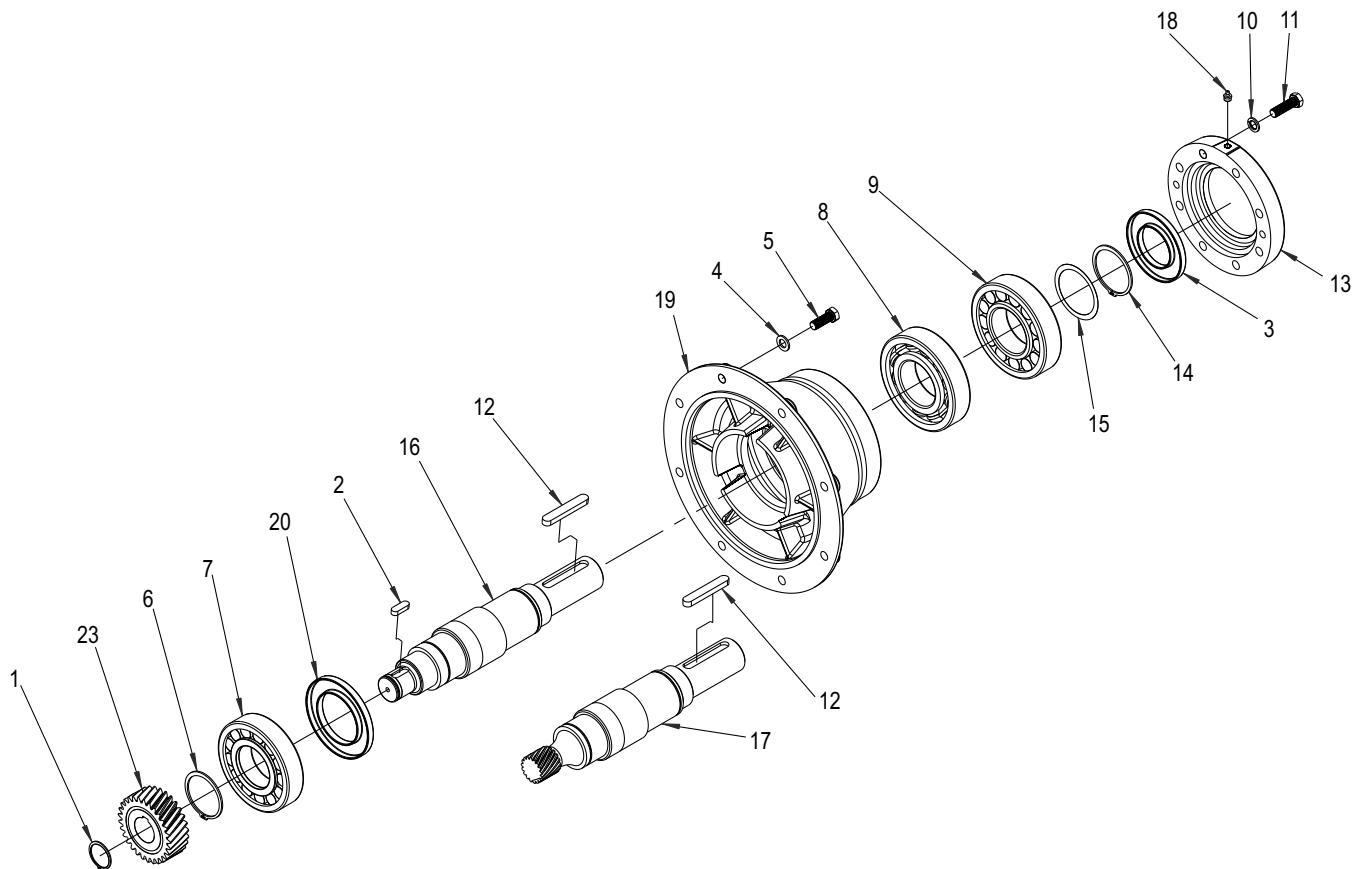
GENEL PARÇA LİSTESİ

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GENERAL PART LIST

PA/PF 82...92

W 397



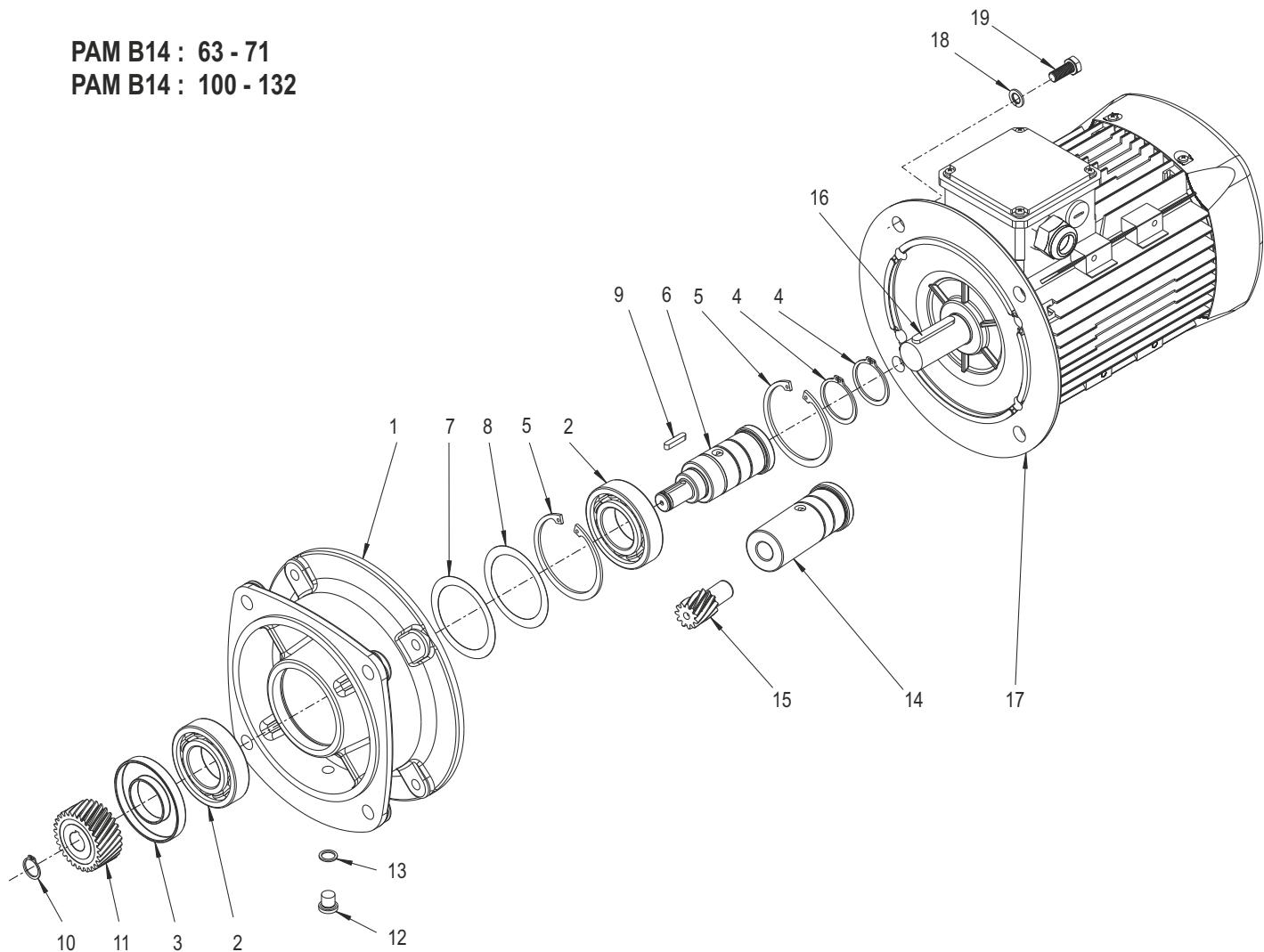
- | | |
|---------------------------|--------------------------|
| 1. Segman | 1. Circlip |
| 2. Kama | 2. Key |
| 3. Yağ Keçesi | 3. Oil Seal |
| 4. Yaylı Rondela | 4. Spring Washer |
| 5. Altıköşe Başlı Civata | 5. Bolt |
| 6. Segman | 6. Circlip |
| 7. Rulman | 7. Bearing |
| 8. Rulman | 8. Bearing |
| 9. Rulman | 9. Bearing |
| 10. Yaylı Rondela | 10. Spring Washer |
| 11. Altıköşe Başlı Civata | 11. Bolt |
| 12. Kama | 12. Key |
| 13. Rulman Kapağı | 13. Bearing Cover |
| 14. Segman | 14. Circlip |
| 15. Layner | 15. Shim |
| 16. W Mili Çakma | 16. Input Shaft, Plain |
| 17. W Mili Yekpare | 17. Input Shaft, Gearcut |
| 18. Gresörlük | 18. Grease Nipple |
| 19. W Gövdesi | 19. W input housing |
| 20. Yağ Keçesi | 20. Oil Seal |
| 23. Z1 Dışlısı | 23. Pinion |

TR

GENEL PARÇA LİSTESİ

EN

GENERAL PART LIST

PAM B5 : 63 - 71**PAM B5 : 100...315****PAM B14 : 63 - 71****PAM B14 : 100 - 132****PAM (B5/B14)****1. Pam Gövde (B5/B14)**

- 2. Rulman
- 3. Yağ Keçesi
- 4. Segman
- 5. Segman
- 6. Pam mili çakma
- 7. Layner
- 8. Layner
- 9. Kama
- 10. Segman
- 11. Z1 Dıslısı
- 12. Yağ Tapası
- 13. Rondela
- 14. Pam mili yekpare çakma
- 15. Z1 Dıslısı
- 16. Motor mili Kaması
- 17. Motor
- 18. Rondela
- 19. Altı köşe başlı civata

1. Pam Adapter (B5/B14)

- 2. Bearing
- 3. Oil Seal
- 4. Circlip
- 5. Circlip
- 6. Input Shaft, Plain
- 7. Shim
- 8. Shim
- 9. Key
- 10. Circlip
- 11. Pinion
- 12. Oil plug
- 13. Washer
- 14. Input Shaft, Gearcut
- 15. Pinion
- 16. Key
- 17. Motor
- 18. Washer
- 19. Bolt

TR

GENEL PARÇA LİSTESİ

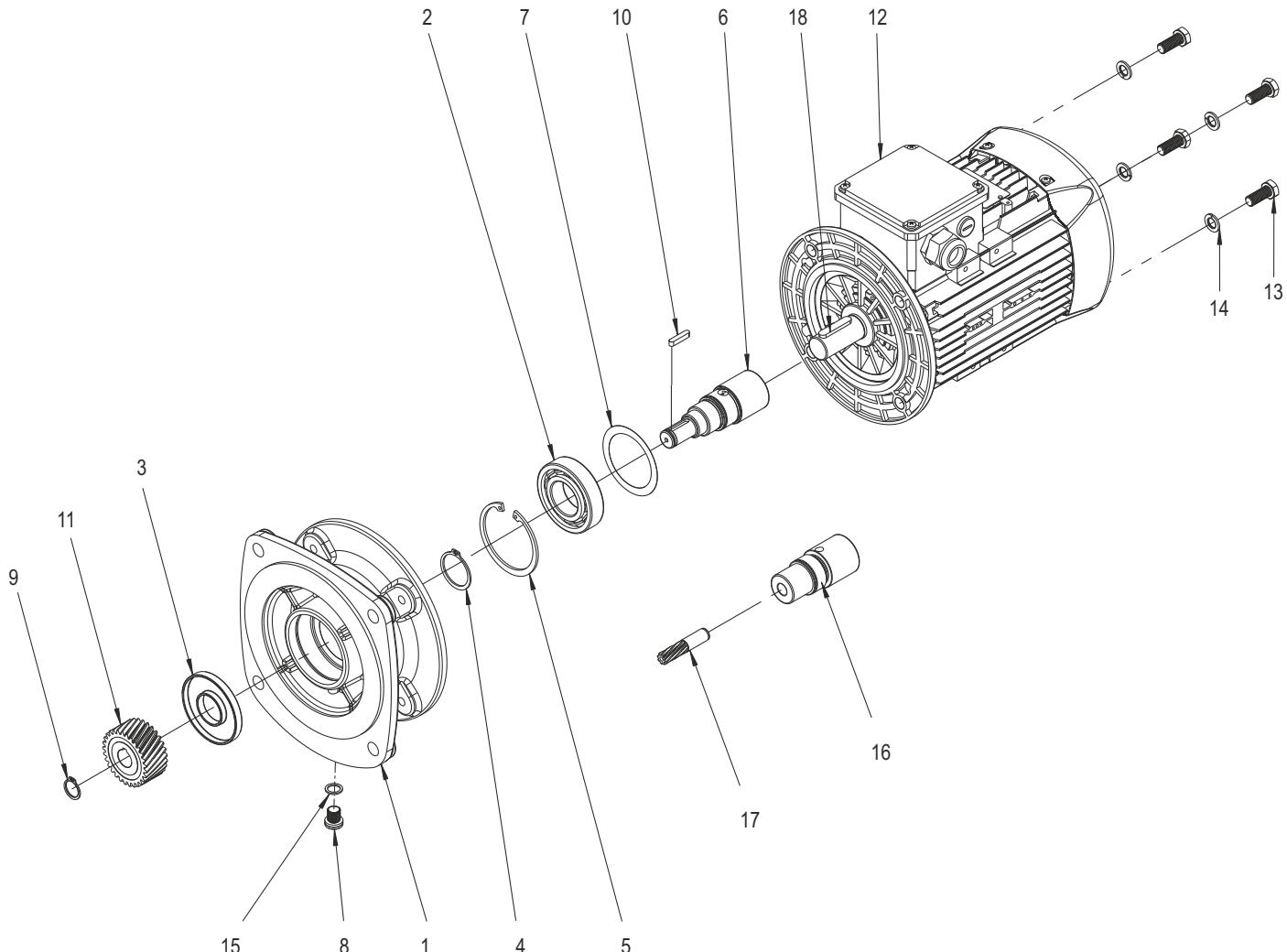
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GENERAL PART LIST

PAM B5 : 80 - 90

PAM (B5/B14)

PAM B14 : 80 - 90



1. Pam Gövde (B5/B14)
2. Rulman
3. Yağ Keçesi
4. Segman
5. Segman
6. Pam mili çakma
7. Layner
8. Yağ Tapası
9. Segman
10. Kama
11. Z1 Dişlisi
12. Motor
13. Cıvata
14. Yaylı Rondela
15. Rondela
16. Pam mili yekpare çakma
17. Z1 Dişlisi
18. Motor Kaması

1. Pam Adapter (B5/B14)
2. Bearing
3. Oil Seal
4. Circlip
5. Circlip
6. Input Shaft, Plain
7. Shim
8. Oil plug
9. Circlip
10. Key
11. Pinion
12. Motor
13. Bolt
14. Spring Washer
15. Washer
16. Input Shaft, Gearcut
17. Pinion
18. Key

ELEKTRİKSEL ÖZELLİKLER - 50 Hz / ELECTRICAL CHARACTERISTICS AT 50 Hz

Motor Tipi Motor Type	Gövde Tipi Housing Type	Nominal / Rated Values				Kalkıştaki Değerler / Starting Values				Devrilmeli Momeni Oranı Breakdown Torque Ratio	Verim * Efficiency*	$\eta\%$	$\cos\phi$	J kgm ²	Ağırlık (B3) kg	Ses Seviyesi (B3)** Sound Pressure Level dB**			
		Güç / Power kW	Devir Speed d/d	Akim Current A	Moment Torque Nm	Akim Current I_A / A_N A	Moment Torque M_A / M_N A	Δ	Δ										
2kutup3000d/d																			
220/380V	Q3E80M2C	Alüminyum	0,75	1,0	2880	1,7	2,5	7,4	-	4,0	-	4,8	80,7	79,1	77,4	0,86	0,00109	12,2	58
	Q3E80M2D	Alüminyum	1,1	1,5	2895	2,4	3,7	8,4	-	4,9	-	5,1	82,7	82,1	78,9	0,84	0,00150	13	58
	Q3E90L2C	Alüminyum	1,5	2,0	2910	3,2	4,9	8,9	-	4,2	-	4,9	84,2	84,7	82,3	0,86	0,00182	17,5	62
	Q3E90L2D	Alüminyum	2,2	3,0	2900	4,6	7,2	8,6	-	4,6	-	4,0	85,9	87,0	85,5	0,84	0,00182	18	62
	Q3E100L2D	Alüminyum	3,0	4,0	2920	5,6	9,8	9,8	-	4,1	-	4,4	87,1	86,9	84,5	0,89	0,00335	25	64
380/660V	Q3E112M2C	Alüminyum	4,0	5,5	2915	7,8	13,2	3,2	9,7	1,3	3,8	5,1	88,1	87,9	85,7	0,87	0,00489	31	67
	Q3E132S2C	Alüminyum	5,5	7,5	2900	10,4	18,0	3,6	10,8	1,0	3,0	3,5	89,2	88,9	86,7	0,91	0,01410	48	70
	Q3E132M2A	Alüminyum	7,5	10,0	2930	13,7	24,5	3,2	9,7	1,3	3,8	4,4	90,1	90,3	88,9	0,91	0,01596	51	70
	Q3E160L2A	Alüminyum	11,0	15,0	2940	19,8	35,9	2,9	8,8	1,0	3,0	5,1	91,2	91,4	90,3	0,93	0,03317	77	71
	Q3E160L2C	Alüminyum	15,0	20,0	2945	26,7	48,8	3,6	10,8	1,1	3,2	3,9	91,9	91,0	90,3	0,93	0,04075	91	71
	Q3E160L2D	Alüminyum	18,5	25,0	2940	33,4	60,0	2,9	8,8	1,3	3,8	4,1	92,4	92,0	90,9	0,91	0,04075	101	71
	Q3E180M2A	Alüminyum	22,0	30,0	2955	38,7	71,3	3,5	10,5	1,1	3,2	3,2	92,7	92,9	91,7	0,93	0,06193	139	77
	Q3E200L2C	Alüminyum	30,0	40,0	2950	52,9	97,4	3,0	9,1	0,8	2,4	3,5	93,3	93,8	93,4	0,93	0,11917	167	80
	Q3E200L2D	Alüminyum	37,0	50,0	2950	65,2	119,5	3,2	9,7	0,9	2,7	3,5	93,7	94,1	93,8	0,92	0,15010	179	80
	Q3E225M2C	Alüminyum	45,0	60,0	2965	80,3	145,2	2,7	8,0	0,8	2,4	3,4	94,0	94,0	93,2	0,91	0,23505	249	81
	Q3EP250M2C	Pik	55,0	75,0	2980	95,9	178,5	2,1	6,4	0,7	2,1	3,1	94,3	94,0	92,6	0,91	0,48707	488	82
	Q3EP280M2C	Pik	75,0	100,0	2975	125,4	240,8	2,7	8,0	0,6	1,9	4,0	94,7	94,0	92,7	0,92	0,54033	585	84
	Q3EP280M2D	Pik	90,0	125,0	2975	151,3	289,4	2,7	8,0	0,7	2,1	4,9	95,0	94,2	92,7	0,93	0,64510	587	84
400/660V	Q3EP315S2C	Pik	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
	Q3EP315M2B	Pik	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
	Q3EP315L2A	Pik	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
	Q3EP315L2C	Pik	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
	Q3EP355M2C	Pik	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
	Q3EP355L2B	Pik	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
	Q3EP355L2C	Pik	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
4kutup1500d/d																			
220/380V	Q3E80M4D	Alüminyum	0,75	1,0	1430	1,8	5,0	6,1	-	3,0	-	3,1	82,5	81,2	78,0	0,77	0,00268	12	49
	Q3E90L4C	Alüminyum	1,1	1,5	1440	2,5	7,4	7,5	-	2,9	-	3,3	84,1	84,1	81,3	0,80	0,00365	18	54
	Q3E90L4D	Alüminyum	1,5	2,0	1440	3,5	10,0	7,9	-	3,2	-	3,6	85,3	84,9	82,0	0,76	0,00365	18	55
	Q3E100L4C	Alüminyum	2,2	3,0	1445	5,1	14,6	7,6	-	3,7	-	4,0	86,7	84,4	82,0	0,78	0,00545	26	56
	Q3E100L4D	Alüminyum	3,0	4,0	1435	7,1	19,9	8,2	-	3,8	-	4,1	87,7	87,3	85,5	0,73	0,00581	26	56
380/660V	Q3E112M4D	Alüminyum	4,0	5,5	1445	8,3	26,3	2,8	8,3	1,0	3,0	4,0	88,6	87,6	85,8	0,83	0,01123	31	58
	Q3E132M4B	Alüminyum	5,5	7,5	1465	11,4	36,2	2,3	6,8	1,1	3,2	3,9	89,6	89,0	86,8	0,80	0,02763	54	61
	Q3E132M4C	Alüminyum	7,5	10,0	1450	15,8	49,4	2,5	7,4	1,0	3,0	4,1	90,4	89,3	87,4	0,82	0,02980	57	61
	Q3E160L4A	Alüminyum	11,0	15,0	1470	23,0	71,9	2,4	7,1	1,0	3,0	3,6	91,4	90,7	89,4	0,81	0,06922	90	63
	Q3E160L4B	Alüminyum	15,0	20,0	1465	30,8	98,0	2,7	8,0	0,9	2,6	3,4	92,1	91,7	90,7	0,82	0,07991	107	63
	Q3E180M4B	Alüminyum	18,5	25,0	1470	35,3	120,7	2,8	8,3	0,8	2,4	3,1	92,6	92,5	92,2	0,86	0,11220	148	69
	Q3E180L4B	Alüminyum	22,0	30,0	1475	42,0	142,4	2,7	8,0	0,8	2,4	2,5	93,0	93,0	93,0	0,86	0,12773	157	69
	Q3E200L4D	Alüminyum	30,0	40,0	1480	54,3	193,6	2,4	7,1	0,7	2,2	2,5	93,6	93,6	93,7	0,86	0,26448	183	70
	Q3E225M4D	Alüminyum	37,0	50,0	1485	77,8	239,6	2,8	8,3	0,9	2,7	3,3	93,9	92,6	90,6	0,81	0,36429	280	71
	Q3E225M4DE	Alüminyum	45,0	60,0	1480	84,3	289,9	2,9	8,6	0,9	2,7	3,3	94,2	93,1	91,6	0,85	0,43513	282	71
	Q3EP250M4E	Pik	55,0	75,0	1450	100,0	356,1	2,6	7,7	0,9	2,7	3,2	94,6	94,0	92,8	0,87	0,90782	506	72
400/660V	Q3EP280M4C	Pik	75,0	100,0	1485	141,7	482,0	2,5	7,4	0,9	2,7	2,9	95,0	94,7	93,5	0,84	1,06114	624	73
	Q3EP280M4D	Pik	90,0	125,0	1485	163,5	584,2	2,5	7,4	0,9	2,7	2,9	95,2	94,5	93,7	0,86	1,14768	653	73
	Q3EP315S4C	Pik	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
	Q3EP315M4B	Pik	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
	Q3EP315L4A	Pik	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
	Q3EP315L4C	Pik	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
	Q3EP355M4C	Pik	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
	Q3EP355L4B	Pik	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
	Q3EP355L4C	Pik	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

ELEKTRİKSEL ÖZELLİKLER - 50 Hz / ELECTRICAL CHARACTERISTICS AT 50 Hz

Motor Tipi Motor Type	Gövde Tipi Housing Type	Nominal / Rated Values				Kalkıştaki Değerler / Starting Values				Devirleme Momeni Oranı Breakdown Torque Ratio Mk/Mn	Verim * Efficiency*			Cosφ	J kgm ²	Ağırlık (B3) kg	Ses Seviyesi dB(A)** Sound Pressure Level dB(A)**		
		Güç / Power kW	Güç / Power HP	Devir Speed d/d	Akim Current A	Moment Torque Nm	Akim Current I _A / A _N A	Moment Torque M _A / M _N A	Devirleme Momeni Oranı Breakdown Torque Ratio Mk/Mn	η%	4/4	3/4	2/4						
6kutup1000d/d																			
220/380V	Q3E90L6C	Alüminyum	0,75	1,0	940	2,2	7,6	4,0	-	2,3	-	2,5	78,9	77,7	76,1	0,65	0,00365	18	54
	Q3E90L6D	Alüminyum	1,1	1,5	940	3,1	11,2	4,2	-	2,3	-	2,6	81,0	80,5	79,9	0,66	0,00451	20	55
	Q3E100L6D	Alüminyum	1,5	2,0	940	3,9	15,2	4,5	-	2,3	-	2,7	82,5	81,9	79,0	0,68	0,00570	26	56
	Q3E112M6D	Alüminyum	2,2	3,0	950	5,4	22,0	4,7	-	2,4	-	2,7	84,3	83,7	80,7	0,73	0,01107	32	58
380/660V	Q3E132M6B	Alüminyum	3,0	4,0	960	7,5	29,7	1,7	5,2	0,6	1,7	2,3	85,6	85,2	82,8	0,70	0,02709	58,5	61
	Q3E132M6C	Alüminyum	4,0	5,5	955	9,5	39,8	1,8	5,3	0,6	1,9	2,3	86,8	85,7	82,8	0,74	0,02921	67	61
	Q3E132M6D	Alüminyum	5,5	7,5	950	12,7	55,0	1,7	5,0	0,6	1,8	2,3	88,0	87,6	85,3	0,75	0,03347	76	61
	Q3E160L6C	Alüminyum	7,5	10,0	970	17,7	74,2	1,8	5,5	0,6	1,9	2,7	89,1	89,0	88,0	0,72	0,07663	96	63
	Q3E160L6D	Alüminyum	11,0	15,0	955	25,3	109,4	1,8	5,5	0,6	1,9	2,7	90,3	90,1	89,3	0,75	0,08129	100,5	63
	Q3E180L6B	Alüminyum	15,0	20,0	978	32,2	146,2	2,0	5,9	0,6	1,8	2,6	91,2	90,9	88,7	0,79	0,22951	155	69
	Q3E200L6C	Alüminyum	18,5	25,0	975	37,7	180,3	1,8	5,5	0,5	1,6	2,4	91,7	91,5	90,9	0,82	0,31281	165	70
	Q3E200L6D	Alüminyum	22,0	30,0	975	44,5	214,4	1,8	5,5	0,5	1,6	2,4	92,2	92,0	91,4	0,82	0,33078	170	70
	Q3E225M6C	Alüminyum	30,0	40,0	970	62,1	293,8	1,8	5,4	0,5	1,6	2,3	92,9	92,8	91,8	0,79	0,52901	237,5	71

* IEC 60034-2-1'e göre belirlenen verim değerleri

** Ses seviyesi ölçümü motordan 1 metre uzaklıktan alınır.

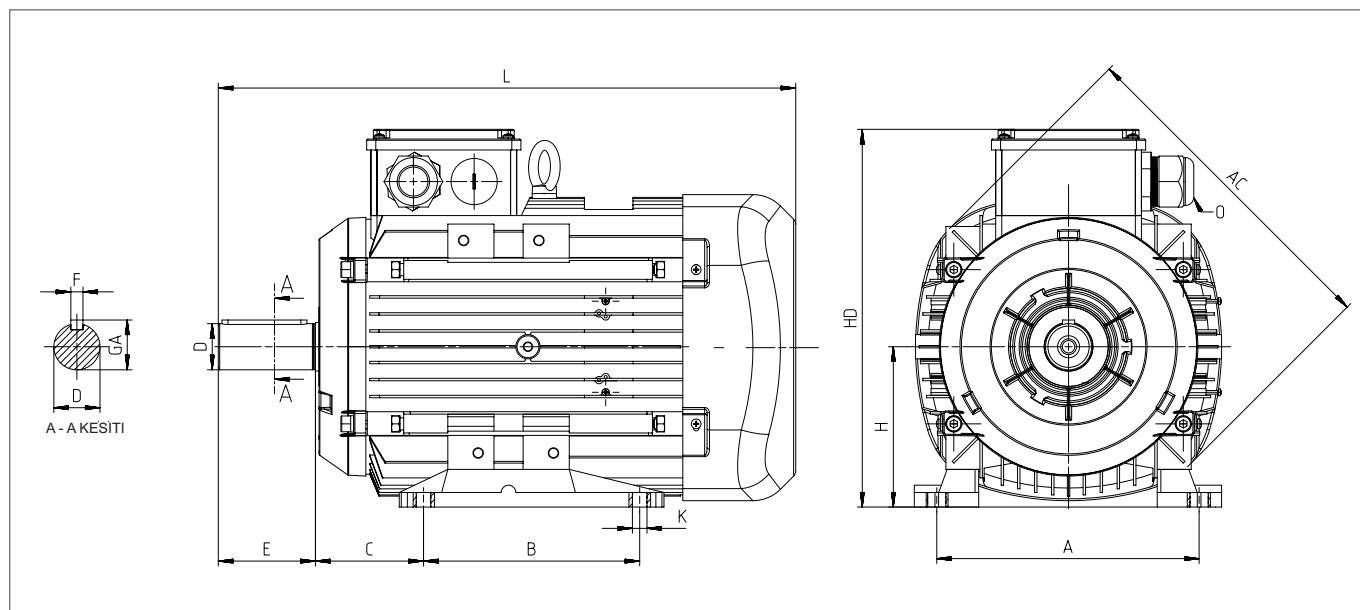
*** Tolerans + 3 dB(A)

* According to IEC 60034-2-1

** The sound pressure measurement are taken 1m away from the motor.

*** Tolerance + 3 dB(A)

BOYUTLAR / DIMENSIONS - B3



Güç Power (kW)	Kutup Sayısı Number of Poles	Motor Tipi Motor Type	Gövde Tipi Housing Type	Ana Boyutlar Main Dimensions			Ayaklı Motorlar / Foot Mounted Motors						Mil / Shaft			Rulman / Bearing		Keçe / Seal		
				A	C	O	B	A	H	HD	K	C	D ⁽¹⁾	E	GA	F ⁽²⁾	Kasnak Tarafı Drive Side	Kasnak Tarafı Aksı Non Drive Side	Kasnak Tarafı Drive Side	Kasnak Tarafı Aksı Non Drive Side
0,75	2	Q3E80M2C	Alüminyum	158	283,5	1*M20	100	125	80	195	10	50	19	40	21,5	6	6204-2Z	6204-2Z	20*30*7	20*30*7
	4	Q3E80M4D	Alüminyum	158	283,5	1*M20	100	125	80	195	10	50	19	40	21,5	6	6204-2Z	6204-2Z	20*30*7	20*30*7
	6	Q3E90L6C	Alüminyum	193	316,5	1*M25	125	140	90	222	10	56	24	50	27	8	6305-2Z	6205-2Z	25*40*7	25*40*7
1,1	2	Q3E80M2D	Alüminyum	158	283,5	1*M20	100	125	80	195	10	50	19	40	21,5	6	6204-2Z	6204-2Z	20*30*7	20*30*7
	4	Q3E90L4C	Alüminyum	193	316,5	1*M25	100	140	90	222	10	56	24	50	27	8	6305-2Z	6205-2Z	25*40*7	25*40*7
	6	Q3E90L6D	Alüminyum	193	344,5	1*M25	125	140	90	222	10	56	24	50	27	8	6305-2Z	6205-2Z	25*40*7	25*40*7
1,5	2	Q3E90L2C	Alüminyum	193	316,5	1*M25	100	140	90	222	10	56	24	50	27	8	6305-2Z	6205-2Z	25*40*7	25*40*7
	4	Q3E90L4D	Alüminyum	193	344,5	1*M25	125	140	90	222	10	56	24	50	27	8	6305-2Z	6205-2Z	25*40*7	25*40*7
	6	Q3E100L6D	Alüminyum	217	352,0	1*M25	140	160	100	241	12	63	28	60	31	8	6306-2Z	6205-2Z	30*47*7	25*47*7
2,2	2	Q3E90L2D	Alüminyum	193	316,5	1*M25	125	140	90	222	10	56	24	50	27	8	6305-2Z	6205-2Z	25*40*7	25*40*7
	4	Q3E100L4C	Alüminyum	217	352,0	1*M25	140	160	100	241	12	63	28	60	31	8	6306-2Z	6205-2Z	30*47*7	25*40*7
	6	Q3E112M6D	Alüminyum	232	395,5	2*M25	140	190	112	261	12	70	28	60	31	8	6306-2Z	6206-2Z	30*47*7	30*47*7
3,0	2	Q3E100L2C	Alüminyum	217	352,0	1*M25	140	160	100	241	12	63	28	60	31	8	6306-2Z	6205-2Z	30*47*7	25*40*7
	4	Q3E100L4D	Alüminyum	217	377,0	1*M25	140	160	100	241	12	63	28	60	31	8	6306-2Z	6205-2Z	30*47*7	25*40*7
	6	Q3E132M6B	Alüminyum	260	481,0	2*M32	178	216	132	323	12	89	38	80	41	10	6208-2Z	6208-2Z	40*62*10	40*62*10
4,0	2	Q3E112M2C	Alüminyum	232	395,5	2*M25	140	190	112	261	12	70	28	60	31	8	6306-2Z	6206-2Z	30*47*7	30*47*7
	4	Q3E112M4C	Alüminyum	232	395,5	2*M25	140	190	112	261	12	70	28	60	31	8	6306-2Z	6206-2Z	30*47*7	30*47*7
	6	Q3E132M6C	Alüminyum	260	481,0	2*M32	178	216	132	323	12	89	38	80	41	10	6208-2Z	6208-2Z	40*62*10	40*62*10
5,5	2	Q3E132S2C	Alüminyum	279	440,5	2*M32	140	216	132	314	12	89	38	80	41	10	6208-2Z	6208-2Z	40*62*10	40*62*10
	4	Q3E132M4B	Alüminyum	279	475,5	2*M32	140	216	132	314	12	89	38	80	41	10	6208-2Z	6208-2Z	40*62*10	40*62*10
	6	Q3E132M6D	Alüminyum	260	481,0	2*M32	178	216	132	323	12	89	38	80	41	10	6208-2Z	6208-2Z	40*62*10	40*62*10
7,5	2	Q3E132M2A	Alüminyum	279	475,5	2*M32	140	216	132	314	12	89	38	80	41	10	6208-2Z	6208-2Z	40*62*10	40*62*10
	4	Q3E132M4C	Alüminyum	279	475,5	2*M32	178	216	132	314	12	89	38	80	41	10	6208-2Z	6208-2Z	40*62*10	40*62*10
	6	Q3E160L6C	Alüminyum	302	576,0	2*M32	254	254	160	360	15	108	42	110	45	12	6309-2Z	6209-2Z	45*72*10	45*72*10
11,0	2	Q3E160L2A	Alüminyum	302	576,0	2*M32	254	254	160	360	15	108	42	110	45	12	6309-2Z	6209-2Z	45*72*10	45*72*10
	4	Q3E160L4A	Alüminyum	302	576,0	2*M32	254	254	160	360	15	108	42	110	45	12	6309-2Z	6209-2Z	45*72*10	45*72*10
	6	Q3E160L6D	Alüminyum	302	576,0	2*M32	254	254	160	360	15	108	42	110	45	12	6309-2Z	6209-2Z	45*72*10	45*72*10
15,5	2	Q3E160L2C	Alüminyum	302	576,0	2*M32	254	254	160	360	15	108	42	110	45	12	6309-2Z	6209-2Z	45*72*10	45*72*10
	4	Q3E160L4B	Alüminyum	302	576,0	2*M32	254	254	160	360	15	108	42	110	45	12	6309-2Z	6209-2Z	45*72*10	45*72*10
	6	Q3E180L6B	Alüminyum	347	689,0	2*M40	279	279	180	452	15	121	48	110	51,5	14	6310-2Z	6310-2Z	50*80*10	50*80*10
18,5	2	Q3E160L2C	Alüminyum	302	576,0	2*M32	254	254	160	360	15	108	42	110	45	12	6309-2Z	6209-2Z	45*72*10	45*72*10
	4	Q3E180M4B	Alüminyum	370	629,0	2*M40	241	279	180	428	15	121	48	110	51,5	14	6310-2Z	6310-2Z	50*80*10	50*80*10
	6	Q3E200L6C	Alüminyum	415	665,0	2*M50	305	318	200	461	19	133	55	110	59	16	6312-2Z	6312-2Z	60*90*10	60*90*10

BOYUTLAR / DIMENSIONS - B3

Güç Power (kW)	Kutup Sayısı Number of Poles	Motor Tipi Motor Type	Gövde Tipi Housing Type	Ana Boyutlar Main Dimensions			Ayaklı Motorlar / Foot Mounted Motors						Mil / Shaft			Rulman / Bearing		Keçe / Seal		
				AC	L	O	B	A	H	HD	K	C	D ⁽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
22,0	2	Q3E160L2D	Alüminyum	302	576,0	2*M32	210	254	160	360	15	108	42	110	45	12	6309-2Z	6209-2Z	45*72*10	45*72*10
	2	Q3E180M2A	Alüminyum	370	629,0	2*M40	241	279	180	428	15	121	48	110	51,5	14	6310-2Z	6310-2Z	50*80*10	50*80*10
	4	Q3E180L4B	Alüminyum	370	629,0	2*M40	279	279	180	428	15	121	48	110	51,5	14	6310-2Z	6310-2Z	50*80*10	50*80*10
	6	Q3E200L6D	Alüminyum	415	665,0	2*M50	305	318	200	461	19	133	55	110	59	16	6312-2Z	6312-2Z	60*90*10	60*90*10
30,0	2	Q3E200L2B	Alüminyum	415	665,0	2*M50	305	318	200	461	19	133	55	110	59	16	6312-2Z	6310-2Z	60*90*10	50*80*10
	4	Q3E200L4D	Alüminyum	415	665,0	2*M50	311	318	200	461	19	133	55	110	59	16	6312-2Z	6310-2Z	60*90*10	50*80*10
	6	Q3E225M6C	Alüminyum	456	765,0	2*M40	311	356	225	485	19	149	60	140	64	18	6313-2Z	6313-2Z	65*100*13	65*100*13
37,0	2	Q3E200L2C	Alüminyum	415	665,0	2*M50	305	318	200	461	19	133	55	110	59	16	6312-2Z	6310-2Z	60*90*10	50*80*10
	4	Q3E225M4C	Alüminyum	456	765,0	2*M50	286	356	225	504	19	149	60	140	64	18	6313-2Z	6313-2Z	65*100*13	65*100*13
45,0	2	Q3E225M2B	Alüminyum	456	735,0	2*M50	311	356	225	504	19	149	55	110	59	16	6313-2Z	6313-2Z	65*100*13	65*100*13
	4	Q3E225M4D	Alüminyum	456	765,0	2*M50	311	356	225	504	19	149	60	140	64	18	6313-2Z	6313-2Z	65*100*13	65*100*13
55,0	2	Q3EP250M2C	Pik	527	886,0	2*M50	349	406	250	615	24	168	60	140	64	18	6316	6316	80*100*10	80*100*10
	4	Q3EP250M4E	Pik	527	886,0	2*M50	349	406	250	615	24	168	65	140	69	18	6316	6316	80*100*10	80*100*10
75,0	2	Q3EP280M2C	Pik	527	10250	2*M50	419	457	280	647	24	190	65	140	69	18	6316	6316	80*100*10	80*100*10
	4	Q3EP280M4C	Pik	527	10250	2*M50	419	457	280	647	24	190	75	140	80	20	6316	6316	80*100*10	80*100*10
90,0	2	Q3EP280M2D	Pik	527	10250	2*M50	419	457	280	647	24	190	65	140	69	18	6316	6316	80*100*10	80*100*10
	4	Q3EP280M4D	Pik	527	10250	2*M50	419	457	280	647	24	190	75	140	80	20	6316	6316	80*100*10	80*100*10
110,0	2	Q3EP315S2C	Pik	652	11760	2*M63	406	508	315	833	28	216	65	140	69	18	6316	6316	80*100*5,5	80*100*5,5
	4	Q3EP315S4C	Pik	652	12060	2*M63	406	508	315	833	28	216	80	170	85	22	6319	6319	95*115*5,5	95*115*5,5
132,0	2	Q3EP315M2B	Pik	652	11760	2*M63	457	508	315	833	28	216	65	140	69	18	6316	6316	80*100*5,5	80*100*5,5
	4	Q3EP315M4B	Pik	652	12060	2*M63	457	508	315	833	28	216	80	170	85	22	6319	6319	95*115*5,5	95*115*5,5
160,0	2	Q3EP315L2A	Pik	652	12870	2*M63	508	508	315	833	28	216	65	140	69	18	6316	6316	80*100*5,5	80*100*5,5
	4	Q3EP315L4A	Pik	652	13170	2*M63	508	508	315	833	28	216	80	170	85	22	6319	6319	95*115*5,5	95*115*5,5
200,0	2	Q3EP315L2C	Pik	652	12870	2*M63	508	508	315	833	28	216	65	140	69	18	6316	6316	80*100*5,5	80*100*5,5
	4	Q3EP315L4C	Pik	652	13170	2*M63	508	508	315	833	28	216	80	170	85	22	6319	6319	95*115*5,5	95*115*5,5
250,0	2	Q3EP355M2C	Pik	762	15120	4*M63	560	610	355	997	28	254	75	140	80	20	6317	6317	85*105*5,5	85*105*5,5
	4	Q3EP355M4C	Pik	762	15420	4*M63	560	610	355	997	28	254	95	170	100	25	6322	6322	110*130*5,5	110*130*5,5
315,0	2	Q3EP355L2B	Pik	762	15120	4*M63	630	610	355	997	28	254	75	140	80	20	6317	6317	85*105*5,5	85*105*5,5
	4	Q3EP355L4B	Pik	762	15420	4*M63	630	610	355	997	28	254	95	170	100	25	6322	6322	110*130*5,5	110*130*5,5
355,0	2	Q3EP355L2C	Pik	762	15120	4*M63	630	610	355	997	28	254	75	140	80	20	6317	6317	85*105*5,5	85*105*5,5
	4	Q3EP355L4C	Pik	762	15420	4*M63	630	610	355	997	28	254	95	170	100	25	6322	6322	110*130*5,5	110*130*5,5

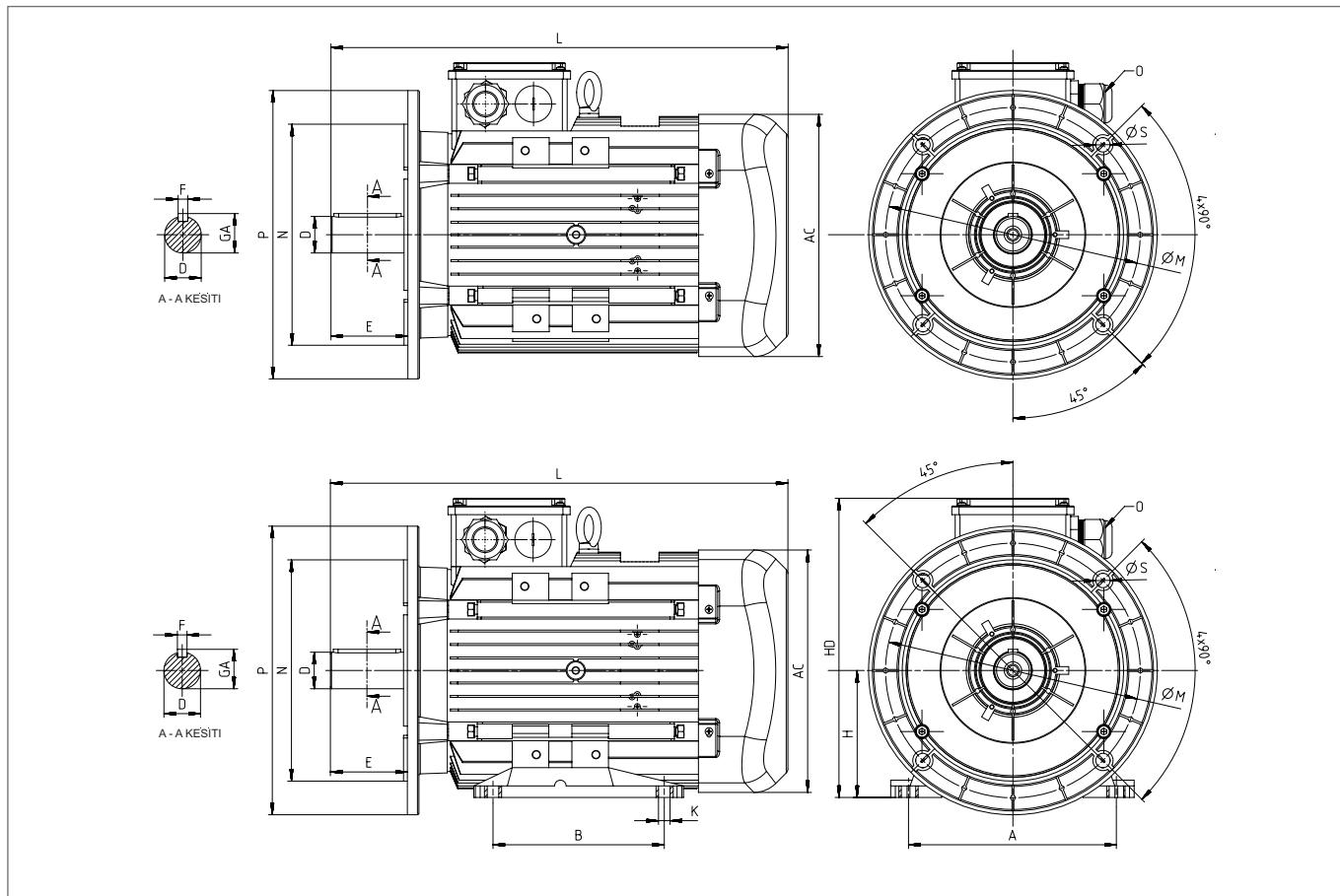
(1) Toleranslar 28 mm'ye kadar DIN EN 50347 "j6", 28 mm ve üzeri "k6"

(2) DIN 6885'e göre

(1) Tolerance DIN EN 50347 "j6" up to 28 mm "k6" above 28 mm

(2) According to DIN 6885

BOYUTLAR / DIMENSIONS - B5, B35



Güç Power (kW)	Kutup Sayısı Number of Poles	Motor Tipi Motor Type	Gövde Tipi Housing Type	Ana Boyutlar Main Dimensions			Ayaklı Motorlar Foot Mounted Motors				Mil / Shaft			Rulman / Bearing		Keçe / Seal		Flanş / Flange (FA) (B5)						
				AC	L	O	B	A	H	HD	K	D ⁽¹⁾	E	GA	F ⁽²⁾	Kasnak Tarafı Drive Side	Kasnak Tarafı Aksı Non Drive Side	P	N ⁽³⁾	M	R	S		
0,75	2	Q3E80M2C	Alüminyum	158	283,5	1*M20	100	125	80	195	10	19	40	21,5	6	6204-2Z	6204-2Z	20*30*7	20*30*7	200	130	165	0	12
	4	Q3E80M4D	Alüminyum	158	283,5	1*M20	100	125	80	195	10	19	40	21,5	6	6204-2Z	6204-2Z	20*30*7	20*30*7	200	130	165	0	12
	6	Q3E90L6C	Alüminyum	193	316,5	1*M25	125	140	90	222	10	24	50	27	8	6305-2Z	6205-2Z	25*40*7	25*40*7	200	130	165	0	12
1,1	2	Q3E80M2D	Alüminyum	158	283,5	1*M20	100	125	80	195	10	19	40	21,5	6	6204-2Z	6204-2Z	20*30*7	20*30*7	200	130	165	0	12
	4	Q3E90L4C	Alüminyum	193	316,5	1*M25	100	140	90	222	10	24	50	27	8	6305-2Z	6205-2Z	25*40*7	25*40*7	200	130	165	0	12
	6	Q3E90L6D	Alüminyum	193	344,5	1*M25	125	140	90	222	10	24	50	27	8	6305-2Z	6205-2Z	25*40*7	25*40*7	200	130	165	0	12
1,5	2	Q3E90L2C	Alüminyum	193	316,5	1*M25	100	140	90	222	10	24	50	27	8	6305-2Z	6205-2Z	25*40*7	25*40*7	200	130	165	0	12
	4	Q3E90L4D	Alüminyum	193	344,5	1*M25	125	140	90	222	10	24	50	27	8	6305-2Z	6205-2Z	25*40*7	25*40*7	200	130	165	0	12
	6	Q3E100L6D	Alüminyum	217	352,0	1*M25	140	160	100	241	12	28	60	31	8	6306-2Z	6205-2Z	30*47*7	25*47*7	250	180	215	0	15
2,2	2	Q3E90L2D	Alüminyum	193	316,5	1*M25	125	140	90	222	10	24	50	27	8	6305-2Z	6205-2Z	25*40*7	25*40*7	200	130	165	0	12
	4	Q3E100L4C	Alüminyum	217	352,0	1*M25	140	160	100	241	12	28	60	31	8	6306-2Z	6205-2Z	30*47*7	25*40*7	250	180	215	0	15
	6	Q3E112M6D	Alüminyum	232	395,5	2*M25	140	190	112	261	12	28	60	31	8	6306-2Z	6206-2Z	30*47*7	30*47*7	250	180	215	0	15
3,0	2	Q3E100L2C	Alüminyum	217	352,0	1*M25	140	160	100	241	12	28	60	31	8	6306-2Z	6205-2Z	30*47*7	25*40*7	250	180	215	0	15
	4	Q3E100L4D	Alüminyum	217	377,0	1*M25	140	160	100	241	12	28	60	31	8	6306-2Z	6205-2Z	30*47*7	25*40*7	250	180	215	0	15
	6	Q3E132M6B	Alüminyum	260	481,0	2*M32	178	216	132	323	12	38	80	41	10	6208-2Z	6208-2Z	40*62*10	40*62*10	300	230	265	0	15
4,0	2	Q3E112M2C	Alüminyum	232	395,5	2*M25	140	190	112	261	12	28	60	31	8	6306-2Z	6206-2Z	30*47*7	30*47*7	250	180	215	0	15
	4	Q3E112M4C	Alüminyum	232	395,5	2*M25	140	190	112	261	12	28	60	31	8	6306-2Z	6206-2Z	30*47*7	30*47*7	250	180	215	0	15
	6	Q3E132M6C	Alüminyum	260	481,0	2*M32	178	216	132	323	12	38	80	41	10	6208-2Z	6208-2Z	40*62*10	40*62*10	300	230	265	0	15
5,5	2	Q3E132S2C	Alüminyum	279	440,5	2*M32	140	216	132	314	12	38	80	41	10	6208-2Z	6208-2Z	40*62*10	40*62*10	300	230	265	0	15
	4	Q3E132M4B	Alüminyum	279	475,5	2*M32	140	216	132	314	12	38	80	41	10	6208-2Z	6208-2Z	40*62*10	40*62*10	300	230	265	0	15
	6	Q3E132M6D	Alüminyum	260	481,0	2*M32	178	216	132	323	12	38	80	41	10	6208-2Z	6208-2Z	40*62*10	40*62*10	300	230	265	0	15
7,5	2	Q3E132M2A	Alüminyum	279	475,5	2*M32	140	216	132	314	12	38	80	41	10	6208-2Z	6208-2Z	40*62*10	40*62*10	300	230	265	0	15
	4	Q3E132M4C	Alüminyum	279	475,5	2*M32	178	216	132	314	12	38	80	41	10	6208-2Z	6208-2Z	40*62*10	40*62*10	300	230	265	0	15
	6	Q3E160L6C	Alüminyum	302	576,0	2*M32	254	254	160	360	15	42	110	45	12	6309-2Z	6209-2Z	45*72*10	45*72*10	350	250	300	0	19
11,0	2	Q3E160L2A	Alüminyum	302	576,0	2*M32	254	254	160	360	15	42	110	45	12	6309-2Z	6209-2Z	45*72*10	45*72*10	350	250	300	0	19
	4	Q3E160L4A	Alüminyum	302	576,0	2*M32	254	254	160	360	15	42	110	45	12	6309-2Z	6209-2Z	45*72*10	45*72*10	350	250	300	0	19
	6	Q3E160L6D	Alüminyum	302	576,0	2*M32	254	254	160	360	15	42	110	45	12	6309-2Z	6209-2Z	45*72*10	45*72*10	350	250	300	0	19

BOYUTLAR / DIMENSIONS - B5, B35

Güç Power (kW)	Kutup Sayısı Number of Poles	Motor Tipi Motor Type	Gövde Tipi Housing Type	Ana Boyutlar Main Dimensions			Ayaklı Motorlar Foot Mounted Motors					Mil / Shaft				Rulman / Bearing		Keçe / Seal		Flanş / Flange (FA) (B5)				
				AC	L	O	B	A	H	HD	K	D ⁽¹⁾	E	GA	F ⁽²⁾	Kasnak Taraflı Drive Side	Kasnak Taraflı Aksı Non Drive Side	Kasnak Taraflı Drive Side	Kasnak Taraflı Aksı Non Drive Side	P	N ⁽³⁾	M	R	S
15,0	2	Q3E160L2C	Alüminyum	302	576,0	2*M32	254	254	160	360	15	42	110	45	12	6309-2Z	6209-2Z	45*72*10	45*72*10	350	250	300	0	19
	4	Q3E160L4B	Alüminyum	302	576,0	2*M32	254	254	160	360	15	42	110	45	12	6309-2Z	6209-2Z	45*72*10	45*72*10	350	250	300	0	19
	6	Q3E180L6B	Alüminyum	347	689,0	2*M40	279	279	180	452	15	48	110	51,5	14	6310-2Z	6310-2Z	50*80*10	50*80*10	350	250	300	0	19
18,5	2	Q3E160L2C	Alüminyum	302	576,0	2*M32	254	254	160	360	15	42	110	45	12	6309-2Z	6209-2Z	45*72*10	45*72*10	350	250	300	0	19
	4	Q3E180M4B	Alüminyum	370	629,0	2*M40	241	279	180	428	15	48	110	51,5	14	6310-2Z	6310-2Z	50*80*10	50*80*10	350	250	300	0	19
	6	Q3E200L6C	Alüminyum	415	665,0	2*M50	305	318	200	461	19	55	110	59	16	6312-2Z	6312-2Z	60*90*10	60*90*10	400	300	350	0	19
22,0	2	Q3E160L2D	Alüminyum	302	576,0	2*M32	210	254	160	360	15	42	110	45	12	6309-2Z	6209-2Z	45*72*10	45*72*10	350	250	300	0	19
	2	Q3E180M2A	Alüminyum	370	629,0	2*M40	241	279	180	428	15	48	110	51,5	14	6310-2Z	6310-2Z	50*80*10	50*80*10	350	250	300	0	19
	4	Q3E180L4B	Alüminyum	370	629,0	2*M40	279	279	180	428	15	48	110	51,5	14	6310-2Z	6310-2Z	50*80*10	50*80*10	350	250	300	0	19
30,0	6	Q3E200L6D	Alüminyum	415	665,0	2*M50	305	318	200	461	19	55	110	59	16	6312-2Z	6312-2Z	60*90*10	60*90*10	400	300	350	0	19
	2	Q3E200L2B	Alüminyum	415	665,0	2*M50	305	318	200	461	19	55	110	59	16	6312-2Z	6310-2Z	60*90*10	50*80*10	400	300	350	0	19
	4	Q3E200L4D	Alüminyum	415	665,0	2*M50	305	318	200	461	19	55	110	59	16	6312-2Z	6310-2Z	60*90*10	50*80*10	400	300	350	0	19
37,0	2	Q3E225M6C	Alüminyum	456	765,0	2*M40	311	356	225	485	19	60	140	64	18	6313-2Z	6313-2Z	65*100*13	65*100*13	450	350	400	0	19
	4	Q3E225M4C	Alüminyum	456	765,0	2*M50	286	356	225	504	19	60	140	64	18	6313-2Z	6313-2Z	65*100*13	65*100*13	450	350	400	0	19
	2	Q3E225M2B	Alüminyum	456	735,0	2*M50	311	356	225	504	19	55	110	59	16	6313-2Z	6313-2Z	65*100*13	65*100*13	450	350	400	0	19
45,0	4	Q3E225M4D	Alüminyum	456	765,0	2*M50	311	356	225	504	19	60	140	64	18	6313-2Z	6313-2Z	65*100*13	65*100*13	450	350	400	0	19
	2	Q3EP250M2C	Pik	527	886,0	2*M50	349	406	250	615	24	60	140	64	18	6316	6316	80*100*10	80*100*10	550	450	500	0	19
	4	Q3EP250M4E	Pik	527	886,0	2*M50	349	406	250	615	24	65	140	69	18	6316	6316	80*100*10	80*100*10	550	450	500	0	19
55,0	2	Q3EP280M2C	Pik	527	1025,0	2*M50	419	457	280	647	24	65	140	69	18	6316	6316	80*100*10	80*100*10	550	450	500	0	19
	4	Q3EP280M4C	Pik	527	1025,0	2*M50	419	457	280	647	24	75	140	80	20	6316	6316	80*100*10	80*100*10	550	450	500	0	19
	4	Q3EP280M2D	Pik	527	1025,0	2*M50	419	457	280	647	24	65	140	69	18	6316	6316	80*100*10	80*100*10	550	450	500	0	19
90,0	4	Q3EP280M4D	Pik	527	1025,0	2*M50	419	457	280	647	24	75	140	80	20	6316	6316	80*100*10	80*100*10	550	450	500	0	19
	2	Q3EP315S2C	Pik	652	1176,0	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
	4	Q3EP315S4C	Pik	652	1206,0	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
132,0	2	Q3EP315M2B	Pik	652	1176,0	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
	4	Q3EP315M4B	Pik	652	1206,0	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
	2	Q3EP315L2A	Pik	652	1287,0	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
160,0	4	Q3EP315L4A	Pik	652	1317,0	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
	2	Q3EP315L2C	Pik	652	1287,0	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
	4	Q3EP315L4C	Pik	652	1317,0	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
250,0	2	Q3EP355M2C	Pik	762	1512,0	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
	4	Q3EP355M4C	Pik	762	1542,0	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
	2	Q3EP355L2B	Pik	762	1512,0	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
315,0	4	Q3EP355L4B	Pik	762	1542,0	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
	2	Q3EP355L2C	Pik	762	1512,0	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
	4	Q3EP355L4C	Pik	762	1542,0	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
355,0	2	Q3EP355L2C	Pik	762	1512,0	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
	4	Q3EP355L4C	Pik	762	1542,0	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"

(2) DIN 6885'e göre

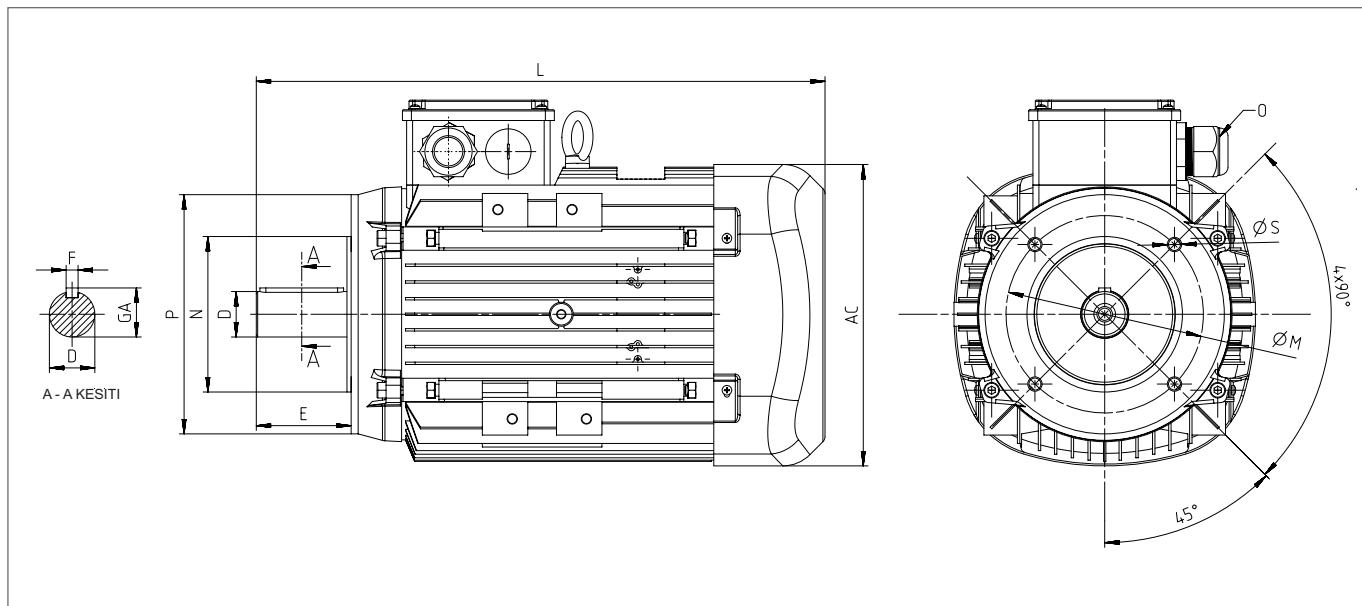
(3) Tolerans DIN EN 50347 "j6"

(1) Tolerance DIN EN 50347 "j6" up to 28 mm "k6" above 28 mm

(2) According to DIN 6885

(3) Tolerance DIN EN 50347 "j6"

BOYUTLAR / DIMENSIONS - B14a, B34a



Güç Power (kW)	Kutup Sayısı Number of Poles	Motor Tipi Motor Type	Gövde Tipi Housing Type	Ana Boyutlar Main Dimensions				Ayaklı Motorlar Foot Mounted Motors				Mil / Shaft				Rulman / Bearing		Keçe / Seal		Flanş / Flange (FC) (B14a)				
				AC	L	O	B	A	H	HD	K	D ⁽¹⁾	E	GA	F ⁽²⁾	Kasnak Tarafı Drive Side	Kasnak Tarafı Aksı Non Drive Side	Kasnak Tarafı Drive Side	Kasnak Tarafı Aksı Non Drive Side	P	N ⁽³⁾	M	R	S
0,75	2	Q3E80M2C	Alüminyum	158	283,5	1*M20	100	125	80	195	10	19	40	21,5	6	6204-2Z	6204-2Z	20*30 ⁷	20*30 ⁷	120	80	100	0	M6
	4	Q3E80M4D	Alüminyum	158	283,5	1*M20	100	125	80	195	10	19	40	21,5	6	6204-2Z	6204-2Z	20*30 ⁷	20*30 ⁷	120	80	100	0	M6
	6	Q3E90L6C	Alüminyum	193	316,5	1*M25	125	140	90	222	10	24	50	27	8	6305-2Z	6205-2Z	25*40 ⁷	25*40 ⁷	200	130	165	0	12
1,1	2	Q3E80M2D	Alüminyum	158	283,5	1*M20	100	125	80	195	10	19	40	21,5	6	6204-2Z	6204-2Z	20*30 ⁷	20*30 ⁷	120	80	100	0	M6
	4	Q3E90L4C	Alüminyum	193	316,5	1*M25	100	140	90	222	10	24	50	27	8	6305-2Z	6205-2Z	25*40 ⁷	25*40 ⁷	140	95	115	0	M8
	6	Q3E90L6D	Alüminyum	193	344,5	1*M25	125	140	90	222	10	24	50	27	8	6305-2Z	6205-2Z	25*40 ⁷	25*40 ⁷	200	130	165	0	12
1,5	2	Q3E90L2C	Alüminyum	193	316,5	1*M25	100	140	90	222	10	24	50	27	8	6305-2Z	6205-2Z	25*40 ⁷	25*40 ⁷	140	95	115	0	M8
	4	Q3E90L4D	Alüminyum	193	344,5	1*M25	125	140	90	222	10	24	50	27	8	6305-2Z	6205-2Z	25*40 ⁷	25*40 ⁷	140	95	115	0	M8
	6	Q3E100L6D	Alüminyum	217	352,0	1*M25	140	160	100	241	12	28	60	31	8	6306-2Z	6205-2Z	30*47 ⁷	25*47 ⁷	250	180	215	0	15
2,2	2	Q3E90L2D	Alüminyum	193	316,5	1*M25	125	140	90	222	10	24	50	27	8	6305-2Z	6205-2Z	25*40 ⁷	25*40 ⁷	140	95	115	0	M8
	4	Q3E100L4C	Alüminyum	217	352,0	1*M25	140	160	100	241	12	28	60	31	8	6306-2Z	6205-2Z	30*47 ⁷	25*40 ⁷	160	110	130	0	M8
	6	Q3E112M6D	Alüminyum	232	395,5	2*M25	140	190	112	261	12	28	60	31	8	6306-2Z	6206-2Z	30*47 ⁷	30*47 ⁷	250	180	215	0	15
3,0	2	Q3E100L2C	Alüminyum	217	352,0	1*M25	140	160	100	241	12	28	60	31	8	6306-2Z	6205-2Z	30*47 ⁷	25*40 ⁷	160	110	130	0	M8
	4	Q3E100L4D	Alüminyum	217	377,0	1*M25	140	160	100	241	12	28	60	31	8	6306-2Z	6205-2Z	30*47 ⁷	25*40 ⁷	160	110	130	0	M8
	6	Q3E132M6B	Alüminyum	260	481,0	2*M32	178	216	132	323	12	38	80	41	10	6208-2Z	6208-2Z	40*62 ¹⁰	40*62 ¹⁰	300	230	265	0	15
4,0	2	Q3E112M2C	Alüminyum	232	395,5	2*M25	140	190	112	261	12	28	60	31	8	6306-2Z	6206-2Z	30*47 ⁷	30*47 ⁷	160	110	130	0	M8
	4	Q3E112M4C	Alüminyum	232	395,5	2*M25	140	190	112	261	12	28	60	31	8	6306-2Z	6206-2Z	30*47 ⁷	30*47 ⁷	160	110	130	0	M8
	6	Q3E132M6C	Alüminyum	260	481,0	2*M32	178	216	132	323	12	38	80	41	10	6208-2Z	6208-2Z	40*62 ¹⁰	40*62 ¹⁰	300	230	265	0	15
5,5	2	Q3E132S2C	Alüminyum	279	440,5	2*M32	140	216	132	314	12	38	80	41	10	6208-2Z	6208-2Z	40*62 ¹⁰	40*62 ¹⁰	200	130	165	0	M10
	4	Q3E132M4B	Alüminyum	279	475,5	2*M32	140	216	132	314	12	38	80	41	10	6208-2Z	6208-2Z	40*62 ¹⁰	40*62 ¹⁰	200	130	165	0	M10
	6	Q3E132M6D	Alüminyum	260	481,0	2*M32	178	216	132	323	12	38	80	41	10	6208-2Z	6208-2Z	40*62 ¹⁰	40*62 ¹⁰	300	230	265	0	15
7,5	2	Q3E132M2A	Alüminyum	279	475,5	2*M32	140	216	132	314	12	38	80	41	10	6208-2Z	6208-2Z	40*62 ¹⁰	40*62 ¹⁰	200	130	165	0	M10
	4	Q3E132M4C	Alüminyum	279	475,5	2*M32	178	216	132	314	12	38	80	41	10	6208-2Z	6208-2Z	40*62 ¹⁰	40*62 ¹⁰	200	130	165	0	M10

(1) Toleranslar 28 mm'ye kadar DIN EN 50347 "j6", 28 mm ve üzeri "k6"

(2) DIN 6885'e göre

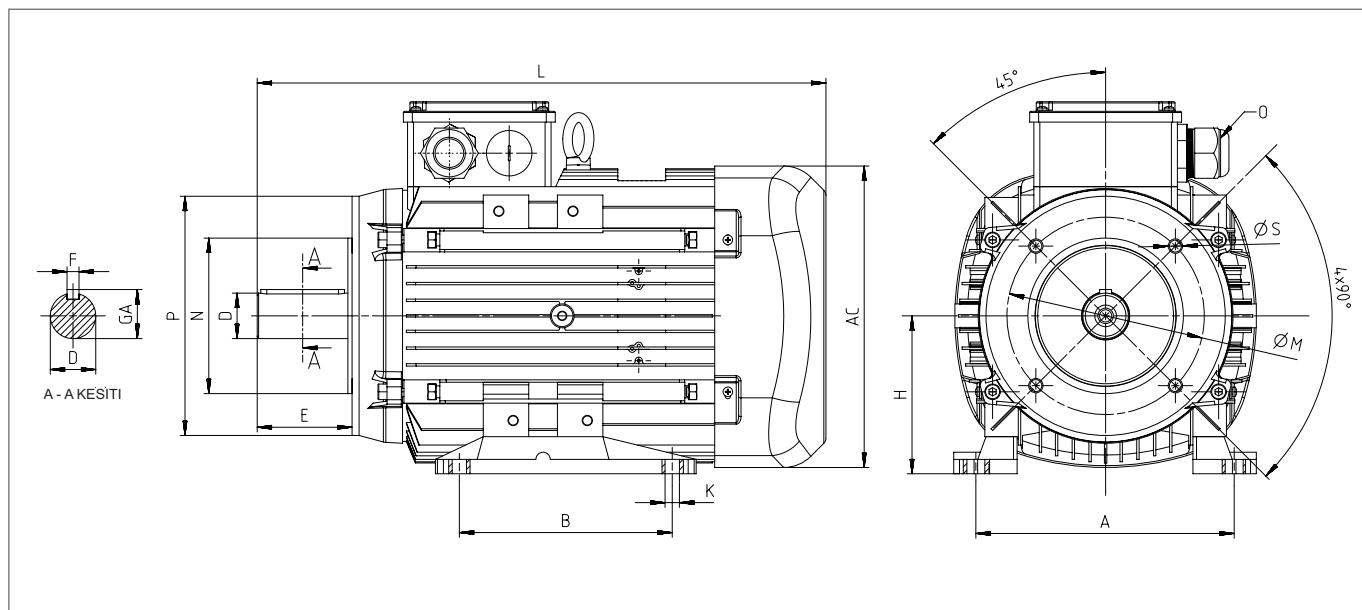
(3) Tolerans DIN EN 50347 "j6"

(1) Tolerance DIN EN 50347 "j6" up to 28 mm "k6" above 28 mm

(2) According to DIN 6885

(3) Tolerance DIN EN 50347 "j6"

BOYUTLAR / DIMENSIONS - B14b, B34b



Güç Power (kW)	Kutup Sayısı Number of Poles	Motor Tipi Motor Type	Gövde Tipi Housing Type	Ana Boyutlar Main Dimensions			Ayaklı Motorlar Foot Mounted Motors					Mil / Shaft			Rulman / Bearing		Keçe / Seal		Flanş / Flange (FB) (B14b)					
				AC	L	O	B	A	H	HD	K	D ⁽¹⁾	E	GA	F ⁽²⁾	Kasnak Taraflı Aksı Drive Side	Kasnak Taraflı Aksı Non Drive Side	Kasnak Taraflı Aksi Drive Side	Kasnak Taraflı Aksi Non Drive Side	P	N ⁽³⁾	M	R	S
0,75	2	Q3E80M2C	Alüminyum	158	283,5	1*M20	100	125	80	195	10	19	40	21,5	6	6204-2Z	6204-2Z	20*30*7	20*30*7	160	110	130	0	M8
	4	Q3E80M4D	Alüminyum	158	283,5	1*M20	100	125	80	195	10	19	40	21,5	6	6204-2Z	6204-2Z	20*30*7	20*30*7	160	110	130	0	M8
	6	Q3E90L6C	Alüminyum	193	316,5	1*M25	125	140	90	222	10	24	50	27	8	6305-2Z	6205-2Z	25*40*7	25*40*7	200	130	165	0	12
1,1	2	Q3E80M2D	Alüminyum	158	283,5	1*M20	100	125	80	195	10	19	40	21,5	6	6204-2Z	6204-2Z	20*30*7	20*30*7	160	110	130	0	M8
	4	Q3E90L4C	Alüminyum	193	316,5	1*M25	100	140	90	222	10	24	50	27	8	6305-2Z	6205-2Z	25*40*7	25*40*7	160	110	130	0	M8
	6	Q3E90L6D	Alüminyum	193	344,5	1*M25	125	140	90	222	10	24	50	27	8	6305-2Z	6205-2Z	25*40*7	25*40*7	200	130	165	0	12
1,5	2	Q3E90L2C	Alüminyum	193	316,5	1*M25	100	140	90	222	10	24	50	27	8	6305-2Z	6205-2Z	25*40*7	25*40*7	160	110	130	0	M8
	4	Q3E90L4D	Alüminyum	193	344,5	1*M25	125	140	90	222	10	24	50	27	8	6305-2Z	6205-2Z	25*40*7	25*40*7	160	110	130	0	M8
	6	Q3E100L6D	Alüminyum	217	352,0	1*M25	140	160	100	241	12	28	60	31	8	6306-2Z	6205-2Z	30*47*7	25*47*7	250	180	215	0	15
2,2	2	Q3E90L2D	Alüminyum	193	316,5	1*M25	125	140	90	222	10	24	50	27	8	6305-2Z	6205-2Z	25*40*7	25*40*7	160	110	130	0	M8
	4	Q3E100L4C	Alüminyum	217	352,0	1*M25	140	160	100	241	12	28	60	31	8	6306-2Z	6205-2Z	30*47*7	25*40*7	200	130	165	0	M10
	6	Q3E112M6D	Alüminyum	232	395,5	2*M25	140	190	112	261	12	28	60	31	8	6306-2Z	6206-2Z	30*47*7	30*47*7	250	180	215	0	15
3,0	2	Q3E100L2C	Alüminyum	217	352,0	1*M25	140	160	100	241	12	28	60	31	8	6306-2Z	6205-2Z	30*47*7	25*40*7	200	130	165	0	M10
	4	Q3E100L4D	Alüminyum	217	377,0	1*M25	140	160	100	241	12	28	60	31	8	6306-2Z	6205-2Z	30*47*7	25*40*7	200	130	165	0	M10
	6	Q3E132M6B	Alüminyum	260	481,0	2*M32	178	216	132	323	12	38	80	41	10	6208-2Z	6208-2Z	40*62*10	40*62*10	300	230	265	0	15
4,0	2	Q3E112M2C	Alüminyum	232	395,5	2*M25	140	190	112	261	12	28	60	31	8	6306-2Z	6206-2Z	30*47*7	30*47*7	200	130	165	0	M10
	4	Q3E112M4C	Alüminyum	232	395,5	2*M25	140	190	112	261	12	28	60	31	8	6306-2Z	6206-2Z	30*47*7	30*47*7	200	130	165	0	M10
	6	Q3E132M6C	Alüminyum	260	481,0	2*M32	178	216	132	323	12	38	80	41	10	6208-2Z	6208-2Z	40*62*10	40*62*10	300	230	265	0	15
5,5	2	Q3E132S2C	Alüminyum	279	440,5	2*M32	140	216	132	314	12	38	80	41	10	6208-2Z	6208-2Z	40*62*10	40*62*10	250	180	215	0	M12 veya 15
	4	Q3E132M4B	Alüminyum	279	475,5	2*M32	140	216	132	314	12	38	80	41	10	6208-2Z	6208-2Z	40*62*10	40*62*10	250	180	215	0	M12 veya 15
	6	Q3E132M6D	Alüminyum	260	481,0	2*M32	178	216	132	323	12	38	80	41	10	6208-2Z	6208-2Z	40*62*10	40*62*10	300	230	265	0	15
7,5	2	Q3E132M2A	Alüminyum	279	475,5	2*M32	140	216	132	314	12	38	80	41	10	6208-2Z	6208-2Z	40*62*10	40*62*10	250	180	215	0	M12 veya 15
	4	Q3E132M4C	Alüminyum	279	475,5	2*M32	178	216	132	314	12	38	80	41	10	6208-2Z	6208-2Z	40*62*10	40*62*10	250	180	215	0	M12 veya 15

(1) Toleranslar 28 mm'ye kadar DIN EN 50347 "j6", 28 mm ve üzeri "k6"

(2) DIN 6885'e göre

(3) Tolerans DIN EN 50347 "j6"

(1) Tolerance DIN EN 50347 "j6" up to 28 mm "k6" above 28 mm

(2) According to DIN 6885

(3) Tolerance DIN EN 50347 "j6"

ELEKTRİKSEL ÖZELLİKLER - 50 Hz / ELECTRICAL CHARACTERISTICS AT 50 Hz

Motor Tipi Motor Type	Gövde Tipi Housing Type	Nominal / Rated Values				Kalkıştaki Değerler / Starting Values				Devirleme Momeni Oranı Breakdown Torque Ratio	Verim * Efficiency *	$\eta\%$	$\cos\phi$	J kgm ²	Ağırlık (B3) kg	Ses Seviyesi dB(A)** Sound Pressure Level dB(A)**			
		Güç / Power kW	Devir Speed HP	Akim Current d/d	Moment Torque A	Akim Current Nm	Moment Torque A	Moment Torque Δ	Akim Current M _A / M _N										
2kutup3000d/d																			
220/380V	Q2E71M2C*	Alüminyum	0,37	1/2	2850	1,0	1,2	7,7	-	3,6	-	3,8	69,5	69,6	67,3	0,80	0,00067	8	54
	Q2E71M2D*	Alüminyum	0,55	3/4	2860	1,2	1,8	7,8	-	3,7	-	3,9	74,1	74,2	72,0	0,82	0,00086	9,7	54
	Q2E80M2B	Alüminyum	0,75	1,0	2860	1,7	2,5	7,7	-	3,7	-	4,0	77,4	77,0	73,6	0,84	0,00109	11	58
	Q2E80M2D	Alüminyum	1,1	1,5	2860	2,4	3,6	7,7	-	3,7	-	4,1	79,6	79,1	77,1	0,84	0,00150	13	58
	Q2E90L2C	Alüminyum	1,5	2,0	2900	3,2	5,0	7,8	-	3,4	-	4,0	81,3	80,8	77,7	0,83	0,00182	17	62
	Q2E90L2D	Alüminyum	2,2	3,0	2900	4,7	7,3	7,9	-	3,5	-	4,1	83,2	82,9	80,5	0,84	0,00182	18	62
	Q2E100L2C	Alüminyum	3,0	4,0	2875	6,0	9,9	9,1	-	3,9	-	4,6	84,6	84,5	83,1	0,90	0,00335	21	64
380/660V	Q2E112M2C	Alüminyum	4,0	5,5	2900	7,7	13,2	2,9	8,6	1,3	3,8	4,5	85,8	85,7	84,3	0,88	0,00489	31	67
	Q2E132S2C	Alüminyum	5,5	7,5	2900	10,4	18,0	3,0	8,9	1,1	3,2	4,2	87,0	86,9	85,2	0,91	0,01410	46	70
	Q2E132M2A	Alüminyum	7,5	10,0	2920	13,6	24,5	2,9	8,6	1,0	3,0	3,7	88,1	87,7	85,9	0,90	0,01596	53	70
	Q2E160M2B	Alüminyum	11,0	15,0	2930	20,3	35,9	3,1	9,4	1,0	3,0	3,8	89,4	89,3	87,5	0,91	0,02644	76	71
	Q2E160L2A	Alüminyum	15,0	20,0	2930	27,0	48,7	2,9	8,6	1,0	3,0	3,3	90,3	90,2	88,4	0,93	0,03317	82	71
	Q2E160L2C	Alüminyum	18,5	25,0	2930	32,8	60,0	3,3	10,0	0,5	1,4	4,3	90,9	90,8	89,0	0,91	0,04075	90	71
	Q2E180M2A	Alüminyum	22,0	30,0	2945	38,7	71,3	2,6	7,9	0,7	2,2	3,4	91,3	90,9	89,5	0,91	0,06193	114	77
	Q2E200L2B	Alüminyum	30,0	40,0	2955	56,6	97,1	2,6	7,9	0,6	1,9	4,1	92,0	91,4	89,6	0,86	0,11917	167	80
	Q2E200L2C	Alüminyum	37,0	50,0	2955	66,8	119,4	2,8	8,3	0,6	1,9	3,1	92,5	91,9	90,1	0,91	0,15010	167	80
	Q2E225M2B	Alüminyum	45,0	60,0	2965	85,7	145,2	2,8	8,3	0,7	2,2	3,4	92,9	92,6	91,1	0,86	0,23505	235	81
	Q2EP250M2B	Pik	55,0	75,0	2970	97,9	178,5	1,7	5,1	0,7	2,1	3,1	93,2	92,1	90,9	0,91	0,48707	486	82
	Q2EP280M2B	Pik	75,0	100,0	2970	135,0	241,1	3,0	9,1	0,7	2,1	2,6	93,8	93,7	92,5	0,90	0,54033	576	84
	Q2EP280M2C	Pik	90,0	125,0	2970	156,5	291,3	3,3	10,0	1,1	3,2	3,6	94,1	93,9	92,9	0,93	0,64510	585	84
400/690V	Q2EP315S2C	Pik	110,0	127,0	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	Pik	132,0	152,0	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	Pik	160,0	184,0	2,975	268	513	2,5	7,5	0,8	2,3	2,4	94,8	94,8	93,6	0,91	1,95300	1.170	87
	Q2EP315L2D	Pik	200,0	230,0	2,975	334	643	2,7	8,0	0,8	2,4	2,6	95,0	95,0	93,8	0,91	2,52700	1.200	87
	Q2EP355M2C	Pik	250,0	280,0	2,985	422	799	2,3	7,0	0,7	2,0	2,4	95,0	95,0	93,8	0,90	3,92000	1.690	87
	Q2EP355L2C	Pik	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	Pik	355,0	398,0	2,985	599	1.135	2,5	7,5	0,6	1,8	2,1	95,0	95,0	93,8	0,90	4,44000	1.953	87
4kutup1500d/d																			
220/380V	Q2E71M4C*	Alüminyum	0,25	1/3	1415	0,7	1,7	4,4	-	2,3	-	3,4	68,5	68,8	68,8	0,74	0,00095	9	45
	Q2E71M4D*	Alüminyum	0,37	1/2	1415	1,1	2,5	4,4	-	2,3	-	3,4	72,7	73,1	72,0	0,75	0,00095	8,5	45
	Q2E80M4B*	Alüminyum	0,55	3/4	1415	1,5	3,7	4,8	-	2,8	-	3,2	77,1	77,6	76,4	0,76	0,00205	10,5	49
	Q2E80M4D	Alüminyum	0,75	1,0	1435	2	5,1	5,2	-	2,9	-	3,2	79,6	78,9	75,3	0,7	0,00268	12	49
	Q2E90L4C	Alüminyum	1,1	1,5	1430	2,5	7,4	6,7	-	2,9	-	3,3	81,4	80,8	78,1	0,81	0,00365	18	54
	Q2E90L4D	Alüminyum	1,5	2,0	1430	3,5	10,0	7,0	-	3,2	-	3,6	82,8	82,0	79,3	0,76	0,00365	18	55
	Q2E100L4C	Alüminyum	2,2	3,0	1430	5,0	14,6	7,1	-	3,9	-	4,2	84,3	83,8	81,2	0,77	0,00545	26	56
	Q2E100L4D	Alüminyum	3,0	4,0	1440	6,4	20,0	7,1	-	3,4	-	3,8	85,5	85,1	83,0	0,75	0,00581	26	56
380/660V	Q2E112M4C	Alüminyum	4,0	5,5	1440	8,7	26,3	2,6	7,9	0,9	2,8	3,9	86,6	86,0	84,5	0,81	0,01123	31	58
	Q2E132M4B	Alüminyum	5,5	7,5	1450	11,7	36,2	2,4	7,1	1,1	3,2	3,9	87,7	87,6	85,2	0,81	0,02763	54	61
	Q2E132M4C	Alüminyum	7,5	10,0	1450	15,8	49,4	2,9	8,7	0,9	2,8	4,1	88,7	88,5	86,6	0,80	0,02980	57	61
	Q2E160M4B	Alüminyum	11,0	15,0	1460	22,5	72,5	2,0	6,0	0,7	2,2	2,7	89,8	89,7	88,2	0,83	0,05547	76	63
	Q2E160L4A	Alüminyum	15,0	20,0	1460	28,8	98,5	2,0	6,0	0,8	2,3	2,7	90,6	90,5	89,5	0,83	0,06922	92	63
	Q2E180M4B	Alüminyum	18,5	25,0	1465	36,5	121,4	2,5	7,4	1,0	3,0	4,1	91,2	91,1	90,2	0,84	0,11220	119	69
	Q2E180L4B	Alüminyum	22,0	30,0	1465	44,5	143,5	2,6	7,7	0,8	2,4	3,4	91,6	91,5	90,6	0,82	0,12773	127	69
	Q2E200L4D	Alüminyum	30,0	40,0	1465	57,3	195,6	2,4	7,3	0,8	2,5	3,2	92,3	92,1	91,1	0,86	0,26448	177	70
	Q2E225M4C	Alüminyum	37,0	50,0	1480	70,7	240,0	2,5	7,5	1,0	2,9	3,5	92,7	92,6	91,5	0,84	0,36429	260	71
	Q2E225M4D	Alüminyum	45,0	60,0	1470	85,9	292,3	2,6	7,7	1,0	2,9	3,5	93,1	93,0	91,9	0,85	0,43513	280	71
	Q2EP250M4D	Pik	55,0	75,0	1480	105,0	359,0	2,4	7,1	0,7	2,1	2,9	93,5	93,2	90,7	0,83	0,90782	506	72
	Q2EP280M4B	Pik	75,0	100,0	1475	147,0	485,7	2,5	7,4	0,7	2,1	3,1	94,0	93,9	93,2	0,85	1,06114	624	73
	Q2EP280M4C	Pik	90,0	125,0	1470	173,8	584,2	2,5	7,4	0,7	2,1	3,0	94,2	94,4	93,6	0,85	1,14768	638	73

ELEKTRİKSEL ÖZELLİKLER - 50 Hz / ELECTRICAL CHARACTERISTICS AT 50 Hz

Motor Tipi Motor Type	Gövde Tipi Housing Type	Nominal / Rated Values				Kalkıştaki Değerler / Starting Values				Devrime Momeni Oranı Breakdown Torque Ratio	Verim * Efficiency*	$\eta\%$	Cosφ	J kgm ²	Ağırlık (B3) kg	Ses Seviyesi dB(A)** Sound Pressure Level dB(A)**		
		Güç / Power kW	Devir Speed HP	Akim Current d/d	Moment Torque A	Akim Current I_A / A_N A	Moment Torque M_A / M_N Δ	Devrime Momeni Oranı Breakdown Torque Ratio Mk/Mn										
4kutup1500d/d																		
400/690V	Q2EP315S4C	Pik	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	Pik	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	Pik	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	Pik	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	Pik	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	Pik	315,0	353,0	1.485	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	Pik	355,0	398,0	1.485	605	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
6kutup1000d/d																		
220/380V	Q2E90L6C	Alüminyum	0,75	1,0	940	2,6	7,7	4,0	-	2,3	-	2,5	75,9	74,7	73,2	0,68	0,00371	18 53
	Q2E90L6D	Alüminyum	1,1	1,5	940	3,2	11,3	4,0	-	2,6	-	2,6	78,1	77,6	74,8	0,65	0,00444	20 53
	Q2E100L6D	Alüminyum	1,5	2,0	940	4	15,3	4,5	-	2,4	-	2,7	79,8	79,3	76,4	0,71	0,00570	26 56
	Q2E112M6C	Alüminyum	2,2	3,0	950	5,4	22,1	5,0	-	2,3	-	2,7	81,8	81,2	78,3	0,71	0,00916	31 58
380/660V	Q2E132M6A	Alüminyum	3,0	4,0	945	7,3	29,8	1,7	5,2	1,0	3,0	3,0	83,3	82,3	79,4	0,64	0,02057	53 62
	Q2E132M6B	Alüminyum	4,0	5,5	965	10,5	39,8	1,8	5,3	0,6	1,9	2,3	84,6	83,5	80,7	0,65	0,02070	54 62
	Q2E132M6C	Alüminyum	5,5	7,5	945	13,1	54,7	1,6	4,9	0,8	2,4	2,6	86,1	85,7	83,9	0,76	0,02709	67 62
	Q2E160L6B	Alüminyum	7,5	10,0	965	18,7	74,6	2,0	6,0	1,1	3,2	3,4	87,2	84,3	81,7	0,66	0,07040	94 63
	Q2E160L6C	Alüminyum	11,0	15,0	960	25,1	109,4	1,6	4,9	0,9	2,7	2,8	88,7	88,5	86,3	0,74	0,07040	95,5 63
	Q2E180L6A	Alüminyum	15,0	20,0	960	31,8	147,7	2,0	5,9	0,6	1,8	2,6	89,7	89,5	87,3	0,80	0,18369	115 64
	Q2E200L6B	Alüminyum	18,5	25,0	970	38,0	182,2	1,8	5,5	0,5	1,6	2,4	90,4	90,2	89,6	0,83	0,27088	155 64
	Q2E200L6C	Alüminyum	22,0	30,0	970	45,6	216,6	1,8	5,5	0,5	1,6	2,4	90,9	90,7	90,1	0,83	0,31281	165 64
	Q2E225M6B	Alüminyum	30,0	40,0	980	60,9	287,6	1,8	5,4	0,5	1,6	2,3	91,7	91,6	90,7	0,82	0,49334	221 65

* IEC 60034-2-1'e göre belirlenen verim değerleri

** Ses seviyesi ölçümleri motordan 1 metre uzaklıktan alınır.

** Tolerans + 3 dB(A)

* According to IEC 60034-2-1

** The sound pressure measurement are taken 1 m away from the motor.

** Tolerance + 3 dB(A)

ELEKTRİKSEL ÖZELLİKLER - 50 Hz / ELECTRICAL CHARACTERISTICS AT 50 Hz

Motor Tipi Motor Type	Gövde Tipi Housing Type	Nominal / Rated Values				Kalkıştaki Değerler / Starting Values				Devrime Momenti Oranı Brakedown Torque Ratio Mk/Mn	Verim * Efficiency*			Cosφ	J kgm ²	Ağırlık (B3) kg	Ses Seviyesi (B3)** Sound Pressure Level dB(A)**		
		Güç / Power kW	Devir Speed HP	Akim Current d/d	Moment Torque Nm	Akim Current I _A / I _N A	Moment Torque M _A / M _N Δ	η%	4/4		3/4	2/4	4/4						
2kutup3000d/d																			
220/380V	Q2E71M2DE	Alüminyum	0,75	1,0	2870	1,7	2,4	8,8	-	5,0	-	5,2	77,4	77,5	75,9	0,77	0,00110	11	56
	Q2E80M2DE	Alüminyum	1,5	2,0	2875	3,0	5,0	8,1	-	4,0	-	4,3	81,5	82,0	80,9	0,76	0,00150	13	58
	Q2E90L2DE	Alüminyum	3,0	4,0	2880	6,1	9,9	8,3	-	4,0	-	4,5	84,6	84,1	80,8	0,75	0,00182	18	62
380/660V	Q2E100L2DE	Alüminyum	4,0	5,5	2900	7,9	13,3	3,0	9,3	1,4	4,3	5,2	85,9	86,0	84,1	0,77	0,00335	27	64
	Q2E112M2CE	Alüminyum	5,5	7,5	2910	9,1	17,9	3,1	9,5	1,4	4,2	5,0	86,3	86,5	84,7	0,87	0,00489	31	67
	Q2E132M2AE	Alüminyum	11,0	15,0	2923	13,6	24,5	2,9	9,0	1,2	3,6	4,0	88,3	87,9	86,1	0,89	0,01596	53	70
	Q2E160L2DE	Alüminyum	22,0	30,0	2943	31,4	60,0	2,6	8,2	1,1	3,3	3,9	91,4	91,8	91,2	0,92	0,04075	92	71
	Q2EP250M2C	Pik	75,0	100,0	2975	125,4	241,1	2,5	7,5	0,8	2,8	3,3	93,8	93,7	92,5	0,92	0,54033	576	84
	Q2EP280M2D	Pik	110,0	150,0	2980	191,0	352,4	2,6	7,7	0,9	2,9	3,4	94,3	94,3	93,6	0,88	0,74111	640	84
4kutup1500d/d																			
220/380V	Q2E80M4DE	Alüminyum	1,1	1,5	1438	1,9	4,9	5,5	-	3,2	-	3,5	79,9	79,4	76,3	0,72	0,00268	12,5	49
	Q2E90L4DE	Alüminyum	2,2	3,0	1440	4,8	14,5	7,5	-	3,5	-	4,0	84,3	83,5	80,6	0,70	0,00365	18	54
380/660V	Q2E112M4DE	Alüminyum	5,5	7,5	1458	8,5	26,2	2,8	8,6	1,1	3,2	4,3	86,7	86,7	85,1	0,77	0,01123	34	58
	Q2EP250M4E	Pik	75,0	100,0	1485	134,2	485,7	2,6	7,8	0,8	2,9	3,4	94,0	93,9	93,2	0,86	1,06114	624	73
	Q2EP280M4D	Pik	110,0	150,0	1485	200,3	714,0	2,8	7,9	0,8	2,9	3,4	94,5	94,3	93,1	0,84	1,25586	654	73

* IEC 60034-2-1'e göre belirlenen verim değerleri

** Ses seviyesi ölçümleri motordan 1 metre uzaklıktan alınır.

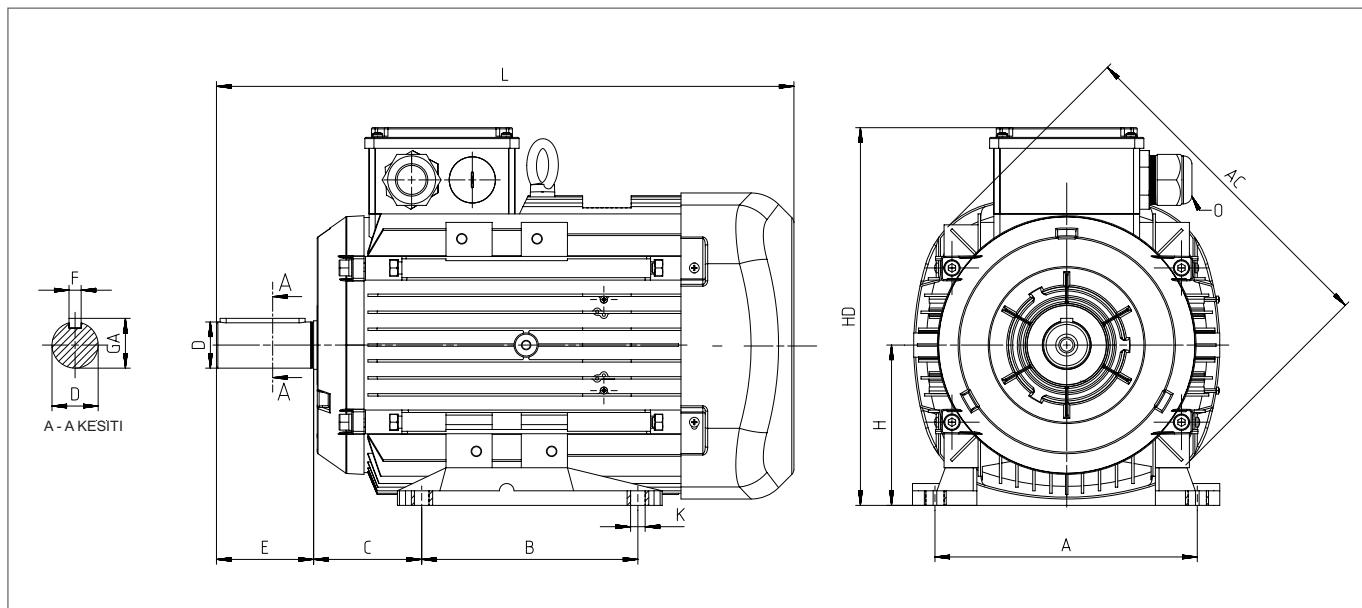
*** Tolerans + 3 dB(A)

* According to IEC 60034-2-1

** The sound pressure measurement are taken 1 m away from the motor.

*** Tolerance + 3 dB(A)

BOYUTLAR / DIMENSIONS - B3



Güç Power (kW)	Kutup Sayısı Number of Poles	Motor Tipi Motor Type	Gövde Tipi Housing Type	Ana Boyutlar Main Dimensions			Ayaklı Motorlar / Foot Mounted Motors						Mil / Shaft				Rulman / Bearing		Keçe / Seal	
				AC	L	O	B	A	H	HD	K	C	D ⁽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
0,25	4	Q2E71M4B	Alüminyum	138	252,5	1*M20	90	112	71	190	7	45	14	30	16	5	6202-2Z	6202-2Z	15*24*5	15*24*5
	2	Q2E71M2C	Alüminyum	138	252,5	1*M20	90	112	71	190	7	45	14	30	16	5	6202-2Z	6202-2Z	15*24*5	15*24*5
0,37	4	Q2E71M4B	Alüminyum	138	252,5	1*M20	90	112	71	190	7	45	14	30	16	5	6202-2Z	6202-2Z	15*24*5	15*24*5
	2	Q2E71M2D	Alüminyum	138	252,5	1*M20	90	112	71	190	7	45	14	30	16	5	6202-2Z	6202-2Z	15*24*5	15*24*5
0,55	4	Q2E80M4B	Alüminyum	158	283,5	1*M20	100	125	80	195	10	50	19	40	21,5	6	6204-2Z	6204-2Z	20*30*7	20*30*7
	2	Q2E71M2DE	Alüminyum	138	252,5	1*M20	90	112	71	190	7	45	14	30	16,0	5	6202-2Z	6202-2Z	15*24*5	15*24*5
0,75	2	Q2E80M2B	Alüminyum	158	283,5	1*M20	100	125	80	195	10	50	19	40	21,5	6	6204-2Z	6204-2Z	20*30*7	20*30*7
	4	Q2E80M4D	Alüminyum	158	283,5	1*M20	100	125	80	195	10	50	19	40	21,5	6	6204-2Z	6204-2Z	20*30*7	20*30*7
1,1	6	Q2E90L6C	Alüminyum	193	316,5	1*M25	100	140	90	222	10	56	24	50	27	8	6305-2Z	6205-2Z	25*40*7	25*40*7
	2	Q2E80M2D	Alüminyum	158	283,5	1*M20	100	125	80	195	10	50	19	40	21,5	6	6204-2Z	6204-2Z	20*30*7	20*30*7
1,5	4	Q2E80M4DE	Alüminyum	158	283,5	1*M20	100	125	80	195	10	50	19	40	21,5	6	6204-2Z	6204-2Z	20*30*7	20*30*7
	4	Q2E90L4C	Alüminyum	193	316,5	1*M25	100	140	90	222	10	56	24	50	27	8	6305-2Z	6205-2Z	25*40*7	25*40*7
1,5	6	Q2E90L6D	Alüminyum	193	344,5	1*M25	125	140	90	222	10	56	24	50	27	8	6305-2Z	6205-2Z	25*40*7	25*40*7
	2	Q2E80M2DE	Alüminyum	158	283,5	1*M20	100	125	80	195	10	50	19	40	21,5	6	6204-2Z	6204-2Z	20*30*7	20*30*7
2,2	2	Q2E90L2C	Alüminyum	193	316,5	1*M25	100	140	90	222	10	56	24	50	27	8	6305-2Z	6205-2Z	25*40*7	25*40*7
	4	Q2E90L4D	Alüminyum	193	316,5	1*M25	125	140	90	222	10	56	24	50	27	8	6305-2Z	6205-2Z	25*40*7	25*40*7
2,2	6	Q2E100L6D	Alüminyum	217	352,0	1*M25	140	160	100	241	12	63	28	60	31	8	6306-2Z	6205-2Z	30*47*7	25*40*7
	2	Q2E90L2D	Alüminyum	193	316,5	1*M25	125	140	90	222	10	56	24	50	27	8	6305-2Z	6205-2Z	25*40*7	25*40*7
3,0	4	Q2E100L2C	Alüminyum	217	352,0	1*M25	140	160	100	241	12	63	28	60	31	8	6306-2Z	6205-2Z	30*47*7	25*40*7
	6	Q2E100L4D	Alüminyum	217	352,0	1*M25	140	160	100	241	12	63	28	60	31	8	6306-2Z	6205-2Z	30*47*7	25*40*7
3,0	6	Q2E132M6A	Alüminyum	279	475,5	2*M32	140	216	132	314	12	89	38	80	41	10	6208-2Z	6208-2Z	40*62*10	40*62*10

BOYUTLAR / DIMENSIONS - B3

Güç Power (kW)	Kutup Sayısı Number of Poles	Motor Tipi Motor Type	Gövde Tipi Housing Type	Ana Boyutlar Main Dimensions			Ayaklı Motorlar / Foot Mounted Motors						Mil / Shaft			Rulman / Bearing		Keçe / Seal		
				AC	L	O	B	A	H	HD	K	C	D ⁽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
4,0	2	Q2E100L2DE	Alüminyum	217	352,0	1*M25	140	160	100	241	12	63	28	60	31	8	6306-2Z	6205-2Z	30*47*7	25*40*7
	2	Q2E112M2C	Alüminyum	232	395,5	2*M25	140	190	112	261	12	70	28	60	31	8	6306-2Z	6206-2Z	30*47*7	30*47*7
	4	Q2E112M4C	Alüminyum	232	395,5	2*M25	140	190	112	261	12	70	28	60	31	8	6306-2Z	6206-2Z	30*47*7	30*47*7
	6	Q2E132M6B	Alüminyum	279	475,5	2*M32	178	216	132	314	12	89	38	80	41	10	6208-2Z	6208-2Z	40*62*10	40*62*10
5,5	2	Q2E112M2CE	Alüminyum	232	395,5	2*M25	140	190	112	261	12	70	28	60	31	8	6306-2Z	6206-2Z	30*47*7	30*47*7
	4	Q2E112M4D	Alüminyum	232	395,5	2*M25	140	190	112	261	12	70	28	60	31	8	6306-2Z	6206-2Z	30*47*7	30*47*7
	2	Q2E132S2C	Alüminyum	279	440,5	2*M32	140	216	132	314	12	89	38	80	41	10	6208-2Z	6208-2Z	40*62*10	40*62*10
	4	Q2E132M4B	Alüminyum	279	475,5	2*M32	140	216	132	314	12	89	38	80	41	10	6208-2Z	6208-2Z	40*62*10	40*62*10
7,5	2	Q2E132M6C	Alüminyum	279	475,5	2*M32	178	216	132	314	12	89	38	80	41	10	6208-2Z	6208-2Z	40*62*10	40*62*10
	4	Q2E132M2A	Alüminyum	279	475,5	2*M32	140	216	132	314	12	89	38	80	41	10	6208-2Z	6208-2Z	40*62*10	40*62*10
	4	Q2E132M4C	Alüminyum	279	475,5	2*M32	178	216	132	314	12	89	38	80	41	10	6208-2Z	6208-2Z	40*62*10	40*62*10
	6	Q2E160M6B	Alüminyum	302	576,0	2*M32	210	254	160	360	15	108	42	110	45	12	6309-2Z	6209-2Z	45*72*10	45*72*10
11,0	2	Q2E132M2AE	Alüminyum	279	475,5	2*M32	140	216	132	314	12	89	38	80	41	10	6208-2Z	6208-2Z	40*62*10	40*62*10
	2	Q2E160M2B	Alüminyum	302	576,0	2*M32	210	254	160	360	15	108	42	110	45	12	6309-2Z	6209-2Z	45*72*10	45*72*10
	4	Q2E160M4B	Alüminyum	302	576,0	2*M32	210	254	160	360	15	108	42	110	45	12	6309-2Z	6209-2Z	45*72*10	45*72*10
	6	Q2E160L6B	Alüminyum	302	576,0	2*M32	254	254	160	360	15	108	42	110	45	12	6309-2Z	6209-2Z	45*72*10	45*72*10
15,0	2	Q2E160L2A	Alüminyum	302	576,0	2*M32	210	254	160	360	15	108	42	110	45	12	6309-2Z	6209-2Z	45*72*10	45*72*10
	4	Q2E160L4A	Alüminyum	302	576,0	2*M32	254	254	160	360	15	108	42	110	45	12	6309-2Z	6209-2Z	45*72*10	45*72*10
	6	Q2E180L6A	Alüminyum	370	629,0	2*M40	279	279	180	428	15	121	48	110	51,5	14	6310-2Z	6310-2Z	50*80*10	50*80*10
	2	Q2E160L2C	Alüminyum	302	576,0	2*M32	254	254	160	360	15	108	42	110	45	12	6309-2Z	6209-2Z	45*72*10	45*72*10
18,5	4	Q2E180M4B	Alüminyum	370	629,0	2*M40	241	279	180	428	15	121	48	110	51,5	14	6310-2Z	6310-2Z	50*80*10	50*80*10
	6	Q2E200L6B	Alüminyum	415	665,0	2*M50	305	318	200	461	19	133	55	110	59	16	6312-2Z	6312-2Z	60*90*10	60*90*10
	2	Q2E160L2D	Alüminyum	302	576,0	2*M32	210	254	160	360	15	108	42	110	45	12	6309-2Z	6209-2Z	45*72*10	45*72*10
	2	Q2E180M2A	Alüminyum	370	629,0	2*M40	241	279	180	428	15	121	48	110	51,5	14	6310-2Z	6310-2Z	50*80*10	50*80*10
22,0	4	Q2E180L4B	Alüminyum	370	629,0	2*M40	279	279	180	428	15	121	48	110	51,5	14	6310-2Z	6310-2Z	50*80*10	50*80*10
	6	Q2E200L6C	Alüminyum	415	665,0	2*M50	305	318	200	461	19	133	55	110	59	16	6312-2Z	6312-2Z	60*90*10	60*90*10
	2	Q2E200L2B	Alüminyum	415	665,0	2*M50	305	318	200	461	19	133	55	110	59	16	6312-2Z	6312-2Z	60*90*10	60*90*10
	4	Q2E200L4D	Alüminyum	415	665,0	2*M50	305	318	200	461	19	133	55	110	59	16	6312-2Z	6312-2Z	60*90*10	60*90*10
30,0	2	Q2E225M6B	Alüminyum	456	765,0	2*M50	311	356	225	504	19	149	60	140	64	18	6313-2Z	6313-2Z	65*100*13	65*100*13
	4	Q2E200L2C	Alüminyum	415	665,0	2*M50	305	318	200	461	19	133	55	110	59	16	6312-2Z	6312-2Z	60*90*10	60*90*10
	6	Q2E225L4B	Alüminyum	456	765,0	2*M50	286	356	225	504	19	149	60	140	64	18	6313-2Z	6313-2Z	65*100*13	65*100*13
	2	Q2E225M2B	Alüminyum	456	735,0	2*M50	311	356	225	504	19	149	55	110	59	16	6313-2Z	6313-2Z	65*100*13	65*100*13
37,0	2	Q2E225M4C	Alüminyum	456	765,0	2*M50	305	318	200	461	19	133	55	110	59	16	6313-2Z	6313-2Z	65*100*13	65*100*13
	4	Q2E225M2B	Alüminyum	456	735,0	2*M50	311	356	225	504	19	149	55	110	59	16	6313-2Z	6313-2Z	65*100*13	65*100*13
	2	Q2E225M4D	Alüminyum	456	765,0	2*M50	311	356	225	504	19	149	60	140	64	18	6313-2Z	6313-2Z	65*100*13	65*100*13
	4	Q2EP250M2B	Pik	527	886,0	2*M50	349	406	250	615	24	168	60	140	64	18	6316	6316	80*100*10	80*100*10
55,0	4	Q2EP250M4D	Pik	527	886,0	2*M50	349	406	250	615	24	168	65	140	69	18	6316	6316	80*100*10	80*100*10
	2	Q2EP250M2C	Pik	527	886,0	2*M50	349	406	250	615	24	168	60	140	64	18	6316	6316	80*100*10	80*100*10
	2	Q2EP280M2B	Pik	527	1025,0	2*M50	419	457	280	647	24	190	65	140	69	18	6316	6316	80*100*10	80*100*10
	4	Q2EP250M4E	Pik	527	886,0	2*M50	349	406	250	615	24	168	65	140	69	18	6316	6316	80*100*10	80*100*10
75,0	2	Q2EP280M4B	Pik	527	1025,0	2*M50	419	457	280	647	24	190	75	140	80	20	6316	6316	80*100*10	80*100*10
	4	Q2EP280M2C	Pik	527	1025,0	2*M50	419	457	280	647	24	190	65	140	69	18	6316	6316	80*100*10	80*100*10
	2	Q2EP280M4D	Pik	527	1025,0	2*M50	419	457	280	647	24	190	65	140	69	18	6316	6316	80*100*10	80*100*10
	4	Q2EP280M2D	Pik	527	1025,0	2*M50	419	457	280	647	24	190	75	140	80	20	6316	6316	80*100*10	80*100*10
90,0	2	Q2EP280M4C	Pik	527	1025,0	2*M50	419	457	280	647	24	190	75	140	80	20	6316	6316	80*100*10	80*100*10
	4	Q2EP280M2B	Pik	527	1025,0	2*M50	419	457	280	647	24	190	65	140	69	18	6316	6316	80*100*10	80*100*10
	2	Q2EP280M4D	Pik	527	1025,0	2*M50	419	457	280	647	24	190	75	140	80	20	6316	6316	80*100*10	80*100*10
	4	Q2EP280M2D	Pik	527	1025,0	2*M50	419	457	280	647	24	190	75	140	80	20	6316	6316	80*100*10	80*100*10
110,0	2	Q2EP280M4C	Pik	527	1025,0	2*M50	419	457	280	647	24	190	65	140	69	18	6316	6316	80*100*10	80*100*10
	4	Q2EP280M2B	Pik	527	1025,0	2*M50	419	457	280	647	24	190	75	140	80	20	6316	6316	80*100*10	80*100*10

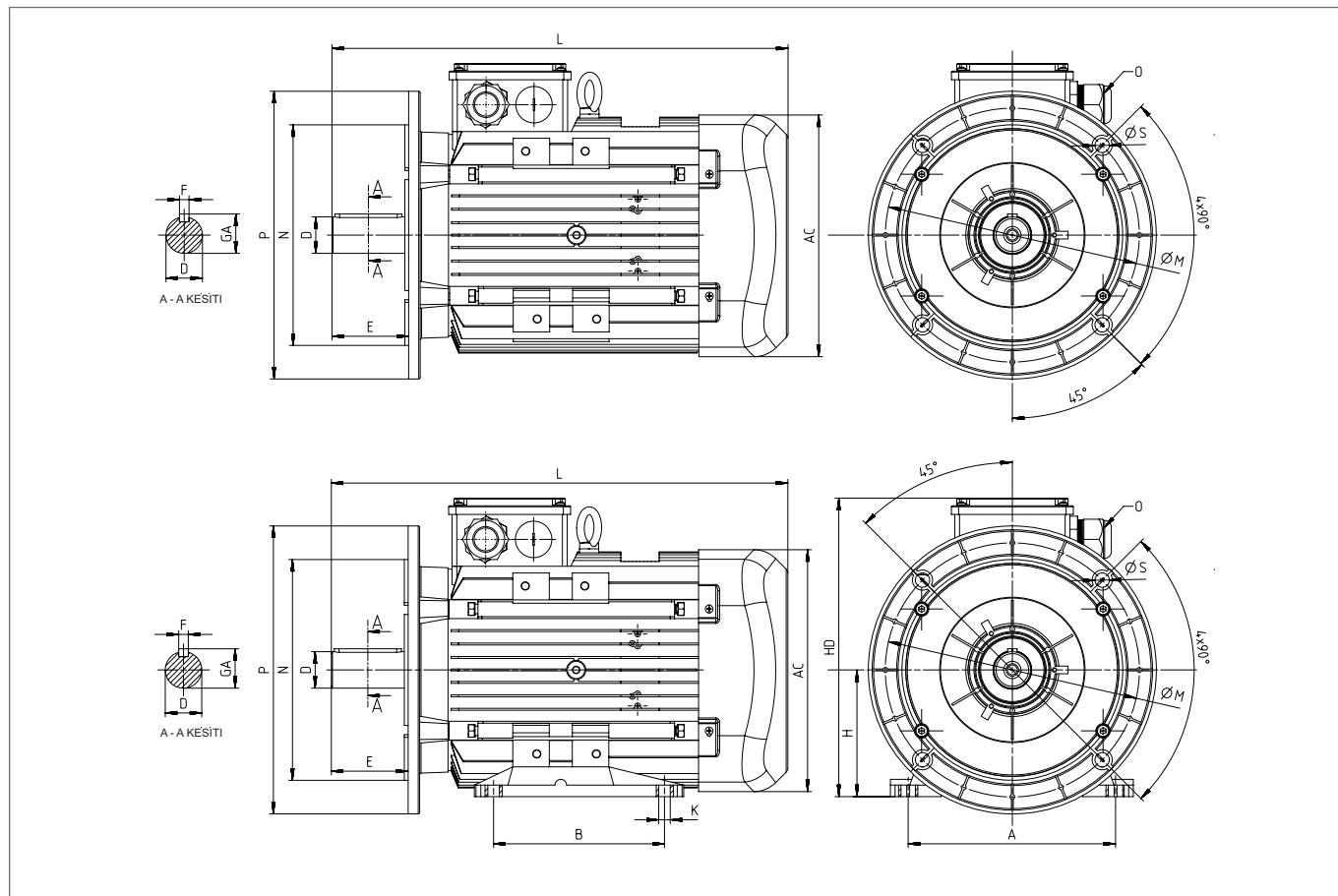
BOYUTLAR / DIMENSIONS - B3

Güç Power (kW)	Kutup Sayısı Number of Poles	Motor Tipi Motor Type	Gövde Tipi Housing Type	Ana Boyutlar Main Dimensions			Ayaklı Motorlar / Foot Mounted Motors						Mil / Shaft			Rulman / Bearing		Keçe / Seal		
				AC	L	O	B	A	H	HD	K	C	D ⁽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
110,0	2	Q2EP315S2C	Pik	630	1180,0	2*M63	406	508	315	845	28	216	65	140	69	18	6317	6317	85*105*5.5	85*105*5.5
	4	Q2EP315S4C	Pik	630	1210,0	2*M63	406	508	315	845	28	216	80	170	85	22	6319	6319	95*115*5.5	95*115*5.5
132,0	2	Q2EP315M2C	Pik	630	1290,0	2*M63	457	508	315	845	28	216	65	140	69	18	6317	6317	85*105*5.5	85*105*5.5
	4	Q2EP315M4C	Pik	630	1320,0	2*M63	457	508	315	845	28	216	80	170	85	22	6319	6319	95*115*5.5	95*115*5.5
160,0	2	Q2EP315L2C	Pik	630	1290,0	2*M63	508	508	315	845	28	216	65	140	69	18	6317	6317	85*105*5.5	85*105*5.5
	4	Q2EP315L4C	Pik	630	1320,0	2*M63	508	508	315	845	28	216	80	170	85	22	6319	6319	95*115*5.5	95*115*5.5
200,0	2	Q2EP315L2D	Pik	630	1290,0	2*M63	508	508	315	845	28	216	65	140	69	18	6317	6317	85*105*5.5	85*105*5.5
	4	Q2EP315L4D	Pik	630	1320,0	2*M63	508	508	315	845	28	216	80	170	85	22	6319	6319	95*115*5.5	95*115*5.5
250,0	2	Q2EP355M2C	Pik	710	1486,0	4*M63	560	610	355	956	28	254	75	140	80	20	6317	6317	85*105*5.5	85*105*5.5
	4	Q2EP355M4C	Pik	710	1517,0	4*M63	560	610	355	956	28	254	95	170	100	25	6322	6322	110*130*5.5	110*130*5.5
315,0	2	Q2EP355L2C	Pik	710	1486,0	4*M63	630	610	355	956	28	254	75	140	80	20	6317	6317	85*105*5.5	85*105*5.5
	4	Q2EP355L4C	Pik	710	1517,0	4*M63	630	610	355	956	28	254	95	170	100	25	6322	6322	110*130*5.5	110*130*5.5
355,0	2	Q2EP355L2D	Pik	710	1486,0	4*M63	630	610	355	956	28	254	75	140	80	20	6317	6317	85*105*5.5	85*105*5.5
	4	Q2EP355L4D	Pik	710	1517,0	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"
(2) DIN 6885'e göre

(1) Tolerance DIN EN 50347 "j6" up to 28 mm "k6" above 28 mm
(2) According to DIN 6885

BOYUTLAR / DIMENSIONS - B5, B35



Güç Power (kW)	Kutup Sayısı Number of Poles	Motor Tipi Motor Type	Gövde Tipi Housing Type	Ana Boyutlar Main Dimensions			Ayaklı Motorlar Foot Mounted Motors				Mil / Shaft			Rulman / Bearing		Keçe / Seal		Flanş / Flange (FA) (B5)						
				AC	L	O	B	A	H	HD	K	D ⁽¹⁾	E	GA	F ⁽²⁾	Kasnak Taraflı Aksı Drive Side	Kasnak Taraflı Aksı Non Drive Side	Kasnak Taraflı Aksi Drive Side	Kasnak Taraflı Aksi Non Drive Side	P	N ⁽³⁾	M	R	S
0,25	4	Q2E71M4B	Alüminyum	138	252,5	1*M20	90	112	71	190	7	14	30	16	5	6202-22	6202-22	15*24*5	15*24*5	160	110	130	0	10
	2	Q2E71M2C	Alüminyum	138	252,5	1*M20	90	112	71	190	7	14	30	16	5	6202-22	6202-22	15*24*5	15*24*5	160	110	130	0	10
0,37	4	Q2E71M4B	Alüminyum	138	252,5	1*M20	90	112	71	190	7	14	30	16	5	6202-22	6202-22	15*24*5	15*24*5	160	110	130	0	10
	2	Q2E71M2D	Alüminyum	138	252,5	1*M20	90	112	71	190	7	14	30	16	5	6202-22	6202-22	15*24*5	15*24*5	160	110	130	0	10
0,55	4	Q2E80M4B	Alüminyum	158	283,5	1*M20	100	125	80	195	10	19	40	21,5	6	6204-22	6204-22	20*30*7	20*30*7	200	130	165	0	12
	2	Q2E71M2DE	Alüminyum	138	252,5	1*M20	90	112	71	190	7	14	30	16,0	5	6202-22	6202-22	15*24*5	15*24*5	160	110	130	0	10
0,75	2	Q2E80M2B	Alüminyum	158	283,5	1*M20	100	125	80	195	10	19	40	21,5	6	6204-22	6204-22	20*30*7	20*30*7	200	130	165	0	12
	4	Q2E80M4D	Alüminyum	158	283,5	1*M20	100	125	80	195	10	19	40	21,5	6	6204-22	6204-22	20*30*7	20*30*7	200	130	165	0	12
1,1	6	Q2E90L6C	Alüminyum	193	316,5	1*M25	100	140	90	222	10	24	50	27	8	6305-22	6205-22	25*40*7	25*40*7	200	130	165	0	12
	2	Q2E80M2D	Alüminyum	158	283,5	1*M20	100	125	80	195	10	19	40	21,5	6	6204-22	6204-22	20*30*7	20*30*7	200	130	165	0	12
1,5	4	Q2E80M4DE	Alüminyum	158	283,5	1*M20	100	125	80	195	10	19	40	21,5	6	6204-22	6204-22	20*30*7	20*30*7	200	130	165	0	12
	4	Q2E90L4C	Alüminyum	193	316,5	1*M25	100	140	90	222	10	24	50	27	8	6305-22	6205-22	25*40*7	25*40*7	200	130	165	0	12
2,2	6	Q2E90L6D	Alüminyum	193	316,5	1*M25	125	140	90	222	10	24	50	27	8	6305-22	6205-22	25*40*7	25*40*7	200	130	165	0	12
	2	Q2E80M2DE	Alüminyum	158	283,5	1*M20	100	125	80	195	10	19	40	21,5	6	6204-22	6204-22	20*30*7	20*30*7	200	130	165	0	12
3,0	4	Q2E90L2C	Alüminyum	193	316,5	1*M25	125	140	90	222	10	24	50	27	8	6305-22	6205-22	25*40*7	25*40*7	200	130	165	0	12
	2	Q2E100L4D	Alüminyum	193	344,5	1*M25	125	140	90	222	10	24	50	27	8	6305-22	6205-22	25*40*7	25*40*7	200	130	165	0	12
2,2	6	Q2E100L6C	Alüminyum	217	352,0	1*M25	140	160	100	241	12	28	60	31	8	6306-22	6205-22	30*47*7	25*40*7	250	180	215	0	15
	2	Q2E90L2D	Alüminyum	193	316,5	1*M25	125	140	90	222	10	24	50	27	8	6305-22	6205-22	25*40*7	25*40*7	200	130	165	0	12
2,2	4	Q2E90L4DE	Alüminyum	193	344,5	1*M25	125	140	90	222	10	24	50	27	8	6305-22	6205-22	25*40*7	25*40*7	200	130	165	0	12
	4	Q2E100L4C	Alüminyum	217	352,0	1*M25	140	160	100	241	12	28	60	31	8	6306-22	6205-22	30*47*7	25*40*7	250	180	215	0	15
3,0	6	Q2E112M6C	Alüminyum	232	395,5	2*M25	140	190	112	261	12	28	60	31	8	6306-22	6206-22	30*47*7	30*47*7	250	180	215	0	15
	2	Q2E90L2DE	Alüminyum	193	316,5	1*M25	125	140	90	222	10	24	50	27	8	6305-22	6205-22	25*40*7	25*40*7	200	130	165	0	12
3,0	2	Q2E100L2C	Alüminyum	217	352,0	1*M25	140	160	100	241	12	28	60	31	8	6306-22	6205-22	30*47*7	25*40*7	250	180	215	0	15
	4	Q2E100L4D	Alüminyum	217	352,0	1*M25	140	160	100	241	12	28	60	31	8	6306-22	6205-22	30*47*7	25*40*7	250	180	215	0	15
3,0	6	Q2E132M6A	Alüminyum	279	475,5	2*M32	140	216	132	314	12	38	80	41	10	6208-22	6208-22	40*62*10	40*62*10	300	230	265	0	15

BOYUTLAR / DIMENSIONS - B5, B35

Güç Power (kW)	Kutup Sayısı Number of Poles	Motor Tipi Motor Type	Gövde Tipi Housing Type	Ana Boyutlar Main Dimensions			Ayaklı Motorlar Foot Mounted Motors					Mil / Shaft			Rulman / Bearing		Keçe / Seal		Flanş / Flange (FA) (B5)					
				AC	L	O	B	A	H	HD	K	D ⁽¹⁾	E	GA	F ⁽²⁾	Kasnak Taraflı Drive Side	Kasnak Taraflı Aksı Non Drive Side	Kasnak Taraflı Drive Side	Kasnak Taraflı Aksı Non Drive Side	P	N ⁽³⁾	M	R	S
4,0	2	Q2E100L2DE	Alüminyum	217	352,0	1*M25	140	160	100	241	12	28	60	31	8	6306-ZZ	6205-ZZ	30*47*7	25*40*7	250	180	215	0	15
	2	Q2E112M2C	Alüminyum	232	395,5	2*M25	140	190	112	261	12	28	60	31	8	6306-ZZ	6206-ZZ	30*47*7	30*47*7	250	180	215	0	15
	4	Q2E112M4C	Alüminyum	232	395,5	2*M25	140	190	112	261	12	28	60	31	8	6306-ZZ	6206-ZZ	30*47*7	30*47*7	250	180	215	0	15
	6	Q2E132M6B	Alüminyum	279	475,5	2*M32	178	216	132	314	12	38	80	41	10	6208-ZZ	6208-ZZ	40*62*10	40*62*10	300	230	265	0	15
	2	Q2E112M2CE	Alüminyum	232	395,5	2*M25	140	190	112	261	12	28	60	31	8	6306-ZZ	6206-ZZ	30*47*7	30*47*7	250	180	215	0	15
	4	Q2E112M4D	Alüminyum	232	395,5	2*M25	140	190	112	261	12	28	60	31	8	6306-ZZ	6206-ZZ	30*47*7	30*47*7	250	180	215	0	15
5,5	2	Q2E132S2C	Alüminyum	279	440,5	2*M32	140	216	132	314	12	38	80	41	10	6208-ZZ	6208-ZZ	40*62*10	40*62*10	300	230	265	0	15
	4	Q2E132M4B	Alüminyum	279	475,5	2*M32	140	216	132	314	12	38	80	41	10	6208-ZZ	6208-ZZ	40*62*10	40*62*10	300	230	265	0	15
	6	Q2E132M6C	Alüminyum	279	475,5	2*M32	178	216	132	314	12	38	80	41	10	6208-ZZ	6208-ZZ	40*62*10	40*62*10	300	230	265	0	15
	2	Q2E132M2A	Alüminyum	279	475,5	2*M32	140	216	132	314	12	38	80	41	10	6208-ZZ	6208-ZZ	40*62*10	40*62*10	300	230	265	0	15
	4	Q2E132M4C	Alüminyum	279	475,5	2*M32	178	216	132	314	12	38	80	41	10	6208-ZZ	6208-ZZ	40*62*10	40*62*10	300	230	265	0	15
	6	Q2E160M6B	Alüminyum	302	576,0	2*M32	210	254	160	360	15	42	110	45	12	6309-ZZ	6209-ZZ	45*72*10	45*72*10	350	250	300	0	19
11,0	2	Q2E132M2AE	Alüminyum	279	475,5	2*M32	140	216	132	314	12	38	80	41	10	6208-ZZ	6208-ZZ	40*62*10	40*62*10	300	230	265	0	15
	2	Q2E160M2B	Alüminyum	302	576,0	2*M32	210	254	160	360	15	42	110	45	12	6309-ZZ	6209-ZZ	45*72*10	45*72*10	350	250	300	0	19
	4	Q2E160M4B	Alüminyum	302	576,0	2*M32	210	254	160	360	15	42	110	45	12	6309-ZZ	6209-ZZ	45*72*10	45*72*10	350	250	300	0	19
	6	Q2E160L6B	Alüminyum	302	576,0	2*M32	254	254	160	360	15	42	110	45	12	6309-ZZ	6209-ZZ	45*72*10	45*72*10	350	250	300	0	19
	2	Q2E160L2A	Alüminyum	302	576,0	2*M32	210	254	160	360	15	42	110	45	12	6309-ZZ	6209-ZZ	45*72*10	45*72*10	350	250	300	0	19
	4	Q2E160L4A	Alüminyum	302	576,0	2*M32	254	254	160	360	15	42	110	45	12	6309-ZZ	6209-ZZ	45*72*10	45*72*10	350	250	300	0	19
15,0	6	Q2E180L6A	Alüminyum	370	629,0	2*M40	279	279	180	428	15	48	110	51,5	14	6310-ZZ	6310-ZZ	50*80*10	50*80*10	350	250	300	0	19
	2	Q2E160L2C	Alüminyum	302	576,0	2*M32	254	254	160	360	15	42	110	45	12	6309-ZZ	6209-ZZ	45*72*10	45*72*10	350	250	300	0	19
	4	Q2E180M4B	Alüminyum	370	629,0	2*M40	241	279	180	428	15	48	110	51,5	14	6310-ZZ	6310-ZZ	50*80*10	50*80*10	350	250	300	0	19
	6	Q2E200L6B	Alüminyum	415	665,0	2*M50	305	318	200	461	19	55	110	59	16	6312-ZZ	6312-ZZ	60*90*10	60*90*10	400	300	350	0	19
	2	Q2E160L2D	Alüminyum	302	576,0	2*M32	210	254	160	360	15	42	110	45	12	6309-ZZ	6209-ZZ	45*72*10	45*72*10	350	250	300	0	19
	2	Q2E180M2A	Alüminyum	370	629,0	2*M40	241	279	180	428	15	48	110	51,5	14	6310-ZZ	6310-ZZ	50*80*10	50*80*10	350	250	300	0	19
22,0	4	Q2E180L4B	Alüminyum	370	629,0	2*M40	279	279	180	428	15	48	110	51,5	14	6310-ZZ	6310-ZZ	50*80*10	50*80*10	350	250	300	0	19
	6	Q2E200L6C	Alüminyum	415	665,0	2*M50	305	318	200	461	19	55	110	59	16	6312-ZZ	6312-ZZ	60*90*10	60*90*10	400	300	350	0	19
	2	Q2E200L2B	Alüminyum	415	665,0	2*M50	305	318	200	461	19	55	110	59	16	6312-ZZ	6312-ZZ	60*90*10	60*90*10	400	300	350	0	19
	4	Q2E200L4D	Alüminyum	415	665,0	2*M50	305	318	200	461	19	55	110	59	16	6312-ZZ	6312-ZZ	60*90*10	60*90*10	400	300	350	0	19
	6	Q2E225M6B	Alüminyum	456	765,0	2*M50	311	356	225	504	19	60	140	64	18	6313-ZZ	6313-ZZ	65*100*13	65*100*13	450	350	400	0	19
	2	Q2E200L2C	Alüminyum	415	665,0	2*M50	305	318	200	461	19	55	110	59	16	6312-ZZ	6312-ZZ	60*90*10	60*90*10	400	300	350	0	19
30,0	4	Q2E200L4D	Alüminyum	415	665,0	2*M50	305	318	200	461	19	55	110	59	16	6312-ZZ	6312-ZZ	60*90*10	60*90*10	400	300	350	0	19
	6	Q2E225M6B	Alüminyum	456	765,0	2*M50	311	356	225	504	19	60	140	64	18	6313-ZZ	6313-ZZ	65*100*13	65*100*13	450	350	400	0	19
	2	Q2E225M4C	Alüminyum	456	765,0	2*M50	286	356	225	504	19	60	140	64	18	6313-ZZ	6313-ZZ	65*100*13	65*100*13	450	350	400	0	19
	4	Q2E225M2B	Alüminyum	456	735,0	2*M50	311	356	225	504	19	55	110	59	16	6313-ZZ	6313-ZZ	65*100*13	65*100*13	450	350	400	0	19
	4	Q2E225M4D	Alüminyum	456	765,0	2*M50	311	356	225	504	19	60	140	64	18	6313-ZZ	6313-ZZ	65*100*13	65*100*13	450	350	400	0	19
	2	Q2EP250M2B	Pik	527	886,0	2*M50	349	406	250	615	24	60	140	64	18	6316	6316	80*100*10	80*100*10	550	450	500	0	19
75,0	4	Q2EP250M4D	Pik	527	886,0	2*M50	349	406	250	615	24	65	140	69	18	6316	6316	80*100*10	80*100*10	550	450	500	0	19
	2	Q2EP250M2C	Pik	527	886,0	2*M50	349	406	250	615	24	60	140	64	18	6316	6316	80*100*10	80*100*10	550	450	500	0	19
	2	Q2EP280M2B	Pik	527	1025,0	2*M50	419	457	280	647	24	65	140	69	18	6316	6316	80*100*10	80*100*10	550	450	500	0	19
	4	Q2EP250M4E	Pik	527	886,0	2*M50	349	406	250	615	24	65	140	69	18	6316	6316	80*100*10	80*100*10	550	450	500	0	19
	4	Q2EP280M4B	Pik	527	1025,0	2*M50	419	457	280	647	24	75	140	80	20	6316	6316	80*100*10	80*100*10	550	450	500	0	19
	2	Q2EP280M2C	Pik	527	1025,0	2*M50	419	457	280	647	24	65	140	69	18	6316	6316	80*100*10	80*100*10	550	450	500	0	19
90,0	4	Q2EP280M4C	Pik	527	1025,0	2*M50	419	457	280	647	24	75	140	80	20	6316	6316	80*100*10	80*100*10	550	450	500	0	19
	2	Q2EP280M2D	Pik	527	1025,0	2*M50	419	457	280	647	24	75	140	80	20	6316	6316	80*100*10	80*100*10	550	450	500	0	19
	4	Q2EP280M4D	Pik	527	1025,0	2*M50	419	457	280	647	24	75												

BOYUTLAR / DIMENSIONS - B5, B35

Güç Power (kW)	Kutup Sayısı Number of Poles	Motor Tipi Motor Type	Gövde Tipi Housing Type	Ana Boyutlar Main Dimensions			Ayaklı Motorlar / Foot Mounted Motors						Mil / Shaft				Rulman / Bearing		Keçe / Seal		Flanş / Flange (FA) (B5)				
				AC	L	O	B	A	H	HD	K	C	D ⁽¹⁾	E	GA	F ⁽²⁾	Kasnak Taraflı Drive Side	Kasnak Taraflı Aksı Non Drive Side	Kasnak Taraflı Aksı Non Drive Side	P	N ⁽³⁾	M	R	S	
110,0	2	Q2EP315S2C	Pik	630	1180,0	2*M63	406	508	315	845	28	216	65	140	69	18	6317	6317	85*105*55	85*105*55	660	550	600	0	24
	4	Q2EP315S4C	Pik	630	1210,0	2*M63	406	508	315	845	28	216	80	170	85	22	6319	6319	95*115*55	95*115*55	660	550	600	0	24
132,0	2	Q2EP315M2C	Pik	630	1290,0	2*M63	457	508	315	845	28	216	65	140	69	18	6317	6317	85*105*55	85*105*55	660	550	600	0	24
	4	Q2EP315M4C	Pik	630	1320,0	2*M63	457	508	315	845	28	216	80	170	85	22	6319	6319	95*115*55	95*115*55	660	550	600	0	24
160,0	2	Q2EP315L2C	Pik	630	1290,0	2*M63	508	508	315	845	28	216	65	140	69	18	6317	6317	85*105*55	85*105*55	660	550	600	0	24
	4	Q2EP315L4C	Pik	630	1320,0	2*M63	508	508	315	845	28	216	80	170	85	22	6319	6319	95*115*55	95*115*55	660	550	600	0	24
200,0	2	Q2EP315L2D	Pik	630	1290,0	2*M63	508	508	315	845	28	216	65	140	69	18	6317	6317	85*105*55	85*105*55	660	550	600	0	24
	4	Q2EP315L4D	Pik	630	1320,0	2*M63	508	508	315	845	28	216	80	170	85	22	6319	6319	95*115*55	95*115*55	660	550	600	0	24
250,0	2	Q2EP355M2C	Pik	710	1486,0	4*M63	560	610	355	956	28	254	75	140	80	20	6317	6317	85*105*55	85*105*55	800	680	740	0	24
	4	Q2EP355M4C	Pik	710	1517,0	4*M63	560	610	355	956	28	254	95	170	100	25	6322	6322	110*130*55	110*130*55	800	680	740	0	24
315,0	2	Q2EP355L2C	Pik	710	1486,0	4*M63	630	610	355	956	28	254	75	140	80	20	6317	6317	85*105*55	85*105*55	800	680	740	0	24
	4	Q2EP355L4C	Pik	710	1517,0	4*M63	630	610	355	956	28	254	95	170	100	25	6322	6322	110*130*55	110*130*55	800	680	740	0	24
355,0	2	Q2EP355L2D	Pik	710	1486,0	4*M63	630	610	355	956	28	254	75	140	80	20	6317	6317	85*105*55	85*105*55	800	680	740	0	24
	4	Q2EP355L4D	Pik	710	1517,0	4*M63	630	610	355	956	28	254	95	170	100	25	6322	6322	110*130*55	110*130*55	800	680	740	0	24

(1) Toleranslar 28 mm'ye kadar DIN EN 50347 "j6", 28 mm ve üzeri "k6"

(2) DIN 6885'e göre

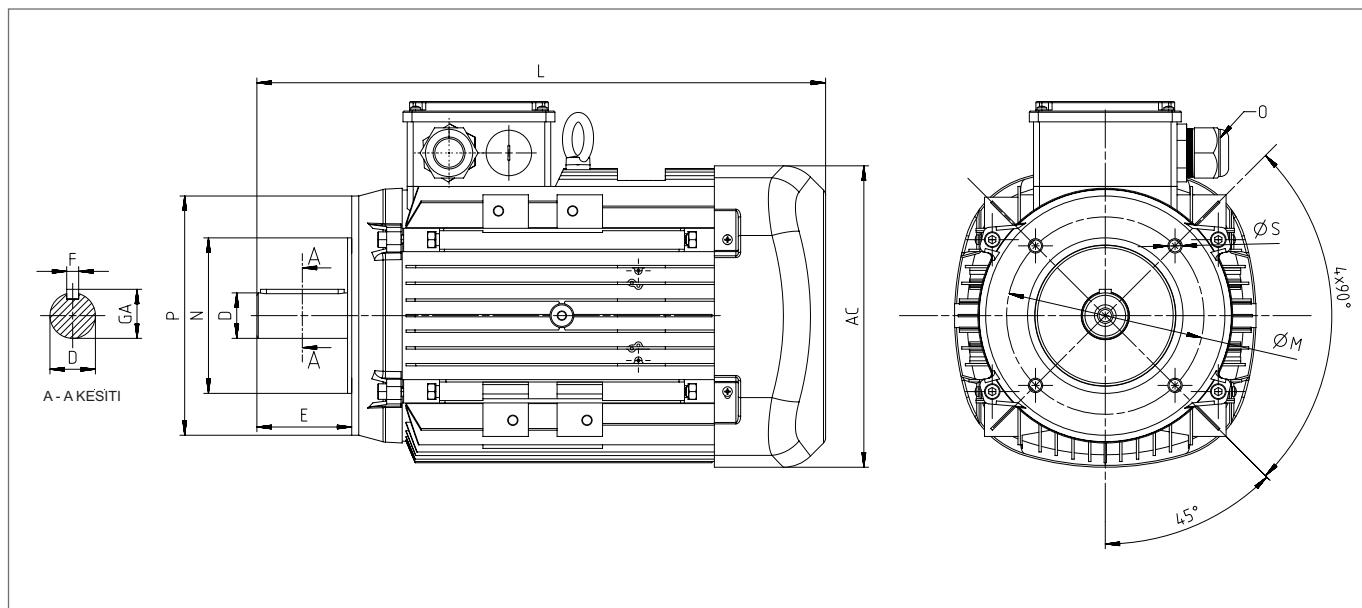
(3) Tolerans DIN EN 50347 "j6"

(1) Tolerance DIN EN 50347 "j6" up to 28 mm "k6" above 28 mm

(2) According to DIN 6885

(3) Tolerance DIN EN 50347 "j6"

BOYUTLAR / DIMENSIONS - B14a, B34a



Güç Power (kW)	Kutup Sayısı Number of Poles	Motor Tipi Motor Type	Gövde Tipi Housing Type	Ana Boyutlar Main Dimensions			Ayaklı Motorlar Foot Mounted Motors					Mil / Shaft			Rulman / Bearing		Keçe / Seal		Flanş / Flange (FC) (B14a)					
				AC	L	O	B	A	H	HD	K	D ⁽¹⁾	E	GA	F ⁽²⁾	Kasnak Tarafı Drive Side	Kasnak Tarafı Aksı Non Drive Side	Kasnak Tarafı Drive Side	Kasnak Tarafı Aksı Non Drive Side	P	N ⁽³⁾	M	R	S
0,25	4	Q2E71M4B	Alüminyum	138	252,5	1*M20	90	112	71	190	7	14	30	16	5	6202-2Z	6202-2Z	15*24*5	15*24*5	105	70	85	0	M6
	2	Q2E71M2C	Alüminyum	138	252,5	1*M20	90	112	71	190	7	14	30	16	5	6202-2Z	6202-2Z	15*24*5	15*24*5	105	70	85	0	M6
0,37	4	Q2E71M4B	Alüminyum	138	252,5	1*M20	90	112	71	190	7	14	30	16	5	6202-2Z	6202-2Z	15*24*5	15*24*5	105	70	85	0	M6
	2	Q2E71M2D	Alüminyum	138	252,5	1*M20	90	112	71	190	7	14	30	16	5	6202-2Z	6202-2Z	15*24*5	15*24*5	105	70	85	0	M6
0,55	4	Q2E80M4B	Alüminyum	158	283,5	1*M20	100	125	80	195	10	19	40	21,5	6	6204-2Z	6204-2Z	20*30*7	20*30*7	120	80	100	0	M6
	2	Q2E71M2DE	Alüminyum	138	252,5	1*M20	90	112	71	190	7	14	30	16,0	5	6202-2Z	6202-2Z	15*24*5	15*24*5	105	70	85	0	M6
0,75	2	Q2E80M2B	Alüminyum	158	283,5	1*M20	100	125	80	195	10	19	40	21,5	6	6204-2Z	6204-2Z	20*30*7	20*30*7	120	80	100	0	M6
	4	Q2E80M4D	Alüminyum	158	283,5	1*M20	100	125	80	195	10	19	40	21,5	6	6204-2Z	6204-2Z	20*30*7	20*30*7	120	80	100	0	M6
1,1	6	Q2E90L6C	Alüminyum	193	316,5	1*M25	100	140	90	222	10	24	50	27	8	6305-2Z	6205-2Z	25*40*7	25*40*7	140	95	115	0	M8
	2	Q2E80M2D	Alüminyum	158	283,5	1*M20	100	125	80	195	10	19	40	21,5	6	6204-2Z	6204-2Z	20*30*7	20*30*7	120	80	100	0	M6
1,5	4	Q2E80M4DE	Alüminyum	158	283,5	1*M20	100	125	80	195	10	19	40	21,5	6	6204-2Z	6204-2Z	20*30*7	20*30*7	120	80	100	0	M6
	4	Q2E90L4C	Alüminyum	193	316,5	1*M25	100	140	90	222	10	24	50	27	8	6305-2Z	6205-2Z	25*40*7	25*40*7	140	95	115	0	M8
1,5	6	Q2E90L6D	Alüminyum	193	344,5	1*M25	125	140	90	222	10	24	50	27	8	6305-2Z	6205-2Z	25*40*7	25*40*7	140	95	115	0	M8
	2	Q2E80M2DE	Alüminyum	158	283,5	1*M20	100	125	80	195	10	19	40	21,5	6	6204-2Z	6204-2Z	20*30*7	20*30*7	120	80	100	0	M6
1,5	2	Q2E90L2C	Alüminyum	193	316,5	1*M25	100	140	90	222	10	24	50	27	8	6305-2Z	6205-2Z	25*40*7	25*40*7	140	95	115	0	M8
	4	Q2E90L4D	Alüminyum	193	316,5	1*M25	125	140	90	222	10	24	50	27	8	6305-2Z	6205-2Z	25*40*7	25*40*7	140	95	115	0	M8
2,2	6	Q2E100L6D	Alüminyum	217	352,0	1*M25	140	160	100	241	12	28	60	31	8	6306-2Z	6205-2Z	30*47*7	25*40*7	160	110	130	0	M8
	2	Q2E90L2D	Alüminyum	193	316,5	1*M25	125	140	90	222	10	24	50	27	8	6305-2Z	6205-2Z	25*40*7	25*40*7	140	95	115	0	M8
2,2	4	Q2E90L4DE	Alüminyum	193	344,5	1*M25	125	140	90	222	10	24	50	27	8	6305-2Z	6205-2Z	25*40*7	25*40*7	140	95	115	0	M8
	4	Q2E100L4C	Alüminyum	217	352,0	1*M25	140	160	100	241	12	28	60	31	8	6306-2Z	6205-2Z	30*47*7	25*40*7	160	110	130	0	M8
3,0	4	Q2E100L4D	Alüminyum	217	352,0	1*M25	140	160	100	241	12	28	60	31	8	6306-2Z	6205-2Z	30*47*7	25*40*7	160	110	130	0	M8
	6	Q2E132M6A	Alüminyum	279	475,5	2*M25	140	190	112	261	12	28	60	31	8	6208-2Z	6208-2Z	40*62*10	40*62*10	200	130	165	0	M10
4,0	2	Q2E100L2DE	Alüminyum	217	352,0	1*M25	140	160	100	241	12	28	60	31	8	6306-2Z	6205-2Z	30*47*7	25*40*7	160	110	130	0	M8
	2	Q2E112M2C	Alüminyum	232	395,5	2*M25	140	190	112	261	12	28	60	31	8	6306-2Z	6206-2Z	30*47*7	30*47*7	160	110	130	0	M8
	4	Q2E112M4C	Alüminyum	232	395,5	2*M25	140	190	112	261	12	28	60	31	8	6306-2Z	6206-2Z	30*47*7	30*47*7	160	110	130	0	M8
	6	Q2E132M6B	Alüminyum	279	475,5	2*M32	178	216	132	314	12	38	80	41	10	6208-2Z	6208-2Z	40*62*10	40*62*10	200	130	165	0	M10

BOYUTLAR / DIMENSIONS - B14a, B34a

Güç Power (kW)	Kutup Sayısı Number of Poles	Motor Tipi Motor Type	Gövde Tipi Housing Type	Ana Boyutlar Main Dimensions			Ayaklı Motorlar Foot Mounted Motors					Mil / Shaft			Rulman / Bearing		Keçe / Seal		Flanş / Flange (FC) (B14a)					
				AC	L	O	B	A	H	HD	K	D ⁽¹⁾	E	GA	F ⁽²⁾	Kasnak Tarafı Drive Side	Kasnak Tarafı Aksı Non Drive Side	Kasnak Tarafı Drive Side	Kasnak Tarafı Aksı Non Drive Side	P	N ⁽³⁾	M	R	S
5,5	2	Q2E112M2CE	Alüminyum	232	395,5	2*M25	140	190	112	261	12	28	60	31	8	6306-2Z	6206-2Z	30*47°7	30*47°7	160	110	130	0	M8
	4	Q2E112M4D	Alüminyum	232	395,5	2*M25	140	190	112	261	12	28	60	31	8	6306-2Z	6206-2Z	30*47°7	30*47°7	160	110	130	0	M8
	2	Q2E132S2C	Alüminyum	279	440,5	2*M32	140	216	132	314	12	38	80	41	10	6208-2Z	6208-2Z	40*62°10	40*62°10	200	130	165	0	M10
	4	Q2E132M4B	Alüminyum	279	475,5	2*M32	140	216	132	314	12	38	80	41	10	6208-2Z	6208-2Z	40*62°10	40*62°10	200	130	165	0	M10
	6	Q2E132M6C	Alüminyum	279	475,5	2*M32	178	216	132	314	12	38	80	41	10	6208-2Z	6208-2Z	40*62°10	40*62°10	200	130	165	0	M10
	7,5	2	Q2E132M2A	Alüminyum	279	475,5	2*M32	140	216	132	314	12	38	80	41	10	6208-2Z	6208-2Z	40*62°10	40*62°10	200	130	165	0
11,0	4	Q2E132M4C	Alüminyum	279	475,5	2*M32	178	216	132	314	12	38	80	41	10	6208-2Z	6208-2Z	40*62°10	40*62°10	200	130	165	0	M10
	2	Q2E132M2AE	Alüminyum	279	475,5	2*M32	140	216	132	314	12	38	80	41	10	6208-2Z	6208-2Z	40*62°10	40*62°10	200	130	165	0	M10

(1) Toleranslar 28 mm'ye kadar DIN EN 50347 "j6", 28 mm ve üzeri "k6"

(2) DIN 6885'e göre

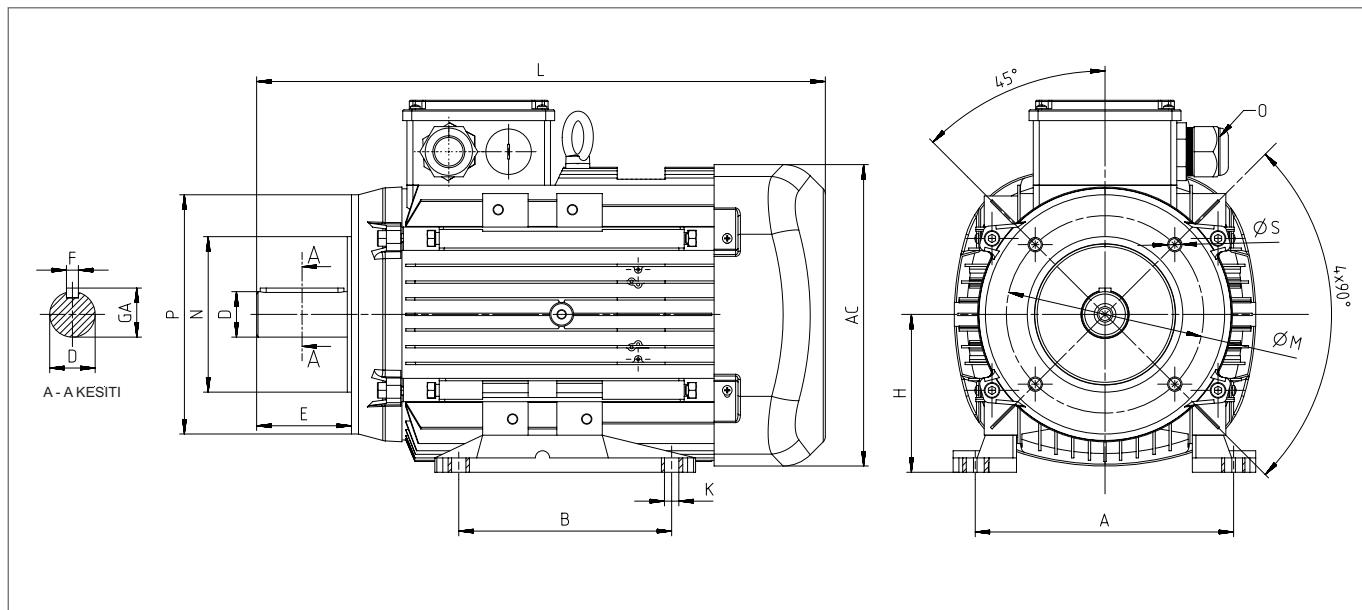
(3) Tolerans DIN EN 50347 "j6"

(1) Tolerance DIN 50347 "j6" up to 28 mm "k6" above 28 mm

(2) According to DIN 6885

(3) Tolerance DIN EN 50347 "j6"

BOYUTLAR / DIMENSIONS - B14b, B34b



Güç Power (kW)	Kutup Sayısı Number of Poles	Motor Tipi Motor Type	Gövde Tipi Housing Type	Ana Boyutlar Main Dimensions				Ayaklı Motorlar Foot Mounted Motors				Mil / Shaft			Rulman / Bearing		Keçe / Seal		Flanş / Flange (FB) (B14b)					
				AC	L	O	B	A	H	HD	K	D ⁽¹⁾	E	GA	F ⁽²⁾	Kasnak Tarafı Drive Side	Kasnak Tarafı Aksı Non Drive Side	Kasnak Tarafı Drive Side	Kasnak Tarafı Aksı Non Drive Side	P	N ⁽³⁾	M	R	S
0,25	4	Q2E71M4B	Alüminyum	138	252,5	1*M20	90	112	71	190	7	14	30	16	5	6202-2Z	6202-2Z	15*24*5	15*24*5	140	95	115	0	M8
0,37	2	Q2E71M2C	Alüminyum	138	252,5	1*M20	90	112	71	190	7	14	30	16	5	6202-2Z	6202-2Z	15*24*5	15*24*5	140	95	115	0	M8
	4	Q2E71M4B	Alüminyum	138	252,5	1*M20	90	112	71	190	7	14	30	16	5	6202-2Z	6202-2Z	15*24*5	15*24*5	140	95	115	0	M8
0,55	2	Q2E71M2D	Alüminyum	138	252,5	1*M20	90	112	71	190	7	14	30	16	5	6202-2Z	6202-2Z	15*24*5	15*24*5	140	95	115	0	M8
	4	Q2E80M4B	Alüminyum	158	283,5	1*M20	100	125	80	195	10	19	40	21,5	6	6204-2Z	6204-2Z	20*30*7	20*30*7	160	110	130	0	M8
0,75	2	Q2E71M2DE	Alüminyum	138	252,5	1*M20	90	112	71	190	7	14	30	16,0	5	6202-2Z	6202-2Z	15*24*5	15*24*5	140	95	115	0	M8
	2	Q2E80M2B	Alüminyum	158	283,5	1*M20	100	125	80	195	10	19	40	21,5	6	6204-2Z	6204-2Z	20*30*7	20*30*7	160	110	130	0	M8
	4	Q2E80M4D	Alüminyum	158	283,5	1*M20	100	125	80	195	10	19	40	21,5	6	6204-2Z	6204-2Z	20*30*7	20*30*7	160	110	130	0	M8
	6	Q2E90L6C	Alüminyum	193	316,5	1*M25	100	140	90	222	10	24	50	27	8	6305-2Z	6205-2Z	25*40*7	25*40*7	160	110	130	0	M8
1,1	2	Q2E80M2D	Alüminyum	158	283,5	1*M20	100	125	80	195	10	19	40	21,5	6	6204-2Z	6204-2Z	20*30*7	20*30*7	160	110	130	0	M8
	4	Q2E80M4DE	Alüminyum	158	283,5	1*M20	100	125	80	195	10	19	40	21,5	6	6204-2Z	6204-2Z	20*30*7	20*30*7	160	110	130	0	M8
	4	Q2E90L4C	Alüminyum	193	316,5	1*M25	100	140	90	222	10	24	50	27	8	6305-2Z	6205-2Z	25*40*7	25*40*7	160	110	130	0	M8
	6	Q2E90L6D	Alüminyum	193	344,5	1*M25	125	140	90	222	10	24	50	27	8	6305-2Z	6205-2Z	25*40*7	25*40*7	160	110	130	0	M8
1,5	2	Q2E80M2DE	Alüminyum	158	283,5	1*M20	100	125	80	195	10	19	40	21,5	6	6204-2Z	6204-2Z	20*30*7	20*30*7	160	110	130	0	M8
	2	Q2E90L2C	Alüminyum	193	316,5	1*M25	100	140	90	222	10	24	50	27	8	6305-2Z	6205-2Z	25*40*7	25*40*7	160	110	130	0	M8
	4	Q2E90L4D	Alüminyum	193	316,5	1*M25	125	140	90	222	10	24	50	27	8	6305-2Z	6205-2Z	25*40*7	25*40*7	160	110	130	0	M8
	6	Q2E100L6D	Alüminyum	217	352,0	1*M25	140	160	100	241	12	28	60	31	8	6306-2Z	6205-2Z	30*47*7	25*40*7	200	130	165	0	M10
2,2	2	Q2E90L2D	Alüminyum	193	316,5	1*M25	125	140	90	222	10	24	50	27	8	6305-2Z	6205-2Z	25*40*7	25*40*7	160	110	130	0	M8
	4	Q2E90L4DE	Alüminyum	193	344,5	1*M25	125	140	90	222	10	24	50	27	8	6305-2Z	6205-2Z	25*40*7	25*40*7	160	110	130	0	M8
	4	Q2E100L4C	Alüminyum	217	352,0	1*M25	140	160	100	241	12	28	60	31	8	6306-2Z	6205-2Z	30*47*7	25*40*7	200	130	165	0	M10
	6	Q2E112M6D	Alüminyum	232	395,5	2*M25	140	190	112	261	12	28	60	31	8	6306-2Z	6206-2Z	30*47*7	30*47*7	200	130	165	0	M10
3,0	2	Q2E90L2DE	Alüminyum	193	316,5	1*M25	125	140	90	222	10	24	50	27	8	6305-2Z	6205-2Z	25*40*7	25*40*7	160	110	130	0	M8
	2	Q2E100L2C	Alüminyum	217	352,0	1*M25	140	160	100	241	12	28	60	31	8	6306-2Z	6205-2Z	30*47*7	25*40*7	200	130	165	0	M10
	4	Q2E100L4D	Alüminyum	217	352,0	1*M25	140	160	100	241	12	28	60	31	8	6306-2Z	6205-2Z	30*47*7	25*40*7	200	130	165	0	M10
	6	Q2E132M6A	Alüminyum	279	475,5	2*M32	140	216	132	314	12	38	80	41	10	6208-2Z	6208-2Z	40*62*10	40*62*10	250	180	215	0	M12 veya 15
4,0	2	Q2E100L2DE	Alüminyum	217	352,0	1*M25	140	160	100	241	12	28	60	31	8	6306-2Z	6205-2Z	30*47*7	25*40*7	200	130	165	0	M10
	2	Q2E112M2C	Alüminyum	232	395,5	2*M25	140	190	112	261	12	28	60	31	8	6306-2Z	6206-2Z	30*47*7	30*47*7	200	130	165	0	M10
	4	Q2E112M4C	Alüminyum	232	395,5	2*M25	140	190	112	261	12	28	60	31	8	6306-2Z	6206-2Z	30*47*7	30*47*7	200	130	165	0	M10
	6	Q2E132M6B	Alüminyum	279	475,5	2*M32	178	216	132	314	12	38	80	41	10	6208-2Z	6208-2Z	40*62*10	40*62*10	250	180	215	0	M12 veya 15

BOYUTLAR / DIMENSIONS - B14b, B34b

Güç Power (kW)	Kutup Sayısı Number of Poles	Motor Tipi Motor Type	Gövde Tipi Housing Type	Ana Boyutlar Main Dimensions			Ayaklı Motorlar Foot Mounted Motors					Mil / Shaft			Rulman / Bearing		Keçe / Seal		Flanş / Flange (FB) (B14b)					
				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
5,5	2	Q2E112M2CE	Alüminyum	232	395,5	2*M25	140	190	112	261	12	28	60	31	8	6306-2Z	6206-2Z	30*47*7	30*47*7	200	130	165	0	M10
	4	Q2E112M4D	Alüminyum	232	395,5	2*M25	140	190	112	261	12	28	60	31	8	6306-2Z	6206-2Z	30*47*7	30*47*7	200	130	165	0	M10
	2	Q2E132S2C	Alüminyum	279	440,5	2*M32	140	216	132	314	12	38	80	41	10	6208-2Z	6208-2Z	40*62*10	40*62*10	250	180	215	0	M12 veya 15
	4	Q2E132M4B	Alüminyum	279	475,5	2*M32	140	216	132	314	12	38	80	41	10	6208-2Z	6208-2Z	40*62*10	40*62*10	250	180	215	0	M12 veya 15
	6	Q2E132M6C	Alüminyum	279	475,5	2*M32	178	216	132	314	12	38	80	41	10	6208-2Z	6208-2Z	40*62*10	40*62*10	250	180	215	0	M12 veya 15
	7,5	2	Q2E132M2A	Alüminyum	279	475,5	2*M32	140	216	132	314	12	38	80	41	10	6208-2Z	6208-2Z	40*62*10	40*62*10	250	180	215	0
11,0	4	Q2E132M4C	Alüminyum	279	475,5	2*M32	178	216	132	314	12	38	80	41	10	6208-2Z	6208-2Z	40*62*10	40*62*10	250	180	215	0	M12 veya 15
	2	Q2E132M2AE	Alüminyum	279	475,5	2*M32	140	216	132	314	12	38	80	41	10	6208-2Z	6208-2Z	40*62*10	40*62*10	250	180	215	0	M12 veya 15

(1) Toleranslar 28 mm'ye kadar DIN EN 50347 "j6", 28 mm ve üzeri "k6"

(2) DIN 6885'e göre

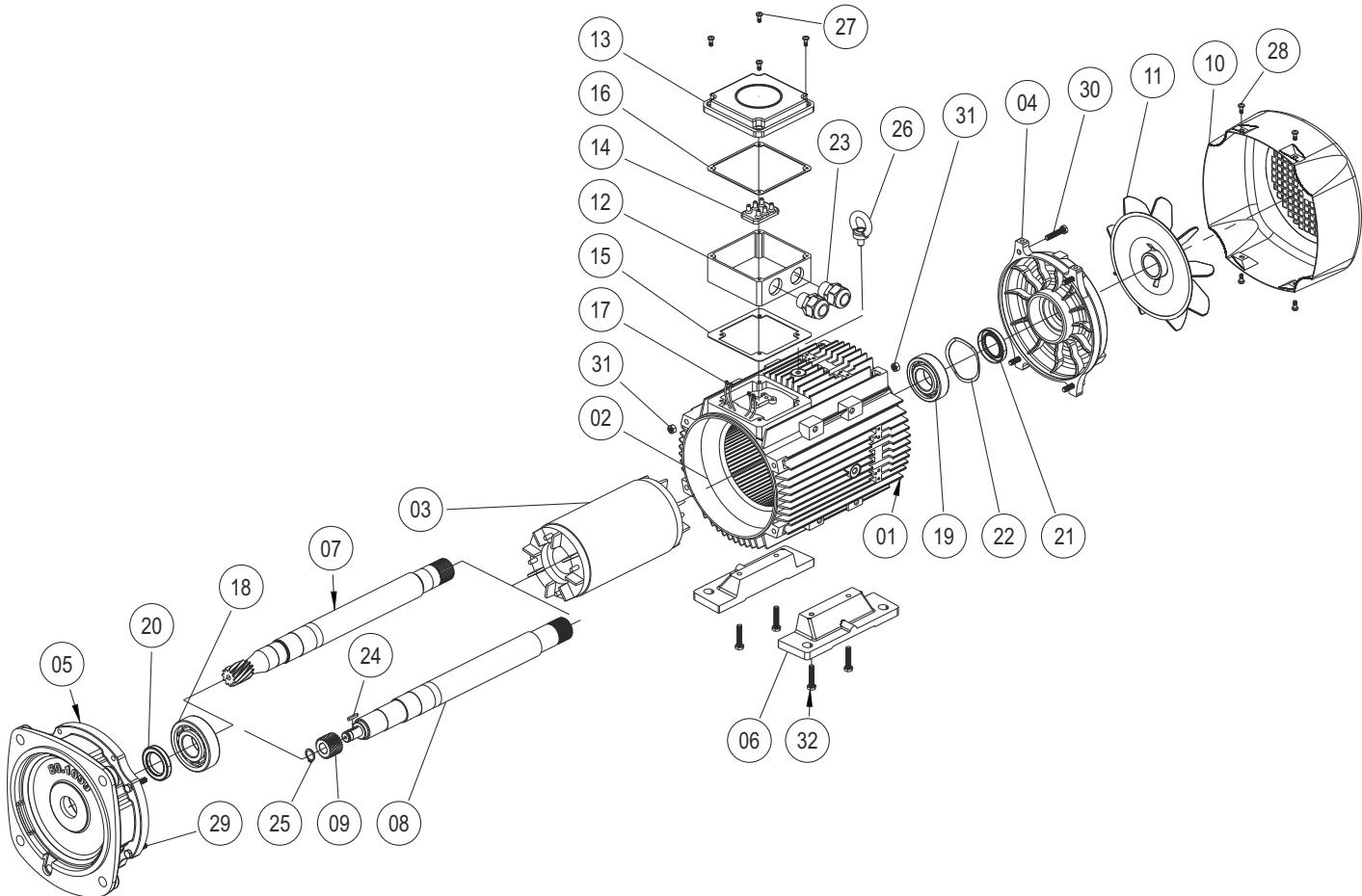
(3) Tolerans DIN EN 50347 "j6"

(1) Tolerance DIN EN 50347 "j6" up to 28 mm "k6" above 28 mm

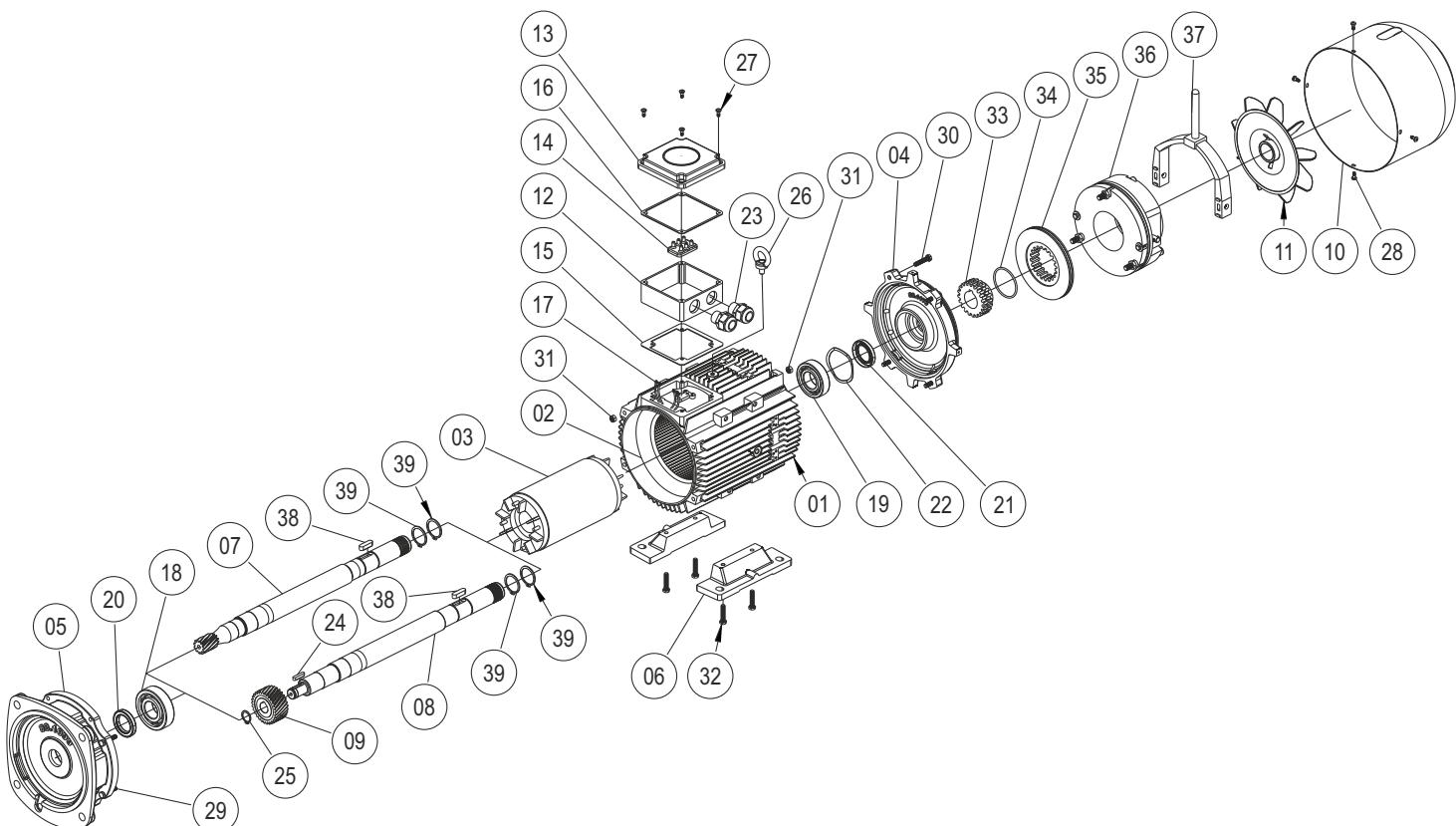
(2) According to DIN 6885

(3) Tolerance DIN EN 50347 "j6"

MOTOR PARÇA LİSTESİ / MOTOR PART LIST

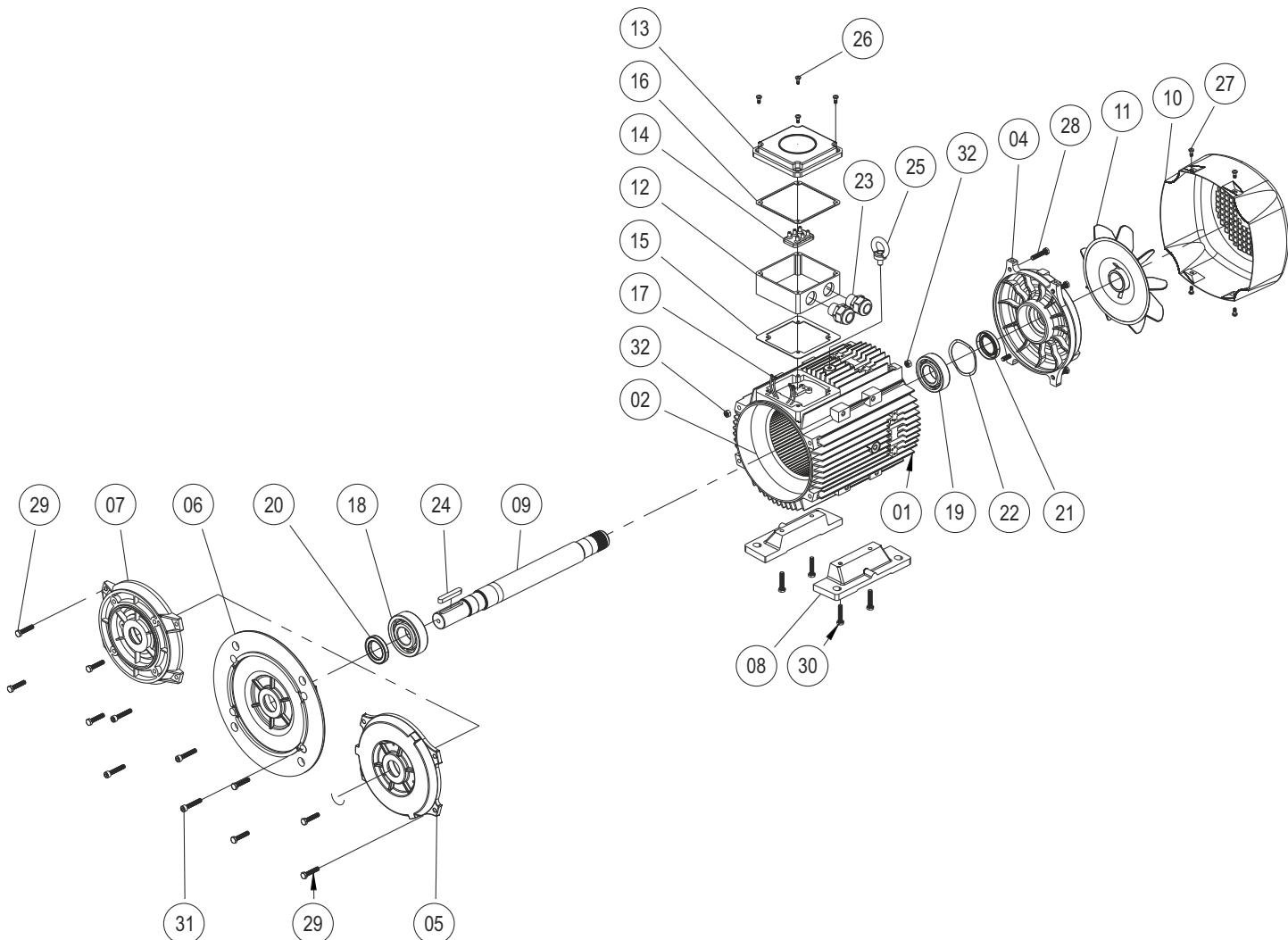


01	Gövde	01	Housing	17	Kablo Grubu	17	Lead Cables
02	Sarıglı Stator	02	Wound Stator	18	Ön Rulman	18	Bal Bearing (Drive-Side)
03	Rotor	03	Rotor	19	Arka Rulman	19	Bal Bearing (Non-Drive-Side)
04	Motor Arka Kapığı	04	Nondrive - Endshield	20	Keçe (Ön)	20	Seal Ring (Front)
05	PGR Motor Bağlantı Flanşı	05	Moter Connection Flange	21	Keçe (Arka)	21	Seal Ring (Back)
06	Ayak	06	Foot	22	Rulman Gergi Yayı	22	Bearing Shim
07	Motor Mili (Yekpare)	07	Drive Shaft (Gearcut)	23	Rakor	23	Conduit
08	Motor Mili (Çakma)	08	Drive Shaft (Plain)	24	Kama	24	Key
09	Z1 DişliSİ	09	Z1 Gear	25	Segman	25	Circilip DIN 471
10	Fan Kapağı	10	Fan Cover	26	Mapa	26	Eye Bolt
11	Fan	11	Fan	27	Yıldız Başlı Civata	27	Pan Head Screws
12	Terminal Kutusu	12	Terminal Box	28	Yıldız Başlı Civata	28	Pan Head Screws
13	Terminal Kutu Kapağı	13	Terminal Box Cover	29	Civata DIN 933	29	Bolt
14	Klemens Plakası	14	Terminal Plate	30	Civata DIN 933	30	Bolt
15	Terminal Contası Alt	15	Terminal Gasket Down	31	Somun	31	Nut
16	Terminal Contası Üst	16	Terminal Gasket Up	32	Civata DIN 933	32	Bolt

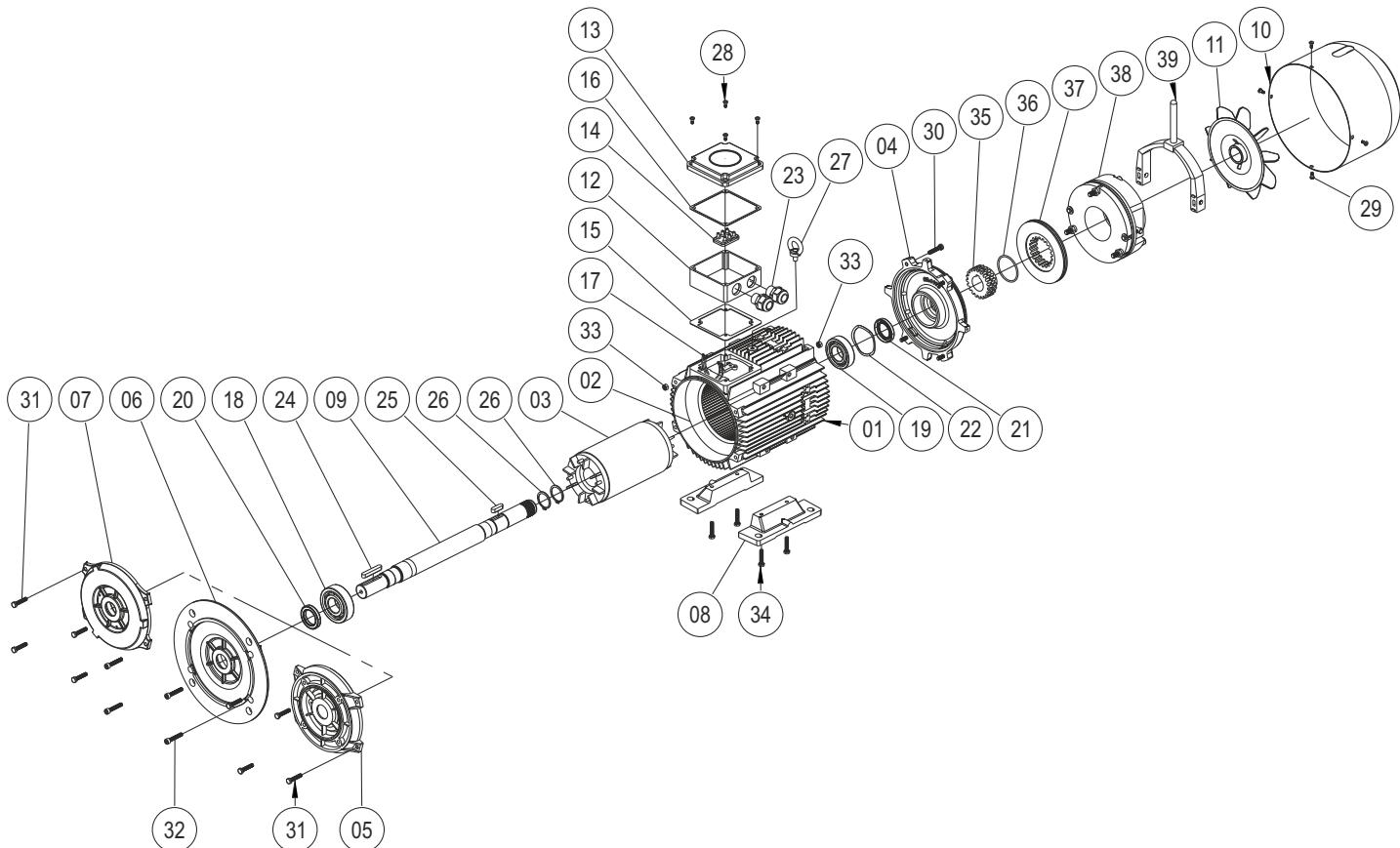
FRENLİ MOTOR PARÇA LİSTESİ / BRAKE MOTOR PART LIST


01	Gövde	01	Housing	21	Keçe (Arka)	21	Seal Ring (Back)
02	Sarıgilı Stator	02	Wound Stator	22	Rulman Gergi Yayı	22	Bearing Shim
03	Rotor	03	Rotor	23	Rakor	23	Conduit
04	Fren Flanşı	04	Brake Connection Flange	24	Kama	24	Key
05	PGR Motor Bağlantı Flanşı	05	Motor Connection Flange	25	Segman	25	Circilip DIN 471
06	Ayak	06	Foot	26	Mapa	26	Eye Bolt
07	Motor Mili (Yekpare)	07	Drive Shaft (Gearcut)	27	Yıldız Başlı Civata	27	Pan Head Screws
08	Motor Mili (Çakma)	08	Drive Shaft (Plain)	28	Yıldız Başlı Civata	28	Pan Head Screws
09	Z1 Dişlisi	09	Z1 Gear	29	Civata DIN 933	29	Bolt
10	Fan Kapağı	10	Fan Cover	30	Civata DIN 933	30	Bolt
11	Fan	11	Fan	31	Somun	31	Nut
12	Terminal Kutusu	12	Terminal Box	32	Civata DIN 933	32	Bolt
13	Terminal Kutu Kapağı	13	Terminal Box Cover	33	Fren Kaplini	33	Coupling
14	Klemens Plakası	14	Terminal Plate	34	O-Ring	34	O-Ring
15	Terminal Contası Alt	15	Terminal Gasket Down	35	Fren Balatası	35	Brake Lining
16	Terminal Contası Üst	16	Terminal Gasket Up	36	Fren	36	Brake
17	Kablo Grubu	17	Lead Cables	37	Manuel Kolu	37	Hand Release
18	Ön Rulman	18	Bal Bearing (Drive-Side)	38	Kama	38	Key
19	Arka Rulman	19	Bal Bearing (Non-Drive-Side)	39	Segman	39	Circilip DIN 471
20	Keçe (Ön)	20	Seal Ring (Front)				

B3-B5-B14 FLANŞLI MOTOR PARÇA LİSTESİ / B3-B5-B14 FLANGE MOTOR PART LIST



01	Gövde	01	Housing	17	Kablo Grubu	17	Lead Cables
02	Sargılı Stator	02	Wound Stator	18	Ön Rulman	18	Bal Bearing (Drive-Side)
03	Rotor	03	Rotor	19	Arka Rulman	19	Bal Bearing (Non-Drive-Side)
04	Motor Arka Kapığı	04	Nondrive - Endshield	20	Keçe (Ön)	20	Seal Ring (Front)
05	B3 Motor Bağlantı Flanşı	05	Flange	21	Keçe (Arka)	21	Seal Ring (Back)
06	B5 Motor Bağlantı Flanşı	06	Flange	22	Rulman Gergi Yayı	22	Bearing Shim
07	B14 Motor Bağlantı Flanşı	07	Flange	23	Rakor	23	Conduit
08	Ayak	08	Foot	24	Kama	24	Key
09	Motor Mili (Standart)	09	Drive Shaft (Gearcut)	25	Mapa	25	Eye Bolt
10	Fan Kapağı	10	Fan Cover	26	Yıldız Başlı Civata	26	Pan Head Secrews
11	Fan	11	Fan	27	Yıldız Başlı Civata	27	Pan Head Secrews
12	Terminal Kutusu	12	Terminal Box	28	Civata DIN 933	28	Bolt
13	Terminal Kutu Kapığı	13	Terminal Box Cover	29	Civata DIN 933	29	Bolt
14	Klemens Plakası	14	Terminal Plate	30	Civata DIN 933	30	Bolt
15	Terminal Contası Alt	15	Terminal Gasket Down	31	Civata DIN 912	31	Bolt
16	Terminal Contası Üst	16	Terminal Gasket Up	32	Somun	32	Nut

FRENLİ B3-B5-B14 FLANŞLI MOTOR PARÇA LİSTESİ / BRAKE B3-B5-B14 FLANGE MOTOR PART LIST


01	Gövde	01	Housing	21	Keçe (Arka)	21	Seal Ring (Back)
02	Sargılı Stator	02	Wound Stator	22	Rulman Gergi Yayı	22	Bearing Shim
03	Rotor	03	Rotor	23	Rakor	23	Conduit
04	Fren Flanşı	04	Brake Connection Flange	24	Kama	24	Key
05	B3 Motor Bağlantı Flanşı	05	Flange	25	Kama	25	Key
06	B5 Motor Bağlantı Flanşı	06	Flange	26	Segman	26	Circilip DIN 471
07	B14 Motor Bağlantı Flanşı	07	Flange	27	Mapa	27	Eye Bolt
08	Ayak	08	Foot	28	Yıldız Başlı Civata	28	Pan Head Screws
09	Motor Mili (Standart)	09	Drive Shaft (Gearcut)	29	Yıldız Başlı Civata	29	Pan Head Screws
10	Fan Kapağı	10	Fan Cover	30	Civata DIN 933	30	Bolt
11	Fan	11	Fan	31	Civata DIN 933	31	Bolt
12	Terminal Kutusu	12	Terminal Box	32	Civata DIN 912	32	Bolt
13	Terminal Kutu Kapağı	13	Terminal Box Cover	33	Somun	33	Nut
14	Klemens Plakası	14	Terminal Plate	34	Civata DIN 933	34	Bolt
15	Terminal Contası Alt	15	Terminal Gasket Down	35	Fren Kaplini	35	Brake Coupling
16	Terminal Contası Üst	16	Terminal Gasket Up	36	O-Ring	36	O-Ring
17	Kablo Grubu	17	Lead Cables	37	Fren Balatası	37	Brake Lining
18	Ön Rulman	18	Bal Bearing (Drive-Side)	38	Fren	38	Brake
19	Arka Rulman	19	Bal Bearing (Non-Drive-Side)	39	Manuel Kolu	39	Hand Release
20	Keçe (Ön)	20	Seal Ring (Front)				

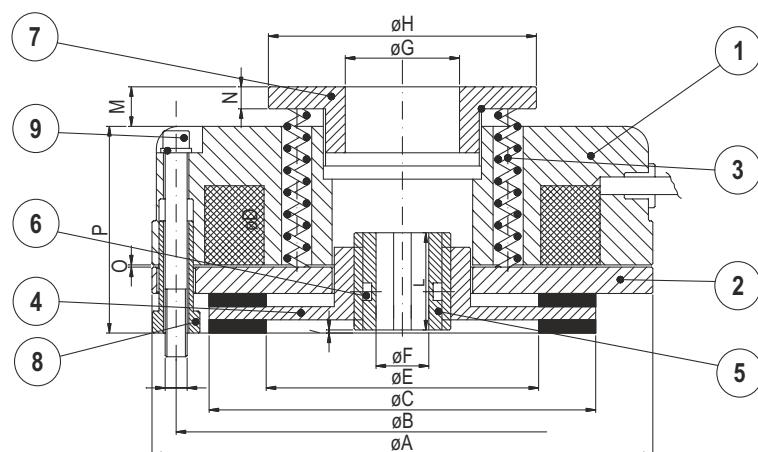
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FREN PARÇA LİSTESİ VE ÖZELLİKLERİ

EN

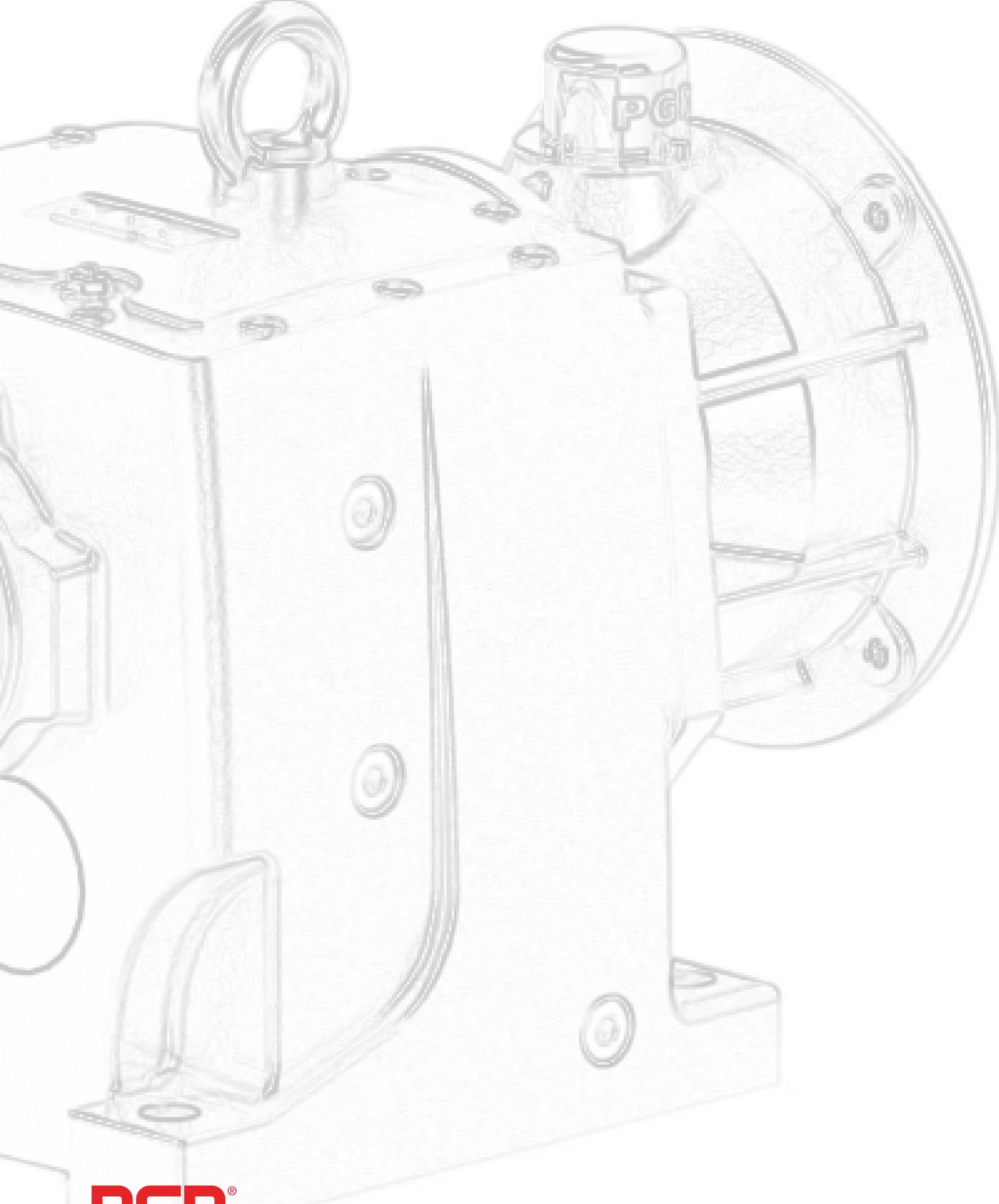
BRAKE PART LIST AND PROPERTIES

- | | |
|-----------------------|------------------|
| 1 Elektro mıknatıs | 1 Electromagnet |
| 2 Endüvi plakası | 2 Armature plate |
| 3 Tork yayı | 3 Torque springs |
| 4 Disk | 4 Disc |
| 5 Kamalı burç | 5 Splined hub |
| 6 O-ring | 6 O-ring |
| 7 Ayar halkası | 7 Adjuster rings |
| 8 Ayar somunu | 8 Adjuster nuts |
| 9 Bağlantı civataları | 9 Fixing screws |



Tip / Type Fren Modeli / Brake Model	K1	K2	K3	K4	K5	K6	K7	K7/D	K8	K8/D	K9	K9/D	K9/T
Statik Fren Momenti Static Braking Torque (Nm)	5	12	16	20	40	60	90	180	200	400	300	600	900
Motorun Max. Hızı Max Speed of the motor (rpm)	3000	3000	3000	3000	3000	3000	3000	3000	1500	1500	1500	1500	1500
Giriş Gücü Input Power (W)	15	20	25	30	45	50	55	55	60	60	65	65	65
Max. Ses Max noisiness (≤dB-A)	68	69	68	69	70	70	70	70	70	69	69	69	70
Ağırlık Weight (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	E	35	44	62	69	79	80	90	90	103	103	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 tablodada 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.



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POLAT GROUP REDÜKTÖR SAN. VE TİC. A.Ş.

Ata Mahallesi Astim Organize Sanayi Bölgesi 1.Cadde No: 4 Efeler - AYDIN / TÜRKİYE
Tel: +90 256 231 19 12 (Pbx) Fax: +90 256 231 19 17
info@pgr.com.tr - www.pgr.com.tr

