İçindekiler
Index
Inhaltsverzeichnis

Genel Bilgiler *General Info.* Einführung	**Sembollerin Açıklaması**	*Key of Symbols*	Erklärung der Bezeichnungen	03
	Ürün Yelpazesi	*Production Range*	Produktpalette	04
	D Serisi Redüktörlerin Genel Özellikleri	*General Specifications of D Series Gearboxes*	Allgemeine Eigenschaften Von D Serie Getrieben	06
	Teknik Tanımlamalar	*Technical Explanations*	Technische Erläuterungen	07
	Teknik Özellikler	*Technical Specifications*	Technische Informationen	07
	Aksesuarlar	*Accessories*	Zubehör	08
	Yüzey Koruması	*Surface Protection*	Oberflächenschutz	10
	Tip Tanımlaması	*Unit Designation*	Typenbezeichnungen	10
	Örnek Tip Tanımlamaları	*Sample Designations*	Typenbezeichnungsbeispiele	13
	Motor Büyüklüğüne Göre Geometrik Çevrim Oranı Komb.	*Geomet. Possible Combinations of Ratios According to Motor Size*	Geomet. Mögliche Kombi. von Übersetz. nach Motorbaugröße	14
	Servis Faktörü	*Service Factor*	Betriebsfaktor	16
	Yük Sınıflandırması	*Load Classification*	Belastungsart	17
	Redüktör Dönüş Yönleri	*Direction of Rotation*	Getriebedrehrichtungen	19
	Radyal Yükler	*Overhung Loads*	Querkräfte	20
	Radyal Yüklerin Hesabı	*Calculation Of Overhung Loads*	Berechnung der Querkräfte	21
	Ekstruder Tiplerde Müsade Edilebilir Eksenel Yükler	*Permissible Axial Loads for Extruder Types*	Zulässige Axialkrüfte für Extruder Typ Getrieben	22
	Eşdeğer Güç Hesabı	*Equivalent Power Calculation*	Äquivalente Leistung	24
	Eşdeğer Güç Hesabı Örneği	*Equivalent Power Cal. Example*	Beispiel für Äquivalente Leistung	25
	Redüktör Seçimi	*Gearbox Selection*	Getriebeauswahl	26
	Redüktör Seçim Formu	*Gearbox Selection Form*	Formular für Getriebeauswahl	28
	Yağlama	*Lubrication*	Schmierung	31
	Genleşme Tankı	*Expansion Tank*	Ölausgleichsbehälter	32
	Yağ Tipleri	*Oil Types*	Schmierstoffe	33
	Montaj Pozisyonları	*Mounting Positions*	Bauformen	34
	Montaj Şekilleri ve Yağ Tapaları	*Mounting Pos. and Oil plugs*	Bauform. und Ölverschlussschra.	35
Motorlar *Motors* Motoren	**Yağ Miktarları**	*Oil Quantities*	Ölmengen Tabellen	35
	AC Motorlar	*AC Motors*	Drehstrommotoren:	
	a- Genel Özellikler	*a- General Spec. of AC Motors*	a-Eigensc. des Drehstrommotors	38
D0306-0820	**b- Çalışma Türleri**	*b-Modes of Operation*	b-Betriebsarten	39
	c- Koruma Sınıfı	*c- Protection Class*	c- Schutzarten	40
	d- İzolasyon Sınıfı	*d- Insulation Class*	d- Isolationsklasse	40

İçindekiler
Index
Inhaltsverzeichnis

	e- Verim Sınıfları	*e- Efficiency Classes*	e- Energieeffizienzklassen	40
Motorlar *Motors* Motoren	**f- AC Frekans İnvertörler**	*f- AC Frequency Inverters*	f- AC Frequenz Umrichter	41
	DC Motorlar	*DC Motors*	DC Motoren	
	a- Genel Özellikler	*a- General Specif. of DC Motors*	a- Eigenschaften von DC Motoren	42
	b- DC Motorların Çalışma İlkeleri	*b- Operating principals of DC Motors*	b- Funktionsprinzip der DC Motoren	42
	c- DC Motor Çeşitleri	*c- Types of DC Motors*	c- Arten von DC Motoren	42
	d- DC Motorlarda Hız Kontr.	*d- Speed Control of DC motors*	d- Drehzahl Kontrolle DC Motoren	42
Frenler *Brakes* Bremsen	**Elektromanyetik Frenler**	*Electromagnetic Brakes*	Elektromagnetische Bremsen	43
	Fren Çeşitleri	*Brake Types*	Bremsenarten	43
	Fren Bağlantı Şekli	*Connection Types*	Schaltungsarten	44
	Fren Seçimi	*Brake Selection*	Bremswahl	45
	Frenin Termik Kapasitesi	*The Thermal Capacity of Brake*	Therm. Kapazität der Bremsen	46
Güç Devir Tabl. *Perform. Tables* Leistungs und Drehzahltabellen	**Motorlu Güç Devir Tabloları**	*Geared Motors Performance Tables*	Getriebenmotoren Leistung und drehzahl Übersicht	47
	Motorsuz Güç Devir Tabloları	*Gear Units Performance Tables*	Getriebe Leistung und Drehzahlübersicht	251
Ölçü Sayfaları *Dimension Pages* Abmesungstabellen	**DR serileri**	*DR series*	DR serie	93
	DN serileri	*DN series*	DN serie	146
	DV serileri	*DV series*	DV serie	198
	DT serileri	*DT series*	DT serie	263
Mil ve Kovan Ölçüleri *Shaft and Hollow Shaft Dimensions* Wellen und Gehäusemaße	**DE Ekstruder Boğazlı Redüktörler**	*DE Extruder Type Gearboxes*	DE Extruder Getrieben von D Serie	316
	Sıkma Bilezikli Redüktörler	*Gearboxes with Shrink Disk Connector*	D Serie Hohwelle mit Schrumpfscheibe	321
	D serisi Kovan Ölçüleri	*D series Hollow Shaft Dimensions*	Gehäuseabmessungen von D Serie Getrieben	322
	Moment Kollu Redüktörler	*Gearboxes with Torque Arm*	Drehmomentstütze Montagezeichnungen	322
	Delik Milli Redüktörler için Montaj Önerileri	*Mounting Advices for Hollow Shaft Gearboxes*	Montagevorschläge Für D Serie Getrieben	323
	Moment Kolu Bağlantı Ölçüleri	*Torque Arm Mounting Dimensions*	Montageabmessungen von Drehmomentstütze	324
	DIN 5480 Çoklu Kama Ölçüleri	*Dimensions of Splined Hollow Shaft to DIN 5480*	Abmessungen von Hohlwelle mit Vielkeilverzahnung nach DIN 5408	325
Karıştırıcı Redüktörleri *Drywell Gearboxes* Drywell Getriebe	**Karıştırıcı Redüktörleri Ölçüleri**	*Drywell Gearboxes Dimensions*	Drywell Getriebe Abmessungen	326
	Opsiyonel Çıkış Flanş Ölçüleri	*Optional Output Flange Dimensions*	Auswählbare Abtriebsflanschdimensionen	329
Motorlar *Motors* Motoren	**Elektrik Motorlarının Performans Değerleri**	*Electric Motors Ratings and Performance*	Elektromotoren Leistungsdaten	331

Genel Bilgiler
General Information
Einführung

Sembollerin Açıklaması

c_t.....: Anahtarın devreye girme zamanı katsayısı

f_s.....: Servis faktörü

F_{ama}.....: Çıkış milinde müsade edilen eksenel yükler [kN]

F_{ame}.....: Giriş milinde müsade edilen eksenel yükler [kN]

F_{qam}.....: Çıkış milinde izin verilen radyal yükler [N]

F_{qem}.....: Giriş milinde izin verilen radyal yükler [N]

F_{qa}.....: Çıkış miline gelen radyal yükler [N]

F_{qe}.....: Giriş miline gelen radyal yükler [N]

F_q.....: Radyal yönde çıkış miline gelen yükler [N]

F_a.....: Eksenel yönde çıkış miline gelen yükler [N]

i.....: Tahvil oranı

J_{ext}.....: Motor miline indirgenmiş toplam dış atalet momenti [kgm^2]

M_2.....: Çıkış momenti [Nm]

M_a.....: Anma momenti [Nm]

n_1.....: Redüktör giriş mili devri [d/dak]

n_2.....: Redüktör çıkış mili devri [d/dak]

P_{eq}.....: Eşdeğer güç [W]

P_e.....: Nominal güç (Bak. Güç-Devir Tabloları) [W]

P_M.....: Tahrik edilecek makina için gerekli güç (Değişken yükler için eşdeğer güç alınır) [kW]

t.....: Zaman [s]

T_e.....: Eşdeğer moment [Nm]

Key of Symbols

c_t.....:*Coefficient of switch on time.*

f_s.....: *Service factor*

F_{ama}.....: *Permissible axial loads which can be applied to output shafts [kN]*

F_{ame}.....: *Permissible axial loads which can be applied to input shafts [kN]*

F_{qam}.....: *Permissible overhung loads which can be applied to output shafts [N]*

F_{qem}.....: *Permissible overhung loads which can be applied to input shafts [N]*

F_{qa}.....: *Overhung loads applied to the output shaft [N]*

F_{qe}.....: *Overhung loads applied to the input shafts [N]*

F_q.....: *Overhung loads on output shaft [N]*

F_a.....: *Axial loads on output shaft [N]*

i.....: *Transmission ratio*

J_{ext}.....: *The total inertia of rotating parts at outside reduced at the motor shaft [kgm^2]*

M_2.....: *Output torque [N]*

M_a.....: *Nominal torque [Nm]*

n_1.....: *Input speed of gearbox [rpm]*

n_2.....: *Output speed of gearbox [rpm]*

P_{eq}.....: *Equivalent power [W]*

P_e.....: *Nominal power (given on per formance tables) [W]*

P_M.....: *Power consumption of the driven machine (for alternating power, refer to equivalent power) [kW]*

t.....: *Time [s]*

T_e.....: *Equivalent torque [Nm]*

Erklärung der Bezeichnungen

c_t .....: Koeffizient der Tätigkeitszeit von Schalter

f_s.....: Betriebsfaktor

F_{ama}.....: Zulässige Axialkräfte auf Abtriebswelle [kN]

F_{ame}.....: Zulässige Axialkräfte auf Antriebswelle [kN]

F_{qam}.....: Zulässige Querkräfte auf Abtriebswelle [N]

F_{qem}.....: Zulässige Querkräfte auf Antriebswelle [N]

F_{qa}.....: Querkräfte auf Abtriebswelle [N]

F_{qe}.....: Querkräfte auf Antriebswelle [N]

F_q.....: Querkräfte auf Abtriebswelle [N]

F_a.....: Axialkräfte auf Abtriebswelle [N]

i.....: Übersetzungsverhältnis

J_{ext}.....: Die Gesamtträgheit der rotierende Teile von der Aus gangsseite reduziert auf Motor welle [kgm^2]

M_2.....: Ausgangsdrehmoment [N]

M_a.....: Nenndrehmoment [Nm]

n_1.....: Antriebsdrehzahl [U/min]

n_2.....: Abtriebsdrehzahl [U/min]

P_{eq}.....: Äquivalente Leistung [W]

P_e.....: Getriebe Nennleistung (siehe Leistung- Drehzahltabellen) [W]

P_M.....: Leistung benötigt an der Ab triebswelle (Zur Berechnung bei variabler Leistungen äqui valente Leistung benutzen) [kW]

t.....: Zeit [s]

T_e.....: Äquivalentes Drehmoment [Nm]

Genel Bilgiler
General Information
Einführung

Ürün Yelpazesi

Elinizdeki katalog sadece ***D serisi*** ürünleri içermektedir.

- M ve N Serisi
Helisel alın dişliye sahip, giriş ve çıkış milleri aynı düzlem üzerinde ve birbirine paralel uzanan, üzerlerinde bulunan ayak veya flanş ile makinaya sabitlenen redüktörlerdir. Dolu mil çıkışlıdır.

- D Serisi
Helisel alın dişliye sahip, giriş ve çıkış milleri aynı düzlem üzerinde, birbirine paralel ve belirli bir aralıkta yerleştirilmiş, iki yan yüzde bulunan bağlantı civataları, flanş veya tork kolu ile makinaya sabitlenen redüktörlerdir. Delik milli veya mil çıkışlı olabilir.

- E Serisi
Sonsuz vida ve çark dişlili, belirli bir aralıkta ve birbirine dik konumlandırılmış giriş ve çıkış millerine sahip, çepeçevre konumlandırılmış ayak bağlantıları, flanş veya tork kolu ile makinaya sabitlenebilen redüktörlerdir. Delik milli veya mil çıkışlı olabilir.

- Y Serisi
Yatık tip redüktörler, ağır şartlarda çalışmak üzere dizayn edilmiş redüktör tipleridir. Bu tiplerde redüktör ile bunu tahrik eden mekanizma arasında değişik bağlantı şekilleri mevcuttur (Mekanik ve hidrolik kaplinler, çeşitli tip kayışlar ve zincirle tahrik gibi). Delik milli veya mil çıkışlı olabilir.

- K Serisi
Helisel alın dişli ve konik dişlilerden oluşan, birbirine dik ve belirli bir aralıkta konumlandırılmış giriş ve çıkış miline sahip, çepeçevre sunulan ayaklar, flanş veya tork kolu ile makinaya sabitlenen redüktörlerdir. E serisinden farklı olarak yüksek verime sahiptirler. Delik milli veya mil çıkışlı olabilir.

- H ve B Serisi
Helisel ve/veya konik dişliye sahip ağır hizmet tipi redüktörlerdir. Giriş ve çıkış milleri birbirine paralel veya dik olabilir. Her yönden bağlantı için ayak bağlantıları bulunur. Opsiyonel olarak flanş ile de bağlanabilir. Delik milli veya mil çıkışlı olabilir.

- T Serisi
T Serisi redüktörler helisel dişli iki kademe motorsuz delik milli redüktörlerdir. T Serisi redüktörler delik milli olması ve kompakt gövde yapısı sayesinde daha küçük hacimli alanlara montajı yapılabilmektedir.

- P ve R Serisi
P ve R Serisi redüktörler planet dişli redüktörlerdir. Endüstriyel ve mobil uygulamalarda kullanılırlar. Diğer redüktör tiplerine göre daha küçük hacimde daha büyük tork iletebilirler.

- VR Serisi
VR vinç redüktörleri M1 - M8 (1Dm - 5m) yük sınıflarına uygun olarak, çift veya sabit devirli frenli motorlarla üretilebilmektedir.

Production Range

*This catalogue is containing **D series** of gearboxes only.*

- M and N Series
M and N series of YILMAZ REDÜKTÖR are helical geared. The input and output shafts are parallel to each other and on the same plane. The gearbox can be connected to the machine by using the foot or flange on the gearbox. Has solid output shaft.

- D Series
D series are helical geared gearboxes with parallel input and output shafts. The shafts have a distance in between and located on the same plane. The gearbox can be assembled to the machine by using the foot, the connection screws on the sides, flange or torque arm on the gearbox. Can have hollow or solid output shaft.

- E Series
E series gearboxes are with worm and wormwheel. The input and output shafts are perpendicular to each other and have a distance in between. It can be assembled to the driven machine by the use of the foot, flange or torque arm on the gearbox. Can have hollow or solid output shaft.

- Y Series
Horizontal type gearboxes are designed to operate in heavy conditions. In these types there are a lot of combination forms between gearbox and driver (for example, mechanic and hydraulic couplings, various belt and chain drives etc.). Can have hollow or solid output shaft.

- K Series
These are gearboxes with helical and bevel gears. The input and output shafts are perpendicular to each other and have a distance in between. It can be assembled to the driven machine using the foot, flange or torque arm on the gearbox. They have high efficiency compared to E series. Can have hollow or solid output shaft.

- H and B Series
These gearboxes are helical or/and bevel geared industrial gearboxes . The input and output shafts can be arranged parallel or perpendicular to each other. The gearbox can be assembled by the use of the foot connections on each side. Flange connections are optional. Can have hollow or solid output shaft.

- T Series
T Series are gear units which are helical geared, two staged, hollow shaft mounted gear units and manufactured according to monoblock principal. T Series gearboxes have hollow shaft and compact housing so that T series can be mounted on smaller places.

- P and R Series
P and R Series gearboxes are planetary gearboxes. They are mostly used by industrial and mobile applications. Planetary gearboxes can transfer high torques in small volumes compared to other gearboxes.

- VR Serie
VR hoist drives are produced according to M1 - M8 (1Dm - 5m) load classification.

Produktpalette

Dieses Katalog umfasst nur die **D Serien** Getriebe.

- M und N Serie
Diese Modelle sind Stirnradgetriebe mit parallelen Antriebs- und Abtriebswelle auf einer Ebene. Die Getriebe werden mit Fuß- oder Flanschverbindung an die angetriebene Maschine angekoppelt. Hat Vollwelle am Ausgang.

- D Serie
Diese Getriebe sind Stirnradgetriebe mit paralleler Antriebs- und Abtriebswelle, die auf einer Ebene liegen und einen Abstand zueinander haben. Diese Getriebe wird seitlich mit Gewindelöchern am Maschine oder mit einer Flansch verbindet. Kann Voll- und Hohlwelle am Ausgang haben.

-E Serie
Diese Getriebe bestehen aus Schnecke und Schneckenrad. Die Antriebs-und Abtriebswellen sind senkrecht zueinander und haben einen bestimmten Abstand. Das Getriebe wird mit Fußbefestigung,Flanschverbindung oder mit Drehmomentstütze an die angetriebene Maschine montiert. Kann Voll- und Hohlwelle am Ausgang haben.

- Y Serie
Diese Getrieben sind für Einsatz unter schweren Bedingungen ausgelegt. Bei dieser Ausführung gibt es sehr viele verschiedene Verbindungsmöglichkeiten zwischen Antrieb und Getriebe (Zum Beispiel; mechanische und hydraulische Kupplungen, Riementrieb, Kettentrieb usw.). Kann Voll- und Hohlwelle am Ausgang haben.

- K Serie
Diese Getrieben bestehen aus Stirnräder und Kegelräder. Die Antrieb und Abtriebswellen sind senkrecht und haben einen Abstand zueinander. Das Getriebe wird mit Fußbefestigung, Flanschverbindung oder Drehmomentstütze an die angetriebene Maschine montiert. Der Wirkungsgrad ist wesentlich höher als E Serie. Kann Voll- und Hohlwelle am Ausgang haben.

- H und B Serie
Diese Getriebe sind geeignet für industrielle Anwendungen und haben parallelen oder senkrechten Antrieb und Abtriebswelle auf einer Ebene. Das Getriebe kann mit Fußen, die auf jede Seite der Getriebe vorhanden sind, oder optional mit Flansch an die angetriebene Maschine montiert werden. Kann Voll-und Hohlwelle am Ausgang haben.

- T Serie
TSerien Getriebe sind zwei stufige, schrägverzahnte Hohlwellenflachgetriebe in Monoblockgehäuse. Die T Serie hat eine kompakte Gehäuse und ist serienmäßig mit Abgangshohlwelle hergestellt, so dass das Getriebe minimalen Platzbedarf hat.

- P und R Serie
P und R Serie sind Planetengetriebe, die vielseitig im Industrie und bei mobiler Anwendungen einsetzbar sind, mit Planetenzahnräder. Planetengetriebe können im Vergleich zu anderen Getrieben größere Drehmomente bei kleineren Bauvolumen übertragen.

- **VR Serie**
VR Krane und Hebezeuge werden geeignet zur Belastungsart M1 - M8 (1Dm - 5m) hergestellt.

Genel Bilgiler
General Information
Einführung

M ...

13 farklı büyüklükte;
Moment aralığı: 50 - 18.000 Nm
Devir aralığı: 0,1 - 500 d/dak
13 different sizes:
Torque range: 50 - 18.000 Nm
Speed range: 0,1 - 500 rpm
13 verschiedene Baugrößen:
Drehmomentbereich:50 - 18.000 Nm
Drehzahlbereich : 0,1 - 500 U/min

N ...

13 farklı büyüklükte;
Moment aralığı: 50 - 18.000 Nm
Devir aralığı: 0,1 - 500 d/dak
13 different sizes:
Torque range: 50 - 18.000 Nm
Speed range: 0,1 - 500 rpm
13 verschiedene Baugrößen:
Drehmomentbereich:50 - 18.000 Nm
Drehzahlbereich : 0,1 - 500 U/min

E ...

8 farklı büyüklükte;
Moment aralığı: 5 - 1.000 Nm
Devir aralığı: 0,1 - 400 d/dak
8 different sizes:
Torque range: 5 - 1.000 Nm
Speed range: 0,1 - 400 rpm
8 verschiedene Baugrößen:
Drehmomentbereich: 5-1.000 Nm
Drehzahlbereich : 0,1-400 U/min

K ...

12 farklı büyüklükte;
Moment aralığı: 200 - 20.000 Nm
Devir aralığı: 0,1 - 400 d/dak
12 different sizes:
Torque range: 200 - 20.000 Nm
Speed range: 0,1 - 400 rpm
12 verschiedene Baugrößen:
Drehmomentbereich:200 - 20.000 Nm
Drehzahlbereich : 0,1 - 400 U/min

D...

11 farklı büyüklükte;
Moment aralığı: 150 - 18.000 Nm
Devir aralığı: 0,1 - 350 d/dak
11 different sizes:
Torque range: 150 - 18.000 Nm
Speed range: 0,1 - 350 rpm
11 verschiedene Baugrößen:
Drehmomentbereich: 150 - 18.000 Nm
Drehzahlbereich : 0,1 - 350 U/min

Y ...

25 farklı büyüklükte;
Moment aralığı: 1200 - 43000 Nm
Devir aralığı: 2,6 - 990 d/dak
25 different sizes:
Torque range: 1200 - 43000Nm
Speed range: 2,6 - 990 rpm
25 verschiedene Baugrößen:
Drehmomentber. :1200-43000 Nm
Drehzahlbereich : 2,6-990 U/min

H ...

20 farklı büyüklükte;
Moment aralığı: 2.500 - 470.000 Nm
Devir aralığı: 0,1 - 250 d/dak
20 different sizes:
Torque range: 2.500 - 470.000 Nm
Speed range: 0,1 - 250 rpm
20 verschiedene Baugrößen:
Drehmomentber. :2.500 - 470.000 Nm
Drehzahlbereich : 0,1 - 250 U/min

B ...

20 farklı büyüklükte;
Moment aralığı: 5.000 - 470.000 Nm
Devir aralığı: 0,1 - 115 d/dak
20 different sizes:
Torque range: 5.000 - 470.000 Nm
Speed range: 0,1 - 115 rpm
20 verschiedene Baugrößen:
Drehmomentber. :5.000-470.000 Nm
Drehzahlbereich : 0,1-115 U/min

P ...

10 farklı büyüklükte;
Moment aralığı: 1.000 - 50.000 Nm
Tahvil oranları: 3,5 - 3000 arası
10 different sizes:
Torque range: 1.000 - 50.000 Nm
Transmission ratio: 3,5 - 3000
10 verschiedene Baugrößen:
Drehmomentber. : 1.000 - 50.000 Nm
Übersetzung: 3,5 - 3000

R ...

10 farklı büyüklükte;
Moment aralığı: 1.000 - 50.000 Nm
Tahvil oranları: 3,5 - 3000 arası
10 different sizes:
Torque range: 1.000 - 50.000 Nm
Transmission ratio: 3,5 - 3000
10 verschiedene Baugrößen:
Drehmomentber. : 1.000 - 50.000 Nm
Übersetzung: 3,5 - 3000

T ...

10 farklı büyüklükte;
Moment aralığı: 200 - 18.000 Nm
Devir aralığı: 46 - 280 d/dak
10 different sizes:
Torque range: 200-18.000 Nm
Speed range: 46-280 rpm
10 verschiedene Baugrößen:
Drehmomentber. :200-18.000 Nm
Drehzahlbereich : 46-280 U/min

VR ...

VR vinç redüktörleri
M1 - M8 ,(1Dm - 5m) yük sınıfı
ISO 4301 / 1 ,(FEM 1.001 / III)
VR Hoist Drive Units
M1 - M8 ,(1Dm - 5m) load classification
ISO 4301 / 1 ,(FEM 1.001 / III)
VR Kran und Hebezeug Getriebe
M1 - M8 ,(1Dm - 5m) Belastungsart
ISO 4301 / 1 ,(FEM 1.001 / III)

Genel Bilgiler
General Information
Einführung

D Serisi Redüktörlerin Genel Özellikleri

D Serisi redüktörler delik milli olmasından dolayı birçok uygulama alanı için montaj kolaylığı ve kompaktlık sağlamaktadır. Bu modeller flanşlı, gövde bağlantılı, delik milden askı bağlantılı veya bunların bir kombinasyonu olan montaj şekillerinde üretilmektedir.

Delik milli redüktörler sonsuz vidalı modellerde olduğu gibi modüler sistemde düşünülmüştür. Çıkış milleri ve çıkış flanşları, standart ürün üzerine sonradan ilave edilebilmektedir. Gövdenin her iki tarafından bağlanma imkanı sağlayan bağlantı delikleri mevcuttur. Delik milli redüktörlerin motor bağlantılarında da esneklik getirilmiştir. IEC B5 veya B14, standart akuple veya motorsuz mil girişli modeller mevcuttur. Diğer sonsuz ve monoblok modeller ile olan kombinasyonlarda değişiklikler minimum düzeye indirilmiştir. Yüksek mukavemet ve verimin ön plana çıktığı uygulama alanlarında, sonsuz vidalı redüktörlerin yerini almakta olup, radyal yükler açısından da büyük avantajlar sağlamaktadır.

YILMAZ REDÜKTÖR olarak tasarım prensibimiz;

-Yüksek teknoloji kullanmak
-Güvenilirlik,
-Yüksek güç yoğunluğu,
-Yüksek verim,
-Montaj uyumluluğu,
-Esnek çözümler

Dikkat Edilecek Hususlar !

- Bu katalogda verilen resimler görsel amaçlıdır ve şekilsel detaylar bağlayıcı değildir.

- YILMAZ REDÜKTÖR, ürünler ve kataloglar üzerinde, müşterileri bilgilendirmeksizin her türlü değişikliği yapma hakkına sahiptir.

- Ürünler teslim alındıktan sonra ürünle birlikte verilen kullanım kılavuzu okunmadan sistem devreye alınmamalıdır.

- Katalogda verilen yağ miktarları referans amaçlıdır. Gerçek yağ seviyesi için redüktör üzerinde bulunan yağ seviye tapası kullanılmalıdır. Yağ vizkozitesi için, redüktör etiketine bakınız.

- Sipariş anında montaj pozisyonu bildirilmeyen redüktörler **M1** montajına uygun sevk edilir. Etikette yazan montaj pozisyonundan farklı bağlanan redüktörler garanti kapsamından çıkar. Bu katalogda verilen redüktör ağırlıkları ortalama ağırlık değerleridir. Tahvil oranına ve üzerinde bağlı olan aksesuara göre ağırlıklar farklılık gösterebilir.

General Specifications of D Series Gearboxes

The speciality is the hollow shaft, which provides an advantage in mounting and makes the usage easier. These types are manufactured as flange mounted, foot mounted, hollow shaft mounted or combination of these mounting possibilities.

The hollow shaft gearboxes are manufactured in modular system. The output shaft and flange can be added to the standard hollow shaft gearbox without any change on the gearbox. The housing has mounting points on both sides, which allows mounting from both sides. The input side of hollow shaft gearboxes is flexible. IEC B5 or B14, standard coupled or with solid input shaft gearboxes are possible. The combination with other type gearboxes can be made with minimum change. In applications where efficiency and strength is most important hollow shaft gearboxes are preferred to worm gearboxes. Hollow shaft gearboxes have also advantages in overhung loads.

As we are YILMAZ REDÜKTÖR,our design principals are;
-Using high technology
-Reliability
-High power density
-High efficiency
-Mounting compatible
-Flexible solutions

Attention to the following points !

- Drawings are examples only and the details on the drawings or illustrations are not strictly binding.

- YILMAZ REDÜKTÖR reserve the right to make all kinds of changes in products and cataloques without any notice.

- Prior to commissioning, the operating instructions provided with the gearbox must be observed.

- Oil quantities given are guide values only. The exact quantity of oil should be checked by using the provided oil level plugs according mounting positions. For correct oil viscosity refer to the nameplate.

- If the mounting position is not informed upon ordering, the gear unit is delivered according **M1** *mounting position. A different operation then the indicated mounting position on the name plate cancels the warranty. The weights given in this catalogue are mean values. Depending on the ratio and accessories the weights can differ.*

Allgemeine Eigenschaften von D Serie Getrieben

Diese Ausführung ist sehr kompakt und leicht zum Montieren. Flansch, Fuß und Hohlwellenausführungen oder Kombinationsausführungen sind möglich. Diese Getriebe werden modular hergestellt.

Abtriebsflansch und Abtriebswelle kann man auf einen Standardausführung (Hohlwellenantrieb) ohne Änderungen montieren. Die Gehäuse haben Stellen für Fußverbindung an den beiden Seiten. Deswegen ist diese Gehäuse von beiden Seiten montierbar. Flachgetrieben haben neue Montagemöglichkeiten auch für die Antriebsseite. Standart Verbindung (IEC B14 oder B5) oder Wellenantrieb ist möglich. Kombinationen mit anderen Getriebetypen sind leicht und mit wenigen Änderung. Wenn Wirkungsgrad und Festigkeit entscheidend bei der Anwendung ist, werden nicht Schneckengetrieben sondern Flachgetrieben beforzugt. Flachgetrieben können höhere Querkräfte als andere Getriebe tragen.

Als YILMAZ REDÜKTÖR unsere Entwurfsprinzipien sind;
- Verwenden von hohen Fertigungstech.
- Hohe Betriebssicherheit
- Leistungsdichte
- Hoher Wirkungsgrad
- Universale Montagemöglichkeit
- Sonderlösungen

Bitte folgende Punkte beachten !

- Die Abbildungen sind beispielhaft und nicht verbindlich.

- Alle Änderungen auf dem Katalog und an der Produkte bleiben vorbehalten und können ohne Kenntnisnahme erfolgen.

- Vor Inbetriebnahme ist die mit gelieferter Betriebsanleitung zu beachten.

-Angaben über Ölmengen sind unverbindlich. Maßgebend ist die Ölstandsschraube in der geeigneten Montageposition. Ölviskosität und Sorte muss den Angaben des Typenschieldes entsprechen.

- Wenn die Bauform bei Bestellung nicht angegeben ist, erfolgt die Lieferung in der Bauform **M1.** Wenn die Getriebe anders als auf dem Typenschild benannte Bauform eingesetzt werden, verliert die Garantie ihre Gültigkeit. Die angegebenen Gewichte sind unverbindliche Mittelwerte ohne Zubehör; genauere Gewichte sind abhängig von Zubehör und Übersetzung.

Genel Bilgiler
General Information
Einführung

Teknik Tanımlamalar

- Çıkış Momenti (M_2): [Nm]
Motorun verdiği momentin tahvil oranı ve verimle ile çarpılarak elde edilen değerdir. Redüktörün çıkışından alınabilecek momenti gösterir.

- Anma Momenti (M_a): [Nm]
Redüktörün f_s=1 şartı için mekanik olarak taşıdığı moment değeridir.

- Nominal Güç (P_e): [kW]
Nominal güç, redüktörün f_s=1 şartı için mekanik olarak taşıyabileceği güç değeridir. Redüktörlerin nominal güçleri, güç devir tablolarında verilmiştir.

- Çevrim oranı (i):
Redüktörün giriş devrinin çıkış devrine oranıdır. Yılmaz Redüktör D serisi redüktörlerde 3,5-23500 arasında değişen çevrim oranları mevcuttur.

- Eşdeğer Güç ve Moment
P_{eq} [kW], T_e [Nm]
Sabit devir altında ancak değişken yük değerlerinde çalışan redüktörlerde, sabit yük altında çalışma şartlarına eşdeğer gelen moment ve güç değerleridir. Hesaplama yöntemi sayfa 23'de verilmiştir.

- İhtiyaç güç (P_M): [kW]
Redüktörlerin kullanılacağı uygulamanın istenilen şekilde çalışabilmesi için ihtiyaç duyduğu güç değeridir.

- İhtiyaç moment (T): [Nm]
Redüktörün kullanılacağı uygulamanın çalışabilmesi için ihtiyaç duyduğu moment değeridir. Seçilen redüktör için herzaman çıkış momentine eşit yada daha düşük olmalıdır.

- Müsade Edilen Eksenel ve Radyal Yükler Fqem, Fqam: [N]
Redüktörün giriş veya çıkış milinde müsade edilen eksenel ve radyal yüklerdir.

- Servis Faktörü (f_s):
Redüktörün çalıştığı şartlar ile uyumlu olması için gerekli olan emniyet katsayısıdır. f_s=1, düzgün ve sakin yüklerde, günlük sekiz saat, saatte 100 dur-kalk çalışmayı karşılar. Detaylar için redüktör seçim bölümüne bakınız.

Technical Explanations

- Output Torque (M_2): [Nm]
Multiplication of motor output torque with transmission ratio and efficiency gives the result of output torque at the output shaft of the gear unit.

- Nominal Torque (M_a): [Nm]
Nominal torque is the mechanical torque which the gearbox can resist under f_s=1 conditions.

- Nominal Power (P_e): [kW]
The nominal power is the power which gearbox can mechanically resist under f_s=1 condition. The nominal powers are given on the performance tables.

- Ratio (i):
Ratio between output shaft speed and input shaft speed. Available ratios of Yilmaz Redüktör M series are between 3,5 to 23500.

- Equivalent Power and Torque
P_{eq}: [kW],T_e [Nm]
For gearbox unit with constant speed but variable working conditions : This is the calculated power or torque which is equivalent to the values at working under constant working conditions.

- Required Power (P_M): **[kW]**
Required power for the applications which is able to drive the system.

- Required Torque (T): [Nm]
Required torque for applications. Required torque always must be equal or smaller than output torque for selected gearbox.

- Permissible Axial and Overhung Loads:
Fqem, Fqam [N]
Permissible axial and overhung load at the output or input shaft of gearboxes.

- Service Factor (f_s):
Service factor is a safety coefficient, which takes into account the different running conditions of the driven machine. f_s=1 is used for uniform loads 8 hours working per day and up to 100 cycle per hour.

Technische Erläuterungen

- Ausgangsmoment (M_2): [Nm]
Multiplikation von Ausgangsmoment des Motors mit Übersetzung und Division das Ergebnis mit Wirkungsgrad ergibt den Betrag von Ausgangsmoment der Getriebe.
- Nennmoment (M_a): [Nm]
Mechanisches Belastungsmoment der Getriebe unter dem Bedingung f_s=1.

- Nennleistung (P_e): [kW]
Die Nennleistung ist die mechanische Grenzfestigkeitsleistung für fs=1. Kann von der Leistung- Drehzahltabelle abgelesen werden.

- Übersetzung (i):
Wird aus dem Verhältnis von Ausgang- zu Eingangswinkelgeschwindigkeit bestimmt. Gängige Übersetzungen von Yilmaz M Serie Getrieben liegt zwischen 3,5 bis 23500.

-Äquivalente Leistung und Moment
P_{eq}: [kW], T_e [Nm]
Für mit konstanten Drehzahl aber unter veränderlichen Betriebsbedingungen arbeitende Getriebe berechnete Leistung und Moment äquivalent zu Werten beim Arbeiten unter konstanten Betriebsbedingungen.

- Notwendige Leistung (P_M): [kW]
Für das Getriebe notwendige Leistung, um Arbeiten von Getriebe bei der für das Getriebe gedachten Anwendung zu gewährleisten.

- Notwendige Moment (T): [Nm]
Notwendige Moment für Anwendungen. Für den ausgewählte Getriebe soll das notwendige Moment gleich dem Ausgangsmoment oder kleiner als diesem Moment sein.

- Zulässige Axial- oder Querkräfte:
Fqem, Fqam [N]
Bei der Anwendungen während der Betrieb zulässige axiale oder radiale Eingangs- oder Ausgangsbelastungen.

- Betriebsfaktor (f_s):
Dieser Faktor f_s ist ein Sicherheitsfaktor, damit die Getriebe unter verschiedenen Bedingungen mit genügender Sicherheit arbeitet. f_s=1 gilt für gleichförmig Belastung, mit 8 Betriebsstunden pro Tag und bis zum 100 Schaltungen pro Stunde.

Teknik Özellikler:

- Ses seviyesi:
Redüktörlerimizin ses seviyesi VDI 2159' da verilen redüktörler için müsade edilen ses seviyelerinin altındadır.

- Boya ve Korozyon Koruması:
Redüktörlerin standart rengi DIN1843'e göre RAL 7030 dur. İstek üzerine farklı renklerde boyanabilir. Nemli ve korozif bölgeler için istek üzerine farklı boya uygulanabilir.

Technical Specifications:

- Noise Level:
The noise level of our gearboxes is below the permitted values defined in VDI guidelines 2159 for gear units.

- Coating and Corrosion Protection:
The gearboxes are painted with RAL 7030 according DIN1843. Different colors are avaliable upon request. Paintings for high humidity or chemically aggressive environments are avaliable upon request .

Technische Informationen:

- Geräuschpegel:
Geräuschstärken aller Getriebe bleiben unter die zulässigen Werte, die für die Getriebe in der VDI-Richtlinie 2159 festgelegt sind.

- Lackierung und Korrosionsschutz:
Die Getriebe werden mit der Farbe RAL 7030 nach DIN1843 lackiert. Auf Wunsch sind Sonderlackierungen möglich. Alle Getriebe können auf Wunsch auch in korrosionsgeschützter Ausführung für aggressive Umgebungen geliefert werden.

Genel Bilgiler
General Information
Einführung

- Yağlama:

D Serisi redüktörler yağlama tablolarında verilen yağlar ile doldurulmaktadır.Yağ detayları için yağlama bölümüne bakınız.

- Aksesuarlar:

D Serisi redüktörlerde aşağıdaki aksesuarlar kullanılabilir
- IEC B5/B14 Motor bağlantı flanşları
- Çıkış Bağlantı Flanşları
- Sıkma bileziği
- Geri dönüş kilidi
- Özel keçe çözümleri,
- Şeffaf yağ seviye göstergesi
- Tork kolu
- Elektromanyetik frenler

Diğer özel aksesuarlar için lütfen,
YILMAZ REDÜKTÖR ile temasa geçiniz.

- Yüzey Koruması

Redüktörlerimiz aksi belirtilmedikçe boyalı olarak sevk edilmektedir. DIN EN ISO 12944-2 korozyon standardında belirtilen sınıflardan aşağıdaki tabloda belirtilen 4 kategori için yüzey koruması sağlanmaktadır. Standart boya sınıfımız C2 korozyon kategorisini karşılamaktadır. Farklı bir koruma sınıfı istenirse sipariş aşamasında belirtilmelidir.
Mil, flanş bağlantı yüzeyi gibi boyanmayan yüzeylere paslanmaya karşı koruma sağlamak için korozyon önleyici yağ sürülmektedir.

- Lubrication:

D series of gearboxes filled with oils which is indicated on lubrication tables. For lubrication details please refer to the lubrication section.

- Accessories:

The following accessories can be applied to D series gearboxes.
- IEC B5/B14 Motor connection flange
- Output flanges
- Shrink Discs
- Backstops
- Special sealing solutions.
- Transparent oil level indicator,
- Torque arm
- Electromagnetic brakes

For other accessories please contact, YILMAZ REDÜKTÖR.

- Surface Protection

Our products are all painted unless otherwise stated. 4 corrosion categories which are mentioned below can be offered according to corrosion categories of DIN EN ISO 12944-2 standard. Our standard paint meets C2 corrosion category. If different category is requested, please inform before order.
Unpainted parts such as shaft, flange connection surface are coated with anti-corrosion paint before shipment against corrosion.

- Schmierung:

D Serie Getriebe werden mit Ölen entsprechend der Schmierungstabellen, falls nicht anders vereinbart, geliefert. Für weitere Schmierungsangaben siehe Kapitel Schmierung.

- Zubehör:

Folgendes Zubehör kann für Getriebe der D Serie geliefert werden.
- IEC B5/B14 Motor Adapter,
- Abtriebsflansch,
- Schrumpfscheiben,
- Rücklaufsperren,
- Unterschiedliche Dichtungssysteme,
- Drehmomentarm
- Elektromagnetische Bremsen

Für weiteres Zubehör kontaktieren Sie bitte mit, YILMAZ REDÜKTÖR.

- Oberflächenschutz

Getriebe von Yılmaz Redüktör werden lackiert und so geliefert falls nicht anders vereinbart ist. Die 4 untenstehenden Korrosionskategorien können nach Korrosionsschutz-Basisnorm DIN EN ISO 12944-2 angeboten werden. Unsere Standard-Lackierung erfüllt C2-Korrosionkategorie. Wenn Sie eine andere Kategorie erwünschen, informieren Sie uns bitte darüber vor der Bestellung.
Nicht lackierte Teile (z.B. Welle, Oberfläche des Anschlussflanschs) werden mit einem Schutzmittel vor dem Versand geschmiert, um vor Korrosion und Rost zu schützen.

Korozyon Kategorisi *Corrosion Categories* Korrosivitätskategorie	**Çevre Şartları** *Ambient Conditions* Umgebungsbedingungen	**Boya Tipi** *Paint Type* Lackierung	**Boya Kalınlıkları** *Paint Thickness* Sollschichtdicke
C2 (Standard)	**İç ortam ve muhafazalı dış ortam** **Nem ve kirlilik oranı düşük çalışma ortamı** *Indoor installation and outdoor installation with protection roof* *Environments with low humidity and contamination* Innenaufstellung und Außenaufstellung mit Überdachung oder Schutzeinrichtung Atmosphäre mit niedriger Luftfeuchtigkeit und Verunreinigung	**Çift Komponent Astar** *Two-Component Primer Coat* Zwei-Komponente Grundierung **Akrilik Sonkat** *Acrylic Top Coat* Akryl-Decklack	60 µm 40 µm
C3	**İç ortam ve atmosfere açık dış ortam** **Orta seviyede nem ve kirlilik olan çalışma ortamı** *Indoor installation and outdoor installation subject to weathering* *Environments with mean humidity and contamination* Innenaufstellung und Außenaufstellung im Freien unter Bewitterung Atmosphäre mit mäßiger Luftfeuchtigkeit und Verunreinigung	**Epoksi Astar** *Epoxy Primer Coat* Epoxy-Grundierung **Akrilik Sonkat** *Acrylic Top Coat* Akryl-Decklack	80 µm 40 µm
C4	**İç ortam ve atmosfore açık dış ortam** **Genelde yüksek nem ve kimyasal madde olan çalışma ortamı** *Indoor installation and outdoor installation subject to weathering* *Environments with occasionally high humidity and chemical contamination* Innenaufstellung und Außenaufstellung im Freien unter Bewitterung Atmosphäre gelegentlich mit hoher Luftfeuchtigkeit und chemischer Verunreinigung	**Epoksi Astar** *Epoxy Primer Coat* Epoxy-Grundierung **Akrilik Sonkat** *Acrylic Top Coat* Akryl-Decklack	180 µm 40 µm
C5-I / C5-M	**İç ortam ve atmosfere açık dış ortam** **Sürekli yüksek nem ve kimyasal madde ile temizlik yapılan çalışma ortamı** *Indoor installation and outdoor installation subject to weathering* *Environments with permanent high humidity and chemical cleaning contamination* Innenaufstellung und Außenaufstellung im Freien unter Bewitterung Atmosphäre mit ständiger hoher Luftfeuchtigkeit und chemischer Verunreinigung (Nassreinigung mit Säuren/Laugen und auch mit chemischen Reinigungsmitteln).	**Çinko Yüklemeli Epoksi Astar** *Epoxy Zinc Primer Coat* Epoxy-Zink-Grundierung **Epoksi Astar Miox** *Epoxy Miox Primer Coat* Epoxy-Miox-Grundierung **Akrilik Sonkat** *Acrylic Top Coat* Akryl-Decklack	70 µm 150 µm 40 µm

YILMAZ REDÜKTÖR
YILMAZ REDÜKTÖR

YILMAZ REDÜKTÖR
YILMAZ REDÜKTÖR

Tip Tanımlaması / *Unit Designation* / Typenbezeichnung

D R 4 7 4 .02 3 E90S / 4C - L02

Fren / *Brake* / Bremse

L-220V **Fanlı** / *With Fan* / Mit Lüfter
P-24V **Fanlı** / *With Fan* / Mit Lüfter
S-220 V **Fansız** / *Without Fan* / Ohne Lüfter
Z-24 V **Fansız** / *Without Fan* / Ohne Lüfter

01-10 Nm **10**-100 Nm
02-25 Nm **20**-200 Nm
04-40 Nm **30**-300 Nm
05-50 Nm **40**-400 Nm

Kutup sayısı / *Number of poles* / Anzahl der Polen

Motor Büyüklüğü / *Motor Size* / Motorbaugröße

DR / DV tipleri için / *For DR / DV /Types* / Für die Typen DR / DV

E90S / 4

Kutup Sayısı / *Pole Number* / Anzahl der Polen
Gövde uzunluğu / *Frame Lenght* / Gehäuselänge des Motors
Motor büyüklüğü / *Motor size* / Motorbaugröße
Motor tipi / *Motor type* / Motortyp

DN tipleri için / *For DN Types* / Für Typen DN

A06 :63 B5	**A09** : 90 B5	**A13**:132 B5	**A25**: 250 B5
B06 :63 B14	**B09** : 90 B14	**B13**:132 B14	**A28**: 280 B5
A07 :71 B5	**A10** :100 B5	**A16**:160 B5	**A31**: 315 B5
B07 :71 B14	**B10** :100 B14	**A18**:180 B5	
A08 :80 B5	**A11** :112 B5	**A20**:200 B5	
B08 :80 B14	**B11** :112 B14	**A22**:225 B5	

Motor Verim Sınıfı / *Motor Efficiency Class* / Motor-Effizienzklasse

Çıkış Mili Özelliği / *Output Shaft* / Eigenschaft der Ausgangwelle

00 :**Standart delik milli** / *Hollow Shaft output* / Stand. Ausführung mit Hohlwelle
01 :**Mil Çıkışlı** / *Solid Shaft Output / Vollwelle*
02 :**Flanşlı ve mil çıkışlı** / *Solid shaft output with IEC B5 /14 Flange* / Flansch und Abtriebswelle
03 :**Flanşlı ve delik milli çıkışlı**/ *Flanged and Hollow Shaft output* / Mit Flansch und Hohlausgangswelle
0S :**Sıkma Bilezikli** / *Shrink Disk Output* / Schrumpfscheibe
0E :**Ekstruder Çıkışlı** / *Extruder Output* / Extruder-Ausgang
0A :**Karıştırıcı Redüktörü Delik Mil Çıkışlı** / *Drywell Gearbox with Hollow Output Shaft* / Drywell Getriebe mit Hohlwelle
1A :**Karıştırıcı Redüktörü Dolu Mil Çıkışlı** / *Drywell Gearbox with Solid Output Shaft* / Drywell Getriebe mit Vollwelle
SA :**Karıştırıcı Redüktörü Sıkma Bilezikli Çıkışlı** / *Drywell Gearbox with Shrink Disk Output* / Drywell Getriebe mit Schrumpfscheibe

Kademe Sayısı / *Stage* / Anzahl der Stufen

2 Kademe / *2 Stages* / 2 stufig
3 Kademe / *3 Stages* / 3 stufig
4 Kademe / *4 Stages* / 4 stufig
5 Kademe / *5 Stages* / 5 stufig
6 Kademe / *6 Stages* / 6 stufig

Revizyon Numarası / *Revision Number* / Änderungsnummer

Gövde Büyüklük / *Housing Size* / Größe der Gehäuse

0...9

Giriş Tipi / *Input Type* / Eingangstyp

R :**Motorlu** / *With Motor* / Mit Motor
N :**Motorsuz ve IEC B5/B14 Flanş Girişli** / *IEC B5 / B14 Flanged without Motor* / Ohne Motor und IEC B5/B14 Eingangsflansch
V :**Motorlu ve IEC B5/B14 Flanş Girişli** / *IEC B5 / B14 Flanged with Motor* / Mit Motor und IEC B5/B14 Eingangsflansch
T :**Motorsuz** / *Without Motor* / Eingang ohne Motor
RB :**Motorlu Karıştırıcı Redüktörü** / Drywell Gearbox *With Motor* / Drywell Getriebe mit Motor
NB :**Motorsuz ve IEC B5/B14 Flanş girişli Karıştırıcı Redüktörü** / *IEC B5 / B14 Flanged* Drywell Gearbox *without Motor* / Drywell Getriebe Ohne Motor und mit IEC B5/B14 Eingangsflansch
VB :**Motorlu ve IEC B5/B14 Flanş girişli Karıştırıcı Redüktörü** / *IEC B5 / B14 Flanged* Drywell Gearbox *with Motor* / Drywell Getriebe Mit Motor und IEC B5/B14 Eingangsflansch
TB :**Motorsuz Karıştırıcı Redüktörü** / Drywell Gearbox *Without Motor* / Drywell Getriebe mit Eingangsvollwelle ohne Motor

Redüktör Tipi / *Gearbox Type* / Getriebe

D Serisi / *D Serie* / D Serie

Tip Tanımlaması / *Unit Designation /* Typenbezeichnungen

DR..00.. **Delik milli tip helisel redüktörler, motor bağlantılı, delik milli çıkış** / *Hollow shaft helical geared motors , Direct coupled motor, Hollow shaft output /* Flachgetriebemotoren, Verbunden mit Motor, Ausgang mit Hohlwelle.

DR..01.. **Delik milli tip helisel redüktörler, motor bağlantılı, milli çıkış** / *Hollow shaft helical geared motors, Direct motor coupled, solid output shaft* / Flachgetriebemotoren, Verbunden mit Motor, Ausgang mit Vollwelle.

DR..02.. **Delik milli tip helisel redüktörler, motor bağlantılı, mil ve flanş çıkışlı** / *Hollow shaft helical geared motors, Direct motor coupled, Solid output shaft and output flange* / Flachgetriebemotoren, Verbunden mit Motor, Ausgang mit Vollwelle und Flasch.

DR..03.. **Delik milli tip helisel redüktörler, motor bağlantılı delik milli ve flanş çıkışlı** / *Hollow shaft helical geared motors, Direct motor coupled, Hollow output shaft and output flange* / Flachgetriebemotoren,Verbunden mit Motor, Ausgang mit Hohlwelle und Flansch.

DR..0S.. **Delik milli tip helisel motorlu redüktörler, motor bağlantılı, sıkma bilezik çıkışlı/** *Hollow Shaft helical geared motors Direct motor coupled , Shrink disk output /* Flachgetriebemotoren, Verbunden mit Motor, Ausgang mit Schrumpfscheibe

DR..0E.. **Delik milli tip helisel motorlu redüktörler, motor bağlantılı, ekstruder çıkışlı /** *Hollow Shaft helical geared motors Direct motor coupled , extruder output /* Flachgetriebemotoren, Verbunden mit Motor, Ausgang mit extruder

DN..00.. **Delik milli tip helisel redüktörler, IEC B5/B14 flanşlı motorsuz , delik milli çıkış** / *Hollow shaft helical gearboxes, IEC B5/B14 flanged input without motor, hollow output shaft* / Flachgetriebe, ohne Motor mit IEC B5/B14 Flansch , Ausgang mit Hohlwelle.

DN..01.. **Delik milli tip helisel redüktörler, IEC B5/B14 flanşlı motorsuz , mil çıkışlı** / *Hollow shaft helical gearboxes,IEC B5/B14 flanged input without motor, Solid output shaft* / Flachgetriebe, ohne Motor mit IEC B5/B14 Flansch, Ausgang mit Vollwelle.

DN..02.. **Delik milli tip helisel redüktörler, IEC B5/B14 flanşlı motorsuz, mil ve flanş çıkışlı** / *Hollow shaft helical gearboxes, IEC B5/B14 flanged input without motor, Solid output shaft and output flange* / Flachgetriebe, ohne Motor mit IEC B5/B14 Flansch, Ausgang mit Vollwelle und Flansch.

DN..03.. **Delik milli tip helisel redüktörler, IEC B5/B14 flanşlı motorsuz, delik milli ve flanş çıkışlı** / *Hollow shaft helical gearboxes, IEC B5/B14 flanged input without motor, Hollow output shaft and output flange* / Flachgetriebe, ohne Motor mit IEC B5/B14, Ausgang mit Hohlwelle und Flansch.

DN..0S.. **Delik milli tip helisel redüktörler, IEC B5/B14 flanşlı motorsuz, sıkma bilezik çıkışlı/** *Hollow Shaft helical geared motors IEC B5/B14 flanged without motor, Shrink disk Output /* Flachgetriebemotoren, ohne Motor mit IEC B5/B14, Ausgang mit Schrumpfscheibe

DN..0E.. **Delik milli tip helisel redüktörler, IEC B5/B14 flanşlı motorsuz, ekstruder çıkışlı/** *Hollow Shaft helical geared motors IEC B5/B14 flanged without motor, extruder output /* Flachgetriebemotoren, ohne Motor mit IEC B5/B14, Ausgang mit extruder.

DV..00.. **Delik milli tip helisel redüktörler, IEC B5/B14 flanşlı motor bağlantılı, delik milli çıkış** / *Hollow shaft helical gearboxes, IEC B5/B14 flanged input with direct motor coupled, hollow output shaft* / Flachgetriebe, Verbunden mit IEC B5/B14 Motorverbindung, Ausgang mit Hohlwelle.

DV..01.. **Delik milli tip helisel redüktörler, IEC B5/B14 flanşlı motor bağlantılı, mil çıkışlı** / *Hollow shaft helical gearboxes,IEC B5/B14 flanged input with direct coupled motor, Solid output shaft* / Flachgetriebe,Verbunden mit IEC B5/B14 Motorverbindung, Ausgang mit Vollwelle.

DV..02.. **Delik milli tip helisel redüktörler, IEC B5/B14 flanşlı motor bağlantılı, mil ve flanş çıkışlı** / *Hollow shaft helical gearboxes, IEC B5/B14 flanged input with direct coupled motor, Solid output shaft and output flange* / Flachgetriebe, Verbunden mit IEC B5/B14 Motorverbindung, Ausgang mit Vollwelle und Flansch.

DV..03.. **Delik milli tip helisel redüktörler, IEC B5/B14 flanşlı motor bağlantılı, delik milli ve flanş çıkışlı** / *Hollow shaft helical gearboxes, IEC B5/B14 flanged input with direct coupled motor, Hollow output shaft and output flange* / Flachgetriebe, Verbunden mit IEC B5/B14 Motorverbindung, Ausgang mit Hohlwelle und Flasch.

DV..0S.. **Delik milli tip helisel redüktörler, IEC B5/B14 flanşlı motor bağlantılı , sıkma bilezik çıkışlı/** *Hollow Shaft helical geared motors IEC B5/B14 flanged with direct coupled motor, Shrink disk Output /* Flachgetriebemotoren, Verbunden mit IEC B5/B14 Motorverbindung, Ausgang mit Schrumpfscheibe

DV..0E **Delik milli tip helisel redüktörler, IEC B5/B14 flanşlı motor bağlantılı , ekstruder çıkışlı/** *Hollow Shaft helical geared motors IEC B5/B14 flanged with direct coupled motor, Extruder Output /* Flachgetriebemotoren, Verbunden mit IEC B5/B14 Motorverbindung, Ausgang mit extruder.

DT..00.. **Delik milli tip helisel redüktörler,motorsuz ve mil girişli, delik milli çıkış** / *Hollow shaft helical geared unit, Solid shaft input without motor, Hollow output shaft* / Flachgetriebe, Eingang mit Vollwelle ohne Motor, Ausgang mit Hohlwelle.

DT..01.. **Delik milli tip helisel redüktörler, motorsuz ve mil girişli, mil çıkışlı** / *Hollow shaft helical geared units, Solid shaft input without motor, Solid output shaft* / Flachgetriebe, Eingang mit Vollwelle ohne Motor, Ausgang mit Vollwelle.

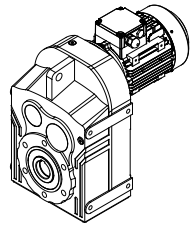
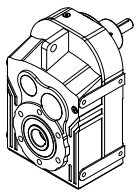
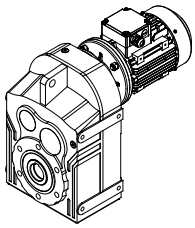
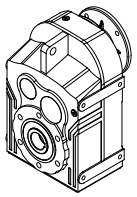
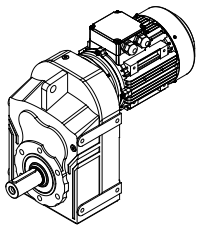
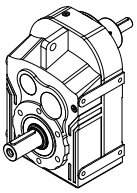
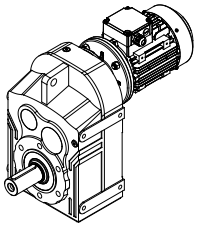
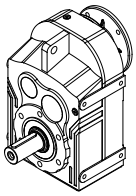
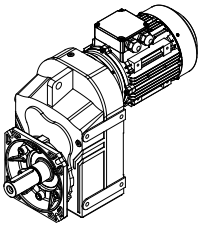
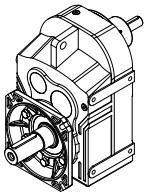
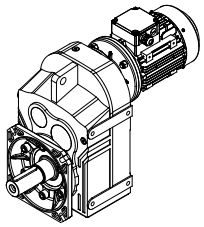
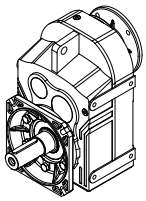
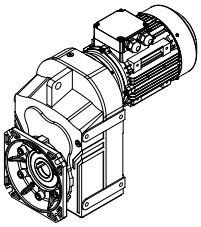
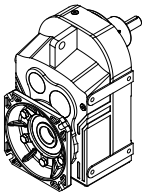
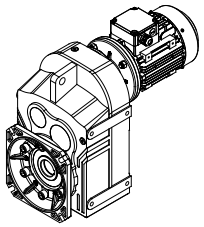
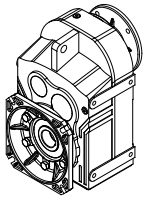
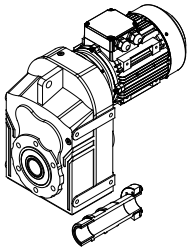
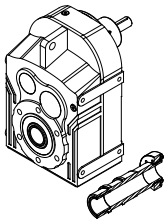
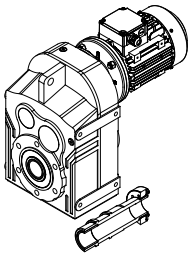
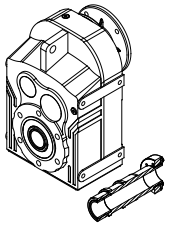
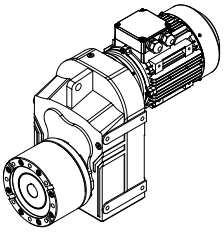
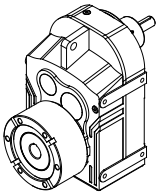
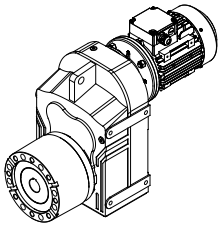
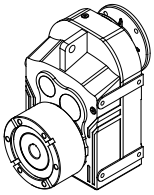
DT..02.. **Delik milli tip helisel redüktörler,motorsuz ve mil girişli, mil ve flanş çıkışlı** / *Hollow shaft helical gear units, Solid shaft input without motor, Solid output shaft and flange output* / Flachgetriebe, Eingang mit Vollwelle ohne Motor, Ausgang mit Vollwelle und Flansch.

DT..03.. **Delik milli tip helisel redüktörler, motorsuz ve mil girişli, delik milli ve flanş çıkışlı** / *Hollow shaft helical gear units, solid shaft input without motor, Hollow output shaft and output flange* / Flachgetriebe, Eingang mit Vollwelle ohne Motor, Ausgang mit Hohlwelle und Flansch.

DT..0S.. **Delik milli tip helisel redüktörler, motorsuz, sıkma bilezik çıkışlı/** *Hollow Shaft helical gear motors, Solid shaft input without motor, Shrink Disk Output /* Flachgetriebe, ohne Motor, Ausgang mit Schrumpfscheibe

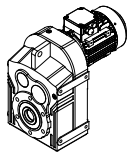
DT..0E.. **Delik milli tip helisel redüktörler, motorsuz, ekstruder çıkışlı /** *Hollow Shaft helical gear motors, Solid shaft input without motor, Extruder Output /* Flachgetriebe, ohne Motor, Ausgang mit extruder.

Tip Tanımlaması / *Unit Designation* / Typenbezeichnungen

 **DR..00**	 **DT..00**	 **DV..00**	 **DN..00**
 **DR..01**	 **DT..01**	 **DV..01**	 **DN..01**
 **DR..02**	 **DT..02**	 **DV..02**	 **DN..02**
 **DR..03**	 **DT..03**	 **DV..03**	 **DN..03**
 **DR..0S**	 **DT..0S**	 **DV..0S**	 **DN..0S**
 **DR..0E**	 **DT..0E**	 **DV..0E**	 **DN..0E**

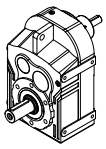
Genel Bilgiler
General Information
Einführung

Örnek Tip Tanımlamaları
DR172.00 - 3E90S/4C - L05



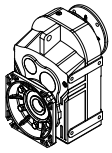
D.....: D serisi redüktör
R.....: Motor bağlantılı
1.....: Gövde büyüklük
7.....: Revizyon numarası
2.....: Kademe sayısı
00.....: Delik mil çıkışlı
3.....: Verim sınıfı
E.....: Motor tipi
90S.....: Motor büyüklüğü
4C.....: Motor kutup sayısı
L05.....: Fren Tipi

DT373.01



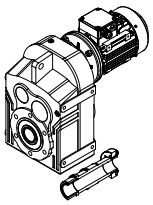
D.....: D serisi redüktör
T.....: Motorsuz giriş milli
3.....: Gövde büyüklüğü
7.....: Revizyon numarası
3.....: Kademe sayısı
01.....: Mil çıkışlı

DN473.03 - A11



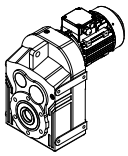
D.....: D serisi redüktör
N.....: Motorsuz ve IEC B5 giriş flanşlı
4.....: Gövde büyüklüğü
7.....: Revizyon numarası
3.....: Kademe sayısı
03.....: Delik milli flanş bağlantılı
A11.....: 112 tip motor, B5 bağlantı flanşı

DV573.0S - 3E100L/4C



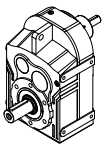
D.....: D serisi redüktör
V.....: Motorlu ve B5/B14 giriş flanşlı
5.....: Gövde büyüklüğü
7.....: Revizyon numarası
3.....: Kademe sayısı
0S.....: Sıkma bilezikli delik milli
3.....: Verim sınıfı
E.....: Motor tipi
100L/4.....: Motor büyüklüğü ve kutup sayısı

Sample Designations
DR172 - 3E90S/4C - L05



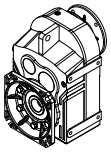
D.....: *D series gearbox*
R.....: *With motor connection*
1.....: *Gear unit size*
7.....: *Revision number*
2.....: *Stage number*
00.....: *Hollow shaft output*
3.....: Efficiency class
E.....: Motor type
90S.....: *Motor frame size*
4C.....: *Number of poles*
L05.....: *Brake type*

DT373.01



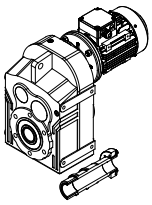
D.....: *D series gearbox*
T.....: *Solid input shaft*
3.....: *Gear unit size*
7.....: *Revision number*
3.....: *Stage number*
01.....: *Solid output shaft*

DN473.03 - A11



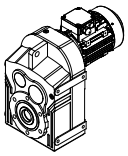
D.....: *D series gearbox*
N.....: *IEC B5 flange without motor input*
4.....: *Gear unit size.*
7.....: *Revision number*
3.....: *Stage number*
03.....: *Hollow shaft output with flange*
A11.....: Motor type 112, B5 flange

DV573.0S - 3E100L/4C



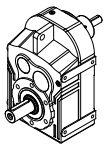
D.....: *D series gearbox*
V.....: With *Motor, B5/B14 input flange*
5.....: *Gear unit size*
7.....: *Revision number*
3.....: *Stage number*
0S.....: *Hollow shaft output with shrink disk*
3.....: Efficiency class
E.....: Motor type
100L/4.....: *Motor size and number of poles*

Beispiele für Typenbezeichnung
DR172 - 3E90S/4C - L05



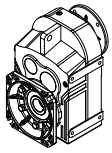
D.....: D Serie Getriebe
R.....: Motorverbindung
1.....: Größe des Gehäuses
7.....: Änderungsnummer
2.....: Stufenanzahl
00.....: Hohlausgangswelle
3.....: Effizienzklasse
E.....: Motortyp
90S.....: Motorbaugröße
4C.....: Polenzahl
L05.....: Bremse

DT373.01



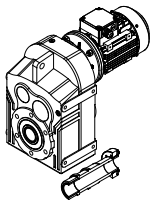
D.....: D Serie Getriebe
T.....: Vollwelleneingang ohne Motor
3.....: Größe des Gehäuses
7.....: Änderungsnummer
3.....: Stufenanzahl
01.....: Vollwelle

DN473.03 - A11



D.....: D Serie Getriebe
N.....: IEC B5 Flansch ohne Motor
4.....: Größe des Gehäuses
7.....: Änderungsnummer
3.....: Stufenanzahl
03.....: Hohlwelle mit Flanschverbindung
A11.....: Motortyp 112, B5 Motorflansch

DV573.0S - 3E100L/4C



D.....: D Serie Getriebe
V.....: Mit Motor und IEC B5/B14 Flansch
5.....: Größe des Gehäuses
7.....: Änderungsnummer
3.....: Stufenanzahl
0S.....: Hohlwelle mit Schrumpfscheibe
3.....: Effizienzklasse
E.....: Motortyp
100L/4.....: Motorbaugröße und Anzahl der Pole

Motor Büyüklüğüne Göre Geometrik Mümkün Çevrim Oranları
Geometrically Possible Combinations of Ratios According to Motor Size
Geometrisch mögliche Kombinationen von Übersetzungen nach Motorbaugröße

Motor Büyüklüğü / *Motor Size* / Motorbaugröße

Tip Type Typ	**Kademe** *Stages* Stufen	**63**	**71**	**80**	**90**	**100**	**112**	**132**
DR072	2	5,77-36,86	5,77-36,86	5,77-36,86	5,77-25,01	5,77-15,97	-	-
DR073	3	35,43-180,05	35,43-180,05	35,43-85,12; 146,60-180,05	35,43-85,12	35,43-38,18; 67,62-72,87	-	-
DR172	2	4,86-29,67	4,86-29,67	4,86-21,79	4,86-21,79	4,86-19,04	-	-
DR173	3	27,18-142,89	27,18-142,89	27,18-103,34	27,18-103,34	27,18-91,25	-	-
DR272	2	4,98-25,78	4,98-25,78	4,98-25,78	4,98-25,78	4,98-22,67	-	-
DR273	3	25,44-137,94	25,44-137,94	25,44-137,94	25,44-137,94	25,44-120,49	-	-
DR275	5	150,45-1189,30	150,45-1189,30	150,45-1189,30	150,45-1189,30	150,45-214,95 331.04-356,74	-	-
DR276	6	1215.13-2907,19	1215.13-2907,19	1215.13-2907,19	1215.13-2907,19	-	-	
DR282	2	5,22-6,65 9,45-29,85	5,22-6,65 9,45-29,85	5,22-6,65 9,45-29,85	5,22-6,65 9,45-29,85	3,92-24,79	3,92-18,73	3,92-14,06
DR283	3	41,23-135,52	41,23-135,52	41,23-135,52	41,23-135,52	30,28-119,16	30,28-84,12	30,28-62,55
DR285	5	127,94-936,69	127,94-936,69	127,94-936,69	127,94-936,69	127,94-137,88 196,84-298,73	-	-
DR286	6	1003,2-3800,21	1003,2-3800,21	1003,2-2692,99	1003,2-2692,99	-	-	-
DR372	2	14,74-25,42	14,74-25,42	14,74-25,42	14,74-25,42	3,65-25,42	3,65-22,46	3,65-17,65
DR373	3	32,11-171,89	32,11-171,89	32,11-171,89	32,11-171,89	23,58-151,15	23,58-106,69	23,58-79,34
DR375	5	174,88-1188,1	174,88-1188,10	174,88-1188,10	174,88-1188,10	174,88 249,67-378,91	-	-
DR376	6	1272,5-4820,21	1272,5-4820,21	1272,5-3415,8	1272,5-3415,8	-	-	-
DR472	2	-	20,74-24,54	20,74-24,54	20,74-24,54	6,71-7,54 13,35-24,54	6,71-7,54 13,35-24,54	4,48-24,54
DR473	3	-	95,87-242,68	95,87-242,68	95,87-242,68	34,28-174,97	28,45-154,63	28,45-121,49
DR474	4	219,13-584,15	219,13-584,15	219,13-584,15	219,13-584,15	219,13-316,37	219,13	-
DR475	5	648,55-1937,71	648,55-1937,71	648,55-1937,71	648,55-1937,71	648,554-1140,69	-	-
DR476	6	2381,67-6136,10	2381,67-6136,10	2381,67-6136,10	2381,67-6136,10	2381,67-3612,19	-	-
DR572	2	-	-	28,87-33,86	28,87-33,86	21,40-33,86	21,40-33,86	4,96-28,87
DR573	3	-	-	61,12 126,06-255,83	61,12 126,06-255,83	33,28-209,81	28,39-168,6	28,39-126,06
DR574	4	-	230,64-720,91	230,64-720,91	230,64-720,91	230,64-413,56	230,64-310,17	230,64
DR575	5	868,61-3432,03	868,61-3432,03	868,61-3432,03	868,61-3432,03	868,61-2078,15	868,61-1439,71	868,61-1041,5
DR576	6	3723,69-10146,8	3723,69-10146,8	3723,69-10146,8	3723,69-10146,8	3723,69-6144,09	3723,69-4255,64	-
DR672	2	-	-	-	-	26,11-23,36	26,11-23,36	6,61-7,45 11,96-26,11
DR673	3	-	-	-	-	124,53-221,47	124,53-221,47	34,02-197,01
DR674	4	-	236,65-675,51	236,65-675,51	236,65-675,51	236,65-424,33	236,65-318,25	236,65
DR675	5	747,1-3215,89	747,1-3215,89	747,1-3215,89	747,1-3215,89	747,1-2132,27	747,1-1476,89	747,1-1068,62
DR676	6	3820,66-9507,85	3820,66-9507,85	3820,66-9507,85	3820,66-9507,85	3820,66-6304,09	3820,66-4366,47	
DR772	2	-	-	-	-	-	-	7,76-8,7 13,81-22,77
DR773	3	-	-	-	-	141,55-222,16	141,55-222,16	20,87 37,12-41,85 72,5-222,16
DR774	4	-	-	321,33-632,92	321,33-632,92	223,53-632,92	223,53-632,92	223,53-384,72
DR775	5	-	730,48-3691,20	730,48-3691,20	730,48-3691,20	730,48-3691,20	730,48-2523,53	730,48-874,52 1105,59-1323,71 1656,07-1982,78
DR776	6	-	3922,75-24963,27	3922,75-24963,27	3922,75-24963,27	3922,75-16981,28	3922,75-11986,79	3922,75-8913,25
DR872	2	-	-	-	-	-	-	-
DR873	3	-	-	-	-	-	-	61,27-128,20
DR874	4	-	-	-	-	139,7-602,03	139,7-602,03	139,7-532,59
DR875	5	-	744,27-2964,88	744,27-2964,88	744,27-2964,88	686,44-2964,88	686,44-1813,1	686,44-1424,58
DR876	6	-	3405,63-20051,26	3405,63-20051,26	3405,63-20051,26	3405,63-12200,68	3405,63-8612,25	3405,63-4005,78
DR972	2	-	-	-	-	-	-	-
DR973	3	-	-	-	-	-	-	-
DR974	4	-	-	-	-	197,95-523,19	197,95-523,19	197,95-523,19
DR975	5	-	-	938,19-2079,97	938,19-2079,97	603,97-2079,97	603,97-2079,97	474,03-2079,97
DR976	6	-	-	2909,37-20565,73	2909,37-20565,73	2909,37-11348,58	2909,37-8841,14	2909,37-5494,80

Motor Büyüklüğüne Göre Geometrik Mümkün Çevrim Oranları
Geometrically Possible Combinations of Ratios According to Motor Size
Geometrisch mögliche Kombinationen von Übersetzungen nach Motorbaugröße

Motor Büyüklüğü / *Motor Size* / Motorbaugröße

Tip Type Typ	**Kademe** *Stages* Stufen	**160**	**180**	**200**	**225**	**250**	**280**	**315**
DR072	2	-	-	-	-	-	-	-
DR073	3	-	-	-	-	-	-	-
DR172	2	-	-	-	-	-	-	-
DR173	3	-	-	-	-	-	-	-
DR272	2	-	-	-	-	-	-	-
DR273	3	-	-	-	-	-	-	-
DR275	5	-	-	-	-	-	-	-
DR276	6	-	-	-	-	-	-	-
DR282	2	-	-	-	-	-	-	-
DR283	3	-	-	-	-	-	-	-
DR285	5	-	-	-	-	-	-	-
DR286	6	-	-	-	-	-	-	-
DR372	2	-	-	-	-	-	-	-
DR373	3	-	-	-	-	-	-	-
DR375	5	-	-	-	-	-	-	-
DR376	6	-	-	-	-	-	-	-
DR472	2	4,48-20,74	-	-	-	-	-	-
DR473	3	28,45-101,48	-	-	-	-	-	-
DR474	4	-	-	-	-	-	-	-
DR475	5	-	-	-	-	-	-	-
DR476	6	-	-	-	-	-	-	-
DR572	2	4,38-28,87	4,38-24,02	-	-	-	-	-
DR573	3	28,39-126,06	28,39-50,13 68,64-103,39	-	-	-	-	-
DR574	4	-	-	-	-	-	-	-
DR575	5	-	-	-	-	-	-	-
DR576	6	-	-	-	-	-	-	-
DR672	2	4,28-26,11	4,28-26,11	4,28-20,20	-	-	-	-
DR673	3	30,04-167,96	30,04-139,76	30,04-106,08	-	-	-	-
DR674	4	-	-	-	-	-	-	-
DR675	5	-	-	-	-	-	-	-
DR676	6	-	-	-	-	-	-	-
DR772	2	5,06-22,77	5,06-22,77	4,47-22,77	4,47-15,46	-	-	-
DR773	3	17,95-190,20	17,95-158,23	17,95-122,41	17,95-81,72	-	-	-
DR774	4	223,53-321,33	223,53-256,48	-	-	-	-	-
DR775	5	730,48 1105,6 1656,7	-	-	-	-	-	-
DR776	6	-	-	-	-	-	-	-
DR872	2	6,35-8,12 10,97-14,02	6,35-8,12 10,97-14,02	5,66-14,02	5,66-14,02	5,66-14,02	5,66-14,02	-
DR873	3	13,58-30,50 39,92-128,20	13,58-30,50 39,92-128,20	13,58-101,03	13,58-101,03	13,58-68,62	13,58-51,94	-
DR874	4	139,7-403,84	139,70-331,22	-	-	-	-	-
DR875	5	-	-	-	-	-	-	-
DR876	6	-	-	-	-	-	-	-
DR972	2	7,88-9,94 13,19-16,64	7,88-9,94 13,19-16,64	7,08-16,64	7,08-16,64	7,08-16,64	7,08-16,64	7,08-16,64
DR973	3	20,27-43,38 56,21-191,74	20,27-43,38 56,21-171,00	20,27-136,23	20,27-93,91	20,27-93,91	20,27-71,87	20,27-71,87
DR974	4	197,95-415,16	197,95-371,15	-	-	-	-	-
DR975	5	474,03-938,13	474,03-769,47	-	-	-	-	-
DR976	6	3079,47 4589,41	-	-	-	-	-	-

Genel Bilgiler
General Information
Einführung

Servis Faktörü

Servis faktörü (fs) redüktörün çalıştığı şartlar ile uyumlu olması için gerekli olan emniyet katsayısıdır. ''fs =1'' Düzgün ve sakin yüklerde, günlük sekiz saat ve saatte yüz start çalışmayı karşılar.

Aşağıdaki etkenlere bağlıdır:

- Günlük çalışma süresi
- Yük sınıfı
- Bir saatteki start sayısı
- Redüktör tahrik tipi
- Diğer gözlemler

Bu etkenleri göz önüne aldığımızda, gerekli servis faktörünü belirlemek için:
1. Makinanın günlük çalışma süresini tespit ediniz.
2. Makinanın ne türde yükler verdiğini tespit ediniz (Sayfa 17-18).

U - Düzgün ve sabit yükler
M - Orta darbeli yükler
H - Ağır darbeli yükler

Yük sınıfının daha teknik seçimi için rotora indirgenmiş toplam atalet momenti formülünden faydalanabilirsiniz (Sayfa 20).
3. Saatteki start sayısını tespit ediniz.
4.İlk üç maddeye bağlı servis faktörünü aşağıdaki tablodan seçiniz.

5. fs Redüktürümüzün tahrik tipine bağlı olarak "k" katsayısı ile çarpılarak arttırılır.

k=1 :Elektrik motoru veya hidromotor
k=1.25 :İçten yanmalı çok silindirli motor

k=1.5 :İçten yanmalı tek silindirli motor

Service Factor

Service Factor (fs) is a safety coefficient, which takes into account the different running conditions of the driven machine.'' fs=1'' is used for uniform loads 8 hours working per day and up to 100 starts per hour.

Service factor depends on:

- *Running time*
- *Nature of load*
- *Frequency of starting*
- *Driver type*
- *Other considerations*

For the right selection of the needed service factor for your machine;
1. Determine the running time of driven machine.
2. Select the nature of load of driven machine (Page 17-18).

U - Uniform loads
M - Moderate loads
H - Heavy shock loads

For a better selection, the nature of load can be calculated from the formulas given (page 20).

3. Determine frequency of starting
4. After determining the above mentioned factors, the service factor can be easily selected from the table given bellow.
5. The selected service factor must be multiplied with the factor ''k'' according to the driver type;

k=1 :Electric motor or Hydrolicmotor
k=1.25 :Multicylinder internal combustion engine
k=1.5 :Single cylinder internal combustion engine

Betriebsfaktor

Der Betriebsfaktor (fs) ist ein Sicherheitsfaktor für die Getriebe, damit sie unter den Betriebsbedingungen sicher arbeiten. ''fs =1'' steht für gleichförmige Belastung, 8 Studen pro Tag und bis zu 100 Schaltungen pro Stunde.

Betriebsfaktor ist abhängig von:

- Betriebsdauer
- Belastungsart
- Schalthäufigkeit
- Antriebsart
- Andere Faktoren

Um die richtigen Betriebsfaktor festzulegen;

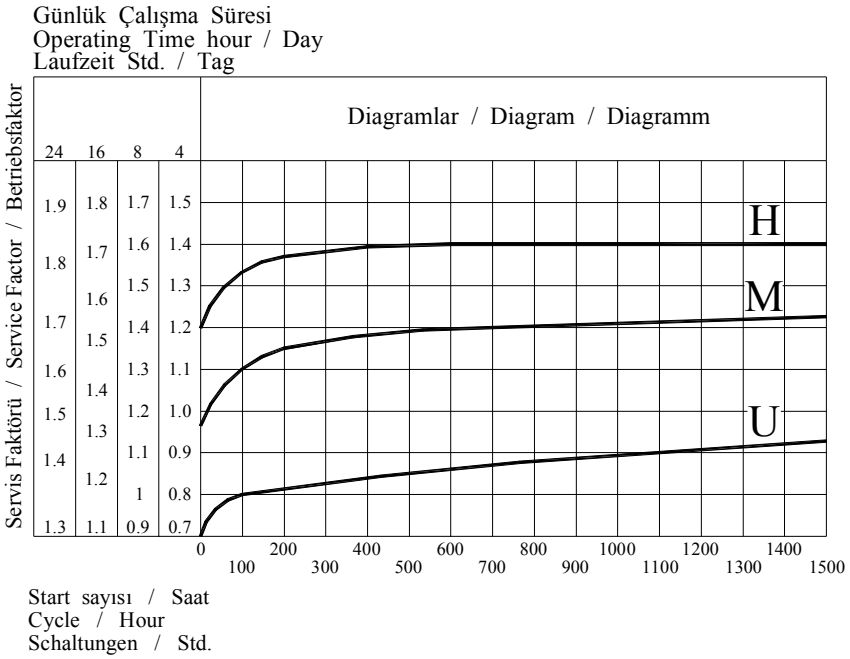
1. Betriebsdauer der angetriebenen Maschine bestimmen.
2. Belastungsart der angetriebenen Maschine auswählen.

U - Gleichförmige Belastung
M - Ungleichförmige Belastung
H - Stark Ungleichförmige Belastung

Um eine bessere Auswahl zu treffen, können die Belastungsarten mit den angegebenen Formeln (Seite 20) errechnet werden.
3. Schalhäufigkeit bestimmen.
4. Nach Bestimmen der oben angegebenen Werte, können die Betriebsfaktoren von der unten stehenden Tabelle entnommen werden.
5. Der ausgewählte Betriebsfaktor muß mit dem Faktor ''k'' abhängig von der Antriebsart multipliziert werden

k=1 :Elektromotor oder Hydraulikmotor
k=1.25 :Vielzylindermotor

k=1.5 :Einzylindermotor



Genel Bilgiler
General Information
Einführung

Yük Sınıflandırması

Krenler:

U - Kaldırma Dişlileri
- Palanga Dişlileri

M - Bomlu Vinç Dişlileri
- Yana Döndürme Dişlileri

H - Yürütme Dişlileri

Pompalar:

U - Santrifuj Pompalar (ince sıvı)

M - Santrifuj Pompalar (yarı sıvı)

H - Basınçlı Pompalar
- Dalgıç Pompalar

Taş ve Kil İşleme Makinaları:

H - Çekiçli Değirmenler
- Döner Fırınlar
- Dövücü Değirmenler
- Kırıcılar
- Küreli Değirmenler
- Tuğla Presi
- Tüp Değirmenler

Tekstil Makinaları:

M - Basma ve Boyama Makinaları
- Dokuma Tezgahları
- Hallac Makinaları
- Harman Makinaları
- Taneleme (Debegat)Tekneleri

Yağ Sanayi:

M - Besleme Pompaları
- Döner Delme Teçhizatları

Yiyecek Sanayi:

M - Kutu Bıçaklar
- Kutu Kaplama
- Mayalama Tekneleri

H - Kenar Açma

Çamaşır Yıkama Makinaları:

M - Döner Kurutucular
- Yıkama Makinaları

Hadde Makinaları:

M - Hız Ayarlı Silindirler
- Sabit Silindirler
- Sarma Makaraları
- Tel Çekme

H - Çubuk Kesme Makinaları
- Döner Tablalar (büyük)
- Kabuk Sıyırma Makinaları
- Plaka Haddeleme
- Silindir Haddeleme
- Soğuk Haddeleme

Load Classification

Cranes:

U - Hoist Gears
- *Lifting Gears*

M - Defrocking jib Gears
- *Slowing Gears*

H - Travelling Gears

Pumps:

U - Centrifugal Pumps (light liquids)

M - Centrifugal Pumps (semi liquid)

H - Pressure Pumps
- *Plunger Pumps*

Stone and Clay Working Machines:

H - Hammer Mills
- *Rotary Kilns*
- *Beater Mills*
- *Breakers*
- *Ball Mills*
- *Brick Presses*
- *Tup Mills*

Textile Machines:

M - Printing and Dyeing Machines
- *Looms*
- *Willow*
- *Batchers*
- *Tanning Vats*

Oil Industry:

M - Pipeline Pumps
- *Rotary Drilling Equipment*

Food Industry:

M - Cane Knives
- *Cane Crushers*
- *Mach Tubs*

H - Cane Mills

Laundries:

M - Tumblers
- *Washing Machines*

Metal Rolling Mills:

M - Roller Adjustment Drives
- *Roller Straightened*
- *Winding Machines*
- *Wire Drawing Benches*

H - Billet Shears
- *Rotary Tables (heavy)*
- *Descaling Machines,*
- *Sheet Mills*
- *Manipulators*
- *Cold Rolling Mills*

Belastungsart

Krananlagen:

U - Einziehwerke
- Hubwerke

M - Schwenkwerke
- Wippwerke

H - Fahrwerke

Pumpen:

U - Kreiselpumpen (leichte Flüssigkeit)

M - Kreiselpumpen (zahe Flüssigkeit)

H - Prebpumpen
- Plungerpumpen

Steine und ErdenBearbeitende Masch.

H - Hammermühler
- Drehofen
- Schlagmühlen
- Brecher
- Kugelmühlen
- Ziegelpressen
- Rohrmühlen

Textilmaschinen:

M - Drukerei
- Farbereimachinen
- Aufwickler
- Webstuhle
- Gerbfasser
- Reibwolfe

Erdölgewinnung:

M - Pipline Pumpen
- Rotative Bohranlagen

Nahrungsmittelmachinen:

M - Rohrschneiden
- Knetmaschinen
- Maichen

H - Rohrmühlen

Waschereimaschinen:

M - Trommeltrockner
- Waschmaschinen

Wälzwerke:

M - Rollenrichtmaschinen
- Walzenantriebe
- Drahtzuge
- Haspeln

H - Blechscheren
- Rollgänge (schwer)
- Knüppelscheren
- Schöpfscheren
- Stranggubanlagen
- Kaltwälzwerke

Genel Bilgiler
General Information
Einführung

İnşaat Makinaları:

M - Beton Mikserleri
- Ağır Yük Asansörleri

Kağıt Makinaları:

H - Islak Presler
- Kağıt Hamur Makinaları
- Kurutma Silindirleri
- Perdahlama Silindirleri

Kauçuk Makinaları:

M - Kalenderler
- Mikserler

H - Extruderler
- Hamur Karma
- Silindirler

Kimya Sanayi:

M - Agidatörler (yarı sıvı)
- Kurutma Merdaneleri
- Mikserler ve Silindirleri

Konveyörler:

M - Bant Cepli Konveyörler
- Çelik Bantlı Konveyörler
- Dökme Yüklü Kayışlı Konv.

H - Yük Asansörleri
- Parça Yüklü Kayışlı Konv.

Building Machines:

M - Concreate Mixers
- Hoist

Paper Machines:

H - Wet Presses
- Pulpers
- Drying Cylinders
- Glazing Cylinders

Rubber Machinery:

M - Calenders
- Mixers

H - Extruders
- Pug Mills
- Rolling Mills

Chemical Ind.:

M - Aggidators (semi- liquit)
- Drying Drums.
- Mixers and Rolling Mills

Conveyors:

M - Band Pocket Conveyors
- Steel Belt Conveyors
- Belt Conveyors

H - Hoists
- Bulk Belt Conveyors

Baumaschinen:

M - Betonmischermaschinen
- Bauaufzüge

Papiermaschinen:

H - Naßpressen
- Gautschen
- Trockenzylinder
- Glattzylinder

Kunststoffmaschinen:

M - Kalender
- Mischer

H - Extruder
- Knetwerke
- Wälzwerke

Chemische İndustrie:

M - Rührwerke (leichte Flüssig.)
- Trockentrommeln
- Mischer und Wälzwerke

Förderanlagen:

M - Gurttaschenbecherwerke
- Stahlbandförderer
- Gurtbandförderer (Schüttgut)

H - Schrägaufzüge
- Gurtbandförderer(Stückgut)

U	**Uniform Yük** *Uniform Loads* Gleichförmige Last	$F_i < 0,25$
M	**Orta Darbeli Yük** *Moderate Loads* Ungleichförmige Last	$F_i < 3$
H	**Darbeli Yük** *Heavy Shock Loads* Stark Ungleichförmige Last	$F_i < 10$

$$J'_{ext} = \frac{J_{ext}}{i^2}$$

$$F_i = \frac{J'_{ext}}{J_{rotor}}$$

J_{ext} : **Motor miline indirgenmiş toplam dış atalet momenti**
External moments of inertia reduced to the motor shaft
Externe massenträgheitsmomente reduziert auf motorwelle

i : **Tahvil oranı**
Transmission ratio
Übersetzung

J_{rotor} : **Motorun atalet momenti**
Moments of inertia to the motor
Massenträgheitsmoment

Genel Bilgiler
General Information
Einführung

Redüktör Dönüş Yönleri

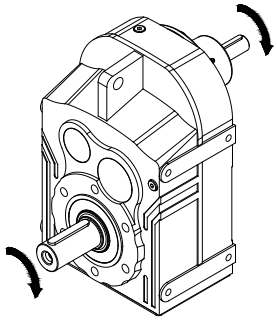
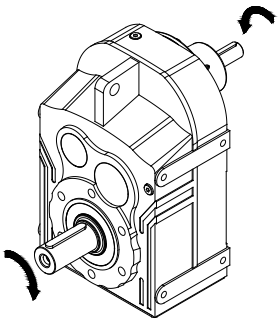
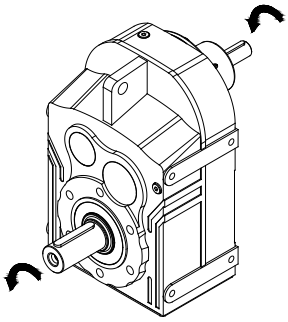
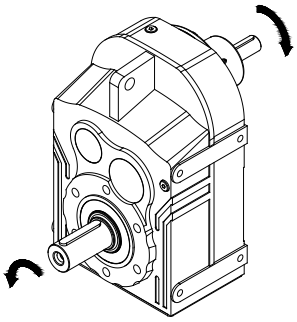
D Serisi ürünlerimiz için kullanılan yön tanımlaması aşağıdaki gibidir. Aşağıdaki tanımlama kilitli redüktörler için de geçerlidir.

Direction of Rotation

D Series direction of rotation of Yilmaz products are defined as follows. The definitions are also valid for gear units with backstop.

Getriebedrehrichtungen

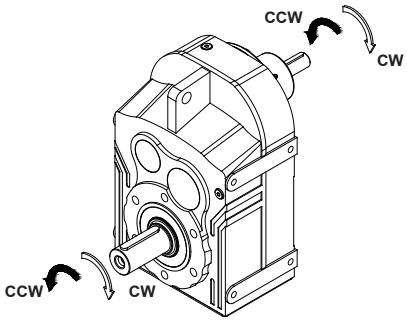
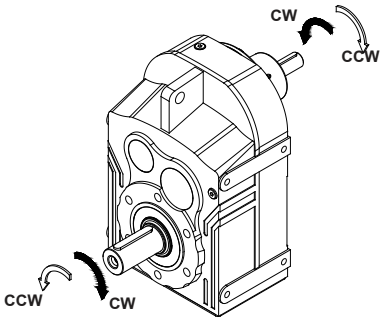
Die Drehrichtungen für D Serie Getriebe sind wie folgt definiert. Die Definition ist auch bei Getrieben mit Rücklaufsperre gültig.

	2-4-6 Kademe / *2-4-6 Stages* / 2-4-6 Stufig	**3-5 Kademe** / *3-5 Stages* / 3-5 Stufig
Saat Yönünde *Clockwise* im Uhrzeigersinn **CW**		
Saat Tersi Yönünde Counter Clockwise gegen Uhrzeigersinn **CCW**		

Giriş mili dönüş yönüne göre çıkış mili dönüş yönleri aşağıdaki gibidir.

Output shaft rotation directions according to the input shaft rotation directions are as follows.

Drehrichtungen der Abtriebswelle im Abhängigkeit von der Antriebswellen sind wie folgt;

2-4-6 Kademe / *2-4-6 Stages* / 2-4-6 Stufig	**3-5 kademe** / *3-5 Stages* / 3-5 Stufig
	

Radyal Yükler

Çıkış miline gelebilecek radyal yükler yatak ömrüne göre belirlenmiş ve tablolar halinde verilmiştir. Bu tablolarda verilen F_{qam} güvenilir radyal yükü f_s=1 şartı ve yükün mil ortasını yüklediği durum için verilmiştir. Darbeli yüklerin olması durumunda daha önce verilmiş olan servis faktörü tablosundaki değerler dikkate alınmalıdır. Güvenilir aksiyal yük (F_{ama} veya F_{ame}) verilen güvenilir radyal yükün (F_{qam} veya F_{qem}) %25'i kadar alınır. Verilen radyal ve eksenel yükler kuvvetin en kötü açı şartında etkidiği durum için verilmiştir. Mil ortasına gelen kuvvetin açısına göre daha yüksek radyal yükler mümkündür (Firmamıza danışınız). Bağlantı şekline göre oluşan radyal yük Fq sayfa 23 de verilen formüller yardımı ile hesaplanır.

Redüktör seçiminde ;

$$F_{qa} \le F_{qam}$$
$$F_{qe} \le F_{qem}$$

şartı göz önünde tutulmalı.Eğer etkiyen radyal kuvvet milin orta noktasında değil ise verilen güvenilir değerin aşağıda verilen formül ile düzeltilmesi gerekir.

$$F_{qam}' = F_{qam} \frac{t}{y+u}$$
$$F_{qem}' = F_{qem} \frac{t}{y+u}$$

"t", "y" Değerleri aşağıda verilmiştir. "u" Değeri görüldüğü gibi kuvvetin uygulama noktasıdır.

Overhung Loads

The permissible overhung loads are calculated by considering working life and is listed on the tables. The given permissible overhung loads F_{qam} are based on f_s=1 and are valid for forces which are applied to the midpoint of the shaft. For shock loading applications the service factor given on the table must take into consideration. The permissible axial load (F_{ama} or F_{ame}) is %25 x (F_{qam} or F_{qem}). The listed permissible overhung loads are based on the worst loading direction. Higher overhung loads can be applied for different loading directions (Please ask if requested). The effective overhung load at the gear box shaft Fq will be determined with the given formulas on page 23.

In Selection ;

$$F_{qa} \le F_{qam}$$
$$F_{qe} \le F_{qem}$$

these formulas must be taken into consideration. If the load is not applied at the midpoint of the shaft; the given permissible load must be corrected with the following formulas.

$$F_{qam}' = F_{qam} \frac{t}{y+u}$$
$$F_{qem}' = F_{qem} \frac{t}{y+u}$$

The values "t","y" can be taken from the below table. The value "u" is the lenght of the application point as shown below.

Querkräfte

Die in den nachfolgenden Tabellen angegebenen zulässigen Radialbelastungen F_{qam} gelten bei Kraftangriff auf die Mitte Wellenendes. Den Angaben liegt der Betriebsfaktor f_s=1 zu Grunde. Bei stoßartigen Belastungsfällen ist auch hier der entsprechende Betriebsfaktor zu berücksichtigen. Zulässige Axialkräfte F_{ama} oder F_{ame} können ohne weitere Nachrechnung bis zu einer Höhe von ca. 25% der zulässigen Radialbelastung F_{qam} oder F_{qem} aufgenommen werden. Bei der Ermittlung der zulässige Querkräfte sind höhere Werte möglich (Bitte Rückfragen). Die auftretende Querkraft Fq ab der Getriebewelle wird wie in der nachfolgenden Formel bestimmt.

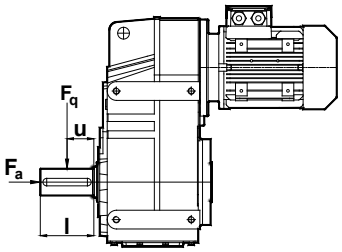
Bei dieser Auswahl;

$$F_{qa} \le F_{qam}$$
$$F_{qe} \le F_{qem}$$

müßen die oben agegebenen Bedingungen berücksichtigt werden.Ist der Kraftangriff nicht auf Wellenmitte, so kann die zulässige Querkraft mit Hilfe der unten stehenden Formel auf jede beliebige Stelle umgerechnet werden.

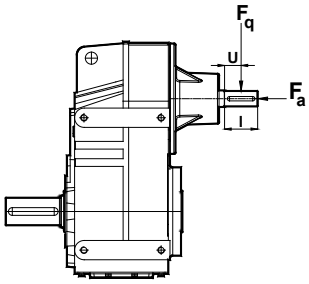
$$F_{qam}' = F_{qam} \frac{t}{y+u}$$
$$F_{qem}' = F_{qem} \frac{t}{y+u}$$

Die Werte "t" und "y" sind in den nacholgenden Tabellen angegeben. Der Wert "u" ist die Stelle des Kraftangriffs wie auf der nächsten Seite angegeben.



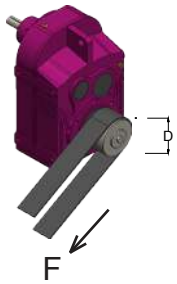
DR...01 — **Çıkış Milinde radyal kuvvet hesabı düzeltme katsayıları**
Overhung Load correcting values on output shaft
Querkraft auf Ausgangwelle Korrigierungszahlen

Tip *Type* Typ	DR072 DR073	DR172 DR173	DR272-3 DR275-6	DR282-3 DR285-6	DR372-3 DR374-5 DR376	DR472-3 DR474-5 DR476	DR572-3 DR574-5 DR576	DR672-3 DR674-5 DR676	DR772-3 DR774-5 DR776	DR872-3 DR874-5 DR876	DR972-3 DR974-5 DR976
t	116.5	133,5	166	183	198,5	238,5	277,5	344	407,5	485	556
y	91.5	103,5	136	143	158,5	188,5	217,5	274	322,5	380	451
l	50	60	60	80	80	100	120	140	170	210	210



DT...01 — **Giriş Milinde radyal kuvvet hesabı düzeltme katsayıları**
Overhung load correcting values on input shaft
Querkraft auf Eingangwelle korrigierungszahlen

Tip *Type* Typ	DT072-3 DT172-3 DT272-3-5 DT285-6 DT375-6 DT475-6	DT282-3 DT372-3 DT474 DT575-6 DT675-6	DT472-3 DT574 DT674 DT775-6 DT875-6	DT572-3 DT774 DT975-6	DT672-3 DT874	DT772-3 DT974	DT872-3	DT972- 3
t	78	111,5	126	137	215,5	179,5	220,5	261,5
y	58	86,5	96	102	160,5	129,5	165,5	206,5
l	40	50	60	70	110	100	110	110



Radyal Yüklerin Hesabı

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

Calc. Of Overhung Loads

Radial Load Fq(N) is calculated with the following equations where required moment M (Nm) and hoop or gear diameter D (mm) is used.

Berechnung der Querkräfte

Der Fall der radialen Belastung Fq(N) kann mit den angegebenen Gleichungen berechnet werden. Antriebsmoment M (Nm) und Zahnrad- oder Riemenscheiben Durchmesser D (mm).

1

1. Elastik Kaplin
Çalışma sırasında oluşan sapmalar kaplinin güvenlik sınırları içinde ise kuvvetler ihmal edilebilir.

1. Elastic Coupling
If Elastic Coupling is working in its relaible working area, the overhung loads can be neglected.

1. Elastische Kupplung
Wenn die elastische Kupplung in ihren zulässige Arbeits toleranz arbeitet, können die radialen Belastungen vernächlaßigt werden.

2

2. Düz Dişli
(20° kavrama açılı)

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

2. For Spur Gear
(Pressure angle 20°)

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

2. Stirnradgetriebe
(Angriffwinkel=20°)

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

3

3. Küçük Hızlarda Zincir Dişli (z>17)

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

3. For Chain Drive With Low Speed (z>17)

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

3. Kettenantrieb mit niedriger Geschwindigkeit (z>17)

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

4

4. Triger Kayış

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

4. For Trigger Belt

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

4. Zahnriemenantrieb

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

5

5. V Kayış

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

5. For V Belt

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

5. Keilriemenantrieb

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

6

6. Gerdirme Makaralı Kayış

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

6. Flat Belt With Spanning Pulley

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

6. Flachriemenantrieb mit Spannungstrommel

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

Ekstruder Tiplerde Müsade Edilebilir Eksenel Yükler
Permissible Axial Loads for Extruder Types
Zulässige Axialkräfte für Extruder Typ Getriebe

DRE272-273				
n_2	F_{ama} [kN]			
	Ömür / *Lifetime* / Lebensdauer **Lh [saat]** / *[hour]* / [Stunde]			
	40000	**20000**	**10000**	**5000**
20	27.0	33.3	41.0	50.5
30	23.9	29.5	36.3	44.7
40	22.0	27.0	33.3	41.0
50	20.5	25.3	31.1	38.4
65	19.0	23.4	28.8	35.5
80	17.8	22.0	27.0	33.3
100	16.7	20.5	25.3	31.1
120	15.8	19.4	23.9	29.5
140	15.1	18.6	22.9	28.2
160	14.5	17.8	22.0	27.0
180	14.0	17.2	21.2	26.1
200	13.5	16.7	20.5	25.3
220	13.2	16.2	20.0	24.6
240	12.8	15.8	19.4	23.9
260	12.5	15.4	19.0	23.4
280	12.2	15.1	18.6	22.9
300	12.0	14.8	18.2	22.4
320	11.8	14.5	17.8	22.0

DRE282-283				
n_2	F_{ama} [kN]			
	Ömür / *Lifetime* / Lebensdauer **Lh [saat]** / *[hour]* / [Stunde]			
	40000	**20000**	**10000**	**5000**
20	104.8	129.0	158.8	195.6
30	92.7	114.2	140.6	173.2
40	85.1	104.8	129.0	158.8
50	79.6	98.0	120.6	148.5
65	73.5	90.5	111.5	137.3
80	69.1	85.1	104.8	129.0
100	64.6	79.6	98.0	120.6
120	61.2	75.3	92.7	114.2
140	58.4	71.9	88.5	109.0
160	56.1	69.1	85.1	104.8
180	54.2	66.7	82.1	101.1
200	52.5	64.6	79.6	98.0
220	51.0	62.8	77.3	95.2
240	49.7	61.2	75.3	92.7
260	48.5	59.7	73.5	90.5
280	47.4	58.4	71.9	88.5
300	46.5	57.2	70.4	86.7
320	45.6	56.1	69.1	85.1

DRE372-373				
n_2	F_{ama}[kN]			
	Ömür / *Lifetime* / Lebensdauer **Lh [saat]** / *[hour]* / [Stunde]			
	40000	**20000**	**10000**	**5000**
20	104.8	129.0	158.8	195.6
30	92.7	114.2	140.6	173.2
40	85.1	104.8	129.0	158.8
50	79.6	98.0	120.6	148.5
65	73.5	90.5	111.5	137.3
80	69.1	85.1	104.8	129.0
100	64.6	79.6	98.0	120.6
120	61.2	75.3	92.7	114.2
140	58.4	71.9	88.5	109.0
160	56.1	69.1	85.1	104.8
180	54.2	66.7	82.1	101.1
200	52.5	64.6	79.6	98.0
220	51.0	62.8	77.3	95.2
240	49.7	61.2	75.3	92.7
260	48.5	59.7	73.5	90.5
280	47.4	58.4	71.9	88.5
300	46.5	57.2	70.4	86.7
320	45.6	56.1	69.1	85.1

n_2 : **Çıkış Devri [d/dak]** / *Output Speed [rpm]* / Abtriebsdrehzahl [U/min]

DRE472-473				
n_2	F_{ama} [kN]			
	Ömür / *Lifetime* / Lebensdauer **Lh [saat]** / *[hour]* / [Stunde]			
	40000	**20000**	**10000**	**5000**
20	134.5	165.6	203.9	251.1
30	119.0	146.6	180.5	222.3
40	109.2	134.5	165.6	203.9
50	102.1	125.7	154.8	190.7
65	94.4	116.2	143.1	176.2
80	88.7	109.2	134.5	165.6
100	82.9	102.1	125.7	154.8
120	78.5	96.7	119.0	146.6
140	75.0	92.3	113.7	140.0
160	72.0	88.7	109.2	134.5
180	69.5	85.6	105.4	129.8
200	67.3	82.9	102.1	125.7
220	65.4	80.6	99.2	122.2
240	63.8	78.5	96.7	119.0
260	62.2	76.6	94.4	116.2
280	60.9	75.0	92.3	113.7
300	59.6	73.4	90.4	111.3
320	58.5	72.0	88.7	109.2

DRE572-573				
n_2	F_{ama} [kN]			
	Ömür / *Lifetime* / Lebensdauer **Lh [saat]** / *[hour]* / [Stunde]			
	40000	**20000**	**10000**	**5000**
20	172.0	211.8	260.8	321.1
30	152.3	187.5	230.9	284.3
40	139.7	172.0	211.8	260.8
50	130.6	160.8	198.1	243.9
65	120.7	148.7	183.0	225.4
80	113.4	139.7	172.0	211.8
100	106.1	130.6	160.8	198.1
120	100.4	123.7	152.3	187.5
140	95.9	118.1	145.4	179.0
160	92.1	113.4	139.7	172.0
180	88.9	109.5	134.8	166.0
200	86.1	106.1	130.6	160.8
220	83.7	103.1	126.9	156.3
240	81.5	100.4	123.7	152.3
260	79.6	98.0	120.7	148.7
280	77.9	95.9	118.1	145.4
300	76.3	93.9	115.6	142.4
320	74.8	92.1	113.4	139.7

DRE672-673				
n_2	F_{ama} [kN]			
	Ömür / *Lifetime* / Lebensdauer **Lh [saat]** / *[hour]* / [Stunde]			
	40000	**20000**	**10000**	**5000**
20	209.5	258.0	317.7	391.2
30	185.5	228.4	281.3	346.4
40	170.1	209.5	258.0	317.7
50	159.1	195.9	241.3	297.1
65	147.1	181.1	223.0	274.6
80	138.2	170.1	209.5	258.0
100	129.2	159.1	195.9	241.3
120	122.3	150.6	185.5	228.4
140	116.8	143.8	177.1	218.1
160	112.2	138.2	170.1	209.5
180	108.3	133.4	164.2	202.2
200	104.9	129.2	159.1	195.9
220	102.0	125.6	154.6	190.4
240	99.3	122.3	150.6	185.5
260	97.0	119.4	147.1	181.1
280	94.8	116.8	143.8	177.1
300	92.9	114.4	140.9	173.5
320	91.1	112.2	138.2	170.1

n_2 : **Çıkış Devri [d/dak]** / *Output Speed [rpm]* / Abtriebsdrehzahl [U/min]

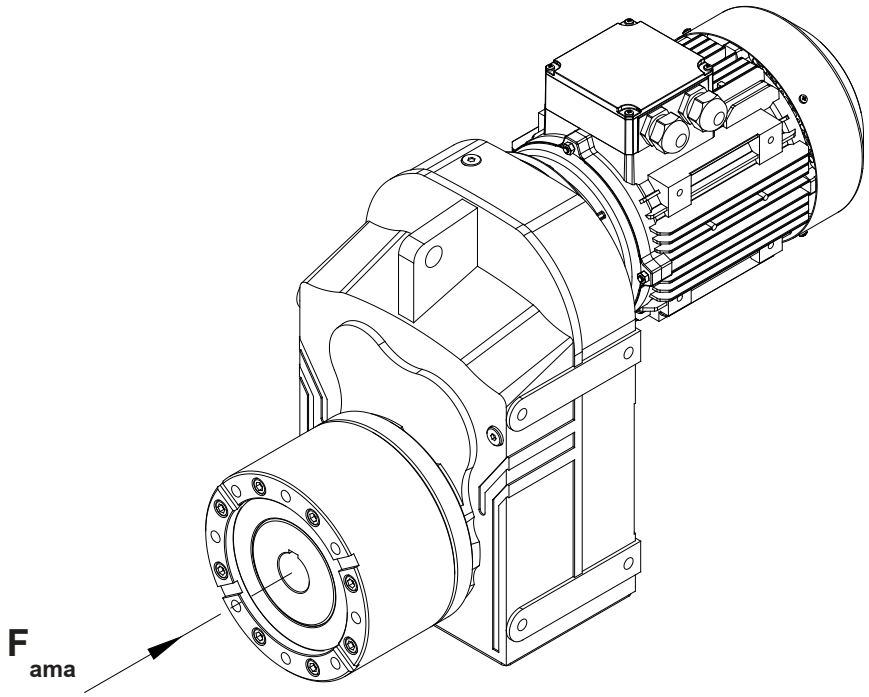
Ekstruder Tiplerde Müsade Edilebilir Eksenel Yükler
Permissible Axial Loads for Extruder Types
Zulässige Axialkräfte für Extruder Typ Getrieben

DRE772-773				
n_2	F_{ama} [kN]			
	Ömür / *Lifetime* / Lebensdauer **Lh [saat]** / *[hour]* / [Stunde]			
	40000	**20000**	**10000**	**5000**
20	350.2	431.3	531.1	653.9
30	310.1	381.8	470.2	579.0
40	284.4	350.2	431.3	531.1
50	266.0	327.5	403.3	496.6
65	245.8	302.7	372.8	459.0
80	231.0	284.4	350.2	431.3
100	216.0	266.0	327.5	403.3
120	204.5	251.8	310.1	381.8
140	195.2	240.4	296.0	364.5
160	187.6	231.0	284.4	350.2
180	181.0	222.9	274.5	338.0
200	175.4	216.0	266.0	327.5
220	170.5	209.9	258.5	318.3
240	166.1	204.5	251.8	310.1
260	162.1	199.6	245.8	302.7
280	158.5	195.2	240.4	296.0
300	155.3	191.2	235.5	290.0
320	152.3	187.6	231.0	284.4

DRE872-873				
n_2	F_{ama} [kN]			
	Ömür / *Lifetime* / Lebensdauer **Lh [saat]** / *[hour]* / [Stunde]			
	40000	**20000**	**10000**	**5000**
20	403.4	496.7	611.7	753.2
30	357.1	439.8	541.5	666.9
40	327.6	403.4	496.7	611.7
50	306.3	377.2	464.5	572.0
65	283.1	348.7	429.3	528.7
80	266.0	327.6	403.4	496.7
100	248.8	306.3	377.2	464.5
120	235.5	290.0	357.1	439.8
140	224.9	276.9	341.0	419.9
160	216.0	266.0	327.6	403.4
180	208.5	256.8	316.2	389.4
200	202.0	248.8	306.3	377.2
220	196.3	241.8	297.7	366.6
240	191.3	235.5	290.0	357.1
260	186.7	229.9	283.1	348.7
280	182.6	224.9	276.9	341.0
300	178.9	220.3	271.2	334.0
320	175.4	216.0	266.0	327.6

DRE972-973				
n_2	F_{ama} [kN]			
	Ömür / *Lifetime* / Lebensdauer **Lh [saat]** / *[hour]* / [Stunde]			
	40000	**20000**	**10000**	**5000**
20	456.5	562.2	692.3	852.5
30	404.2	497.7	612.9	754.7
40	370.7	456.5	562.2	692.3
50	346.7	426.9	525.7	647.4
65	320.4	394.6	485.9	598.3
80	301.1	370.7	456.5	562.2
100	281.6	346.7	426.9	525.7
120	266.6	328.2	404.2	497.7
140	254.5	313.4	385.9	475.2
160	244.5	301.1	370.7	456.5
180	236.0	290.6	357.9	440.7
200	228.7	281.6	346.7	426.9
220	222.2	273.6	336.9	414.9
240	216.5	266.6	328.2	404.2
260	211.3	260.2	320.4	394.6
280	206.7	254.5	313.4	385.9
300	202.4	249.3	307.0	378.0
320	198.6	244.5	301.1	370.7

n_2 : **Çıkış Devri [d/dak]** / *Output Speed [rpm]* / Abtriebsdrehzahl [U/min]



Eşdeğer Güç Hesabı

Sabit devirde, ancak değişken momentlerde (güçlerde) çalışan redüktörler için eşdeğer tork altındaki, eşdeğer güç hesaplanabilir. Bu eşdeğer güç kullanılarak bilinen sabit güçteki redüktör seçim yöntemi kullanılarak seçim yapılabilir. Burada ağırlıklı torka göre eşdeğer anma torku belirlenmektedir. Hesaplanan bu güçte çalışan redüktör, teorik olarak, değişken yüklerde çalışan redüktör ile aynı emniyet değerine ve ömre sahiptir.

Bir çevrim boyunca oluşan değişken torklar, en yüksek torktan, en düşüğe doğru yatay zaman ekseni boyunca sıralanır (bakınız alttaki şekil). Bu şekile göre eşdeğer tork şu formül ile hesaplanır;

$$T_e = \left(\frac{\Delta t_1 \times T_1^{6.6} + ... + \Delta t_n \times T_n^{6.6}}{t}\right)^{\left(\frac{1}{6.6}\right)}$$

Eğer T_n değerleri (en düşük tork), T_e'nin 0,5 katının altında ise, bu tork dilimi yok sayılarak, işlem tekrarlanır;

Eğer $T_n < T_e \times 0.5$ ise

$$T_e = \left(\frac{\Delta t_1 \times T_1^{6.6} + ... + \Delta t_{n-1} \times T_{n-1}^{6.6}}{t - \Delta t_n}\right)^{\left(\frac{1}{6.6}\right)}$$

Tüm T_n değerleri T_e'nin 0,5 katının üzerinde ise, eşdeğer güç aşağıdaki gibi hesaplanır;

$$P_{eq} = P_N = \frac{T_e \times n}{9550}$$

Eşdeğer gücün bulunmasından sonra eşdeğer güç değeri kullanılarak, bu katalogda verilen redüktör seçimi bölümünde anlatılan adımlar uygulanarak redüktör seçimi tamamlanır.

Equivalent Power Rating Calculation

The equivalent power by an equivalent constant torque can be calculated for gearboxes working in constant speed but variable torques (or powers). Using this equivalent power it is possible to make a gearbox selection according the usual gearbox selection method with constant torques. The equivalent torque will be determined according the mean of dominating torques. The gearbox working in constant equivalent torque will theoretically have the same lifetime and safety compared to the variable torque one.
To calculate the equivalent torques, the variable torques in a cycle must be sorted from the maximal to the minimal on a horizontal time line (Check the graphic below). According to the graphic below the equivalent torque can be calculated with the following formula;

$$T_e = \left(\frac{\Delta t_1 \times T_1^{6.6} + ... + \Delta t_n \times T_n^{6.6}}{t}\right)^{\left(\frac{1}{6.6}\right)}$$

If T_n (the lowest torque) is lower than 50 % of T_e, this torque part must be taken out of the torque graph and the calculation must be repeated;

If $T_n < T_e \times 0.5$ then

$$T_e = \left(\frac{\Delta t_1 \times T_1^{6.6} + ... + \Delta t_{n-1} \times T_{n-1}^{6.6}}{t - \Delta t_n}\right)^{\left(\frac{1}{6.6}\right)}$$

If all T_n values are higher then 50% of T_e then the equivalent power can be calculated by the following formula;

$$P_{eq} = P_N = \frac{T_e \times n}{9550}$$

After the equivalent power is determined the selection of gearbox is made according to the selection procedures given on the gearbox selection part in this catalogue.

Berechnung Äquivalenter Leistung

Die äquivalente Leistung bei äquivalenten Drehmoment kann für Getrieben mit konstanten Drehzahl und variablen Momente berechnet werden. Mit dieser Leistung kann das Getriebe ausgelegt werden, wie bei konstanten Leistung. Man bestimmt hiermit also die maßgebende Belastung. Das ausgelegte Getriebe erreicht theoretisch dem gleichen Lebensdauer und hat die gleiche Sicherheit.

Für die Berechnung der äquivalenten Drehmoment müssen die einzelnen Drehmomentanteile auf eine Zeitachse von größten bis zu kleinsten angeordnet werden (siehe unteres Bild). Das äquivalente Drehmoment wird nach folgender Formel berechnet;

$$T_e = \left(\frac{\Delta t_1 \times T_1^{6.6} + ... + \Delta t_n \times T_n^{6.6}}{t}\right)^{\left(\frac{1}{6.6}\right)}$$

Wenn T_n (niedrigstes Drehmoment) kleiner als 50% von T_e ist, muss dieser Anteil vernachlässigt werden und die Berechnung soll neu durchgeführt werden;

Wenn $T_n < T_e \times 0.5$ dann

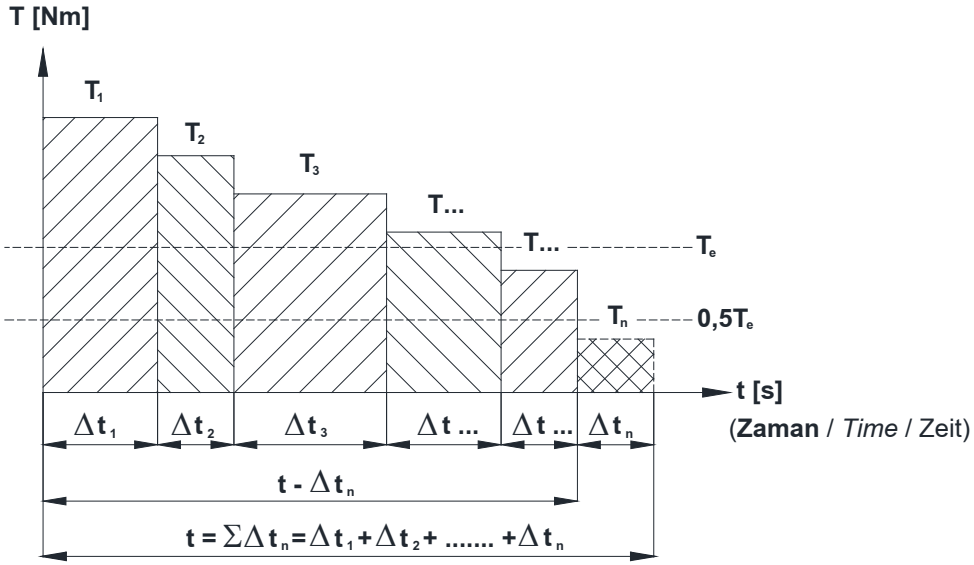
$$T_e = \left(\frac{\Delta t_1 \times T_1^{6.6} + ... + \Delta t_{n-1} \times T_{n-1}^{6.6}}{t - \Delta t_n}\right)^{\left(\frac{1}{6.6}\right)}$$

Wenn alle T_n Werte höher als 50% von T_e sind, dann wird die äquivalente Leistung nach folgender Formel berechnet;

$$P_{eq} = P_N = \frac{T_e \times n}{9550}$$

Nach Bestimmung der äquivalenter Leistung, erfolgt die Getriebeauslegung wie bei konstanter Leistung. Die Auswahlverfahren für konstante Leistung ist in diesem Katalog angegeben.

(**Moment** / *Torque* / Moment)



Eşdeğer Güç Hesabı Örneği

Çift yönlü çalışan ham demir haddesi için aşağıdaki çalışma koşulları belirlenmiş;

Veriler:
Toplam bir iş çevrimi: 2 dak.
1. Yük kademesi: 48 kNm, 30 sn
2. Yük Kademesi: 32 kNm, 22 sn
3. Yük Kademesi: 28 kNm, 15 sn
4. Yük Kademesi: 16 kNm, 10 sn
5. Yük Kademesi: 5 kNm, 43sn
Makina sabit devri: 50 d/dak
Redüktör seçimine esas olacak eşdeğer yük aranmaktadır.

Çözüm:
Bir çevrimin toplam zamanı;

$$t = t_1 + t_2 + t_3 + t_4 + t_5 = 120 \text{ sn}$$

Eşdeğer Tork;

$$T_e = \left(\frac{30 \times 48^{6,6} + \ldots + 43 \times 5^{6,6}}{120}\right)^{\left(\frac{1}{6,6}\right)}$$

=39,2 kNm

%50 eşdeğer tork;

$$0,5 \times T_e = 19,6\text{kNm}$$

Her bir tork dilimi bu değerin üzerinde olmalı

$$T_{4,5} < 0,5 \times T_e$$

%50 torkun altındakileri çıkararak hesabı tekrarlayalım;

$$t' = t_1 - t_4 - t_5 = 120 - 43 - 10 = 67\text{s}$$

$$T_e = \left(\frac{30 \times 48^{6,6} + 22 \times 32^{6,6} + 15 \times 28^{6,6}}{67}\right)^{\frac{1}{6,6}}$$

=42,9 kNm

Moment ve devir değerlerini kullanarak eşdeğer gücümüzü hesaplayalım;

$$P_{eq} = \frac{T_e \times n}{9550} = \frac{42,9 \times 1000 \times 50}{9550} = 225\text{kW}$$

Yukarıdaki güç ve devir değeri kullanılarak bu katalogda anlatılan seçim prosedürü ile redüktör seçimi yapılabilir.

Equivalent Power Rating Sample

The following data is given for a reversing blooming mill;

Torque steps:
Total one cycle time: 2 min.
1st torque part: 48 kNm, 30 s
2nd torque part: 32 kNm, 22 s
3th torque part: 28 kNm, 15 s
4th torque part: 16 kNm, 10 s
5th torque part: 5 kNm, 43 s
Machine constant speed: 50 rpm
The equivalent power, which is required for gear unit selection, is to determine.

Solution:
Total time in a cycle;

$$t = t_1 + t_2 + t_3 + t_4 + t_5 = 120 \text{ sn}$$

Equivalent Torque;

$$T_e = \left(\frac{30 \times 48^{6,6} + \ldots + 43 \times 5^{6,6}}{120}\right)^{\left(\frac{1}{6,6}\right)}$$

=39,2 kNm

50% of Equivalent torque;

$$0,5 \times T_e = 19,6\text{kNm}$$

Every torque part must be lower then this value;

$$T_{4,5} < 0,5 \times T_e$$

We are repeating the calculation by taking out the torque parts, which are below 50%;

$$t' = t_1 - t_4 - t_5 = 120 - 43 - 10 = 67\text{s}$$

$$T_e = \left(\frac{30 \times 48^{6,6} + 22 \times 32^{6,6} + 15 \times 28^{6,6}}{67}\right)^{\frac{1}{6,6}}$$

=42,9 kNm

By using the equivalent torque and constant speed we calculate the equivalent power;

$$P_{eq} = \frac{T_e \times n}{9550} = \frac{42,9 \times 1000 \times 50}{9550} = 225\text{kW}$$

Now by using the above calculated equivalent power and constant speed we camake the gear-box selection with the procedures described in this catalogue.

Beispiel für Äquivalente Leistung

Die nachfolgenden Angaben sind für eine Blechreversierwalze;

Drehmoment stufen:
Gesamte Zeit für einem Arbeitszyklus: 2 min.
Drehmomentanteil 1: 48 kNm 30 s
Drehmomentanteil 2: 32 kNm 22 s
Drehmomentanteil 3: 28 kNm 15 s
Drehmomentanteil 4: 16 kNm 10 s
Drehmomentanteil 5: 5 kNm 43 s
Maschine hat konstante Drehzahl: 50 U/min
Gesucht ist die äquivalente Leistung, die für die Getriebeauslegung nötig ist.

Lösung:
Gesamte Zeit für einem Arbeitszyklus;

$$t = t_1 + t_2 + t_3 + t_4 + t_5 = 120 \text{ sn}$$

Äquivalentes Drehmoment;

$$T_e = \left(\frac{30 \times 48^{6,6} + \ldots + 43 \times 5^{6,6}}{120}\right)^{\left(\frac{1}{6,6}\right)}$$

=39,2 kNm

50% von äquivalenten Drehmoment;

$$0,5 \times T_e = 19,6\text{kNm}$$

Drehmomentanteile müssen größer als dieser Wert sein;

$$T_{4,5} < 0,5 \times T_e$$

Wir wiederholen die Berechnung nochmals ohne die kleine Drehmomentanteile;

$$t' = t_1 - t_4 - t_5 = 120 - 43 - 10 = 67\text{s}$$

$$T_e = \left(\frac{30 \times 48^{6,6} + 22 \times 32^{6,6} + 15 \times 28^{6,6}}{67}\right)^{\frac{1}{6,6}}$$

=42,9 kNm

Mit Hilfe von äquivalenten Drehmoment und konstanter Drehzahl berechnet man die äquivalente Leistung;

$$P_{eq} = \frac{T_e \times n}{9550} = \frac{42,9 \times 1000 \times 50}{9550} = 225\text{kW}$$

Nach Bestimmung der äquivalente Leistung und konstanter Drehzahl, erfolgt die Getriebeauslegung dann wie die Getriebeauswahl gemäß dem in diesem Katalog beschriebenen Verfahren für konstante Leistung.

Genel Bilgiler
General Information
Einführung

Redüktör Seçimi

Bir redüktör seçiminde aşağıdaki yol izlenmelidir.

1. Çalışma şartlarına bağlı olarak servis faktörünü (fs) belirleyiniz. (Servis Faktörü Sayfa 16).

2. Makinanız için gerekli olan momenti belirleyiniz M_2 (redüktör gerekli çıkış momenti).

3. Makinanızın devrini belirleyiniz n_2 (redüktör gerekli çıkış devri).

4. Makinanızın güç ihtiyacını (Redüktör çıkış gücünü) ''P_2'' hesaplayınız.

$$P_2 = \frac{M_2 \times n_2}{9550}$$

5. Redüktör ile makina arasında kullanılan bağlantı elemanına göre radyal yükü hesaplayınız. (Sayfa 20). Yukarıdaki verilere uygun olarak çıkış devri, değerlerine uyan servis faktörü ve radyal yükü bulduğunuzdan daha yüksek veya eşit olan redüktörü, güç-devir seçim tablolarından seçiniz. Helisel tip redüktörlerde verim yüksek olduğundan çıkış gücü verilmemiştir. Hesapladığınız güç değerini giriş gücü olarak kabul edip seçiminizi yapınız. Tablolarda verilen M_2 çıkış momentinin hesapladığınız M_2 den büyük olmasına dikkat ediniz. Eğer seçilen redüktörünki daha ufak ise bir üst motor gücüne geçiniz.

Örnek
1. Makina Cinsi:
Lastik bantlı konveyör , dökme yük taşıyor.

2. Makina için gerekli moment:
Makina için hesaplanan moment
M_2 = 470 Nm.

3. Makina gerekli çıkış devri:
n_2 = 50 dev/dak.

4. Günlük çalışma süresi:
16 saat.

5. Saatte start sayısı:
Saatte 1 start

6. Makina ile bağlantı şekli:
Zincir dişli (çap -130 mm)

- Yük sınıflandırma tablosundan yük sınıfı M olarak seçilir (sayfa 17-18)

- Günlük çalışma süresi 16 saat Saatte start sayısı 1 ve yük sınıfı M'ye tekabül eden servis faktörü tablosundan, servis faktörü için fs= 1.3 değeri bulunur.(sayfa 16)

- Makinanızın güç ihtiyacı (Redüktör Çıkış Gücü) :

$$P_2 = \frac{M_2 \times n_2}{9550} = \frac{470 \times 50}{9550} = 2,46\ kW$$

Gearbox Selection

For the correct selection of the appropriate gear units follow this steps.

1.Determine service factor (fs) on the basis of running conditions (Page 16).

2. Determine the required Torque M_2 (required output torque of gearbox) for the driven machine.
3. Determine required speed (output speed of gearbox) for the driven machine.

4. Calculate the required power for your machine(Calculate power ''P_2'' required at output side of gear reducer using the formula);

$$P_2 = \frac{M_2 \times n_2}{9550}$$

5. Calculate overhung load required at output shaft according to type of connection between gear unit and machine (Refer to directions and values given on page 20). After determining the above mentioned values, the gear reducer which corresponds to our requirements can be selected from the performance tables (the service factor and the permissible overhung load should be less than or equal to our requirement). For Helical gears the output power is not given on the performance tables because they have high efficiency and the output power can be taken as input power. The output torque should be checked if it meets to our requirements. If the output torque is low, search for a higher input power gearbox.

Example:
1. Machine Type:
Belt Conveyor (Bulk Load)

2. Required Torque:
Required Torque calculated for the driven machine is M_2=470 Nm.

3. Required speed:
n_2 = 50 rpm

4. Running time:
16 hours per day

5. Frequency of starting:
1 start per hour

6. Connection type between gear reducer
Chain drive (output dimension-130 mm)

- From the load classification table (on page 17-18), the load class M can be selected for the known application.
- The service factor can be selected as fs =1,3 from the service factor table (page 16) by taking into consideration 16 hours running time, one start per hour, and load class M.

-Required power for your machine(Power at output side of gear reducer) :

$$P_2 = \frac{M_2 \times n_2}{9550} = \frac{470 \times 50}{9550} = 2,46\ kW$$

Getriebeauswahl

Für die korrekte Auswahl des Antriebes;

1. Den Betriebsfaktor(fs) in Abhängigkeit von den Betriebsbedingungen bestimmen.(Bezug auf seite 16).

2. Die erforderte Drehmoment M_2 für die angetriebene Machine (Abtriebsdrehmoment für die Getriebe) bestimmen.
3. Erforderte Drehzahl bestimmen (Abtriebsdrehzahl für die Getriebe).

4. Berechnen der erforderte Leistung der angetriebene Maschine (Die an der Abtriebswelle erforderte Leistung''P_2'') mit der unten angegebenen Formel.

$$P_2 = \frac{M_2 \times n_2}{9550}$$

5. Die an der Getriebeabtriebswelle erforderte Querkraft in Abhängigkeit von Antriebselement bestimmen (Bezug auf Seite 20). Nach Bestimmen der oben angegebenen Werte, die passende Getriebe kann von den angegebenen Leistungstabellen entnommen werden. Dabei soll darauf geachtet werden, dass der Betriebsfaktor und Querkraft stets unterhalb von angegebenen Werten liegt. Weil Stirnradgetrieben einen hohen Wirkungsgrad haben, sind die Abtriebsleistungen für Stirnradgetrieben nicht angegeben. Bei dieser Getrieben die erforderte Leistung kann als Antriebsleistung benutzt werden. Achten sie darauf, dass der Abtriebsmoment größer als die erforderte Drehmoment ist.

Beispiel:
1. Maschinentyp:
Gurtbandförderer (Schüttgut)

2. Erforderte Drehmoment:
Für die Machine berechnete Drehmoment
M_2 = 470 Nm.

3. Erforderte Drehzahl:
n_2 = 50 upm

4. Betriebsdauer:
16 stunden pro Tag

5. Schalthäufigkeit:
1 Start pro Stunde

6. Antriebselement für verbindung
Getriebe-Machine:Kettentrieb(Durchmesser-130 mm)
- Von den Belastungsart Tabellen(Seite 17-18) nimmt man Belastungsart M

- Für den Schaltungzahl 1 und die Laufzeit16 und für den passenden Belastungsart erhält man Betriebsfaktor fs =1,3 von Tabelle auf seite 16.

- Erforderte Leistung der angetriebe Machine (Die an der Getriebeabtriebswelle erforderte Leistung)

$$P_2 = \frac{M_2 \times n_2}{9550} = \frac{470 \times 50}{9550} = 2,46\ kW$$

- Zincir dişli uygulaması için (Sayfa 21) Fq değeri;

$$F_q = \frac{2100 \times M_2}{D} = \frac{2100 \times 470}{130} = 7592\ N$$

- Ortaya çıkan redüktör ihtiyacı

$P_2 \geq$ 2,46 kW
$M_2 \geq$ 470 Nm
fs ≥ 1.3
$n_2 \geq$ 50 d/dak
Fq ≥ 7592 N

Güç ve devir sayfalarından,

DR373-3E100L/4D seçilir (Sayfa 73).

P_2=3kW > 2,46 kW
M_2= 517 Nm > 470 Nm
fs=1,3
n_2=53 d/dak

F_{qam}=16884 Nm > 7592 Nm

i=27,53

- For chain drive application the requested overhang load can be calculated from (page 21).;

$$F_q = \frac{2100 \times M_2}{D} = \frac{2100 \times 470}{130} = 7592\ N$$

- The required gearbox is as follows:

$P_2 \geq$ 2,46 kW
$M_2 \geq$ 470 Nm
fs ≥ 1.3
$n_2 \geq$ 50 rpm
Fq ≥ 7592 N

From the performance table,

DR373-3E100L/4D *selected (Page 73).*

P_2=3kW > 2,46 kW
M_2= 517 Nm > 470 Nm
fs=1,3
n_2=53 rpm

F_{qam}=16884 Nm > 7592 Nm

i=27,53

- Für Kettentrieb die erforderte Querkraft (seite 21);

$$F_q = \frac{2100 \times M_2}{D} = \frac{2100 \times 470}{130} = 7592\ N$$

- Von den oben angegebenen Berechungen die erforderte Getriebe ist wie folgt;

$P_2 \geq$ 2,46 kW
$M_2 \geq$ 470 Nm
fs ≥ 1.3
$n_2 \geq$ 50 U/min
Fq ≥ 7592 N

Von der Leistung- DrahzahlTabelle ,

wurde **DR373-3E100L/4D** gewählt (Seite 73).

P_2=3kW > 2,46 kW
M_2= 517 Nm > 470 Nm
fs=1,3
n_2=53 U/min

F_{qam}=16884 Nm > 7592 Nm

i=27,53

Redüktör Seçim Formu

Kullanıldığı Sektör.....
Kullanıldığı Yer.....
Gerekli Ortalama Devir.....d/dak

Makina ihtiyaç gücü:
-Normal..... kW
-En çok..... kW
-En az..... kW

Tahrik Şekli:
AC Motor [ ]
AC Motor + Invertör [ ]
DC Motor [ ]
Hidromotor [ ]
1-3 silindirli içten yanmalı [ ]
2-4 silindirli içten yanmalı [ ]

Motor Bağlantı Şekli (Elektrik Motorları):
IEC B5 Flanşlı [ ]
NEMA Flanşlı [ ]
B3 Ayaklı [ ]

IEC veya NEMA flanş kodu. .....

Motor Gücü:
-Nominal..... kW

Motor Devri:
-Normal..... d/dak
-En çok..... d/dak
-En az..... d/dak

Motor Torku:
-Normal..... Nm
-En çok..... Nm
-En az..... Nm

Dönüş şekli:
saat yönü [ ] saat yönüne ters [ ] değişken [ ]

Günlük çalışma süresi:
<4 [ ] 4-8 [ ] 8-16 [ ] >16 [ ]

Saatdeki start sayısı:
0-50 [ ] 50-100 [ ] 100-200 [ ]
200-300 [ ] 300-500 [ ] 500-700 [ ]
700-1000 [ ] >1000 [ ]

Motor Redüktör Arası Tahvil Oranı.....

Kalkış için gerekli moment.....Nm

Saatdeki pik moment adedi:
1-5 [ ] 6-30 [ ] 31-100 [ ] >100 [ ]

Bir çevrimde aktif çalışma oranı (ED):
%100 [ ] %80 [ ] %60 [ ] 40% [ ] %20[ ]

Deniz seviyesinden yükseklik:
<1000 [ ] <2000 [ ] <3000 [ ]
<4000 [ ] <5000 [ ]

Montaj yeri:
Küçük kapalı oda (w<1m/sn) [ ]
Kapalı oda (w<3m/sn) [ ]
Büyük oda ve holler (w>=3m/sn) [ ]
Tamamen açık ortam [ ]

Çevre Şartları:
Normal [ ] Tozlu [ ] Nemli [ ]
Korozif [ ] Kuru [ ]

Çevre Sıcaklığı:
Ortalama..... ^{0}C
En Yüksek..... ^{0}C
En Düşük..... ^{0}C

Kilit İhtiyacı:
Var [ ] Yok [ ]

Redüktör Giriş Opsiyonu:
R..[ ] V..[ ] N..[ ] T..[ ]

Redüktör Çıkış Opsiyonu:
00 [ ] 01 [ ] 02 [ ] 03 [ ] 0S [ ]

Montaj Pozisyonu:
M1 [ ] M2[ ] M3[ ] M4 [ ] M5 [ ] M6 [ ]

Giriş mili bağlantı şekli:
Elastik kaplin [ ]
Fıçı tipi kaplin [ ]
Rijit kaplin [ ]
Hidrolik Kaplin [ ]
Kayış kasnak [ ]
Zincir dişli [ ]
Pinyon dişli [ ]
Bağlantı elemanı çapı.....mm
Radyal yükü.....N
Radyal yük "u" mesafesi.....mm
Aksiyal yükü (mile doğru +).....N

Çıkış mili bağlantı şekli:
Elastik kaplin [ ]
Fıçı tipi kaplin [ ]
Rijit kaplin [ ]
Kayış kasnak [ ]
Zincir dişli [ ]
Pinyon dişli [ ]
Delik milli tork kollu [ ]
Sıkma bilezikli tork kollu [ ]
Bağlantı elemanı çapı.....mm
Radyal yükü.....N
Radyal yük "u" mesafesi.....mm
Aksiyal yükü (mile doğru +).....N

Redüktör bağlantı yeri:
Gövde [ ] Flanş [ ] Tork kolu [ ]

Çıkış Mili Özelliği:
Dolu Mil Kamalı [ ]
Dolu Mil Kamasız [ ]
Delik Milli Sıkma Bilezikli [ ]
Delik Milli [ ]
Özel Mil [ ]

Giriş Mili Özelliği:
Kamalı [ ]
Kamasız düz mil [ ]
Özel Mil [ ]

Tork kolu [ ] Var [ ] Yok

Elektrik Gerilimi:
AC-Monofaze [ ] AC-Trifaze [ ] DC [ ]
Voltaj.....Volt
Frekans.....Hz

Koruma Sınıfı:
IP55 [ ] IP65 [ ] Exproof [ ]
Diğer IP.....

Ekler:
Yük diyagramı [ ]
Proje [ ]
İstenen ana boyutlar [ ]
Teknik veriler [ ]

Diğer Notlar:

Gearbox Selection Form

Field of Industry.....
Application.....
Required Average Speed..... rpm

Required Power on Driven Machine:
-Normal..... kW
-Maximum..... kW
-Minimum..... kW

Driving Machine:
AC Motor [ ]
AC Motor + Inverter [ ]
DC Motor [ ]
Hydraulic Motor [ ]
Piston Engine with 1-3 cylinder [ ]
Piston Engine with 4-24 cylinder [ ]

Motor Connection Type (Electric Motors):
IEC B5 Flange [ ]
NEMA Flange [ ]
B3 Foot Mounted [ ]

IEC or NEMA Flange Code.....

Motor Power:
-Nominal.....kW

Motor Speed:
-Normal.....rpm
-Maximum.....rpm
-Minimum.....rpm

Motor Torque:
-Normal.....Nm
-Maximum.....Nm
-Minimum.....Nm

Direction of Rotation:
cw [ ] ccw [ ] variable [ ]

Working hours per day:
<4 [ ] 4-8 [ ] 8-16 [ ] >16 [ ]

Startings per cycle:
0-50 [ ] 50-100 [ ] 100-200 [ ]
200-300 [ ] 300-500 [ ] 500-700 [ ]
700-1000 [ ] >1000 [ ]

Transmission ratio between motor and gear unit.....

Required Starting Torque.....Nm

Peak torques per hour:
1-5 [ ] 6-30 [ ] 31-100 [ ] >100 [ ]

Effective working time in a cycle (ED):
%100 [ ] %80 [ ] %60 [ ] 40% [ ]
20%[ ]

Altitude:
<1000 [ ] <2000 [ ] <3000 [ ]
<4000 [ ] <5000 [ ]

Mounting Place:
Small closed room (w<1m/sn) [ ]
Closed room (w<3m/sn) [ ]
Big rooms and halls (w>=3m/sn) [ ]
Outdoor [ ]

Ambient Conditions:
Normal [ ] Dusty [ ] Humid [ ]
Corrosive [ ] Dry [ ]

Ambient Temperature:
Average.....^{0}C
Maximum.....^{0}C
Minimum.....^{0}C

Backstop Required:
Yes [ ] No [ ]

Gearbox input options:
R..[ ] V..[ ] N..[ ] T..[ ]

Gearbox output options:
00 [ ] 01 [ ] 02 [ ] 03 [ ] 0S [ ]

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

Input Shaft Connection Type:
Elastic Coupling [ ]
Barrel Type Coupling [ ]
Hydraulic Coupling [ ]
Rigid Flange Coupling [ ]
Pulley [ ]
Chain Sprocket [ ]
Pinion [ ]
Diameter of Connection element.....mm
Radial Load.....N
“u” Distance of Radial Load.....mm
Axial Load (Towards Shaft +) .....N

Output Shaft Connection Type:
Elastic Coupling [ ]
Barrel Type Coupling [ ]
Rigid Flange Coupling [ ]
Pulley [ ]
Chain Sprocket [ ]
Pinion [ ]
Hollow Shaft with Torque Arm [ ]
Schrinc disc with Torque Arm [ ]
Diameter of Connection Element.....mm
Radial Load.....N
“u” Distance of Radial Load.....mm
Axial Load (Towards Shaft) .....N

Gearbox assembled by:
Housing [ ] Flange [ ] Torque Arm [ ]

Output Shaft Specification:
Solid Shaft with Keyway [ ]
Solid Shaft without Keyway [ ]
Hollow Shaft with Shrinc Disc [ ]
Hollow Shaft [ ]
Special Shaft [ ]

Input Shaft Specification:
Solid Shaft with Keyway [ ]
Solid Shaft without Keyway [ ]
Special Shaft [ ]

Torque arm required Yes[ ] No[ ]

Electrical Supply:
AC-1 Phase [ ] AC-3 Phase [ ] DC [ ]
Voltage.....Volt
Frequency..... Hz

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

Attachments:
Load Diagram [ ]
Project [ ]
Required Dimensions [ ]
Technical Specifications [ ]

Notes:

Genel Bilgiler
General Information
Einführung

Formular für Getriebeauswahl

Industriebereich.....
Anwendung.....
Erforderliche Drehzahl.....U/min

Erforderliche Leistung für die Maschine:
-Normal.....kW
-Minimal.....kW
-Maximal.....kW

Antriebsmaschine:
AC Motor [ ]
AC Motor mit Frequenzumrichter [ ]
DC Motor [ ]
Hydromotor [ ]
Kolbenmachinen mit 1-3 Zylinder [ ]
Kolbenmachinen mit 2-4 Zylinder [ ]

Motorverbindungsart (Elektromotoren):
IEC B5 Flansch [ ]
NEMA Flansch [ ]
B3 Fussausführung [ ]

IEC oder NEMA Flanschkode.....

Motorleistung:
-Nominal.....kW

Motordrehzahl:
-Normal.....U/min
-Maximal .....U/min
-Minimal.....U/min

Motordrehmoment:
-Normal.....Nm
-Maximal.....Nm
-Minimal.....Nm

Drehrichtung:
in Uhrzeigersinn [ ] gegen Uhrzeigersinn[ ]
veränderlich [ ]

Betriebsdauer in Stunden pro Tag:
<4 [ ] 4-8 [ ] 8-16 [ ] >16 [ ]

Anzahl der Anläufe pro Stunde:
0-50 [ ] 50-100 [ ] 100-200 [ ]
200-300 [ ] 300-500 [ ] 500-700 [ ]
700-1000 [ ] >1000 [ ]

Übersetzung zwischen Motor und Antriebswelle.....

Erforderliches Anlaufmoment.....Nm

Häufigkeit von Lastspitzen pro Stunde:
1-5 [ ] 6-30 [ ] 31-100 [ ] >100 [ ]

Einschaltdauer je Stunde (ED):
%100 [ ] %80 [ ] %60 [ ] 40% [ ] %20 [ ]

Höhenlage über Meeresspiegel (m):
<1000 [ ] <2000 [ ] <3000 [ ]
<4000 [ ] <5000 [ ]

Betriebsort:
Kleine geschlossene Räume (w<1m/sn) [ ]
Geschlossene Räume (w<3m/sn) [ ]
Große Räume und Hallen (w>=3m/sn) [ ]
im Freien [ ]

Umgebungsbedingungen:
Normal [ ] Staubig [ ] Feucht [ ]
Korrodierend [ ] Trocken [ ] Verklebend [ ]

Umgebungstemperatur:
Mittelwert ..... ^{0}C
Maximal.....^{0}C
Minimal.....^{0}C

Rücklaufsperre erforderlich:
Ja [ ] Nein [ ]

Getriebeeingangsvarianten:
R..[ ] V..[ ] N..[ ] T..[ ]

Getriebeausgangsvarianten:
00 [ ] 01 [ ] 02 [ ] 03 [ ] 0S [ ]

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

Antriebswellenanschluss:
Elastische Kupplung [ ]
Trommelkupplung [ ]
Hydrokupplung [ ]
Starre Flanschkupplung [ ]
Keilriementrieb [ ]
Kettenrad [ ]
Ritzel [ ]
Durchmesser von Anschlusselement.....mm
Querkraft.....N
“u” Abstand von der Wellenschulter.....mm
Axialkraft (in Richtung der Welle +) .....N

Abtriebswellenanschluss:
Elastische Kupplung [ ]
Trommelkupplung [ ]
Starre Flanschkupplung [ ]
Keilriementrieb [ ]
Kettenrad [ ]
Ritzel [ ]
Hohlwelle mit Drehmomentstütze [ ]
Schrumpfscheibe mit Drehmomentstütze [ ]
Durchmesser von Anschlusselement.....mm
Querkraft.....N
“u” Abstand von der Wellenschulter.....mm
Axialkraft (in Richtung der Welle +) .....N

Montage zur Getriebegehäuse mit:
Gehäuse [ ] Flansch [ ] Drehmomentstütze [ ]

Eigenschaften der Abtriebswelle:
Vollwelle mit Passfeder [ ]
Vollwelle ohne Passfeder [ ]
Sonderwelle [ ]
Hohlwelle mit Schrumpfscheibe [ ]
Hohlwelle [ ]

Eigenschaften der Antriebswelle:
Vollwelle mit Paßfeder [ ]
Vollwelle ohne Paßfeder [ ]
Sonderwelle [ ]

Drehmomentstütze erforderlich Ja[ ] Nein[ ]

Spannungsversorgung:
AC-1 phasig [ ] AC-3 phasig [ ] DC [ ]
Spannung.....Volt
Frequenz.....Hz

Schutzart:
IP55 [ ] IP65 [ ] Exproof [ ]
Andere IP.....

Anhang:
Lastdiagramm [ ]
Projekt [ ]
Erforderliche Abmessungen [ ]
Technische Spezifikationen [ ]

Andere Merkmale:

Genel Bilgiler
General Information
Einführung

Yağlama

Redüktörlerin uzun ömürlü olması ve iyi performansla çalışabilmesi için, kullanılan yağın seçimi doğru olmalı ve belirtilen zamanlarda değişimleri yapılmalıdır.

Yağın seçiminde devir, çevre sıcaklığı, redüktör yağ sıcaklığı, çalışma koşulları ve yağ ömrü önem taşımaktadır. Redüktörler yağı doldurulmuş olarak sevkedilmektedir. Redüktörler uzun süre depolanacakları zaman veya çalışmaya başlanacağı zaman çalışma konumuna göre üstte kalan tapa sökülmeli ve redüktörün beraberinde verilen havalandırma tapası kullanılmalıdır. Bu redüktörün iç basıncından dolayı oluşacak yağ sızmalarını önleyecektir.

Redüktörlerde standart olarak kullanılan yağlar 33. sayfadaki tabloda verilmiştir. Miktarlar ve yağ tipi burada verilen değerlerden farklılık gösterebilir. Redüktörünüzde kullanılan yağın tipi ve miktarı için lütfen etiketine bakınız. Eğer Siparişte belirtilmezse D Serisi Redüktörler M1 montaj pozisyonuna göre yağ ile doldurulur. Bu pozisyonlar dışındaki çalışma durumlarında tablolarda verilen yağ miktarlarına göre ilave veya eksiltme yapılmalıdır. Özel çalışma koşullarında firmamıza danışmanız tavsiye edilir.

Mineral yağlar her 10.000 çalışma saatinde, sentetik yağlar ise her 20.000 çalışma saatinde değiştirilmelidir. Ağır çevre koşullarında (ani ısı değişiklikleri, yüksek nemlilik v.b) yağ değiştirme periyotlarının kısaltılması tavsiye edilir. Mineral yağlar ile sentetik yağlar birbirine kesinlikle karıştırılmamalıdır. Değiştirme işlemi bir çalışma periyodunun hemen peşinden ve yağ sıcakken yapılmalıdır. Bu şekilde bir değiştirme, redüktör içindeki partiküllerin yağa karışmış olarak bulunmasından dolayı iyi bir temizleme ve yağın rahat boşalması neticesini verecektir.

Lubrication

To work in perfect condition and to have long life for the gearbox the lubricant must be chosen correctly and changed in time.

In selection of oil it is important to consider speed, ambient temperature, gear box oil temperature, working conditions and the life required from the lubricant. All units are filled with lubricant before shipping. Before the gearbox is stored for a long time or before starting up, the top plug (according to the working position) must be removed and the extra given vent plug must be replaced. This prevents excessive pressure which causes oil leakages.

The lubricant in the standard line is given for standard fillings on the table page 33. Please look at your gear units label for filled oil type and quantity. If the mounting position not indicated on order, D Series gearboxes are filled with mounting position of M1 . For other mounting positions please filling oil or draining oil refer to the table given on the next pages. For special working conditions please contact us.

The mineral lubricant should be changed after every 10.000 service hours and the synthetic lubricant should be changed after every 20.000 working hours. If the operation conditions are very heavy (e.g. high temperature differences, high humidity) shorter intervals between changes are recommended. Mineral and synthetic oils must not be mixed up. By changing the lubricant complete cleaning is advised. The oil change should be done after a working period. Because oil is hot in this condition and impurities are mixed with it the changing of oil will be done in best result and the oil will drain easily.

Schmierung

Um eine lange Lebensdauer zu gewährleisten muss der Schmierstoff richtig ausgewählt werden.

Für die richtige Ölauswahl müssen Drehzahl, Umgebumgstemparatur, Belastungsart und Lebensdauer des Öls berücksichtigt werden. Die mitgelieferte Entlüftungsschraube ist vor Inbetriebnahme oder längeren Lagern gegen die Einfüllschraube auszutauchen, um einen Überdruck im Getriebe und damit eine Undichtigkeit des Getriebes zu vermeiden. Getriebe und Getriebemotoren sind bei Auslieferung betriebsfertig gefüllt.

Ohne besondere Bestellangaben werden die Getriebe grundsätzlich mit den auf der Seite 33 in der grau unterlegten Spalte angegebenen Schmierstoffen gefüllt. Bitte im Getriebe verwendetes Öl und menge von dem Namenschild ablesen. Die fußbefestigten Getriebe sind befüllt für Bauform und die flanschbefestigten Getriebe für Bauform M1. Für andere Bauformen sind die auf der nächsten Seite agegebenen Füllmengen zu beachten.

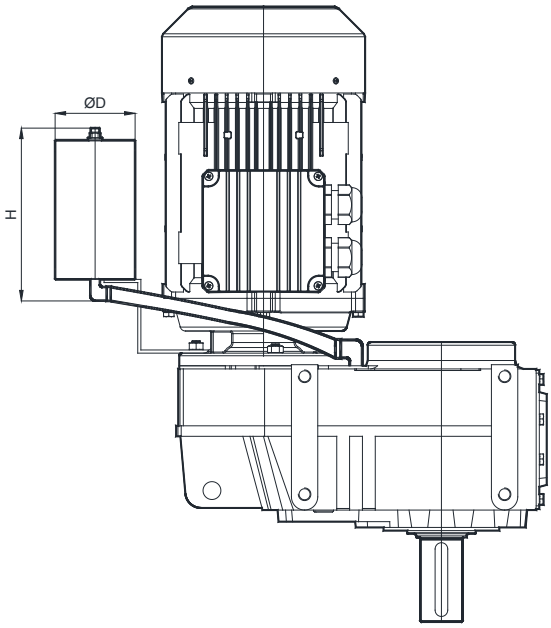
Ein Schmierstoffwechsel sollte alle 10.000 Betriebsstunden durchgeführt werden. Für synthetische Produkte verdoppeln sich diese Fristen. Bei extremen Betriebsbedingungen, z.B. hohe Luftfeuchtigkeit, aggresiver Umgebung und hohen Temparatur-schwankungen sind kürzere Schmierstoffintervalle vorteilhaft. Es ist enpfehlenswert, dem Schmierstoffwechsel mit einer gründlichen Reinigung des Getriebes zu verbinden. Synthetische und mineralische Schmierstoffe dürfen nicht miteinander vermischt werden. Das Ablassen des Öls soll unmittelbar nach dem stilsetzen erfolgen, solange das Öl noch warm ist. In dieser Zustand ist das Öl mit den Smutzpartickeln vermischt, so dass eine Entfernung des Altöls eine gute Reinigung garantiert.

M4 Montaj Pozisyonu için Genleşme Tankı / *Expansion Tank for M4 Mounting Position* / Ölausgleichsbehälter für M4 Bauform

Aşağıdaki teknik resimde gösterildiği gibi montaj pozisyonları **M4** (montaj pozisyonları syf.34) olan redüktörlerde düzgün bir yağlama sağlanabilmesi için yağ seviyesinin redüktörün üst dişlilerinin yağlanabileceği seviyede olması gerekmektedir. Buda düşük çevrim oranlı redüktörlerde köpürme ve genleşme nedeniyle havalandırma tapasından yağ atılmasına neden olabilmektedir.
Yılmaz redüktör ; bunun önlenebilmesi için çevrim oranı (i) < 20 ve D47'den daha büyük olan bütün gövdelerde **M4** montaj pozisyonunda genleşme tankı kullanılmasını kesinlikle önermektedir. Önerilen genleşme tankı ölçüleri aşağıdaki tabloda gösterilmiştir.
Çevrim oranı (i) < 20 olup giriş motor devri 1800 d/d dan büyük olan bütün redüktörlerde **M4** montaj pozisyonunda genleşme tankı kullanılması redüktör büyüklüğüne bakılmaksızın önerilmektedir.

*As you can see at the technical drawing below, for gear units with **M4** (mounting positions p. 34) mounting position, oil level is very high for proper lubrication of upper pinion gear and this leads to oil leakage from venting plug, because of foaming and expansion of oil at geared motors with ratios below 20.*
*We ; Yılmaz Redüktör, strongly recommend using expansion tank for **M4** mounting position for gear units D57, D67, D77, D87 and D97 with total ratios (i) below 20, to prevent this.*
You can find the recommended dimensions of expansion tanks below.
*If your gear units total ratio (i) is below 20 and input speed is higher then 1800 rpm we recommend using of expansion tank for all gear unit sizes for **M4** mounting position.*

Wie in der folgenden technischen Zeichnung dergestellt ist, sollte der Ölstand auf der gleichen Höhe der ersten Getriebestufe sein, um eine ausreichende Schmierung des oberen Zahnrads bei der **M4** Bauform (s. Seite 34) sicher zu stellen. Aufgrund dieeses höhen Ölstands bildet sich Ölschaum aus, welcher aus der Entlüftungsschraube austritt.
Um das verhindern zu müssen, empfiehlt Yılmaz Redüktör bei allen D-Serie Getrieben ab Getriebebaugröße D57 mit niedrigen Übersetzungen (i<20) einen Ölausgleichsbehälter bei der **M4** Bauform einzusetzen. Die empfehlenen Dimensionen des Ölausgleichsbehälters sind in der unteren Tabelle angegeben.
Bei Getrieben mit Übersetzungen (i<20) und bei Motor-Eingangsdrehzahlen>1800 min^{-1} empfiehlt Yılmaz Redüktör einen Ölausgleichsbehälter unabhängig von der Getriebebaugröße einzusetzen.

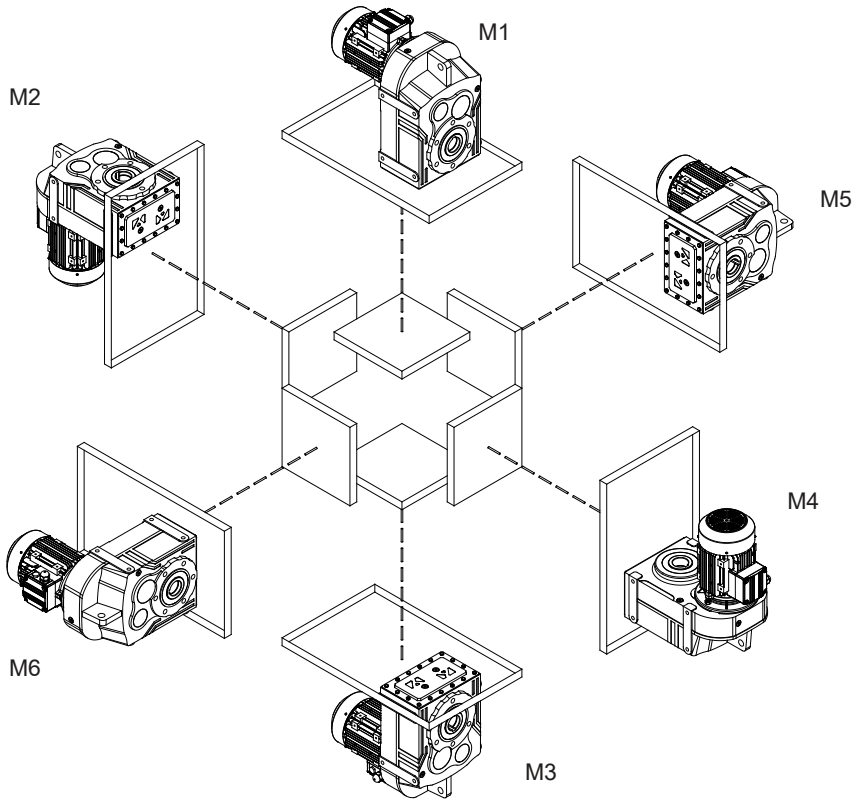


Gövde Büyüklüğü *Housing Size* Größe der Gehäuse	**Genleşme Tankı** *Expansion Tank* Ölausgleichsbehälter	**D [mm]**	**H [mm]**	**Ağırlık [kg]** *Weight]kg]* Gewicht [kg]
D57..	G1	100	150	4
D67.. , D77..	G2	150	250	5
D87.. , D97..	G3	180	400	9

Yağ Tipleri / *Oil Types* / Schmierstoffe

Yağ Cinsi *Lubricant* Art des Schmier-stoffes	DIN 51517-3	Çevre Sıcaklığı [ºC] *Ambient Temp. [ºC]* Umgebungstemp. [ºC] / Daldırma Yağlama *Dip Lubrication* Tauchschmierung	ISO VG	Aral	Beyond Petroleum	Castrol	Klüber Lubrication	Mobil	Shell	Total
Mineral Yağlar *Mineral Oil* Mineralöl	CLP	0 ... +50	680	Degol BG 680	Energol GR-XP 680	Alpha SP 680	Klüberoil GEM 1-680 N	Mobilgear XMP 680	Omala S2 GX 680	Carter EP 680
		-5 ... +45	460	Degol BG 460	Energol GR-XP 460	Alpha SP 460	Klüberoil GEM 1-460 N	Mobilgear XMP 460	Omala S2 GX 460	Carter EP 460
		-10 ... +40	320	Degol BG 320	Energol GR-XP 320	Alpha SP 320	Klüberoil GEM 1-320 N	Mobilgear XMP 320	Omala S2 GX 320	Carter EP 320
		-15 ... +30	220	Degol BG 220	Energol GR-XP 220	Alpha SP 220	Klüberoil GEM 1-220 N	Mobilgear XMP 220	Omala S2 GX 220	Carter EP 220
		-20 ... +20	150	Degol BG 150	Energol GR-XP 150	Alpha SP 150	Klüberoil GEM 1-150 N	Mobilgear XMP 150	Omala S2 GX 150	Carter EP 150
		-25... +10	100	Degol BG 100	Energol GR-XP 100	Alpha SP 100	Klüberoil GEM 1-100 N	Mobilgear XMP 100	Omala S2 GX 100	Carter EP 100
Sentetik Yağlar *Synthetic Oil* Synthetisches Öl	CLP PG	-10 ... +60	680	Degol GS 680	Energsyn SG-XP 680	–	Klübersynth GH 6 -680	Mobil Glygoyle 680	Omala S4 WE 680	Carter SY 680
		-20 ... +50	460	Degol GS 460	Energsyn SG-XP 460	Aphasyn PG 460	Klübersynth GH 6 -460	Mobil Glygoyle 460	Omala S4 WE 460	Carter SY 460
		-25 ... +40	320	Degol GS 320	Energsyn SG-XP 320	Aphasyn PG 320	Klübersynth GH 6 -320	Mobil Glygoyle 320	Omala S4 WE 320	Carter SY 320
		-30 ...+30	220	Degol GS 220	Energsyn SG-XP 220	Aphasyn PG 220	Klübersynth GH 6 -220	Mobil Glygoyle 30	Omala S4 WE 220	Carter SY 220
		-35 ... +20	150	Degol GS 150	Energsyn SG-XP 150	Aphasyn PG 150	Klübersynth GH 6 -150	Mobil Glygoyle 22	Omala S4 WE 150	Carter SY 150
		-40 ... +10	100	–	–	–	Klübersynth GH 6 -100	Mobil Glygoyle 100	–	–
	CLP HC	-10 ... +60	680	–	–	–	Klübersynth GEM 4-680 N	Mobil SHC Gear 680	Omala S4 GXV 680	Carter SH 680
		-20 ... +50	460	Degol PAS 460	Enersyn EP-XF 460	Alphasyn T 460	Klübersynth GEM 4-460 N	Mobil SHC Gear 460	Omala S4 GXV 460	Carter SH 460
		-40 ... +40	320	Degol PAS 320	Enersyn EP-XF 320	Alphasyn T 320	Klübersynth GEM 4-320 N	Mobil SHC Gear 320	Omala S4 GXV 320	Carter SH 320
		-40 ... +40	220	Degol PAS 220	Enersyn EP-XF 220	Alphasyn T 220	Klübersynth GEM 4-220 N	Mobil SHC Gear 220	Omala S4 GXV 220	Carter SH 220
		-40 ... +40	150	Degol PAS 150	Enersyn EP-XF 150	Alphasyn T 150	Klübersynth GEM 4-150 N	–	Omala S4 GXV 150	Carter SH 150
		-40 ... +40	100	–	–	–	Klübersynth GEM 4-100 N	–	Omala S4 GXV 100	–
Gıda Uyumlu Yağ *Food Grade Oil* Lebensmittelöl	CLP NSF H1	-30 ... +25	220	–	–	Optileb GT 220	Klüberoil 4 UH1-220 N	Mobil SHC Cibus 220	Cassida Fluid GL-220	Nevastane SL 220
Çevre Dostu Yağ *Biodegradable Oil* Biologisch abbaubares Öl	CLP E	-25 ... +40	320	–	–	Tribol BioTop 1418-320	Klübersynth GEM 2-320	–	–	Carter Bio 320
Mineral Gresler [-20 .... +130 Çalışma Sıcaklığı ºC] *Mineral Grease [-20 .... +130 Working Temperature ºC]* Mineral-Fett [-20 .... +130 Betriebstemperatur ºC]				Aralub HL3	Energrease LS 3	Spheerol AP3	Centoplex 2 EP	Mobilux EP 3	Gadus S2 V100 3	Multis Complex EP 2
Sentetik Gresler [-30 .... +130 Çalışma Sıcaklığı ºC] *Synthetic Grease [-30 .... +130 Working Temperature ºC]* Synthetisches Fett [-30 .... +130 Betriebstemperatur ºC]				–	Energrease SY 2202	–	Petamo GHY 133 N	Mobiltemp SHC 100	Gadus S5 V100 2	Multis Complex SHD 220

Montaj Pozisyonları / *Mounting Positions* / Bauformen



M1....M6 'ya kadar belirtilen montaj pozisyonları redüktörün duruş yönü referans alınarak belirlenmiştir. Montaj yüzeyleri bağlayıcı değildir.

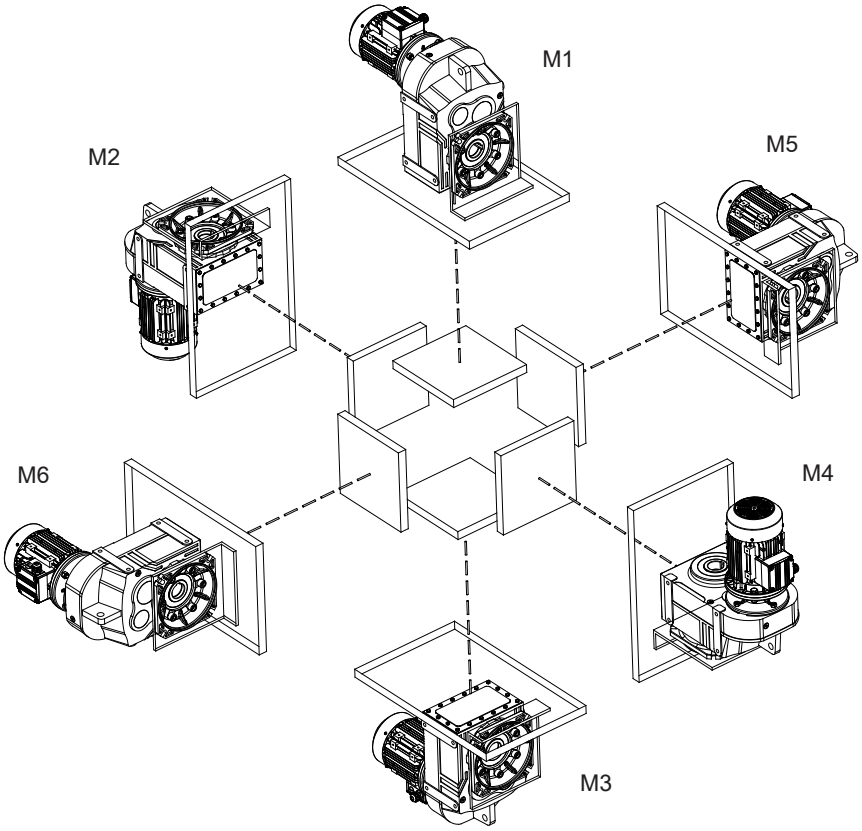
Figured mounting positions of M1 to M6 are determined as reference of directional position of the gearbox. Mounting surfaces are not binding.

Dargestellte Montagepositionen M1 bis M6 wurden nach der Stehrichtung von Getriebe bestimmt. Montageoberflächen sind unverbindlich.

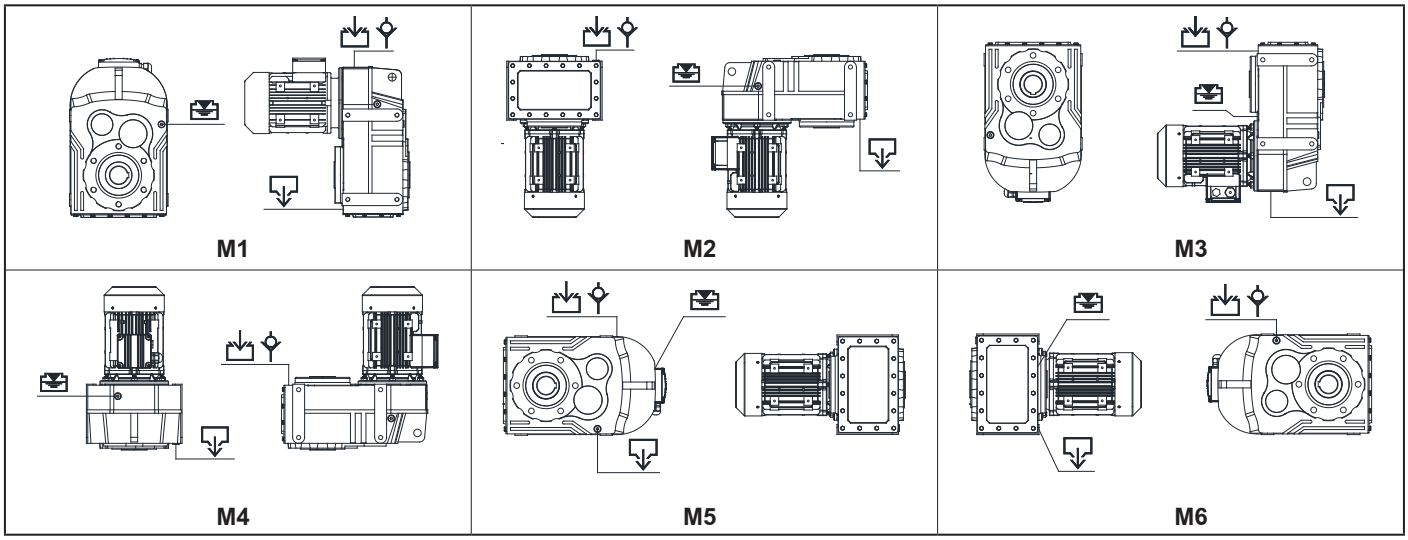
M1....M6 'ya kadar belirtilen montaj pozisyonları redüktörün duruş yönü referans alınarak belirlenmiştir. Montaj yüzeyleri bağlayıcı değildir.

Figured mounting positions of M1 to M6 are determined as reference of directional position of the gearbox. Mounting surfaces are not binding.

Dargestellte Montagepositionen M1 bis M6 wurden nach der Stehrichtung von Getriebe bestimmt. Montageoberflächen sind unverbindlich.



İki Üç Kademeli Helisel Dişli Delik Milli Redüktörler Yağ Seviye Tapaları
Two -Three Stage Helical Geared Hollow shaft Gearboxes Oil Level Plugs
Zwei-Dreistufig Stirnradgetriebe mit Hohlwelle Ölverschlußschrauben



Yağ Miktarları (lt) / *Oil Quantities (lt) / Ölmengen (lt)*

Tip / *Type* / Typ	**M1**	**M2**	**M3**	**M4**	**M5**	**M6**
DR072	0.95	1.1	0.8	1.1	1.0	0.9
DR073	0.9	1.0	0.7	1.0	0.9	0.85
DR172	1.3	1.5	1.0	1.6	1.4	1.3
DR173	1.0	1.3	0.8	1.55	1.2	1.2
DR272	1.9	2.2	1.3	2,5	2.0	1.95
DR273	1.8	2.0	1.2	2.0	2.0	2.0
DR282	2.4	3.0	2.0	2.9	2.7	2.7
DR283	2.3	2.9	1.8	2.6	2.3	2.5
DR372	3.2	3.7	2.4	3.6	3.5	3.4
DR373	3.0	3.7	2.0	3.5	3.3	3.3
DR472	6.8	7.0	4.6	7.5	6.5	6.5
DR473	6.4	7.0	4.0	6.6	6.5	6.5
DR572	11.4	12.7	8.6	15,0	11.9	11.6
DR573	11.2	12.4	8.0	12.5	11.5	11.5
DR672	22.0	27.0	16.0	27.0	22.8	22.5
DR673	21.0	25.2	14.0	26.5	21.5	21,0
DR772	34.0	37.0	26.0	44.0	35.0	34.5
DR773	32.0	35.0	21.0	40.0	33.0	32.5
DR872	53.0	58.0	43.0	67.0	55.0	54.0
DR873	48.5	53.0	39.0	61.0	50.0	49.0
DR972	87.0	113.0	80.5	117.0	97.0	95.0
DR973	84.0	110.0	77.0	112.0	93.0	89.0

Semboller :
Symbols :
Symbole :

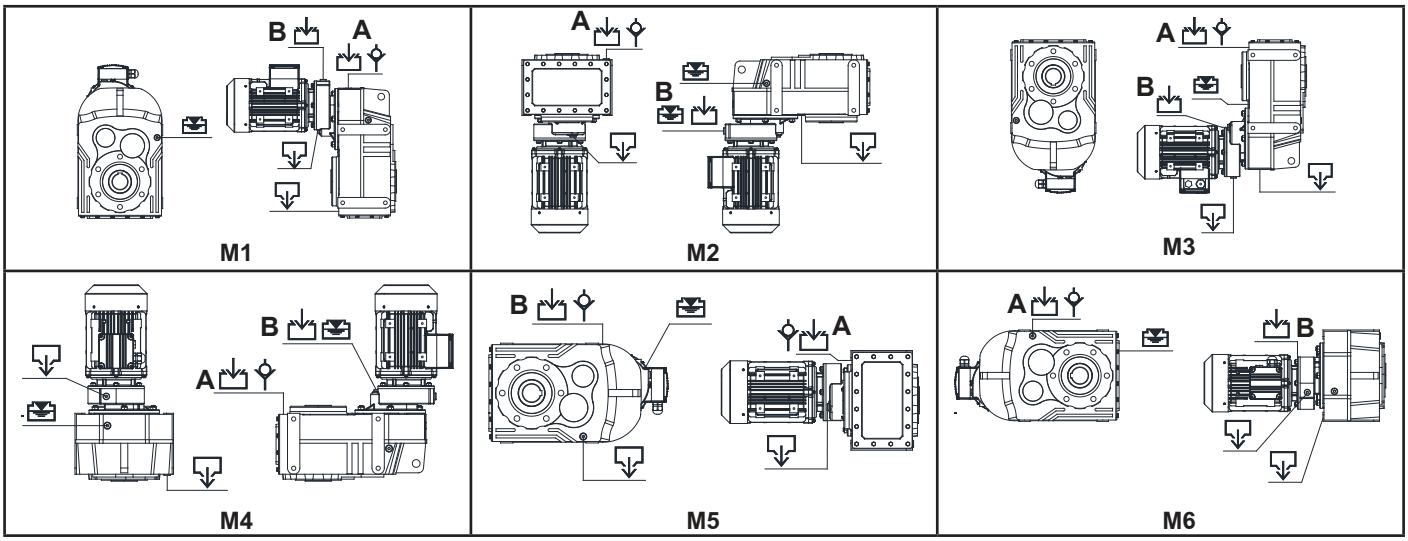
:Yağ doldurma
:Oil filling
:Ölfüllung

:Yağ boşaltma
:Drain plug
:Ölauslass

:Yağ seviyesi
:Oil level
:Ölstand

:Havalandırma
:Vent Plug
:Entlüftungschraube

Dört Kademeli Helisel Dişli Delik Milli Redüktörler Yağ Seviye Tapaları
Four Stage Reduction Helical Hollow Shaft Gearboxes Oil Level Plugs
Vierstufig Stirnradgetriebe mit Hohlwelle Ölverschlußschrauben



Yağ Miktarları (lt) / *Oil Quantities (lt) / Ölmengen (lt)*

Tip /*Type* / Typ	**M1** A / B	**M2** A / B	**M3** A / B	**M4** A / B	**M5** A / B	**M6** A / B
DR474	6.4/ 0.25	7.0 / 0.25	4.0 / 0.25	6.6 / 0.25	6.5 / 0.25	6.5/ 0.25
DR574	11.2 / 0.4	12.4 / 0.4	8.0 / 0.4	12.5 / 0.4	11.5 / 0.4	11.5 / 0.4
DR674	21.0 / 0.5	25.2 / 0.5	14.0 / 0.5	26.5 / 0.5	21.5 / 0.5	21.0 / 0.5
DR774	32.0 / 0.9	35.0 / 0.9	21.0 / 0.9	40.0 / 0.9	33.0 / 0.9	32.5 / 0.9
DR874	48.5 / 3.5	53.0 / 3.5	39.0 / 3.5	61.0 / 3.5	50.0 / 3.5	49.0 / 3.5
DR974	84.0 / 5.0	110.0 / 5.0	77.0 / 5.0	112.0 / 5.0	93.0 / 5.0	89.0 / 5.0

Semboller :
Symbols :
Symbole :

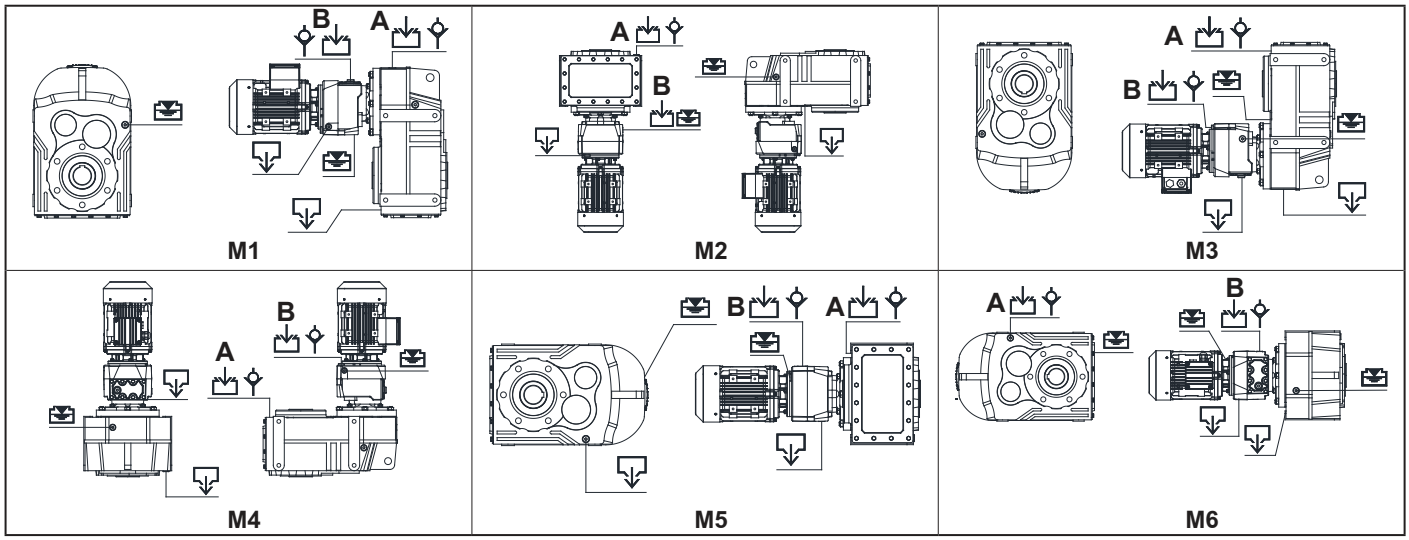
:Yağ doldurma
:Oil filling
:Ölfüllung

:Yağ boşaltma
:Drain plug
:Ölauslass

:Yağ seviyesi
:Oil level
:Ölstand

:Havalandırma
:Vent Plug
:Entlüftungschraube

Beş-Altı Kademeli Helisel Dişli Delik Milli Redüktörler Yağ Seviye Tapaları
Five-Six Stage Helical Geared Hollow Shaft Gearboxes Oil Level Plugs
Fünf-Sechsstufig Stirnradgetriebe mit Hohlwelle Ölverschlußschrauben



Yağ Miktarları (lt.) /*Oil Quantities. (lt)* / Ölmengen (lt.)

Tip / *Type* / Typ	**M1** A / B	**M2** A / B	**M3** A / B	**M4** A / B	**M5** A / B	**M6** A / B
DR275	1.8 / 0.4	2.0 / 0.6	1.2 / 0.5	2.0 / 0.6	2.0 / 0.5	2.0 / 0.5
DR276	1.8 / 0.35	2.0 / 0.5	1.2 / 0.5	2.0 / 0.55	2.0 / 0.4	2.0 / 0.4
DR285	2.3 / 0.4	2.9 / 0.6	1.8 / 0.5	2.6 / 0.6	2.3 / 0.5	2.5 / 0.5
DR286	2.3 / 0.35	2.9 / 0.55	1.8 / 0.5	2.6 / 0.55	2.3 / 0.4	2.5 / 0.4
DR375	3.0 / 0.4	3.7 / 0.6	2.0 / 0.5	3.5 / 0.6	3.3 / 0.5	3.3 / 0.5
DR376	3.0 / 0.35	3.7 / 0.55	2.0 / 0.5	3.5 / 0.55	3.3 / 0.4	3.3 / 0.4
DR475	6.4 / 0.65	7.0 / 0.95	4.0 / 0.7	6.6 / 0.95	6.5 / 0.7	6.5 / 0.7
DR476	6.4 / 0.6	7.0 / 0.8	4.0 / 0.7	6.6 / 0.8	6.5 / 0.65	6.5 / 0.65
DR575	11.2 / 1.2	12.4 / 2.1	8.0 / 2.0	12.5 / 2.1	11.5 / 1.4	11.5 / 1.4
DR576	11.2 /1.1	12.4 / 2.0	8.0 / 1.9	12.5 / 2.0	11.5 / 1.3	11.5 / 1.3
DR675	21.0 / 1.2	25.2 / 2.1	14.0 / 2.0	26.5 / 2.1	21.5 / 1.4	21.0 / 1.4
DR676	21.0 / 1.1	25.2 / 2.0	14.0 / 1.9	26.5 / 2.0	21.5 / 1.3	21.0 / 1.3
DR775	32.0 / 2.0	35.0 / 3.4	21.0 / 3.1	40.0 / 3.4	33.0 / 2.8	32.5 / 2.8
DR776	32.0 / 1.9	35.0 / 3.3	21.0 / 3.0	40.0 / 3.3	33.0 / 2.6	32.5 / 2.6
DR875	48.5 / 2.0	53.0 / 3.4	39.0 / 3.1	61.0 / 3.4	50.0 / 2.8	49.0 / 2.8
DR876	48.5 / 1.9	53.0 / 3.3	39.0 / 3.0	61.0 / 3.3	50.0 / 2.6	49.0 / 2.6
DR975	84.0 / 4.5	110.0 / 7.5	77.0 / 7.5	112.0 / 7.5	93.0 / 5.5	89.0 / 5.5
DR976	84.0 / 4.0	110.0 / 7.0	77.0 / 7.0	112.0 / 7.0	93.0 / 5.0	89.0 / 5.0

Semboller :
Symbols :
Symbole :

:Yağ doldurma
:Oil filling
:Ölfüllung

:Yağ boşaltma
:Drain plug
:Ölauslass

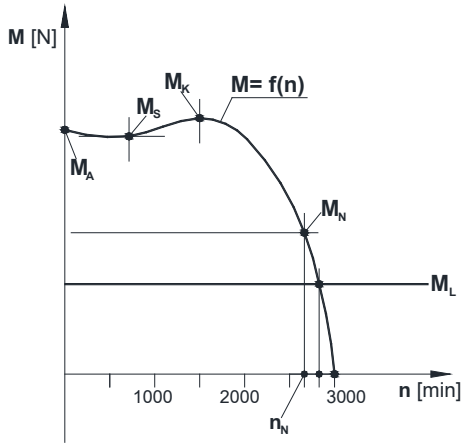
:Yağ seviyesi
:Oil level
:Ölstand

:Havalandırma
:Vent Plug
:Entlüftungschraube

MOTORLAR
AC Motorlar
a- Genel Özellikler:
Basit konstrüksiyonlu, bakım gerektirmez, güvenirliği yüksek ve uygun fiyatlı olmaları nedeni ile trifaze asenkron motorlar en çok kullanılan motor cinsidir. Bu motorların çalışma karekteristikleri moment-hız eğrisi ile belirlenir. Aşağıda bu karekteristik eğrisine bir örnek verilmiştir.

MOTORS
AC Motors
a- General Specifications:
On account of its simple and maintenance free construction, good reliability and price, the three phase squirrel cage motor is one of the most frequently employed electric motors. The run up behavior of a three phase squirrel cage motor is described by the torque-speed characteristic curve. An example is shown below.

MOTOREN
Drehstrommotoren:
a- Allgemeine Eigenschaften
Wegen die wartungsarme und leichte Konstruktion, hohe Sicherheit bei Nutzung und günstige Preise werden die asynchrone Drehstrommotoren am meisten benutzt. Motoranlaufverhalten wird mit Moment-Drehzahl-Kurve charakterisiert. Ein Beispiel ist unten angegeben.



M_A: Start momenti / *Starting torgue* / Anlaufmoment

M_S: Demeraj momenti / *Pull-up torgue* / Anziehungsmoment

M_K: Frenleme momenti / *Pull -out torgue* / Bremsungsmoment

M_N: Motorun ilettiği moment / *Motor rated torque* / Treibmoment

M_L: Yük momenti / *Load torque* / Lastmoment

Motorun her start yapılmasında bu eğriye uygun hareket eder ve yük momenti M_L ile bu eğrinin çakıştığı nokta, motorun çalışma anındaki moment ve devirini verir.

Statorun manyetik alanı senkron hızla n_s döner. Kutuplar arasındaki faz kayması 3 fazlı motorlarda 120° *'dir.*

$$n_s = 120 \times \frac{f}{p_s}$$

f.....: şebeke frekansı [Hz]
p_s.....: statorun kutup sayısı

Rotorun değişken manyetik alanı rotorun statorun manyetik alanının dönüşü yönünde dönmeye başlamasını sağlar. Rotor bu hareketinde statorun manyetik alanını takip eder ama hiçbir zaman yakalayamaz. Rotor statorun manyetik alanının hızından yavaş döner. Rotorun bu hızına baz hız n_N denir. Yükün azalması rotorun hızının artmasını sağlar, aynı zamanda sapma azalmış olur. Sapma aşağıdaki gibi belirlenmiştir:

$$s = \frac{n_s - n_N}{n_s} \times 100$$

Sapmanın miktarına göre motorun nominal değerlerinde şu farklılıklar olabilir.
Sapma s .....:± 20%
Kalkış Akımı.....:± 20%
Kalkış Momenti.....:-15 /+25 %
Kütle Atalet Momenti.....:± 10%
Verim (37 kW'a kadar).....:-0,15 (1-η)

The motor follows this torque characteristics up to its stable operating point every time, when it is switched on. Operating point is that point, where the moment speed curve intersects with load torque M_L line.
The magnetic field in the stator rotates at a synchronous speed n_s. Phase shift of each pole is 120° at 3 phase motors.

$$n_s = 120 \times \frac{f}{p_s}$$

f.....: supply frequency [Hz]
p_s.....: number of stator poles

Because of the alternating magnetic field in the rotor, the rotor starts running in the same direction of the stator flux and tries to catch up with the rotating flux. The rotor never catches up the stator field. The rotor runs slower than the speed of the stator field. This speed is called the base speed n_N.
A decrease in load will cause the rotor to speed up or decrease slip. The slip is defined as follows:

$$s = \frac{n_s - n_N}{n_s} \times 100$$

According to the slip, the nominal values of the electric motor can alter as follows:
Slip s .....:± 20%
Starting current .....:± 20%
Starting torque .....:-15 /+25 %
Moment of inertia.....:± 10%
Efficiency (up to 37 kW).....:-0,15 (1-η)

Der Drehstrommotor läuft diese Kurve bei jeder Anlauf, bis dem stabilen Betriebspunkt erreicht wird. Betriebspunkt ist der Zustand, bei dem die Moment-Drehzahl-Kurve sich mit der Linie von erforderlichen Moment M_L schneidet.
Magnetisches Feld von Stator dreht sich mit synchroner Geschwindigkeit n_s. Phasen-verschiebung von den Polen ist 120° bei 3 phasigen Drehstrommotoren.

$$n_s = 120 \times \frac{f}{p_s}$$

f.....: Frequenz der Spannung [Hz]
p_s.....: Anzahl der Polen von Stator

Durch das magnetische Wechselfeld in den Rotor, beginnt der Rotor sich in der gleichen Richtung des Statorflusses zu drehen und versucht diese Bewegung aufzuholen. Der Rotor kann den Statorfeld nie aufholen. Die Rotorgeschwindigkeit nennt man Basisgeschwindigkeit n_N. Eine Abnahme der Belastung bewirkt, dass der Rotor sich beschleunigt und der Schlupf sich verringert. Der Schlupf wird wie folgt definiert:

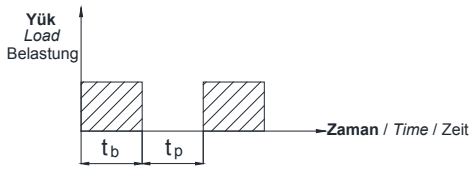
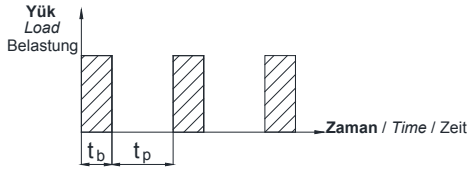
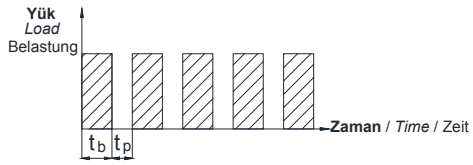
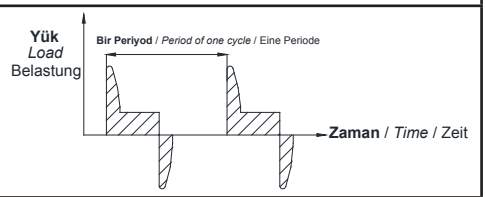
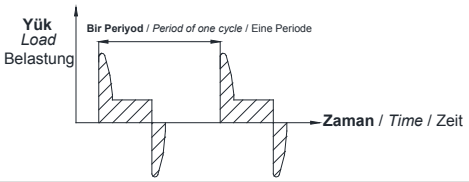
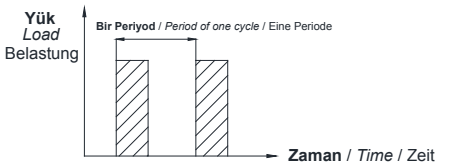
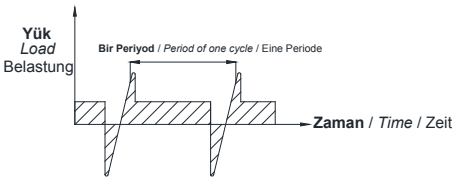
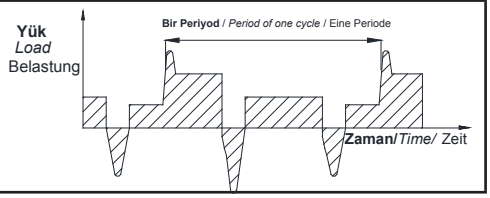
$$s = \frac{n_s - n_N}{n_s} \times 100$$

Für die nominale Werte der Drehstrommotoren sind folgende Abweichungen zulässig:
Schlumpf s .....:± 20%
Anzugsstrom .....:± 20%
Anzugsmomet .....:-15 /+25 %
Massentägheitsmoment .....:± 10%
Wirkungsgrad (bis 37 kW).....:-0,15 (1-η)

b- Çalışma Türleri
Katalogta verilen tüm redüktörlerin motorları S1 çalışma türüne uygun verilmektedir. Diğer çalışma türleri aşağıdaki tabloda gösterilmiştir.

b-Modes of Operation
All motors of the catalogue have been laid out for duty S1 (continuous operation). Other duty types are given on the following table.

b-Betriebsarten
Die im Katalog angeführten Motoren sind für Betriebsart S1 (Dauerbetrieb) ausgelegt. Andere Betriebsarten sind unten angegeben.

Çalışma Türü *Operation* Betriebsarten	**Açıklama** *Explanation* Erläuterung	**Yük Grafiği** *Load Graphic* Lastverläufe
S1	**Sabit yükte sürekli çalışma** *Continuous operation under constant load* Dauerbetrieb mit konstanter Belastung	
S2	**Sabit yükte kısa süreli çalışma** *Short-time duty under constant load* Kurzbetrieb mit konstanter Belastung	
S3	**Yolvermede sıcaklık artımı olmadan periyodik çalışma** *Periodic duty without influence of start-up on temperature* Aussetzbetrieb ohne Einfluß des Anlaufens auf die Temparatur	
S4	**Yolvermede sıcaklık artımı olan periyodik çalışma** *Periodic duty with influence of start up on temperature* Aussetzbetrieb mit Einfluß des Anlaufes auf die Temparatur	
S5	**Yolvermede ve frenlemede sıcaklık artımlı periyodik çalışma** *Periodic duty with influence of startup and braking on temp.* Aussetzbetrieb mit Einfluß des Anlaufens / Bremsung auf die Temp.	
S6	**Sürekli orta darbeli çalışma** *Continuous operation with intermittent loading* Durchlaufbetrieb mit Ausetzungsbelastung	
S7	**Elektriksel frenlemeli sürekli orta darbeli çalışma** *Continuous operation with intermittent loading and breaking* Ununterbrochener Betrieb mit Anlauf und Bremsung	
S8	**Devir ve yük değişimli sürekli çalışma** *Continuous operation duty type with related load-speed changes* Ununterbrochener periodischer Betrieb mit Drehzahländerung	

c- Koruma Sınıfı:
Yılmaz Redüktörde standart olarak IP54 (IEC 34-5) koruma sınıflı motorlar kullanılmaktadır. Diğer koruma sınıfları istendiğinde firmamıza danışınız.

d- İzolasyon Sınıfı:
Yılmaz Redüktörde kullanılan standart izolasyon sınıfı F (IEC 317-8) dir. İstek üzerine H sınıfı yapılabilmektedir.

e- Verim Sınıfları:
Üç fazlı az gerilim asenkron motorların verim sınıfı ölçümü IEC 60034-2-1:2007 normu ile belirlenmiştir. Yeni IE verim sınıfı 0,75 kW'tan 375 kW'a kadar güç aralığında çalışan AC motorlar için geçerlidir. EFF verim sınıfından farklı olarak IE verim sınıfı 6 kutup sayılı motorlar içinde kullanılabilir. Aşağıda verim sınıfları sıralanmıştır. Bölgeler dışında verim sınıfı zorunlulukları ülkelere görede farklılık gösterebilir. Lütfen firmamıza danışınız. Başka ürünlere entegre olmuş ve bu nedenle motorun veriminin bağımsız belirlenemediği sistemlerde (redüktör pompa gibi) verim sınıflandırması geçerli değildir.

c- Protection Class:
Yilmaz Reduktor uses IP54 (IEC 34-5) protection class electric motors for standard products. If different kind of protection class is requested please contact us.

d- Insulation Class:
Yilmaz Reduktor uses F (IEC 317-8) insulation class electric motors for standard products. H insolation class is available upon request.

e- Efficiency Classes:
The method for measuring the efficiency of low voltage three-phase asynchronous motors was revised with the new IEC 60034-2-1:2007 standard. The new IE classes is valid for AC Motors in power range from 0,75 to 375 kW. Unlike the EFF classes IE classes can be used for 6-pole AC motors. Bellow is the table of efficiency classes. The instructions for efficiency classes can differ from country to country. Please contact with us for more information. For the motors, which are fully integrated into a product (for example gear, pump) so their energy efficiency can not be recognized independently, the requirements of efficiency are not valid in Europe.

c- Schutzarten:
Yilmaz Reduktor Getriebemotoren werden serienmäßig mit Schutzart IP54 (IEC34-5) ausgeführt. Für andere Schutzarten bitte rückfragen.

d- Isolationsklasse:
Yilmaz Reduktor Getriebemotoren werden serienmäßig in Wärmeklasse F (IEC317-8) ausgeführt. H Wärmeklasse ist möglich auf Kundenwunsch.

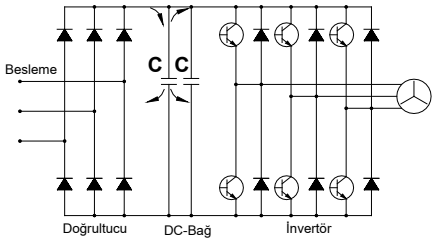
e- Energieeffizienzklassen:
Die Methode für Messung die Effizienz von drei phasigen gering Spannung Asynchronmotoren hat neu mit IEC 60034-2-1:2007 Norm festgestellt. Die neue IE-Klassen gelten für alle Drehstrommotoren im Leistungsbereich von 0,75 bis 375 kW. Anders als EFF-Klassen die IE-Klassen können auch für 6-polige Drehstrommotoren verwendet werden. Unten steht die Tabelle der Effizienzklassen. Die Richtlinien für Effizienzklassen können sich je nach dem Land unterscheiden. Bitte mit unserem Firma Kontakt aufnehmen. Für die Motoren, die vollständig in ein Produkt (zum Beispiel Getriebe, Pumpe) eingebaut sind und deren Energieeffizienz nicht unabhängig von diesem Produkt erfasst werden kann, gelten in Europa die Anforderungen der Effizienzklassen nicht.

Verim Sınıfları *Efficiency Classes* Energieeffizienzklassen			**4 Kutuplu Motor Verim Değeri Hesabı** *Calculating Efficiency Values of Motors with 4 Poles* Berechnung der Wirkungsgrade von Elektromotoren mit 4 Polen	
IE1	EFF 2	**Standart Verim** *Standart Efficiency* Standarte Energieeffizienz	A=0,5234 B=-5,0499 C=17,4180 D=74,3171	$\eta_{Mn} = A \times [\log_{10}(P_L)] + B \times [\log_{10}(P_L)]^2 + C \times \log_{10}(P_L) + D$
IE2	EFF 1	**Yüksek Verim** *High Efficiency* Hohe Energieeffizienz	A=0,0278 B=-1,9247 C=10,4395 D=80,9761	P_L :**Anma Yükü [kW]** / *Nominal Load [kW]* / Nennlast [kW] η_{Mn} :**Nominal verim** / *Nominal Efficiency [kW]* / Sollwirkungsgrad
IE3	-	**Premium Verim** *Premium Efficiency* Premium Energieeffizienz	A=0,0773 B=-1,8951 C=9,2984 D=83,7025	
IE4	-	**Süper Premium Verim** *Super Premium Efficiency* Super Premium Energieeffizienz	-	

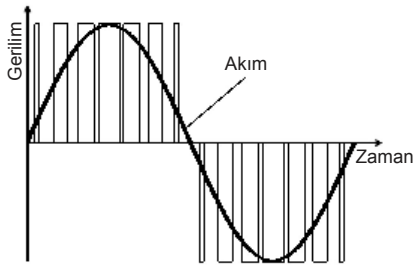
4 Kutuplu Motor Verim Değerleri *Efficiency Values of Motor with 4 poles* Sollwirkungsgrad des Motors mit 4 Polen	**Anma Yükü [kW]** *Nominal Load [kW]* Nennlast [kW]	**Verim Sınıfı** / *Efficiency Class* / Energieeffizienzklasse		
		IE1	IE2	IE3
	0,75	72,1 %	79,6 %	82,5 %
	1,5	77,2 %	82,8 %	85,3 %
	3	81,5 %	85,5 %	87,7 %
	7,5	86 %	88,7 %	90,4 %
	15	88,7 %	90,6 %	92,1 %
	22	89,9 %	91,6 %	93 %
	37	91,2 %	92,7 %	93,9 %
	45	91,7 %	93,1 %	94,2 %
	75	92,7 %	94 %	95 %
	90	93 %	94,2 %	95,2 %
	330	94 %	95,1 %	96 %

f- AC Frekans İnvertörler

Doğru Akımı (DC), alternatif akıma (AC) çeviren elektronik çeviricilere invertör denilmektedir. AC motorlar için elektronik hız kontrol cihazları genellikle AC giriş akımını doğrultucu diyotlarla DC akıma çevirir ve daha sonra çevirici diyotlar vasıtası ile bu akımı tekrar AC akıma çevirir. Doğrultucu diyotlar ile çevirici diyotlar arasındaki bağlantı DC-bağ olarak tanımlanmaktadır. DC kontrol cihazının (genellikle invertör olarak isimlendirilir) elektriksel blok şeması aşağıda verilmiştir.

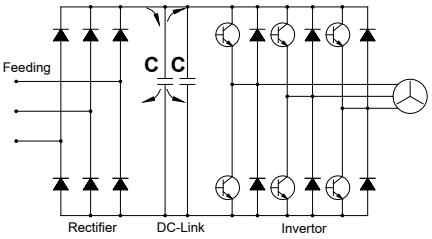


Tam dalga doğrultucuları besleyen üç faz besleme akımı DC-bağ kapasitörlerine iletilir. Kapasitörler voltajdaki dalgalanmaları azaltır ve kısa süreli ağdaki akım kesintilerinde enerji sağlar. Kapasitörlerdeki voltaj kontrolsüzdür ve gelen AC akımın pik akım değerlerine bağlıdır. DC akım tekrar AC akıma, Puls genişliği modulasyonu (PWM) kulanılarak çevrilir. İstenen dalga formu, sabit bir frekansta (Puls frekansında), çıkış transistörlerinin (İzole edilmiş geçit Bipolar transistörleri; IGBT 'ler) açılıp kapatılması ile oluşturulur. IGBT'lerin açma kapama zamanlarının değişimi ile istenen akım oluşturulabilir. Çıkış voltajı bir seri kare dalga pulslardır ve motor sargılarının indüktansı ile sinusodial bir motor akımı oluşur. Puls genişliği modulasyonu aşağıda gösterilmiştir.

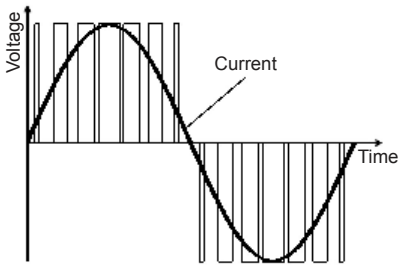


f- AC Frequency Inverters

An electronic converter is a device which converts Direct Current (DC) to Alternating Current (AC) is known as an inverter. Electronic speed controllers for AC motors usually convert the AC supply to DC using a rectifier, and then convert it back to a variable frequency, variable voltage AC supply using an inverter bridge. The connection between the rectifier and inverter is called the DC link. The block diagram of a speed controller (often called an inverter) is shown below.

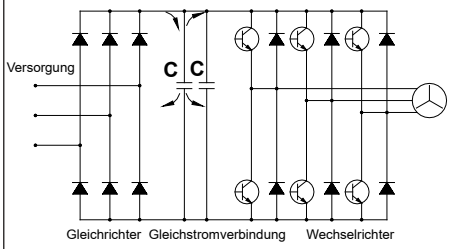


The three phase supply is fed into a full wave rectifier which supplies the DC link capacitors. The capacitors reduce the voltage ripple (especially on single supplies) and supply energy for short mains breaks. The voltage on the capacitors is uncontrolled and depends on the peak AC supply voltage. The DC voltage is converted back to AC using Pulse Width Modulation (PWM). The desired waveform is built up by switching the output transistors (Insulated Gate Bipolar Transistors; IGBTs) on and off at a fixed frequency (the switching frequency). By varying the on and off time of the IGBTs the desired current can be generated. The output voltage is still a series of square wave pulses and the inductance of the motor windings results in a sinusodial motor current. Pulse Width Modulation is shown in the figure below.

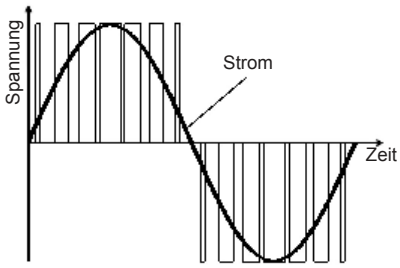


f- AC Frequenz Umrichter

Ein elektronischer Wandler, der den Gleichstrom (DC) in Wechselstrom (AC) umwandelt, wird als Umrichter bezeichnet. Ein Frequenzumrichter benutzt einen ungesteuerten Eingangsgleichrichter, um die Netzspannung in Gleichspannung umzuwandeln. Diese wird dann in den Zwischenkreiskondensatoren gespeichert. An diesem Gleichspannungszwischenkreis ist ein Wechselrichter angeschlossen. Dieser Wechselrichter erzeugt am Ausgang eine variable Frequenz und eine variable Spannung. Der Anschluss zwischen dem Gleichrichter und dem Wechselrichter nennt man Gleichstromverbindung. Das Blockschaltbild von diesem System wurde unten dargestellt:



Auch bei dreiphasiger Versorgung wird die gleichrichtete Netzspannung den Zwischenkreiskondensatoren zugeführt. Die Kondensatoren reduzieren die Oberwelligkeit der Spannung (was besonders bei einphasiger Versorgung entscheidend ist) und liefern Energie, die kurze Unterbrechungen der Netzstromversorgung ermöglicht. Die Spannung der Kondensatoren ist vom Spitzenwert der Wechselspannung abhängig. Die Gleichspannung wird im Wechselrichter durch Pulsweitenmodulation (PWM) in Wechselspannung umgewandelt. Die gewünschte Wellenform wird durch Ein- und Ausschalten der Ausgangstransistoren (IGBT's Isolierte Gate Bipolar Transistoren) mit einer festen Frequenz (der Pulsfrequenz) erzeugt. Der gewünschte Strom kann durch die Variation der Ein- und Ausschaltzeit der Ausgangstransistoren generiert werden. Die Ausgangsspannung ist dadurch eine Reihe von Spannungsimpulsen, die in Verbindung mit der Induktivität der Motorspulen zu einem sinusförmigen Motorstrom führt. Die Pulsweitenmodulation wird wie folgt dargestellt



DC MOTORLAR

a- Genel Özellikler

DC motorlar, elektronik parçalardaki gelişmeler nedeni ile yeni uygulama alanları bulmuştur. Daha önce çok pahalı olan ve ekonomik olmayan kontrol sistemlerinin yerini ucuz ve kompakt güç kontrol üniteleri almıştır. Yol vermenin kontrol altına alınabildiği, tork ve akım izlenebilirliği, aşırı yüklenmeye karşı elektronik koruma sağlanabilmesi ve daha birçok pahalı olmayan uygulamalar DC motorlarını cazip kılmaya başlamıştır.

b- DC Motorların Çalışma İlkeleri

DC motorlar için DC çıkış veren bir doğrultucuya ihtiyaç vardır. Motor armatür sargıları, alan sargıları,komutasyon sargıları ve kompanse sargılar olmak üzere rotorda ve statorda bulunan sargılardan oluşur. Rotora voltaj ve akım karbon fırçalar ve komutator sargılarla ulaştırılır. Bu karbon fırçalar aşındığından DC motorlar belirli periyotlarla bakıma alınmalıdır. İyi kontrol edilebilme özelliklerinden dolayı DC motorlar otomasyon teknolojisinde sıkça kullanılmaktadır.

c- DC Motor Çeşitleri

Temel olarak Şönt (Shunt) ve seri sargılı DC motorlar bulunmaktadır. Bu sargıların çeşidine göre moment eğrisi değişmektedir.

d- DC Motorlarda Hız Kontrolü

Bu motorlarda devir değişimi DC voltajın değiştirilmesi ile yapılır. Şönt sarımlı DC motorların sıfır yük ile maximum yük arasındaki davranışı AC motorlara benzer. Devir artan yükle beraber düşer. Bu devir farkı ufak güçlü motorlarda büyük, büyük güçlü motorlarda ise ufaktır. Fakat bu hız farkı DC doğrultucu cihazda armatür voltajı (I x R) ile oynanarak kompanse edilebilir. Hassas hız kontrol gereksinimi olduğunda, tako jeneratörler kullanılabilir. DC motorların gücü aşağıdaki formülden hesaplanır;

$$P_g = U \times I = \frac{P_c}{\eta}$$

P_g : Giriş gücü W
P_C : Çıkış gücü W
U : Armatür gerilimi V
I : Armatür akımı A
η : Motor verimi

DC MOTORS

a- General Specifications of DC Motors

DC drive systems have found new possible applications with the development of the electronic components sector. What was previously extremely expensive and in some cases not economically feasible is nowadays realized by miniaturised power converter technology. Additional functions such as guided startup after a predetermined time, torque and current monitoring with electronic protection against overloading, and many inexpensive special applications have made DC drive systems more attractive.

b- Operating principles of the DC Motors

The DC motor requires, a converter with DC output. The motor includes windings, such as armature, field, commutation and compensation windings, which are arranged in the stator as well as on rotor. Voltage and current are supplied to the rotor via the carbon brushes and the commutator. The carbon brushes are wearing parts therefore a DC motor requires maintenance at service intervals. While its good control properties, the DC motor is an essential item in automation technology.

c- Types of DC Motors

Depending on the wiring of the exciting winding or field winding, two basically different variants are regards torque speed characteristics may be distinguished.

d- Speed Control of DC motors

In DC motors the speed is adjusted by altering the DC voltage. DC shunt wounded motors behave similar to three phase induction motors between no load operation and maximum load. The speed drops with increasing loading of the motor. This difference is greater in small motors and smaller in larger motors. The speed difference can compensated in the DC converter device by adjusting (I x R). If great control accuracy is required, a speed control with measurement of the actual values by a tachogenerator can be used. The power of DC motor;

$$P_g = U \times I = \frac{P_c}{\eta}$$

P_g *: Input Power W*
P_C *: Output Power W*
U *: Armature Voltage V*
I *: Armature Current A*
η *: Motor efficiency*

DC MOTOREN

a- Eigenschaften von DC Motoren

Mit den Entwicklungen bei elektronischen Komponenten haben DC Motoren neue Anwendungsbereiche gefunden. Regelungssysteme, die früher sehr teuer und im manchen Anwendungsfällen ungünstig waren, sind jetzt kompakt und günstig. Bei den DC Motoren ist kontrolliertes Anlauf, Moment- und Stromüberwachung mit Überlastschutz möglich. Es gibt viele günstige Sonderanwendungen für diese Motoren. Wegen oben genannten Eigenschaften werden die DC Motoren immer mehr bei unterschiedlichen Anwendungen benutzt.

b- Funktionsprinzip der DC Motoren

Bei DC Motoren ist eine Kommutatorwicklung im Rotor angeordnet, während der magnetische Fluss vom Stator erzeugt wird. Dies kann wiederum mittels einer Erregerwicklung oder durch Permanentmagnete geschehen. Wie bei der Synchronmaschine wird durch das Erregerfeld in der Ankerwicklung eine Wechselspannung, die bei der Gleichstrommaschine jedoch durch den mechanischen Kommutator und die darauf schleifenden Bürsten in eine Gleichspannung umgeformt wird, induziert.

c- Arten von DC Motoren

Es gibt zwei verschiedene Wicklungen, nämlich Shunt- und Serial-Wicklung. Das Drehmoment-Drehzahl-Verhältnis ist für beide Wicklungen unterschiedlich.

d- Drehzahl Kontrolle für DC Motoren

Drehzahl von DC Motoren kann man mit Steuerung der DC Spannung ändern. DC Motoren mit Shunt Wicklungen ist ähnlich zu drei phasen AC Motoren zwischen maximalen Last und ohne Last. Drehzahl wird mit der Last reduziert. Mit kleineren Motoren wird dieser Differenz höher mit großeren Motoren kleiner. Der Drehzahlunterschied kann geregelt werden mit (IxR) Veränderung. Wenn eine genaue Kontrolle gebraucht, soll ein Tachogenerator benutzt werden. Leistung des DC Motors;

$$P_g = U \times I = \frac{P_c}{\eta}$$

P_g : Eingangsleistung W
P_C : Ausgangsleistung W
U : Ankerspannung V
I : Ankerstrom A
η : Wirkungsgrad des Motors

Genel Bilgiler
General Information
Einführung

Elektromanyetik Frenler

Bu tip frenlerin iki sürtünme yüzeyi vardır. Fren torku, voltaj uygulanmadığı zaman yayların kuvveti ile oluşturulur. Fren elektromanyetik alanın oluşumu ile serbest kalır. Bobinin beslenmesi ile mıknatıslanan balata baskı pulu, elektromıknatısa doğru çekilir. Bu hareket yayları baskı altına alır ve rotor mili üzerine takılan çoklu kama üzerinde aksiyal yönde serbest hareket edebilen balata serbest kalır. Akım kesildiğinde yayların baskısıyla, balata baskı pulu fren balatasına doğru itilir ve bu hareket rotoru frenler.

Fren Çeşitleri
a) Soğutmasız tip frenler
Motor fanı çıkarılıp motor kapağı arkasına akuple edilerek kullanılan frenler; genellikle sıkça açılıp kapanmayan ve kısa zaman aralıklarında çalışan sistemlerde tercih edilir.

b) Soğutmalı tip frenler
Motor fanı çıkarılıp motor kapağı arkasına akuple edilen ve motorun mili uzatılarak fren ve motorun arkasına alınan fan sayesinde daimi bir hava sirkülasyonu sağlanarak kullanılan frenlerdir. Genellikle uzun süreli çalışan ve kapalı mekanlarda kullanılan sistemlerde tercih edilirler.
c) Manuel kol sistemli frenler
Çalışma sistemi olarak her iki fren tipinde de kullanılabilir (soğutmalı veya soğutmasız). Özel durumlarda (elektrik kesilmesi; mekanik problemler) üzerinde bulunan bir kol vasıtası ile sistemi yay baskısından kurtararak serbest kalmasını sağlayan frenlerdir. Genellikle manuel olarak sistemin açılması gereken yerlerde (otomatik giriş kapıları, dış cepe boyama asansörleri v.b.) tercih edilir.

Fren çalışma voltajları
Elektromanyetik frenler 230V AC veya 400V AC beslemeli olarak sipariş edilebilir. Frenler DC fren olmaları nedeni ile besleme ile fren bobini arasında fren tipine bağlı olarak, yarım dalga, tam dalga doğrultucular veya trafolar kullanılır. Özel olarak belirtilmedikçe 230V beslemeli ve yarım dalga doğrultuculu frenler kullanılmaktadır. Özel durumlar için YILMAZ Redüktöre danışınız.

a) 230V AC ile beslenen frenler
Motor klemens kutusundan alınan 230V'luk AC besleme fren tipine bağlı olarak yarım dalga veya tam dalga doğrultucu ile fren bobininin voltajına düşürülür. Fren bobin DC voltajı etiketi üzerinde belirtilmiştir.
b) 400V AC ile beslenen DC frenler
Motor klemens kutusundan alınan 400V'luk AC besleme, yarım dalga doğrultucu ile fren bobininin voltajına düşürülür. Fren bobininin DC voltajı etiket üzerinde belirtilmiştir.
c) 24V DC Frenler
Kullanılan fren momentinin büyüklüğüne göre besleme transformatörü seçilir. Şebekeden veya motorun klemens kutusundan alınan besleme voltajı transformatörde 29 V'a çevrilen gerilim tam dalga doğrultuculardan geçerek 24V DC'ye çevrilir ve fren bobini beslenir.

Electromagnetic Brakes

This type of brakes has two friction surfaces. Brake torque is generated by springs when no voltage is applied. The brake is electromagnetically released. On exciting the electromagnet means of the current, the armature plate is pulled towards the electromagnet itself, thrust loading the pressure spring and enabling the friction disc which is axially movable on the key, to turn freely. When current fails, the pressured springs drive the armature plate towards the disc, thus braking the motor shaft.

Brake Types
a) Brakes without cooling
This type of brakes are assembled on the back cover of the electric motor. There is no fan on the backside. This brake type is mostly preferred in short working times and short working cycles.
b) Fan cooled brakes
This type of brakes are assembled on the back cover of electric motor by removing the electric motor fan. A fan is coupled to the backside of the brake by extending the rotor shaft of the electric motor. Fan cooled brakes are preferred in long working times and closed places without airflow.
c) Brakes with hand release
This brakes can be released by help of an arm. It can be applied to both of the above mentioned brakes and used in special cases (fail of electric current, mechanical problems etc.)These brakes are mostly preferred if operation (relasing) without a current is needed (automatic controlled doors, gates, building wall painting elevators etc.).

Working Voltages
Electromagnetic brakes can be ordered with 230V AC or 400V AC supply voltage. The coil of brakes needs DC voltage and therefore depending on brake type a half wave, a full wave rectifier or transformer should be used between supply and coil voltage. As standard the brakes will be delivered with 230V supply voltage and half wave rectifier, if there is no special request. For special cases please contact YILMAZ Reduktor.
a) Brakes with 230V supply voltage
230V AC supply voltage from the motor terminal box will be reduced to the coil voltage depending on the brake type with half-wave or full-wave rectifier. DC brake coil voltage is indicated on the label.
b) Brakes with 400V supply voltage
400V AC supply voltage from the motor terminal box will be reduced to the coil voltage with half-wave rectifier. DC brake coil voltage indicated on the label.
c) 24V DC Brakes
The transformator's size is selected according to value of brake torque. The current is taken from the electric motor terminal box or from the electric panel and is transformed to 29V DC current. This current is transferred to 24V DC current with full-wave rectifier and supplies brake coil.

Elektromagnetische Bremsen

Die Bremse hat zwei Reibflächen und arbeitet nach dem Ruhestromprinzip. Im stromlosen Zustand wird das Bremsmoment durch den Druck der Feder erzeugt, während die Bremse beim Betrieb elektromagnetisch losgelassen wird. Durch die Erregung der Elektromagneten wird die Ankerscheibe zu den Elektromagneten gezogen und die Feder zusammengedrückt. Dadurch kann sich die Bremsscheibe, die axial beweglich auf dem Mitnehmer angeordnet ist, frei drehen. Wird der Strom unterbrochen, drücken die Feder die Ankerscheibe gegen die Bremsscheibe und halten die Motorwelle an.

Bremsearten:
a)Bremsen ohne Kühlung
Diese Bremsen sind für Kurzlaufzeiten geeignet. Die Lüfterhaube und Lüfter des Motors ist ausgebaut und die Bremse ist an dem Ende der Motorwelle befestigt.

b)Bremsen mit Kühlung
Diese Bremsen sind für lange Laufzeiten und kleine, abgedeckte Räume geeignet. Durch die Verlängerung der Motorwelle wurde Lüfter hinter dem Bremse und dem Motor verbunden. Somit wurde eine konstante Lüftung ermöglicht.

c)Bremsen mit Hebelarm
Diese Bremsenart kann mit oder ohne Kühlung verwendet werden. Diese Bremsen sind bei der speziellen Fälle, wie keine Spannung an der Leitung, mechanische Probleme usw. , anwendbar. Die Bremse wird mit einem Hebelarm manuell betätigt. Diese Bremsen werden am meisten an den Stellen, wo die Lüftung ohne Spannung erfolgen soll, benutzt (automatische Türe, Wandaufzüge).

Betriebsspannungen
Elektromagnetische Bremsen können mit 230V AC oder 400V AC Versorgungsspannung bestellt werden. Die Wicklungen der Bremsen brauchen Gleichspannung und deswegen abhängig von Bremsenart zwischen Versorgungsspannung und Wicklungsspannung soll Halbwellen-, Vollweggleichrichter oder Transformator verwendet werden. Als Standard die Bremsen werden mit 230V Versorgungsspannung und Halbwellengleichrichter geliefert.
a) Bremsen mit 230V Versorgungsspannung
230V AC Versorgungsspannung von Klemmenkasten wird auf die Wicklungsspannung abhängig von der Bremsentyp mit Halbwellen-oder Vollweggleichrichter reduziert. Wicklungsspannung ist auf dem Etikett angegeben.
b) Bremsen mit 400V Versorgungsspannung
400V AC Versorgungsspannung von Klemmenkasten wird auf die Wicklungsspannung mit Halbwellengleichrichter reduziert. Wicklungsspannung ist auf dem Etikett angegeben.
c) 24V DC Bremsen
Die Spannung wird von den Klemmkasten des Motors oder Elektrikschrank entnommen. Diese Spannung wird zuerst mittels Transformator zu 24 V reduziert. Danach wird diese Spannung mit Hilfe von Gleichrichter zu Gleichstromspannung umgewandelt. Die Größe des Transformators ist abhängig von der Größe des Bremsmoments.

d) Şok ikazlı trafolar
Büyük güçteki ve momentteki frenlerin manyetik doyuma ulaşmaları uzun zaman alır. Şok ikazlı trafolar frenin yay baskısını yenmede gecikmesini engellemek için kullanılır ve zaman rölesi yardımı ile çok kısa bir süre normal besleme voltajının iki katı ile (48V DC) beslenip sistemin ani açılmasını sağlar. Bu sayede gecikmeli açılmada ortaya çıkacak sürtünmeyi engellemeye yarayan bir trafo şeklidir.

Fren bağlantı şekli
a) Gecikmeli frenleme
Genellikle sistemin yavaş ve kaydırılarak durması gereken yerlerde tercih edilen bağlantı şeklidir. Vinç yürütme motorlarındaki sarsıntıyı önlemek için gecikmeli bağlantı şekli kullanılır. Frenler fabrika çıkışında gecikmeli bağlantıya uygun ayarlanır.

b) Ani frenleme
Genellikle sistemin enerjisi kesildiği anda ani olarak durdurulması gereken sistemlerde kullanılan bağlantı şeklidir. Vinç kaldırma sistemleri, asansör motorlarında kullanılan bağlantı şeklidir.

d) Shock voltage supply transformer
Brakes which consist of high power and torques take long time to get in electromagnetic field. Shock voltage supply transformers with time relay are aiming to overcome spring pressure delaying for brakes .Also this transformers provide to open system suddenly by feeding double(48V DC) voltage in a short time and preventing to frictional loses occurring in delayed opening.

Connection Types
a) Delayed Braking
Generally this type of connection uses in slow and sliding brake intended systems. Delayed connection type using to prevent shock loadings in crane driving systems. Brakes are setting up to delayed connection if any other types are not specified by customer

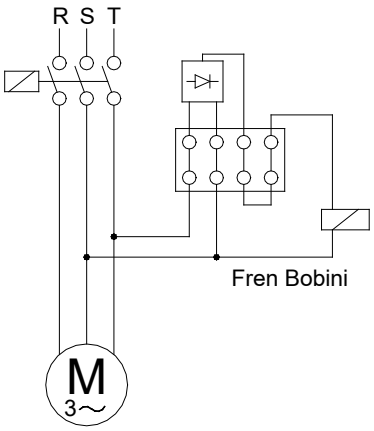
b) Sudden Braking
This type of connections are mostly used in systems when short braking times are needed. The braking torque will be produced as soon as the current fails. These brakes are mostly used in hoisting of lifting units and elevators.

d) Trafos mit Schock-Spannung
Diese Transformatoren werden bei großen Bremsen mit hohen Momenten verwendet. Da die große Bremsen eine lange Zeit braucht, um die erforderliche magnetische Feld zu erzeugen, wird an der Bremse kurz 48V Gleichstromspannung angelegt, um die Zeit zur Bildung von magnetischem Feld zu kürzen. Dies ermöglicht kürzere Reibungszeiten beim Start.

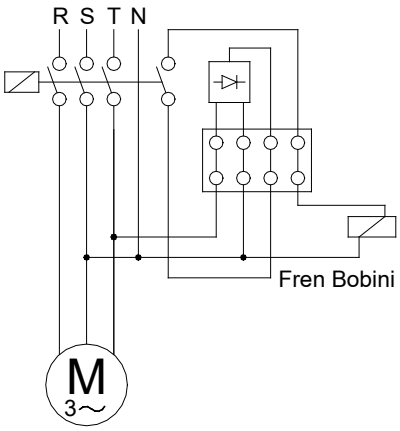
Schaltungsarten:
a)Verspätetes Bremsen
Diese Schaltung wird benutzt, wenn ein langsames und gleitendes Bremsen erforderlich ist. Am meisten wird es bei Fahrgetriebemotoren von Aufzügen verwendet. Wenn keine Angabe bei der Bestellung gegeben wird, werden die Bremsen mit verspäteter Schaltung geliefert.

b)Schnelles Bremsen:
Allgemein verwendet man diese Schaltung bei Bedarf an plötzlichen Bremsen in dem Augenblick, in dem das System keine Energie mehr erhält. Diese Schaltungsart wird meist bei Kräne und Motoren von Aufzüge verwendet.

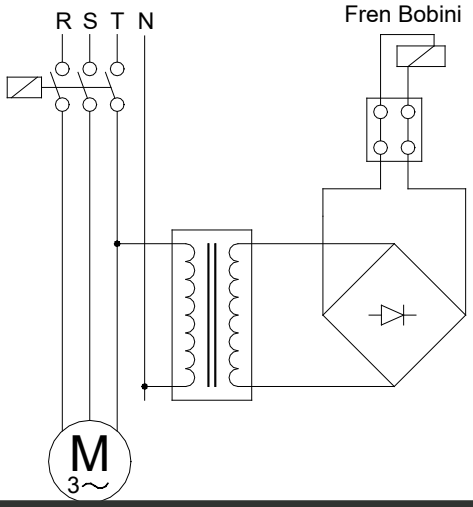
Gecikmeli Frenleme / *Delayed Running Brake* / Verspätete Bremsung
(230 V)



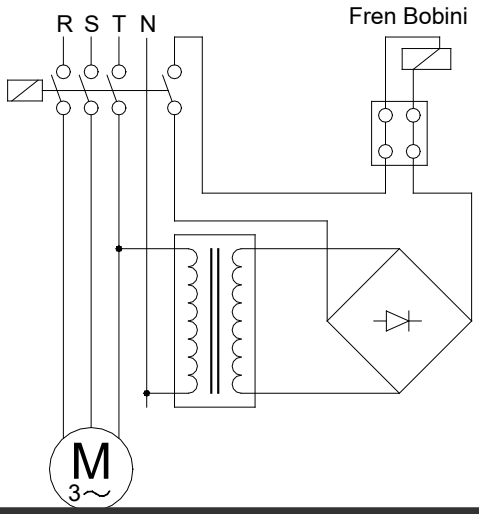
Ani Frenleme / *Sudden Brake /* Plötzliche Bremsung
(230 V)



Gecikmeli Frenleme / *Delayed Running Brake* / Verspätete Bremsung
(24 V)



Ani Frenleme / *Sudden Brake* / Plötzliche Bremsung
(24 V)



Genel Bilgiler
General Information
Einführung

Fren Seçimi:

Doğru bir fren seçimi için aşağıdaki parametreler bilinmelidir.

- **I_{tot} [kg.m²]** : Motor miline indirgenmiş toplam atalet momenti
- **n_0 [d/dak]** :Maksimum motor devir sayısı
- **t_f [s]** :İstenilen en uzun frenlemezamanı
- **c_t** :Anahtarın devreye girme zamanı katsayısı (ortalama 0,995).
- **M_L [Nm]** : Sistemin statik tork ihtiyacı.
- **C_s** : Emniyet katsayısı ($C_s \geq 2$ olmalı)

Gerekli fren momenti aşağıdaki şekilde hesaplanır:

a)M_L Statik yük torku, motor dönüş yönünde (motorun dönüşüne yardımcı olarak, yükün indirilmesi veya hızlandırıcı sabit yük momenti hali):

$$M_{fc} = \frac{(2\pi \times n_0 \div 60) \times I_{tot}}{t_f \times c_t} + M_L$$

b) M_L Statik yük torku, motor aksi dönüş yönünde (motorun dönüşüne engel olarak, yükün yukarı kaldırılması veya frenleyici sabit yük/direnç momenti hali):

$$M_{fc} = \frac{(2\pi \times n_0 \div 60) \times I_{tot}}{t_f \times c_t} - M_L$$

Yukarıda bulunan sonuç C_s katsayısı ile çarpılarak ($C_s \geq 2$), fren momenti seçilir;

$$M_f = M_{fc} \times C_s$$

Yaklaşım Yolu ile Fren Seçimi:
Eğer yalnızca motorun gücü ve en yüksek devri biliniyor ise :

W [Watt]: Motorun nominal gücü

$$M_f = \frac{W}{\left(\frac{2\pi \times n_0}{60}\right)} \times C_s \quad (C_s \geq 2)$$

Brake Selection:

To select a brake correctly the following data are necessary;

- ***I_{tot} [kg . m²]*** *: The total inertia of rotating parts reduced at the motor shaft*
- ***n_0 [rpm]*** *: Maximum motor speed.*
- ***t_f[s]*** *: The maximum admitted time of the braking.*
- ***c_t*** *: Coefficient of switch on time (average 0,995).*
- ***M_L [Nm]*** *: Required static torque of system.*
- ***C_s*** *: Safety coefficient ($C_s \geq 2$)*

The necessary braking torque calculates below;

a) The static load torque M_L ,same direction of motor rotation(Descent of a load or steady resisting torque which favours the rotation of the motor)

$$M_{fc} = \frac{(2\pi \times n_0 \div 60) \times I_{tot}}{t_f \times c_t} + M_L$$

b)The static load torque M_L ,opposes the rotation of the motor (Lifting of a load or steady resisting torque which opposes the rotation of the motor)

$$M_{fc} = \frac{(2\pi \times n_0 \div 60) \times I_{tot}}{t_f \times c_t} - M_L$$

The necessary braking torque will result from the following equation using C_s ($C_s \geq 2$);

$$M_f = M_{fc} \times C_s$$

Approximated Brake Selection
Its only the motor power and its maximum speed are known:

W [Watt]: Motor Nominal Power

$$M_f = \frac{W}{\left(\frac{2\pi \times n_0}{60}\right)} \times C_s \quad (C_s \geq 2)$$

Bremswahl:

Um die richtige Bremse auszuwählen, braucht man unten aufgelistete Variablen;

- **I_{tot} [kg . m²]** :Die Gesamtträgheit der rotierenden Teile(siehe Anwendungsbeispiele)
- **n_0 [U/min]** : Die höchste Drehzahl desMotors
- **t_f [s]** :Die längste zulässige Bremszeit
- **c_t** : Reduktionskoeffizient der Tätigkeitszeit (gemittelt 0,995).
- **M_L [Nm]** : Vom system benötigtes, statisches drehmoment.
- **C_s** : Sicherheitskoeffizient ($C_s \geq 2$)

Die benötigte Bremskraft wird wie folgt berechnet:

a) konstantes Belastungsmoment M_L, das die Motordrehung fördert (konstante Erhöhung der Motorgeschwindigkeit oder Herunterlassen der Last)

$$M_{fc} = \frac{(2\pi \times n_0 \div 60) \times I_{tot}}{t_f \times c_t} + M_L$$

b) konstantes Belastungsmoment M_L, das sich entgegen der Motordrehung widersetzt (konstante Verminderung der Motorgeschwindigkeit oder Aufheben der Last)

$$M_{fc} = \frac{(2\pi \times n_0 \div 60) \times I_{tot}}{t_f \times c_t} - M_L$$

Wenn die Bremskraft mit dem Sicherheitskoeffizient C_s ($C_s \geq 2$) multipliziert wird, erhält man die erforderliche Bremskraft;

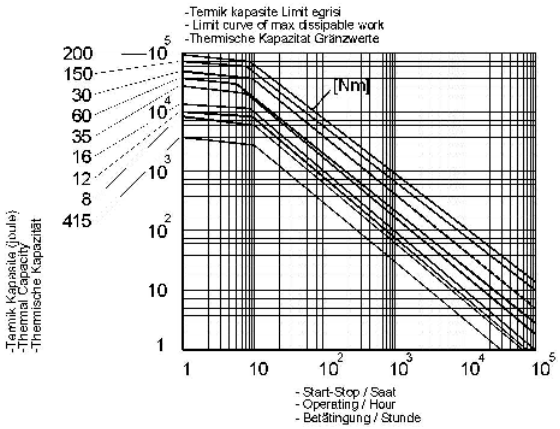
$$M_f = M_{fc} \times C_s$$

Abschätzung zur Bremswahl
Wenn man nur die Motorleistung und die höchste Drehzahl kennt, kann die Bremskraft mit der folgenden Formel annähernd berechnet werden:
W [Watt] : Nennleistung des Motors

$$M_f = \frac{W}{\left(\frac{2\pi \times n_0}{60}\right)} \times C_s \quad (C_s \geq 2)$$

Standart Frenler / *Standard Brakes* / Standart Bremsen

Fren statik momenti [Nm] *Brake Static Torque [Nm]* Statische Bremskraft [Nm]	4,5	8	12	16	35	60	80	150	200
Fren Dinamik Momenti [Nm] *Brake Dynamic Torque [Nm]* Dynamische Bremskraft [Nm]	3,6	6,4	9,6	12,8	28	48	64	120	160
Maksimum Motor Hızı [d/dak] *Maximum Motor Speed [rpm]* Maximale Motordrehzahl [U/min]	3000	3000	3000	3000	3000	3000	3000	1500	1500
Giriş Gücü [W] *Input Power [W]* Antriebsleistung [W]	15	20	25	30	45	50	55	60	65



Frenin Termik Kapasitesi

Yukarıdaki seçime ek olarak frenin termik kapasitesinin kontrol edilmesi gerekir. L (joule) olarak gerekli soğutma işi aşağıdaki formüller ile hesaplanır ve ''Termik kapasite limit eğrisi'' kullanılarak eğrinin altında kalıp kalmadığı kontrol edilir.

a) M_L Statik yük torku motor dönüş yönünde (motorun dönüşüne yardımcı olarak, yükün indirilmesi hali)

$$L = \frac{I_{tot} \times (2\pi \times n_0 \div 60)^2}{2} \times \left(\frac{M_f}{M_f - M_L}\right)$$

b) M_L Statik yük torku motor aksi dönüş yönünde (motorun dönüşüne engel olarak, yükün kaldırılması hali):

$$L = \frac{I_{tot} \times (2\pi \times n_0 \div 60)^2}{2} \times \frac{M_f}{M_f + M_L}$$

c) M_L Statik yük torku sabit, motor yönünde veya aksi yönde (kaldırma ve indirme harici hızlandırıcı veya frenleyici sabit bir yük momenti hali).

$$L = \frac{I_{tot} \times (2\pi \times n_0 \div 60)^2}{2}$$

Fren Hava Boşluğunun Ayarı:

Frenden sürekli aynı performansın alınabilmesi için, fren balatasının aşınmasına bağlı olarak, fren hava boşluğu belirli zaman aralıklarında yeniden ayarlanmalıdır. Fren hava boşluğu ayar zaman aralığı ve ayarın yapılması için firmamıza danışınız.

Fren Seçim Örneği:
İstenilen en uzun frenleme zamanı: 0,5 sn.
Motor devri: 1400 d/dak
Motora indirgenmiş toplam atalet momenti: 0,08 kgm²

Gerekli çalışma momenti: 50 Nm
Yük Durumu: Yük motor dönüş yönü ile aynı (Vinçten yük indirmesi: Saatte dur-kalk sayısı:30

$$M_{fc} = \frac{(2\pi \times 1400 \div 60)}{0,5 \times 0,995} + 50 = 73,6\ \text{Nm}$$

$$M_f = 73,6 \times 2 = 147,2\ \text{Nm}$$

Standart frenler tablosundan 150 Nm lik fren seçilebilir.
Gerekli termik kapasite;

$$L = \frac{0,08 \times (2\pi \times 1400 \div 60)^2}{2} \times \left(\frac{147,2}{147,2 - 50}\right)$$

=1302,0<18000 Joule (150 Nm eğrisinden)
150 Nm lik fren uygun görülüyor.

The Thermal Capacity of Brake

The thermal capacity of the brake must also be checked after the above mentioned calculations. The heat dissipation energy L (joule) can be calculated from the following equation and must be checked if the result is under the limit curve shown on ''Limit curve of may dissipable work''.

a) The static load torgue M_L ,favours the rotation of the motor (Descent of a load which favours the rotation of the motor)

$$L = \frac{I_{tot} \times (2\pi \times n_0 \div 60)^2}{2} \times \left(\frac{M_f}{M_f - M_L}\right)$$

b) The static load torgue M_L ,opposes the rotation of the motor (Lifting of a load which opposes the rotation of the motor)

$$L = \frac{I_{tot} \times (2\pi \times n_0 \div 60)^2}{2} \times \frac{M_f}{M_f + M_L}$$

c) The static load torgue M_L ,is constant and opposes or favours the rotation of the motor (except lifting of a load)

$$L = \frac{I_{tot} \times (2\pi \times n_0 \div 60)^2}{2}$$

Adjustment of the air-gap:

In order to obtain the same performance from the brake during its lifetime,the air-gap of the brake must be re-adjusted after a limited time of operation For the air-gap and the time interval of the adjustment please contact us.

Selection Example:
The maximum admitted time for braking 0,5 s
Motor speed: 1400 rpm
Total inertia reduced at motor shaft: 0,08 kgm²

Required operating torque:50 Nm
Nature of load: Load direction is same as motor direction(Unloading process: Start-stop time per hour :30)

$$M_{fc} = \frac{(2\pi \times 1400 \div 60)}{0,5 \times 0,995} + 50 = 73,6\ \text{Nm}$$

$$M_f = 73,6 \times 2 = 147,2\ \text{Nm}$$

From the brake selection table a standard brake of 150 Nm is selected.
Necessary thermal capacity

$$L = \frac{0,08 \times (2\pi \times 1400 \div 60)^2}{2} \times \left(\frac{147,2}{147,2 - 50}\right)$$

=1302,0<18000 Joule (from 150 Nm curve)
The selected brake with 150 Nm is suitable.

Thermische Kapazität der Bremsen

Nach den oben genannten Berechnungen muss die Thermische Kapazität überprüft werden. Die Wärme, d.h. die gebrauchte Energie L, werden mit den folgenden Formeln berechnet. Die gerechnete Kapazitätswerte sollen unter dem Grenzkurve ''Thermische Kapazität Grenzwerte'' der gewählten Bremse liegen.

a) Konstantes Belastungsmoment M_L, das die Motordrehung fördert (Herunterlassen der Last)

$$L = \frac{I_{tot} \times (2\pi \times n_0 \div 60)^2}{2} \times \left(\frac{M_f}{M_f - M_L}\right)$$

b) Konstantes Belastungsmoment M_L , das sich entgegen der Motordrehung widersetzt (Aufheben der Last)

$$L = \frac{I_{tot} \times (2\pi \times n_0 \div 60)^2}{2} \times \frac{M_f}{M_f + M_L}$$

c) Konstantes Belastungsmoment M_L , das sich gegen der Motorbewegung widersetzt oder die Motorrotation fördert (Konstante Verminderung oder Erhöhung der Motorgeschwindigkeit, kein Herunterlassen oder Aufheben der Last)

$$L = \frac{I_{tot} \times (2\pi \times n_0 \div 60)^2}{2}$$

Einstellung des Luftspaltes:

Um eine immer konstant bleibende Bremsfähigkeit zu erhalten, muss das Luftspalt nach einer bestimmten Arbeitszeit neu eingestellt werden. Für die Bestimmung des Luftspaltes und die Einstellzeiten bitten wir Sie um Rückfrage.

Beispiel für eine Auswahl:
Die höchste zulässige Bremszeit: 0,5 s
Motordrehzahl: 1400 U/min
Gesamtträgheit der rotierenden Teile: 0,08 kgm²
Das auf das System wirkende Drehmoment: 50 Nm
Belastungsart: Drehmoment, das die Motor-rotation fördert (Herunterlassen der Last)
Betätigungen pro Stunde:30

$$M_{fc} = \frac{(2\pi \times 1400 \div 60)}{0,5 \times 0,995} + 50 = 73,6\ \text{Nm}$$

$$M_f = 73,6 \times 2 = 147,2\ \text{Nm}$$

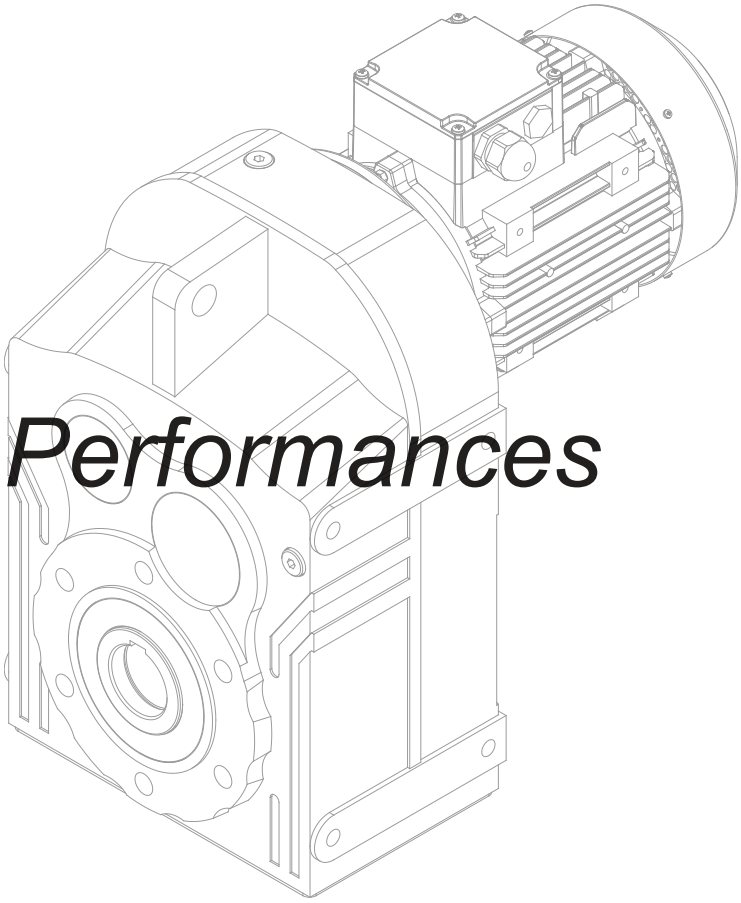
Eine Bremse von 150 Nm kann man auswählen.

Die thermische Kapazität;

$$L = \frac{0,08 \times (2\pi \times 1400 \div 60)^2}{2} \times \left(\frac{147,2}{147,2 - 50}\right)$$

=1302,0<18000 Joule (von 150 Nm Kurve) Die ausgewählte 150 Nm Bremse ist ausreichend.

Güç ve Devir Tabloları



Performances

Leistung und Drehzahlübersicht

D Serisi Motorlu Güç Devir Sayfaları

D Series Geared Motors Performance Tables

D Serien Getriebemotoren Leistung und Drehzahlübersicht

Güç *Power* Leistung **P_g [kW]** P_g [HP]	Çıkış Devri *Output Speeds* Abtriebswelle Drehzahlen **n_2 [r.p.m]**	Çıkış Momenti *Output Torque* Abtriebswelle Drehmomente **M_2 [Nm]**	Çevrim Oranı *Ratio* Übersetzung **i**	Güv. Rad. Yük Çıkış *Per.O. Loads (Output)* Zul.Querkräfte (Abtrieb) **F_{qam} [N]**	Servis Faktörü *Service Factors* Betriebsfaktor **f_s**	Tipi *Type* Typ	Anma Akımı *Rated Current* Nennstrom **[A]**	Ağırlık *Weight* Gewicht ~ **[kg]**	Ölçü Sayfası *Dim. Page* Maße Seite	Motor Verim Snf. *Motor Eff. Class* Motor Effizienz-klasse
0,12 0,16	0,16	5541	**8471,90**	4977	0,8	**DR676-G63/4a**	0,41	283	126	IE1
	0,19	4711	**7216,80**	24512	0,9					
	0,22	4123	**6304,09**	31273	1,0					
	0,23	3870	**5912,93**	33651	1,1					
	0,27	3293	**5027,18**	38311	1,3					
	0,31	2866	**4366,47**	41267	1,5					
	0,36	2512	**3820,66**	43388	1,7					
	0,42	2152	**3215,89**	45372	2,0	**DR675-G63/4a**	0,41	280	126	IE1
	0,48	1919	**2865,49**	46557	2,2					
	0,56	1631	**2440,98**	47918	2,6					
	0,64	1427	**2132,27**	48824	3,0					
	0,68	1340	**1999,96**	49198	3,2					
	0,24	3780	**5762,85**	-	0,8	**DR576-G63/4a**	0,41	165	120	IE1
	0,28	3216	**4899,59**	18917	0,9					
	0,32	2799	**4255,64**	24674	1,1					
	0,40	2297	**3432,03**	29798	1,3	**DR575-G63/4a**	0,41	162	120	IE1
	0,47	1943	**2900,65**	32737	1,5					
	0,57	1593	**2379,02**	35176	1,9					
	0,66	1394	**2078,15**	36430	2,2					
	0,70	1308	**1949,20**	36939	2,3					
	0,82	1113	**1657,21**	38040	2,7					
	0,95	968	**1439,41**	38802	3,1					
	0,48	1874	**2851,73**	11587	0,8	**DR476-G63/4a**	0,41	120	114	IE1
	0,57	1568	**2381,67**	16679	1,0					
	0,70	1301	**1937,71**	19839	1,2	**DR475-G63/4a**	0,41	119	114	IE1
	0,84	1087	**1618,43**	21861	1,4					
	0,89	1028	**1529,03**	22342	1,5					
	0,91	1002	**1492,69**	22590	1,5					
	1,2	767	**1140,69**	24345	2,0					
	1,3	717	**1065,48**	24683	2,2					
	1,5	607	**900,55**	25389	2,6					
	1,8	508	**752,10**	25976	3,1					
	2,1	439	**648,55**	26362	3,5					
	0,83	1074	**1639,97**	6508	0,8	**DR376-G63/4a**	0,41	79	108	IE1
	0,90	972	**1484,14**	9186	0,8					
	1,1	832	**1272,49**	11780	1,0					
	1,1	793	**1188,10**	12374	1,0	**DR375-G63/4a**	0,41	78	108	IE1
	1,3	706	**1053,09**	13565	1,2					
	1,5	624	**930,99**	14557	1,3					
	1,7	526	**783,07**	15569	1,6					
	2,1	447	**665,75**	16295	1,8					
	2,4	384	**570,43**	16832	2,1					
	2,6	347	**516,22**	17118	2,4					
	3,1	297	**442,60**	17490	2,8					
	3,6	255	**378,91**	17787	3,2					
	1,5	627	**936,69**	8724	1,0	**DR285-G63/4a**	0,41	35	104	IE1
	1,6	558	**830,25**	10016	1,1					
	1,9	494	**733,99**	11030	1,2					
	2,2	416	**617,37**	12085	1,4					
	2,6	354	**524,87**	12804	1,7					

D Serisi Motorlu Güç Devir Sayfaları

D Series Geared Motors Performance Tables

D Serien Getriebemotoren Leistung und Drehzahlübersicht

Güç *Power* Leistung **P_g [kW]** P_g [HP]	IE3 Çıkış Devri *Output Speeds* Abtriebswelle Drehzahlen **n_2 [r.p.m]**	IE3 Çıkış Momenti *Output Torque* Abtriebswelle Drehmomente **M_2 [Nm]**	Çevrim Oranı *Ratio* Übersetzung **i**	IE3 Güv. Rad. Yük Çıkış *Per.O. Loads (Output)* Zul.Querkräfte (Abtrieb) **F_{qam} [N]**	IE3 Servis Faktörü *Service Factors* Betriebsfaktor **f_s**	Tipi *Type* Typ	Anma Akımı *Rated Current* Nennstrom **[A]**	Ağırlık *Weight* Gewicht ~ **[kg]**	Ölçü Sayfası *Dim. Page* Maße Seite	Motor* Verim Snf. *Motor Eff. Class* Motor Effizienz-klasse
0,12 0,16	3,0	303	**449,72**	13332	2,0	**DR285-G63/4a**	0,41	35	104	IE1
	3,4	275	**406,99**	13611	2,2					
	3,9	235	**348,95**	13972	2,6					
	4,6	202	**298,73**	14257	3,0					
	1,7	552	**823,76**	10203	0,8	**DR275-G63/4a**	0,41	30	100	IE1
	1,9	483	**720,79**	11435	0,9					
	2,3	400	**596,04**	12678	1,1					
	2,7	334	**497,10**	13501	1,3					
	3,3	280	**416,71**	14094	1,6					
	3,8	240	**356,74**	14491	1,9					
	4,1	223	**331,04**	14652	2,0					
	5,4	169	**251,08**	15123	2,7					
	6,4	145	**214,95**	15315	3,1					
	6,6	140	**207,93**	15352	3,2					
	7,5	123	**181,94**	15485	3,7					
	9,1	102	**150,45**	15925	4,0					
	9,9	107	**137,94**	15782	4,0	**DR273-G63/4a**	0,41	25	98	IE1
	11	93	**120,49**	16179	4,0					
	9,6	110	**142,89**	6977	1,8	**DR173-G63/4a**	0,41	20	96	IE1
	11	93	**120,64**	7187	2,1					
	13	80	**103,34**	7338	2,5					
	15	71	**91,25**	7438	2,8					
	16	66	**85,23**	7486	3,0					
	19	56	**72,04**	7588	3,6					
	23	47	**60,16**	7794	4,0					
	7.6	139	**180.05**	4731	1.1	**DR073-G63/4a**	0,41	15	94	IE1
	9.3	113	**146.60**	4540	1.3					
	10	103	**133.46**	4448	1.5					
	11	93	**120.11**	4344	1.6					
	14	78	**100.43**	4163	1.9					
	16	66	**85.12**	3994	2.3					
	19	57	**72.87**	3836	2.7					
	20	52	**67.62**	3760	2.9					
	22	49	**62.94**	3688	3.1					
	26	41	**52.62**	3511	3.7					
	31	35	**44.60**	3350	4.0					
	36	30	**38.18**	3204	4.0					
	39	28	**35.43**	3134	4.0					
	37	29	**36.86**	3171	4.0	**DR072-G63/4a**	0,41	14	94	IE1
	44	24	**30.71**	3005	4.0					
	49	22	**27.64**	2912	4.0					
	55	20	**25.01**	2826	4.0					
	65	17	**21.12**	2684	4.0					
	75	14	**18.09**	2559	4.0					
	85	13	**15.97**	2463	4.0					
	91	12	**14.92**	2411	4.0					
	108	10	**12.61**	2287	4.0					
	130	8.3	**10.53**	2161	4.0					
	156	6.9	**8.76**	2034	4.0					
	167	6.4	**8.18**	1990	4.0					
	197	5.4	**6.91**	1886	4.0					
	236	4.5	**5.77**	1781	4.0					
0,18 0,25	0,09	14882	**9820,98**	65042	0,9	**DR876-3E71M/6C**	0,55	482	138	IE3
	0,11	13071	**8612,25**	76314	1,0	**DR876-2E71M/6B**	0,60	481		IE2

***: IE2 ve IE3 motorlu redüktör fiyatları farklıdır.** */ Geared motor prices are different for IE2 and IE3 motors.* / Preise von Getrieben mit IE2 und IE3 Motoren sind unterschiedlich.

D Serisi Motorlu Güç Devir Sayfaları

D Series Geared Motors Performance Tables

D Serien Getriebemotoren Leistung und Drehzahlübersicht

Güç *Power* Leistung **P_g [kW]** P_g [HP]	IE3 Çıkış Devri *Output Speeds* Abtriebswelle Drehzahlen **n_2 [r.p.m]**	IE3 Çıkış Momenti *Output Torque* Abtriebswelle Drehmomente **M_2 [Nm]**	Çevrim Oranı *Ratio* Übersetzung **i**	IE3 Güv. Rad. Yük Çıkış *Per.O. Loads (Output)* Zul.Querkräfte (Abtrieb) **F_{qam} [N]**	IE3 Servis Faktörü *Service Factors* Betriebsfaktor **f_s**	Tipi *Type* Typ	Anma Akımı *Rated Current* Nennstrom **[A]**	Ağırlık *Weight* Gewicht ~ **[kg]**	Ölçü Sayfası *Dim. Page* Maße Seite	* Motor Verim Snf. *Motor Eff. Class* Motor Effizienz-klasse
0,18	0,12	11573	**7613,73**	84108	1,1	**DR876-3E71M/6C**	0,55	482	138	IE3
0,25	0,14	10187	**6697,26**	90324	1,3	**DR876-2E71M/6B**	0,60	481		IE2
	0,16	9041	**5940,18**	94908	1,4					
	0,18	8078	**5304,23**	98429	1,6					
	0,20	7256	**4762,49**	101216	1,8					
	0,23	6116	**4005,78**	104787	2,1					
	0,27	5209	**3405,63**	107242	2,5					
	0,31	4673	**2990,66**	108721	2,8	**DR875-3E71M/6C**	0,55	507	138	IE3
	0,35	4196	**2683,53**	109985	3,1	**DR875-2E71M/6B**	0,60	506		IE2
	0,39	3678	**2356,74**	111300	3,5					
	0,14	9379	**6492,84**	43918	0,9	**DR776-3E71M/6C**	0,55	317	132	IE3
	0,16	8969	**5875,88**	47757	0,9	**DR776-2E71M/6B**	0,60	316		IE2
	0,18	7718	**5058,99**	57458	1,0					
	0,21	6625	**4334,63**	64282	1,2					
	0,25	5759	**3691,20**	68895	1,4	**DR775-3E71M/6C**	0,55	307	132	IE3
	0,28	5156	**3302,14**	71781	1,6	**DR775-2E71M/6B**	0,60	306		IE2
	0,33	4450	**2855,58**	74860	1,8					
	0,37	3939	**2523,53**	76914	2,0					
	0,41	3525	**2257,90**	78476	2,3					
	0,47	3101	**1982,78**	79874	2,6					
	0,56	2596	**1656,07**	81594	3,1					
	0,62	2360	**1507,38**	82358	3,4					
	0,70	2076	**1323,71**	83245	3,9					
	0,27	5311	**5027,18**	13734	0,8	**DR676-G63/4b**	0,60	283	126	IE1
	0,31	4622	**4366,47**	25702	0,9					
	0,35	4051	**3820,66**	31971	1,1					
	0,42	3470	**3215,89**	36975	1,2	**DR675-G63/4b**	0,60	225	126	IE1
	0,47	3094	**2865,49**	39716	1,4					
	0,55	2631	**2440,98**	42685	1,6					
	0,63	2302	**2132,27**	44625	1,9					
	0,67	2161	**1999,96**	45309	2,0					
	0,79	1839	**1700,37**	46946	2,3					
	0,91	1600	**1476,89**	48062	2,7					
	1,0	1402	**1292,28**	48933	3,1					
	1,3	1162	**1068,62**	49932	3,7					
	1,5	971	**891,23**	52171	4,0					
	1,8	816	**747,10**	54578	4,0					
	0,39	3705	**3432,03**	6392	0,8	**DR575-G63/4b**	0,60	164	120	IE1
	0,46	3134	**2900,65**	20225	1,0					
	0,56	2569	**2379,02**	27195	1,2					
	0,64	2248	**2078,15**	30229	1,3					
	0,69	2110	**1949,20**	31392	1,4					
	0,81	1795	**1657,21**	33794	1,7					
	0,93	1562	**1439,41**	35377	1,9					
	1,1	1369	**1259,48**	36555	2,2					
	1,3	1157	**720,91**	37796	2,6	**DR574-3E71M/6C**	0,55	161	118	IE3
	1,5	980	**609,29**	38690	3,1	**DR574-2E71M/6B**	0,60	160		IE2
	1,9	803	**499,72**	39581	3,7					
	0,69	2098	**1937,71**	4420	0,7	**DR475-G63/4b**	0,60	119	114	IE1
	0,83	1754	**1618,43**	13875	0,9					

***: IE2 ve IE3 motorlu redüktör fiyatları farklıdır.** */ Geared motor prices are different for IE2 and IE3 motors.* / Preise von Getrieben mit IE2 und IE3 Motoren sind unterschiedlich.

D Serisi Motorlu Güç Devir Sayfaları

D Series Geared Motors Performance Tables

D Serien Getriebemotoren Leistung und Drehzahlübersicht

Güç *Power* Leistung P_g [kW] P_g [HP]	IE3 Çıkış Devri *Output Speeds* Abtriebswelle Drehzahlen n_2 [r.p.m]	IE3 Çıkış Momenti *Output Torque* Abtriebswelle Drehmomente M_2 [Nm]	Çevrim Oranı *Ratio* Übersetzung i	IE3 Güv. Rad. Yük Çıkış *Per.O. Loads (Output)* Zul.Querkräfte (Abtrieb) F_{qam} [N]	IE3 Servis Faktörü *Service Factors* Betriebsfaktor f_s	Tipi *Type* Typ	Anma Akımı *Rated Current* Nennstrom [A]	Ağırlık *Weight* Gewicht ~ [kg]	Ölçü Sayfası *Dim. Page* Maße Seite	Motor* Verim Snf. *Motor Eff. Class* Motor Effizienz-klasse
0,18	0,88	1658	**1529,03**	15413	0,9	**DR475-G63/4b**	0,60	119	114	IE1
0,25	0,90	1616	**1492,69**	16026	1,0					
	1,2	1238	**1140,69**	20473	1,3					
	1,3	1157	**1065,48**	21241	1,3					
	1,6	939	**584,15**	23051	1,7	**DR474-3E71M/6C**	0,55	116	114	IE3
	1,8	840	**522,66**	23833	1,8	**DR474-2E71M/6B**	0,60	115		IE2
	2,0	738	**458,98**	24543	2,1					
	2,3	652	**584,15**	25109	2,4	**DR474-G63/4b**	0,60	122	114	IE1
	2,6	583	**522,66**	25535	2,7					
	2,9	513	**458,98**	25950	3,0					
	1,3	1138	**1053,09**	3774	0,7	**DR375-G63/4b**	0,60	78	108	IE1
	1,4	1007	**930,99**	8386	0,8					
	1,7	848	**783,07**	11523	1,0					
	2,0	722	**665,75**	13362	1,1					
	2,3	619	**570,43**	14600	1,3					
	2,6	560	**516,22**	15225	1,5					
	3,0	480	**442,60**	16023	1,7					
	3,5	411	**378,91**	16603	2,0					
	3,8	382	**351,62**	16843	2,1					
	4,0	362	**333,87**	17000	2,3					
	4,3	337	**309,82**	17199	2,4					
	5,4	295	**171,89**	17481	2,8	**DR373-3E71M/6C**	0,55	72	106	IE3
	6,2	260	**151,15**	17734	3,2	**DR373-2E71M/6B**	0,60	71		IE2
	7,6	209	**121,67**	18075	3,9					
	1,8	796	**733,99**	3280	0,8	**DR285-G63/4b**	0,60	38	104	IE1
	2,2	670	**617,37**	7760	0,9					
	2,6	570	**524,87**	9801	1,1					
	3,0	489	**449,72**	11096	1,2					
	3,3	443	**406,99**	11733	1,4					
	3,8	379	**348,95**	12517	1,6					
	4,5	325	**298,73**	13117	1,8					
	4,8	302	**277,21**	13335	2,0					
	5,1	287	**263,22**	13476	2,1					
	5,5	266	**244,26**	13689	2,3					
	6,3	232	**212,12**	14001	2,6					
	6,9	233	**135,52**	13986	2,6	**DR283-3E71M/6C**	0,55	35	102	IE3
	7,8	205	**119,16**	14207	2,9	**DR283-2E71M/6B**	0,60	34		IE2
	8,3	193	**112,15**	14307	3,1					
	9,7	165	**95,92**	14534	3,6					
	2,7	539	**497,10**	10461	0,8	**DR275-G63/4b**	0,60	30	100	IE1
	3,2	452	**416,71**	11931	1,0					
	3,8	388	**356,74**	12837	1,2					
	4,0	360	**331,04**	13188	1,2					
	5,3	273	**251,08**	14169	1,6					
	6,7	237	**137,94**	14523	1,9	**DR273-3E71M/6C**	0,55	27	98	IE3
	7,7	207	**120,49**	14777	2,2	**DR273-2E71M/6B**	0,60	26		IE2
	8,2	195	**113,02**	14891	2,3					
	9,7	165	**96,09**	15140	2,7					
	9,7	164	**137,94**	15165	2,7	**DR273-G63/4b**	0,60	22	98	IE1
	11	143	**120,49**	15329	3,1					

***: IE2 ve IE3 motorlu redüktör fiyatları farklıdır.** */ Geared motor prices are different for IE2 and IE3 motors.* / Preise von Getrieben mit IE2 und IE3 Motoren sind unterschiedlich.

D Serisi Motorlu Güç Devir Sayfaları

D Series Geared Motors Performance Tables

D Serien Getriebemotoren Leistung und Drehzahlübersicht

Güç *Power* Leistung **P_g [kW]** P_g [HP]	IE3 Çıkış Devri *Output Speeds* Abtriebswelle Drehzahlen **n_2 [r.p.m]**	IE3 Çıkış Momenti *Output Torque* Abtriebswelle Drehmomente **M_2 [Nm]**	Çevrim Oranı *Ratio* Übersetzung **i**	IE3 Güv. Rad. Yük Çıkış *Per.O. Loads (Output)* Zul.Querkräfte (Abtrieb) **F_{qam} [N]**	IE3 Servis Faktörü *Service Factors* Betriebsfaktor **f_s**	Tipi *Type* Typ	Anma Akımı *Rated Current* Nennstrom **[A]**	Ağırlık *Weight* Gewicht ~ **[kg]**	Ölçü Sayfası *Dim. Page* Maße Seite	* Motor Verim Snf. *Motor Eff. Class* Motor Effizienz-klasse
0,18 0,25	11	135	**113,02**	15380	3,3	**DR273-G63/4b**	0,60	22	98	IE1
	13	114	**96,09**	15547	3,9					
	16	100	**83,46**	15996	4,0					
	18	87	**73,03**	16343	4,0					
	6,5	245	**142,89**	4391	0,8	**DR173-3E71M/6C**	0,55	23	96	IE3
	7,7	207	**120,64**	5351	1,0	**DR173-2E71M/6B**	0,60	22		IE2
	9,0	178	**103,34**	5941	1,1					
	9,4	170	**142,89**	6085	1,2	**DR173-G63/4b**	0,60	20	96	IE1
	11	143	**120,64**	6512	1,4					
	13	123	**103,34**	6809	1,6					
	15	109	**91,25**	6997	1,8					
	16	102	**85,23**	7087	2,0					
	19	86	**72,04**	7263	2,3					
	22	72	**60,16**	7426	2,8					
	26	62	**51,88**	7526	3,2					
	28	57	**47,81**	7571	3,5					
	30	53	**44,66**	7604	3,7					
	35	45	**37,75**	7860	4,0					
	43	38	**31,52**	8138	4,0					
	7.4	213	**180.05**	4208	0.7	**DR073-G63/4b**	0,60	15	94	IE1
	9,1	174	**146.60**	4126	0.9					
	10	159	**133.46**	4076	0.9					
	11	143	**120.11**	4013	1.1					
	13	119	**100.43**	3893	1.3					
	16	101	**85.12**	3771	1.5					
	18	87	**72.87**	3649	1.7					
	20	81	**67.62**	3589	1.9					
	21	75	**62.94**	3530	2.0					
	25	63	**52.62**	3383	2.4					
	30	53	**44.60**	3245	2.8					
	35	46	**38.18**	3116	3.3					
	38	42	**35.43**	3054	3.5					
	36	45	**36.86**	3087	3.4	**DR072-G63/4b**	0,60	14	94	IE1
	44	37	**30.71**	2938	4.0					
	48	34	**27.64**	2853	4.0					
	54	30	**25.01**	2773	4.0					
	63	26	**21.12**	2642	4.0					
	74	22	**18.09**	2525	4.0					
	84	19	**15.97**	2434	4.0					
	90	18	**14.92**	2385	4.0					
	106	15	**12.61**	2267	4.0					
	127	13	**10.53**	2145	4.0					
	153	11	**8.76**	2020	4.0					
	164	9.9	**8.18**	1978	4.0					
	194	8.4	**6.91**	1877	4.0					
	232	7.0	**5.77**	1775	4.0					
	268	6.0	**10.53**	1700	4.0	**DR072-G63/2a**	0,50	16	94	IE1
	322	5.0	**8.76**	1600	4.0					
	345	4.6	**8.18**	1565	4.0					
	408	3.9	**6.91**	1484	4.0					
	488	3.2	**5.77**	1400	4.0					
0,25 0,34	0,15	13678	**9820,98**	72993	1,0	**DR876-3E71M/4C**	0,67	517	138	IE3
	0,17	12013	**8612,25**	81952	1,1	**DR876-2E71M/4B**	0,71	516		IE2
	0,19	10636	**7613,73**	88397	1,2					

***: IE2 ve IE3 motorlu redüktör fiyatları farklıdır.** */ Geared motor prices are different for IE2 and IE3 motors.* / Preise von Getrieben mit IE2 und IE3 Motoren sind unterschiedlich.

D Serisi Motorlu Güç Devir Sayfaları

D Series Geared Motors Performance Tables

D Serien Getriebemotoren Leistung und Drehzahlübersicht

Güç *Power* Leistung P_g [kW] P_g [HP]	IE3 Çıkış Devri *Output Speeds* Abtriebswelle Drehzahlen n_2 [r.p.m]	IE3 Çıkış Momenti *Output Torque* Abtriebswelle Drehmomente M_2 [Nm]	Çevrim Oranı *Ratio* Übersetzung i	IE3 Güv. Rad. Yük Çıkış *Per.O. Loads (Output)* Zul.Querkräfte (Abtrieb) F_{qam} [N]	IE3 Servis Faktörü *Service Factors* Betriebsfaktor f_s	Tipi *Type* Typ	Anma Akımı *Rated Current* Nennstrom [A]	Ağırlık *Weight* Gewicht ~ [kg]	Ölçü Sayfası *Dim. Page* Maße Seite	Motor* Verim Snf. *Motor Eff. Class* Motor Effizienz-klasse
0,25	0,21	9363	**6697,26**	93668	1,4	**DR876-3E71M/4C**	0,67	517	138	IE3
0,34	0,24	8310	**5940,18**	97608	1,6	**DR876-2E71M/4B**	0,71	516		IE2
	0,27	7424	**5304,23**	100662	1,8					
	0,30	6669	**4762,49**	102950	1,9					
	0,36	5621	**4005,78**	106124	2,3					
	0,42	4788	**3405,63**	108461	2,7					
	0,48	4295	**2990,66**	109770	3,0	**DR875-3E71M/4C**	0,67	507	138	IE3
	0,53	3856	**2683,53**	110891	3,4	**DR875-2E71/M4B**	0,71	506		IE2
	0,61	3381	**2356,74**	112120	3,8					
	0,24	8243	**5875,88**	53790	1,0	**DR776-3E71M/4C**	0,67	317	132	IE3
	0,28	7094	**5058,99**	61512	1,1	**DR776-2E71M/4B**	0,71	316		IE2
	0,33	6089	**4334,63**	67209	1,3					
	0,37	5516	**3922,75**	69974	1,5					
	0,39	5293	**3691,20**	71146	1,5	**DR775-3E71M/4C**	0,67	307	132	IE3
	0,43	4738	**3302,14**	73639	1,7	**DR775-2E71M/4B**	0,71	306		IE2
	0,50	4090	**2855,58**	76208	2,0					
	0,57	3620	**2523,53**	78031	2,2					
	0,64	3240	**2257,90**	79424	2,5					
	0,72	2850	**1982,78**	80780	2,8					
	0,87	2386	**1656,07**	82304	3,4					
	0,95	2169	**1507,38**	82984	3,7					
	0,38	5365	**3820,66**	12259	0,8	**DR676-3E71M/4C**	0,67	286	126	IE3
						DR676-2E71M/4B	0,71	285		IE2
	0,45	4596	**3215,89**	26001	0,9	**DR675-3E71M/4C**	0,67	228	126	IE3
	0,50	4098	**2865,49**	31548	1,0	**DR675-2E71M/4B**	0,71	227		IE2
	0,59	3484	**2440,98**	36869	1,2					
	0,67	3049	**2132,27**	40028	1,4					
	0,72	2862	**1999,96**	41201	1,5					
	0,84	2435	**1700,37**	43830	1,8					
	0,97	2119	**1476,89**	45468	2,0					
	1,1	1857	**1292,28**	46795	2,3					
	1,4	1539	**675,51**	48262	2,8	**DR674-3E71M/6D**	0,77	222	124	IE3
	1,5	1372	**601,90**	48998	3,1	**DR674-2E71M/6C**	0,78	221		IE2
	1,8	1167	**512,73**	49860	3,7					
	0,60	3402	**2379,02**	15470	0,9	**DR575-3E71M/4C**	0,67	166	120	IE3
	0,69	2977	**2078,15**	22379	1,0	**DR575-2E71M/4B**	0,71	165		IE2
	0,74	2794	**1949,20**	24736	1,1					
	0,87	2377	**1657,21**	29070	1,3					
	1,0	2068	**1439,41**	31731	1,5					
	1,1	1813	**1259,48**	33669	1,7					
	1,3	1641	**720,91**	34856	1,8	**DR574-3E71M/6D**	0,77	162	118	IE3
	1,5	1389	**609,29**	36458	2,2	**DR574-2E71M/6C**	0,78	161		IE2
	1,9	1139	**499,72**	37896	2,6					
	2,0	1064	**720,91**	38264	2,8	**DR574-3E71M/4C**	0,67	161	118	IE3
	2,4	900	**609,29**	39116	3,3	**DR574-2E71M/4B**	0,71	160		IE2
	1,3	1639	**1140,69**	15667	0,9	**DR475-3E71M/4C**	0,67	123	114	IE3
	1,3	1532	**1065,48**	17184	1,0	**DR475-2E71M/4B**	0,71	122		IE2

***: IE2 ve IE3 motorlu redüktör fiyatları farklıdır.** */ Geared motor prices are different for IE2 and IE3 motors.* / Preise von Getrieben mit IE2 und IE3 Motoren sind unterschiedlich.

D Serisi Motorlu Güç Devir Sayfaları

D Series Geared Motors Performance Tables

D Serien Getriebemotoren Leistung und Drehzahlübersicht

Güç *Power* Leistung **P_g [kW]** P_g [HP]	IE3 Çıkış Devri *Output Speeds* Abtriebswelle Drehzahlen **n_2 [r.p.m]**	IE3 Çıkış Momenti *Output Torque* Abtriebswelle Drehmomente **M_2 [Nm]**	Çevrim Oranı *Ratio* Übersetzung **i**	IE3 Güv. Rad. Yük Çıkış *Per.O. Loads (Output)* Zul.Querkräfte (Abtrieb) **F_{qam} [N]**	IE3 Servis Faktörü *Service Factors* Betriebsfaktor **f_s**	Tipi *Type* Typ	Anma Akımı *Rated Current* Nennstrom **[A]**	Ağırlık *Weight* Gewicht ~ **[kg]**	Ölçü Sayfası *Dim. Page* Maße Seite	* Motor Verim Snf. *Motor Eff. Class* Motor Effizienz-klasse
0,25 0,34	1,6	1332	**584,15**	19550	1,2	**DR474-3E71M/6D**	0,77	118	112	IE3
	1,8	1191	**522,66**	20924	1,3	**DR474-2E71M/6C**	0,78	117		IE2
	2,0	1047	**458,98**	22211	1,5					
	2,5	863	**584,15**	23664	1,8	**DR474-3E71M/4C**	0,67	118	112	IE3
	2,7	772	**522,66**	24276	2,0	**DR474-2E71M/4B**	0,71	117		IE2
	3,1	679	**458,98**	24906	2,3					
	3,8	582	**242,68**	25504	2,7	**DR473-3E71M/6D**	0,77	112	110	IE3
	4,3	515	**215,03**	25901	3,0	**DR473-2E71M/6C**	0,78	111		IE2
	5,3	420	**174,97**	26439	3,7					
	2,2	956	**665,75**	9491	0,9	**DR375-3E71M/4C**	0,67	82	108	IE3
	2,5	819	**570,43**	12007	1,0	**DR375-2E71M/4B**	0,71	81		IE2
	2,8	742	**516,22**	13095	1,1					
	3,2	635	**442,60**	14416	1,3					
	3,8	545	**378,91**	15380	1,5					
	4,1	506	**351,62**	15758	1,6					
	4,3	480	**333,87**	16001	1,7					
	4,6	446	**309,82**	16280	1,8					
	5,4	411	**171,89**	16604	2,0	**DR373-3E71M/6D**	0,77	72	106	IE3
	6,2	362	**151,15**	17004	2,3	**DR373-2E71M/6C**	0,78	71		IE2
	7,4	301	**121,67**	17463	2,7					
	8,3	266	**171,89**	17696	3,1	**DR373-3E71M/4C**	0,67	71	106	IE3
	9,5	234	**151,15**	17915	3,5	**DR373-2E71M/4B**	0,71	70		IE2
	2,7	755	**524,87**	5217	0,8	**DR285-3E71M/4C**	0,67	42	104	IE3
	3,2	648	**449,72**	8258	0,9	**DR285-3E71M/4B**	0,71	41		IE2
	3,5	586	**406,99**	9531	1,0					
	4,1	502	**348,95**	10907	1,2					
	4,8	431	**298,73**	11868	1,4					
	5,2	400	**277,21**	12270	1,5					
	5,5	379	**263,22**	12513	1,6					
	5,9	352	**244,26**	12816	1,7					
	6,8	307	**212,12**	13274	2,0					
	6,9	325	**135,52**	13110	1,8	**DR283-3E71M/6D**	0,77	37	102	IE3
	7,8	286	**119,16**	13501	2,1	**DR283-2E71M/6C**	0,78	36		IE2
	8,3	269	**112,15**	13660	2,2					
	9,7	230	**95,92**	14013	2,6					
	11	210	**135,52**	14171	2,9	**DR283-3E71M/4C**	0,67	36	102	IE3
	12	185	**119,16**	14380	3,2	**DR283-2E71M/4B**	0,71	35		IE2
	13	174	**112,15**	14477	3,4					
	4,0	513	**356,74**	10925	0,9	**DR275-3E71M/4C**	0,67	33	100	IE3
	4,3	477	**331,04**	11541	0,9	**DR275-2E71M/4B**	0,71	32		IE2
	5,7	361	**251,08**	13172	1,2					
	6,7	330	**137,94**	13548	1,4	**DR273-3E71M/6D**	0,77	27	98	IE3
	7,7	289	**120,49**	14006	1,6	**DR273-2E71M/6C**	0,78	26		IE2
	8,2	271	**113,02**	14191	1,7					
	9,7	230	**96,09**	14587	2,0					

***: IE2 ve IE3 motorlu redüktör fiyatları farklıdır.** */ Geared motor prices are different for IE2 and IE3 motors.* / Preise von Getrieben mit IE2 und IE3 Motoren sind unterschiedlich.

D Serisi Motorlu Güç Devir Sayfaları

D Series Geared Motors Performance Tables

D Serien Getriebemotoren Leistung und Drehzahlübersicht

Güç *Power* Leistung **P_g [kW]** P_g [HP]	IE3 Çıkış Devri *Output Speeds* Abtriebswelle Drehzahlen **n_2 [r.p.m]**	IE3 Çıkış Momenti *Output Torque* Abtriebswelle Drehmomente **M_2 [Nm]**	Çevrim Oranı *Ratio* Übersetzung **i**	IE3 Güv. Rad. Yük Çıkış *Per.O. Loads (Output)* Zul.Querkräfte (Abtrieb) **F_{qam} [N]**	IE3 Servis Faktörü *Service Factors* Betriebsfaktor **f_s**	Tipi *Type* Typ	Anma Akımı *Rated Current* Nennstrom **[A]**	Ağırlık *Weight* Gewicht ~ **[kg]**	Ölçü Sayfası *Dim. Page* Maße Seite	Motor* Verim Snf. *Motor Eff. Class* Motor Effizienz-klasse
0,25 0,34	10	214	**137,94**	14725	2,1	**DR273-3E71M/4C**	0,67	26	98	IE3
	11	187	**120,49**	14963	2,4	**DR273-2E71M/4B**	0,71	25		IE2
	12	175	**113,02**	15061	2,6					
	14	149	**96,09**	15284	3,0					
	17	130	**83,46**	15434	3,5					
	19	114	**73,03**	15554	4,0					
	23	94	**60,39**	16165	4,0					
	10	221	**142,89**	5043	0,9	**DR173-3E71M/4C**	0,67	23	96	IE3
	12	187	**120,64**	5768	1,1	**DR173-2E71M/4B**	0,71	22		IE2
	14	160	**103,34**	6246	1,2					
	16	142	**91,25**	6541	1,4					
	17	132	**85,23**	6668	1,5					
	20	112	**72,04**	6948	1,8					
	24	94	**60,16**	7183	2,1					
	28	81	**51,88**	7327	2,5					
	30	74	**47,81**	7393	2,7					
	32	70	**44,66**	7440	2,9					
	38	59	**37,75**	7559	3,4					
	46	49	**31,52**	7675	4,0					
	11	206	**133.46**	3594	0.7	**DR073-3E71M/4C**	0,67	17	94	IE3
	12	186	**120.11**	3575	0.8	**DR073-2E71M/4B**	0,71	16		IE2
	14	156	**100.43**	3519	1.0					
	17	132	**85.12**	3446	1.1					
	20	113	**72.87**	3364	1.3					
	21	105	**67.62**	3321	1.4					
	23	98	**62.94**	3277	1.5					
	27	82	**52.62**	3163	1.8					
	32	69	**44.60**	3051	2.2					
	38	59	**38.18**	2943	2.5					
	41	55	**35.43**	2890	2.7					
	39	58	**36.86**	2918	2.6	**DR072-3E71M/4C**	0,67	16	94	IE3
	47	48	**30.71**	2790	3.1	**DR072-2E71M/4B**	0,71	15		IE2
	52	44	**27.64**	2715	3.4					
	57	39	**25.01**	2645	3.8					
	68	33	**21.12**	2527	4.0					
	79	29	**18.09**	2421	4.0					
	90	25	**15.97**	2337	4.0					
	96	24	**14.92**	2292	4.0					
	114	20	**12.61**	2183	4.0					
	136	17	**10.53**	2070	4.0					
	164	14	**8.76**	1950	4.0					
	175	13	**8.18**	1910	4.0					
	208	11	**6.91**	1816	4.0					
	249	9.1	**5.77**	1718	4.0					
	270	8.3	**10.53**	1681	4.0	**DR072-G63/2b**	0,67	17	94	IE1
	324	6.9	**8.76**	1582	4.0					
	347	6.5	**8.18**	1549	4.0					
	411	5.4	**6.91**	1469	4.0					
	492	4.5	**5.77**	1388	4.0					
0,37 0,50	0,13	23148	**7017,74**	183787	0,8	**DR976-3E80M/6B**	1,03	804	144	IE3
	0,17	18163	**5494,80**	199937	1,0	**DR976-2E80M/6A**	1,08	803		IE2
	0,20	15205	**4589,41**	208242	1,2					
	0,25	12240	**3686,99**	215571	1,5					
	0,30	10248	**3079,47**	219985	1,8					
	0,32	9690	**2909,37**	221154	1,9					

***: IE2 ve IE3 motorlu redüktör fiyatları farklıdır.** */ Geared motor prices are different for IE2 and IE3 motors.* / Preise von Getrieben mit IE2 und IE3 Motoren sind unterschiedlich.

D Serisi Motorlu Güç Devir Sayfaları

D Series Geared Motors Performance Tables

D Serien Getriebemotoren Leistung und Drehzahlübersicht

Güç *Power* Leistung P_g [kW] P_g [HP]	IE3 Çıkış Devri *Output Speeds* Abtriebswelle Drehzahlen n_2 [r.p.m]	IE3 Çıkış Momenti *Output Torque* Abtriebswelle Drehmomente M_2 [Nm]	Çevrim Oranı *Ratio* Übersetzung i	IE3 Güv. Rad. Yük Çıkış *Per.O. Loads (Output)* Zul.Querkräfte (Abtrieb) F_{qam} [N]	IE3 Servis Faktörü *Service Factors* Betriebsfaktor f_s	Tipi *Type* Typ	Anma Akımı *Rated Current* Nennstrom [A]	Ağırlık *Weight* Gewicht ~ [kg]	Ölçü Sayfası *Dim. Page* Maße Seite	* Motor Verim Snf. *Motor Eff. Class* Motor Effizienz-klasse
0,37 0,50	0,45 0,50 0,58 0,66	7066 6348 5408 4771	**2079,97** **1867,46** **1591,90** **1403,36**	226259 227547 229169 230224	2,5 2,8 3,3 3,8	**DR975-3E80M/6B** **DR975-2E80M/6A**	1,03 1,08	792 791	144	IE3 IE2
	0,19 0,21 0,24 0,27 0,30 0,36 0,42	16228 14285 12678 11327 10175 8576 7305	**7613,73** **6697,26** **5940,18** **5304,23** **4762,49** **4005,78** **3405,63**	54505 69094 78510 85270 90375 96644 101056	0,8 0,9 1,0 1,1 1,3 1,5 1,8	**DR876-3E71M/4D** **DR876-2E71M/4C**	0,97 1,00	517 516	138	IE3 IE2
	0,48 0,53 0,61 0,70 0,79 0,88	6553 5884 5158 4495 3979 3561	**2990,66** **2683,53** **2356,74** **2051,67** **1813,10** **1622,25**	103314 105351 107441 109244 110582 111624	2,0 2,2 2,5 2,9 3,3 3,7	**DR875-3E71M/4D** **DR875-2E71M/4C**	0,97 1,00	507 506	138	IE3 IE2
	0,33 0,37	9290 8416	**4334,63** **3922,75**	44601 52417	0,9 1,0	**DR776-3E71M/4D** **DR776-2E71M/4C**	0,97 1,00	317 316	132	IE3 IE2
	0,39 0,72 0,87 0,95 1,1 1,3	8076 4349 3641 3309 2911 2438	**3691,20** **1982,78** **1656,07** **1507,38** **1323,71** **1105,59**	55068 75155 77955 79175 80572 82139	1,0 1,8 2,2 2,4 2,7 3,3	**DR775-3E71M/4D** **DR775-2E71M/4C**	0,97 1,00	307 306	132	IE3 IE2
	0,59 0,67 0,72 0,84 0,97 1,1	5316 4652 4367 3715 3232 2833	**2440,98** **2132,27** **1999,96** **1700,37** **1476,89** **1292,28**	13612 25280 28653 35001 38750 41394	0,8 0,9 1,0 1,2 1,3 1,5	**DR675-3E71M/4D** **DR675-2E71M/4C**	0,97 1,00	228 227	126	IE3 IE2
	1,4 1,5 1,8	2347 2094 1781	**675,51** **601,90** **512,73**	44307 45615 47176	1,8 2,1 2,4	**DR674-3E80M/6B** **DR674-2E80M/6A**	1,03 1,08	225 224	124	IE3 IE2
	2,1 2,4 2,8	1521 1357 1154	**675,51** **601,90** **512,73**	48366 49086 49931	2,8 3,2 3,7	**DR674-3E71M/4D** **DR674-2E71M/4C**	0,97 1,00	222 221	124	IE3 IE2
	0,87 1,0 1,1	3627 3156 2766	**1657,21** **1439,41** **1259,48**	9632 19861 25078	0,8 1,0 1,1	**DR575-3E71M/4D** **DR575-2E71M/4C**	0,97 1,00	166 165	120	IE3 IE2
	1,3 1,5 1,9	2504 2119 1738	**720,91** **609,29** **499,72**	27850 31317 34195	1,2 1,4 1,7	**DR574-3E80M/6B** **DR574-2E80M/6A**	1,03 1,08	162 161	118	IE3 IE2
	2,0 2,4 2,9	1623 1374 1127	**720,91** **609,29** **499,72**	34978 36494 37923	1,8 2,2 2,7	**DR574-3E71M/4D** **DR574-2E71M/4C**	0,97 1,00	161 160	118	IE3 IE2

***: IE2 ve IE3 motorlu redüktör fiyatları farklıdır.** */ Geared motor prices are different for IE2 and IE3 motors.* / Preise von Getrieben mit IE2 und IE3 Motoren sind unterschiedlich.

D Serisi Motorlu Güç Devir Sayfaları

D Series Geared Motors Performance Tables

D Serien Getriebemotoren Leistung und Drehzahlübersicht

Güç *Power* Leistung P_g [kW] P_g [HP]	IE3 Çıkış Devri *Output Speeds* Abtriebswelle Drehzahlen n_2 [r.p.m]	IE3 Çıkış Momenti *Output Torque* Abtriebswelle Drehmomente M_2 [Nm]	Çevrim Oranı *Ratio* Übersetzung i	IE3 Güv. Rad. Yük Çıkış *Per.O. Loads (Output)* Zul.Querkräfte (Abtrieb) F_{qam} [N]	IE3 Servis Faktörü *Service Factors* Betriebsfaktor f_s	Tipi *Type* Typ	Anma Akımı *Rated Current* Nennstrom [A]	Ağırlık *Weight* Gewicht ~ [kg]	Ölçü Sayfası *Dim. Page* Maße Seite	Motor* Verim Snf. *Motor Eff. Class* Motor Effizienz-klasse
0,37 0,50	3,6	906	**255,83**	39089	3,3	**DR573-3E80M/6B** **DR573-2E80M/6A**	1,03 1,08	156 155	116	IE3 IE2
	1,8 2,0	1818 1598	**522,66** **458,98**	12659 16315	0,9 1,0	**DR474-3E80M/6B** **DR474-2E80M/6A**	1,03 1,08	121 120	112	IE3 IE2
	2,5 2,7 3,1	1317 1178 1036	**584,15** **522,66** **458,98**	19670 21049 22310	1,2 1,3 1,5	**DR474-3E71M/4D** **DR474-2E71M/4C**	0,97 1,00	118 117	112	IE3 IE2
	3,8 4,3 5,3	860 762 621	**242,68** **215,03** **174,97**	23651 24354 25280	1,8 2,0 2,5	**DR473-3E80M/6B** **DR473-2E80M/6A**	1,03 1,08	113 112	110	IE3 IE2
	5,9 6,7	559 495	**242,68** **215,03**	25654 26027	2,8 3,1	**DR473-3E71M/4D** **DR473-2E71M/4C**	0,97 1,00	110 109	110	IE3 IE2
	3,2 3,8 4,1 4,3 4,6	969 831 772 732 680	**442,60** **378,91** **351,62** **333,87** **309,82**	9249 11814 12674 13220 13882	0,8 1,0 1,1 1,1 1,2	**DR375-3E71M/4D** **DR375-2E71M/4C**	0,97 1,00	82 81	108	IE3 IE2
	5,4 6,2 7,6	608 535 431	**171,89** **151,15** **121,67**	14717 15455 16416	1,3 1,5 1,9	**DR373-3E80M/6B** **DR373-2E80M/6A**	1,03 1,08	75 74	106	IE3 IE2
	8,3 9,5 11 13	395 348 280 246	**171,89** **151,15** **121,67** **106,69**	16714 17094 17598 17836	2,1 2,4 2,9 3,3	**DR373-3E71M/4D** **DR373-2E71M/4C**	0,97 1,00	72 71	106	IE3 IE2
	4,1 4,8 5,2 5,5 5,9	766 657 610 579 538	**348,95** **298,73** **277,21** **263,22** **244,26**	4790 8036 9060 9669 10350	0,8 0,9 1,0 1,0 1,1	**DR285-3E71M/4D** **DR285-2E71M/4C**	0,97 1,00	42 41	104	IE3 IE2
	6,9 7,8 8,3 9,7	480 423 398 341	**135,52** **119,16** **112,15** **95,92**	11219 11988 12292 12924	1,2 1,4 1,5 1,8	**DR283-3E80M/6B** **DR283-2E80M/6A**	1,03 1,08	37 36	102	IE3 IE2
	11 12 13 15 17 19	312 275 259 221 194 172	**135,52** **119,16** **112,15** **95,92** **84,12** **74,36**	13217 13588 13740 14076 14305 14496	1,9 2,2 2,3 2,7 3,1 3,5	**DR283-3E71M/4D** **DR283-2E71M/4C**	0,97 1,00	35 34	102	IE3 IE2
	6,7 7,7 8,2 9,7	488 427 400 340	**137,94** **120,49** **113,02** **96,09**	11361 12304 12669 13404	0,9 1,1 1,1 1,3	**DR273-3E80M/6B** **DR273-2E80M/6A**	1,03 1,08	30 29	98	IE3 IE2

*: **IE2 ve IE3 motorlu redüktör fiyatları farklıdır.** / *Geared motor prices are different for IE2 and IE3 motors.* / Preise von Getrieben mit IE2 und IE3 Motoren sind unterschiedlich.

D Serisi Motorlu Güç Devir Sayfaları

D Series Geared Motors Performance Tables

D Serien Getriebemotoren Leistung und Drehzahlübersicht

Güç *Power* Leistung **P_g [kW]** P_g [HP]	IE3 Çıkış Devri *Output Speeds* Abtriebswelle Drehzahlen **n_2 [r.p.m]**	IE3 Çıkış Momenti *Output Torque* Abtriebswelle Drehmomente **M_2 [Nm]**	Çevrim Oranı *Ratio* Übersetzung **i**	IE3 Güv. Rad. Yük Çıkış *Per.O. Loads (Output)* Zul.Querkräfte (Abtrieb) **F_{qam} [N]**	IE3 Servis Faktörü *Service Factors* Betriebsfaktor **f_s**	Tipi *Type* Typ	Anma Akımı *Rated Current* Nennstrom **[A]**	Ağırlık *Weight* Gewicht ~ **[kg]**	Ölçü Sayfası *Dim. Page* Maße Seite	* Motor Verim Snf. *Motor Eff. Class* Motor Effizienz-klasse
0,37	10	317	**137,94**	13694	1,4	**DR273-3E71M/4D**	0,97	27	98	IE3
0,50	11	277	**120,49**	14103	1,6	**DR273-2E71M/4C**	1,00	26		IE2
	12	260	**113,02**	14278	1,7					
	14	221	**96,09**	14655	2,0					
	17	192	**83,46**	14915	2,3					
	19	169	**73,03**	15118	2,7					
	23	140	**60,39**	15359	3,2					
	28	117	**50,36**	15532	3,9					
	34	98	**42,22**	16051	4,0					
	39	84	**36,38**	16431	4,0					
	14	238	**103,34**	4596	0,8	**DR173-3E71M/4D**	0,97	23	96	IE3
	16	210	**91,25**	5288	1,0	**DR173-2E71M/4C**	1,00	22		IE2
	17	196	**85,23**	5576	1,0					
	20	166	**72,04**	6147	1,2					
	24	139	**60,16**	6581	1,4					
	28	120	**51,88**	6850	1,7					
	30	110	**47,81**	6972	1,8					
	32	103	**44,66**	7061	1,9					
	38	87	**37,75**	7256	2,3					
	46	73	**31,52**	7408	2,7					
	48	70	**29,67**	7441	2,9	**DR172-3E71M/4D**	0,97	21	96	IE3
	57	59	**25,24**	7523	3,4	**DR172-2E71M/4C**	1,00	20		IE2
	66	51	**21,79**	7217	3,9					
	75	45	**19,04**	6941	4,0					
	17	196	**85.12**	2958	0.8	**DR073-3E71M/4D**	0,97	16	94	IE3
	20	168	**72.87**	2953	0.9	**DR073-2E71M/4C**	1,00	15		IE2
	21	156	**67.62**	2941	1.0					
	23	145	**62.94**	2926	1.0					
	27	121	**52.62**	2873	1.2					
	32	103	**44.60**	2809	1.5					
	38	88	**38.18**	2738	1.7					
	41	82	**35.43**	2701	1.8					
	39	86	**36.86**	2720	1.7	**DR072-3E71M/4D**	0,97	15	94	IE3
	47	72	**30.71**	2626	2.1	**DR072-2E71M/4C**	1,00	14		IE2
	52	65	**27.64**	2569	2.3					
	57	59	**25.01**	2513	2.6					
	68	50	**21.12**	2417	3.0					
	79	43	**18.09**	2327	3.5					
	90	38	**15.97**	2255	4.0					
	96	35	**14.92**	2215	4.0					
	114	30	**12.61**	2118	4.0					
	136	25	**10.53**	2016	4.0					
	164	21	**8.76**	1901	4.0					
	175	19	**8.18**	1865	4.0					
	208	16	**6.91**	1777	4.0					
	249	14	**5.77**	1686	4.0					
	269	12	**10.53**	1656	4.0	**DR072-3E71M/2B**	0,86	17	94	IE3
	323	10	**8.76**	1559	4.0	**DR072-2E71M/2A**	0,90	16		IE2
	346	10	**8.18**	1528	4.0					
	409	8.2	**6.91**	1452	4.0					
0,55	0,21	22069	**7017,74**	187652	0,8	**DR976-3E80M/4C**	1,34	804	144	IE3
0,75	0,26	17317	**5494,80**	202689	1,0	**DR976-2E80M/4B**	1,45	803		IE2
	0,32	14496	**4589,41**	210277	1,2					
	0,39	11669	**3686,99**	216743	1,5					

***: IE2 ve IE3 motorlu redüktör fiyatları farklıdır.** */ Geared motor prices are different for IE2 and IE3 motors.* / Preise von Getrieben mit IE2 und IE3 Motoren sind unterschiedlich.

D Serisi Motorlu Güç Devir Sayfaları

D Series Geared Motors Performance Tables

D Serien Getriebemotoren Leistung und Drehzahlübersicht

Güç *Power* Leistung P_g [kW] P_g [HP]	IE3 Çıkış Devri *Output Speeds* Abtriebswelle Drehzahlen n_2 [r.p.m]	IE3 Çıkış Momenti *Output Torque* Abtriebswelle Drehmomente M_2 [Nm]	Çevrim Oranı *Ratio* Übersetzung i	IE3 Güv. Rad. Yük Çıkış *Per.O. Loads (Output)* Zul.Querkräfte (Abtrieb) F_{qam} [N]	IE3 Servis Faktörü *Service Factors* Betriebsfaktor f_s	Tipi *Type* Typ	Anma Akımı *Rated Current* Nennstrom [A]	Ağırlık *Weight* Gewicht ~ [kg]	Ölçü Sayfası *Dim. Page* Maße Seite	Motor* Verim Snf. *Motor Eff. Class* Motor Effizienz-klasse
0,55	0,47	9771	**3079,47**	220885	1,8	**DR976-3E80M/4C**	1,34	804	144	IE3
0,75	0,50	9238	**2909,37**	221983	1,9	**DR976-2E80M/4B**	1,45	803		IE2
	0,70	6736	**2079,97**	226794	2,7	**DR975-3E80M/4C**	1,34	792	144	IE3
	0,78	6052	**1867,46**	228013	3,0	**DR975-2E80M/4B**	1,45	791		IE2
	0,91	5156	**1591,90**	229547	3,5					
	0,30	14969	**4762,49**	64430	0,9	**DR876-3E80M/4C**	1,34	520	138	IE3
	0,36	12616	**4005,78**	78918	1,0	**DR876-2E80M/4B**	1,45	519		IE2
	0,43	10746	**3405,63**	87913	1,2					
	0,48	9640	**2990,66**	92569	1,3	**DR875-3E80M/4C**	1,34	510	138	IE3
	0,54	8656	**2683,53**	96350	1,5	**DR875-2E80M/4B**	1,45	509		IE2
	0,62	7588	**2356,74**	100112	1,7					
	0,71	6613	**2051,67**	103271	2,0					
	0,80	5854	**1813,10**	105562	2,2					
	0,89	5239	**1622,25**	107165	2,5					
	1,0	4609	**1424,58**	108901	2,8					
	1,2	3859	**1189,85**	110853	3,4					
	1,4	3397	**1046,63**	111995	3,8					
	0,51	9181	**2855,58**	45826	0,9	**DR775-3E80M/4C**	1,34	310	132	IE3
	0,57	8126	**2523,53**	54478	1,0	**DR775-2E80M/4B**	1,45	309		IE2
	0,64	7272	**2257,90**	60514	1,1					
	0,73	6397	**1982,78**	65553	1,3					
	0,88	5356	**1656,07**	70852	1,5					
	0,96	4868	**1507,38**	73071	1,6					
	1,1	4283	**1323,71**	75549	1,9					
	1,3	3586	**1105,59**	78253	2,2					
	1,5	3262	**632,92**	79426	2,5	**DR774-3E80M/6C**	1,47	303	130	IE3
	1,7	2921	**566,21**	80608	2,7	**DR774-2E80M/6B**	1,50	302		IE2
	1,9	2523	**489,64**	81922	3,2					
	0,98	4755	**1476,89**	23887	0,9	**DR675-3E80M/4C**	1,34	331	126	IE3
	1,1	4168	**1292,28**	30820	1,0	**DR675-2E80M/4B**	1,45	330		IE2
	1,4	3471	**675,51**	36972	1,2	**DR674-3E80M/6C**	1,47	225	124	IE3
	1,6	3096	**601,90**	39707	1,4	**DR674-2E80M/6B**	1,50	224		IE2
	1,8	2633	**512,73**	42671	1,6					
	2,1	2238	**675,51**	44914	1,9	**DR674-3E80M/4C**	1,34	225	124	IE3
	2,4	1996	**601,90**	46171	2,2	**DR674-2E80M/4B**	1,45	224		IE2
	2,8	1698	**512,73**	47611	2,5					
	3,4	1409	**424,33**	48840	3,1					
	4,0	1206	**362,91**	49703	3,6					
	1,5	3134	**609,29**	20249	1,0	**DR574-3E80M/6C**	1,47	162	118	IE3
	1,9	2570	**499,72**	27186	1,2	**DR574-2E80M/6B**	1,50	161		IE2
	2,0	2388	**720,91**	29025	1,3	**DR574-3E80M/4C**	1,34	163	118	IE3
	2,4	2021	**609,29**	32110	1,5	**DR574-2E80M/4B**	1,45	162		IE2
	2,9	1657	**499,72**	34749	1,8					

*: **IE2 ve IE3 motorlu redüktör fiyatları farklıdır.** / *Geared motor prices are different for IE2 and IE3 motors.* / Preise von Getrieben mit IE2 und IE3 Motoren sind unterschiedlich.

D Serisi Motorlu Güç Devir Sayfaları

D Series Geared Motors Performance Tables

D Serien Getriebemotoren Leistung und Drehzahlübersicht

Güç *Power* Leistung **P_g [kW]** P_g [HP]	IE3 Çıkış Devri *Output Speeds* Abtriebswelle Drehzahlen **n_2 [r.p.m]**	IE3 Çıkış Momenti *Output Torque* Abtriebswelle Drehmomente **M_2 [Nm]**	Çevrim Oranı *Ratio* Übersetzung **i**	IE3 Güv. Rad. Yük Çıkış *Per.O. Loads (Output)* Zul.Querkräfte (Abtrieb) **F_{qam} [N]**	IE3 Servis Faktörü *Service Factors* Betriebsfaktor **f_s**	Tipi *Type* Typ	Anma Akımı *Rated Current* Nennstrom **[A]**	Ağırlık *Weight* Gewicht ~ **[kg]**	Ölçü Sayfası *Dim. Page* Maße Seite	* Motor Verim Snf. *Motor Eff. Class* Motor Effizienz-klasse
0,55	3,7	1342	**255,83**	36738	2,2	**DR573-3E80M/6C**	1,47	156	116	IE3
0,75	4,5	1103	**209,81**	38094	2,7	**DR573-2E80M/6B**	1,50	155		IE2
	5,7	867	**255,83**	39263	3,5	**DR573-3E80M/4C**	1,34	155	116	IE3
						DR573-2E80M/4B	1,45	154		IE2
	2,5	1937	**584,15**	10111	0,8	**DR474-3E80M/4C**	1,34	121	112	IE3
	2,8	1733	**522,66**	14215	0,9	**DR474-2E80M/4B**	1,45	120		IE2
	3,2	1523	**458,98**	17235	1,0					
	3,9	1275	**242,68**	20103	1,2	**DR473-3E80M/6C**	1,47	113	110	IE3
	4,3	1129	**215,03**	21494	1,4	**DR473-2E80M/6B**	1,50	112		IE2
	5,3	921	**174,97**	23231	1,7					
	6,0	823	**242,68**	23953	1,9	**DR473-3E80M/4C**	1,34	112	110	IE3
	6,7	729	**215,03**	24603	2,1	**DR473-2E80M/4B**	1,45	111		IE2
	8,3	595	**174,97**	25426	2,6					
	10	471	**138,35**	26158	3,3					
	4,7	1001	**309,82**	8517	0,8	**DR375-3E80M/4C**	1,34	85	108	IE3
						DR375-2E80M/4B	1,45	84		IE2
	5,4	901	**171,89**	10607	0,9	**DR373-3E80M/6C**	1,47	77	106	IE3
	6,2	793	**151,15**	12370	1,0	**DR373-2E80M/6B**	1,50	76		IE2
	7,7	639	**121,67**	14372	1,3					
	8,4	582	**171,89**	14998	1,4	**DR373-3E80M/4C**	1,34	76	106	IE3
	9,6	512	**151,15**	15698	1,6	**DR373-2E80M/4B**	1,45	75		IE2
	12	413	**121,67**	16592	2,0					
	14	362	**106,69**	17001	2,3					
	15	321	**94,32**	17295	2,6					
	18	270	**79,34**	17664	3,0					
	21	230	**67,45**	17940	3,6					
	6,9	712	**135,52**	6656	0,8	**DR283-3E80M/6C**	1,47	74	102	IE3
	7,8	627	**119,16**	8728	1,0	**DR283-2E80M/6B**	1,50	73		IE2
	8,3	590	**112,15**	9443	1,0					
	9,7	505	**95,92**	10864	1,2					
	11	460	**135,52**	11506	1,3	**DR283-3E80M/4C**	1,34	38	102	IE3
	12	405	**119,16**	12212	1,5	**DR283-2E80M/4B**	1,45	37		IE2
	13	381	**112,15**	12492	1,6					
	15	326	**95,92**	13098	1,8					
	17	286	**84,12**	13498	2,1					
	19	253	**74,36**	13807	2,4					
	23	213	**62,55**	14139	2,8					
	27	182	**53,18**	14404	3,3					
	10	467	**137,94**	11699	1,0	**DR273-3E80M/4C**	1,34	32	98	IE3
	12	408	**120,49**	12560	1,1	**DR273-2E80M/4B**	1,45	31		IE2
	13	383	**113,02**	12896	1,2					
	15	326	**96,09**	13595	1,4					
	17	283	**83,46**	14060	1,6					
	19	248	**73,03**	14415	1,8					
	24	206	**60,39**	14793	2,2					
	28	172	**50,36**	15088	2,6					

***: IE2 ve IE3 motorlu redüktör fiyatları farklıdır.** */ Geared motor prices are different for IE2 and IE3 motors.* / Preise von Getrieben mit IE2 und IE3 Motoren sind unterschiedlich.

D Serisi Motorlu Güç Devir Sayfaları

D Series Geared Motors Performance Tables

D Serien Getriebemotoren Leistung und Drehzahlübersicht

Güç *Power* Leistung P_g [kW] P_g [HP]	IE3 Çıkış Devri *Output Speeds* Abtriebswelle Drehzahlen n_2 [r.p.m]	IE3 Çıkış Momenti *Output Torque* Abtriebswelle Drehmomente M_2 [Nm]	Çevrim Oranı *Ratio* Übersetzung i	IE3 Güv. Rad. Yük Çıkış *Per.O. Loads (Output)* Zul.Querkräfte (Abtrieb) F_{qam} [N]	IE3 Servis Faktörü *Service Factors* Betriebsfaktor f_s	Tipi *Type* Typ	Anma Akımı *Rated Current* Nennstrom [A]	Ağırlık *Weight* Gewicht ~ [kg]	Ölçü Sayfası *Dim. Page* Maße Seite	Motor* Verim Snf. *Motor Eff. Class* Motor Effizienz-klasse
0,55 0,75	34 39 47	144 124 104	**42,22** **36,38** **30,34**	15312 15466 15864	3,1 3,6 4,0	**DR273-3E80M/4C** **DR273-2E80M/4B**	1,34 1,45	32 31	98	IE3 IE2
	56	89	**25,78**	16303	4,0	**DR272-3E80M/4C** **DR272-2E80M/4B**	1,34 1,45	29 28	98	IE3 IE2
	20 24 28 30 32 38 46 53	244 204 176 163 152 129 107 93	**72,04** **60,16** **51,88** **47,81** **44,66** **37,75** **31,52** **27,18**	4406 5414 5961 6193 6378 6721 7010 7182	0,8 1,0 1,1 1,2 1,3 1,6 1,9 2,2	**DR173-3E80M/4C** **DR173-2E80M/4B**	1,34 1,45	26 25	96	IE3 IE2
	67 76 81 96 110	75 66 62 53 46	**21,79** **19,04** **17,86** **15,18** **13,19**	6944 6702 6588 6302 6058	2,7 3,0 3,2 3,8 4,0	**DR172-3E80M/4C** **DR172-2E80M/4B**	1,34 1,45	23 22	96	IE3 IE2
	28 33 38 41	179 152 130 121	**52.62** **44.60** **38.18** **35.43**	2417 2427 2414 2402	0.8 1.0 1.2 1.2	**DR073-3E80M/4C** **DR073-2E80M/4B**	1,34 1,45	17 16	94	IE3 IE2
	39 47 52 58 69 80 91 97 115 138 166 177 210 251	127 106 96 86 73 63 55 52 44 37 30 28 24 20	**36,86** **30,71** **27,64** **25,01** **21,12** **18,09** **15,97** **14,92** **12,61** **10,53** **8,76** **8,18** **6,91** **5,77**	2409 2369 2339 2306 2242 2178 2123 2092 2014 1929 1821 1790 1714 1633	1,2 1,4 1,6 1,7 2,1 2,4 2,7 2,9 3,4 4,0 4,0 4,0 4,0 4,0	**DR072-3E80M/4C** **DR072-2E80M/4B**	1,34 1,45	16 15	94	IE3 IE2
	269 323 346 409 490	19 16 15 12 10	**10.53** **8.76** **8.18** **6.91** **5.77**	1615 1522 1493 1422 1349	4.0 4.0 4.0 4.0 4.0	**DR072-3E71M/2C** **DR072-2E71M/2B**	1,19 1,25	17 16	94	IE3 IE2
0,75 1,0	0,32 0,39 0,47 0,50	19768 15913 13324 12597	**4589,41** **3686,99** **3079,47** **2909,37**	195316 206283 212951 214691	0,9 1,1 1,4 1,4	**DR976-3E80M/4D** **DR976-2E80M/4C**	1,77 1,89	805 803	144	IE3 IE2
	0,70 0,78 0,91 1,0 1,2 1,3	9186 8253 7031 6203 5507 4914	**2079,97** **1867,46** **1591,90** **1403,36** **1244,98** **1110,06**	222154 224002 226303 227786 228987 229979	2,0 2,2 2,6 2,9 3,3 3,7	**DR975-3E80M/4D** **DR975-2E80M/4C**	1,77 1,89	793 791	144	IE3 IE2

*: **IE2 ve IE3 motorlu redüktör fiyatları farklıdır.** / *Geared motor prices are different for IE2 and IE3 motors.* / Preise von Getrieben mit IE2 und IE3 Motoren sind unterschiedlich.

D Serisi Motorlu Güç Devir Sayfaları

D Series Geared Motors Performance Tables

D Serien Getriebemotoren Leistung und Drehzahlübersicht

Güç *Power* Leistung **P_g [kW]** P_g [HP]	IE3 Çıkış Devri *Output Speeds* Abtriebswelle Drehzahlen **n_2 [r.p.m]**	IE3 Çıkış Momenti *Output Torque* Abtriebswelle Drehmomente **M_2 [Nm]**	Çevrim Oranı *Ratio* Übersetzung **i**	IE3 Güv. Rad. Yük Çıkış *Per.O. Loads (Output)* Zul.Querkräfte (Abtrieb) **F_{qam} [N]**	IE3 Servis Faktörü *Service Factors* Betriebsfaktor **f_s**	Tipi *Type* Typ	Anma Akımı *Rated Current* Nennstrom **[A]**	Ağırlık *Weight* Gewicht ~ **[kg]**	Ölçü Sayfası *Dim. Page* Maße Seite	* Motor Verim Snf. *Motor Eff. Class* Motor Effizienz-klasse
0,75 1,0	0,43	14654	**3405,63**	66595	0,9	**DR876-3E80M/4D** **DR876-2E80M/4C**	1,77 1,89	521 519	138	IE3 IE2
	0,48 0,54 0,62 0,71 0,80 0,89 1,0 1,2 1,4 1,6 1,7	13146 11804 10348 9018 7982 7144 6284 5262 4633 4113 3675	**2990,66** **2683,53** **2356,74** **2051,67** **1813,10** **1622,25** **1424,58** **1189,85** **1046,63** **928,31** **828,93**	75941 82989 89644 94998 98730 101421 104147 107152 108879 110242 111344	1,0 1,1 1,3 1,4 1,6 1,8 2,1 2,5 2,8 3,2 3,5	**DR875-3E80M/4D** **DR875-2E80M/4C**	1,77 1,89	511 509	138	IE3 IE2
	0,64 0,73 0,88 0,96 1,1 1,3	9917 8724 7303 6639 5840 4890	**2257,90** **1982,78** **1656,07** **1507,38** **1323,71** **1105,59**	38132 49865 60205 64203 68487 72910	0,8 0,9 1,1 1,2 1,4 1,6	**DR775-3E80M/4D** **DR775-2E80M/4C**	1,77 1,89	311 309	132	IE3 IE2
	1,5 1,7 1,9	4401 3941 3404	**632,92** **566,21** **489,64**	74126 76103 78248	1,7 1,9 2,2	**DR774-3E90S/6B** **DR774-2E90S/6A**	1,96 2,00	305 303	130	IE3 IE2
	2,3 2,6 3,0	2868 2569 2218	**632,92** **566,21** **489,64**	80719 81717 82832	2,8 3,1 3,6	**DR774-3E80M/4D** **DR774-2E80M/4C**	1,77 1,89	301 299	130	IE3 IE2
	1,4 1,6 1,8	4683 4177 3553	**675,51** **601,90** **512,73**	24804 30824 36327	0,9 1,0 1,2	**DR674-3E90S/6B** **DR674-2E90S/6A**	1,96 2,00	227 225	124	IE3 IE2
	2,1 2,4 2,8 3,4 4,0 4,6 5,2	3052 2722 2316 1921 1645 1445 1279	**675,51** **601,90** **512,73** **424,33** **362,91** **318,25** **281,35**	40007 42135 44462 46477 47806 48705 49415	1,4 1,6 1,9 2,2 2,6 3,0 3,4	**DR674-3E80M/4D** **DR674-2E80M/4C**	1,77 1,89	226 224	124	IE3 IE2
	1,9	3468	**499,72**	13905	0,9	**DR574-3E90S/6B** **DR574-2E90S/6A**	1,96	167 165	118	IE3 IE2
	2,0 2,4 2,9	3256 2755 2260	**720,91** **609,29** **499,72**	18226 25206 30126	0,9 1,1 1,3	**DR574-3E80M/4D** **DR574-2E80M/4C**	1,77 1,89	165 163	118	IE3 IE2
	3,7 4,5 4,9	1810 1487 1365	**255,83** **209,81** **192,62**	33689 35805 36560	1,7 2,0 2,2	**DR573-3E90S/6B** **DR573-2E90S/6A**	1,96 2,00	161 159	116	IE3 IE2
	5,7 6,9 7,5	1184 973 893	**255,83** **209,81** **192,62**	37604 38745 39153	2,5 3,1 3,4	**DR573-3E80M/4D** **DR573-2E80M/4C**	1,77 1,89	157 155	116	IE3 IE2

***: IE2 ve IE3 motorlu redüktör fiyatları farklıdır.** */ Geared motor prices are different for IE2 and IE3 motors.* / Preise von Getrieben mit IE2 und IE3 Motoren sind unterschiedlich.

D Serisi Motorlu Güç Devir Sayfaları

D Series Geared Motors Performance Tables

D Serien Getriebemotoren Leistung und Drehzahlübersicht

Güç *Power* Leistung P_g [kW] P_g [HP]	IE3 Çıkış Devri *Output Speeds* Abtriebswelle Drehzahlen n_2 [r.p.m]	IE3 Çıkış Momenti *Output Torque* Abtriebswelle Drehmomente M_2 [Nm]	Çevrim Oranı *Ratio* Übersetzung i	IE3 Güv. Rad. Yük Çıkış *Per.O. Loads (Output)* Zul.Querkräfte (Abtrieb) F_{qam} [N]	IE3 Servis Faktörü *Service Factors* Betriebsfaktor f_s	Tipi *Type* Typ	Anma Akımı *Rated Current* Nennstrom [A]	Ağırlık *Weight* Gewicht ~ [kg]	Ölçü Sayfası *Dim. Page* Maße Seite	Motor* Verim Snf. *Motor Eff. Class* Motor Effizienz-klasse
0,75	3,9	1719	**242,68**	14462	0,9	**DR473-3E90S/6B**	1,96	118	110	IE3
1,0	4,4	1523	**215,03**	17279	1,0	**DR473-2E90S/6A**	2,00	116		IE2
	5,4	1241	**174,97**	20440	1,2					
	6,0	1124	**242,68**	21541	1,4	**DR473-3E80M/4D**	1,77	114	110	IE3
	6,7	996	**215,03**	22636	1,6	**DR473-2E80M/4C**	1,89	112		IE2
	8,3	812	**174,97**	23993	1,9					
	9,4	718	**154,63**	24643	2,2					
	10	643	**138,35**	25137	2,4					
	12	565	**121,49**	25618	2,7					
	14	473	**101,48**	26156	3,3					
	15	447	**95,87**	26301	3,5					
	7,8	861	**121,67**	11337	1,0	**DR373-3E90S/6B**	1,96	80	106	IE3
						DR373-2E90S/6A	2,00	78		IE2
	8,4	795	**171,89**	12348	1,0	**DR373-3E80M/4D**	1,77	76	106	IE3
	9,6	700	**151,15**	13643	1,2	**DR373-2E80M/4C**	1,89	74		IE2
	12	564	**121,67**	15190	1,5					
	14	495	**106,69**	15858	1,7					
	15	438	**94,32**	16351	1,9					
	18	369	**79,34**	16930	2,2					
	21	314	**67,45**	17353	2,6					
	25	269	**57,79**	17676	3,0					
	28	244	**52,30**	17851	3,4					
	11	628	**135,52**	8696	1,0	**DR283-3E80M/4D**	1,77	38	102	IE3
	12	553	**119,16**	10102	1,1	**DR283-2E80M/4C**	1,89	36		IE2
	13	521	**112,15**	10623	1,2					
	15	445	**95,92**	11700	1,3					
	17	391	**84,12**	12378	1,5					
	19	346	**74,36**	12886	1,7					
	23	291	**62,55**	13428	2,1					
	27	248	**53,18**	13839	2,4					
	32	213	**45,56**	14151	2,8					
	35	193	**41,23**	14319	3,1					
	12	523	**113,02**	10747	0,9	**DR273-3E80M/4D**	1,77	31	98	IE3
	15	445	**96,09**	12036	1,0	**DR273-2E80M/4C**	1,89	29		IE2
	17	387	**83,46**	12847	1,2					
	19	339	**73,03**	13443	1,3					
	24	281	**60,39**	14068	1,6					
	28	234	**50,36**	14532	1,9					
	34	197	**42,22**	14878	2,3					
	39	170	**36,38**	15110	2,7					
	47	142	**30,34**	15335	3,2					
	56	122	**25,78**	15487	3,7	**DR272-3E80M/4D**	1,77	29	98	IE3
	64	107	**22,67**	15748	4,0	**DR272-2E80M/4C**	1,89	27		IE2
	68	101	**21,33**	15954	4,0					
	79	86	**18,25**	16375	4,0					
	32	208	**44,66**	5325	1,0	**DR173-3E80M/4D**	1,77	27	96	IE3
	38	176	**37,75**	5978	1,1	**DR173-2E80M/4C**	1,89	25		IE2
	46	147	**31,52**	6460	1,4					
	53	127	**27,18**	6752	1,6					

*: **IE2 ve IE3 motorlu redüktör fiyatları farklıdır.** / *Geared motor prices are different for IE2 and IE3 motors.* / Preise von Getrieben mit IE2 und IE3 Motoren sind unterschiedlich.

D Serisi Motorlu Güç Devir Sayfaları

D Series Geared Motors Performance Tables

D Serien Getriebemotoren Leistung und Drehzahlübersicht

Güç *Power* Leistung P_g [kW] P_g [HP]	IE3 Çıkış Devri *Output Speeds* Abtriebswelle Drehzahlen n_2 [r.p.m]	IE3 Çıkış Momenti *Output Torque* Abtriebswelle Drehmomente M_2 [Nm]	Çevrim Oranı *Ratio* Übersetzung i	IE3 Güv. Rad. Yük Çıkış *Per.O. Loads (Output)* Zul.Querkräfte (Abtrieb) F_{qam} [N]	IE3 Servis Faktörü *Service Factors* Betriebsfaktor f_s	Tipi *Type* Typ	Anma Akımı *Rated Current* Nennstrom [A]	Ağırlık *Weight* Gewicht ~ [kg]	Ölçü Sayfası *Dim. Page* Maße Seite	* Motor Verim Snf. *Motor Eff. Class* Motor Effizienz-klasse
0,75 1,0	67 76 81 96 110 126 152	103 90 85 72 63 55 45	**21,79** **19,04** **17,86** **15,18** **13,19** **11,54** **9,54**	6659 6454 6356 6106 5889 5685 5398	1,9 2,2 2,4 2,8 3,2 3,7 4,0	**DR172-3E80M/4D** **DR172-2E80M/4C**	1,77 1,89	25 23	96	IE3 IE2
	33 38 41	207 178 165	**44.60** **38.18** **35.43**	1982 2041 2059	0.7 0.8 0.9	**DR073-3E80M/4D** **DR073-2E80M/4C**	1,77 1,89	18 17	94	IE3 IE2
	39 47 52 58 69 80 91 97 115 138 166 177 210 251	173 145 130 118 100 86 76 71 60 50 42 39 33 27	**36.86** **30.71** **27.64** **25.01** **21.12** **18.09** **15.97** **14.92** **12.61** **10.53** **8.76** **8.18** **6.91** **5.77**	2050 2077 2078 2072 2048 2014 1979 1959 1903 1837 1736 1711 1648 1578	0.9 1.0 1.1 1.3 1.5 1.8 2.0 2.1 2.5 3.0 3.6 3.9 4.0 4.0	**DR072-3E80M/4D** **DR072-2E80M/4C**	1,77 1,89	16 15	94	IE3 IE2
	273 329 352 417 499	25 21 19 16 14	**10.53** **8.76** **8.18** **6.91** **5.77**	1562 1474 1447 1383 1315	4.0 4.0 4.0 4.0 4.0	**DR072-3E80M/2B** **DR072-2E80M/2A**	1,59 1,67	17 16	94	IE3 IE2
1,1 1,5	0,50	18476	**2909,37**	199202	1,0	**DR976-3E90S/4C** **DR976-2E90S/4B**	2,46 2,60	798 796	144	IE3 IE2
	0,70 0,78 0,91 1,0 1,2 1,3 1,5	13473 12105 10312 9098 8077 7207 6106	**2079,97** **1867,46** **1591,90** **1403,36** **1244,98** **1110,06** **938,19**	212586 215840 219817 222332 224341 225980 227956	1,3 1,5 1,7 2,0 2,2 2,5 2,9	**DR975-3E90S/4C** **DR975-2E90S/4B**	2,46 2,60	798 796	144	IE3 IE2
	0,62 0,71 0,80 0,89 1,0 1,2 1,4 1,6 1,7 1,9	15177 13226 11707 10478 9217 7717 6795 6032 5391 4844	**2356,74** **2051,67** **1813,10** **1622,25** **1424,58** **1189,85** **1046,63** **928,31** **828,93** **744,27**	62792 75488 83461 89087 94234 99676 102551 104912 106787 108310	0,9 1,0 1,1 1,2 1,4 1,7 1,9 2,2 2,4 2,7	**DR875-3E90S/4C** **DR875-2E90S/4B**	2,46 2,60	516 514	138	IE3 IE2
	0,96 1,1 1,3	9737 8566 7172	**1507,38** **1323,71** **1105,59**	40181 51201 61029	0,8 0,9 1,1	**DR775-3E90S/4C** **DR775-2E90S/4B**	2,46 2,60	316 314	132	IE3 IE2

***: IE2 ve IE3 motorlu redüktör fiyatları farklıdır.** */ Geared motor prices are different for IE2 and IE3 motors.* / Preise von Getrieben mit IE2 und IE3 Motoren sind unterschiedlich.

D Serisi Motorlu Güç Devir Sayfaları

D Series Geared Motors Performance Tables

D Serien Getriebemotoren Leistung und Drehzahlübersicht

Güç *Power* Leistung **P_g [kW]** P_g [HP]	IE3 Çıkış Devri *Output Speeds* Abtriebswelle Drehzahlen **n_2 [r.p.m]**	IE3 Çıkış Momenti *Output Torque* Abtriebswelle Drehmomente **M_2 [Nm]**	Çevrim Oranı *Ratio* Übersetzung **i**	IE3 Güv. Rad. Yük Çıkış *Per.O. Loads (Output)* Zul.Querkräfte (Abtrieb) **F_{qam} [N]**	IE3 Servis Faktörü *Service Factors* Betriebsfaktor **f_s**	Tipi *Type* Typ	Anma Akımı *Rated Current* Nennstrom **[A]**	Ağırlık *Weight* Gewicht ~ **[kg]**	Ölçü Sayfası *Dim. Page* Maße Seite	Motor* Verim Snf. *Motor Eff. Class* Motor Effizienz-klasse
1,1 1,5	1,5	6489	**632,92**	65039	1,2	**DR774-3E90L/6C**	2,75	304	130	IE3
	1,7	5811	**566,21**	68629	1,4	**DR774-2E90L/6B**	2,90	301		IE2
	1,9	5019	**489,64**	72400	1,6					
	2,3	4207	**632,92**	75738	1,9	**DR774-3E90S/4C**	2,46	306	130	IE3
	2,6	3767	**566,21**	77474	2,1	**DR774-2E90S/4B**	2,60	304		IE2
	3,0	3254	**489,64**	79376	2,5					
	3,3	2912	**438,10**	80570	2,7					
	3,8	2562	**384,72**	81739	3,1					
	4,5	2145	**321,33**	83060	3,7					
	2,1	4476	**675,51**	27375	1,0	**DR674-3E90S/4C**	2,46	331	124	IE3
	2,4	3992	**601,90**	32594	1,1	**DR674-3E90S/4B**	2,60	329		IE2
	2,8	3396	**512,73**	37544	1,3					
	3,4	2818	**424,33**	41537	1,5					
	4,0	2412	**362,91**	43892	1,8					
	4,6	2119	**318,25**	45466	2,0					
	5,2	1877	**281,35**	46699	2,3					
	6,1	1582	**236,65**	48093	2,7					
	2,9	3315	**499,72**	17181	0,9	**DR574-3E90S/4C**	2,46	167	118	IE3
						DR574-2E90S/4B	2,60	165		IE2
	3,7	2673	**255,83**	26097	1,1	**DR573-3E90L/6C**	2,75	162	116	IE3
	4,5	2197	**209,81**	30672	1,4	**DR573-2E90L/6B**	2,90	159		IE2
	4,9	2016	**192,62**	32145	1,5					
	5,7	1737	**255,83**	34201	1,7	**DR573-3E90S/4C**	2,46	162	116	IE3
	6,9	1428	**209,81**	36162	2,1	**DR573-2E90S/4B**	2,60	160		IE2
	7,5	1310	**192,62**	36873	2,3					
	8,6	1149	**168,60**	37801	2,6					
	9,7	1017	**149,15**	38512	2,9					
	12	861	**126,06**	39313	3,5					
	5,4	1833	**174,97**	12410	0,8	**DR473-3E90L/6C**	2,75	118	110	IE3
						DR473-2E90L/6B	2,90	115		IE2
	6,0	1650	**242,68**	15508	0,9	**DR473-3E90S/4C**	2,46	119	110	IE3
	6,7	1462	**215,03**	18039	1,1	**DR473-2E90S/4B**	2,60	117		IE2
	8,3	1192	**174,97**	20919	1,3					
	9,4	1054	**154,63**	22151	1,5					
	10	943	**138,35**	23015	1,6					
	12	829	**121,49**	23909	1,9					
	14	694	**101,48**	24807	2,2					
	15	656	**95,87**	25054	2,4					
	19	531	**154,63**	25810	2,9	**DR473-3E80M/2C**	2,26	114	110	IE3
	21	475	**138,35**	26408	3,2	**DR473-2E80M/2B**	2,36	112		IE2
	10	1027	**151,15**	7865	0,8	**DR373-3E90S/4C**	2,46	81	106	IE3
	12	827	**121,67**	11884	1,0	**DR373-2E90S/4B**	2,60	79		IE2
	14	726	**106,69**	13303	1,1					
	15	643	**94,32**	14330	1,3					
	18	541	**79,34**	15416	1,5					
	21	461	**67,45**	16176	1,8					
	25	395	**57,79**	16714	2,1					
	28	358	**52,30**	17016	2,3					

***: IE2 ve IE3 motorlu redüktör fiyatları farklıdır.** */ Geared motor prices are different for IE2 and IE3 motors.* / Preise von Getrieben mit IE2 und IE3 Motoren sind unterschiedlich.

D Serisi Motorlu Güç Devir Sayfaları

D Series Geared Motors Performance Tables

D Serien Getriebemotoren Leistung und Drehzahlübersicht

Güç *Power* Leistung **P_g [kW]** P_g [HP]	IE3 Çıkış Devri *Output Speeds* Abtriebswelle Drehzahlen **n_2 [r.p.m]**	IE3 Çıkış Momenti *Output Torque* Abtriebswelle Drehmomente **M_2 [Nm]**	Çevrim Oranı *Ratio* Übersetzung **i**	IE3 Güv. Rad. Yük Çıkış *Per.O. Loads (Output)* Zul.Querkräfte (Abtrieb) **F_{qam} [N]**	IE3 Servis Faktörü *Service Factors* Betriebsfaktor **f_s**	Tipi *Type* Typ	Anma Akımı *Rated Current* Nennstrom **[A]**	Ağırlık *Weight* Gewicht ~ **[kg]**	Ölçü Sayfası *Dim. Page* Maße Seite	* Motor Verim Snf. *Motor Eff. Class* Motor Effizienz-klasse
1,1 1,5	35 41 45	284 244 221	**41,42** **35,49** **32,11**	17814 18333 18617	2,8 3,1 3,3	**DR373-3E90S/4C** **DR373-2E90S/4B**	2,46 2,60	81 79	106	IE3 IE2
	13 15 17 19 23 27 32 35	764 654 574 508 428 364 312 283	**112,15** **95,92** **84,12** **74,36** **62,55** **53,18** **45,56** **41,23**	4872 8124 9765 10819 11927 12672 13217 13511	0,8 0,9 1,0 1,2 1,4 1,6 1,9 2,1	**DR283-3E90S/4C** **DR283-2E90S/4B**	2,46 2,60	43 41	102	IE3 IE2
	49 58	207 172	**29,85** **24,79**	14199 14484	2,9 3,5	**DR282-3E90S/4C** **DR282-2E90S/4B**	2,46 2,60	40 38	102	IE3 IE2
	17 19 24 28 34 39 47	568 498 412 344 289 249 208	**83,46** **73,03** **60,39** **50,36** **42,22** **36,38** **30,34**	9899 11201 12511 13374 13983 14391 14778	0,8 0,9 1,1 1,3 1,6 1,8 2,2	**DR273-3E90S/4C** **DR273-2E90S/4B**	2,46 2,60	36 34	98	IE3 IE2
	56 64 68 79 90 102 121	179 157 148 127 111 98 83	**25,78** **22,67** **21,33** **18,25** **16,00** **14,14** **11,90**	15033 15210 15284 15450 15586 15069 14365	2,5 2,9 3,0 3,6 4,0 4,0 4,0	**DR272-3E90S/4C** **DR272-2E90S/4B**	2,46 2,60	34 32	98	IE3 IE2
	46 53	215 186	**31,52** **27,18**	5167 5772	0,9 1,1	**DR173-3E90S/4C** **DR173-2E90S/4B**	2,46 2,60	32 30	96	IE3 IE2
	67 76 81 96 110 126 152 187 216 247 298	151 132 124 106 92 80 67 54 47 41 34	**21,79** **19,04** **17,86** **15,18** **13,19** **11,54** **9,54** **7,74** **6,72** **5,88** **4,86**	6143 6008 5939 5755 5587 5422 5182 4858 4688 4527 4300	1,3 1,5 1,6 1,9 2,2 2,5 3,0 3,3 3,6 3,9 4,0	**DR172-3E90S/4C** **DR172-2E90S/4B**	2,46 2,60	29 27	96	IE3 IE2
	58 69 80 91 97 115 138 166 177 210 251	173 146 126 111 104 88 73 61 57 48 40	**25.01** **21.12** **18.09** **15.97** **14.92** **12.61** **10.53** **8.76** **8.18** **6.91** **5.77**	1638 1689 1712 1716 1715 1699 1670 1582 1568 1529 1480	0.9 1.0 1.2 1.4 1.4 1.7 2.0 2.5 2.6 3.1 3.7	**DR072-3E90S/4C** **DR072-2E90S/4B**	2,46 2,60	25 24	94	IE3 IE2

***: IE2 ve IE3 motorlu redüktör fiyatları farklıdır.** */ Geared motor prices are different for IE2 and IE3 motors.* / Preise von Getrieben mit IE2 und IE3 Motoren sind unterschiedlich.

D Serisi Motorlu Güç Devir Sayfaları

D Series Geared Motors Performance Tables

D Serien Getriebemotoren Leistung und Drehzahlübersicht

Güç *Power* Leistung P_g [kW] P_g [HP]	IE3 Çıkış Devri *Output Speeds* Abtriebswelle Drehzahlen n_2 [r.p.m]	IE3 Çıkış Momenti *Output Torque* Abtriebswelle Drehmomente M_2 [Nm]	Çevrim Oranı *Ratio* Übersetzung i	IE3 Güv. Rad. Yük Çıkış *Per.O. Loads (Output)* Zul.Querkräfte (Abtrieb) F_{qam} [N]	IE3 Servis Faktörü *Service Factors* Betriebsfaktor f_s	Tipi *Type* Typ	Anma Akımı *Rated Current* Nennstrom [A]	Ağırlık *Weight* Gewicht ~ [kg]	Ölçü Sayfası *Dim. Page* Maße Seite	Motor* Verim Snf. *Motor Eff. Class* Motor Effizienz-klasse
1,1	273	37	**10.53**	1481	4.0	**DR072-3E80M/2C**	2,26	26	94	IE3
1,5	329	31	**8.76**	1400	4.0	**DR072-2E80M/2B**	2,36	25		IE2
	352	29	**8.18**	1378	4.0					
	417	24	**6.91**	1325	4.0					
	499	20	**5.77**	1267	4.0					
1,5	0,70	18372	**2079,97**	199607	1,0	**DR975-3E90L/4D**	3,30	800	144	IE3
2,0	0,78	16506	**1867,46**	204963	1,1	**DR975-2E90L/4C**	3,40	799		IE2
	0,91	14061	**1591,90**	211126	1,3					
	1,0	12406	**1403,36**	215140	1,5					
	1,2	11014	**1244,98**	218297	1,6					
	1,3	9827	**1110,06**	220838	1,8					
	1,5	8326	**938,19**	223860	2,2					
	1,8	7228	**523,19**	225963	2,5	**DR974-3E100L/6B**	3,50	797	142	IE3
	2,3	5744	**415,16**	228600	3,1	**DR974-2E100L/6A**	3,72	794		IE2
	2,6	5144	**371,15**	229612	3,5					
	0,80	15964	**1813,10**	56766	0,8	**DR875-3E90L/4D**	3,30	518	138	IE3
	0,89	14288	**1622,25**	69092	0,9	**DR875-2E90L/4C**	3,40	517		IE2
	1,0	12569	**1424,58**	79094	1,0					
	1,2	10523	**1189,85**	88889	1,2					
	1,4	9266	**1046,63**	94046	1,4					
	1,6	8363	**607,27**	97254	1,6	**DR874-3E100L/6B**	3,50	515	136	IE3
	1,8	7411	**537,22**	100572	1,8	**DR874-2E100L/6A**	3,72	512		IE2
	2,0	6657	**482,05**	103075	2,0					
	2,3	5639	**407,42**	106098	2,3					
	2,9	4630	**334,15**	108908	2,8					
	3,3	4061	**293,46**	110391	3,2					
	3,7	3593	**259,15**	111563	3,6					
	1,5	8710	**632,92**	50148	0,9	**DR774-3E100L/6B**	3,50	314	130	IE3
	1,7	7800	**566,21**	56906	1,0	**DR774-2E100L/6A**	3,72	311		IE2
	2,0	6736	**489,64**	63642	1,2					
	2,3	5737	**632,92**	69006	1,4	**DR774-3E90L/4D**	3,30	305	130	IE3
	2,6	5137	**566,21**	71865	1,6	**DR774-2E90L/4C**	3,40	304		IE2
	3,0	4437	**489,64**	74917	1,8					
	3,3	3971	**438,10**	76683	2,0					
	3,8	3493	**384,72**	78505	2,3					
	4,3	3124	**222,16**	79856	2,6	**DR773-3E100L/6B**	3,50	294	128	IE3
	5,0	2678	**190,20**	81373	3,0	**DR773-2E100L/6A**	3,72	291		IE2
	6,0	2228	**158,23**	82813	3,6					
	2,8	4631	**512,73**	25407	0,9	**DR674-3E90L/4D**	3,30	233	124	IE3
	3,4	3843	**424,33**	33994	1,1	**DR674-2E90L/4C**	3,40	232		IE2
	4,0	3289	**362,91**	38339	1,3					
	4,3	3111	**221,47**	39600	1,4	**DR673-3E100L/6B**	3,50	232	122	IE3
	4,8	2771	**197,01**	41834	1,6	**DR673-2E100L/6A**	3,72	231		IE2
	5,7	2365	**167,96**	44147	1,8					
	6,8	1969	**139,76**	46253	2,2					
	7,7	1756	**124,53**	47295	2,4					
	7,7	1756	**124,53**	47295	2,4					

*: **IE2 ve IE3 motorlu redüktör fiyatları farklıdır.** / *Geared motor prices are different for IE2 and IE3 motors.* / Preise von Getrieben mit IE2 und IE3 Motoren sind unterschiedlich.

D Serisi Motorlu Güç Devir Sayfaları

D Series Geared Motors Performance Tables

D Serien Getriebemotoren Leistung und Drehzahlübersicht

Güç *Power* Leistung **P_g [kW]** P_g [HP]	IE3 Çıkış Devri *Output Speeds* Abtriebswelle Drehzahlen **n_2 [r.p.m]**	IE3 Çıkış Momenti *Output Torque* Abtriebswelle Drehmomente **M_2 [Nm]**	Çevrim Oranı *Ratio* Übersetzung **i**	IE3 Güv. Rad. Yük Çıkış *Per.O. Loads (Output)* Zul.Querkräfte (Abtrieb) **F_{qam} [N]**	IE3 Servis Faktörü *Service Factors* Betriebsfaktor **f_s**	Tipi *Type* Typ	Anma Akımı *Rated Current* Nennstrom **[A]**	Ağırlık *Weight* Gewicht ~ **[kg]**	Ölçü Sayfası *Dim. Page* Maße Seite	* Motor Verim Snf. *Motor Eff. Class* Motor Effizienz-klasse
1,5 2,0	4,6	2948	**209,81**	22865	1,0	**DR573-3E100L/6B** **DR573-2E100L/6A**	3,50 3,72	171 168	116	IE3 IE2
	5,7 6,9 7,5 8,6 9,7 12	2371 1949 1789 1568 1389 1175	**255,83** **209,81** **192,62** **168,60** **149,15** **126,06**	29124 32665 33841 35330 36403 37652	1,3 1,5 1,7 1,9 2,2 2,6	**DR573-3E90L/4D** **DR573-2E90L/4C**	3,30 3,40	163 162	116	IE3 IE2
	14 15	973 893	**209,81** **192,62**	38746 39154	3,1 3,4	**DR573-3E90S/2B** **DR573-2E90S/2A**	2,97 3,19	161 159	116	IE3 IE2
	6,7 8,3 9,4 10 12 14 15	1995 1627 1439 1288 1132 947 895	**215,03** **174,97** **154,63** **138,35** **121,49** **101,48** **95,87**	8539 15860 18308 19974 21470 22984 23411	0,8 1,0 1,1 1,2 1,4 1,6 1,7	**DR473-3E90L/4D** **DR473-2E90L/4C**	3,30 3,40	119 118	110	IE3 IE2
	19 21 24	718 643 565	**154,63** **138,35** **121,49**	24649 25448 26250	2,2 2,3 2,5	**DR473-3E90S/2B** **DR473-2E90S/2A**	2,97 3,19	117 115	110	IE3 IE2
	14 15 18 21 25 28 35 41 45	991 877 739 629 540 489 388 333 301	**106,69** **94,32** **79,34** **67,45** **57,79** **52,30** **41,42** **35,49** **32,11**	8750 11036 13135 14486 15433 15922 17054 17753 18127	0,8 0,9 1,1 1,3 1,5 1,7 2,0 2,2 2,4	**DR373-3E90L/4D** **DR373-2E90L/4C**	3,30 3,40	83 82	106	IE3 IE2
	57 65	241 213	**25,42** **22,46**	17870 18054	3,4 3,8	**DR372-3E90L/4D** **DR372-2E90L/4C**	3,30 3,40	77 76	106	IE3 IE2
	19 23 27 32 35	693 584 497 426 386	**74,36** **62,55** **53,18** **45,56** **41,23**	7173 9579 10980 11945 12434	0,9 1,0 1,2 1,4 1,6	**DR283-3E90L/4D** **DR283-2E90L/4C**	3,30 3,40	45 44	102	IE3 IE2
	49 58 68 77	283 235 202 178	**29,85** **24,79** **21,28** **18,73**	13513 13955 14243 14519	2,1 2,6 3,0 3,3	**DR282-3E90L/4D** **DR282-2E90L/4C**	3,30 3,40	42 41	102	IE3 IE2
	24 28 34 39 47	562 470 394 340 284	**60,39** **50,36** **42,22** **36,38** **30,34**	10018 11658 12752 13428 14035	0,8 1,0 1,1 1,3 1,6	**DR273-3E90L/4D** **DR273-2E90L/4C**	3,30 3,40	38 37	98	IE3 IE2

***: IE2 ve IE3 motorlu redüktör fiyatları farklıdır.** */ Geared motor prices are different for IE2 and IE3 motors.* / Preise von Getrieben mit IE2 und IE3 Motoren sind unterschiedlich.

D Serisi Motorlu Güç Devir Sayfaları

D Series Geared Motors Performance Tables

D Serien Getriebemotoren Leistung und Drehzahlübersicht

Güç *Power* Leistung **P_g [kW]** P_g [HP]	IE3 Çıkış Devri *Output Speeds* Abtriebswelle Drehzahlen **n_2 [r.p.m]**	IE3 Çıkış Momenti *Output Torque* Abtriebswelle Drehmomente **M_2 [Nm]**	Çevrim Oranı *Ratio* Übersetzung **i**	IE3 Güv. Rad. Yük Çıkış *Per.O. Loads (Output)* Zul.Querkräfte (Abtrieb) **F_{qam} [N]**	IE3 Servis Faktörü *Service Factors* Betriebsfaktor **f_s**	Tipi *Type* Typ	Anma Akımı *Rated Current* Nennstrom **[A]**	Ağırlık *Weight* Gewicht ~ **[kg]**	Ölçü Sayfası *Dim. Page* Maße Seite	Motor* Verim Snf. *Motor Eff. Class* Motor Effizienz-klasse
1,5 2,0	56	244	**25,78**	14440	1,8	**DR272-3E90L/4D**	3,30	36	98	IE3
	64	215	**22,67**	14715	2,1	**DR272-2E90L/4C**	3,40	35		IE2
	68	202	**21,33**	14829	2,2					
	79	173	**18,25**	15081	2,6					
	90	152	**16,00**	15254	3,0					
	102	134	**14,14**	14870	3,3					
	121	113	**11,90**	14198	4,0					
	143	96	**10,11**	13587	4,0					
	67	207	**21,79**	5372	1,0	**DR172-3E90L/4D**	3,30	31	96	IE3
	76	181	**19,04**	5477	1,1	**DR172-2E90L/4C**	3,40	30		IE2
	81	169	**17,86**	5444	1,2					
	96	144	**15,18**	5340	1,4					
	110	125	**13,19**	5230	1,6					
	126	110	**11,54**	5113	1,8					
	152	91	**9,54**	4929	2,2					
	187	74	**7,74**	4631	2,4					
	216	64	**6,72**	4492	2,7					
	247	56	**5,88**	4357	2,9					
	298	46	**4,86**	4161	3,1					
	69	200	**21.12**	1248	0.8	**DR072-3E90L/4D**	3,30	26	94	IE3
	80	172	**18.09**	1343	0.9	**DR072-2E90L/4C**	3,40	25		IE2
	91	152	**15.97**	1397	1.0					
	97	142	**14.92**	1419	1.1					
	115	120	**12.61**	1455	1.3					
	138	100	**10.53**	1469	1.5					
	166	83	**8.76**	1398	1.8					
	177	78	**8.18**	1397	1.9					
	210	66	**6.91**	1386	2.3					
	251	55	**5.77**	1363	2.7					
	275	50	**10.53**	1385	3.0	**DR072-3E90S/2B**	2,97	27	94	IE3
	331	42	**8.76**	1311	3.6	**DR072-2E90S/2A**	3,19	26		IE2
	355	39	**8.18**	1296	3.9					
	419	33	**6.91**	1256	4.0					
	502	27	**5.77**	1210	4.0					
2,2 3,0	0,91	20623	**1591,90**	192317	0,9	**DR975-3E100L/4C**	4,65	805	144	IE3
	1,0	18196	**1403,36**	200150	1,0	**DR975-2E100L/4B**	4,85	803		IE2
	1,2	16154	**1244,98**	205776	1,1					
	1,3	14413	**1110,06**	210362	1,2					
	1,5	12211	**938,19**	215691	1,5					
	1,7	11244	**864,41**	217874	1,6					
	1,8	10492	**523,19**	219470	1,7	**DR974-3E112M/6B**	4,95	801	142	IE3
	2,3	8338	**415,16**	223866	2,2	**DR974-2E112M/6A**	5,32	798		IE2
	2,6	7467	**371,15**	225522	2,4					
	2,8	6982	**523,19**	226435	2,6	**DR974-3E100L/4C**	4,65	799	142	IE3
	3,5	5549	**415,16**	228949	3,2	**DR974-2E100L/4B**	4,85	797		IE2
	3,9	4969	**371,15**	229915	3,6					
	1,2	15434	**1189,85**	61236	0,8	**DR875-3E100L/4C**	4,65	825	138	IE3
	1,4	13590	**1046,63**	73373	1,0	**DR875-2E100L/4B**	4,85	823		IE2
	1,6	12139	**607,27**	81321	1,1	**DR874-3E112M/6B**	4,95	521	136	IE3
	1,8	10757	**537,22**	87867	1,2	**DR874-2E112M/6A**	5,32	518		IE2

***: IE2 ve IE3 motorlu redüktör fiyatları farklıdır.** */ Geared motor prices are different for IE2 and IE3 motors.* / Preise von Getrieben mit IE2 und IE3 Motoren sind unterschiedlich.

D Serisi Motorlu Güç Devir Sayfaları

D Series Geared Motors Performance Tables

D Serien Getriebemotoren Leistung und Drehzahlübersicht

Güç *Power* Leistung P_g [kW] P_g [HP]	IE3 Çıkış Devri *Output Speeds* Abtriebswelle Drehzahlen n_2 [r.p.m]	IE3 Çıkış Momenti *Output Torque* Abtriebswelle Drehmomente M_2 [Nm]	Çevrim Oranı *Ratio* Übersetzung i	IE3 Güv. Rad. Yük Çıkış *Per.O. Loads (Output)* Zul.Querkräfte (Abtrieb) F_{qam} [N]	IE3 Servis Faktörü *Service Factors* Betriebsfaktor f_s	Tipi *Type* Typ	Anma Akımı *Rated Current* Nennstrom [A]	Ağırlık *Weight* Gewicht ~ [kg]	Ölçü Sayfası *Dim. Page* Maße Seite	* Motor Verim Snf. *Motor Eff. Class* Motor Effizienz-klasse
2,2	2,0	9662	**482,05**	92483	1,3	**DR874-3E112M/6B**	4,95	521	136	IE3
3,0	2,4	8184	**407,42**	97896	1,6	**DR874-2E112M/6A**	5,32	518		IE2
	2,4	8079	**607,27**	98328	1,6	**DR874-3E100L/4C**	4,65	520	136	IE3
	2,7	7159	**537,22**	101567	1,8	**DR874-2E100L/4B**	4,85	518		IE2
	3,0	6430	**482,05**	103767	2,0					
	3,6	5447	**407,42**	106680	2,4					
	4,3	4472	**334,15**	109347	2,9					
	4,9	3923	**293,46**	110787	3,3					
	5,6	3470	**259,15**	111876	3,7					
	2,3	8414	**632,92**	52382	1,0	**DR774-3E100L/4C**	4,65	312	130	IE3
	2,6	7535	**566,21**	58704	1,1	**DR774-2E100L/4B**	4,85	310		IE2
	3,0	6507	**489,64**	64817	1,2					
	3,3	5824	**438,10**	68465	1,4					
	3,8	5124	**384,72**	71927	1,6					
	4,3	4540	**222,16**	74383	1,8	**DR773-3E112M/6B**	4,95	298	128	IE3
	5,1	3892	**190,20**	77017	2,1	**DR773-2E112M/6A**	5,32	295		IE2
	6,1	3239	**158,23**	79451	2,5					
	6,5	3030	**222,16**	80200	2,6	**DR773-3E100L/4C**	4,65	298	128	IE3
	7,6	2598	**190,20**	81650	3,1	**DR773-2E100L/4B**	4,85	296		IE2
	9,2	2162	**158,23**	83029	3,7					
	4,4	4522	**221,47**	26935	1,0	**DR673-3E112M/6B**	4,95	236	122	IE3
	4,9	4027	**197,01**	32204	1,1	**DR673-2E112M/6A**	5,32	233		IE2
	5,7	3438	**167,96**	37227	1,3					
	6,5	3018	**221,47**	40162	1,4	**DR673-3E100L/4C**	4,65	236	122	IE3
	7,4	2688	**197,01**	42343	1,6	**DR673-2E100L/4B**	4,85	234		IE2
	8,6	2295	**167,96**	44618	1,9					
	10	1910	**139,76**	46564	2,3					
	12	1704	**124,53**	47556	2,5					
	5,7	3446	**168,60**	14530	0,9	**DR573-3E112M/6B**	4,95	175	116	IE3
	6,5	3052	**149,15**	21427	1,0	**DR573-2E112M/6A**	5,32	172		IE2
	6,9	2859	**209,81**	23940	1,0	**DR573-3E100L/4C**	4,65	175	116	IE3
	7,5	2625	**192,62**	26616	1,1	**DR573-2E100L/4B**	4,85	173		IE2
	8,6	2300	**168,60**	29696	1,3					
	9,7	2038	**149,15**	31920	1,5					
	12	1725	**126,06**	34288	1,7					
	14	1415	**103,39**	36314	2,1					
	16	1251	**91,30**	37243	2,4					
	18	1113	**81,15**	38016	2,7					
	21	943	**68,64**	38915	3,2					
	24	841	**61,12**	39427	3,6					
	10	1889	**138,35**	11205	0,8	**DR473-3E100L/4C**	4,65	124	110	IE3
	12	1661	**121,49**	15352	0,9	**DR473-2E100L/4B**	4,85	122		IE2
	14	1390	**101,48**	18876	1,1					
	15	1314	**95,87**	19655	1,2					
	18	1110	**81,00**	21633	1,4					
	21	969	**70,59**	23211	1,5					
	23	850	**61,85**	24515	1,7					
	27	747	**54,35**	25371	1,9					

***: IE2 ve IE3 motorlu redüktör fiyatları farklıdır.** */ Geared motor prices are different for IE2 and IE3 motors.* / Preise von Getrieben mit IE2 und IE3 Motoren sind unterschiedlich.

D Serisi Motorlu Güç Devir Sayfaları

D Series Geared Motors Performance Tables

D Serien Getriebemotoren Leistung und Drehzahlübersicht

Güç *Power* Leistung P_g [kW] P_g [HP]	IE3 Çıkış Devri *Output Speeds* Abtriebswelle Drehzahlen n_2 [r.p.m]	IE3 Çıkış Momenti *Output Torque* Abtriebswelle Drehmomente M_2 [Nm]	Çevrim Oranı *Ratio* Übersetzung i	IE3 Güv. Rad. Yük Çıkış *Per.O. Loads (Output)* Zul.Querkräfte (Abtrieb) F_{qam} [N]	IE3 Servis Faktörü *Service Factors* Betriebsfaktor f_s	Tipi *Type* Typ	Anma Akımı *Rated Current* Nennstrom [A]	Ağırlık *Weight* Gewicht ~ [kg]	Ölçü Sayfası *Dim. Page* Maße Seite	Motor* Verim Snf. *Motor Eff. Class* Motor Effizienz-klasse
2,2	31	652	**47,37**	26277	2,1	**DR473-3E100L/4C**	4,65	124	110	IE3
3,0	35	572	**41,50**	27013	2,3	**DR473-2E100L/4B**	4,85	122		IE2
	42	473	**34,28**	27850	2,6					
	21	923	**67,45**	10194	0,9	**DR373-3E100L/4C**	4,65	88	106	IE3
	25	792	**57,79**	12393	1,0	**DR373-2E100L/4B**	4,85	86		IE2
	28	717	**52,30**	13389	1,1					
	35	569	**41,42**	15466	1,4					
	41	488	**35,49**	16597	1,5					
	45	442	**32,11**	17144	1,6					
	53	379	**27,53**	17886	1,8					
	57	354	**25,42**	17057	2,3	**DR372-3E100L/4C**	4,65	82	106	IE3
	65	313	**22,46**	17367	2,6	**DR372-2E100L/4B**	4,85	80		IE2
	72	280	**20,10**	17606	2,9					
	82	246	**17,65**	17841	3,3					
	27	729	**53,18**	6107	0,8	**DR283-3E100L/4C**	4,65	50	102	IE3
	32	626	**45,56**	8745	1,0	**DR283-2E100L/4B**	4,85	48		IE2
	35	567	**41,23**	9864	1,1					
	41	486	**35,35**	11121	1,2					
	48	417	**30,28**	12173	1,4					
	58	345	**24,79**	12895	1,7	**DR282-3E100L/4C**	4,65	47	102	IE3
	68	296	**21,28**	13389	2,0	**DR282-2E100L/4B**	4,85	45		IE2
	77	261	**18,73**	13820	2,3					
	87	232	**16,62**	14290	2,4					
	103	196	**14,06**	14870	2,7					
	121	168	**12,03**	15297	2,9					
	140	145	**10,38**	15617	3,2					
	153	132	**9,45**	15800	3,3					
	177	115	**8,19**	15645	3,6					
	34	578	**42,22**	9662	0,8	**DR273-3E100L/4C**	4,65	43	98	IE3
	39	499	**36,38**	11181	0,9	**DR273-2E100L/4B**	4,85	41		IE2
	47	417	**30,34**	12427	1,1					
	57	350	**25,44**	13425	1,3					
	64	315	**22,67**	13703	1,4	**DR272-3E100L/4C**	4,65	41	98	IE3
	68	297	**21,33**	13906	1,5	**DR272-2E100L/4B**	4,85	39		IE2
	79	254	**18,25**	14351	1,8					
	90	223	**16,00**	14648	2,0					
	102	197	**14,14**	14519	2,3					
	121	166	**11,90**	13904	2,7					
	143	141	**10,11**	13337	3,0					
	167	121	**8,67**	12809	3,3					
	212	96	**6,84**	**11975**	3,3					
	249	82	**5,82**	**11465**	3,6					
	291	70	**4,98**	10993	3,9					
	81	249	**17,86**	4278	0,8	**DR172-3E100L/4C**	4,65	36	96	IE3
	96	212	**15,18**	4576	0,9	**DR172-2E100L/4B**	4,85	34		IE2
	110	184	**13,19**	4576	1,1					
	126	161	**11,54**	4548	1,2					
	152	133	**9,54**	4470	1,5					
	187	108	**7,74**	4218	1,7					
	216	94	**6,72**	4138	1,8					
	247	82	**5,88**	4050	1,9					
	298	68	**4,86**	3911	2,1					

***: IE2 ve IE3 motorlu redüktör fiyatları farklıdır.** */ Geared motor prices are different for IE2 and IE3 motors.* / Preise von Getrieben mit IE2 und IE3 Motoren sind unterschiedlich.

D Serisi Motorlu Güç Devir Sayfaları

D Series Geared Motors Performance Tables

D Serien Getriebemotoren Leistung und Drehzahlübersicht

Güç *Power* Leistung **P_g [kW]** P_g [HP]	IE3 Çıkış Devri *Output Speeds* Abtriebswelle Drehzahlen **n_2 [r.p.m]**	IE3 Çıkış Momenti *Output Torque* Abtriebswelle Drehmomente **M_2 [Nm]**	Çevrim Oranı *Ratio* Übersetzung **i**	IE3 Güv. Rad. Yük Çıkış *Per.O. Loads (Output)* Zul.Querkräfte (Abtrieb) **F_{qam} [N]**	IE3 Servis Faktörü *Service Factors* Betriebsfaktor **f_s**	Tipi *Type* Typ	Anma Akımı *Rated Current* Nennstrom **[A]**	Ağırlık *Weight* Gewicht ~ **[kg]**	Ölçü Sayfası *Dim. Page* Maße Seite	* Motor Verim Snf. *Motor Eff. Class* Motor Effizienz-klasse
2,2 3,0	375	54	**7,74**	3728	2,7	**DR172-3E90L/2C**	4,25	29	96	IE3
	431	47	**6,72**	3610	2,9	**DR172-2E90L/2B**	4,48	27		IE2
	493	41	**5,88**	3497	3,2					
	596	34	**4,86**	3335	3,4					
	91	223	**15.97**	784	0.7	**DR072-3E100L/4C**	4,65	25	94	IE3
	97	208	**14.92**	855	0.7	**DR072-2E100L/4B**	4,85	24		IE2
	115	176	**12.61**	993	0.9					
	138	147	**10.53**	1094	1.0					
	166	122	**8.76**	1050	1.2					
	177	114	**8.18**	1075	1.3					
	210	97	**6.91**	1121	1.6					
	251	81	**5.77**	1147	1.9					
	275	74	**10.53**	1212	2.0	**DR072-3E90L/2C**	4,25	26	94	IE3
	331	61	**8.76**	1152	2.5	**DR072-2E90L/2B**	4,48	25		IE2
	355	57	**8.18**	1148	2.6					
	419	48	**6.91**	1133	3.1					
	502	40	**5.77**	1109	3.7					
3,0 4,0	1,2	22028	**1244,98**	187523	0,8	**DR975-3E100L/4D**	6,26	806	144	IE3
	1,3	19655	**1110,06**	195673	0,9	**DR975-2E100L/4C**	6,42	803		IE2
	1,5	16652	**938,19**	204401	1,1					
	1,7	15333	**864,41**	207981	1,2					
	1,9	14233	**523,19**	210931	1,3	**DR974-3E132S/6B**	6,55	819	142	IE3
	2,3	11311	**415,16**	217867	1,6	**DR974-2E132S/6A**	6,85	814		IE2
	2,6	10130	**371,15**	220349	1,8					
	2,8	9521	**523,19**	221538	1,9	**DR974-3E100L/4D**	6,26	801	142	IE3
	3,5	7567	**415,16**	225359	2,4	**DR974-2E100L/4C**	6,42	798		IE2
	3,9	6776	**371,15**	226807	2,7					
	4,4	6091	**333,23**	228020	3,0					
	5,1	5192	**284,06**	229548	3,5					
	1,6	16451	**928,31**	52631	0,8	**DR875-3E100L/4D**	6,26	526	138	IE3
	1,7	14701	**828,93**	66292	0,9	**DR875-2E100L/4C**	6,42	523		IE2
	1,9	13210	**744,27**	75580	1,0					
	2,4	11016	**607.27**	86527	1,2	**DR874-3E100L/4D**	6,26	516	136	IE3
	2,7	9762	**537.22**	91940	1,3	**DR874-2E100L/4C**	6,42	513		IE2
	3,0	8768	**482.05**	95901	1,5					
	3,6	7427	**407.42**	100563	1,8					
	4,3	6098	**334.15**	104776	2,1					
	4,9	5350	**293.46**	106956	2,4					
	5,6	4732	**259.15**	108655	2,7					
	6,4	4127	**225.61**	110243	3,2					
	2,6	10274	**566,21**	33564	0,8	**DR774-3E100L/4D**	6,26	313	130	IE3
	3,0	8873	**489,64**	48595	0,9	**DR774-2E100L/4C**	6,42	310		IE2
	3,3	7942	**438,10**	55907	1,0					
	3,8	6987	**384,72**	62014	1,1					
	4,4	6153	**222,16**	66852	1,3	**DR773-3E132S/6B**	6,55	318	128	IE3
	5,1	5275	**190,20**	71217	1,5	**DR773-2E132S/6A**	6,85	313		IE2
	6,1	4390	**158,23**	75104	1,8					

***: IE2 ve IE3 motorlu redüktör fiyatları farklıdır.** */ Geared motor prices are different for IE2 and IE3 motors.* / Preise von Getrieben mit IE2 und IE3 Motoren sind unterschiedlich.

D Serisi Motorlu Güç Devir Sayfaları

D Series Geared Motors Performance Tables

D Serien Getriebemotoren Leistung und Drehzahlübersicht

Güç *Power* Leistung **P_g [kW]** P_g [HP]	IE3 Çıkış Devri *Output Speeds* Abtriebswelle Drehzahlen **n_2 [r.p.m]**	IE3 Çıkış Momenti *Output Torque* Abtriebswelle Drehmomente **M_2 [Nm]**	Çevrim Oranı *Ratio* Übersetzung **i**	IE3 Güv. Rad. Yük Çıkış *Per.O. Loads (Output)* Zul.Querkräfte (Abtrieb) **F_{qam} [N]**	IE3 Servis Faktörü *Service Factors* Betriebsfaktor **f_s**	Tipi *Type* Typ	Anma Akımı *Rated Current* Nennstrom **[A]**	Ağırlık *Weight* Gewicht ~ **[kg]**	Ölçü Sayfası *Dim. Page* Maße Seite	Motor Verim Snf.* *Motor Eff. Class* Motor Effizienz-klasse
3,0	6,5	4135	**222,16**	76089	1,9	**DR773-3E100L/4D**	6,26	319	128	IE3
4,0	7,6	3545	**190,20**	78360	2,3	**DR773-2E100L/4C**	6,42	316		IE2
	9,2	2950	**158,23**	80474	2,7					
	10	2642	**141,55**	81498	3,0					
	5,8	4660	**167,96**	25164	0,9	**DR673-3E132S/6B**	6,55	254	122	IE3
						DR673-2E132S/6A	6,85	249		IE2
	6,5	4118	**221,47**	31316	1,0	**DR673-3E100L/4D**	6,26	236	122	IE3
	7,4	3668	**197,01**	35396	1,2	**DR673-2E100L/4C**	6,42	233		IE2
	8,6	3131	**167,96**	39385	1,4					
	10	2607	**139,76**	42832	1,6					
	12	2325	**124,53**	44444	1,8					
	14	1928	**69,18**	46507	2,2	**DR673-3E132S/6B**	6,55	254	122	IE3
	16	1697	**60,82**	47615	2,5	**DR673-2E132S/6A**	6,80	249		IE2
	16	1655	**59,34**	47810	2,6					
	19	1425	**51,01**	48832	3,0					
	22	1238	**44,27**	49622	3,5					
	25	1084	**38,70**	50245	4,0					
	7,5	3581	**192,62**	11083	0,8	**DR573-3E100L/4D**	6,26	176	116	IE3
	8,6	3139	**168,60**	20186	1,0	**DR573-2E100L/4C**	6,42	173		IE2
	9,7	2780	**149,15**	24889	1,1					
	12	2353	**126,06**	29214	1,3					
	14	1931	**103,39**	32746	1,6					
	16	1708	**91,30**	34348	1,8					
	18	1519	**81,15**	35651	2,0					
	21	1287	**68,64**	37037	2,3					
	24	1147	**61,12**	37830	2,6					
	29	942	**50,13**	38922	3,2					
	33	833	**44,27**	39467	3,6					
	14	1896	**101,48**	11053	0,8	**DR473-3E100L/4D**	6,26	124	110	IE3
	15	1792	**95,87**	13215	0,9	**DR473-2E100L/4C**	6,42	121		IE2
	18	1515	**81,00**	17384	1,0					
	21	1322	**70,59**	20090	1,1					
	23	1159	**61,85**	22159	1,2					
	27	1020	**54,35**	23542	1,4					
	31	890	**47,37**	24882	1,5					
	35	781	**41,50**	25887	1,7					
	42	646	**34,28**	27043	1,9					
	59	468	**24,54**	26195	3,3	**DR472-3E100L/4D**	6,26	119	110	IE3
	70	396	**20,74**	26586	3,9	**DR472-2E100L/4C**	6,42	116		IE2
	28	978	**52,30**	9067	0,8	**DR373-3E100L/4D**	6,26	89	106	IE3
	35	777	**41,42**	13097	1,0	**DR373-2E100L/4C**	6,42	86		IE2
	41	666	**35,49**	14874	1,1					
	45	604	**32,11**	15762	1,2					
	53	517	**27,53**	16884	1,3					
	57	483	**25,42**	15976	1,7	**DR372-3E100L/4D**	6,26	83	106	IE3
	65	427	**22,46**	16456	1,9	**DR372-2E100L/4C**	6,42	80		IE2
	72	382	**20,10**	16831	2,1					
	82	336	**17,65**	17195	2,4					
	98	281	**14,74**	17599	2,9					
	107	259	**13,60**	17753	3,2					

*: **IE2 ve IE3 motorlu redüktör fiyatları farklıdır.** / *Geared motor prices are different for IE2 and IE3 motors.* / Preise von Getrieben mit IE2 und IE3 Motoren sind unterschiedlich.

D Serisi Motorlu Güç Devir Sayfaları

D Series Geared Motors Performance Tables

D Serien Getriebemotoren Leistung und Drehzahlübersicht

Güç *Power* Leistung **P_g [kW]** P_g [HP]	IE3 Çıkış Devri *Output Speeds* Abtriebswelle Drehzahlen **n_2 [r.p.m]**	IE3 Çıkış Momenti *Output Torque* Abtriebswelle Drehmomente **M_2 [Nm]**	Çevrim Oranı *Ratio* Übersetzung **i**	IE3 Güv. Rad. Yük Çıkış *Per.O. Loads (Output)* Zul.Querkräfte (Abtrieb) **F_{qam} [N]**	IE3 Servis Faktörü *Service Factors* Betriebsfaktor **f_s**	Tipi *Type* Typ	Anma Akımı *Rated Current* Nennstrom **[A]**	Ağırlık *Weight* Gewicht ~ **[kg]**	Ölçü Sayfası *Dim. Page* Maße Seite	* Motor Verim Snf. *Motor Eff. Class* Motor Effizienz-klasse
3,0 4,0	123	224	**11,77**	17289	3,5	**DR372-3E100L/4D** **DR372-2E100L/4C**	6,26 6,42	83 80	106	IE3 IE2
	41 48	663 568	**35,35** **30,28**	7964 10008	0,9 1,0	**DR283-3E100L/4D** **DR283-2E100L/4C**	6,26 6,42	51 48	102	IE3 IE2
	58 68 77 87 103 121 140 153 177 205 218 253 278 321 370	471 404 356 316 268 230 198 181 156 136 127 110 100 87 75	**24,79** **21,28** **18,73** **16,62** **14,06** **12,03** **10,38** **9,45** **8,19** **7,09** **6,65** **5,74** **5,22** **4,52** **3,92**	11328 12200 12877 13534 14319 14882 15296 15527 15438 14856 14541 13977 13623 13099 12587	1,3 1,5 1,7 1,8 2,0 2,1 2,3 2,4 2,6 2,8 2,7 2,9 3,0 3,2 3,5	**DR282-3E100L/4D** **DR282-2E100L/4C**	6,26 6,42	47 44	102	IE3 IE2
	47 57	568 477	**30,34** **25,44**	9874 11697	0,8 0,9	**DR273-3E100L/4D** **DR273-2E100L/4C**	6,26 6,42	43 40	98	IE3 IE2
	64 68 79 90 102 121 143 167 212 249 291	430 405 347 304 269 227 193 166 131 111 95	**22,67** **21,33** **18,25** **16,00** **14,14** **11,90** **10,11** **8,67** **6,84** **5,82** **4,98**	12231 12585 13341 13837 14112 13563 13049 12563 11762 11284 10839	1,0 1,1 1,3 1,5 1,7 2,0 2,2 2,4 2,4 2,7 2,9	**DR272-3E100L/4D** **DR272-2E100L/4C**	6,26 6,42	41 38	98	IE3 IE2
	336 426 501 584	82 65 55 47	**8,67** **6,84** **5,82** **4,98**	10475 9787 9361 8969	3,9 4,0 4,0 4,0	**DR272-3E100L/2C** **DR272-2E100L/2B**	5,58 5,80	41 38	98	IE3 IE2
	110 126 152 187 216 247 298	251 220 182 148 128 112 93	**13,19** **11,54** **9,54** **7,74** **6,72** **5,88** **4,86**	3782 3865 3919 3720 3712 3683 3613	0,8 0,9 1,1 1,2 1,3 1,4 1,6	**DR172-3E100L/4D** **DR172-2E100L/4C**	6,26 6,42	36 33	96	IE3 IE2
	377 434 496 599	73 64 56 46	**7,74** **6,72** **5,88** **4,86**	3492 3407 3320 3189	2,0 2,1 2,3 2,5	**DR172-3E100L/2C** **DR172-2E100L/2B**	5,58 5,80	38 35	96	IE3 IE2
	138 166 177	201 167 156	**10.53** **8.76** **8.18**	570 552 676	0.7 0.9 1.0	**DR072-3E100L/4D** **DR072-2E100L/4C**	6,26 6,42	33 32	94	IE3 IE2

***: IE2 ve IE3 motorlu redüktör fiyatları farklıdır.** */ Geared motor prices are different for IE2 and IE3 motors.* / Preise von Getrieben mit IE2 und IE3 Motoren sind unterschiedlich.

D Serisi Motorlu Güç Devir Sayfaları

D Series Geared Motors Performance Tables

D Serien Getriebemotoren Leistung und Drehzahlübersicht

Güç *Power* Leistung P_g [kW] P_g [HP]	IE3 Çıkış Devri *Output Speeds* Abtriebswelle Drehzahlen n_2 [r.p.m]	IE3 Çıkış Momenti *Output Torque* Abtriebswelle Drehmomente M_2 [Nm]	Çevrim Oranı *Ratio* Übersetzung i	IE3 Güv. Rad. Yük Çıkış *Per.O. Loads (Output)* Zul.Querkräfte (Abtrieb) F_{qam} [N]	IE3 Servis Faktörü *Service Factors* Betriebsfaktor f_s	Tipi *Type* Typ	Anma Akımı *Rated Current* Nennstrom [A]	Ağırlık *Weight* Gewicht ~ [kg]	Ölçü Sayfası *Dim. Page* Maße Seite	Motor Verim Snf.* *Motor Eff. Class* Motor Effizienz-klasse
3,0	210	132	**6.91**	791	1.1	**DR072-3E100L/4D**	6,26	32	94	IE3
4,0	251	110	**5.77**	880	1.4	**DR072-2E100L/4C**	6,42	31		IE2
	277	100	**10.53**	1005	1.5	**DR072-3E100L/2C**	5,58	33	94	IE3
	333	83	**8.76**	960	1.8	**DR072-2E100L/2B**	5,80	32		IE2
	356	78	**8.18**	970	1.9					
	422	66	**6.91**	985	2.3					
	505	55	**5.77**	988	2.7					
4,0	1,9	18977	**523,19**	197747	0,9	**DR974-3E132M/6C**	8,52	823	142	IE3
5,5	2,3	15082	**415,16**	208766	1,2	**DR974-2E132M/6B**	8,80	818		IE2
	2,6	13506	**371,15**	212724	1,3					
	2,8	12608	**523,19**	214667	1,4	**DR974-3E112M/4D**	8,05	813	142	IE3
	3,5	10020	**415,16**	220435	1,8	**DR974-2E112M/4C**	8,20	811		IE2
	3,9	8973	**371,15**	222584	2,0					
	4,4	8065	**333,23**	224365	2,2					
	5,1	6875	**284,06**	226587	2,6					
	5,8	6069	**250,41**	228022	3,0					
	6,6	5390	**222,15**	229185	3,3					
	7,4	4811	**197,95**	228968	3,7					
	2,4	14588	**607,27**	67056	0,9	**DR874-3E112M/4D**	8,05	524	136	IE3
	2,7	12927	**537,22**	77163	1,0	**DR874-2E112M/4C**	8,20	522		IE2
	3,0	11611	**482,05**	83925	1,1					
	3,6	9835	**407,42**	91781	1,3					
	4,4	8075	**334,15**	98437	1,6					
	5,0	7084	**293,46**	101618	1,8					
	5,6	6267	**259,15**	104202	2,1					
	6,5	5465	**225,61**	106576	2,4					
	7,6	4757	**128,20**	108689	2,7	**DR873-3E132M/6C**	8,52	527	134	IE3
	8,4	4273	**115,03**	109905	3,0	**DR873-2E132M/6B**	8,80	522		IE2
	9,6	3749	**101,03**	111224	3,5					
	11	3269	**87,95**	112387	4,0					
	4,4	8212	**222,16**	53965	1,0	**DR773-3E132M/6C**	8,52	322	128	IE3
	5,1	7040	**190,20**	61827	1,1	**DR773-2E132M/6B**	8,80	317		IE2
	6,1	5859	**158,23**	68379	1,4					
	11	3038	**81,72**	80178	2,6					
	13	2698	**72,50**	81433	3,0					
	6,6	5477	**222,16**	70275	1,5	**DR773-3E112M/4D**	8,05	308	128	IE3
	7,7	4696	**190,20**	73725	1,7	**DR773-2E112M/4C**	8,20	306		IE2
	9,2	3908	**158,23**	76929	2,0					
	10	3500	**141,55**	78480	2,3					
	7,4	4858	**197,01**	22387	0,9	**DR673-3E112M/4D**	8,05	237	122	IE3
	8,7	4148	**167,96**	31041	1,0	**DR673-2E112M/4C**	8,20	235		IE2
	10	3453	**139,76**	37109	1,2					
	12	3080	**124,53**	39813	1,4					
	14	2573	**69,18**	43022	1,7	**DR673-3E132M/6C**	8,52	258	122	IE3
	16	2209	**59,34**	45068	1,9	**DR673-2E132M/6B**	8,80	253		IE2
	19	1902	**51,01**	46637	2,3					
	22	1653	**44,27**	47819	2,6					
	25	1447	**38,70**	48713	3,0					

***: IE2 ve IE3 motorlu redüktör fiyatları farklıdır.** */ Geared motor prices are different for IE2 and IE3 motors.* / Preise von Getrieben mit IE2 und IE3 Motoren sind unterschiedlich.

D Serisi Motorlu Güç Devir Sayfaları

D Series Geared Motors Performance Tables

D Serien Getriebemotoren Leistung und Drehzahlübersicht

Güç *Power* Leistung **P_g [kW]** P_g [HP]	IE3 Çıkış Devri *Output Speeds* Abtriebswelle Drehzahlen **n_2 [r.p.m]**	IE3 Çıkış Momenti *Output Torque* Abtriebswelle Drehmomente **M_2 [Nm]**	Çevrim Oranı *Ratio* Übersetzung **i**	IE3 Güv. Rad. Yük Çıkış *Per.O. Loads (Output)* Zul.Querkräfte (Abtrieb) **F_{qam} [N]**	IE3 Servis Faktörü *Service Factors* Betriebsfaktor **f_s**	Tipi *Type* Typ	Anma Akımı *Rated Current* Nennstrom **[A]**	Ağırlık *Weight* Gewicht ~ **[kg]**	Ölçü Sayfası *Dim. Page* Maße Seite	* Motor Verim Snf. *Motor Eff. Class* Motor Effizienz-klasse
4,0 5,5	29	1273	**34,02**	49524	3,4	**DR673-3E132M/6C** **DR673-2E132M/6B**	8,52 8,80	258 253	122	IE3 IE2
	12	3118	**126,06**	20356	1,0	**DR573-3E112M/4D**	8,05	184	116	IE3
	14	2558	**103,39**	27305	1,2	**DR573-2E112M/4C**	8,20	182		IE2
	16	2262	**91,30**	30108	1,3					
	18	2013	**81,15**	32171	1,5					
	21	1705	**68,64**	34424	1,8					
	24	1520	**61,12**	35646	2,0					
	29	1248	**50,13**	37240	2,4					
	33	1103	**44,27**	38051	2,7					
	37	982	**39,35**	39156	3,0					
	43	854	**33,86**	39349	3,5	**DR572-3E112M/4D**	8,05	177	116	IE3
	51	729	**28,87**	40365	4,0	**DR572-2E112M/4C**	8,20	175		IE2
	21	1751	**70,59**	14702	0,9	**DR473-3E112M/4D**	8,05	132	110	IE3
	24	1536	**61,85**	18463	0,9	**DR473-2E112M/4C**	8,20	130		IE2
	27	1351	**54,35**	20737	1,0					
	31	1179	**47,37**	22775	1,1					
	35	1034	**41,50**	24299	1,2					
	43	856	**34,28**	25898	1,4					
	51	711	**28,45**	27101	1,6					
	59	619	**24,54**	25285	2,5	**DR472-3E112M/4D**	8,05	126	110	IE3
	70	524	**20,74**	25860	3,0	**DR472-2E112M/4C**	8,20	124		IE2
	76	483	**19,11**	25979	3,2					
	86	430	**17,01**	25208	3,6					
	45	800	**32,11**	13644	0,9	**DR373-3E112M/4D**	8,05	94	106	IE3
	53	685	**27,53**	15376	1,0	**DR373-2E112M/4C**	8,20	92		IE2
	62	588	**23,58**	16591	1,1					
	65	566	**22,46**	15164	1,4	**DR372-3E112M/4D**	8,05	88	106	IE3
	73	507	**20,10**	15754	1,6	**DR372-2E112M/4C**	8,20	86		IE2
	83	445	**17,65**	16309	1,8					
	99	373	**14,74**	16900	2,2					
	107	343	**13,60**	17131	2,4					
	124	297	**11,77**	16942	2,7					
	142	260	**10,25**	16368	2,9					
	163	228	**8,98**	15825	3,1					
	197	188	**7,42**	15055	3,4					
	218	169	**6,69**	14518	3,1					
	252	147	**5,79**	13979	3,4					
	289	128	**5,05**	13478	3,6					
	330	112	**4,42**	13007	3,9					
	78	472	**18,73**	11476	1,2	**DR282-3E112M/4D**	8,05	54	102	IE3
	88	419	**16,62**	12456	1,3	**DR282-2E112M/4C**	8,20	52		IE2
	104	355	**14,06**	13556	1,5					
	121	304	**12,03**	14300	1,6					
	141	263	**10,38**	14851	1,7					
	155	239	**9,45**	15153	1,8					
	178	207	**8,19**	15151	2,0					
	206	180	**7,09**	14605	2,1					
	220	169	**6,65**	14285	2,0					
	255	146	**5,74**	13753	2,2					
	280	133	**5,22**	13418	2,3					
	323	115	**4,52**	12919	2,4					

***: IE2 ve IE3 motorlu redüktör fiyatları farklıdır.** */ Geared motor prices are different for IE2 and IE3 motors.* / Preise von Getrieben mit IE2 und IE3 Motoren sind unterschiedlich.

D Serisi Motorlu Güç Devir Sayfaları

D Series Geared Motors Performance Tables

D Serien Getriebemotoren Leistung und Drehzahlübersicht

Güç *Power* Leistung P_g [kW] P_g [HP]	IE3 Çıkış Devri *Output Speeds* Abtriebswelle Drehzahlen n_2 [r.p.m]	IE3 Çıkış Momenti *Output Torque* Abtriebswelle Drehmomente M_2 [Nm]	Çevrim Oranı *Ratio* Übersetzung i	IE3 Güv. Rad. Yük Çıkış *Per.O. Loads (Output)* Zul.Querkräfte (Abtrieb) F_{qam} [N]	IE3 Servis Faktörü *Service Factors* Betriebsfaktor f_s	Tipi *Type* Typ	Anma Akımı *Rated Current* Nennstrom [A]	Ağırlık *Weight* Gewicht ~ [kg]	Ölçü Sayfası *Dim. Page* Maße Seite	Motor* Verim Snf. *Motor Eff. Class* Motor Effizienz-klasse
4,0 5,5	373	99	**3,92**	12429	2,6	**DR282-3E112M/4D** **DR282-2E112M/4C**	8,05 8,20	54 52	102	IE3 IE2
	411 439 508 559 645 745	90 84 73 66 57 50	**7,09** **6,65** **5,74** **5,22** **4,52** **3,92**	12145 11892 11421 11125 10690 10266	3,4 3,3 3,5 3,7 3,9 4,0	**DR282-3E112M/2C** **DR282-2E112M/2A**	7,28 7,50	50 46	102	IE3 IE2
	91 103 123 144 168 213 251 293	403 357 300 256 219 173 147 126	**16,00** **14,14** **11,90** **10,11** **8,67** **6,84** **5,82** **4,98**	12632 13230 13113 12665 12233 11474 11038 10627	1,1 1,3 1,5 1,7 1,8 1,8 2,0 2,2	**DR272-3E112M/4D** **DR272-2E112M/4C**	8,05 8,20	48 46	98	IE3 IE2
	336 426 501 585	110 87 74 63	**8,67** **6,84** **5,82** **4,98**	10323 9655 9250 8874	2,9 3,0 3,3 3,5	**DR272-3E112M/2C** **DR272-2E112M/2A**	7,28 7,50	46 42	98	IE3 IE2
5,5 7,5	2,6	18571	**371,15**	199011	1,0	**DR974-3E132M/6D** **DR974-2E132M/6C**	11,55 12,00	828 823	142	IE3 IE2
	2,8 3,5 3,9 4,4 5,1 5,8 6,6 7,4	17336 13777 12338 11090 9453 8344 7412 6616	**523,19** **415,16** **371,15** **333,23** **284,06** **250,41** **222,15** **197,95**	202633 211954 215398 218216 221678 223881 225649 225999	1,0 1,3 1,5 1,6 1,9 2,2 2,4 2,7	**DR974-3E132S/4C** **DR974-2E132S/4B**	10,65 11,05	833 827	142	IE3 IE2
	4,4 5,0 5,6 6,5	11104 9740 8617 7514	**334,15** **293,46** **259,15** **225,61**	86126 92028 96551 100247	1,2 1,3 1,5 1,7	**DR874-3E132S/4C** **DR874-2E132S/4B**	10,65 11,05	544 538	136	IE3 IE2
	7,6 8,4 9,6 11	6545 5880 5160 4499	**128,20** **115,03** **101,03** **87,95**	103371 105394 107474 109257	2,0 2,2 2,5 2,9	**DR873-3E132M/6D** **DR873-2E132M/6C**	11,55 12,00	530 525	134	IE3 IE2
	11 13 14	4365 3921 3441	**128,20** **115,03** **101,03**	109629 110765 111948	3,0 3,3 3,8	**DR873-3E132S/4C** **DR873-2E132S/4B**	10,65 11,05	531 525	134	IE3 IE2
	5,1 6,1	9687 8062	**190,20** **158,23**	40559 55041	0,8 1,0	**DR773-3E132M/6D** **DR773-2E132M/6C**	11,55 12,00	327 322	128	IE3 IE2
	6,6 7,7 9,2	7531 6457 5375	**222,16** **190,20** **158,23**	58725 65096 70674	1,1 1,2 1,5	**DR773-3E132S/4C** **DR773-2E132S/4B**	10,65 11,05	347 341	128	IE3 IE2

***: IE2 ve IE3 motorlu redüktör fiyatları farklıdır.** */ Geared motor prices are different for IE2 and IE3 motors.* / Preise von Getrieben mit IE2 und IE3 Motoren sind unterschiedlich.

D Serisi Motorlu Güç Devir Sayfaları

D Series Geared Motors Performance Tables

D Serien Getriebemotoren Leistung und Drehzahlübersicht

Güç *Power* Leistung P_g [kW] P_g [HP]	IE3 Çıkış Devri *Output Speeds* Abtriebswelle Drehzahlen n_2 [r.p.m]	IE3 Çıkış Momenti *Output Torque* Abtriebswelle Drehmomente M_2 [Nm]	Çevrim Oranı *Ratio* Übersetzung i	IE3 Güv. Rad. Yük Çıkış *Per.O. Loads (Output)* Zul.Querkräfte (Abtrieb) F_{qam} [N]	IE3 Servis Faktörü *Service Factors* Betriebsfaktor f_s	Tipi *Type* Typ	Anma Akımı *Rated Current* Nennstrom [A]	Ağırlık *Weight* Gewicht ~ [kg]	Ölçü Sayfası *Dim. Page* Maße Seite	* Motor Verim Snf. *Motor Eff. Class* Motor Effizienz-klasse
5,5	10	4813	**141,55**	73313	1,7	**DR773-3E132S/4C**	10,65	347	128	IE3
7,5	12	4159	**122,41**	76114	1,9	**DR773-2E132S/4B**	11,05	341		IE2
	14	3607	**105,99**	78129	2,2					
	16	3159	**92,70**	79752	2,5					
	18	2788	**81,72**	81023	2,9					
	20	2476	**72,50**	82044	3,2					
	10	4749	**139,76**	23996	0,9	**DR673-3E132S/4C**	10,65	257	122	IE3
	12	4236	**124,53**	30119	1,0	**DR673-2E132S/4B**	11,05	251		IE2
	14	3606	**106,08**	35903	1,2					
	16	3105	**91,19**	39572	1,4					
	18	2698	**79,14**	42224	1,6					
	21	2362	**69,18**	44240	1,8					
	24	2079	**60,82**	45753	2,1					
	25	2027	**59,34**	46036	2,1					
	29	1746	**51,01**	47360	2,5					
	33	1517	**44,27**	48408	2,8					
	38	1328	**38,70**	49229	3,2					
	43	1169	**34,02**	49888	3,7					
	14	3518	**103,39**	12812	0,9	**DR573-3E132S/4C**	10,65	204	116	IE3
	16	3111	**91,30**	20634	1,0	**DR573-2E132S/4B**	11,05	198		IE2
	18	2768	**81,15**	25032	1,1					
	21	2345	**68,64**	29293	1,3					
	24	2090	**61,12**	31495	1,4					
	29	1716	**50,13**	34309	1,7					
	33	1517	**44,27**	35664	2,0					
	37	1350	**39,35**	37191	2,2					
	44	1144	**33,28**	39159	2,4					
	51	1002	**28,87**	38609	3,0	**DR572-3E132S/4C**	10,65	197	116	IE3
	61	834	**24,02**	39459	3,6	**DR572-2E132S/4B**	11,05	191		IE2
	68	744	**21,40**	40014	4,0					
	80	633	**18,23**	41802	4,0					
	31	1621	**47,37**	18519	0,8	**DR473-3E132S/4C**	10,65	152	110	IE3
	35	1422	**41,50**	21196	0,9	**DR473-2E132S/4B**	11,05	146		IE2
	43	1177	**34,28**	23827	1,0					
	51	978	**28,45**	25684	1,2					
	59	852	**24,54**	23708	1,8	**DR472-3E132S/4C**	10,65	146	110	IE3
	70	721	**20,74**	24642	2,1	**DR472-2E132S/4B**	11,05	140		IE2
	76	664	**19,11**	25018	2,3					
	86	592	**17,01**	24671	2,6					
	97	523	**15,02**	23926	3,0					
	109	465	**13,35**	23227	3,3					
	118	431	**12,40**	22793	3,6					
	139	365	**10,48**	21821	4,0					
	164	311	**8,93**	20915	4,0					
	194	263	**7,54**	19872	4,0					
	218	234	**6,71**	19256	4,0					
	234	217	**6,23**	18877	4,0					
	277	184	**5,26**	18032	4,0					
	326	157	**4,48**	17252	4,0					
	390	130	**7,54**	16406	4,0	**DR472-3E132S/2B**	9,90	137	110	IE3
	439	116	**6,71**	15872	4,0	**DR472-2E132S/2A**	10,20	133		IE2
	473	107	**6,23**	15545	4,0					
	560	91	**5,26**	14821	4,0					
	657	77	**4,48**	14156	4,0					

***: IE2 ve IE3 motorlu redüktör fiyatları farklıdır.** */ Geared motor prices are different for IE2 and IE3 motors.* / Preise von Getrieben mit IE2 und IE3 Motoren sind unterschiedlich.

D Serisi Motorlu Güç Devir Sayfaları

D Series Geared Motors Performance Tables

D Serien Getriebemotoren Leistung und Drehzahlübersicht

Güç *Power* Leistung **P_g [kW]** P_g [HP]	IE3 Çıkış Devri *Output Speeds* Abtriebswelle Drehzahlen **n_2 [r.p.m]**	IE3 Çıkış Momenti *Output Torque* Abtriebswelle Drehmomente **M_2 [Nm]**	Çevrim Oranı *Ratio* Übersetzung **i**	IE3 Güv. Rad. Yük Çıkış *Per.O. Loads (Output)* Zul.Querkräfte (Abtrieb) **F_{qam} [N]**	IE3 Servis Faktörü *Service Factors* Betriebsfaktor **f_s**	Tipi *Type* Typ	Anma Akımı *Rated Current* Nennstrom **[A]**	Ağırlık *Weight* Gewicht ~ **[kg]**	Ölçü Sayfası *Dim. Page* Maße Seite	Motor* Verim Snf. *Motor Eff. Class* Motor Effizienz-klasse
5,5 7,5	83 99 107 124 142 163 197 218 252 289 330 400	612 512 472 409 357 313 259 233 202 176 155 128	**17,65** **14,74** **13,60** **11,77** **10,25** **8,98** **7,42** **6,69** **5,79** **5,05** **4,42** **3,65**	14646 15682 16049 16463 15952 15462 14757 14199 13704 13239 12798 12175	1,3 1,6 1,7 1,9 2,1 2,2 2,5 2,3 2,5 2,6 2,8 3,1	**DR372-3E132S/4C** **DR372-2E132S/4B**	10,65 11,05	114 108	106	IE3 IE2
	440 508 583 666 806	115 100 87 76 63	**6,69** **5,79** **5,05** **4,42** **3,65**	11868 11417 10998 10607 10059	3,7 4,0 4,0 4,0 4,0	**DR372-3E132S/2B** **DR372-2E132S/2A**	9,90 10,20	105 101	106	IE3 IE2
	104 121 141 155 178 206 220 255 280 323 373	489 419 362 329 285 247 232 200 182 158 137	**14,06** **12,03** **10,38** **9,45** **8,19** **7,09** **6,65** **5,74** **5,22** **4,52** **3,92**	12123 13280 14091 14509 14758 14266 13937 13454 13146 12684 12226	1,1 1,2 1,3 1,3 1,4 1,5 1,5 1,6 1,6 1,8 1,9	**DR282-3E132S/4C** **DR282-2E132S/4B**	10,65 11,05	74 68	102	IE3 IE2
	415 443 513 564 651 752	122 115 99 90 78 68	**7,09** **6,65** **5,74** **5,22** **4,52** **3,92**	11945 11689 11242 10961 10544 10137	2,5 2,4 2,6 2,7 2,9 3,1	**DR282-3E132S/2B** **DR282-2E132S/2A**	9,90 10,20	65 61	102	IE3 IE2
7,5 10	3,5 3,9 4,4	18723 16768 15071	**415,16** **371,15** **333,23**	198352 204044 208956	1,0 1,1 1,2	**DR974-3E132M/4D** **DR974-2E132M/4C**	14,40 15,00	832 827	142	IE3 IE2
	5,1 5,7 6,3 7,1 8,1 9,2 10 12 13	13330 11902 10721 9484 8307 7353 6563 5899 5030	**191,74** **171,00** **153,87** **136,23** **119,15** **105,33** **93,91** **84,31** **71,87**	213157 216210 218856 221480 216491 209704 203492 197762 189465	1,4 1,5 1,7 1,9 2,2 2,4 2,7 3,1 3,6	**DR973-3E160M/6D** **DR973-2E160M/6B**	15,00 15,00	850 850	140	IE3 IE2
	5,0 5,7 6,5	13237 11710 10211	**293,46** **259,15** **225,61**	75425 83251 90070	1,0 1,1 1,3	**DR874-3E132M/4D** **DR874-2E132M/4C**	14,40 15,00	541 536	136	IE3 IE2
	7,6 8,4 9,6	8928 8020 7038	**128,20** **115,03** **101,03**	95338 98632 101926	1,5 1,6 1,8	**DR873-3E160M/6** **DR873-2E160M/6**	15,00 15,00	569 569	134	IE3 IE2

***: IE2 ve IE3 motorlu redüktör fiyatları farklıdır.** */ Geared motor prices are different for IE2 and IE3 motors.* / Preise von Getrieben mit IE2 und IE3 Motoren sind unterschiedlich.

D Serisi Motorlu Güç Devir Sayfaları

D Series Geared Motors Performance Tables

D Serien Getriebemotoren Leistung und Drehzahlübersicht

Güç *Power* Leistung P_g [kW] P_g [HP]	IE3 Çıkış Devri *Output Speeds* Abtriebswelle Drehzahlen n_2 [r.p.m]	IE3 Çıkış Momenti *Output Torque* Abtriebswelle Drehmomente M_2 [Nm]	Çevrim Oranı *Ratio* Übersetzung i	IE3 Güv. Rad. Yük Çıkış *Per.O. Loads (Output)* Zul.Querkräfte (Abtrieb) F_{qam} [N]	IE3 Servis Faktörü *Service Factors* Betriebsfaktor f_s	Tipi *Type* Typ	Anma Akımı *Rated Current* Nennstrom [A]	Ağırlık *Weight* Gewicht ~ [kg]	Ölçü Sayfası *Dim. Page* Maße Seite	* Motor Verim Snf. *Motor Eff. Class* Motor Effizienz-klasse
7,5 10	11	5934	**128,20**	105268	2,2	**DR873-3E132M/4D**	14,40	533	134	IE3
	13	5330	**115,03**	107010	2,4	**DR873-2E132M/4C**	15,00	528		IE2
	15	4678	**101,03**	108802	2,8					
	17	4079	**87,95**	110365	3,2					
	19	3593	**77,36**	111578	3,6					
	7,7	8778	**190,20**	49412	0,9	**DR773-3E132M/4D**	14,40	353	128	IE3
	9,3	7306	**158,23**	60185	1,1	**DR773-2E132M/4C**	15,00	348		IE2
	10	6543	**141,55**	64613	1,2					
	12	5654	**122,41**	69316	1,4					
	14	4903	**105,99**	72842	1,6					
	16	4294	**92,70**	75467	1,9					
	18	3790	**81,72**	77436	2,1					
	20	3366	**72,50**	79012	2,4					
	23	2938	**41,85**	80447	2,7	**DR773-3E160M/6D**	15,00	406	128	IE3
	26	2609	**37,12**	81553	3,1	**DR773-2E160M/6B**	15,00	406		IE2
	29	2329	**33,10**	81723	3,4					
	30	2244	**31,92**	80959	3,6					
	35	1947	**27,65**	77981	4,0					
	14	4902	**106,08**	21751	0,9	**DR673-3E132M/4D**	14,40	263	122	IE3
	16	4221	**91,19**	30278	1,0	**DR673-2E132M/4C**	15,00	258		IE2
	19	3668	**79,14**	35393	1,2					
	21	3211	**69,18**	38825	1,3					
	24	2826	**60,82**	41425	1,5					
	25	2756	**59,34**	41865	1,6					
	29	2373	**51,01**	44128	1,8					
	33	2063	**44,27**	45805	2,1					
	38	1806	**38,70**	47074	2,4					
	43	1590	**34,02**	48083	2,7					
	56	1233	**26,11**	49626	3,5	**DR672-3E132M/4D**	14,40	253	122	IE3
	63	1104	**23,36**	50149	3,9	**DR672-2E132M/4C**	15,00	248		IE2
	21	3188	**68,64**	19385	0,9	**DR573-3E132M/4D**	14,40	210	116	IE3
	24	2842	**61,12**	24157	1,1	**DR573-2E132M/4C**	15,00	205		IE2
	29	2333	**50,13**	29405	1,3					
	33	2063	**44,27**	31718	1,5					
	37	1836	**39,35**	34098	1,6					
	44	1555	**33,28**	36956	1,8					
	51	1363	**28,87**	36623	2,2	**DR572-3E132M/4D**	14,40	203	116	IE3
	61	1134	**24,02**	37901	2,6	**DR572-2E132M/4C**	15,00	198		IE2
	68	1012	**21,40**	38560	3,0					
	80	861	**18,23**	39327	3,5					
	93	741	**15,67**	39562	4,0					
	108	644	**13,60**	38083	4,0					
	51	1330	**28,45**	23277	0,8	**DR473-3E132M/4D**	14,40	158	110	IE3
						DR473-2E132M/4C	15,00	153		IE2
	60	1158	**24,54**	21194	1,3	**DR472-3E132M/4D**	14,40	148	110	IE3
	71	980	**20,74**	22734	1,6	**DR472-2E132M/4C**	15,00	143		IE2
	77	903	**19,11**	23345	1,7					
	86	804	**17,01**	23926	1,9					
	98	711	**15,02**	23269	2,2					
	110	633	**13,35**	22643	2,4					

*** : IE2 ve IE3 motorlu redüktör fiyatları farklıdır.** */ Geared motor prices are different for IE2 and IE3 motors.* / Preise von Getrieben mit IE2 und IE3 Motoren sind unterschiedlich.

D Serisi Motorlu Güç Devir Sayfaları

D Series Geared Motors Performance Tables

D Serien Getriebemotoren Leistung und Drehzahlübersicht

Güç *Power* Leistung **P_g [kW]** P_g [HP]	IE3 Çıkış Devri *Output Speeds* Abtriebswelle Drehzahlen **n_2 [r.p.m]**	IE3 Çıkış Momenti *Output Torque* Abtriebswelle Drehmomente **M_2 [Nm]**	Çevrim Oranı *Ratio* Übersetzung **i**	IE3 Güv. Rad. Yük Çıkış *Per.O. Loads (Output)* Zul.Querkräfte (Abtrieb) **F_{qam} [N]**	IE3 Servis Faktörü *Service Factors* Betriebsfaktor **f_s**	Tipi *Type* Typ	Anma Akımı *Rated Current* Nennstrom **[A]**	Ağırlık *Weight* Gewicht ~ **[kg]**	Ölçü Sayfası *Dim. Page* Maße Seite	Motor* Verim Snf. *Motor Eff. Class* Motor Effizienz-klasse
7,5 10	118	587	**12,40**	22251	2,6	**DR472-3E132M/4D**	14,40	148	110	IE3
	140	496	**10,48**	21361	3,1	**DR472-2E132M/4C**	15,00	143		IE2
	164	423	**8,93**	20523	3,4					
	194	358	**7,54**	19493	3,3					
	218	318	**6,71**	18919	3,5					
	235	295	**6,23**	18563	3,6					
	278	250	**5,26**	17766	4,0					
	327	213	**4,48**	17024	4,0					
	390	178	**7,54**	16229	4,0	**DR472-3E132S/2C**	13,20	143	110	IE3
	439	158	**6,71**	15715	4,0	**DR472-2E132S/2B**	13,60	136		IE2
	473	147	**6,23**	15399	4,0					
	560	124	**5,26**	14698	4,0					
	657	106	**4,48**	14052	4,0					
	83	833	**17,65**	11769	1,0	**DR372-3E132M/4D**	14,40	120	106	IE3
	99	697	**14,74**	13652	1,2	**DR372-2E132M/4C**	15,00	115		IE2
	108	642	**13,60**	14312	1,3					
	125	556	**11,77**	15496	1,4					
	143	485	**10,25**	15378	1,5					
	163	426	**8,98**	14959	1,6					
	197	352	**7,42**	14342	1,8					
	219	317	**6,69**	13757	1,7					
	253	275	**5,79**	13322	1,8					
	290	240	**5,05**	12906	1,9					
	331	210	**4,42**	12507	2,1					
	401	174	**3,65**	11933	2,2					
	440	158	**6,69**	11658	2,7	**DR372-3E132S/2C**	13,20	112	106	IE3
	508	137	**5,79**	11236	3,0	**DR372-2E132S/2B**	13,60	105		IE2
	583	119	**5,05**	10841	3,2					
	666	104	**4,42**	10470	3,4					
	806	86	**3,65**	9946	3,7					
	122	569	**12,03**	11516	0,9	**DR282-3E132M/4D**	14,40	82	102	IE3
	141	492	**10,38**	12805	0,9	**DR282-2E132M/4C**	15,00	77		IE2
	155	448	**9,45**	13469	1,0					
	179	388	**8,19**	14216	1,1					
	207	336	**7,09**	13798	1,1					
	220	315	**6,65**	13456	1,1					
	255	272	**5,74**	13040	1,2					
	281	248	**5,22**	12769	1,2					
	324	215	**4,52**	12358	1,3					
	374	186	**3,92**	11944	1,4					
	415	167	**7,09**	11722	1,9	**DR282-3E132S/2C**	13,20	72	102	IE3
	443	157	**6,65**	11460	1,8	**DR282-2E132S/2B**	13,60	65		IE2
	513	136	**5,74**	11045	1,9					
	564	123	**5,22**	10782	2,0					
	651	107	**4,52**	10390	2,1					
	752	93	**3,92**	10003	2,3					
11 15	5,1	19562	**191,74**	195964	0,9	**DR973-3E160L/6D**	21,50	865	140	IE3
	5,7	17467	**171,00**	201979	1,0	**DR973-2E160L/6B**	22,00	865		IE2
	6,3	15733	**153,87**	206831	1,1					
	7,1	13918	**136,23**	211539	1,3					
	7,7	12950	**191,74**	213002	1,4	**DR973-3E160M/4C**	21,00	846	140	IE3
	8,6	11564	**171,00**	207413	1,6	**DR973-2E160M/4B**	21,00	856		IE2

***: IE2 ve IE3 motorlu redüktör fiyatları farklıdır.** */ Geared motor prices are different for IE2 and IE3 motors.* / Preise von Getrieben mit IE2 und IE3 Motoren sind unterschiedlich.

D Serisi Motorlu Güç Devir Sayfaları

D Series Geared Motors Performance Tables

D Serien Getriebemotoren Leistung und Drehzahlübersicht

Güç *Power* Leistung **P_g [kW]** P_g [HP]	IE3 Çıkış Devri *Output Speeds* Abtriebswelle Drehzahlen **n_2 [r.p.m]**	IE3 Çıkış Momenti *Output Torque* Abtriebswelle Drehmomente **M_2 [Nm]**	Çevrim Oranı *Ratio* Übersetzung **i**	IE3 Güv. Rad. Yük Çıkış *Per.O. Loads (Output)* Zul.Querkräfte (Abtrieb) **F_{qam} [N]**	IE3 Servis Faktörü *Service Factors* Betriebsfaktor **f_s**	Tipi *Type* Typ	Anma Akımı *Rated Current* Nennstrom **[A]**	Ağırlık *Weight* Gewicht ~ **[kg]**	Ölçü Sayfası *Dim. Page* Maße Seite	* Motor Verim Snf. *Motor Eff. Class* Motor Effizienz-klasse
11 15	9,6	10417	**153,87**	202265	1,7	**DR973-3E160M/4C**	21,00	846	140	IE3
	12	8073	**119,15**	189920	2,2	**DR973-2E160M/4B**	21,00	856		IE2
	14	7146	**105,33**	184068	2,5					
	16	6379	**93,91**	178699	2,8					
	17	5733	**84,31**	173736	3,1					
	20	4889	**71,87**	166537	3,7					
	7,6	13102	**128,20**	76189	1,0	**DR873-3E160L/6D**	21,50	568	134	IE3
	8,4	11769	**115,03**	83159	1,1	**DR873-2E160L/6B**	22,00	568		IE2
	9,6	10328	**101,03**	89728	1,3					
	11	8675	**128,20**	96275	1,5	**DR873-3E160M/4C**	21,00	549	134	IE3
	13	7793	**115,03**	99413	1,7	**DR873-2E160M/4B**	21,00	559		IE2
	15	6839	**101,03**	102535	1,9					
	17	5964	**87,95**	105238	2,2					
	19	5253	**77,36**	107277	2,5					
	21	4665	**68,62**	108878	2,8					
	24	4171	**61,27**	110166	3,1					
	27	3749	**55,01**	111226	3,5					
	28	3537	**51,94**	111744	3,7					
	10	9566	**141,55**	42043	0,8	**DR773-3E160M/4C**	21,00	386	128	IE3
	12	8267	**122,41**	53529	1,0	**DR773-2E160M/4B**	21,00	396		IE2
	14	7169	**105,99**	61044	1,1					
	16	6279	**92,70**	66194	1,3					
	18	5542	**81,72**	69958	1,4					
	20	4922	**72,50**	72832	1,6					
	24	4233	**62,33**	75673	1,9					
	27	3672	**53,99**	78025	2,2					
	31	3200	**46,99**	78160	2,5					
	35	2856	**41,85**	76007	2,8					
	40	2537	**37,12**	73800	3,2					
	44	2265	**33,10**	71706	3,5					
	46	2182	**31,92**	71048	3,7					
	21	4694	**69,18**	24752	0,9	**DR673-3E160M/4C**	21,00	296	122	IE3
	24	4132	**60,82**	31197	1,0	**DR673-2E160M/4B**	21,00	306		IE2
	25	4030	**59,34**	32186	1,1					
	29	3470	**51,01**	36977	1,2					
	33	3016	**44,27**	40245	1,4					
	38	2640	**38,70**	42628	1,6					
	43	2324	**34,02**	44445	1,9					
	49	2055	**30,04**	45809	2,1					
	56	1803	**26,11**	47106	2,4	**DR672-3E160M/4C**	21,00	286	122	IE3
	63	1615	**23,36**	47994	2,7	**DR672-2E160M/4B**	21,00	296		IE2
	73	1395	**20,20**	48964	3,1					
	84	1210	**17,49**	49740	3,6					
	29	3410	**50,13**	15331	0,9	**DR573-3E160M/4C**	21,00	246	116	IE3
	33	3016	**44,27**	21948	1,0	**DR573-2E160M/4B**	21,00	256		IE2
	37	2684	**39,35**	26941	1,1					
	44	2274	**33,28**	32079	1,2					
	52	1943	**28,39**	35497	1,3					
	61	1659	**24,02**	34737	1,8	**DR572-3E160M/4C**	21,00	236	116	IE3
	69	1480	**21,40**	35901	2,0	**DR572-2E160M/4B**	21,00	246		IE2
	81	1259	**18,23**	37194	2,4					
	94	1084	**15,67**	38196	2,8					

***: IE2 ve IE3 motorlu redüktör fiyatları farklıdır.** */ Geared motor prices are different for IE2 and IE3 motors.* / Preise von Getrieben mit IE2 und IE3 Motoren sind unterschiedlich.

D Serisi Motorlu Güç Devir Sayfaları

D Series Geared Motors Performance Tables

D Serien Getriebemotoren Leistung und Drehzahlübersicht

Güç *Power* Leistung P_g [kW] P_g [HP]	IE3 Çıkış Devri *Output Speeds* Abtriebswelle Drehzahlen n_2 [r.p.m]	IE3 Çıkış Momenti *Output Torque* Abtriebswelle Drehmomente M_2 [Nm]	Çevrim Oranı *Ratio* Übersetzung i	IE3 Güv. Rad. Yük Çıkış *Per.O. Loads (Output)* Zul.Querkräfte (Abtrieb) F_{qam} [N]	IE3 Servis Faktörü *Service Factors* Betriebsfaktor f_s	Tipi *Type* Typ	Anma Akımı *Rated Current* Nennstrom [A]	Ağırlık *Weight* Gewicht ~ [kg]	Ölçü Sayfası *Dim. Page* Maße Seite	Motor* Verim Snf. *Motor Eff. Class* Motor Effizienz-klasse
11	108	942	**13,60**	37285	3,0	**DR572-3E160M/4C**	21,00	236	116	IE3
15	124	824	**11,89**	36017	3,3	**DR572-2E160M/4B**	21,00	246		IE2
	141	725	**10,45**	34824	3,5					
	170	599	**8,65**	32868	3,4					
	198	516	**7,43**	31579	3,7					
	228	448	**6,45**	30400	4,0					
	261	392	**5,64**	29310	4,0					
	297	345	**4,96**	28292	4,0					
	336	305	**4,38**	27334	4,0					
	71	1433	**20,74**	18374	1,1	**DR472-3E160M/4C**	21,00	191	110	IE3
	77	1320	**19,11**	19638	1,2	**DR472-2E160M/4B**	21,00	201		IE2
	86	1176	**17,01**	21064	1,3					
	98	1040	**15,02**	22118	1,5					
	110	925	**13,35**	21624	1,7					
	119	858	**12,40**	21306	1,8					
	140	726	**10,48**	20565	2,1					
	165	619	**8,93**	19846	2,3					
	195	524	**7,54**	18836	2,3					
	219	466	**6,71**	18336	2,4					
	236	432	**6,23**	18022	2,5					
	279	365	**5,26**	17309	2,7					
	328	312	**4,48**	16634	2,9					
15	6,3	21348	**153,87**	190136	0,8	**DR973-3E180L/6E**	29,00	935	140	IE3
20	7,2	18885	**136,23**	198061	1,0	**DR973-2E180L/6D**	29,00	915		IE2
	7,7	17662	**191,74**	201861	1,0	**DR973-3E160L/4D**	29,00	861	140	IE3
	8,6	15771	**171,00**	200345	1,1	**DR973-2E160L/4C**	29,30	858		IE2
	9,6	14207	**153,87**	195935	1,3					
	11	12569	**136,23**	190782	1,4					
	12	11010	**119,15**	185067	1,6					
	14	9746	**105,33**	179796	1,8					
	16	8700	**93,91**	174905	2,1					
	17	7820	**84,31**	170340	2,3					
	20	6668	**71,87**	163654	2,7					
	23	5886	**63,36**	158457	3,1					
	26	5228	**56,21**	153599	3,4					
	11	11832	**128,20**	83040	1,1	**DR873-3E160L/4D**	29,00	565	134	IE3
	13	10629	**115,03**	88576	1,2	**DR873-2E160L/4C**	29,30	563		IE2
	15	9328	**101,03**	93920	1,4					
	17	8134	**87,95**	98325	1,6					
	19	7165	**77,36**	101590	1,8					
	21	6363	**68,62**	104135	2,0					
	24	5689	**61,27**	106096	2,3					
	27	5113	**55,01**	107712	2,5					
	28	4825	**51,94**	108496	2,7					
	32	4224	**45,41**	110068	3,1					
	37	3718	**39,92**	111333	3,5					
	14	9778	**105,99**	39792	0,8	**DR773-3E160L/4D**	29,00	401	128	IE3
	16	8563	**92,70**	51192	0,9	**DR773-2E160L/4C**	29,30	398		IE2
	18	7559	**81,72**	58545	1,1					
	20	6713	**72,50**	63899	1,2					
	23	5992	**64,64**	67809	1,3					
	24	5773	**62,33**	68915	1,4					
	27	5008	**53,99**	72524	1,6					
	31	4364	**46,99**	75276	1,8					
	35	3896	**41,85**	73747	2,1					
	40	3461	**37,12**	71803	2,3					

***: IE2 ve IE3 motorlu redüktör fiyatları farklıdır.** */ Geared motor prices are different for IE2 and IE3 motors.* / Preise von Getrieben mit IE2 und IE3 Motoren sind unterschiedlich.

D Serisi Motorlu Güç Devir Sayfaları

D Series Geared Motors Performance Tables

D Serien Getriebemotoren Leistung und Drehzahlübersicht

Güç *Power* Leistung **P_g [kW]** P_g [HP]	IE3 Çıkış Devri *Output Speeds* Abtriebswelle Drehzahlen **n_2 [r.p.m]**	IE3 Çıkış Momenti *Output Torque* Abtriebswelle Drehmomente **M_2 [Nm]**	Çevrim Oranı *Ratio* Übersetzung **i**	IE3 Güv. Rad. Yük Çıkış *Per.O. Loads (Output)* Zul.Querkräfte (Abtrieb) **F_{qam} [N]**	IE3 Servis Faktörü *Service Factors* Betriebsfaktor **f_s**	Tipi *Type* Typ	Anma Akımı *Rated Current* Nennstrom **[A]**	Ağırlık *Weight* Gewicht ~ **[kg]**	Ölçü Sayfası *Dim. Page* Maße Seite	* Motor Verim Snf. *Motor Eff. Class* Motor Effizienz-klasse
15 20	44	3089	**33,10**	69933	2,6	**DR773-3E160L/4D**	29,00	401	128	IE3
	46	2977	**31,92**	69340	2,7	**DR773-2E160L/4C**	29,30	398		IE2
	53	2582	**27,65**	67002	3,1					
	61	2250	**24,06**	64756	3,6					
	29	4733	**51,01**	24222	0,9	**DR673-3E160L/4D**	29,00	311	122	IE3
	33	4114	**44,27**	31358	1,0	**DR673-2E160L/4C**	29,30	308		IE2
	38	3601	**38,70**	36035	1,2					
	43	3170	**34,02**	39262	1,4					
	49	2802	**30,04**	41693	1,5					
	56	2460	**26,11**	43734	1,7	**DR672-3E160L/4D**	29,00	301	122	IE3
	63	2203	**23,36**	45142	2,0	**DR672-2E160L/4C**	29,30	308		IE2
	73	1903	**20,20**	46607	2,3					
	84	1650	**17,49**	47858	2,6					
	96	1445	**15,30**	48770	3,0					
	109	1275	**13,48**	49694	3,3					
	123	1132	**11,96**	51109	3,6					
	138	1010	**10,67**	50313	3,8					
	143	973	**10,29**	49831	3,9					
	44	3102	**33,28**	23943	0,9	**DR573-3E160L/4D**	29,00	261	116	IE3
	52	2650	**28,39**	30286	1,0	**DR573-2E160L/4C**	29,30	258		IE2
	61	2263	**24,02**	30168	1,3	**DR572-3E160L/4D**	29,00	251	116	IE3
	69	2018	**21,40**	32180	1,5	**DR572-2E160L/4C**	29,30	248		IE2
	81	1718	**18,23**	34376	1,7					
	94	1479	**15,67**	35938	2,0					
	108	1285	**13,60**	36402	2,2					
	124	1124	**11,89**	35248	2,4					
	141	990	**10,45**	34151	2,6					
	170	818	**8,65**	32221	2,5					
	198	704	**7,43**	31024	2,7					
	228	611	**6,45**	29920	2,9					
	261	535	**5,64**	28892	3,1					
	297	471	**4,96**	27926	3,3					
	336	416	**4,38**	27011	3,5					
	98	1418	**15,02**	18551	1,1	**DR472-3E160L/4D**	29,00	215	110	IE3
	110	1262	**13,35**	20278	1,2	**DR472-2E160L/4C**	29,30	212		IE2
	119	1170	**12,40**	20222	1,3					
	140	990	**10,48**	19657	1,6					
	165	844	**8,93**	19078	1,7					
	195	714	**7,54**	18089	1,7					
	219	635	**6,71**	17676	1,8					
	236	589	**6,23**	17411	1,8					
	279	499	**5,26**	16796	2,0					
	328	425	**4,48**	16201	2,2					
18,5 25	8,6	19387	**171,00**	193925	0,9	**DR973-3E180M/4C**	34,50	901	140	IE3
	9,6	17464	**153,87**	190175	1,0	**DR973-2E180M/4B**	34,50	901		IE2
	11	15450	**136,23**	185696	1,2					
	12	13534	**119,15**	180628	1,3					
	14	11980	**105,33**	175876	1,5					
	16	10694	**93,91**	171410	1,7					
	17	9613	**84,31**	167201	1,9					
	21	8197	**71,87**	160973	2,2					
	23	7236	**63,36**	156087	2,5					
	26	6427	**56,21**	151490	2,8					
	34	4972	**43,38**	141753	3,6					

***: IE2 ve IE3 motorlu redüktör fiyatları farklıdır.** */ Geared motor prices are different for IE2 and IE3 motors.* / Preise von Getrieben mit IE2 und IE3 Motoren sind unterschiedlich.

D Serisi Motorlu Güç Devir Sayfaları

D Series Geared Motors Performance Tables

D Serien Getriebemotoren Leistung und Drehzahlübersicht

Güç *Power* Leistung P_g [kW] P_g [HP]	IE3 Çıkış Devri *Output Speeds* Abtriebswelle Drehzahlen n_2 [r.p.m]	IE3 Çıkış Momenti *Output Torque* Abtriebswelle Drehmomente M_2 [Nm]	Çevrim Oranı *Ratio* Übersetzung i	IE3 Güv. Rad. Yük Çıkış *Per.O. Loads (Output)* Zul.Querkräfte (Abtrieb) F_{qam} [N]	IE3 Servis Faktörü *Service Factors* Betriebsfaktor f_s	Tipi *Type* Typ	Anma Akımı *Rated Current* Nennstrom [A]	Ağırlık *Weight* Gewicht ~ [kg]	Ölçü Sayfası *Dim. Page* Maße Seite	Motor* Verim Snf. *Motor Eff. Class* Motor Effizienz-klasse
18,5	12	14544	**128,20**	67406	0,9	**DR873-3E180M/4C**	34,50	605	134	IE3
25	13	13066	**115,03**	76391	1,0	**DR873-2E180M/4B**	34,50	605		IE2
	15	11467	**101,03**	84605	1,1					
	17	9999	**87,95**	91103	1,3					
	19	8808	**77,36**	95782	1,5					
	21	7822	**68,62**	99313	1,7					
	24	6993	**61,27**	101922	1,9					
	27	6286	**55,01**	104319	2,1					
	28	5931	**51,94**	105467	2,2					
	32	5192	**45,41**	107447	2,5					
	37	4570	**39,92**	109130	2,8					
	48	3498	**30,50**	110047	3,7					
	18	9291	**81,72**	44784	0,9	**DR773-3E180M/4C**	34,50	441	128	IE3
	20	8252	**72,50**	53639	1,0	**DR773-2E180M/4B**	34,50	441		IE2
	24	7097	**62,33**	61486	1,1					
	27	6156	**53,99**	66847	1,3					
	31	5365	**46,99**	70804	1,5					
	35	4789	**41,85**	71691	1,7					
	40	4254	**37,12**	69983	1,9					
	45	3798	**33,10**	68311	2,1					
	46	3659	**31,92**	67776	2,2					
	53	3174	**27,65**	65647	2,5					
	61	2766	**24,06**	63576	2,9					
	65	2638	**22,77**	62824	3,0	**DR772-3E180M/4C**	34,50	426	128	IE3
	74	2299	**19,82**	60757	3,5	**DR772-2E180M/4B**	34,50	426		IE2
	85	2025	**17,44**	58860	4,0					
	33	5057	**44,27**	19234	0,9	**DR673-3E180M/4C**	34,50	351	122	IE3
	38	4427	**38,70**	28011	1,0	**DR673-2E180M/4B**	34,50	351		IE2
	43	3897	**34,02**	33413	1,1					
	49	3445	**30,04**	37171	1,2					
	56	3024	**26,11**	40194	1,4	**DR672-3E180M/4C**	34,50	341	122	IE3
	63	2708	**23,36**	42220	1,6	**DR672-2E180M/4B**	34,50	341		IE2
	73	2339	**20,20**	44361	1,8					
	84	2029	**17,49**	46006	2,1					
	96	1776	**15,30**	47287	2,4					
	109	1568	**13,48**	48429	2,7					
	123	1392	**11,96**	50093	2,9					
	138	1242	**10,67**	49662	3,1					
	143	1197	**10,29**	49202	3,2					
	166	1038	**8,91**	47408	3,4					
	190	904	**7,75**	45708	3,7					
	198	868	**7,45**	45019	3,3					
	223	771	**6,61**	43618	3,5					
	250	688	**5,89**	42302	3,7					
	260	663	**5,68**	41890	3,8					
	61	2781	**24,02**	24887	1,1	**DR572-3E180M/4C**	34,50	291	116	IE3
	69	2481	**21,40**	28081	1,2	**DR572-2E180M/4B**	34,50	291		IE2
	81	2112	**18,23**	31380	1,4					
	94	1818	**15,67**	33631	1,7					
	108	1580	**13,60**	35594	1,8					
	124	1382	**11,89**	34541	2,0					
	141	1216	**10,45**	33528	2,1					
	171	1005	**8,65**	31623	2,0					
	198	865	**7,43**	30509	2,2					
	229	752	**6,45**	29472	2,4					
	262	658	**5,64**	28498	2,5					

***: IE2 ve IE3 motorlu redüktör fiyatları farklıdır.** */ Geared motor prices are different for IE2 and IE3 motors.* / Preise von Getrieben mit IE2 und IE3 Motoren sind unterschiedlich.

D Serisi Motorlu Güç Devir Sayfaları

D Series Geared Motors Performance Tables

D Serien Getriebemotoren Leistung und Drehzahlübersicht

Güç *Power* Leistung **P_g [kW]** P_g [HP]	IE3 Çıkış Devri *Output Speeds* Abtriebswelle Drehzahlen **n_2 [r.p.m]**	IE3 Çıkış Momenti *Output Torque* Abtriebswelle Drehmomente **M_2 [Nm]**	Çevrim Oranı *Ratio* Übersetzung **i**	IE3 Güv. Rad. Yük Çıkış *Per.O. Loads (Output)* Zul.Querkräfte (Abtrieb) **F_{qam} [N]**	IE3 Servis Faktörü *Service Factors* Betriebsfaktor **f_s**	Tipi *Type* Typ	Anma Akımı *Rated Current* Nennstrom **[A]**	Ağırlık *Weight* Gewicht ~ **[kg]**	Ölçü Sayfası *Dim. Page* Maße Seite	* Motor Verim Snf. *Motor Eff. Class* Motor Effizienz-klasse
18,5	298	579	**4,96**	27578	2,7	**DR572-3E180M/4C**	34,50	291	116	IE3
25	337	511	**4,38**	26703	2,9	**DR572-2E180M/4B**	34,50	291		IE2
22	11	18374	**136,23**	180681	1,0	**DR973-3E180L/4D**	42,50	904	140	IE3
30	12	16096	**119,15**	176275	1,1	**DR973-2E180L/4C**	42,50	904		IE2
	14	14248	**105,33**	172053	1,3					
	16	12719	**93,91**	168021	1,4					
	17	11432	**84,31**	164173	1,6					
	21	9748	**71,87**	158409	1,8					
	23	8605	**63,36**	153837	2,1					
	26	7643	**56,21**	149503	2,4					
	34	5913	**43,38**	140230	3,0					
	39	5220	**38,24**	135800	3,4					
	43	4637	**33,93**	131656	3,9					
	15	13637	101,03	73103	1,0	**DR873-3E180L/4D**	42,50	608	134	IE3
	17	11891	**87,95**	82552	1,1	**DR873-2E180L/4C**	42,50	608		IE2
	19	10475	**77,36**	89089	1,2					
	21	9303	**68,62**	93895	1,4					
	24	8317	**61,27**	97578	1,6					
	27	7476	**55,01**	100487	1,7					
	28	7054	**51,94**	101711	1,8					
	32	6175	**45,41**	104682	2,1					
	37	5435	**39,92**	106765	2,4					
	48	4161	**30,50**	108822	3,1					
	55	3642	**26,66**	105180	3,6					
	63	3206	**23,44**	101746	4,0					
	24	8440	**62,33**	52195	0,9	**DR773-3E180L/4D**	42,50	444	128	IE3
	27	7322	**53,99**	60083	1,1	**DR773-2E180L/4C**	42,50	444		IE2
	31	6380	**46,99**	65641	1,3					
	35	5696	**41,85**	69203	1,4					
	40	5060	**37,12**	68194	1,6					
	45	4517	**33,10**	66726	1,8					
	46	4352	**31,92**	66250	1,8					
	53	3775	**27,65**	64334	2,1					
	61	3290	**24,06**	62440	2,4					
	65	3137	**22,77**	61763	2,6	**DR772-3E180L/4D**	42,50	429	128	IE3
	74	2735	**19,82**	59838	2,9	**DR772-2E180L/4C**	42,50	429		IE2
	85	2409	**17,44**	58055	3,3					
	95	2139	**15,46**	56394	3,6					
	107	1911	**13,81**	54839	3,8					
	43	4635	**34,02**	25522	0,9	**DR673-3E180L/4D**	42,50	354	122	IE3
	49	4097	**30,04**	31539	1,0	**DR673-2E180L/4C**	42,50	354		IE2
	56	3596	**26,11**	35981	1,2	**DR672-3E180L/4D**	42,50	344	122	IE3
	63	3220	**23,36**	38832	1,3	**DR672-2E180L/4C**	42,50	344		IE2
	73	2782	**20,20**	41759	1,5					
	84	2413	**17,49**	43953	1,8					
	96	2113	**15,30**	45575	2,0					
	109	1865	**13,48**	47008	2,3					
	123	1656	**11,96**	49004	2,4					
	138	1478	**10,67**	49051	2,6					
	143	1423	**10,29**	48614	2,7					
	166	1234	**8,91**	46901	2,9					
	190	1075	**7,75**	45268	3,1					
	198	1033	**7,45**	44556	2,8					
	223	917	**6,61**	43208	3,0					

***: IE2 ve IE3 motorlu redüktör fiyatları farklıdır.** */ Geared motor prices are different for IE2 and IE3 motors.* / Preise von Getrieben mit IE2 und IE3 Motoren sind unterschiedlich.

D Serisi Motorlu Güç Devir Sayfaları

D Series Geared Motors Performance Tables

D Serien Getriebemotoren Leistung und Drehzahlübersicht

Güç *Power* Leistung **P_g [kW]** P_g [HP]	IE3 Çıkış Devri *Output Speeds* Abtriebswelle Drehzahlen **n_2 [r.p.m]**	IE3 Çıkış Momenti *Output Torque* Abtriebswelle Drehmomente **M_2 [Nm]**	Çevrim Oranı *Ratio* Übersetzung **i**	IE3 Güv. Rad. Yük Çıkış *Per.O. Loads (Output)* Zul.Querkräfte (Abtrieb) **F_{qam} [N]**	IE3 Servis Faktörü *Service Factors* Betriebsfaktor **f_s**	Tipi *Type* Typ	Anma Akımı *Rated Current* Nennstrom **[A]**	Ağırlık *Weight* Gewicht ~ **[kg]**	Ölçü Sayfası *Dim. Page* Maße Seite	Motor* Verim Snf. *Motor Eff. Class* Motor Effizienz-klasse
22 30	250 260 300 344	818 788 684 595	**5,89** **5,68** **4,92** **4,28**	41937 41539 39988 38523	3,2 3,2 3,5 3,7	**DR672-3E180L/4D** **DR672-2E180L/4C**	42,50 42,50	344 344	122	IE3 IE2
	61 69 81 94 108 124 141 171 198 229 262 298 337	3308 2951 2511 2162 1879 1644 1447 1195 1029 894 783 689 608	**24,02** **21,40** **18,23** **15,67** **13,60** **11,89** **10,45** **8,65** **7,43** **6,45** **5,64** **4,96** **4,38**	17297 22821 27782 30962 34121 33856 32929 31046 30016 29046 28128 27254 26417	0,9 1,0 1,2 1,4 1,5 1,6 1,8 1,7 1,8 2,0 2,1 2,3 2,4	**DR572-3E180L/4D** **DR572-2E180L/4C**	42,50 42,50	294 294	116	IE3 IE2
30 40	16 17 21 23 26 29 34 39 43 57	17345 15590 13294 11735 10424 9305 8064 7119 6323 4831	**93,91** **84,31** **71,87** **63,36** **56,21** **50,12** **43,38** **38,24** **33,93** **25,92**	160126 157128 152454 148619 144897 141287 136711 132711 128926 119680	1,0 1,2 1,4 1,5 1,7 1,9 2,2 2,5 2,8 3,7	**DR973-3G200L/4** **DR973-2G200L/4**	55,00 55,00	930 917	140	IE3 IE2
	21 24 27 28 32 37 42 48 55 63 83 95 109	12687 11342 10195 9619 8421 7413 6552 5674 4968 4373 3297 2886 2541	**68,62** **61,27** **55,01** **51,94** **45,41** **39,92** **35,24** **30,50** **26,66** **23,44** **17,67** **15,45** **13,58**	78462 85191 90282 92646 97201 100697 103433 105990 102716 99587 92088 89035 86150	1,0 1,1 1,3 1,4 1,5 1,8 2,0 2,3 2,6 3,0 3,3 3,7 4,0	**DR873-3G200L/4** **DR873-2G200L/4**	55,00 55,00	634 621	134	IE3 IE2
	35 40 45 46 53 61	7768 6900 6160 5935 5149 4487	**41,85** **37,12** **33,10** **31,92** **27,65** **24,06**	57128 62675 63030 62694 61279 59800	1,0 1,2 1,3 1,3 1,6 1,8	**DR773-3G200L/4** **DR773-2G200L/4**	55,00 55,00	470 457	128	IE3 IE2
	65 74 85 95 107 119 126 144 164 170	4278 3730 3285 2917 2607 2343 2210 1934 1702 1645	**22,77** **19,82** **17,44** **15,46** **13,81** **12,40** **11,71** **10,23** **9,00** **8,70**	59298 57706 56190 54749 53376 52064 51365 49733 48181 47306	1,9 2,1 2,4 2,6 2,8 3,0 3,1 3,3 3,6 3,2	**DR772-3G200L/4** **DR772-2G200L/4**	55,00 55,00	455 442	128	IE3 IE2

***: IE2 ve IE3 motorlu redüktör fiyatları farklıdır.** */ Geared motor prices are different for IE2 and IE3 motors.* / Preise von Getrieben mit IE2 und IE3 Motoren sind unterschiedlich.

D Serisi Motorlu Güç Devir Sayfaları

D Series Geared Motors Performance Tables

D Serien Getriebemotoren Leistung und Drehzahlübersicht

Güç *Power* Leistung **P_g [kW]** P_g [HP]	IE3 Çıkış Devri *Output Speeds* Abtriebswelle Drehzahlen **n_2 [r.p.m]**	IE3 Çıkış Momenti *Output Torque* Abtriebswelle Drehmomente **M_2 [Nm]**	Çevrim Oranı *Ratio* Übersetzung **i**	IE3 Güv. Rad. Yük Çıkış *Per.O. Loads (Output)* Zul.Querkräfte (Abtrieb) **F_{qam} [N]**	IE3 Servis Faktörü *Service Factors* Betriebsfaktor **f_s**	Tipi *Type* Typ	Anma Akımı *Rated Current* Nennstrom **[A]**	Ağırlık *Weight* Gewicht ~ **[kg]**	Ölçü Sayfası *Dim. Page* Maße Seite	* Motor Verim Snf. *Motor Eff. Class* Motor Effizienz-klasse
30 40	190	1470	**7,76**	46012	3,4	**DR772-3G200L/4**	55,00	455	128	IE3
	212	1321	**6,97**	44792	3,6	**DR772-2G200L/4**	55,00	442		IE2
	224	1246	**6,58**	44147	3,7					
	256	1091	**5,75**	42653	4,0					
	292	960	**5,06**	41246	4,0					
	330	848	**4,47**	39911	4,0					
	73	3795	**20,20**	34319	1,1	**DR672-3G200L/4**	55,00	370	122	IE3
	84	3290	**17,49**	38327	1,3	**DR672-2G200L/4**	55,00	357		IE2
	96	2881	**15,30**	41129	1,5					
	109	2543	**13,48**	43495	1,7					
	123	2258	**11,96**	46209	1,8					
	138	2015	**10,67**	47639	1,9					
	143	1941	**10,29**	47254	2,0					
	166	1684	**8,91**	45729	2,1					
	190	1467	**7,75**	44252	2,3					
	198	1409	**7,45**	43485	2,0					
	223	1251	**6,61**	42262	2,2					
	250	1117	**5,89**	41097	2,3					
	260	1076	**5,68**	40729	2,4					
	300	933	**4,92**	39289	2,5					
	344	812	**4,28**	37917	2,7					
37 50	21	16397	**71,87**	147136	1,1	**DR973-3G225S/4**	67,00	1020	140	IE3
	23	14474	**63,36**	143967	1,2	**DR973-2G225S/4**	67,00	1004		IE2
	26	12857	**56,21**	140798	1,4					
	29	11477	**50,12**	137653	1,6					
	34	9946	**43,38**	133587	1,8					
	39	8780	**38,24**	129972	2,1					
	43	7799	**33,93**	126508	2,3					
	57	5959	**25,92**	117636	3,0					
	65	5261	**22,85**	114147	3,3					
	73	4673	**20,27**	110852	3,6					
	27	12575	**55,01**	79060	1,0	**DR873-3G225S/4**	67,00	723	134	IE3
	28	11865	**51,94**	82684	1,1	**DR873-2G225S/4**	67,00	707		IE2
	32	10387	**45,41**	89469	1,3					
	37	9143	**39,92**	94513	1,4					
	42	8082	**35,24**	98411	1,6					
	48	6999	**30,50**	101903	1,9					
	55	6127	**26,66**	100531	2,1					
	63	5394	**23,44**	97677	2,4					
	83	4067	**17,67**	90478	2,7					
	95	3560	**15,45**	87634	3,0					
	109	3134	**13,58**	84923	3,2					
	105	3265	**14,02**	86316	3,4	**DR872-3G225S/4**	67,00	705	134	IE3
	119	2881	**12,36**	83594	3,7	**DR872-2G225S/4**	67,00	689		IE2
	135	2558	**10,97**	81048	4,0					
	151	2283	**9,78**	78649	4,0					
	45	7597	**33.10**	58284	1,1	**DR773-3G225S/4**	67,00	555	128	IE3
	46	7320	**31.92**	59505	1,1	**DR773-2G225S/4**	67,00	539		IE2
	53	6351	**27.65**	58545	1,3					
	61	5534	**24.06**	57443	1,4					
	71	4800	**20.87**	54829	1,2					
	79	4285	**18.61**	53888	1,3					
	82	4128	**17.95**	53573	1,3					

***: IE2 ve IE3 motorlu redüktör fiyatları farklıdır.** */ Geared motor prices are different for IE2 and IE3 motors.* / Preise von Getrieben mit IE2 und IE3 Motoren sind unterschiedlich.

D Serisi Motorlu Güç Devir Sayfaları

D Series Geared Motors Performance Tables

D Serien Getriebemotoren Leistung und Drehzahlübersicht

Güç *Power* Leistung P_g [kW] P_g [HP]	IE3 Çıkış Devri *Output Speeds* Abtriebswelle Drehzahlen n_2 [r.p.m]	IE3 Çıkış Momenti *Output Torque* Abtriebswelle Drehmomente M_2 [Nm]	Çevrim Oranı *Ratio* Übersetzung i	IE3 Güv. Rad. Yük Çıkış *Per.O. Loads (Output)* Zul.Querkräfte (Abtrieb) F_{qam} [N]	IE3 Servis Faktörü *Service Factors* Betriebsfaktor f_s	Tipi *Type* Typ	Anma Akımı *Rated Current* Nennstrom [A]	Ağırlık *Weight* Gewicht ~ [kg]	Ölçü Sayfası *Dim. Page* Maße Seite	Motor* Verim Snf. *Motor Eff. Class* Motor Effizienz-klasse
37	95	3598	**15,46**	53286	2,1	**DR772-3G225S/4**	67,00	548	128	IE3
50	107	3216	**13,81**	52076	2,3	**DR772-2G225S/4**	67,00	532		IE2
	119	2890	**12,40**	50903	2,4					
	126	2726	**11,71**	50272	2,5					
	144	2386	**10,23**	48782	2,7					
	164	2099	**9,00**	47349	2,9					
	170	2029	**8,70**	46387	2,6					
	190	1814	**7,76**	45195	2,8					
	212	1630	**6,97**	44061	2,9					
	224	1537	**6,58**	43458	3,0					
	256	1345	**5,75**	42053	3,2					
	292	1184	**5,06**	40720	3,4					
	330	1046	**4,47**	39449	3,6					
45	23	17605	**63,36**	138551	1,0	**DR973-3G225M/4**	80,00	1050	140	IE3
60	26	15638	**56,21**	136032	1,2	**DR973-2G225M/4**	80,00	1050		IE2
	29	13959	**50,12**	133434	1,3					
	34	12097	**43,38**	129965	1,5					
	39	10680	**38,24**	126800	1,7					
	43	9487	**33,93**	123710	1,9					
	57	7248	**25,92**	115272	2,5					
	65	6399	**22,85**	112074	2,7					
	73	5684	**20,27**	109022	3,0					
	89	4713	**16,64**	104840	3,8	**DR972-3G225M/4**	80,00	1031	140	IE3
						DR972-2G225M/4	80,00	1031		IE2
	32	12633	**45,41**	78748	1,0	**DR873-3G225M/4**	80,00	751	134	IE3
	37	11121	**39,92**	86217	1,2	**DR873-2G225M/4**	80,00	751		IE2
	42	9830	**35,24**	91795	1,3					
	48	8512	**30,50**	96872	1,5					
	55	7453	**26,66**	98003	1,7					
	63	6560	**23,44**	95467	2,0					
	83	4946	**17,67**	88617	2,2					
	95	4331	**15,45**	86016	2,4					
	109	3812	**13,58**	83508	2,7					
	105	3971	**14,02**	85020	2,8	**DR872-3G225M/4**	80,00	735	134	IE3
	119	3504	**12,36**	82456	3,0	**DR872-2G225M/4**	80,00	735		IE2
	135	3112	**10,97**	80041	3,3					
	151	2777	**9,78**	77754	3,5					
	169	2488	**8,75**	75576	3,7					
	182	2307	**8,12**	73621	3,4					
	206	2036	**7,16**	71268	3,7					
	232	1808	**6,35**	69071	3,9					
	260	1613	**5,66**	67004	4,0					
	53	7724	**27.65**	55351	1,0	**DR773-3G225M/4**	80,00	586	128	IE3
	61	6732	**24.06**	54694	1,2	**DR773-2G225M/4**	80,00	586		IE2
	71	5838	**20.87**	52130	1,0					
	79	5212	**18.61**	51504	1,1					
	82	5022	**17.95**	51281	1,1					
	95	4376	**15,46**	51587	1,8	**DR772-3G225M/4**	80,00	578	128	IE3
	107	3911	**13,81**	50569	1,9	**DR772-2G225M/4**	80,00	578		IE2
	119	3515	**12,40**	49558	2,0					
	126	3316	**11,71**	49005	2,1					
	144	2902	**10,23**	47682	2,2					
	164	2554	**9,00**	46388	2,4					
	170	2468	**8,70**	45324	2,1					

***: IE2 ve IE3 motorlu redüktör fiyatları farklıdır.** */ Geared motor prices are different for IE2 and IE3 motors.* / Preise von Getrieben mit IE2 und IE3 Motoren sind unterschiedlich.

D Serisi Motorlu Güç Devir Sayfaları

D Series Geared Motors Performance Tables

D Serien Getriebemotoren Leistung und Drehzahlübersicht

Güç *Power* Leistung **P_g [kW]** P_g [HP]	IE3 Çıkış Devri *Output Speeds* Abtriebswelle Drehzahlen **n_2 [r.p.m]**	IE3 Çıkış Momenti *Output Torque* Abtriebswelle Drehmomente **M_2 [Nm]**	Çevrim Oranı *Ratio* Übersetzung **i**	IE3 Güv. Rad. Yük Çıkış *Per.O. Loads (Output)* Zul.Querkräfte (Abtrieb) **F_{qam} [N]**	IE3 Servis Faktörü *Service Factors* Betriebsfaktor **f_s**	Tipi *Type* Typ	Anma Akımı *Rated Current* Nennstrom **[A]**	Ağırlık *Weight* Gewicht ~ **[kg]**	Ölçü Sayfası *Dim. Page* Maße Seite	* Motor Verim Snf. *Motor Eff. Class* Motor Effizienz-klasse
45	190	2206	**7,76**	44251	2,3	**DR772-3G225M/4**	80,00	578	128	IE3
60	212	1983	**6,97**	43217	2,4	**DR772-2G225M/4**	80,00	578		IE2
	224	1870	**6,58**	42663	2,5					
	256	1637	**5,75**	41361	2,7					
	292	1440	**5,06**	40115	2,8					
	330	1272	**4,47**	38916	3,0					
55	30	17004	**50,12**	128000	1,1	**DR973-3G250M/4**	96,00	1135	140	IE3
75	34	14736	**43,38**	125293	1,2	**DR973-2G250M/4**	96,00	1135		IE2
	39	13009	**38,24**	122701	1,4					
	44	11556	**33,93**	120086	1,6					
	57	8829	**25,92**	112199	2,0					
	65	7795	**22,85**	109372	2,2					
	73	6924	**20,27**	106629	2,4					
	89	5742	**16,64**	103071	3,1	**DR972-3G250M/4**	96,00	1116	140	IE3
	100	5100	**14,77**	100154	3,5	**DR972-2G250M/4**	96,00	1116		IE2
	112	4560	**13,19**	97419	3,9					
	125	4100	**11,85**	94841	4,0					
	42	11974	**35,24**	82139	1,1	**DR873-3G250M/4**	96,00	836	134	IE3
	49	10369	**30,50**	89541	1,3	**DR873-2G250M/4**	96,00	836		IE2
	56	9078	**26,66**	94741	1,4					
	63	7992	**23,44**	92610	1,6					
	84	6025	**17,67**	86202	1,8					
	96	5275	**15,45**	83909	2,0					
	109	4644	**13,58**	81659	2,2					
	106	4837	**14,02**	83320	2,3	**DR872-3G250M/4**	96,00	820	134	IE3
	120	4269	**12,36**	80956	2,5	**DR872-2G250M/4**	96,00	820		IE2
	135	3791	**10,97**	78708	2,7					
	151	3383	**9,78**	76563	2,8					
	169	3031	**8,75**	74507	3,0					
	182	2811	**8,12**	72511	2,8					
	207	2481	**7,16**	70287	3,0					
	233	2203	**6,35**	68197	3,2					
	261	1965	**5,66**	66221	3,4					
75	39	17681	**38,24**	114422	1,0	**DR973-3G280S/4**	133,00	1295	140	IE3
97	44	15706	**33,93**	112795	1,1	**DR973-2G280S/4**	133,00	1295		IE2
	57	12000	**25,92**	106031	1,5					
	65	10595	**22,85**	103969	1,6					
	73	9411	**20,27**	101861	1,8					
	89	7804	**16,64**	99589	2,3	**DR972-3G280S/4**	133,00	1170	140	IE3
	101	6932	**14,77**	97071	2,6	**DR972-2G280S/4**	133,00	1170		IE2
	113	6198	**13,19**	94669	2,9					
	125	5573	**11,85**	92373	3,2					
	149	4677	**9,94**	87788	3,2					
	168	4154	**8,82**	85342	3,4					
	188	3714	**7,88**	83043	3,6					
	210	3339	**7,08**	80872	3,9					
	56	12339	**26,66**	80292	1,1	**DR873-3G280S/4**	133,00	996	134	IE3
	63	10862	**23,44**	86865	1,2	**DR873-2G280S/4**	133,00	996		IE2
	84	8190	**17,67**	81356	1,3					
	96	7170	**15,45**	79700	1,5					
	109	6312	**13,58**	77978	1,6					

***: IE2 ve IE3 motorlu redüktör fiyatları farklıdır.** */ Geared motor prices are different for IE2 and IE3 motors.* / Preise von Getrieben mit IE2 und IE3 Motoren sind unterschiedlich.

D Serisi Motorlu Güç Devir Sayfaları

D Series Geared Motors Performance Tables

D Serien Getriebemotoren Leistung und Drehzahlübersicht

Güç *Power* Leistung P_g [kW] P_g [HP]	IE3 Çıkış Devri *Output Speeds* Abtriebswelle Drehzahlen n_2 [r.p.m]	IE3 Çıkış Momenti *Output Torque* Abtriebswelle Drehmomente M_2 [Nm]	Çevrim Oranı *Ratio* Übersetzung i	IE3 Güv. Rad. Yük Çıkış *Per.O. Loads (Output)* Zul.Querkräfte (Abtrieb) F_{qam} [N]	IE3 Servis Faktörü *Service Factors* Betriebsfaktor f_s	Tipi *Type* Typ	Anma Akımı *Rated Current* Nennstrom [A]	Ağırlık *Weight* Gewicht ~ [kg]	Ölçü Sayfası *Dim. Page* Maße Seite	Motor* Verim Snf. *Motor Eff. Class* Motor Effizienz-klasse
75	106	6575	**14,02**	79954	1,7	**DR872-3G280S/4**	133,00	967	134	IE3
97	120	5803	**12,36**	77998	1,8	**DR872-2G280S/4**	133,00	967		IE2
	135	5153	**10,97**	76090	2,0					
	152	4598	**9,78**	74232	2,1					
	170	4120	**8,75**	72422	2,2					
	183	3821	**8,12**	70338	2,1					
	207	3372	**7,16**	68373	2,2					
	234	2994	**6,35**	66500	2,4					
	262	2672	**5,66**	64709	2,5					
90	57	14401	**25,92**	101336	1,2	**DR973-3G280M/4**	158,00	1355	140	IE3
117	65	12714	**22,85**	99874	1,4	**DR973-2G280M/4**	158,00	1355		IE2
	73	11294	**20,27**	98262	1,5					
	89	9365	**16,64**	96996	1,9	**DR972-3G280M/4**	158,00	1230	140	IE3
	101	8319	**14,77**	94785	2,2	**DR972-2G280M/4**	158,00	1230		IE2
	113	7439	**13,19**	92638	2,4					
	125	6688	**11,85**	90558	2,7					
	149	5612	**9,94**	86096	2,7					
	168	4985	**8,82**	83848	2,8					
	188	4457	**7,88**	81715	3,0					
	210	4007	**7,08**	79684	3,2					
	96	8605	**15,45**	76513	1,2	**DR873-3G280M/4**	158,00	1056	134	IE3
	109	7575	**13,58**	75203	1,3	**DR873-2G280M/4**	158,00	1056		IE2
	106	7891	**14,02**	77431	1,4	**DR872-3G280M/4**	158,00	1027	134	IE3
	120	6964	**12,36**	75790	1,5	**DR872-2G280M/4**	158,00	1027		IE2
	135	6184	**10,97**	74144	1,6					
	152	5518	**9,78**	72507	1,7					
	170	4944	**8,75**	70885	1,8					
	183	4585	**8,12**	68728	1,7					
	207	4047	**7,16**	66962	1,8					
	234	3593	**6,35**	65255	2,0					
	262	3206	**5,66**	63604	2,1					
110	57	17577	**25,92**	94903	1,0	**DR973-3G315S/4**	194,00	1551	140	IE3
150	65	15518	**22,85**	94271	1,1	**DR973-2G315S/4**	194,00	1474		IE2
	73	13786	**20,27**	93342	1,2					
	89	11431	**16,64**	93460	1,6	**DR972-3G315S/4**	194,00	1426	140	IE3
	101	10154	**14,77**	91668	1,8	**DR972-2G315S/4**	194,00	1349		IE2
	113	9079	**13,19**	89869	2,0					
	125	8163	**11,85**	88082	2,2					
	150	6850	**9,94**	83786	2,2					
	169	6085	**8,82**	81809	2,3					
	189	5441	**7,88**	79900	2,5					
	210	4891	**7,08**	78059	2,6					
132	65	18623	**22,85**	87944	0,9	**DR973-3G315M/4a**	230,00	1572	140	IE3
180	73	16543	**20,27**	87804	1,0	**DR973-2G315M/4a**	230,00	1551		IE2
	89	13718	**16,64**	89520	1,3	**DR972-3G315M/4a**	230,00	1447	140	IE3
	101	12185	**14,77**	88203	1,5	**DR972-2G315M/4a**	230,00	1426		IE2
	113	10896	**13,19**	86799	1,7					
	125	9796	**11,85**	85343	1,8					
	150	8221	**9,94**	81230	1,8					
	169	7302	**8,82**	79558	1,9					

***: IE2 ve IE3 motorlu redüktör fiyatları farklıdır.** */ Geared motor prices are different for IE2 and IE3 motors.* / Preise von Getrieben mit IE2 und IE3 Motoren sind unterschiedlich.

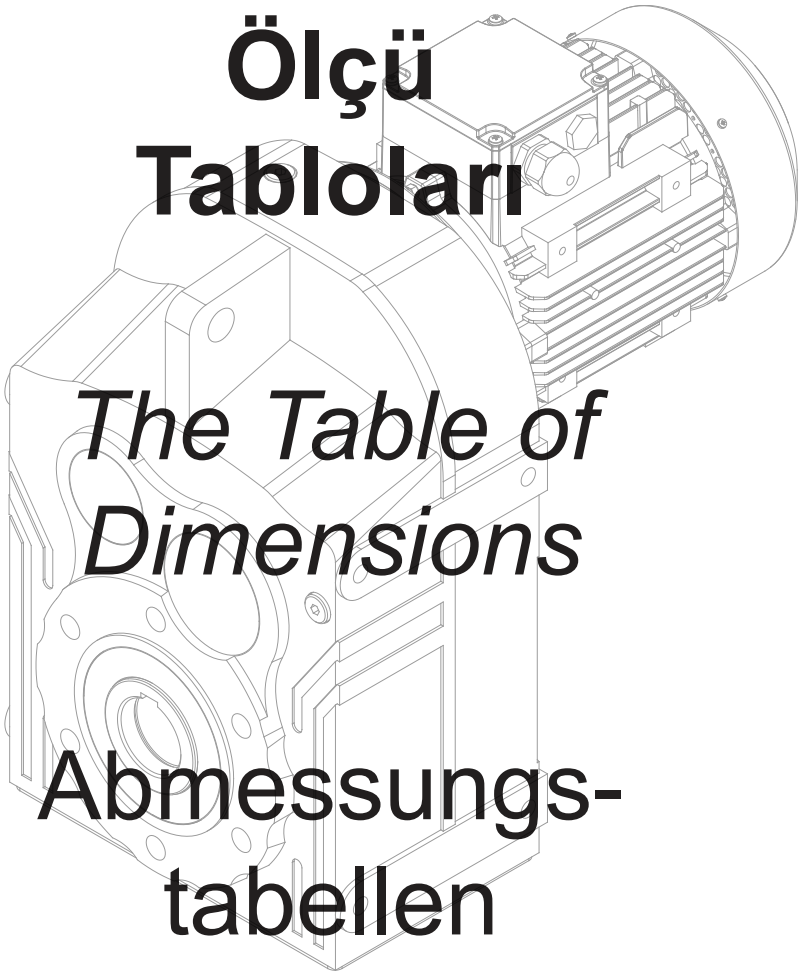
D Serisi Motorlu Güç Devir Sayfaları

D Series Geared Motors Performance Tables

D Serien Getriebemotoren Leistung und Drehzahlübersicht

Güç *Power* Leistung **P_g [kW]** P_g [HP]	IE3 Çıkış Devri *Output Speeds* Abtriebswelle Drehzahlen **n_2 [r.p.m]**	IE3 Çıkış Momenti *Output Torque* Abtriebswelle Drehmomente **M_2 [Nm]**	Çevrim Oranı *Ratio* Übersetzung **i**	IE3 Güv. Rad. Yük Çıkış *Per.O. Loads (Output)* Zul.Querkräfte (Abtrieb) **F_{qam} [N]**	IE3 Servis Faktörü *Service Factors* Betriebsfaktor **f_s**	Tipi *Type* Typ	Anma Akımı *Rated Current* Nennstrom **[A]**	Ağırlık *Weight* Gewicht ~ **[kg]**	Ölçü Sayfası *Dim. Page* Maße Seite	* Motor Verim Snf. *Motor Eff. Class* Motor Effizienz-klasse
132	189	6529	**7,88**	77903	2,1	**DR972-3G315M/4a**	230,00	1447	140	IE3
180	210	5870	**7,08**	76276	2,2	**DR972-2G315M/4a**	230,00	1426		IE2
160	89	16617	**16,64**	84381	1,1	**DR972-3G315M/4b**	275,00	1495	140	IE3
220	101	14761	**14,77**	83692	1,2	**DR972-2G315M/4b**	275,00	1450		IE2
	113	13199	**13,19**	82805	1,4					
	126	11866	**11,85**	81785	1,5					
	150	9959	**9,94**	77906	1,5					
	169	8846	**8,82**	76634	1,6					
	189	7910	**7,88**	75310	1,7					
	210	7111	**7,08**	73962	1,8					

***: IE2 ve IE3 motorlu redüktör fiyatları farklıdır.** */ Geared motor prices are different for IE2 and IE3 motors.* / Preise von Getrieben mit IE2 und IE3 Motoren sind unterschiedlich.



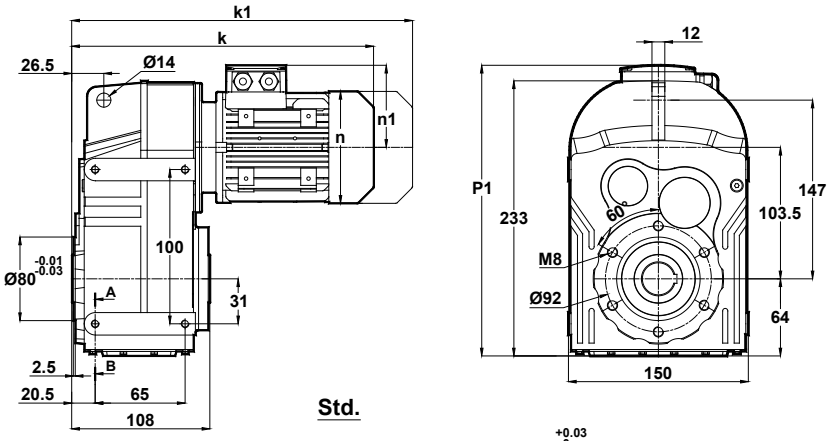
Ölçü Tabloları

The Table of Dimensions

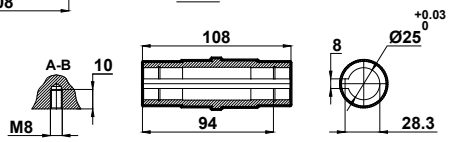
Abmessungs-tabellen

Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole according to DIN 332, sheet 2* / Zentrierung mit Gewinde nach DIN 332, Blatt 2

DR072.00
DR073.00

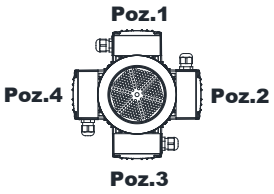


Std.



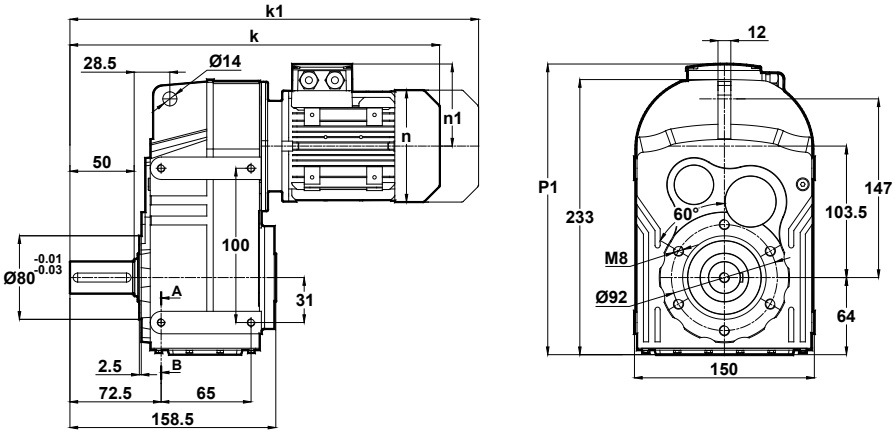
	63	71	80	90S	90L	100L
k	298.5	328	362	401	401	449
k1	359.5	419	455	504.5	504.5	557.5
n	121	137	155	176	176	193
n1	97	112	121	132	132	147
p1	286	301	310	321	321	336

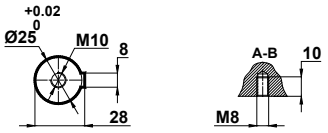
Klemens Pozisyonları
Terminal Box Positions
Klemmenkasten Positionen



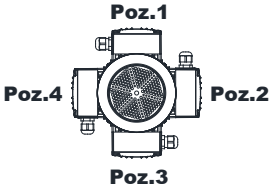
63-71-80-90-100
Tip / *Type* / Typ

DR072.01
DR073.01





Klemens Pozisyonları
Terminal Box Positions
Klemmenkasten Positionen



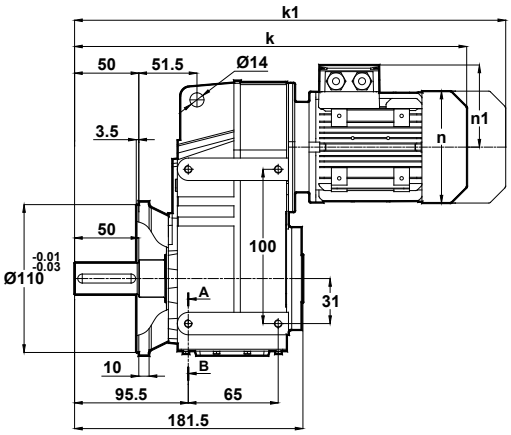
63-71-80-90-100
Tip / *Type* / Typ

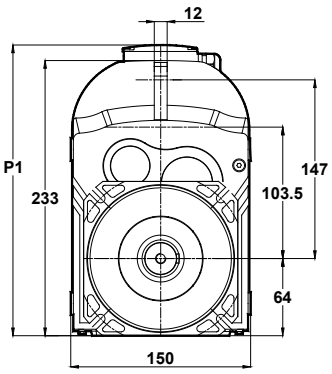
	63	71	80	90S	90L	100L
k	350.5	380	414	453	453	501
k1	411.5	471	507	556.5	556.5	609.5
n	121	137	155	176	176	193
n1	97	112	121	132	132	147
p1	286	301	310	321	321	336

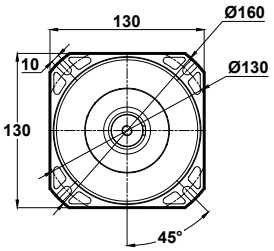
"k1" ölçüsü frenli redüktörlere aittir.
Dimensions "k1" is for motors with brake.
Maße "k1" ist für Bremsenmotoren.

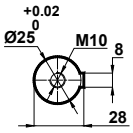
Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole according to DIN 332, sheet 2* / Zentrierung mit Gewinde nach DIN 332, Blatt 2

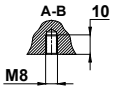
DR072.02
DR073.02



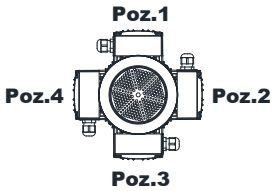






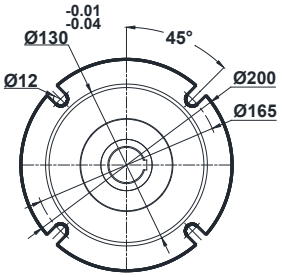


Klemens Pozisyonları
Terminal Box Positions
Klemmenkasten Positionen



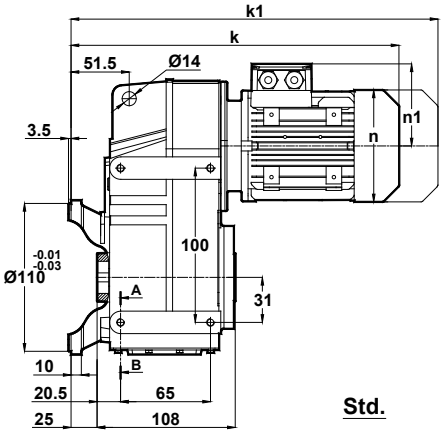
63-71-80-90-100
Tip / *Type* / Typ

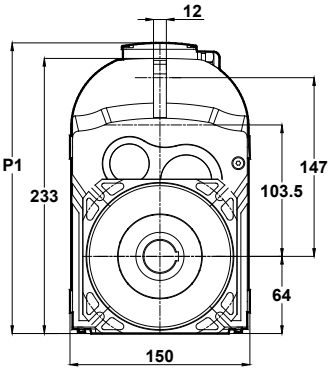
Opsiyonel Flanş Ölçüleri
Optional Flange Dimensions
Auswählbare Flanschabmessungen

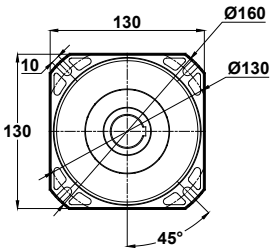


	63	71	80	90S	90L	100L
k	373.5	403	437	476	476	534
k1	434.5	494	530	579.5	579.5	632.5
n	121	137	155	176	176	193
n1	97	112	121	132	132	147
p1	286	301	310	321	321	336

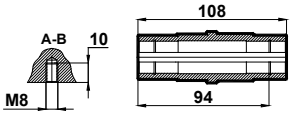
DR072.03
DR073.03

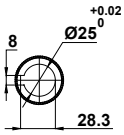




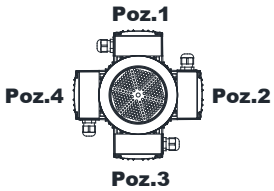


Std.



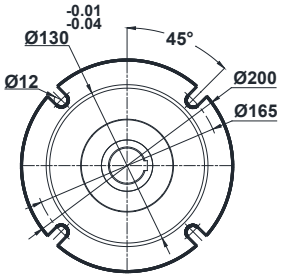


Klemens Pozisyonları
Terminal Box Positions
Klemmenkasten Positionen



63-71-80-90-100
Tip / *Type* / Typ

Opsiyonel Flanş Ölçüleri
Optional Flange Dimensions
Auswählbare Flanschabmessungen

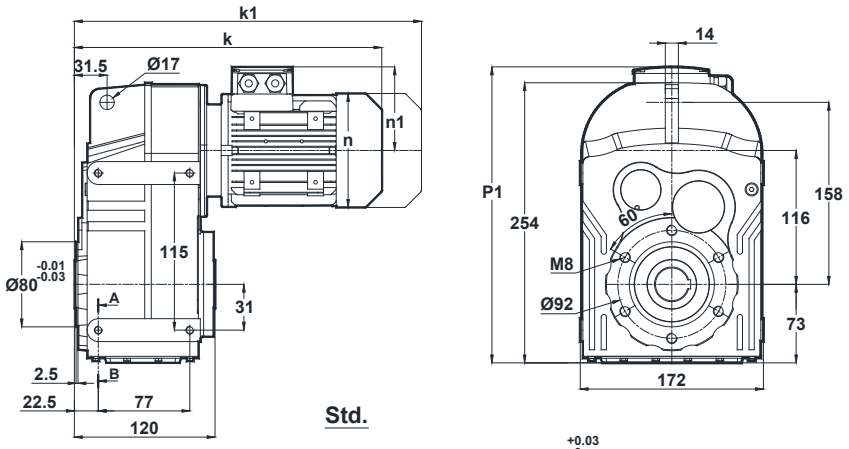


	63	71	80	90S	90L	100L
k	323.5	353	387	426	426	474
k1	384.5	444	480	529.5	529.5	582.5
n	121	137	155	176	176	193
n1	97	112	121	132	132	147
p1	286	301	310	321	321	336

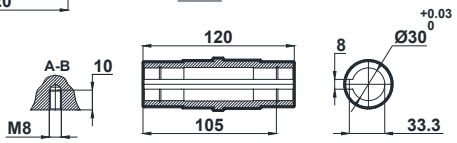
"k1" ölçüsü frenli redüktörlere aittir.
Dimensions "k1" is for motors with brake.
Maße "k1" ist für Bremsenmotoren.

Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole according to DIN 332, sheet 2* / Zentrierung mit Gewinde nach DIN 332, Blatt 2

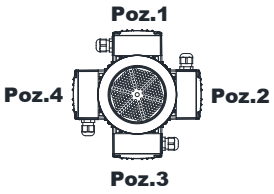
DR172.00
DR173.00



Std.



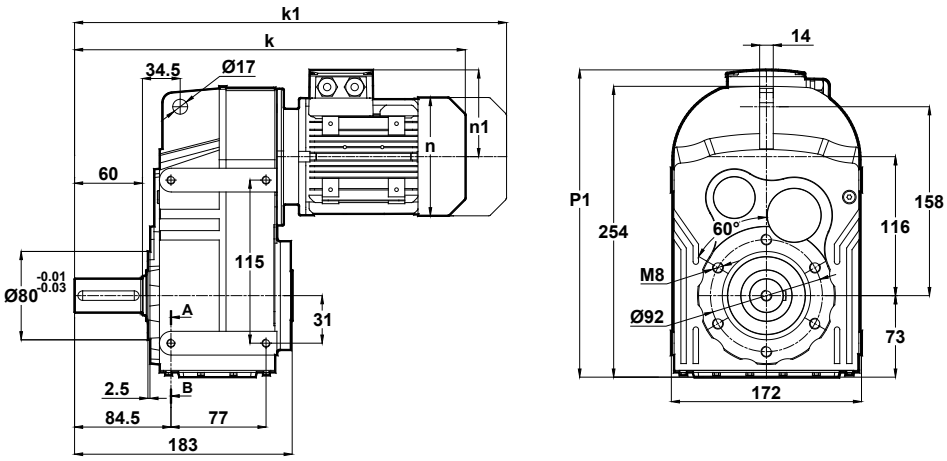
Klemens Pozisyonları
Terminal Box Positions
Klemmenkasten Positionen

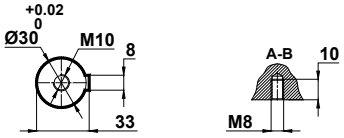


63-71-80-90-100
Tip / *Type* / Typ

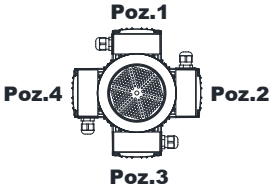
	63	71	80	90S	90L	100L
k	308	337	371	410	410	458
k1	369	428	464	514.5	514.5	577.5
n	121	137	155	176	176	193
n1	97	112	121	132	132	147
p1	286	301	310	321	321	336

DR172.01
DR173.01





Klemens Pozisyonları
Terminal Box Positions
Klemmenkasten Positionen



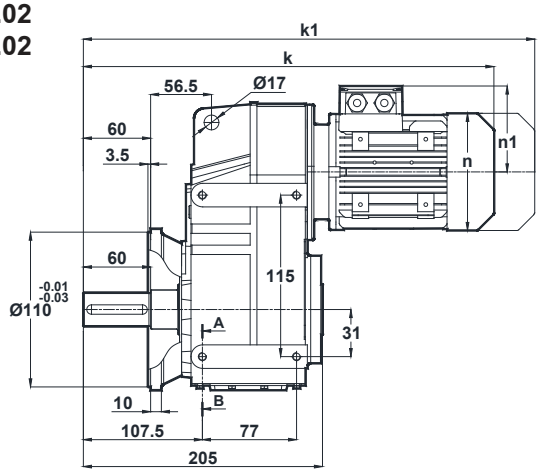
63-71-80-90-100
Tip / *Type* / Typ

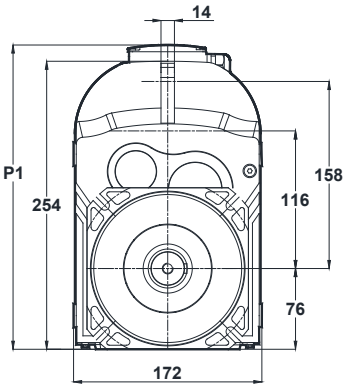
	63	71	80	90S	90L	100L
k	371	400	434	473	473	521
k1	432	491	527	577.5	577.5	640.5
n	121	137	155	176	176	193
n1	97	112	121	132	132	147
p1	286	301	310	321	321	336

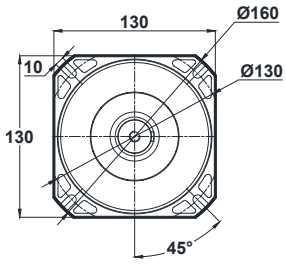
"k1" ölçüsü frenli redüktörlere aittir.
Dimensions "k1" is for motors with brake.
Maße "k1" ist für Bremsenmotoren.

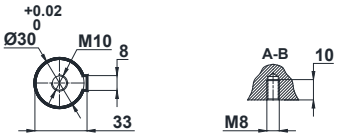
Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole according to DIN 332, sheet 2* / Zentrierung mit Gewinde nach DIN 332, Blatt 2

DR172.02
DR173.02



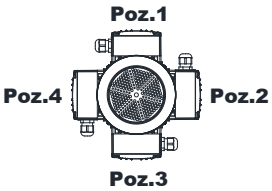






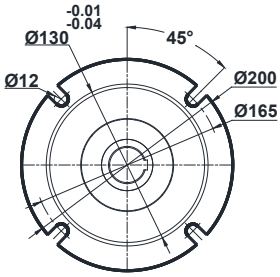
	63	71	80	90S	90L	100L
k	393	422	456	495	495	543
k1	454	513	549	599.5	599.5	662.5
n	121	137	155	176	176	193
n1	97	112	121	132	132	147
p1	286	301	310	321	321	336

Klemens Pozisyonları
Terminal Box Positions
Klemmenkasten Positionen

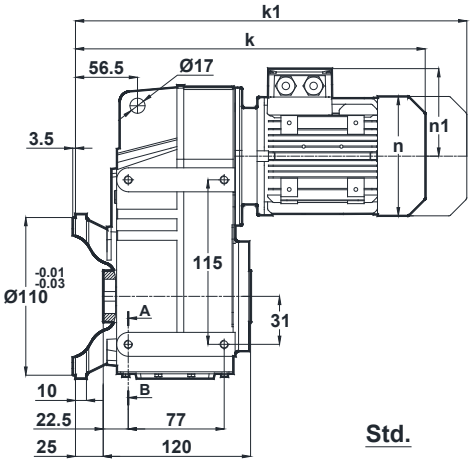


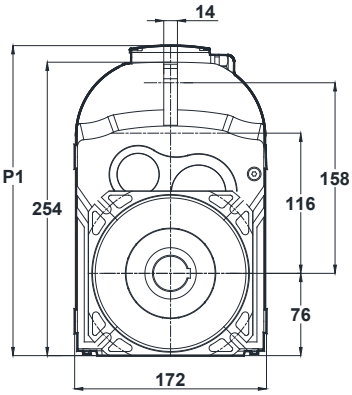
63-71-80-90-100
Tip / *Type* / Typ

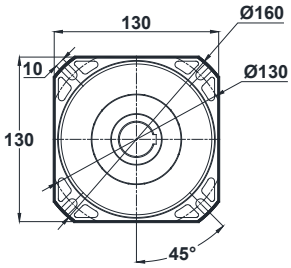
Opsiyonel Flanş Ölçüleri
Optional Flange Dimensions
Auswählbare Flanschabmessungen



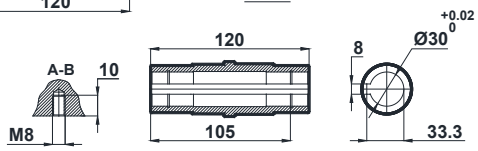
DR172.03
DR173.03





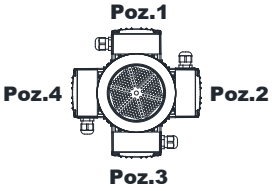


Std.



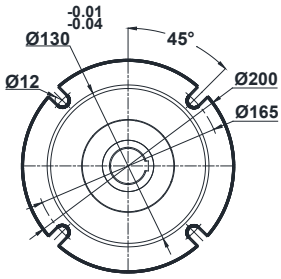
	63	71	80	90S	90L	100L
k	333	362	396	435	435	483
k1	394	453	489	539.5	539.5	602.5
n	121	137	155	176	176	193
n1	97	112	121	132	132	147
p1	286	301	310	321	321	336

Klemens Pozisyonları
Terminal Box Positions
Klemmenkasten Positionen



63-71-80-90-100
Tip / *Type* / Typ

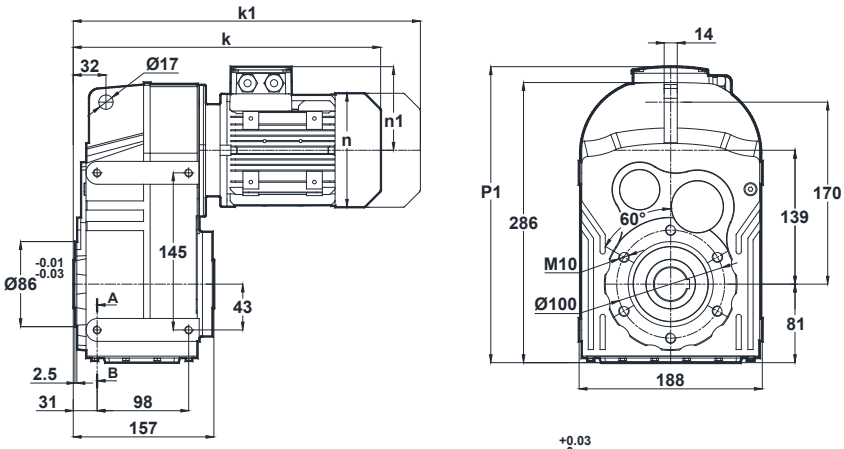
Opsiyonel Flanş Ölçüleri
Optional Flange Dimensions
Auswählbare Flanschabmessungen

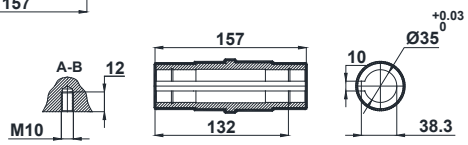


"k1" ölçüsü frenli redüktörlere aittir.
Dimensions "k1" is for motors with brake.
Maße "k1" ist für Bremsenmotoren.

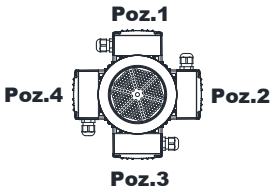
Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole according to DIN 332, sheet 2* / Zentrierung mit Gewinde nach DIN 332, Blatt 2

DR272.00
DR273.00





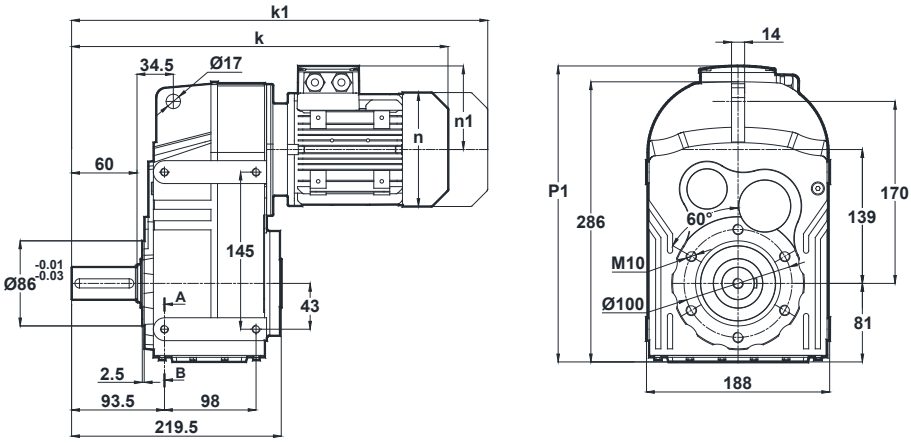
Klemens Pozisyonları
Terminal Box Positions
Klemmenkasten Positionen



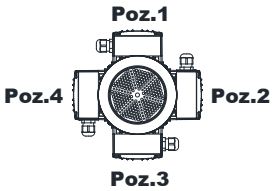
63-71-80-90-100
Tip / *Type* / Typ

	63	71	80	90S	90L	100L
k	338	367	401	440	440	488
k1	399	458	494	544.5	544.5	607.5
n	121	137	155	176	176	193
n1	97	112	121	132	132	147
p1	317	332	341	352	352	367

DR272.01
DR273.01



Klemens Pozisyonları
Terminal Box Positions
Klemmenkasten Positionen



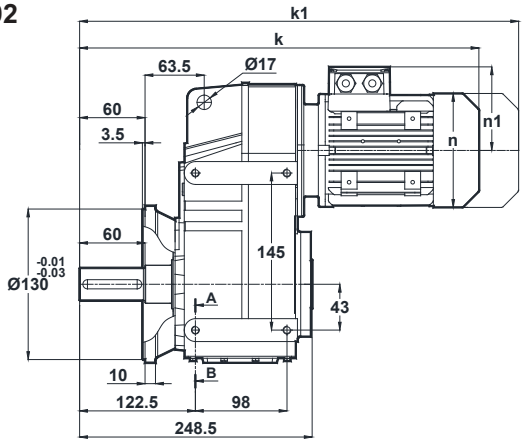
63-71-80-90-100
Tip / *Type* / Typ

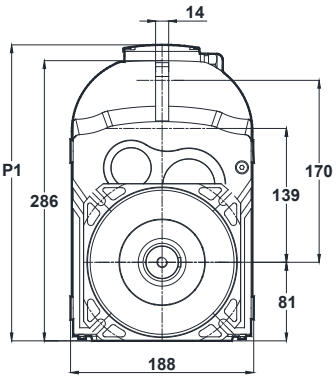
	63	71	80	90S	90L	100L
k	400	429	463	502	502	550
k1	461	520	556	606.5	606.5	669.5
n	121	137	155	176	176	193
n1	97	112	121	132	132	147
p1	317	332	341	352	352	367

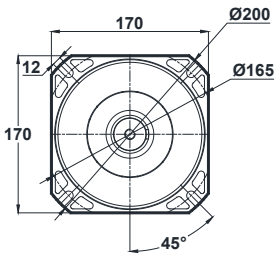
"k1" ölçüsü frenli redüktörlere aittir.
Dimensions "k1" is for motors with brake.
Maße "k1" ist für Bremsenmotoren.

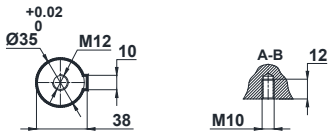
Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole according to DIN 332, sheet 2* / Zentrierung mit Gewinde nach DIN 332, Blatt 2

DR272.02
DR273.02

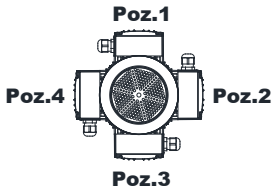






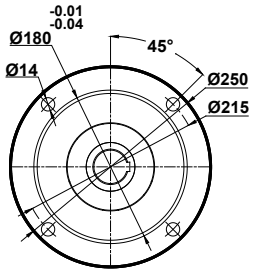


Klemens Pozisyonları
Terminal Box Positions
Klemmenkasten Positionen



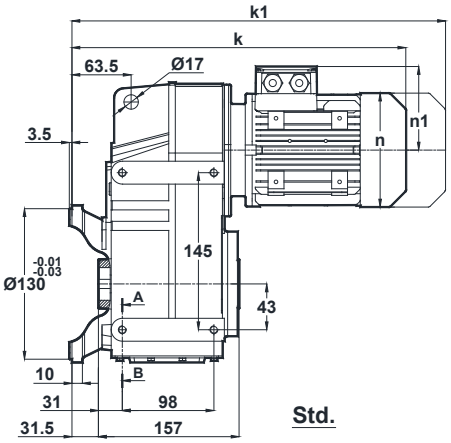
63-71-80-90-100
Tip / *Type* / Typ

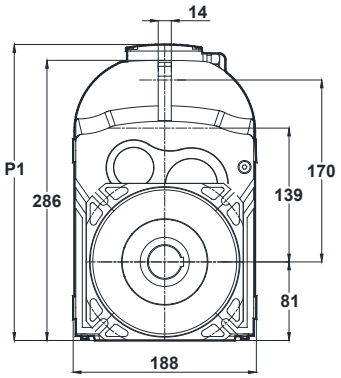
Opsiyonel Flanş Ölçüleri
Optional Flange Dimensions
Auswählbare Flanschabmessungen

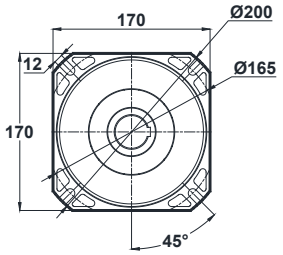


	63	71	80	90S	90L	100L
k	429	458	492	531	531	579
k1	490	549	585	635.5	635.5	698.5
n	121	137	155	176	176	193
n1	97	112	121	132	132	147
p1	317	332	341	352	352	367

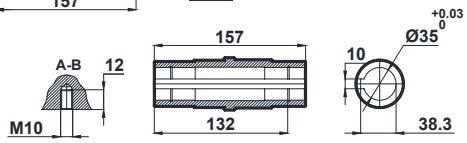
DR272.03
DR273.03



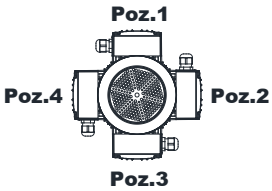




Std.

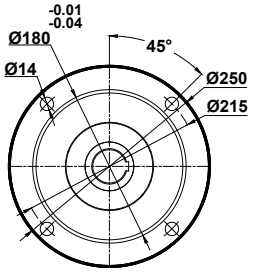


Klemens Pozisyonları
Terminal Box Positions
Klemmenkasten Positionen



63-71-80-90-100
Tip / *Type* / Typ

Opsiyonel Flanş Ölçüleri
Optional Flange Dimensions
Auswählbare Flanschabmessungen



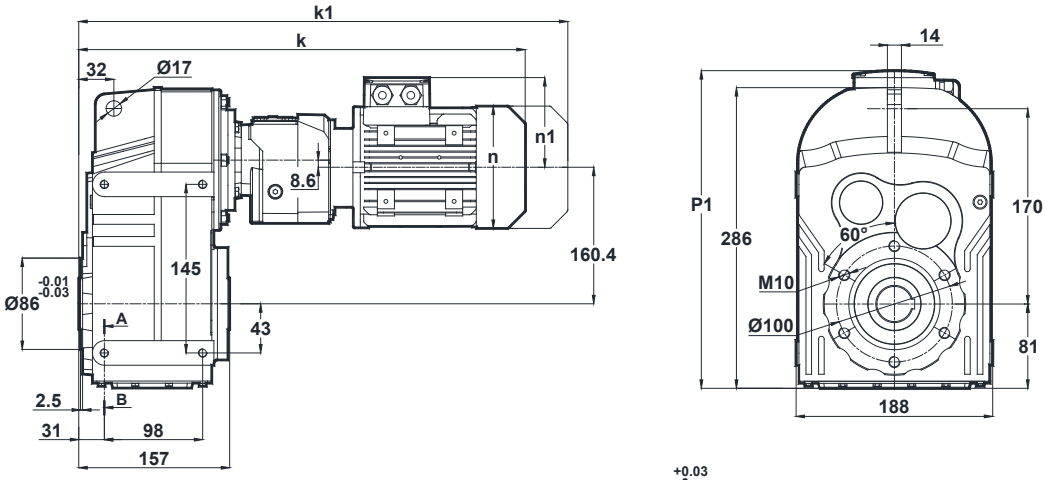
	63	71	80	90S	90L	100L
k	369	398	432	471	471	737
k1	430	489	525	575.5	575.5	856.5
n	121	137	155	176	176	193
n1	97	112	121	132	132	147
p1	317	332	341	352	352	367

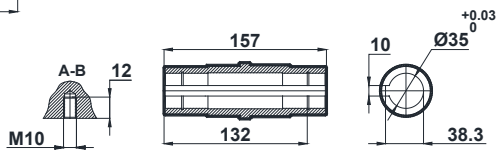
"k1" ölçüsü frenli redüktörlere aittir.
Dimensions "k1" is for motors with brake.
Maße "k1" ist für Bremsenmotoren.

Ölçü Sayfaları
Dimension Pages
Abmessungsseiten

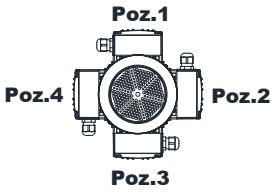
Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole according to DIN 332, sheet 2* / Zentrierung mit Gewinde nach DIN 332, Blatt 2

DR275.00
DR276.00





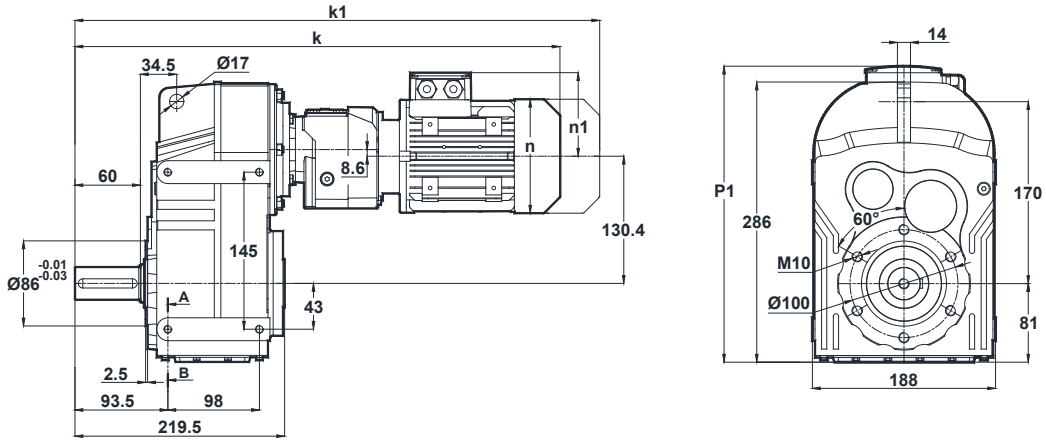
Klemens Pozisyonları
Terminal Box Positions
Klemmenkasten Positionen

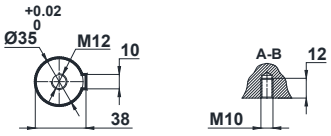


63-71
Tip / *Type* / Typ

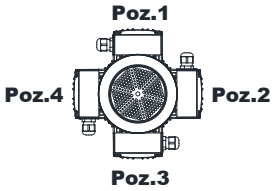
	63	71
k	484	513
k1	545	604
n	121	137
n1	97	112
p1	309	324

DR275.01
DR276.01





Klemens Pozisyonları
Terminal Box Positions
Klemmenkasten Positionen



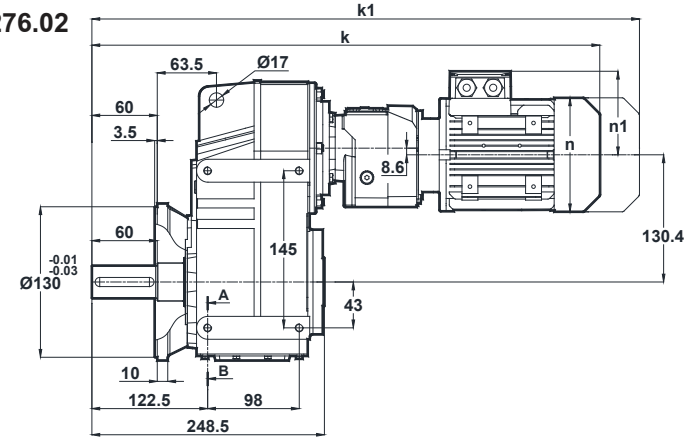
63-71
Tip / *Type* / Typ

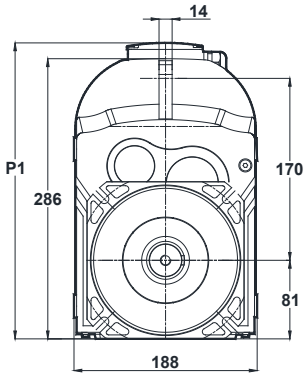
	63	71
k	546	575
k1	607	666
n	121	137
n1	97	112
p1	309	324

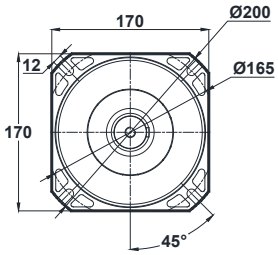
"k1" ölçüsü frenli redüktörlere aittir.
Dimensions "k1" is for motors with brake.
Maße "k1" ist für Bremsenmotoren.

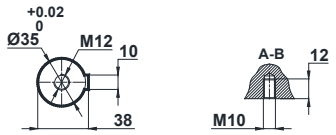
Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole according to DIN 332, sheet 2* / Zentrierung mit Gewinde nach DIN 332, Blatt 2

DR275.02
DR276.02



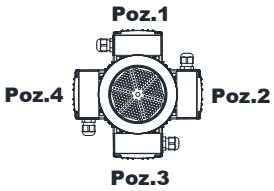






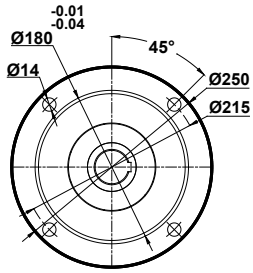
	63	71
k	575	604
k1	636	695
n	121	137
n1	97	112
p1	309	324

Klemens Pozisyonları
Terminal Box Positions
Klemmenkasten Positionen

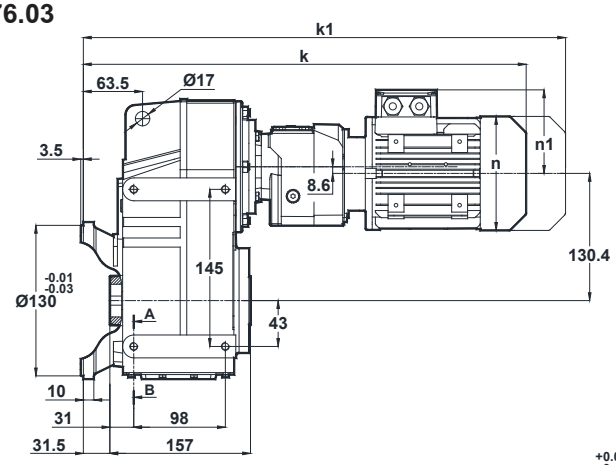


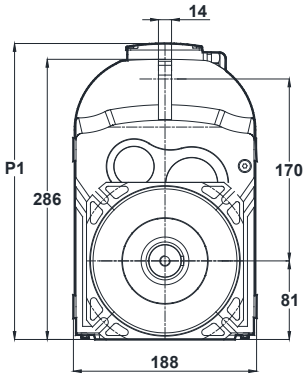
63-71
Tip / *Type* / Typ

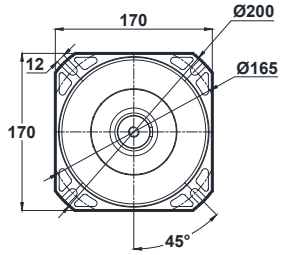
Opsiyonel Flanş Ölçüleri
Optional Flange Dimensions
Auswählbare Flanschabmessungen

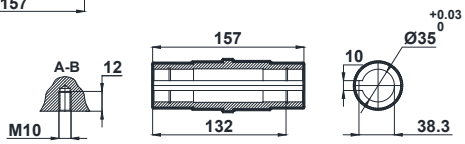


DR275.03
DR276.03



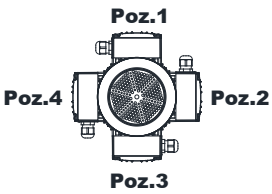






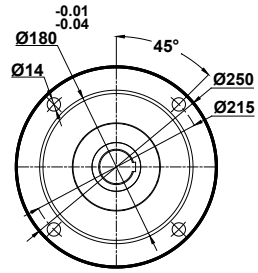
	63	71
k	515	544
k1	576	635
n	121	137
n1	97	112
p1	309	324

Klemens Pozisyonları
Terminal Box Positions
Klemmenkasten Positionen



63-71
Tip / *Type* / Typ

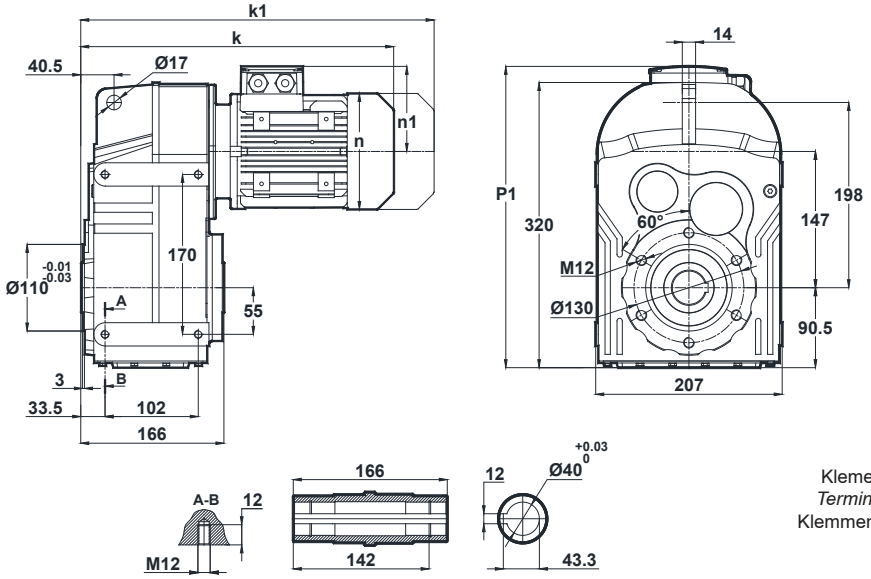
Opsiyonel Flanş Ölçüleri
Optional Flange Dimensions
Auswählbare Flanschabmessungen



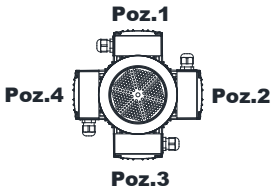
"k1" ölçüsü frenli redüktörlere aittir.
Dimensions "k1" is for motors with brake.
Maße "k1" ist für Bremsenmotoren.

Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole according to DIN 332, sheet 2* / Zentrierung mit Gewinde nach DIN 332, Blatt 2

DR282.00
DR283.00



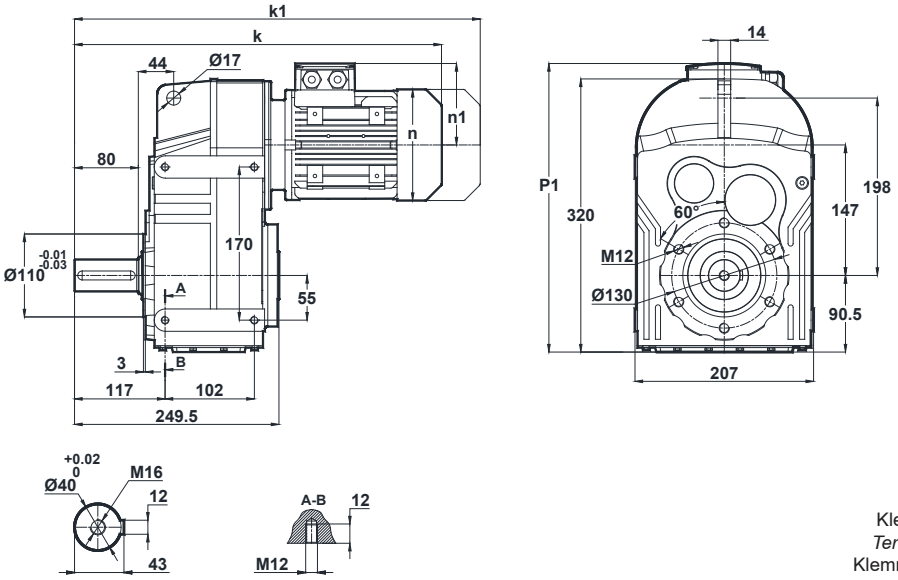
Klemens Pozisyonları
Terminal Box Positions
Klemmenkasten Positionen



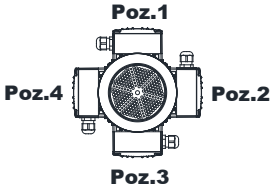
71-80-90-100-112-132
Tip / *Type* / Typ

	71	80	90S	90L	100L	112M	132S	132M
k	370	404	443	443	491	515	598	598
k1	461	497	547.5	547.5	610.5	619.5	728	728
n	137	155	176	176	193	215	257	257
n1	112	121	132	132	147	158	179	179
p1	349	358	369	369	384	395	417	417

DR282.01
DR283.01



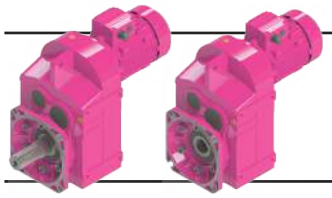
Klemens Pozisyonları
Terminal Box Positions
Klemmenkasten Positionen



71-80-90-100-112-132
Tip / *Type* / Typ

	71	80	90S	90L	100L	112M	132S	132M
k	454	488	527	527	575	599	682	682
k1	545	581	631.5	631.5	694.5	703.5	812	812
n	137	155	176	176	193	215	257	257
n1	112	121	132	132	147	158	179	179
p1	349	358	369	369	384	395	417	417

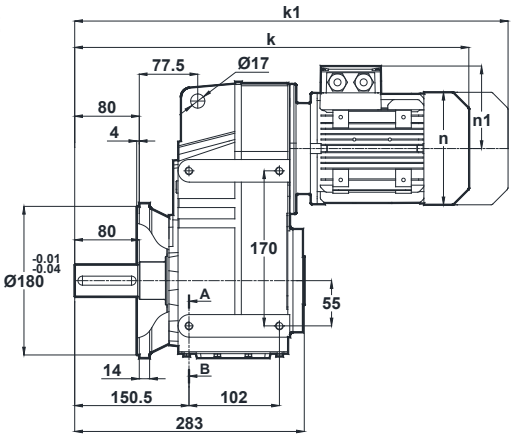
"k1" ölçüsü frenli redüktörlere aittir.
Dimensions "k1" is for motors with brake.
Maße "k1" ist für Bremsenmotoren.

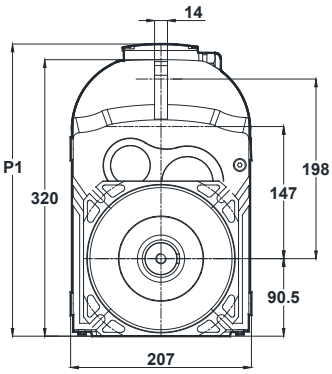


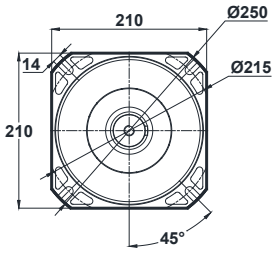
Ölçü Sayfaları
Dimension Pages
Abmessungsseiten

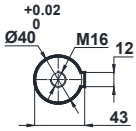
Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole according to DIN 332, sheet 2* / Zentrierung mit Gewinde nach DIN 332, Blatt 2

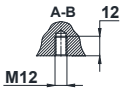
DR282.02
DR283.02



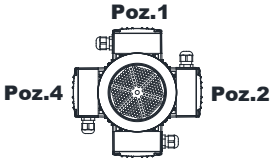






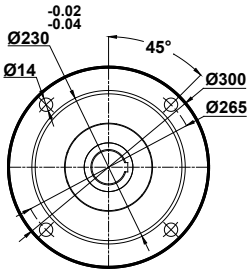


Klemens Pozisyonları
Terminal Box Positions
Klemmenkasten Positionen



71-80-90-100-112-132
Tip / *Type* / Typ

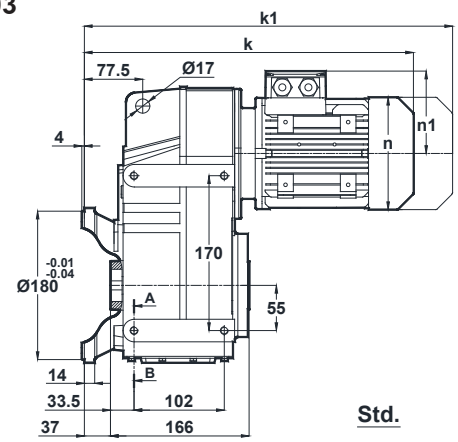
Opsiyonel Flanş Ölçüleri
Optional Flange Dimensions
Auswählbare Flanschabmessungen

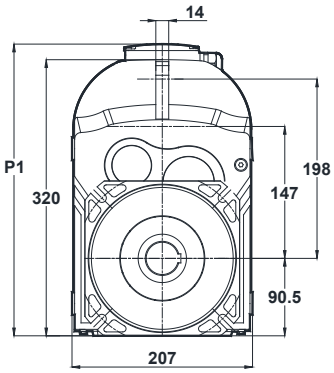


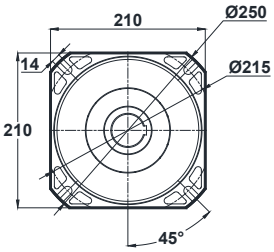
	71	80	90S	90L	100L	112M	132S	132M
k	487	521	560	560	608	632	715	715
k1	578	614	664.5	664.5	727.5	736.5	845	845
n	137	155	176	176	193	215	257	257
n1	112	121	132	132	147	158	179	179
p1	349	358	369	369	384	395	417	417

Diğer opsiyonel flanş ölçüleri için sayfa 326'ya bakınız.
Please see on page 326 for other optional flange dimensions
Siehe Siete 326 für andere auswählbare Flanschabmessungen

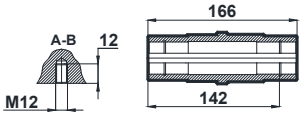
DR282.03
DR283.03

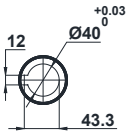




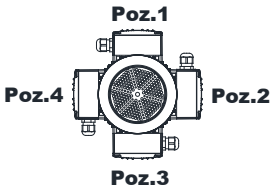


Std.



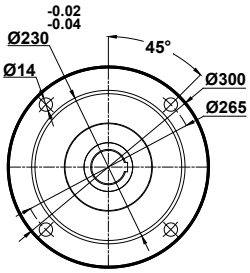


Klemens Pozisyonları
Terminal Box Positions
Klemmenkasten Positionen



71-80-90-100-112-132
Tip / *Type* / Typ

Opsiyonel Flanş Ölçüleri
Optional Flange Dimensions
Auswählbare Flanschabmessungen



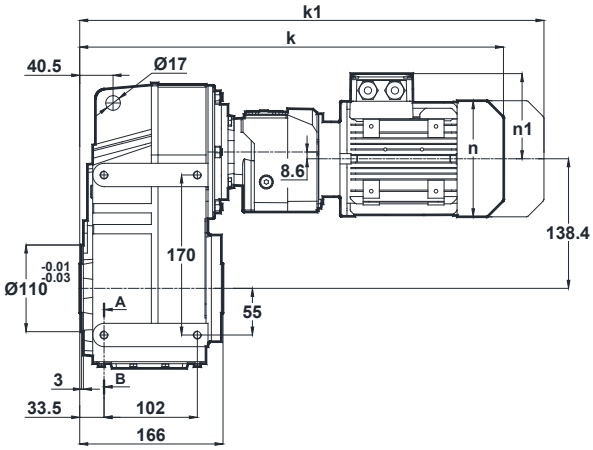
	71	80	90S	90L	100L	112M	132S	132M
k	407	441	480	480	528	552	635	635
k1	498	534	584.5	584.5	647.5	656.5	765	765
n	137	155	176	176	193	215	257	257
n1	112	121	132	132	147	158	179	179
p1	349	358	369	369	384	395	417	417

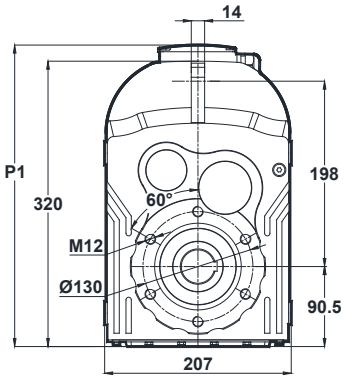
"k1" ölçüsü frenli redüktörlere aittir.
Dimensions "k1" is for motors with brake.
Maße "k1" ist für Bremsenmotoren.

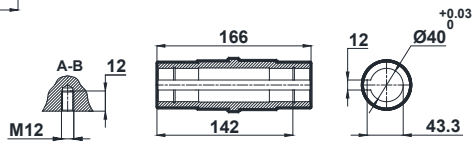
Diğer opsiyonel flanş ölçüleri için sayfa 326'ya bakınız.
Please see on page 326 for other optional flange dimensions
Siehe Siete 326 für andere auswählbare Flanschabmessungen

Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole according to DIN 332, sheet 2* / Zentrierung mit Gewinde nach DIN 332, Blatt 2

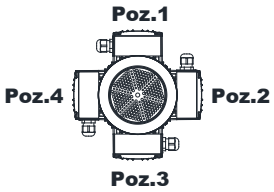
DR285.00
DR286.00







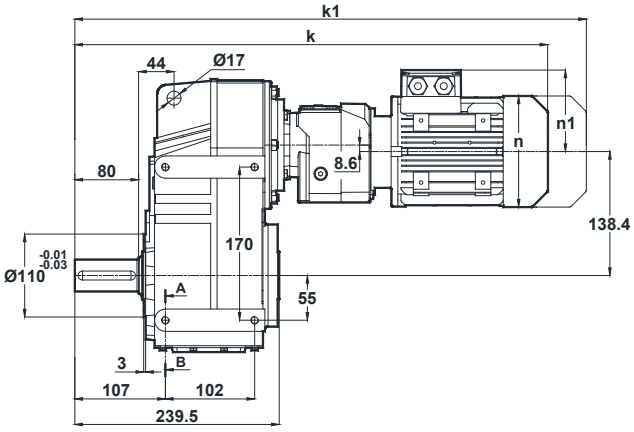
Klemens Pozisyonları
Terminal Box Positions
Klemmenkasten Positionen

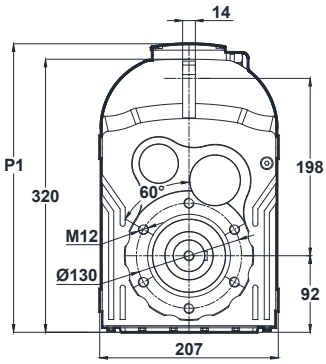


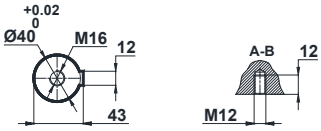
63-71
Tip / *Type* / Typ

	63	71
k	492	521
k1	553	612
n	121	137
n1	97	112
p1	326	341

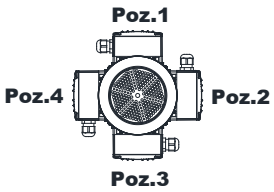
DR285.01
DR286.01







Klemens Pozisyonları
Terminal Box Positions
Klemmenkasten Positionen



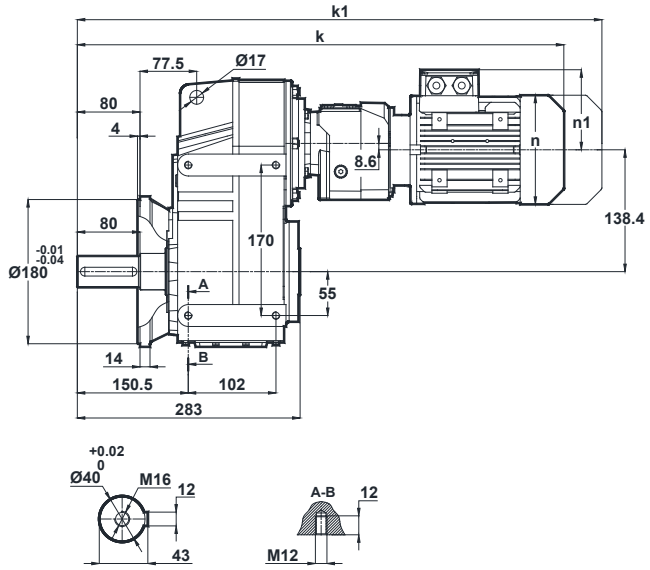
63-71
Tip / *Type* / Typ

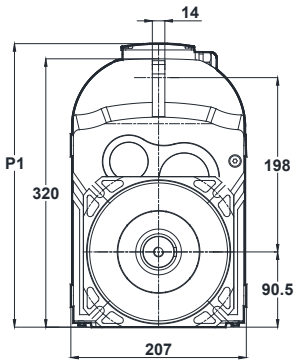
	63	71
k	576	605
k1	637	696
n	121	137
n1	97	112
p1	326	341

"k1" ölçüsü frenli redüktörlere aittir.
Dimensions "k1" is for motors with brake.
Maße "k1" ist für Bremsenmotoren.

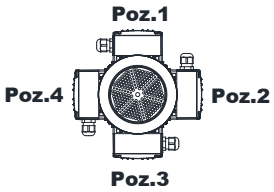
Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole according to DIN 332, sheet 2* / Zentrierung mit Gewinde nach DIN 332, Blatt 2

DR285.02
DR286.02

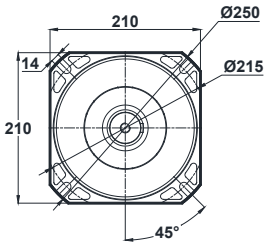




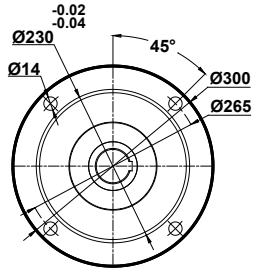
Klemens Pozisyonları
Terminal Box Positions
Klemmenkasten Positionen



63-71
Tip / *Type* / Typ



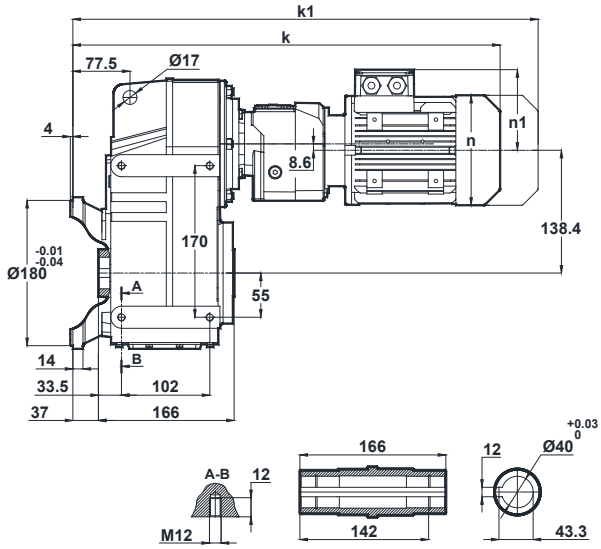
Opsiyonel Flanş Ölçüleri
Optional Flange Dimensions
Auswählbare Flanschabmessungen

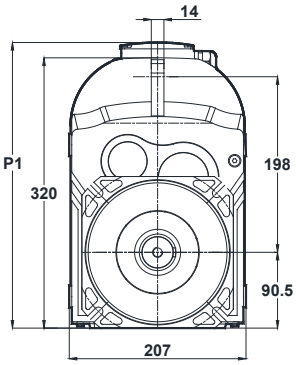


	63	71
k	609	638
k1	670	729
n	121	137
n1	97	112
p1	326	341

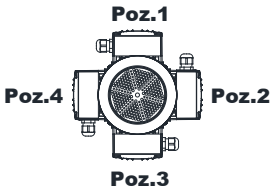
Diğer opsiyonel flanş ölçüleri için sayfa 326'ya bakınız.
Please see on page 326 for other optional flange dimensions
Siehe Siete 326 für andere auswählbare Flanschabmessungen

DR285.03
DR286.03

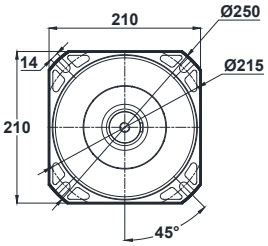




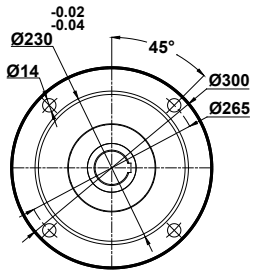
Klemens Pozisyonları
Terminal Box Positions
Klemmenkasten Positionen



63-71
Tip / *Type* / Typ



Opsiyonel Flanş Ölçüleri
Optional Flange Dimensions
Auswählbare Flanschabmessungen



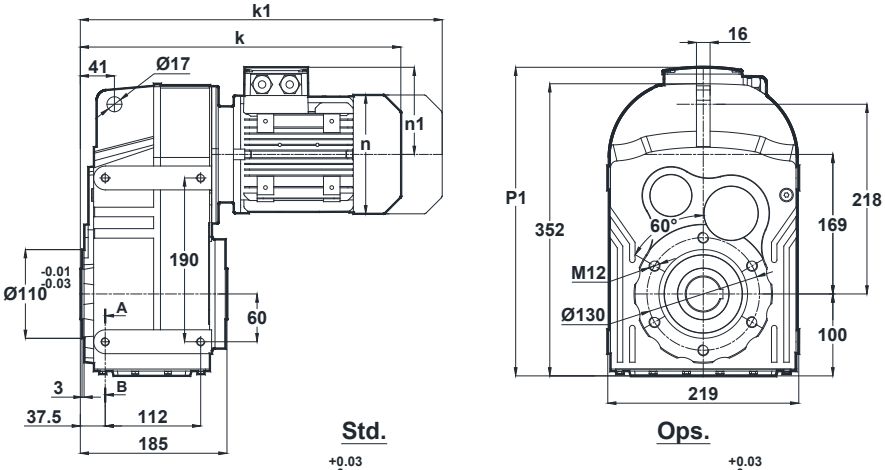
	63	71
k	529	558
k1	590	649
n	121	137
n1	97	112
p1	326	341

"k1" ölçüsü frenli redüktörlere aittir.
Dimensions "k1" is for motors with brake.
Maße "k1" ist für Bremsenmotoren.

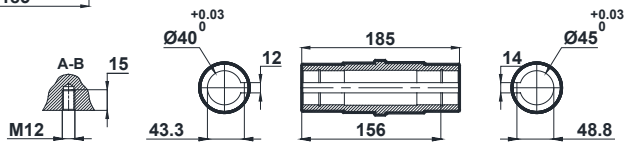
Diğer opsiyonel flanş ölçüleri için sayfa 326'ya bakınız.
Please see on page 326 for other optional flange dimensions
Siehe Siete 326 für andere auswählbare Flanschabmessungen

Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole according to DIN 332, sheet 2* / Zentrierung mit Gewinde nach DIN 332, Blatt 2

DR372.00
DR373.00

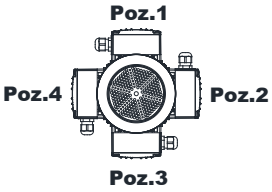


Std.



Ops.

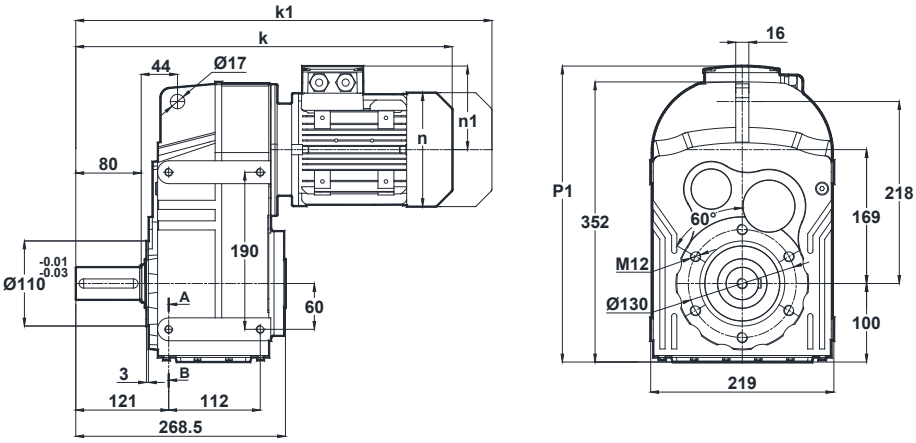
Klemens Pozisyonları
Terminal Box Positions
Klemmenkasten Positionen

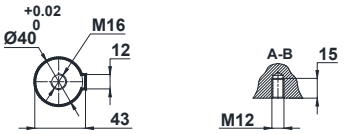


71-80-90-100-112-132
Tip / *Type* / Typ

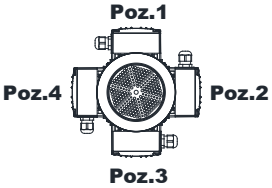
	71	80	90S	90L	100L	112M	132S	132M
k	381	415	454	454	502	526	609	609
k1	472	508	558.5	558.5	621.5	630.5	739	739
n	137	155	176	176	193	215	257	257
n1	112	121	132	132	147	158	179	179
p1	381	390	401	401	416	427	448	448

DR372.01
DR373.01





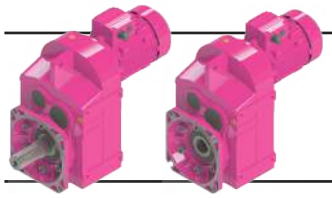
Klemens Pozisyonları
Terminal Box Positions
Klemmenkasten Positionen



71-80-90-100-112-132
Tip / *Type* / Typ

	71	80	90S	90L	100L	112M	132S	132M
k	464	498	537	537	585	609	692	692
k1	555	591	641.5	641.5	704.5	713.5	822	822
n	137	155	176	176	193	215	257	257
n1	112	121	132	132	147	158	179	179
p1	381	390	401	401	416	427	448	448

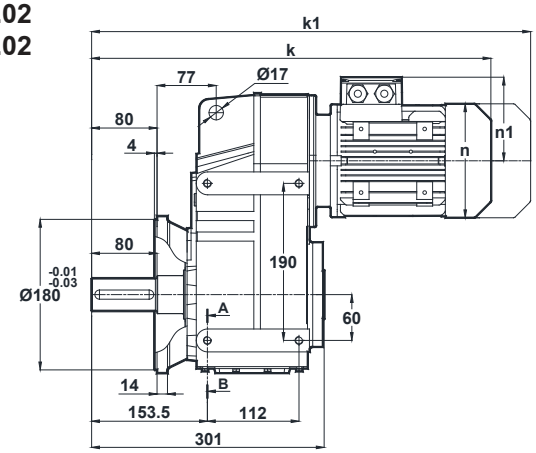
"k1" ölçüsü frenli redüktörlere aittir.
Dimensions "k1" is for motors with brake.
Maße "k1" ist für Bremsenmotoren.

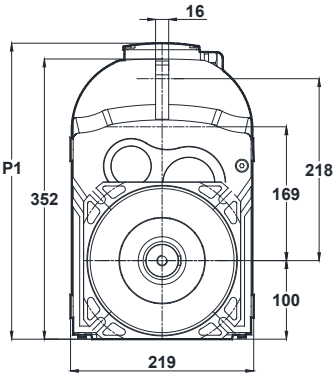


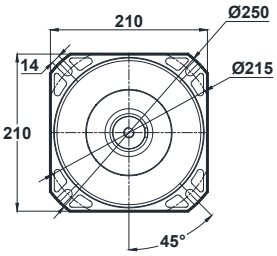
Ölçü Sayfaları
Dimension Pages
Abmessungsseiten

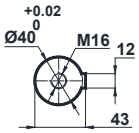
Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole according to DIN 332, sheet 2* / Zentrierung mit Gewinde nach DIN 332, Blatt 2

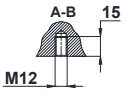
DR372.02
DR373.02



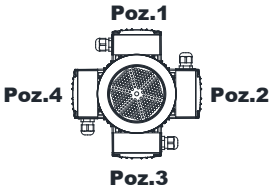






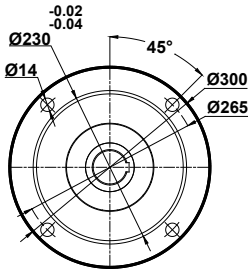


Klemens Pozisyonları
Terminal Box Positions
Klemmenkasten Positionen



71-80-90-100-112-132
Tip / *Type* / Typ

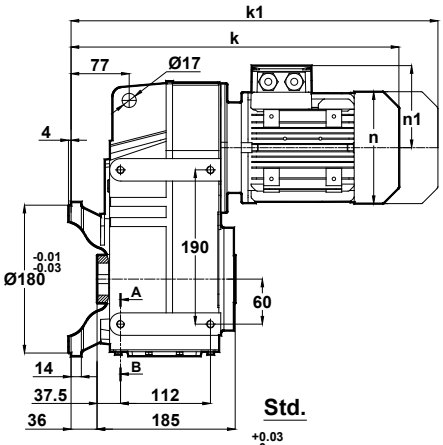
Opsiyonel Flanş Ölçüleri
Optional Flange Dimensions
Auswählbare Flanschabmessungen



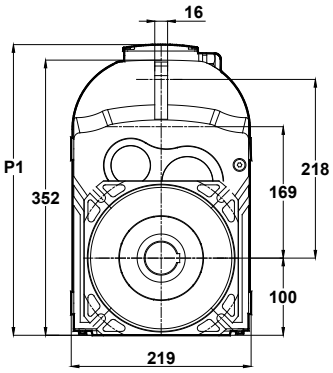
	71	80	90S	90L	100L	112M	132S	132M
k	497	531	570	570	618	642	725	725
k1	568	624	674.5	674.5	737.5	746.5	855	855
n	137	155	176	176	193	215	257	257
n1	112	121	132	132	147	158	179	179
p1	381	390	401	401	416	427	448	448

Diğer opsiyonel flanş ölçüleri için sayfa 326'ya bakınız.
Please see on page 326 for other optional flange dimensions
Siehe Siete 326 für andere auswählbare Flanschabmessungen

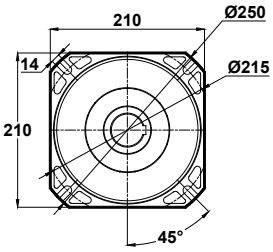
DR372.03
DR373.03

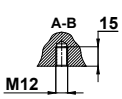


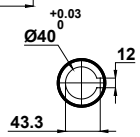
Std.

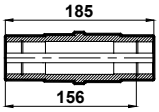


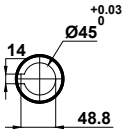
Ops.



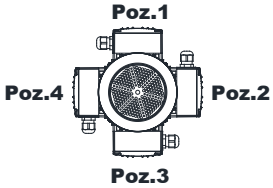






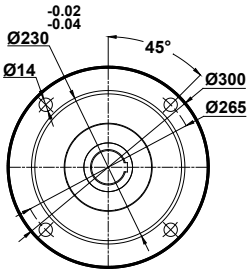


Klemens Pozisyonları
Terminal Box Positions
Klemmenkasten Positionen



71-80-90-100-112-132
Tip / *Type* / Typ

Opsiyonel Flanş Ölçüleri
Optional Flange Dimensions
Auswählbare Flanschabmessungen



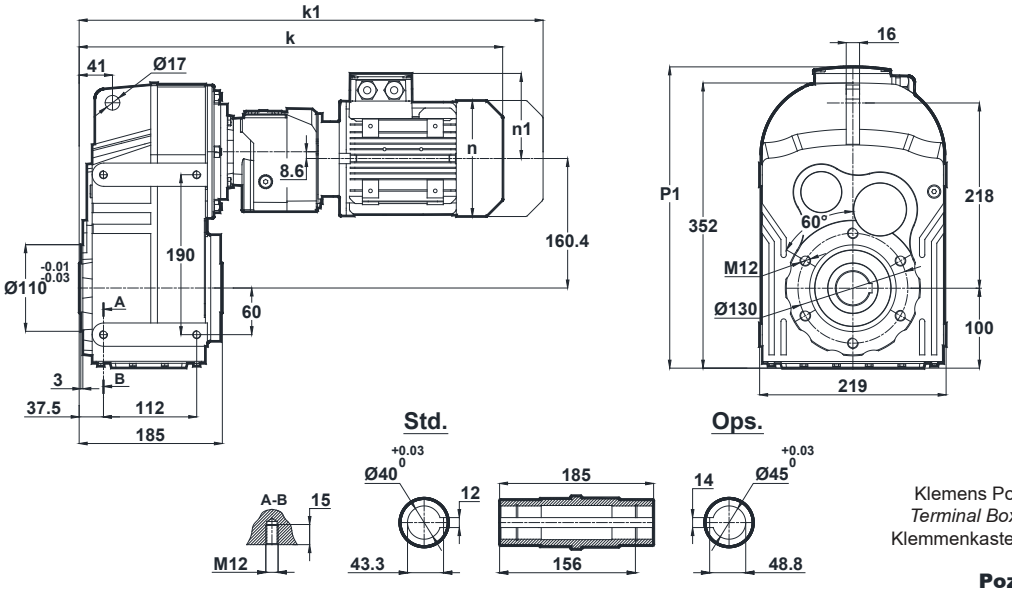
	71	80	90S	90L	100L	112M	132S	132M
k	417	451	490	490	538	562	645	645
k1	508	544	594.5	594.5	657.5	666.5	775	775
n	137	155	176	176	193	215	257	257
n1	112	121	132	132	147	158	179	179
p1	381	390	401	401	416	427	448	448

"k1" ölçüsü frenli redüktörlere aittir.
Dimensions "k1" is for motors with brake.
Maße "k1" ist für Bremsenmotoren.

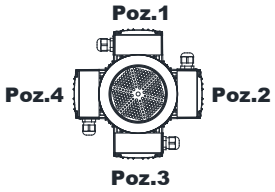
Diğer opsiyonel flanş ölçüleri için sayfa 326'ya bakınız.
Please see on page 326 for other optional flange dimensions
Siehe Siete 326 für andere auswählbare Flanschabmessungen

Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole according to DIN 332, sheet 2* / Zentrierung mit Gewinde nach DIN 332, Blatt 2

DR375.00
DR376.00



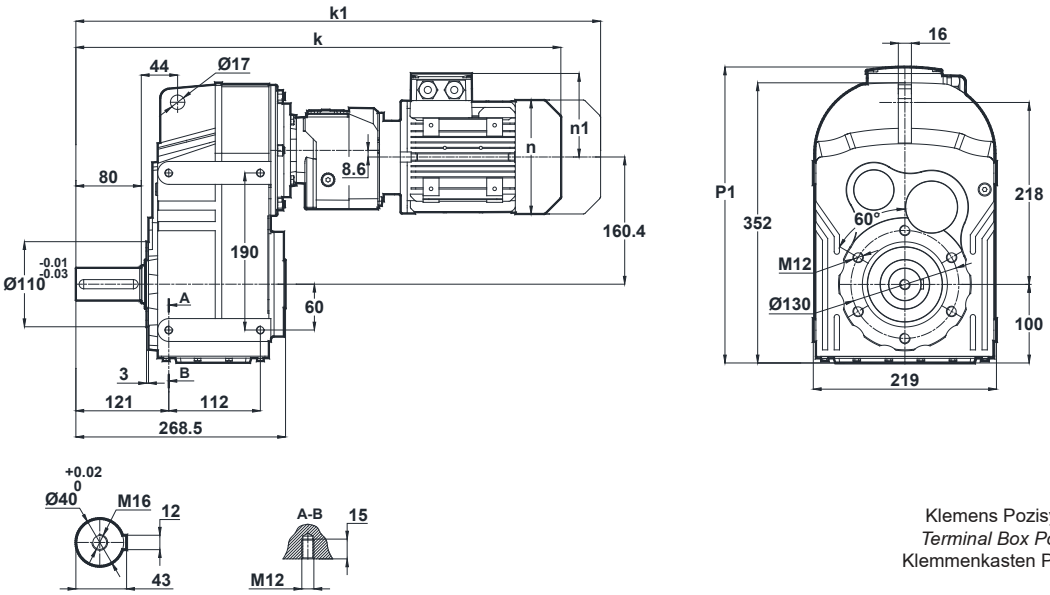
Klemens Pozisyonları
Terminal Box Positions
Klemmenkasten Positionen



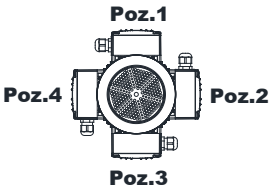
	63	71	80
k	503	532	566
k1	564	623	659
n	121	137	155
n1	97	112	121
p1	358	373	382

63-71-80
Tip / *Type* / Typ

DR375.01
DR376.01



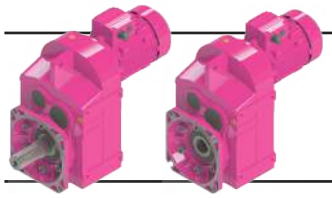
Klemens Pozisyonları
Terminal Box Positions
Klemmenkasten Positionen



	63	71	80
k	586	615	649
k1	647	706	742
n	121	137	155
n1	97	112	121
p1	358	373	382

63-71-80
Tip / *Type* / Typ

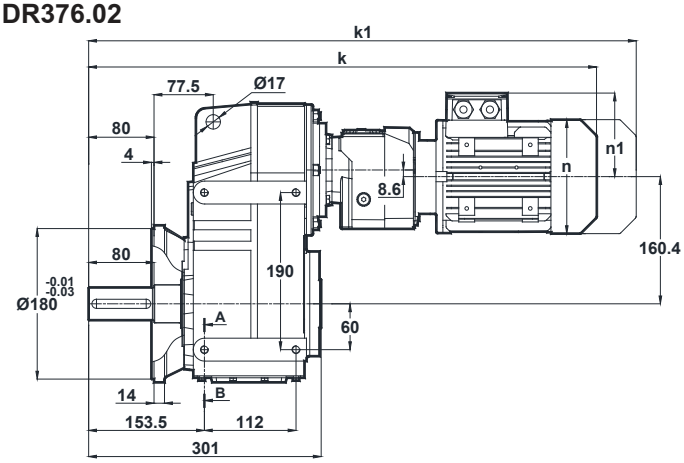
"k1" ölçüsü frenli redüktörlere aittir.
Dimensions "k1" is for motors with brake.
Maße "k1" ist für Bremsenmotoren.

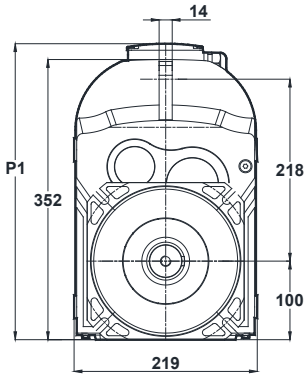


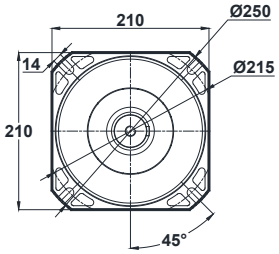
Ölçü Sayfaları
Dimension Pages
Abmessungsseiten

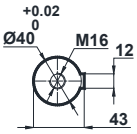
Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole according to DIN 332, sheet 2* / Zentrierung mit Gewinde nach DIN 332, Blatt 2

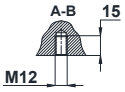
DR375.02
DR376.02





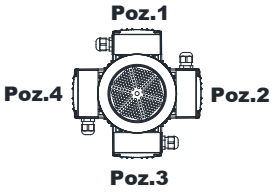






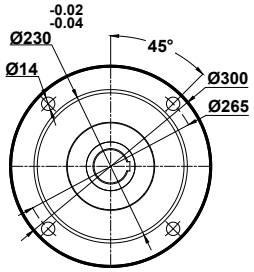
	63	71	80
k	619	648	682
k1	680	739	775
n	121	137	155
n1	97	112	121
p1	358	373	382

Klemens Pozisyonları
Terminal Box Positions
Klemmenkasten Positionen



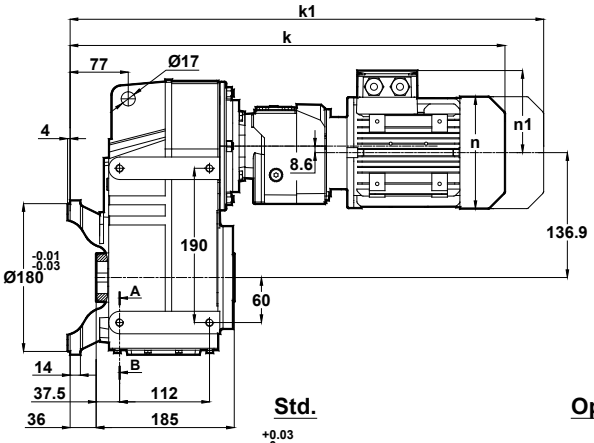
63-71-80
Tip / *Type* / Typ

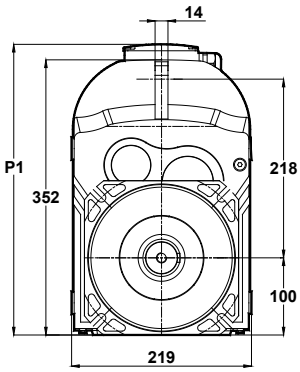
Opsiyonel Flanş Ölçüleri
Optional Flange Dimensions
Auswählbare Flanschabmessungen

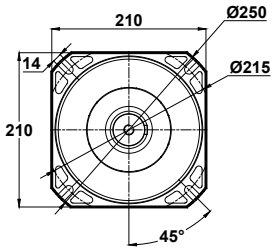


Diğer opsiyonel flanş ölçüleri için sayfa 326'ya bakınız.
Please see on page 326 for other optional flange dimensions
Siehe Siete 326 für andere auswählbare Flanschabmessungen

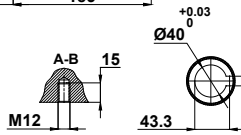
DR375.03
DR376.03

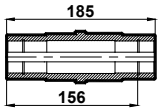




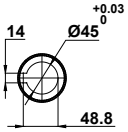


Std.



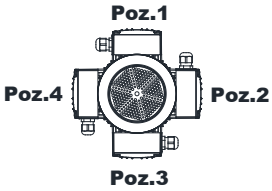


Ops.



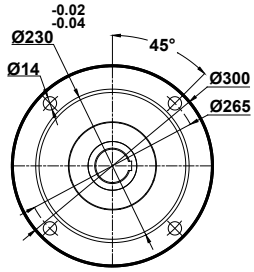
	63	71	80
k	539	568	602
k1	600	659	695
n	121	137	155
n1	97	112	121
p1	358	373	382

Klemens Pozisyonları
Terminal Box Positions
Klemmenkasten Positionen



63-71-80
Tip / *Type* / Typ

Opsiyonel Flanş Ölçüleri
Optional Flange Dimensions
Auswählbare Flanschabmessungen

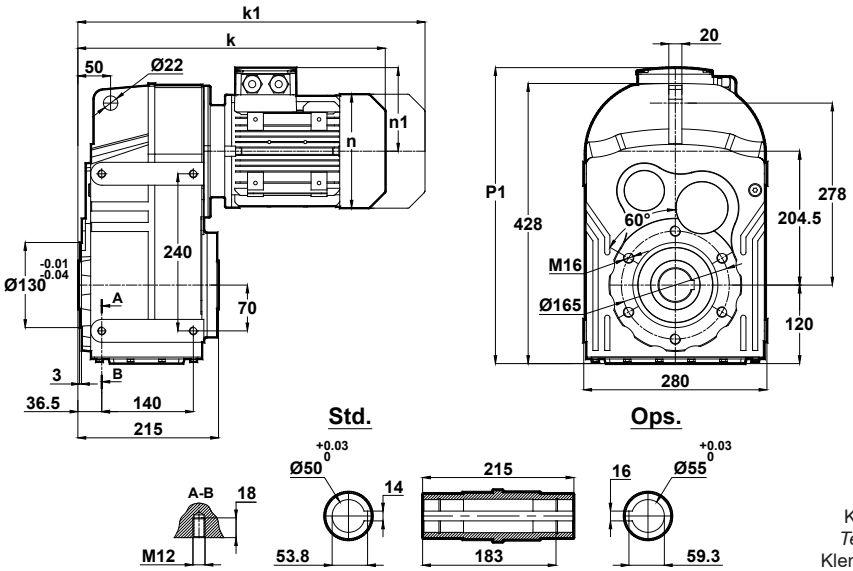


"k1" ölçüsü frenli redüktörlere aittir.
Dimensions "k1" is for motors with brake.
Maße "k1" ist für Bremsenmotoren.

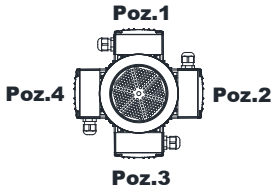
Diğer opsiyonel flanş ölçüleri için sayfa 326'ya bakınız.
Please see on page 326 for other optional flange dimensions
Siehe Siete 326 für andere auswählbare Flanschabmessungen

Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole according to DIN 332, sheet 2* / Zentrierung mit Gewinde nach DIN 332, Blatt 2

DR472.00
DR473.00



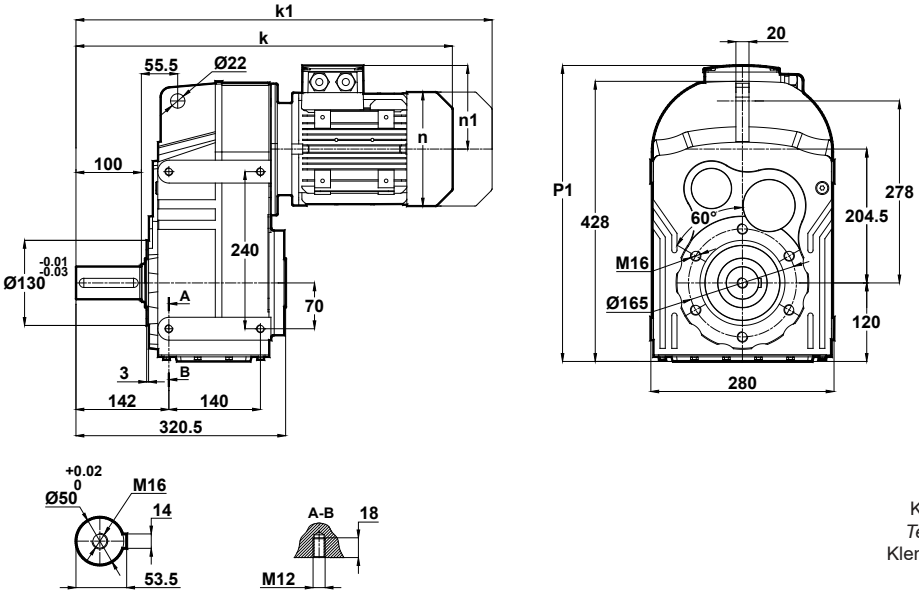
Klemens Pozisyonları
Terminal Box Positions
Klemmenkasten Positionen



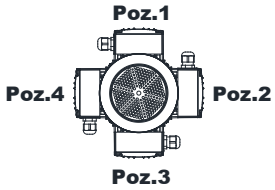
71-80-90-100-112-132-160
Tip / *Type* / Typ

	71	80	90S	90L	100L	112M	132S	132M	160M	160L
k	405	439	478	478	526	550	637	637	733	733
k1	496	532	582.5	582.5	645.5	645.5	767	767	913	913
n	137	155	176	176	193	215	257	257	315	315
n1	112	121	132	132	147	158	179	179	219	219
p1	437	446	457	457	472	483	504	504	544	544

DR472.01
DR473.01



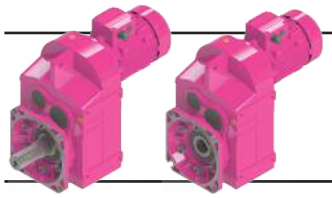
Klemens Pozisyonları
Terminal Box Positions
Klemmenkasten Positionen



71-80-90-100-112-132-160
Tip / *Type* / Typ

	71	80	90S	90L	100L	112M	132S	132M	160M	160L
k	510	544	583	583	631	655	742	742	838	838
k1	601	637	687.5	687.5	750.5	759.5	872	872	1018	1018
n	137	155	176	176	193	215	257	257	315	315
n1	112	121	132	132	147	158	179	179	219	219
p1	437	446	457	457	472	483	504	504	544	544

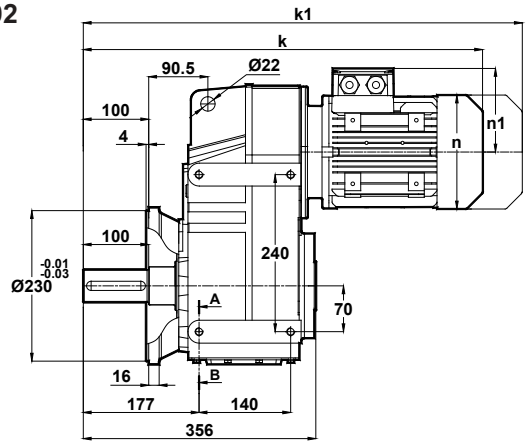
"k1" ölçüsü frenli redüktörlere aittir.
Dimensions "k1" is for motors with brake.
Maße "k1" ist für Bremsenmotoren.

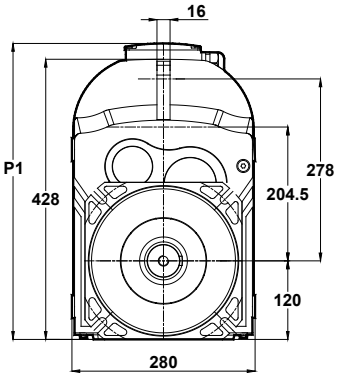


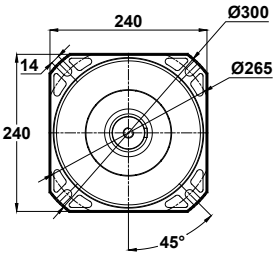
Ölçü Sayfaları
Dimension Pages
Abmessungsseiten

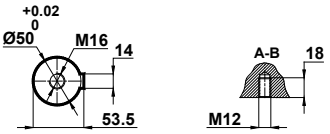
Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole according to DIN 332, sheet 2* / Zentrierung mit Gewinde nach DIN 332, Blatt 2

DR472.02
DR473.02





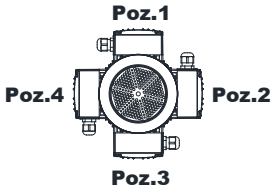




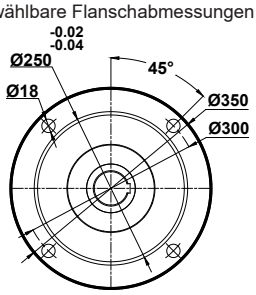
Klemens Pozisyonları
Terminal Box Positions
Klemmenkasten Positionen

Opsiyonel Flanş Ölçüleri
Optional Flange Dimensions
Auswählbare Flanschabmessungen

	71	80	90S	90L	100L	112M	132S	132M	160M	160L
k	545	579	618	618	666	690	777	777	873	873
k1	636	672	722.5	722.5	785.5	794.5	907	907	1053	1053
n	137	155	176	176	193	215	257	257	315	315
n1	112	121	132	132	147	158	179	179	219	219
p1	437	446	457	457	472	483	504	504	544	544

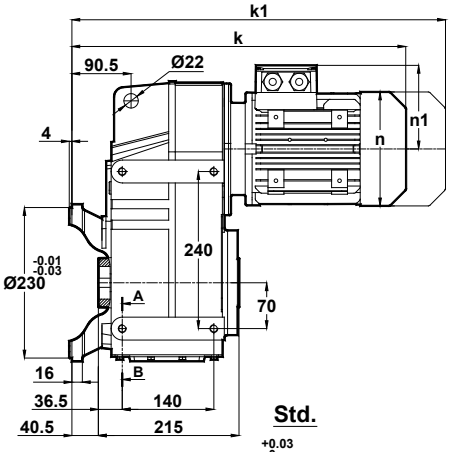


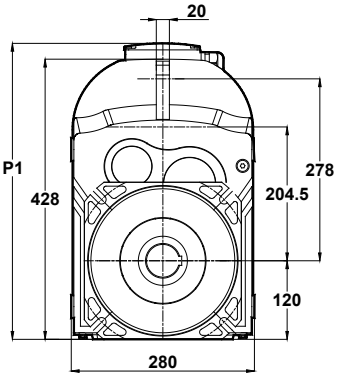
71-80-90-100-112-132 -160
Tip / *Type* / Typ

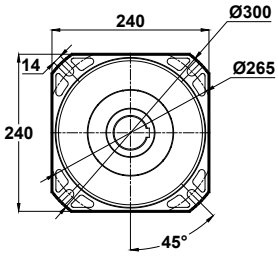


Diğer opsiyonel flanş ölçüleri için sayfa 326'ya bakınız.
Please see on page 326 for other optional flange dimensions
Siehe Siete 326 für andere auswählbare Flanschabmessungen

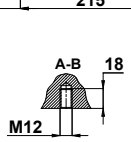
DR472.03
DR473.03

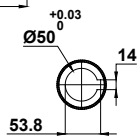


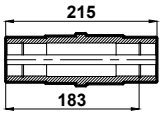




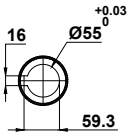
Std.







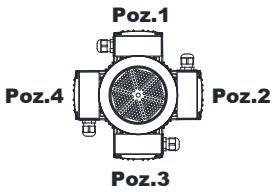
Ops.



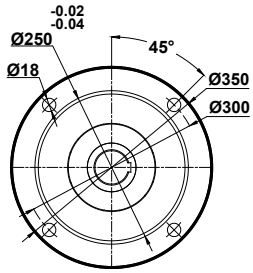
Klemens Pozisyonları
Terminal Box Positions
Klemmenkasten Positionen

Opsiyonel Flanş Ölçüleri
Optional Flange Dimensions
Auswählbare Flanschabmessungen

	71	80	90S	90L	100L	112M	132S	132M	160M	160L
k	445	479	518	518	566	590	677	677	773	773
k1	536	572	622.5	622.5	685.5	694.5	807	807	953	953
n	137	155	176	176	193	215	257	257	315	315
n1	112	121	132	132	147	158	179	179	219	219
p1	437	446	457	457	472	483	504	504	544	544



71-80-90-100-112-132-160
Tip / *Type* / Typ

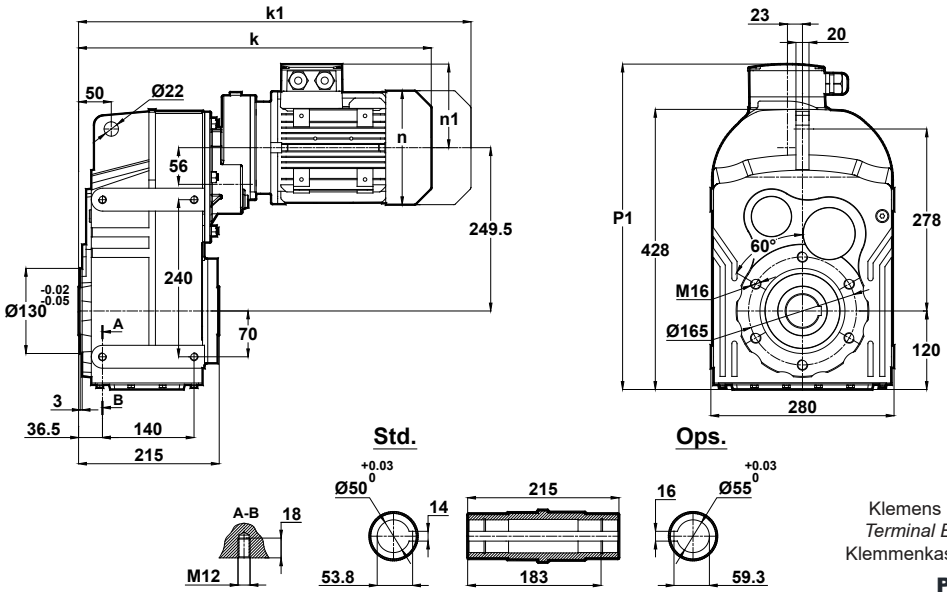


"k1" ölçüsü frenli redüktörlere aittir.
Dimensions "k1" is for motors with brake.
Maße "k1" ist für Bremsenmotoren.

Diğer opsiyonel flanş ölçüleri için sayfa 326'ya bakınız.
Please see on page 326 for other optional flange dimensions
Siehe Siete 326 für andere auswählbare Flanschabmessungen

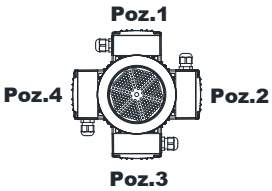
Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole according to DIN 332, sheet 2* / Zentrierung mit Gewinde nach DIN 332, Blatt 2

DR474.00



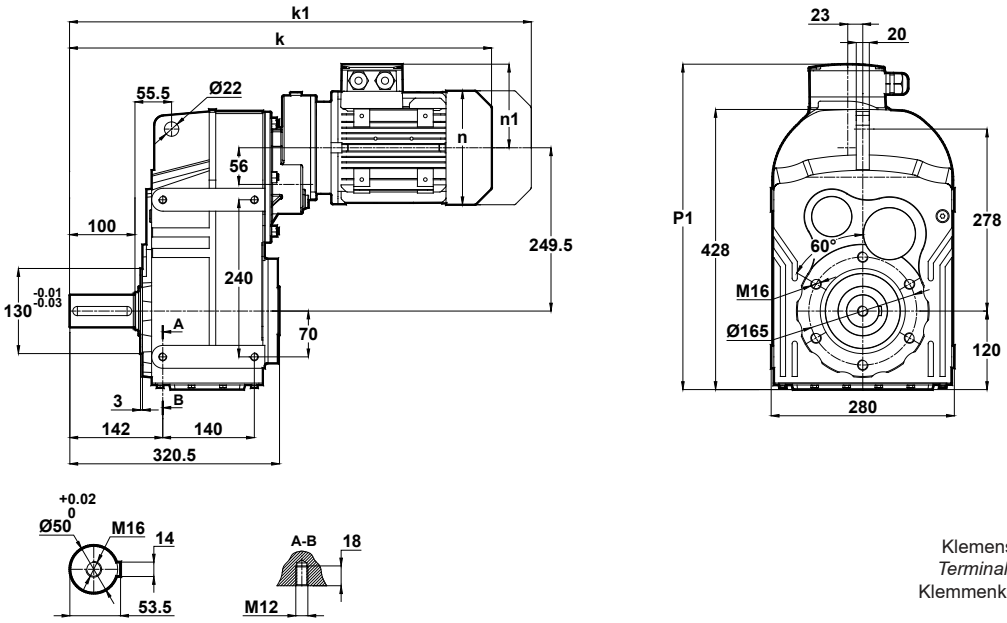
	63	71	80
k	456	484	518
k1	517	575	611
n	121	137	155
n1	97	112	121
p1	467	482	491

Klemens Pozisyonları
Terminal Box Positions
Klemmenkasten Positionen



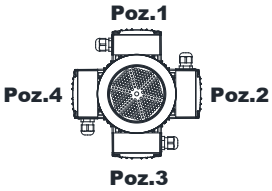
63-71-80
Tip / *Type* / Typ

DR474.01



	63	71	80
k	561	589	623
k1	622	680	716
n	121	137	155
n1	97	112	121
p1	467	482	491

Klemens Pozisyonları
Terminal Box Positions
Klemmenkasten Positionen

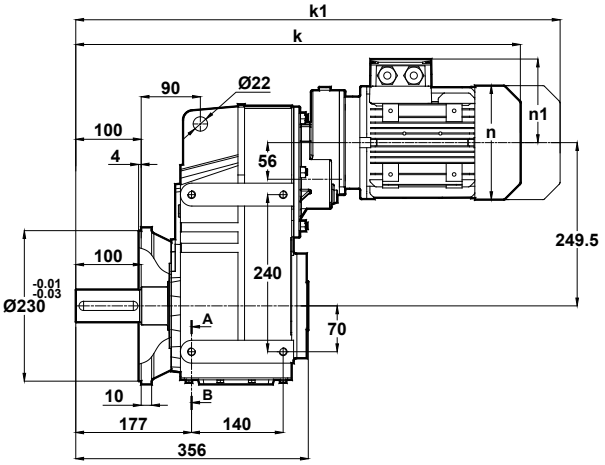


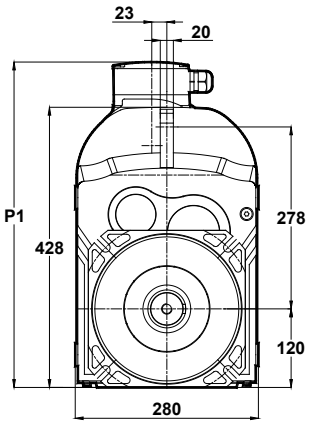
63-71-80
Tip / *Type* / Typ

"k1" ölçüsü frenli redüktörlere aittir.
Dimensions "k1" is for motors with brake.
Maße "k1" ist für Bremsenmotoren.

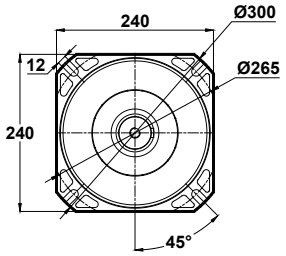
Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole according to DIN 332, sheet 2* / Zentrierung mit Gewinde nach DIN 332, Blatt 2

DR474.02

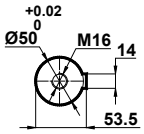


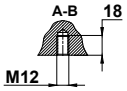


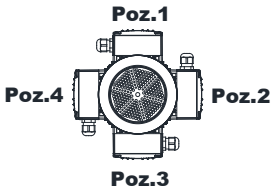
Klemens Pozisyonları
Terminal Box Positions
Klemmenkasten Positionen



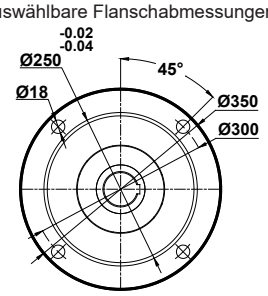
Opsiyonel Flanş Ölçüleri
Optional Flange Dimensions
Auswählbare Flanschabmessungen







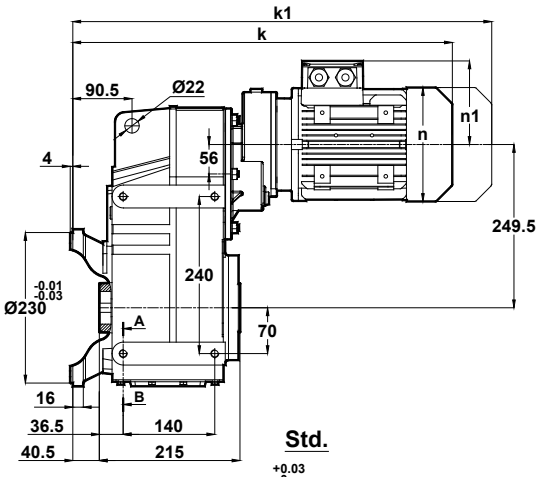
63-71-80
Tip / *Type* / Typ

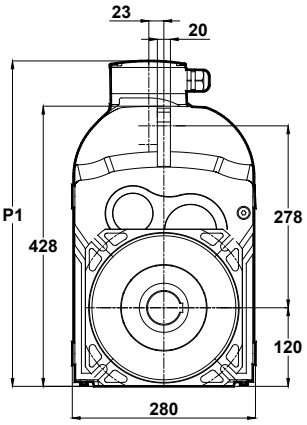


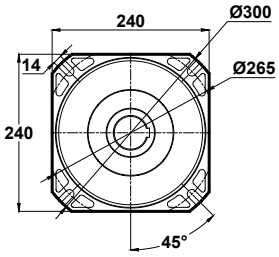
	63	71	80
k	596	624	658
k1	657	715	751
n	121	137	155
n1	97	112	121
p1	467	482	491

Diğer opsiyonel flanş ölçüleri için sayfa 326'ya bakınız.
Please see on page 326 for other optional flange dimensions
Siehe Siete 326 für andere auswählbare Flanschabmessungen

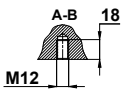
DR474.03

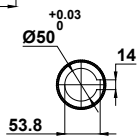


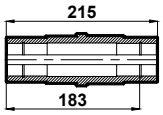




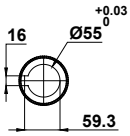
Std.



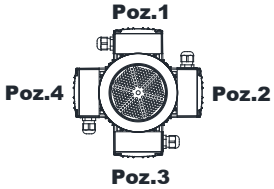




Ops.

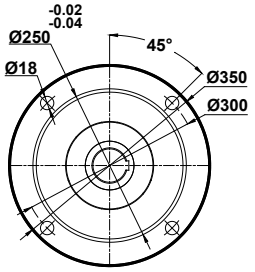


Klemens Pozisyonları
Terminal Box Positions
Klemmenkasten Positionen



63-71-80
Tip / *Type* / Typ

Opsiyonel Flanş Ölçüleri
Optional Flange Dimensions
Auswählbare Flanschabmessungen



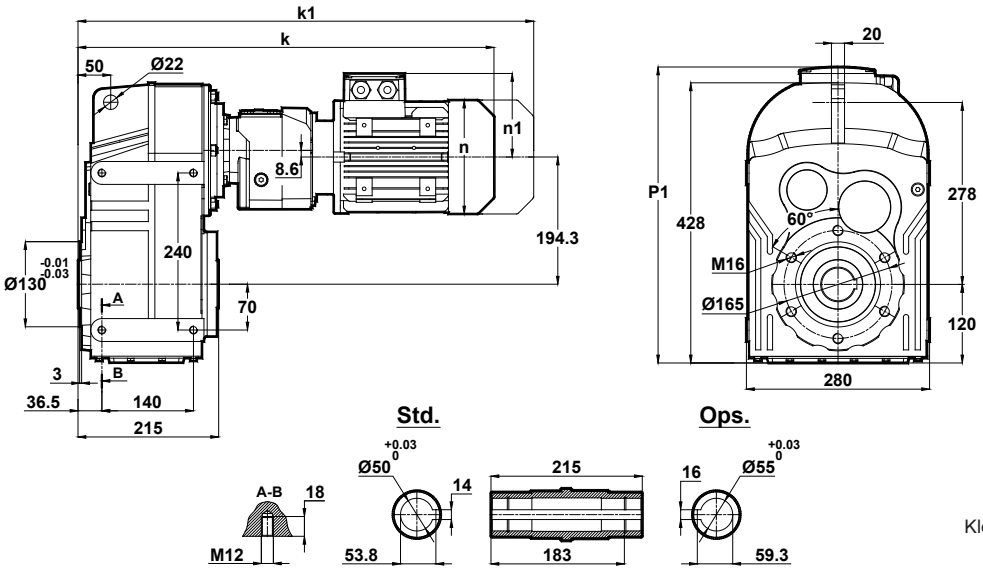
	63	71	80
k	496	524	558
k1	557	615	651
n	121	137	155
n1	97	112	121
p1	467	482	491

"k1" ölçüsü frenli redüktörlere aittir.
Dimensions "k1" is for motors with brake.
Maße "k1" ist für Bremsenmotoren.

Diğer opsiyonel flanş ölçüleri için sayfa 326'ya bakınız.
Please see on page 326 for other optional flange dimensions
Siehe Siete 326 für andere auswählbare Flanschabmessungen

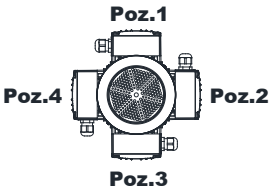
Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole according to DIN 332, sheet 2* / Zentrierung mit Gewinde nach DIN 332, Blatt 2

DR475.00
DR476.00



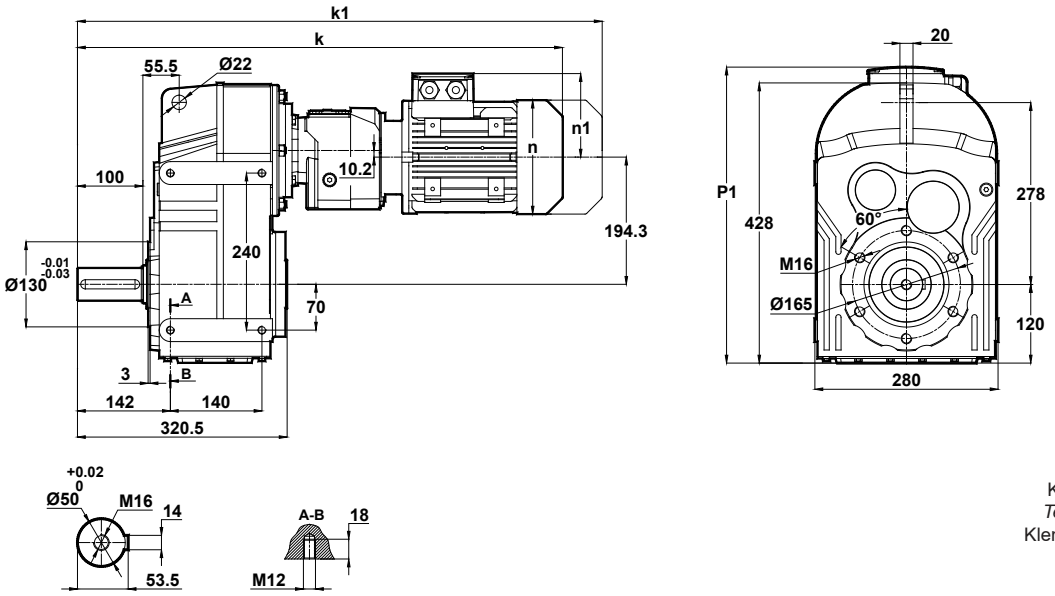
	63	71
k	558	585
k1	618	676
n	121	137
n1	97	112
p1	-	-

Klemens Pozisyonları
Terminal Box Positions
Klemmenkasten Positionen



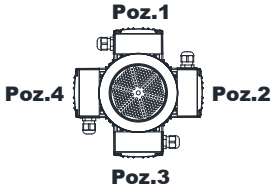
63-71
Tip / *Type* / Typ

DR475.01
DR476.01



	63	71
k	663	690
k1	724	781
n	121	137
n1	97	112
p1	-	-

Klemens Pozisyonları
Terminal Box Positions
Klemmenkasten Positionen

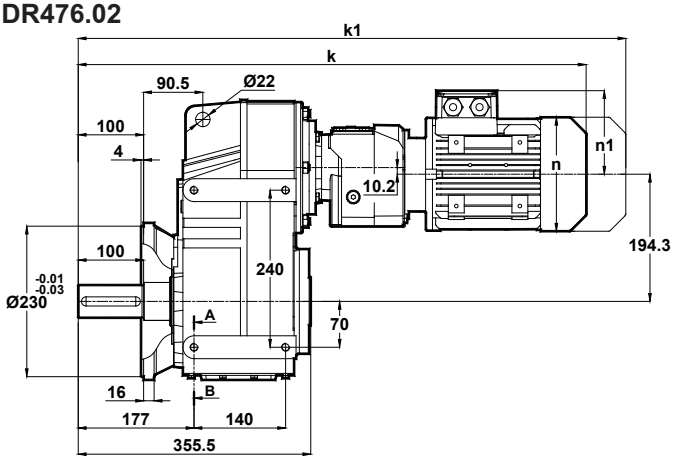


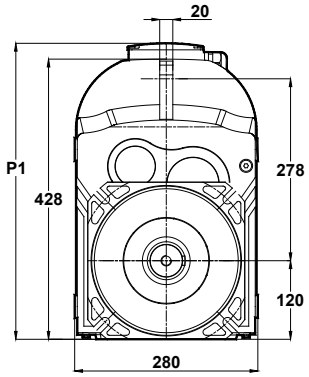
63-71
Tip / *Type* / Typ

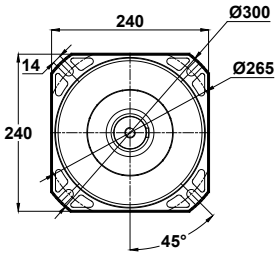
"k1" ölçüsü frenli redüktörlere aittir.
Dimensions "k1" is for motors with brake.
Maße "k1" ist für Bremsenmotoren.

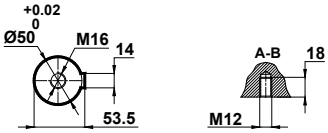
Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole according to DIN 332, sheet 2* / Zentrierung mit Gewinde nach DIN 332, Blatt 2

DR475.02
DR476.02



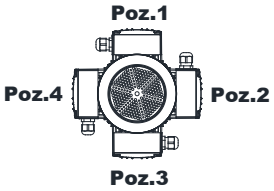




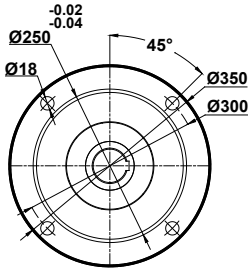


Klemens Pozisyonları
Terminal Box Positions
Klemmenkasten Positionen

Opsiyonel Flanş Ölçüleri
Optional Flange Dimensions
Auswählbare Flanschabmessungen



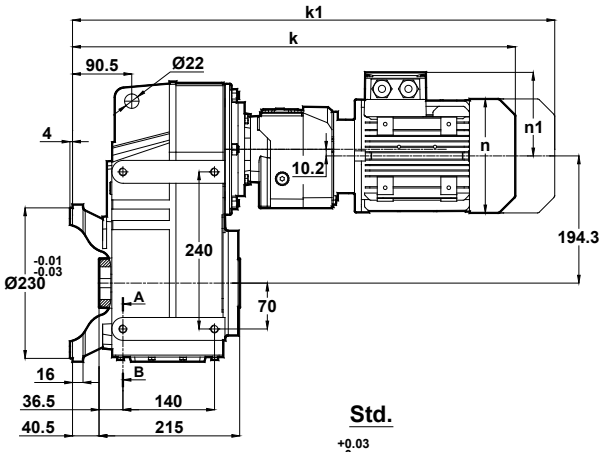
63-71
Tip / *Type* / Typ

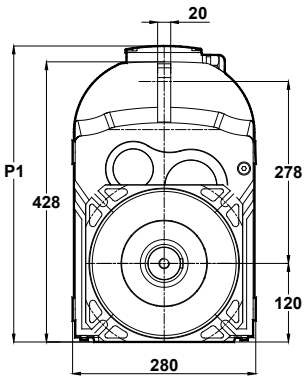


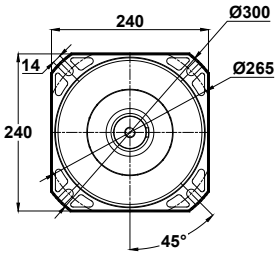
	63	71
k	698	725
k1	759	816
n	121	137
n1	97	112
p1	-	-

Diğer opsiyonel flanş ölçüleri için sayfa 326'ya bakınız.
Please see on page 326 for other optional flange dimensions
Siehe Siete 326 für andere auswählbare Flanschabmessungen

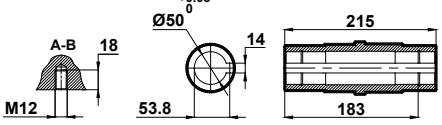
DR475.03
DR476.03



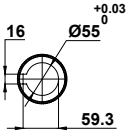




Std.

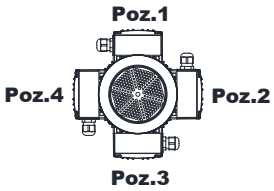


Ops.

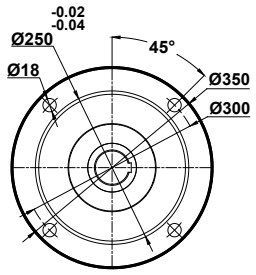


Klemens Pozisyonları
Terminal Box Positions
Klemmenkasten Positionen

Opsiyonel Flanş Ölçüleri
Optional Flange Dimensions
Auswählbare Flanschabmessungen



63-71
Tip / *Type* / Typ



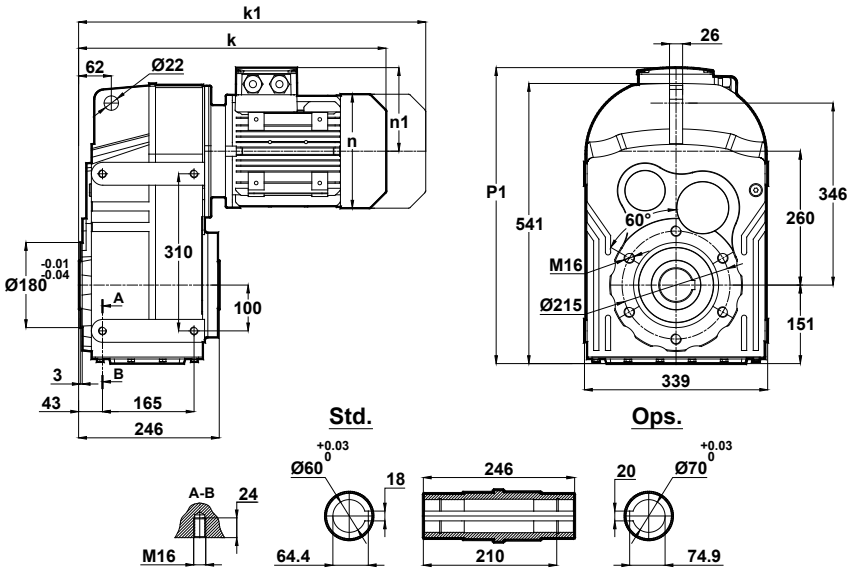
	63	71
k	598	625
k1	659	716
n	121	137
n1	97	112
p1	-	-

"k1" ölçüsü frenli redüktörlere aittir.
Dimensions "k1" is for motors with brake.
Maße "k1" ist für Bremsenmotoren.

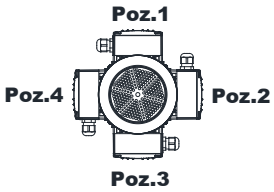
Diğer opsiyonel flanş ölçüleri için sayfa 326'ya bakınız.
Please see on page 326 for other optional flange dimensions
Siehe Siete 326 für andere auswählbare Flanschabmessungen

Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole according to DIN 332, sheet 2* / Zentrierung mit Gewinde nach DIN 332, Blatt 2

DR572.00
DR573.00



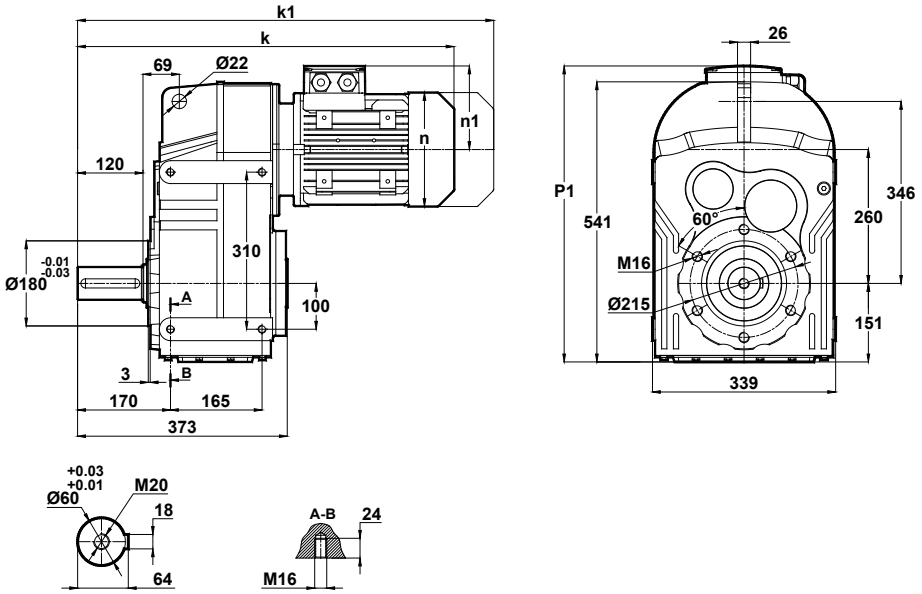
Klemens Pozisyonları
Terminal Box Positions
Klemmenkasten Positionen



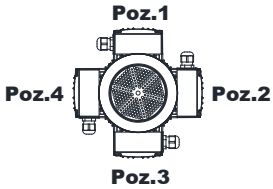
80-90-100-112-132-160-180
Tip / *Type* / Typ

	80	90S	90L	100L	112M	132S	132M	160M	160L	180M	180L
k	461	500	500	544	569	654	654	750	750	821	821
k1	554	604.5	604.5	663.5	673.5	784	784	930	930	991.5	991.5
n	155	176	176	193	215	257	257	315	315	347	347
n1	121	132	132	147	158	179	179	219	219	234	234
p1	-	543	543	558	569	590	590	636	636	655	655

DR572.01
DR573.01



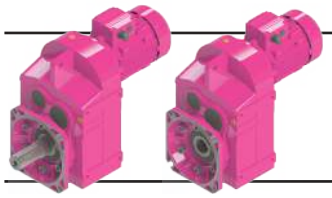
Klemens Pozisyonları
Terminal Box Positions
Klemmenkasten Positionen



80-90-100-112-132-160-180
Tip / *Type* / Typ

	80	90S	90L	100L	112M	132S	132M	160M	160L	180M	180L
k	588	627	627	671	696	781	781	877	877	948	948
k1	681	731.5	731.5	790.5	800.5	911	911	1057	1057	1118.5	1118.5
n	155	176	176	193	215	257	257	315	315	347	347
n1	121	132	132	147	158	179	179	219	219	234	234
p1	-	543	543	558	569	590	590	636	636	655	655

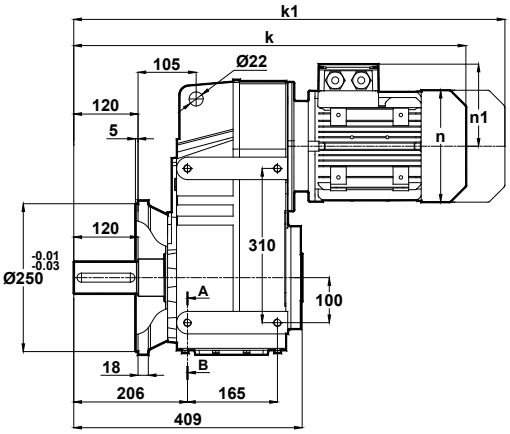
"k1" ölçüsü frenli redüktörlere aittir.
Dimensions "k1" is for motors with brake.
Maße "k1" ist für Bremsenmotoren.

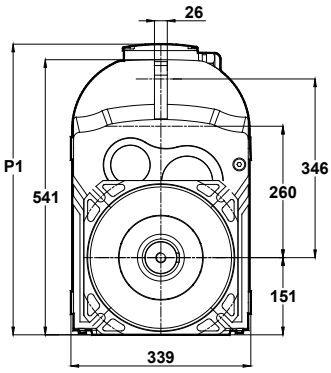


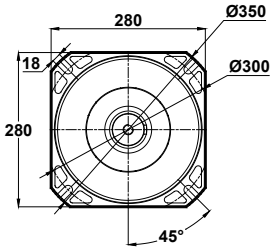
Ölçü Sayfaları
Dimension Pages
Abmessungsseiten

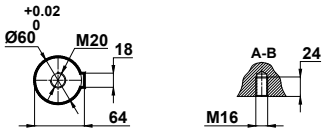
Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole according to DIN 332, sheet 2* / Zentrierung mit Gewinde nach DIN 332, Blatt 2

DR572.02
DR573.02

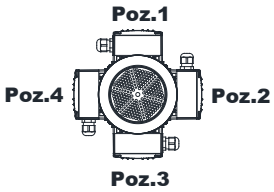






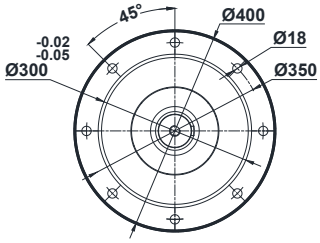


Klemens Pozisyonları
Terminal Box Positions
Klemmenkasten Positionen



80-90-100-112-132-160-180
Tip / *Type* / Typ

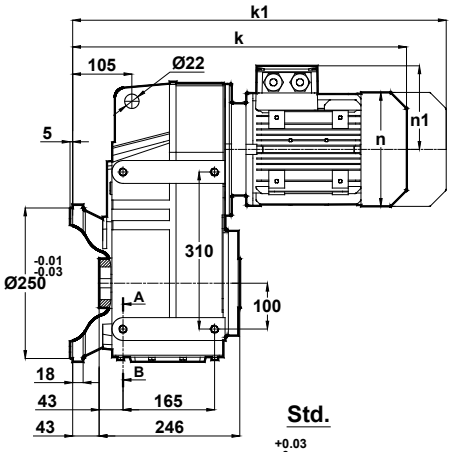
Opsiyonel Flanş Ölçüleri
Optional Flange Dimensions
Auswählbare Flanschabmessungen

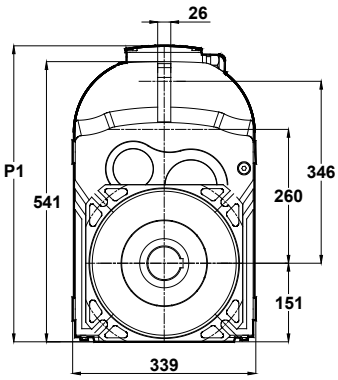


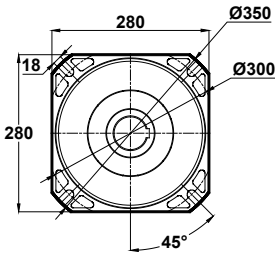
	80	90S	90L	100L	112M	132S	132M	160M	160L	180M	180L
k	624	663	663	707	732	817	817	913	913	984	984
k1	717	767.5	767.5	826.5	836.5	947	947	1093	1093	1154.5	1154.5
n	155	176	176	193	215	257	257	315	315	347	347
n1	121	132	132	147	158	179	179	219	219	234	234
p1	-	543	543	558	569	590	590	636	636	655	655

Diğer opsiyonel flanş ölçüleri için sayfa 326'ya bakınız.
Please see on page 326 for other optional flange dimensions
Siehe Siete 326 für andere auswählbare Flanschabmessungen

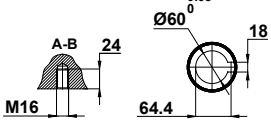
DR572.03
DR573.03

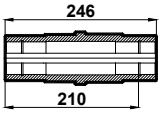




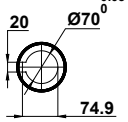


Std.

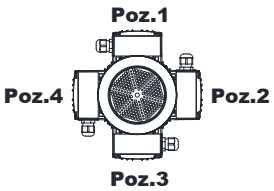




Ops.

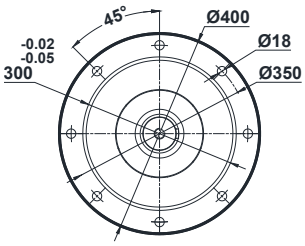


Klemens Pozisyonları
Terminal Box Positions
Klemmenkasten Positionen



80-90-100-112-132-160-180
Tip / *Type* / Typ

Opsiyonel Flanş Ölçüleri
Optional Flange Dimensions
Auswählbare Flanschabmessungen



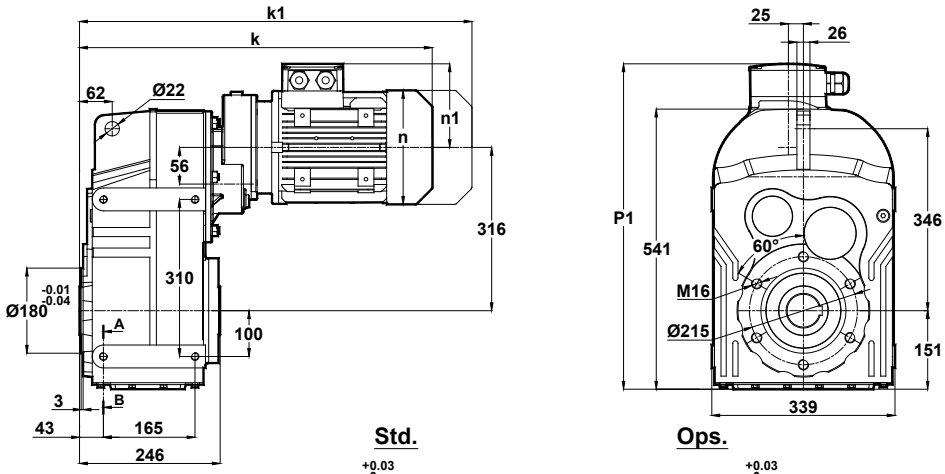
	80	90S	90L	100L	112M	132S	132M	160M	160L	180M	180L
k	504	543	543	587	612	697	697	793	793	864	864
k1	597	647.5	647.5	706.5	716.5	827	827	973	973	1034.5	1034.5
n	155	176	176	193	215	257	257	315	315	347	347
n1	121	132	132	147	158	179	179	219	219	234	234
p1	-	543	543	558	569	590	590	636	636	655	655

"k1" ölçüsü frenli redüktörlere aittir.
Dimensions "k1" is for motors with brake.
Maße "k1" ist für Bremsenmotoren.

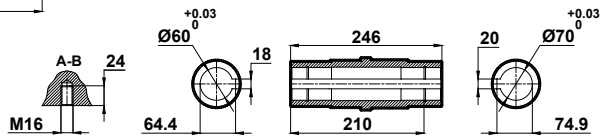
Diğer opsiyonel flanş ölçüleri için sayfa 326'ya bakınız.
Please see on page 326 for other optional flange dimensions
Siehe Siete 326 für andere auswählbare Flanschabmessungen

Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole according to DIN 332, sheet 2* / Zentrierung mit Gewinde nach DIN 332, Blatt 2

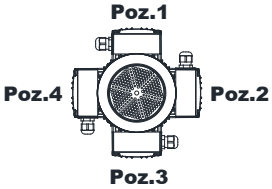
DR574.00



Std. **Ops.**



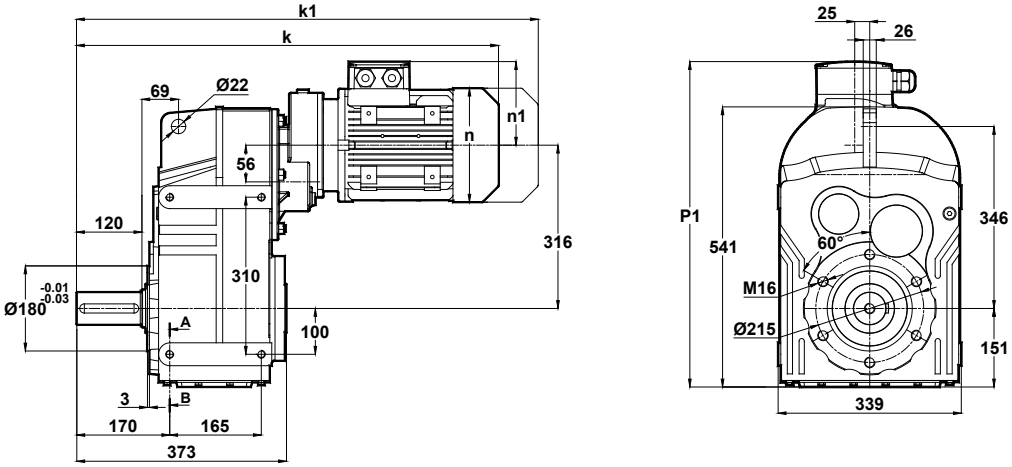
Klemens Pozisyonları
Terminal Box Positions
Klemmenkasten Positionen

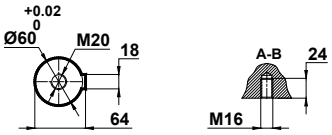


	71	80	90S	90L
k	520	554	593	593
k1	611	647	697.5	697.5
n	137	155	176	176
n1	112	121	132	132
p1	579	588	599	599

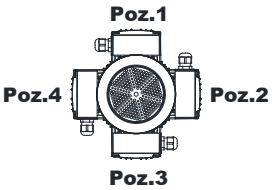
71-80-90
Tip / *Type* / Typ

DR574.01





Klemens Pozisyonları
Terminal Box Positions
Klemmenkasten Positionen



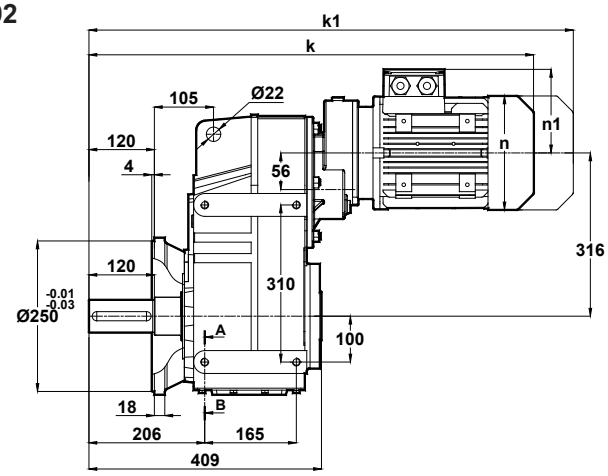
	71	80	90S	90L
k	647	681	720	720
k1	738	774	824.5	824.5
n	137	155	176	176
n1	112	121	132	132
p1	579	588	599	599

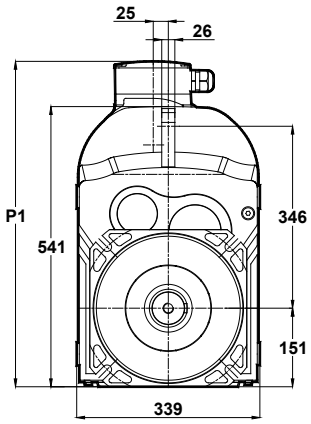
71-80-90
Tip / *Type* / Typ

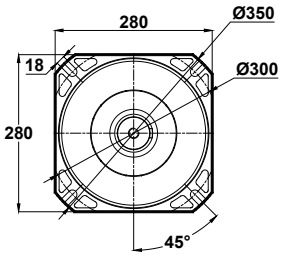
"k1" ölçüsü frenli redüktörlere aittir.
Dimensions "k1" is for motors with brake.
Maße "k1" ist für Bremsenmotoren.

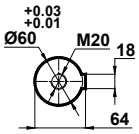
Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole according to DIN 332, sheet 2* / Zentrierung mit Gewinde nach DIN 332, Blatt 2

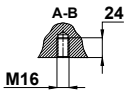
DR574.02



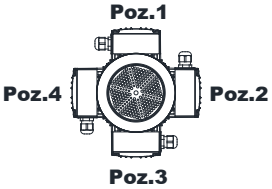






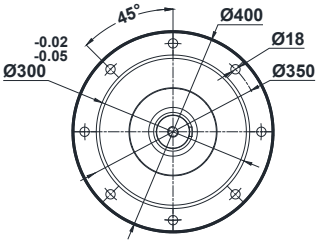


Klemens Pozisyonları
Terminal Box Positions
Klemmenkasten Positionen



71-80-90
Tip / *Type* / Typ

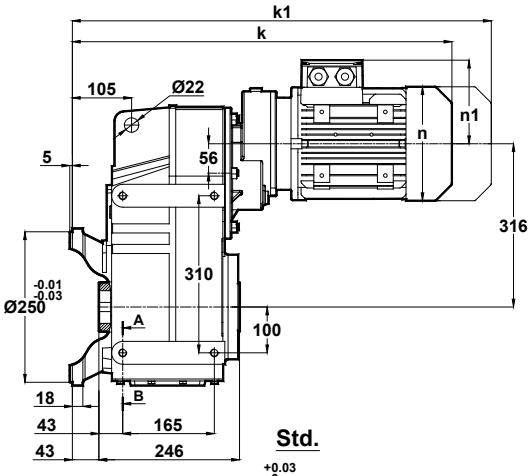
Opsiyonel Flanş Ölçüleri
Optional Flange Dimensions
Auswählbare Flanschabmessungen

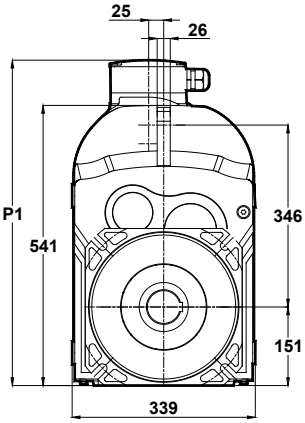


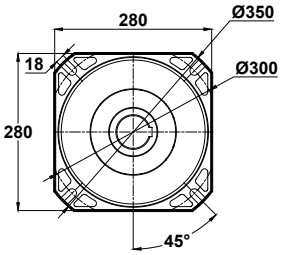
	71	80	90S	90L
k	683	717	756	756
k1	774	810	860.5	860.5
n	137	155	176	176
n1	112	121	132	132
p1	579	588	599	599

Diğer opsiyonel flanş ölçüleri için sayfa 326'ya bakınız.
Please see on page 326 for other optional flange dimensions
Siehe Siete 326 für andere auswählbare Flanschabmessungen

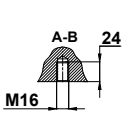
DR574.03

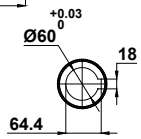


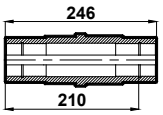




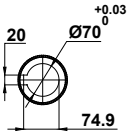
Std.



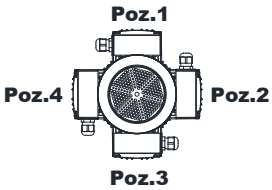




Ops.

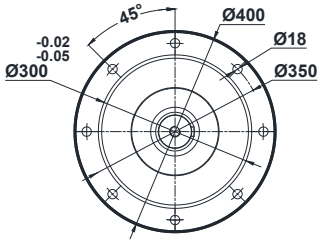


Klemens Pozisyonları
Terminal Box Positions
Klemmenkasten Positionen



71-80-90
Tip / *Type* / Typ

Opsiyonel Flanş Ölçüleri
Optional Flange Dimensions
Auswählbare Flanschabmessungen



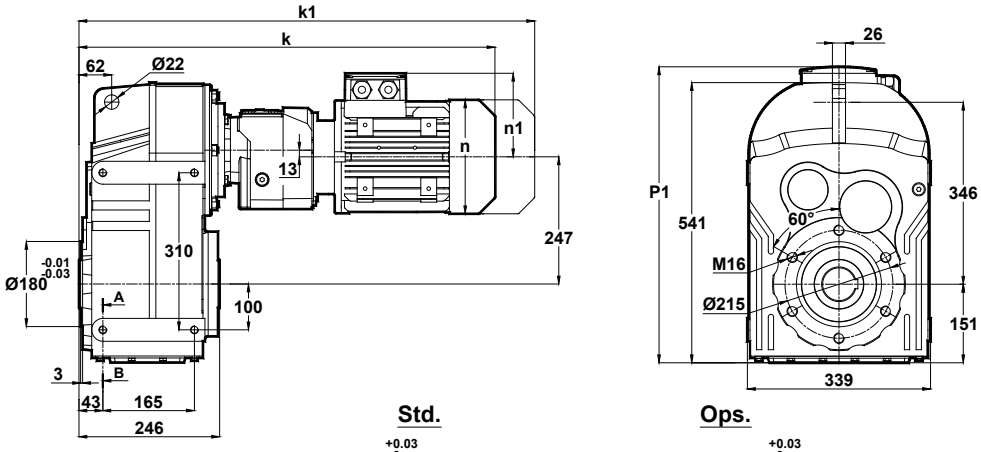
	71	80	90S	90L
k	563	597	636	636
k1	654	690	740.5	740.5
n	137	155	176	176
n1	112	121	132	132
p1	579	588	599	599

"k1" ölçüsü frenli redüktörlere aittir.
Dimensions "k1" is for motors with brake.
Maße "k1" ist für Bremsenmotoren.

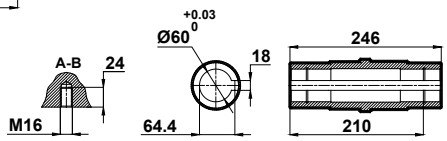
Diğer opsiyonel flanş ölçüleri için sayfa 326'ya bakınız.
Please see on page 326 for other optional flange dimensions
Siehe Siete 326 für andere auswählbare Flanschabmessungen

Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole according to DIN 332, sheet 2* / Zentrierung mit Gewinde nach DIN 332, Blatt 2

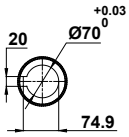
DR575.00
DR576.00



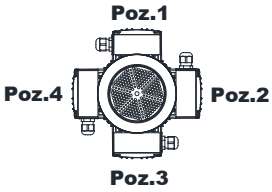
Std.



Ops.



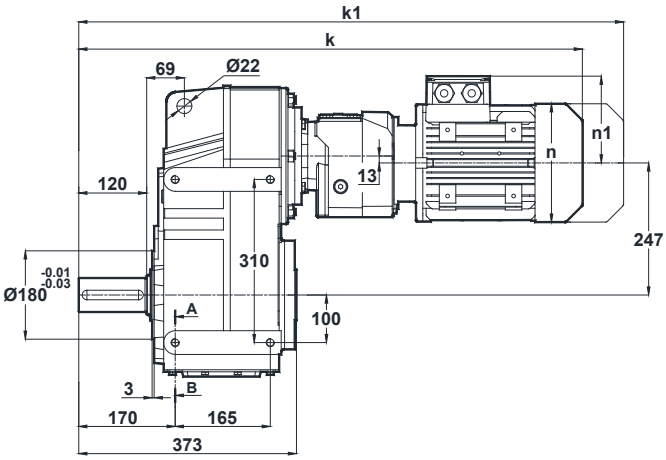
Klemens Pozisyonları
Terminal Box Positions
Klemmenkasten Positionen

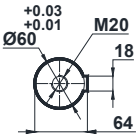


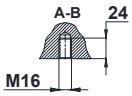
63-71
Tip / *Type* / Typ

	63	71
k	622	650
k1	683	741
n	121	137
n1	97	112
p1	-	-

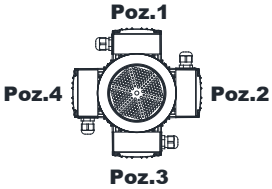
DR575.01
DR576.01







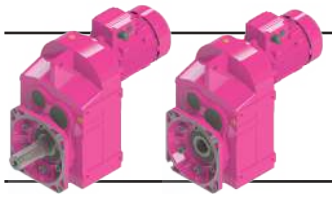
Klemens Pozisyonları
Terminal Box Positions
Klemmenkasten Positionen



63-71
Tip / *Type* / Typ

	63	71
k	749	777
k1	810	868
n	121	137
n1	97	112
p1	-	-

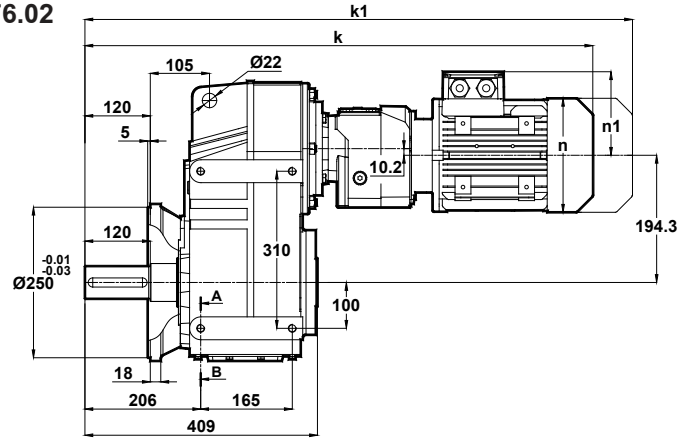
"k1" ölçüsü frenli redüktörlere aittir.
Dimensions "k1" is for motors with brake.
Maße "k1" ist für Bremsenmotoren.

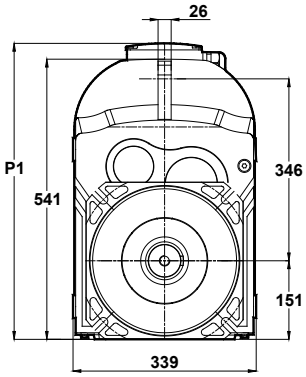


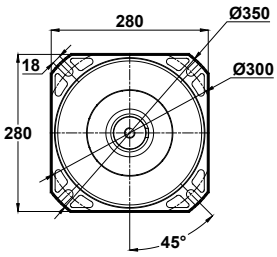
Ölçü Sayfaları
Dimension Pages
Abmessungsseiten

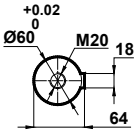
Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole according to DIN 332, sheet 2* / Zentrierung mit Gewinde nach DIN 332, Blatt 2

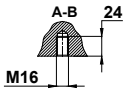
DR575.02
DR576.02





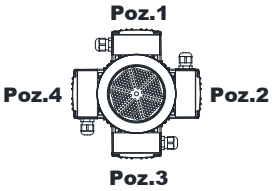






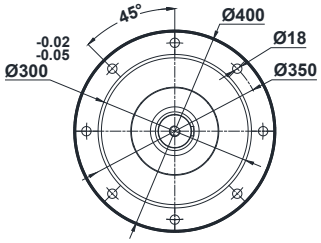
	63	71
k	785	813
k1	846	904
n	121	137
n1	97	112
p1	-	-

Klemens Pozisyonları
Terminal Box Positions
Klemmenkasten Positionen



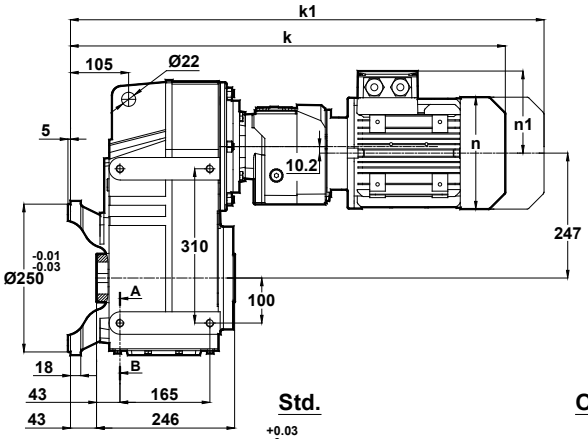
63-71
Tip / *Type* / Typ

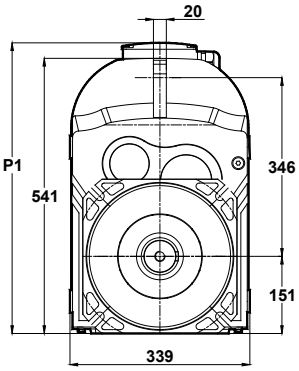
Opsiyonel Flanş Ölçüleri
Optional Flange Dimensions
Auswählbare Flanschabmessungen

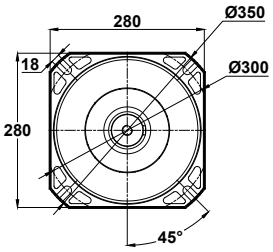


Diğer opsiyonel flanş ölçüleri için sayfa 326'ya bakınız.
Please see on page 326 for other optional flange dimensions
Siehe Siete 326 für andere auswählbare Flanschabmessungen

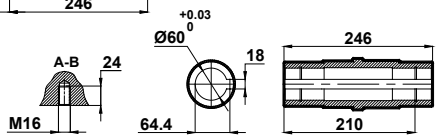
DR575.03
DR576.03



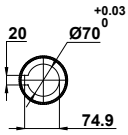




Std.

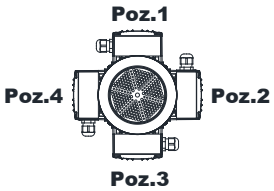


Ops.



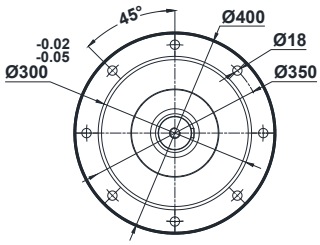
	63	71
k	665	693
k1	726	784
n	121	137
n1	97	112
p1	-	-

Klemens Pozisyonları
Terminal Box Positions
Klemmenkasten Positionen



63-71
Tip / *Type* / Typ

Opsiyonel Flanş Ölçüleri
Optional Flange Dimensions
Auswählbare Flanschabmessungen

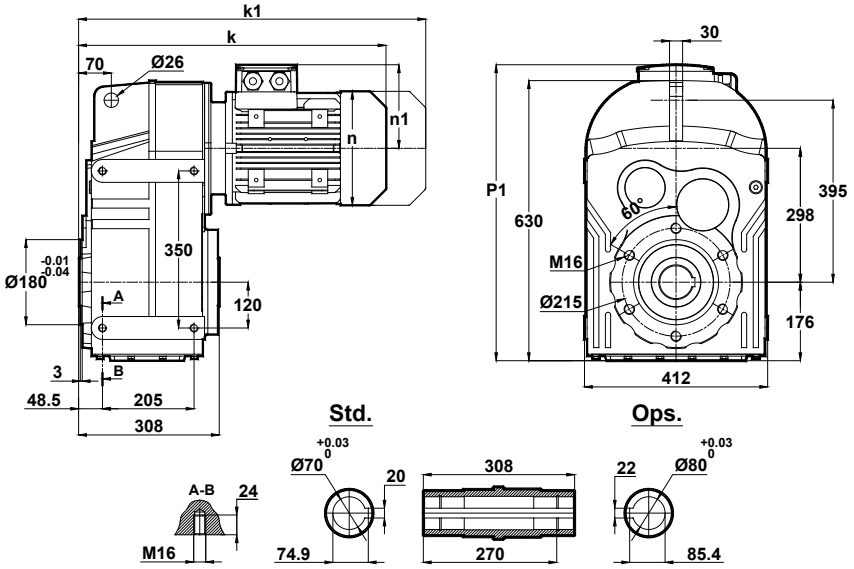


"k1" ölçüsü frenli redüktörlere aittir.
Dimensions "k1" is for motors with brake.
Maße "k1" ist für Bremsenmotoren.

Diğer opsiyonel flanş ölçüleri için sayfa 326'ya bakınız.
Please see on page 326 for other optional flange dimensions
Siehe Siete 326 für andere auswählbare Flanschabmessungen

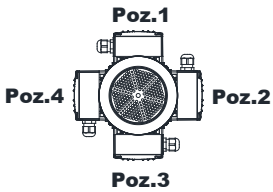
Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole according to DIN 332, sheet 2* / Zentrierung mit Gewinde nach DIN 332, Blatt 2

DR672.00
DR673.00



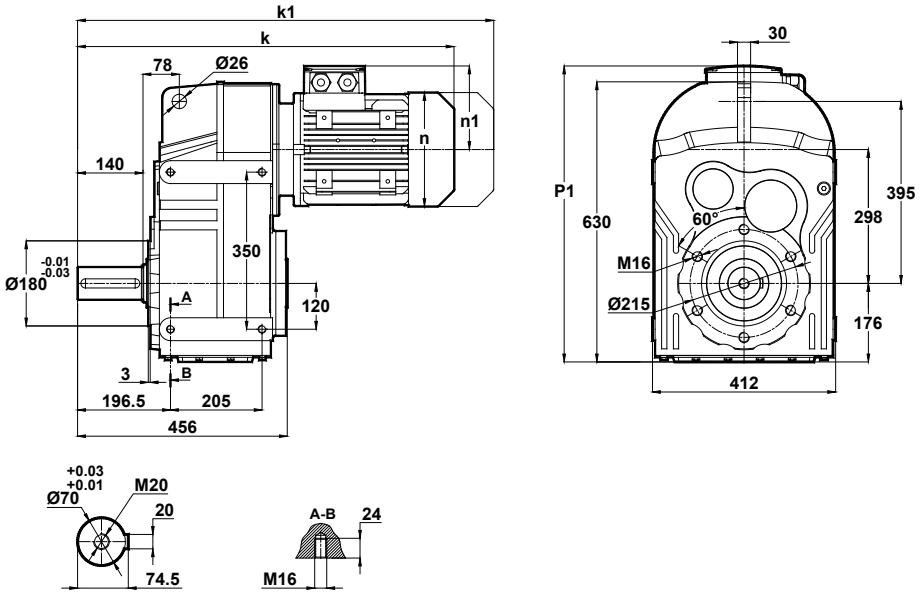
	100L	112M	132S	132M	160M	160L	180M	180L	200L
k	593	617	704	704	800	800	871	871	913
k1	712.5	721.5	834	834	980	980	1041.5	1041.5	1099.5
n	193	215	257	257	315	315	347	347	390
n1	147	158	179	179	219	219	234	234	275
p1	-	632	653	653	699	699	718	718	749

Klemens Pozisyonları
Terminal Box Positions
Klemmenkasten Positionen



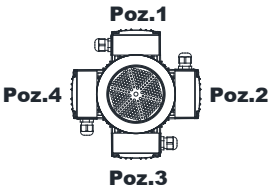
100-112-132-160-180-200
Tip / *Type* / Typ

DR672.01
DR673.01



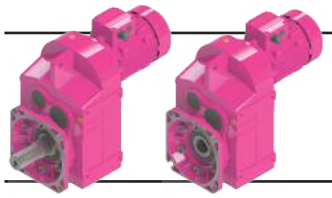
	100L	112M	132S	132M	160M	160L	180M	180L	200L
k	741	765	852	852	948	948	1019	1019	1061
k1	860.5	869.5	982	982	1128	1128	1189.5	1189.5	1247.5
n	193	215	257	257	315	315	347	347	390
n1	147	158	179	179	219	219	234	234	275
p1	-	632	653	653	699	699	718	718	749

Klemens Pozisyonları
Terminal Box Positions
Klemmenkasten Positionen



100-112-132-160-180-200
Tip / *Type* / Typ

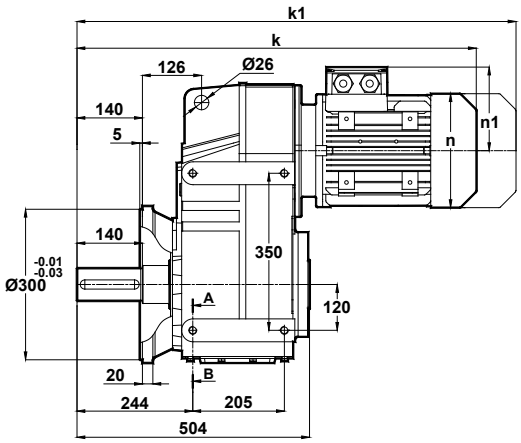
"k1" ölçüsü frenli redüktörlere aittir.
Dimensions "k1" is for motors with brake.
Maße "k1" ist für Bremsenmotoren.

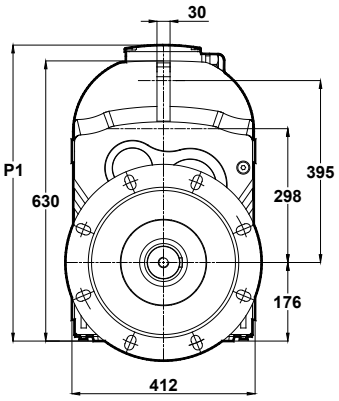


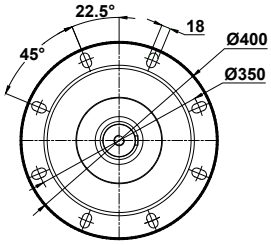
Ölçü Sayfaları
Dimension Pages
Abmessungsseiten

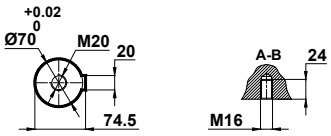
Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole according to DIN 332, sheet 2* / Zentrierung mit Gewinde nach DIN 332, Blatt 2

DR672.02
DR673.02

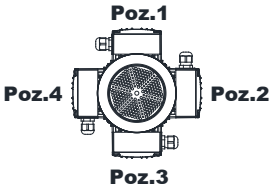






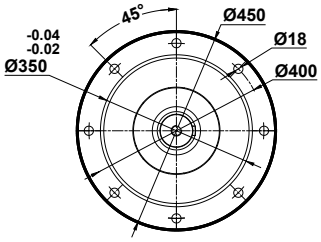


Klemens Pozisyonları
Terminal Box Positions
Klemmenkasten Positionen



100-112-132-160-180-200
Tip / *Type* / Typ

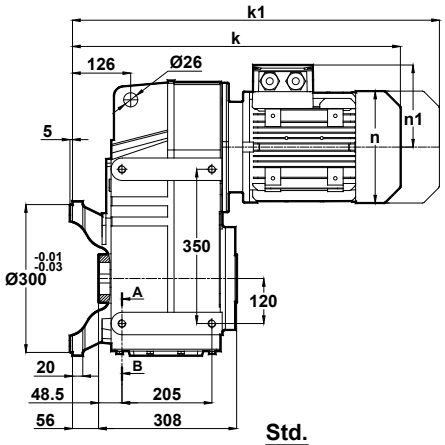
Opsiyonel Flanş Ölçüleri
Optional Flange Dimensions
Auswählbare Flanschabmessungen

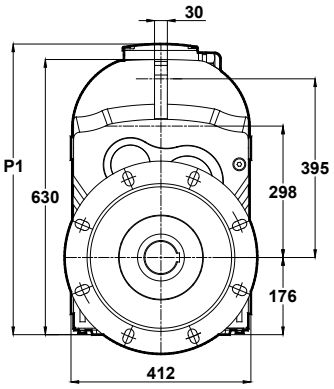


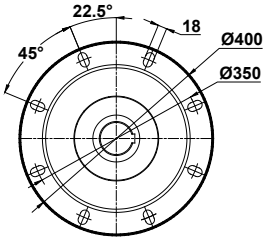
	100L	112M	132S	132M	160M	160L	180M	180L	200L
k	789	813	900	900	996	996	1067	1067	1109
k1	908.5	917.5	1030	1030	1176	1176	1237.5	1237.5	1295.5
n	193	215	257	257	315	315	347	347	390
n1	147	158	179	179	219	219	234	234	275
p1	-	632	653	653	699	699	718	718	749

Diğer opsiyonel flanş ölçüleri için sayfa 326'ya bakınız.
Please see on page 326 for other optional flange dimensions
Siehe Siete 326 für andere auswählbare Flanschabmessungen

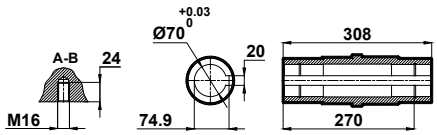
DR672.03
DR673.03



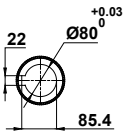




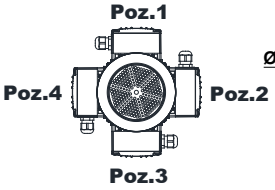
Std.



Ops.

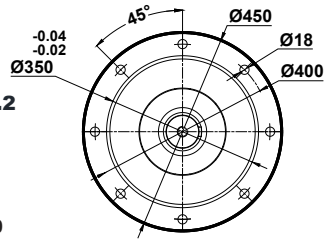


Klemens Pozisyonları
Terminal Box Positions
Klemmenkasten Positionen



100-112-132-160-180-200
Tip / *Type* / Typ

Opsiyonel Flanş Ölçüleri
Optional Flange Dimensions
Auswählbare Flanschabmessungen



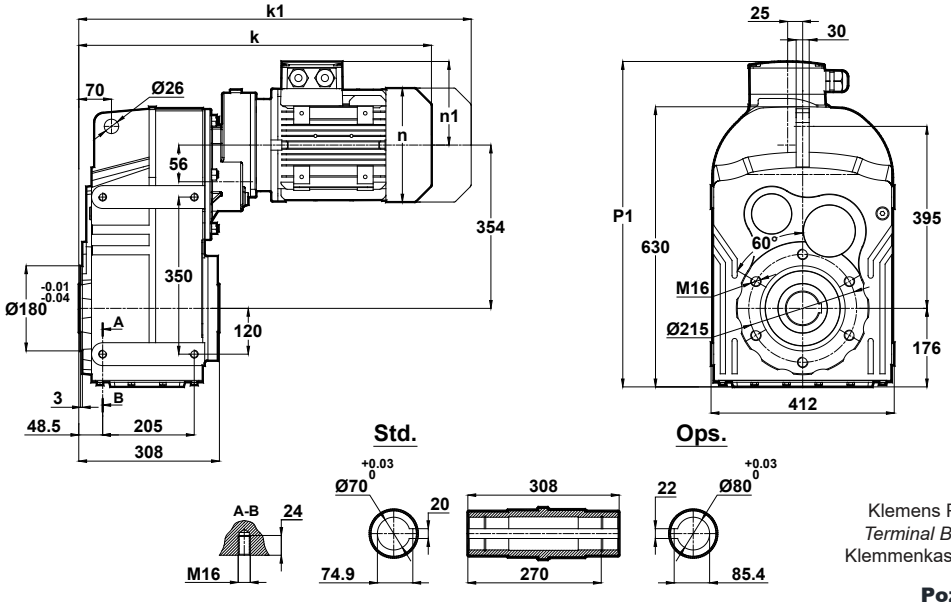
	100L	112M	132S	132M	160M	160L	180M	180L	200L
k	649	673	760	760	856	856	927	927	969
k1	768.5	777.5	890	890	1036	1036	1097.5	1097.5	1155.5
n	193	215	257	257	315	315	347	347	390
n1	147	158	179	179	219	219	234	234	275
p1	-	632	653	653	699	699	718	718	749

"k1" ölçüsü frenli redüktörlere aittir.
Dimensions "k1" is for motors with brake.
Maße "k1" ist für Bremsenmotoren.

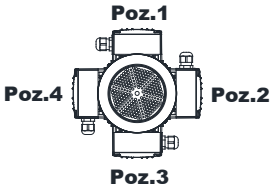
Diğer opsiyonel flanş ölçüleri için sayfa 326'ya bakınız.
Please see on page 326 for other optional flange dimensions
Siehe Siete 326 für andere auswählbare Flanschabmessungen

Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole according to DIN 332, sheet 2* / Zentrierung mit Gewinde nach DIN 332, Blatt 2

DR674.00



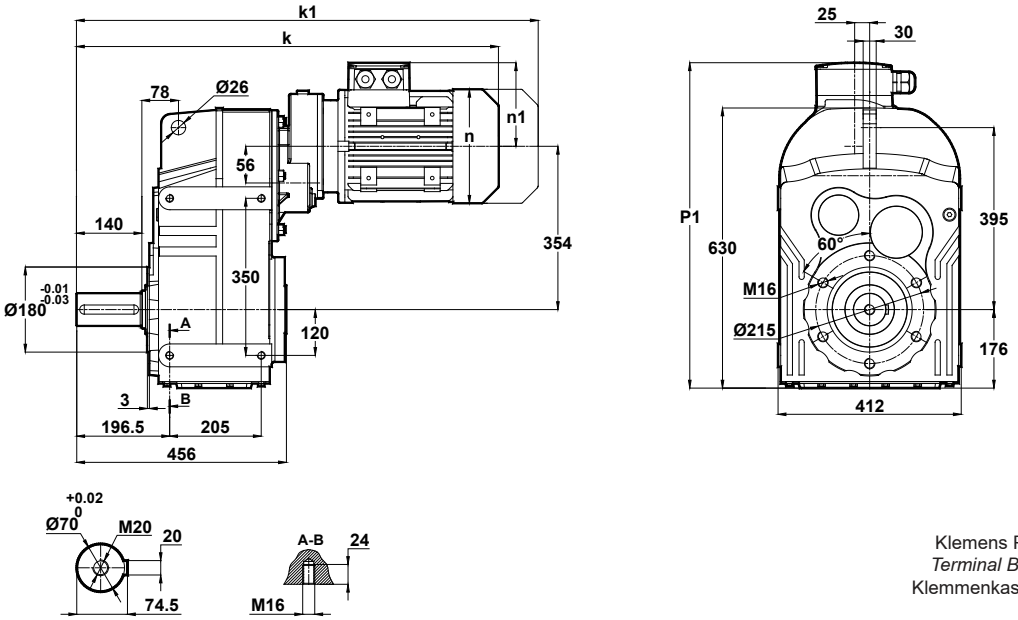
Klemens Pozisyonları
Terminal Box Positions
Klemmenkasten Positionen



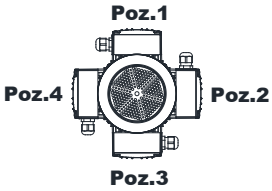
71-80-90
Tip / *Type* / Typ

	71	80	90S	90L
k	573	607	646	646
k1	664	700	750.5	750.5
n	137	155	176	176
n1	112	121	132	132
p1	642	651	662	662

DR674.01



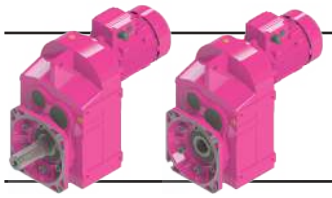
Klemens Pozisyonları
Terminal Box Positions
Klemmenkasten Positionen



71-80-90
Tip / *Type* / Typ

	71	80	90S	90L
k	721	755	794	794
k1	812	848	898.5	898.5
n	137	155	176	176
n1	112	121	132	132
p1	642	651	662	662

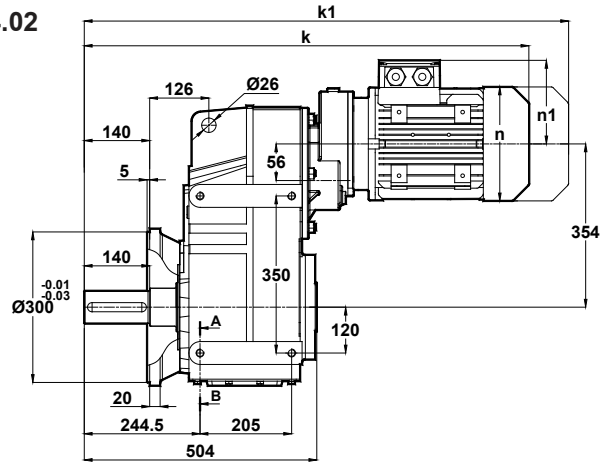
"k1" ölçüsü frenli redüktörlere aittir.
Dimensions "k1" is for motors with brake.
Maße "k1" ist für Bremsenmotoren.

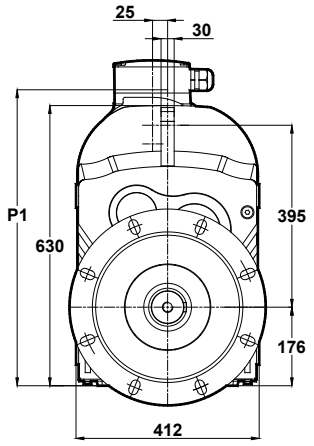


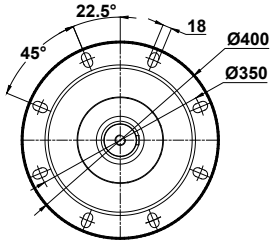
Ölçü Sayfaları
Dimension Pages
Abmessungsseiten

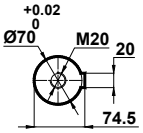
Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole according to DIN 332, sheet 2* / Zentrierung mit Gewinde nach DIN 332, Blatt 2

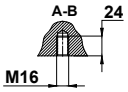
DR674.02



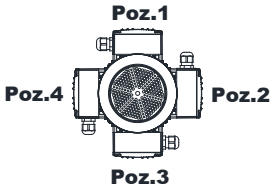






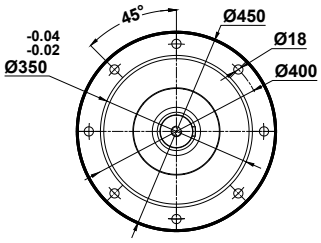


Klemens Pozisyonları
Terminal Box Positions
Klemmenkasten Positionen



71-80-90
Tip / *Type* / Typ

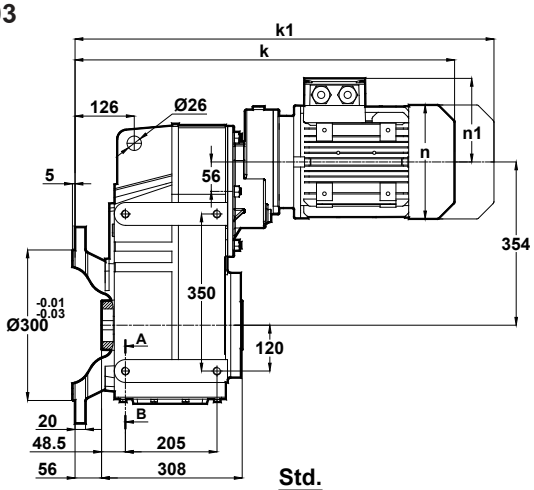
Opsiyonel Flanş Ölçüleri
Optional Flange Dimensions
Auswählbare Flanschabmessungen

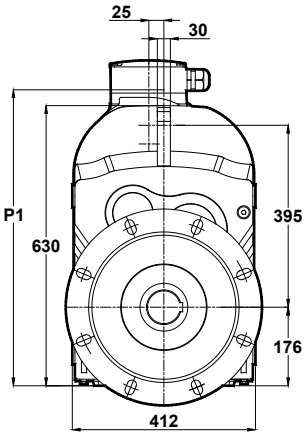


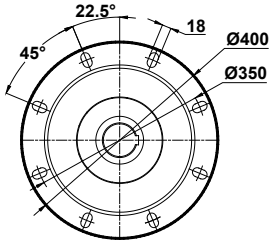
	71	80	90S	90L
k	769	803	842	842
k1	860	896	946.5	946.5
n	137	155	176	176
n1	112	121	132	132
p1	642	651	662	662

Diğer opsiyonel flanş ölçüleri için sayfa 326'ya bakınız.
Please see on page 326 for other optional flange dimensions
Siehe Siete 326 für andere auswählbare Flanschabmessungen

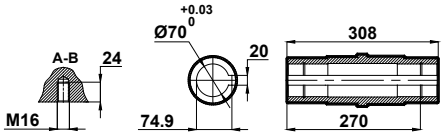
DR674.03



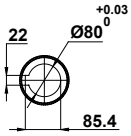




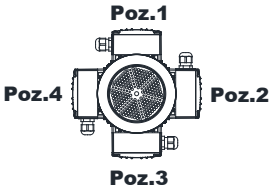
Std.



Ops.

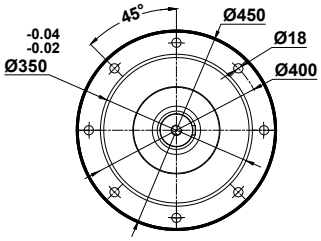


Klemens Pozisyonları
Terminal Box Positions
Klemmenkasten Positionen



71-80-90
Tip / *Type* / Typ

Opsiyonel Flanş Ölçüleri
Optional Flange Dimensions
Auswählbare Flanschabmessungen



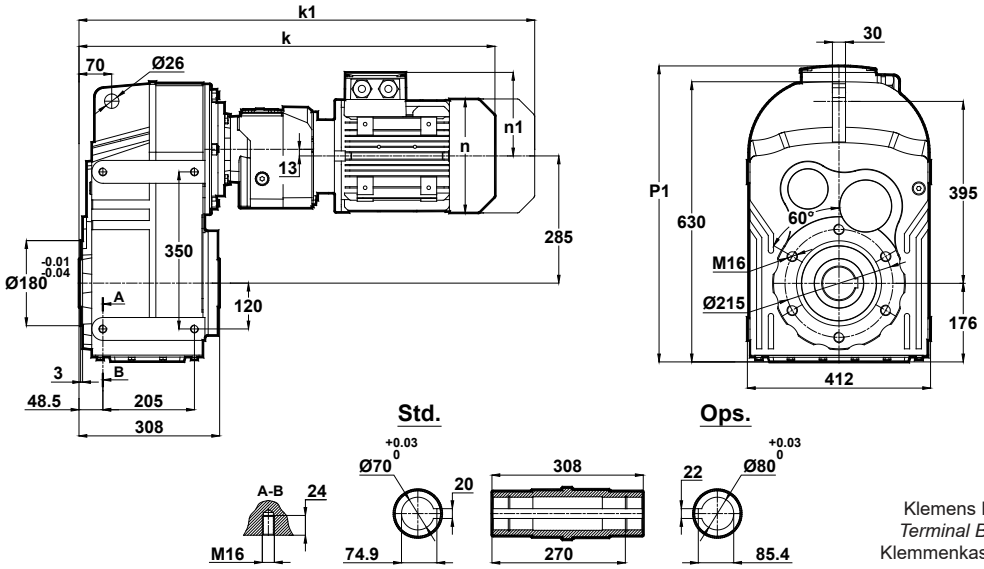
	71	80	90S	90L
k	629	663	702	702
k1	720	756	806.5	806.5
n	137	155	176	176
n1	112	121	132	132
p1	642	651	662	662

"k1" ölçüsü frenli redüktörlere aittir.
Dimensions "k1" is for motors with brake.
Maße "k1" ist für Bremsenmotoren.

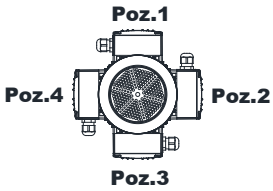
Diğer opsiyonel flanş ölçüleri için sayfa 326'ya bakınız.
Please see on page 326 for other optional flange dimensions
Siehe Siete 326 für andere auswählbare Flanschabmessungen

Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole according to DIN 332, sheet 2* / Zentrierung mit Gewinde nach DIN 332, Blatt 2

DR675.00
DR676.00



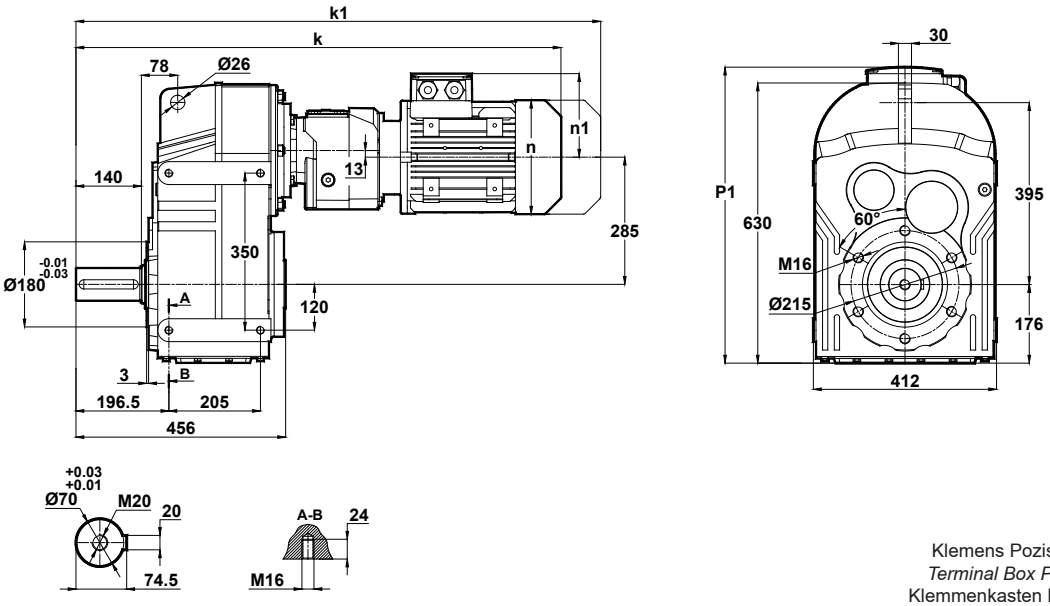
Klemens Pozisyonları
Terminal Box Positions
Klemmenkasten Positionen



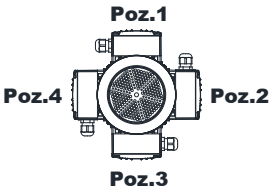
63-71-80
Tip / *Type* / Typ

	63	71	80
k	677	705	739
k1	738	796	832
n	121	137	155
n1	97	112	121
p1	-	-	-

DR675.01
DR676.01



Klemens Pozisyonları
Terminal Box Positions
Klemmenkasten Positionen



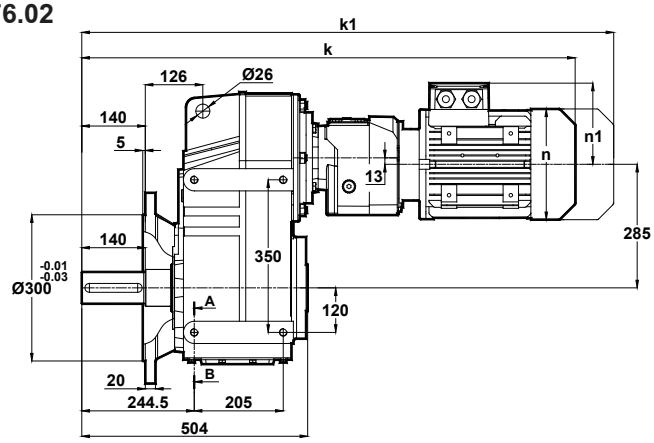
63-71-80
Tip / *Type* / Typ

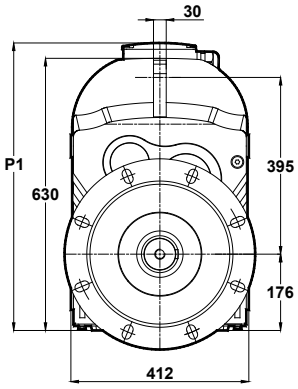
	63	71	80
k	825	853	887
k1	886	944	980
n	121	137	155
n1	97	112	121
p1	-	-	-

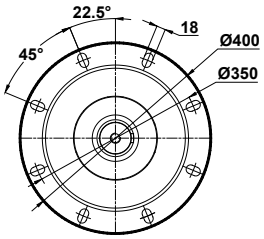
"k1" ölçüsü frenli redüktörlere aittir.
Dimensions "k1" is for motors with brake.
Maße "k1" ist für Bremsenmotoren.

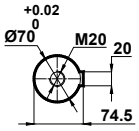
Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole according to DIN 332, sheet 2* / Zentrierung mit Gewinde nach DIN 332, Blatt 2

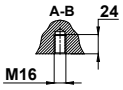
DR675.02
DR676.02





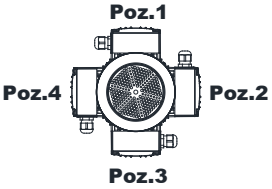






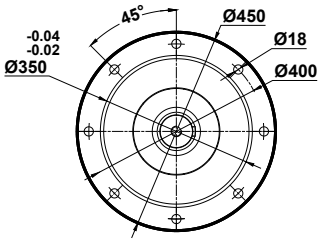
	63	71	80
k	873	901	935
k1	934	992	1028
n	121	137	155
n1	97	112	121
p1	-	-	-

Klemens Pozisyonları
Terminal Box Positions
Klemmenkasten Positionen



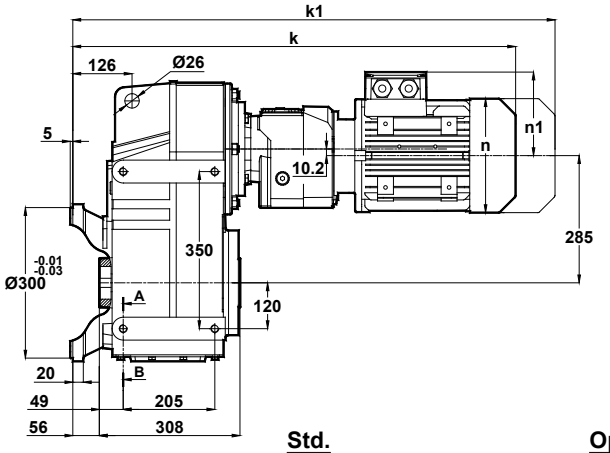
63-71-80
Tip / *Type* / Typ

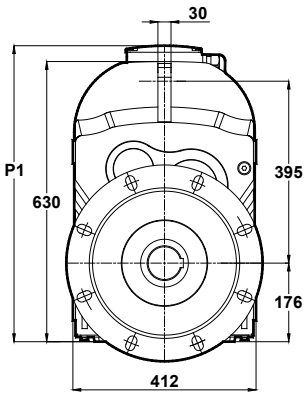
Opsiyonel Flanş Ölçüleri
Optional Flange Dimensions
Auswählbare Flanschabmessungen

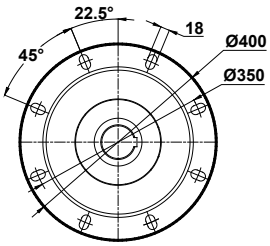


Diğer opsiyonel flanş ölçüleri için sayfa 326'ya bakınız.
Please see on page 326 for other optional flange dimensions
Siehe Siete 326 für andere auswählbare Flanschabmessungen

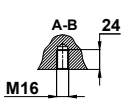
DR675.03
DR676.03

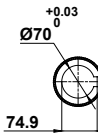


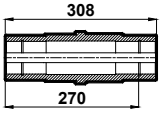




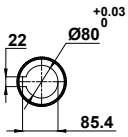
Std.





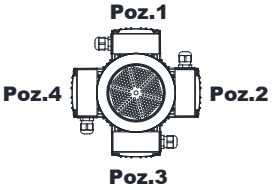


Ops.



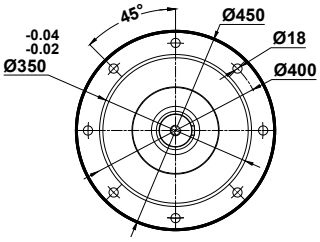
	63	71	80
k	733	761	795
k1	794	852	888
n	121	137	155
n1	97	112	121
p1	-	-	-

Klemens Pozisyonları
Terminal Box Positions
Klemmenkasten Positionen



63-71-80
Tip / *Type* / Typ

Opsiyonel Flanş Ölçüleri
Optional Flange Dimensions
Auswählbare Flanschabmessungen

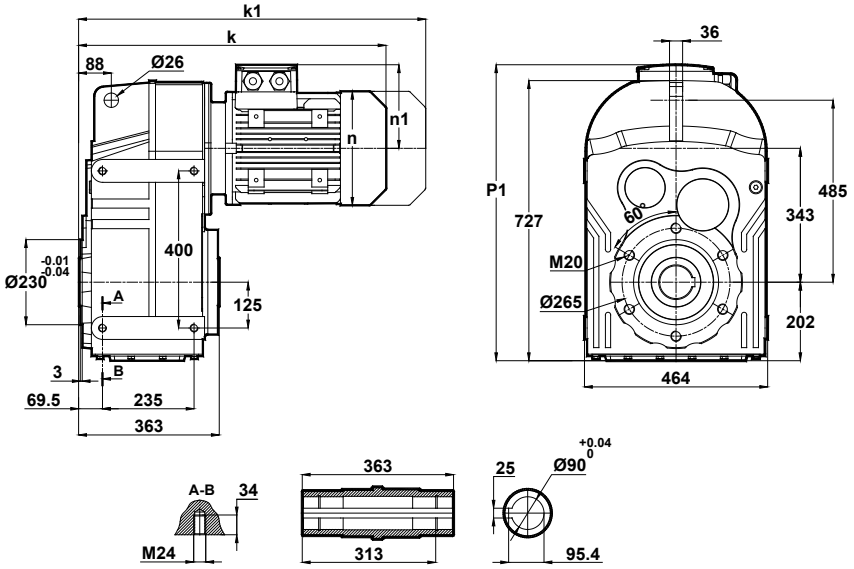


"k1" ölçüsü frenli redüktörlere aittir.
Dimensions "k1" is for motors with brake.
Maße "k1" ist für Bremsenmotoren.

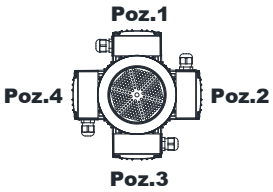
Diğer opsiyonel flanş ölçüleri için sayfa 326'ya bakınız.
Please see on page 326 for other optional flange dimensions
Siehe Siete 326 für andere auswählbare Flanschabmessungen

Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole according to DIN 332, sheet 2* / Zentrierung mit Gewinde nach DIN 332, Blatt 2

DR772.00
DR773.00



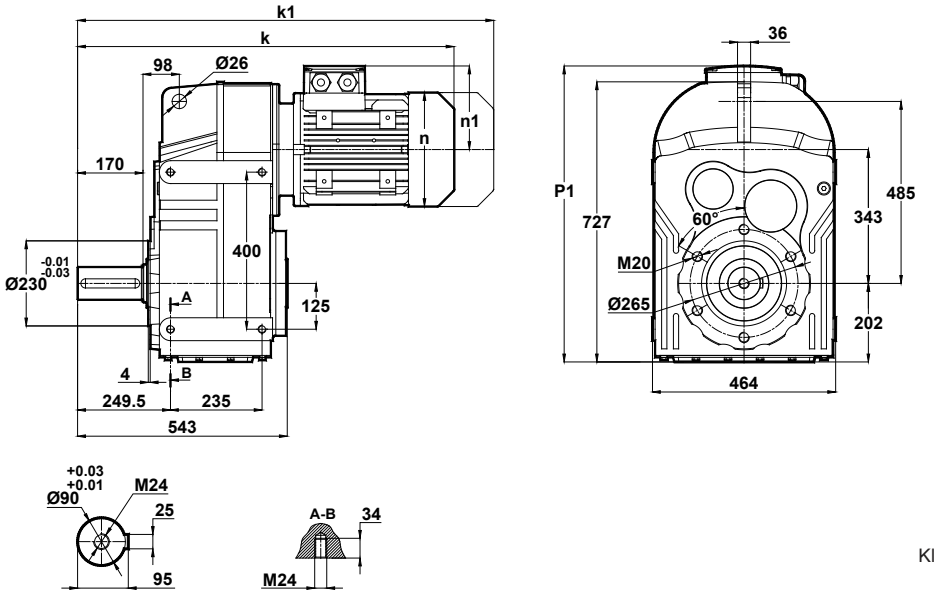
Klemens Pozisyonları
Terminal Box Positions
Klemmenkasten Positionen



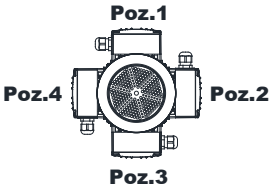
100-112-132-160-180-200-225
Tip / *Type* / Typ

	100L	112M	132S	132M	160M	160L	180M	180L	200L	225S	225M
k	585	655	742	742	838	838	909	909	951	977	1002
k1	704.5	759.5	872	872	1018	1018	1079.5	1079.5	1137.5	1142	1167
n	193	215	257	257	315	315	347	347	390	434	434
n1	147	158	179	179	219	219	234	234	275	285	285
p1	-	-	724	724	770	770	789	789	820	830	830

DR772.01
DR773.01



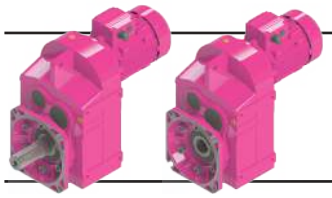
Klemens Pozisyonları
Terminal Box Positions
Klemmenkasten Positionen



100-112-132-160-180-200-225
Tip / *Type* / Typ

	100L	112M	132S	132M	160M	160L	180M	180L	200L	225S	225M
k	733	835	922	922	1018	1018	1089	1089	1131	1157	1182
k1	852.5	939.5	1052	1052	1198	1198	1259.5	1259.5	1317.5	1322	1347
n	193	215	257	257	315	315	347	347	390	434	434
n1	147	158	179	179	219	219	234	234	275	285	285
p1	-	-	724	724	770	770	789	789	820	830	830

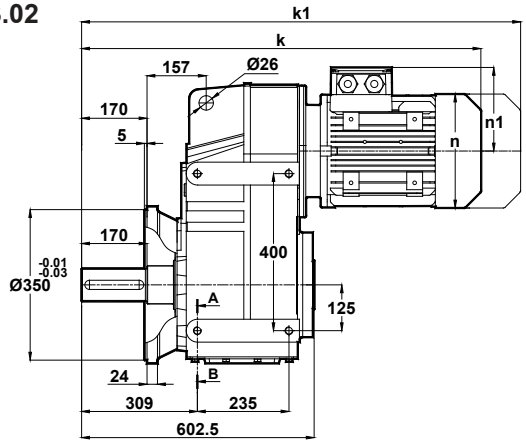
"k1" ölçüsü frenli redüktörlere aittir.
Dimensions "k1" is for motors with brake.
Maße "k1" ist für Bremsenmotoren.

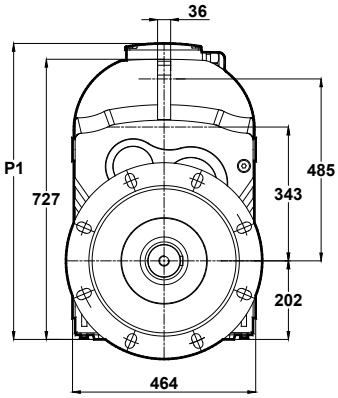


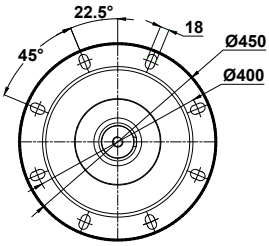
Ölçü Sayfaları
Dimension Pages
Abmessungsseiten

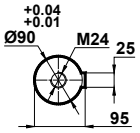
Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole according to DIN 332, sheet 2* / Zentrierung mit Gewinde nach DIN 332, Blatt 2

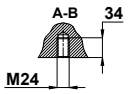
DR772.02
DR773.02



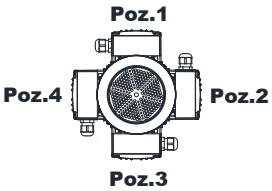








Klemens Pozisyonları
Terminal Box Positions
Klemmenkasten Positionen

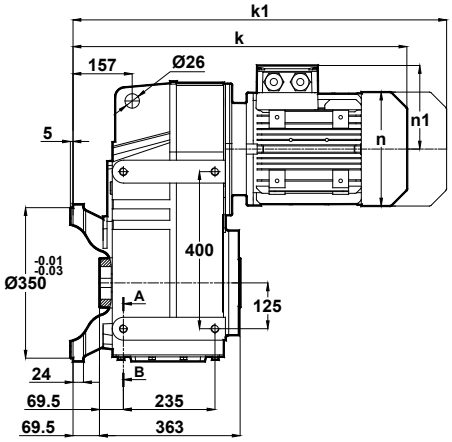


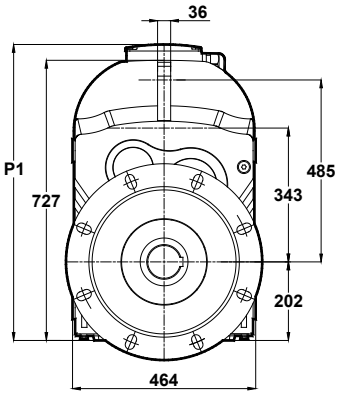
	100L	112M	132S	132M	160M	160L	180M	180L	200L	225S	225M
k	781	895	982	982	1078	1078	1149	1149	1191	1217	1242
k1	900.5	999.5	1112	1112	1258	1258	1319.5	1319.5	1377.5	1382	1407
n	193	215	257	257	315	315	347	347	390	434	434
n1	147	158	179	179	219	219	234	234	275	285	285
p1	-	-	724	724	770	770	789	789	820	830	830

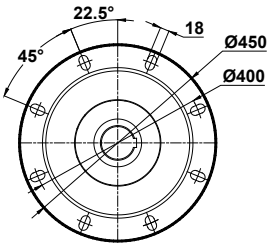
100-112-132-160-180-200-225
Tip / *Type* / Typ

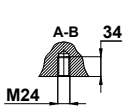
Opsiyonel flanş ölçüleri için sayfa 326'ya bakınız.
Please see on page 326 for optional flange dimensions
Siehe Siete 326 für auswählbare Flanschabmessungen

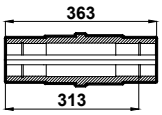
DR772.03
DR773.03

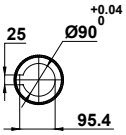




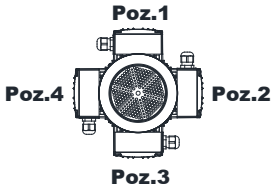








Klemens Pozisyonları
Terminal Box Positions
Klemmenkasten Positionen



	100L	112M	132S	132M	160M	160L	180M	180L	200L	225S	225M
k	641	725	812	812	908	908	979	979	1021	1047	1072
k1	760.5	829.5	942	942	1088	1088	1149.5	1149.5	1207.5	1212	1237
n	193	215	257	257	315	315	347	347	390	434	434
n1	147	158	179	179	219	219	234	234	275	285	285
p1	-	-	724	724	770	770	789	789	820	830	830

100-112-132-160-180-200-225
Tip / *Type* / Typ

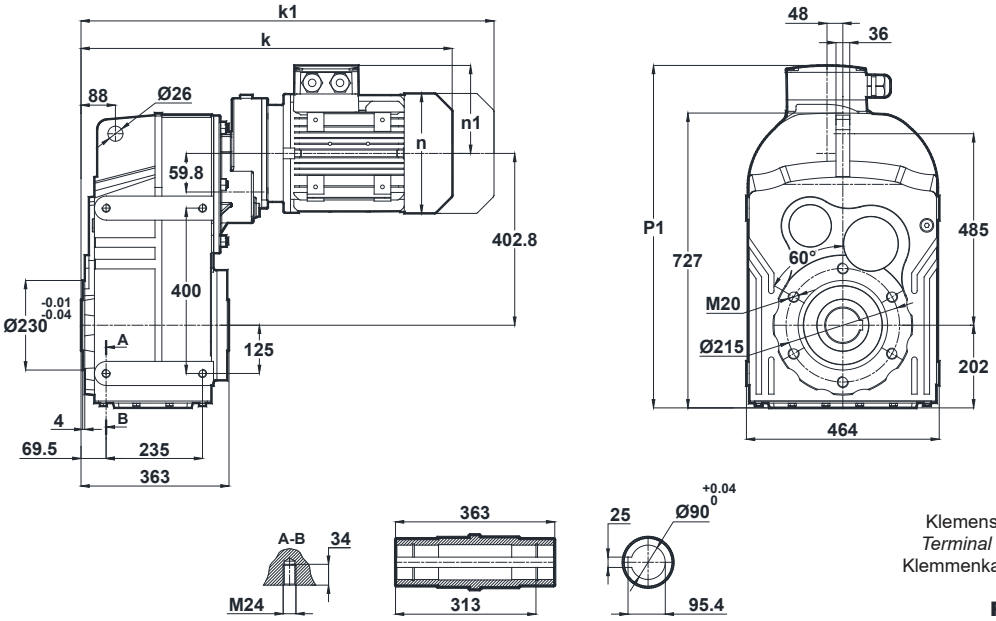
Opsiyonel flanş ölçüleri için sayfa 326'ya bakınız.
Please see on page 326 for optional flange dimensions
Siehe Siete 326 für auswählbare Flanschabmessungen

"k1" ölçüsü frenli redüktörlere aittir.
Dimensions "k1" is for motors with brake.
Maße "k1" ist für Bremsenmotoren.

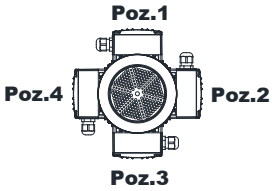
Ölçü Sayfaları
Dimension Pages
Abmessungsseiten

Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole according to DIN 332, sheet 2* / Zentrierung mit Gewinde nach DIN 332, Blatt 2

DR774.00



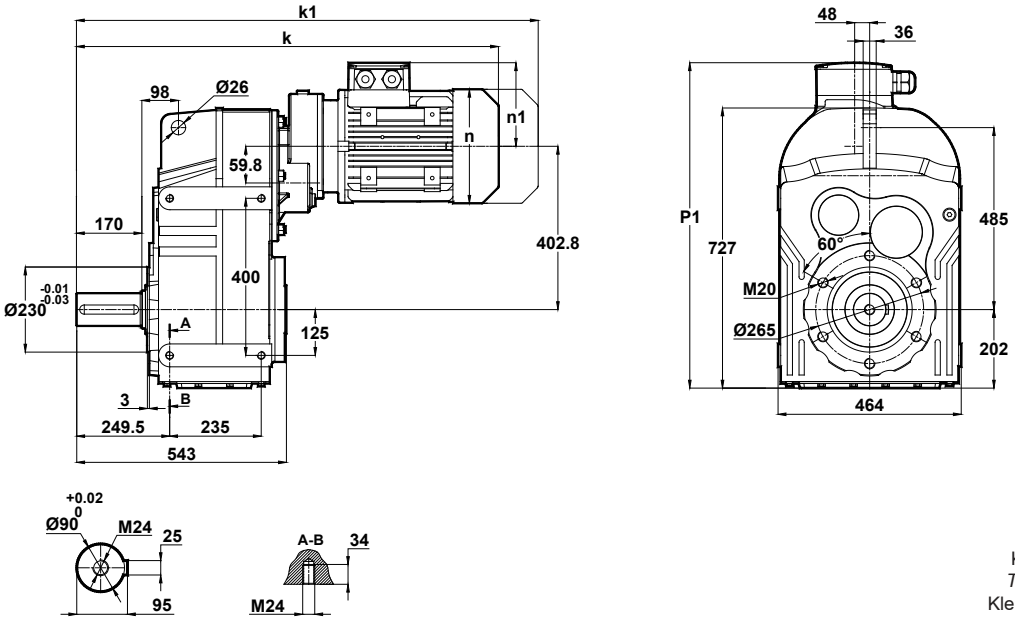
Klemens Pozisyonları
Terminal Box Positions
Klemmenkasten Positionen



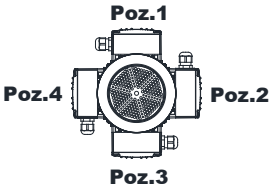
80-90-100
Tip / *Type* / Typ

	80	90S	90L	100L
k	664	703	703	747
k1	757	807.5	807.5	866.5
n	155	176	176	193
n1	121	132	132	147
p1	-	737	737	752

DR774.01



Klemens Pozisyonları
Terminal Box Positions
Klemmenkasten Positionen



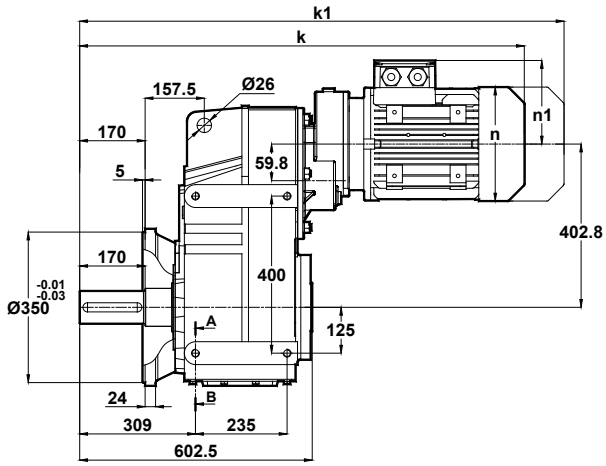
80-90-100
Tip / *Type* / Typ

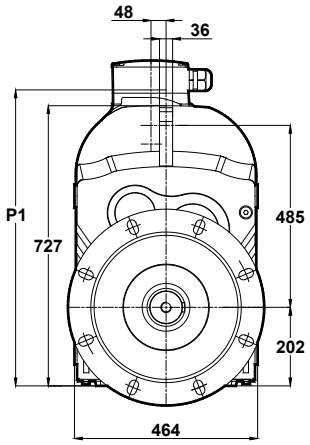
	80	90S	90L	100L
k	844	883	883	927
k1	937	987.5	987.5	1046.5
n	155	176	176	193
n1	121	132	132	147
p1	-	737	737	752

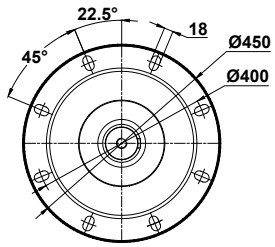
"k1" ölçüsü frenli redüktörlere aittir.
Dimensions "k1" is for motors with brake.
Maße "k1" ist für Bremsenmotoren.

Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole according to DIN 332, sheet 2* / Zentrierung mit Gewinde nach DIN 332, Blatt 2

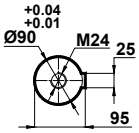
DR774.02

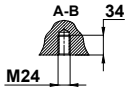


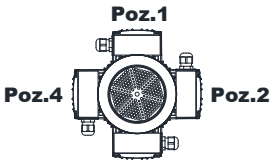




Klemens Pozisyonları
Terminal Box Positions
Klemmenkasten Positionen





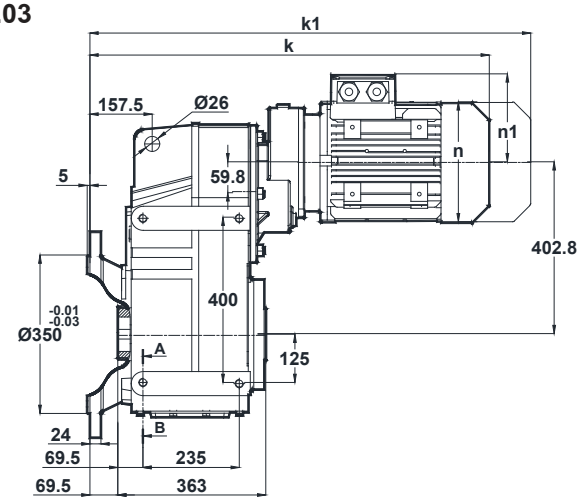


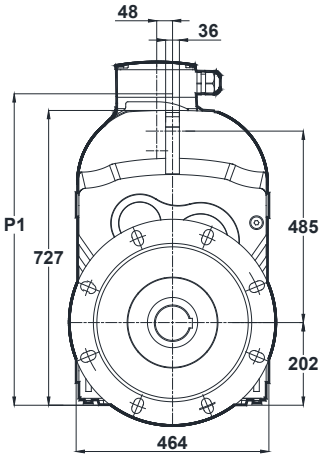
80-90-100
Tip / *Type* / Typ

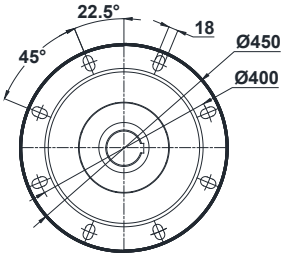
	80	90S	90L	100L
k	904	943	943	987
k1	997	1047.5	1047.5	1106.5
n	155	176	176	193
n1	121	132	132	147
p1	-	737	737	752

Opsiyonel flanş ölçüleri için sayfa 326'ya bakınız.
Please see on page 326 for optional flange dimensions
Siehe Siete 326 für auswählbare Flanschabmessungen

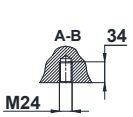
DR774.03

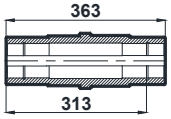


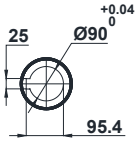


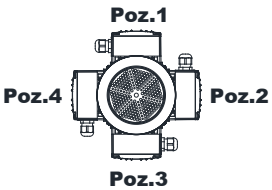


Klemens Pozisyonları
Terminal Box Positions
Klemmenkasten Positionen









80-90-100
Tip / *Type* / Typ

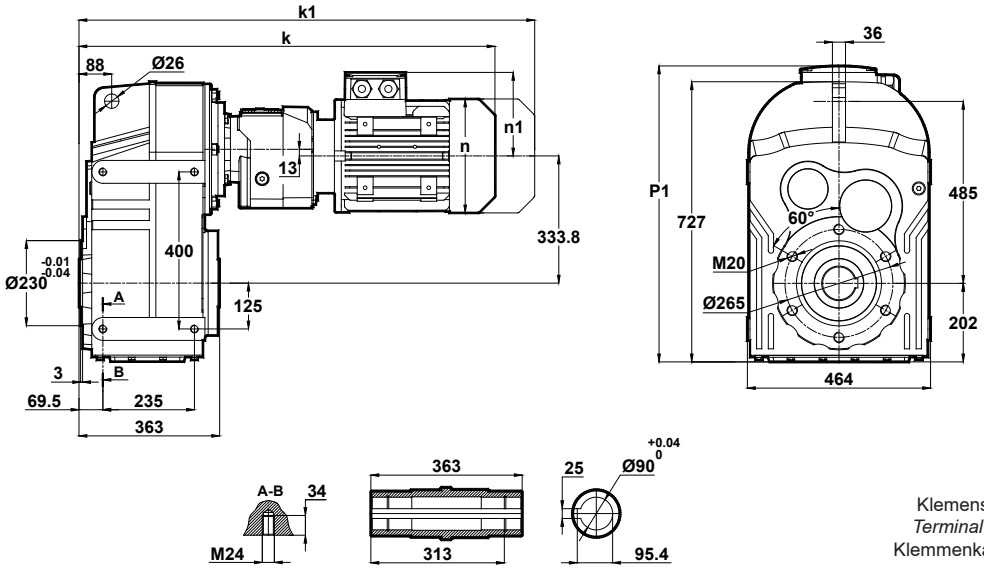
	80	90S	90L	100L
k	734	773	773	817
k1	827	877.5	877.5	936.5
n	155	176	176	193
n1	121	132	132	147
p1	-	737	737	752

Opsiyonel flanş ölçüleri için sayfa 326'ya bakınız.
Please see on page 326 for optional flange dimensions
Siehe Siete 326 für auswählbare Flanschabmessungen

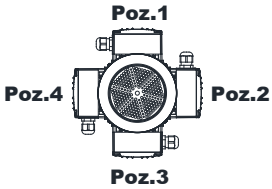
"k1" ölçüsü frenli redüktörlere aittir.
Dimensions "k1" is for motors with brake.
Maße "k1" ist für Bremsenmotoren.

Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole according to DIN 332, sheet 2* / Zentrierung mit Gewinde nach DIN 332, Blatt 2

DR775.00
DR776.00



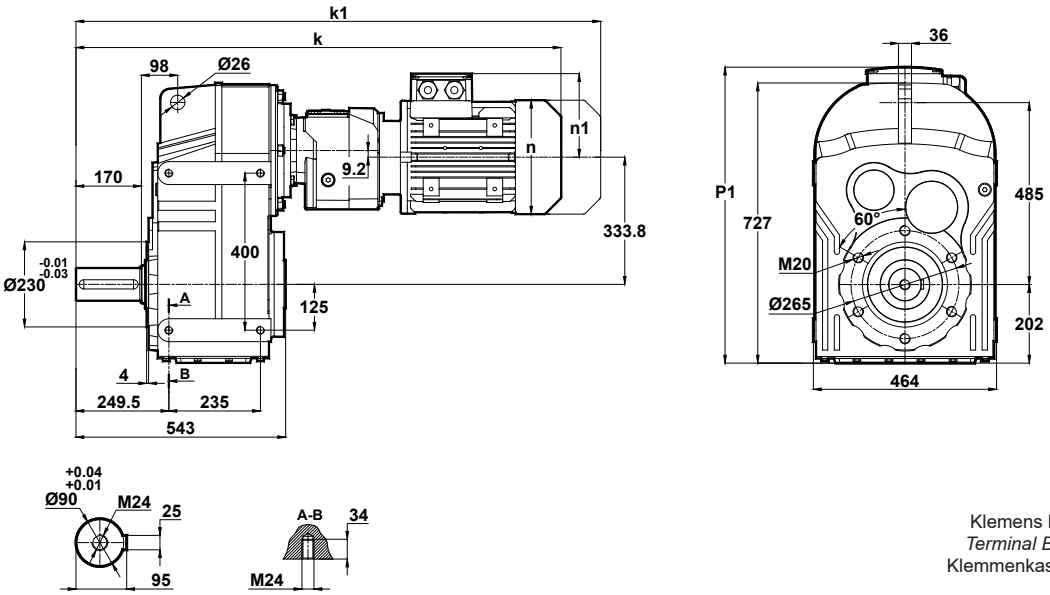
Klemens Pozisyonları
Terminal Box Positions
Klemmenkasten Positionen



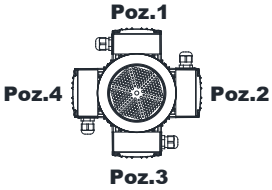
71-80-90
Tip / *Type* / Typ

	71	80	90S	90L
k	775	809	848	848
k1	866	902	952.5	952.5
n	137	155	176	176
n1	112	121	132	132
p1	-	-	-	-

DR775.01
DR776.01



Klemens Pozisyonları
Terminal Box Positions
Klemmenkasten Positionen



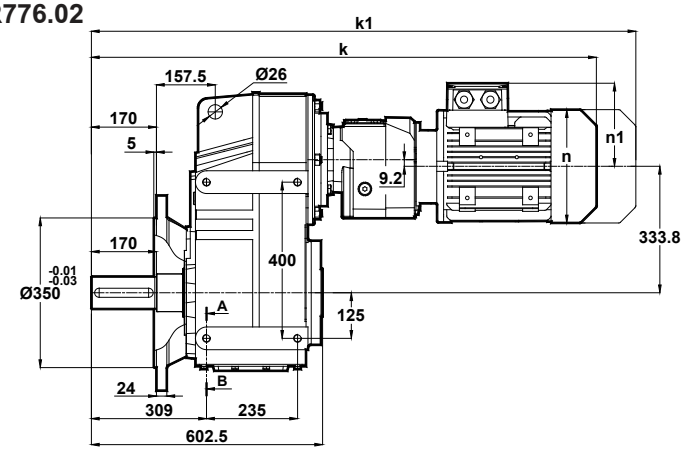
71-80-90
Tip / *Type* / Typ

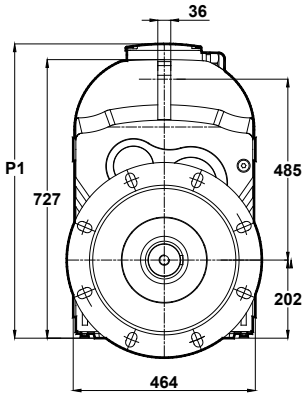
	71	80	90S	90L
k	955	989	1028	1028
k1	1046	1082	1132.5	1132.5
n	137	155	176	176
n1	112	121	132	132
p1	-	-	-	-

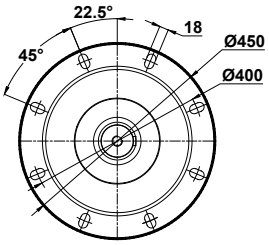
"k1" ölçüsü frenli redüktörlere aittir.
Dimensions "k1" is for motors with brake.
Maße "k1" ist für Bremsenmotoren.

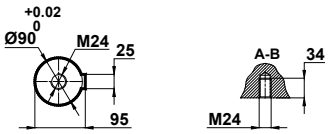
Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole according to DIN 332, sheet 2* / Zentrierung mit Gewinde nach DIN 332, Blatt 2

DR775.02
DR776.02



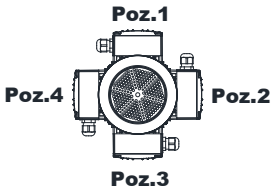






	71	80	90S	90L
k	1015	1049	1088	1088
k1	1106	1142	1192.5	1192.5
n	137	155	176	176
n1	112	121	132	132
p1	-	-	-	-

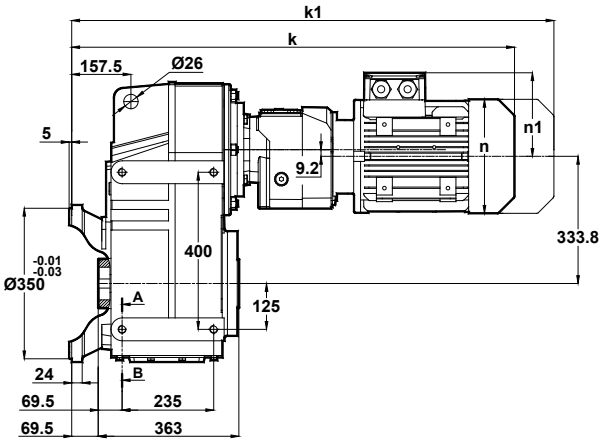
Klemens Pozisyonları
Terminal Box Positions
Klemmenkasten Positionen

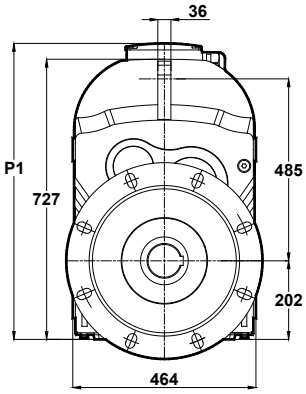


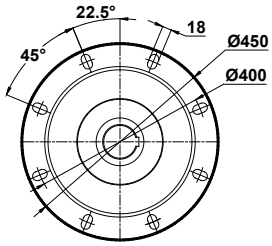
71-80-90
Tip / *Type* / Typ

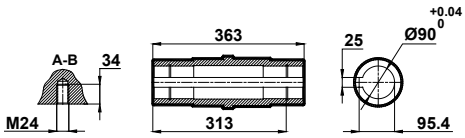
Opsiyonel flanş ölçüleri için sayfa 326'ya bakınız.
Please see on page 326 for optional flange dimensions
Siehe Siete 326 für auswählbare Flanschabmessungen

DR775.03
DR776.03



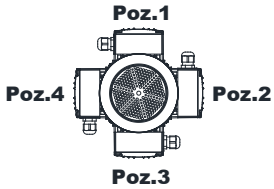






	71	80	90S	90L
k	845	879	918	918
k1	936	972	1022.5	1022.5
n	137	155	176	176
n1	112	121	132	132
p1	-	-	-	-

Klemens Pozisyonları
Terminal Box Positions
Klemmenkasten Positionen



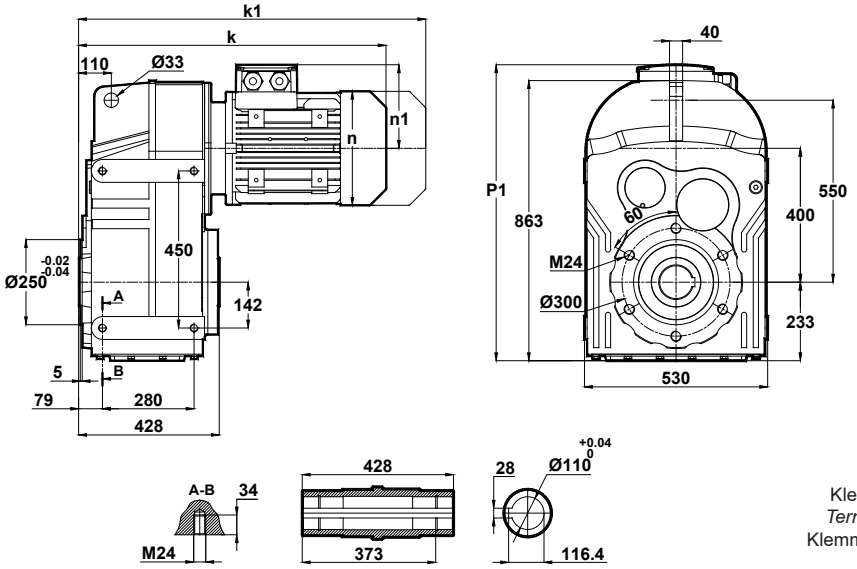
71-80-90
Tip / *Type* / Typ

"k1" ölçüsü frenli redüktörlere aittir.
Dimensions "k1" is for motors with brake.
Maße "k1" ist für Bremsenmotoren.

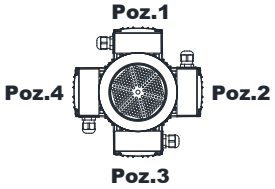
Opsiyonel flanş ölçüleri için sayfa 326'ya bakınız.
Please see on page 326 for optional flange dimensions
Siehe Siete 326 für auswählbare Flanschabmessungen

Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole according to DIN 332, sheet 2* / Zentrierung mit Gewinde nach DIN 332, Blatt 2

DR872.00
DR873.00



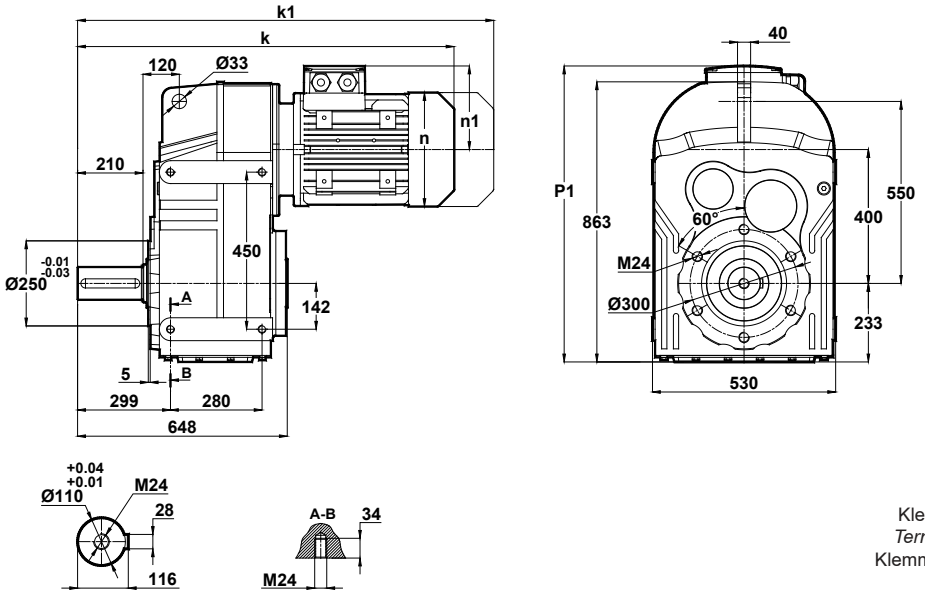
Klemens Pozisyonları
Terminal Box Positions
Klemmenkasten Positionen



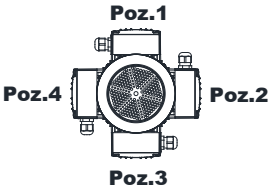
132-160-180-200-225-250-280
Tip / *Type* / Typ

	132S	132M	160M	160L	180M	180L	200L	225S	225M	250M	280S	280M
k	809	809	885	885	956	956	998	1027	1052	1155	1216	1216
k1	939	939	1065	1065	1126.5	1126.5	1184.5	1192	1217	1325.5	1389	1395
n	257	257	315	315	347	347	390	434	434	480	544	544
n1	179	179	219	219	234	234	275	285	285	322	350	350
p1	-	-	-	-	877	877	908	918	918	955	983	983

DR872.01
DR873.01



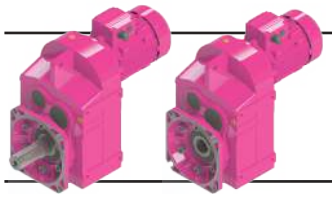
Klemens Pozisyonları
Terminal Box Positions
Klemmenkasten Positionen



132-160-180-200-225-250-280
Tip / *Type* / Typ

	132S	132M	160M	160L	180M	180L	200L	225S	225M	250M	280S	280M
k	1029	1029	1105	1105	1176	1176	1218	1247	1272	1375	1436	1436
k1	1159	1159	1285	1285	1346.5	1346.5	1404.5	1412	1437	1545.5	1609	1615
n	257	257	315	315	347	347	390	434	434	480	544	544
n1	179	179	219	219	234	234	275	285	285	322	350	350
p1	-	-	-	-	877	877	908	918	918	955	983	983

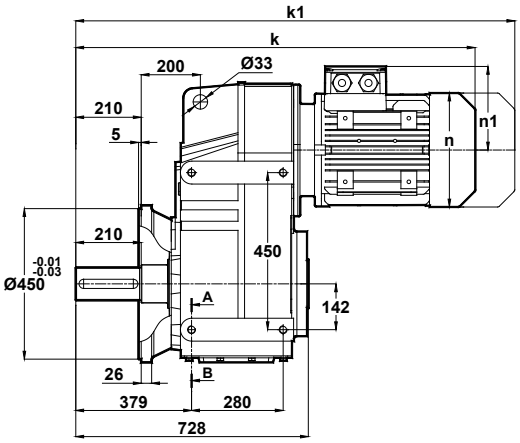
"k1" ölçüsü frenli redüktörlere aittir.
Dimensions "k1" is for motors with brake.
Maße "k1" ist für Bremsenmotoren.

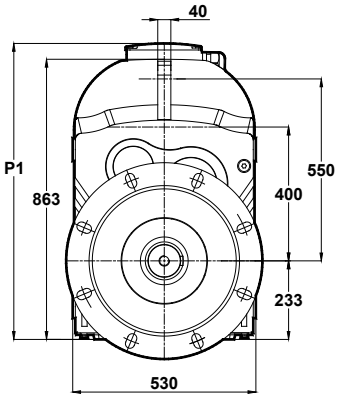


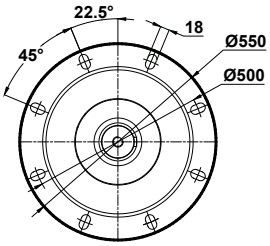
Ölçü Sayfaları
Dimension Pages
Abmessungsseiten

Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole according to DIN 332, sheet 2* / Zentrierung mit Gewinde nach DIN 332, Blatt 2

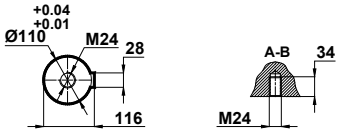
DR872.02
DR873.02

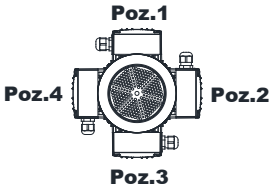






Klemens Pozisyonları
Terminal Box Positions
Klemmenkasten Positionen



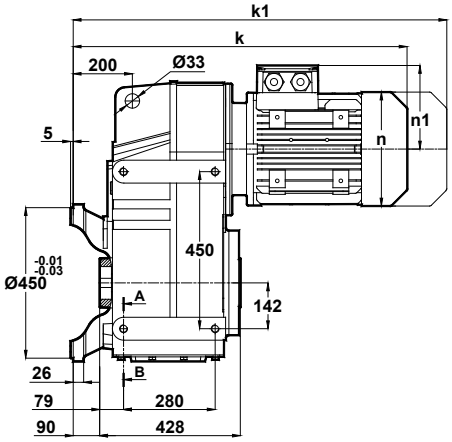


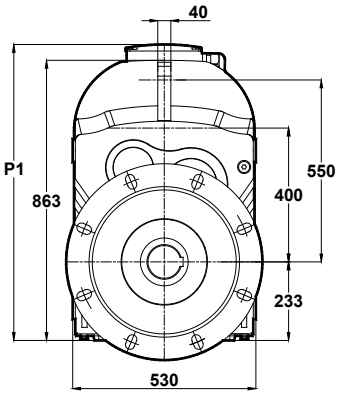
	132S	132M	160M	160L	180M	180L	200L	225S	225M	250M	280S	280M
k	1109	1109	1185	1185	1256	1256	1298	1327	1352	1455	1516	1516
k1	1239	1239	1365	1365	1426.5	1426.5	1484.5	1492	1517	1625.5	1689	1695
n	257	257	315	315	347	347	390	434	434	480	544	544
n1	179	179	219	219	234	234	275	285	285	322	350	350
p1	-	-	-	-	877	877	908	918	918	955	983	983

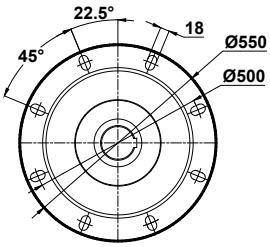
132-160-180-200-225-250-280
Tip / *Type* / Typ

Opsiyonel flanş ölçüleri için sayfa 326'ya bakınız.
Please see on page 326 for optional flange dimensions
Siehe Siete 326 für auswählbare Flanschabmessungen

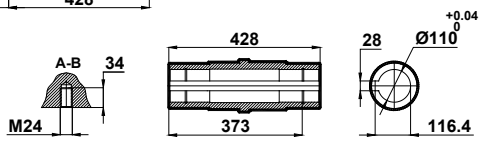
DR872.03
DR873.03

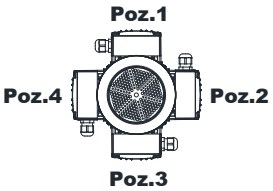






Klemens Pozisyonları
Terminal Box Positions
Klemmenkasten Positionen





	132S	132M	160M	160L	180M	180L	200L	225S	225M	250M	280S	280M
k	899	899	975	975	1046	1046	1088	1117	1142	1245	1306	1306
k1	1029	1029	1155	1155	1216.5	1216.5	1274.5	1282	1307	1415.5	1479	1479
n	257	257	315	315	347	347	390	434	434	480	544	544
n1	179	179	219	219	234	234	275	285	285	322	350	350
p1	-	-	-	-	877	877	908	918	918	955	983	983

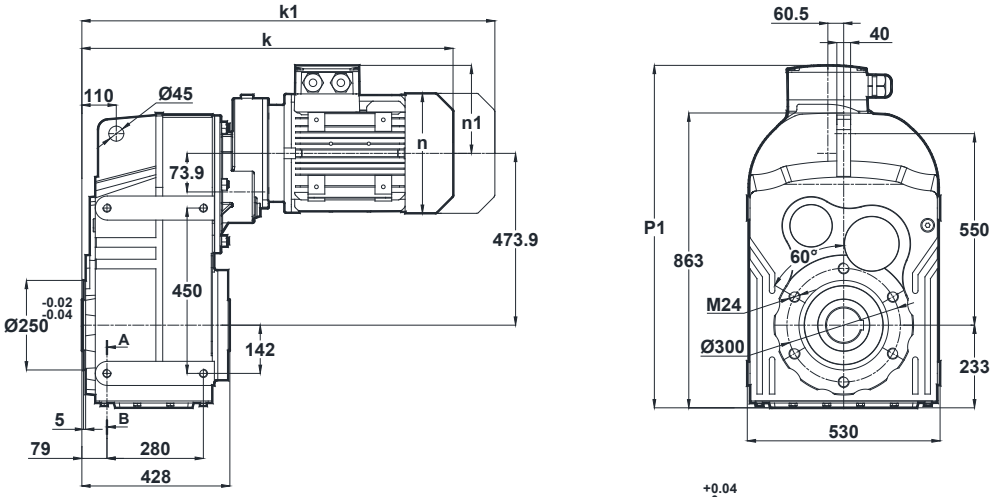
132-160-180-200-225-250-280
Tip / *Type* / Typ

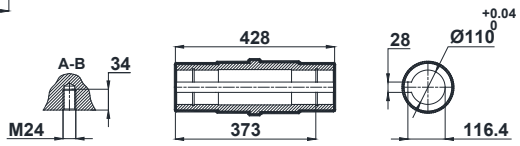
Opsiyonel flanş ölçüleri için sayfa 326'ya bakınız.
Please see on page 326 for optional flange dimensions
Siehe Siete 326 für auswählbare Flanschabmessungen

"k1" ölçüsü frenli redüktörlere aittir.
Dimensions "k1" is for motors with brake.
Maße "k1" ist für Bremsenmotoren.

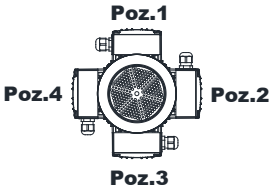
Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole according to DIN 332, sheet 2* / Zentrierung mit Gewinde nach DIN 332, Blatt 2

DR874.00





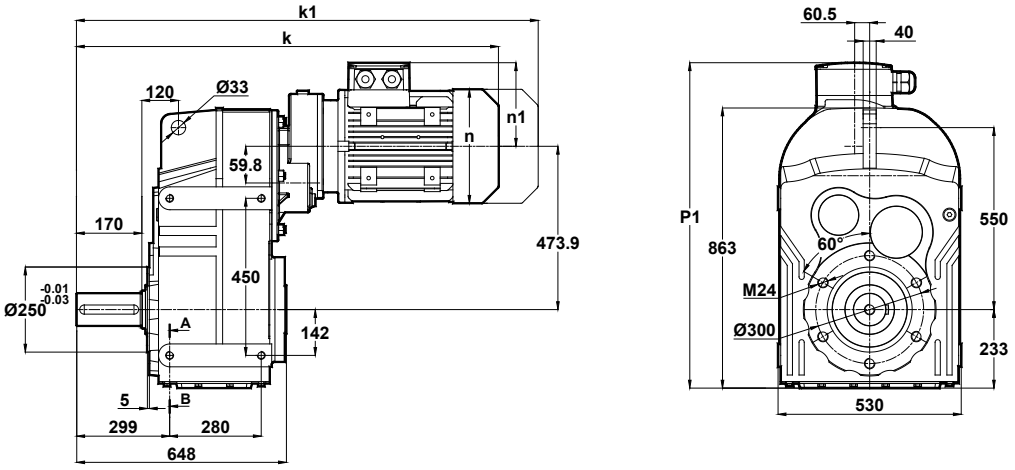
Klemens Pozisyonları
Terminal Box Positions
Klemmenkasten Positionen

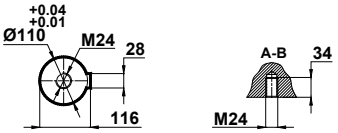


100-112-132
Tip / *Type* / Typ

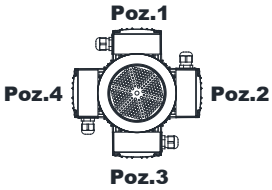
	100L	112M	132S	132M
k	820	844	931	931
k1	939.5	948.5	1061	1061
n	193	215	257	257
n1	147	158	179	179
p1	-	-	886	886

DR874.01





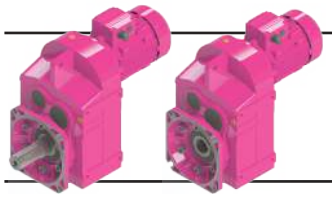
Klemens Pozisyonları
Terminal Box Positions
Klemmenkasten Positionen



100-112-132
Tip / *Type* / Typ

	100L	112M	132S	132M
k	1040	1064	1151	1151
k1	1159.5	1168.5	1281	1281
n	193	215	257	257
n1	147	158	179	179
p1	-	-	886	886

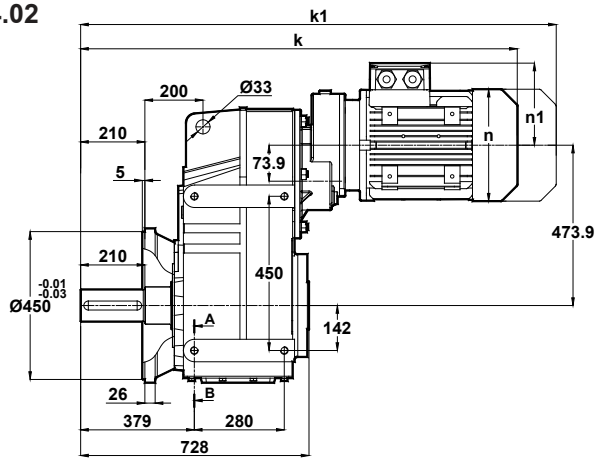
"k1" ölçüsü frenli redüktörlere aittir.
Dimensions "k1" is for motors with brake.
Maße "k1" ist für Bremsenmotoren.

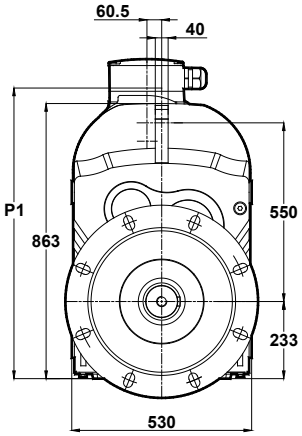


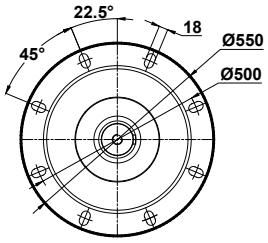
Ölçü Sayfaları
Dimension Pages
Abmessungsseiten

Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole according to DIN 332, sheet 2* / Zentrierung mit Gewinde nach DIN 332, Blatt 2

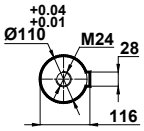
DR874.02

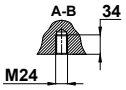


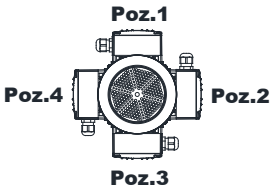




Klemens Pozisyonları
Terminal Box Positions
Klemmenkasten Positionen





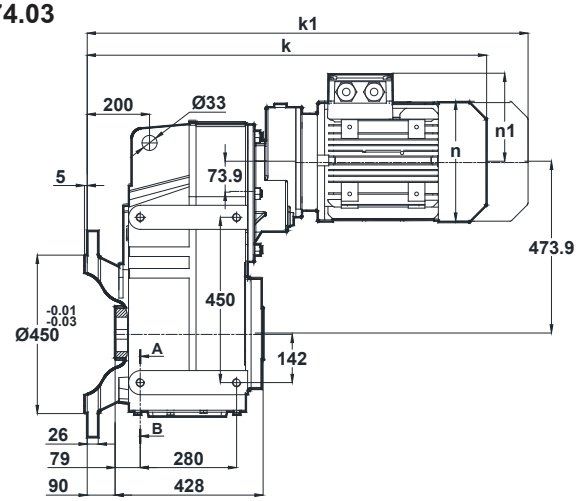


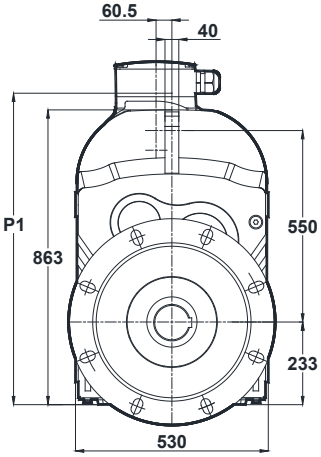
100-112-132
Tip / *Type* / Typ

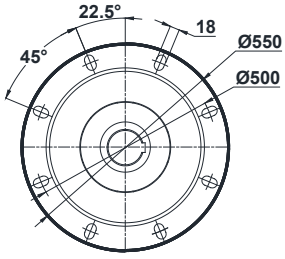
	100L	112M	132S	132M
k	1120	1144	1231	1231
k1	1239.5	1248.5	1361	1361
n	193	215	257	257
n1	147	158	179	179
p1	-	-	886	886

Opsiyonel flanş ölçüleri için sayfa 326'ya bakınız.
Please see on page 326 for optional flange dimensions
Siehe Siete 326 für auswählbare Flanschabmessungen

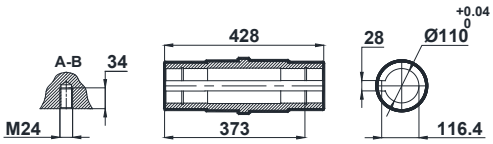
DR874.03

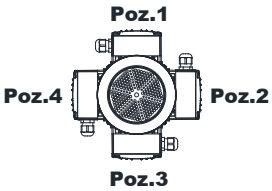






Klemens Pozisyonları
Terminal Box Positions
Klemmenkasten Positionen





100-112-132
Tip / *Type* / Typ

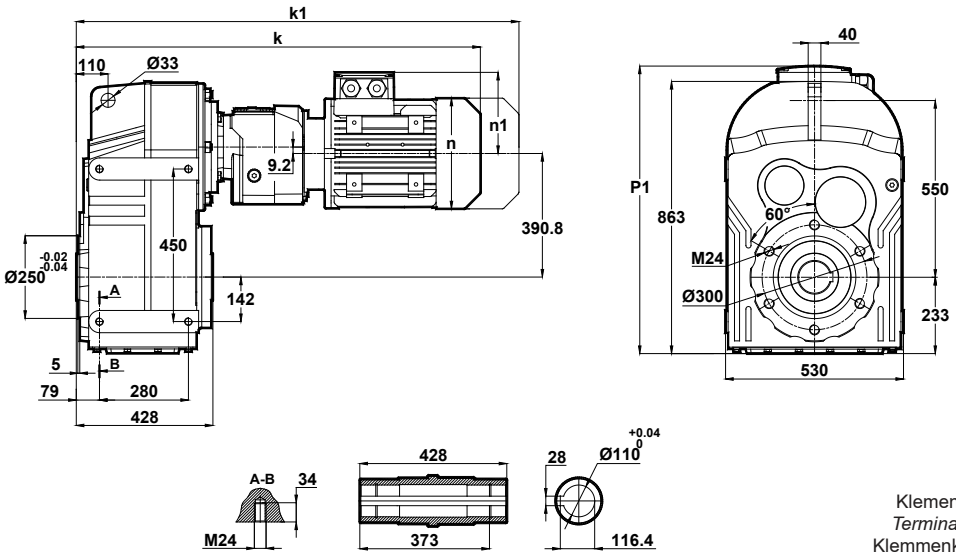
	100L	112M	132S	132M
k	910	934	1021	1021
k1	1029.5	1038.5	1151	1151
n	193	215	257	257
n1	147	158	179	179
p1	-	-	886	886

Opsiyonel flanş ölçüleri için sayfa 326'ya bakınız.
Please see on page 326 for optional flange dimensions
Siehe Siete 326 für auswählbare Flanschabmessungen

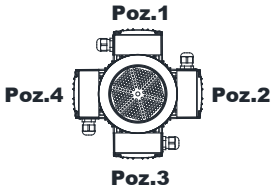
"k1" ölçüsü frenli redüktörlere aittir.
Dimensions "k1" is for motors with brake.
Maße "k1" ist für Bremsenmotoren.

Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole according to DIN 332, sheet 2* / Zentrierung mit Gewinde nach DIN 332, Blatt 2

DR875.00
DR876.00



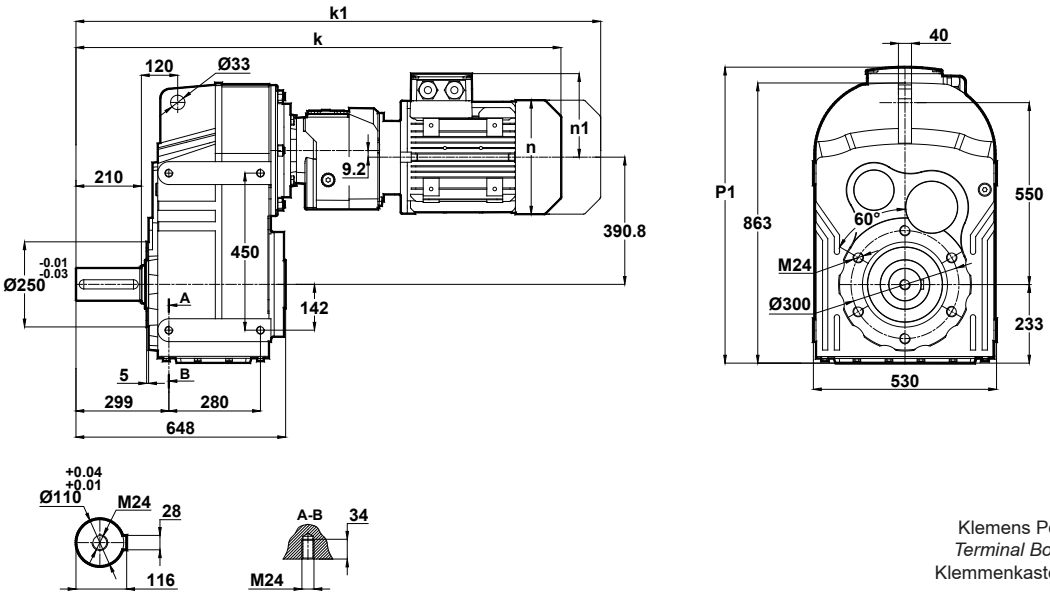
Klemens Pozisyonları
Terminal Box Positions
Klemmenkasten Positionen



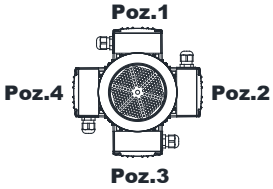
71-80-90-100
Tip / *Type* / Typ

	71	80	90S	90L	100L
k	838	872	911	911	958
k1	929	965	1015.5	1015.5	1077.5
n	137	155	176	176	193
n1	112	121	132	132	147
p1	736	745	756	756	771

DR875.01
DR876.01



Klemens Pozisyonları
Terminal Box Positions
Klemmenkasten Positionen



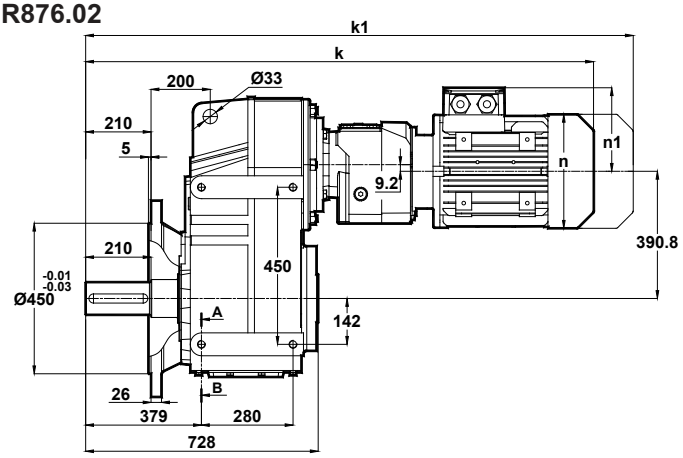
71-80-90-100
Tip / *Type* / Typ

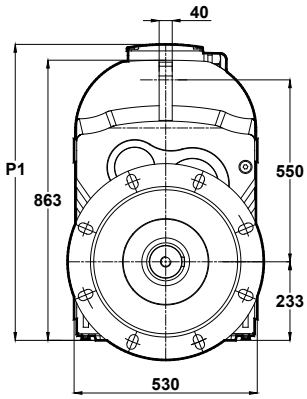
	71	80	90S	90L	100L
k	1058	1092	1131	1131	1178
k1	1149	1185	1235.5	1235.5	1297.5
n	137	155	176	176	193
n1	112	121	132	132	147
p1	736	745	756	756	771

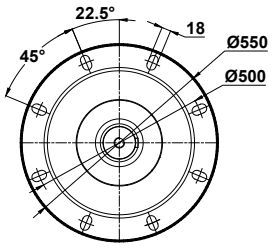
''k1'' ölçüsü frenli redüktörlere aittir.
Dimensions ''k1'' is for motors with brake.
Maße ''k1'' ist für Bremsenmotoren.

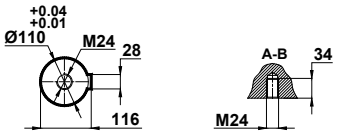
Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole according to DIN 332, sheet 2* / Zentrierung mit Gewinde nach DIN 332, Blatt 2

DR875.02
DR876.02



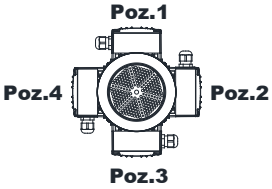






	71	80	90S	90L	100L
k	1138	1172	1211	1211	1258
k1	1229	1265	1315.5	1315.5	1377.5
n	137	155	176	176	193
n1	112	121	132	132	147
p1	736	745	756	756	771

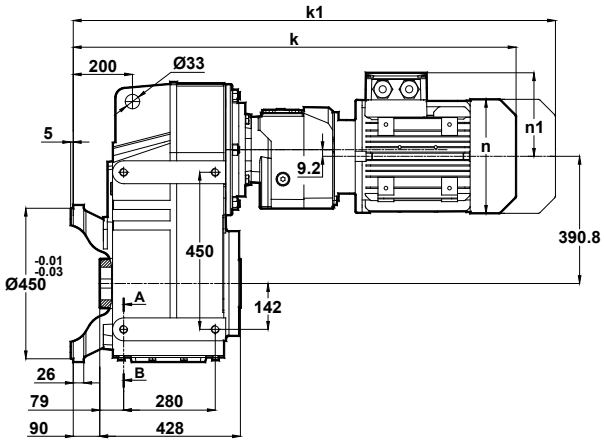
Klemens Pozisyonları
Terminal Box Positions
Klemmenkasten Positionen

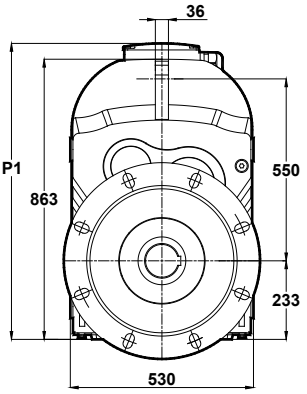


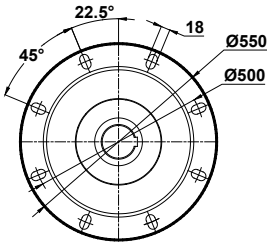
71-80-90-100
Tip / *Type* / Typ

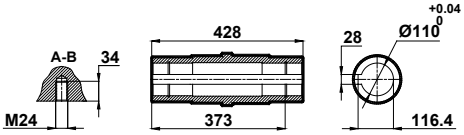
Opsiyonel flanş ölçüleri için sayfa 326'ya bakınız.
Please see on page 326 for optional flange dimensions
Siehe Siete 326 für auswählbare Flanschabmessungen

DR875.03
DR876.03



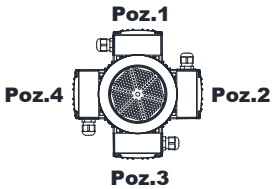






	71	80	90S	90L	100L
k	928	962	1001	1001	1048
k1	1019	1055	1105.5	1105.5	1167.5
n	137	155	176	176	193
n1	112	121	132	132	147
p1	736	745	756	756	771

Klemens Pozisyonları
Terminal Box Positions
Klemmenkasten Positionen



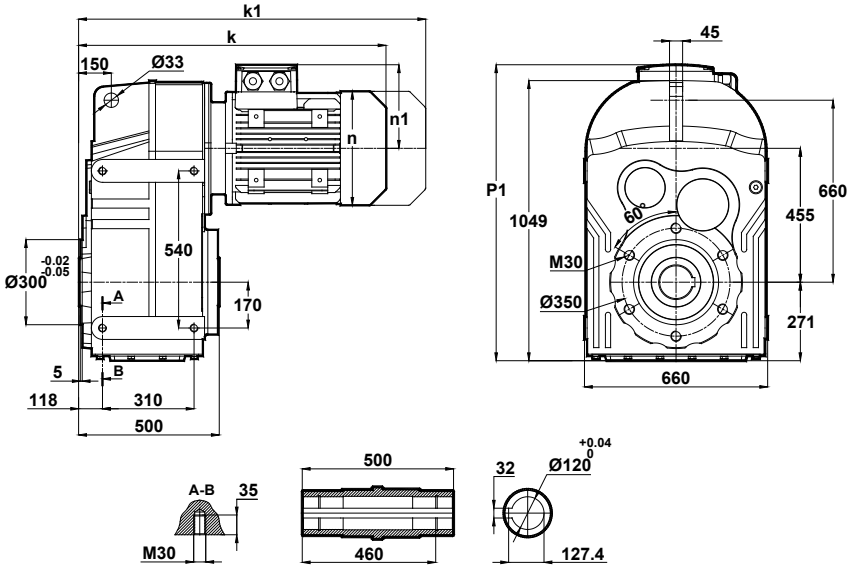
71-80-90-100
Tip / *Type* / Typ

Opsiyonel flanş ölçüleri için sayfa 326'ya bakınız.
Please see on page 326 for optional flange dimensions
Siehe Siete 326 für auswählbare Flanschabmessungen

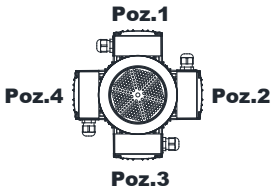
"k1" ölçüsü frenli redüktörlere aittir.
Dimensions "k1" is for motors with brake.
Maße "k1" ist für Bremsenmotoren.

Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole according to DIN 332, sheet 2* / Zentrierung mit Gewinde nach DIN 332, Blatt 2

DR972.00
DR973.00



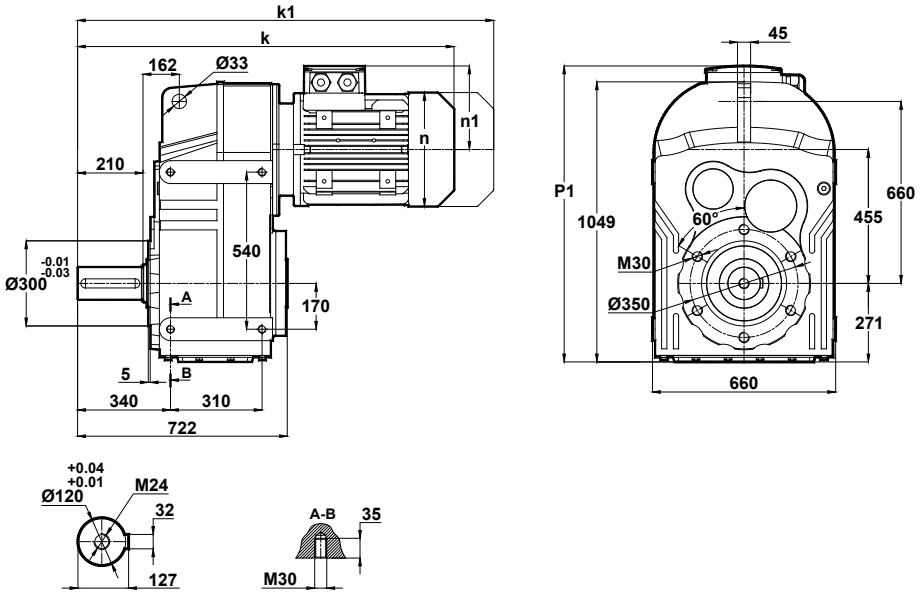
Klemens Pozisyonları
Terminal Box Positions
Klemmenkasten Positionen



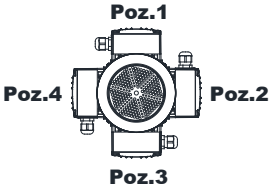
160-180-200-225-250-280-315
Tip / *Type* / Typ

	160M	160L	180M	180L	200L	225S	225M	250M	280S	280M	315S	315M
k	952	952	1023	1023	1065	1081	1106	1209	1270	1270	1425	1425
k1	1132	1132	1193.5	1193.5	1251.5	1246	1271	1379.5	1443	1449	-	-
n	315	315	347	347	390	434	434	480	544	544	614	614
n1	219	219	234	234	275	285	285	322	350	350	510	510
p1	-	-	-	-	-	-	-	-	1076	1076	1236	1236

DR972.01
DR973.01



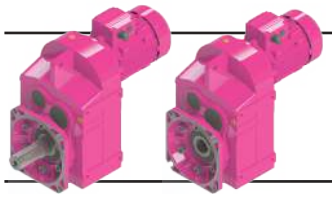
Klemens Pozisyonları
Terminal Box Positions
Klemmenkasten Positionen



160-180-200-225-250-280-315
Tip / *Type* / Typ

	160M	160L	180M	180L	200L	225S	225M	250M	280S	280M	315S	315M
k	1174	1174	1245	1245	1287	1303	1328	1431	1492	1492	1647	1647
k1	1354	1354	1415.5	1415.5	1473.5	1468	1493	1601.5	1665	1498	-	-
n	315	315	347	347	390	434	434	480	544	544	614	614
n1	219	219	234	234	275	285	285	322	350	350	510	510
p1	-	-	-	-	-	-	-	-	1076	1076	1236	1236

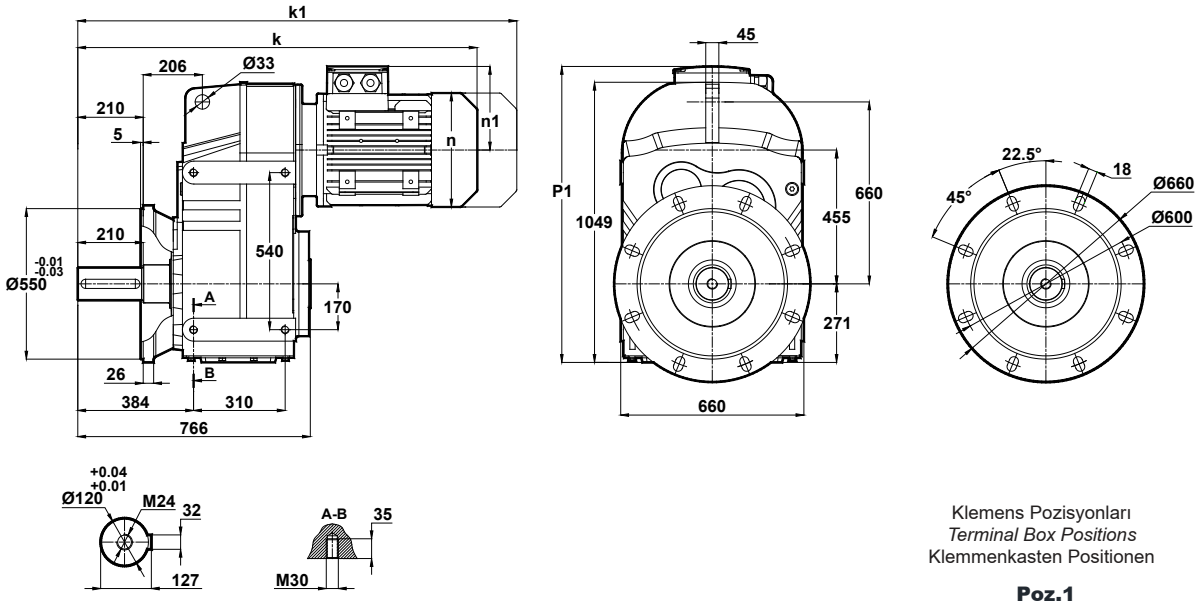
"k1" ölçüsü frenli redüktörlere aittir.
Dimensions "k1" is for motors with brake.
Maße "k1" ist für Bremsenmotoren.



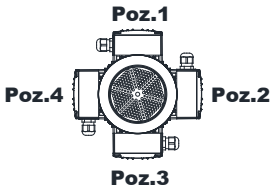
Ölçü Sayfaları
Dimension Pages
Abmessungsseiten

Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole according to DIN 332, sheet 2* / Zentrierung mit Gewinde nach DIN 332, Blatt 2

DR972.02
DR973.02



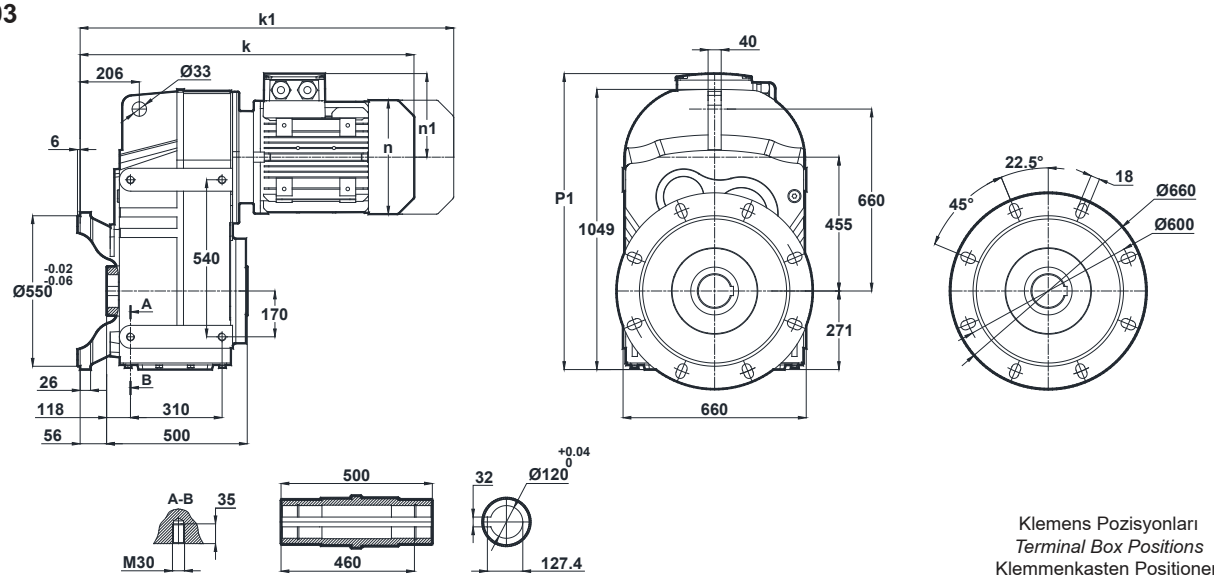
Klemens Pozisyonları
Terminal Box Positions
Klemmenkasten Positionen



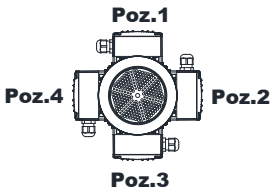
160-180-200-225-250-280-315
Tip / *Type* / Typ

	160M	160L	180M	180L	200L	225S	225M	250M	280S	280M	315S	315M
k	1218	1218	1289	1289	1331	1347	1372	1475	1536	1536	1691	1691
k1	1398	1398	1459.5	1459.5	1517.5	1512	1537	1645.5	1709	1715	-	-
n	315	315	347	347	390	434	434	480	544	544	614	614
n1	219	219	234	234	275	285	285	322	350	350	510	510
p1	-	-	-	-	-	-	-	-	1076	1076	1236	1236

DR972.03
DR973.03



Klemens Pozisyonları
Terminal Box Positions
Klemmenkasten Positionen



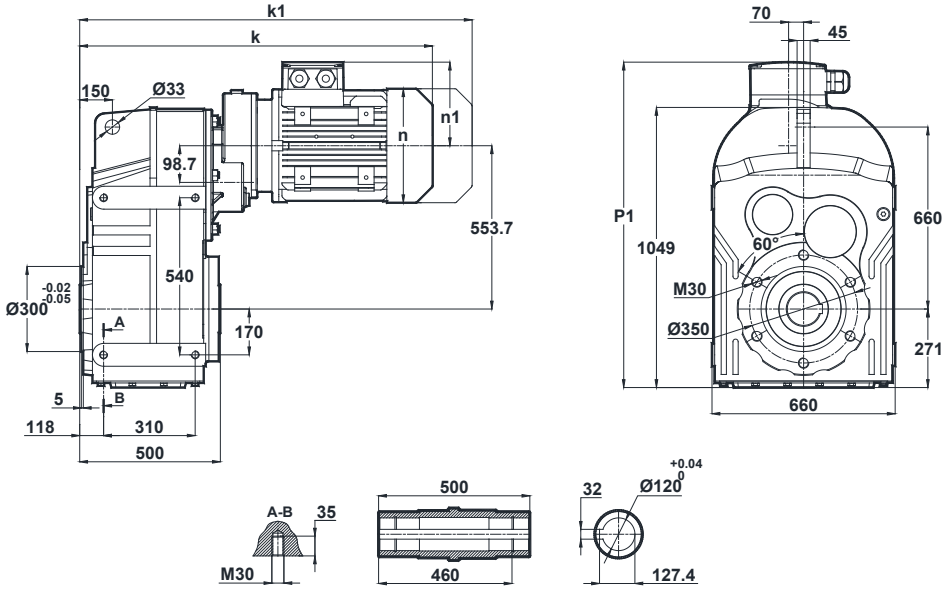
160-180-200-225-250-280-315
Tip / *Type* / Typ

	160M	160L	180M	180L	200L	225S	225M	250M	280S	280M	315S	315M
k	1008	1008	1079	1079	1121	1137	1162	1265	1326	1326	1481	1481
k1	1188	1188	1249.5	1249.5	1307.5	1302	1327	1435.5	1499	1505	-	-
n	315	315	347	347	390	434	434	480	544	544	614	614
n1	219	219	234	234	275	285	285	322	350	350	510	510
p1	-	-	-	-	-	-	-	-	1076	1076	1236	1236

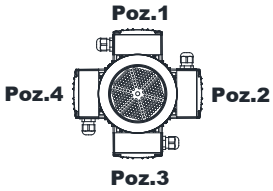
"k1" ölçüsü frenli redüktörlere aittir.
Dimensions "k1" is for motors with brake.
Maße "k1" ist für Bremsenmotoren.

Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole according to DIN 332, sheet 2* / Zentrierung mit Gewinde nach DIN 332, Blatt 2

DR974.00



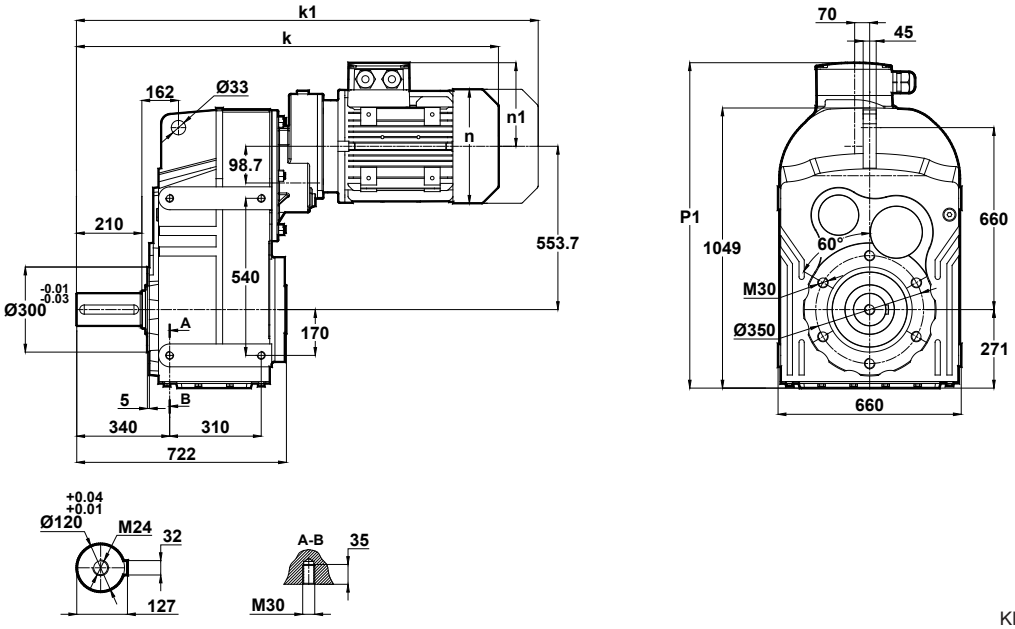
Klemens Pozisyonları
Terminal Box Positions
Klemmenkasten Positionen



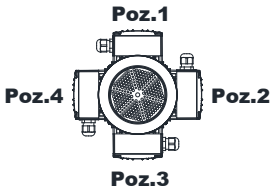
100-112-132
Tip / *Type* / Typ

	100L	112M	132S	132M
k	921	945	1032	1032
k1	1040.5	1049.5	1162	1162
n	193	215	257	257
n1	147	158	179	179
p1	-	-	-	-

DR974.01



Klemens Pozisyonları
Terminal Box Positions
Klemmenkasten Positionen



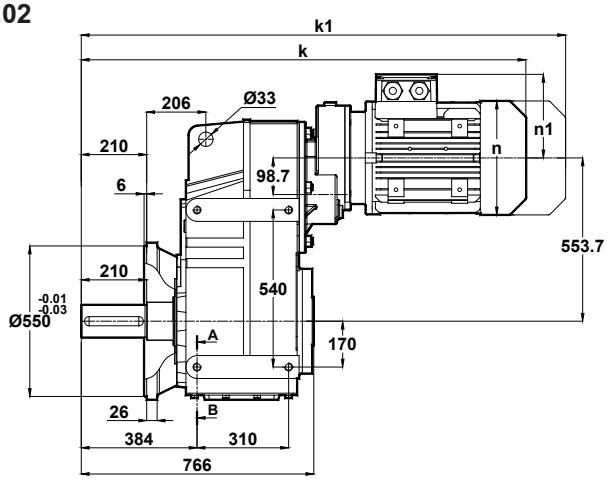
100-112-132
Tip / *Type* / Typ

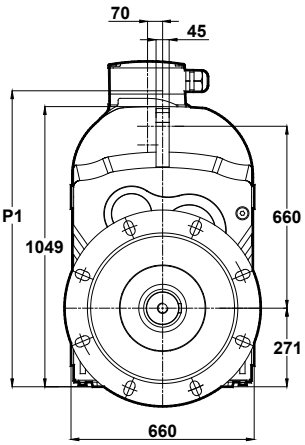
	100L	112M	132S	132M
k	1143	1167	1254	1254
k1	1262.5	1271.5	1384	1384
n	193	215	257	257
n1	147	158	179	179
p1	-	-	-	-

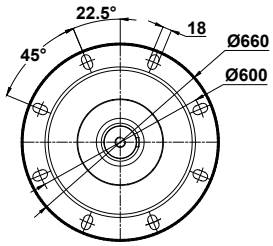
"k1" ölçüsü frenli redüktörlere aittir.
Dimensions "k1" is for motors with brake.
Maße "k1" ist für Bremsenmotoren.

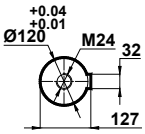
Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole according to DIN 332, sheet 2* / Zentrierung mit Gewinde nach DIN 332, Blatt 2

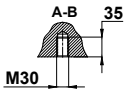
DR974.02



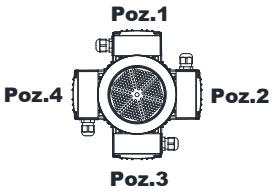








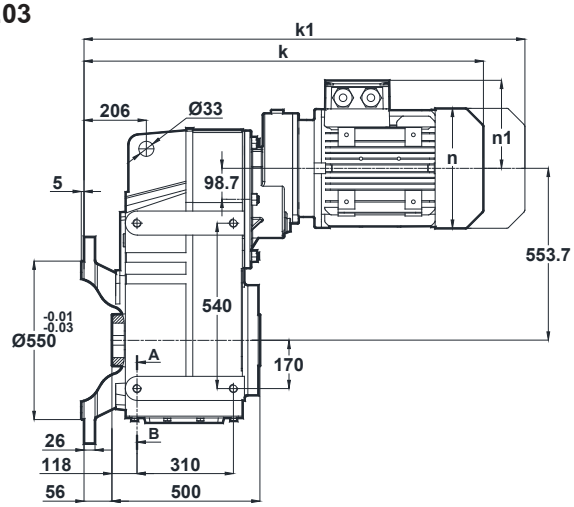
Klemens Pozisyonları
Terminal Box Positions
Klemmenkasten Positionen

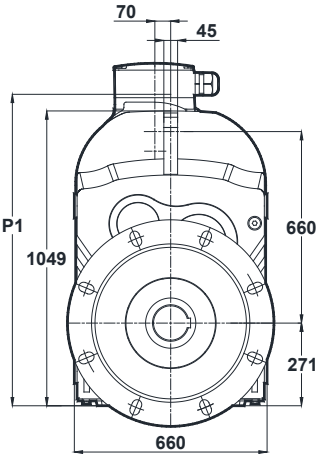


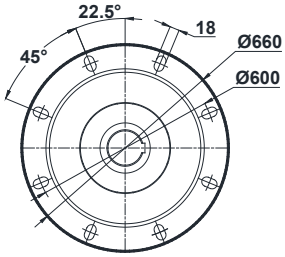
100-112-132
Tip / *Type* / Typ

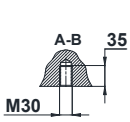
	100L	112M	132S	132M
k	1187	1211	1298	1298
k1	1306.5	1315.5	1428	1428
n	193	215	257	257
n1	147	158	179	179
p1	-	-	-	-

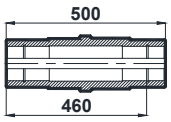
DR974.03

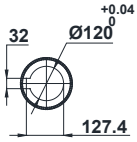




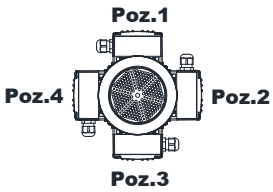








Klemens Pozisyonları
Terminal Box Positions
Klemmenkasten Positionen



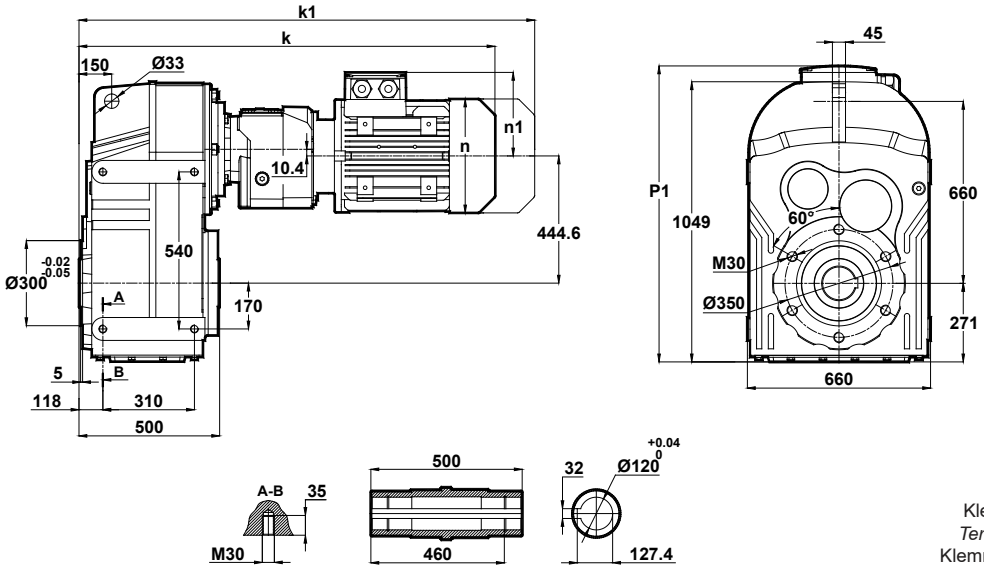
100-112-132
Tip / *Type* / Typ

	100L	112M	132S	132M
k	977	1001	1088	1088
k1	1096.5	1105.5	1218	1218
n	193	215	257	257
n1	147	158	179	179
p1	-	-	-	-

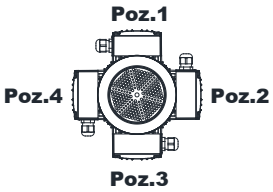
"k1" ölçüsü frenli redüktörlere aittir.
Dimensions "k1" is for motors with brake.
Maße "k1" ist für Bremsenmotoren.

Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole according to DIN 332, sheet 2* / Zentrierung mit Gewinde nach DIN 332, Blatt 2

DR975.00
DR976.00



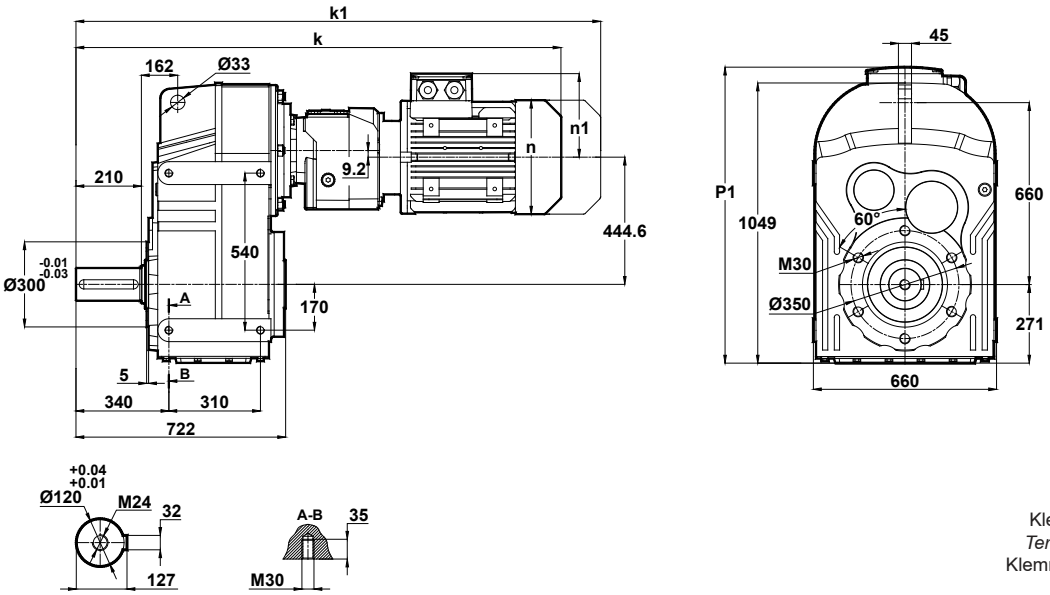
Klemens Pozisyonları
Terminal Box Positions
Klemmenkasten Positionen



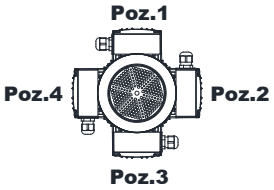
80-90-100
Tip / *Type* / Typ

	80	90S	90L	100L
k	1000	1039	1039	1083
k1	1093	1143.5	1143.5	1202.5
n	155	176	176	193
n1	121	132	132	147
p1	-	-	-	-

DR975.01
DR976.01



Klemens Pozisyonları
Terminal Box Positions
Klemmenkasten Positionen



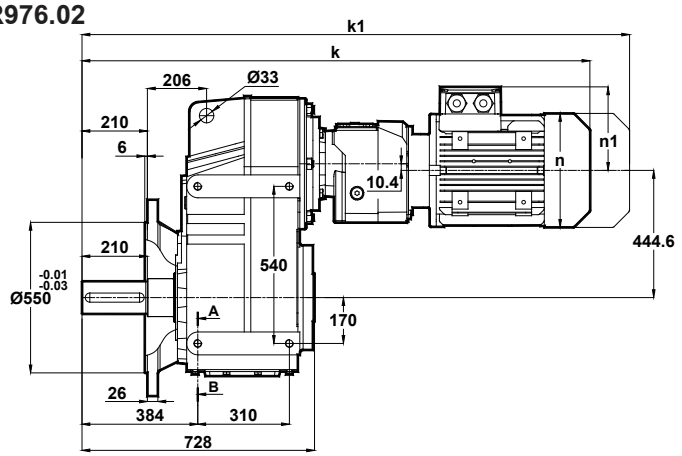
80-90-100
Tip / *Type* / Typ

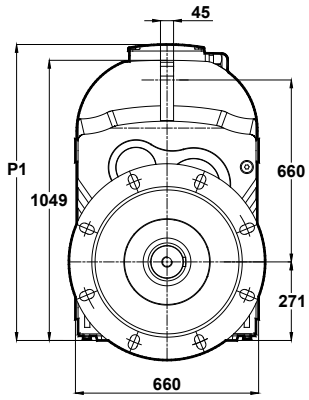
	80	90S	90L	100L
k	1222	1261	1261	1305
k1	1315	1365.5	1365.5	1424.5
n	155	176	176	193
n1	121	132	132	147
p1	-	-	-	-

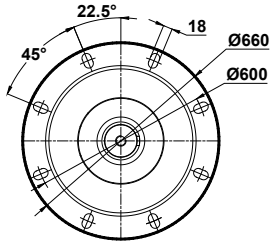
"k1" ölçüsü frenli redüktörlere aittir.
Dimensions "k1" is for motors with brake.
Maße "k1" ist für Bremsenmotoren.

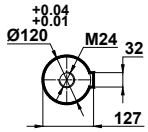
Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole according to DIN 332, sheet 2* / Zentrierung mit Gewinde nach DIN 332, Blatt 2

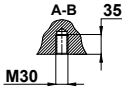
DR975.02
DR976.02





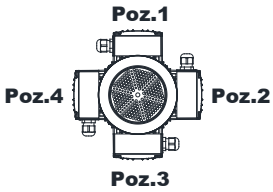






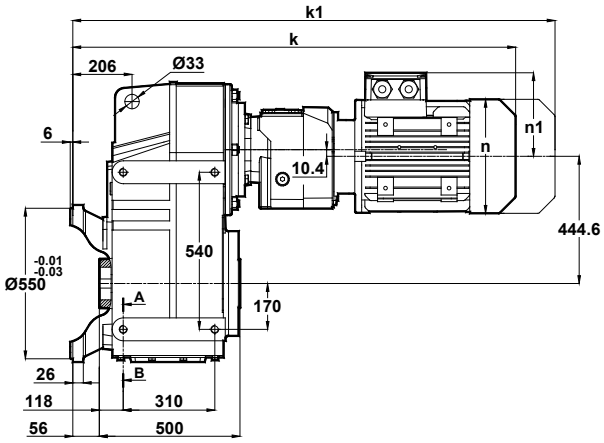
	80	90S	90L	100L
k	1266	1305	1305	1349
k1	1359	1409.5	1409.5	1468.5
n	155	176	176	193
n1	121	132	132	147
p1	-	-	-	-

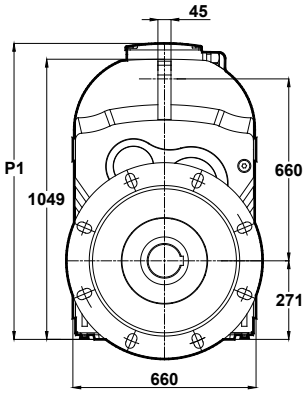
Klemens Pozisyonları
Terminal Box Positions
Klemmenkasten Positionen

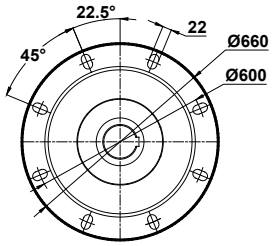


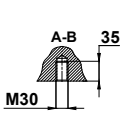
80-90-100
Tip / *Type* / Typ

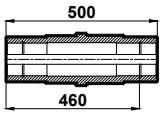
DR975.03
DR976.03

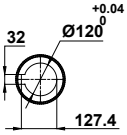






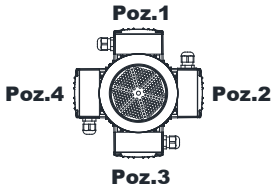






	80	90S	90L	100L
k	1056	1095	1095	1139
k1	1149	1199.5	1199.5	1258.5
n	155	176	176	193
n1	121	132	132	147
p1	-	-	-	-

Klemens Pozisyonları
Terminal Box Positions
Klemmenkasten Positionen

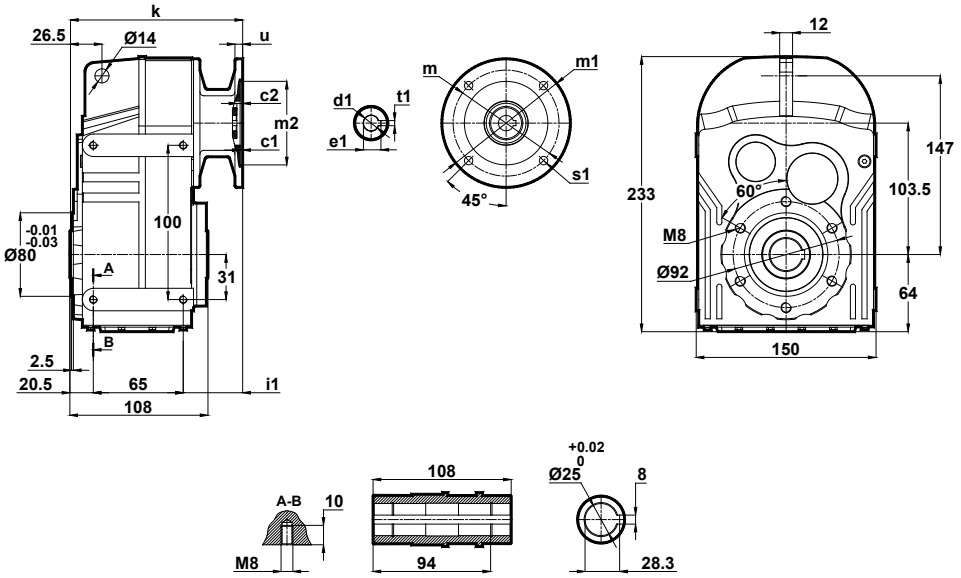


80-90-100
Tip / *Type* / Typ

"k1" ölçüsü frenli redüktörlere aittir.
Dimensions "k1" is for motors with brake.
Maße "k1" ist für Bremsenmotoren.

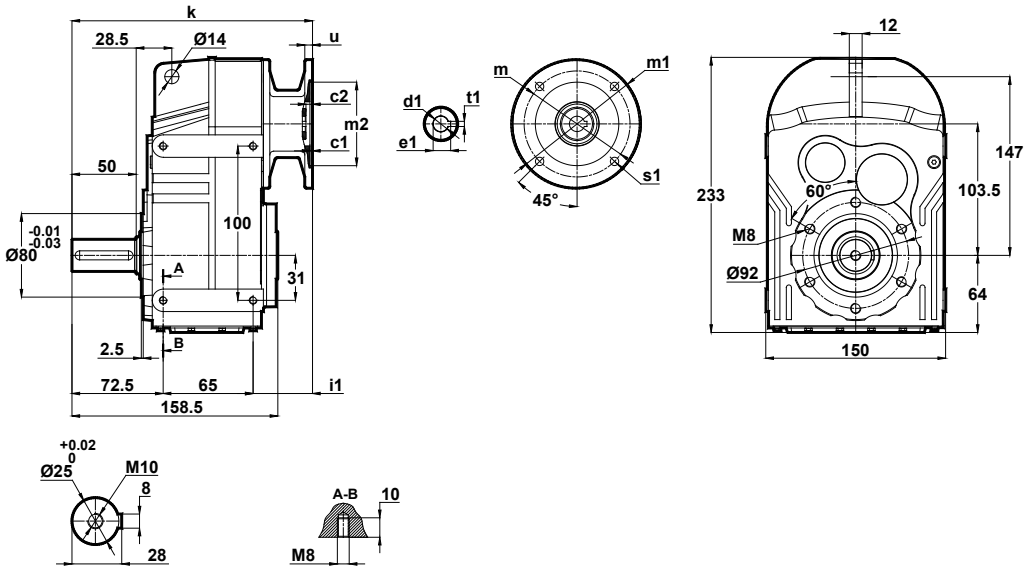
Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole according to DIN 332, sheet 2* / Zentrierung mit Gewinde nach DIN 332, Blatt 2

DN072.00
DN073.00



	c1	c2	s1	m	m1	m2(H7)	i1	u	k	d1	t1	e1
63/B5 63/B14	4 2.5	5	10 5.5	115 75	140 90	95 60	55	10	145	11	4	12.8
71/B5 71/B14	4 3	5 4.5	11 7	130 85	160 105	110 70	56	12 10	146.5	14	5	16.3
80/B5 80/B14	4	5	12 7	165 100	200 120	130 80	71	12	161.5	19	6	21.8
90/B5 90/B14	4	5	12 9	165 115	200 140	130 95	71	12	161.5	24	8	27.3
100/B5 100/B14	4	5 5.5	15 9	215 130	250 160	180 110	82	12	172.5	28	8	31.3

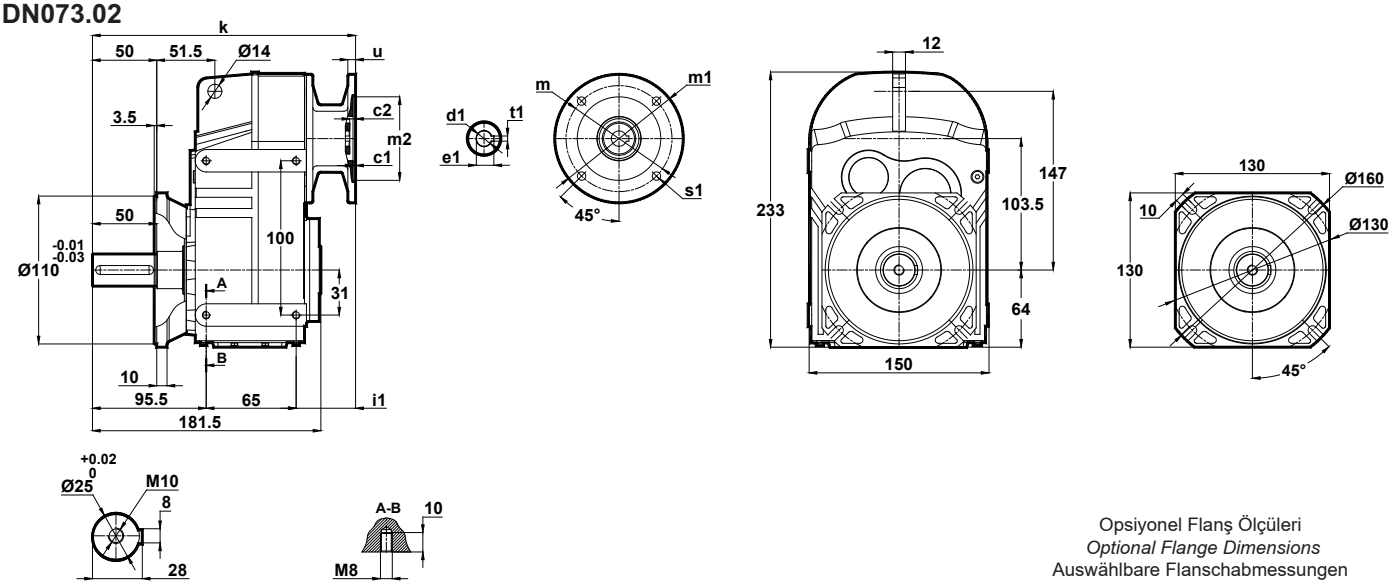
DN072.01
DN073.01



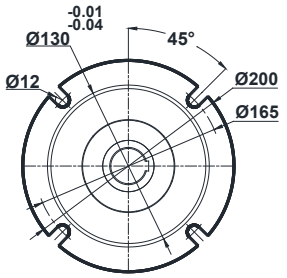
	c1	c2	s1	m	m1	m2(H7)	i1	u	k	d1	t1	e1
63/B5 63/B14	4 2.5	5	10 5.5	115 75	140 90	95 60	55	10	197	11	4	12.8
71/B5 71/B14	4 3	5 4.5	11 7	130 85	160 105	110 70	56	12 10	198.5	14	5	16.3
80/B5 80/B14	4	5	12 7	165 100	200 120	130 80	71	12	213.5	19	6	21.8
90/B5 90/B14	4	5	12 9	165 115	200 140	130 95	71	12	213.5	24	8	27.3
100/B5 100/B14	4	5 5.5	15 9	215 130	250 160	180 110	82	12	224.5	28	8	31.3

Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole according to DIN 332, sheet 2* / Zentrierung mit Gewinde nach DIN 332, Blatt 2

DN072.02
DN073.02

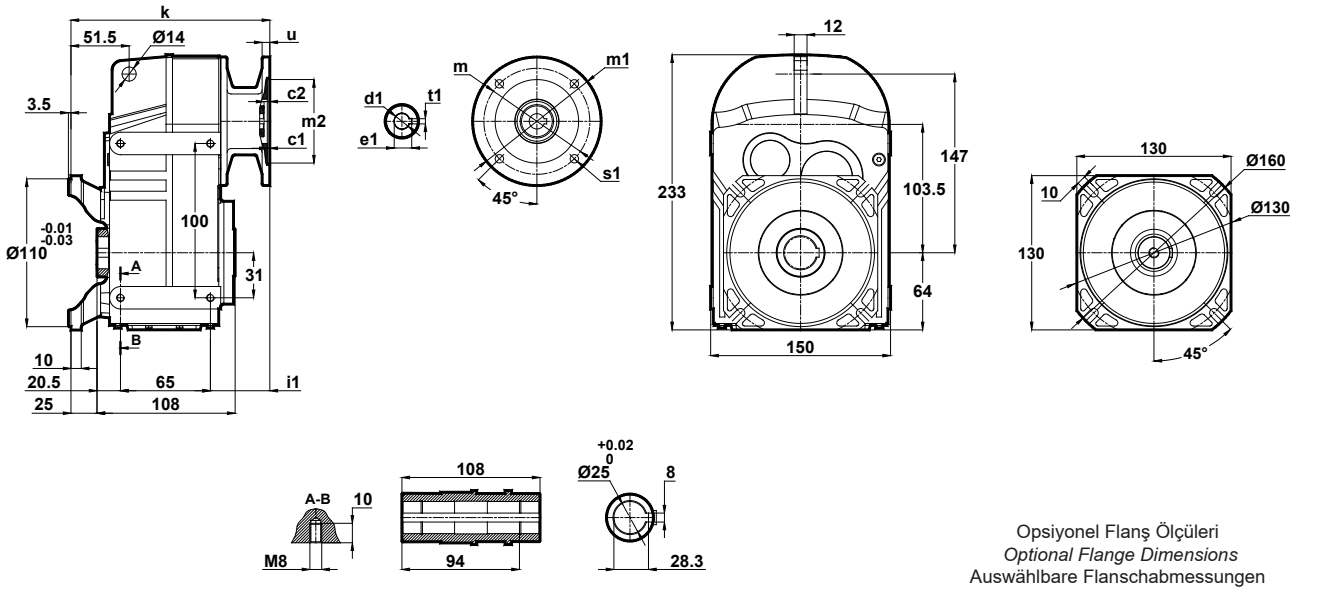


Opsiyonel Flanş Ölçüleri
Optional Flange Dimensions
Auswählbare Flanschabmessungen

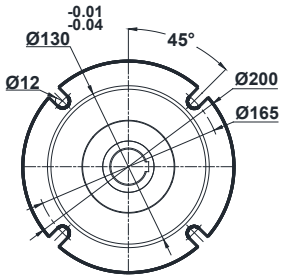


	c1	c2	s1	m	m1	m2(H7)	i1	u	k	d1	t1	e1
63/B5 63/B14	4 2.5	5	10 5.5	115 75	140 90	95 60	55	10	220	11	4	12.8
71/B5 71/B14	4 3	5 4.5	11 7	130 85	160 105	110 70	56	12 10	221.5	14	5	16.3
80/B5 80/B14	4	5	12 7	165 100	200 120	130 80	71	12	236.5	19	6	21.8
90/B5 90/B14	4	5	12 9	165 115	200 140	130 95	71	12	236.5	24	8	27.3
100/B5 100/B14	4	5 5.5	15 9	215 130	250 160	180 110	82	12	247.5	28	8	31.3

DN072.03
DN073.03



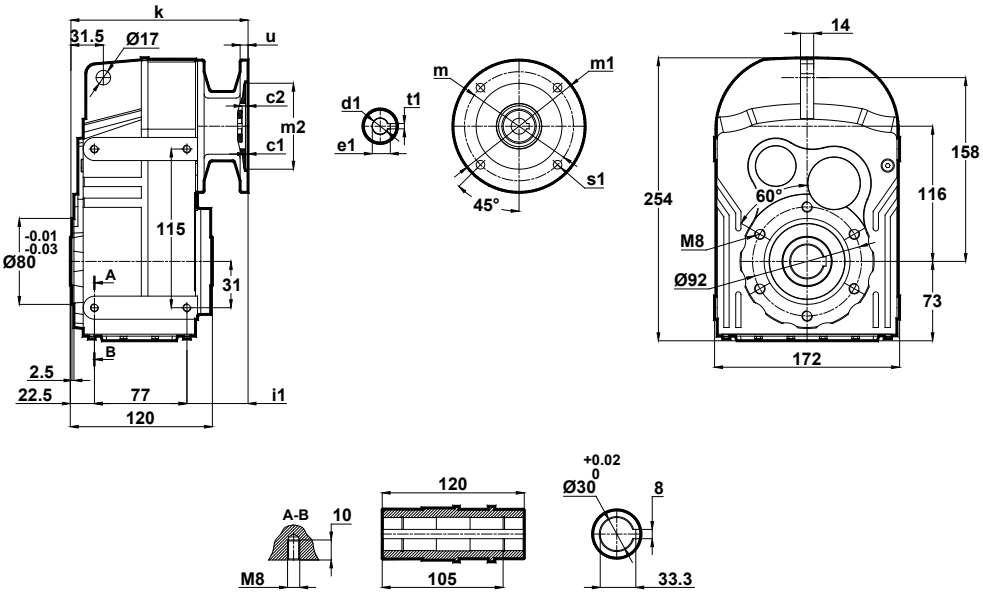
Opsiyonel Flanş Ölçüleri
Optional Flange Dimensions
Auswählbare Flanschabmessungen



	c1	c2	s1	m	m1	m2(H7)	i1	u	k	d1	t1	e1
63/B5 63/B14	4 2.5	5	10 5.5	115 75	140 90	95 60	55	10	170	11	4	12.8
71/B5 71/B14	4 3	5 4.5	11 7	130 85	160 105	110 70	56	12 10	171.5	14	5	16.3
80/B5 80/B14	4	5	12 7	165 100	200 120	130 80	71	12	186.5	19	6	21.8
90/B5 90/B14	4	5	12 9	165 115	200 140	130 95	71	12	186.5	24	8	27.3
100/B5 100/B14	4	5 5.5	15 9	215 130	250 160	180 110	82	12	197.5	28	8	31.3

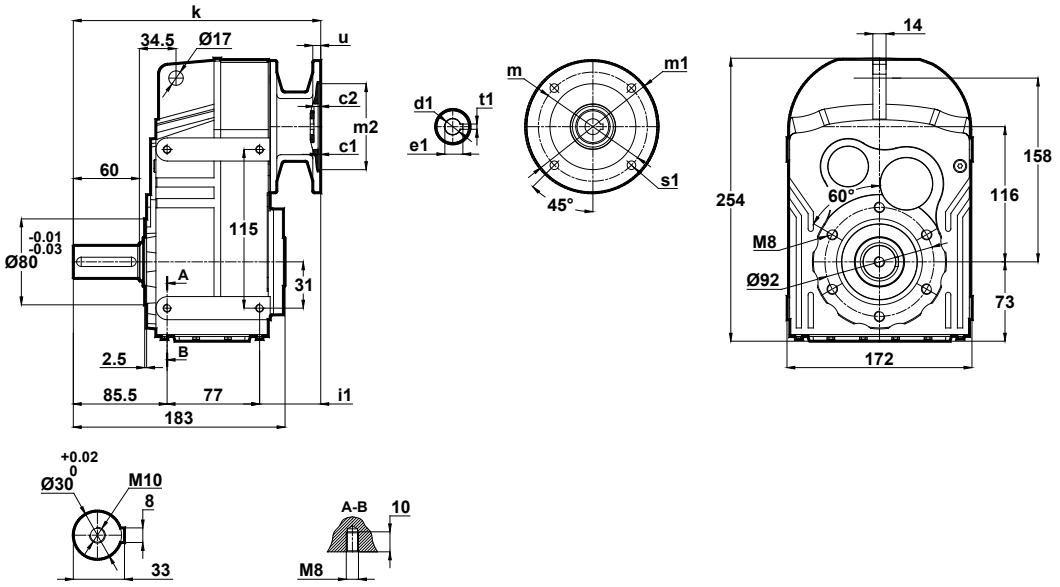
Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole according to DIN 332, sheet 2* / Zentrierung mit Gewinde nach DIN 332, Blatt 2

DN172.00
DN173.00



	c1	c2	s1	m	m1	m2(H7)	i1	u	k	d1	t1	e1
63/B5 63/B14	4 2.5	5	10 5.5	115 75	140 90	95 60	55	10	154	11	4	12.8
71/B5 71/B14	4 3	5 4.5	11 7	130 85	160 105	110 70	56	12 10	156	14	5	16.3
80/B5 80/B14	4	5	12 7	165 100	200 120	130 80	71	12	171	19	6	21.8
90/B5 90/B14	4	5	12 9	165 115	200 140	130 95	71	12	171	24	8	27.3
100/B5 100/B14	4	5 5.5	15 9	215 130	250 160	180 110	82	12	182	28	8	31.3

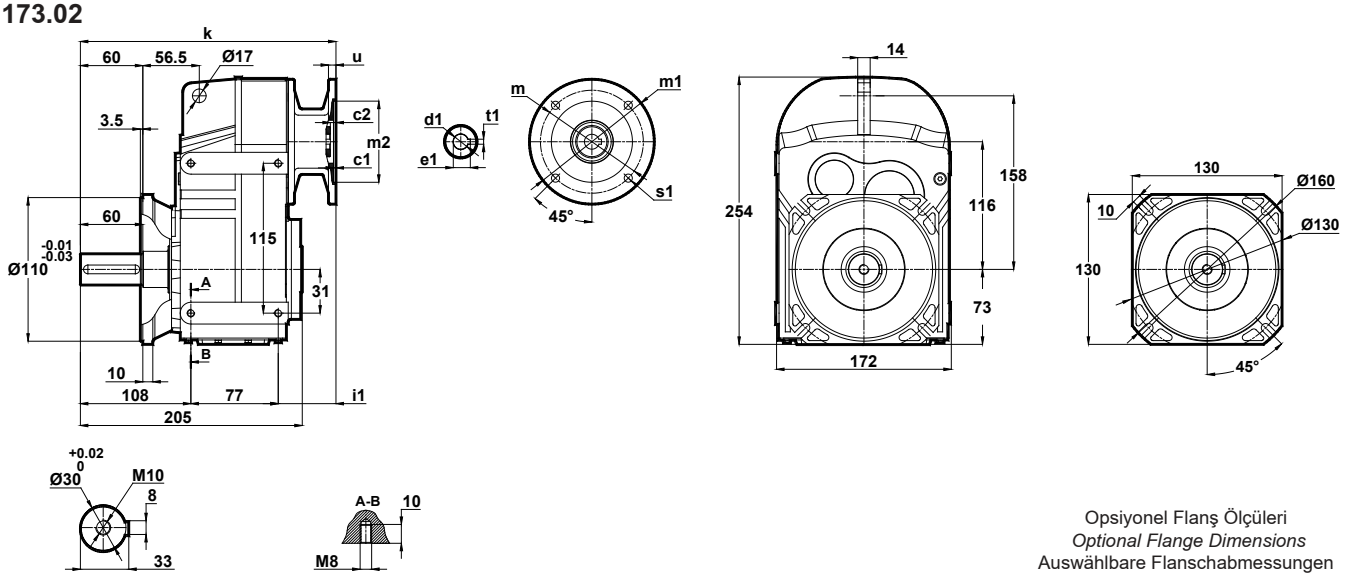
DN172.01
DN173.01



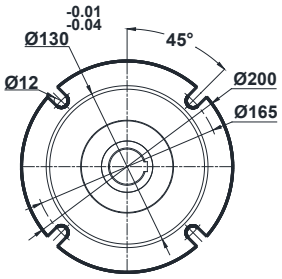
	c1	c2	s1	m	m1	m2(H7)	i1	u	k	d1	t1	e1
63/B5 63/B14	4 2.5	5	10 5.5	115 75	140 90	95 60	55	10	217	11	4	12.8
71/B5 71/B14	4 3	5 4.5	11 7	130 85	160 105	110 70	56	12 10	219	14	5	16.3
80/B5 80/B14	4	5	12 7	165 100	200 120	130 80	71	12	234	19	6	21.8
90/B5 90/B14	4	5	12 9	165 115	200 140	130 95	71	12	234	24	8	27.3
100/B5 100/B14	4	5 5.5	15 9	215 130	250 160	180 110	82	12	245	28	8	31.3

Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole according to DIN 332, sheet 2* / Zentrierung mit Gewinde nach DIN 332, Blatt 2

DN172.02
DN173.02

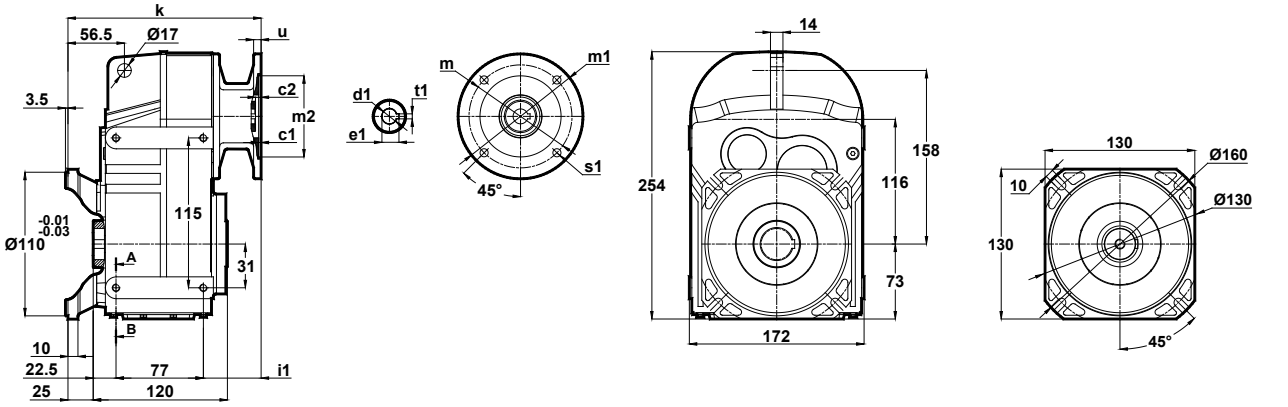


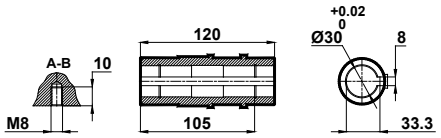
Opsiyonel Flanş Ölçüleri
Optional Flange Dimensions
Auswählbare Flanschabmessungen



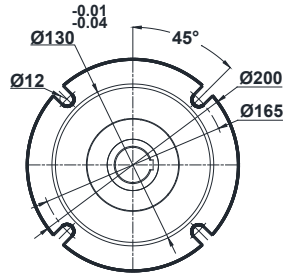
	c1	c2	s1	m	m1	m2(H7)	i1	u	k	d1	t1	e1
63/B5 63/B14	4 2.5	5	10 5.5	115 75	140 90	95 60	55	10	239	11	4	12.8
71/B5 71/B14	4 3	5 4.5	11 7	130 85	160 105	110 70	56	12 10	241	14	5	16.3
80/B5 80/B14	4	5	12 7	165 100	200 120	130 80	71	12	256	19	6	21.8
90/B5 90/B14	4	5	12 9	165 115	200 140	130 95	71	12	256	24	8	27.3
100/B5 100/B14	4	5 5.5	15 9	215 130	250 160	180 110	82	12	267	28	8	31.3

DN172.03
DN173.03





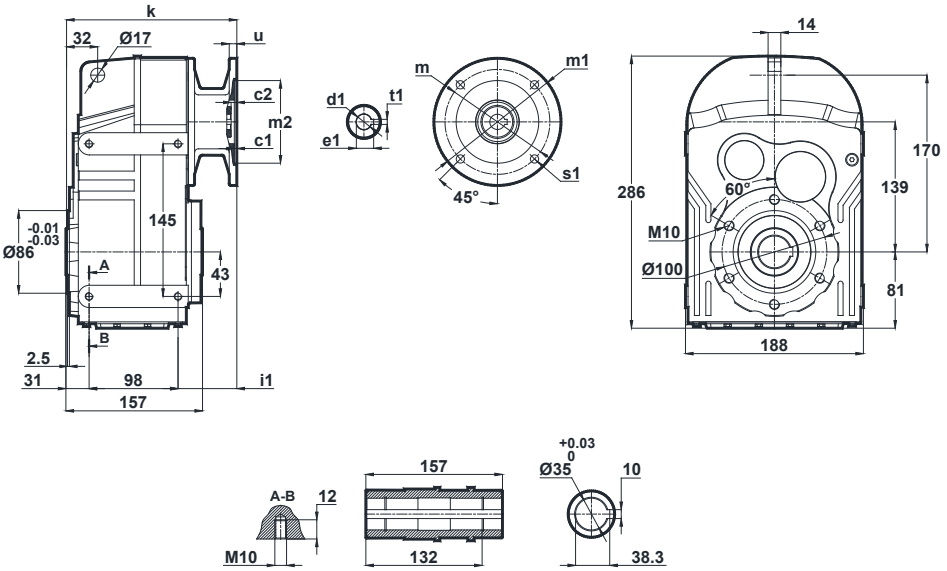
Opsiyonel Flanş Ölçüleri
Optional Flange Dimensions
Auswählbare Flanschabmessungen



	c1	c2	s1	m	m1	m2(H7)	i1	u	k	d1	t1	e1
63/B5 63/B14	4 2.5	5	10 5.5	115 75	140 90	95 60	55	10	179	11	4	12.8
71/B5 71/B14	4 3	5 4.5	11 7	130 85	160 105	110 70	56	12 10	181	14	5	16.3
80/B5 80/B14	4	5	12 7	165 100	200 120	130 80	71	12	196	19	6	21.8
90/B5 90/B14	4	5	12 9	165 115	200 140	130 95	71	12	196	24	8	27.3
100/B5 100/B14	4	5 5.5	15 9	215 130	250 160	180 110	82	12	207	28	8	31.3

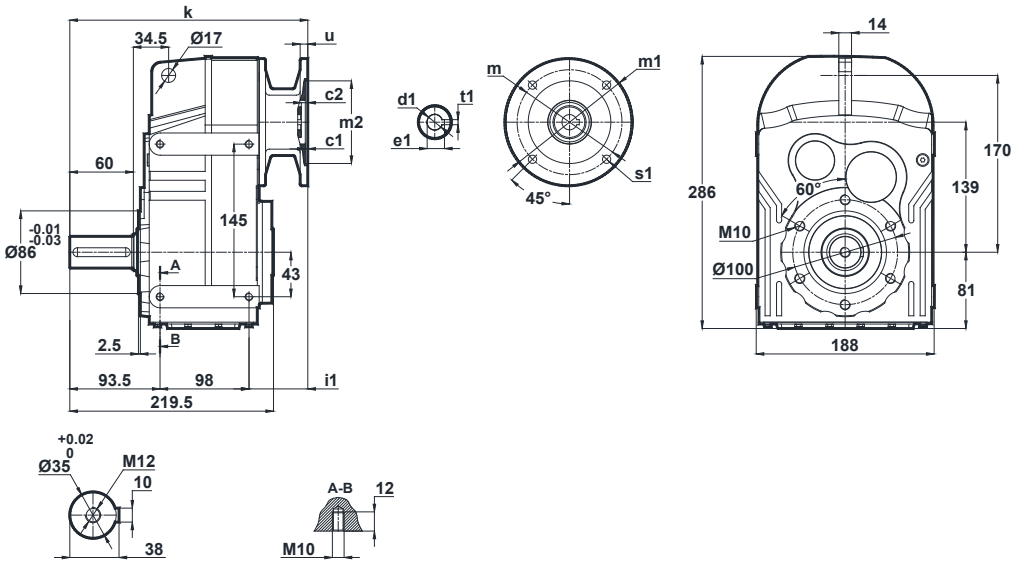
Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole according to DIN 332, sheet 2* / Zentrierung mit Gewinde nach DIN 332, Blatt 2

DN272.00
DN273.00



	c1	c2	s1	m	m1	m2(H7)	i1	u	k	d1	t1	e1
63/B5 63/B14	4 2.5	5	10 5.5	115 75	140 90	95 60	55	10	184	11	4	12.8
71/B5 71/B14	4 3	5 4.5	11 7	130 85	160 105	110 70	56	12 10	186	14	5	16.3
80/B5 80/B14	4	5	12 7	165 100	200 120	130 80	71	12	201	19	6	21.8
90/B5 90/B14	4	5	12 9	165 115	200 140	130 95	71	12	201	24	8	27.3
100/B5 100/B14	4	5 5.5	15 9	215 130	250 160	180 110	82	12	212	28	8	31.3

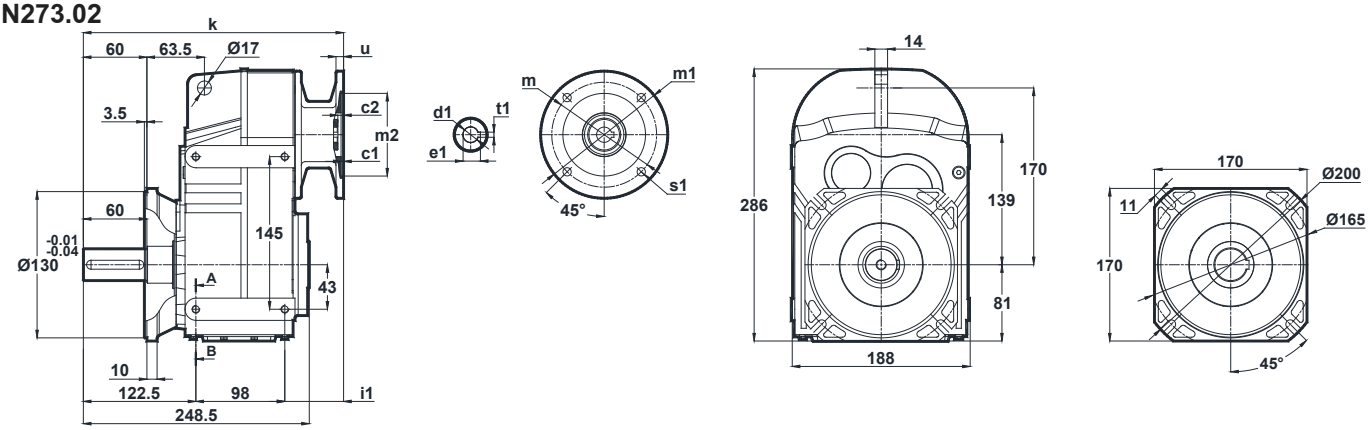
DN272.01
DN273.01



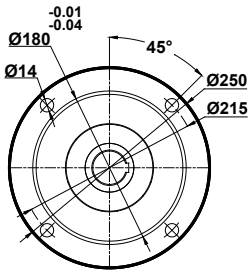
	c1	c2	s1	m	m1	m2(H7)	i1	u	k	d1	t1	e1
63/B5 63/B14	4 2.5	5	10 5.5	115 75	140 90	95 60	55	10	246	11	4	12.8
71/B5 71/B14	4 3	5 4.5	11 7	130 85	160 105	110 70	56	12 10	248	14	5	16.3
80/B5 80/B14	4	5	12 7	165 100	200 120	130 80	71	12	263	19	6	21.8
90/B5 90/B14	4	5	12 9	165 115	200 140	130 95	71	12	263	24	8	27.3
100/B5 100/B14	4	5 5.5	15 9	215 130	250 160	180 110	82	12	273	28	8	31.3

Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole according to DIN 332, sheet 2* / Zentrierung mit Gewinde nach DIN 332, Blatt 2

DN272.02
DN273.02

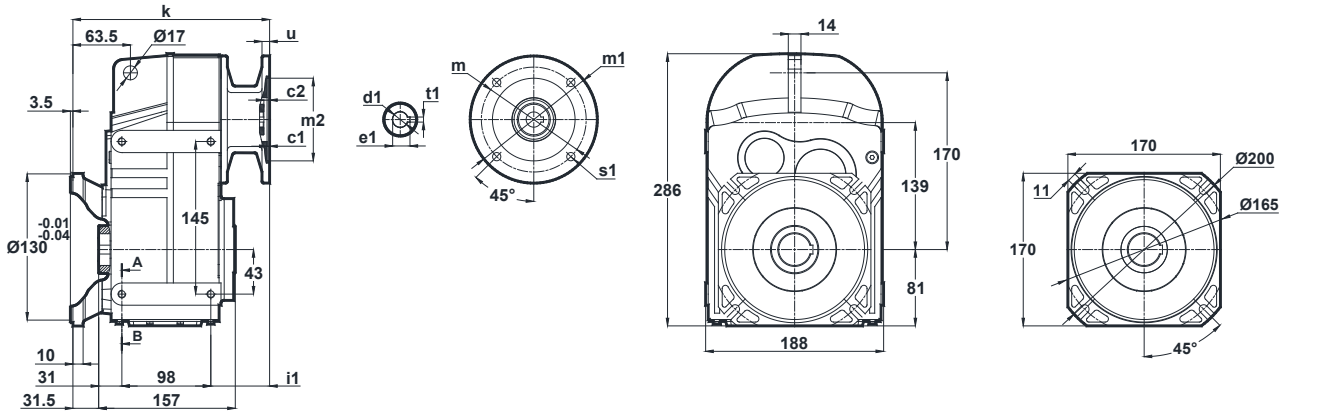


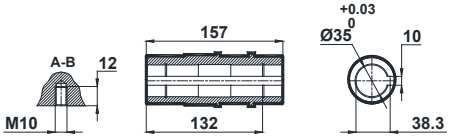
Opsiyonel Flanş Ölçüleri
Optional Flange Dimensions
Auswählbare Flanschabmessungen



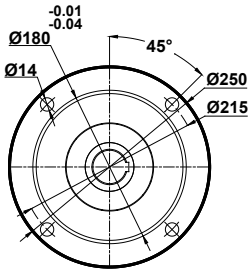
	c1	c2	s1	m	m1	m2(H7)	i1	u	k	d1	t1	e1
63/B5 63/B14	4 2.5	5	10 5.5	115 75	140 90	95 60	55	10	275	11	4	12.8
71/B5 71/B14	4 3	5 4.5	11 7	130 85	160 105	110 70	56	12 10	277	14	5	16.3
80/B5 80/B14	4	5	12 7	165 100	200 120	130 80	71	12	292	19	6	21.8
90/B5 90/B14	4	5	12 9	165 115	200 140	130 95	71	12	292	24	8	27.3
100/B5 100/B14	4	5 5.5	15 9	215 130	250 160	180 110	82	12	303	28	8	31.3

DN272.03
DN273.03





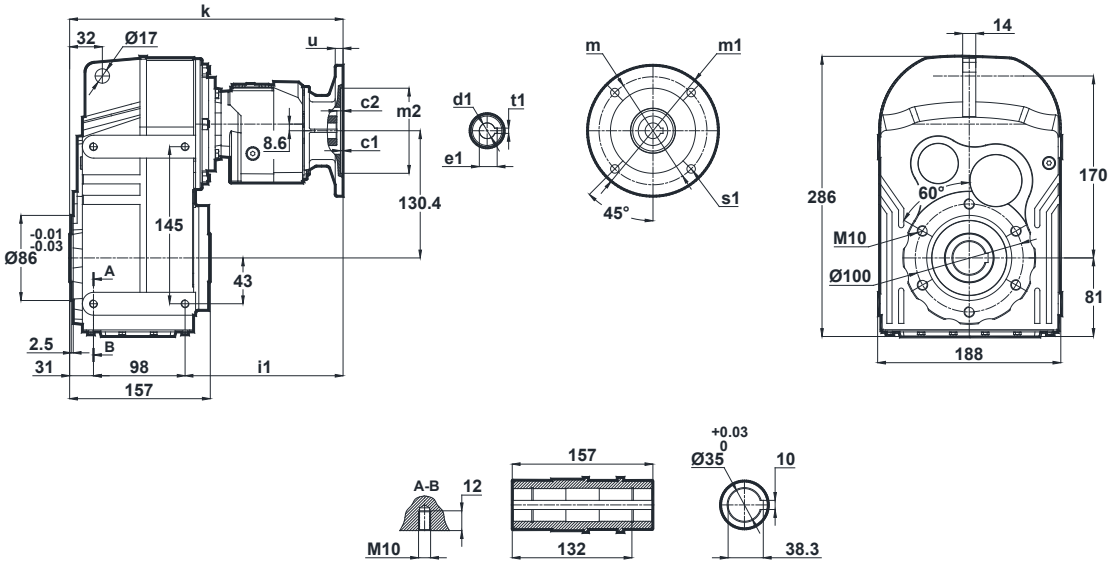
Opsiyonel Flanş Ölçüleri
Optional Flange Dimensions
Auswählbare Flanschabmessungen



	c1	c2	s1	m	m1	m2(H7)	i1	u	k	d1	t1	e1
63/B5 63/B14	4 2.5	5	10 5.5	115 75	140 90	95 60	55	10	215	11	4	12.8
71/B5 71/B14	4 3	5 4.5	11 7	130 85	160 105	110 70	56	12 10	217	14	5	16.3
80/B5 80/B14	4	5	12 7	165 100	200 120	130 80	71	12	232	19	6	21.8
90/B5 90/B14	4	5	12 9	165 115	200 140	130 95	71	12	232	24	8	27.3
100/B5 100/B14	4	5 5.5	15 9	215 130	250 160	180 110	82	12	243	28	8	31.3

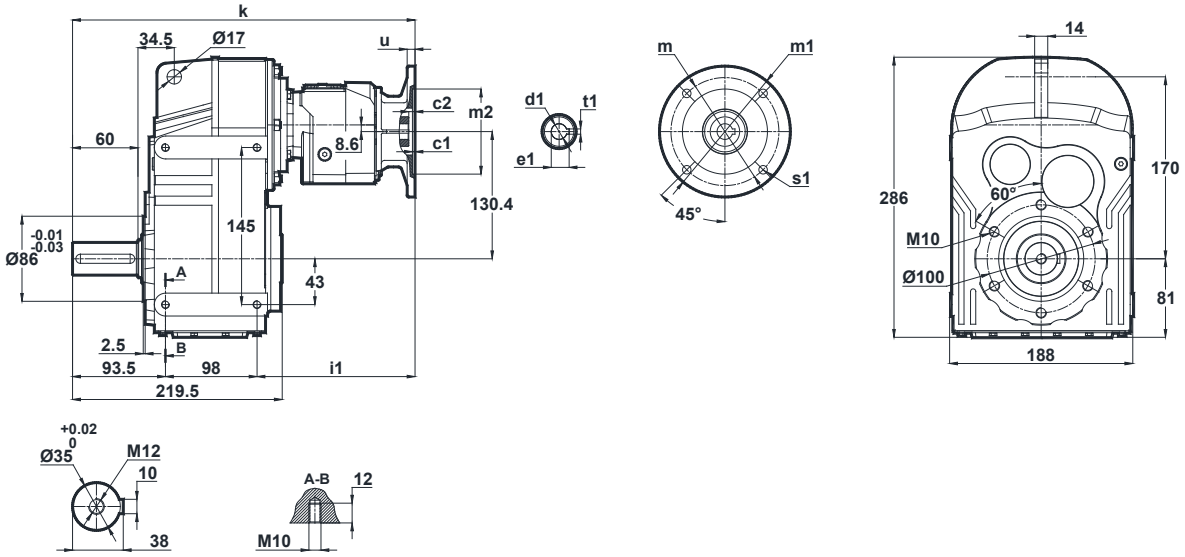
Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole according to DIN 332, sheet 2* / Zentrierung mit Gewinde nach DIN 332, Blatt 2

DN275.00
DN276.00



	c1	c2	s1	m	m1	m2(H7)	i1	u	k	d1	t1	e1
63/B5 63/B14	4 2.5	5	10 5.5	115 75	140 90	95 60	55	10	333	11	4	12.8
71/B5 71/B14	4 3	5 4.5	11 7	130 85	160 105	110 70	56	12 10	335	14	5	16.3

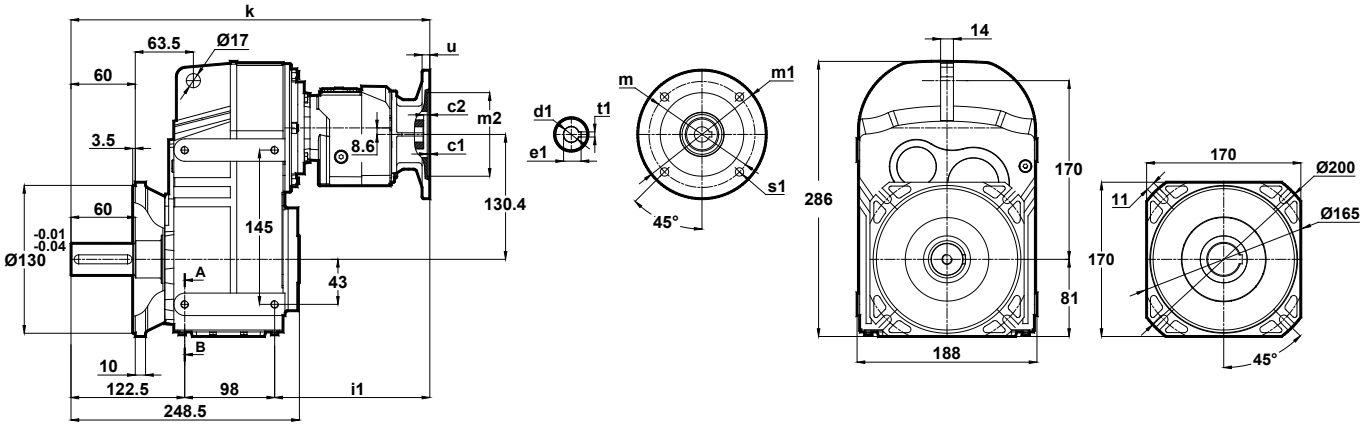
DN275.01
DN276.01

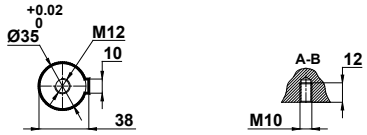


	c1	c2	s1	m	m1	m2(H7)	i1	u	k	d1	t1	e1
63/B5 63/B14	4 2.5	5	10 5.5	115 75	140 90	95 60	55	10	395	11	4	12.8
71/B5 71/B14	4 3	5 4.5	11 7	130 85	160 105	110 70	56	12 10	397	14	5	16.3

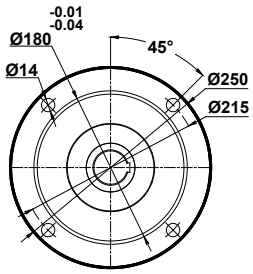
Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole according to DIN 332, sheet 2* / Zentrierung mit Gewinde nach DIN 332, Blatt 2

DN275.02
DN276.02



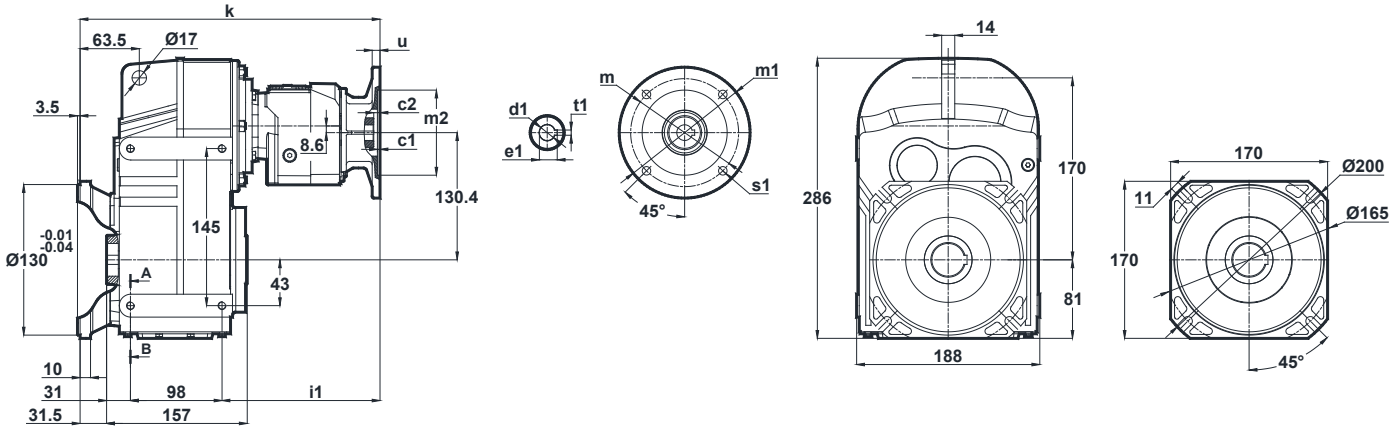


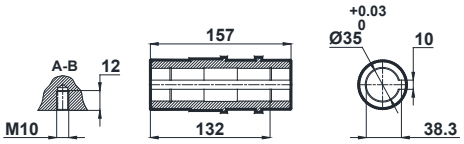
Opsiyonel Flanş Ölçüleri
Optional Flange Dimensions
Auswählbare Flanschabmessungen



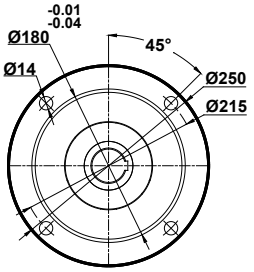
	c1	c2	s1	m	m1	m2(H7)	i1	u	k	d1	t1	e1
63/B5 63/B14	4 2.5	5	10 5.5	115 75	140 90	95 60	55	10	424	11	4	12.8
71/B5 71/B14	4 3	5 4.5	11 7	130 85	160 105	110 70	56	12 10	426	14	5	16.3

DN275.03
DN276.03





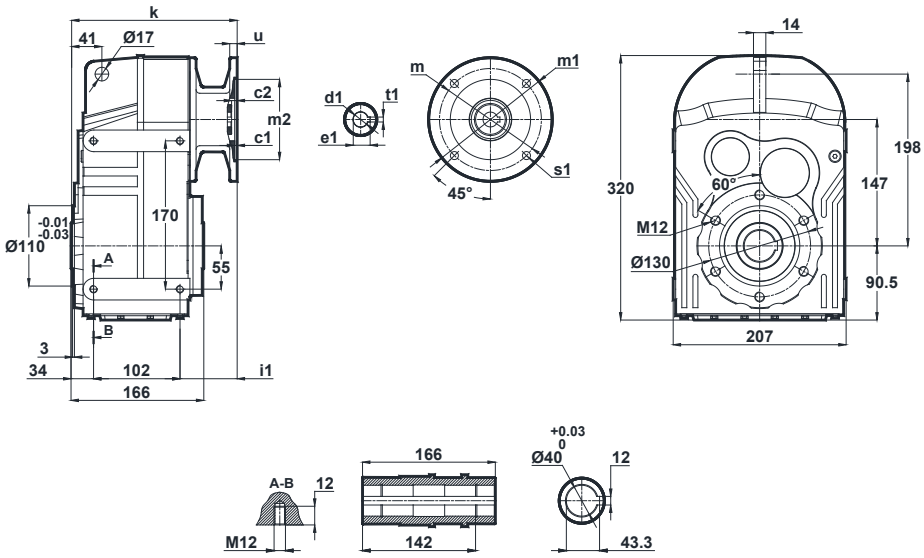
Opsiyonel Flanş Ölçüleri
Optional Flange Dimensions
Auswählbare Flanschabmessungen



	c1	c2	s1	m	m1	m2(H7)	i1	u	k	d1	t1	e1
63/B5 63/B14	4 2.5	5	10 5.5	115 75	140 90	95 60	55	10	364	11	4	12.8
71/B5 71/B14	4 3	5 4.5	11 7	130 85	160 105	110 70	56	12 10	366	14	5	16.3

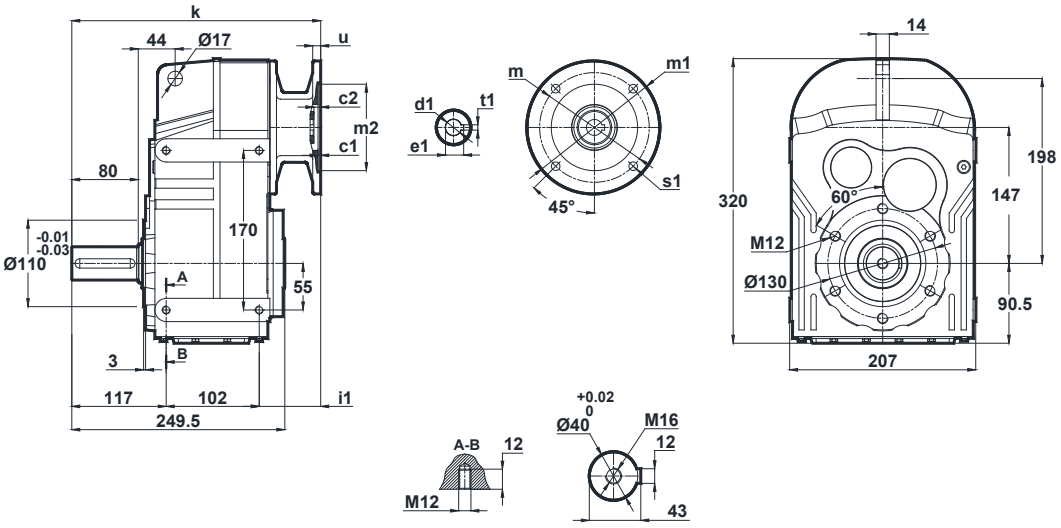
Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole according to DIN 332, sheet 2* / Zentrierung mit Gewinde nach DIN 332, Blatt 2

DN282.00
DN283.00



	c1	c2	s1	m	m1	m2(H7)	i1	u	k	d1	t1	e1
63/B5	4	8	9	115	140	95	87	12	223	11	4	12.8
71/B5 71/B14	4 3	9 8.5	11 7	130 85	160 105	110 70	58	12 10	194	14	5	16.3
80/B5 80/B14	4	5	12 7	165 100	200 120	130 80	87	12	223	19	6	21.8
90/B5 90/B14	4	5	12 9	165 115	200 140	130 95	87	12	223	24	8	27.3
100/B5 100/B14	4	6 5.5	15 9	215 130	250 160	180 110	80	12	216	28	8	31.3
112/B5 112/B14	4	6 5.5	15 9	215 130	250 160	180 110	80	12	216	28	8	31.3
132/B5 132/B14	4.5	7 9	15 11	265 165	300 200	230 130	127	15	259	38	10	41.3

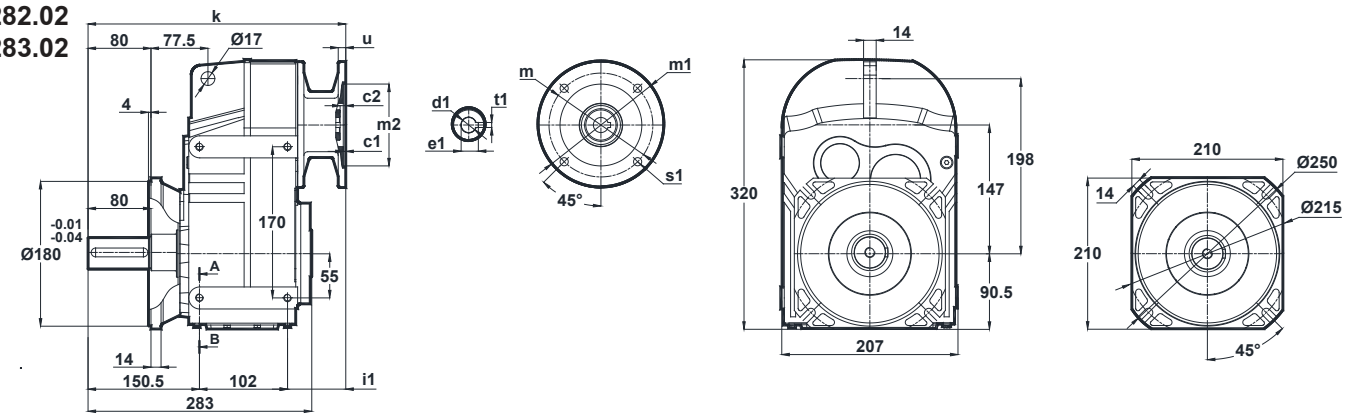
DN282.01
DN283.01



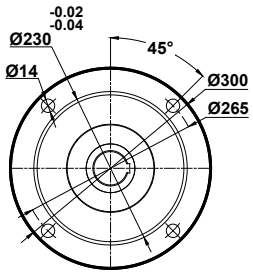
	c1	c2	s1	m	m1	m2(H7)	i1	u	k	d1	t1	e1
63/B5	4	8	9	115	140	95	87	12	307	11	4	12.8
71/B5 71/B14	4 3	9 8.5	11 7	130 85	160 105	110 70	58	12 10	278	14	5	16.3
80/B5 80/B14	4	5	12 7	165 100	200 120	130 80	87	12	307	19	6	21.8
90/B5 90/B14	4	5	12 9	165 115	200 140	130 95	87	12	307	24	8	27.3
100/B5 100/B14	4	6 5.5	15 9	215 130	250 160	180 110	80	12	300	28	8	31.3
112/B5 112/B14	4	6 5.5	15 9	215 130	250 160	180 110	80	12	300	28	8	31.3
132/B5 132/B14	4.5	7 9	15 11	265 165	300 200	230 130	127	15	343	38	10	41.3

Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole according to DIN 332, sheet 2* / Zentrierung mit Gewinde nach DIN 332, Blatt 2

DN282.02
DN283.02



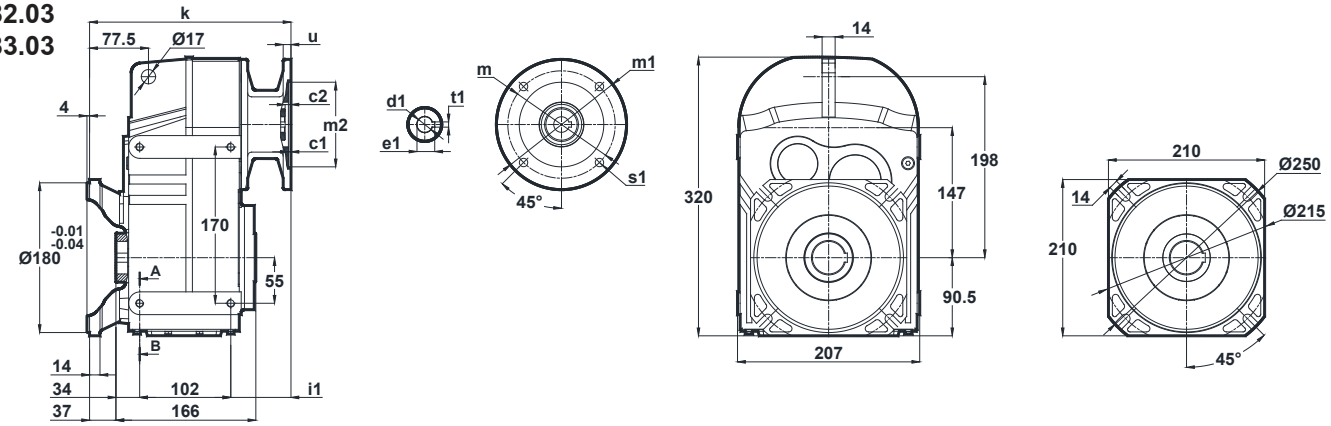
Opsiyonel Flanş Ölçüleri
Optional Flange Dimensions
Auswählbare Flanschabmessungen

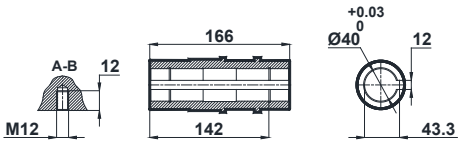


	c1	c2	s1	m	m1	m2(H7)	i1	u	k	d1	t1	e1
63/B5	4	8	9	115	140	95	87	12	340	11	4	12.8
71/B5 71/B14	4 3	9 8.5	11 7	130 85	160 105	110 70	58	12 10	311	14	5	16.3
80/B5 80/B14	4	5	12 7	165 100	200 120	130 80	87	12	340	19	6	21.8
90/B5 90/B14	4	5	12 9	165 115	200 140	130 95	87	12	340	24	8	27.3
100/B5 100/B14	4	6 5.5	15 9	215 130	250 160	180 110	80	12	333	28	8	31.3
112/B5 112/B14	4	6 5.5	15 9	215 130	250 160	180 110	80	12	333	28	8	31.3
132/B5 132/B14	4.5	7 9	15 11	265 165	300 200	230 130	127	15	376	38	10	41.3

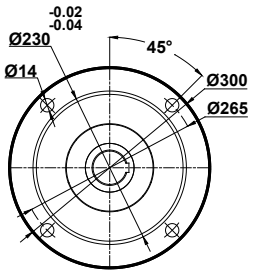
Diğer opsiyonel flanş ölçüleri için sayfa 326'ya bakınız.
Please see on page 326 for other optional flange dimensions
Siehe Siete 326 für andere auswählbare Flanschabmessungen

DN282.03
DN283.03





Opsiyonel Flanş Ölçüleri
Optional Flange Dimensions
Auswählbare Flanschabmessungen

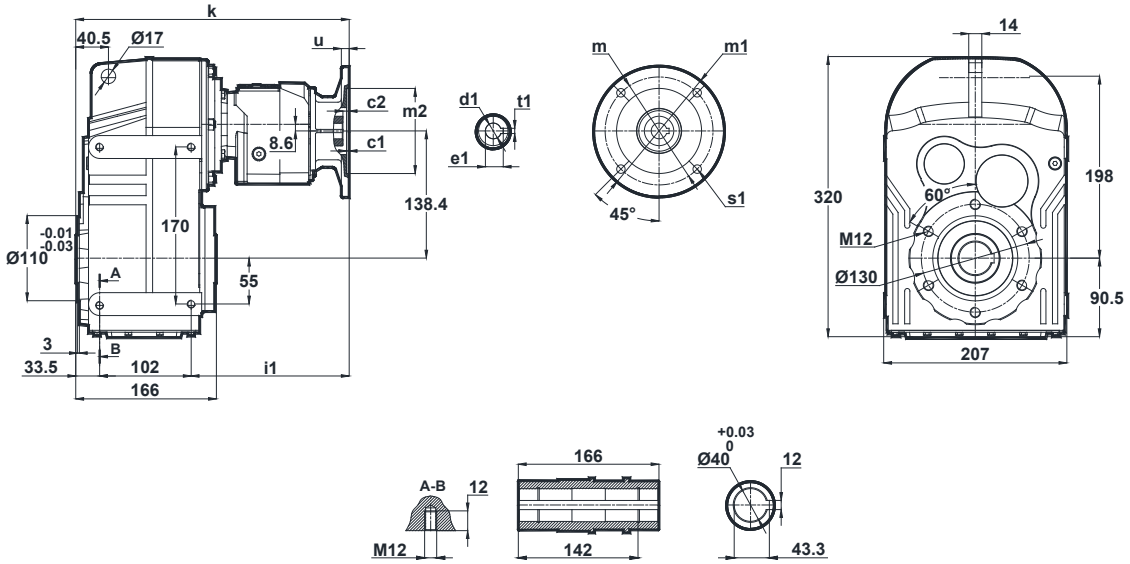


	c1	c2	s1	m	m1	m2(H7)	i1	u	k	d1	t1	e1
63/B5	4	8	9	115	140	95	87	12	260	11	4	12.8
71/B5 71/B14	4 3	9 8.5	11 7	130 85	160 105	110 70	58	12 10	231	14	5	16.3
80/B5 80/B14	4	5	12 7	165 100	200 120	130 80	87	12	260	19	6	21.8
90/B5 90/B14	4	5	12 9	165 115	200 140	130 95	87	12	260	24	8	27.3
100/B5 100/B14	4	6 5.5	15 9	215 130	250 160	180 110	80	12	253	28	8	31.3
112/B5 112/B14	4	6 5.5	15 9	215 130	250 160	180 110	80	12	253	28	8	31.3
132/B5 132/B14	4.5	7 9	15 11	265 165	300 200	230 130	127	15	296	38	10	41.3

Diğer opsiyonel flanş ölçüleri için sayfa 326'ya bakınız.
Please see on page 326 for other optional flange dimensions
Siehe Siete 326 für andere auswählbare Flanschabmessungen

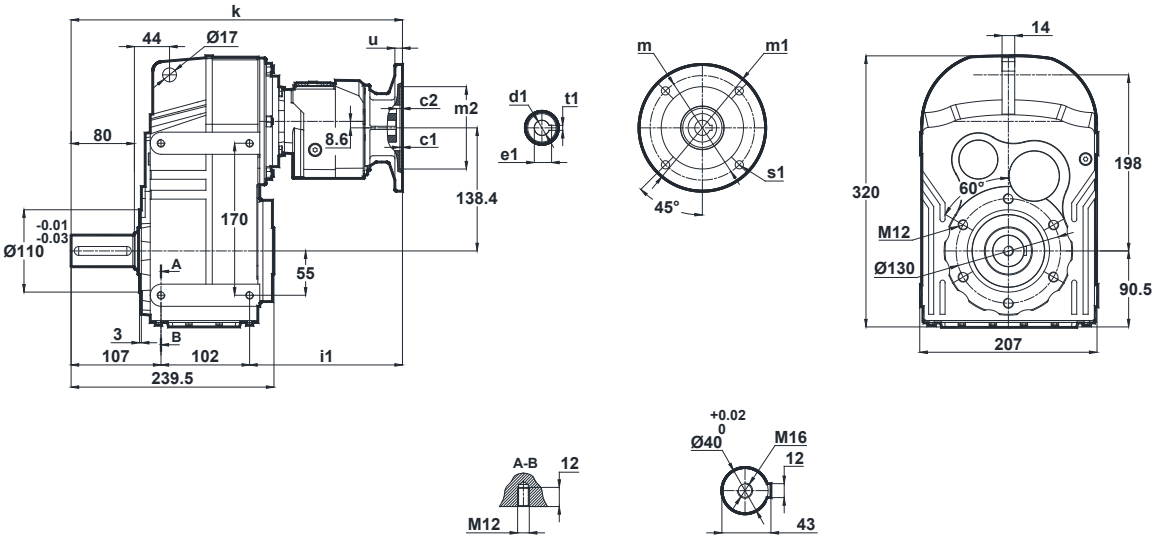
Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole according to DIN 332, sheet 2* / Zentrierung mit Gewinde nach DIN 332, Blatt 2

DN285.00
DN286.00



	c1	c2	s1	m	m1	m2(H7)	i1	u	k	d1	t1	e1
63/B5 63/B14	4 2.5	5	10 5.5	115 75	140 90	95 60	203	10	338	11	4	12.8
71/B5 71/B14	4 3	5 4.5	11 7	130 85	160 105	110 70	204	12 10	340	14	5	16.3

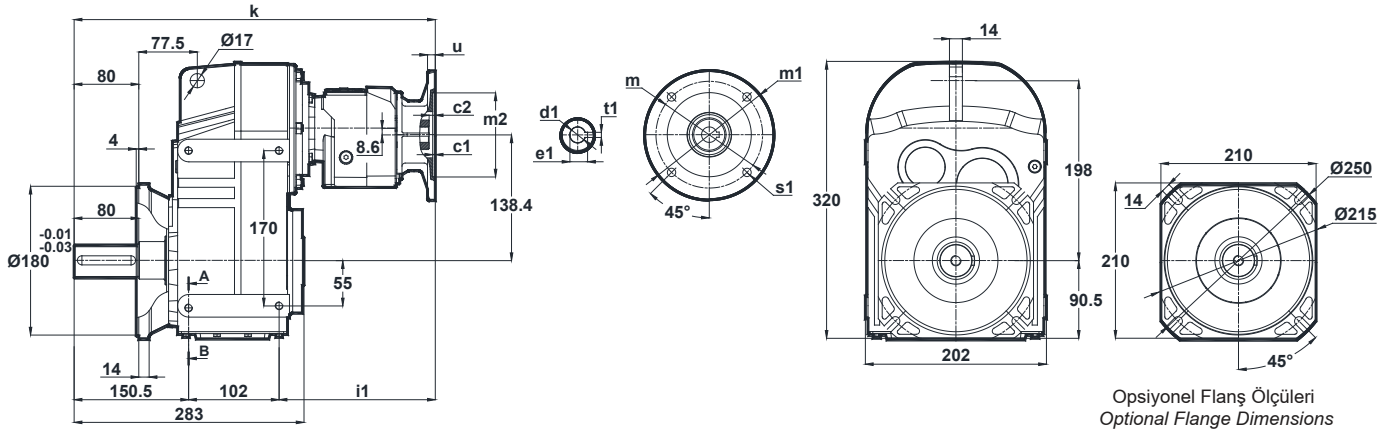
DN285.01
DN286.01



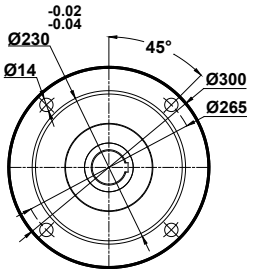
	c1	c2	s1	m	m1	m2(H7)	i1	u	k	d1	t1	e1
63/B5 63/B14	4 2.5	5	10 5.5	115 75	140 90	95 60	203	10	422	11	4	12.8
71/B5 71/B14	4 3	5 4.5	11 7	130 85	160 105	110 70	204	12 10	424	14	5	16.3

Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole according to DIN 332, sheet 2* / Zentrierung mit Gewinde nach DIN 332, Blatt 2

DN285.02
DN286.02



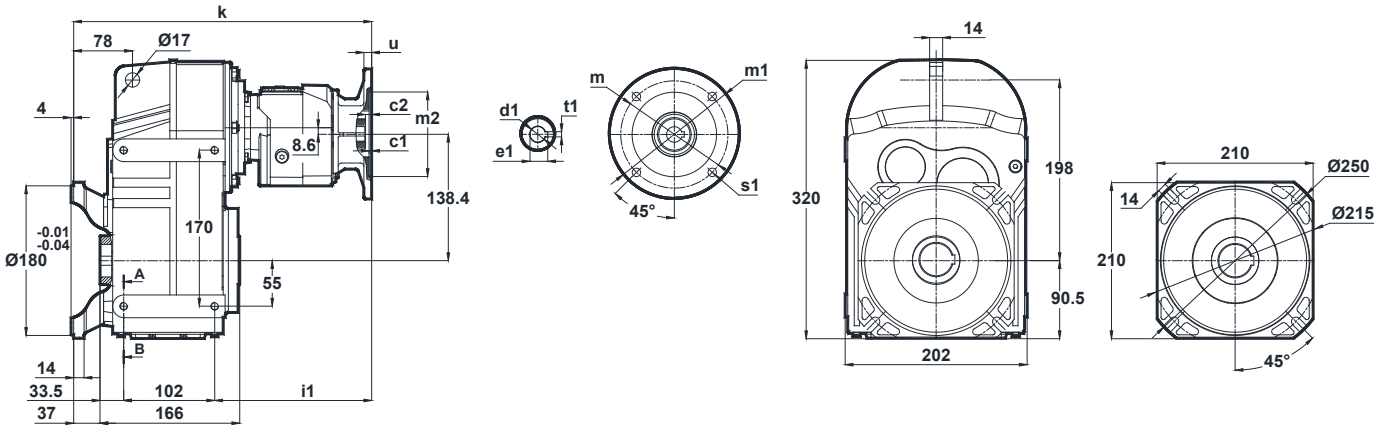
Opsiyonel Flanş Ölçüleri
Optional Flange Dimensions
Auswählbare Flanschabmessungen

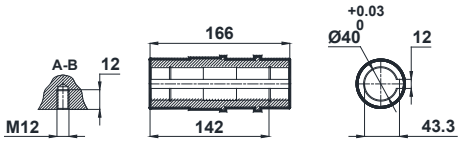


	c1	c2	s1	m	m1	m2(H7)	i1	u	k	d1	t1	e1
63/B5 63/B14	4 2.5	5	10 5.5	115 75	140 90	95 60	203	10	455	11	4	12.8
71/B5 71/B14	4 3	5 4.5	11 7	130 85	160 105	110 70	204	12 10	457	14	5	16.3

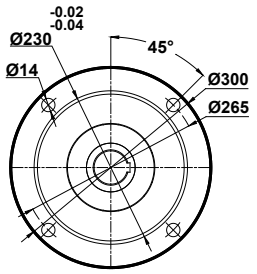
Diğer opsiyonel flanş ölçüleri için sayfa 326'ya bakınız.
Please see on page 326 for other optional flange dimensions
Siehe Siete 326 für andere auswählbare Flanschabmessungen

DN285.03
DN286.03





Opsiyonel Flanş Ölçüleri
Optional Flange Dimensions
Auswählbare Flanschabmessungen

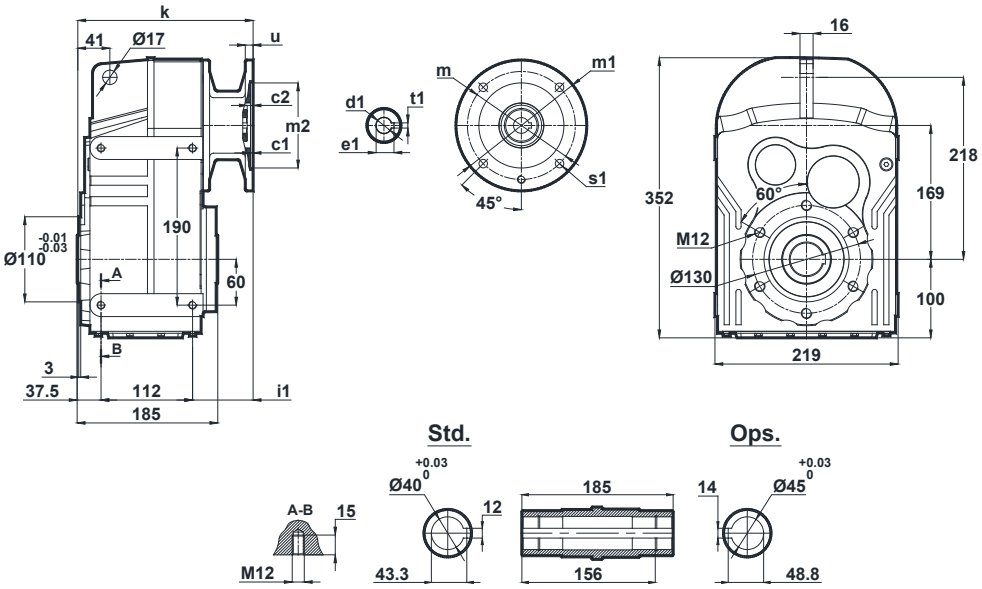


	c1	c2	s1	m	m1	m2(H7)	i1	u	k	d1	t1	e1
63/B5 63/B14	4 2.5	5	10 5.5	115 75	140 90	95 60	203	10	375	11	4	12.8
71/B5 71/B14	4 3	5 4.5	11 7	130 85	160 105	110 70	204	12 10	377	14	5	16.3

Diğer opsiyonel flanş ölçüleri için sayfa 326'ya bakınız.
Please see on page 326 for other optional flange dimensions
Siehe Siete 326 für andere auswählbare Flanschabmessungen

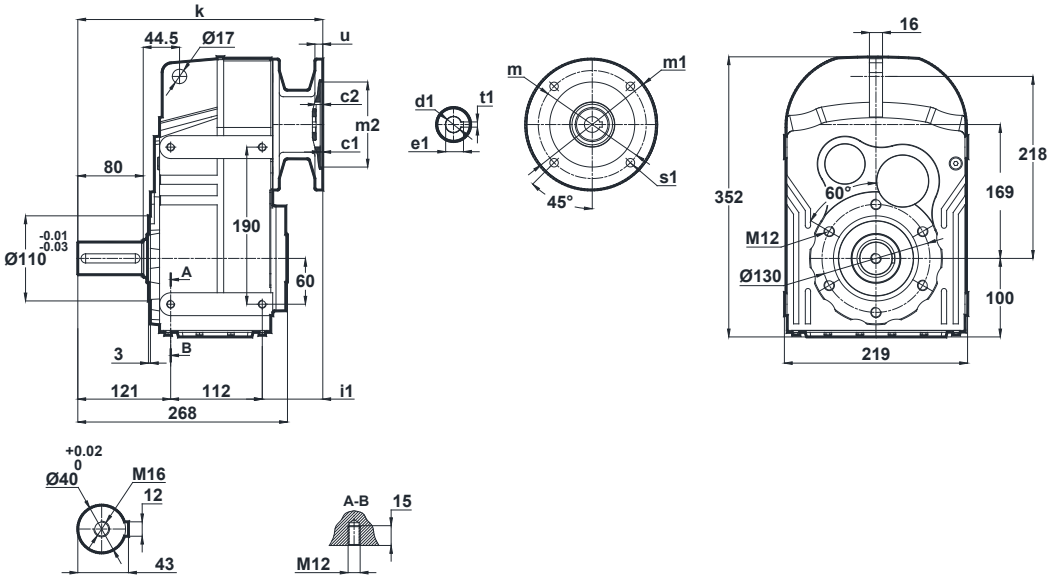
Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole according to DIN 332, sheet 2* / Zentrierung mit Gewinde nach DIN 332, Blatt 2

DN372.00
DN373.00



	c1	c2	s1	m	m1	m2(H7)	i1	u	k	d1	t1	e1
71/B5 71/B14	4 3	9 8.5	11 7	130 85	160 105	110 70	84	12 10	205	14	5	16.3
80/B5 80/B14	4	5	12 7	165 100	200 120	130 80	84	12	234	19	6	21.8
90/B5 90/B14	4	5	12 9	165 115	200 140	130 95	84	12	234	24	8	27.3
100/B5 100/B14	4	6 5.5	15 9	215 130	250 160	180 110	77	12	227	28	8	31.3
112/B5 112/B14	4	6 5.5	15 9	215 130	250 160	180 110	77	12	227	28	8	31.3
132/B5 132/B14	4.5	7 9	15 11	265 165	300 200	230 130	124	15	270	38	10	41.3

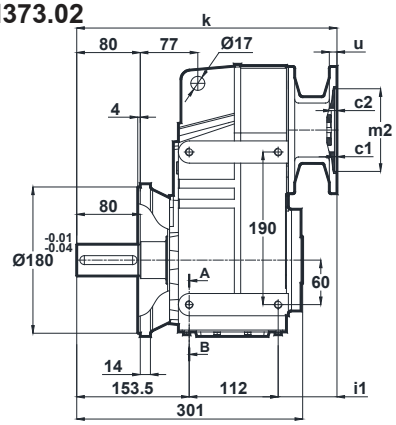
DN372.01
DN373.01

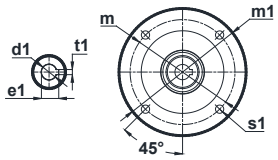


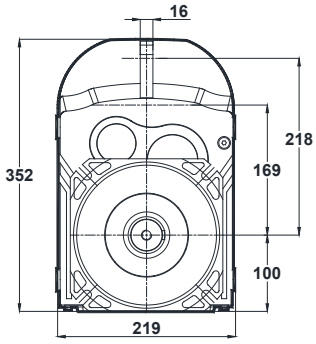
	c1	c2	s1	m	m1	m2(H7)	i1	u	k	d1	t1	e1
71/B5 71/B14	4 3	9 8.5	11 7	130 85	160 105	110 70	84	12 10	288	14	5	16.3
80/B5 80/B14	4	5	12 7	165 100	200 120	130 80	84	12	317	19	6	21.8
90/B5 90/B14	4	5	12 9	165 115	200 140	130 95	84	12	317	24	8	27.3
100/B5 100/B14	4	6 5.5	15 9	215 130	250 160	180 110	77	12	310	28	8	31.3
112/B5 112/B14	4	6 5.5	15 9	215 130	250 160	180 110	77	12	310	28	8	31.3
132/B5 132/B14	4.5	7 9	15 11	265 165	300 200	230 130	124	15	353	38	10	41.3

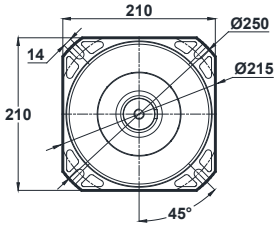
Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole according to DIN 332, sheet 2* / Zentrierung mit Gewinde nach DIN 332, Blatt 2

DN372.02
DN373.02

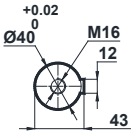


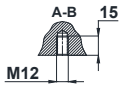


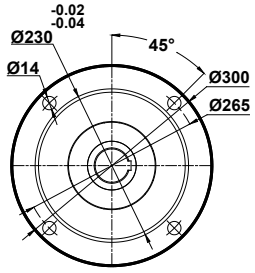




Opsiyonel Flanş Ölçüleri
Optional Flange Dimensions
Auswählbare Flanschabmessungen



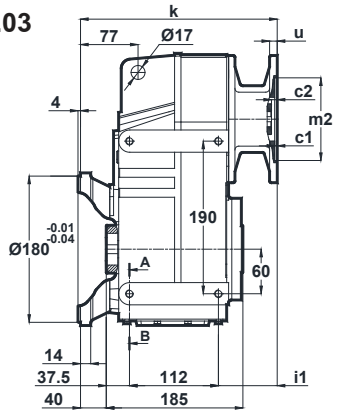


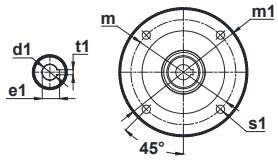


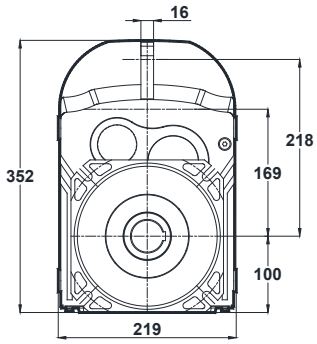
	c1	c2	s1	m	m1	m2(H7)	i1	u	k	d1	t1	e1
71/B5 71/B14	4 3	9 8.5	11 7	130 85	160 105	110 70	84	12 10	311	14	5	16.3
80/B5 80/B14	4	5	12 7	165 100	200 120	130 80	84	12	340	19	6	21.8
90/B5 90/B14	4	5	12 9	165 115	200 140	130 95	84	12	340	24	8	27.3
100/B5 100/B14	4	6 5.5	15 9	215 130	250 160	180 110	77	12	333	28	8	31.3
112/B5 112/B14	4	6 5.5	15 9	215 130	250 160	180 110	77	12	333	28	8	31.3
132/B5	4.5	7	15	265	300	230	124	15	376	38	10	41.3

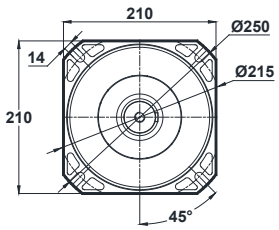
Diğer opsiyonel flanş ölçüleri için sayfa 326'ya bakınız.
Please see on page 326 for other optional flange dimensions
Siehe Siete 326 für andere auswählbare Flanschabmessungen

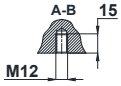
DN372.03
DN373.03



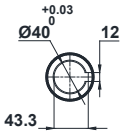


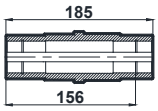




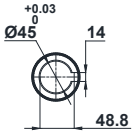


Std.

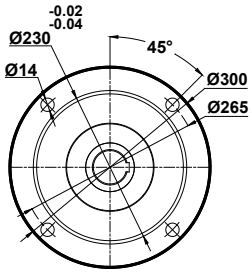




Ops.



Opsiyonel Flanş Ölçüleri
Optional Flange Dimensions
Auswählbare Flanschabmessungen

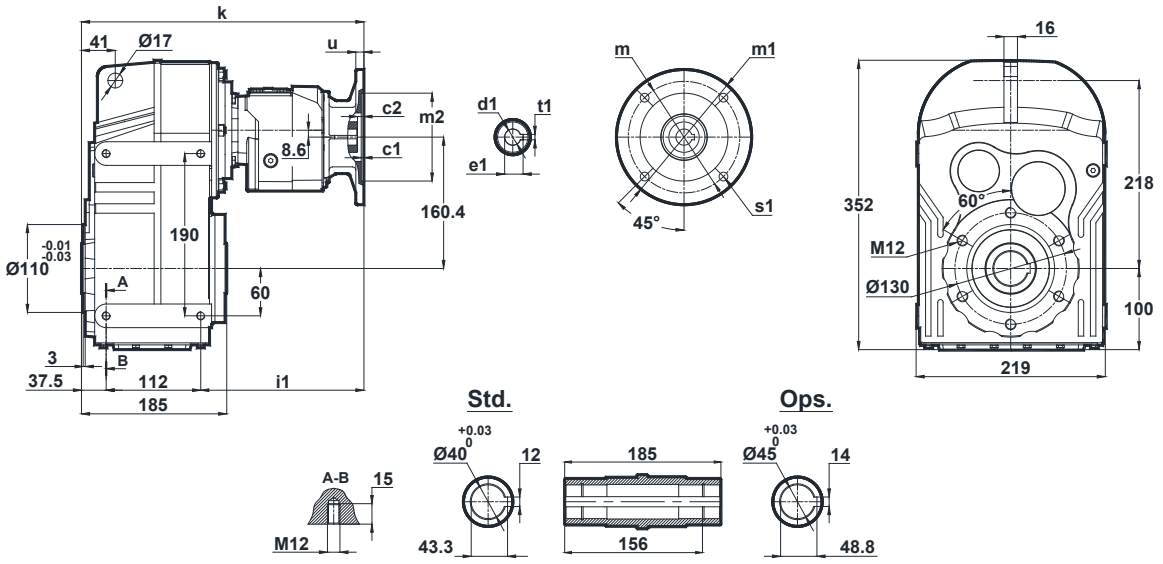


	c1	c2	s1	m	m1	m2(H7)	i1	u	k	d1	t1	e1
71/B5 71/B14	4 3	9 8.5	11 7	130 85	160 105	110 70	84	12 10	231	14	5	16.3
80/B5 80/B14	4	5	12 7	165 100	200 120	130 80	84	12	260	19	6	21.8
90/B5 90/B14	4	5	12 9	165 115	200 140	130 95	84	12	260	24	8	27.3
100/B5 100/B14	4	6 5.5	15 9	215 130	250 160	180 110	77	12	253	28	8	31.3
112/B5 112/B14	4	6 5.5	15 9	215 130	250 160	180 110	77	12	253	28	8	31.3
132/B5	4.5	7	15	265	300	230	124	15	296	38	10	41.3

Diğer opsiyonel flanş ölçüleri için sayfa 326'ya bakınız.
Please see on page 326 for other optional flange dimensions
Siehe Siete 326 für andere auswählbare Flanschabmessungen

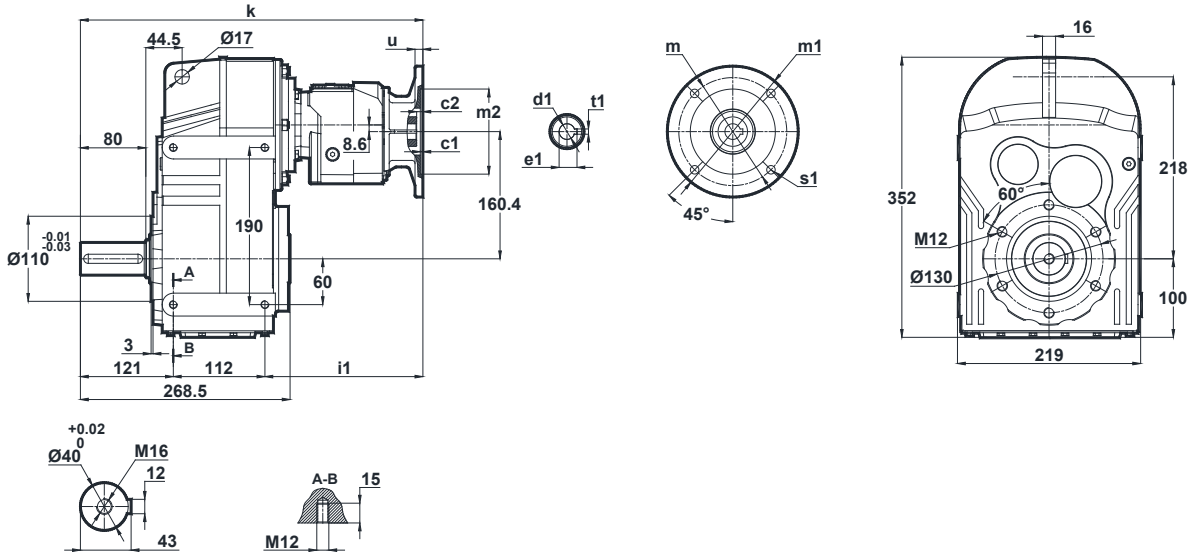
Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole according to DIN 332, sheet 2* / Zentrierung mit Gewinde nach DIN 332, Blatt 2

DN375.00
DN376.00



	c1	c2	s1	m	m1	m2(H7)	i1	u	k	d1	t1	e1
63/B5 63/B14	4 2.5	5	10 5.5	115 75	140 90	95 60	199	10	349	11	4	12.8
71/B5 71/B14	4 3	5 4.5	11 7	130 85	160 105	110 70	201	12 10	351	14	5	16.3
80/B5 80/B14	4	5	12 7	165 100	200 120	130 80	216	12	366	19	6	21.8

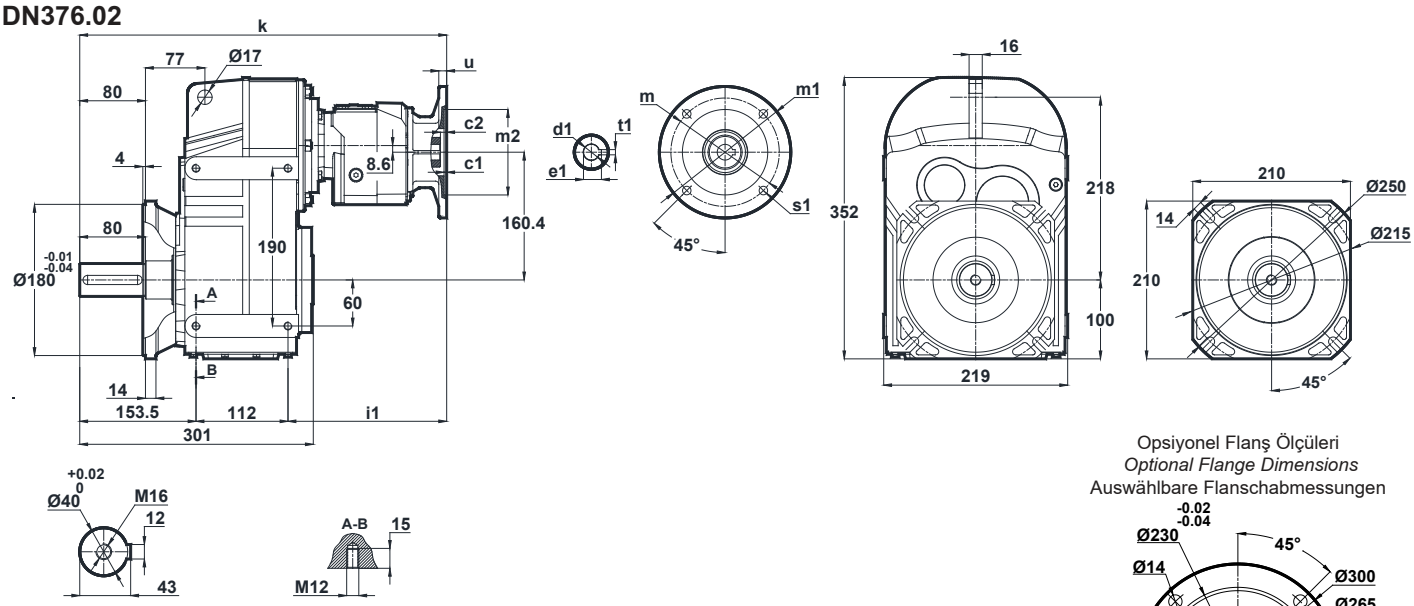
DN375.01
DN376.01



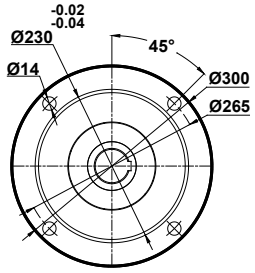
	c1	c2	s1	m	m1	m2(H7)	i1	u	k	d1	t1	e1
63/B5 63/B14	4 2.5	5	10 5.5	115 75	140 90	95 60	199	10	432	11	4	12.8
71/B5 71/B14	4 3	5 4.5	11 7	130 85	160 105	110 70	201	12 10	434	14	5	16.3
80/B5 80/B14	4	5	12 7	165 100	200 120	130 80	216	12	449	19	6	21.8

Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole according to DIN 332, sheet 2* / Zentrierung mit Gewinde nach DIN 332, Blatt 2

DN375.02
DN376.02



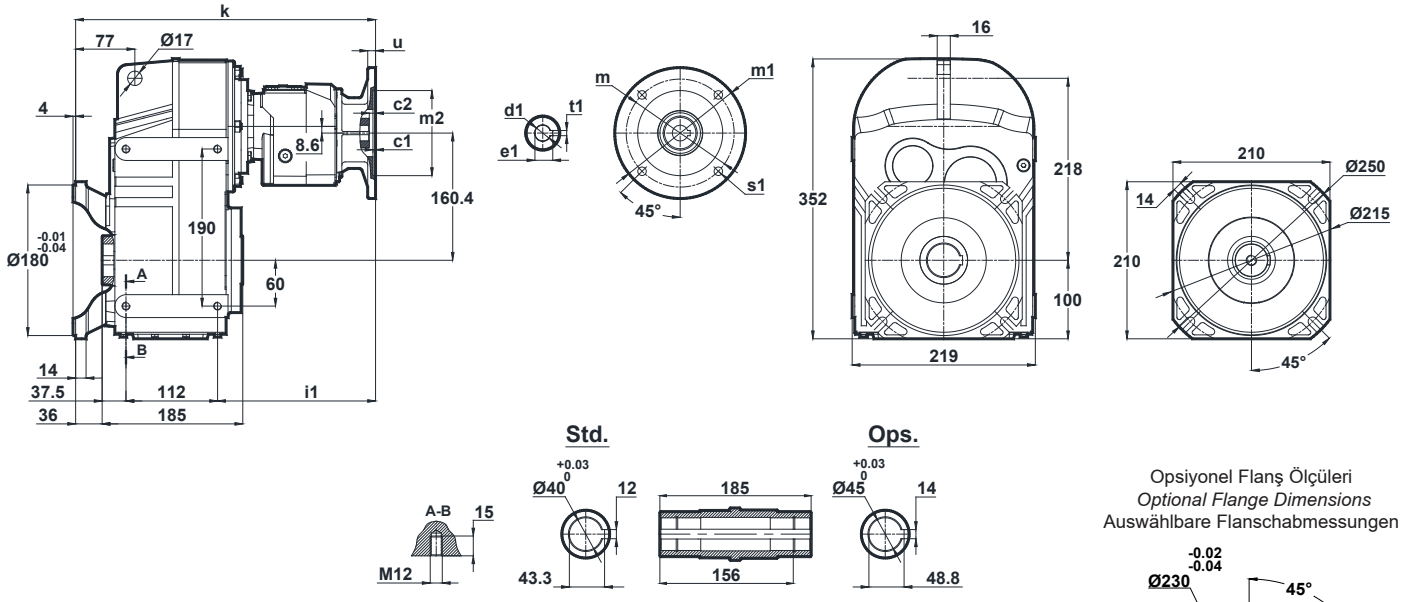
Opsiyonel Flanş Ölçüleri
Optional Flange Dimensions
Auswählbare Flanschabmessungen



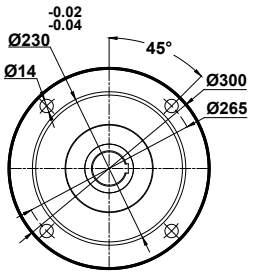
	c1	c2	s1	m	m1	m2(H7)	i1	u	k	d1	t1	e1
63/B5 63/B14	4 2.5	5	10 5.5	115 75	140 90	95 60	199	10	465	11	4	12.8
71/B5 71/B14	4 3	5 4.5	11 7	130 85	160 105	110 70	201	12 10	467	14	5	16.3
80/B5 80/B14	4	5	12 7	165 100	200 120	130 80	216	12	482	19	6	21.8

Diğer opsiyonel flanş ölçüleri için sayfa 326'ya bakınız.
Please see on page 326 for other optional flange dimensions
Siehe Siete 326 für andere auswählbare Flanschabmessungen

DN375.03
DN376.03



Opsiyonel Flanş Ölçüleri
Optional Flange Dimensions
Auswählbare Flanschabmessungen

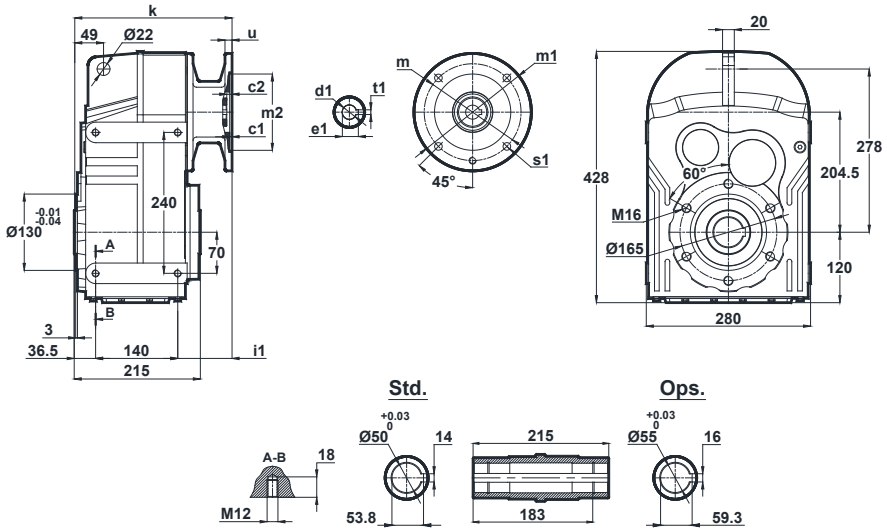


	c1	c2	s1	m	m1	m2(H7)	i1	u	k	d1	t1	e1
63/B5 63/B14	4 2.5	5	10 5.5	115 75	140 90	95 60	199	10	385	11	4	12.8
71/B5 71/B14	4 3	5 4.5	11 7	130 85	160 105	110 70	201	12 10	387	14	5	16.3
80/B5 80/B14	4	5	12 7	165 100	200 120	130 80	216	12	402	19	6	21.8

Diğer opsiyonel flanş ölçüleri için sayfa 326'ya bakınız.
Please see on page 326 for other optional flange dimensions
Siehe Siete 326 für andere auswählbare Flanschabmessungen

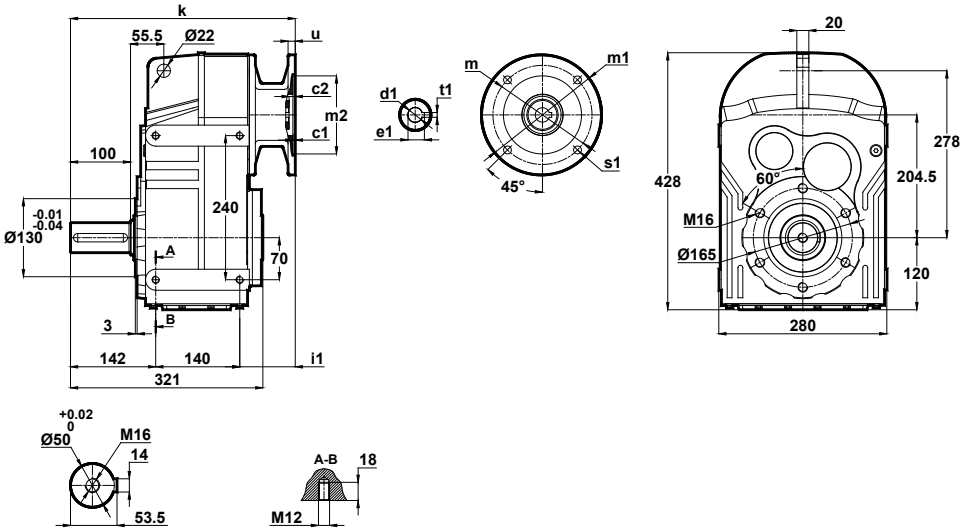
Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole according to DIN 332, sheet 2* / Zentrierung mit Gewinde nach DIN 332, Blatt 2

DN472.00
DN473.00



	c1	c2	s1	m	m1	m2(H7)	i1	u	k	d1	t1	e1
71/B5	4	9	11	130	160	110	83	12	260	14	5	16.3
80/B5 80/B14	4	9	12 7	165 100	200 120	130 80	83	12	260	19	6	21.8
90/B5 90/B14	4	9	12 9	165 115	200 140	130 95	83	12	260	24	8	27.3
100/B5 100/B14	5 4	9	15 9	215 130	250 160	180 110	100	15	277	28	8	31.3
112/B5 112/B14	5 4	9	15 9	215 130	250 160	180 110	100	15	277	28	8	31.3
132/B5 132/B14	5 4.5	7	15 11	265 165	300 200	230 130	120	15	297	38	10	41.3
160/B5	5.5	10	19	300	350	250	199	20	376	42	12	45.3

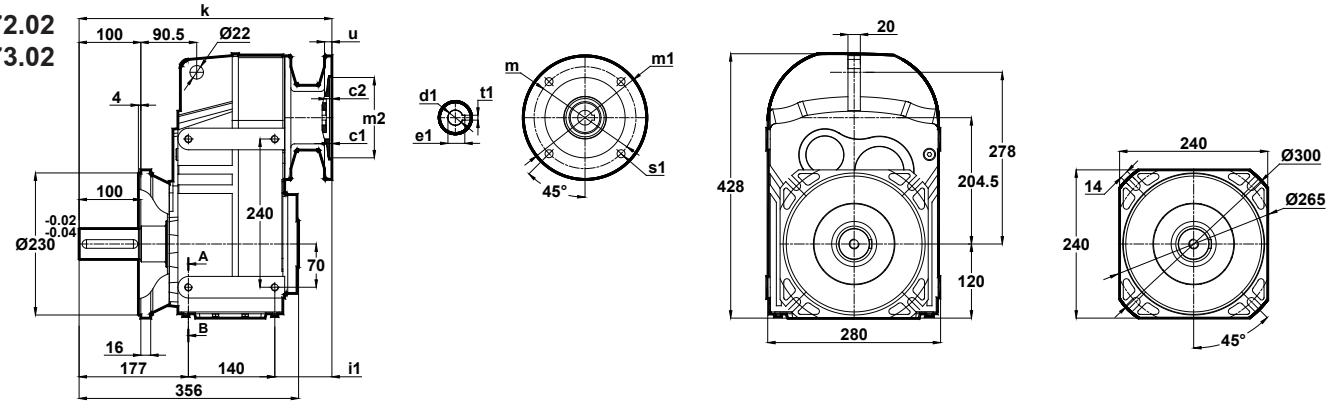
DN472.01
DN473.01

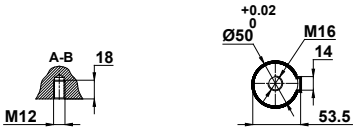


	c1	c2	s1	m	m1	m2(H7)	i1	u	k	d1	t1	e1
71/B5	4	9	11	130	160	110	83	12	365	14	5	16.3
80/B5 80/B14	4	9	12 7	165 100	200 120	130 80	83	12	365	19	6	21.8
90/B5 90/B14	4	9	12 9	165 115	200 140	130 95	83	12	365	24	8	27.3
100/B5 100/B14	5 4	9	15 9	215 130	250 160	180 110	100	15	382	28	8	31.3
112/B5 112/B14	5 4	9	15 9	215 130	250 160	180 110	100	15	382	28	8	31.3
132/B5 132/B14	5 4.5	7	15 11	265 165	300 200	230 130	120	15	402	38	10	41.3
160/B5	5.5	10	19	300	350	250	199	20	481	42	12	45.3

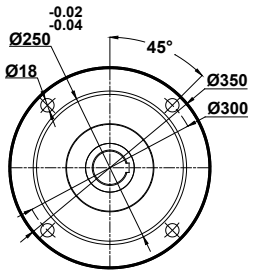
Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole according to DIN 332, sheet 2* / Zentrierung mit Gewinde nach DIN 332, Blatt 2

DN472.02
DN473.02





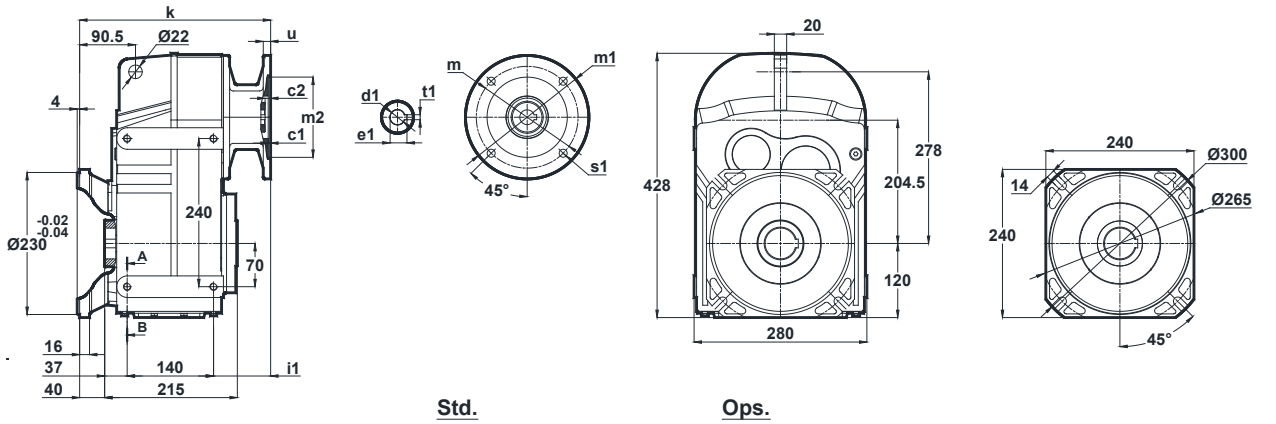
Opsiyonel Flanş Ölçüleri
Optional Flange Dimensions
Auswählbare Flanschabmessungen

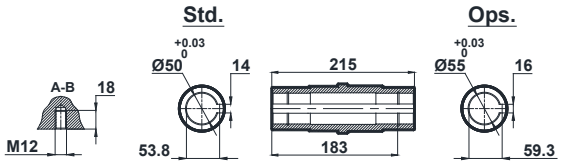


	c1	c2	s1	m	m1	m2(H7)	i1	u	k	d1	t1	e1
71/B5	4	9	11	130	160	110	83	12	400	14	5	16.3
80/B5 80/B14	4	9	12 7	165 100	200 120	130 80	83	12	400	19	6	21.8
90/B5 90/B14	4	9	12 9	165 115	200 140	130 95	83	12	400	24	8	27.3
100/B5 100/B14	5 4	9	15 9	215 130	250 160	180 110	100	15	417	28	8	31.3
112/B5 112/B14	5 4	9	15 9	215 130	250 160	180 110	100	15	417	28	8	31.3
132/B5 132/B14	5 4.5	7	15 11	265 165	300 200	230 130	120	15	437	38	10	41.3
160/B5	5.5	10	19	300	350	250	199	20	516	42	12	45.3

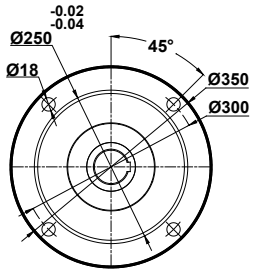
Diğer opsiyonel flanş ölçüleri için sayfa 326'ya bakınız.
Please see on page 326 for other optional flange dimensions
Siehe Siete 326 für andere auswählbare Flanschabmessungen

DN472.03
DN473.03





Opsiyonel Flanş Ölçüleri
Optional Flange Dimensions
Auswählbare Flanschabmessungen

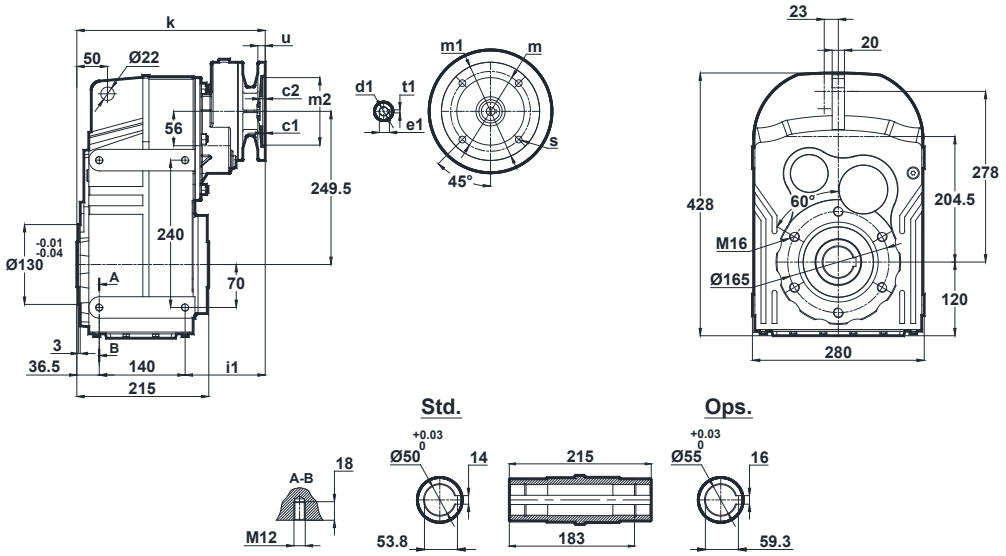


	c1	c2	s1	m	m1	m2(H7)	i1	u	k	d1	t1	e1
71/B5	4	9	11	130	160	110	83	12	300	14	5	16.3
80/B5 80/B14	4	9	12 7	165 100	200 120	130 80	83	12	300	19	6	21.8
90/B5 90/B14	4	9	12 9	165 115	200 140	130 95	83	12	300	24	8	27.3
100/B5 100/B14	5 4	9	15 9	215 130	250 160	180 110	100	15	317	28	8	31.3
112/B5 112/B14	5 4	9	15 9	215 130	250 160	180 110	100	15	317	28	8	31.3
132/B5 132/B14	5 4.5	7	15 11	265 165	300 200	230 130	120	15	337	38	10	41.3
160/B5	5.5	10	19	300	350	250	199	20	416	42	12	45.3

Diğer opsiyonel flanş ölçüleri için sayfa 326'ya bakınız.
Please see on page 326 for other optional flange dimensions
Siehe Siete 326 für andere auswählbare Flanschabmessungen

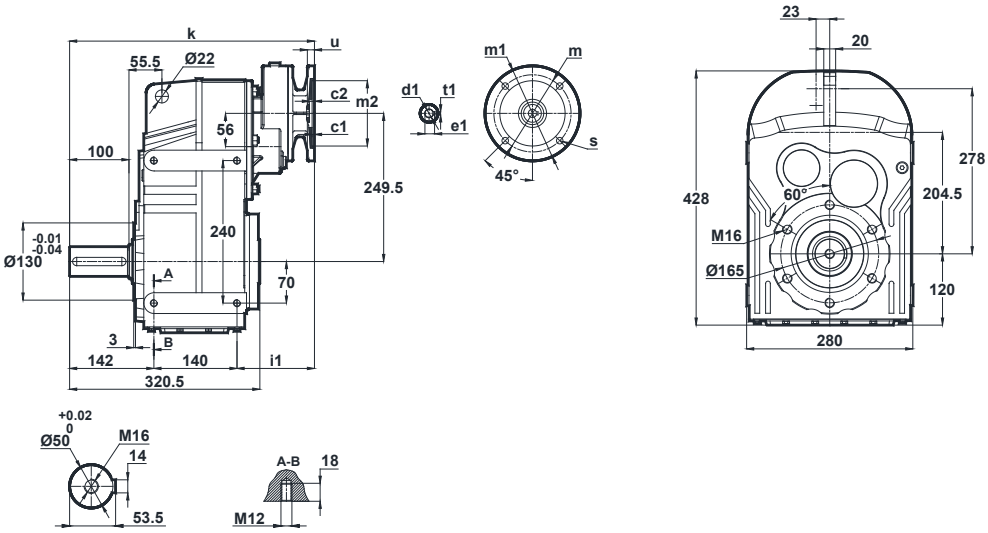
Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole according to DIN 332, sheet 2* / Zentrierung mit Gewinde nach DIN 332, Blatt 2

DN474.00



	c1	c2	s1	m	m1	m2(H7)	i1	u	k	d1	t1	e1
63/B5	4	8	9	115	140	95	160	12	337	11	4	12.8
71/B5 71/B14	4 3	9 8.5	11 7	130 85	160 105	110 70	131	12 10	308	14	5	16.3
80/B5 80/B14	4	5	12 7	165 100	200 120	130 80	166	12	343	19	6	21.8

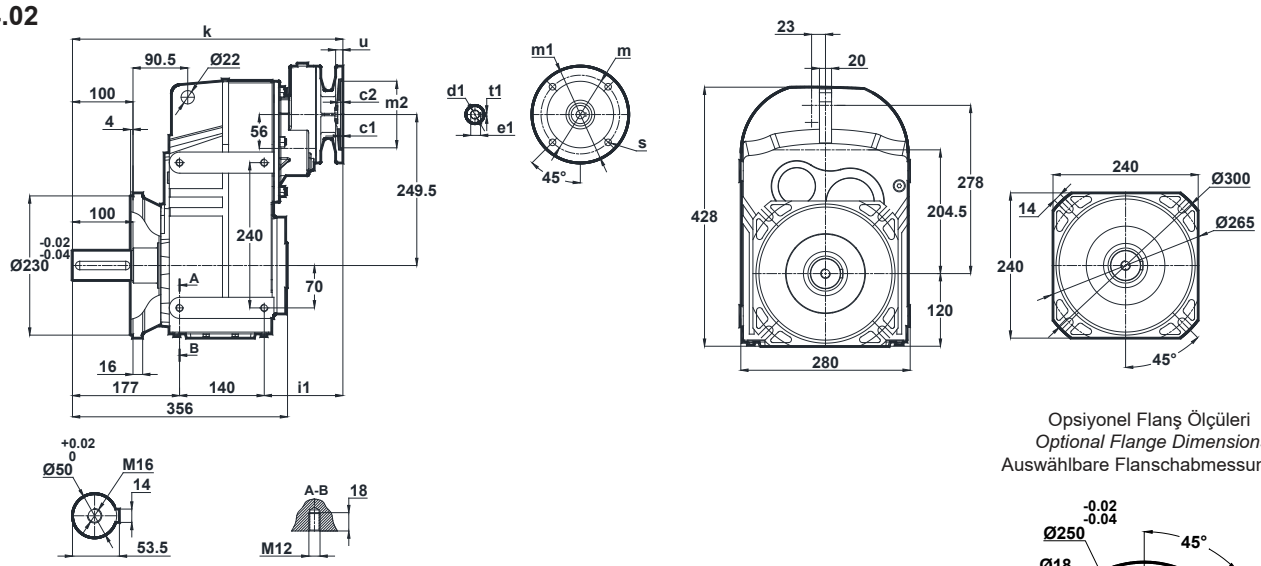
DN474.01



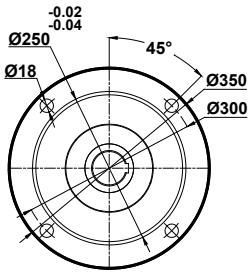
	c1	c2	s1	m	m1	m2(H7)	i1	u	k	d1	t1	e1
63/B5	4	8	9	115	140	95	160	12	442	11	4	12.8
71/B5 71/B14	4 3	9 8.5	11 7	130 85	160 105	110 70	131	12 10	413	14	5	16.3
80/B5 80/B14	4	5	12 7	165 100	200 120	130 80	166	12	448	19	6	21.8

Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole according to DIN 332, sheet 2* / Zentrierung mit Gewinde nach DIN 332, Blatt 2

DN474.02



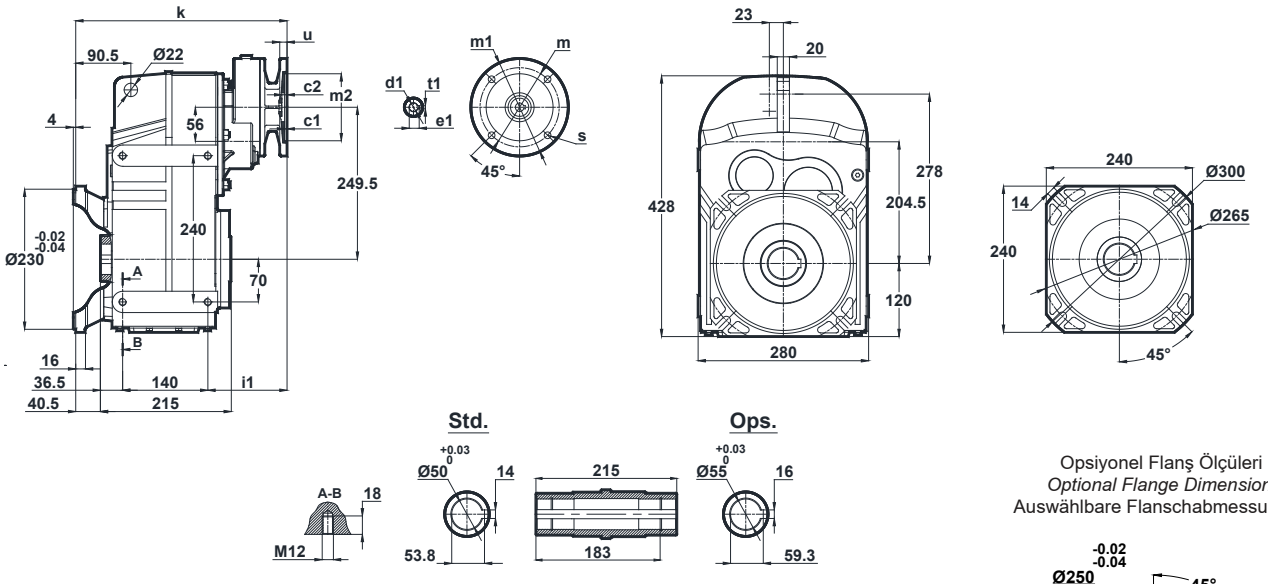
Opsiyonel Flanş Ölçüleri
Optional Flange Dimensions
Auswählbare Flanschabmessungen



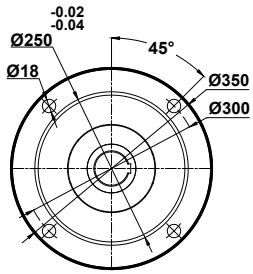
	c1	c2	s1	m	m1	m2(H7)	i1	u	k	d1	t1	e1
63/B5	4	8	9	115	140	95	160	12	477	11	4	12.8
71/B5 **71/B14**	4 3	9 8.5	11 7	130 85	160 105	110 70	131	12 10	448	14	5	16.3
80/B5 **80/B14**	4	5	12 7	165 100	200 120	130 80	166	12	483	19	6	21.8

Diğer opsiyonel flanş ölçüleri için sayfa 326'ya bakınız.
Please see on page 326 for other optional flange dimensions
Siehe Siete 326 für andere auswählbare Flanschabmessungen

DN474.03



Opsiyonel Flanş Ölçüleri
Optional Flange Dimensions
Auswählbare Flanschabmessungen

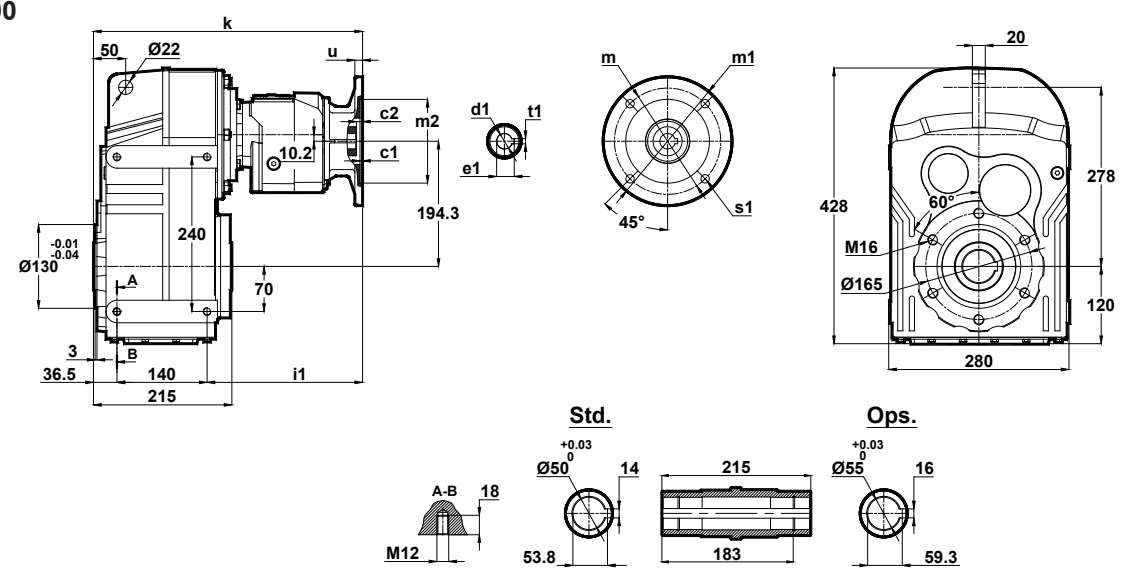


	c1	c2	s1	m	m1	m2(H7)	i1	u	k	d1	t1	e1
63/B5	4	8	9	115	140	95	160	12	377	11	4	12.8
71/B5 **71/B14**	4 3	9 8.5	11 7	130 85	160 105	110 70	131	12 10	348	14	5	16.3
80/B5 **80/B14**	4	5	12 7	165 100	200 120	130 80	166	12	383	19	6	21.8

Diğer opsiyonel flanş ölçüleri için sayfa 326'ya bakınız.
Please see on page 326 for other optional flange dimensions
Siehe Siete 326 für andere auswählbare Flanschabmessungen

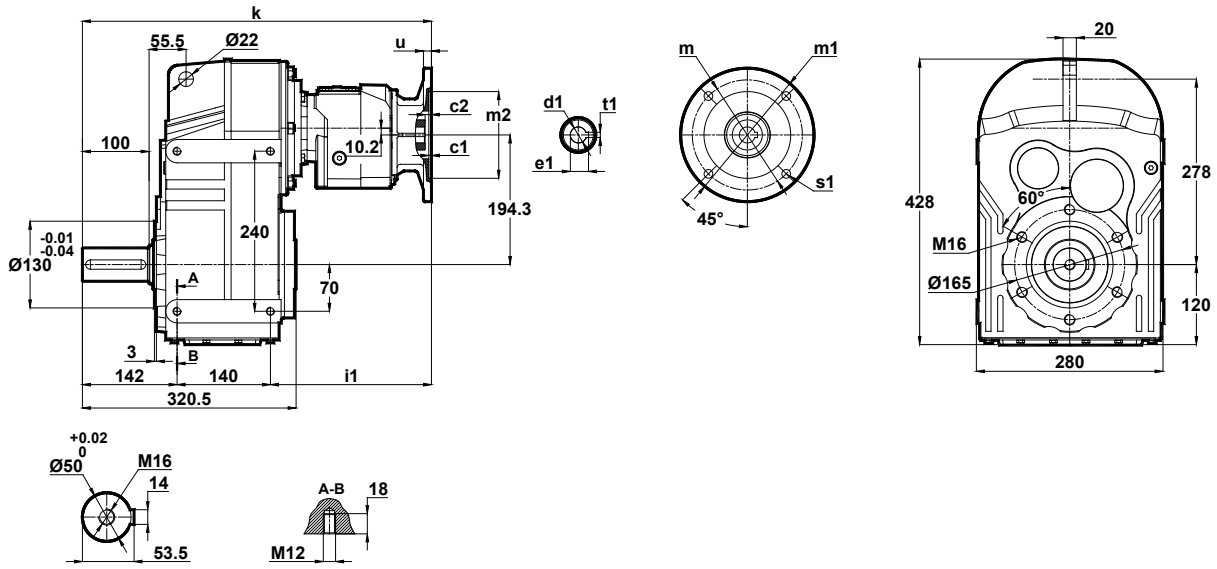
Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole according to DIN 332, sheet 2* / Zentrierung mit Gewinde nach DIN 332, Blatt 2

DN475.00
DN476.00



	c1	c2	s1	m	m1	m2(H7)	i1	u	k	d1	t1	e1
63/B5 63/B14	4 2.5	5	10 5.5	115 75	140 90	95 60	226	10	402	11	4	12.8
71/B5 71/B14	4 3	5 4.5	11 7	130 85	160 105	110 70	241	12 10	404	14	5	16.3

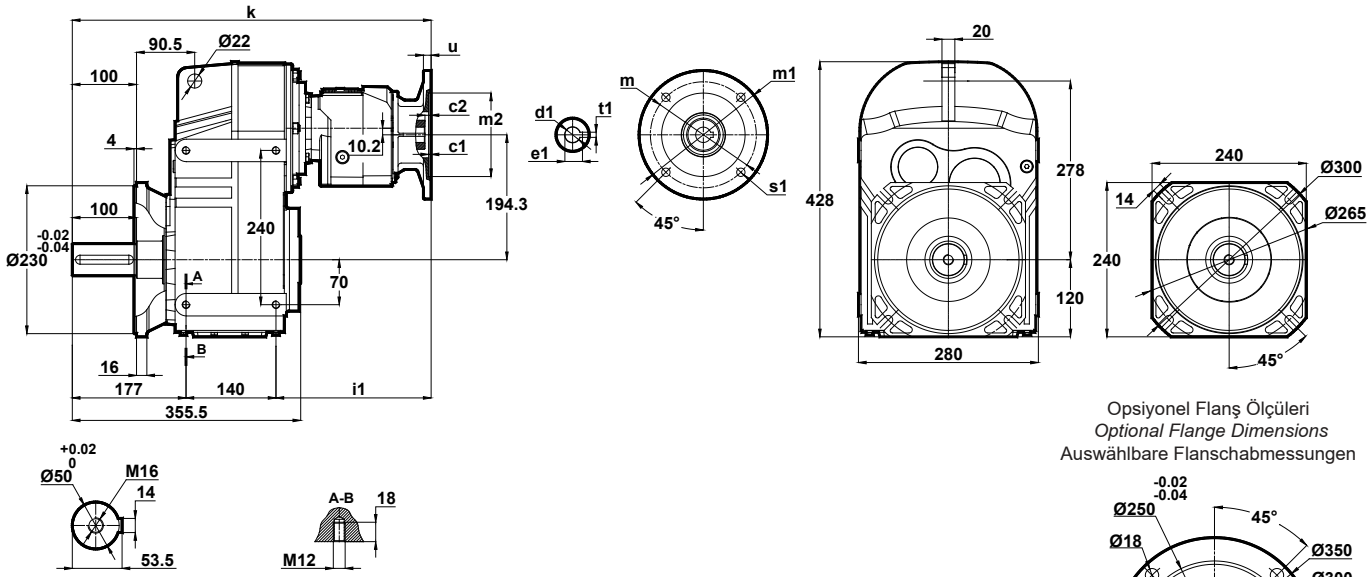
DN475.01
DN476.01



	c1	c2	s1	m	m1	m2(H7)	i1	u	k	d1	t1	e1
63/B5 63/B14	4 2.5	5	10 5.5	115 75	140 90	95 60	226	10	507	11	4	12.8
71/B5 71/B14	4 3	5 4.5	11 7	130 85	160 105	110 70	241	12 10	509	14	5	16.3

Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole according to DIN 332, sheet 2* / Zentrierung mit Gewinde nach DIN 332, Blatt 2

DN475.02
DN476.02

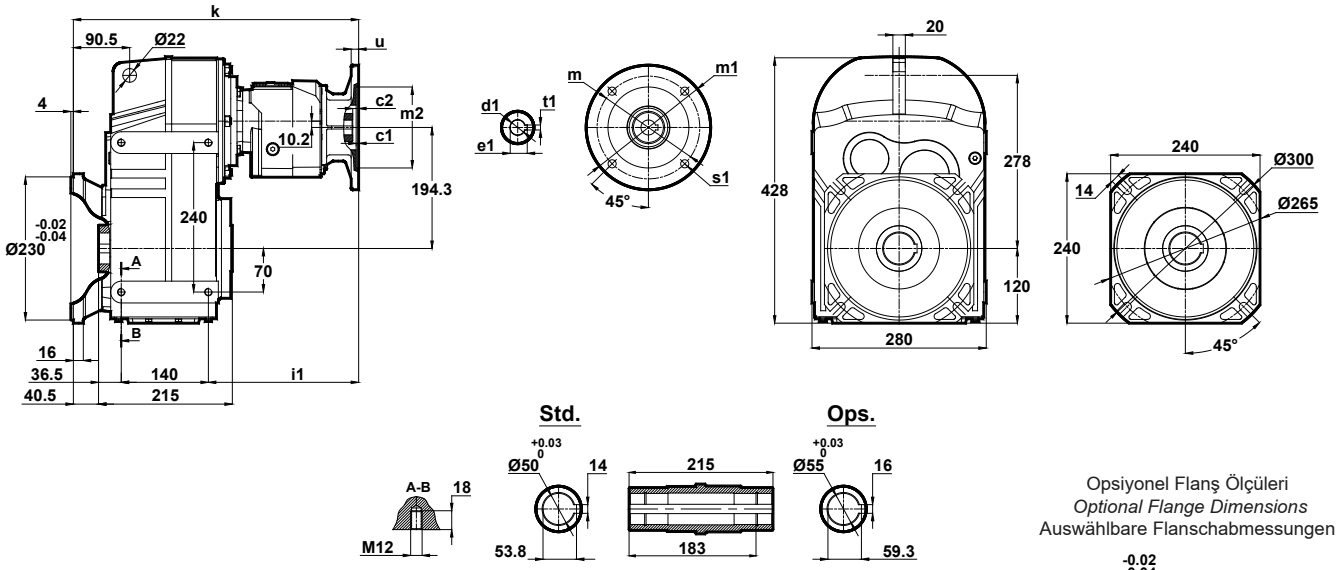


Opsiyonel Flanş Ölçüleri
Optional Flange Dimensions
Auswählbare Flanschabmessungen

	c1	c2	s1	m	m1	m2(H7)	i1	u	k	d1	t1	e1
63/B5 63/B14	4 2.5	5	10 5.5	115 75	140 90	95 60	226	10	542	11	4	12.8
71/B5 71/B14	4 3	5 4.5	11 7	130 85	160 105	110 70	241	12 10	544	14	5	16.3

Diğer opsiyonel flanş ölçüleri için sayfa 326'ya bakınız.
Please see on page 326 for other optional flange dimensions
Siehe Siete 326 für andere auswählbare Flanschabmessungen

DN475.03
DN476.03



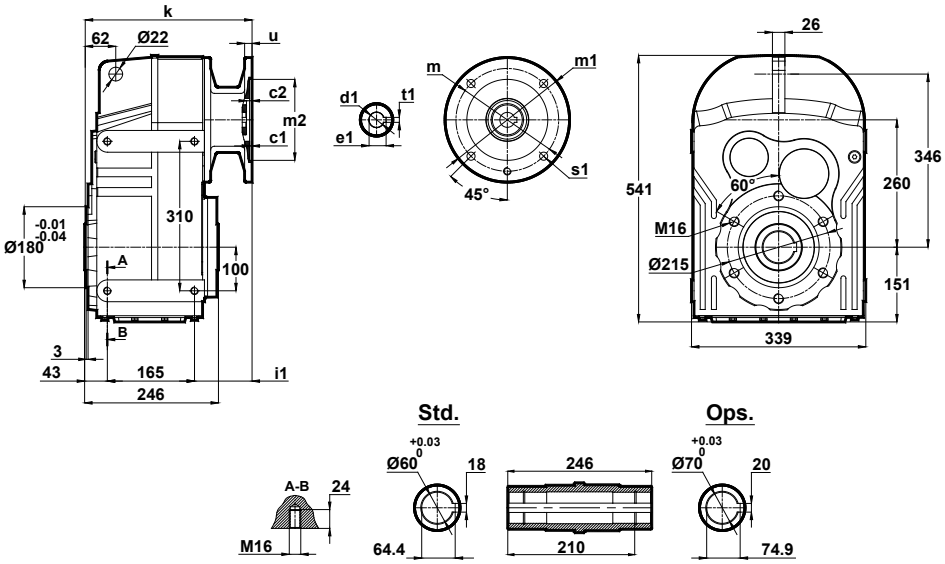
Opsiyonel Flanş Ölçüleri
Optional Flange Dimensions
Auswählbare Flanschabmessungen

	c1	c2	s1	m	m1	m2(H7)	i1	u	k	d1	t1	e1
63/B5 63/B14	4 2.5	5	10 5.5	115 75	140 90	95 60	226	10	442	11	4	12.8
71/B5 71/B14	4 3	5 4.5	11 7	130 85	160 105	110 70	241	12 10	444	14	5	16.3

Diğer opsiyonel flanş ölçüleri için sayfa 326'ya bakınız.
Please see on page 326 for other optional flange dimensions
Siehe Siete 326 für andere auswählbare Flanschabmessungen

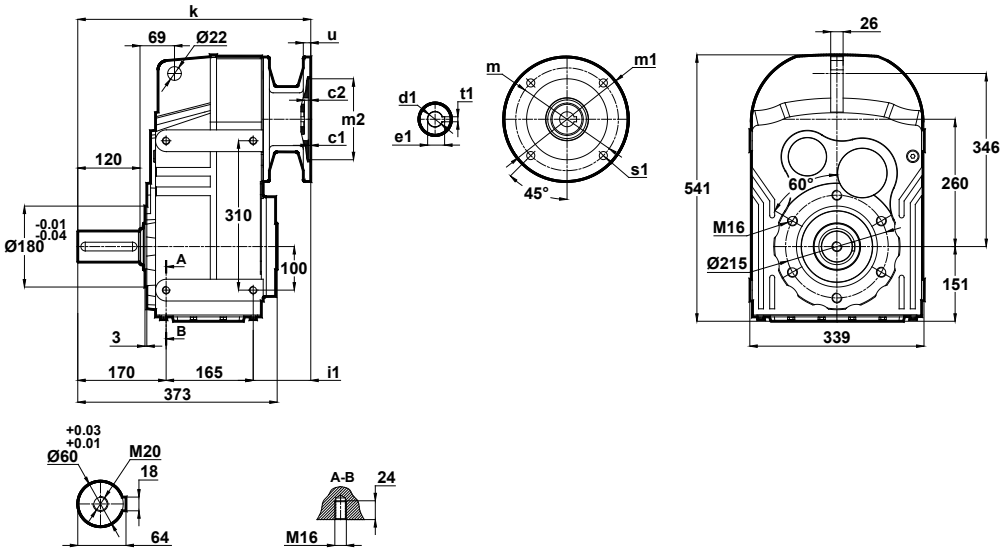
Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole according to DIN 332, sheet 2* / Zentrierung mit Gewinde nach DIN 332, Blatt 2

DN572.00
DN573.00



	c1	c2	s1	m	m1	m2(H7)	i1	u	k	d1	t1	e1
80/B5	4	5	12	165	200	130	68	12	277	19	6	21.8
90/B5 90/B14	4	5	12 9	165 115	200 140	130 95	68	12	277	24	8	27.3
100/B5 100/B14	5 4	9	15 9	215 130	250 160	180 110	87	15	295	28	8	31.3
112/B5 112/B14	5 4	9	15 9	215 130	250 160	180 110	87	15	295	28	8	31.3
132/B5 132/B14	5 4.5	6	15 11	265 165	300 200	230 130	105	15	314	38	10	41.3
160/B5	5.5	10	19	300	350	250	185	20	393	42	12	45.3
180/B5	6	10	19	300	350	250	185	20	393	48	14	51.8

DN572.01
DN573.01

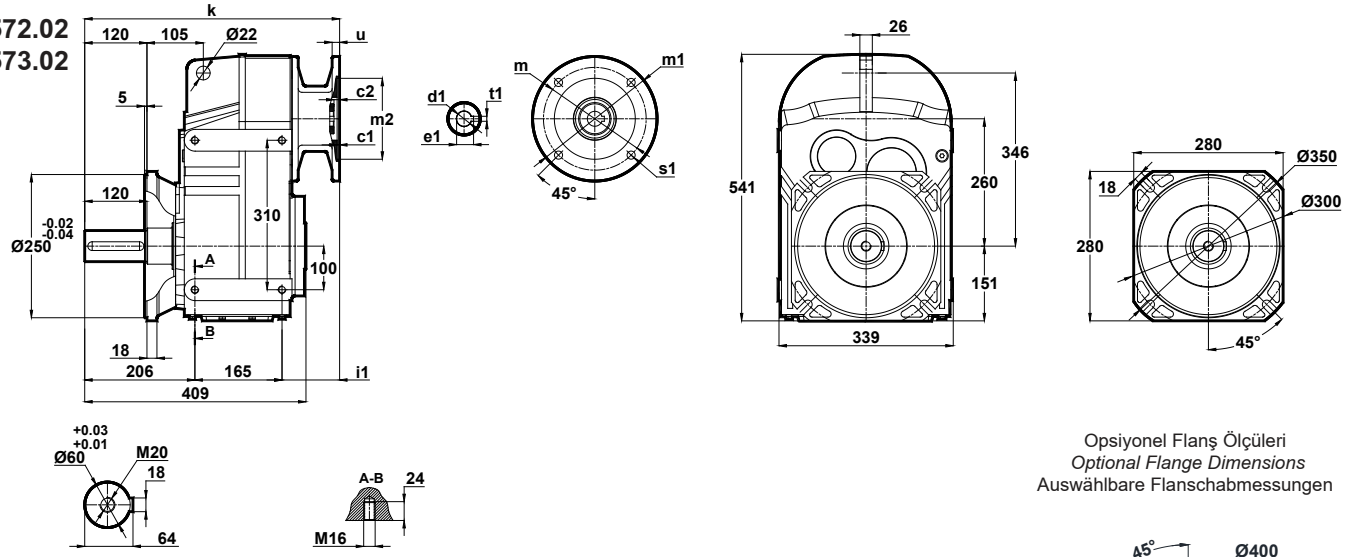


	c1	c2	s1	m	m1	m2(H7)	i1	u	k	d1	t1	e1
80/B5	4	5	12	165	200	130	68	12	404	19	6	21.8
90/B5 90/B14	4	5	12 9	165 115	200 140	130 95	68	12	404	24	8	27.3
100/B5 100/B14	5 4	9	15 9	215 130	250 160	180 110	87	15	422	28	8	31.3
112/B5 112/B14	5 4	9	15 9	215 130	250 160	180 110	87	15	422	28	8	31.3
132/B5 132/B14	5 4.5	6	15 11	265 165	300 200	230 130	105	15	441	38	10	41.3
160/B5	5.5	10	19	300	350	250	185	20	520	42	12	45.3
180/B5	6	10	19	300	350	250	185	20	520	48	14	51.8

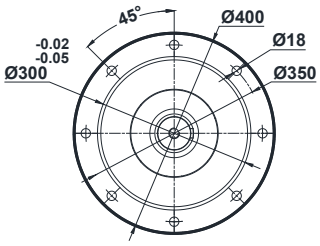
Ölçü Sayfaları
Dimension Pages
Abmessungsseiten

Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole according to DIN 332, sheet 2* / Zentrierung mit Gewinde nach DIN 332, Blatt 2

DN572.02
DN573.02



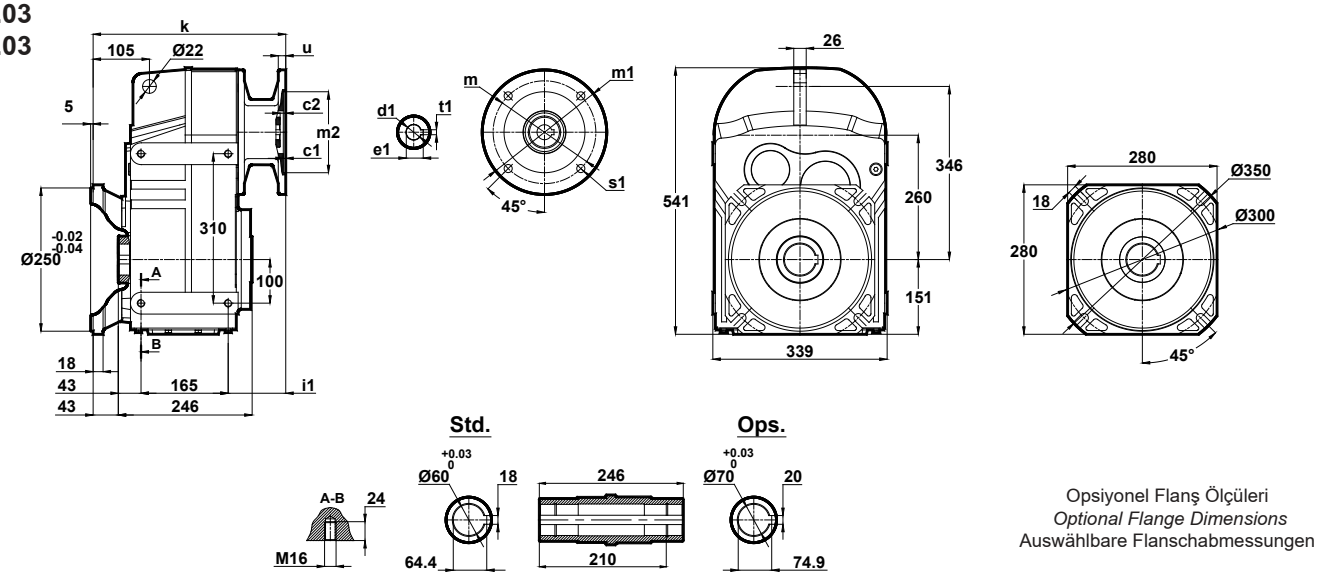
Opsiyonel Flanş Ölçüleri
Optional Flange Dimensions
Auswählbare Flanschabmessungen



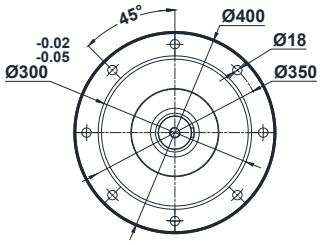
	c1	c2	s1	m	m1	m2(H7)	i1	u	k	d1	t1	e1
80/B5	4	5	12	165	200	130	68	12	440	19	6	21.8
90/B5 90/B14	4	5	12 9	165 115	200 140	130 95	68	12	440	24	8	27.3
100/B5 100/B14	5 4	9	15 9	215 130	250 160	180 110	87	15	458	28	8	31.3
112/B5 112/B14	5 4	9	15 9	215 130	250 160	180 110	87	15	458	28	8	31.3
132/B5 132/B14	5 4.5	6	15 11	265 165	300 200	230 130	105	15	477	38	10	41.3
160/B5	5.5	10	19	300	350	250	185	20	556	42	12	45.3
180/B5	6	10	19	300	350	250	185	20	556	48	14	51.8

Diğer opsiyonel flanş ölçüleri için sayfa 326'ya bakınız.
Please see on page 326 for other optional flange dimensions
Siehe Siete 326 für andere auswählbare Flanschabmessungen

DN572.03
DN573.03



Opsiyonel Flanş Ölçüleri
Optional Flange Dimensions
Auswählbare Flanschabmessungen

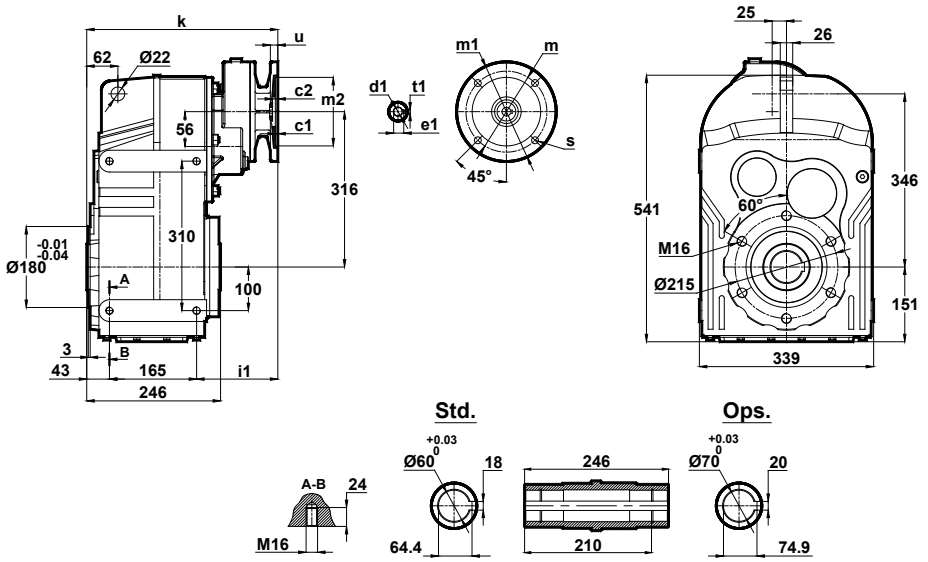


	c1	c2	s1	m	m1	m2(H7)	i1	u	k	d1	t1	e1
80/B5	4	5	12	165	200	130	68	12	320	19	6	21.8
90/B5 90/B14	4	5	12 9	165 115	200 140	130 95	68	12	320	24	8	27.3
100/B5 100/B14	5 4	9	15 9	215 130	250 160	180 110	87	15	338	28	8	31.3
112/B5 112/B14	5 4	9	15 9	215 130	250 160	180 110	87	15	338	28	8	31.3
132/B5 132/B14	5 4.5	6	15 11	265 165	300 200	230 130	105	15	357	38	10	41.3
160/B5	5.5	10	19	300	350	250	185	20	436	42	12	45.3
180/B5	6	10	19	300	350	250	185	20	436	48	14	51.8

Diğer opsiyonel flanş ölçüleri için sayfa 326'ya bakınız.
Please see on page 326 for other optional flange dimensions
Siehe Siete 326 für andere auswählbare Flanschabmessungen

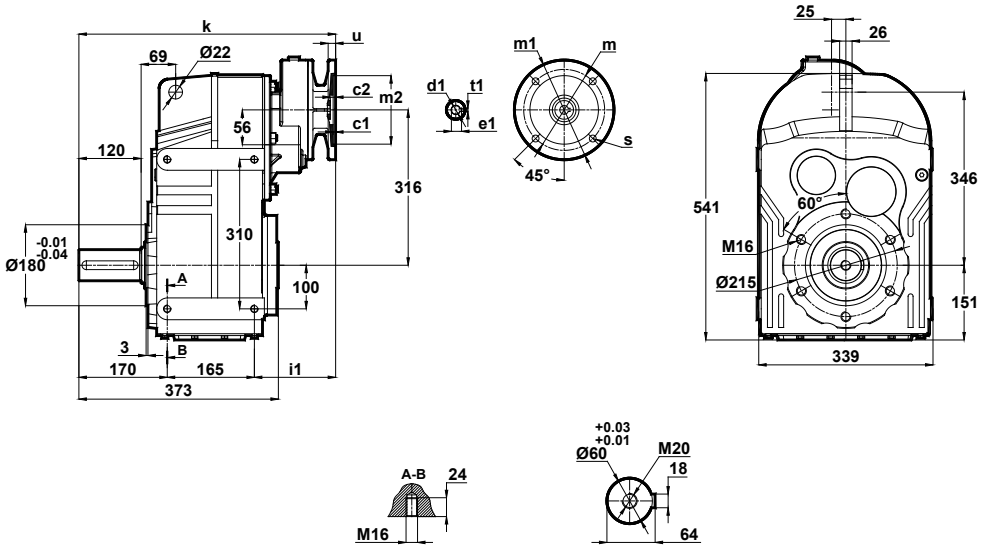
Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole according to DIN 332, sheet 2* / Zentrierung mit Gewinde nach DIN 332, Blatt 2

DN574.00



	c1	c2	s1	m	m1	m2(H7)	i1	u	k	d1	t1	e1
71/B5	4	9	11	130	160	110	166	12	375	14	5	16.3
80/B5 80/B14	4	9	12 7	165 100	200 120	130 80	166	12	375	19	6	21.8
90/B5 90/B14	4	9	12 9	165 115	200 140	130 95	166	12	375	24	8	27.3

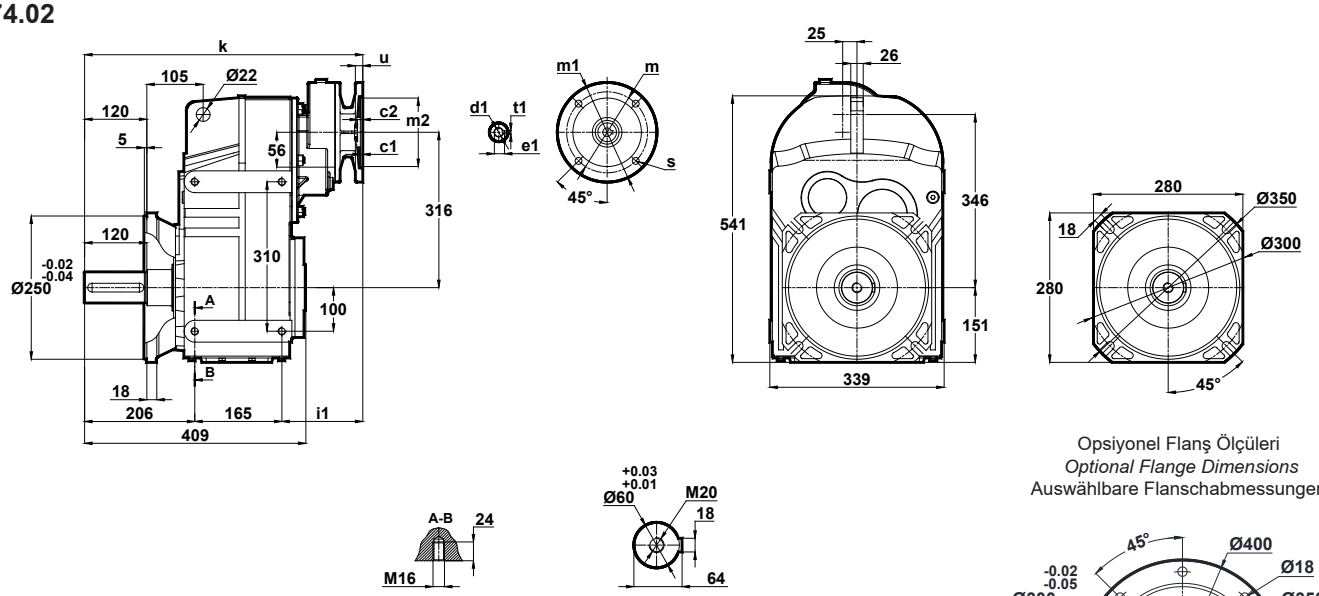
DN574.01



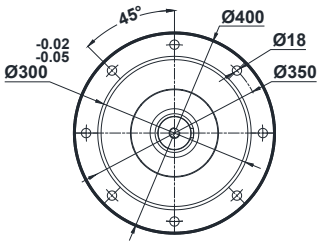
	c1	c2	s1	m	m1	m2(H7)	i1	u	k	d1	t1	e1
71/B5	4	9	11	130	160	110	166	12	502	14	5	16.3
80/B5 80/B14	4	9	12 7	165 100	200 120	130 80	166	12	502	19	6	21.8
90/B5 90/B14	4	9	12 9	165 115	200 140	130 95	166	12	502	24	8	27.3

Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole according to DIN 332, sheet 2* / Zentrierung mit Gewinde nach DIN 332, Blatt 2

DN574.02



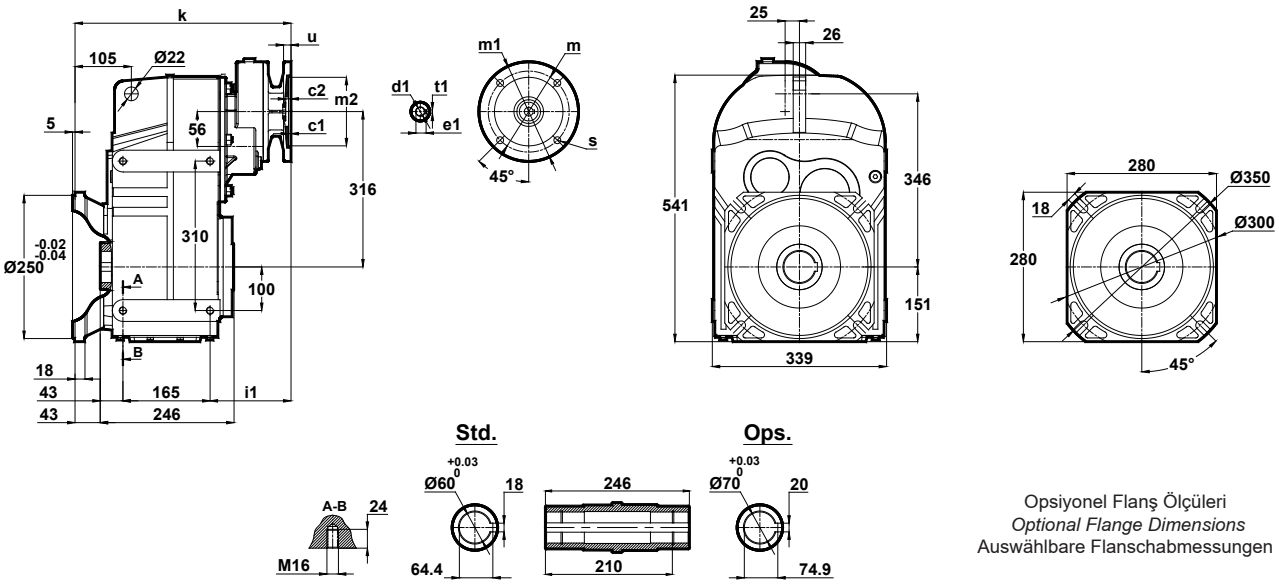
Opsiyonel Flanş Ölçüleri
Optional Flange Dimensions
Auswählbare Flanschabmessungen



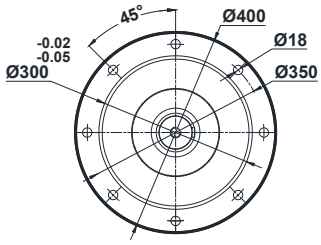
	c1	c2	s1	m	m1	m2(H7)	i1	u	k	d1	t1	e1
71/B5	4	9	11	130	160	110	166	12	538	14	5	16.3
80/B5 80/B14	4	9	12 7	165 100	200 120	130 80	166	12	538	19	6	21.8
90/B5 90/B14	4	9	12 9	165 115	200 140	130 95	166	12	538	24	8	27.3

Diğer opsiyonel flanş ölçüleri için sayfa 326'ya bakınız.
Please see on page 326 for other optional flange dimensions
Siehe Siete 326 für andere auswählbare Flanschabmessungen

DN574.03



Opsiyonel Flanş Ölçüleri
Optional Flange Dimensions
Auswählbare Flanschabmessungen

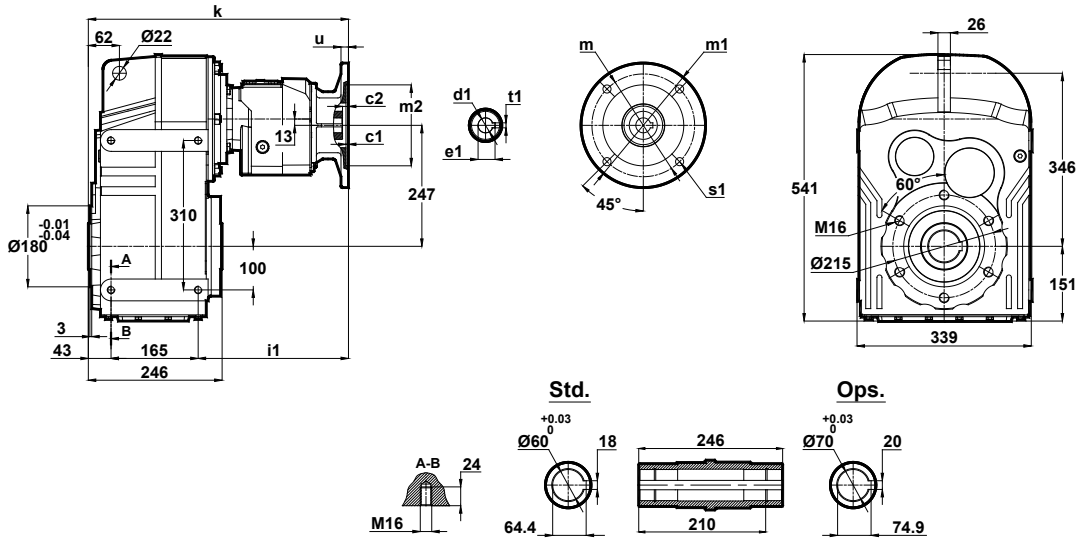


	c1	c2	s1	m	m1	m2(H7)	i1	u	k	d1	t1	e1
71/B5	4	9	11	130	160	110	166	12	418	14	5	16.3
80/B5 80/B14	4	9	12 7	165 100	200 120	130 80	166	12	418	19	6	21.8
90/B5 90/B14	4	9	12 9	165 115	200 140	130 95	166	12	418	24	8	27.3

Diğer opsiyonel flanş ölçüleri için sayfa 326'ya bakınız.
Please see on page 326 for other optional flange dimensions
Siehe Siete 326 für andere auswählbare Flanschabmessungen

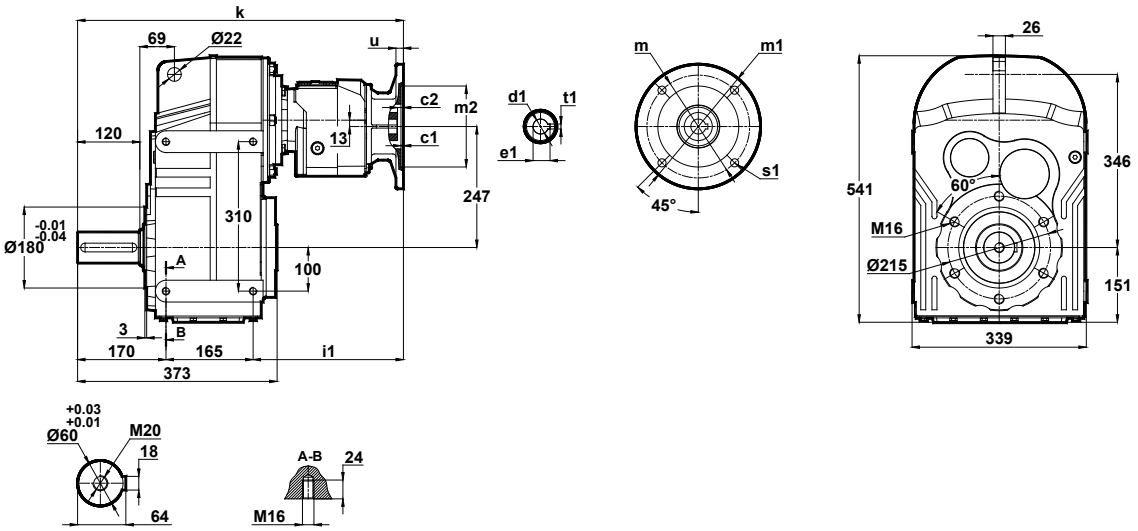
Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole according to DIN 332, sheet 2* / Zentrierung mit Gewinde nach DIN 332, Blatt 2

DN575.00
DN576.00



	c1	c2	s1	m	m1	m2(H7)	i1	u	k	d1	t1	e1
63/B5	4	8	9	115	140	95	294	12	503	11	4	12.8
71/B5 71/B14	4 3	9 8.5	11 7	130 85	160 105	110 70	265	12 10	474	14	5	16.3

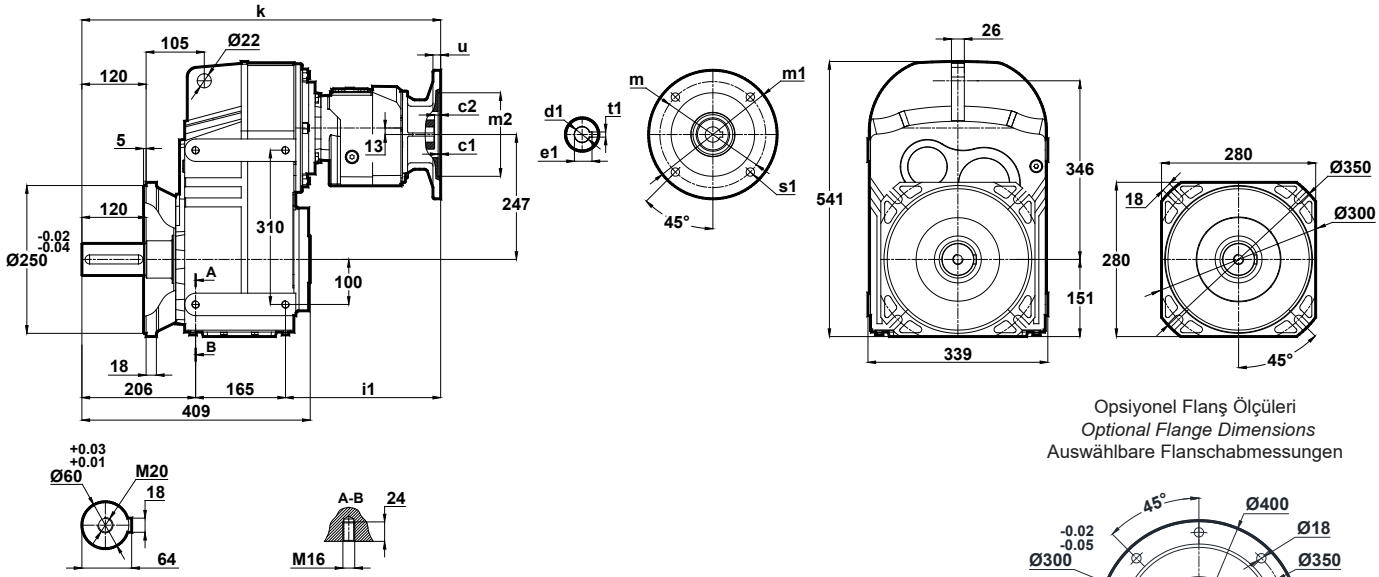
DN575.01
DN576.01



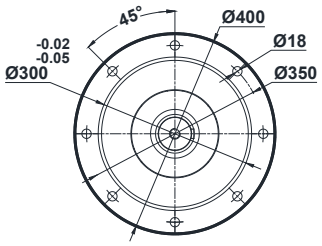
	c1	c2	s1	m	m1	m2(H7)	i1	u	k	d1	t1	e1
63/B5	4	8	9	115	140	95	294	12	630	11	4	12.8
71/B5 71/B14	4 3	9 8.5	11 7	130 85	160 105	110 70	265	12 10	601	14	5	16.3

Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole according to DIN 332, sheet 2* / Zentrierung mit Gewinde nach DIN 332, Blatt 2

DN575.02
DN576.02



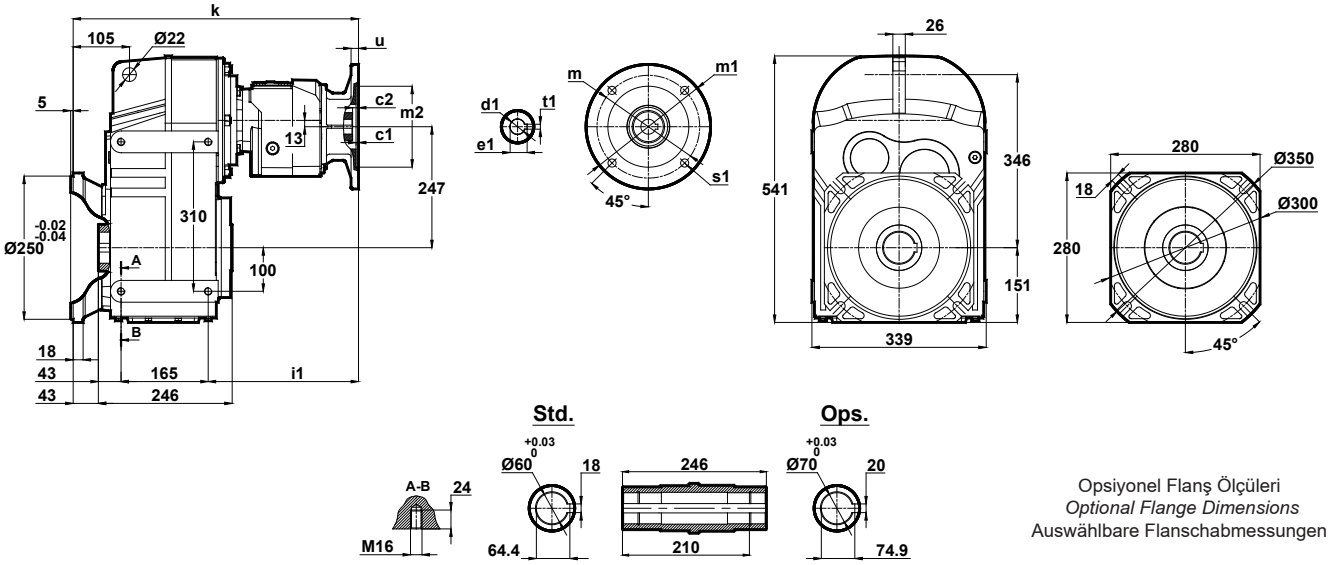
Opsiyonel Flanş Ölçüleri
Optional Flange Dimensions
Auswählbare Flanschabmessungen



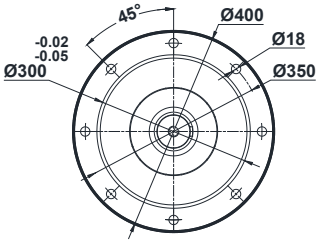
	c1	c2	s1	m	m1	m2(H7)	i1	u	k	d1	t1	e1
63/B5	4	8	9	115	140	95	294	12	666	11	4	12.8
71/B5 71/B14	4 3	9 8.5	11 7	130 85	160 105	110 70	265	12 10	637	14	5	16.3

Diğer opsiyonel flanş ölçüleri için sayfa 326'ya bakınız.
Please see on page 326 for other optional flange dimensions
Siehe Siete 326 für andere auswählbare Flanschabmessungen

DN575.03
DN576.03



Opsiyonel Flanş Ölçüleri
Optional Flange Dimensions
Auswählbare Flanschabmessungen

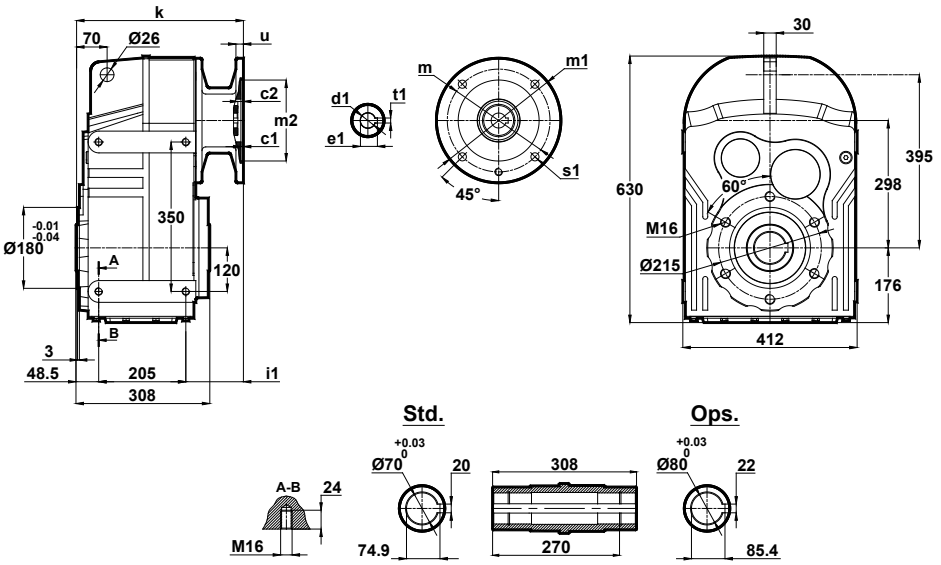


	c1	c2	s1	m	m1	m2(H7)	i1	u	k	d1	t1	e1
63/B5	4	8	9	115	140	95	294	12	546	11	4	12.8
71/B5 71/B14	4 3	9 8.5	11 7	130 85	160 105	110 70	265	12 10	517	14	5	16.3

Diğer opsiyonel flanş ölçüleri için sayfa 326'ya bakınız.
Please see on page 326 for other optional flange dimensions
Siehe Siete 326 für andere auswählbare Flanschabmessungen

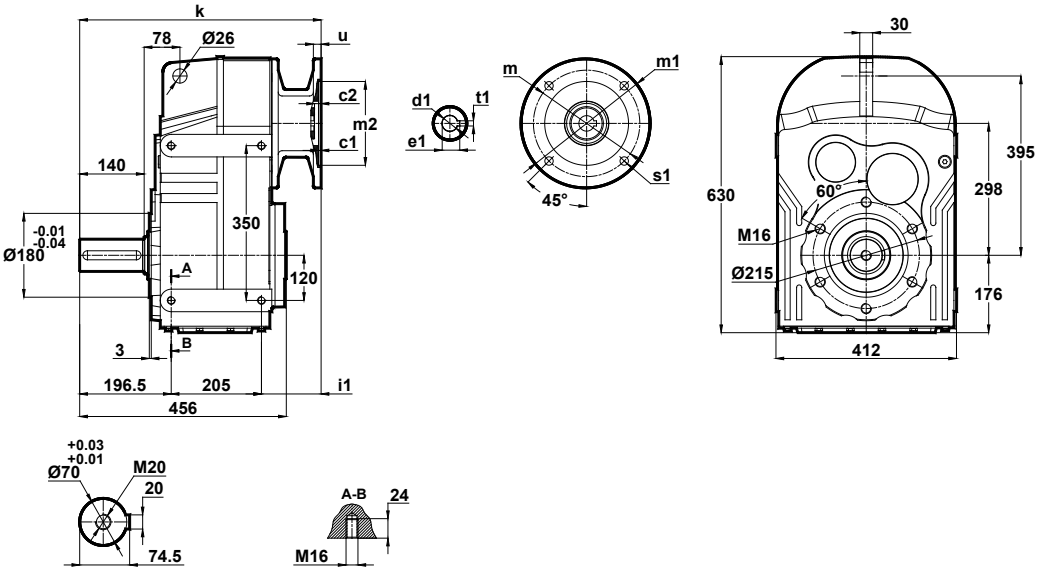
Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole according to DIN 332, sheet 2* / Zentrierung mit Gewinde nach DIN 332, Blatt 2

DN672.00
DN673.00



	c1	c2	s1	m	m1	m2(H7)	i1	u	k	d1	t1	e1
100/B5	5	20	15	215	250	180	94	15	348	28	8	31.3
112/B5	5	20	15	215	250	180	94	15	348	28	8	31.3
132/B5 132/B14	5 4.5	9	15 11	265 165	300 200	230 130	115	15	369	38	10	41.3
160/B5	5.5	10	19	300	350	250	191	18	444	42	12	45.3
180/B5	6	10	19	300	350	250	191	18	444	48	14	51.8
200/B5	6	10	19	350	400	300	211	22	464	55	16	59.3

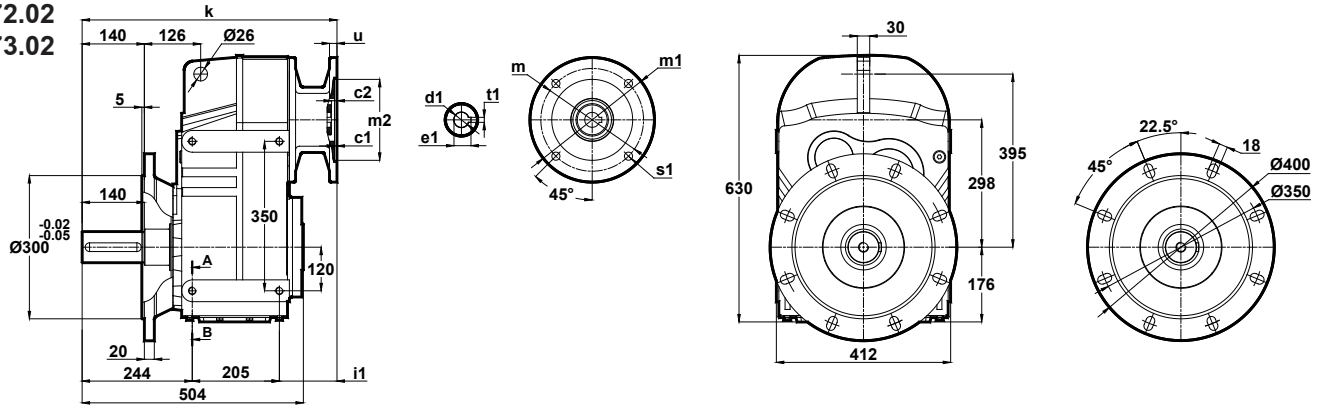
DN672.01
DN673.01



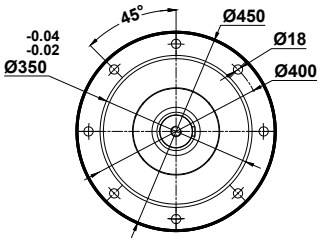
	c1	c2	s1	m	m1	m2(H7)	i1	u	k	d1	t1	e1
100/B5	5	20	15	215	250	180	94	15	496	28	8	31.3
112/B5	5	20	15	215	250	180	94	15	496	28	8	31.3
132/B5 132/B14	5 4.5	9	15 11	265 165	300 200	230 130	115	15	517	38	10	41.3
160/B5	5.5	10	19	300	350	250	191	18	592	42	12	45.3
180/B5	6	10	19	300	350	250	191	18	592	48	14	51.8
200/B5	6	10	19	350	400	300	211	22	612	55	16	59.3

Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole according to DIN 332, sheet 2* / Zentrierung mit Gewinde nach DIN 332, Blatt 2

DN672.02
DN673.02



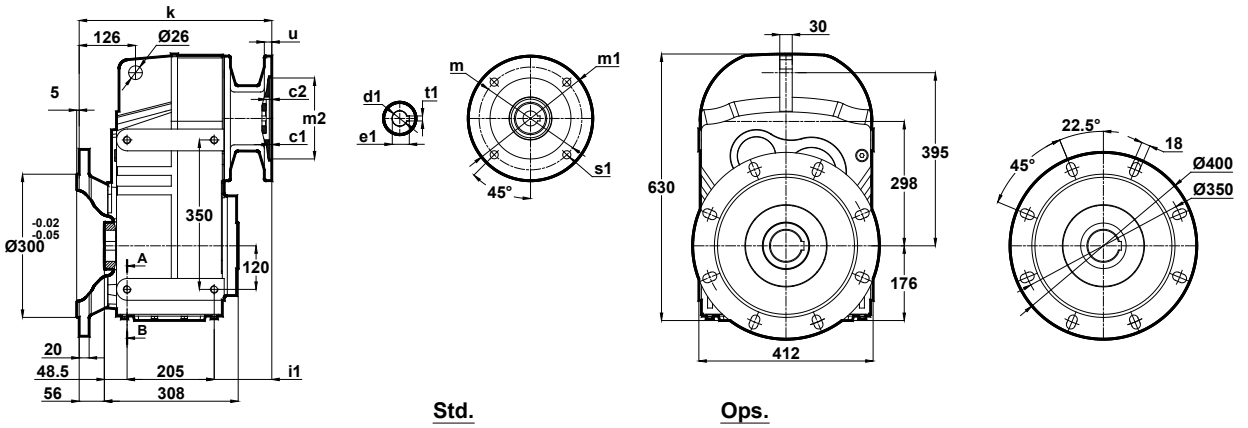
Opsiyonel Flanş Ölçüleri
Optional Flange Dimensions
Auswählbare Flanschabmessungen

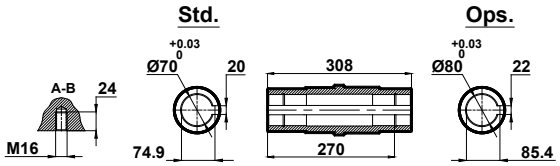


	c1	c2	s1	m	m1	m2(H7)	i1	u	k	d1	t1	e1
100/B5	5	20	15	215	250	180	94	15	544	28	8	31.3
112/B5	5	20	15	215	250	180	94	15	544	28	8	31.3
132/B5 **132/B14**	5 4.5	9	15 11	265 165	300 200	230 130	115	15	565	38	10	41.3
160/B5	5.5	10	19	300	350	250	191	18	640	42	12	45.3
180/B5	6	10	19	300	350	250	191	18	640	48	14	51.8
200/B5	6	10	19	350	400	300	211	22	660	55	16	59.3

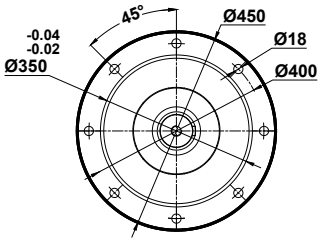
Diğer opsiyonel flanş ölçüleri için sayfa 326'ya bakınız.
Please see on page 326 for other optional flange dimensions
Siehe Siete 326 für andere auswählbare Flanschabmessungen

DN672.03
DN673.03





Opsiyonel Flanş Ölçüleri
Optional Flange Dimensions
Auswählbare Flanschabmessungen

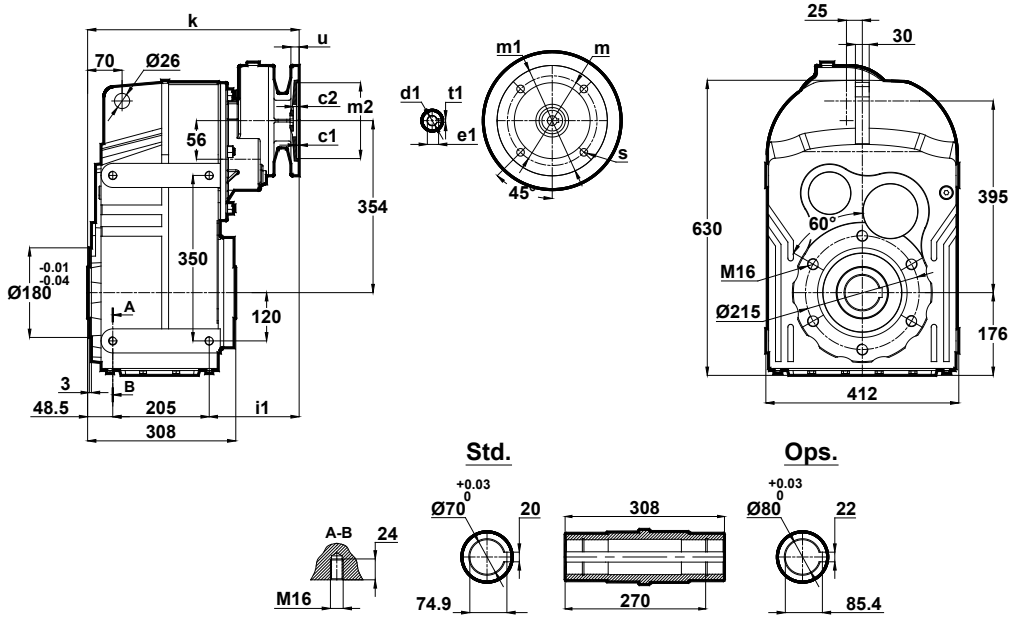


	c1	c2	s1	m	m1	m2(H7)	i1	u	k	d1	t1	e1
100/B5	5	20	15	215	250	180	94	15	404	28	8	31.3
112/B5	5	20	15	215	250	180	94	15	404	28	8	31.3
132/B5 **132/B14**	5 4.5	9	15 11	265 165	300 200	230 130	115	15	425	38	10	41.3
160/B5	5.5	10	19	300	350	250	191	18	500	42	12	45.3
180/B5	6	10	19	300	350	250	191	18	500	48	14	51.8
200/B5	6	10	19	350	400	300	211	22	520	55	16	59.3

Diğer opsiyonel flanş ölçüleri için sayfa 326'ya bakınız.
Please see on page 326 for other optional flange dimensions
Siehe Siete 326 für andere auswählbare Flanschabmessungen

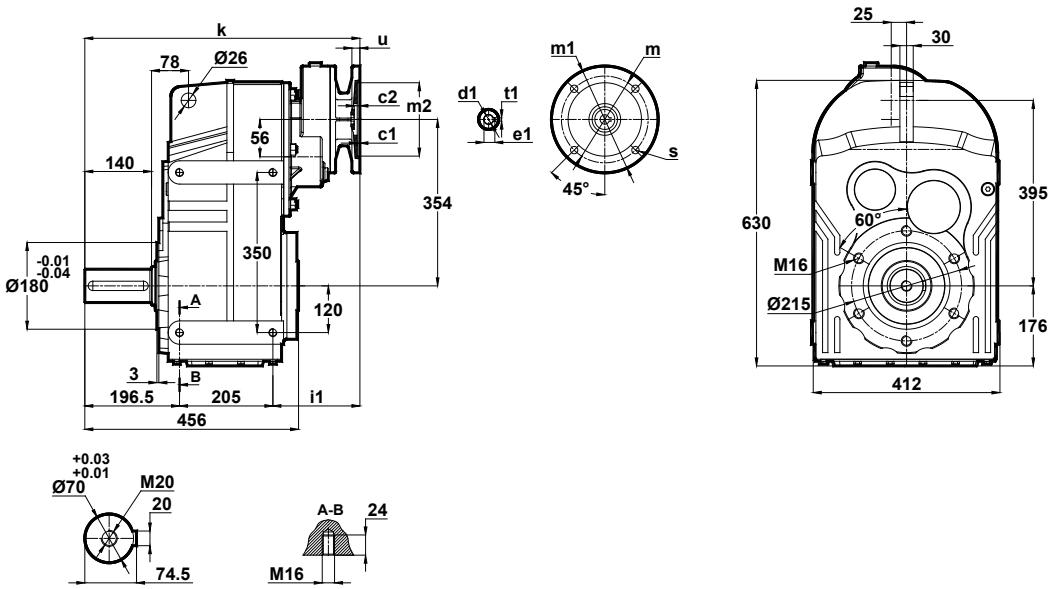
Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole according to DIN 332, sheet 2* / Zentrierung mit Gewinde nach DIN 332, Blatt 2

DN674.00



	c1	c2	s1	m	m1	m2(H7)	i1	u	k	d1	t1	e1
71/B5	4	9	11	130	160	110	174	12	428	14	5	16.3
80/B5 80/B14	4	9	12 7	165 100	200 120	130 80	174	12	428	19	6	21.8
90/B5 90/B14	4	9	12 9	165 115	200 140	130 95	174	12	428	24	8	27.3

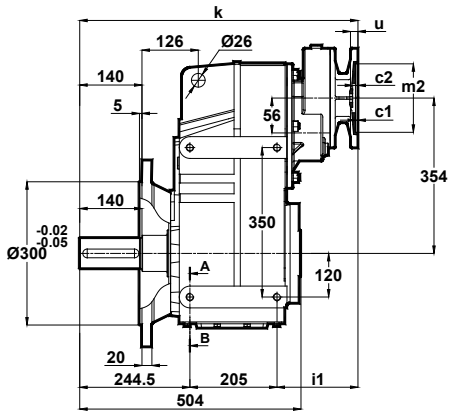
DN674.01

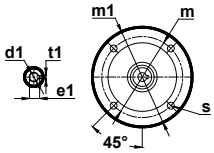


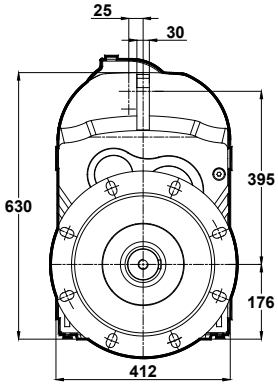
	c1	c2	s1	m	m1	m2(H7)	i1	u	k	d1	t1	e1
71/B5	4	9	11	130	160	110	174	12	576	14	5	16.3
80/B5 80/B14	4	9	12 7	165 100	200 120	130 80	174	12	576	19	6	21.8
90/B5 90/B14	4	9	12 9	165 115	200 140	130 95	174	12	576	24	8	27.3

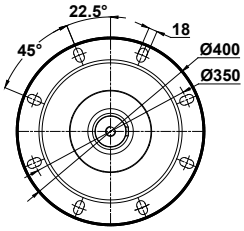
Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole according to DIN 332, sheet 2* / Zentrierung mit Gewinde nach DIN 332, Blatt 2

DN674.02

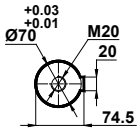


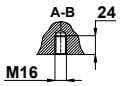


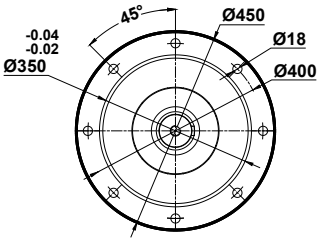




Opsiyonel Flanş Ölçüleri
Optional Flange Dimensions
Auswählbare Flanschabmessungen



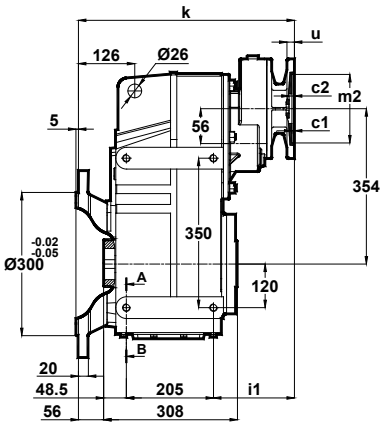


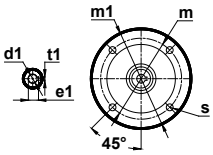


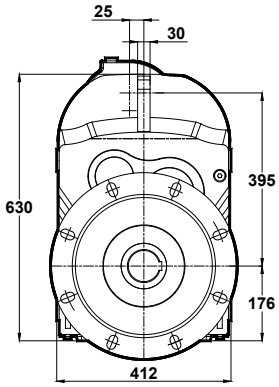
	c1	c2	s1	m	m1	m2(H7)	i1	u	k	d1	t1	e1
71/B5	4	9	11	130	160	110	174	12	624	14	5	16.3
80/B5 80/B14	4	9	12 7	165 100	200 120	130 80	174	12	624	19	6	21.8
90/B5 90/B14	4	9	12 9	165 115	200 140	130 95	174	12	624	24	8	27.3

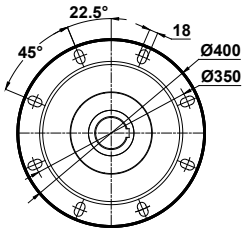
Diğer opsiyonel flanş ölçüleri için sayfa 326'ya bakınız.
Please see on page 326 for other optional flange dimensions
Siehe Siete 326 für andere auswählbare Flanschabmessungen

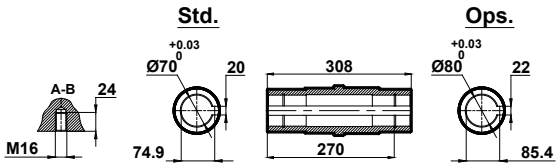
DN674.03



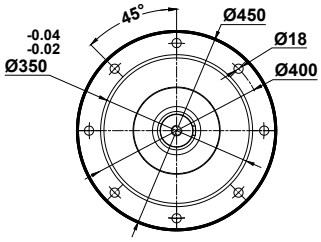








Opsiyonel Flanş Ölçüleri
Optional Flange Dimensions
Auswählbare Flanschabmessungen

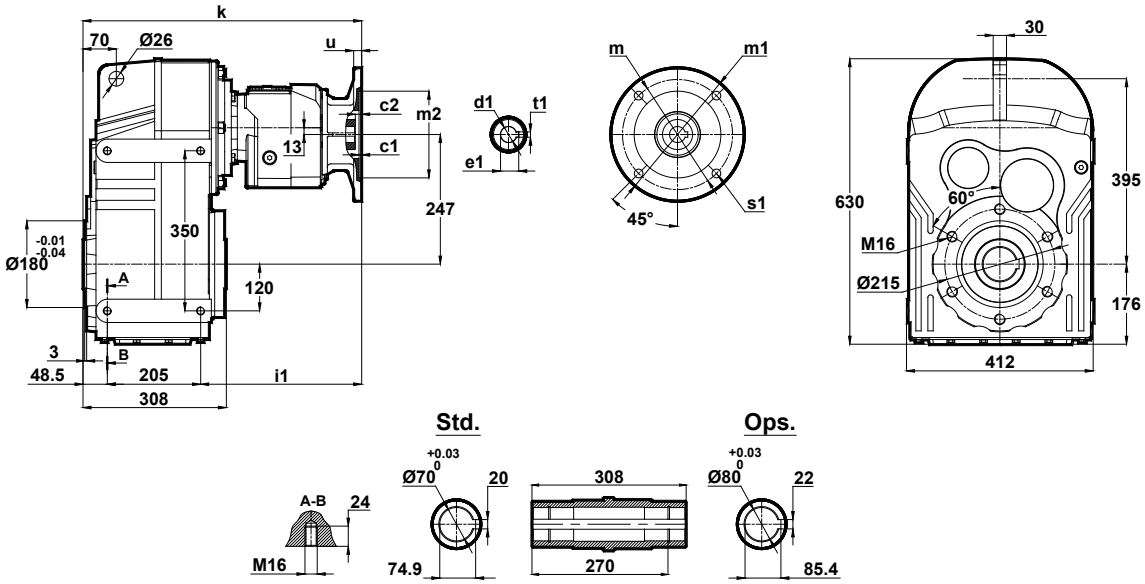


	c1	c2	s1	m	m1	m2(H7)	i1	u	k	d1	t1	e1
71/B5	4	9	11	130	160	110	174	12	484	14	5	16.3
80/B5 80/B14	4	9	12 7	165 100	200 120	130 80	174	12	484	19	6	21.8
90/B5 90/B14	4	9	12 9	165 115	200 140	130 95	174	12	484	24	8	27.3

Diğer opsiyonel flanş ölçüleri için sayfa 326'ya bakınız.
Please see on page 326 for other optional flange dimensions
Siehe Siete 326 für andere auswählbare Flanschabmessungen

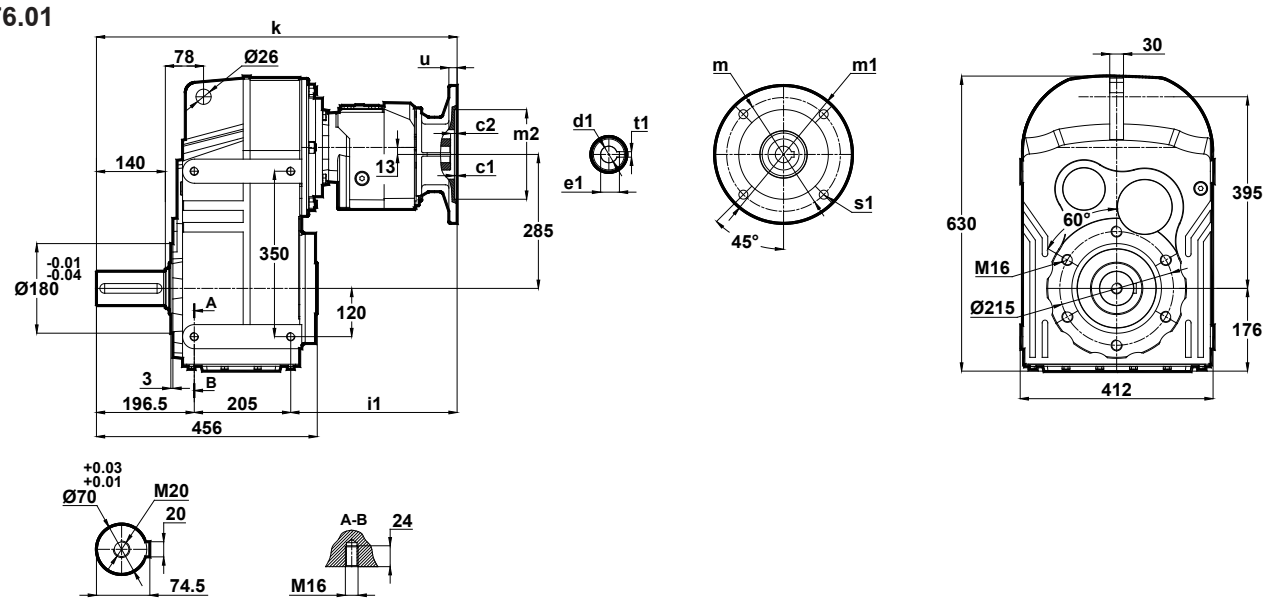
Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole according to DIN 332, sheet 2* / Zentrierung mit Gewinde nach DIN 332, Blatt 2

DN675.00
DN676.00



	c1	c2	s1	m	m1	m2(H7)	i1	u	k	d1	t1	e1
63/B5	4	8	9	115	140	95	304	12	558	11	4	12.8
71/B5 71/B14	4 3	9 8.5	11 7	130 85	160 105	110 70	275	12 10	529	14	5	16.3
80/B5 80/B14	4	5	12 7	165 100	200 120	130 80	304	12	558	19	6	21.8

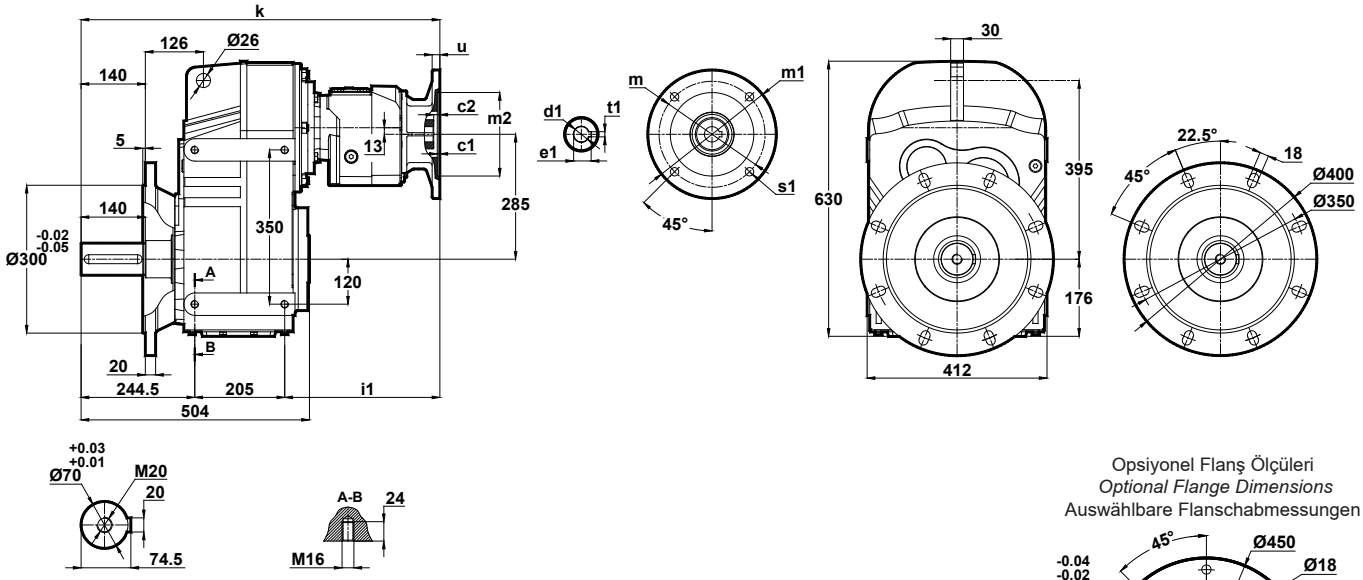
DN675.01
DN676.01



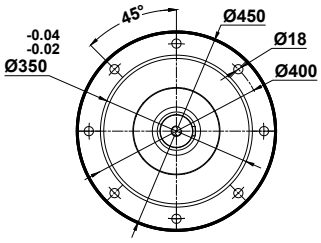
	c1	c2	s1	m	m1	m2(H7)	i1	u	k	d1	t1	e1
63/B5	4	8	9	115	140	95	304	12	706	11	4	12.8
71/B5 71/B14	4 3	9 8.5	11 7	130 85	160 105	110 70	275	12 10	677	14	5	16.3
80/B5 80/B14	4	5	12 7	165 100	200 120	130 80	304	12	706	19	6	21.8

Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole according to DIN 332, sheet 2* / Zentrierung mit Gewinde nach DIN 332, Blatt 2

DN675.02
DN676.02



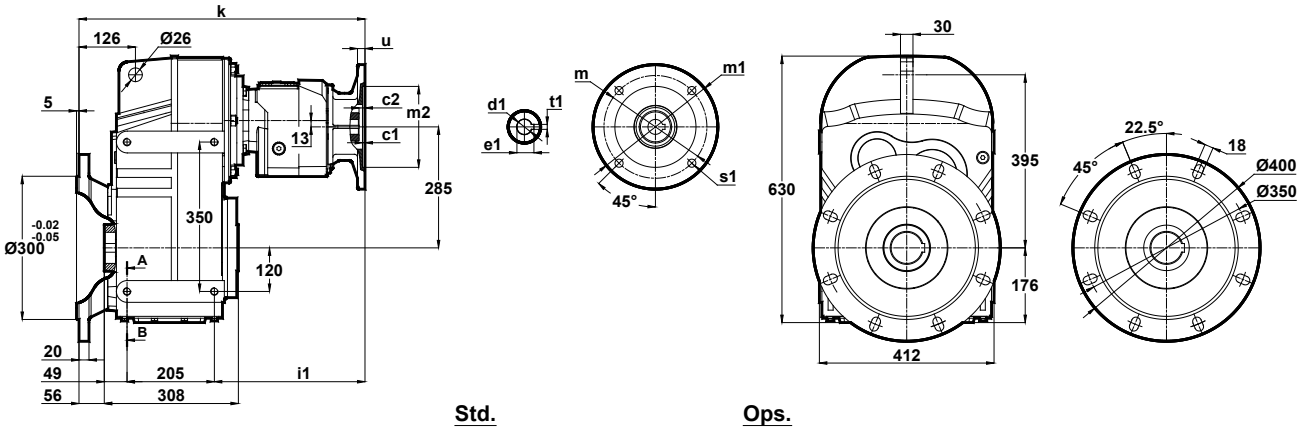
Opsiyonel Flanş Ölçüleri
Optional Flange Dimensions
Auswählbare Flanschabmessungen



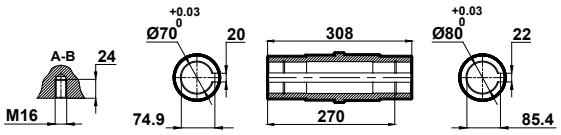
	c1	c2	s1	m	m1	m2(H7)	i1	u	k	d1	t1	e1
63/B5	4	8	9	115	140	95	304	12	754	11	4	12.8
71/B5 71/B14	4 3	9 8.5	11 7	130 85	160 105	110 70	275	12 10	725	14	5	16.3
80/B5 80/B14	4	5	12 7	165 100	200 120	130 80	304	12	754	19	6	21.8

Diğer opsiyonel flanş ölçüleri için sayfa 326'ya bakınız.
Please see on page 326 for other optional flange dimensions
Siehe Siete 326 für andere auswählbare Flanschabmessungen

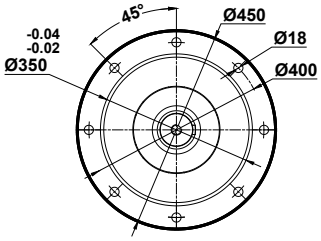
DN675.03
DN676.03



Std. **Ops.**



Opsiyonel Flanş Ölçüleri
Optional Flange Dimensions
Auswählbare Flanschabmessungen

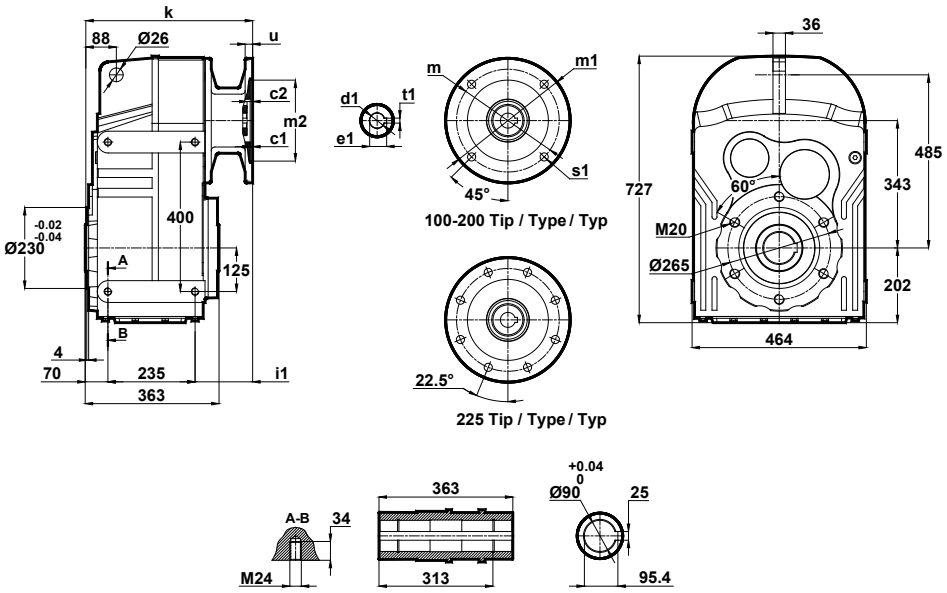


	c1	c2	s1	m	m1	m2(H7)	i1	u	k	d1	t1	e1
63/B5	4	8	9	115	140	95	304	12	614	11	4	12.8
71/B5 71/B14	4 3	9 8.5	11 7	130 85	160 105	110 70	275	12 10	585	14	5	16.3
80/B5 80/B14	4	5	12 7	165 100	200 120	130 80	304	12	614	19	6	21.8

Diğer opsiyonel flanş ölçüleri için sayfa 326'ya bakınız.
Please see on page 326 for other optional flange dimensions
Siehe Siete 326 für andere auswählbare Flanschabmessungen

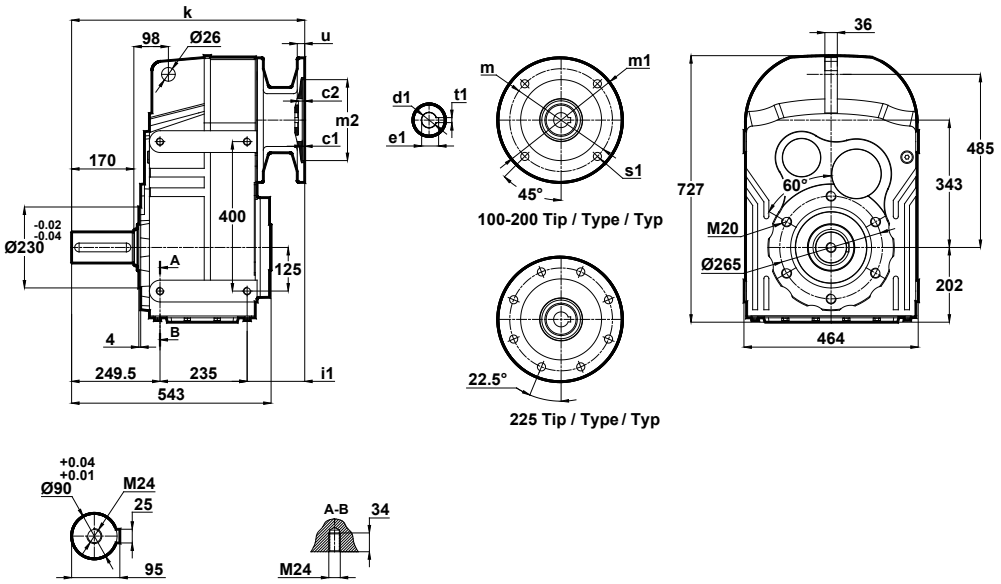
Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole according to DIN 332, sheet 2* / Zentrierung mit Gewinde nach DIN 332, Blatt 2

DN772.00
DN773.00



	c1	c2	s1	m	m1	m2(H7)	i1	u	k	d1	t1	e1
100/B5	5	15	15	215	250	180	85	15	390	28	8	31.3
112/B5	5	15	15	215	250	180	85	15	390	28	8	31.3
132/B5 **132/B14**	5 4.5	9	15	265 165	300 200	230 130	100	15	405	38	10	41.3
160/B5	5.5	10	19	300	350	250	175	20	480	42	12	45.3
180/B5	6	10	19	300	350	250	175	20	480	48	14	51.8
200/B5	6	10	19	350	400	300	196	22	500	55	16	59.3
225/B5	5.5	10	19	400	450	350	249	24	553	60	18	64.4

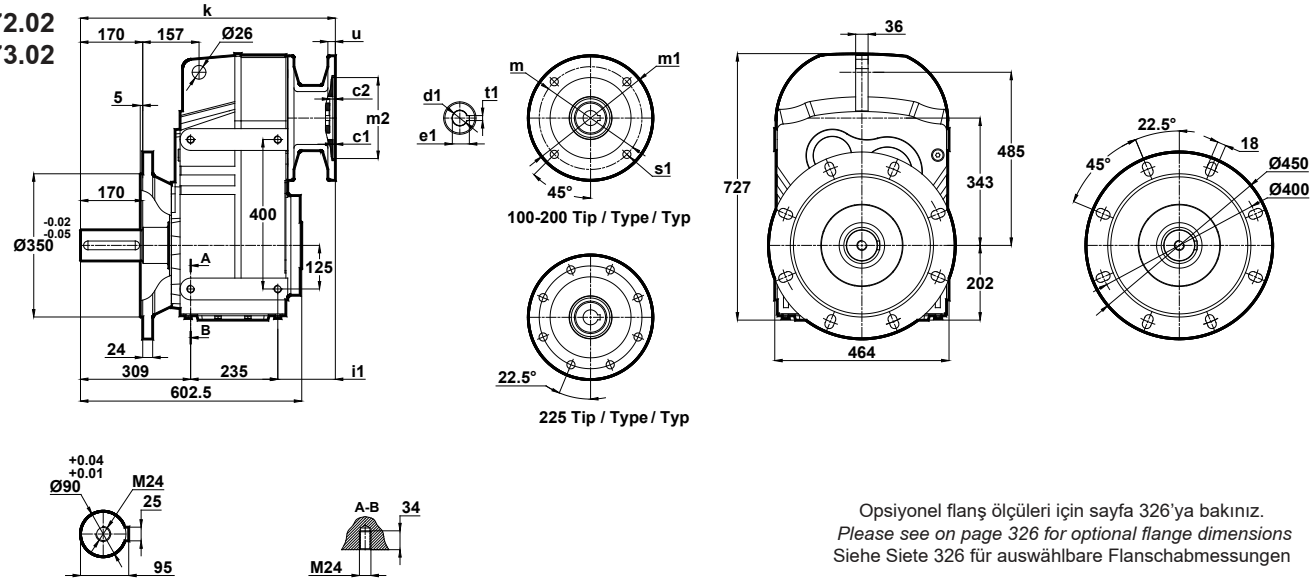
DN772.01
DN773.01



	c1	c2	s1	m	m1	m2(H7)	i1	u	k	d1	t1	e1
100/B5	5	15	15	215	250	180	85	15	570	28	8	31.3
112/B5	5	15	15	215	250	180	85	15	570	28	8	31.3
132/B5 **132/B14**	5 4.5	9	15	265 165	300 200	230 130	100	15	585	38	10	41.3
160/B5	5.5	10	19	300	350	250	175	20	660	42	12	45.3
180/B5	6	10	19	300	350	250	175	20	660	48	14	51.8
200/B5	6	10	19	350	400	300	196	22	680	55	16	59.3
225/B5	5.5	10	19	400	450	350	249	24	733	60	18	64.4

Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole according to DIN 332, sheet 2* / Zentrierung mit Gewinde nach DIN 332, Blatt 2

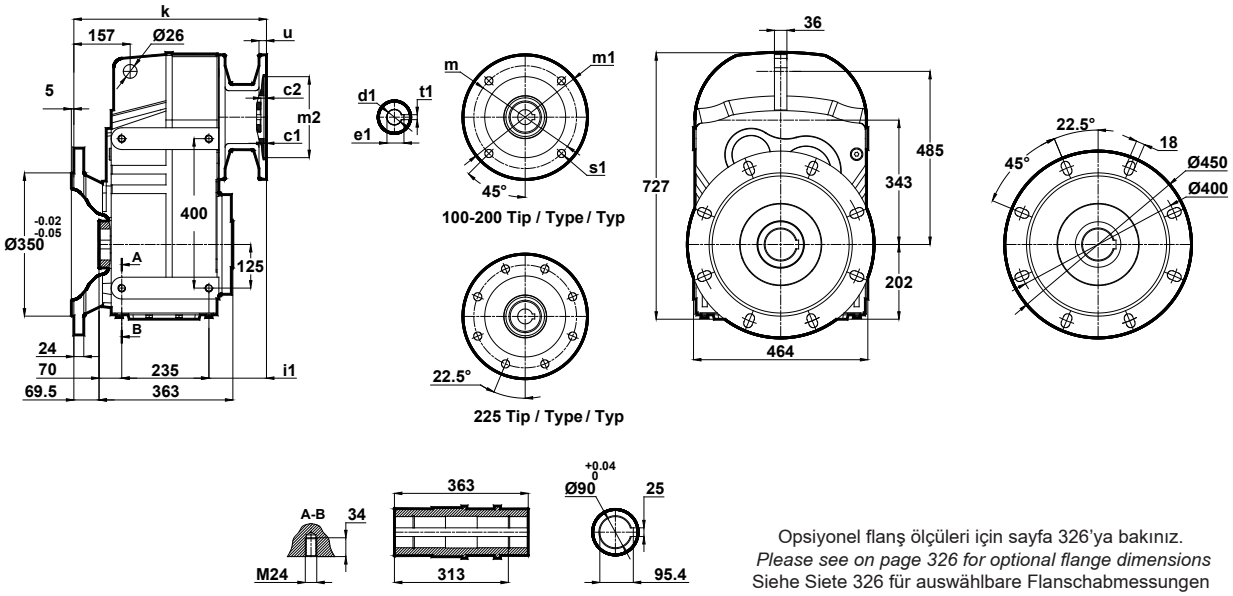
DN772.02
DN773.02



Opsiyonel flanş ölçüleri için sayfa 326'ya bakınız.
Please see on page 326 for optional flange dimensions
Siehe Siete 326 für auswählbare Flanschabmessungen

	c1	c2	s1	m	m1	m2(H7)	i1	u	k	d1	t1	e1
100/B5	5	15	15	215	250	180	85	15	630	28	8	31.3
112/B5	5	15	15	215	250	180	85	15	630	28	8	31.3
132/B5 **132/B14**	5 4.5	9	15	265 165	300 200	230 130	100	15	645	38	10	41.3
160/B5	5.5	10	19	300	350	250	175	20	720	42	12	45.3
180/B5	6	10	19	300	350	250	175	20	720	48	14	51.8
200/B5	6	10	19	350	400	300	196	22	740	55	16	59.3
225/B5	5.5	10	19	400	450	350	249	24	793	60	18	64.4

DN772.03
DN773.03

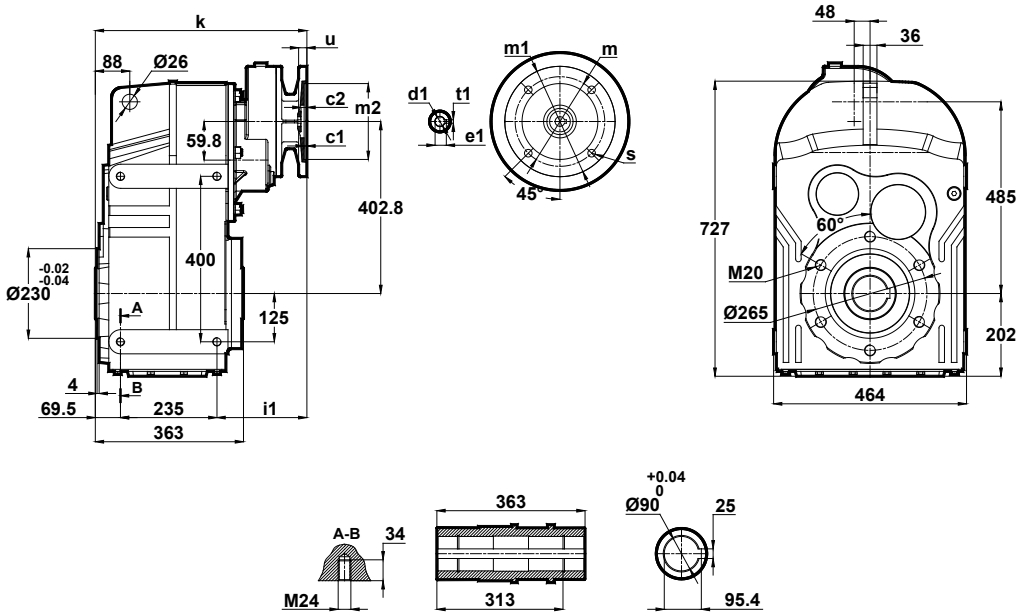


Opsiyonel flanş ölçüleri için sayfa 326'ya bakınız.
Please see on page 326 for optional flange dimensions
Siehe Siete 326 für auswählbare Flanschabmessungen

	c1	c2	s1	m	m1	m2(H7)	i1	u	k	d1	t1	e1
100/B5	5	15	15	215	250	180	85	15	460	28	8	31.3
112/B5	5	15	15	215	250	180	85	15	460	28	8	31.3
132/B5 **132/B14**	5 4.5	9	15	265 165	300 200	230 130	100	15	475	38	10	41.3
160/B5	5.5	10	19	300	350	250	175	20	550	42	12	45.3
180/B5	6	10	19	300	350	250	175	20	550	48	14	51.8
200/B5	6	10	19	350	400	300	196	22	570	55	16	59.3
225/B5	5.5	10	19	400	450	350	249	24	623	60	18	64.4

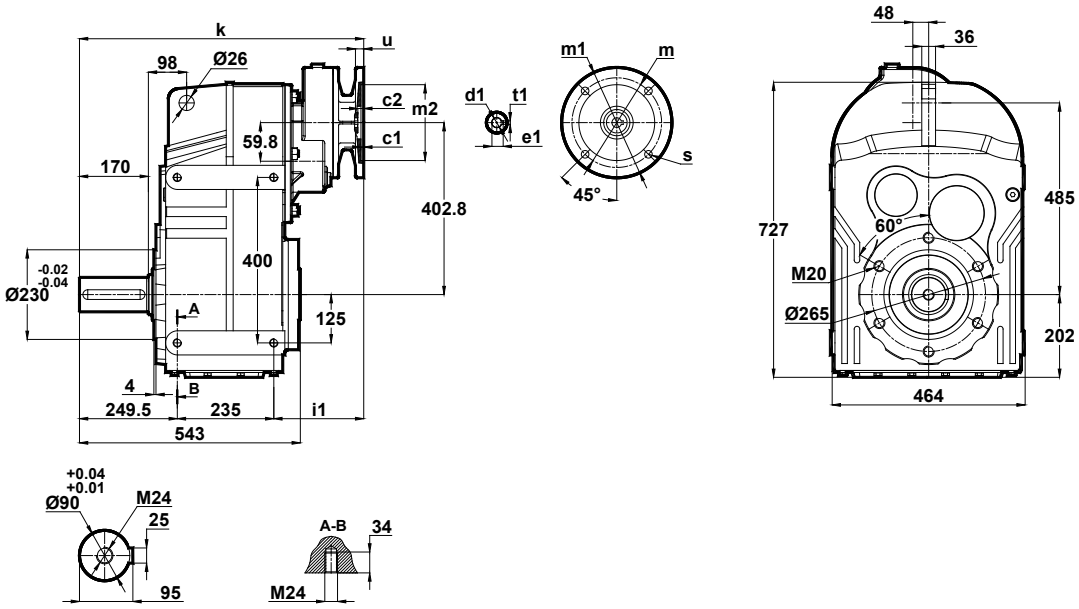
Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole according to DIN 332, sheet 2* / Zentrierung mit Gewinde nach DIN 332, Blatt 2

DN774.00



	c1	c2	s1	m	m1	m2(H7)	i1	u	k	d1	t1	e1
80/B5	4	5	12	165	200	130	175	12	480	19	6	21.8
90/B5 90/B14	4	5	12 9	165 115	200 140	130 95	175	12	480	24	8	27.3
100/B5 100/B14	5 4	9	15 9	215 130	250 160	180 110	194	15	498	28	8	31.3

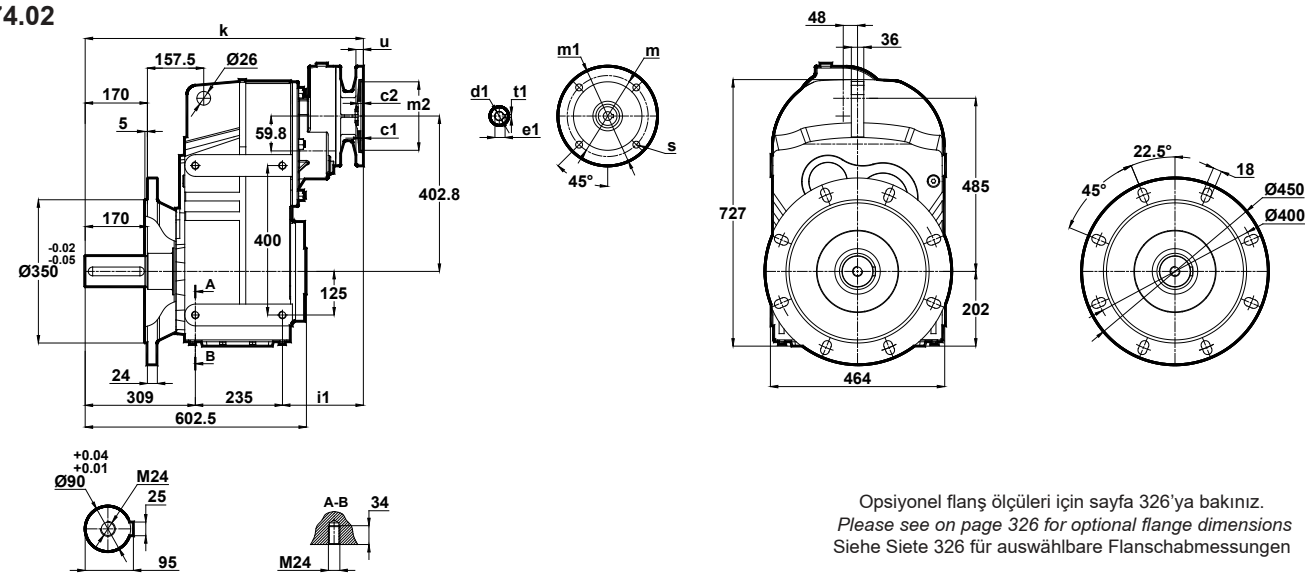
DN774.01



	c1	c2	s1	m	m1	m2(H7)	i1	u	k	d1	t1	e1
80/B5	4	5	12	165	200	130	175	12	660	19	6	21.8
90/B5 90/B14	4	5	12 9	165 115	200 140	130 95	175	12	660	24	8	27.3
100/B5 100/B14	5 4	9	15 9	215 130	250 160	180 110	194	15	678	28	8	31.3

Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole according to DIN 332, sheet 2* / Zentrierung mit Gewinde nach DIN 332, Blatt 2

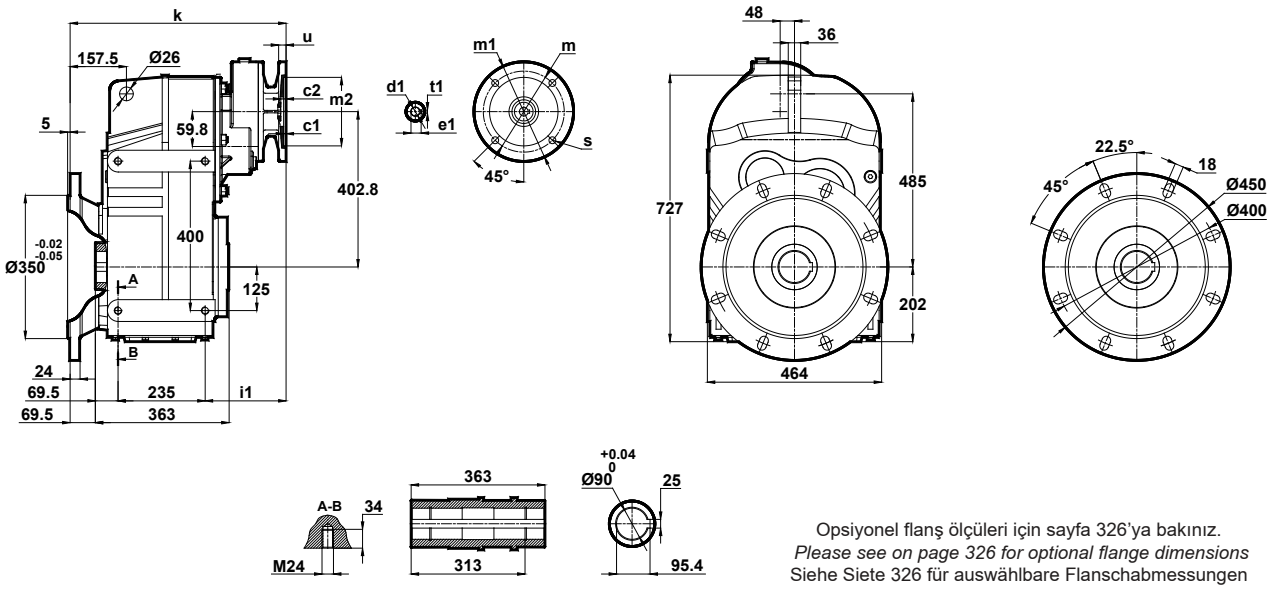
DN774.02



Opsiyonel flanş ölçüleri için sayfa 326'ya bakınız.
Please see on page 326 for optional flange dimensions
Siehe Siete 326 für auswählbare Flanschabmessungen

	c1	c2	s1	m	m1	m2(H7)	i1	u	k	d1	t1	e1
80/B5	4	5	12	165	200	130	175	12	720	19	6	21.8
90/B5 90/B14	4	5	12 9	165 115	200 140	130 95	175	12	720	24	8	27.3
100/B5 100/B14	5 4	9	15 9	215 130	250 160	180 110	194	15	738	28	8	31.3

DN774.03

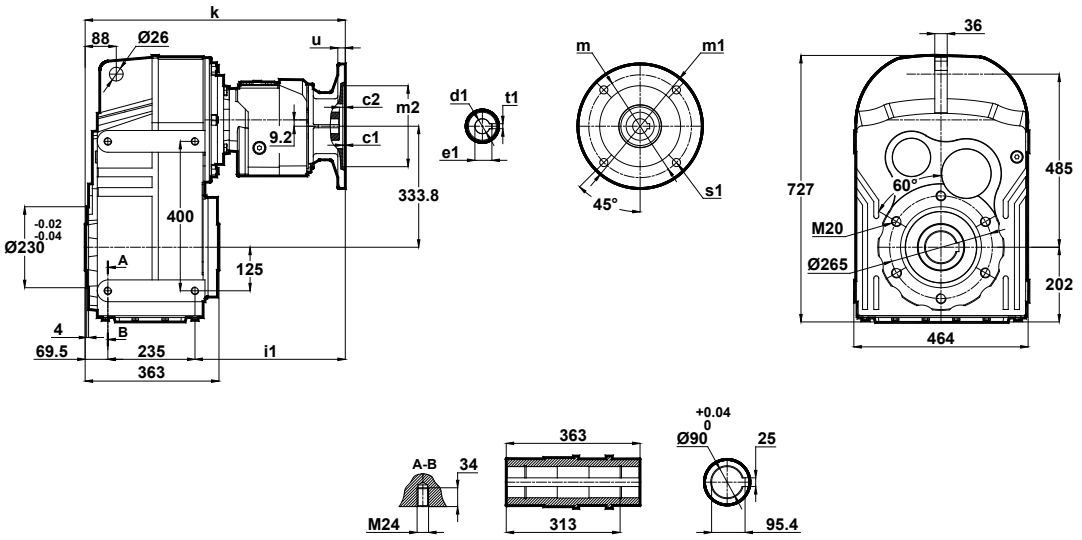


Opsiyonel flanş ölçüleri için sayfa 326'ya bakınız.
Please see on page 326 for optional flange dimensions
Siehe Siete 326 für auswählbare Flanschabmessungen

	c1	c2	s1	m	m1	m2(H7)	i1	u	k	d1	t1	e1
80/B5	4	5	12	165	200	130	175	12	550	19	6	21.8
90/B5 90/B14	4	5	12 9	165 115	200 140	130 95	175	12	550	24	8	27.3
100/B5 100/B14	5 4	9	15 9	215 130	250 160	180 110	194	15	568	28	8	31.3

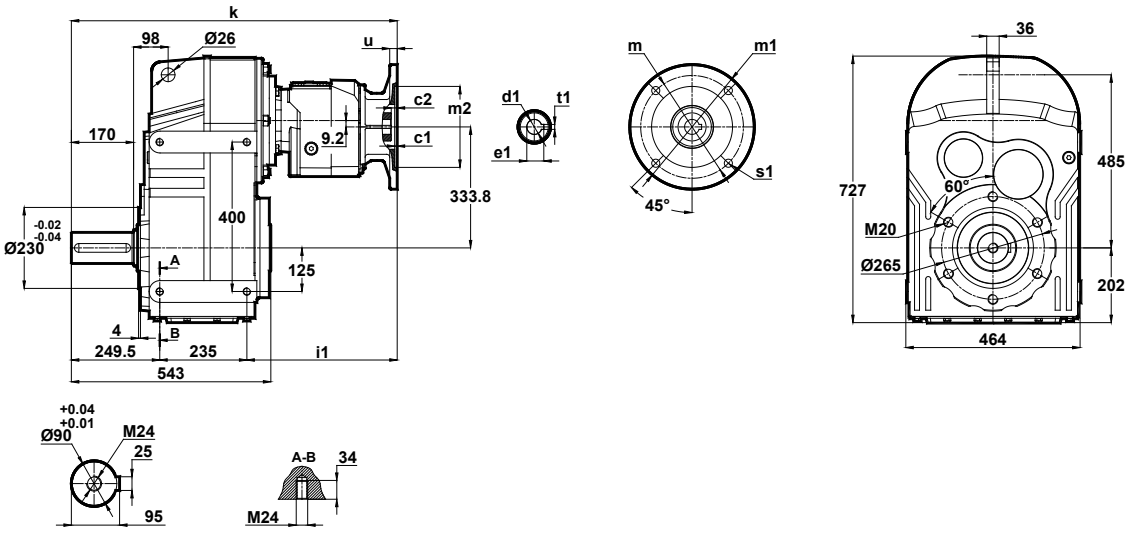
Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole according to DIN 332, sheet 2* / Zentrierung mit Gewinde nach DIN 332, Blatt 2

DN775.00
DN776.00



	c1	c2	s1	m	m1	m2(H7)	i1	u	k	d1	t1	e1
71/B5	4	9	11	130	160	110	326	12	630	14	5	16.3
80/B5 80/B14	4	9	12 7	165 100	200 120	130 80	326	12	630	19	6	21.8
90/B5 90/B14	4	9	12 9	165 115	200 140	130 95	326	12	630	24	8	27.3

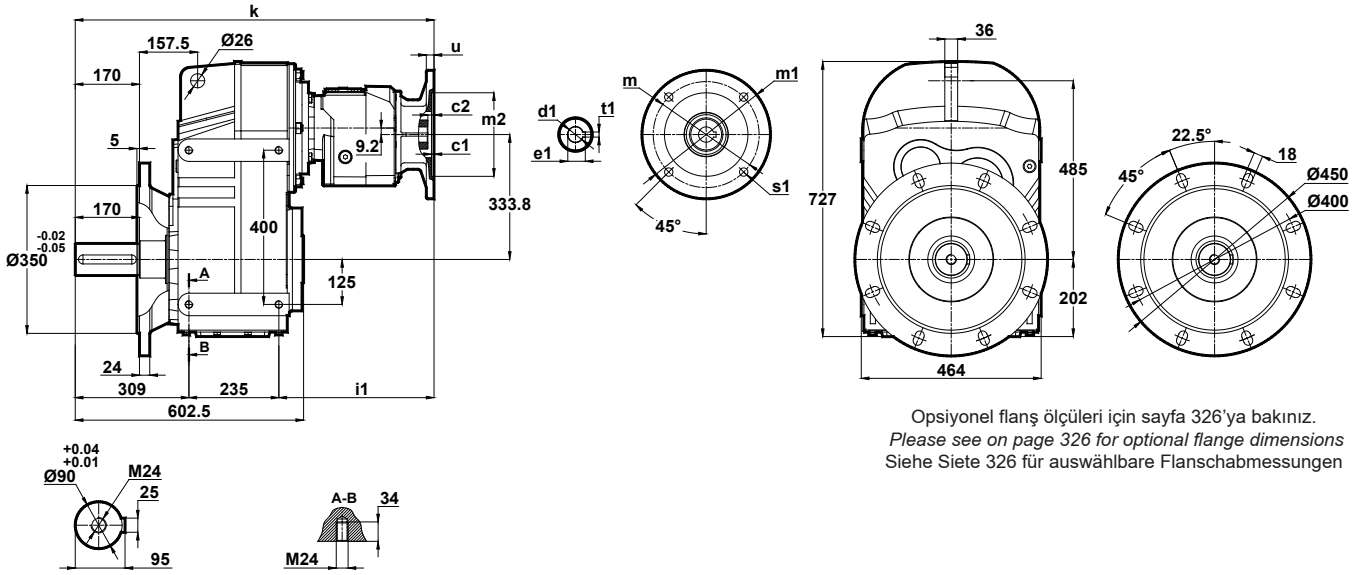
DN775.01
DN776.01



	c1	c2	s1	m	m1	m2(H7)	i1	u	k	d1	t1	e1
71/B5	4	9	11	130	160	110	326	12	810	14	5	16.3
80/B5 80/B14	4	9	12 7	165 100	200 120	130 80	326	12	810	19	6	21.8
90/B5 90/B14	4	9	12 9	165 115	200 140	130 95	326	12	810	24	8	27.3

Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole according to DIN 332, sheet 2* / Zentrierung mit Gewinde nach DIN 332, Blatt 2

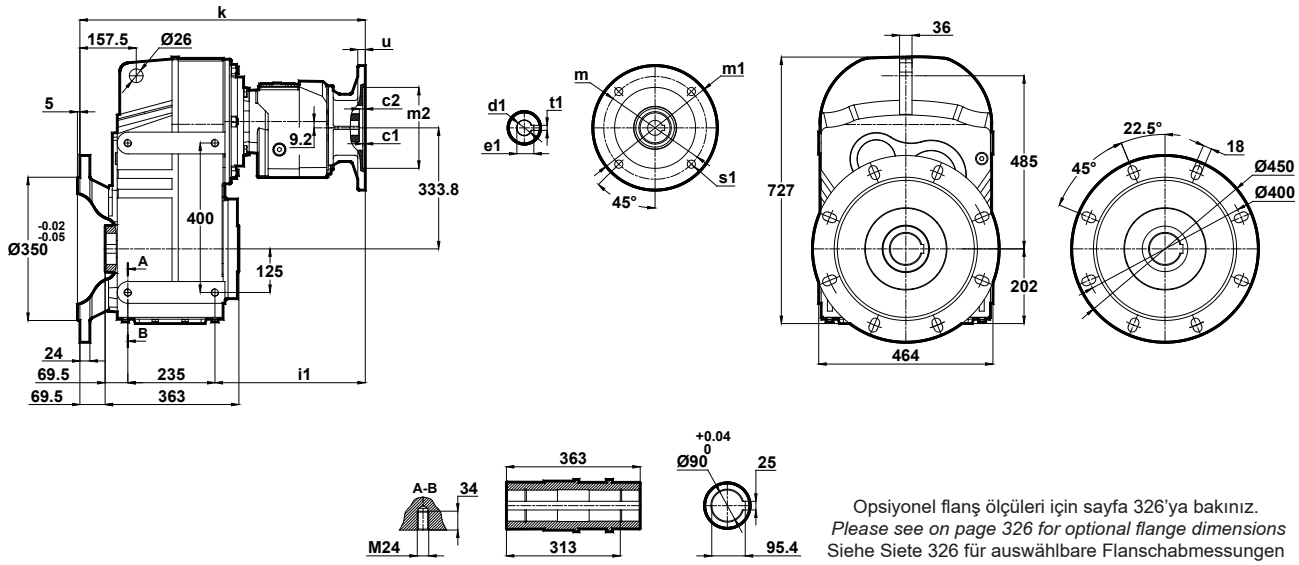
DN775.02
DN776.02



Opsiyonel flanş ölçüleri için sayfa 326'ya bakınız.
Please see on page 326 for optional flange dimensions
Siehe Siete 326 für auswählbare Flanschabmessungen

	c1	c2	s1	m	m1	m2(H7)	i1	u	k	d1	t1	e1
71/B5	4	9	11	130	160	110	326	12	870	14	5	16.3
80/B5 80/B14	4	9	12 7	165 100	200 120	130 80	326	12	870	19	6	21.8
90/B5 90/B14	4	9	12 9	165 115	200 140	130 95	326	12	870	24	8	27.3

DN775.03
DN776.03

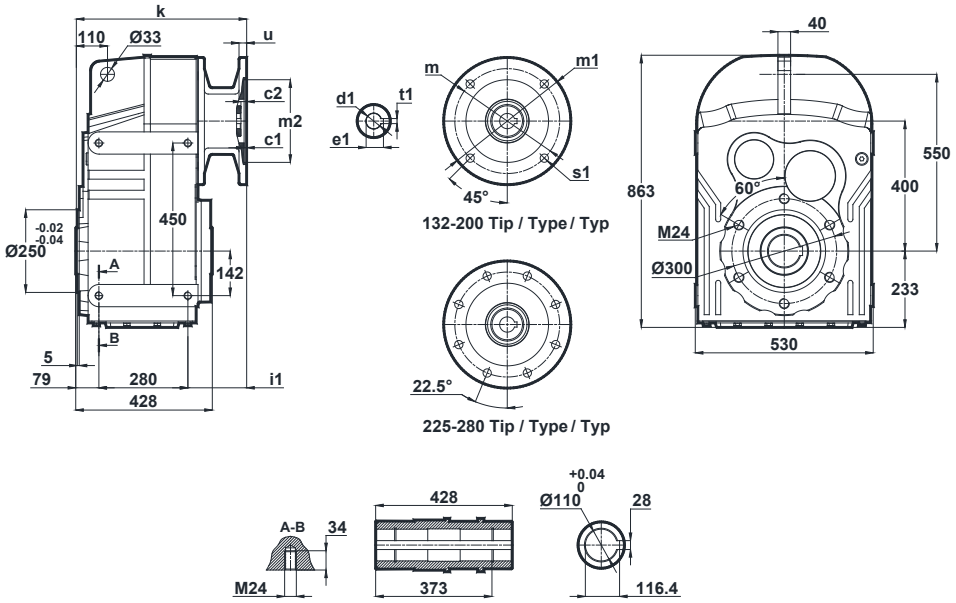


Opsiyonel flanş ölçüleri için sayfa 326'ya bakınız.
Please see on page 326 for optional flange dimensions
Siehe Siete 326 für auswählbare Flanschabmessungen

	c1	c2	s1	m	m1	m2(H7)	i1	u	k	d1	t1	e1
71/B5	4	9	11	130	160	110	326	12	700	14	5	16.3
80/B5 80/B14	4	9	12 7	165 100	200 120	130 80	326	12	700	19	6	21.8
90/B5 90/B14	4	9	12 9	165 115	200 140	130 95	326	12	700	24	8	27.3

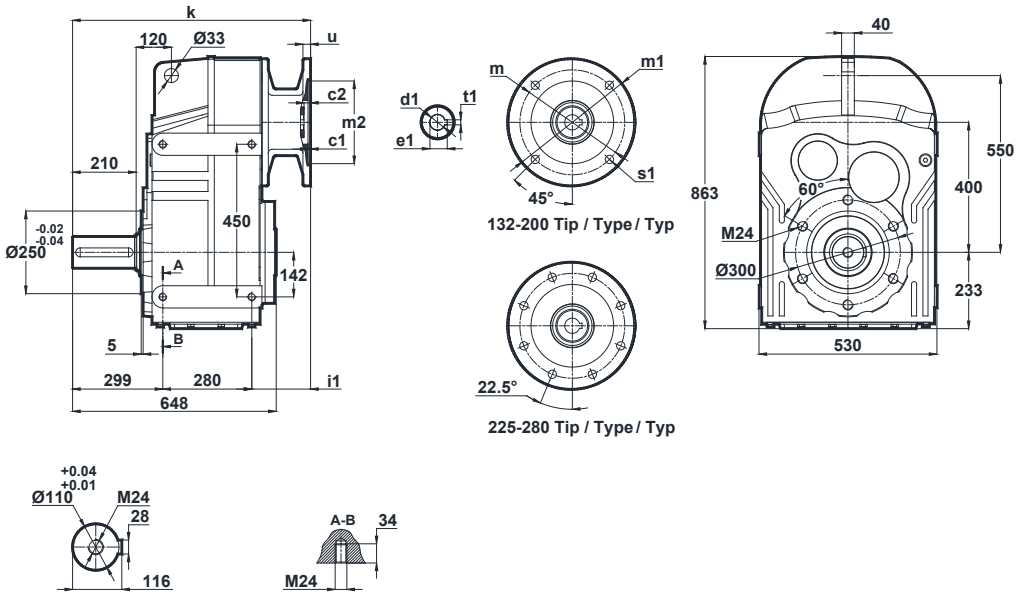
Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole according to DIN 332, sheet 2* / Zentrierung mit Gewinde nach DIN 332, Blatt 2

DN872.00
DN873.00



	c1	c2	s1	m	m1	m2(H7)	i1	u	k	d1	t1	e1
132/B5	5	14	15	265	300	230	98	15	457	38	10	41.3
160/B5	5.5	10	19	300	350	250	243	20	602	42	12	45.3
180/B5	6	10	19	300	350	250	243	20	602	48	14	51.8
200/B5	6	10	19	350	400	300	243	22	602	55	16	59.3
225/B5	5.5	10	19	400	450	350	243	24	602	60	18	64.4
250/B5	6	10	19	500	550	450	243	24	602	65	18	69.4
280/B5	6	10	19	500	550	450	243	24	602	75	20	79.4

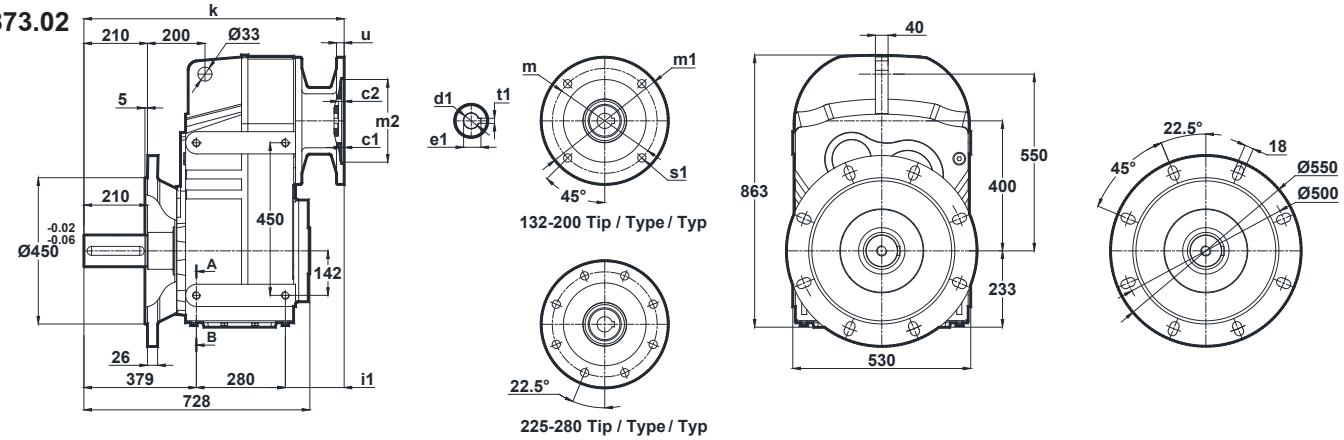
DN872.01
DN873.01



	c1	c2	s1	m	m1	m2(H7)	i1	u	k	d1	t1	e1
132/B5	5	14	15	265	300	230	98	15	677	38	10	41.3
160/B5	5.5	10	19	300	350	250	243	20	822	42	12	45.3
180/B5	6	10	19	300	350	250	243	20	822	48	14	51.8
200/B5	6	10	19	350	400	300	243	22	822	55	16	59.3
225/B5	5.5	10	19	400	450	350	243	24	822	60	18	64.4
250/B5	6	10	19	500	550	450	243	24	822	65	18	69.4
280/B5	6	10	19	500	550	450	243	24	822	75	20	79.4

Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole according to DIN 332, sheet 2* / Zentrierung mit Gewinde nach DIN 332, Blatt 2

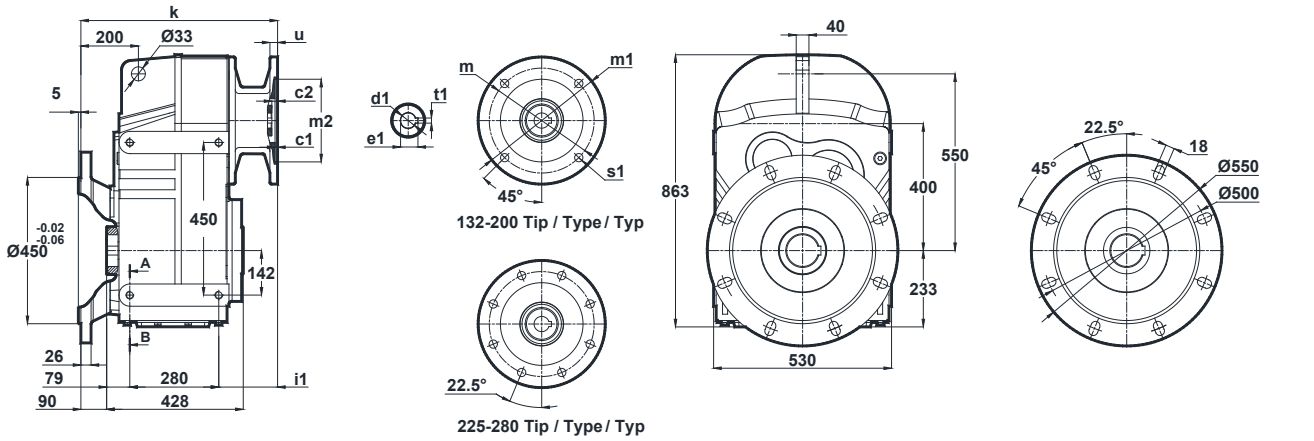
DN872.02
DN873.02

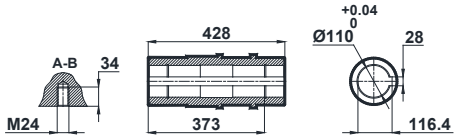


Opsiyonel flanş ölçüleri için sayfa 326'ya bakınız.
Please see on page 326 for optional flange dimensions
Siehe Siete 326 für auswählbare Flanschabmessungen

	c1	c2	s1	m	m1	m2(H7)	i1	u	k	d1	t1	e1
132/B5	5	14	15	265	300	230	98	15	757	15	10	41.3
160/B5	5.5	10	19	300	350	250	243	20	902	42	12	45.3
180/B5	6	10	19	300	350	250	243	20	902	48	14	51.8
200/B5	6	10	19	350	400	300	243	22	902	55	16	59.3
225/B5	5.5	10	19	400	450	350	243	24	902	60	18	64.4
250/B5	6	10	19	500	550	450	243	24	902	65	18	69.4
280/B5	6	10	19	500	550	450	243	24	902	75	20	79.4

DN872.03
DN873.03



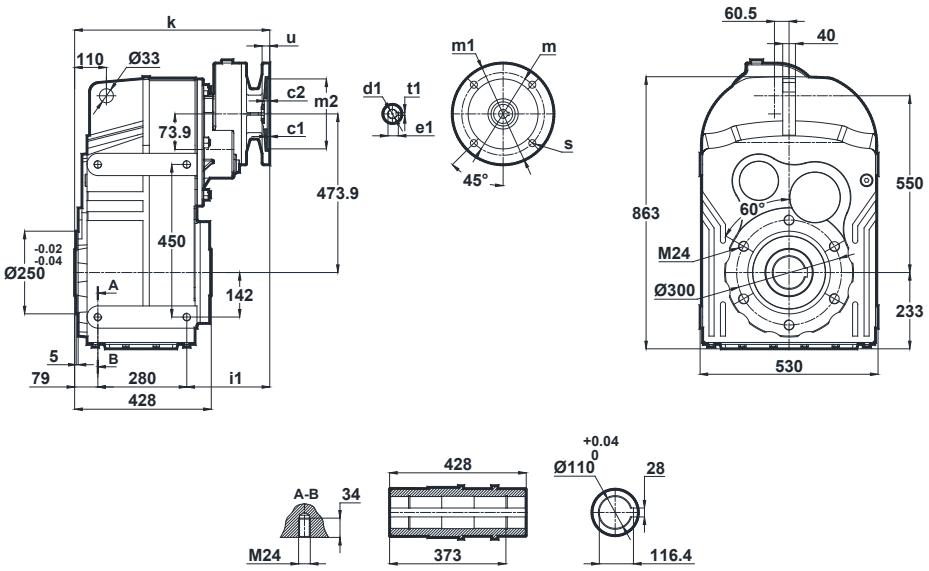


Opsiyonel flanş ölçüleri için sayfa 326'ya bakınız.
Please see on page 326 for optional flange dimensions
Siehe Siete 326 für auswählbare Flanschabmessungen

	c1	c2	s1	m	m1	m2(H7)	i1	u	k	d1	t1	e1
132/B5	5	14	15	265	300	230	98	15	547	38	10	41.3
160/B5	5.5	10	19	300	350	250	243	20	692	42	12	45.3
180/B5	6	10	19	300	350	250	243	20	692	48	14	51.8
200/B5	6	10	19	350	400	300	243	22	692	55	16	59.3
225/B5	5.5	10	19	400	450	350	243	24	692	60	18	64.4
250/B5	6	10	19	500	550	450	243	24	692	65	18	69.4
280/B5	6	10	19	500	550	450	243	24	692	75	20	79.4

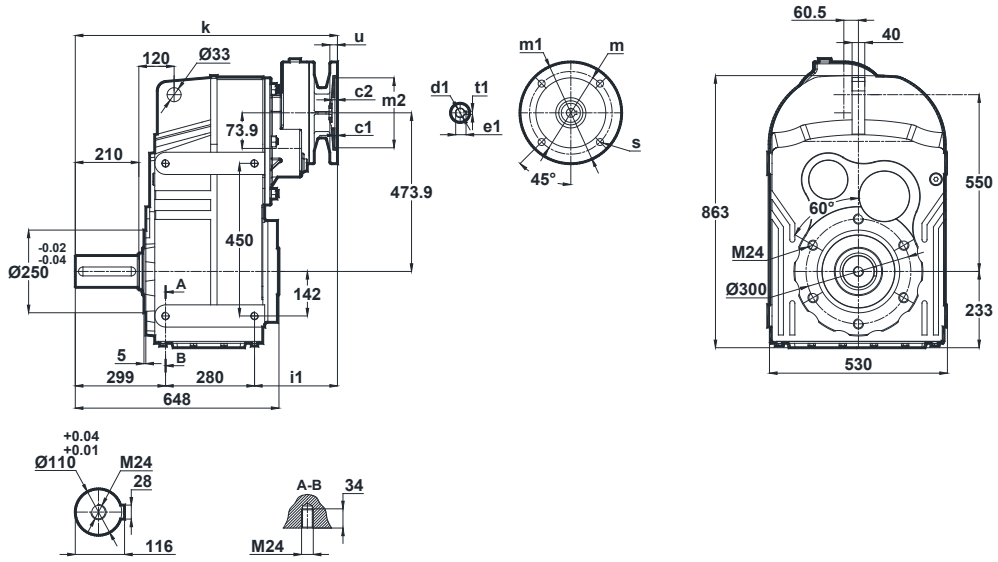
Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole according to DIN 332, sheet 2* / Zentrierung mit Gewinde nach DIN 332, Blatt 2

DN874.00



	c1	c2	s1	m	m1	m2(H7)	i1	u	k	d1	t1	e1
100/B5	5	20	15	215	250	180	215	15	575	28	8	31.3
112/B5	5	20	15	215	250	180	215	15	575	28	8	31.3
132/B5 132/B14	5 4.5	9	15 11	265 165	300 200	230 130	236	15	596	38	10	41.3

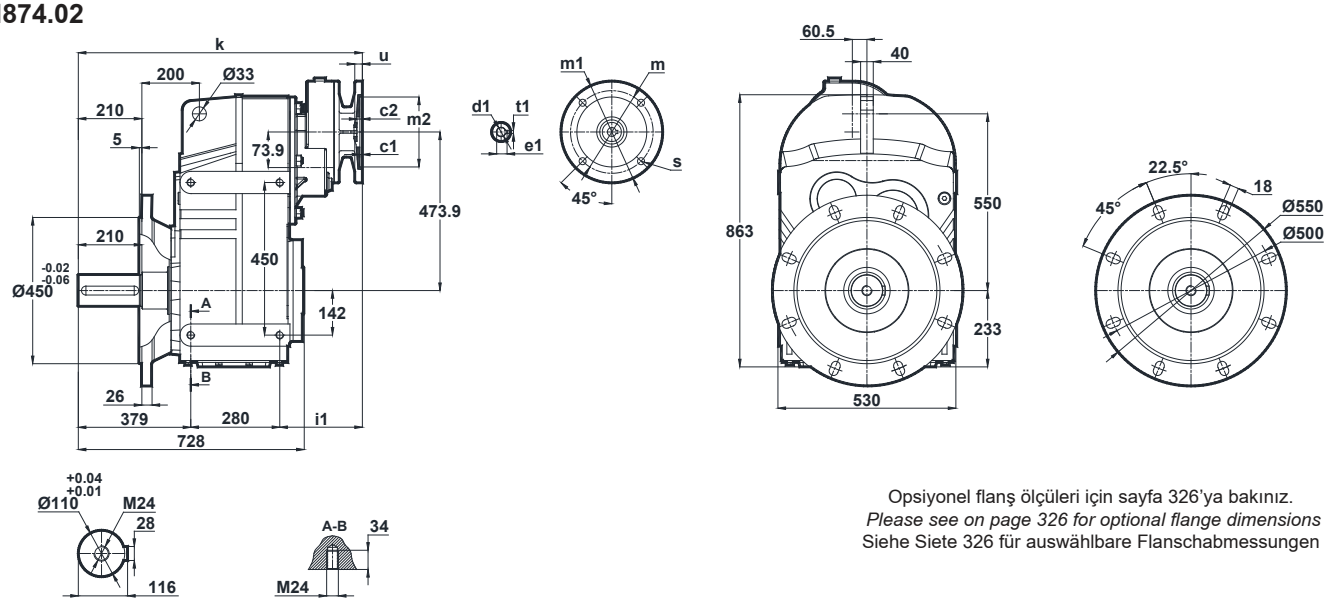
DN874.01



	c1	c2	s1	m	m1	m2(H7)	i1	u	k	d1	t1	e1
100/B5	5	20	15	215	250	180	215	15	795	28	8	31.3
112/B5	5	20	15	215	250	180	215	15	795	28	8	31.3
132/B5 132/B14	5 4.5	9	15 11	265 165	300 200	230 130	236	15	816	38	10	41.3

Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole according to DIN 332, sheet 2* / Zentrierung mit Gewinde nach DIN 332, Blatt 2

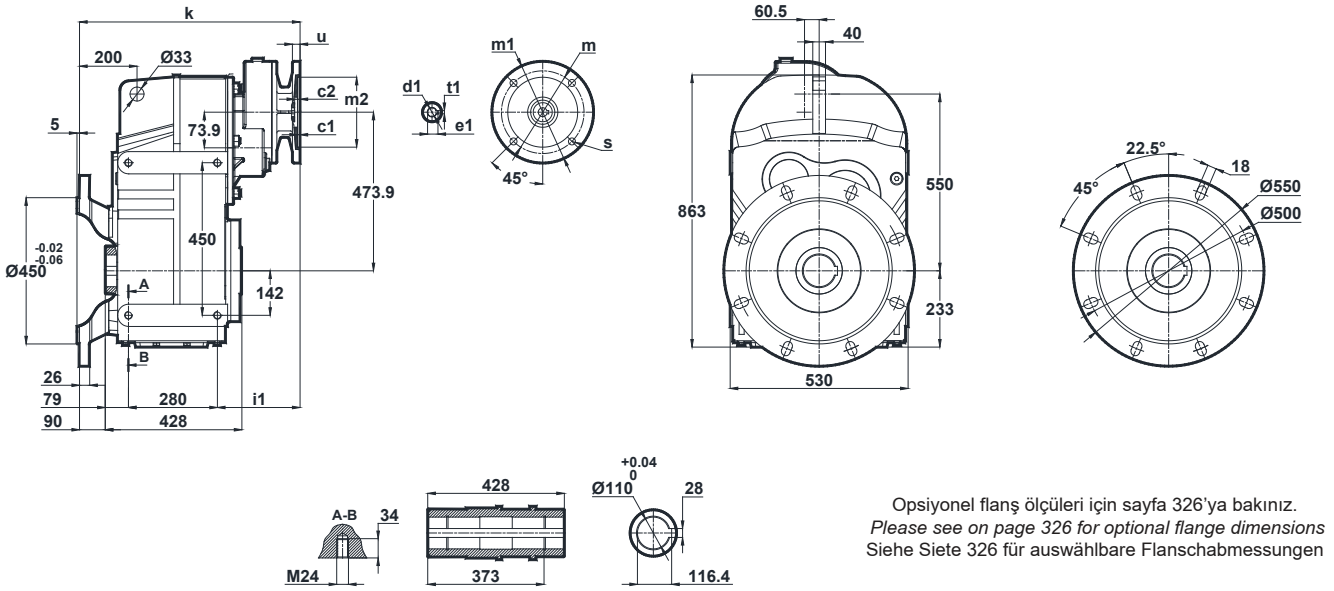
DN874.02



Opsiyonel flanş ölçüleri için sayfa 326'ya bakınız.
Please see on page 326 for optional flange dimensions
Siehe Siete 326 für auswählbare Flanschabmessungen

	c1	c2	s1	m	m1	m2(H7)	i1	u	k	d1	t1	e1
100/B5	5	20	15	215	250	180	215	15	875	28	8	31.3
112/B5	5	20	15	215	250	180	215	15	875	28	8	31.3
132/B5 **132/B14**	5 4.5	9	15 11	265 165	300 200	230 130	236	15	896	38	10	41.3

DN874.03

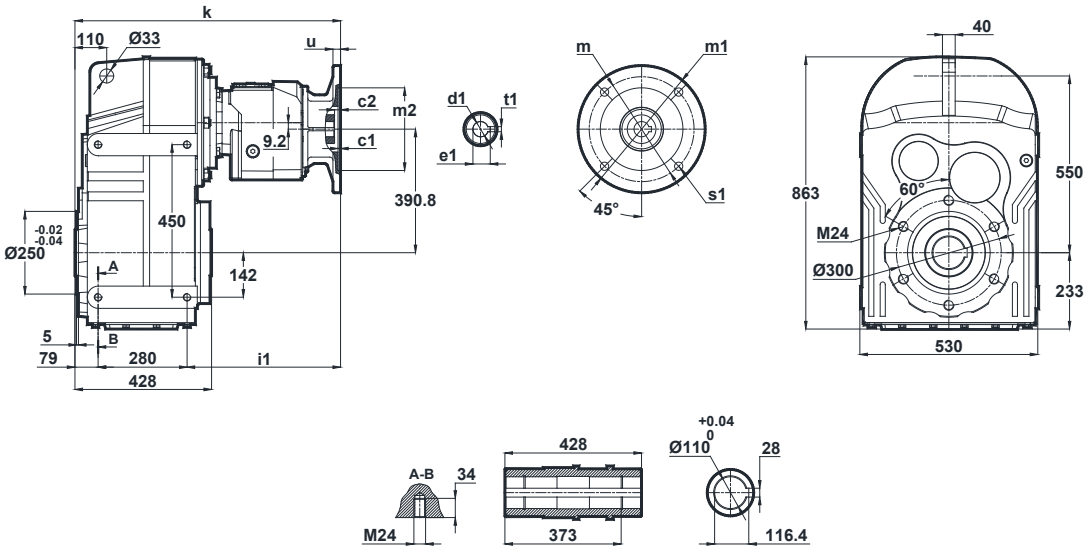


Opsiyonel flanş ölçüleri için sayfa 326'ya bakınız.
Please see on page 326 for optional flange dimensions
Siehe Siete 326 für auswählbare Flanschabmessungen

	c1	c2	s1	m	m1	m2(H7)	i1	u	k	d1	t1	e1
100/B5	5	20	15	215	250	180	215	15	665	28	8	31.3
112/B5	5	20	15	215	250	180	215	15	665	28	8	31.3
132/B5 **132/B14**	5 4.5	9	15 11	265 165	300 200	230 130	236	15	686	38	10	41.3

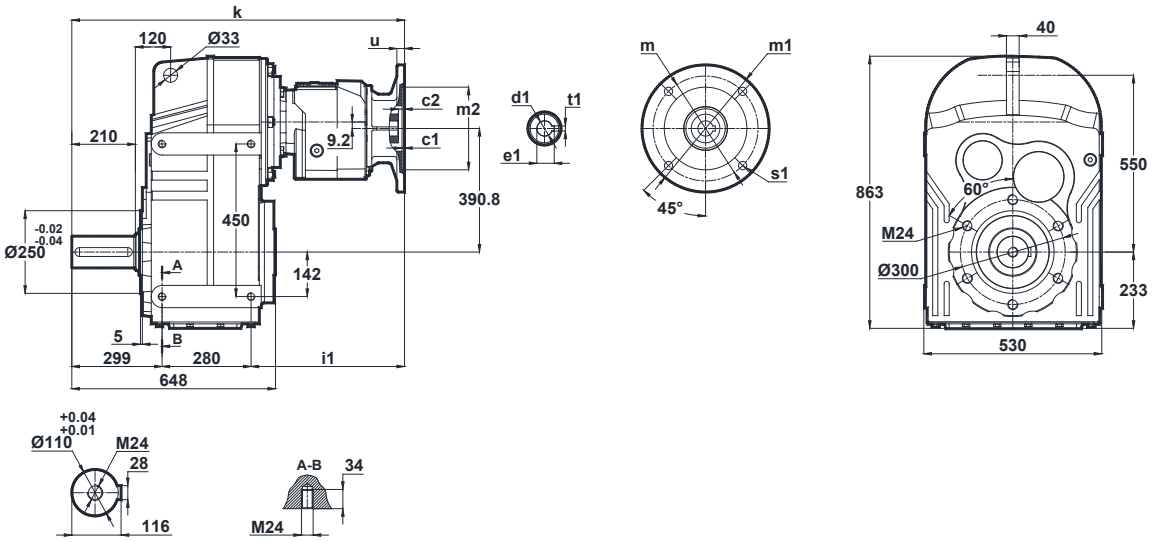
Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole according to DIN 332, sheet 2* / Zentrierung mit Gewinde nach DIN 332, Blatt 2

DN875.00
DN876.00



	c1	c2	s1	m	m1	m2(H7)	i1	u	k	d1	t1	e1
71/B5	4	9	11	130	160	110	333	12	693	14	5	16.3
80/B5 80/B14	4	9	12 7	165 100	200 120	130 80	333	12	693	19	6	21.8
90/B5 90/B14	4	9	12 9	165 115	200 140	130 95	333	12	693	24	8	27.3
100/B5 100/B14	5 4	9	15 9	215 130	250 160	180 110	350	15	710	28	8	31.3

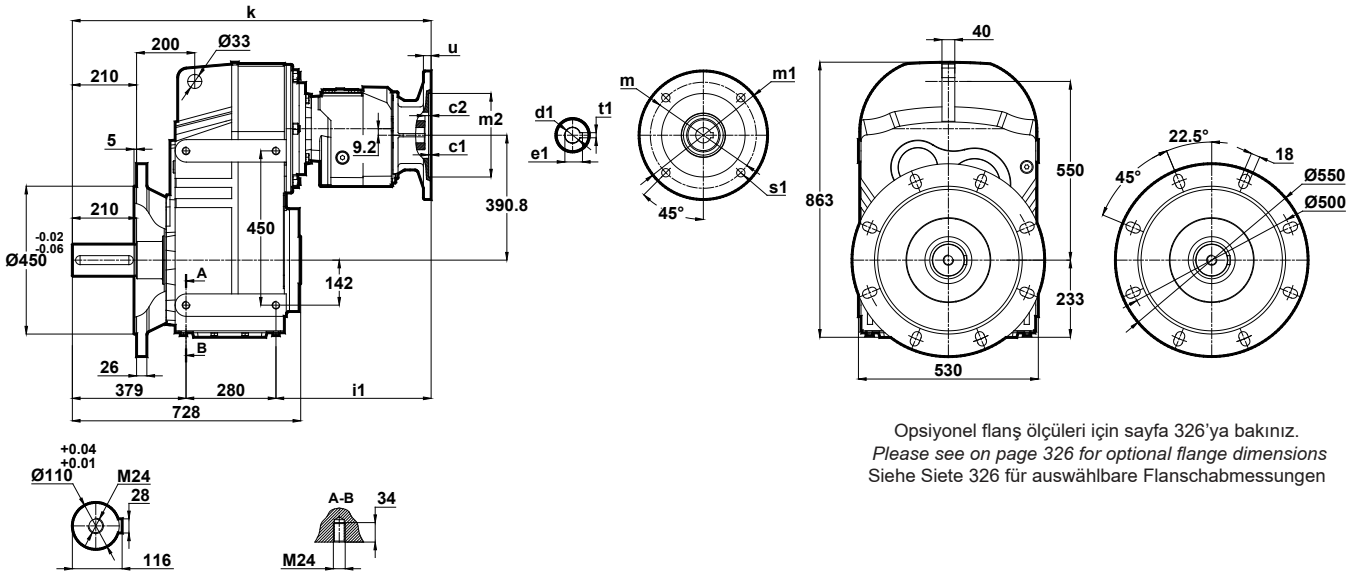
DN875.01
DN876.01



	c1	c2	s1	m	m1	m2(H7)	i1	u	k	d1	t1	e1
71/B5	4	9	11	130	160	110	333	12	913	14	5	16.3
80/B5 80/B14	4	9	12 7	165 100	200 120	130 80	333	12	913	19	6	21.8
90/B5 90/B14	4	9	12 9	165 115	200 140	130 95	333	12	913	24	8	27.3
100/B5 100/B14	5 4	9	15 9	215 130	250 160	180 110	350	15	930	28	8	31.3

Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole according to DIN 332, sheet 2* / Zentrierung mit Gewinde nach DIN 332, Blatt 2

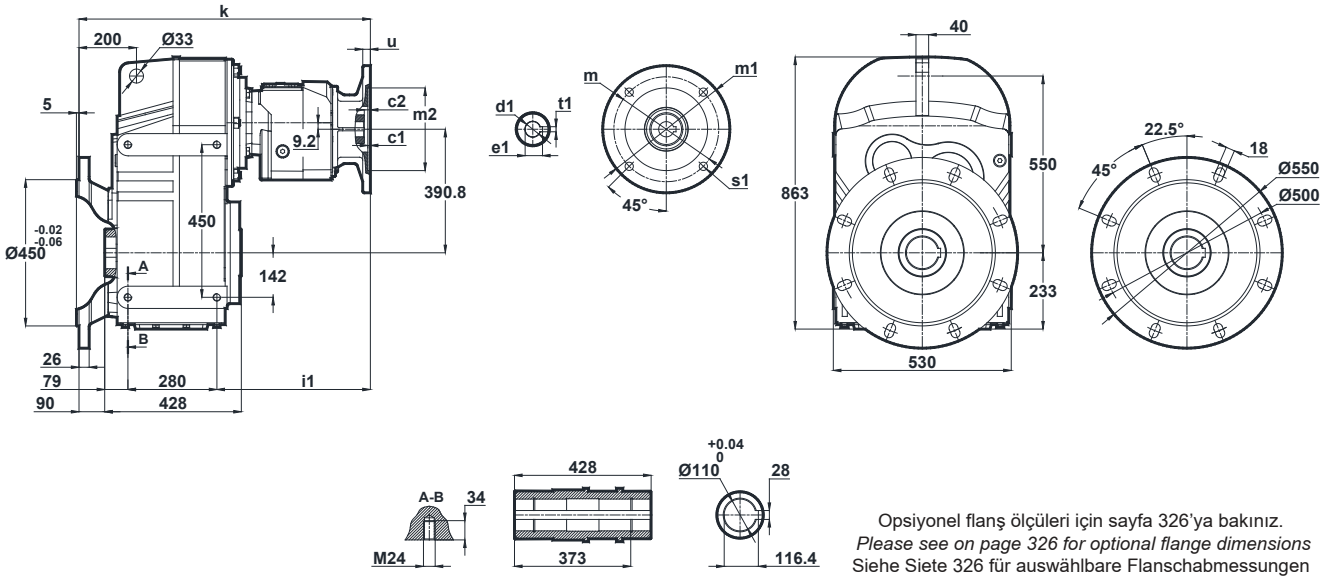
DN875.02
DN876.02



Opsiyonel flanş ölçüleri için sayfa 326'ya bakınız.
Please see on page 326 for optional flange dimensions
Siehe Siete 326 für auswählbare Flanschabmessungen

	c1	c2	s1	m	m1	m2(H7)	i1	u	k	d1	t1	e1
71/B5	4	9	11	130	160	110	333	12	993	14	5	16.3
80/B5 80/B14	4	9	12 7	165 100	200 120	130 80	333	12	993	19	6	21.8
90/B5 90/B14	4	9	12 9	165 115	200 140	130 95	333	12	993	24	8	27.3
100/B5 100/B14	5 4	9	15 9	215 130	250 160	180 110	350	15	1010	28	8	31.3

DN875.03
DN876.03

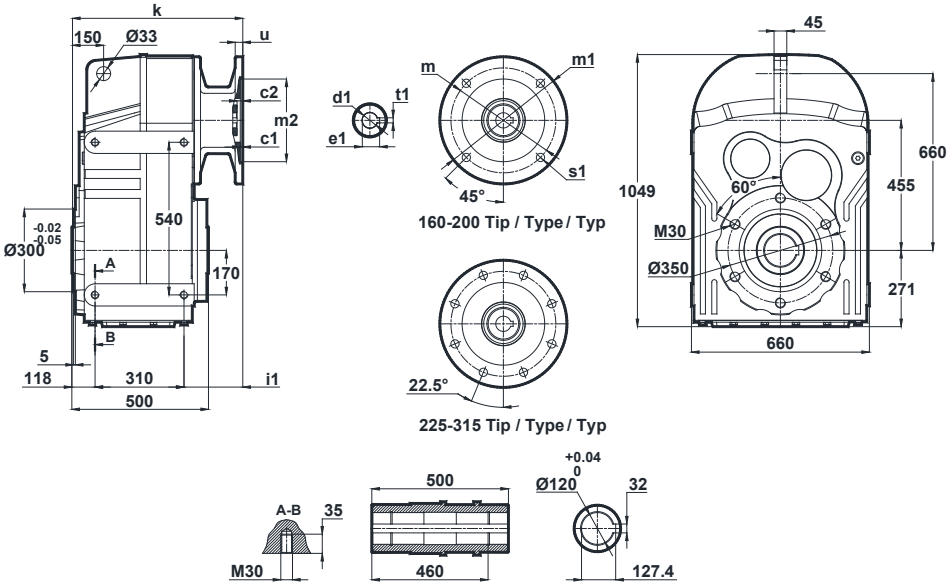


Opsiyonel flanş ölçüleri için sayfa 326'ya bakınız.
Please see on page 326 for optional flange dimensions
Siehe Siete 326 für auswählbare Flanschabmessungen

	c1	c2	s1	m	m1	m2(H7)	i1	u	k	d1	t1	e1
71/B5	4	9	11	130	160	110	333	12	783	14	5	16.3
80/B5 80/B14	4	9	12 7	165 100	200 120	130 80	333	12	783	19	6	21.8
90/B5 90/B14	4	9	12 9	165 115	200 140	130 95	333	12	783	24	8	27.3
100/B5 100/B14	5 4	9	15 9	215 130	250 160	180 110	350	15	800	28	8	31.3

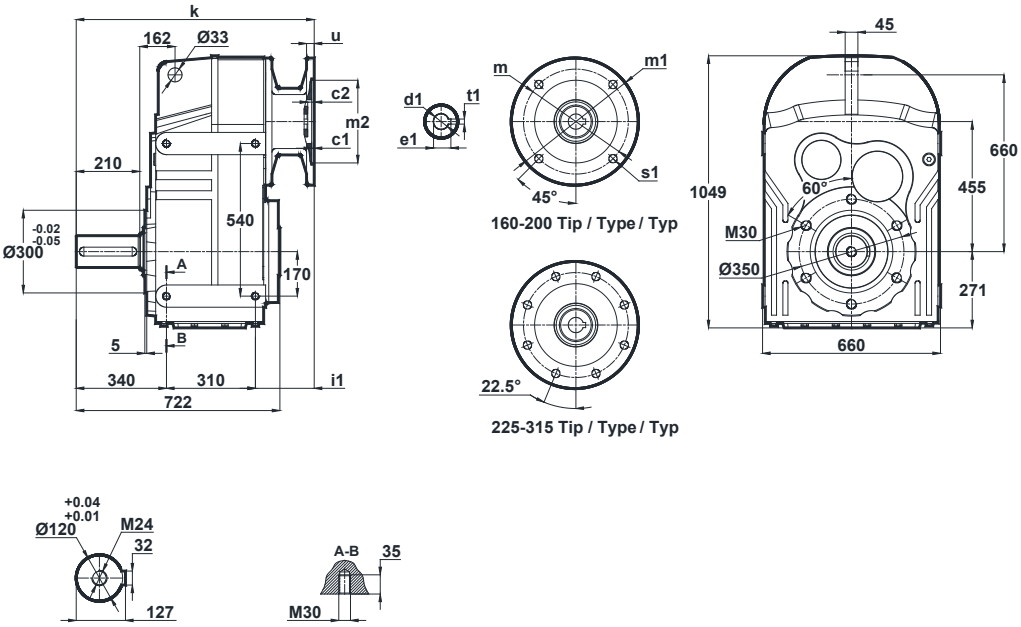
Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole according to DIN 332, sheet 2* / Zentrierung mit Gewinde nach DIN 332, Blatt 2

DN972.00
DN973.00



	c1	c2	s1	m	m1	m2(H7)	i1	u	k	d1	t1	e1
160/B5	5.5	10	19	300	350	250	163	20	591	42	12	45.3
180/B5	5.5	10	19	300	350	250	163	20	591	48	14	51.8
200/B5	5.5	10	19	350	400	300	187	22	615	55	16	59.3
225/B5	5.5	10	19	400	450	350	229	24	657	60	18	64.4
250/B5	5.5	10	19	500	550	450	281	24	709	65	18	69.4
280/B5	5.5	10	19	500	550	450	281	24	709	75	20	79.4
315/B5	6.5	15	24	660	600	550	331	24	759	85	22	90.4

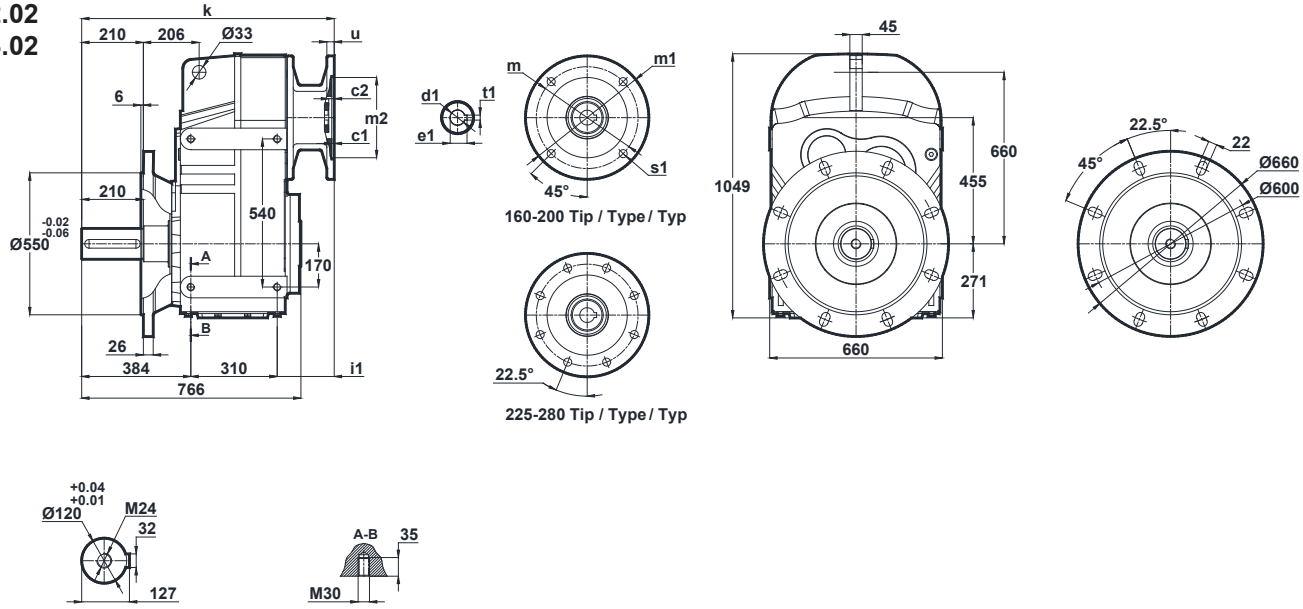
DN972.01
DN973.01



	c1	c2	s1	m	m1	m2(H7)	i1	u	k	d1	t1	e1
160/B5	5.5	10	19	300	350	250	163	20	813	42	12	45.3
180/B5	5.5	10	19	300	350	250	163	20	813	48	14	51.8
200/B5	5.5	10	19	350	400	300	187	22	837	55	16	59.3
225/B5	5.5	10	19	400	450	350	229	24	879	60	18	64.4
250/B5	5.5	10	19	500	550	450	281	24	931	65	18	69.4
280/B5	5.5	10	19	500	550	450	281	24	931	75	20	79.4
315/B5	6.5	15	24	660	600	550	331	24	981	85	22	90.4

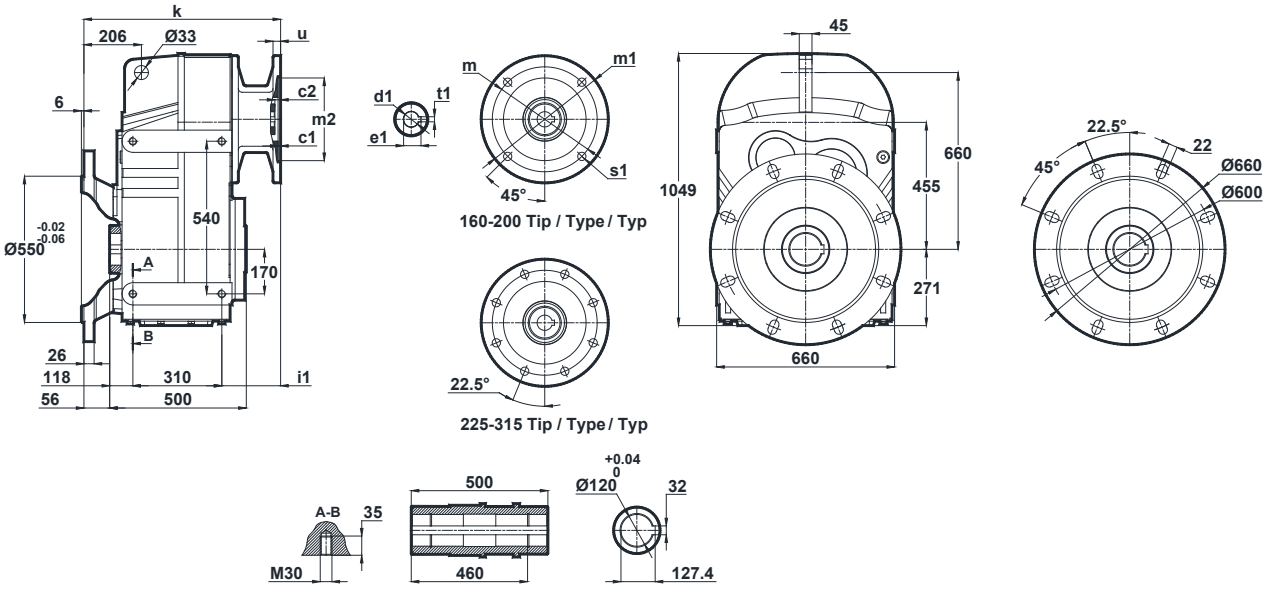
Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole according to DIN 332, sheet 2* / Zentrierung mit Gewinde nach DIN 332, Blatt 2

DN972.02
DN973.02



	c1	c2	s1	m	m1	m2(H7)	i1	u	k	d1	t1	e1
160/B5	5.5	10	19	300	350	250	163	20	857	42	12	45.3
180/B5	5.5	10	19	300	350	250	163	20	857	48	14	51.8
200/B5	5.5	10	19	350	400	300	187	22	881	55	16	59.3
225/B5	5.5	10	19	400	450	350	229	24	923	60	18	64.4
250/B5	5.5	10	19	500	550	450	281	24	975	65	18	69.4
280/B5	5.5	10	19	500	550	450	281	24	975	75	20	79.4
315/B5	6.5	15	24	660	600	550	331	24	1025	85	22	90.4

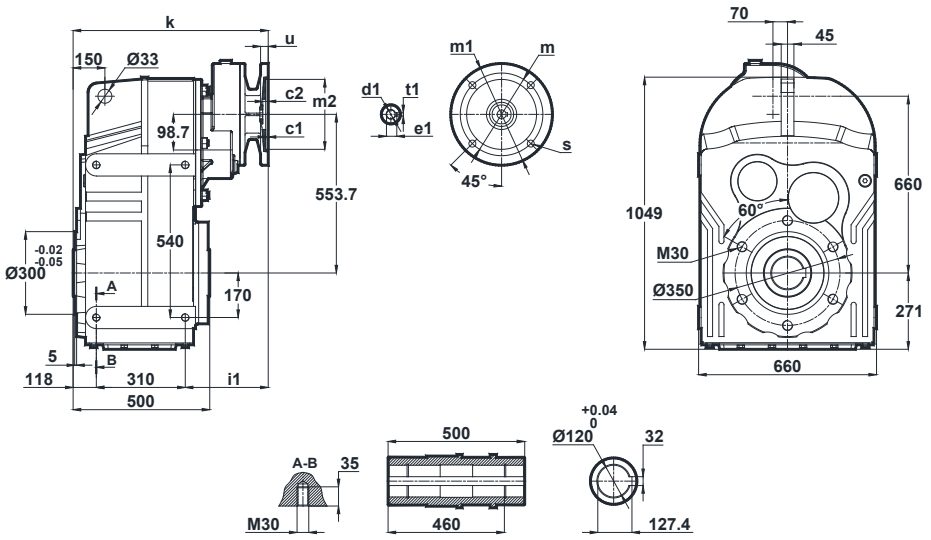
DN972.03
DN973.03



	c1	c2	s1	m	m1	m2(H7)	i1	u	k	d1	t1	e1
160/B5	5.5	10	19	300	350	250	163	20	647	42	12	45.3
180/B5	5.5	10	19	300	350	250	163	20	647	48	14	51.8
200/B5	5.5	10	19	350	400	300	187	22	671	55	16	59.3
225/B5	5.5	10	19	400	450	350	229	24	713	60	18	64.4
250/B5	5.5	10	19	500	550	450	281	24	765	65	18	69.4
280/B5	5.5	10	19	500	550	450	281	24	765	75	20	79.4
315/B5	6.5	15	24	660	600	550	331	24	815	85	22	90.4

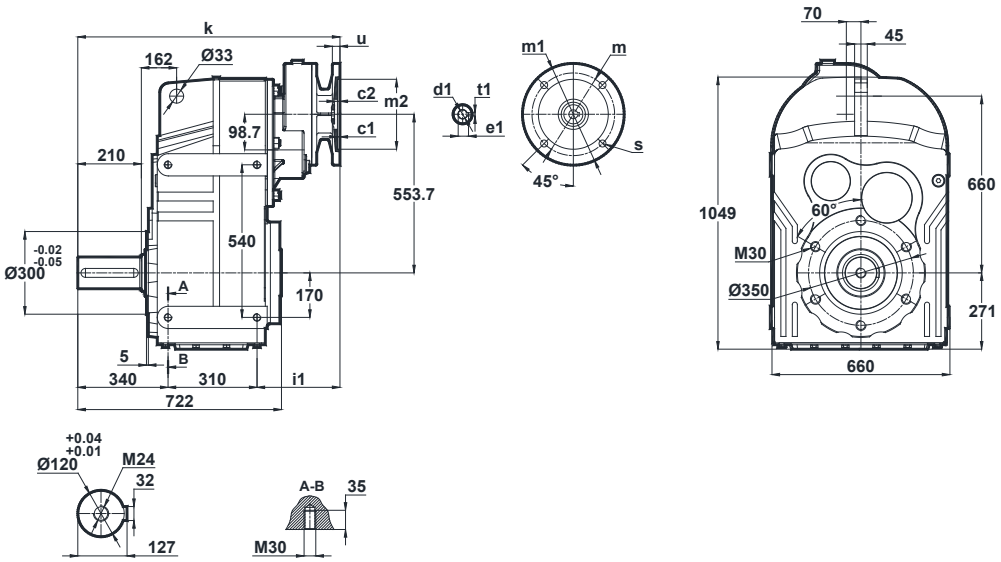
Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole according to DIN 332, sheet 2* / Zentrierung mit Gewinde nach DIN 332, Blatt 2

DN974.00



	c1	c2	s1	m	m1	m2(H7)	i1	u	k	d1	t1	e1
100/B5	5	15	15	215	250	180	252	15	571	28	8	31.3
112/B5	5	15	15	215	250	180	252	15	680	28	8	31.3
132/B5 132/B14	4.5	9	15	265 165	300 200	230 130	267	15	695	38	10	41.3

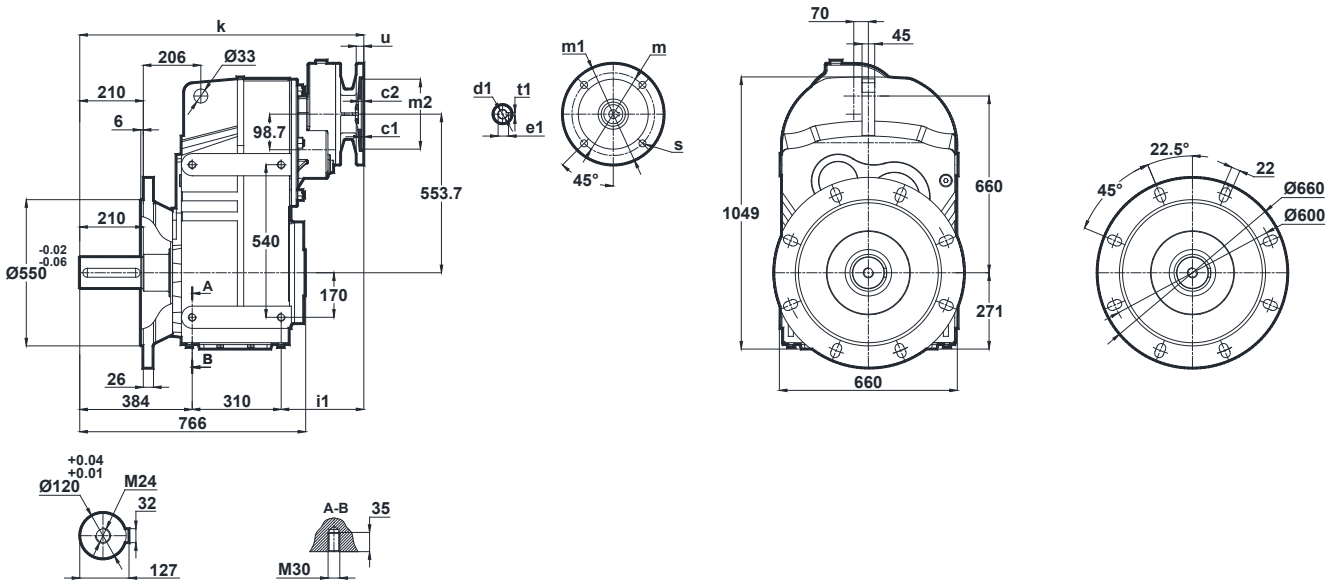
DN974.01



	c1	c2	s1	m	m1	m2(H7)	i1	u	k	d1	t1	e1
100/B5	5	15	15	215	250	180	252	15	791	28	8	31.3
112/B5	5	15	15	215	250	180	252	15	902	28	8	31.3
132/B5 132/B14	4.5	9	15	265 165	300 200	230 130	267	15	917	38	10	41.3

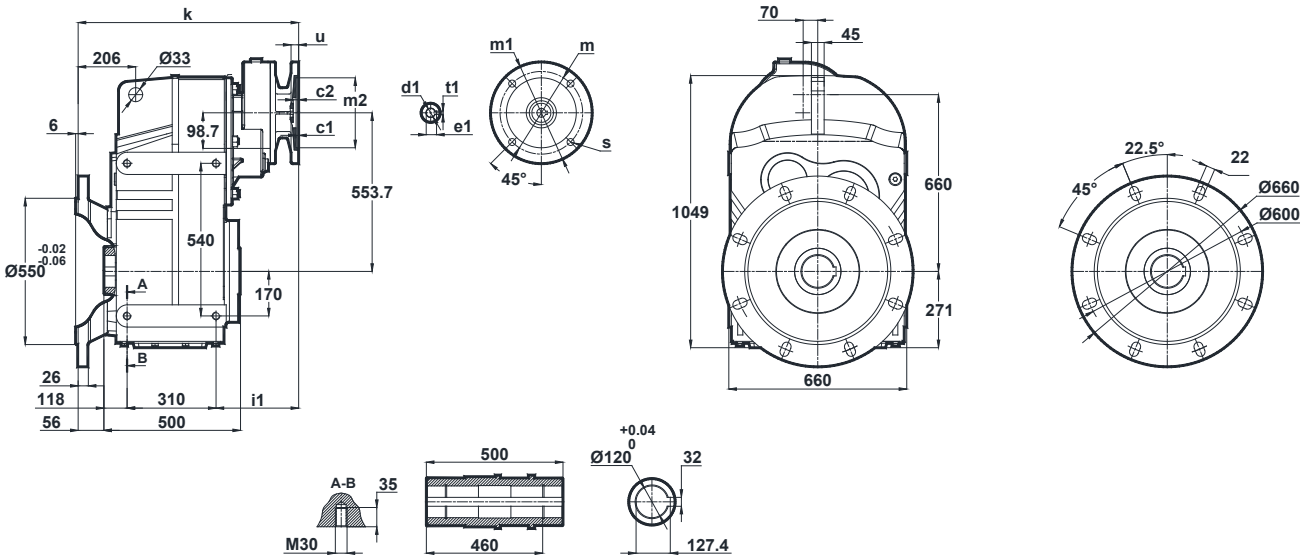
Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole according to DIN 332, sheet 2* / Zentrierung mit Gewinde nach DIN 332, Blatt 2

DN974.02



	c1	c2	s1	m	m1	m2(H7)	i1	u	k	d1	t1	e1
100/B5	5	15	15	215	250	180	252	15	871	28	8	31.3
112/B5	5	15	15	215	250	180	252	15	946	28	8	31.3
132/B5 132/B14	4.5	9	15	265 165	300 200	230 130	267	15	961	38	10	41.3

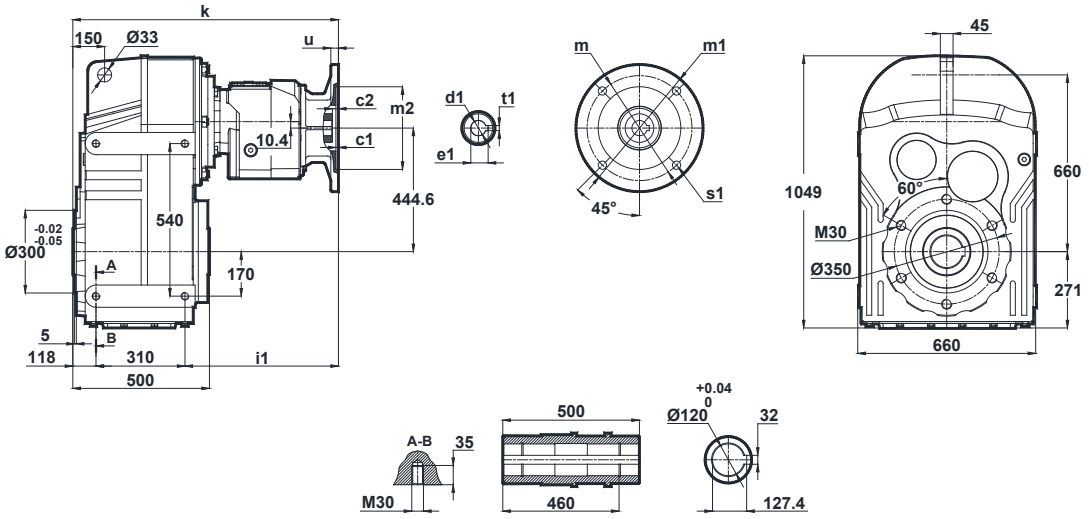
DN974.03



	c1	c2	s1	m	m1	m2(H7)	i1	u	k	d1	t1	e1
100/B5	5	15	15	215	250	180	252	15	661	28	8	31.3
112/B5	5	15	15	215	250	180	252	15	736	28	8	31.3
132/B5 132/B14	4.5	9	15	265 165	300 200	230 130	267	15	751	38	10	41.3

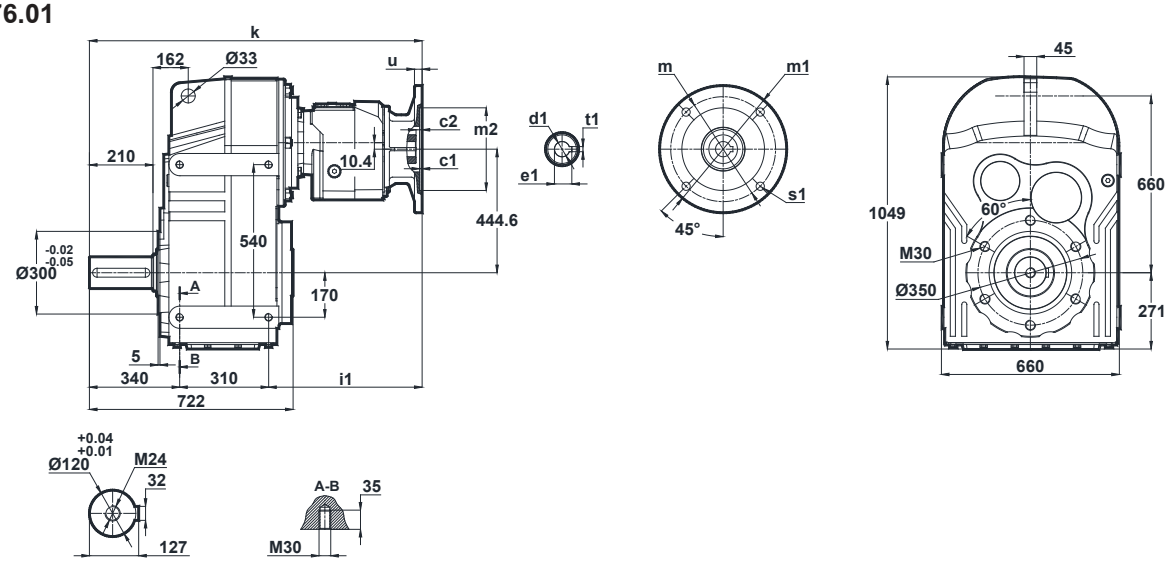
Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole according to DIN 332, sheet 2* / Zentrierung mit Gewinde nach DIN 332, Blatt 2

DN975.00
DN976.00



	c1	c2	s1	m	m1	m2(H7)	i1	u	k	d1	t1	e1
80/B5	4	5	12	165	200	130	388	12	816	19	6	21.8
90/B5 90/B14	4	5	12 9	165 115	200 140	130 95	388	12	816	24	8	27.3
100/B5 100/B14	5 4	9	15 9	215 130	250 160	180 110	406	15	834	28	8	31.3

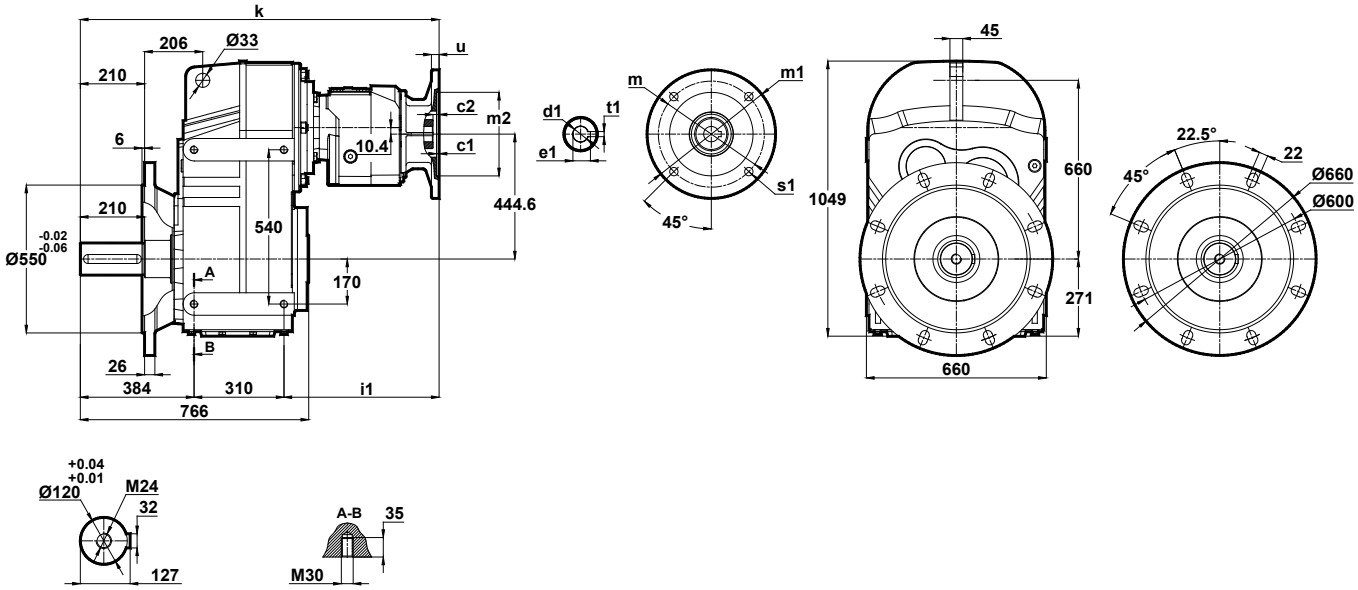
DN975.01
DN976.01



	c1	c2	s1	m	m1	m2(H7)	i1	u	k	d1	t1	e1
80/B5	4	5	12	165	200	130	388	12	1038	19	6	21.8
90/B5 90/B14	4	5	12 9	165 115	200 140	130 95	388	12	1038	24	8	27.3
100/B5 100/B14	5 4	9	15 9	215 130	250 160	180 110	406	15	1056	28	8	31.3

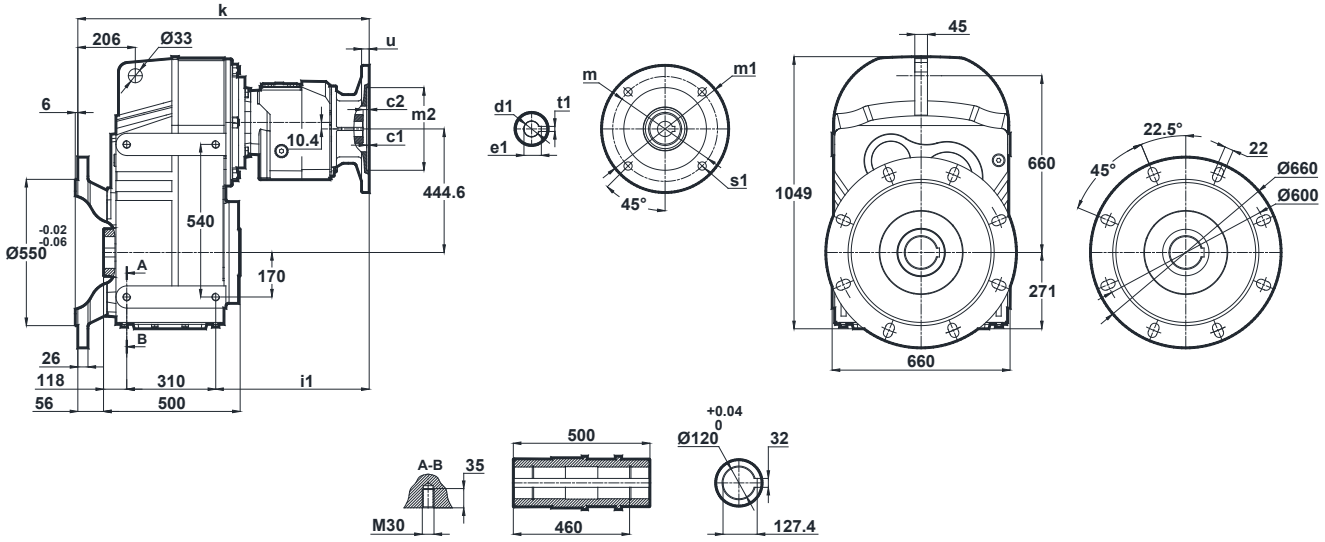
Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole according to DIN 332, sheet 2* / Zentrierung mit Gewinde nach DIN 332, Blatt 2

DN975.02
DN976.02



	c1	c2	s1	m	m1	m2(H7)	i1	u	k	d1	t1	e1
80/B5	4	5	12	165	200	130	388	12	1082	19	6	21.8
90/B5 90/B14	4	5	12 9	165 115	200 140	130 95	388	12	1082	24	8	27.3
100/B5 100/B14	5 4	9	15 9	215 130	250 160	180 110	406	15	1100	28	8	31.3

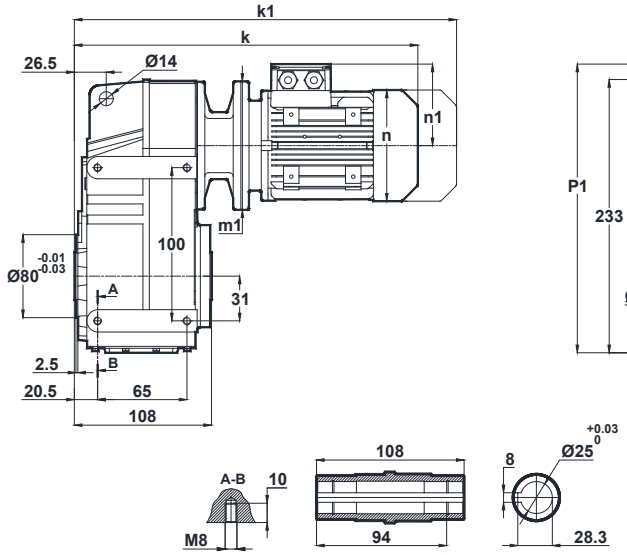
DN975.03
DN976.03



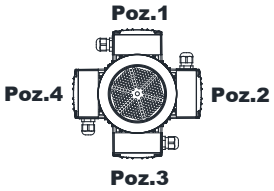
	c1	c2	s1	m	m1	m2(H7)	i1	u	k	d1	t1	e1
80/B5	4	5	12	165	200	130	388	12	872	19	6	21.8
90/B5 90/B14	4	5	12 9	165 115	200 140	130 95	388	12	872	24	8	27.3
100/B5 100/B14	5 4	9	15 9	215 130	250 160	180 110	406	15	890	28	8	31.3

Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole according to DIN 332, sheet 2* / Zentrierung mit Gewinde nach DIN 332, Blatt 2

DV072.00
DV073.00



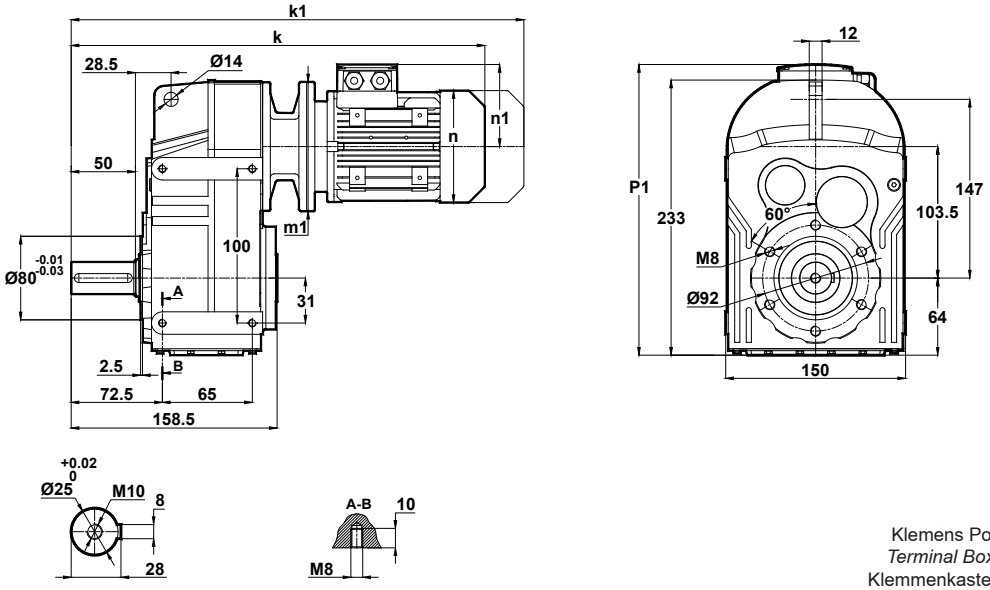
Klemens Pozisyonları
Terminal Box Positions
Klemmenkasten Positionen



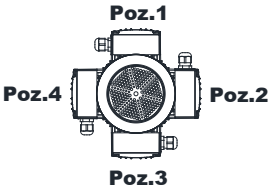
63-71-80-90-100
Tip / *Type* / Typ

	63/B5 63/B14	71/B5 71/B14	80/B5 80/B14	90S/B5 90S/B14	90L/B5 90L/B14	100L/B5 100L/B14
k	338	357.5	395.5	436.5	436.5	483
k1	399	448.5	488.5	540	540	591.5
n / n1	121 / 97	137 / 112	155 / 121	176 / 132	176 / 132	193 / 147
m1 (B5)	140	160	200	200	200	250
m1 (B14)	90	105	120	140	140	160
p1	264.5	279.5	288.5	299.5	299.5	314.5

DV072.01
DV073.01



Klemens Pozisyonları
Terminal Box Positions
Klemmenkasten Positionen



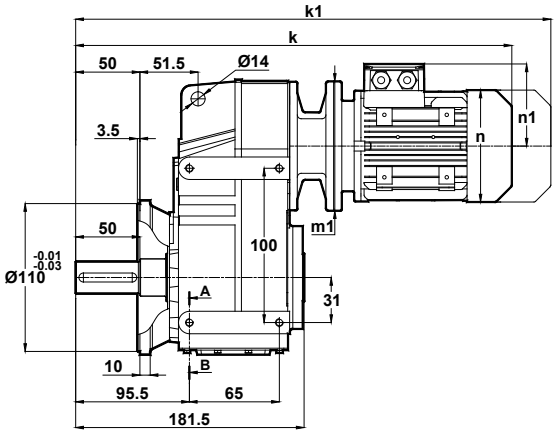
63-71-80-90-100
Tip / *Type* / Typ

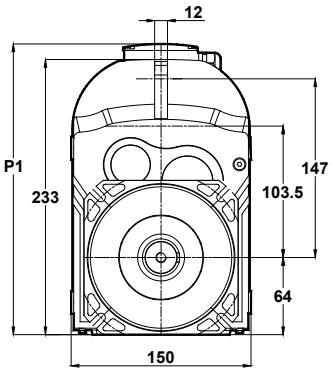
	63/B5 63/B14	71/B5 71/B14	80/B5 80/B14	90S/B5 90S/B14	90L/B5 90L/B14	100L/B5 100L/B14
k	390	409.5	447.5	488.5	488.5	535
k1	451	500.5	540.5	592	592	643.5
n / n1	121 / 97	137 / 112	155 / 121	176 / 132	176 / 132	193 / 147
m1 (B5)	140	160	200	200	200	250
m1 (B14)	90	105	120	140	140	160
p1	264.5	279.5	288.5	299.5	299.5	314.5

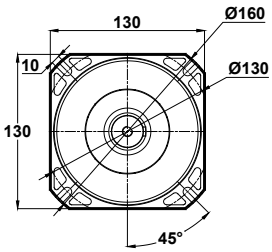
"k1" ölçüsü frenli redüktörlere aittir.
Dimensions "k1" is for motors with brake.
Maße "k1" ist für Bremsenmotoren.

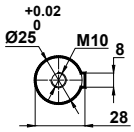
Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole according to DIN 332, sheet 2* / Zentrierung mit Gewinde nach DIN 332, Blatt 2

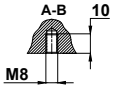
DV072.02
DV073.02



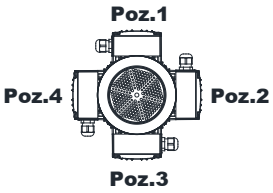






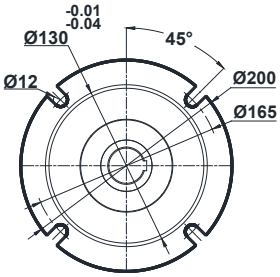


Klemens Pozisyonları
Terminal Box Positions
Klemmenkasten Positionen



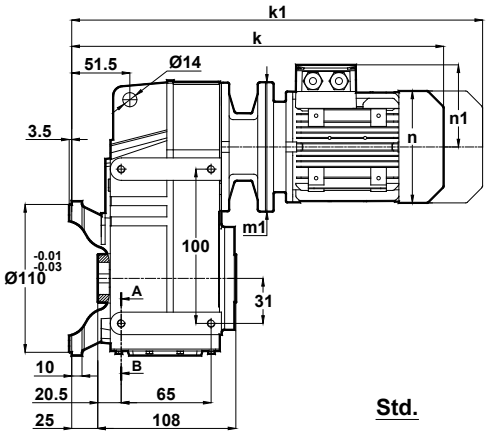
63-71-80-90-100
Tip / *Type* / Typ

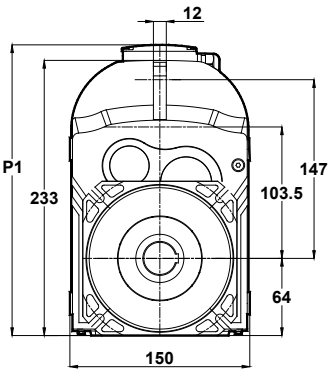
Opsiyonel Flanş Ölçüleri
Optional Flange Dimensions
Auswählbare Flanschabmessungen

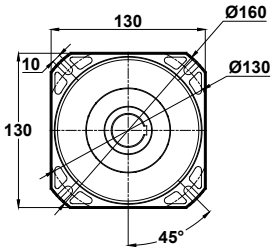


	63/B5 63/B14	71/B5 71/B14	80/B5 80/B14	90S/B5 90S/B14	90L/B5 90L/B14	100L/B5 100L/B14
k	413	432.5	470.5	511.5	511.5	558
k1	474	523.5	563.5	615	615	666.5
n / n1	121 / 97	137 / 112	155 / 121	176 / 132	176 / 132	193 / 147
m1 (B5)	140	160	200	200	200	250
m1 (B14)	90	105	120	140	140	160
p1	264.5	279.5	288.5	299.5	299.5	314.5

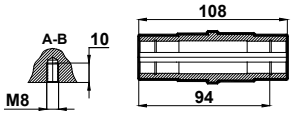
DV072.03
DV073.03

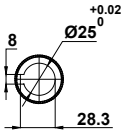




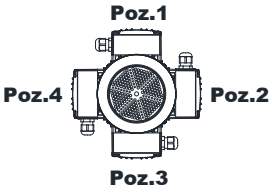


Std.



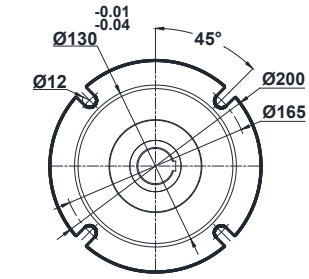


Klemens Pozisyonları
Terminal Box Positions
Klemmenkasten Positionen



63-71-80-90-100
Tip / *Type* / Typ

Opsiyonel Flanş Ölçüleri
Optional Flange Dimensions
Auswählbare Flanschabmessungen

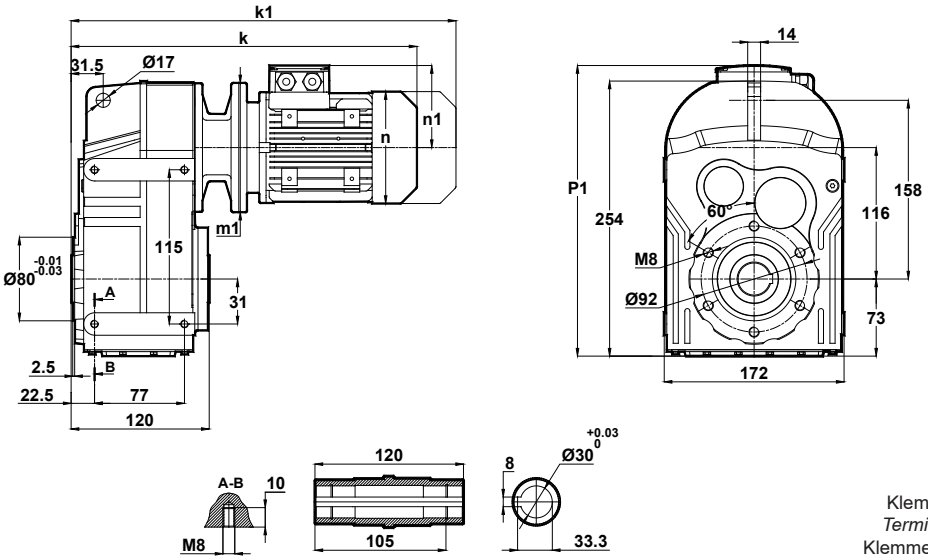


	63/B5 63/B14	71/B5 71/B14	80/B5 80/B14	90S/B5 90S/B14	90L/B5 90L/B14	100L/B5 100L/B14
k	363	382.5	420.5	461.5	461.5	508
k1	424	473.5	513.5	565	565	616.5
n / n1	121 / 97	137 / 112	155 / 121	176 / 132	176 / 132	193 / 147
m1 (B5)	140	160	200	200	200	250
m1 (B14)	90	105	120	140	140	160
p1	264.5	279.5	288.5	299.5	299.5	314.5

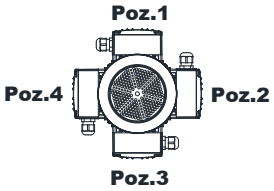
"k1" ölçüsü frenli redüktörlere aittir.
Dimensions "k1" is for motors with brake.
Maße "k1" ist für Bremsenmotoren.

Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole according to DIN 332, sheet 2* / Zentrierung mit Gewinde nach DIN 332, Blatt 2

DV172.00
DV173.00



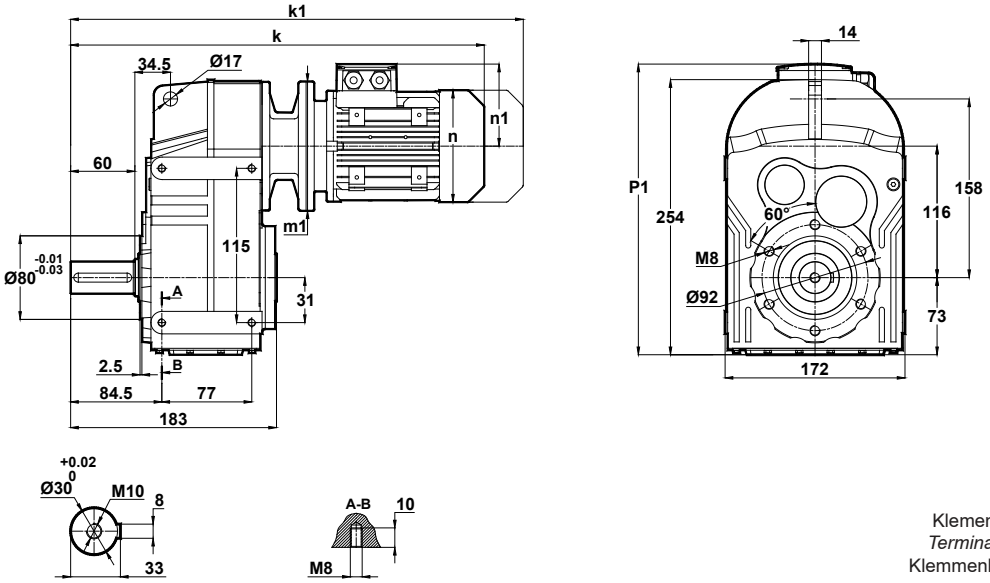
Klemens Pozisyonları
Terminal Box Positions
Klemmenkasten Positionen



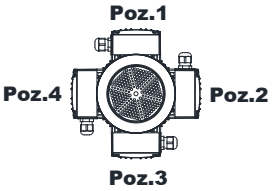
63-71-80-90-100
Tip / *Type* / Typ

	63/B5 63/B14	71/B5 71/B14	80/B5 80/B14	90S/B5 90S/B14	90L/B5 90L/B14	100L/B5 100L/B14
k	347	367	405	446	446	492
k1	408	458	498	550.5	550.5	611.5
n / n1	121 / 97	137 / 112	155 / 121	176 / 132	176 / 132	193 / 147
m1 (B5)	140	160	200	200	200	250
m1 (B14)	90	105	120	140	140	160
p1	286	301	310	321	321	336

DV172.01
DV173.01



Klemens Pozisyonları
Terminal Box Positions
Klemmenkasten Positionen



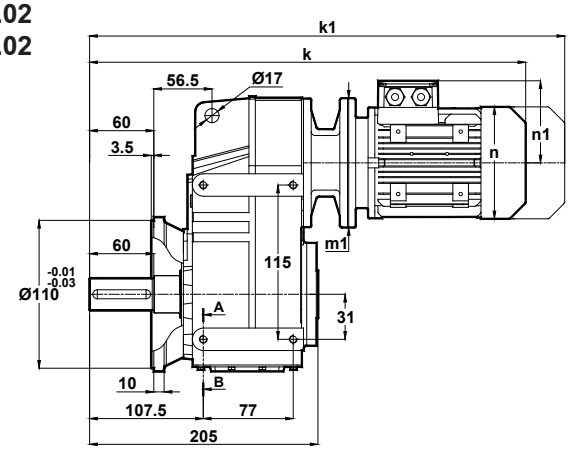
63-71-80-90-100
Tip / *Type* / Typ

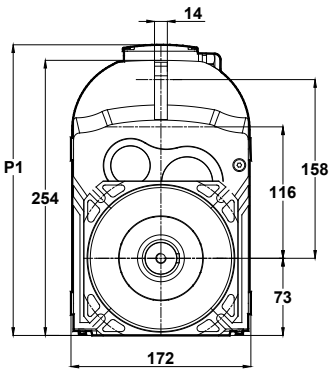
	63/B5 63/B14	71/B5 71/B14	80/B5 80/B14	90S/B5 90S/B14	90L/B5 90L/B14	100L/B5 100L/B14
k	410	430	468	509	509	555
k1	471	521	561	613.5	613.5	674.5
n / n1	121 / 97	137 / 112	155 / 121	176 / 132	176 / 132	193 / 147
m1 (B5)	140	160	200	200	200	250
m1 (B14)	90	105	120	140	140	160
p1	286	301	310	321	321	336

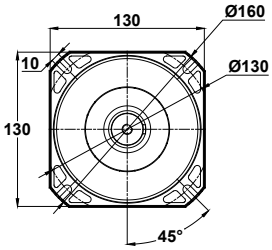
"k1" ölçüsü frenli redüktörlere aittir.
Dimensions "k1" is for motors with brake.
Maße "k1" ist für Bremsenmotoren.

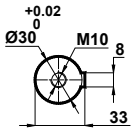
Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole according to DIN 332, sheet 2* / Zentrierung mit Gewinde nach DIN 332, Blatt 2

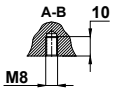
DV172.02
DV173.02



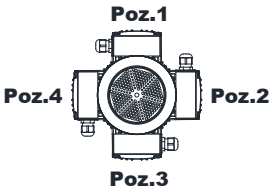






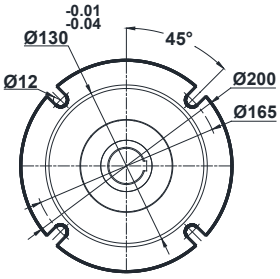


Klemens Pozisyonları
Terminal Box Positions
Klemmenkasten Positionen



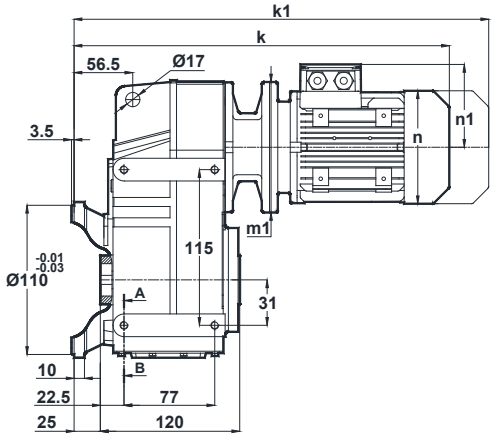
63-71-80-90-100
Tip / *Type* / Typ

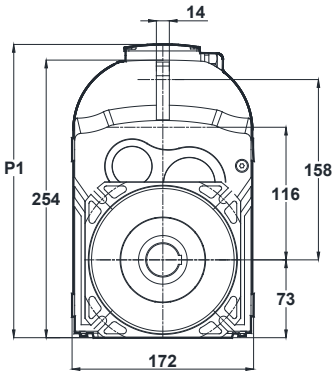
Opsiyonel Flanş Ölçüleri
Optional Flange Dimensions
Auswählbare Flanschabmessungen

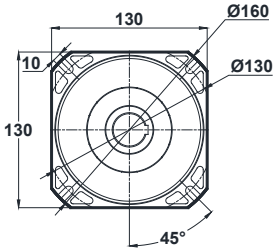


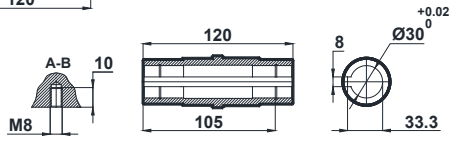
	63/B5 63/B14	71/B5 71/B14	80/B5 80/B14	90S/B5 90S/B14	90L/B5 90L/B14	100L/B5 100L/B14
k	432	452	490	531	531	577
k1	493	543	583	635.5	635.5	696.5
n / n1	121 / 97	137 / 112	155 / 121	176 / 132	176 / 132	193 / 147
m1 (B5)	140	160	200	200	200	250
m1 (B14)	90	105	120	140	140	160
p1	286	301	310	321	321	336

DV172.03
DV173.03

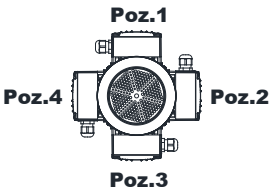






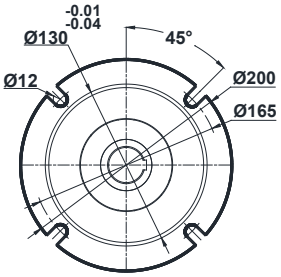


Klemens Pozisyonları
Terminal Box Positions
Klemmenkasten Positionen



63-71-80-90-100
Tip / *Type* / Typ

Opsiyonel Flanş Ölçüleri
Optional Flange Dimensions
Auswählbare Flanschabmessungen

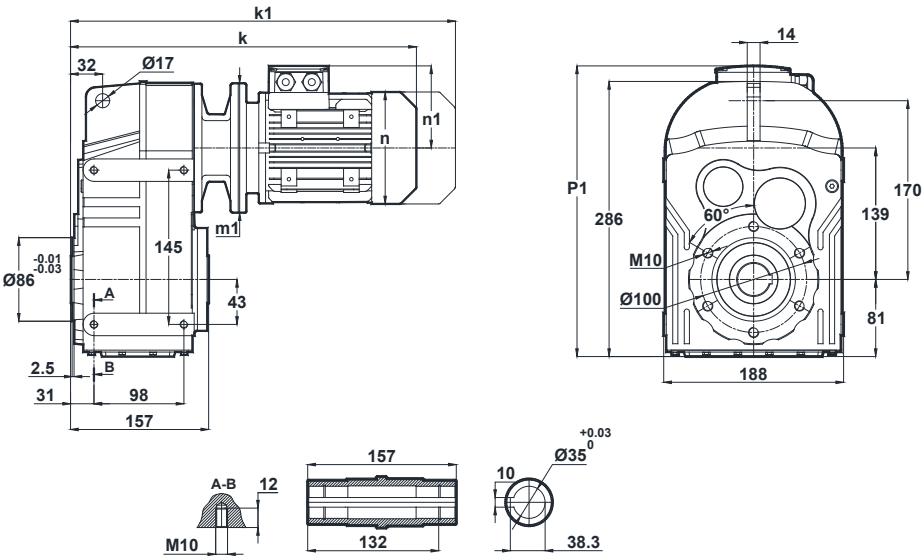


	63/B5 63/B14	71/B5 71/B14	80/B5 80/B14	90S/B5 90S/B14	90L/B5 90L/B14	100L/B5 100L/B14
k	372	392	430	471	471	517
k1	433	483	523	575.5	575.5	636.5
n / n1	121 / 97	137 / 112	155 / 121	176 / 132	176 / 132	193 / 147
m1 (B5)	140	160	200	200	200	250
m1 (B14)	90	105	120	140	140	160
p1	286	301	310	321	321	336

"k1" ölçüsü frenli redüktörlere aittir.
Dimensions "k1" is for motors with brake.
Maße "k1" ist für Bremsenmotoren.

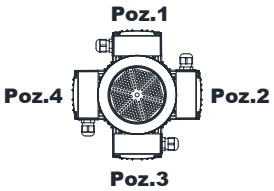
Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole according to DIN 332, sheet 2* / Zentrierung mit Gewinde nach DIN 332, Blatt 2

DV272.00
DV273.00



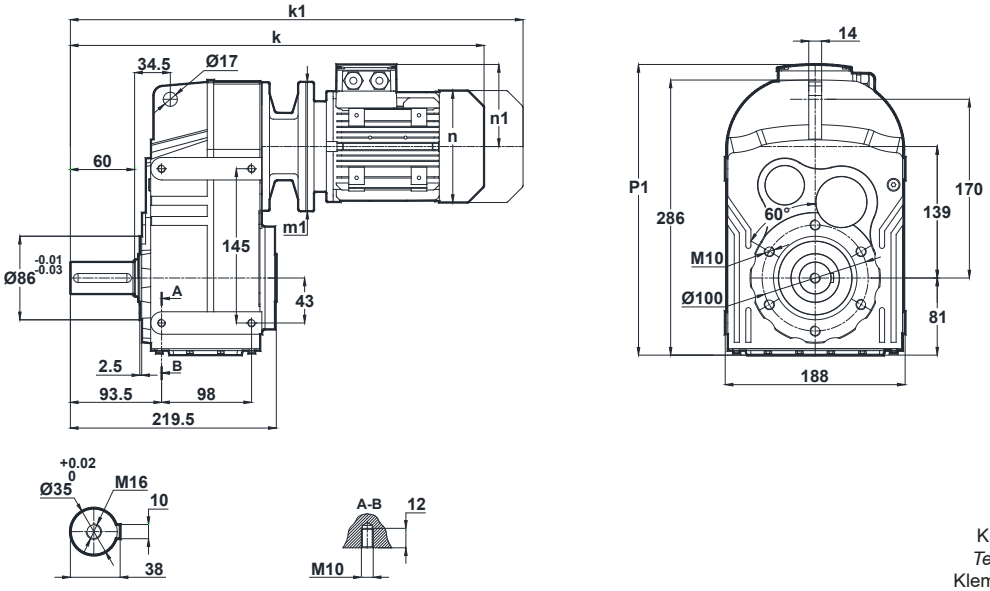
	63/B5 63/B14	71/B5 71/B14	80/B5 80/B14	90S/B5 90S/B14	90L/B5 90L/B14	100L/B5 100L/B14
k	377	397	435	476	476	522
k1	438	488	528	580.5	580.5	641.5
n / n1	121 / 97	137 / 112	155 / 121	176 / 132	176 / 132	193 / 147
m1 (B5)	140	160	200	200	200	250
m1 (B14)	90	105	120	140	140	160
p1	317	332	341	352	352	367

Klemens Pozisyonları
Terminal Box Positions
Klemmenkasten Positionen



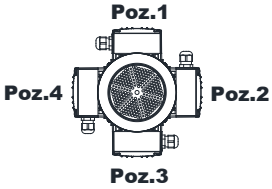
63-71-80-90-100
Tip / *Type* / Typ

DV272.01
DV273.01



	63/B5 63/B14	71/B5 71/B14	80/B5 80/B14	90S/B5 90S/B14	90L/B5 90L/B14	100L/B5 100L/B14
k	439	459	497	538	538	584
k1	500	550	590	642.5	642.5	703.5
n / n1	121 / 97	137 / 112	155 / 121	176 / 132	176 / 132	193 / 147
m1 (B5)	140	160	200	200	200	250
m1 (B14)	90	105	120	140	140	160
p1	317	332	341	352	352	367

Klemens Pozisyonları
Terminal Box Positions
Klemmenkasten Positionen

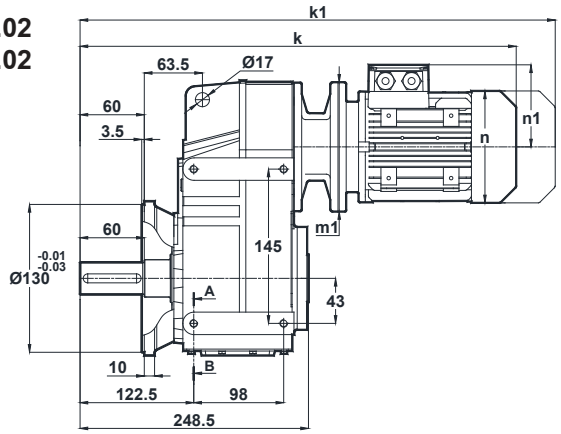


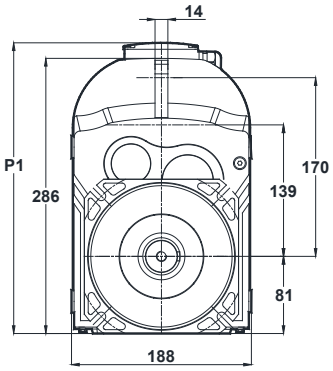
63-71-80-90-100
Tip / *Type* / Typ

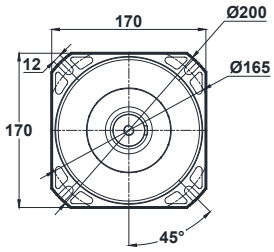
"k1" ölçüsü frenli redüktörlere aittir.
Dimensions "k1" is for motors with brake.
Maße "k1" ist für Bremsenmotoren.

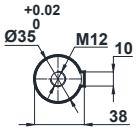
Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole according to DIN 332, sheet 2* / Zentrierung mit Gewinde nach DIN 332, Blatt 2

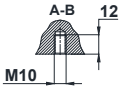
DV272.02
DV273.02





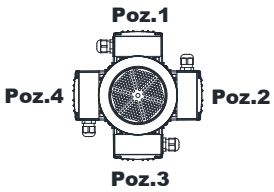






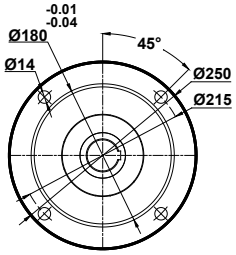
	63/B5 63/B14	71/B5 71/B14	80/B5 80/B14	90S/B5 90S/B14	90L/B5 90L/B14	100L/B5 100L/B14
k	468	487.5	526	567	567	613
k1	529	578.5	619	671.5	671.5	732.5
n / n1	121 / 97	137 / 112	155 / 121	176 / 132	176 / 132	193 / 147
m1 (B5)	140	160	200	200	200	250
m1 (B14)	90	105	120	140	140	160
p1	317	332	341	352	352	367

Klemens Pozisyonları
Terminal Box Positions
Klemmenkasten Positionen

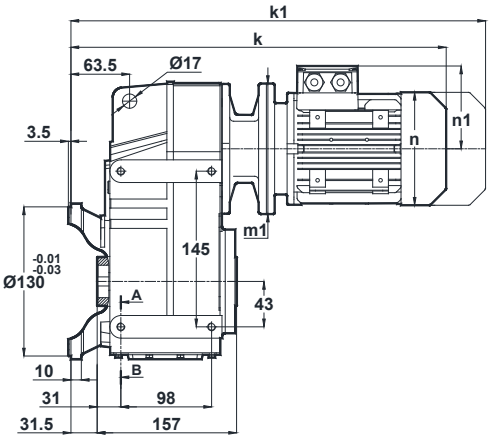


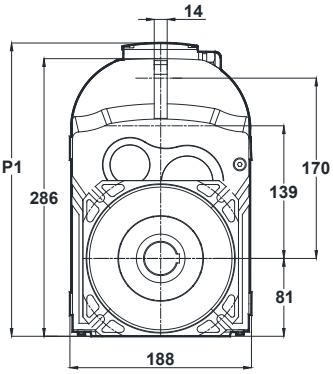
63-71-80-90-100
Tip / *Type* / Typ

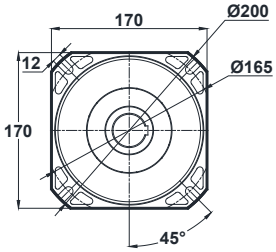
Opsiyonel Flanş Ölçüleri
Optional Flange Dimensions
Auswählbare Flanschabmessungen

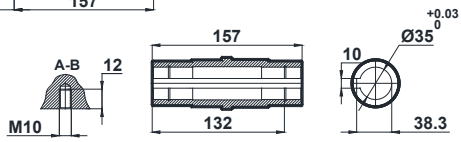


DV272.03
DV273.03

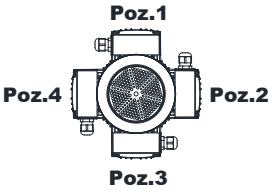






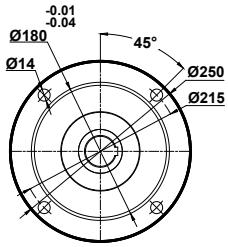


Klemens Pozisyonları
Terminal Box Positions
Klemmenkasten Positionen



63-71-80-90-100
Tip / *Type* / Typ

Opsiyonel Flanş Ölçüleri
Optional Flange Dimensions
Auswählbare Flanschabmessungen

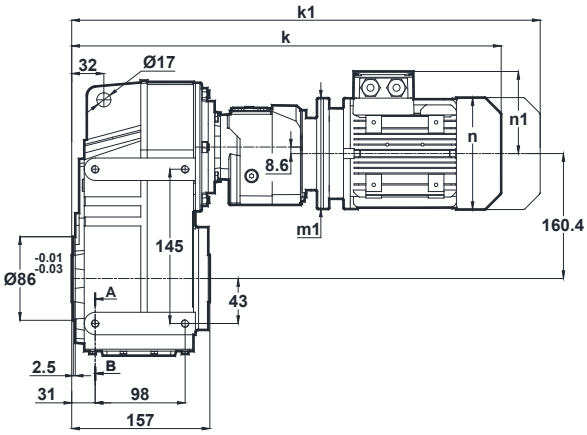


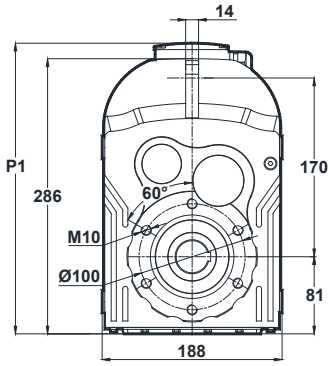
	63/B5 63/B14	71/B5 71/B14	80/B5 80/B14	90S/B5 90S/B14	90L/B5 90L/B14	100L/B5 100L/B14
k	408	428	466	507	507	553
k1	469	519	559	611.5	611.5	672.5
n / n1	121 / 97	137 / 112	155 / 121	176 / 132	176 / 132	193 / 147
m1 (B5)	140	160	200	200	200	250
m1 (B14)	90	105	120	140	140	160
p1	317	332	341	352	352	367

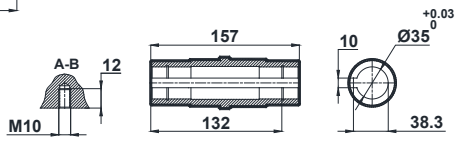
"k1" ölçüsü frenli redüktörlere aittir.
Dimensions "k1" is for motors with brake.
Maße "k1" ist für Bremsenmotoren.

Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole according to DIN 332, sheet 2* / Zentrierung mit Gewinde nach DIN 332, Blatt 2

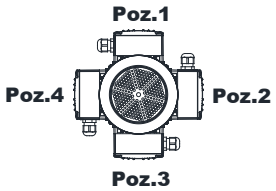
DV275.00
DV276.00







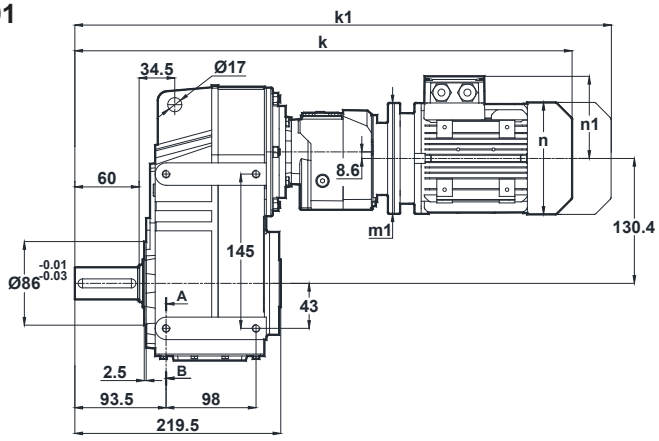
Klemens Pozisyonları
Terminal Box Positions
Klemmenkasten Positionen

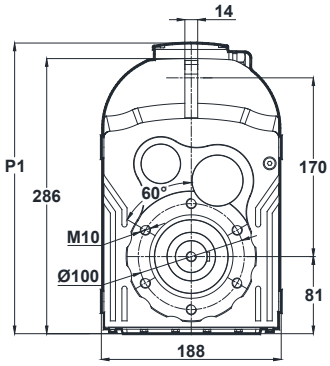


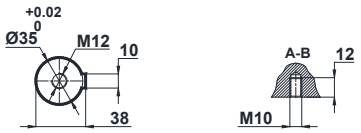
63-71
Tip / *Type* / Typ

	63/B5 63/B14	71/B5 71/B14
k	526	546
k1	587	637
n / n1	121 / 97	137 / 112
m1 (B5)	140	160
m1 (B14)	90	105
p1	309	324

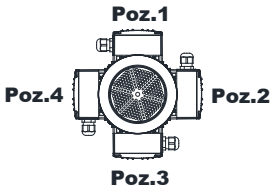
DV275.01
DV276.01







Klemens Pozisyonları
Terminal Box Positions
Klemmenkasten Positionen



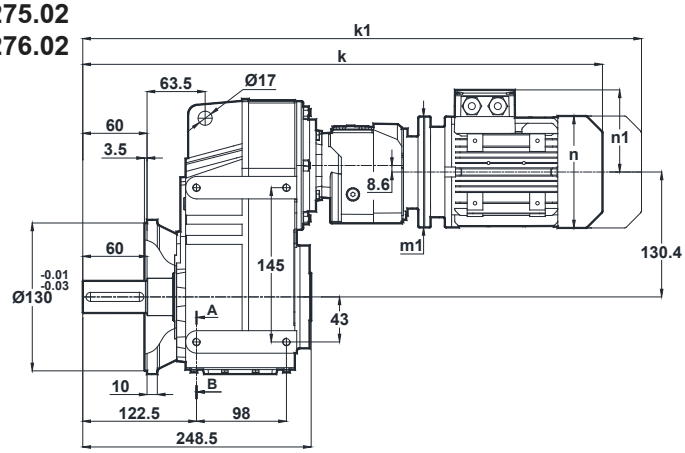
63-71
Tip / *Type* / Typ

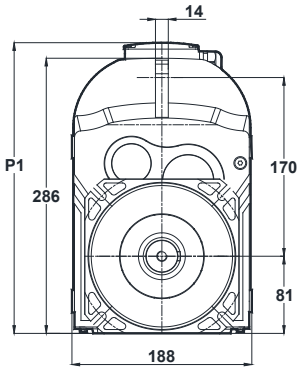
	63/B5 63/B14	71/B5 71/B14
k	588	608
k1	649	699
n / n1	121 / 97	137 / 112
m1 (B5)	140	160
m1 (B14)	90	105
p1	309	324

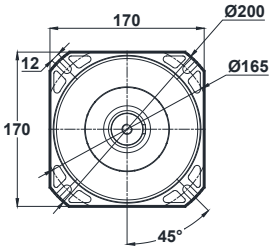
"k1" ölçüsü frenli redüktörlere aittir.
Dimensions "k1" is for motors with brake.
Maße "k1" ist für Bremsenmotoren.

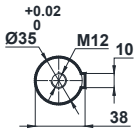
Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole according to DIN 332, sheet 2* / Zentrierung mit Gewinde nach DIN 332, Blatt 2

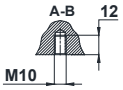
DV275.02
DV276.02



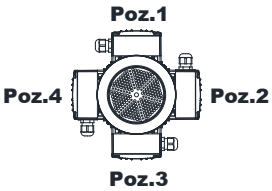






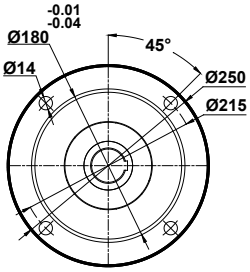


Klemens Pozisyonları
Terminal Box Positions
Klemmenkasten Positionen



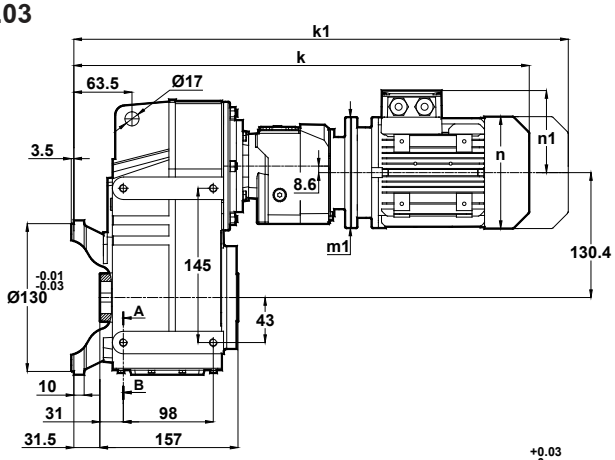
63-71
Tip / *Type* / Typ

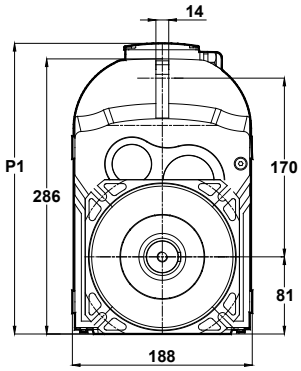
Opsiyonel Flanş Ölçüleri
Optional Flange Dimensions
Auswählbare Flanschabmessungen

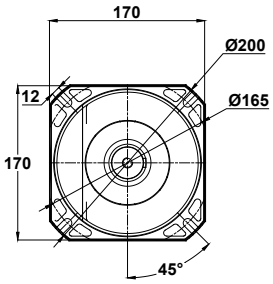


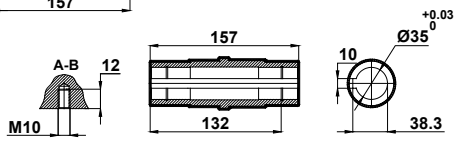
	63/B5 63/B14	71/B5 71/B14
k	617	637
k1	678	728
n / n1	121 / 97	137 / 112
m1 (B5)	140	160
m1 (B14)	90	105
p1	309	324

DV275.03
DV276.03

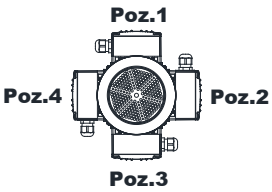






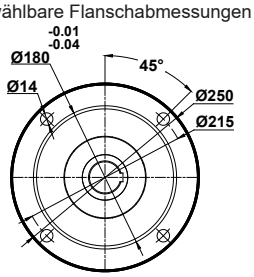


Klemens Pozisyonları
Terminal Box Positions
Klemmenkasten Positionen



63-71
Tip / *Type* / Typ

Opsiyonel Flanş Ölçüleri
Optional Flange Dimensions
Auswählbare Flanschabmessungen

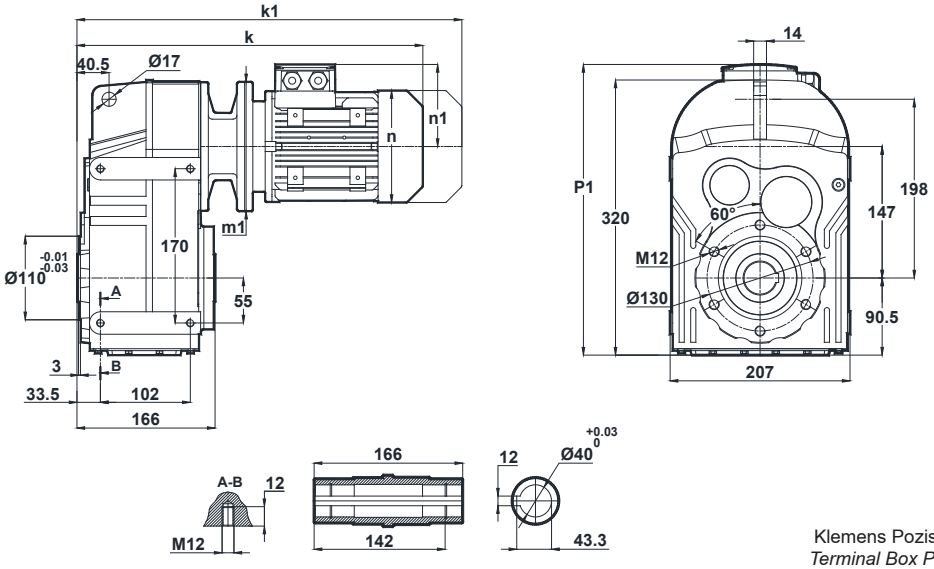


	63/B5 63/B14	71/B5 71/B14
k	557	577
k1	618	668
n / n1	121 / 97	137 / 112
m1 (B5)	140	160
m1 (B14)	90	105
p1	309	324

"k1" ölçüsü frenli redüktörlere aittir.
Dimensions "k1" is for motors with brake.
Maße "k1" ist für Bremsenmotoren.

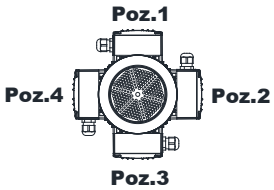
Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole according to DIN 332, sheet 2* / Zentrierung mit Gewinde nach DIN 332, Blatt 2

DV282.00
DV283.00



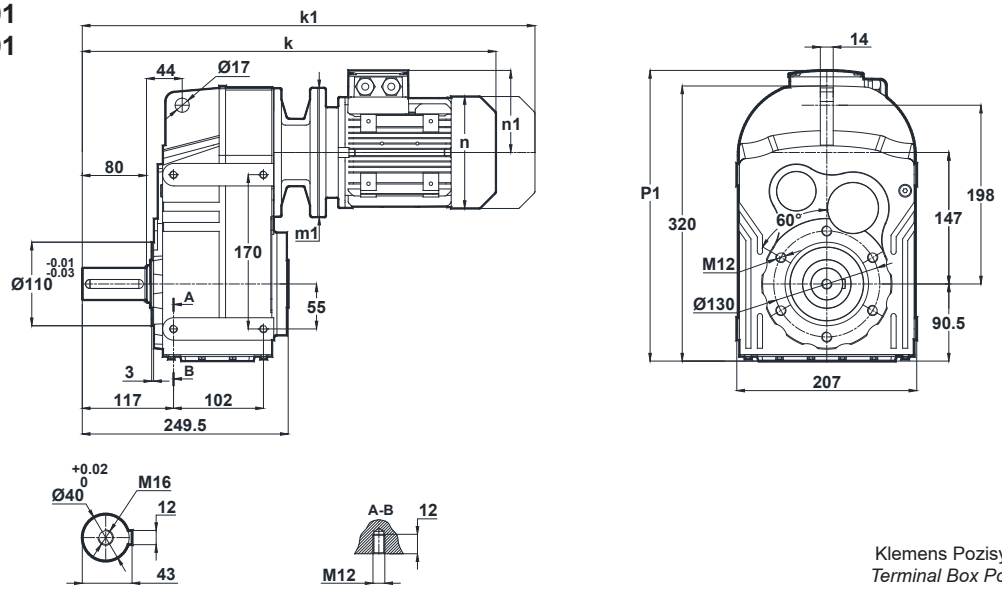
	71/B5 71/B14	80/B5 80/B14	90S/B5 90S/B14	90L/B5 90L/B14	100L/B5 100L/B14	112M/B5 112M/B14	132S/B5 132S/B14	132M/B5 132M/B14
k	405	457	498	498	526	547	674	674
k1	496	550	602.5	602.5	645.5	651.5	804	804
n / n1	137 / 112	155 / 121	176 / 132	176 / 132	193 / 147	215 / 158	257 / 179	257 / 179
m1 (B5)	160	200	200	200	250	250	300	300
m1 (B14)	105	120	140	140	160	160	200	200
p1	349	358	369	369	384	395	417	417

Klemens Pozisyonları
Terminal Box Positions
Klemmenkasten Positionen



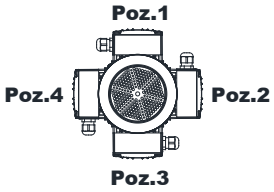
71-80-90-100-112-132
Tip / *Type* / Typ

DV282.01
DV283.01



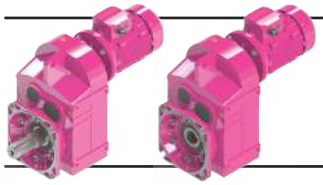
	71/B5 71/B14	80/B5 80/B14	90S/B5 90S/B14	90L/B5 90L/B14	100L/B5 100L/B14	112M/B5 112M/B14	132S/B5 132S/B14	132M/B5 132M/B14
k	489	541	582	582	610	631	758	758
k1	580	634	686.5	686.5	729.5	735.5	888	888
n / n1	137 / 112	155 / 121	176 / 132	176 / 132	193 / 147	215 / 158	257 / 179	257 / 179
m1 (B5)	160	200	200	200	250	250	300	300
m1 (B14)	105	120	140	140	160	160	200	200
p1	349	358	369	369	384	395	417	417

Klemens Pozisyonları
Terminal Box Positions
Klemmenkasten Positionen



71-80-90-100-112-132
Tip / *Type* / Typ

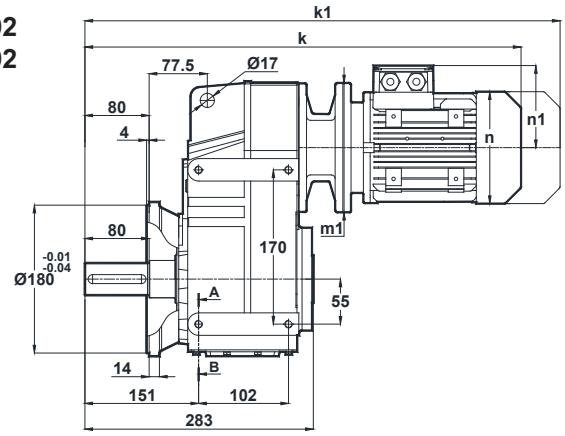
"k1" ölçüsü frenli redüktörlere aittir.
Dimensions "k1" is for motors with brake.
Maße "k1" ist für Bremsenmotoren.

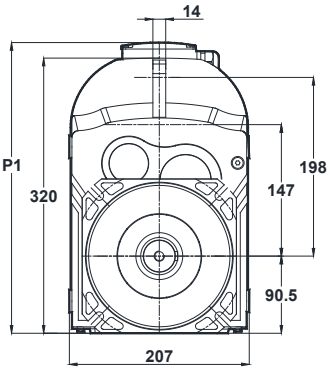


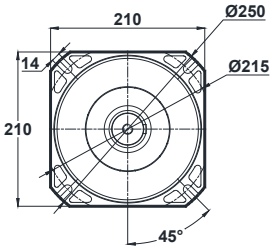
Ölçü Sayfaları
Dimension Pages
Abmessungsseiten

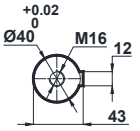
Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole according to DIN 332, sheet 2* / Zentrierung mit Gewinde nach DIN 332, Blatt 2

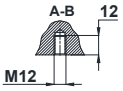
DV282.02
DV283.02



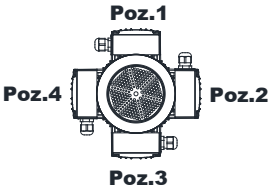






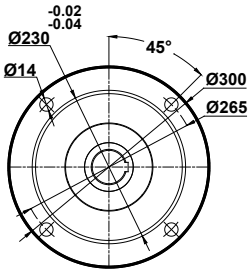


Klemens Pozisyonları
Terminal Box Positions
Klemmenkasten Positionen



71-80-90-100-112-132
Tip / *Type* / Typ

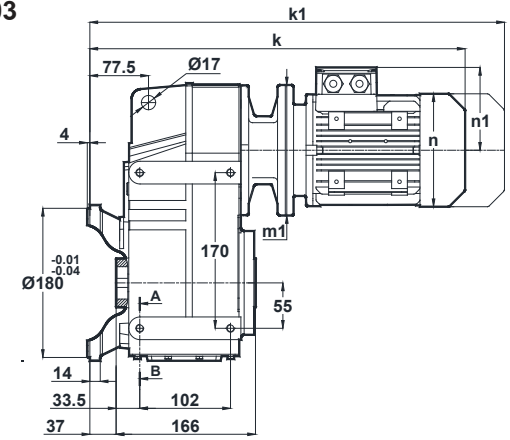
Opsiyonel Flanş Ölçüleri
Optional Flange Dimensions
Auswählbare Flanschabmessungen

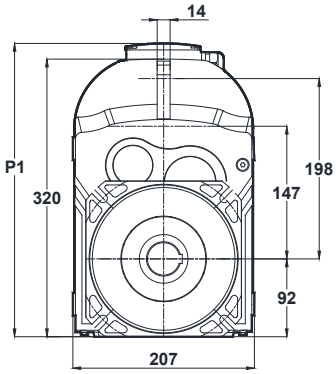


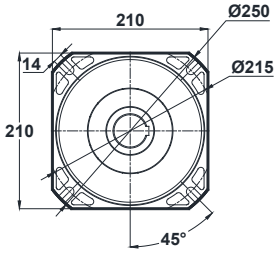
Diğer opsiyonel flanş ölçüleri için sayfa 326'ya bakınız.
Please see on page 326 for other optional flange dimensions
Siehe Siete 326 für andere auswählbare Flanschabmessungen

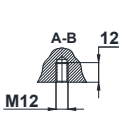
	71/B5 71/B14	80/B5 80/B14	90S/B5 90S/B14	90L/B5 90L/B14	100L/B5 100L/B14	112M/B5 112M/B14	132S/B5 132S/B14	132M/B5 132M/B14
k	522	574	615	615	643	664	791	791
k1	613	667	719.5	719.5	762.5	768.5	921	921
n / n1	137 / 112	155 / 121	176 / 132	176 / 132	193 / 147	215 / 158	257 / 179	257 / 179
m1 (B5)	160	200	200	200	250	250	300	300
m1 (B14)	105	120	140	140	160	160	200	200
p1	349	358	369	369	384	395	417	417

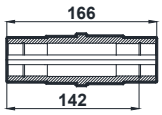
DV282.03
DV283.03

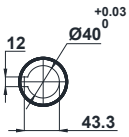




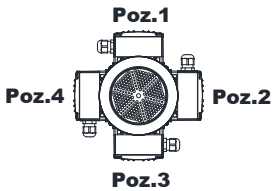






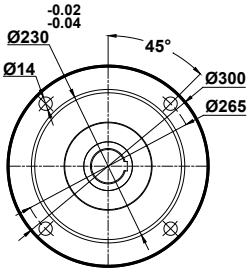


Klemens Pozisyonları
Terminal Box Positions
Klemmenkasten Positionen



71-80-90-100-112-132
Tip / *Type* / Typ

Opsiyonel Flanş Ölçüleri
Optional Flange Dimensions
Auswählbare Flanschabmessungen



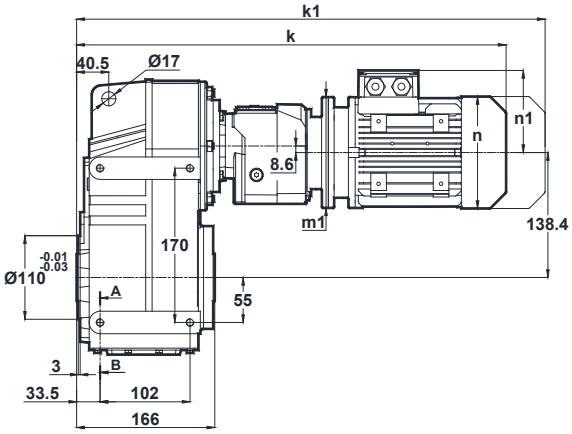
Diğer opsiyonel flanş ölçüleri için sayfa 326'ya bakınız.
Please see on page 326 for other optional flange dimensions
Siehe Siete 326 für andere auswählbare Flanschabmessungen

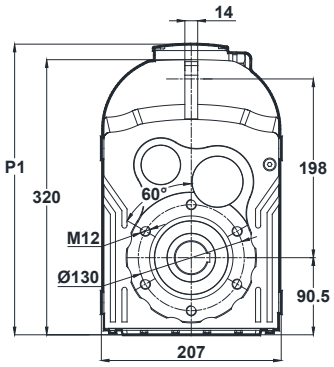
	71/B5 71/B14	80/B5 80/B14	90S/B5 90S/B14	90L/B5 90L/B14	100L/B5 100L/B14	112M/B5 112M/B14	132S/B5 132S/B14	132M/B5 132M/B14
k	442	494	535	535	563	584	711	711
k1	533	587	639.5	639.5	682.5	688.5	841	841
n / n1	137 / 112	155 / 121	176 / 132	176 / 132	193 / 147	215 / 158	257 / 179	257 / 179
m1 (B5)	160	200	200	200	250	250	300	300
m1 (B14)	105	120	140	140	160	160	200	200
p1	349	358	369	369	384	395	417	417

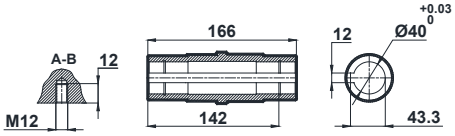
"k1" ölçüsü frenli redüktörlere aittir.
Dimensions "k1" is for motors with brake.
Maße "k1" ist für Bremsenmotoren.

Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole according to DIN 332, sheet 2* / Zentrierung mit Gewinde nach DIN 332, Blatt 2

DV285.00
DV286.00

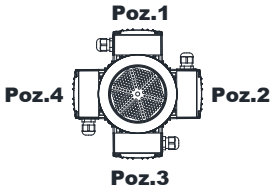






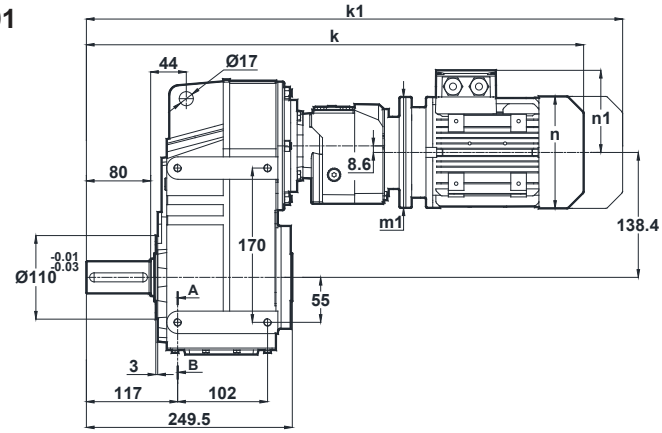
Klemens Pozisyonları
Terminal Box Positions
Klemmenkasten Positionen

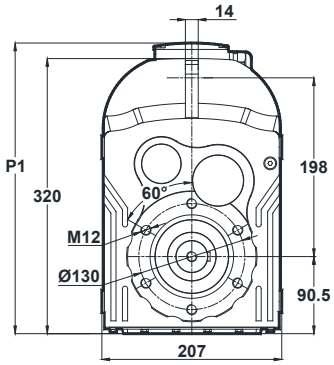
	63/B5 63/B14	71/B5 71/B14
k	531	551
k1	592	642
n / n1	121 / 97	137 / 112
m1 (B5)	140	160
m1 (B14)	90	105
p1	326	341

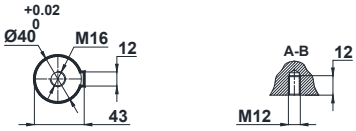


63-71
Tip / *Type* / Typ

DV285.01
DV286.01

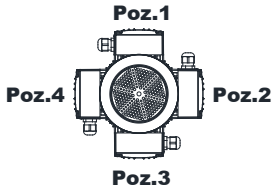






Klemens Pozisyonları
Terminal Box Positions
Klemmenkasten Positionen

	63/B5 63/B14	71/B5 71/B14
k	615	635
k1	676	726
n / n1	121 / 97	137 / 112
m1 (B5)	140	160
m1 (B14)	90	105
p1	326	341

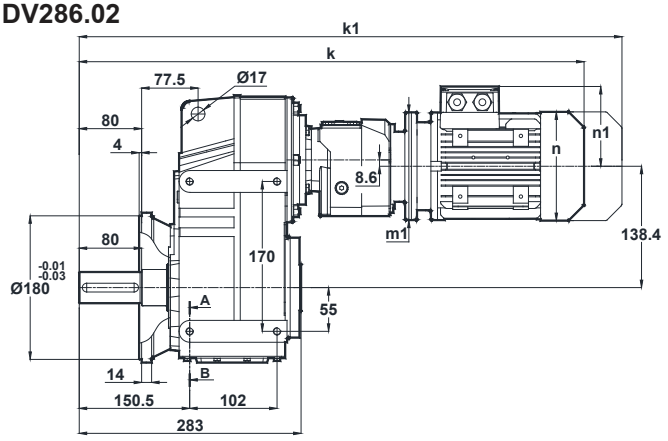


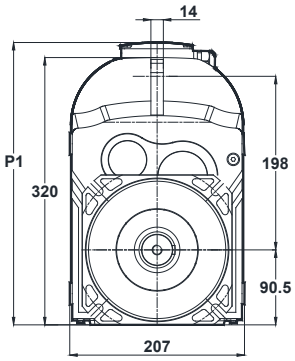
63-71
Tip / *Type* / Typ

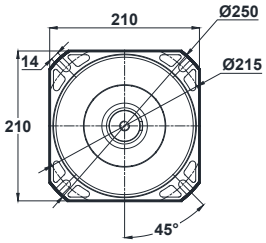
"k1" ölçüsü frenli redüktörlere aittir.
Dimensions "k1" is for motors with brake.
Maße "k1" ist für Bremsenmotoren.

Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole according to DIN 332, sheet 2* / Zentrierung mit Gewinde nach DIN 332, Blatt 2

DV285.02
DV286.02

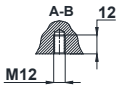


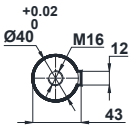


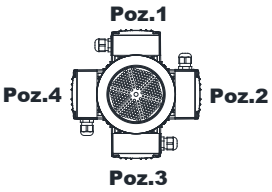


Klemens Pozisyonları
Terminal Box Positions
Klemmenkasten Positionen

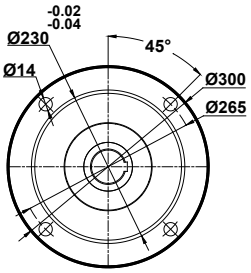
Opsiyonel Flanş Ölçüleri
Optional Flange Dimensions
Auswählbare Flanschabmessungen







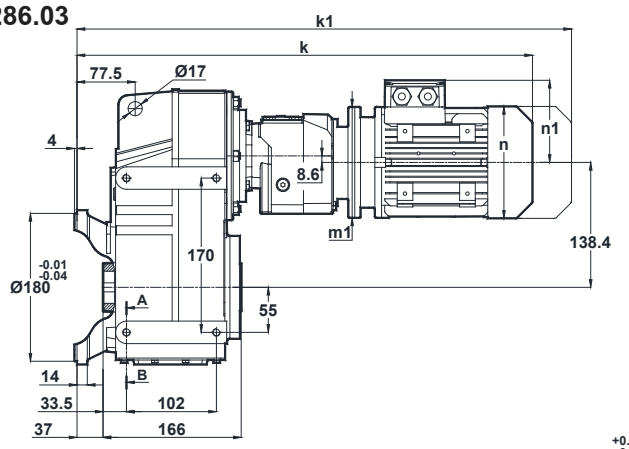
63-71
Tip / *Type* / Typ

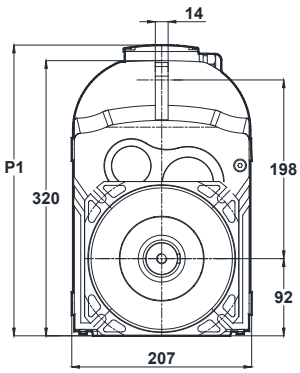


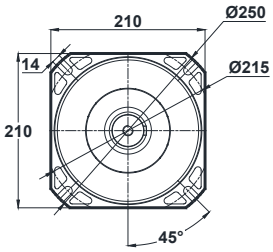
	63/B5 63/B14	71/B5 71/B14
k	648	668
k1	709	759
n / n1	121 / 97	137 / 112
m1 (B5)	140	160
m1 (B14)	90	105
p1	326	341

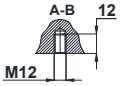
Diğer opsiyonel flanş ölçüleri için sayfa 326'ya bakınız.
Please see on page 326 for other optional flange dimensions
Siehe Siete 326 für andere auswählbare Flanschabmessungen

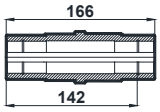
DV285.03
DV286.03

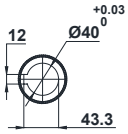






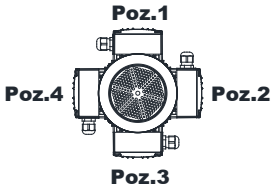




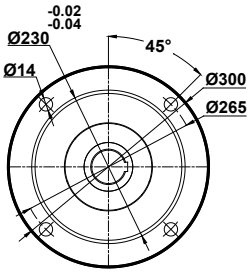


Klemens Pozisyonları
Terminal Box Positions
Klemmenkasten Positionen

Opsiyonel Flanş Ölçüleri
Optional Flange Dimensions
Auswählbare Flanschabmessungen



63-71
Tip / *Type* / Typ



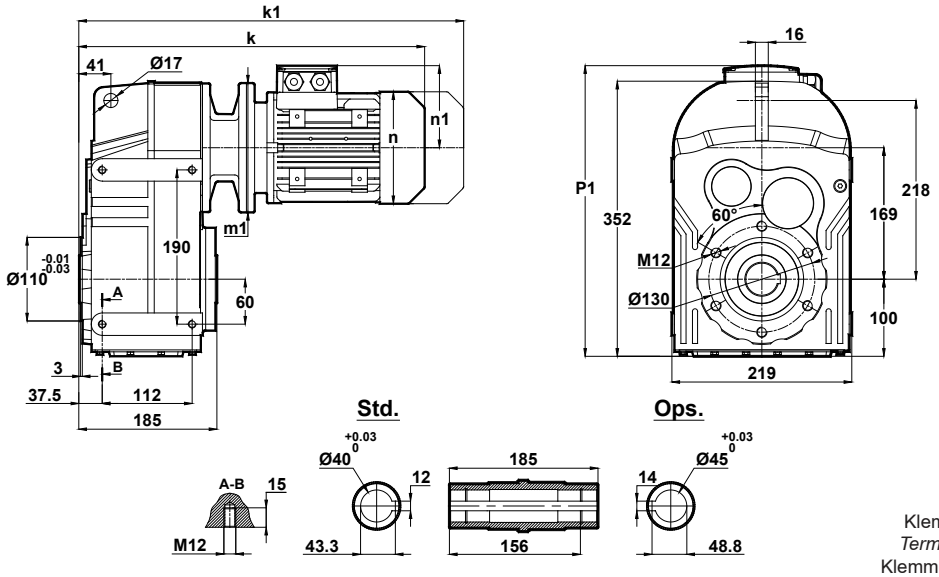
	63/B5 63/B14	71/B5 71/B14
k	568	588
k1	629	679
n / n1	121 / 97	137 / 112
m1 (B5)	140	160
m1 (B14)	90	105
p1	326	341

"k1" ölçüsü frenli redüktörlere aittir.
Dimensions "k1" is for motors with brake.
Maße "k1" ist für Bremsenmotoren.

Diğer opsiyonel flanş ölçüleri için sayfa 326'ya bakınız.
Please see on page 326 for other optional flange dimensions
Siehe Siete 326 für andere auswählbare Flanschabmessungen

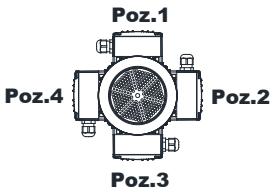
Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole according to DIN 332, sheet 2* / Zentrierung mit Gewinde nach DIN 332, Blatt 2

DV372.00
DV373.00



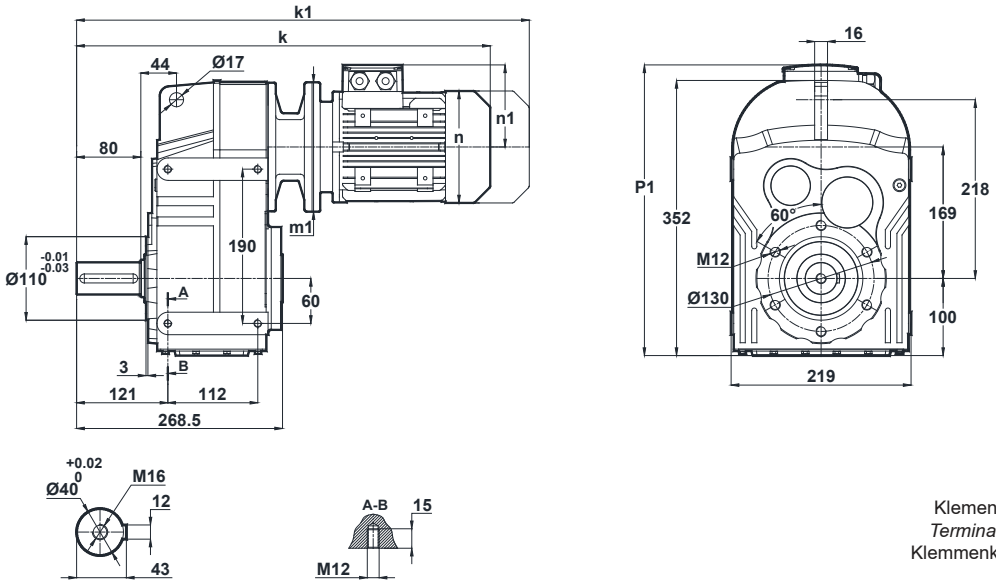
	71/B5 71/B14	80/B5 80/B14	90S/B5 90S/B14	90L/B5 90L/B14	100L/B5 100L/B14	112M/B5 112M/B14	132S/B5 132S/B14	132M/B5 132M/B14
k	416	468	509	509	537	558	685	685
k1	507	561	613.5	613.5	656.5	662.5	815	815
n / n1	137 / 112	155 / 121	176 / 132	176 / 132	193 / 147	215 / 158	257 / 179	257 / 179
m1 (B5)	160	200	200	200	250	250	300	300
m1 (B14)	105	120	140	140	160	160	200	200
p1	381	390	401	401	416	427	448	448

Klemens Pozisyonları
Terminal Box Positions
Klemmenkasten Positionen



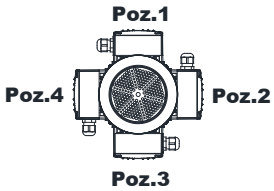
71-80-90-100-112-132
Tip / *Type* / Typ

DV372.01
DV373.01



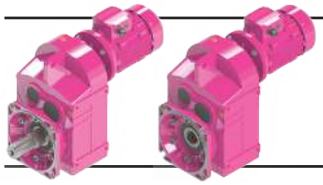
	71/B5 71/B14	80/B5 80/B14	90S/B5 90S/B14	90L/B5 90L/B14	100L/B5 100L/B14	112M/B5 112M/B14	132S/B5 132S/B14	132M/B5 132M/B14
k	499	551	592	592	620	641	768	768
k1	590	644	696.5	696.5	739.5	745.5	898	898
n / n1	137 / 112	155 / 121	176 / 132	176 / 132	193 / 147	215 / 158	257 / 179	257 / 179
m1 (B5)	160	200	200	200	250	250	300	300
m1 (B14)	105	120	140	140	160	160	200	200
p1	381	390	401	401	416	427	448	448

Klemens Pozisyonları
Terminal Box Positions
Klemmenkasten Positionen



71-80-90-100-112-132
Tip / *Type* / Typ

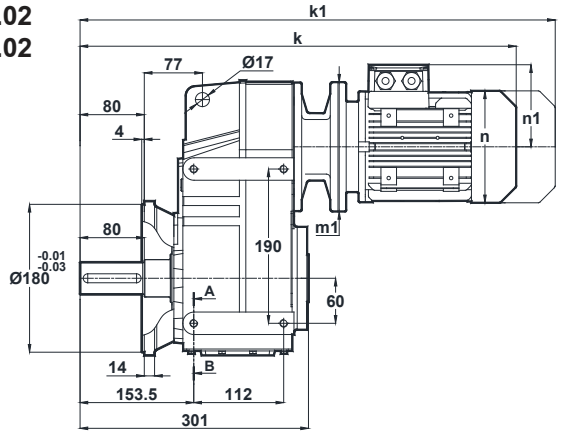
"k1" ölçüsü frenli redüktörlere aittir.
Dimensions "k1" is for motors with brake.
Maße "k1" ist für Bremsenmotoren.

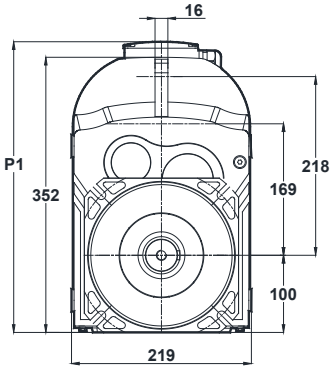


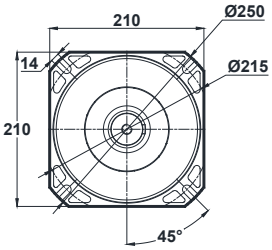
Ölçü Sayfaları
Dimension Pages
Abmessungsseiten

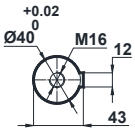
Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole according to DIN 332, sheet 2* / Zentrierung mit Gewinde nach DIN 332, Blatt 2

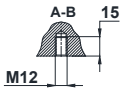
DV372.02
DV373.02



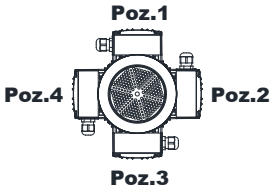






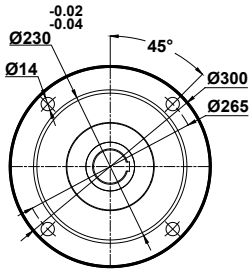


Klemens Pozisyonları
Terminal Box Positions
Klemmenkasten Positionen



71-80-90-100-112-132
Tip / *Type* / Typ

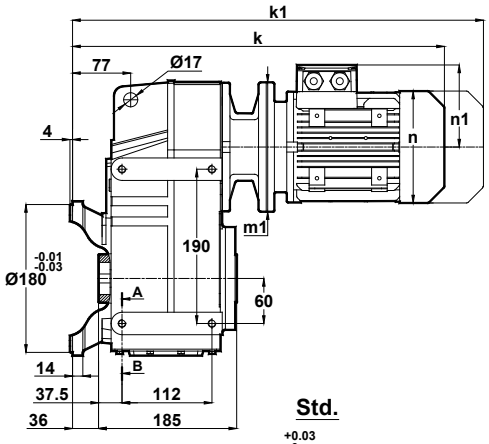
Opsiyonel Flanş Ölçüleri
Optional Flange Dimensions
Auswählbare Flanschabmessungen

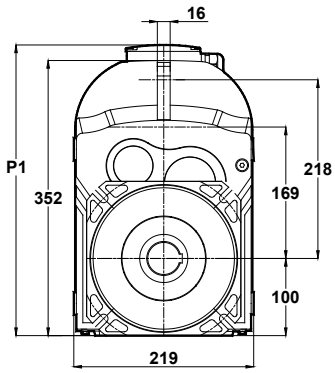


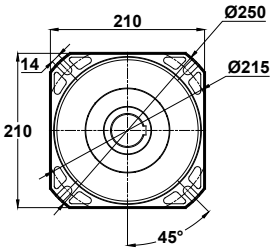
	71/B5 71/B14	80/B5 80/B14	90S/B5 90S/B14	90L/B5 90L/B14	100L/B5 100L/B14	112M/B5 112M/B14	132S/B5 132S/B14	132M/B5 132M/B14
k	532	584	625	625	653	674	801	801
k1	623	677	729.5	729.5	772.5	778.5	931	931
n / n1	137 / 112	155 / 121	176 / 132	176 / 132	193 / 147	215 / 158	257 / 179	257 / 179
m1 (B5)	160	200	200	200	250	250	300	300
m1 (B14)	105	120	140	140	160	160	200	200
p1	381	390	401	401	416	427	448	448

Diğer opsiyonel flanş ölçüleri için sayfa 326'ya bakınız.
Please see on page 326 for other optional flange dimensions
Siehe Siete 326 für andere auswählbare Flanschabmessungen

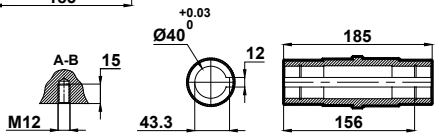
DV372.03
DV373.03



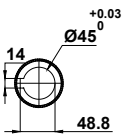




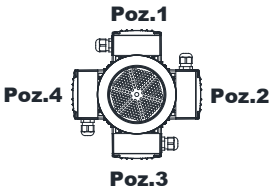
Std.



Ops.

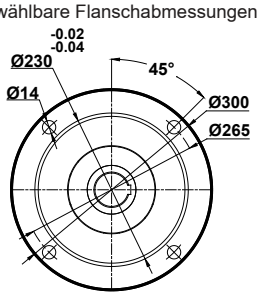


Klemens Pozisyonları
Terminal Box Positions
Klemmenkasten Positionen



71-80-90-100-112-132
Tip / *Type* / Typ

Opsiyonel Flanş Ölçüleri
Optional Flange Dimensions
Auswählbare Flanschabmessungen



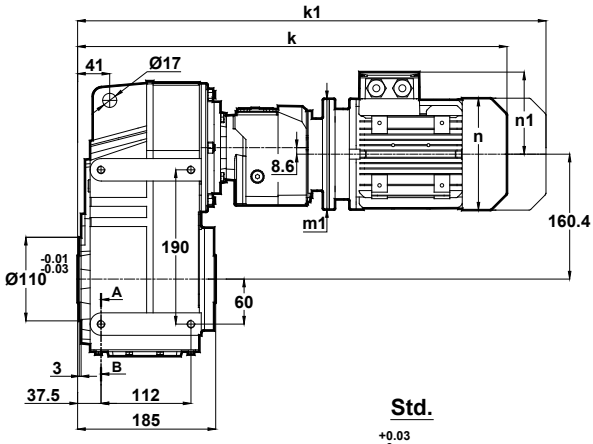
	71/B5 71/B14	80/B5 80/B14	90S/B5 90S/B14	90L/B5 90L/B14	100L/B5 100L/B14	112M/B5 112M/B14	132S/B5 132S/B14	132M/B5 132M/B14
k	452	504	545	545	573	594	721	721
k1	543	597	649.5	649.5	692.5	698.5	851	851
n / n1	137 / 112	155 / 121	176 / 132	176 / 132	193 / 147	215 / 158	257 / 179	257 / 179
m1 (B5)	160	200	200	200	250	250	300	300
m1 (B14)	105	120	140	140	160	160	200	200
p1	381	390	401	401	416	427	448	448

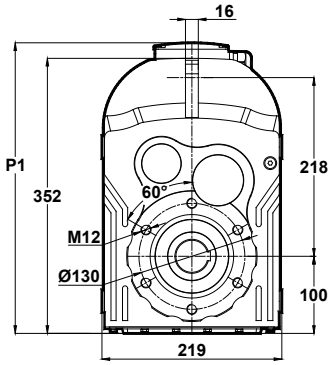
"k1" ölçüsü frenli redüktörlere aittir.
Dimensions "k1" is for motors with brake.
Maße "k1" ist für Bremsenmotoren.

Diğer opsiyonel flanş ölçüleri için sayfa 326'ya bakınız.
Please see on page 326 for other optional flange dimensions
Siehe Siete 326 für andere auswählbare Flanschabmessungen

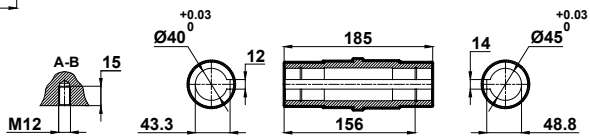
Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole according to DIN 332, sheet 2* / Zentrierung mit Gewinde nach DIN 332, Blatt 2

DV375.00
DV376.00





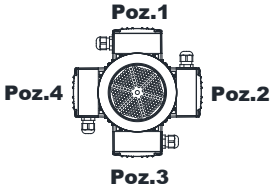
Std.



Ops.

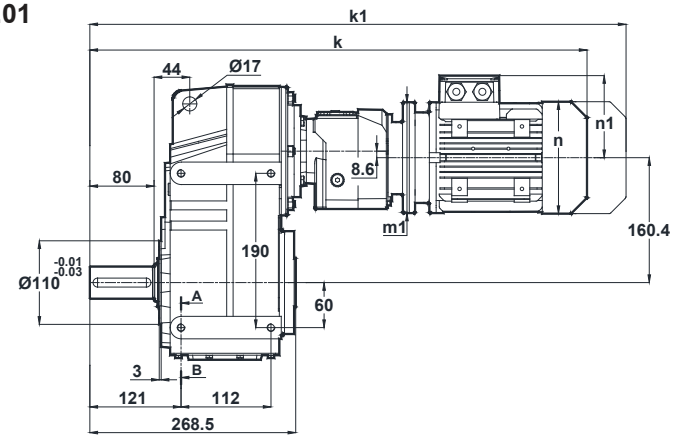
	63/B5 63/B14	71/B5 71/B14	80/B5 80/B14
k	542	562	600
k1	603	653	693
n / n1	121 / 97	137 / 112	155 / 121
m1 (B5)	140	160	200
m1 (B14)	90	105	120
p1	358	373	382

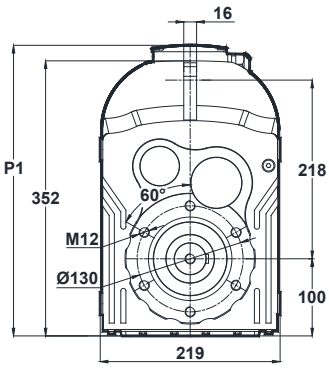
Klemens Pozisyonları
Terminal Box Positions
Klemmenkasten Positionen

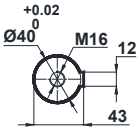


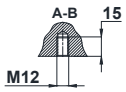
63-71-80
Tip / *Type* / Typ

DV375.01
DV376.01

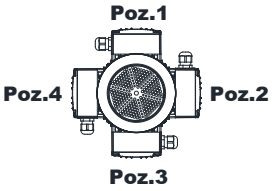








Klemens Pozisyonları
Terminal Box Positions
Klemmenkasten Positionen



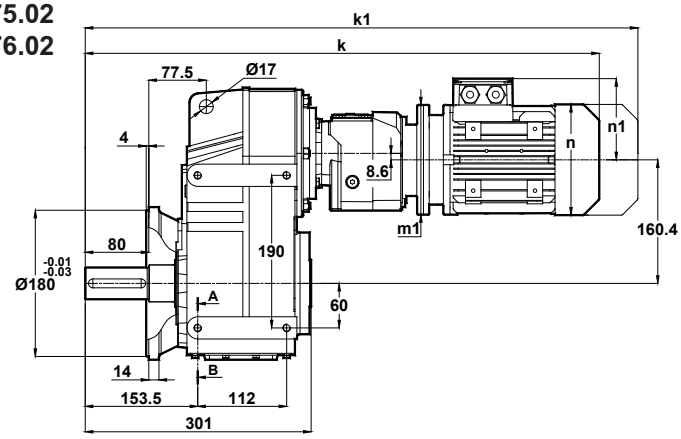
63-71-80
Tip / *Type* / Typ

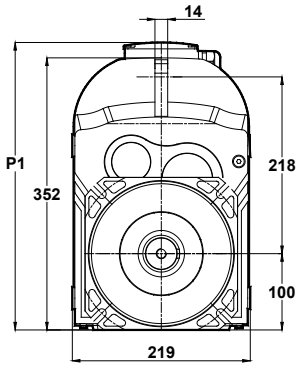
	63/B5 63/B14	71/B5 71/B14	80/B5 80/B14
k	625	645	683
k1	686	736	776
n / n1	121 / 97	137 / 112	155 / 121
m1 (B5)	140	160	200
m1 (B14)	90	105	120
p1	358	373	382

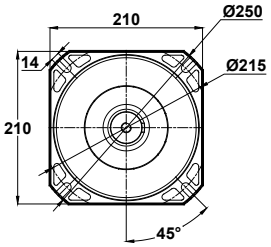
"k1" ölçüsü frenli redüktörlere aittir.
Dimensions "k1" is for motors with brake.
Maße "k1" ist für Bremsenmotoren.

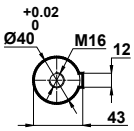
Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole according to DIN 332, sheet 2* / Zentrierung mit Gewinde nach DIN 332, Blatt 2

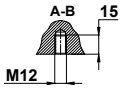
DV375.02
DV376.02





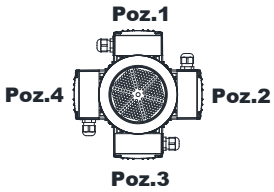




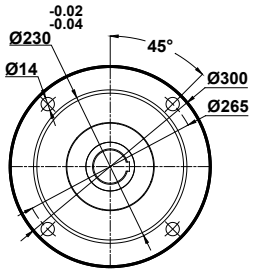


Klemens Pozisyonları
Terminal Box Positions
Klemmenkasten Positionen

Opsiyonel Flanş Ölçüleri
Optional Flange Dimensions
Auswählbare Flanschabmessungen



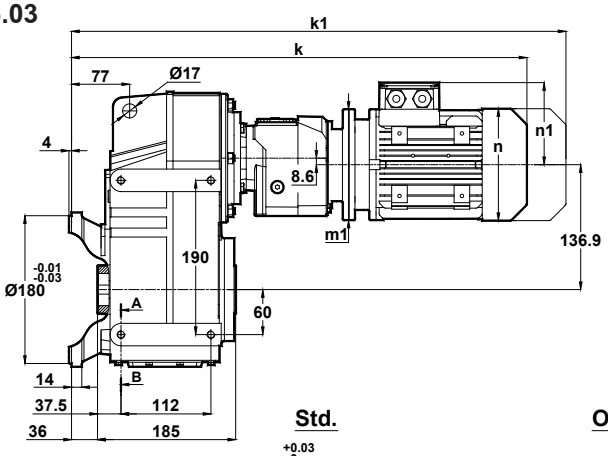
63-71-80
Tip / *Type* / Typ

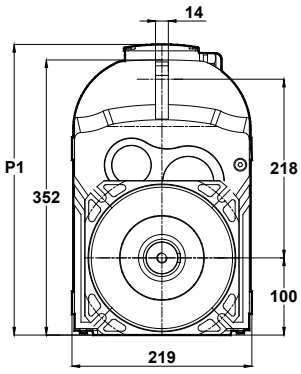


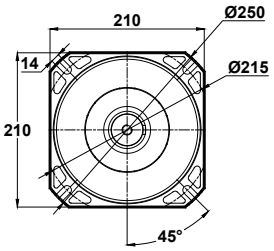
Diğer opsiyonel flanş ölçüleri için sayfa 326'ya bakınız.
Please see on page 326 for other optional flange dimensions
Siehe Siete 326 für andere auswählbare Flanschabmessungen

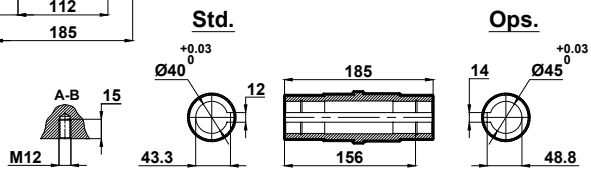
	63/B5 63/B14	71/B5 71/B14	80/B5 80/B14
k	658	678	716
k1	719	769	809
n / n1	121 / 97	137 / 112	155 / 121
m1 (B5)	140	160	200
m1 (B14)	90	105	120
p1	358	373	382

DV375.03
DV376.03



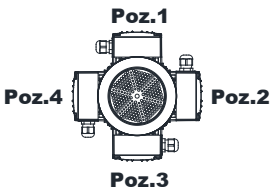




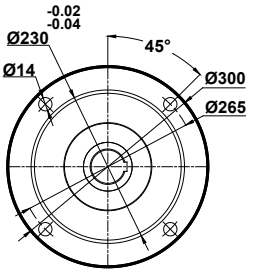


Klemens Pozisyonları
Terminal Box Positions
Klemmenkasten Positionen

Opsiyonel Flanş Ölçüleri
Optional Flange Dimensions
Auswählbare Flanschabmessungen



63-71-80
Tip / *Type* / Typ



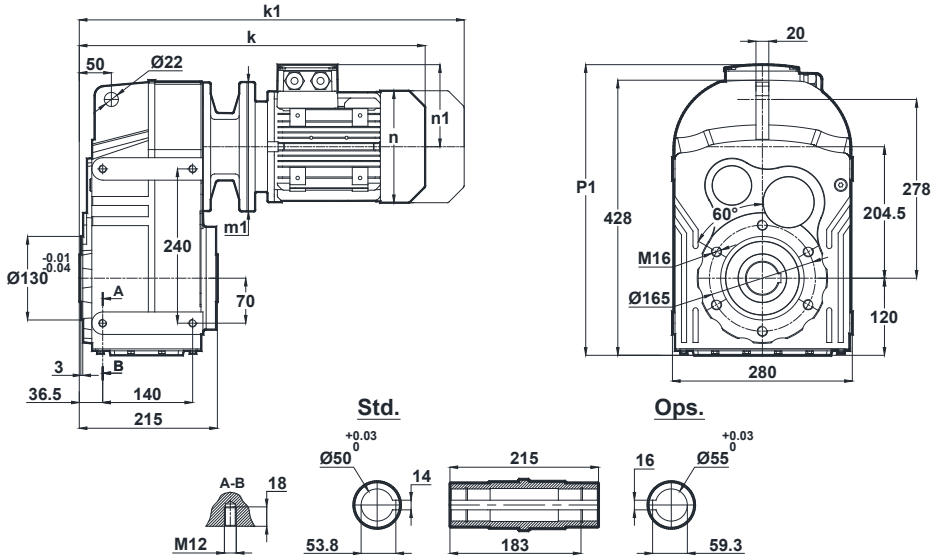
	63/B5 63/B14	71/B5 71/B14	80/B5 80/B14
k	578	598	636
k1	639	689	729
n / n1	121 / 97	137 / 112	155 / 121
m1 (B5)	140	160	200
m1 (B14)	90	105	120
p1	358	373	382

"k1" ölçüsü frenli redüktörlere aittir.
Dimensions "k1" is for motors with brake.
Maße "k1" ist für Bremsenmotoren.

Diğer opsiyonel flanş ölçüleri için sayfa 326'ya bakınız.
Please see on page 326 for other optional flange dimensions
Siehe Siete 326 für andere auswählbare Flanschabmessungen

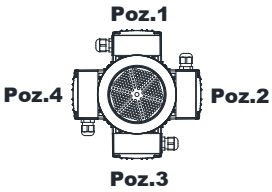
Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole according to DIN 332, sheet 2* / Zentrierung mit Gewinde nach DIN 332, Blatt 2

DV472.00
DV473.00



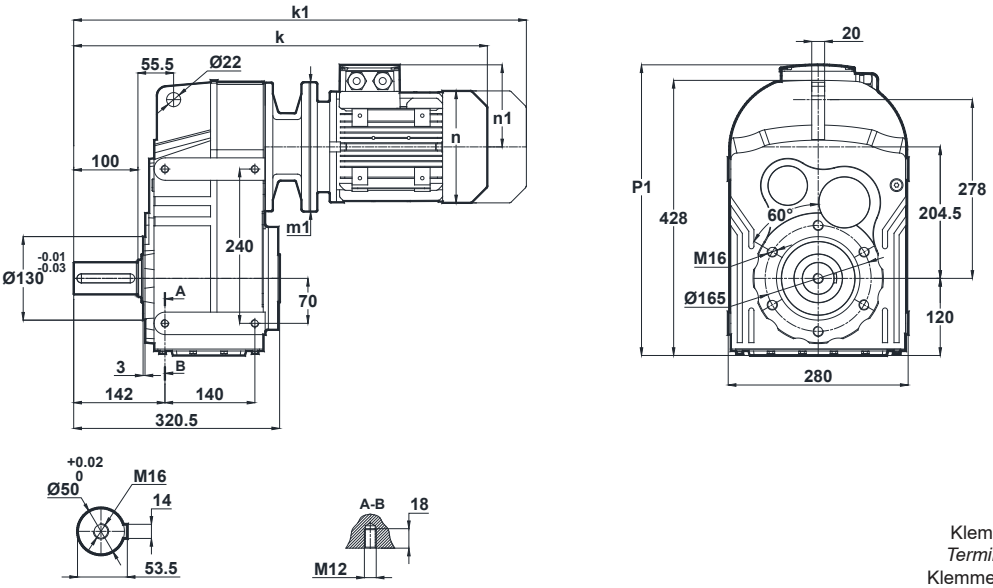
Klemens Pozisyonları
Terminal Box Positions
Klemmenkasten Positionen

	71/B5	80/B5 80/B14	90S/B5 90S/B14	90L/B5 90L/B14	100L/B5 100L/B14	112M/B5 112M/B14	132S/B5 132S/B14	132M/B5 132M/B14	160M/B5	160L/B5
k	471	494	535	535	587	608	712	712	871	871
k1	562	587	639.5	639.5	706.5	712.5	842	842	1051	1051
n / n1	137 / 112	155 / 121	176 / 132	176 / 132	193 / 147	215 / 158	257 / 179	257 / 179	315 / 219	315 / 219
m1 (B5)	160	200	200	200	250	250	300	300	350	350
m1 (B14)	-	120	140	140	160	160	200	200	-	-
p1	437	446	457	457	472	483	504	504	544	544



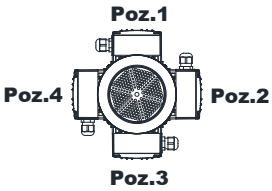
71-80-90-100-112-132-160
Tip / *Type* / Typ

DV472.01
DV473.01



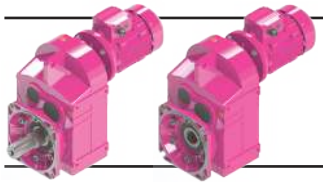
Klemens Pozisyonları
Terminal Box Positions
Klemmenkasten Positionen

	71/B5	80/B5 80/B14	90S/B5 90S/B14	90L/B5 90L/B14	100L/B5 100L/B14	112M/B5 112M/B14	132S/B5 132S/B14	132M/B5 132M/B14	160M/B5	160L/B5
k	576	599	640	640	692	713	817	817	976	976
k1	667	692	744.5	744.5	811.5	817.5	947	947	1156	1156
n / n1	137 / 112	155 / 121	176 / 132	176 / 132	193 / 147	215 / 158	257 / 179	257 / 179	315 / 219	315 / 219
m1 (B5)	160	200	200	200	250	250	300	300	350	350
m1 (B14)	-	120	140	140	160	160	200	200	-	-
p1	437	446	457	457	472	483	504	504	544	544



71-80-90-100-112-132-160
Tip / *Type* / Typ

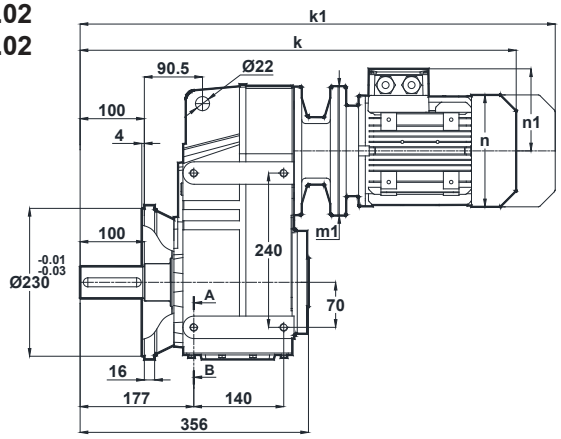
"k1" ölçüsü frenli redüktörlere aittir.
Dimensions "k1" is for motors with brake.
Maße "k1" ist für Bremsenmotoren.

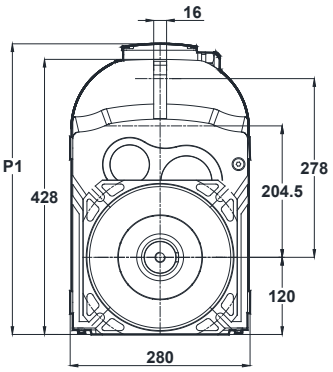


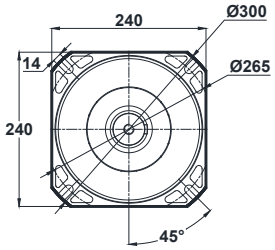
Ölçü Sayfaları
Dimension Pages
Abmessungsseiten

Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole according to DIN 332, sheet 2* / Zentrierung mit Gewinde nach DIN 332, Blatt 2

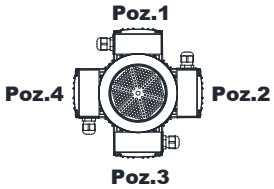
DV472.02
DV473.02





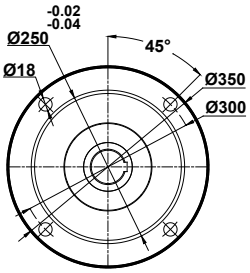


Klemens Pozisyonları
Terminal Box Positions
Klemmenkasten Positionen



71-80-90-100-112-132-160
Tip / *Type* / Typ

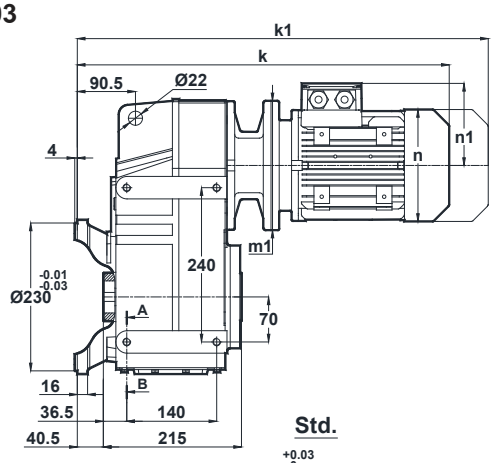
Opsiyonel Flanş Ölçüleri
Optional Flange Dimensions
Auswählbare Flanschabmessungen

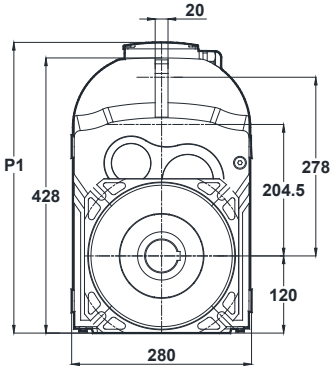


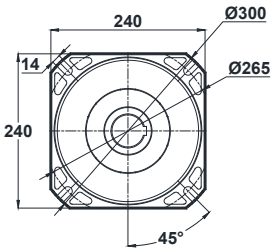
Diğer opsiyonel flanş ölçüleri için sayfa 326'ya bakınız.
Please see on page 326 for other optional flange dimensions
Siehe Siete 326 für andere auswählbare Flanschabmessungen

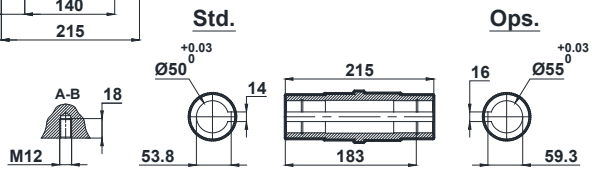
	71/B5	80/B5 80/B14	90S/B5 90S/B14	90L/B5 90L/B14	100L/B5 100L/B14	112M/B5 112M/B14	132S/B5 132S/B14	132M/B5 132M/B14	160M/B5	160L/B5
k	611	634	675	675	727	748	852	852	1011	1011
k1	702	727	779.5	779.5	846.5	852.5	982	982	1191	1191
n / n1	137 / 112	155 / 121	176 / 132	176 / 132	193 / 147	215 / 158	257 / 179	257 / 179	315 / 219	315 / 219
m1 (B5)	160	200	200	200	250	250	300	300	350	350
m1 (B14)	-	120	140	140	160	160	200	200	-	-
p1	437	446	457	457	472	483	504	504	544	544

DV472.03
DV473.03

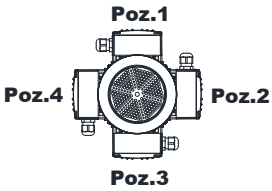






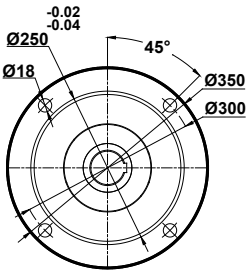


Klemens Pozisyonları
Terminal Box Positions
Klemmenkasten Positionen



71-80-90-100-112-132-160
Tip / *Type* / Typ

Opsiyonel Flanş Ölçüleri
Optional Flange Dimensions
Auswählbare Flanschabmessungen



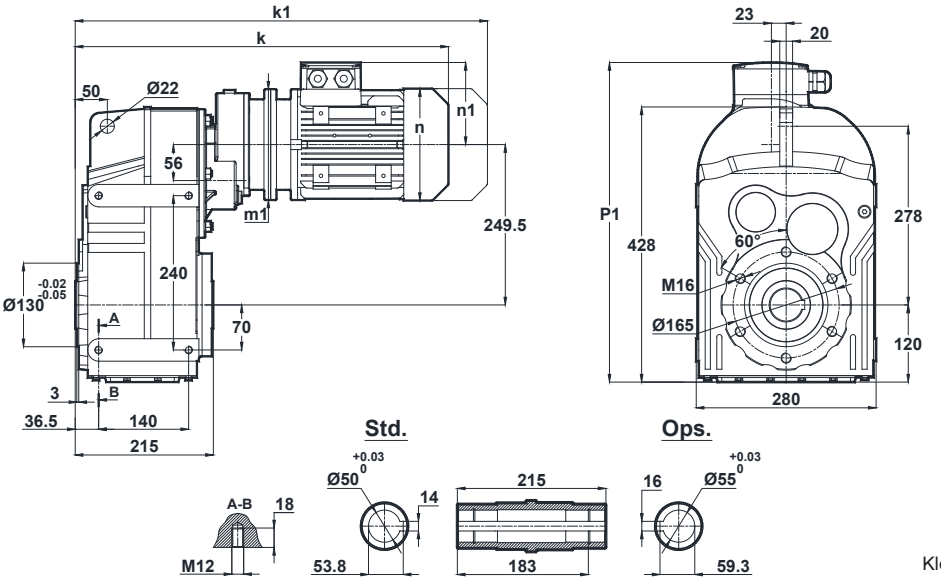
	71/B5	80/B5 80/B14	90S/B5 90S/B14	90L/B5 90L/B14	100L/B5 100L/B14	112M/B5 112M/B14	132S/B5 132S/B14	132M/B5 132M/B14	160M/B5	160L/B5
k	511	534	575	575	627	648	752	752	911	911
k1	602	627	679.5	679.5	746.5	752.5	882	882	1091	1091
n / n1	137 / 112	155 / 121	176 / 132	176 / 132	193 / 147	215 / 158	257 / 179	257 / 179	315 / 219	315 / 219
m1 (B5)	160	200	200	200	250	250	300	300	350	350
m1 (B14)	-	120	140	140	160	160	200	200	-	-
p1	437	446	457	457	472	483	504	504	544	544

"k1" ölçüsü frenli redüktörlere aittir.
Dimensions "k1" is for motors with brake.
Maße "k1" ist für Bremsenmotoren.

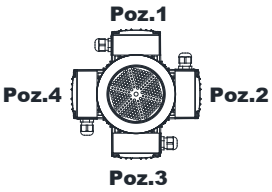
Diğer opsiyonel flanş ölçüleri için sayfa 326'ya bakınız.
Please see on page 326 for other optional flange dimensions
Siehe Siete 326 für andere auswählbare Flanschabmessungen

Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole according to DIN 332, sheet 2* / Zentrierung mit Gewinde nach DIN 332, Blatt 2

DV474.00



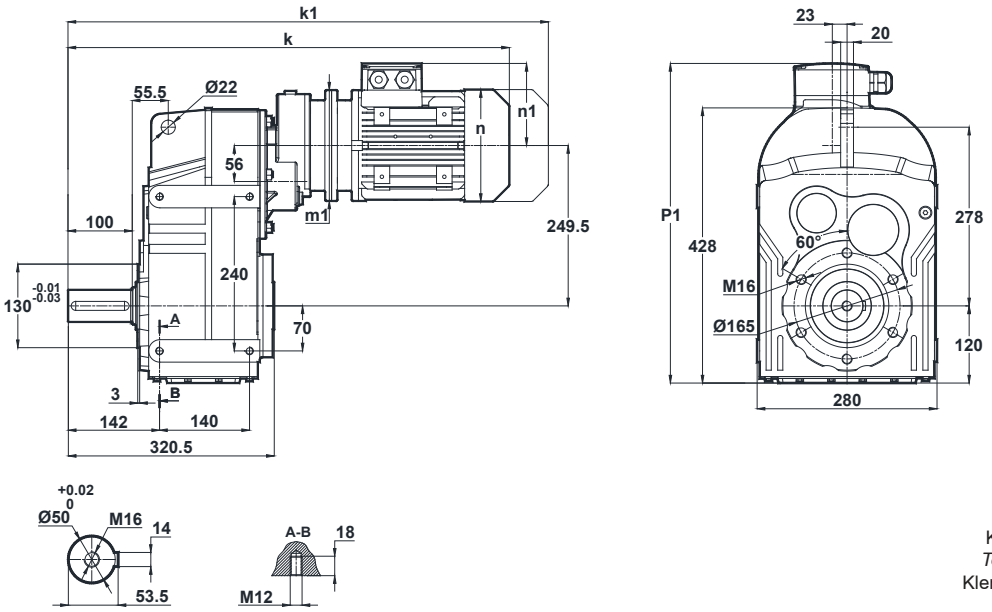
Klemens Pozisyonları
Terminal Box Positions
Klemmenkasten Positionen



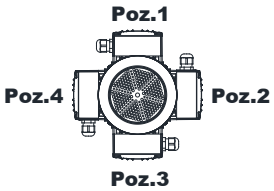
63-71-80
Tip / *Type* / Typ

	63/B5	71/B5 71/B14	80/B5 80/B14
k	530	519	577
k1	591	610	670
n / n1	121 / 97	137 / 112	155 / 121
m1 (B5)	140	160	200
m1 (B14)	-	105	120
p1	467	482	491

DV474.01



Klemens Pozisyonları
Terminal Box Positions
Klemmenkasten Positionen



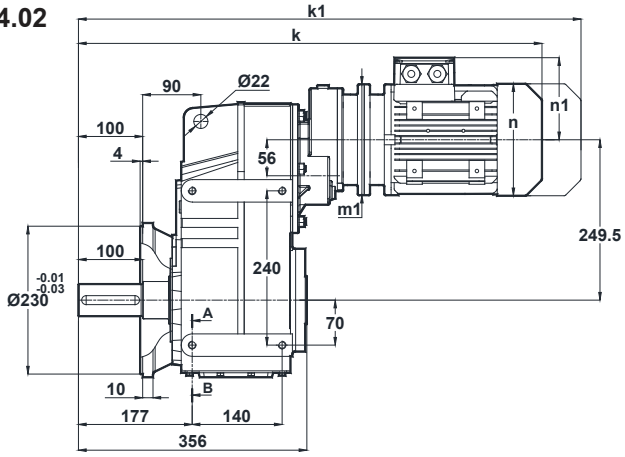
63-71-80
Tip / *Type* / Typ

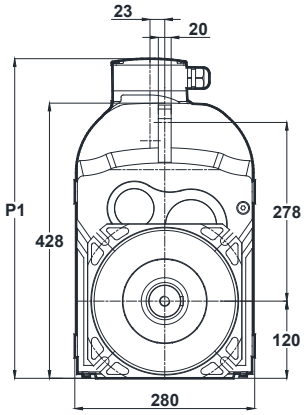
	63/B5	71/B5 71/B14	80/B5 80/B14
k	898	624	682
k1	959	715	775
n / n1	121 / 97	137 / 112	155 / 121
m1 (B5)	140	160	200
m1 (B14)	-	105	120
p1	467	482	491

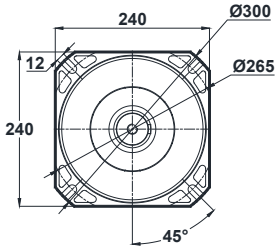
''k1'' ölçüsü frenli redüktörlere aittir.
Dimensions ''k1'' is for motors with brake.
Maße ''k1'' ist für Bremsenmotoren.

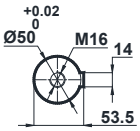
Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole according to DIN 332, sheet 2* / Zentrierung mit Gewinde nach DIN 332, Blatt 2

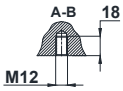
DV474.02





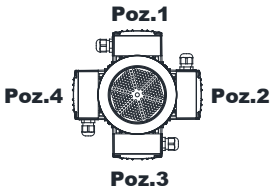






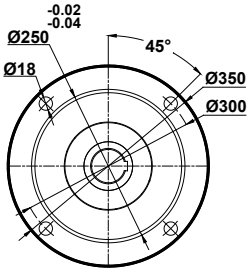
	63/B5	71/B5 71/B14	80/B5 80/B14
k	670	659	717
k1	731	750	810
n / n1	121 / 97	137 / 112	155 / 121
m1 (B5)	140	160	200
m1 (B14)	-	105	120
p1	467	482	491

Klemens Pozisyonları
Terminal Box Positions
Klemmenkasten Positionen



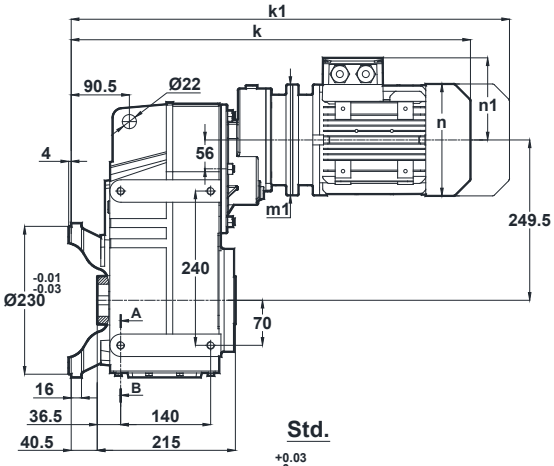
63-71-80
Tip / *Type* / Typ

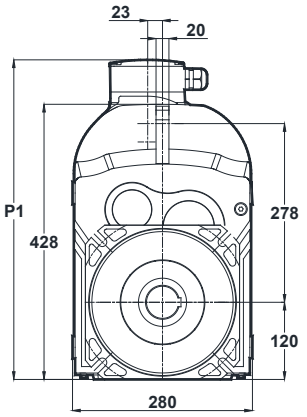
Opsiyonel Flanş Ölçüleri
Optional Flange Dimensions
Auswählbare Flanschabmessungen

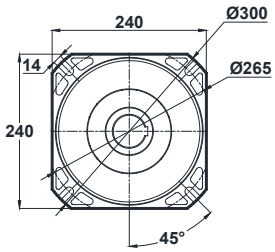


Diğer opsiyonel flanş ölçüleri için sayfa 326'ya bakınız.
Please see on page 326 for other optional flange dimensions
Siehe Siete 326 für andere auswählbare Flanschabmessungen

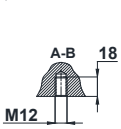
DV474.03

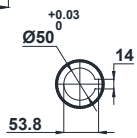


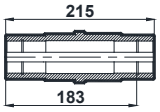




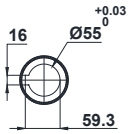
Std.





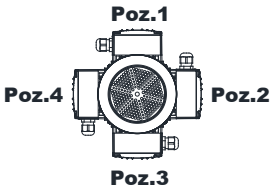


Ops.



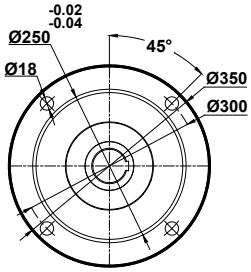
	63/B5	71/B5 71/B14	80/B5 80/B14
k	833	559	617
k1	894	650	710
n / n1	121 / 97	137 / 112	155 / 121
m1 (B5)	140	160	200
m1 (B14)	-	105	120
p1	467	482	491

Klemens Pozisyonları
Terminal Box Positions
Klemmenkasten Positionen



63-71-80
Tip / *Type* / Typ

Opsiyonel Flanş Ölçüleri
Optional Flange Dimensions
Auswählbare Flanschabmessungen

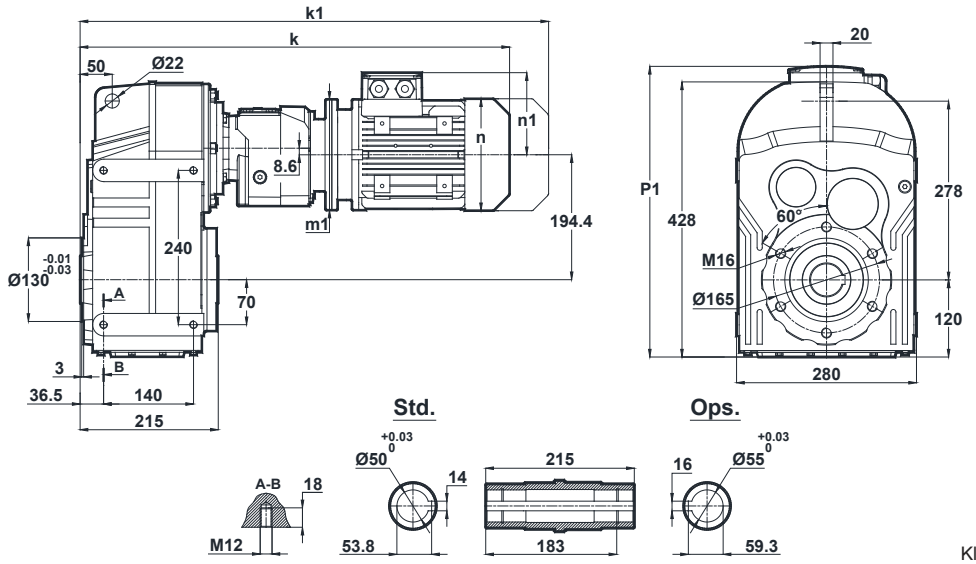


Diğer opsiyonel flanş ölçüleri için sayfa 326'ya bakınız.
Please see on page 326 for other optional flange dimensions
Siehe Siete 326 für andere auswählbare Flanschabmessungen

"k1" ölçüsü frenli redüktörlere aittir.
Dimensions "k1" is for motors with brake.
Maße "k1" ist für Bremsenmotoren.

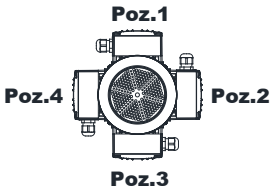
Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole according to DIN 332, sheet 2* / Zentrierung mit Gewinde nach DIN 332, Blatt 2

DV475.00
DV476.00



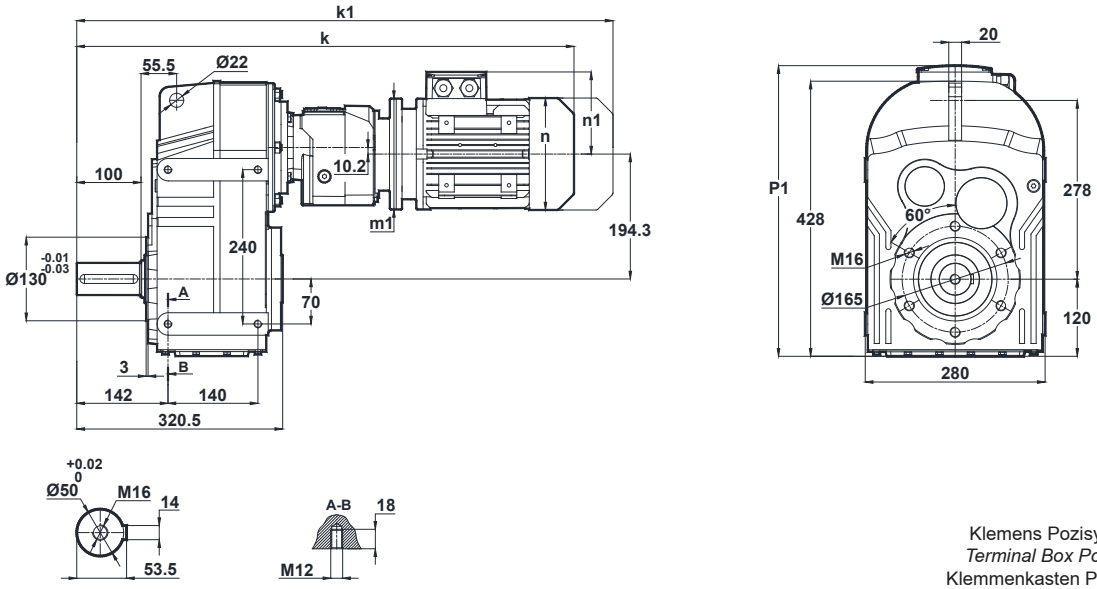
	63/B5 63/B14	71/B5 71/B14
k	595	614
k1	656	705
n / n1	121 / 97	137 / 112
m1 (B5)	140	160
m1 (B14)	90	105
p1	-	-

Klemens Pozisyonları
Terminal Box Positions
Klemmenkasten Positionen



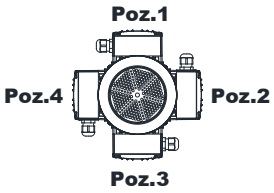
63-71
Tip / *Type* / Typ

DV475.01
DV476.01



	63/B5 63/B14	71/B5 71/B14
k	700	719
k1	761	810
n / n1	121 / 97	137 / 112
m1 (B5)	140	160
m1 (B14)	90	105
p1	-	-

Klemens Pozisyonları
Terminal Box Positions
Klemmenkasten Positionen

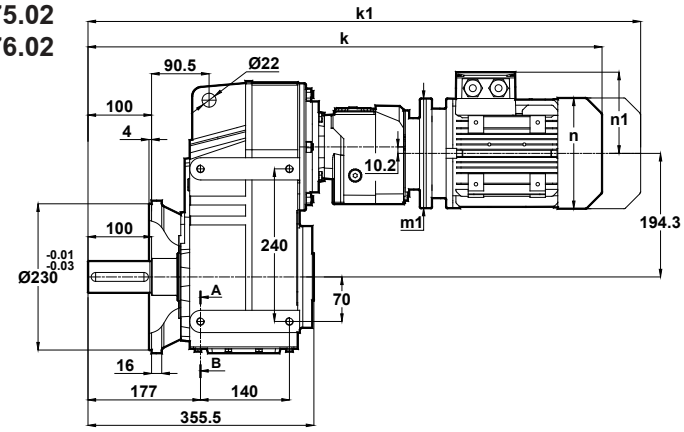


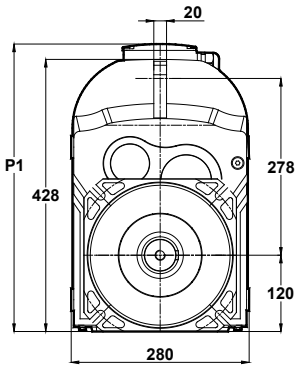
63-71
Tip / *Type* / Typ

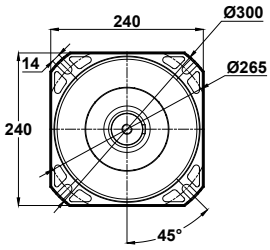
"k1" ölçüsü frenli redüktörlere aittir.
Dimensions "k1" is for motors with brake.
Maße "k1" ist für Bremsenmotoren.

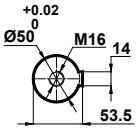
Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole according to DIN 332, sheet 2* / Zentrierung mit Gewinde nach DIN 332, Blatt 2

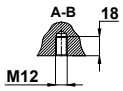
DV475.02
DV476.02





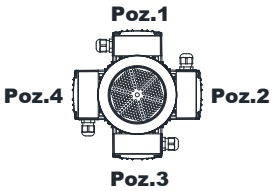




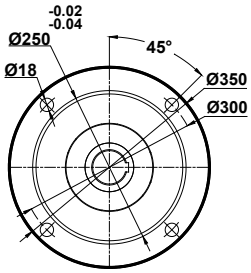


Klemens Pozisyonları
Terminal Box Positions
Klemmenkasten Positionen

Opsiyonel Flanş Ölçüleri
Optional Flange Dimensions
Auswählbare Flanschabmessungen



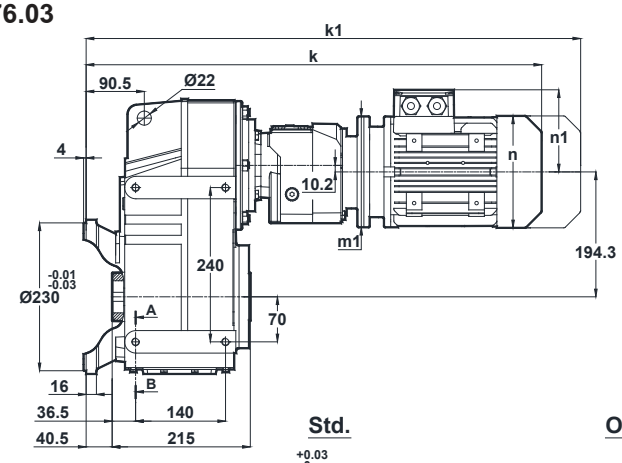
63-71
Tip / *Type* / Typ

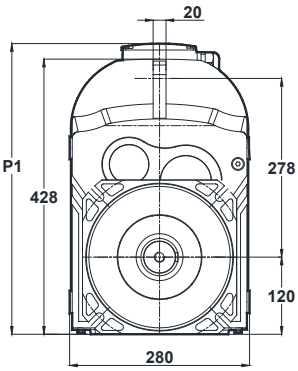


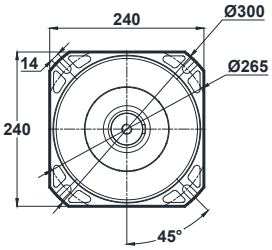
	63/B5 63/B14	71/B5 71/B14
k	735	754
k1	796	845
n / n1	121 / 97	137 / 112
m1 (B5)	140	160
m1 (B14)	90	105
p1	-	-

Diğer opsiyonel flanş ölçüleri için sayfa 326'ya bakınız.
Please see on page 326 for other optional flange dimensions
Siehe Siete 326 für andere auswählbare Flanschabmessungen

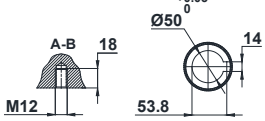
DV475.03
DV476.03



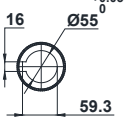




Std.

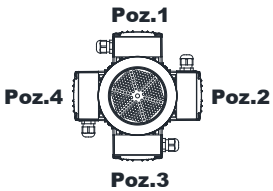


Ops.

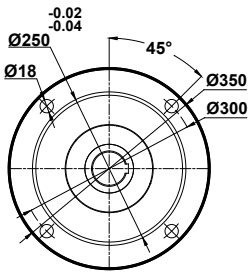


Klemens Pozisyonları
Terminal Box Positions
Klemmenkasten Positionen

Opsiyonel Flanş Ölçüleri
Optional Flange Dimensions
Auswählbare Flanschabmessungen



63-71
Tip / *Type* / Typ



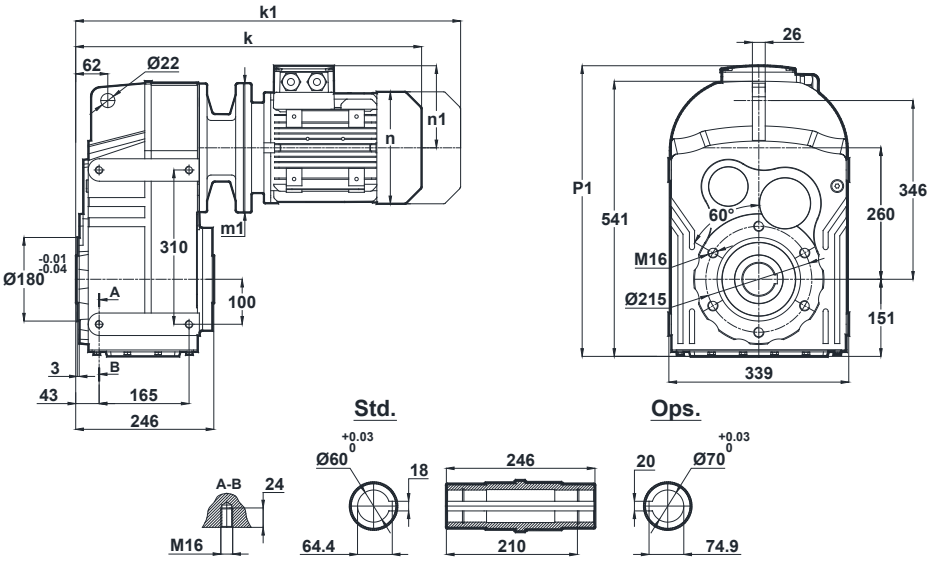
	63/B5 63/B14	71/B5 71/B14
k	635	654
k1	696	745
n / n1	121 / 97	137 / 112
m1 (B5)	140	160
m1 (B14)	90	105
p1	-	-

"k1" ölçüsü frenli redüktörlere aittir.
Dimensions "k1" is for motors with brake.
Maße "k1" ist für Bremsenmotoren.

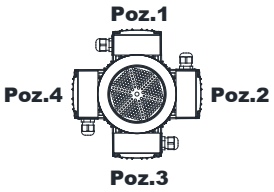
Diğer opsiyonel flanş ölçüleri için sayfa 326'ya bakınız.
Please see on page 326 for other optional flange dimensions
Siehe Siete 326 für andere auswählbare Flanschabmessungen

Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole according to DIN 332, sheet 2* / Zentrierung mit Gewinde nach DIN 332, Blatt 2

DV572.00
DV573.00



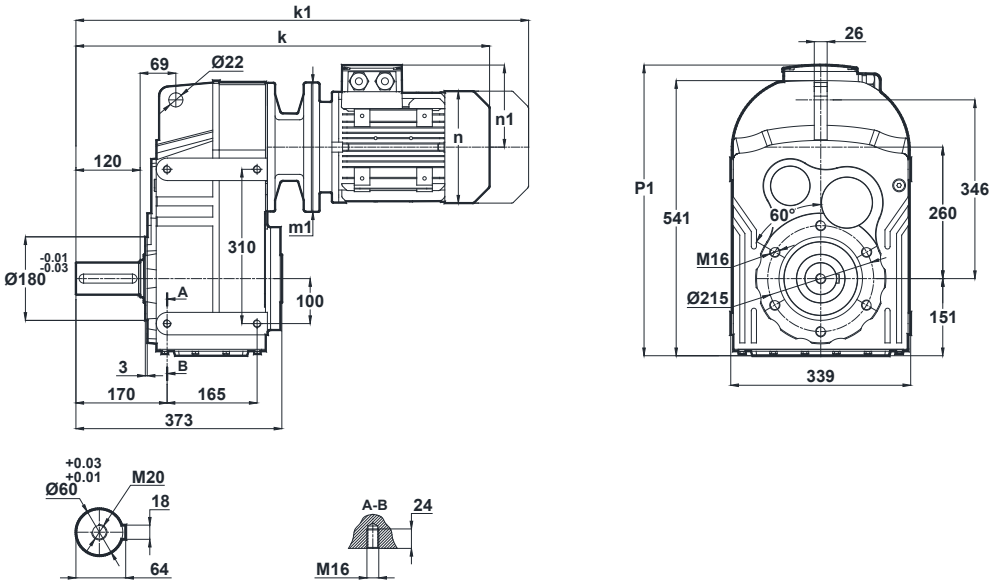
Klemens Pozisyonları
Terminal Box Positions
Klemmenkasten Positionen



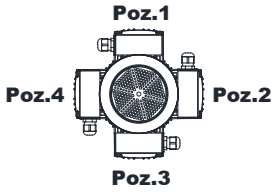
80-90-100-112-132-160-180
Tip / *Type* / Typ

	80/B5	90S/B5 90S/B14	90L/B5 90L/B14	100L/B5 100L/B14	112M/B5 112M/B14	132S/B5 132S/B14	132M/B5 132M/B14	160M/B5	160L/B5	180M/B5	180L/B5
k	511	552	552	606	626	729	729	888	888	977	977
k1	604	656.5	656.5	725.5	730.5	859	859	1068	1068	1084.5	1084.5
n / n1	155 / 121	176 / 132	176 / 132	193 / 147	215 / 158	257 / 179	257 / 179	315 / 219	315 / 219	347 / 234	347 / 234
m1 (B5)	200	200	200	250	250	300	300	350	350	350	350
m1 (B14)	-	140	140	160	160	200	200	-	-	-	-
p1	-	543	543	558	569	590	590	636	636	655	655

DV572.01
DV573.01



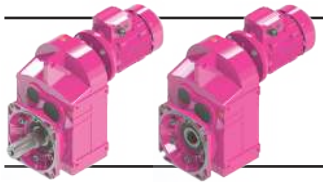
Klemens Pozisyonları
Terminal Box Positions
Klemmenkasten Positionen



80-90-100-112-132-160-180
Tip / *Type* / Typ

	80/B5	90S/B5 90S/B14	90L/B5 90L/B14	100L/B5 100L/B14	112M/B5 112M/B14	132S/B5 132S/B14	132M/B5 132M/B14	160M/B5	160L/B5	180M/B5	180L/B5
k	638	679	679	733	753	856	856	1015	1015	1104	1104
k1	731	783.5	783.5	852.5	857.5	986	986	1195	1195	1274.5	1274.5
n / n1	155 / 121	176 / 132	176 / 132	193 / 147	215 / 158	257 / 179	257 / 179	315 / 219	315 / 219	347 / 234	347 / 234
m1 (B5)	200	200	200	250	250	300	300	350	350	350	350
m1 (B14)	-	140	140	160	160	200	200	-	-	-	-
p1	-	543	543	558	569	590	590	636	636	655	655

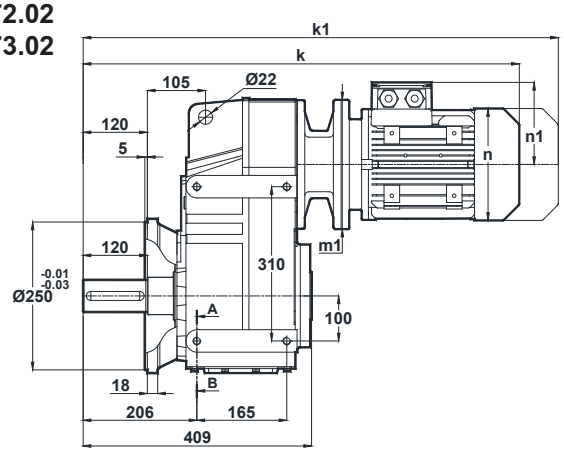
"k1" ölçüsü frenli redüktörlere aittir.
Dimensions "k1" is for motors with brake.
Maße "k1" ist für Bremsenmotoren.

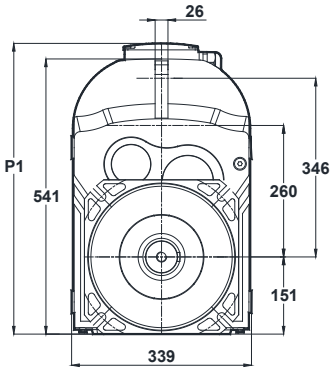


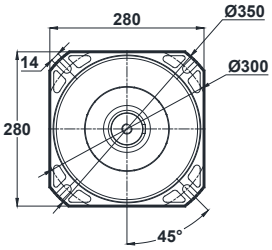
Ölçü Sayfaları
Dimension Pages
Abmessungsseiten

Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole according to DIN 332, sheet 2* / Zentrierung mit Gewinde nach DIN 332, Blatt 2

DV572.02
DV573.02

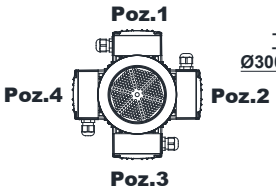


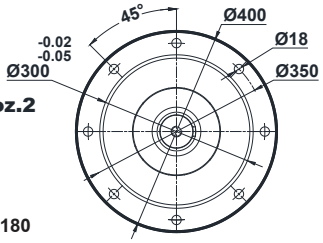




Klemens Pozisyonları
Terminal Box Positions
Klemmenkasten Positionen

Opsiyonel Flanş Ölçüleri
Optional Flange Dimensions
Auswählbare Flanschabmessungen



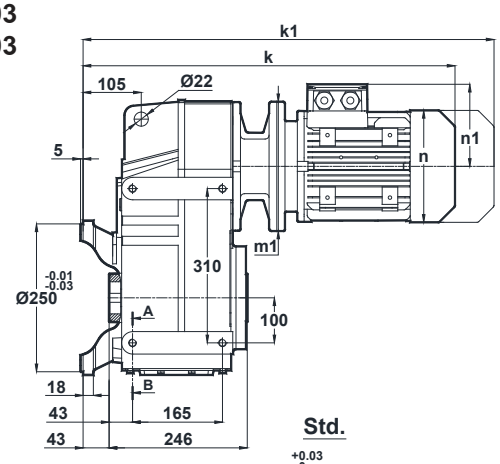


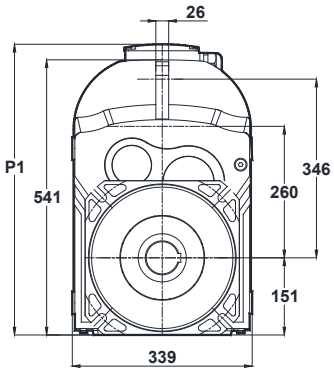
80-90-100-112-132-160-180
Tip / *Type* / Typ

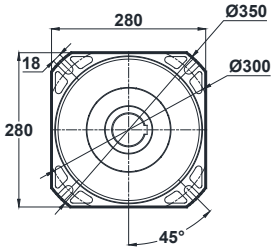
	80/B5	90S/B5 90S/B14	90L/B5 90L/B14	100L/B5 100L/B14	112M/B5 112M/B14	132S/B5 132S/B14	132M/B5 132M/B14	160M/B5	160L/B5	180M/B5	180L/B5
k	674	715	715	769	789	892	892	1051	1051	1140	1140
k1	767	819.5	819.5	888.5	893.5	1022	1022	1231	1231	1310.5	1310.5
n / n1	155 / 121	176 / 132	176 / 132	193 / 147	215 / 158	257 / 179	257 / 179	315 / 219	315 / 219	347 / 234	347 / 234
m1 (B5)	200	200	200	250	250	300	300	350	350	350	350
m1 (B14)	-	140	140	160	160	200	200	-	-	-	-
p1	-	543	543	558	569	590	590	636	636	655	655

Diğer opsiyonel flanş ölçüleri için sayfa 326'ya bakınız.
Please see on page 326 for other optional flange dimensions
Siehe Siete 326 für andere auswählbare Flanschabmessungen

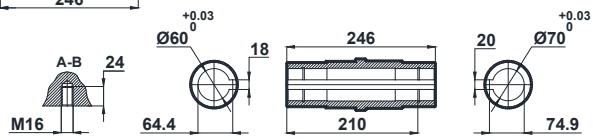
DV572.03
DV573.03







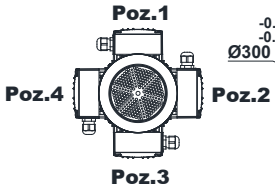
Std.

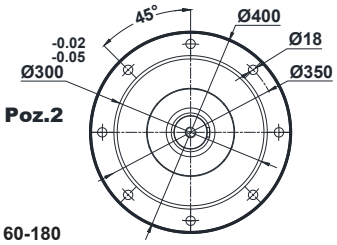


Ops.

Klemens Pozisyonları
Terminal Box Positions
Klemmenkasten Positionen

Opsiyonel Flanş Ölçüleri
Optional Flange Dimensions
Auswählbare Flanschabmessungen





80-90-100-112-132-160-180
Tip / *Type* / Typ

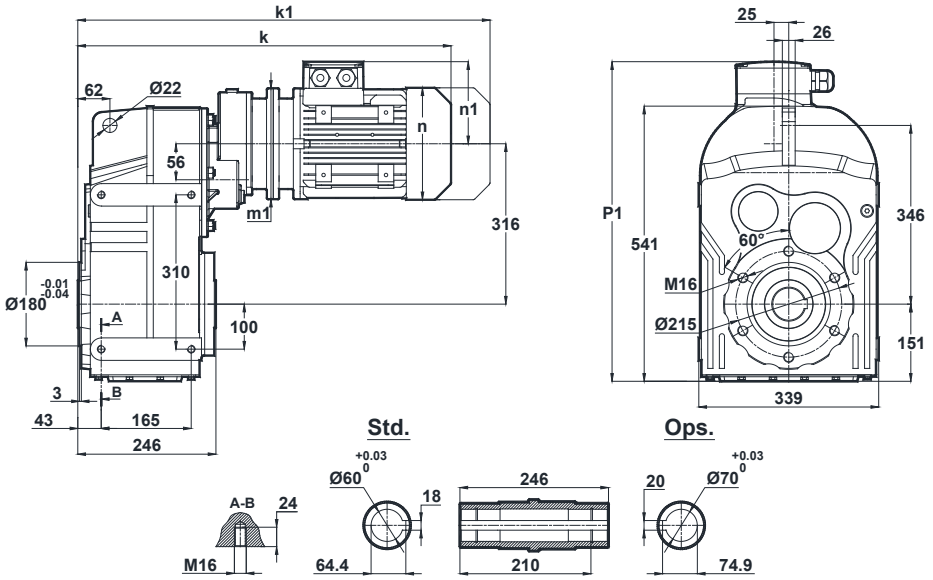
	80/B5	90S/B5 90S/B14	90L/B5 90L/B14	100L/B5 100L/B14	112M/B5 112M/B14	132S/B5 132S/B14	132M/B5 132M/B14	160M/B5	160L/B5	180M/B5	180L/B5
k	554	595	595	649	669	772	772	931	931	1020	1020
k1	647	699.5	699.5	768.5	773.5	902	902	1111	1111	1190.5	1190.5
n / n1	155 / 121	176 / 132	176 / 132	193 / 147	215 / 158	257 / 179	257 / 179	315 / 219	315 / 219	347 / 234	347 / 234
m1 (B5)	200	200	200	250	250	300	300	350	350	350	350
m1 (B14)	-	140	140	160	160	200	200	-	-	-	-
p1	-	543	543	558	569	590	590	636	636	655	655

"k1" ölçüsü frenli redüktörlere aittir.
Dimensions "k1" is for motors with brake.
Maße "k1" ist für Bremsenmotoren.

Diğer opsiyonel flanş ölçüleri için sayfa 326'ya bakınız.
Please see on page 326 for other optional flange dimensions
Siehe Siete 326 für andere auswählbare Flanschabmessungen

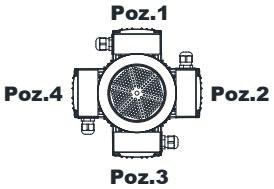
Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole according to DIN 332, sheet 2* / Zentrierung mit Gewinde nach DIN 332, Blatt 2

DV574.00



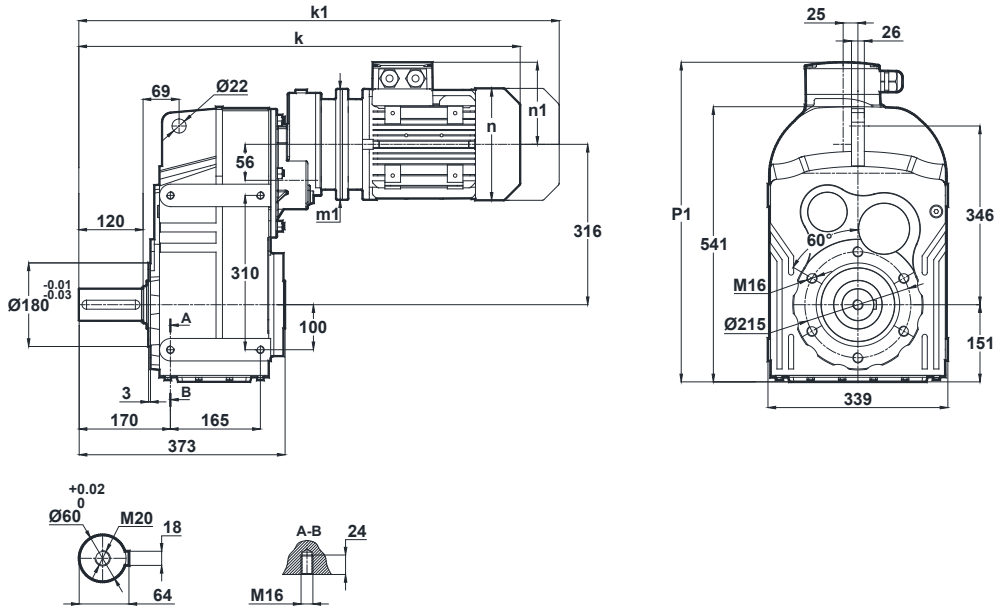
	71/B5	80/B5 80/B14	90S/B5 90S/B14	90L/B5 90L/B14
k	586	609	650	650
k1	677	702	754.5	754.5
n / n1	137 / 112	155 / 121	176 / 132	176 / 132
m1 (B5)	160	200	200	200
m1 (B14)	-	120	140	140
p1	579	588	599	599

Klemens Pozisyonları
Terminal Box Positions
Klemmenkasten Positionen



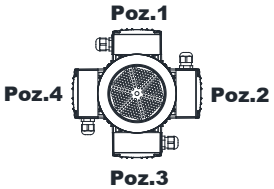
71-80-90
Tip / *Type* / Typ

DV574.01



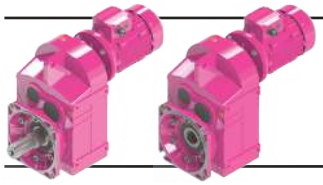
	71/B5	80/B5 80/B14	90S/B5 90S/B14	90L/B5 90L/B14
k	713	736	777	777
k1	804	829	881.5	881.5
n / n1	137 / 112	155 / 121	176 / 132	176 / 132
m1 (B5)	160	200	200	200
m1 (B14)	-	120	140	140
p1	579	588	599	599

Klemens Pozisyonları
Terminal Box Positions
Klemmenkasten Positionen



71-80-90
Tip / *Type* / Typ

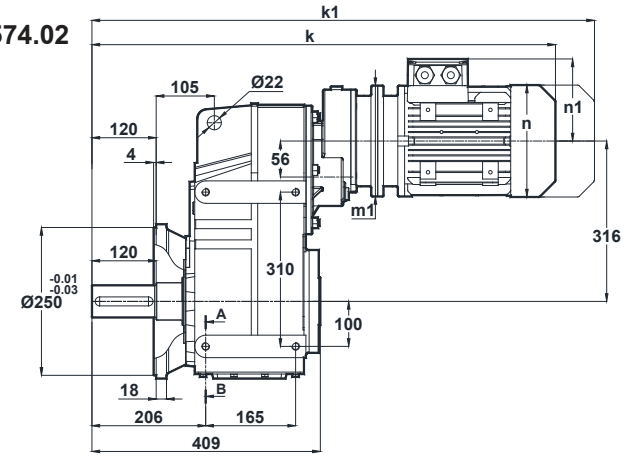
"k1" ölçüsü frenli redüktörlere aittir.
Dimensions "k1" is for motors with brake.
Maße "k1" ist für Bremsenmotoren.

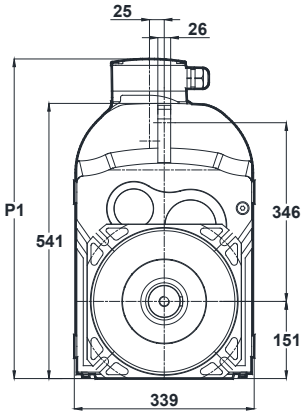


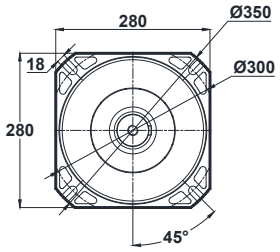
Ölçü Sayfaları
Dimension Pages
Abmessungsseiten

Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole according to DIN 332, sheet 2* / Zentrierung mit Gewinde nach DIN 332, Blatt 2

DV574.02



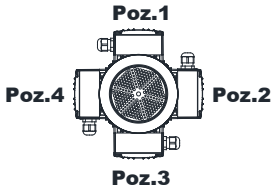




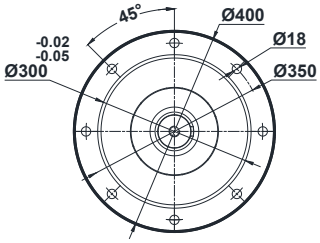
Klemens Pozisyonları
Terminal Box Positions
Klemmenkasten Positionen

Opsiyonel Flanş Ölçüleri
Optional Flange Dimensions
Auswählbare Flanschabmessungen

	71/B5	80/B5 80/B14	90S/B5 90S/B14	90L/B5 90L/B14
k	749	772	813	813
k1	840	865	917.5	917.5
n / n1	137 / 112	155 / 121	176 / 132	176 / 132
m1 (B5)	160	200	200	200
m1 (B14)	-	120	140	140
p1	579	588	599	599

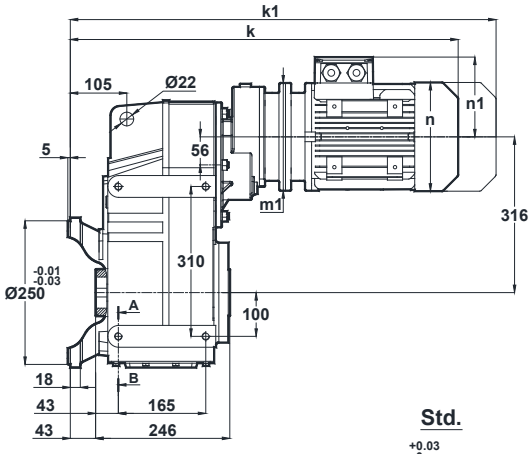


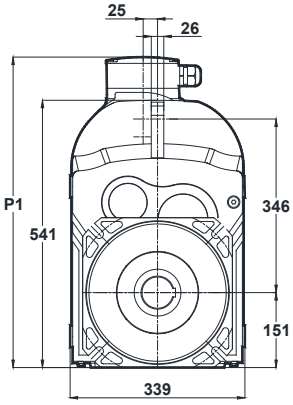
71-80-90
Tip / *Type* / Typ

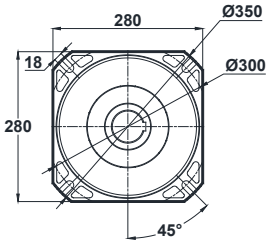


Diğer opsiyonel flanş ölçüleri için sayfa 326'ya bakınız.
Please see on page 326 for other optional flange dimensions
Siehe Siete 326 für andere auswählbare Flanschabmessungen

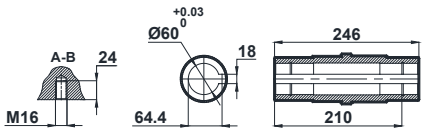
DV574.03



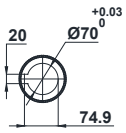




Std.



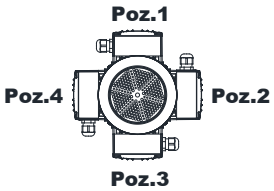
Ops.



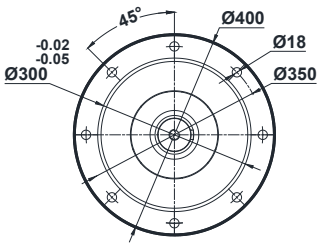
Klemens Pozisyonları
Terminal Box Positions
Klemmenkasten Positionen

Opsiyonel Flanş Ölçüleri
Optional Flange Dimensions
Auswählbare Flanschabmessungen

	71/B5	80/B5 80/B14	90S/B5 90S/B14	90L/B5 90L/B14
k	629	652	693	693
k1	720	745	797.5	797.5
n / n1	137 / 112	155 / 121	176 / 132	176 / 132
m1 (B5)	160	200	200	200
m1 (B14)	-	120	140	140
p1	579	588	599	599



71-80-90
Tip / *Type* / Typ

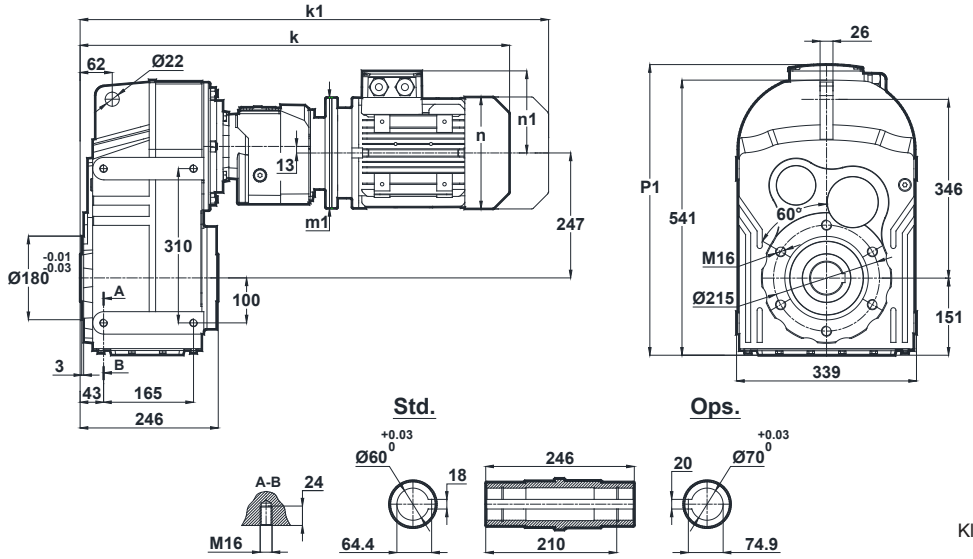


"k1" ölçüsü frenli redüktörlere aittir.
Dimensions "k1" is for motors with brake.
Maße "k1" ist für Bremsenmotoren.

Diğer opsiyonel flanş ölçüleri için sayfa 326'ya bakınız.
Please see on page 326 for other optional flange dimensions
Siehe Siete 326 für andere auswählbare Flanschabmessungen

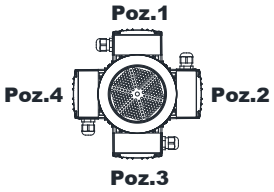
Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole according to DIN 332, sheet 2* / Zentrierung mit Gewinde nach DIN 332, Blatt 2

DV575.00
DV576.00



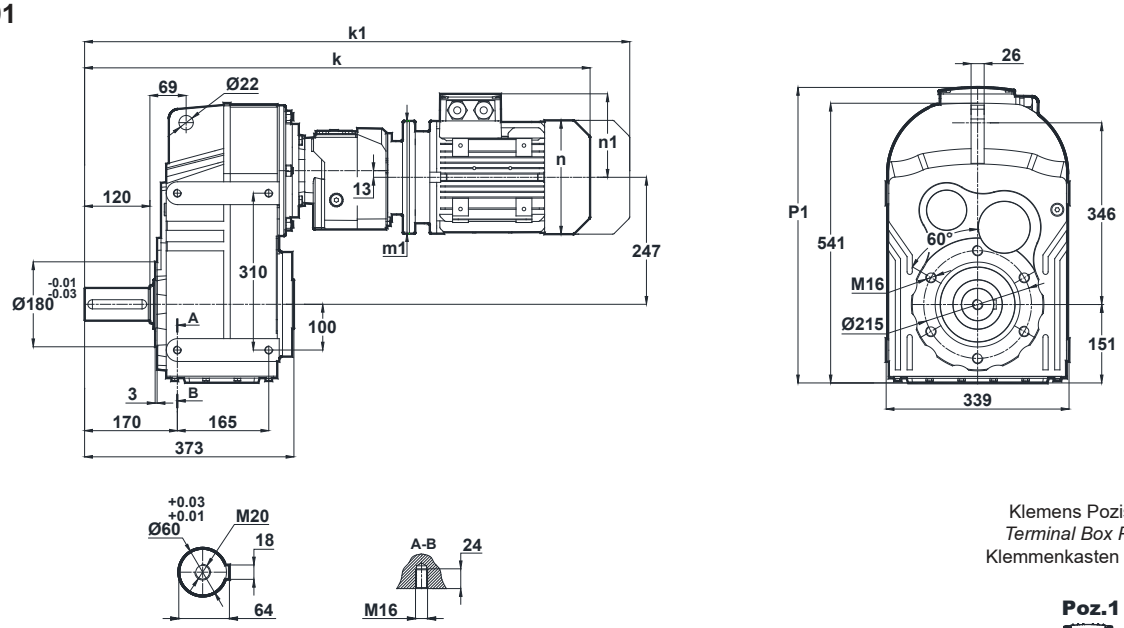
	63/B5	71/B5 71/B14
k	696	685
k1	757	776
n / n1	121 / 97	137 / 112
m1 (B5)	140	160
m1 (B14)	-	105
p1	-	-

Klemens Pozisyonları
Terminal Box Positions
Klemmenkasten Positionen



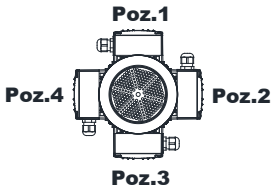
63-71
Tip / *Type* / Typ

DV575.01
DV576.01



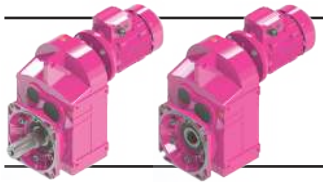
	63/B5	71/B5 71/B14
k	823	812
k1	884	903
n / n1	121 / 97	137 / 112
m1 (B5)	140	160
m1 (B14)	-	105
p1	-	-

Klemens Pozisyonları
Terminal Box Positions
Klemmenkasten Positionen



63-71
Tip / *Type* / Typ

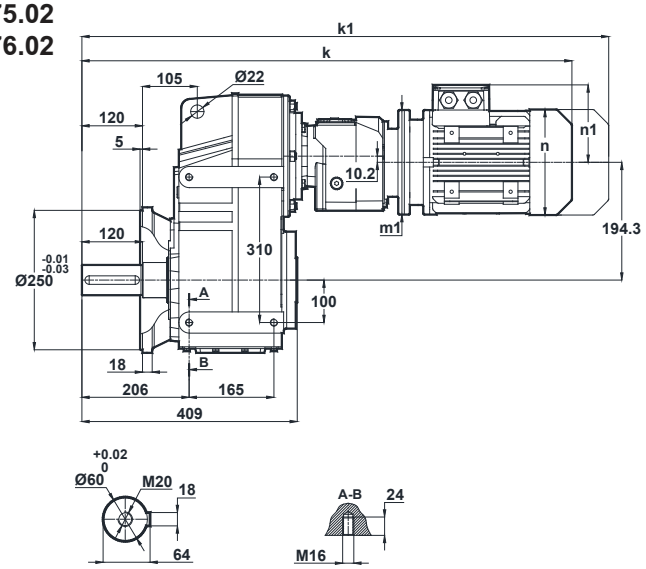
"k1" ölçüsü frenli redüktörlere aittir.
Dimensions "k1" is for motors with brake.
Maße "k1" ist für Bremsenmotoren.

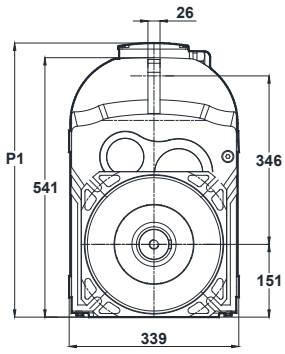


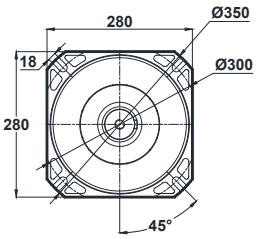
Ölçü Sayfaları
Dimension Pages
Abmessungsseiten

Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole according to DIN 332, sheet 2* / Zentrierung mit Gewinde nach DIN 332, Blatt 2

DV575.02
DV576.02

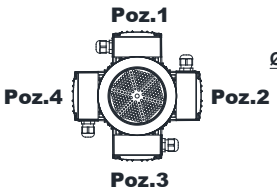




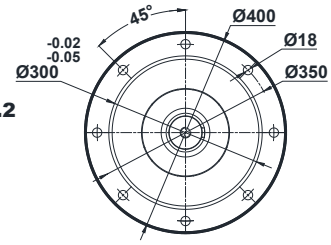


Klemens Pozisyonları
Terminal Box Positions
Klemmenkasten Positionen

Opsiyonel Flanş Ölçüleri
Optional Flange Dimensions
Auswählbare Flanschabmessungen



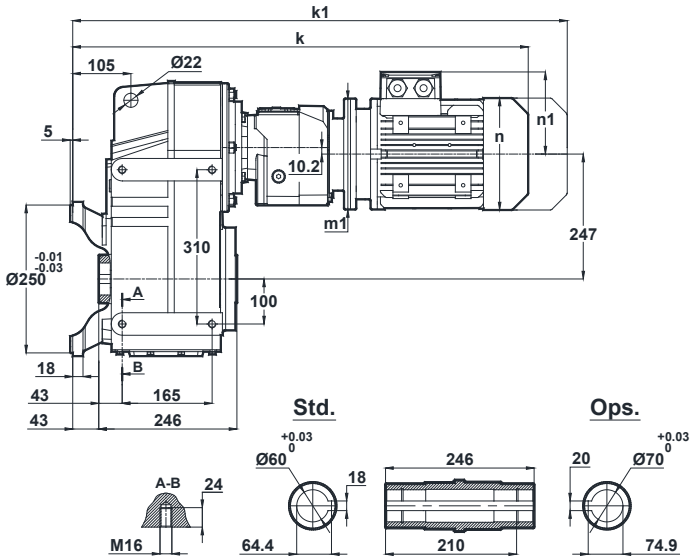
63-71
Tip / *Type* / Typ

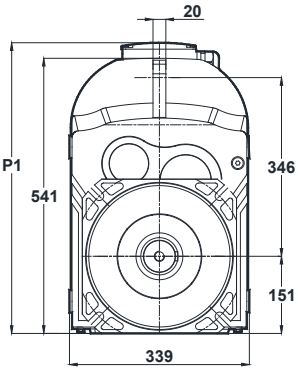


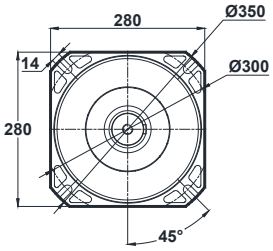
Diğer opsiyonel flanş ölçüleri için sayfa 326'ya bakınız.
Please see on page 326 for other optional flange dimensions
Siehe Siete 326 für andere auswählbare Flanschabmessungen

	63/B5	71/B5 71/B14
k	859	848
k1	920	939
n / n1	121 / 97	137 / 112
m1 (B5)	140	160
m1 (B14)	-	105
p1	-	-

DV575.03
DV576.03

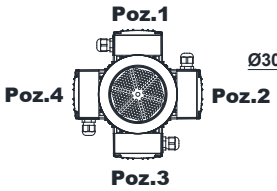




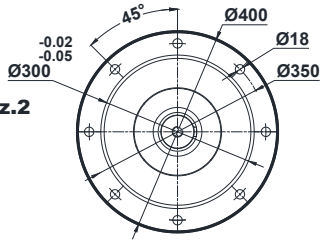


Klemens Pozisyonları
Terminal Box Positions
Klemmenkasten Positionen

Opsiyonel Flanş Ölçüleri
Optional Flange Dimensions
Auswählbare Flanschabmessungen



63-71
Tip / *Type* / Typ



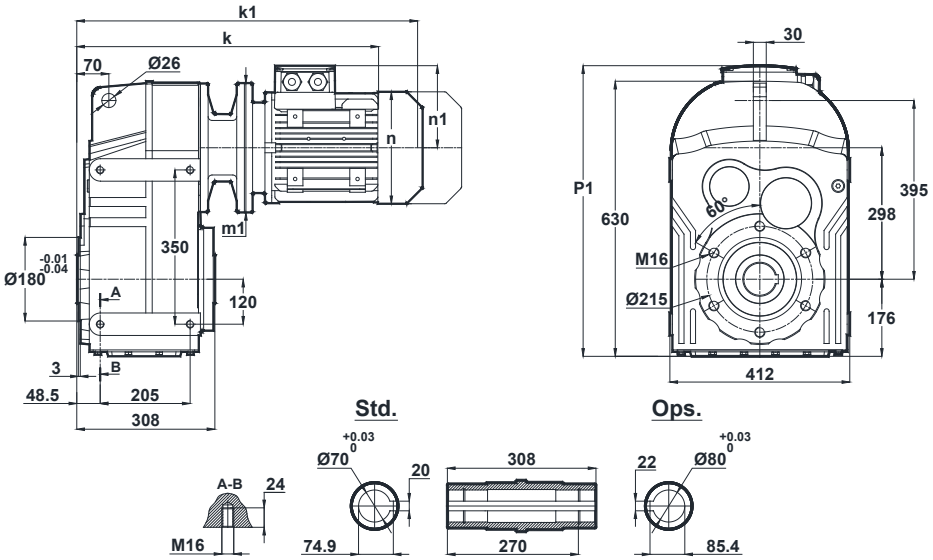
Diğer opsiyonel flanş ölçüleri için sayfa 326'ya bakınız.
Please see on page 326 for other optional flange dimensions
Siehe Siete 326 für andere auswählbare Flanschabmessungen

	63/B5	71/B5 71/B14
k	739	728
k1	800	819
n / n1	121 / 97	137 / 112
m1 (B5)	140	160
m1 (B14)	-	105
p1	-	-

"k1" ölçüsü frenli redüktörlere aittir.
Dimensions "k1" is for motors with brake.
Maße "k1" ist für Bremsenmotoren.

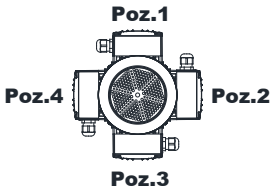
Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole according to DIN 332, sheet 2* / Zentrierung mit Gewinde nach DIN 332, Blatt 2

DV672.00
DV673.00



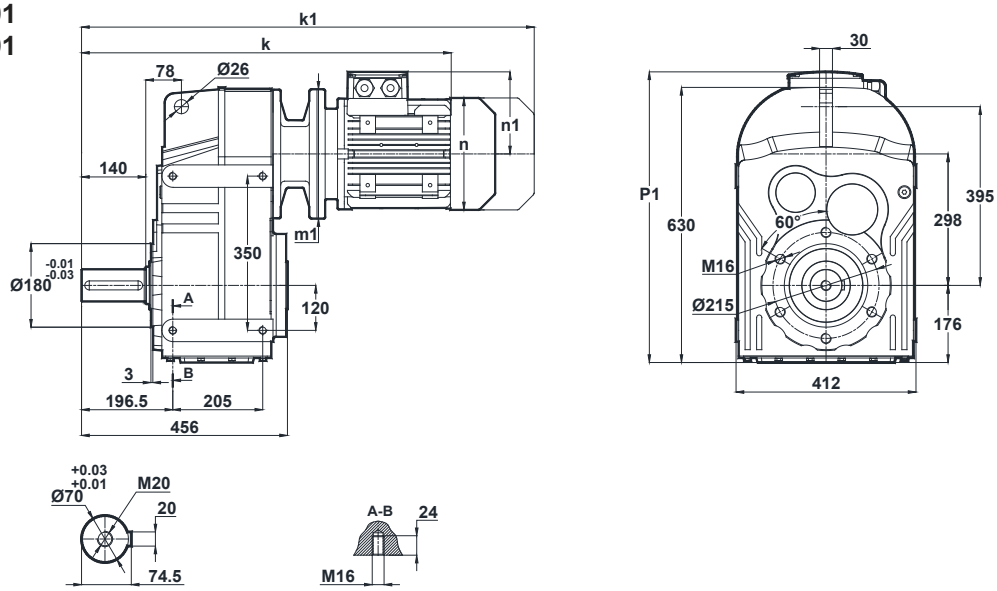
	100L/B5	112M/B5	132S/B5 132S/B14	132M/B5 132M/B14	160M/B5	160L/B5	180M/B5	180L/B5	200L/B5
k	658	679	784	784	939	939	1028	1028	1086
k1	777.5	783.5	914	914	1119	1119	1198.5	1198.5	1272.5
n / n1	193 / 147	215 / 158	257 / 179	257 / 179	315 / 219	315 / 219	347 / 234	347 / 234	390 / 275
m1 (B5)	250	250	300	300	350	350	350	350	400
m1 (B14)	-	-	200	200	-	-	-	-	-
p1	-	632	653	653	699	699	718	718	749

Klemens Pozisyonları
Terminal Box Positions
Klemmenkasten Positionen

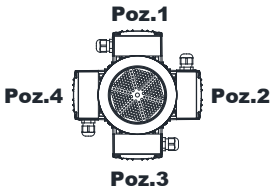


100-112-132-160-180-200
Tip / *Type* / Typ

DV672.01
DV673.01



Klemens Pozisyonları
Terminal Box Positions
Klemmenkasten Positionen



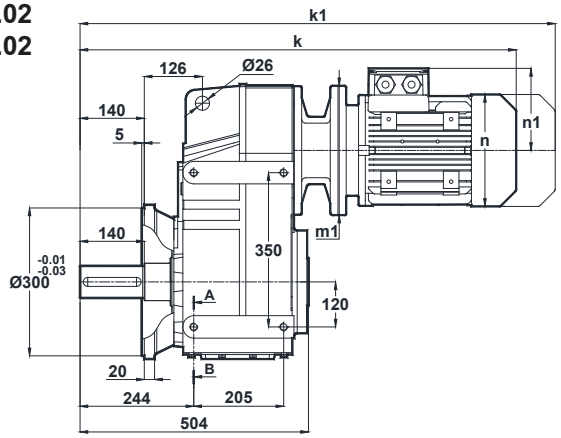
100-112-132-160-180-200
Tip / *Type* / Typ

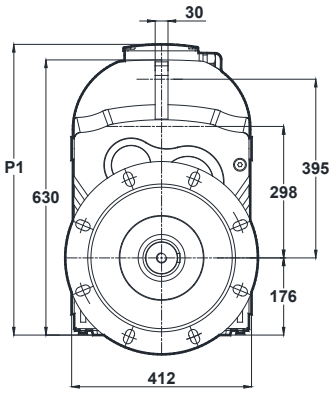
	100L/B5	112M/B5	132S/B5 132S/B14	132M/B5 132M/B14	160M/B5	160L/B5	180M/B5	180L/B5	200L/B5
k	806	827	932	932	1087	1087	1176	1176	1234
k1	925.5	931.5	1062	1062	1267	1267	1346.5	1346.5	1420.5
n / n1	193 / 147	215 / 158	257 / 179	257 / 179	315 / 219	315 / 219	347 / 234	347 / 234	390 / 275
m1 (B5)	250	250	300	300	350	350	350	350	400
m1 (B14)	-	-	200	200	-	-	-	-	-
p1	-	632	653	653	699	699	718	718	749

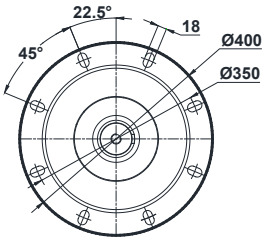
"k1" ölçüsü frenli redüktörlere aittir.
Dimensions "k1" is for motors with brake.
Maße "k1" ist für Bremsenmotoren.

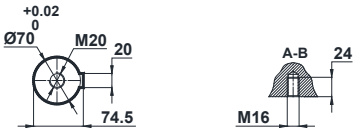
Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole according to DIN 332, sheet 2* / Zentrierung mit Gewinde nach DIN 332, Blatt 2

DV672.02
DV673.02

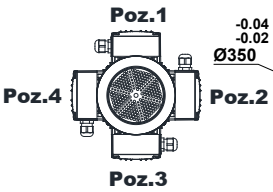




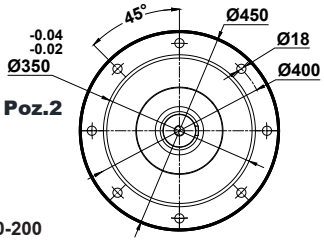




Klemens Pozisyonları
Terminal Box Positions
Klemmenkasten Positionen



Opsiyonel Flanş Ölçüleri
Optional Flange Dimensions
Auswählbare Flanschabmessungen

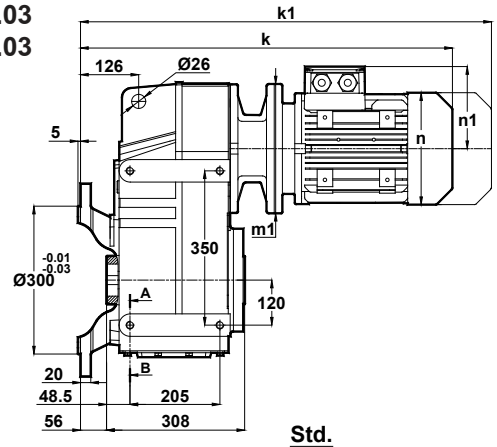


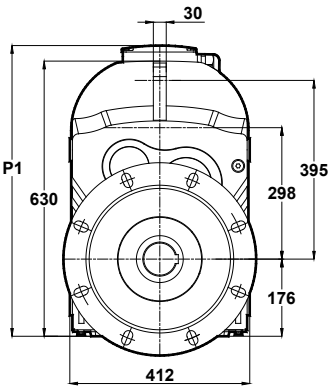
100-112-132-160-180-200
Tip / *Type* / Typ

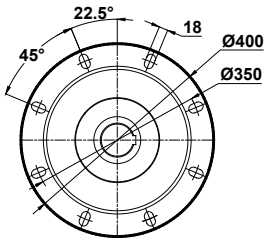
Diğer opsiyonel flanş ölçüleri için sayfa 326'ya bakınız.
Please see on page 326 for other optional flange dimensions
Siehe Siete 326 für andere auswählbare Flanschabmessungen

	100L/B5	112M/B5	132S/B5 132S/B14	132M/B5 132M/B14	160M/B5	160L/B5	180M/B5	180L/B5	200L/B5
k	854	875	980	980	1135	1135	1224	1224	1282
k1	973.5	979.5	1110	1110	1315	1315	1394.5	1394.5	1468.5
n / n1	193 / 147	215 / 158	257 / 179	257 / 179	315 / 219	315 / 219	347 / 234	347 / 234	390 / 275
m1 (B5)	250	250	300	300	350	350	350	350	400
m1 (B14)	-	-	200	200	-	-	-	-	-
p1	-	632	653	653	699	699	718	718	749

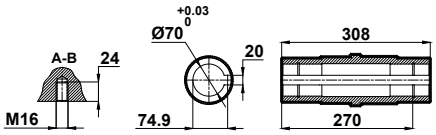
DV672.03
DV673.03



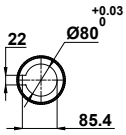




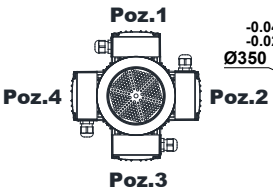
Std.



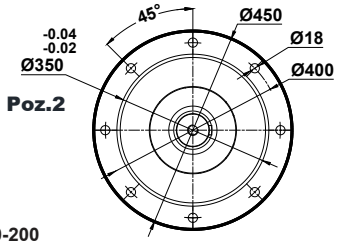
Ops.



Klemens Pozisyonları
Terminal Box Positions
Klemmenkasten Positionen



Opsiyonel Flanş Ölçüleri
Optional Flange Dimensions
Auswählbare Flanschabmessungen



100-112-132-160-180-200
Tip / *Type* / Typ

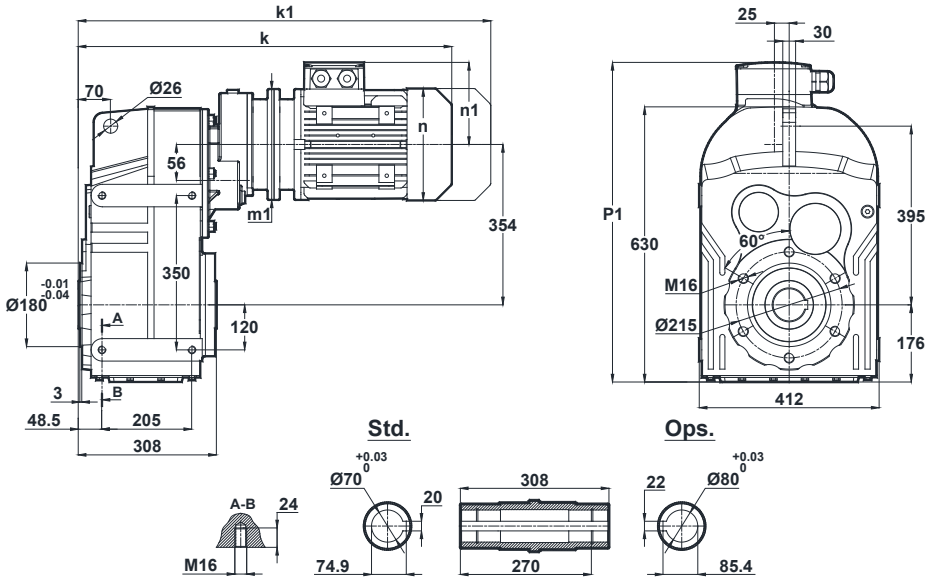
	100L/B5	112M/B5	132S/B5 132S/B14	132M/B5 132M/B14	160M/B5	160L/B5	180M/B5	180L/B5	200L/B5
k	714	735	840	840	995	995	1084	1084	1142
k1	833.5	839.5	970	970	1175	1175	1254.5	1254.5	1328.5
n / n1	193 / 147	215 / 158	257 / 179	257 / 179	315 / 219	315 / 219	347 / 234	347 / 234	390 / 275
m1 (B5)	250	250	300	300	350	350	350	350	400
m1 (B14)	-	-	200	200	-	-	-	-	-
p1	-	632	653	653	699	699	718	718	749

"k1" ölçüsü frenli redüktörlere aittir.
Dimensions "k1" is for motors with brake.
Maße "k1" ist für Bremsenmotoren.

Diğer opsiyonel flanş ölçüleri için sayfa 326'ya bakınız.
Please see on page 326 for other optional flange dimensions
Siehe Siete 326 für andere auswählbare Flanschabmessungen

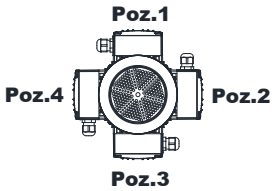
Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole according to DIN 332, sheet 2* / Zentrierung mit Gewinde nach DIN 332, Blatt 2

DV674.00



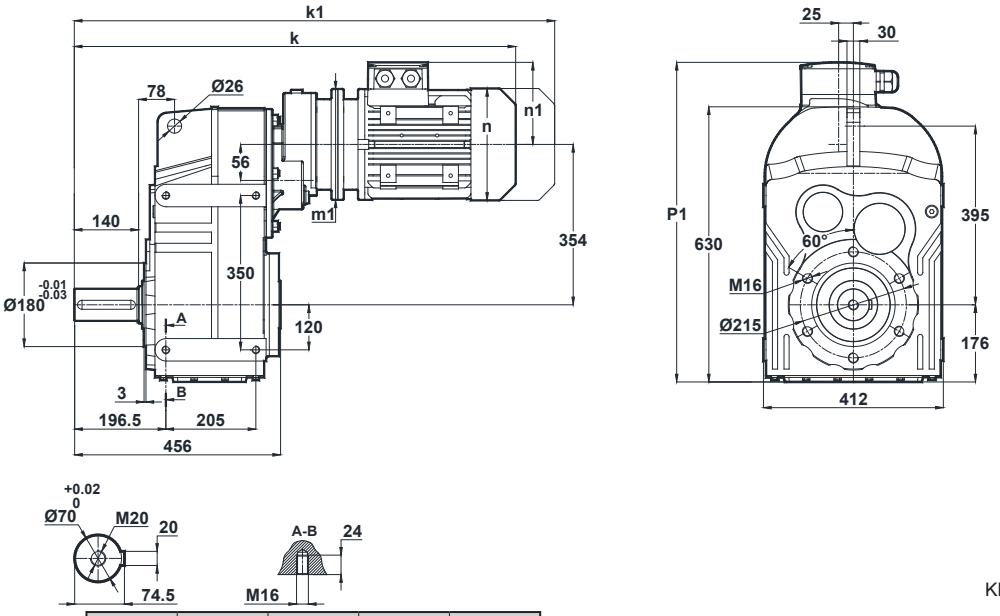
	71/B5	80/B5 80/B14	90S/B5 90S/B14	90L/B5 90L/B14
k	639	662	703	703
k1	730	755	807.5	807.5
n / n1	137 / 112	155 / 121	176 / 132	176 / 132
m1 (B5)	160	200	200	200
m1 (B14)	-	120	140	140
p1	642	651	662	662

Klemens Pozisyonları
Terminal Box Positions
Klemmenkasten Positionen



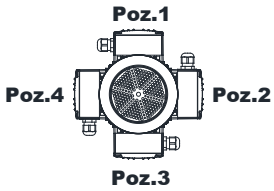
71-80-90
Tip / *Type* / Typ

DV674.01



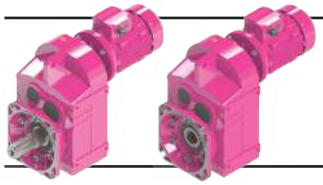
	71/B5	80/B5 80/B14	90S/B5 90S/B14	90L/B5 90L/B14
k	787	810	851	851
k1	878	903	955.5	955.5
n / n1	137 / 112	155 / 121	176 / 132	176 / 132
m1 (B5)	160	200	200	200
m1 (B14)	-	120	140	140
p1	642	651	662	662

Klemens Pozisyonları
Terminal Box Positions
Klemmenkasten Positionen



71-80-90
Tip / *Type* / Typ

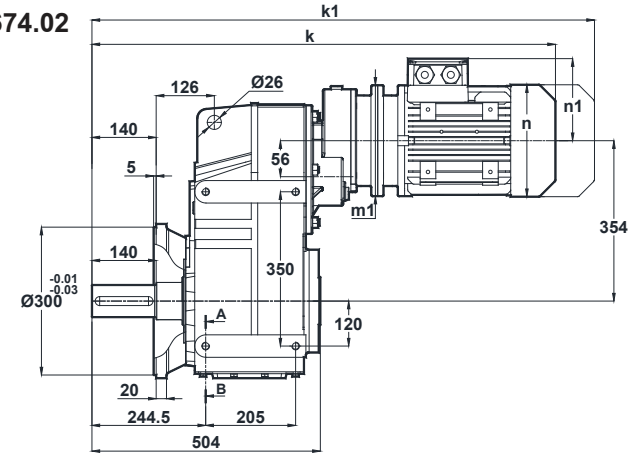
"k1" ölçüsü frenli redüktörlere aittir.
Dimensions "k1" is for motors with brake.
Maße "k1" ist für Bremsenmotoren.

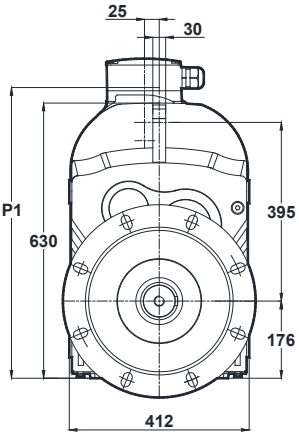


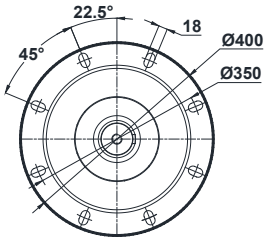
Ölçü Sayfaları
Dimension Pages
Abmessungsseiten

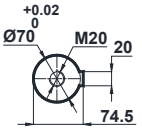
Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole according to DIN 332, sheet 2* / Zentrierung mit Gewinde nach DIN 332, Blatt 2

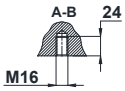
DV674.02





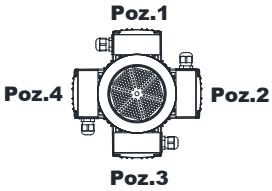


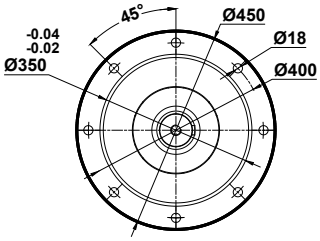




Klemens Pozisyonları
Terminal Box Positions
Klemmenkasten Positionen

Opsiyonel Flanş Ölçüleri
Optional Flange Dimensions
Auswählbare Flanschabmessungen



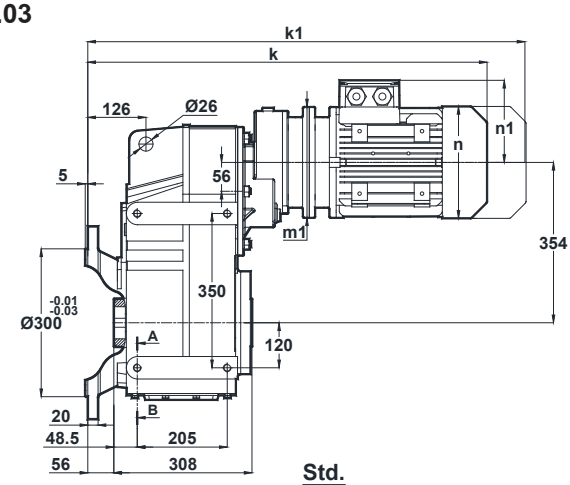


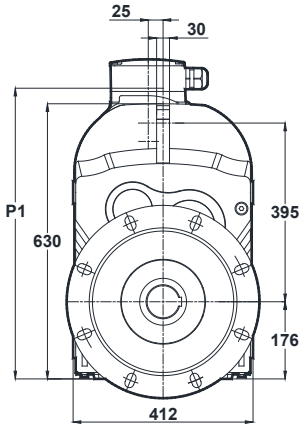
71-80-90
Tip / *Type* / Typ

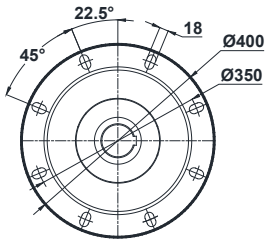
	71/B5	80/B5 80/B14	90S/B5 90S/B14	90L/B5 90L/B14
k	835	858	899	899
k1	926	951	1003.5	1003.5
n / n1	137 / 112	155 / 121	176 / 132	176 / 132
m1 (B5)	160	200	200	200
m1 (B14)	-	120	140	140
p1	642	651	662	662

Diğer opsiyonel flanş ölçüleri için sayfa 326'ya bakınız.
Please see on page 326 for other optional flange dimensions
Siehe Siete 326 für andere auswählbare Flanschabmessungen

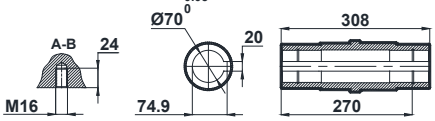
DV674.03



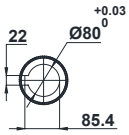




Std.

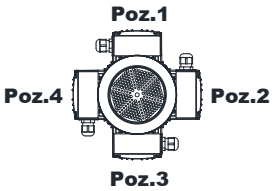


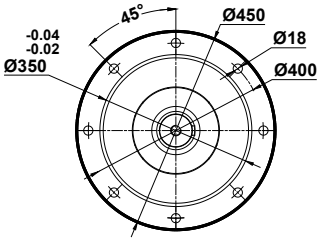
Ops.



Klemens Pozisyonları
Terminal Box Positions
Klemmenkasten Positionen

Opsiyonel Flanş Ölçüleri
Optional Flange Dimensions
Auswählbare Flanschabmessungen





71-80-90
Tip / *Type* / Typ

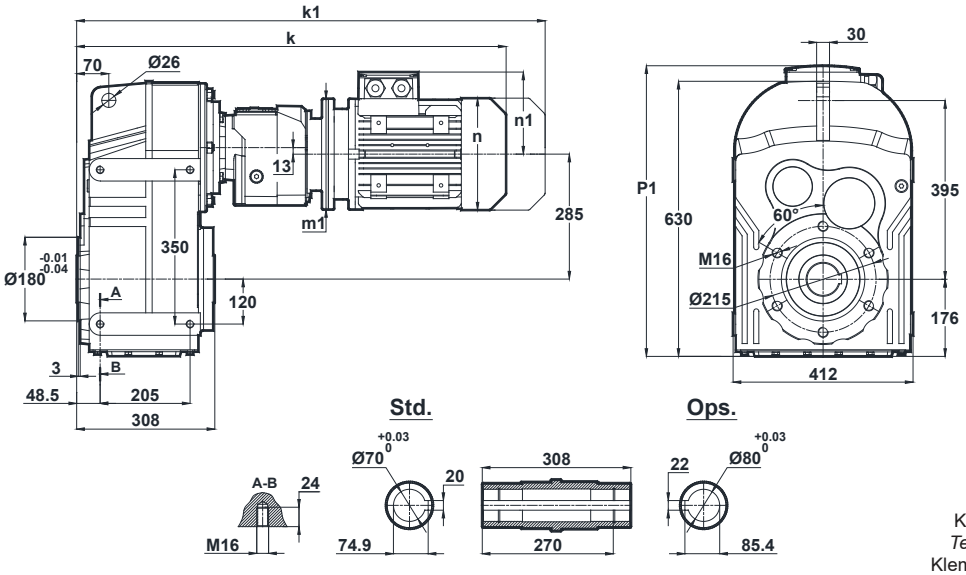
	71/B5	80/B5 80/B14	90S/B5 90S/B14	90L/B5 90L/B14
k	695	718	759	759
k1	786	811	863.5	863.5
n / n1	137 / 112	155 / 121	176 / 132	176 / 132
m1 (B5)	160	200	200	200
m1 (B14)	-	120	140	140
p1	642	651	662	662

"k1" ölçüsü frenli redüktörlere aittir.
Dimensions "k1" is for motors with brake.
Maße "k1" ist für Bremsenmotoren.

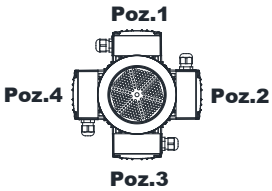
Diğer opsiyonel flanş ölçüleri için sayfa 326'ya bakınız.
Please see on page 326 for other optional flange dimensions
Siehe Siete 326 für andere auswählbare Flanschabmessungen

Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole according to DIN 332, sheet 2* / Zentrierung mit Gewinde nach DIN 332, Blatt 2

DV675.00
DV676.00



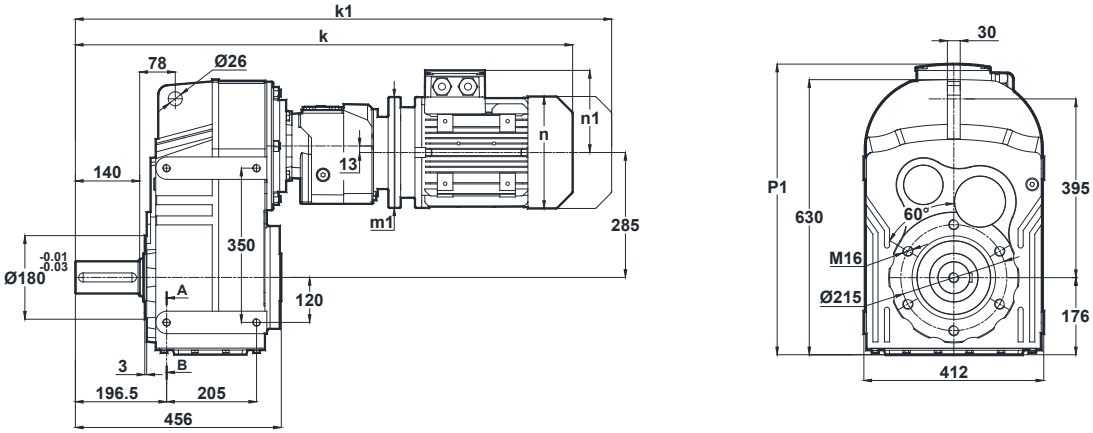
Klemens Pozisyonları
Terminal Box Positions
Klemmenkasten Positionen

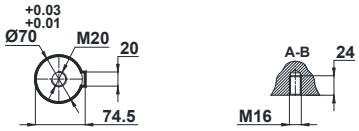


63-71-80
Tip / *Type* / Typ

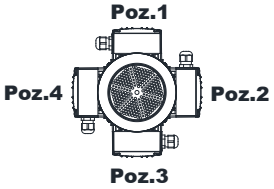
	63/B5	71/B5 71/B14	80/B5 80/B14
k	751	740	792
k1	812	831	885
n / n1	121 / 97	137 / 112	155 / 121
m1 (B5)	140	160	200
m1 (B14)	-	105	120
p1	-	-	-

DV675.01
DV676.01





Klemens Pozisyonları
Terminal Box Positions
Klemmenkasten Positionen



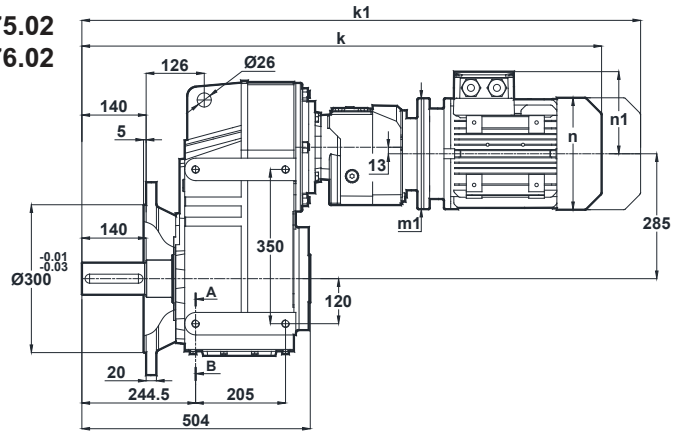
63-71-80
Tip / *Type* / Typ

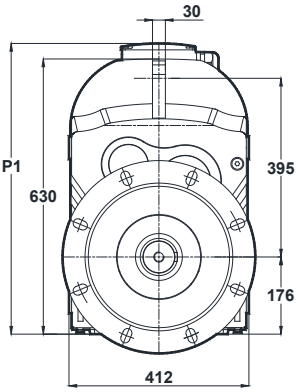
	63/B5	71/B5 71/B14	80/B5 80/B14
k	899	888	940
k1	960	979	1033
n / n1	121 / 97	137 / 112	155 / 121
m1 (B5)	140	160	200
m1 (B14)	-	105	120
p1	-	-	-

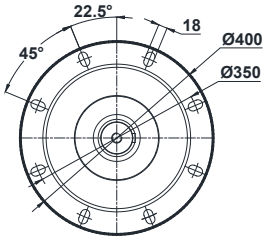
"k1" ölçüsü frenli redüktörlere aittir.
Dimensions "k1" is for motors with brake.
Maße "k1" ist für Bremsenmotoren.

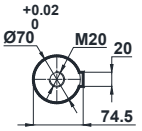
Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole according to DIN 332, sheet 2* / Zentrierung mit Gewinde nach DIN 332, Blatt 2

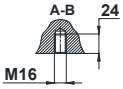
DV675.02
DV676.02





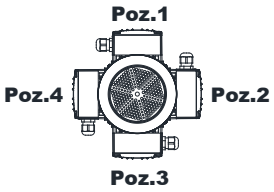




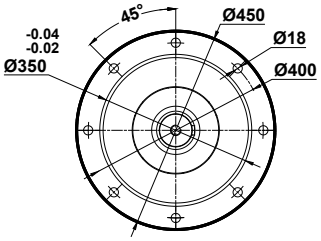


Klemens Pozisyonları
Terminal Box Positions
Klemmenkasten Positionen

Opsiyonel Flanş Ölçüleri
Optional Flange Dimensions
Auswählbare Flanschabmessungen



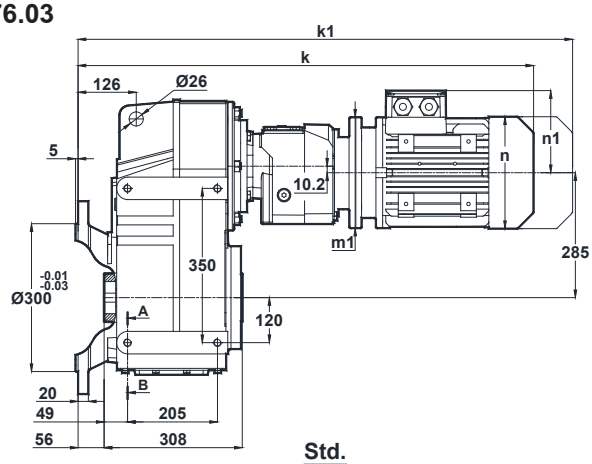
63-71-80
Tip / *Type* / Typ

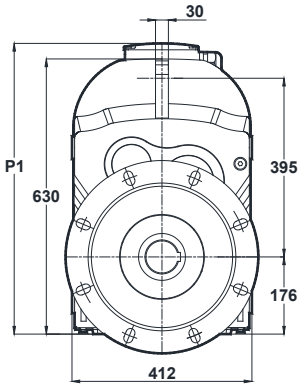


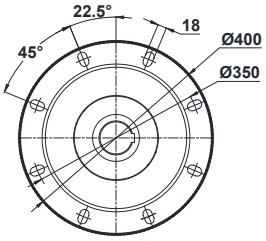
	63/B5	71/B5 71/B14	80/B5 80/B14
k	947	936	988
k1	1008	1027	1081
n / n1	121 / 97	137 / 112	155 / 121
m1 (B5)	140	160	200
m1 (B14)	-	105	120
p1	-	-	-

Diğer opsiyonel flanş ölçüleri için sayfa 326'ya bakınız.
Please see on page 326 for other optional flange dimensions
Siehe Siete 326 für andere auswählbare Flanschabmessungen

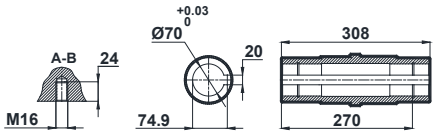
DV675.03
DV676.03



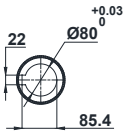




Std.

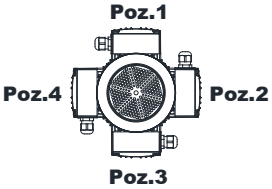


Ops.

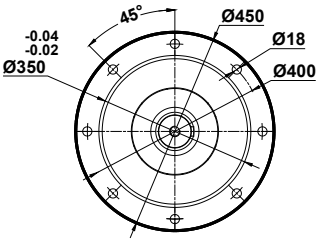


Klemens Pozisyonları
Terminal Box Positions
Klemmenkasten Positionen

Opsiyonel Flanş Ölçüleri
Optional Flange Dimensions
Auswählbare Flanschabmessungen



63-71-80
Tip / *Type* / Typ



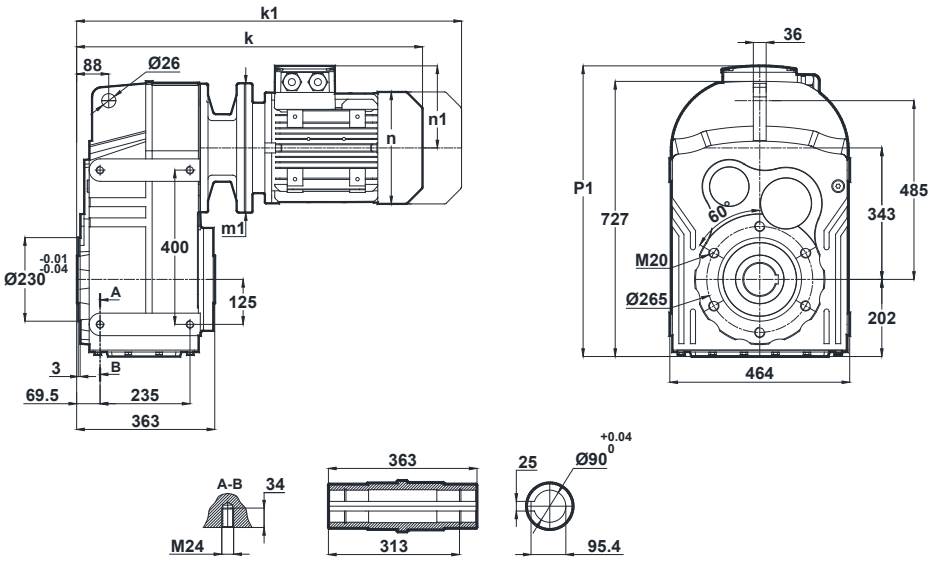
	63/B5	71/B5 71/B14	80/B5 80/B14
k	807	796	848
k1	868	887	941
n / n1	121 / 97	137 / 112	155 / 121
m1 (B5)	140	160	200
m1 (B14)	-	105	120
p1	-	-	-

"k1" ölçüsü frenli redüktörlere aittir.
Dimensions "k1" is for motors with brake.
Maße "k1" ist für Bremsenmotoren.

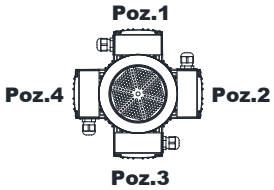
Diğer opsiyonel flanş ölçüleri için sayfa 326'ya bakınız.
Please see on page 326 for other optional flange dimensions
Siehe Siete 326 für andere auswählbare Flanschabmessungen

Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole according to DIN 332, sheet 2* / Zentrierung mit Gewinde nach DIN 332, Blatt 2

DV772.00
DV773.00



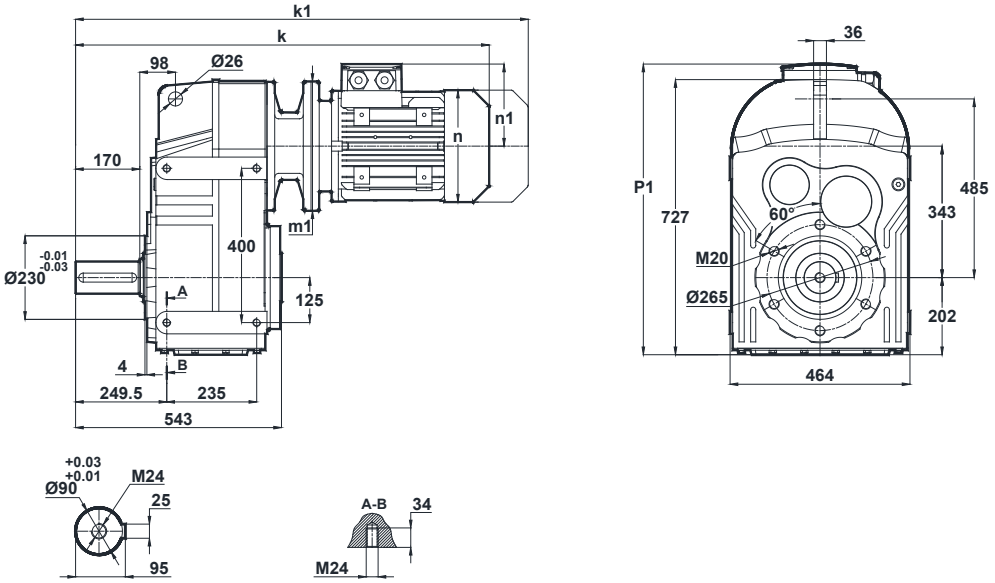
Klemens Pozisyonları
Terminal Box Positions
Klemmenkasten Positionen



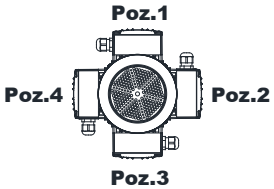
100-112-132-160-180-200-225
Tip / *Type* / Typ

	100L/B5	112M/B5	132S/B5 132S/B14	132M/B5 132M/B14	160M/B5	160L/B5	180M/B5	180L/B5	200L/B5	225S/B5	225M/B5
k	700	721	820	820	974	974	1064	1064	1122	1208	1233
k1	819.5	825.5	950	950	1154	1154	1234.5	1234.5	1308.5	1373	1398
n / n1	193 / 147	215 / 158	257 / 179	257 / 179	315 / 219	315 / 219	347 / 234	347 / 234	390 / 275	434 / 285	434 / 285
m1 (B5)	250	250	300	300	350	350	350	350	400	450	450
m1 (B14)	-	-	200	200	-	-	-	-	-	-	-
p1	-	-	724	724	770	770	789	789	822	830	830

DV772.01
DV773.01



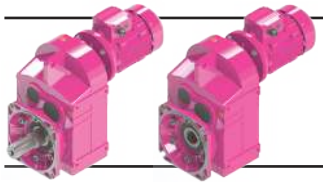
Klemens Pozisyonları
Terminal Box Positions
Klemmenkasten Positionen



100-112-132-160-180-200-225
Tip / *Type* / Typ

	100L/B5	112M/B5	132S/B5 132S/B14	132M/B5 132M/B14	160M/B5	160L/B5	180M/B5	180L/B5	200L/B5	225S/B5	225M/B5
k	880	901	1000	1000	1154	1154	1244	1244	1302	1388	1413
k1	999.5	1005.5	1130	1130	1334	1334	1414.5	1414.5	1488.5	1553	1578
n / n1	193 / 147	215 / 158	257 / 179	257 / 179	315 / 219	315 / 219	347 / 234	347 / 234	390 / 275	434 / 285	434 / 285
m1 (B5)	250	250	300	300	350	350	350	350	400	450	450
m1 (B14)	-	-	200	200	-	-	-	-	-	-	-
p1	-	-	724	724	770	770	789	789	822	830	830

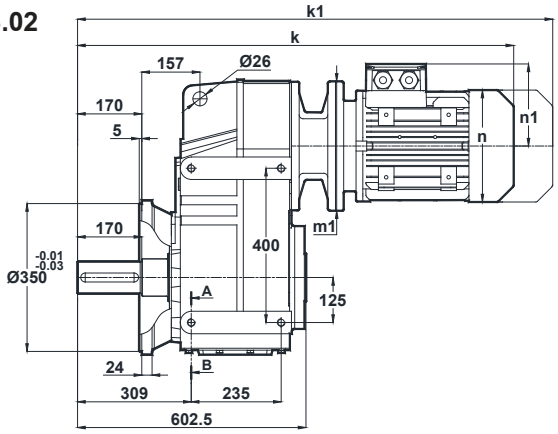
''k1'' ölçüsü frenli redüktörlere aittir.
Dimensions ''k1'' is for motors with brake.
Maße ''k1'' ist für Bremsenmotoren.

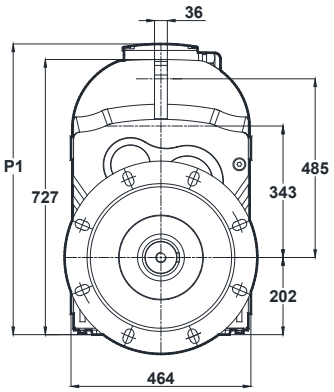


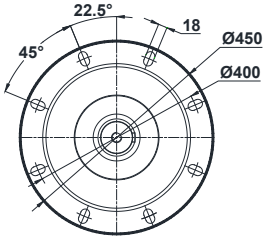
Ölçü Sayfaları
Dimension Pages
Abmessungsseiten

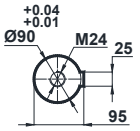
Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole according to DIN 332, sheet 2* / Zentrierung mit Gewinde nach DIN 332, Blatt 2

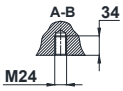
DV772.02
DV773.02







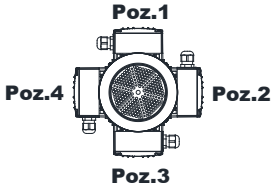




Opsiyonel flanş ölçüleri için sayfa 326'ya bakınız.
Please see on page 326 for optional flange dimensions
Siehe Siete 326 für auswählbare Flanschabmessungen

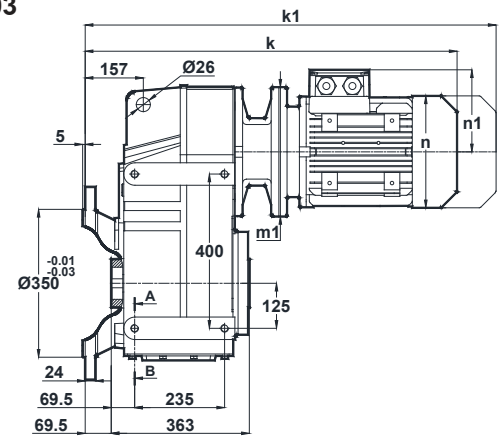
Klemens Pozisyonları
Terminal Box Positions
Klemmenkasten Positionen

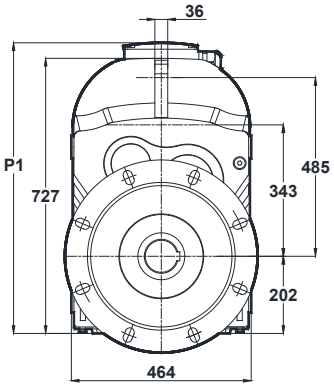
	100L/B5	112M/B5	132S/B5 132S/B14	132M/B5 132M/B14	160M/B5	160L/B5	180M/B5	180L/B5	200L/B5	225S/B5	225M/B5
k	940	961	1060	1060	1214	1214	1304	1304	1362	1448	1473
k1	1059.5	1065.5	1190	1190	1394	1394	1474.5	1474.5	1548.5	1613	1638
n / n1	193 / 147	215 / 158	257 / 179	257 / 179	315 / 219	315 / 219	347 / 234	347 / 234	390 / 275	434 / 285	434 / 285
m1 (B5)	250	250	300	300	350	350	350	350	400	450	450
m1 (B14)	-	-	200	200	-	-	-	-	-	-	-
p1	-	-	724	724	770	770	789	789	822	830	830

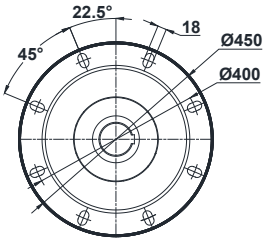


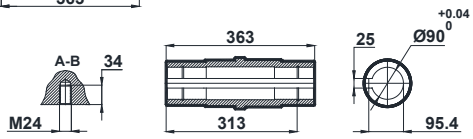
100-112-132-160-180-200-225
Tip / *Type* / Typ

DV772.03
DV773.03



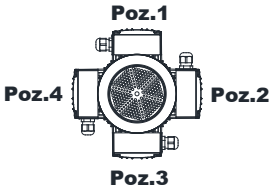






Klemens Pozisyonları
Terminal Box Positions
Klemmenkasten Positionen

	100L/B5	112M/B5	132S/B5 132S/B14	132M/B5 132M/B14	160M/B5	160L/B5	180M/B5	180L/B5	200L/B5	225S/B5	225M/B5
k	770	791	890	890	1044	1044	1134	1134	1192	1278	1303
k1	889.5	895.5	1020	1020	1224	1224	1304.5	1304.5	1378.5	1443	1468
n / n1	193 / 147	215 / 158	257 / 179	257 / 179	315 / 219	315 / 219	347 / 234	347 / 234	390 / 275	434 / 285	434 / 285
m1 (B5)	250	250	300	300	350	350	350	350	400	450	450
m1 (B14)	-	-	200	200	-	-	-	-	-	-	-
p1	-	-	724	724	770	770	789	789	822	830	830



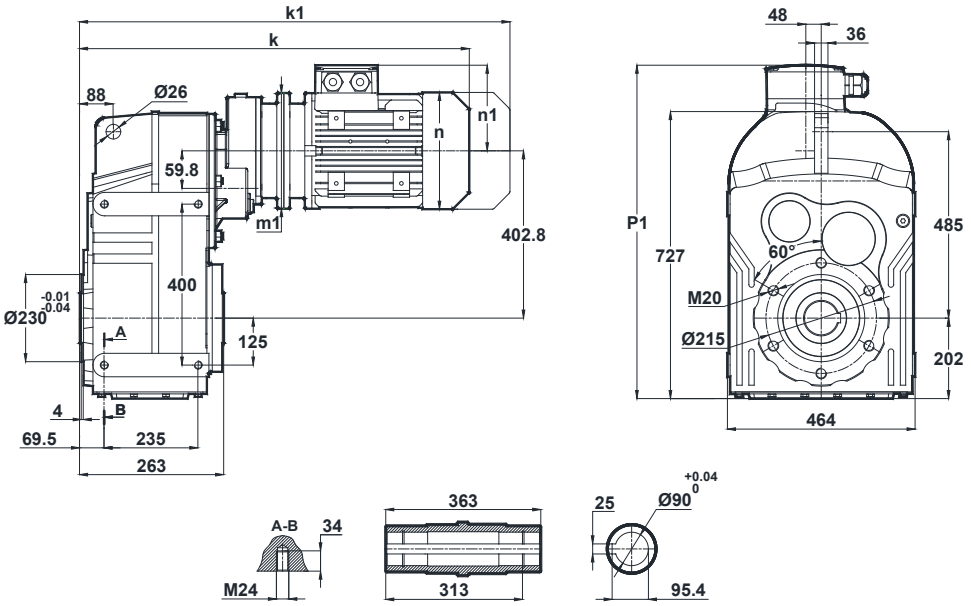
100-112-132-160-180-200-225
Tip / *Type* / Typ

"k1" ölçüsü frenli redüktörlere aittir.
Dimensions "k1" is for motors with brake.
Maße "k1" ist für Bremsenmotoren.

Opsiyonel flanş ölçüleri için sayfa 326'ya bakınız.
Please see on page 326 for optional flange dimensions
Siehe Siete 326 für auswählbare Flanschabmessungen

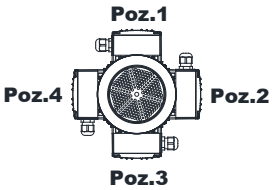
Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole according to DIN 332, sheet 2* / Zentrierung mit Gewinde nach DIN 332, Blatt 2

DV774.00



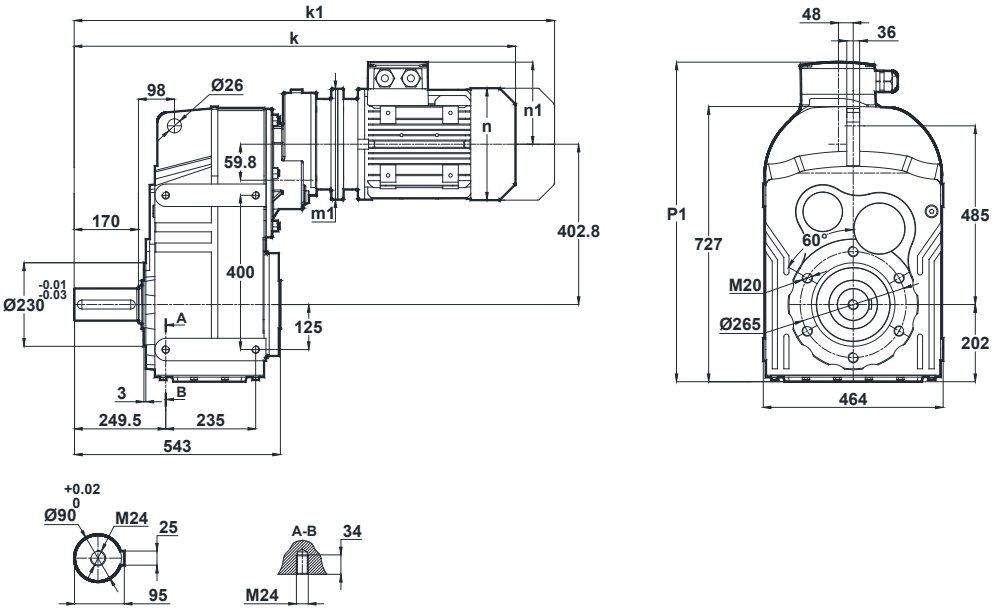
	80/B5	90S/B5 90S/B14	90L/B5 90L/B14	100L/B5 100L/B14
k	714	755	755	809
k1	807	859.5	859.5	928.5
n / n1	155 / 121	176 / 132	176 / 132	193 / 147
m1 (B5)	200	200	200	250
m1 (B14)	-	140	140	160
p1	-	737	737	752

Klemens Pozisyonları
Terminal Box Positions
Klemmenkasten Positionen



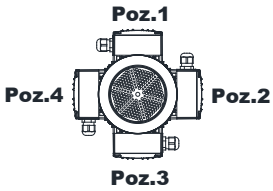
80-90-100
Tip / *Type* / Typ

DV774.01



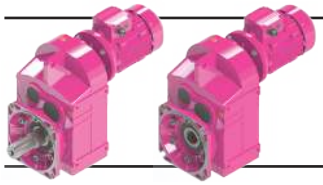
	80/B5	90S/B5 90S/B14	90L/B5 90L/B14	100L/B5 100L/B14
k	894	935	935	989
k1	987	1039.5	1039.5	1108.5
n / n1	155 / 121	176 / 132	176 / 132	193 / 147
m1 (B5)	200	200	200	250
m1 (B14)	-	140	140	160
p1	-	737	737	752

Klemens Pozisyonları
Terminal Box Positions
Klemmenkasten Positionen



80-90-100
Tip / *Type* / Typ

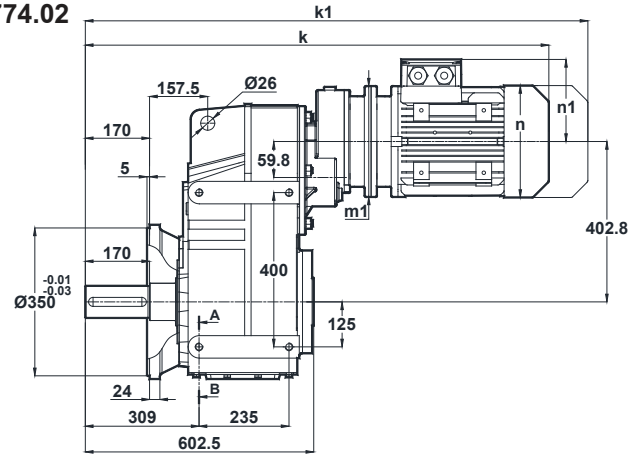
"k1" ölçüsü frenli redüktörlere aittir.
Dimensions "k1" is for motors with brake.
Maße "k1" ist für Bremsenmotoren.

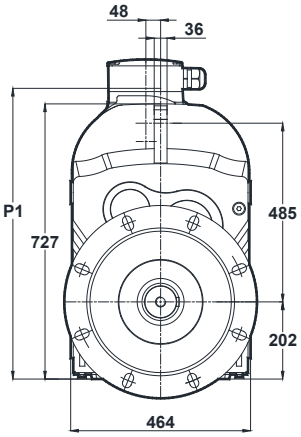


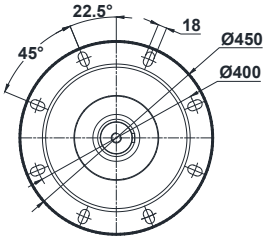
Ölçü Sayfaları
Dimension Pages
Abmessungsseiten

Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole according to DIN 332, sheet 2* / Zentrierung mit Gewinde nach DIN 332, Blatt 2

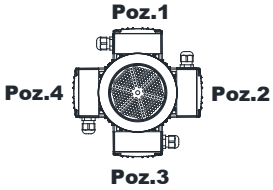
DV774.02



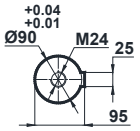


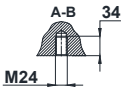


Klemens Pozisyonları
Terminal Box Positions
Klemmenkasten Positionen



80-90-100
Tip / *Type* / Typ

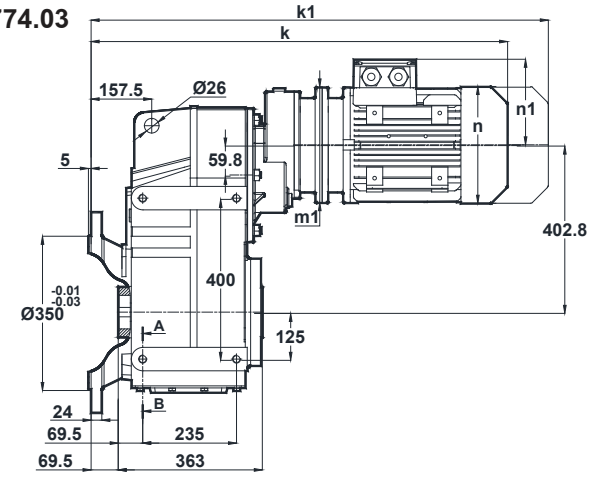


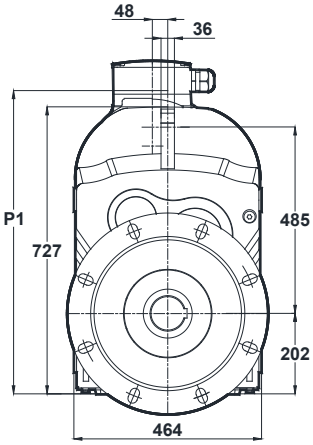


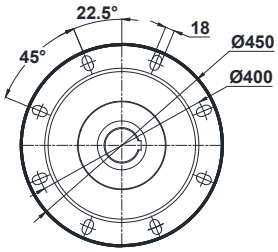
	80/B5	90S/B5 90S/B14	90L/B5 90L/B14	100L/B5 100L/B14
k	954	995	995	1049
k1	1047	1099.5	1099.5	1168.5
n / n1	155 / 121	176 / 132	176 / 132	193 / 147
m1 (B5)	200	200	200	250
m1 (B14)	-	140	140	160
p1	-	737	737	752

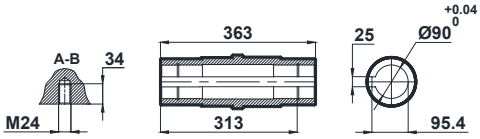
Opsiyonel flanş ölçüleri için sayfa 326'ya bakınız.
Please see on page 326 for optional flange dimensions
Siehe Siete 326 für auswählbare Flanschabmessungen

DV774.03

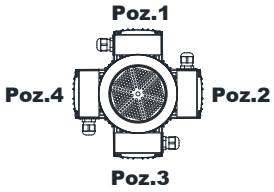








Klemens Pozisyonları
Terminal Box Positions
Klemmenkasten Positionen



80-90-100
Tip / *Type* / Typ

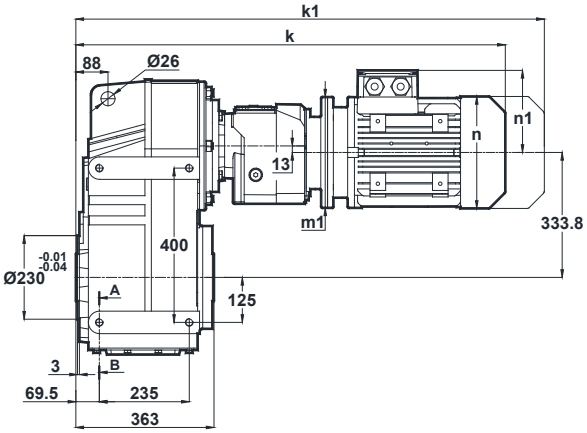
	80/B5	90S/B5 90S/B14	90L/B5 90L/B14	100L/B5 100L/B14
k	784	825	825	879
k1	877	929.5	929.5	998.5
n / n1	155 / 121	176 / 132	176 / 132	193 / 147
m1 (B5)	200	200	200	250
m1 (B14)	-	140	140	160
p1	-	737	737	752

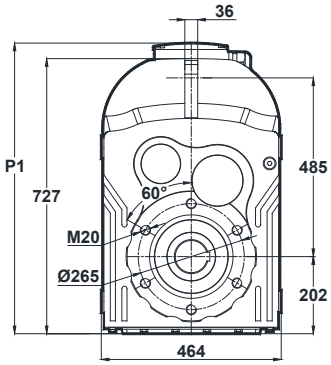
"k1" ölçüsü frenli redüktörlere aittir.
Dimensions "k1" is for motors with brake.
Maße "k1" ist für Bremsenmotoren.

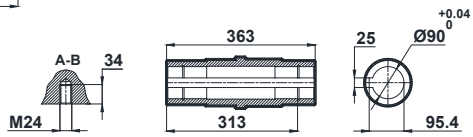
Opsiyonel flanş ölçüleri için sayfa 326'ya bakınız.
Please see on page 326 for optional flange dimensions
Siehe Siete 326 für auswählbare Flanschabmessungen

Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole according to DIN 332, sheet 2* / Zentrierung mit Gewinde nach DIN 332, Blatt 2

DV775.00
DV776.00

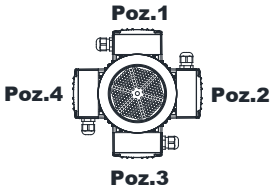






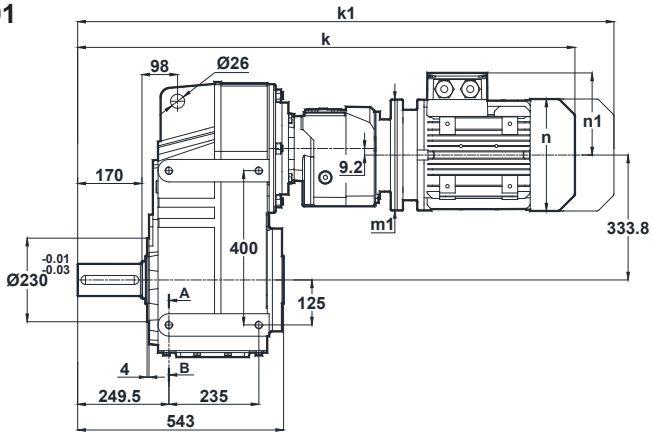
Klemens Pozisyonları
Terminal Box Positions
Klemmenkasten Positionen

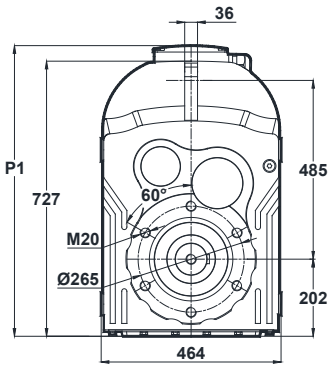
	71/B5	80/B5 80/B14	90S/B5 90S/B14	90L/B5 90L/B14
k	841	864	905	905
k1	932	957	1009.5	1009.5
n / n1	137 / 112	155 / 121	176 / 132	176 / 132
m1 (B5)	160	200	200	200
m1 (B14)	-	120	140	140
p1	-	-	-	-

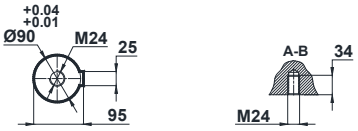


71-80-90
Tip / *Type* / Typ

DV775.01
DV776.01

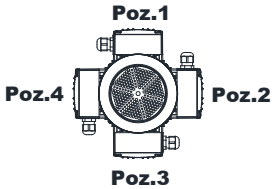






Klemens Pozisyonları
Terminal Box Positions
Klemmenkasten Positionen

	71/B5	80/B5 80/B14	90S/B5 90S/B14	90L/B5 90L/B14
k	1021	1044	1085	1085
k1	1112	1137	1189.5	1189.5
n / n1	137 / 112	155 / 121	176 / 132	176 / 132
m1 (B5)	160	200	200	200
m1 (B14)	-	120	140	140
p1	-	-	-	-

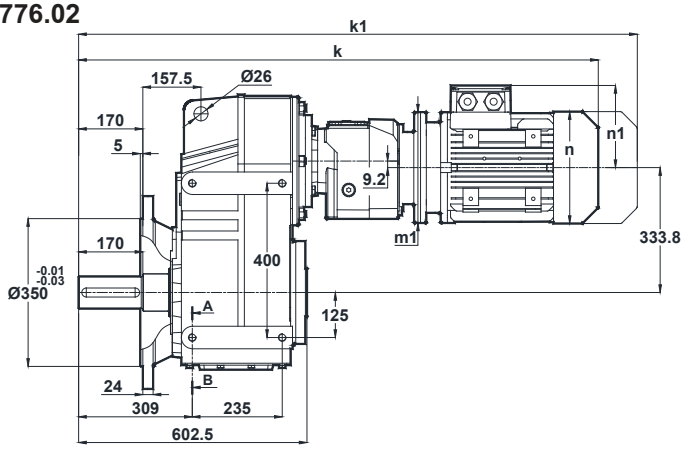


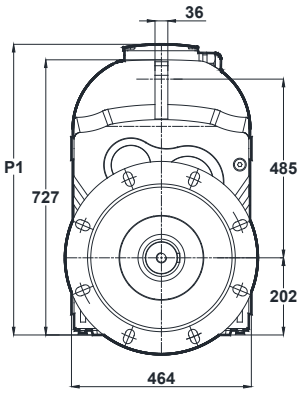
71-80-90
Tip / *Type* / Typ

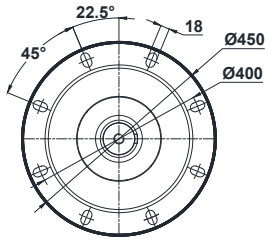
"k1" ölçüsü frenli redüktörlere aittir.
Dimensions "k1" is for motors with brake.
Maße "k1" ist für Bremsenmotoren.

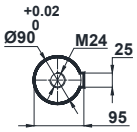
Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole according to DIN 332, sheet 2* / Zentrierung mit Gewinde nach DIN 332, Blatt 2

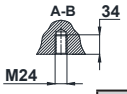
DV775.02
DV776.02



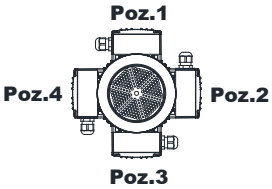








Klemens Pozisyonları
Terminal Box Positions
Klemmenkasten Positionen

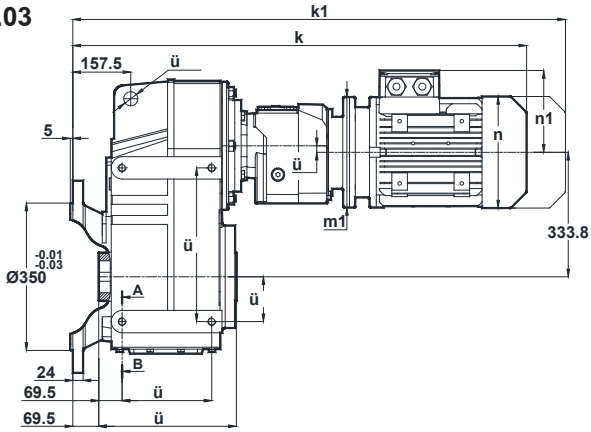


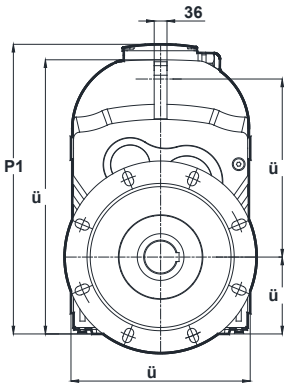
71-80-90
Tip / *Type* / Typ

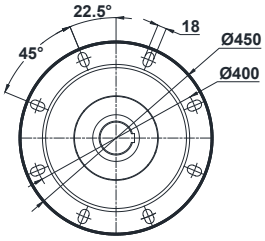
	71/B5	80/B5 80/B14	90S/B5 90S/B14	90L/B5 90L/B14
k	1081	1104	1145	1145
k1	1172	1197	1249.5	1249.5
n / n1	137 / 112	155 / 121	176 / 132	176 / 132
m1 (B5)	160	200	200	200
m1 (B14)	-	120	140	140
p1	-	-	-	-

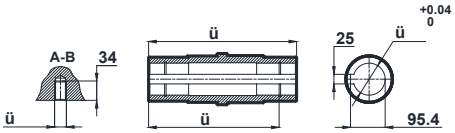
Opsiyonel flanş ölçüleri için sayfa 326'ya bakınız.
Please see on page 326 for optional flange dimensions
Siehe Siete 326 für auswählbare Flanschabmessungen

DV775.03
DV776.03

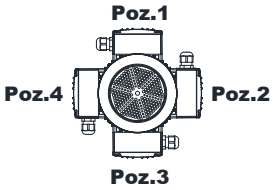








Klemens Pozisyonları
Terminal Box Positions
Klemmenkasten Positionen



71-80-90
Tip / *Type* / Typ

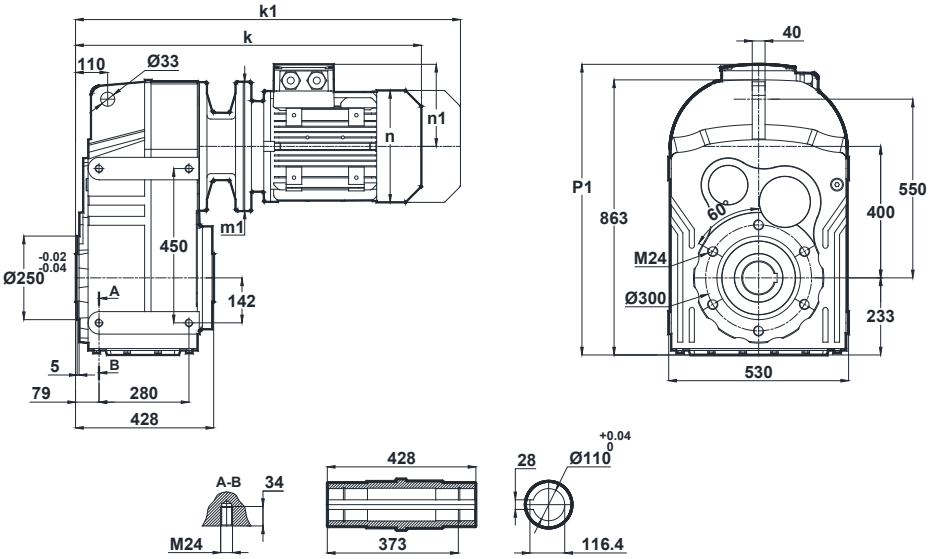
	71/B5	80/B5 80/B14	90S/B5 90S/B14	90L/B5 90L/B14
k	911	934	975	975
k1	1002	1027	1079.5	1079.5
n / n1	137 / 112	155 / 121	176 / 132	176 / 132
m1 (B5)	160	200	200	200
m1 (B14)	-	120	140	140
p1	-	-	-	-

"k1" ölçüsü frenli redüktörlere aittir.
Dimensions "k1" is for motors with brake.
Maße "k1" ist für Bremsenmotoren.

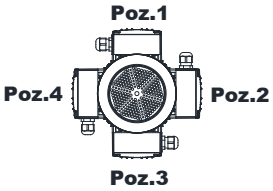
Opsiyonel flanş ölçüleri için sayfa 326'ya bakınız.
Please see on page 326 for optional flange dimensions
Siehe Siete 326 für auswählbare Flanschabmessungen

Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole according to DIN 332, sheet 2* / Zentrierung mit Gewinde nach DIN 332, Blatt 2

DV872.00
DV873.00



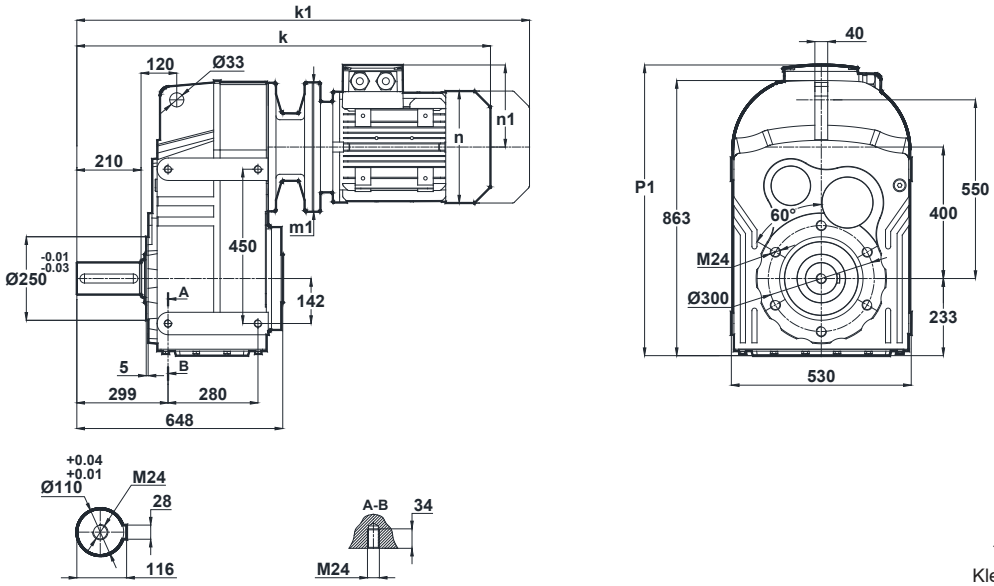
Klemens Pozisyonları
Terminal Box Positions
Klemmenkasten Positionen



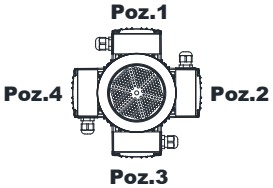
132-160-180-200-225-250-280
Tip / *Type* / Typ

	132S/B5	132M/B5	160M/B5	160L/B5	180M/B5	180L/B5	200L/B5	225S/B5	225M/B5	250M/B5	280S/B5	280M/B5
k	872	872	1097	1097	1186	1186	1224	1257	1282	1358	1420	1420
k1	1002	1002	1277	1277	1356.5	1356.5	1410.5	1422	1447	1528.5	1593	1599
n / n1	257 / 179	257 / 179	315 / 219	315 / 219	347 / 234	347 / 234	390 / 275	434 / 285	434 / 285	480 / 322	544 / 350	544 / 350
m1 (B5)	300	300	350	350	350	350	400	450	450	550	550	550
p1	-	-	-	-	877	877	908	918	918	955	983	983

DV872.01
DV873.01



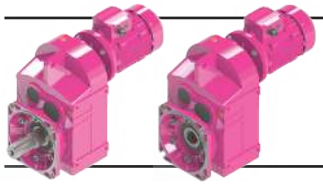
Klemens Pozisyonları
Terminal Box Positions
Klemmenkasten Positionen



132-160-180-200-225-250-280
Tip / *Type* / Typ

	132S/B5	132M/B5	160M/B5	160L/B5	180M/B5	180L/B5	200L/B5	225S/B5	225M/B5	250M/B5	280S/B5	280M/B5
k	1092	1092	1317	1317	1406	1406	1444	1477	1502	1578	1640	1640
k1	1222	1222	1497	1497	1576.5	1576.5	1630.5	1642	1667	1748.5	1813	1819
n / n1	257 / 179	257 / 179	315 / 219	315 / 219	347 / 234	347 / 234	390 / 275	434 / 285	434 / 285	480 / 322	544 / 350	544 / 350
m1 (B5)	300	300	350	350	350	350	400	450	450	550	550	550
p1	-	-	-	-	877	877	908	918	918	955	983	983

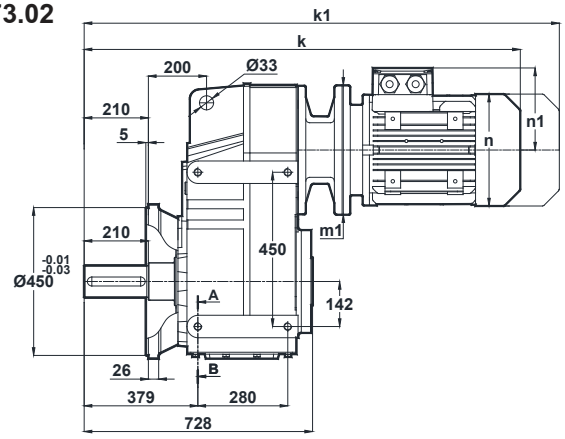
"k1" ölçüsü frenli redüktörlere aittir.
Dimensions "k1" is for motors with brake.
Maße "k1" ist für Bremsenmotoren.

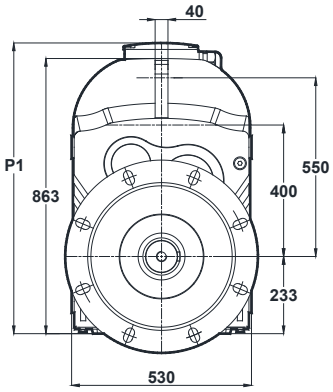


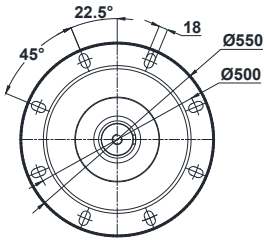
Ölçü Sayfaları
Dimension Pages
Abmessungsseiten

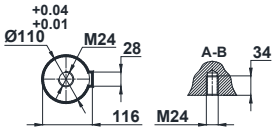
Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole according to DIN 332, sheet 2* / Zentrierung mit Gewinde nach DIN 332, Blatt 2

DV872.02
DV873.02





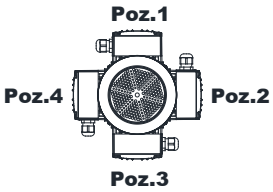




Opsiyonel flanş ölçüleri için sayfa 326'ya bakınız.
Please see on page 326 for optional flange dimensions
Siehe Siete 326 für auswählbare Flanschabmessungen

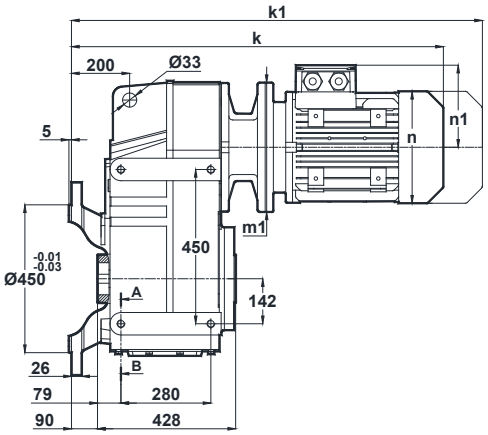
Klemens Pozisyonları
Terminal Box Positions
Klemmenkasten Positionen

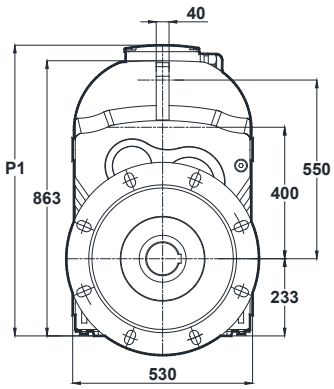
	132S/B5	132M/B5	160M/B5	160L/B5	180M/B5	180L/B5	200L/B5	225S/B5	225M/B5	250M/B5	280S/B5	280M/B5
k	1172	1172	1397	1397	1486	1486	1524	1557	1582	1658	1720	1720
k1	1302	1302	1577	1577	1656.5	1656.5	1710.5	1722	1747	1828.5	1893	1899
n / n1	257 / 179	257 / 179	315 / 219	315 / 219	347 / 234	347 / 234	390 / 275	434 / 285	434 / 285	480 / 322	544 / 350	544 / 350
m1 (B5)	300	300	350	350	350	350	400	450	450	550	550	550
p1	-	-	-	-	877	877	908	918	918	955	983	983

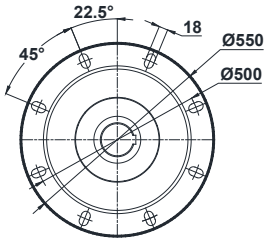


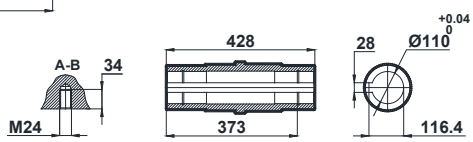
132-160-180-200-225-250-280
Tip / *Type* / Typ

DV872.03
DV873.03



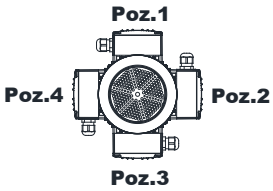






Klemens Pozisyonları
Terminal Box Positions
Klemmenkasten Positionen

	132S/B5	132M/B5	160M/B5	160L/B5	180M/B5	180L/B5	200L/B5	225S/B5	225M/B5	250M/B5	280S/B5	280M/B5
k	962	962	1187	1187	1276	1276	1314	1347	1372	1448	1510	1510
k1	1092	1092	1367	1367	1446.5	1446.5	1500.5	1512	1537	1618.5	1683	1689
n / n1	257 / 179	257 / 179	315 / 219	315 / 219	347 / 234	347 / 234	390 / 275	434 / 285	434 / 285	480 / 322	544 / 350	544 / 350
m1 (B5)	300	300	350	350	350	350	400	450	450	550	550	550
p1	-	-	-	-	877	877	908	918	918	955	983	983



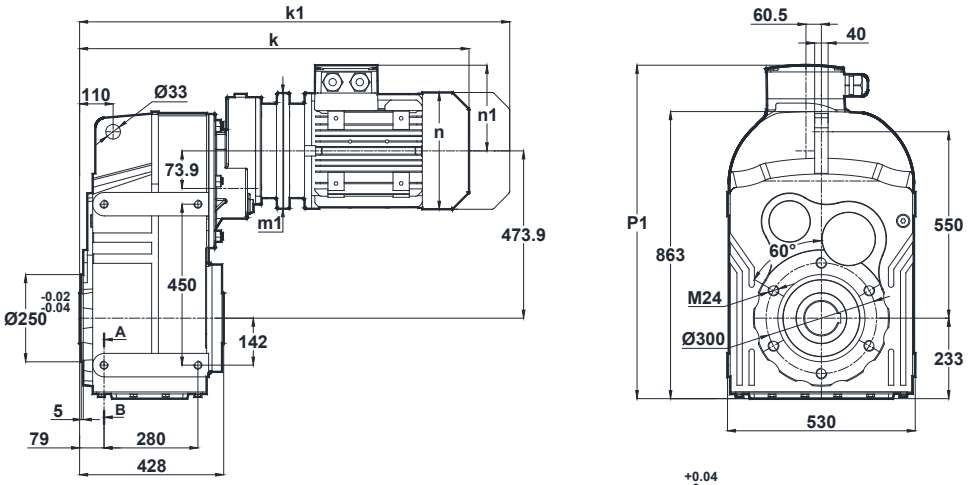
132-160-180-200-225-250-280
Tip / *Type* / Typ

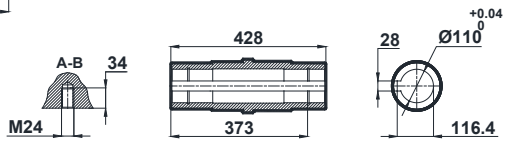
"k1" ölçüsü frenli redüktörlere aittir.
Dimensions "k1" is for motors with brake.
Maße "k1" ist für Bremsenmotoren.

Opsiyonel flanş ölçüleri için sayfa 326'ya bakınız.
Please see on page 326 for optional flange dimensions
Siehe Siete 326 für auswählbare Flanschabmessungen

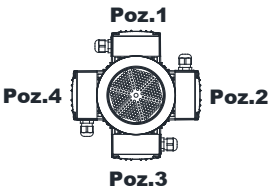
Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole according to DIN 332, sheet 2* / Zentrierung mit Gewinde nach DIN 332, Blatt 2

DV874.00





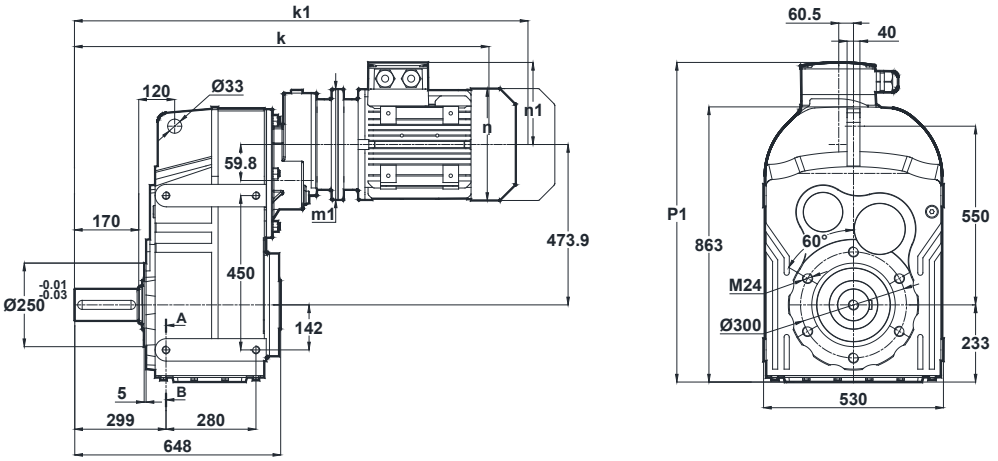
Klemens Pozisyonları
Terminal Box Positions
Klemmenkasten Positionen

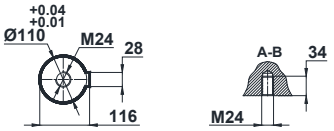


100-112-132
Tip / *Type* / Typ

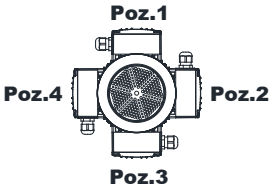
	100L/B5	112M/B5	132S/B5 132S/B14	132M/B5 132M/B14
k	885	906	1011	1011
k1	1004.5	1010.5	1141	1141
n / n1	193 / 147	215 / 158	257 / 179	257 / 179
m1 (B5)	250	250	300	300
m1 (B14)	-	-	200	200
p1	-	-	886	886

DV874.01





Klemens Pozisyonları
Terminal Box Positions
Klemmenkasten Positionen



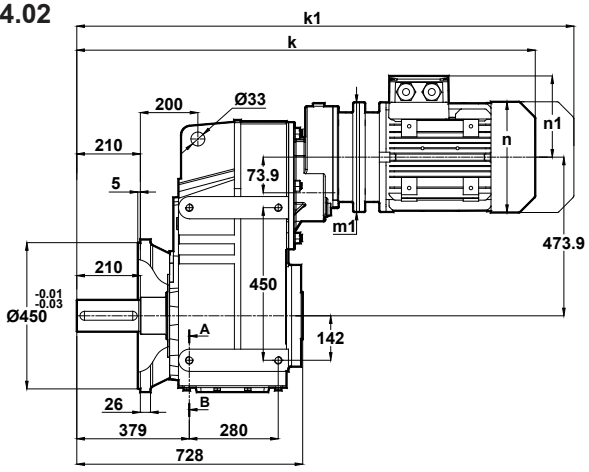
100-112-132
Tip / *Type* / Typ

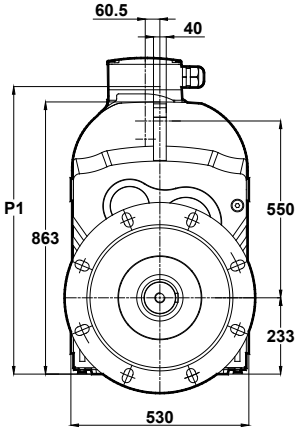
	100L/B5	112M/B5	132S/B5 132S/B14	132M/B5 132M/B14
k	1105	1126	1231	1231
k1	1224.5	1230.5	1361	1361
n / n1	193 / 147	215 / 158	257 / 179	257 / 179
m1 (B5)	250	250	300	300
m1 (B14)	-	-	200	200
p1	-	-	886	886

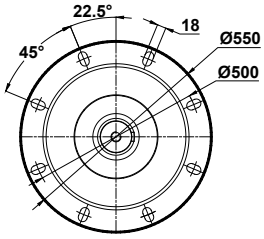
''k1'' ölçüsü frenli redüktörlere aittir.
Dimensions ''k1'' is for motors with brake.
Maße ''k1'' ist für Bremsenmotoren.

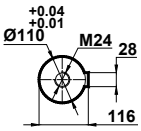
Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole according to DIN 332, sheet 2* / Zentrierung mit Gewinde nach DIN 332, Blatt 2

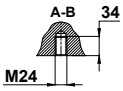
DV874.02



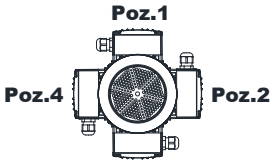








Klemens Pozisyonları
Terminal Box Positions
Klemmenkasten Positionen

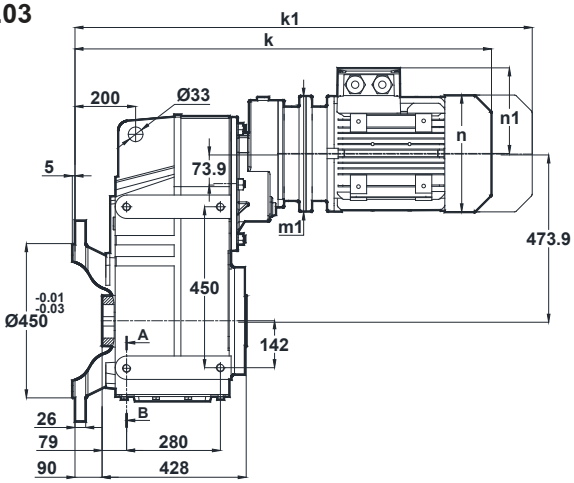


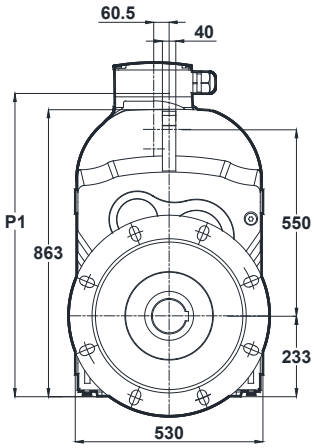
100-112-132
Tip / *Type* / Typ

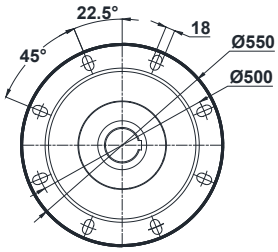
	100L/B5	112M/B5	132S/B5 132S/B14	132M/B5 132M/B14
k	1185	1206	1311	1311
k1	1304.5	1310.5	1441	1441
n / n1	193 / 147	215 / 158	257 / 179	257 / 179
m1 (B5)	250	250	300	300
m1 (B14)	-	-	200	200
p1	-	-	886	886

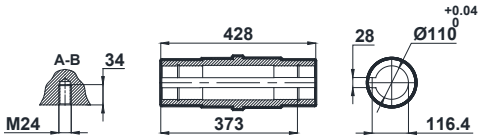
Opsiyonel flanş ölçüleri için sayfa 326'ya bakınız.
Please see on page 326 for optional flange dimensions
Siehe Siete 326 für auswählbare Flanschabmessungen

DV874.03

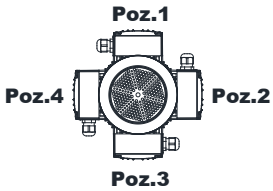








Klemens Pozisyonları
Terminal Box Positions
Klemmenkasten Positionen



100-112-132
Tip / *Type* / Typ

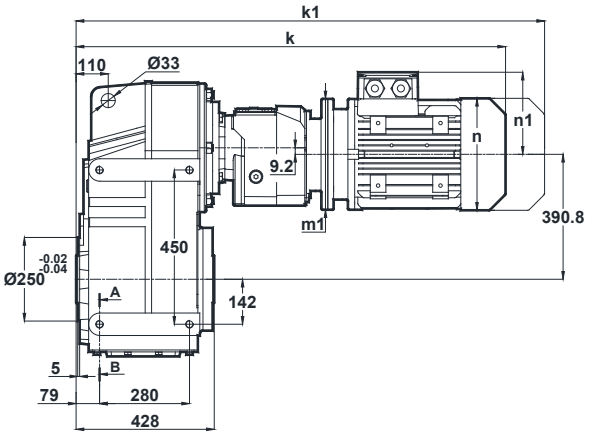
	100L/B5	112M/B5	132S/B5 132S/B14	132M/B5 132M/B14
k	975	996	1101	1101
k1	1094.5	1100.5	1231	1231
n / n1	193 / 147	215 / 158	257 / 179	257 / 179
m1 (B5)	250	250	300	300
m1 (B14)	-	-	200	200
p1	-	-	886	886

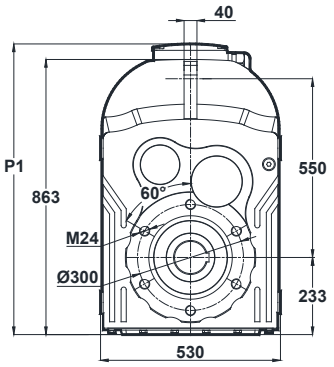
"k1" ölçüsü frenli redüktörlere aittir.
Dimensions "k1" is for motors with brake.
Maße "k1" ist für Bremsenmotoren.

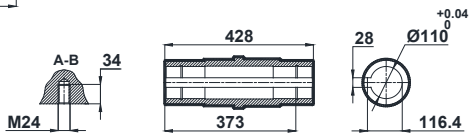
Opsiyonel flanş ölçüleri için sayfa 326'ya bakınız.
Please see on page 326 for optional flange dimensions
Siehe Siete 326 für auswählbare Flanschabmessungen

Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole according to DIN 332, sheet 2* / Zentrierung mit Gewinde nach DIN 332, Blatt 2

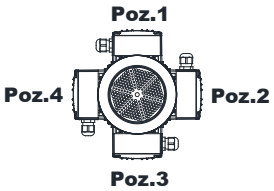
DV875.00
DV876.00







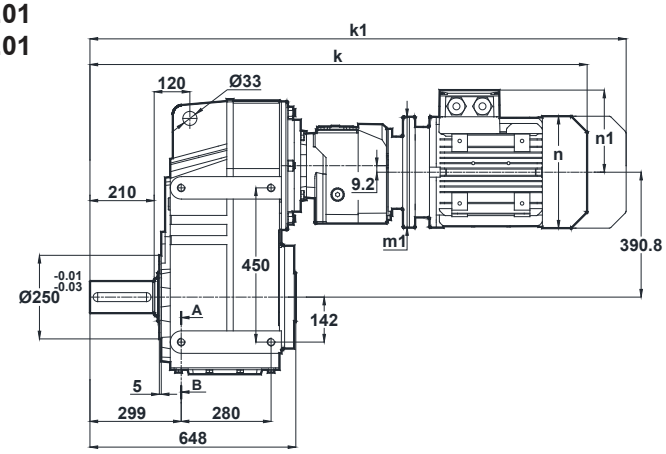
Klemens Pozisyonları
Terminal Box Positions
Klemmenkasten Positionen

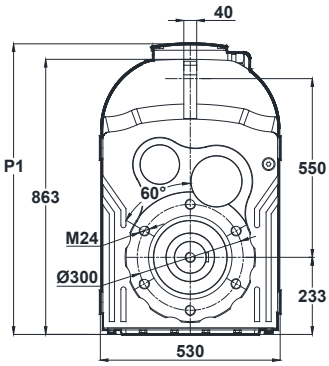


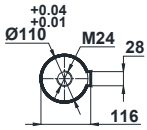
71-80-90-100
Tip / *Type* / Typ

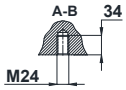
	71/B5	80/B5 80/B14	90S/B5 90S/B14	90L/B5 90L/B14	100L/B5 100L/B14
k	904	927	968	968	1020
k1	995	1020	1072.5	1072.5	1139.5
n / n1	137 / 112	155 / 121	176 / 132	176 / 132	193 / 193
m1 (B5)	160	200	200	200	250
m1 (B14)	-	120	140	140	160
p1	736	745	756	756	771

DV875.01
DV876.01

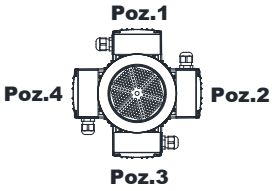








Klemens Pozisyonları
Terminal Box Positions
Klemmenkasten Positionen



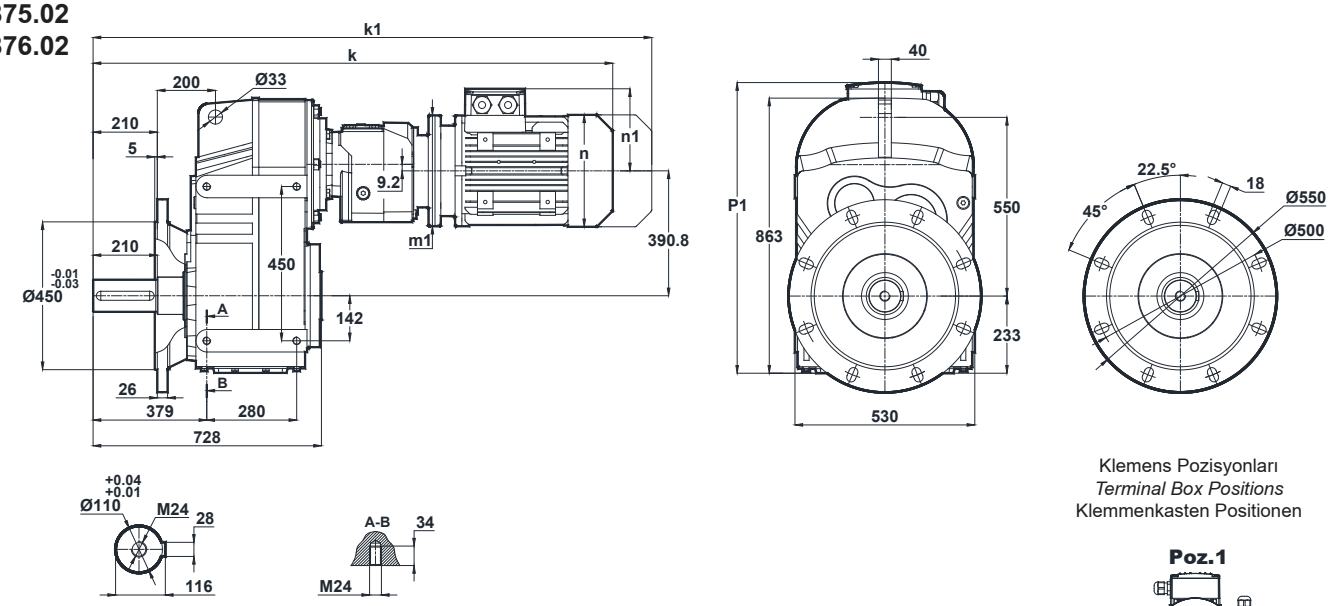
71-80-90-100
Tip / *Type* / Typ

	71/B5	80/B5 80/B14	90S/B5 90S/B14	90L/B5 90L/B14	100L/B5 100L/B14
k	1124	1147	1188	1188	1240
k1	1215	1240	1292.5	1292.5	1359.5
n / n1	137 / 112	155 / 121	176 / 132	176 / 132	193 / 193
m1 (B5)	160	200	200	200	250
m1 (B14)	-	120	140	140	160
p1	736	745	756	756	771

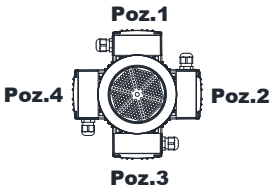
"k1" ölçüsü frenli redüktörlere aittir.
Dimensions "k1" is for motors with brake.
Maße "k1" ist für Bremsenmotoren.

Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole according to DIN 332, sheet 2* / Zentrierung mit Gewinde nach DIN 332, Blatt 2

DV875.02
DV876.02



Klemens Pozisyonları
Terminal Box Positions
Klemmenkasten Positionen

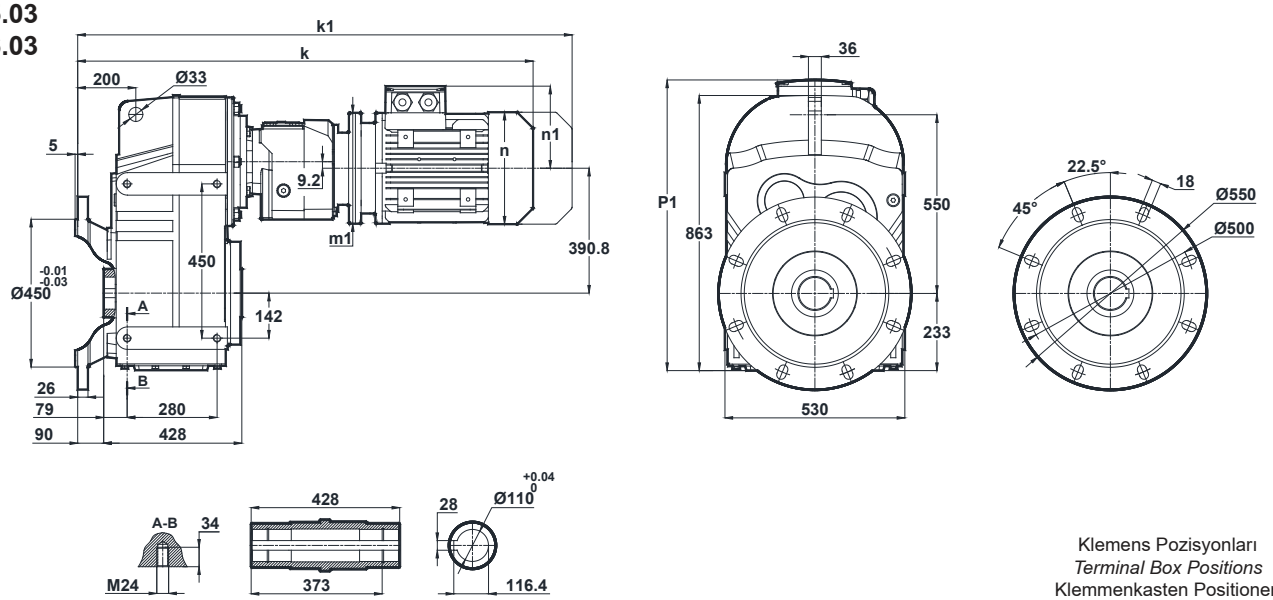


71-80-90-100
Tip / *Type* / Typ

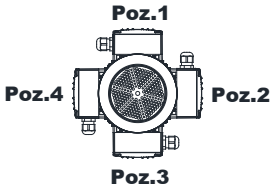
	71/B5	80/B5 80/B14	90S/B5 90S/B14	90L/B5 90L/B14	100L/B5 100L/B14
k	1204	1227	1268	1268	1320
k1	1295	1320	1372.5	1372.5	1439.5
n / n1	137 / 112	155 / 121	176 / 132	176 / 132	193 / 193
m1 (B5)	160	200	200	200	250
m1 (B14)	-	120	140	140	160
p1	736	745	756	756	771

Opsiyonel flanş ölçüleri için sayfa 326'ya bakınız.
Please see on page 326 for optional flange dimensions
Siehe Siete 326 für auswählbare Flanschabmessungen

DV875.03
DV876.03



Klemens Pozisyonları
Terminal Box Positions
Klemmenkasten Positionen



71-80-90-100
Tip / *Type* / Typ

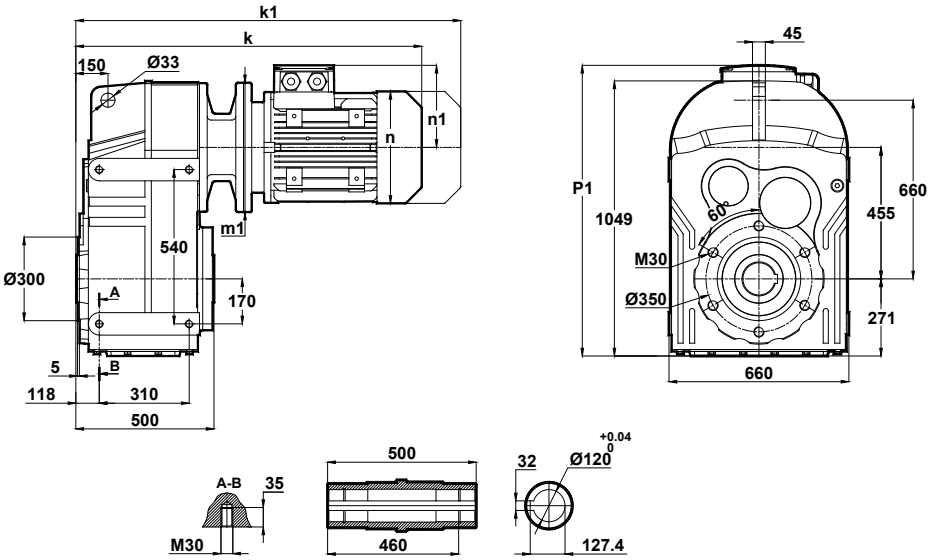
	71/B5	80/B5 80/B14	90S/B5 90S/B14	90L/B5 90L/B14	100L/B5 100L/B14
k	994	1017	1058	1058	1110
k1	1085	1110	1162.5	1162.5	1229.5
n / n1	137 / 112	155 / 121	176 / 132	176 / 132	193 / 193
m1 (B5)	160	200	200	200	250
m1 (B14)	-	120	140	140	160
p1	736	745	756	756	771

"k1" ölçüsü frenli redüktörlere aittir.
Dimensions "k1" is for motors with brake.
Maße "k1" ist für Bremsenmotoren.

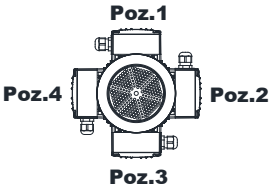
Opsiyonel flanş ölçüleri için sayfa 326'ya bakınız.
Please see on page 326 for optional flange dimensions
Siehe Siete 326 für auswählbare Flanschabmessungen

Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole according to DIN 332, sheet 2* / Zentrierung mit Gewinde nach DIN 332, Blatt 2

DV972.00
DV973.00



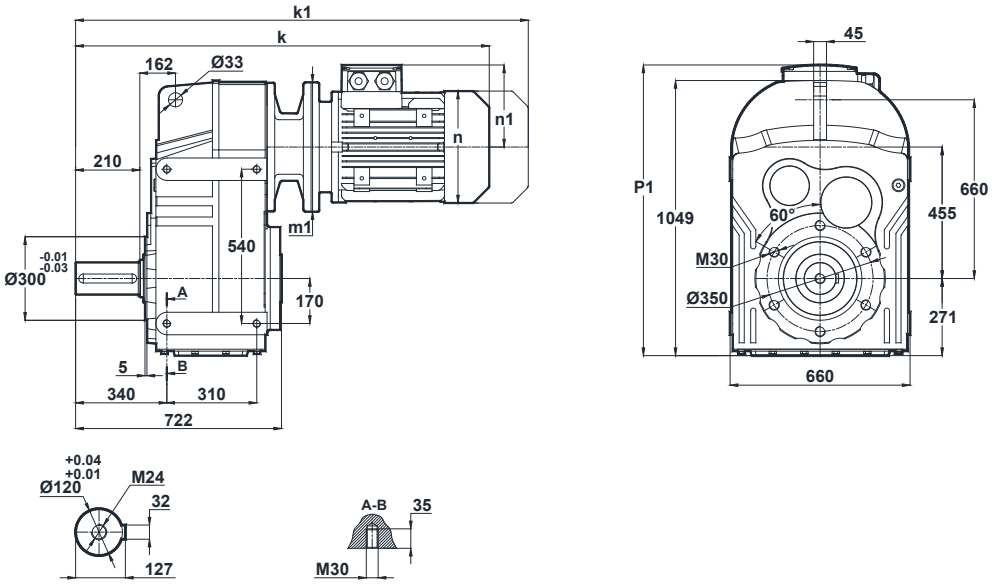
Klemens Pozisyonları
Terminal Box Positions
Klemmenkasten Positionen



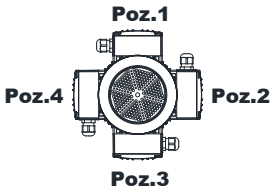
160-180-200-225-250-280-315
Tip / *Type* / Typ

	160M/B5	160L/B5	180M/B5	180L/B5	200L/B5	225S/B5	225M/B5	250M/B5	280S/B5	280M/B5	315S/B5	315M/B5
k	1086	1086	1175	1175	1237	1312	1337	1465	1527	1527	1739	1739
k1	1246	1246	1345.5	1345.5	1423.5	1477	1502	1635.5	1700	1706	-	-
n / n1	315 / 219	315 / 219	347 / 234	347 / 234	390 / 275	434 / 285	434 / 285	480 / 322	544 / 350	544 / 350	614 / 510	614 / 510
m1 (B5)	350	350	350	350	400	450	450	550	550	550	660	660
m1 (B14)	-	-	-	-	-	-	-	-	-	-	-	-
p1	-	-	-	-	-	-	-	-	1076	1076	1236	1236

DV972.01
DV973.01



Klemens Pozisyonları
Terminal Box Positions
Klemmenkasten Positionen



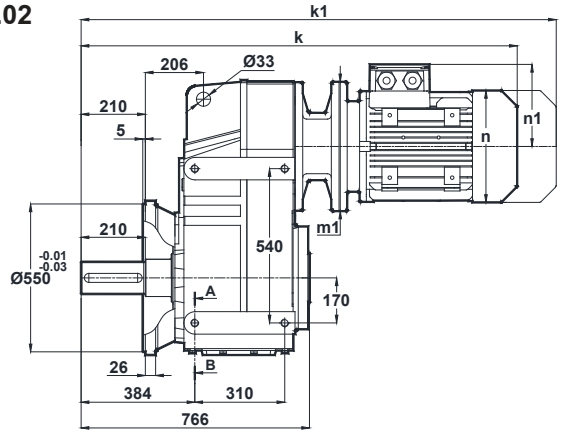
160-180-200-225-250-280-315
Tip / *Type* / Typ

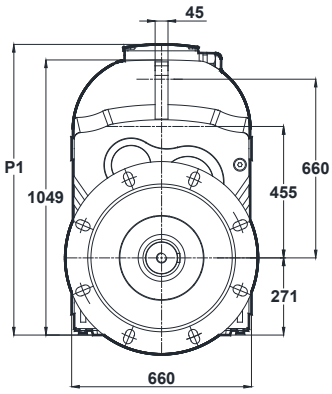
	160M/B5	160L/B5	180M/B5	180L/B5	200L/B5	225S/B5	225M/B5	250M/B5	280S/B5	280M/B5	315S/B5	315M/B5
k	1308	1308	1397	1397	1459	1534	1559	1687	1749	1749	1961	1961
k1	1488	1488	1567.5	1567.5	1645.5	1699	1724	1857.5	1922	1928	-	-
n / n1	315 / 219	315 / 219	347 / 234	347 / 234	390 / 275	434 / 285	434 / 285	480 / 322	544 / 350	544 / 350	614 / 510	614 / 510
m1 (B5)	350	350	350	350	400	450	450	550	550	550	660	660
m1 (B14)	-	-	-	-	-	-	-	-	-	-	-	-
p1	-	-	-	-	-	-	-	-	1076	1076	1236	1236

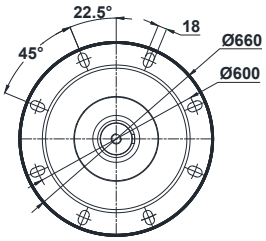
"k1" ölçüsü frenli redüktörlere aittir.
Dimensions "k1" is for motors with brake.
Maße "k1" ist für Bremsenmotoren.

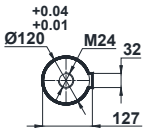
Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole according to DIN 332, sheet 2* / Zentrierung mit Gewinde nach DIN 332, Blatt 2

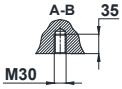
DV972.02
DV973.02





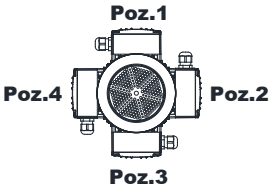






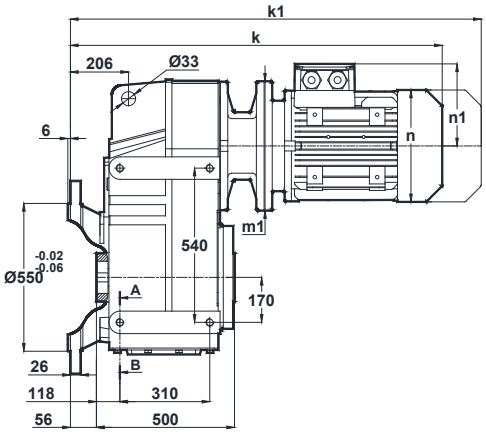
Klemens Pozisyonları
Terminal Box Positions
Klemmenkasten Positionen

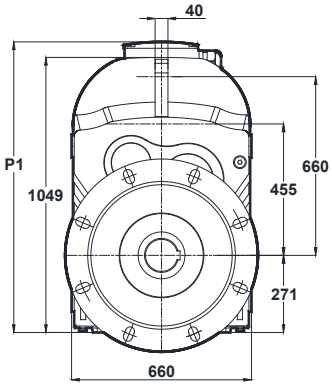
	160M/B5	160L/B5	180M/B5	180L/B5	200L/B5	225S/B5	225M/B5	250M/B5	280S/B5	280M/B5	315S/B5	315M/B5
k	1352	1352	1441	1441	1503	1578	1603	1731	1793	1793	2005	2005
k1	1532	1532	1611.5	1611.5	1689.5	1743	1768	1901.5	1966	1972	-	-
n / n1	315 / 219	315 / 219	347 / 234	347 / 234	390 / 275	434 / 285	434 / 285	480 / 322	544 / 350	544 / 350	614 / 510	614 / 510
m1 (B5)	350	350	350	350	400	450	450	550	550	550	660	660
m1 (B14)	-	-	-	-	-	-	-	-	-	-	-	-
p1	-	-	-	-	-	-	-	-	1076	1076	1236	1236

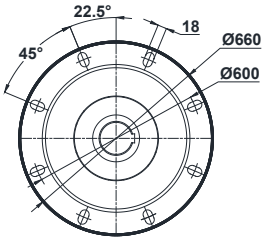


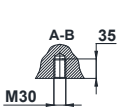
160-180-200-225-250-280-315
Tip / *Type* / Typ

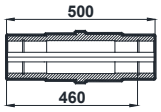
DV972.03
DV973.03

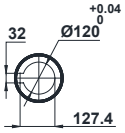






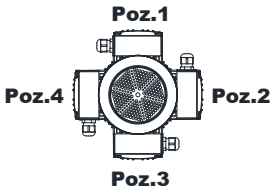






Klemens Pozisyonları
Terminal Box Positions
Klemmenkasten Positionen

	160M/B5	160L/B5	180M/B5	180L/B5	200L/B5	225S/B5	225M/B5	250M/B5	280S/B5	280M/B5	315S/B5	315M/B5
k	1142	1142	1231	1231	1293	1368	1393	1521	1583	1583	1795	1795
k1	1322	1322	1401.5	1401.5	1479.5	1533	1533	1686	1756	1762	-	-
n / n1	315 / 219	315 / 219	347 / 234	347 / 234	390 / 275	434 / 285	434 / 285	480 / 322	544 / 350	544 / 350	614 / 510	614 / 510
m1 (B5)	350	350	350	350	400	450	450	550	550	550	660	660
m1 (B14)	-	-	-	-	-	-	-	-	-	-	-	-
p1	-	-	-	-	-	-	-	-	1076	1076	1236	1236

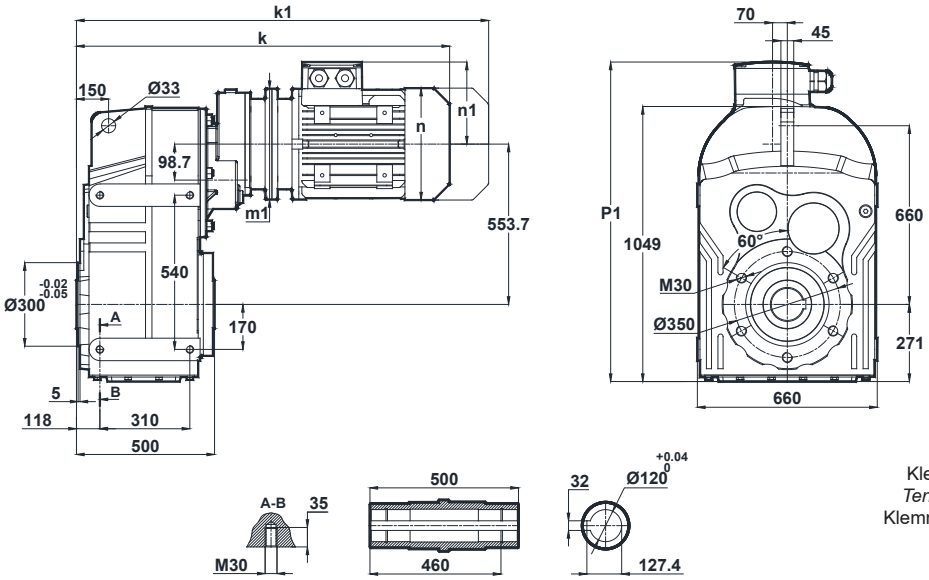


160-180-200-225-250-280-315
Tip / *Type* / Typ

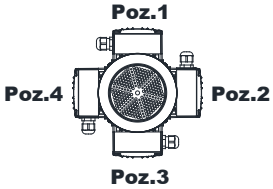
"k1" ölçüsü frenli redüktörlere aittir.
Dimensions "k1" is for motors with brake.
Maße "k1" ist für Bremsenmotoren.

Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole according to DIN 332, sheet 2* / Zentrierung mit Gewinde nach DIN 332, Blatt 2

DV974.00



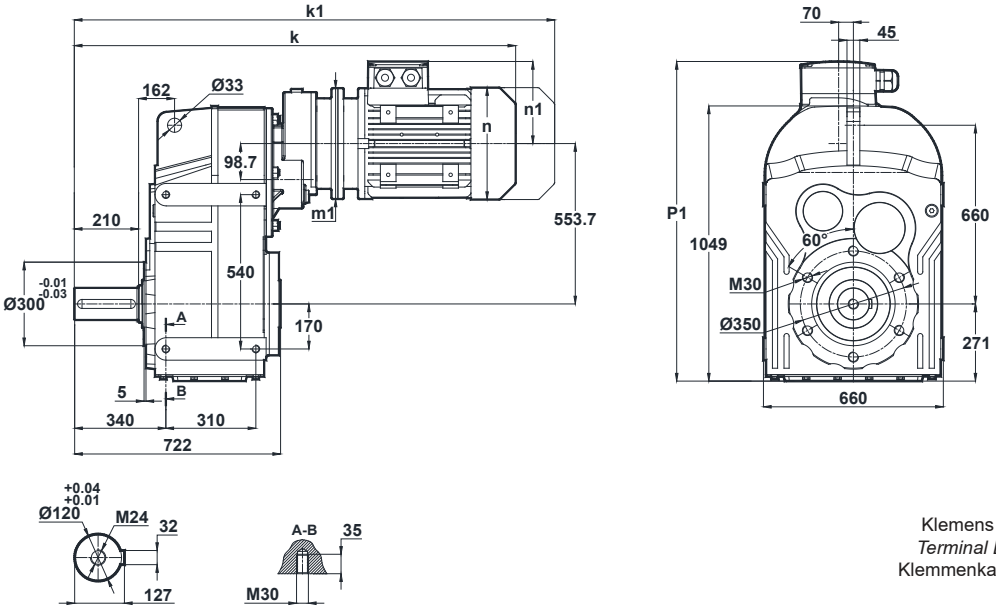
Klemens Pozisyonları
Terminal Box Positions
Klemmenkasten Positionen



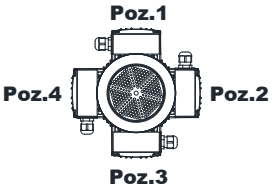
100-112-132
Tip / *Type* / Typ

	100L/B5	112M/B5	132S/B5 132S/B14	132M/B5 132M/B14
k	990	1011	1110	1110
k1	1109.5	1115.5	1240	1240
n / n1	193 / 147	215 / 158	257 / 179	257 / 179
m1 (B5)	250	250	300	300
m1 (B14)	-	-	200	200
p1	-	-	-	-

DV974.01



Klemens Pozisyonları
Terminal Box Positions
Klemmenkasten Positionen



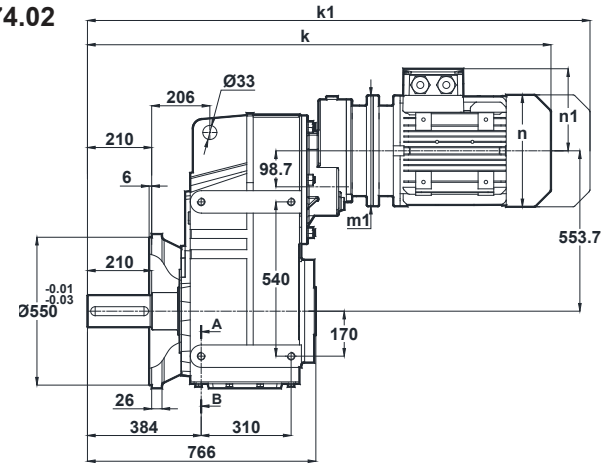
100-112-132
Tip / *Type* / Typ

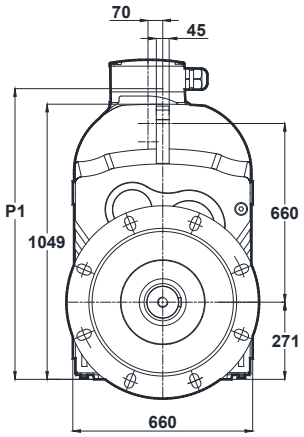
	100L/B5	112M/B5	132S/B5 132S/B14	132M/B5 132M/B14
k	1212	1233	1332	1332
k1	1331.5	1337.5	1462	1462
n / n1	193 / 147	215 / 158	257 / 179	257 / 179
m1 (B5)	250	250	300	300
m1 (B14)	-	-	200	200
p1	-	-	-	-

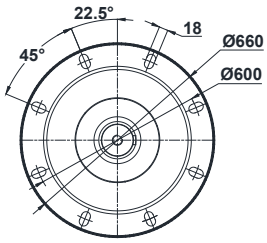
"k1" ölçüsü frenli redüktörlere aittir.
Dimensions "k1" is for motors with brake.
Maße "k1" ist für Bremsenmotoren.

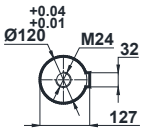
Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole according to DIN 332, sheet 2* / Zentrierung mit Gewinde nach DIN 332, Blatt 2

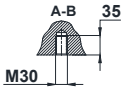
DV974.02





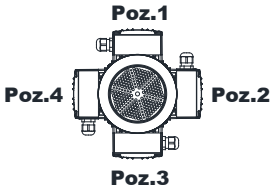






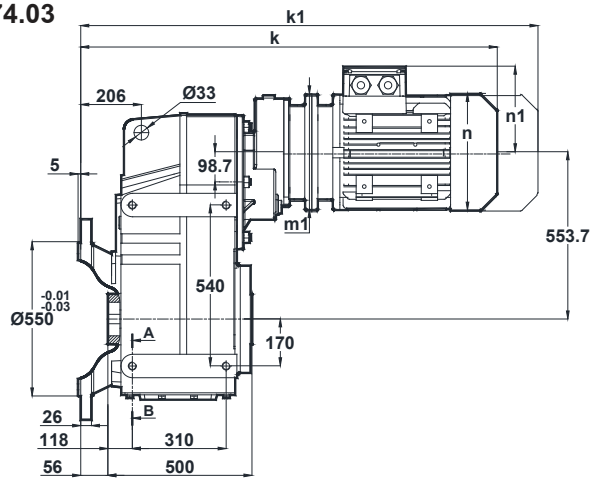
	100L/B5	112M/B5	132S/B5 132S/B14	132M/B5 132M/B14
k	1256	1277	1376	1376
k1	1375.5	1381.5	1506	1506
n / n1	193 / 147	215 / 158	257 / 179	257 / 179
m1 (B5)	250	250	300	300
m1 (B14)	-	-	200	200
p1	-	-	-	-

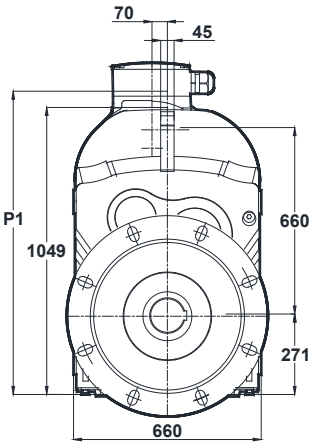
Klemens Pozisyonları
Terminal Box Positions
Klemmenkasten Positionen

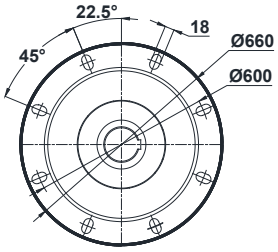


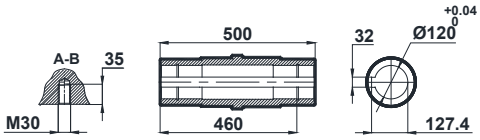
100-112-132
Tip / *Type* / Typ

DV974.03



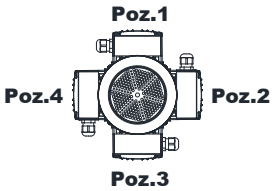






	100L/B5	112M/B5	132S/B5 132S/B14	132M/B5 132M/B14
k	1046	1067	1166	1166
k1	1165.5	1171.5	1296	1296
n / n1	193 / 147	215 / 158	257 / 179	257 / 179
m1 (B5)	250	250	300	300
m1 (B14)	-	-	200	200
p1	-	-	-	-

Klemens Pozisyonları
Terminal Box Positions
Klemmenkasten Positionen

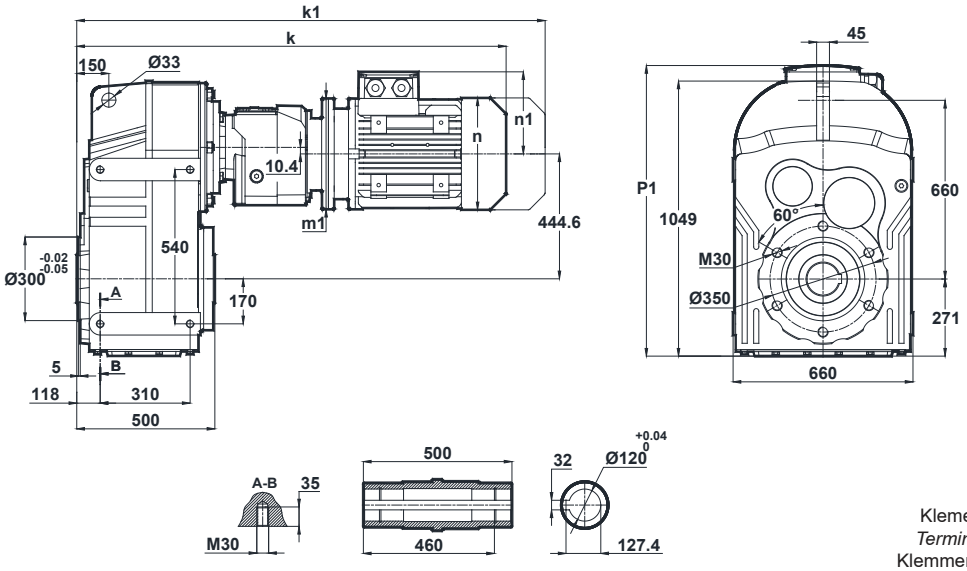


100-112-132
Tip / *Type* / Typ

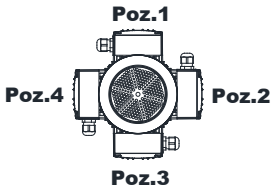
"k1" ölçüsü frenli redüktörlere aittir.
Dimensions "k1" is for motors with brake.
Maße "k1" ist für Bremsenmotoren.

Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole according to DIN 332, sheet 2* / Zentrierung mit Gewinde nach DIN 332, Blatt 2

DV975.00
DV976.00



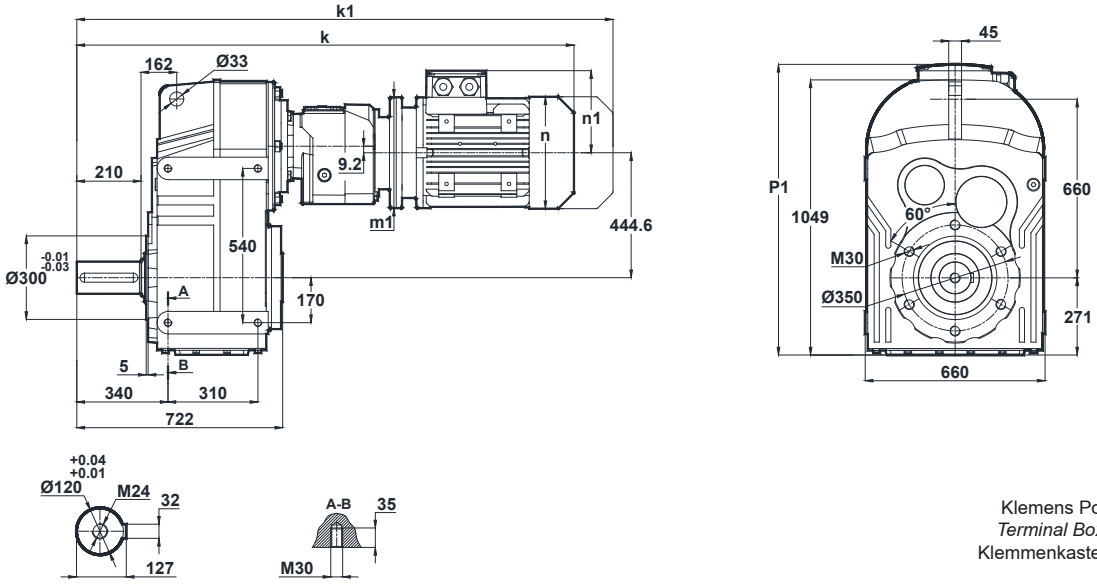
Klemens Pozisyonları
Terminal Box Positions
Klemmenkasten Positionen



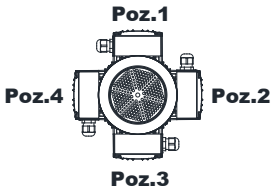
80-90-100
Tip / *Type* / Typ

	80/B5	90S/B5 90S/B14	90L/B5 90L/B14	100L/B5 100L/B14
k	1050	1091	1091	1145
k1	1143	1195.5	1195.5	1264.5
n / n1	155 / 121	176 / 132	176 / 132	193 / 147
m1 (B5)	200	200	200	250
m1 (B14)	-	140	140	160
p1	-	-	-	-

DV975.01
DV976.01



Klemens Pozisyonları
Terminal Box Positions
Klemmenkasten Positionen



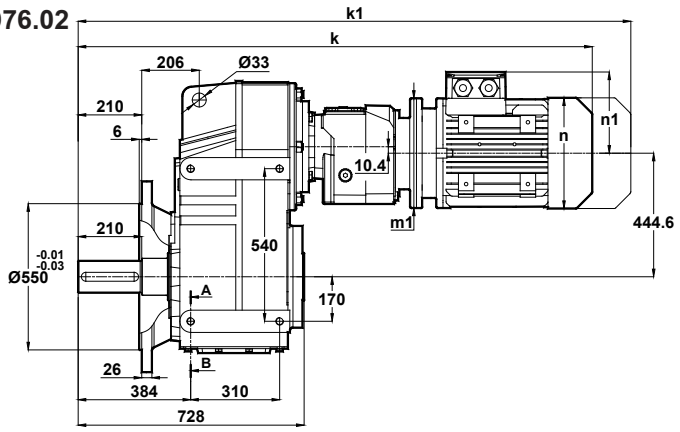
80-90-100
Tip / *Type* / Typ

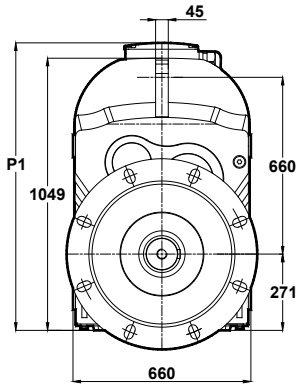
	80/B5	90S/B5 90S/B14	90L/B5 90L/B14	100L/B5 100L/B14
k	1272	1313	1313	1367
k1	1365	1417.5	1417.5	1486.5
n / n1	155 / 121	176 / 132	176 / 132	193 / 147
m1 (B5)	200	200	200	250
m1 (B14)	-	140	140	160
p1	-	-	-	-

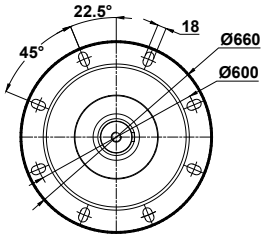
''k1'' ölçüsü frenli redüktörlere aittir.
Dimensions ''k1'' is for motors with brake.
Maße ''k1'' ist für Bremsenmotoren.

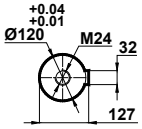
Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole according to DIN 332, sheet 2* / Zentrierung mit Gewinde nach DIN 332, Blatt 2

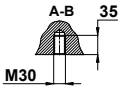
DV975.02
DV976.02





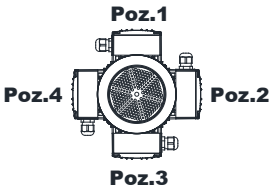






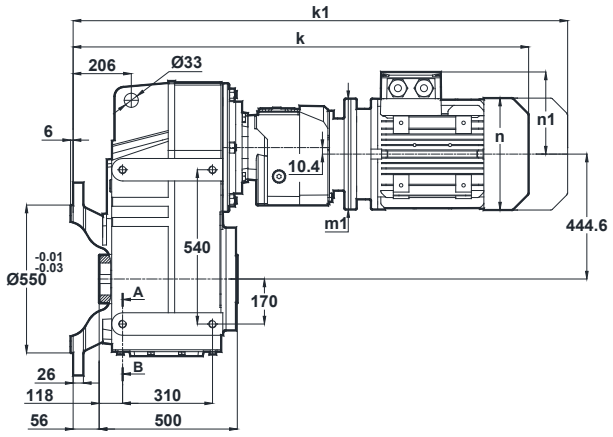
	80/B5	90S/B5 90S/B14	90L/B5 90L/B14	100L/B5 100L/B14
k	1316	1357	1357	1411
k1	1409	1461.5	1461.5	1530.5
n / n1	155 / 121	176 / 132	176 / 132	193 / 147
m1 (B5)	200	200	200	250
m1 (B14)	-	140	140	160
p1	-	-	-	-

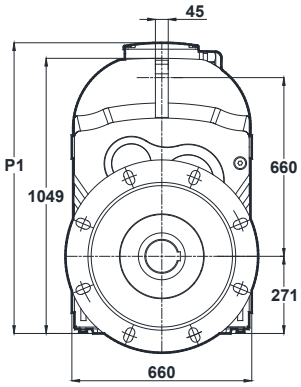
Klemens Pozisyonları
Terminal Box Positions
Klemmenkasten Positionen

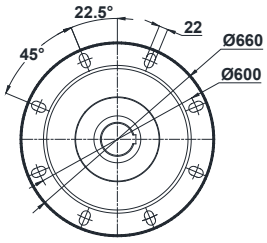


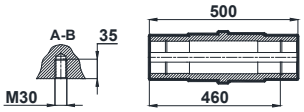
80-90-100
Tip / *Type* / Typ

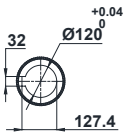
DV975.03
DV976.03





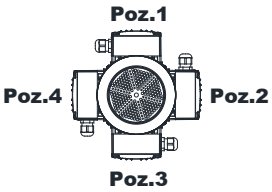






	80/B5	90S/B5 90S/B14	90L/B5 90L/B14	100L/B5 100L/B14
k	1106	1147	1147	1201
k1	1199	1251.5	1251.5	1320.5
n / n1	155 / 121	176 / 132	176 / 132	193 / 147
m1 (B5)	200	200	200	250
m1 (B14)	-	140	140	160
p1	-	-	-	-

Klemens Pozisyonları
Terminal Box Positions
Klemmenkasten Positionen

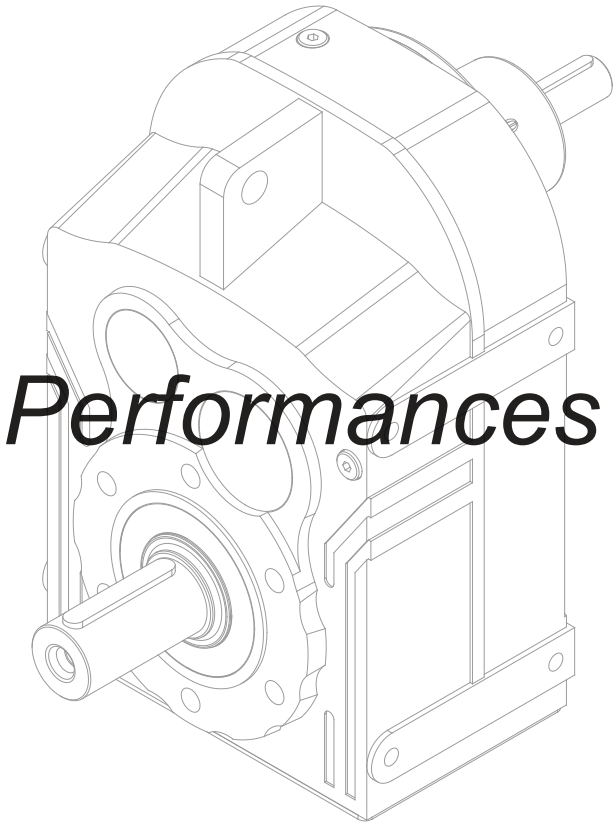


80-90-100
Tip / *Type* / Typ

"k1" ölçüsü frenli redüktörlere aittir.
Dimensions "k1" is for motors with brake.
Maße "k1" ist für Bremsenmotoren.

Notlar / *Notes* / Notizen

Güç ve Devir Tabloları



Performances

Leistung und Drehzahlübersicht

D Serisi Motorsuz Güç Devir Sayfaları

D Series Gear Units Performance Tables

D Serien Getriebe Leistung und Drehzahlübersicht

Anma Momenti *Nominal Torques* Nenn-drehmomente Ma [Nm] (n1=1450rpm)	Çevrim Oranı *Ratio* Übersetzung i	Çıkış Devri *Output Speeds* Abtriebs-drehzahlen n2 [r.p.m] (n1=1450rpm)	Tipi *Type* Typ	Pe= Nominal Güç [kW] (Servis Faktörü fs=1,0 için) *Pe= Nominal Power [kW] (For Service Factor fs=1,0)* Pe= NennLeistung [kW] (Bei Betriebsfaktor fs=1,0) **Giriş devri[d/d]** / *Input speed[rpm]* / Antriebsdrehzahl[upm] n1=2900	**n1=1450**	n1=950	n1=725	n1=475	n1=360	Güv. Rad.Yük Çıkış *Per.O.Loads (Output)* Zul.Querkräfte (Abtrieb) Fqam [N] (n1=1450rpm)	Güv.Rad.Yük Giriş *Per.O.Loads (Input)* Zul.Querkräfte (Antrieb) Fqem [N] (n1=1450rpm)	Ağırlık *Weight* Gewicht [kg]	Ölçü Sayfası *Dim. Page* Maße Seite
150	5.77	251	**DT072**	8.1	**4.1**	2.7	2.1	1.3	1.0	115	-	8	264
150	6.91	210		6.8	**3.4**	2.2	1.7	1.1	0.86	312	-		
150	8.18	177		5.8	**2.9**	1.9	1.5	0.95	0.72	415	-		
150	8.76	166		5.4	**2.7**	1.8	1.4	0.89	0.68	461	-		
150	10.53	138		4.5	**2.3**	1.5	1.1	0.74	0.56	739	-		
150	12.61	115		3.7	**1.9**	1.2	0.95	0.62	0.47	873	-		
150	14.92	97		3.2	**1.6**	1.05	0.80	0.53	0.40	1006	-		
150	15.97	91		3.0	**1.5**	0.98	0.75	0.49	0.37	1062	-		
150	18.09	80		2.6	**1.3**	0.9	0.66	0.43	0.33	1168	-		
150	21.12	69		2.3	**1.1**	0.7	0.57	0.37	0.28	1306	-		
150	25.01	58		1.9	**0.96**	0.6	0.48	0.32	0.27	1465	-		
150	27.64	52		1.7	**0.87**	0.57	0.44	0.29	0.24	1563	-		
150	30.71	47		1.6	**0.78**	0.51	0.39	0.26	0.22	1670	-		
150	36.86	39		1.3	**0.65**	0.43	0.33	0.24	0.18	1865	-		
150	35.43	41	**DT073**	1.4	**0.69**	0.45	0.35	0.25	0.19	1821	604	9	264
150	38.18	38		1.3	**0.64**	0.42	0.32	0.23	0.18	1904	609		
150	44.60	33		1.1	**0.55**	0.36	0.28	0.20	0.15	2081	623		
150	52.62	28		0.93	**0.47**	0.31	0.26	0.17	0.13	2280	635		
150	62.94	23		0.78	**0.39**	0.26	0.22	0.14	0.11	2508	647		
150	67.62	21		0.72	**0.36**	0.27	0.20	0.13	0.10	2604	732		
150	72.87	20		0.67	**0.34**	0.25	0.19	0.12	0.09	2706	736		
150	85.12	17		0.58	**0.29**	0.21	0.16	0.11	0.08	2925	743		
150	100.43	14		0.50	**0.28**	0.18	0.14	0.09	0.07	3173	749		
150	120.11	12		0.42	**0.23**	0.15	0.12	0.08	0.06	3456	755		
150	133.46	11		0.38	**0.21**	0.14	0.11	0.07	0.05	3630	763		
150	146.60	10		0.35	**0.19**	0.13	0.10	0.06	0.05	3791	764		
150	180.05	8.1		0.28	**0.16**	0.10	0.08	0.05	0.04	4162	767		
145	4,86	298	**DT172**	7,4	**4,7**	3,5	2,8	2,1	1,6	2352	-	13	266
160	5,88	247		6,9	**4,3**	3,2	2,6	1,8	1,3	2418	-		
170	6,72	216		6,3	**4,0**	3,0	2,4	1,5	1,2	2484	-		
180	7,74	187		5,9	**3,7**	2,7	2,0	1,3	1,0	2575	-		
200	9,54	152		6,1	**3,3**	2,2	1,7	1,1	0,83	2964	-		
200	11,54	126		5,4	**2,7**	1,8	1,4	0,90	0,68	3346	-		
200	13,19	110		4,8	**2,4**	1,6	1,2	0,79	0,60	3630	-		
200	15,18	96		4,2	**2,1**	1,4	1,0	0,69	0,52	3943	-		
200	17,86	81		3,5	**1,8**	1,2	0,89	0,59	0,44	4322	-		
200	19,04	76		3,3	**1,7**	1,1	0,84	0,55	0,42	4477	-		
200	21,79	67		2,9	**1,5**	0,96	0,73	0,48	0,36	4816	-		
200	25,24	57		2,5	**1,3**	0,83	0,63	0,42	0,32	5202	-		
200	29,67	49		2,1	**1,1**	0,71	0,54	0,35	0,27	5500	-		
200	27,18	53	**DT173**	2,2	**1,2**	0,78	0,60	0,39	0,30	5404	509	14	266
200	31,52	46		2,0	**1,0**	0,67	0,52	0,34	0,26	5500	531		
200	37,75	38		1,7	**0,86**	0,57	0,43	0,28	0,24	5500	559		
200	44,66	32		1,4	**0,73**	0,48	0,37	0,27	0,20	5500	575		
200	47,81	30		1,4	**0,68**	0,45	0,34	0,25	0,19	5500	581		
200	51,88	28		1,2	**0,63**	0,41	0,32	0,23	0,17	5500	679		
200	60,16	24		1,1	**0,54**	0,36	0,27	0,20	0,15	5500	690		
200	72,04	20		0,90	**0,46**	0,30	0,25	0,17	0,13	5500	705		
200	85,23	17		0,77	**0,39**	0,25	0,22	0,14	0,11	5500	713		
200	91,25	16		0,72	**0,36**	0,26	0,20	0,13	0,10	5500	716		
200	103,34	14		0,64	**0,32**	0,23	0,18	0,12	0,09	5500	720		
200	120,64	12		0,55	**0,28**	0,20	0,15	0,10	0,08	5500	725		
200	142,89	10		0,47	**0,26**	0,17	0,13	0,09	0,07	5500	730		
275	4,98	291	**DT272**	14	**8,6**	6,4	5,2	4,0	3,3	9105	-	21	268
295	5,82	249		13	**8,0**	6,0	4,8	3,7	3,0	9478	-		
320	6,84	212		12	**7,3**	5,5	4,4	3,4	2,6	9865	-		
395	8,67	167		12	**7,2**	5,4	4,1	2,7	2,0	10462	-		
425	10,11	143		11	**6,6**	4,6	3,5	2,3	1,8	10872	-		

D Serisi Motorsuz Güç Devir Sayfaları

D Series Gear Units Performance Tables

D Serien Getriebe Leistung und Drehzahlübersicht

Anma Momenti *Nominal Torques* Nenn-drehmomente Ma [Nm] (n1=1450rpm)	Çevrim Oranı *Ratio* Übersetzung i	Çıkış Devri *Output Speeds* Abtriebs-drehzahlen n2 [r.p.m] (n1=1450rpm)	Tipi *Type* Typ	Pe= Nominal Güç [kW] (Servis Faktörü fs=1,0 için) *Pe= Nominal Power [kW] (For Service Factor fs=1,0)* Pe= NennLeistung [kW] (Bei Betriebsfaktor fs=1,0) **Giriş devri[d/d]** / *Input speed[rpm]* / Antriebsdrehzahl[upm] n1=2900	**n1=1450**	n1=950	n1=725	n1=475	n1=360	Güv. Rad.Yük Çıkış *Per.O.Loads (Output)* Zul.Querkräfte (Abtrieb) Fqam [N] (n1=1450rpm)	Güv.Rad.Yük Giriş *Per.O.Loads (Input)* Zul.Querkräfte (Antrieb) Fqem [N] (n1=1450rpm)	Ağırlık *Weight* Gewicht [kg]	Ölçü Sayfası *Dim. Page* Maße Seite
450	11,90	122	**DT272**	10	**6,0**	3,9	3,0	2,0	1,5	11385	-	21	268
450	14,14	103		8,9	**5,0**	3,3	2,5	1,7	1,3	12000	-		
450	16,00	91		8,4	**4,4**	2,9	2,2	1,5	1,1	12000	-		
450	18,25	79		7,7	**3,9**	2,6	2,0	1,3	0,98	12000	-		
450	21,33	68		6,6	**3,3**	2,2	1,7	1,1	0,83	12000	-		
450	22,67	64		6,3	**3,1**	2,1	1,6	1,0	0,79	12000	-		
450	25,78	56		5,5	**2,8**	1,8	1,4	0,91	0,69	12000	-		
440	25,44	57	**DT273**	4,4	**2,8**	1,9	1,4	0,94	0,71	12350	189	22	268
450	30,34	48		3,9	**2,4**	1,6	1,2	0,79	0,60	12000	342		
450	36,38	40		3,5	**2,0**	1,3	1,0	0,66	0,50	12000	525		
450	42,22	34		3,0	**1,7**	1,1	0,86	0,57	0,43	12000	804		
450	50,36	29		2,7	**1,4**	0,95	0,72	0,48	0,36	12000	833		
450	60,39	24		2,4	**1,2**	0,79	0,61	0,40	0,30	12000	857		
450	73,03	20		2,0	**1,0**	0,66	0,50	0,33	0,25	12000	879		
450	83,46	17		1,7	**0,88**	0,58	0,44	0,29	0,24	12000	892		
450	96,09	15		1,5	**0,76**	0,50	0,38	0,25	0,21	12000	903		
450	113,02	13		1,3	**0,65**	0,43	0,33	0,24	0,18	12000	914		
450	120,49	12		1,2	**0,61**	0,40	0,31	0,22	0,17	12000	918		
450	137,94	11		1,1	**0,54**	0,35	0,27	0,20	0,15	12000	926		
450	150,45	9,6	**DT275**	1,0	**0,51**	0,33	0,25	0,18	0,14	12000	686	27	270
450	181,94	8,0		0,84	**0,42**	0,28	0,23	0,15	0,12	12000	718		
450	207,93	7,0		0,74	**0,37**	0,27	0,20	0,13	0,10	12000	737		
450	214,95	6,7		0,71	**0,36**	0,26	0,20	0,13	0,10	12000	735		
450	251,08	5,8		0,61	**0,31**	0,22	0,17	0,11	0,08	12000	742		
450	331,04	4,4		0,51	**0,26**	0,19	0,14	0,09	0,07	12000	789		
450	356,74	4,1		0,48	**0,24**	0,17	0,13	0,09	0,07	12000	788		
450	416,71	3,5		0,41	**0,20**	0,15	0,11	0,07	0,06	12000	793		
450	497,10	2,9		0,34	**0,17**	0,13	0,10	0,06	0,05	12000	805		
450	596,04	2,4		0,29	**0,14**	0,10	0,08	0,05	0,04	12000	816		
450	720,79	2,0		0,26	**0,12**	0,09	0,07	0,04	0,03	12000	825		
450	823,76	1,8		0,23	**0,10**	0,08	0,06	0,04	0,03	12000	831		
450	948,41	1,5		0,20	**0,09**	0,07	0,05	0,03	0,02	12000	836		
450	1115,51	1,3		0,17	**0,08**	0,06	0,04	0,03	0,02	12000	841		
450	1189,30	1,2		0,16	**0,07**	0,05	0,04	0,03	0,02	12000	843		
450	1215,13	1,2	**DT276**	0,16	**0,07**	0,05	0,04	0,03	0,02	12000	843	29	270
450	1456,98	1,0		0,13	**0,06**	0,04	0,03	0,02	0,02	12000	848		
450	1761,93	0,82		0,11	**0,05**	0,04	0,03	0,02	0,01	12000	851		
450	2013,64	0,72		0,10	**0,04**	0,03	0,02	0,02	0,01	12000	854		
450	2318,33	0,63		0,08	**0,04**	0,03	0,02	0,01	0,01	12000	856		
450	2726,80	0,53		0,07	**0,03**	0,02	0,02	0,01	0,01	12000	858		
450	2907,19	0,50		0,07	**0,03**	0,02	0,02	0,01	0,01	12000	858		
260	3,92	370	**DT282**	17	**10**	7,7	6,2	4,8	3,9	11041	-	31	272
280	4,52	321		16	**9,7**	7,3	5,8	4,5	3,6	11465	-		
300	5,22	278		15	**9,0**	6,8	5,5	4,2	3,4	11910	-		
315	5,74	253		14	**8,6**	6,5	5,2	4,0	3,3	12204	-		
340	6,65	218		13	**8,0**	6,0	4,9	3,7	3,0	12674	-		
380	7,09	205		14	**8,4**	6,3	5,1	3,9	3,2	12921	-		
410	8,19	177		13	**7,9**	5,9	4,8	3,6	2,9	13401	-		
440	9,45	153		12	**7,3**	5,5	4,4	3,3	2,5	13665	-		
460	10,38	140		11	**7,0**	5,2	4,2	3,0	2,3	13274	-		
490	12,03	121		10	**6,4**	4,8	3,9	2,6	2,0	12625	-		
525	14,06	103		10	**5,9**	4,4	3,4	2,2	1,7	11765	-		
565	16,62	87		8,7	**5,4**	3,7	2,9	1,9	1,4	10610	-		
590	18,73	77		8,1	**5,0**	3,3	2,5	1,7	1,3	9780	-		
600	21,28	68		7,5	**4,5**	2,9	2,2	1,5	1,1	9200	-		
600	24,79	58		6,8	**3,8**	2,5	1,9	1,3	0,96	9200	-		
600	29,85	49		6,0	**3,2**	2,1	1,6	1,1	0,80	9200	-		

D Serisi Motorsuz Güç Devir Sayfaları

D Series Gear Units Performance Tables

D Serien Getriebe Leistung und Drehzahlübersicht

Anma Momenti *Nominal Torques* Nenn-drehmomente Ma [Nm] (n1=1450rpm)	**Çevrim Oranı** *Ratio* Übersetzung i	**Çıkış Devri** *Output Speeds* Abtriebs-drehzahlen n2 [r.p.m] (n1=1450rpm)	**Tipi** *Type* Typ	**Pe= Nominal Güç [kW] (Servis Faktörü fs=1,0 için)** *Pe= Nominal Power [kW] (For Service Factor fs=1,0)* Pe= NennLeistung [kW] (Bei Betriebsfaktor fs=1,0) **Giriş devri[d/d]** / *Input speed[rpm]* / Antriebsdrehzahl[upm]						**Güv. Rad.Yük Çıkış** *Per.O.Loads (Output)* Zul.Querkräfte (Abtrieb) Fqam [N] (n1=1450rpm)	**Güv.Rad.Yük Giriş** *Per.O.Loads (Input)* Zul.Querkräfte (Antrieb) Fqem [N] (n1=1450rpm)	**Ağırlık** *Weight* Gewicht [kg]	**Ölçü Sayfası** *Dim. Page* Maße Seite
				n1=2900	**n1=1450**	n1=950	n1=725	n1=475	n1=360				
590	30,28	48	**DT283**	4,9	**3,1**	2,1	1,6	1,1	0,80	9780	1309	32	272
600	35,35	41		4,5	**2,7**	1,8	1,4	0,90	0,69	9200	1340		
600	41,23	35		4,0	**2,3**	1,5	1,2	0,77	0,59	9200	1379		
600	45,56	32		3,8	**2,1**	1,4	1,1	0,70	0,53	9200	1398		
600	53,18	27		3,4	**1,8**	1,2	0,92	0,60	0,46	9200	1424		
600	62,55	23		3,1	**1,6**	1,0	0,78	0,51	0,39	9200	1447		
600	74,36	19		2,6	**1,3**	0,86	0,66	0,43	0,33	9200	1468		
600	84,12	17		2,3	**1,2**	0,76	0,58	0,38	0,29	9200	1481		
600	95,92	15		2,0	**1,0**	0,67	0,51	0,34	0,26	9200	1492		
600	112,15	13		1,7	**0,87**	0,57	0,44	0,29	0,24	9200	1505		
600	119,16	12		1,6	**0,82**	0,54	0,41	0,27	0,23	9200	1509		
600	135,52	11		1,4	**0,73**	0,48	0,37	0,27	0,20	9200	1517		
600	127,94	11	**DT285**	1,6	**0,79**	0,52	0,39	0,26	0,22	9200	582	35	274
600	137,88	11		1,5	**0,73**	0,48	0,37	0,27	0,20	9200	590		
600	161,05	9,0		1,3	**0,63**	0,41	0,31	0,23	0,17	9200	606		
600	196,84	7,4		1,0	**0,52**	0,34	0,26	0,19	0,14	9200	683		
600	212,12	6,8		0,96	**0,48**	0,31	0,27	0,17	0,13	9200	688		
600	244,26	5,9		0,83	**0,42**	0,27	0,23	0,15	0,12	9200	719		
600	263,22	5,5		0,77	**0,39**	0,25	0,22	0,14	0,11	9200	723		
600	277,21	5,2		0,73	**0,37**	0,27	0,20	0,13	0,10	9200	737		
600	298,73	4,9		0,68	**0,34**	0,25	0,19	0,12	0,09	9200	741		
600	348,95	4,2		0,59	**0,29**	0,21	0,16	0,11	0,08	9200	748		
600	406,99	3,6		0,50	**0,25**	0,18	0,14	0,09	0,07	9200	765		
600	449,72	3,2		0,50	**0,25**	0,18	0,14	0,09	0,07	9200	775		
600	524,87	2,8		0,43	**0,22**	0,16	0,12	0,08	0,06	9200	788		
600	617,37	2,3		0,37	**0,18**	0,13	0,10	0,07	0,05	9200	801		
600	733,99	2,0		0,31	**0,15**	0,11	0,09	0,06	0,04	9200	812		
600	830,25	1,7		0,27	**0,14**	0,10	0,08	0,05	0,04	9200	818		
600	936,69	1,5		0,27	**0,12**	0,09	0,07	0,04	0,03	9200	824		
600	1003,22	1,4	**DT286**	0,26	**0,12**	0,08	0,06	0,04	0,03	9200	827	36	274
600	1170,08	1,2		0,22	**0,10**	0,07	0,06	0,04	0,03	9200	833		
600	1292,94	1,1		0,20	**0,09**	0,07	0,05	0,03	0,02	9200	837		
600	1509,00	0,96		0,17	**0,08**	0,06	0,04	0,03	0,02	9200	841		
600	1774,93	0,82		0,15	**0,07**	0,05	0,04	0,02	0,02	9200	845		
600	2110,22	0,69		0,12	**0,06**	0,04	0,03	0,02	0,02	9200	849		
600	2386,97	0,61		0,11	**0,05**	0,04	0,03	0,02	0,01	9200	852		
600	2692,99	0,54		0,10	**0,04**	0,03	0,02	0,02	0,01	9200	854		
600	3368,37	0,43		0,08	**0,03**	0,03	0,02	0,01	0,01	9200	853		
600	3800,21	0,38		0,07	**0,03**	0,02	0,02	0,01	0,01	9200	855		
390	3,65	397	**DT372**	-	**17**	12	10	7,8	6,3	10152	-	65	276
435	4,42	328		25	**15**	11	9,3	7,1	5,8	10601	-		
465	5,05	287		23	**14**	10	8,7	6,7	5,4	10944	-		
495	5,79	250		22	**13**	10	8,2	6,2	5,1	11333	-		
530	6,69	217		20	**12**	9,3	7,5	5,8	4,7	11745	-		
640	7,42	195		-	**14**	10	8,2	5,7	4,3	12029	-		
700	8,98	161		20	**12**	9,2	7,2	4,7	3,6	12606	-		
745	10,25	141		19	**11**	8,3	6,3	4,1	3,1	13016	-		
795	11,77	123		17	**11**	7,2	5,5	3,6	2,7	12881	-		
820	13,60	107		16	**9,5**	6,2	4,8	3,1	2,4	11800	-		
820	14,74	98		15	**8,8**	5,8	4,4	2,9	2,2	11800	-		
820	17,65	82		14	**7,3**	4,8	3,7	2,4	1,8	11800	-		
820	20,10	72		13	**6,4**	4,2	3,2	2,1	1,6	11800	-		
820	22,46	65		11	**5,8**	3,8	2,9	1,9	1,4	11800	-		
820	25,42	57		10	**5,1**	3,4	2,6	1,7	1,3	11800	-		
645	23,58	61	**DT373**	6,8	**4,4**	3,3	2,8	1,8	1,4	16231	1104	67	276
680	27,53	53		6,2	**3,9**	3,0	2,4	1,6	1,2	15571	1123		
720	32,11	45		5,6	**3,6**	2,7	2,1	1,4	1,0	14739	1142		
745	35,49	41		5,3	**3,4**	2,4	1,9	1,2	0,93	14167	1149		

D Serisi Motorsuz Güç Devir Sayfaları

D Series Gear Units Performance Tables

D Serien Getriebe Leistung und Drehzahlübersicht

Anma Momenti *Nominal Torques* Nenn-drehmomente Ma [Nm] (n1=1450rpm)	Çevrim Oranı *Ratio* Übersetzung i	Çıkış Devri *Output Speeds* Abtriebs-drehzahlen n2 [r.p.m] (n1=1450rpm)	Tipi *Type* Typ	Pe= Nominal Güç [kW] (Servis Faktörü fs=1,0 için) *Pe= Nominal Power [kW] (For Service Factor fs=1,0)* Pe= NennLeistung [kW] (Bei Betriebsfaktor fs=1,0) **Giriş devri[d/d]** / *Input speed[rpm]* / Antriebsdrehzahl[upm] n1=2900	**n1=1450**	n1=950	n1=725	n1=475	n1=360	Güv. Rad.Yük Çıkış *Per.O.Loads (Output)* Zul.Querkräfte (Abtrieb) Fqam [N] (n1=1450rpm)	Güv.Rad.Yük Giriş *Per.O.Loads (Input)* Zul.Querkräfte (Antrieb) Fqem [N] (n1=1450rpm)	Ağırlık *Weight* Gewicht [kg]	Ölçü Sayfası *Dim. Page* Maße Seite
785	41,42	35	**DT373**	4,8	**3,0**	2,1	1,6	1,0	0,80	13155	1157	67	276
820	52,30	28		4,0	**2,5**	1,7	1,3	0,83	0,63	11800	1343		
820	57,79	25		3,7	**2,3**	1,5	1,1	0,76	0,57	11800	1364		
820	67,45	21		3,4	**2,0**	1,3	1,0	0,65	0,49	11800	1392		
820	79,34	18		3,1	**1,7**	1,1	0,84	0,55	0,42	11800	1417		
820	94,32	15		2,7	**1,4**	0,93	0,71	0,47	0,35	11800	1440		
820	106,69	14		2,5	**1,2**	0,82	0,63	0,41	0,31	11800	1453		
820	121,67	12		2,2	**1,1**	0,72	0,55	0,36	0,28	11800	1466		
820	151,15	9,6		1,8	**0,89**	0,58	0,45	0,29	0,25	11800	1484		
820	171,89	8,4		1,6	**0,78**	0,51	0,39	0,26	0,22	11800	1492		
820	174,88	8,3	**DT375**	1,6	**0,79**	0,52	0,40	0,26	0,22	11800	569	75	278
820	204,28	7,1		1,4	**0,68**	0,45	0,34	0,25	0,19	11800	585		
820	249,67	5,8		1,1	**0,56**	0,37	0,28	0,20	0,15	11800	668		
820	269,05	5,4		1,0	**0,52**	0,34	0,26	0,19	0,14	11800	674		
820	309,82	4,7		0,90	**0,45**	0,30	0,25	0,16	0,12	11800	707		
820	333,87	4,3		0,84	**0,42**	0,27	0,23	0,15	0,12	11800	712		
820	351,62	4,1		0,79	**0,40**	0,26	0,22	0,14	0,11	11800	726		
820	378,91	3,8		0,74	**0,37**	0,27	0,20	0,13	0,10	11800	731		
820	442,60	3,3		0,63	**0,32**	0,23	0,18	0,12	0,09	11800	738		
820	516,22	2,8		0,54	**0,27**	0,20	0,15	0,10	0,07	11800	757		
820	570,43	2,5		0,54	**0,27**	0,20	0,15	0,10	0,08	11800	768		
820	665,75	2,2		0,47	**0,23**	0,17	0,13	0,09	0,06	11800	782		
820	783,07	1,9		0,40	**0,20**	0,14	0,11	0,07	0,05	11800	795		
820	930,99	1,6		0,33	**0,17**	0,12	0,09	0,06	0,05	11800	807		
820	1053,09	1,4		0,30	**0,15**	0,11	0,08	0,05	0,04	11800	814		
820	1188,10	1,2		0,26	**0,13**	0,10	0,07	0,05	0,04	11800	821		
820	1272,49	1,1	**DT376**	0,25	**0,13**	0,09	0,07	0,05	0,03	11800	824	76	278
820	1484,14	0,98		0,24	**0,11**	0,08	0,06	0,04	0,03	11800	830		
820	1639,97	0,88		0,22	**0,10**	0,07	0,05	0,04	0,03	11800	834		
820	1914,03	0,76		0,19	**0,08**	0,06	0,05	0,03	0,02	11800	839		
820	2251,32	0,64		0,16	**0,07**	0,05	0,04	0,03	0,02	11800	844		
820	2676,61	0,54		0,13	**0,06**	0,04	0,03	0,02	0,02	11800	848		
820	3027,64	0,48		0,12	**0,05**	0,04	0,03	0,02	0,01	11800	850		
820	3415,80	0,42		0,10	**0,05**	0,03	0,03	0,02	0,01	11800	852		
820	4272,46	0,34		0,08	**0,04**	0,03	0,02	0,01	0,01	11800	852		
820	4820,21	0,30		0,07	**0,03**	0,02	0,02	0,01	0,01	11800	854		
915	4,48	324	**DT472**	-	**32**	24	19	15	12	12929	-	103	280
990	5,26	276		-	**29**	22	17	13	11	13406	-		
1070	6,23	233		44	**27**	20	16	12	9,8	13945	-		
1130	6,71	216		43	**26**	20	16	11	9,1	14063	-		
1190	7,54	192		40	**25**	19	15	10	8,1	14464	-		
1445	8,93	162		-	**25**	18	14	9,0	6,8	15180	-		
1550	10,48	138		-	**23**	15	12	7,7	5,8	15771	-		
1550	12,40	117		34	**20**	13	10	6,5	4,9	16967	-		
1550	13,35	109		33	**18**	12	9,1	6,0	4,6	17000	-		
1550	15,02	97		31	**16**	11	8,1	5,3	4,1	17000	-		
1550	17,01	85		29	**14**	9,4	7,2	4,7	3,6	17000	-		
1550	19,11	76		25	**13**	8,4	6,4	4,2	3,2	17000	-		
1550	20,74	70		23	**12**	7,7	5,9	3,9	2,9	17000	-		
1550	24,54	59		20	**10**	6,5	5,0	3,3	2,5	17000	-		
1130	28,45	51	**DT473**	-	**6,2**	4,7	3,8	2,8	2,1	24931	1446	104	280
1210	34,28	42		-	**5,5**	4,2	3,4	2,3	1,8	23821	1467		
1290	41,50	35		7,8	**4,9**	3,7	3,0	1,9	1,5	22575	1486		
1350	47,37	31		7,1	**4,5**	3,4	2,6	1,7	1,3	21538	1494		
1410	54,35	27		6,5	**4,1**	3,0	2,3	1,5	1,1	20396	1502		
1440	61,85	23		5,8	**3,7**	2,6	2,0	1,3	0,99	19781	1671		
1500	70,59	21		5,3	**3,4**	2,3	1,7	1,1	0,87	18448	1679		
1550	81,00	18		4,9	**3,0**	2,0	1,5	1,0	0,76	17000	1691		

D Serisi Motorsuz Güç Devir Sayfaları

D Series Gear Units Performance Tables

D Serien Getriebe Leistung und Drehzahlübersicht

Anma Momenti *Nominal Torques* Nenn-drehmomente Ma [Nm] (n1=1450rpm)	Çevrim Oranı *Ratio* Übersetzung i	Çıkış Devri *Output Speeds* Abtriebs-drehzahlen n2 [r.p.m] (n1=1450rpm)	Tipi *Type* Typ	Pe= Nominal Güç [kW] (Servis Faktörü fs=1,0 için) *Pe= Nominal Power [kW] (For Service Factor fs=1,0)* Pe= NennLeistung [kW] (Bei Betriebsfaktor fs=1,0) **Giriş devri[d/d]** / *Input speed[rpm]* / Antriebsdrehzahl[upm] n1=2900	**n1=1450**	n1=950	n1=725	n1=475	n1=360	Güv. Rad.Yük Çıkış *Per.O.Loads (Output)* Zul.Querkräfte (Abtrieb) Fqam [N] (n1=1450rpm)	Güv.Rad.Yük Giriş *Per.O.Loads (Input)* Zul.Querkräfte (Antrieb) Fqem [N] (n1=1450rpm)	Ağırlık *Weight* Gewicht [kg]	Ölçü Sayfası *Dim. Page* Maße Seite
1550	95,87	15	**DT473**	4,4	**2,6**	1,7	1,3	0,84	0,64	17000	1724	104	280
1550	101,48	14		4,2	**2,4**	1,6	1,2	0,80	0,61	17000	1733		
1550	121,49	12		3,8	**2,0**	1,3	1,0	0,67	0,51	17000	1759		
1550	138,35	10		3,4	**1,8**	1,2	0,90	0,59	0,45	17000	1775		
1550	154,63	9,4		3,2	**1,6**	1,1	0,80	0,53	0,40	17000	1790		
1550	174,97	8,3		2,8	**1,4**	0,93	0,71	0,47	0,36	17000	1801		
1550	215,03	6,7		2,3	**1,2**	0,76	0,58	0,38	0,29	17000	1817		
1550	242,68	6,0		2,1	**1,0**	0,68	0,52	0,34	0,26	17000	1824		
1550	219,13	6,6	**DT474**	2,3	**1,2**	0,76	0,58	0,38	0,29	17000	1506	114	282
1550	252,29	5,7		2,0	**1,0**	0,66	0,51	0,33	0,25	17000	1521		
1550	296,74	4,9		1,7	**0,86**	0,56	0,43	0,28	0,24	17000	1534		
1550	316,37	4,6		1,6	**0,81**	0,53	0,40	0,26	0,22	17000	1539		
1550	362,17	4,0		1,4	**0,71**	0,46	0,35	0,26	0,20	17000	1549		
1550	383,35	3,8		1,3	**0,67**	0,44	0,33	0,24	0,18	17000	1564		
1550	458,98	3,2		1,1	**0,56**	0,37	0,28	0,20	0,15	17000	1606		
1550	522,66	2,8		0,98	**0,49**	0,32	0,27	0,18	0,14	17000	1633		
1550	584,15	2,5		0,88	**0,44**	0,29	0,24	0,16	0,12	17000	1653		
1550	648,55	2,2	**DT475**	0,81	**0,41**	0,27	0,23	0,15	0,11	17000	760	116	284
1550	752,10	1,9		0,70	**0,35**	0,25	0,19	0,13	0,10	17000	767		
1550	900,55	1,6		0,59	**0,29**	0,21	0,16	0,11	0,08	17000	775		
1550	1065,48	1,4		0,55	**0,28**	0,20	0,15	0,10	0,08	17000	780		
1550	1140,69	1,3		0,51	**0,26**	0,19	0,14	0,09	0,07	17000	782		
1550	1492,69	1,0		0,39	**0,20**	0,14	0,11	0,07	0,05	17000	796		
1550	1529,03	0,95		0,38	**0,19**	0,14	0,11	0,07	0,05	17000	798		
1550	1618,43	0,90		0,36	**0,18**	0,13	0,10	0,07	0,05	17000	802		
1550	1937,71	0,75		0,30	**0,15**	0,11	0,08	0,06	0,04	17000	813		
1550	2381,67	0,61	**DT476**	0,25	**0,13**	0,09	0,07	0,05	0,03	17000	837	118	284
1550	2851,73	0,51		0,23	**0,11**	0,08	0,06	0,04	0,03	17000	840		
1550	3374,03	0,43		0,20	**0,09**	0,06	0,05	0,03	0,02	17000	841		
1550	3612,19	0,40		0,19	**0,08**	0,06	0,05	0,03	0,02	17000	842		
1550	4726,85	0,31		0,14	**0,06**	0,05	0,04	0,02	0,02	17000	846		
1550	4841,94	0,30		0,14	**0,06**	0,05	0,03	0,02	0,02	17000	847		
1550	5125,04	0,28		0,13	**0,06**	0,04	0,03	0,02	0,02	17000	848		
1550	6136,10	0,24		0,11	**0,05**	0,04	0,03	0,02	0,01	17000	852		
1470	4,38	331	**DT572**	-	**52**	39	32	24	20	22142	-	150	286
1570	4,96	292		-	**49**	37	30	23	19	22799	-		
1670	5,64	257		-	**46**	35	28	21	17	23536	-		
1780	6,45	225		-	**43**	32	26	20	16	24330	-		
1900	7,43	195		-	**40**	30	24	18	15	25207	-		
2030	8,65	168		60	**37**	28	22	17	14	26199	-		
2560	10,45	139		-	**38**	29	23	15	11	27328	-		
2710	11,89	122		-	**36**	26	20	13	9,9	28223	-		
2870	13,60	107		-	**33**	23	17	11	8,7	25802	-		
3000	15,67	93		-	**30**	20	15	9,9	7,5	22500	-		
3000	18,23	80		45	**26**	17	13	8,5	6,5	22500	-		
3000	21,40	68		41	**22**	14	11	7,3	5,5	22500	-		
3000	24,02	60		38	**20**	13	10	6,5	4,9	22500	-		
3000	28,87	50		33	**16**	11	8,2	5,4	4,1	22500	-		
3000	33,86	43		28	**14**	9,2	7,0	4,6	3,5	22500	-		
2600	28,39	51	**DT573**	-	**14**	10	8,3	5,5	4,1	31019	-	153	286
2750	33,28	44		-	**13**	9,3	7,1	4,7	3,5	28304	-		
2910	39,35	37		18	**12**	7,9	6,0	4,0	3,0	24887	-		
3000	44,27	33		17	**11**	7,0	5,4	3,5	2,7	22500	-		
3000	50,13	29		16	**9,4**	6,2	4,7	3,1	2,4	22500	-		
3000	61,12	24		14	**7,7**	5,1	3,9	2,6	1,9	22500	-		
3000	68,64	21		-	**6,9**	4,5	3,4	2,3	1,7	22500	1566		

D Serisi Motorsuz Güç Devir Sayfaları

D Series Gear Units Performance Tables

D Serien Getriebe Leistung und Drehzahlübersicht

Anma Momenti *Nominal Torques* Nenn-drehmomente Ma [Nm] (n1=1450rpm)	Çevrim Oranı *Ratio* Übersetzung i	Çıkış Devri *Output Speeds* Abtriebs-drehzahlen n2 [r.p.m] (n1=1450rpm)	Tipi *Type* Typ	Pe= Nominal Güç [kW] (Servis Faktörü fs=1,0 için) *Pe= Nominal Power [kW] (For Service Factor fs=1,0)* Pe= NennLeistung [kW] (Bei Betriebsfaktor fs=1,0) **Giriş devri[d/d]** / *Input speed[rpm]* / Antriebsdrehzahl[upm] n1=2900	**n1=1450**	n1=950	n1=725	n1=475	n1=360	Güv. Rad.Yük Çıkış *Per.O.Loads (Output)* Zul.Querkräfte (Abtrieb) Fqam [N] (n1=1450rpm)	Güv.Rad.Yük Giriş *Per.O.Loads (Input)* Zul.Querkräfte (Antrieb) Fqem [N] (n1=1450rpm)	Ağırlık *Weight* Gewicht [kg]	Ölçü Sayfası *Dim. Page* Maße Seite
3000	81,15	18	**DT573**	11	**5,8**	3,8	2,9	1,9	1,5	22500	1630	153	286
3000	91,30	16		10	**5,2**	3,4	2,6	1,7	1,3	22500	1669		
3000	103,39	14		9,1	**4,6**	3,0	2,3	1,5	1,1	22500	1705		
3000	126,06	12		7,5	**3,8**	2,5	1,9	1,2	0,94	22500	1752		
3000	149,15	9,7		6,4	**3,2**	2,1	1,6	1,1	0,80	22500	1786		
3000	168,60	8,6		5,6	**2,8**	1,9	1,4	0,93	0,71	22500	1807		
3000	192,62	7,5		5,0	**2,5**	1,6	1,2	0,82	0,62	22500	1827		
3000	209,81	6,9		4,5	**2,3**	1,5	1,1	0,75	0,57	22500	1840		
3000	255,83	5,7		3,7	**1,9**	1,2	0,95	0,62	0,47	22500	1862		
3000	230,64	6,3	**DT574**	4,3	**2,1**	1,4	1,0	0,70	0,53	22500	1796	163	288
3000	274,21	5,3		3,6	**1,8**	1,2	0,90	0,59	0,45	22500	1821		
3000	310,17	4,7		3,2	**1,6**	1,0	0,80	0,52	0,40	22500	1836		
3000	353,70	4,1		2,8	**1,4**	0,92	0,70	0,46	0,35	22500	1851		
3000	413,56	3,5		2,4	**1,2**	0,79	0,60	0,39	0,30	22500	1865		
3000	499,72	2,9		2,0	**1,0**	0,65	0,50	0,33	0,27	22500	1881		
3000	609,29	2,4		1,6	**0,82**	0,53	0,41	0,27	0,23	22500	1944		
3000	720,91	2,0		1,4	**0,69**	0,45	0,35	0,25	0,19	22500	1989		
3000	868,61	1,7	**DT575**	1,2	**0,59**	0,38	0,29	0,21	0,16	22500	1707	165	290
3000	1041,50	1,4		0,98	**0,49**	0,32	0,27	0,18	0,13	22500	1716		
3000	1259,48	1,2		0,81	**0,41**	0,27	0,23	0,15	0,11	22500	1724		
3000	1439,41	1,0		0,71	**0,36**	0,26	0,20	0,13	0,10	22500	1728		
3000	1657,21	0,87		0,62	**0,31**	0,23	0,17	0,11	0,09	22500	1733		
3000	1949,20	0,74		0,53	**0,26**	0,19	0,15	0,10	0,07	22500	1737		
3000	2078,15	0,70		0,55	**0,27**	0,20	0,15	0,10	0,08	22500	1738		
3000	2379,02	0,61		0,48	**0,24**	0,17	0,13	0,09	0,07	22500	1741		
3000	2900,65	0,50		0,39	**0,20**	0,14	0,11	0,07	0,05	22500	1756		
3000	3432,03	0,42		0,33	**0,17**	0,12	0,09	0,06	0,05	22500	1766		
3000	3723,69	0,39	**DT576**	0,31	**0,16**	0,11	0,09	0,06	0,04	22500	1788	167	290
3000	4255,64	0,34		0,27	**0,14**	0,10	0,08	0,05	0,04	22500	1790		
3000	4899,59	0,30		0,26	**0,12**	0,09	0,07	0,04	0,03	22500	1791		
3000	5762,85	0,25		0,22	**0,10**	0,07	0,06	0,04	0,03	22500	1793		
3000	6144,09	0,24		0,21	**0,09**	0,07	0,05	0,03	0,03	22500	1793		
3000	7033,63	0,21		0,18	**0,08**	0,06	0,05	0,03	0,02	22500	1794		
3000	8575,84	0,17		0,15	**0,07**	0,05	0,04	0,02	0,02	22500	1799		
3000	10146,88	0,14		0,13	**0,06**	0,04	0,03	0,02	0,02	22500	1803		
2200	4,28	339	**DT672**	-	**80**	60	48	37	30	31593	-	201	292
2370	4,92	295		-	**75**	56	45	35	28	32632	-		
2550	5,68	255		-	**70**	52	42	32	26	33765	-		
2580	5,89	246		-	**68**	51	41	31	26	34127	-		
2730	6,61	219		-	**64**	48	39	30	24	35083	-		
2880	7,45	195		-	**60**	45	37	28	23	36165	-		
3300	7,75	187		-	**66**	50	40	29	22	36215	-		
3540	8,91	163		-	**62**	46	38	25	19	37392	-		
3790	10,29	141		-	**58**	43	33	22	16	38694	-		
3830	10,67	136		-	**56**	41	32	21	16	38291	-		
4030	11,96	121		-	**53**	37	28	19	14	35135	-		
4250	13,48	108		-	**49**	33	25	16	13	31078	-		
4300	15,30	95		-	**44**	29	22	15	11	29600	-		
4300	17,49	83		-	**39**	25	19	13	9,7	29600	-		
4300	20,20	72		63	**33**	22	17	11	8,4	29600	-		
4300	23,36	62		57	**29**	19	15	9,5	7,2	29600	-		
4300	26,11	56		52	**26**	17	13	8,5	6,5	29600	-		
4300	30,04	48	**DT673**	-	**22**	15	11	7,4	5,6	29600	370	204	292
4300	34,02	43		-	**20**	13	10	6,5	5,0	29600	849		
4300	38,70	37		-	**17**	11	8,7	5,7	4,4	29600	1284		
4300	44,27	33		-	**15**	10	7,7	5,0	3,8	29600	1681		

D Serisi Motorsuz Güç Devir Sayfaları

D Series Gear Units Performance Tables

D Serien Getriebe Leistung und Drehzahlübersicht

Anma Momenti *Nominal Torques* Nenn-drehmomente Ma [Nm] (n1=1450rpm)	Çevrim Oranı *Ratio* Übersetzung i	Çıkış Devri *Output Speeds* Abtriebs-drehzahlen n2 [r.p.m] (n1=1450rpm)	Tipi *Type* Typ	Pe= Nominal Güç [kW] (Servis Faktörü fs=1,0 için) *Pe= Nominal Power [kW] (For Service Factor fs=1,0)* Pe= NennLeistung [kW] (Bei Betriebsfaktor fs=1,0) **Giriş devri[d/d]** / *Input speed[rpm]* / Antriebsdrehzahl[upm] n1=2900	**n1=1450**	n1=950	n1=725	n1=475	n1=360	Güv. Rad.Yük Çıkış *Per.O.Loads (Output)* Zul.Querkräfte (Abtrieb) Fqam [N] (n1=1450rpm)	Güv.Rad.Yük Giriş *Per.O.Loads (Input)* Zul.Querkräfte (Antrieb) Fqem [N] (n1=1450rpm)	Ağırlık *Weight* Gewicht [kg]	Ölçü Sayfası *Dim. Page* Maße Seite
4300	51,01	28	**DT673**	-	**13**	8,7	6,7	4,4	3,3	29600	2043	204	292
4300	59,34	24		23	**11**	7,5	5,7	3,8	2,9	29600	2374		
4300	60,82	24		-	**11**	7,3	5,6	3,7	2,8	29600	3134		
4300	69,18	21		-	**9,8**	6,4	4,9	3,2	2,4	29600	3197		
4300	79,14	18		-	**8,5**	5,6	4,3	2,8	2,1	29600	3254		
4300	91,19	16		-	**7,4**	4,9	3,7	2,5	1,9	29600	3305		
4300	106,08	14		13	**6,4**	4,2	3,2	2,1	1,6	29600	3353		
4300	124,53	12		11	**5,5**	3,6	2,7	1,8	1,4	29600	3414		
4300	139,76	10		9,7	**4,9**	3,2	2,4	1,6	1,2	29600	3440		
4300	167,96	8,6		8,1	**4,1**	2,7	2,0	1,3	1,0	29600	3473		
4300	197,01	7,4		6,9	**3,5**	2,3	1,7	1,1	0,87	29600	3499		
4300	221,47	6,5		6,2	**3,1**	2,0	1,6	1,0	0,77	29600	3515		
4300	236,65	6,1	**DT674**	6,0	**3,0**	2,0	1,5	0,98	0,74	29600	1622	214	294
4300	281,35	5,2		5,0	**2,5**	1,7	1,3	0,83	0,63	29600	1657		
4300	318,25	4,6		4,5	**2,2**	1,5	1,1	0,73	0,55	29600	1679		
4300	362,91	4,0		3,9	**2,0**	1,3	1,0	0,64	0,49	29600	1699		
4300	424,33	3,4		3,4	**1,7**	1,1	0,84	0,55	0,42	29600	1720		
4300	512,73	2,8		2,8	**1,4**	0,91	0,70	0,46	0,35	29600	1741		
4300	601,90	2,4		2,4	**1,2**	0,78	0,59	0,39	0,29	29600	1814		
4300	675,51	2,1		2,1	**1,1**	0,69	0,53	0,35	0,26	29600	1859		
4300	747,10	1,9	**DT675**	1,9	**0,97**	0,64	0,49	0,32	0,27	29600	1647	216	296
4300	891,23	1,6		1,6	**0,82**	0,54	0,41	0,27	0,23	29600	1662		
4300	1068,62	1,4		1,4	**0,68**	0,45	0,34	0,25	0,19	29600	1674		
4300	1292,28	1,1		1,1	**0,57**	0,37	0,28	0,21	0,16	29600	1685		
4300	1476,89	0,98		0,99	**0,50**	0,33	0,28	0,18	0,14	29600	1692		
4300	1700,37	0,85		0,87	**0,43**	0,28	0,24	0,16	0,12	29600	1698		
4300	1999,96	0,73		0,74	**0,37**	0,27	0,20	0,13	0,10	29600	1703		
4300	2132,27	0,68		0,69	**0,35**	0,25	0,19	0,13	0,10	29600	1705		
4300	2440,98	0,59		0,60	**0,30**	0,22	0,17	0,11	0,08	29600	1709		
4300	2865,49	0,51		0,51	**0,26**	0,19	0,14	0,09	0,07	29600	1726		
4300	3215,89	0,45		0,51	**0,25**	0,19	0,14	0,09	0,07	29600	1736		
4300	3820,66	0,38	**DT676**	0,44	**0,22**	0,16	0,12	0,08	0,06	29600	1775	218	296
4300	4366,47	0,33		0,38	**0,19**	0,14	0,11	0,07	0,05	29600	1777		
4300	5027,18	0,29		0,33	**0,17**	0,12	0,09	0,06	0,05	29600	1780		
4300	5912,93	0,25		0,28	**0,14**	0,10	0,08	0,05	0,04	29600	1781		
4300	6304,09	0,23		0,27	**0,13**	0,10	0,07	0,05	0,04	29600	1782		
4300	7216,80	0,20		0,26	**0,12**	0,08	0,06	0,04	0,03	29600	1783		
4300	8471,90	0,17		0,22	**0,10**	0,07	0,05	0,04	0,03	29600	1789		
4300	9507,85	0,15		0,20	**0,09**	0,06	0,05	0,03	0,02	29600	1793		
3800	4,47	325	**DT772**	-	**132**	100	80	61	50	30034	-	275	298
4080	5,06	287		-	**125**	94	76	58	47	30748	-		
4350	5,75	252		-	**118**	88	71	54	44	31612	-		
4630	6,58	220		-	**110**	82	66	51	41	32592	-		
4770	6,97	208		-	**107**	80	64	49	40	32969	-		
5010	7,76	187		-	**101**	75	61	46	37	33787	-		
5260	8,70	167		-	**94**	71	57	44	36	34710	-		
6050	9,00	161		-	**105**	79	63	46	35	34844	-		
6420	10,23	142		-	**98**	73	59	40	31	35845	-		
6820	11,71	124		-	**91**	68	54	35	27	36936	-		
7000	12,40	117		-	**88**	66	51	33	25	37404	-		
7330	13,81	105		-	**83**	60	46	30	23	38349	-		
7680	15,46	94		-	**78**	53	41	27	20	39400	-		
8000	17,44	83		-	**72**	47	36	24	18	40735	-		
8000	19,82	73		-	**63**	42	32	21	16	43221	-		
8000	22,77	64		100	**55**	36	28	18	14	46018	-		
5560	17.95	81	**DT773**	-	**48**	36	29	22	17	46247	-	276	298

D Serisi Motorsuz Güç Devir Sayfaları

D Series Gear Units Performance Tables

D Serien Getriebe Leistung und Drehzahlübersicht

Anma Momenti *Nominal Torques* Nenn-drehmomente Ma [Nm] (n1=1450rpm)	Çevrim Oranı *Ratio* Übersetzung i	Çıkış Devri *Output Speeds* Abtriebs-drehzahlen n2 [r.p.m] (n1=1450rpm)	Tipi *Type* Typ	Pe= Nominal Güç [kW] (Servis Faktörü fs=1,0 için) *Pe= Nominal Power [kW] (For Service Factor fs=1,0)* Pe= NennLeistung [kW] (Bei Betriebsfaktor fs=1,0) **Giriş devri[d/d]** / *Input speed[rpm]* / Antriebsdrehzahl[upm] n1=2900	**n1=1450**	n1=950	n1=725	n1=475	n1=360	Güv. Rad.Yük Çıkış *Per.O.Loads (Output)* Zul.Querkräfte (Abtrieb) Fqam [N] (n1=1450rpm)	Güv.Rad.Yük Giriş *Per.O.Loads (Input)* Zul.Querkräfte (Antrieb) Fqem [N] (n1=1450rpm)	Ağırlık *Weight* Gewicht [kg]	Ölçü Sayfası *Dim. Page* Maße Seite
5620	18.61	78	**DT773**	-	**47**	35	28	22	17	46758	-	276	298
5820	20.87	69		-	**43**	33	26	20	15	48384	-		
8000	24,06	60		-	**52**	34	26	17	13	47165	-		
8000	27,65	52		-	**45**	30	23	15	11	50137	-		
8000	31,92	45		-	**39**	26	20	13	9,8	53342	-		
8000	33,10	44		-	**38**	25	19	12	9,5	54175	-		
8000	37,12	39		-	**34**	22	17	11	8,4	55500	-		
8000	41,85	35		-	**30**	20	15	9,9	7,5	55500	-		
8000	46,99	31		-	**27**	17	13	8,8	6,7	55500	2038		
8000	53,99	27		-	**23**	15	12	7,6	5,8	55500	2582		
8000	62,33	23		-	**20**	13	10	6,6	5,0	55500	3029		
8000	64,64	22		-	**19**	13	10	6,4	4,8	55500	3039		
8000	72,50	20		-	**17**	11	8,7	5,7	4,3	55500	3122		
8000	81,72	18		-	**15**	10	7,7	5,1	3,8	55500	3199		
8000	92,70	16		-	**14**	8,9	6,8	4,5	3,4	55500	3270		
8000	105,99	14		-	**12**	7,8	6,0	3,9	3,0	55500	3335		
8000	122,41	12		21	**10**	6,8	5,2	3,4	2,6	55500	3396		
8000	141,55	10		18	**8,9**	5,9	4,5	2,9	2,2	55500	3469		
8000	158,23	9,2		16	**8,0**	5,2	4,0	2,6	2,0	55500	3504		
8000	190,20	7,6		13	**6,6**	4,4	3,3	2,2	1,7	55500	3555		
8000	222,16	6,5		11	**5,7**	3,7	2,9	1,9	1,4	55500	3590		
8000	223,53	6,5	**DT774**	12	**5,9**	3,9	2,9	1,9	1,5	55500	1646	288	300
8000	256,48	5,7		10	**5,1**	3,4	2,6	1,7	1,3	55500	1697		
8000	296,36	4,9		8,9	**4,5**	2,9	2,2	1,5	1,1	55500	1743		
8000	321,33	4,5		8,2	**4,1**	2,7	2,1	1,3	1,0	55500	1769		
8000	384,72	3,8		6,9	**3,4**	2,3	1,7	1,1	0,85	55500	1814		
8000	438,10	3,3		6,0	**3,0**	2,0	1,5	0,99	0,75	55500	1842		
8000	489,64	3,0		5,4	**2,7**	1,8	1,4	0,89	0,67	55500	1867		
8000	566,21	2,6		4,7	**2,3**	1,5	1,2	0,77	0,58	55500	1966		
8000	632,92	2,3		4,2	**2,1**	1,4	1,0	0,69	0,52	55500	2033		
8000	730,48	2,0	**DT775**	3,7	**1,9**	1,2	0,93	0,61	0,46	55500	1898	291	302
8000	874,59	1,7		3,1	**1,6**	1,0	0,78	0,51	0,39	55500	1916		
8000	995,95	1,5		2,7	**1,4**	0,90	0,68	0,45	0,34	55500	1928		
8000	1105,59	1,3		2,5	**1,2**	0,80	0,61	0,40	0,30	55500	2011		
8000	1323,71	1,1		2,1	**1,0**	0,67	0,51	0,34	0,26	55500	2024		
8000	1507,38	0,96		1,8	**0,90**	0,59	0,45	0,30	0,25	55500	2031		
8000	1656,07	0,88		1,6	**0,82**	0,54	0,41	0,27	0,23	55500	2085		
8000	1982,78	0,73		1,4	**0,69**	0,45	0,34	0,25	0,19	55500	2093		
8000	2257,90	0,64		1,2	**0,61**	0,40	0,30	0,22	0,17	55500	2098		
8000	2523,53	0,57		1,1	**0,54**	0,35	0,27	0,20	0,15	55500	2103		
8000	2855,58	0,51		0,96	**0,48**	0,31	0,27	0,17	0,13	55500	2106		
8000	3302,14	0,44		0,83	**0,41**	0,27	0,23	0,15	0,11	55500	2123		
8000	3691,20	0,39		0,74	**0,37**	0,27	0,21	0,13	0,10	55500	2135		
8000	3922,75	0,37	**DT776**	0,71	**0,36**	0,26	0,20	0,13	0,10	55500	2179	293	302
8000	4334,63	0,33		0,64	**0,32**	0,23	0,18	0,12	0,09	55500	2181		
8000	5058,99	0,29		0,55	**0,28**	0,20	0,15	0,10	0,08	55500	2184		
8000	5875,88	0,25		0,53	**0,26**	0,19	0,15	0,10	0,07	55500	2197		
8000	6492,84	0,22		0,48	**0,24**	0,17	0,13	0,09	0,07	55500	2198		
8000	7577,86	0,19		0,41	**0,21**	0,15	0,11	0,07	0,06	55500	2200		
8000	8913,25	0,16		0,35	**0,17**	0,13	0,10	0,06	0,05	55500	2202		
8000	10597,02	0,14		0,29	**0,15**	0,11	0,08	0,05	0,04	55500	2204		
8000	11986,79	0,12		0,26	**0,13**	0,10	0,07	0,05	0,04	55500	2205		
8000	13669,15	0,11		0,25	**0,11**	0,08	0,06	0,04	0,03	55500	2206		
8000	16981,28	0,09		0,21	**0,09**	0,07	0,05	0,03	0,03	55500	2207		
8000	19312,05	0,08		0,18	**0,08**	0,06	0,05	0,03	0,02	55500	2208		
8000	22332,10	0,06		0,16	**0,07**	0,05	0,04	0,03	0,02	55500	2211		
8000	24963,27	0,06		0,14	**0,06**	0,05	0,03	0,02	0,02	55500	2214		
6660	5,66	256	**DT872**	-	**183**	137	110	84	69	24062	-	390	304

D Serisi Motorsuz Güç Devir Sayfaları

D Series Gear Units Performance Tables

D Serien Getriebe Leistung und Drehzahlübersicht

Anma Momenti *Nominal Torques* Nenn-drehmomente Ma [Nm] (n1=1450rpm)	Çevrim Oranı *Ratio* Übersetzung i	Çıkış Devri *Output Speeds* Abtriebs-drehzahlen n2 [r.p.m] (n1=1450rpm)	Tipi *Type* Typ	Pe= Nominal Güç [kW] (Servis Faktörü fs=1,0 için) *Pe= Nominal Power [kW] (For Service Factor fs=1,0)* Pe= NennLeistung [kW] (Bei Betriebsfaktor fs=1,0) **Giriş devri[d/d]** / *Input speed[rpm]* / Antriebsdrehzahl[upm] n1=2900	**n1=1450**	n1=950	n1=725	n1=475	n1=360	Güv. Rad.Yük Çıkış *Per.O.Loads (Output)* Zul.Querkräfte (Abtrieb) Fqam [N] (n1=1450rpm)	Güv.Rad.Yük Giriş *Per.O.Loads (Input)* Zul.Querkräfte (Antrieb) Fqem [N] (n1=1450rpm)	Ağırlık *Weight* Gewicht [kg]	Ölçü Sayfası *Dim. Page* Maße Seite
7040	6,35	228	**DT872**	-	**172**	129	104	80	65	28406	-	390	304
7440	7,16	202		-	**162**	121	98	75	61	33157	-		
7870	8,12	179		-	**151**	113	91	70	57	38380	-		
9130	8,75	166		-	**162**	122	98	75	58	41694	-		
9610	9,78	148		-	**153**	115	93	68	52	46426	-		
10120	10,97	132		-	**144**	108	87	61	46	51518	-		
10660	12,36	117		-	**135**	101	81	54	41	57074	-		
11250	14,02	103		-	**125**	94	73	48	36	63142	-		
10150	13,58	107	**DT873**	-	**116**	87	70	49	37	60141	-	394	304
10550	15,45	94		-	**106**	80	64	43	33	66375	-		
11000	17,67	82		-	**97**	73	58	38	29	69064	-		
13000	23,44	62		-	**86**	57	43	29	22	76000	-		
13000	26,66	54		-	**76**	50	38	25	19	76000	-		
13000	30,50	48		-	**67**	44	33	22	17	76000	-		
13000	35,24	41		-	**57**	38	29	19	14	76000	-		
13000	39,92	36		-	**51**	33	26	17	13	76000	1134		
13000	45,41	32		-	**45**	29	22	15	11	76000	1938		
13000	51,94	28		-	**39**	26	20	13	9,8	76000	2678		
13000	55,01	26		-	**37**	24	19	12	9,3	76000	3038		
13000	61,27	24		-	**33**	22	17	11	8,3	76000	3530		
13000	68,62	21		-	**30**	19	15	9,8	7,4	76000	3992		
13000	77,36	19		-	**26**	17	13	8,7	6,6	76000	4424		
13000	87,95	16		-	**23**	15	12	7,7	5,8	76000	4829		
13000	101,03	14		40	**20**	13	10	6,7	5,1	76000	5085		
13000	115,03	13		35	**18**	12	8,9	5,9	4,5	76000	5167		
13000	128,20	11		32	**16**	10	8,0	5,3	4,0	76000	5218		
13000	139,70	10	**DT874**	30	**15**	9,9	7,6	5,0	3,8	76000	167	404	306
13000	156,45	9,3		27	**14**	8,9	6,8	4,4	3,4	76000	1166		
13000	176,39	8,2		24	**12**	7,9	6,0	3,9	3,0	76000	2108		
13000	200,52	7,2		21	**11**	7,0	5,3	3,5	2,6	76000	2670		
13000	225,61	6,4		19	**9,5**	6,2	4,7	3,1	2,3	76000	2730		
13000	259,15	5,6		16	**8,2**	5,4	4,1	2,7	2,0	76000	2911		
13000	293,46	4,9		15	**7,3**	4,8	3,6	2,4	1,8	76000	2960		
13000	334,15	4,3		13	**6,4**	4,2	3,2	2,1	1,6	76000	3102		
13000	407,42	3,6		11	**5,3**	3,4	2,6	1,7	1,3	76000	3157		
13000	482,05	3,0		8,9	**4,4**	2,9	2,2	1,5	1,1	76000	3198		
13000	537,22	2,7		8,0	**4,0**	2,6	2,0	1,3	0,99	76000	3293		
13000	607,27	2,4		7,1	**3,5**	2,3	1,8	1,2	0,88	76000	3316		
13000	686,44	2,1	**DT875**	6,4	**3,2**	2,1	1,6	1,0	0,80	76000	1682	407	308
13000	744,27	1,9		5,9	**3,0**	1,9	1,5	0,97	0,73	76000	1699		
13000	828,93	1,7		5,3	**2,7**	1,7	1,3	0,87	0,66	76000	1753		
13000	928,31	1,6		4,7	**2,4**	1,6	1,2	0,78	0,59	76000	1804		
13000	1046,63	1,4		4,2	**2,1**	1,4	1,1	0,69	0,52	76000	1853		
13000	1189,85	1,2		3,7	**1,9**	1,2	0,93	0,61	0,46	76000	1899		
13000	1424,58	1,0		3,1	**1,6**	1,0	0,78	0,51	0,39	76000	1917		
13000	1622,25	0,89		2,7	**1,4**	0,89	0,68	0,45	0,34	76000	1928		
13000	1813,10	0,80		2,4	**1,2**	0,80	0,61	0,40	0,30	76000	1939		
13000	2051,67	0,71		2,2	**1,1**	0,71	0,54	0,35	0,27	76000	1947		
13000	2356,74	0,62		1,9	**0,94**	0,62	0,47	0,31	0,26	76000	1984		
13000	2683,53	0,54		1,7	**0,83**	0,54	0,41	0,27	0,23	76000	2014		
13000	2990,66	0,48		1,5	**0,74**	0,49	0,37	0,27	0,20	76000	2037		
13000	3405,63	0,43	**DT876**	1,3	**0,67**	0,44	0,33	0,24	0,18	76000	2117	409	308
13000	4005,78	0,36		1,1	**0,57**	0,37	0,28	0,21	0,16	76000	2123		
13000	4762,49	0,30		0,96	**0,48**	0,31	0,27	0,17	0,13	76000	2130		
13000	5304,23	0,27		0,86	**0,43**	0,28	0,24	0,16	0,12	76000	2140		
13000	5940,18	0,24		0,77	**0,38**	0,25	0,21	0,14	0,11	76000	2150		
13000	6697,26	0,22		0,68	**0,34**	0,25	0,19	0,12	0,09	76000	2159		
13000	7613,73	0,19		0,60	**0,30**	0,22	0,17	0,11	0,08	76000	2168		

D Serisi Motorsuz Güç Devir Sayfaları

D Series Gear Units Performance Tables

D Serien Getriebe Leistung und Drehzahlübersicht

Anma Momenti *Nominal Torques* Nenn-drehmomente Ma [Nm] (n1=1450rpm)	Çevrim Oranı *Ratio* Übersetzung i	Çıkış Devri *Output Speeds* Abtriebs-drehzahlen n2 [r.p.m] (n1=1450rpm)	Tipi *Type* Typ	Pe= Nominal Güç [kW] (Servis Faktörü fs=1,0 için) *Pe= Nominal Power [kW] (For Service Factor fs=1,0)* Pe= NennLeistung [kW] (Bei Betriebsfaktor fs=1,0) **Giriş devri[d/d]** / *Input speed[rpm]* / Antriebsdrehzahl[upm] n1=2900	**n1=1450**	n1=950	n1=725	n1=475	n1=360	Güv. Rad.Yük Çıkış *Per.O.Loads (Output)* Zul.Querkräfte (Abtrieb) Fqam [N] (n1=1450rpm)	Güv.Rad.Yük Giriş *Per.O.Loads (Input)* Zul.Querkräfte (Antrieb) Fqem [N] (n1=1450rpm)	Ağırlık *Weight* Gewicht [kg]	Ölçü Sayfası *Dim. Page* Maße Seite
13000	8612,25	0,17	**DT876**	0,53	**0,27**	0,19	0,15	0,10	0,07	76000	2171	409	308
13000	9820,98	0,15		0,52	**0,26**	0,19	0,14	0,09	0,07	76000	2173		
13000	12200,68	0,12		0,42	**0,21**	0,15	0,12	0,08	0,06	76000	2176		
13000	13875,29	0,10		0,37	**0,18**	0,13	0,10	0,07	0,05	76000	2178		
13000	15938,44	0,09		0,32	**0,16**	0,12	0,09	0,06	0,04	76000	2185		
13000	18148,47	0,08		0,28	**0,14**	0,10	0,08	0,05	0,04	76000	2190		
13000	20225,62	0,07		0,25	**0,13**	0,09	0,07	0,05	0,03	76000	2195		
12860	7,08	205	**DT972**	-	**282**	211	171	130	99	56290	-	570	310
13490	7,88	184		-	**266**	199	161	117	89	57625	-		
14170	8,82	164		-	**250**	187	151	105	80	59086	-		
14900	9,94	146		-	**233**	175	141	93	71	60730	-		
17920	11,85	122		-	**236**	156	119	78	59	63010	-		
18000	13,19	110		-	**213**	140	107	70	53	66171	-		
18000	14,77	98		-	**190**	125	96	63	48	69795	-		
18000	16,64	87		-	**169**	111	85	56	42	73773	-		
16800	20,27	72	**DT973**	-	**129**	91	69	46	35	79179	19858	575	310
17400	22,85	63		-	**118**	81	62	40	31	82111	19950		
18000	25,92	56		-	**108**	71	54	36	27	85446	20039		
18000	33,93	43		-	**83**	54	42	27	21	100000	22918		
18000	38,24	38		-	**73**	48	37	24	18	100000	23163		
18000	43,38	33		-	**65**	43	33	21	16	100000	23390		
18000	50,12	29		-	**56**	37	28	18	14	100000	24913		
18000	56,21	26		-	**50**	33	25	16	13	100000	25074		
18000	63,36	23		-	**44**	29	22	15	11	100000	25222		
18000	71,87	20		-	**39**	26	20	13	9,8	100000	25359		
18000	84,31	17		-	**33**	22	17	11	8,4	100000	25531		
18000	93,91	15		-	**30**	20	15	9,9	7,5	100000	25619		
18000	105,33	14		-	**27**	18	13	8,8	6,7	100000	25702		
18000	119,15	12		-	**24**	16	12	7,8	5,9	100000	25781		
18000	136,23	11		41	**21**	14	10	6,9	5,2	100000	25856		
18000	153,87	9,4		37	**18**	12	9,2	6,1	4,6	100000	25922		
18000	171,00	8,5		33	**17**	11	8,3	5,5	4,2	100000	25968		
18000	191,74	7,6		29	**15**	9,7	7,4	4,9	3,7	100000	26012		
18000	197,95	7,3	**DT974**	30	**15**	9,7	7,4	4,9	3,7	100000	1505	587	312
18000	222,15	6,5		27	**13**	8,7	6,6	4,3	3,3	100000	1770		
18000	250,41	5,8		24	**12**	7,7	5,9	3,9	2,9	100000	2850		
18000	284,06	5,1		21	**10**	6,8	5,2	3,4	2,6	100000	3264		
18000	333,23	4,4		18	**8,9**	5,8	4,4	2,9	2,2	100000	3501		
18000	371,15	3,9		16	**8,0**	5,2	4,0	2,6	2,0	100000	3640		
18000	415,16	3,5		14	**7,1**	4,7	3,6	2,3	1,8	100000	3663		
18000	523,19	2,8		11	**5,7**	3,7	2,8	1,9	1,4	100000	3727		
18000	474,03	3,1	**DT975**	13	**6,4**	4,2	3,2	2,1	1,6	100000	1415	592	314
18000	560,97	2,6		11	**5,4**	3,5	2,7	1,8	1,3	100000	1471		
18000	603,97	2,4		10	**5,0**	3,3	2,5	1,6	1,2	100000	1514		
18000	679,53	2,1		8,9	**4,5**	2,9	2,2	1,5	1,1	100000	1545		
18000	769,47	1,9		7,9	**3,9**	2,6	2,0	1,3	0,98	100000	1573		
18000	864,41	1,7		7,0	**3,5**	2,3	1,8	1,2	0,87	100000	1590		
18000	938,19	1,5		6,5	**3,2**	2,1	1,6	1,1	0,81	100000	1610		
18000	1110,06	1,3		5,5	**2,7**	1,8	1,4	0,90	0,68	100000	1638		
18000	1244,98	1,2		4,9	**2,5**	1,6	1,2	0,80	0,61	100000	1704		
18000	1403,36	1,0		4,4	**2,2**	1,4	1,1	0,71	0,54	100000	1766		
18000	1591,90	0,91		3,8	**1,9**	1,3	0,96	0,63	0,48	100000	1823		
18000	1867,46	0,78		3,3	**1,6**	1,1	0,82	0,54	0,41	100000	1887		
18000	2079,97	0,70		2,9	**1,5**	0,96	0,73	0,48	0,36	100000	1924		
18000	2909,37	0,50	**DT976**	2,1	**1,1**	0,70	0,54	0,35	0,27	100000	2052	595	314
18000	3079,47	0,47		2,0	**1,0**	0,66	0,51	0,33	0,25	100000	2056		

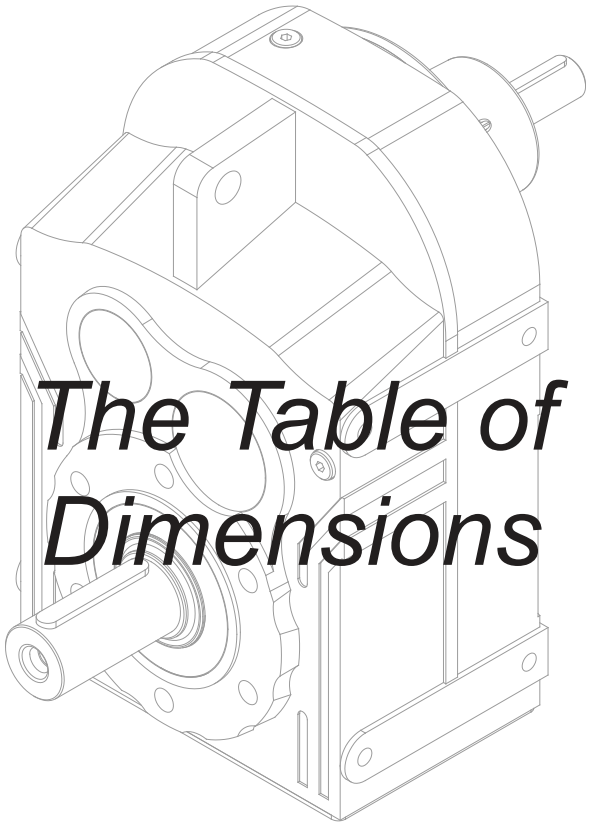
D Serisi Motorsuz Güç Devir Sayfaları

D Series Gear Units Performance Tables

D Serien Getriebe Leistung und Drehzahlübersicht

Anma Momenti *Nominal Torques* Nenn-drehmomente Ma [Nm] (n1=1450rpm)	**Çevrim Oranı** *Ratio* Übersetzung i	**Çıkış Devri** *Output Speeds* Abtriebs-drehzahlen n2 [r.p.m] (n1=1450rpm)	**Tipi** *Type* Typ	**Pe= Nominal Güç [kW] (Servis Faktörü fs=1,0 için)** *Pe= Nominal Power [kW] (For Service Factor fs=1,0)* Pe= NennLeistung [kW] (Bei Betriebsfaktor fs=1,0) **Giriş devri[d/d]** / *Input speed[rpm]* / Antriebsdrehzahl[upm]						**Güv. Rad.Yük Çıkış** *Per.O.Loads (Output)* Zul.Querkräfte (Abtrieb) Fqam [N] (n1=1450rpm)	**Güv.Rad.Yük Giriş** *Per.O.Loads (Input)* Zul.Querkräfte (Antrieb) Fqem [N] (n1=1450rpm)	**Ağırlık** *Weight* Gewicht [kg]	**Ölçü Sayfası** *Dim. Page* Maße Seite
				n1=2900	**n1=1450**	n1=950	n1=725	n1=475	n1=360				
18000	3686,99	0,39	**DT976**	1,7	**0,85**	0,56	0,42	0,28	0,23	100000	2066	595	314
18000	4589,41	0,32		1,4	**0,68**	0,45	0,34	0,25	0,19	100000	2120		
18000	5494,80	0,26		1,1	**0,57**	0,37	0,29	0,21	0,16	100000	2127		
18000	7017,74	0,21		0,90	**0,45**	0,29	0,25	0,16	0,12	100000	2144		
18000	8841,14	0,16		0,71	**0,36**	0,26	0,20	0,13	0,10	100000	2159		
18000	11348,58	0,13		0,56	**0,28**	0,20	0,15	0,10	0,08	100000	2173		
18000	16360,74	0,09		0,43	**0,21**	0,16	0,12	0,08	0,06	100000	2187		
18000	20565,73	0,07		0,34	**0,17**	0,12	0,09	0,06	0,05	100000	2195		

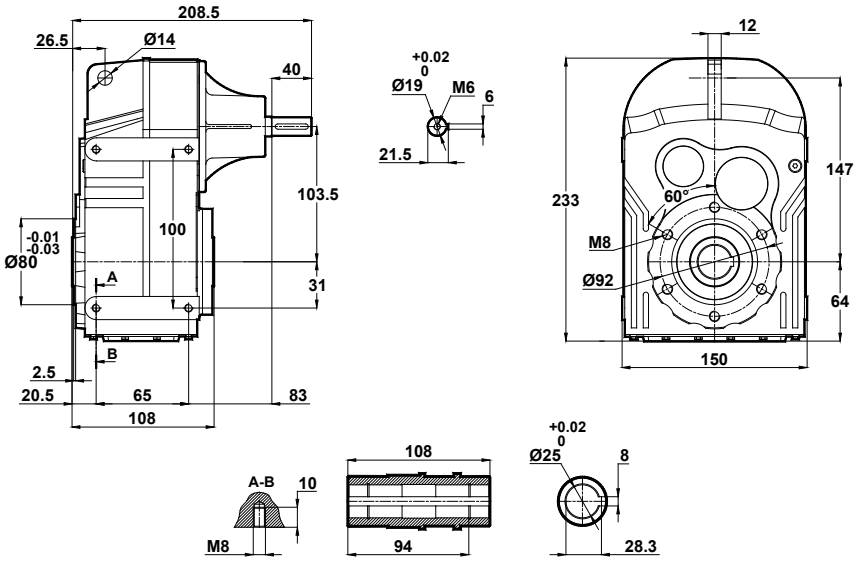
Ölçü Tabloları



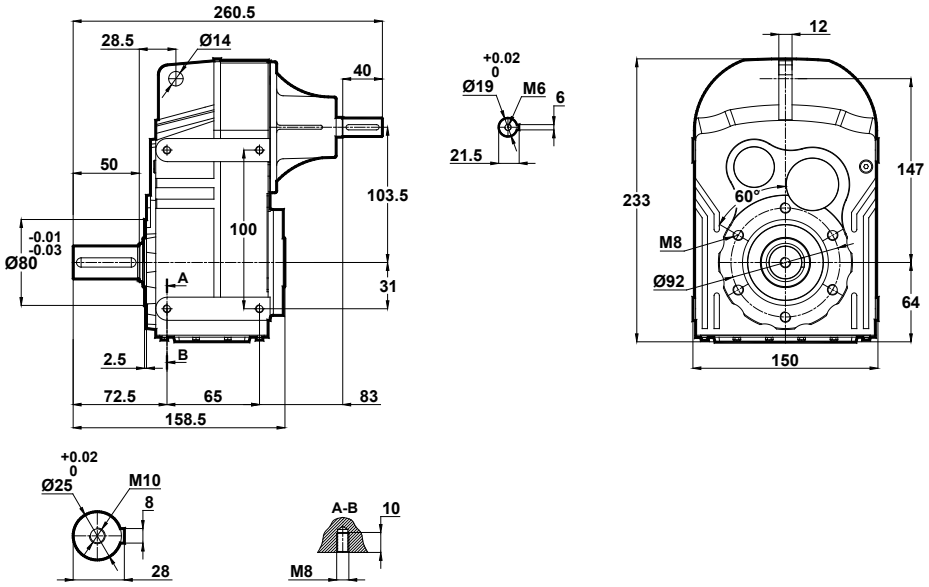
The Table of Dimensions

Abmesungs-tabellen

DT072.00
DT073.00

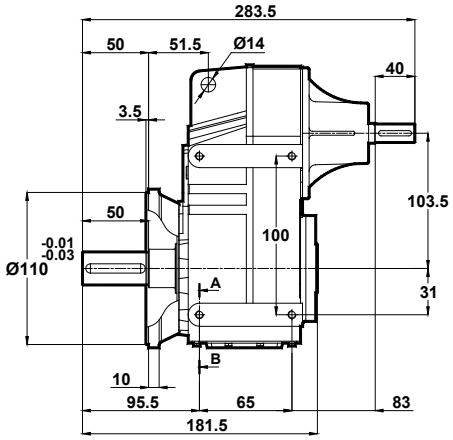


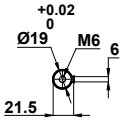
DT072.01
DT073.01

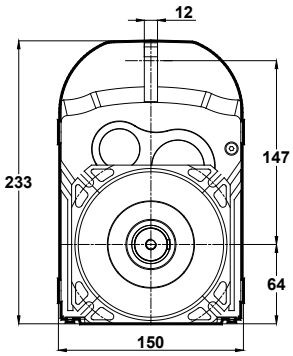


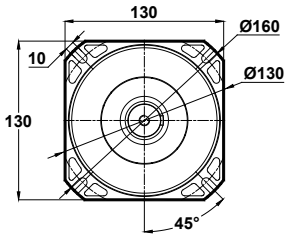
-Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole according to DIN 332, sheet 2* / Zentrierung mit Gewinde nach DIN 332, Blatt 2

DT072.02
DT073.02

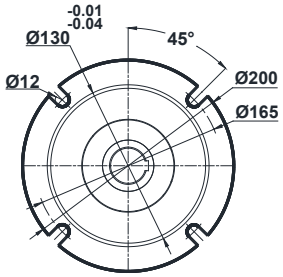




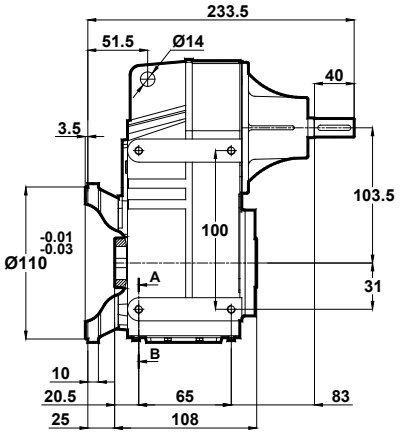


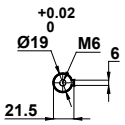


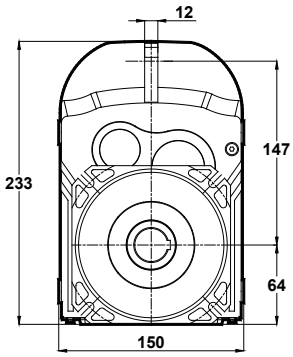
Opsiyonel Flanş Ölçüleri
Optional Flange Dimensions
Auswählbare Flanschabmessungen

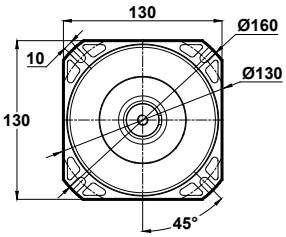


DT072.03
DT073.03

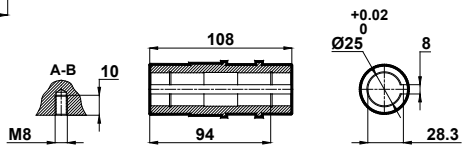


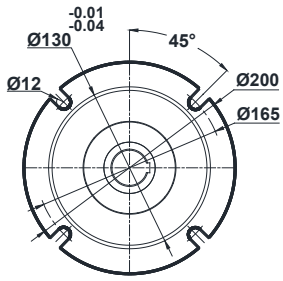






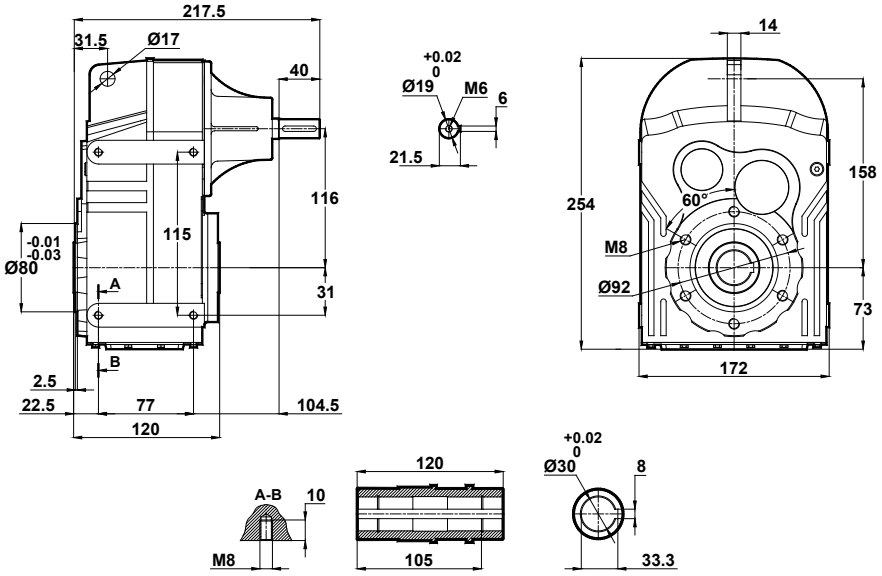
Opsiyonel Flanş Ölçüleri
Optional Flange Dimensions
Auswählbare Flanschabmessungen



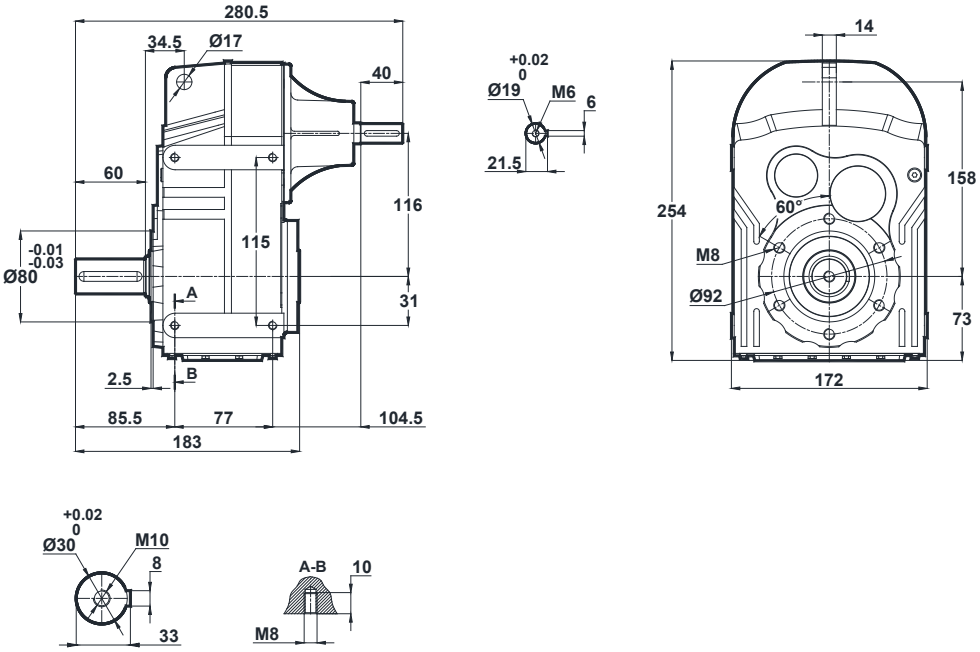


-Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole according to DIN 332, sheet 2* / Zentrierung mit Gewinde nach DIN 332, Blatt 2

DT172.00
DT173.00

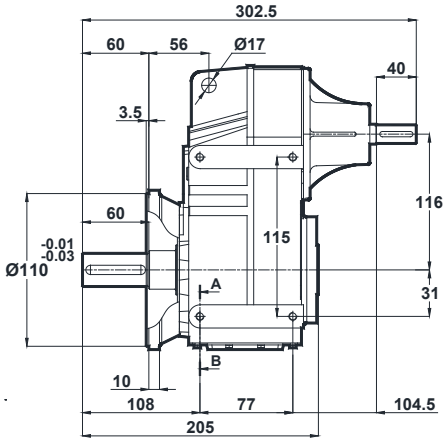


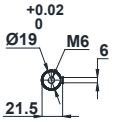
DT172.01
DT173.01

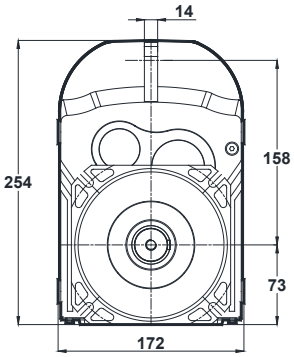


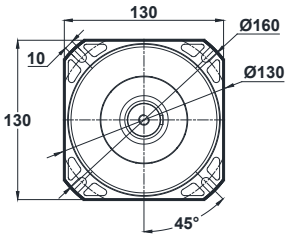
-Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole according to DIN 332, sheet 2* / Zentrierung mit Gewinde nach DIN 332, Blatt 2

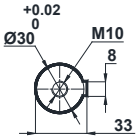
DT172.02
DT173.02

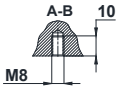




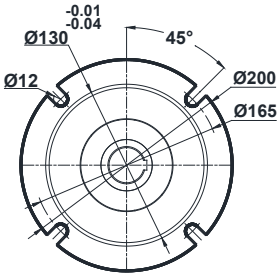




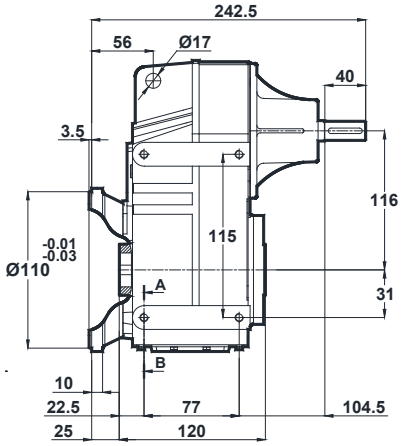


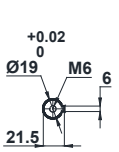


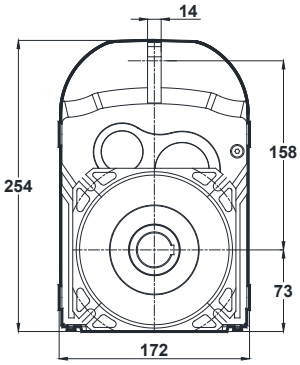
Opsiyonel Flanş Ölçüleri
Optional Flange Dimensions
Auswählbare Flanschabmessungen

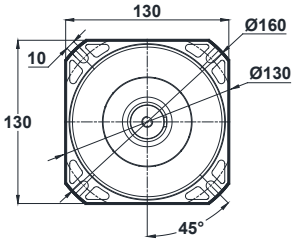


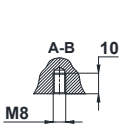
DT172.03
DT173.03

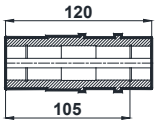


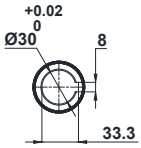




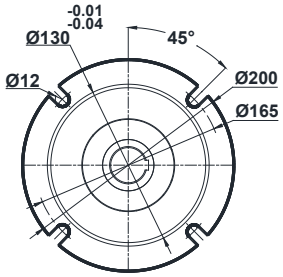






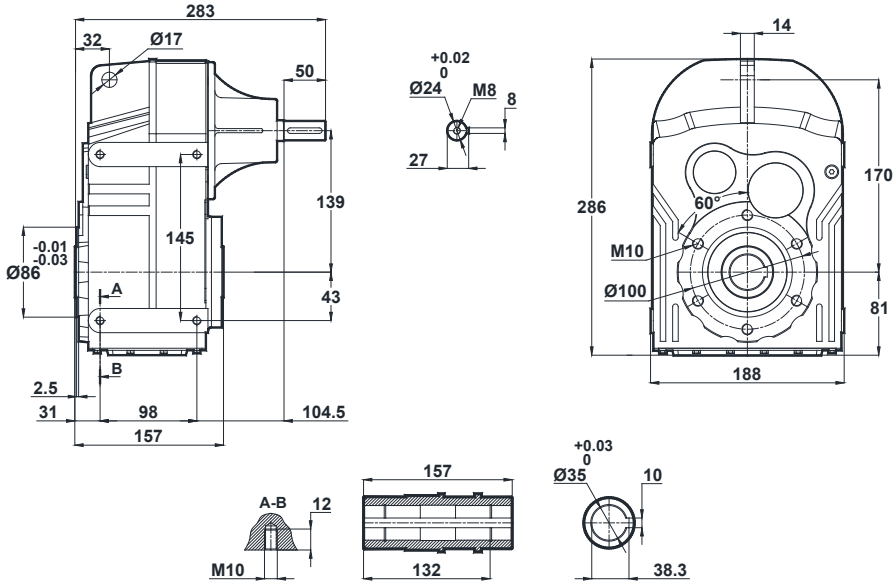


Opsiyonel Flanş Ölçüleri
Optional Flange Dimensions
Auswählbare Flanschabmessungen

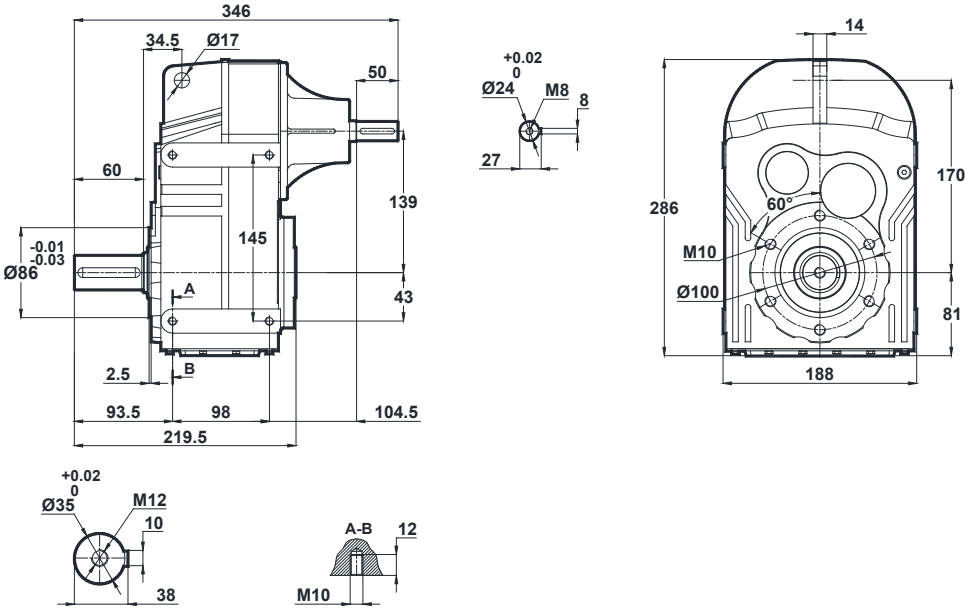


-Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole according to DIN 332, sheet 2* / Zentrierung mit Gewinde nach DIN 332, Blatt 2

DT272.00
DT273.00

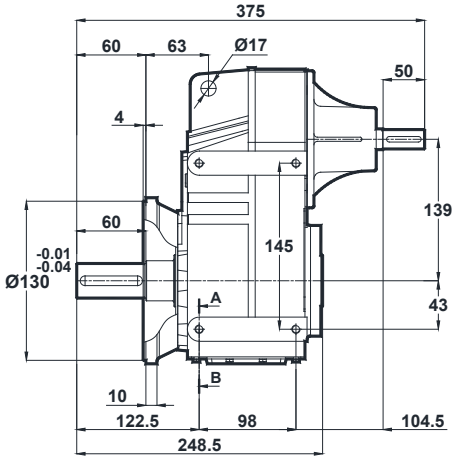


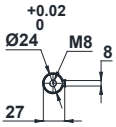
DT272.01
DT273.01

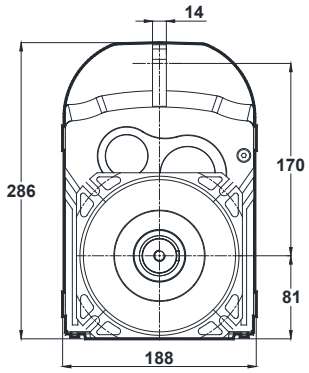


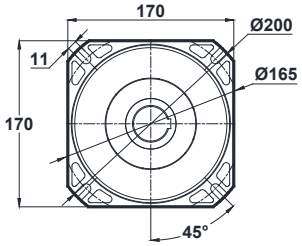
-Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole according to DIN 332, sheet 2* / Zentrierung mit Gewinde nach DIN 332, Blatt 2

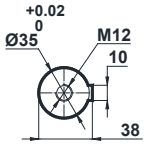
DT272.02
DT273.02

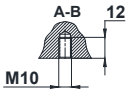




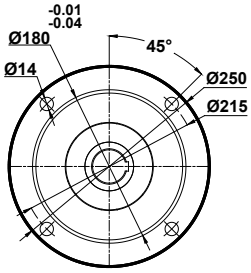




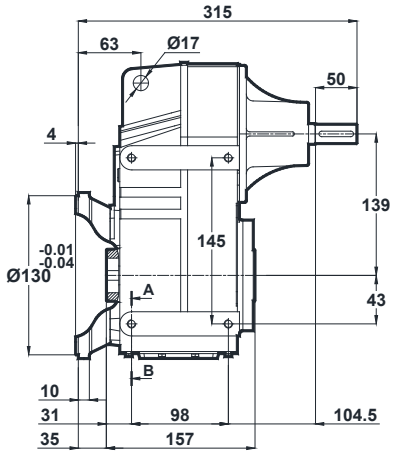


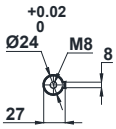


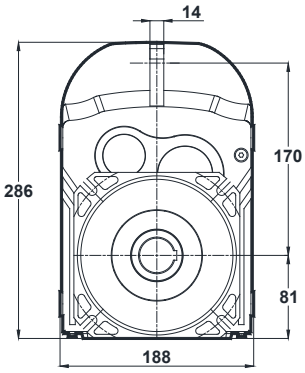
Opsiyonel Flanş Ölçüleri
Optional Flange Dimensions
Auswählbare Flanschabmessungen

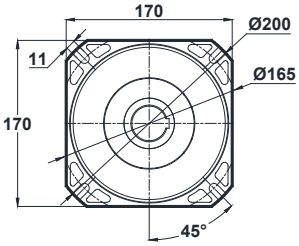


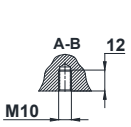
DT272.03
DT273.03

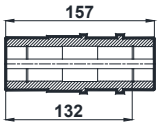


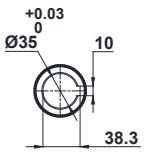




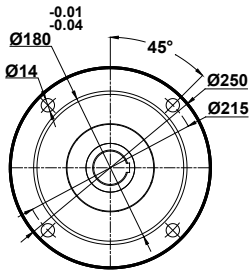






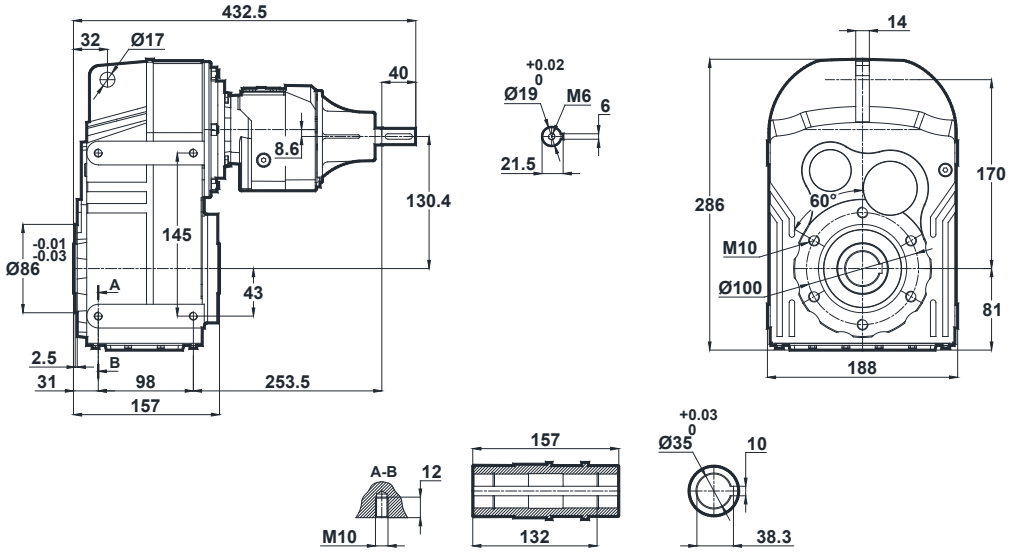


Opsiyonel Flanş Ölçüleri
Optional Flange Dimensions
Auswählbare Flanschabmessungen

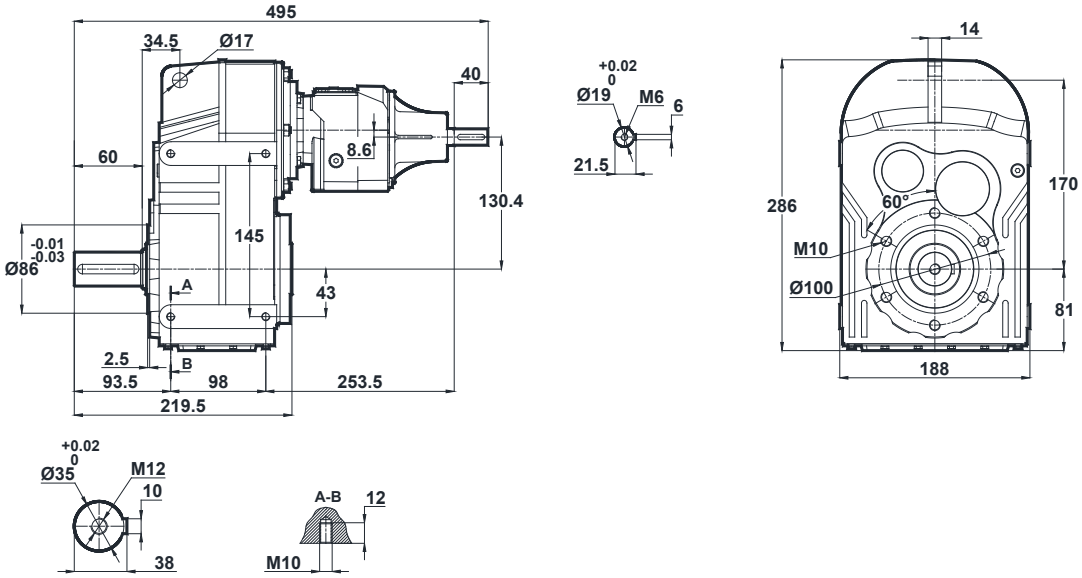


-Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole according to DIN 332, sheet 2* / Zentrierung mit Gewinde nach DIN 332, Blatt 2

DT275.00
DT276.00

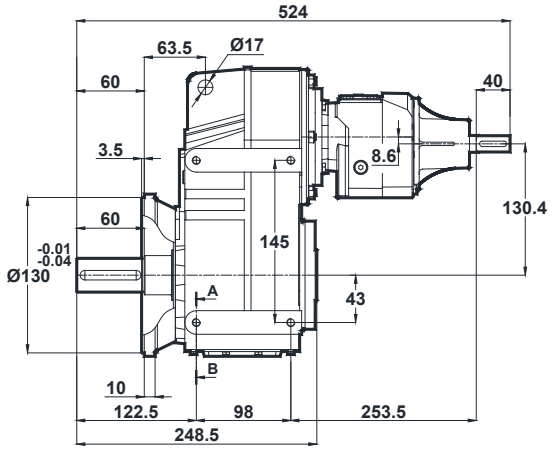


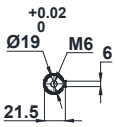
DT275.01
DT276.01

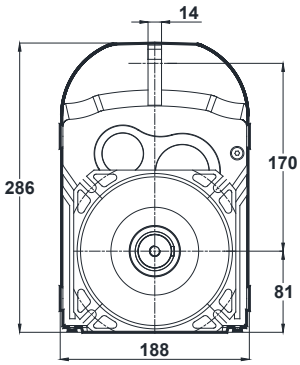


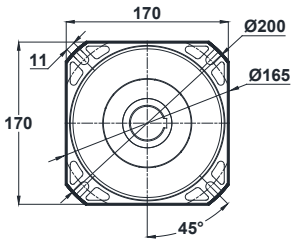
-Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole according to DIN 332, sheet 2* / Zentrierung mit Gewinde nach DIN 332, Blatt 2

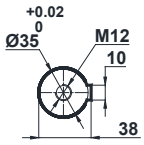
DT275.02
DT276.02

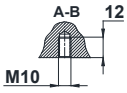




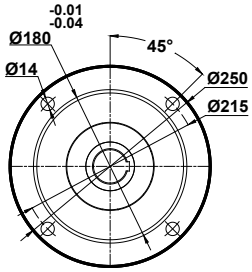




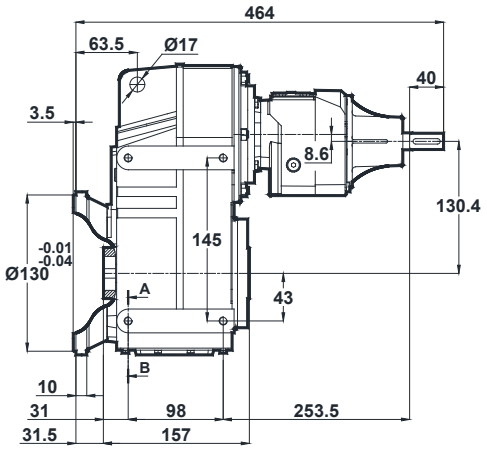


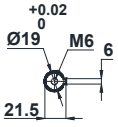


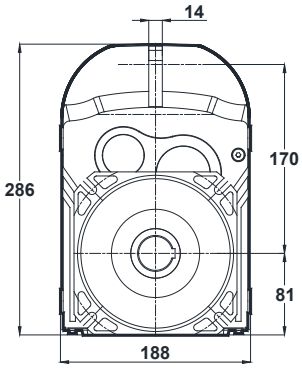
Opsiyonel Flanş Ölçüleri
Optional Flange Dimensions
Auswählbare Flanschabmessungen

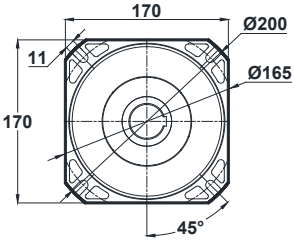


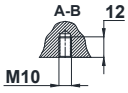
DT275.03
DT276.03

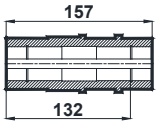


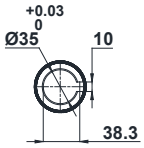




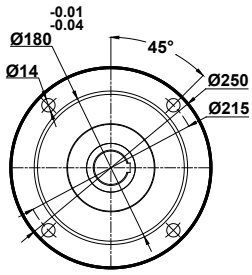






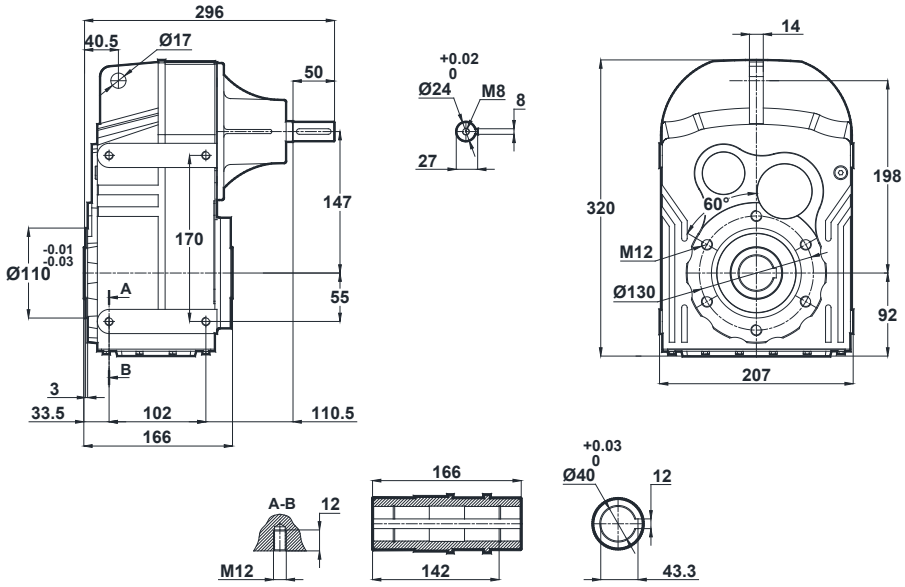


Opsiyonel Flanş Ölçüleri
Optional Flange Dimensions
Auswählbare Flanschabmessungen

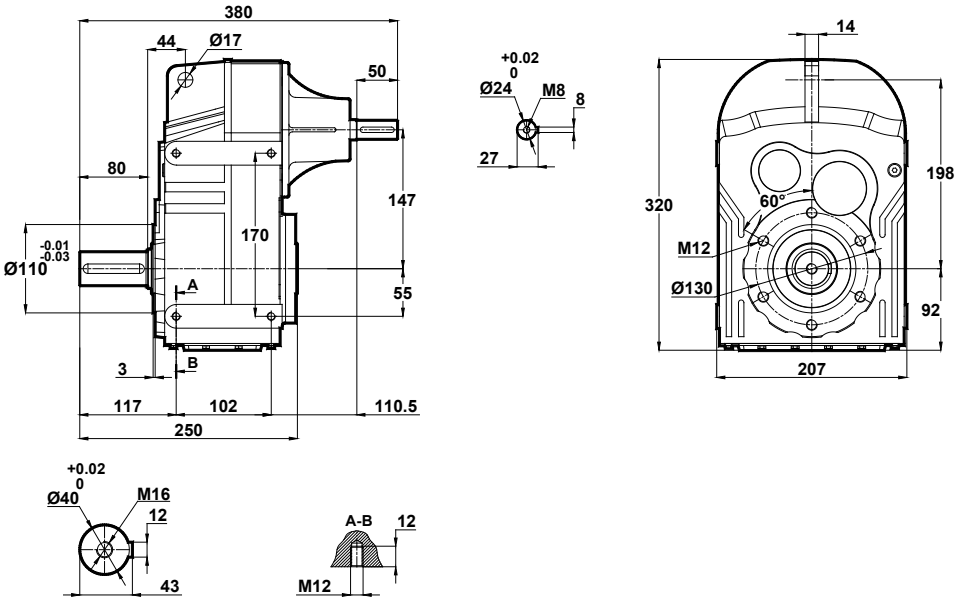


-Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole according to DIN 332, sheet 2* / Zentrierung mit Gewinde nach DIN 332, Blatt 2

DT282.00
DT283.00

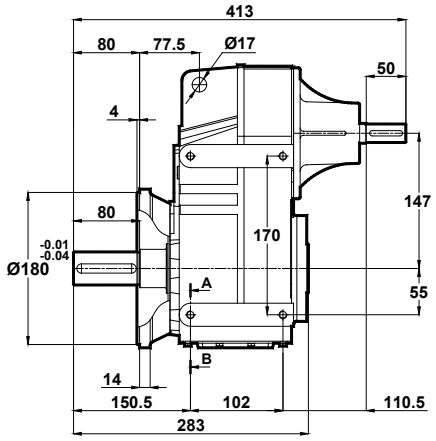


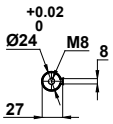
DT282.01
DT283.01

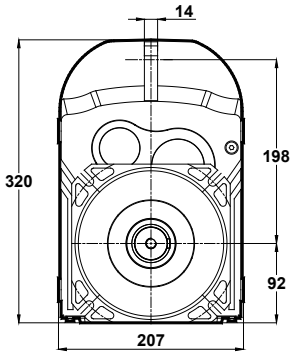


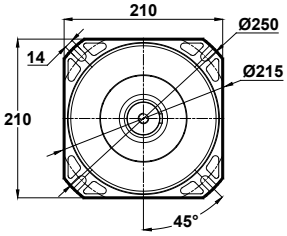
-Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole according to DIN 332, sheet 2* / Zentrierung mit Gewinde nach DIN 332, Blatt 2

DT282.02
DT283.02

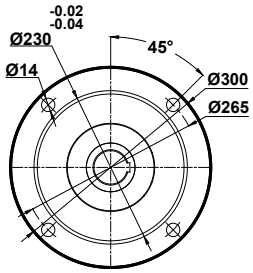






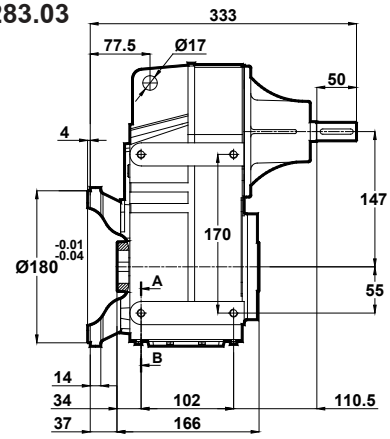


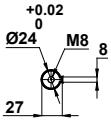
Opsiyonel Flanş Ölçüleri
Optional Flange Dimensions
Auswählbare Flanschabmessungen

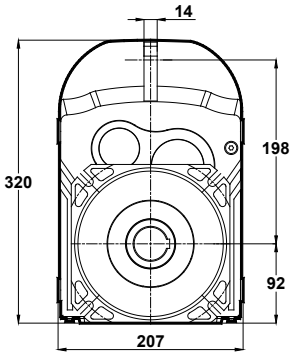


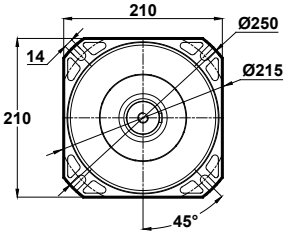
Diğer opsiyonel flanş ölçüleri için sayfa 326'ya bakınız.
Please see on page 326 for other optional flange dimensions
Siehe Siete 326 für andere auswählbare Flanschabmessungen

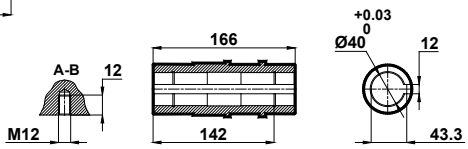
DT282.03
DT283.03



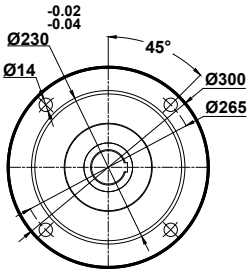








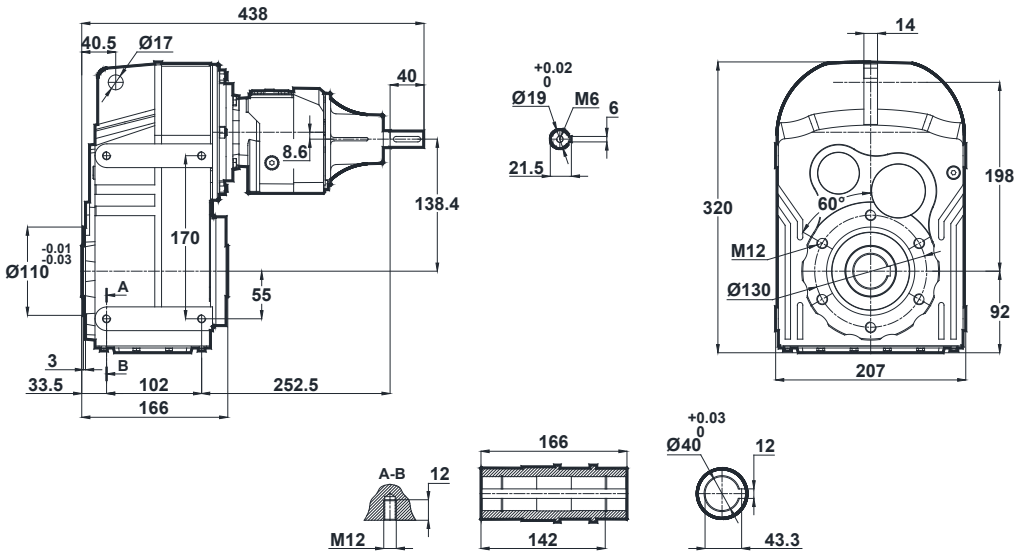
Opsiyonel Flanş Ölçüleri
Optional Flange Dimensions
Auswählbare Flanschabmessungen



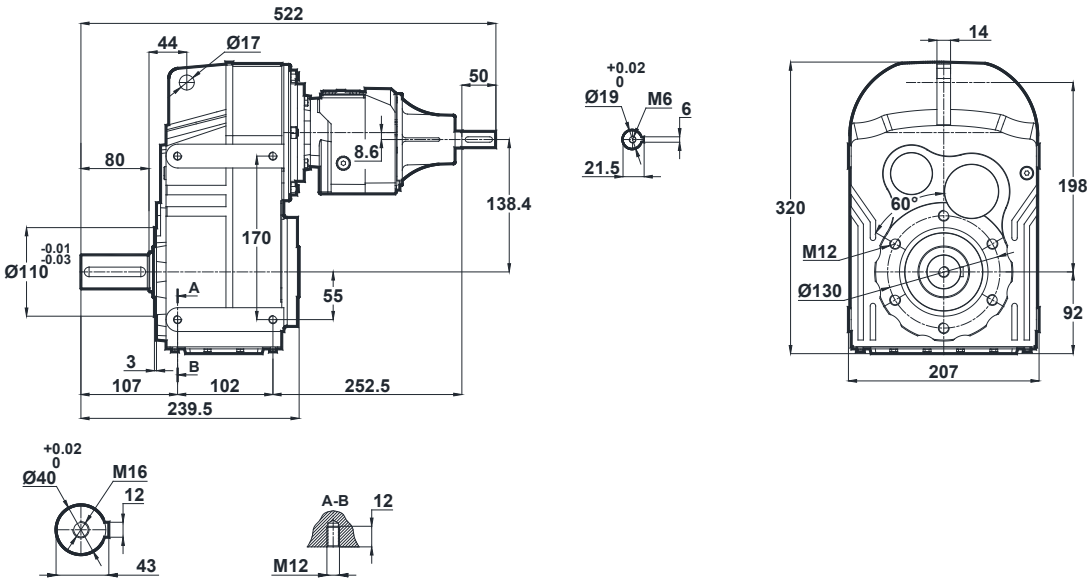
Diğer opsiyonel flanş ölçüleri için sayfa 326'ya bakınız.
Please see on page 326 for other optional flange dimensions
Siehe Siete 326 für andere auswählbare Flanschabmessungen

-Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole according to DIN 332, sheet 2* / Zentrierung mit Gewinde nach DIN 332, Blatt 2

DT285.00
DT286.00

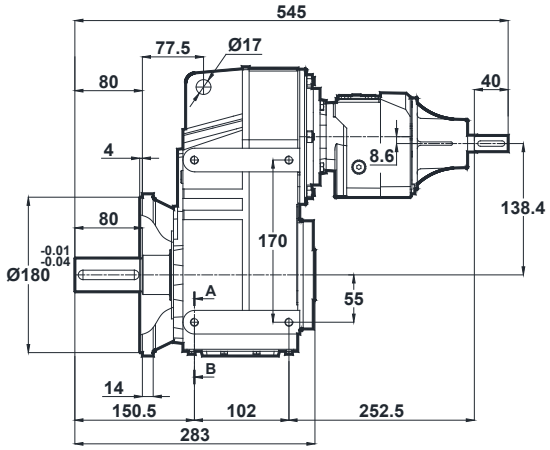


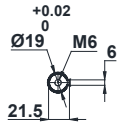
DT285.01
DT286.01

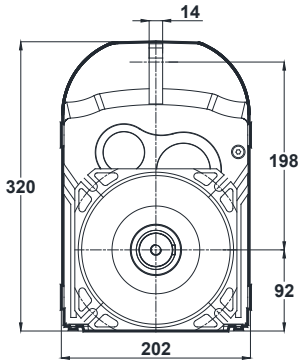


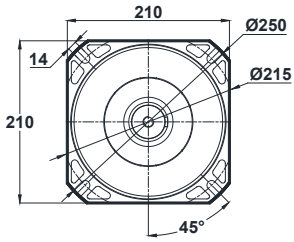
-Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole according to DIN 332, sheet 2* / Zentrierung mit Gewinde nach DIN 332, Blatt 2

DT285.02
DT286.02

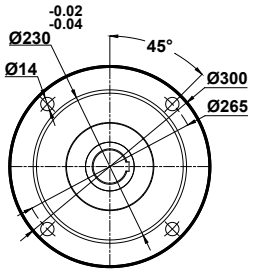






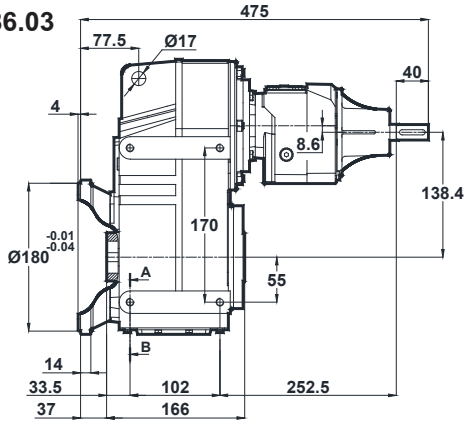


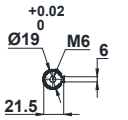
Opsiyonel Flanş Ölçüleri
Optional Flange Dimensions
Auswählbare Flanschabmessungen

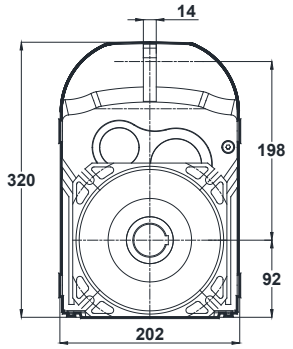


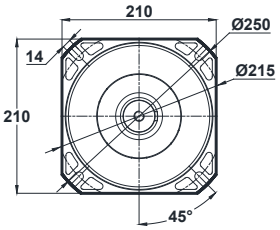
Diğer opsiyonel flanş ölçüleri için sayfa 326'ya bakınız.
Please see on page 326 for other optional flange dimensions
Siehe Siete 326 für andere auswählbare Flanschabmessungen

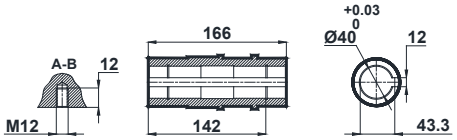
DT285.03
DT286.03



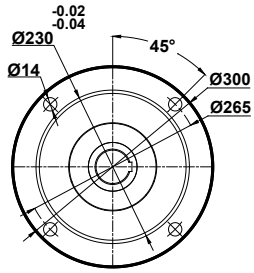








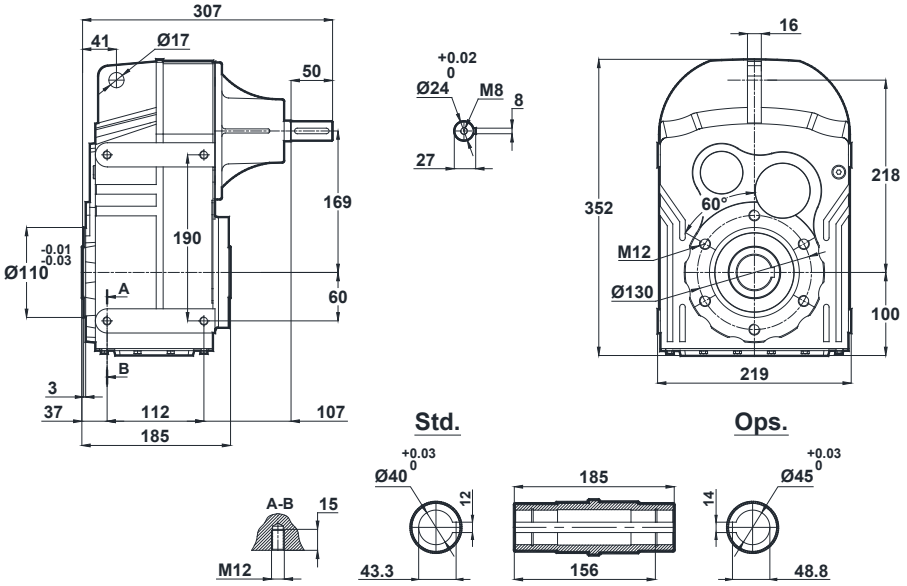
Opsiyonel Flanş Ölçüleri
Optional Flange Dimensions
Auswählbare Flanschabmessungen



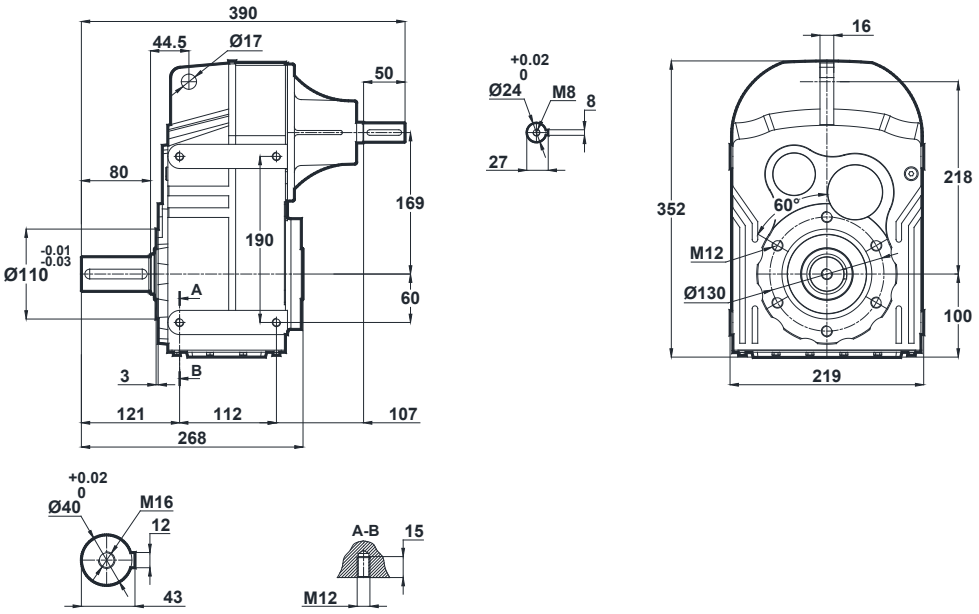
Diğer opsiyonel flanş ölçüleri için sayfa 326'ya bakınız.
Please see on page 326 for other optional flange dimensions
Siehe Siete 326 für andere auswählbare Flanschabmessungen

-Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole according to DIN 332, sheet 2* / Zentrierung mit Gewinde nach DIN 332, Blatt 2

DT372.00
DT373.00

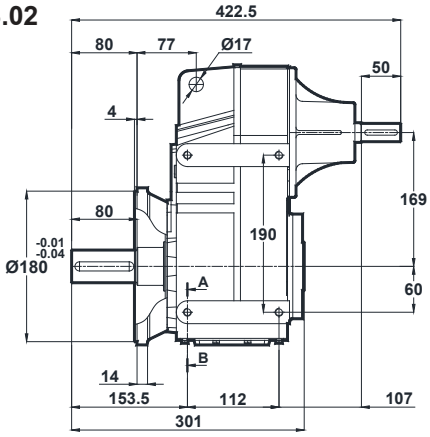


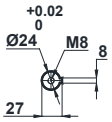
DT372.01
DT373.01

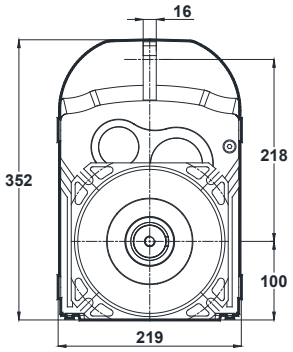


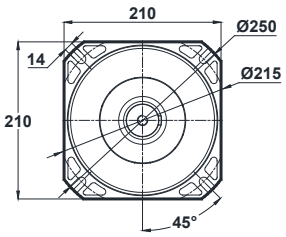
-Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole according to DIN 332, sheet 2* / Zentrierung mit Gewinde nach DIN 332, Blatt 2

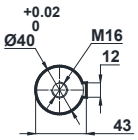
DT372.02
DT373.02

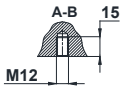




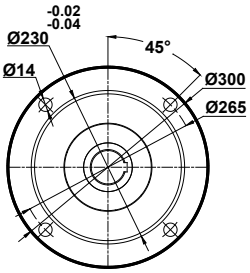






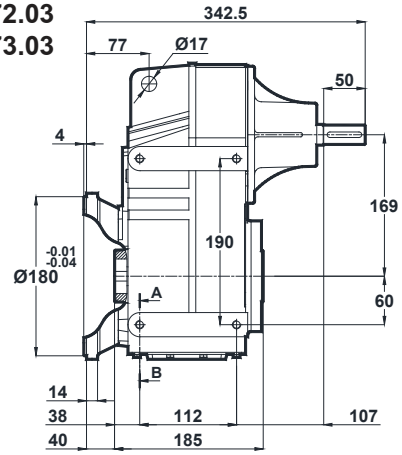


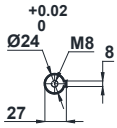
Opsiyonel Flanş Ölçüleri
Optional Flange Dimensions
Auswählbare Flanschabmessungen

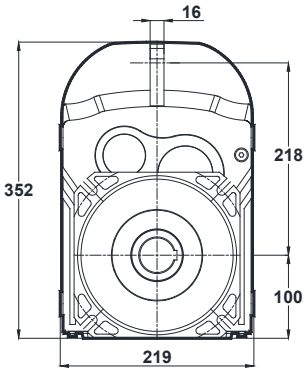


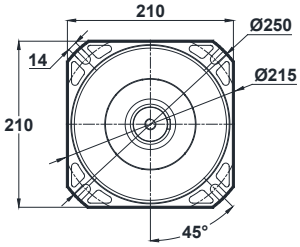
Diğer opsiyonel flanş ölçüleri için sayfa 326'ya bakınız.
Please see on page 326 for other optional flange dimensions
Siehe Siete 326 für andere auswählbare Flanschabmessungen

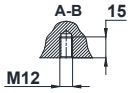
DT372.03
DT373.03



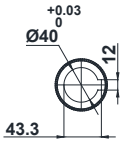


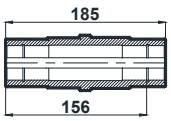




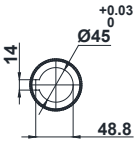


Std.

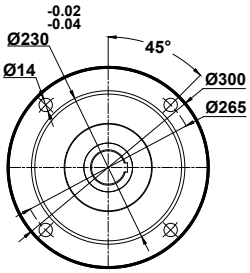




Ops.



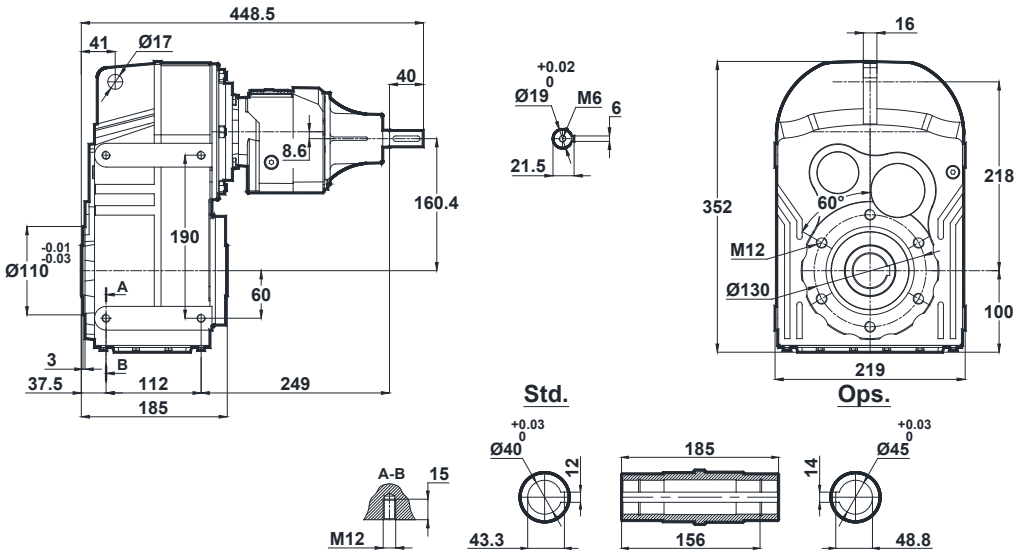
Opsiyonel Flanş Ölçüleri
Optional Flange Dimensions
Auswählbare Flanschabmessungen



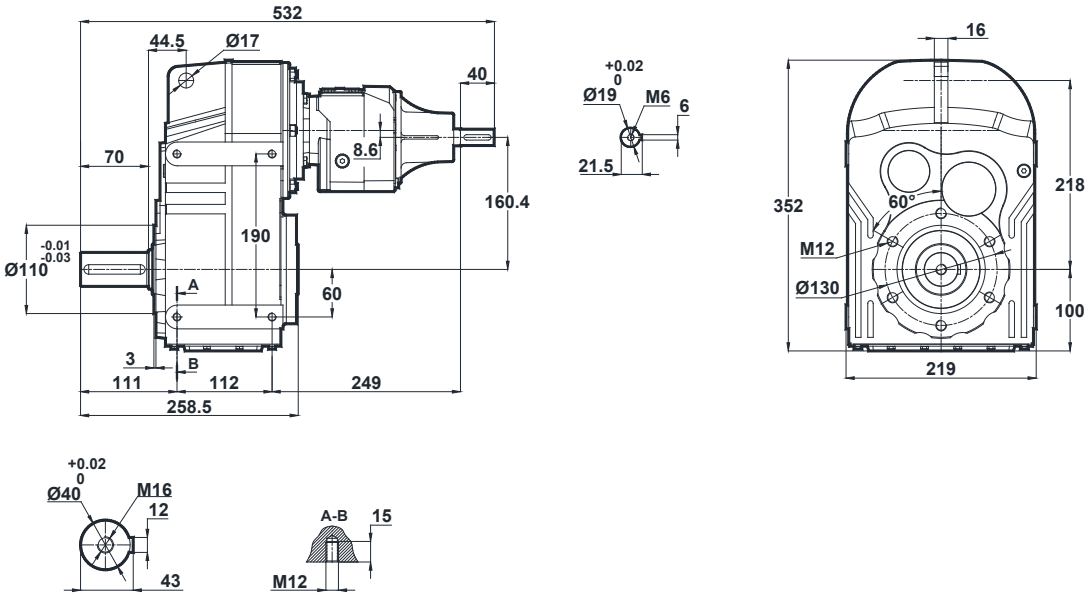
Diğer opsiyonel flanş ölçüleri için sayfa 326'ya bakınız.
Please see on page 326 for other optional flange dimensions
Siehe Siete 326 für andere auswählbare Flanschabmessungen

-Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole according to DIN 332, sheet 2* / Zentrierung mit Gewinde nach DIN 332, Blatt 2

DT375.00
DT376.00

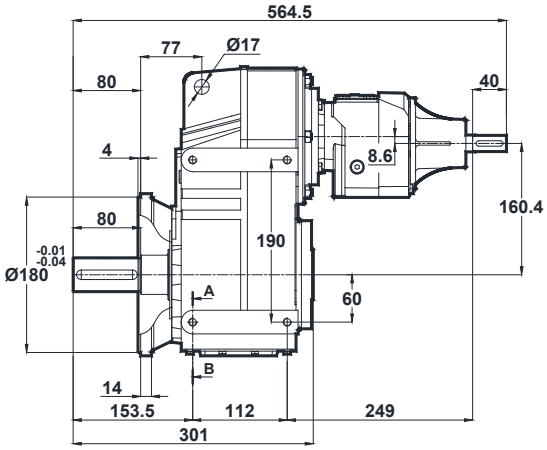


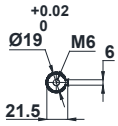
DT375.01
DT376.01

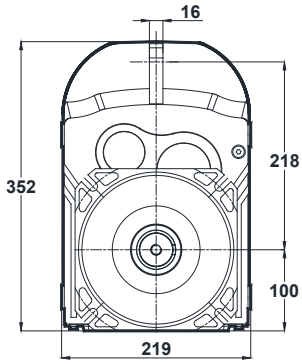


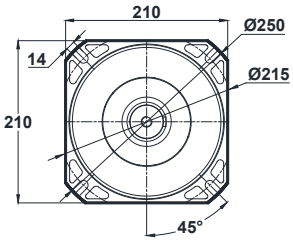
-Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole according to DIN 332, sheet 2* / Zentrierung mit Gewinde nach DIN 332, Blatt 2

DT375.02
DT376.02

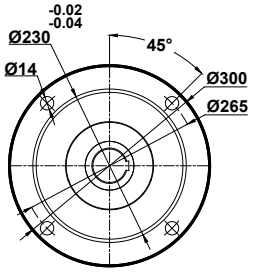






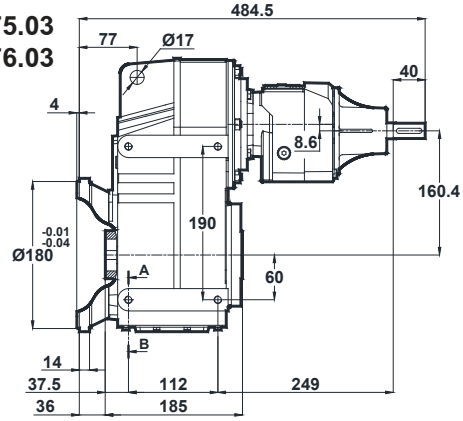


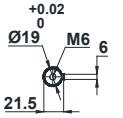
Opsiyonel Flanş Ölçüleri
Optional Flange Dimensions
Auswählbare Flanschabmessungen

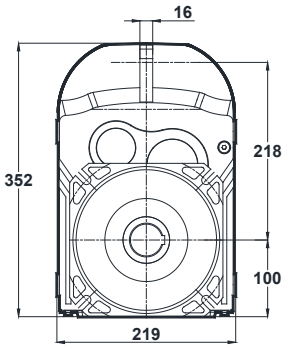


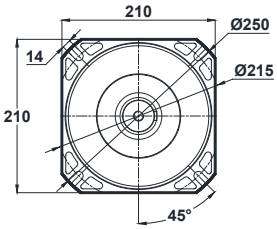
Diğer opsiyonel flanş ölçüleri için sayfa 326'ya bakınız.
Please see on page 326 for other optional flange dimensions
Siehe Siete 326 für andere auswählbare Flanschabmessungen

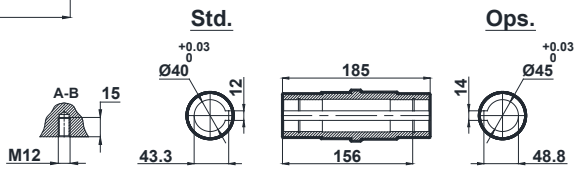
DT375.03
DT376.03



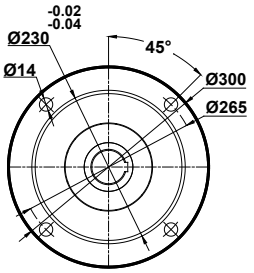








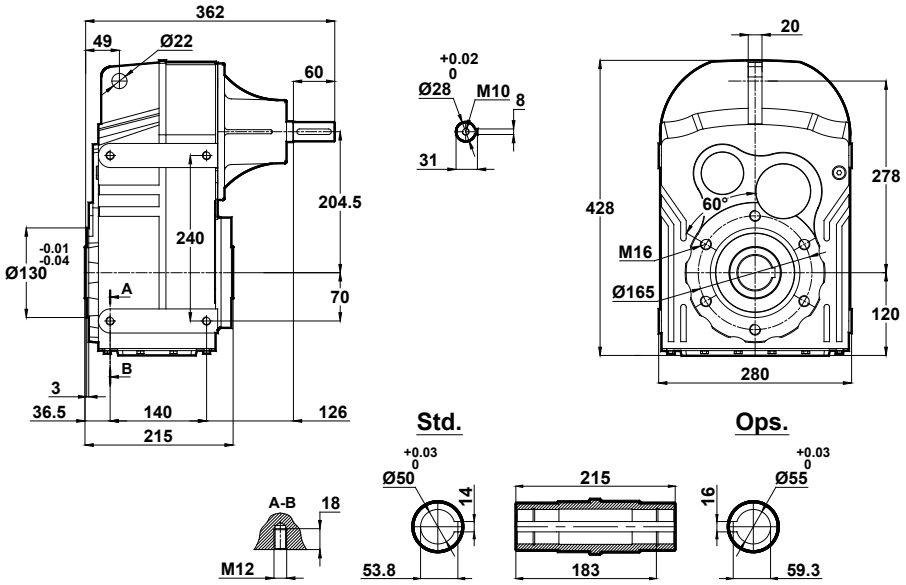
Opsiyonel Flanş Ölçüleri
Optional Flange Dimensions
Auswählbare Flanschabmessungen



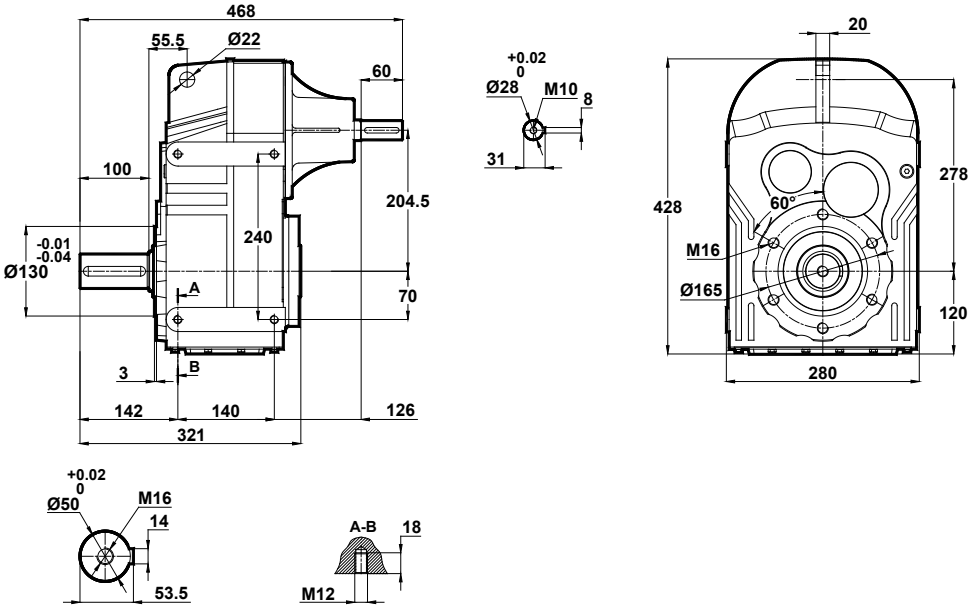
Diğer opsiyonel flanş ölçüleri için sayfa 326'ya bakınız.
Please see on page 326 for other optional flange dimensions
Siehe Siete 326 für andere auswählbare Flanschabmessungen

-Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole according to DIN 332, sheet 2* / Zentrierung mit Gewinde nach DIN 332, Blatt 2

DT472.00
DT473.00

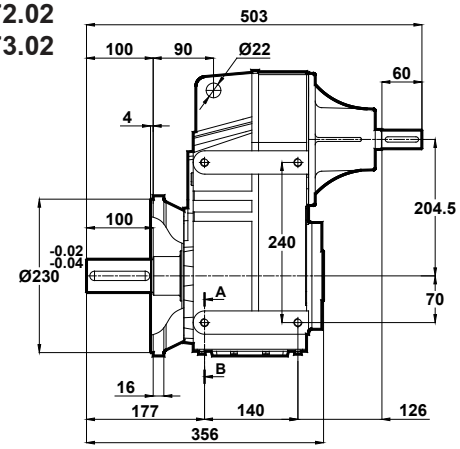


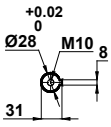
DT472.01
DT473.01

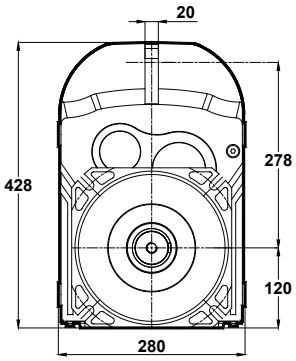


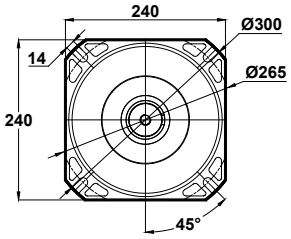
-Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole according to DIN 332, sheet 2* / Zentrierung mit Gewinde nach DIN 332, Blatt 2

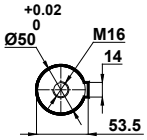
DT472.02
DT473.02

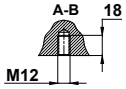




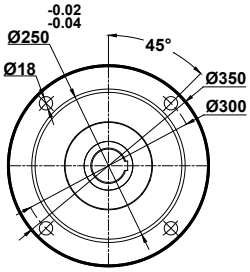






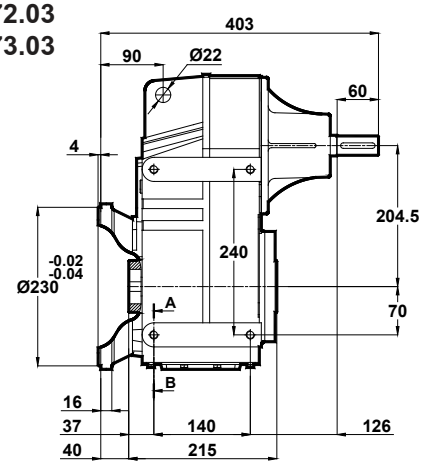


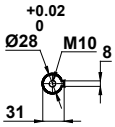
Opsiyonel Flanş Ölçüleri
Optional Flange Dimensions
Auswählbare Flanschabmessungen

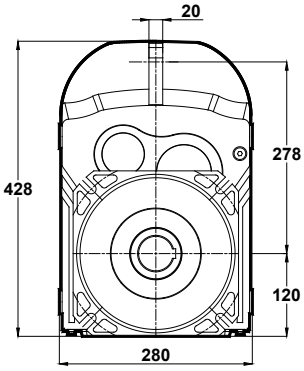


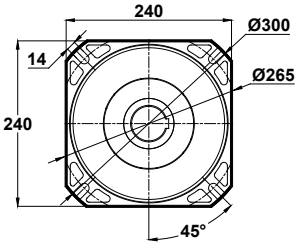
Diğer opsiyonel flanş ölçüleri için sayfa 326'ya bakınız.
Please see on page 326 for other optional flange dimensions
Siehe Siete 326 für andere auswählbare Flanschabmessungen

DT472.03
DT473.03

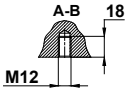


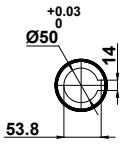


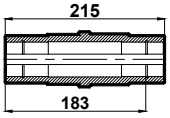




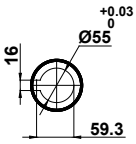
Std.



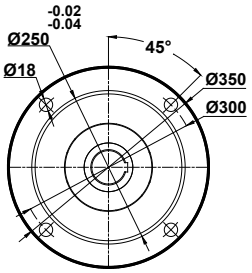




Ops.



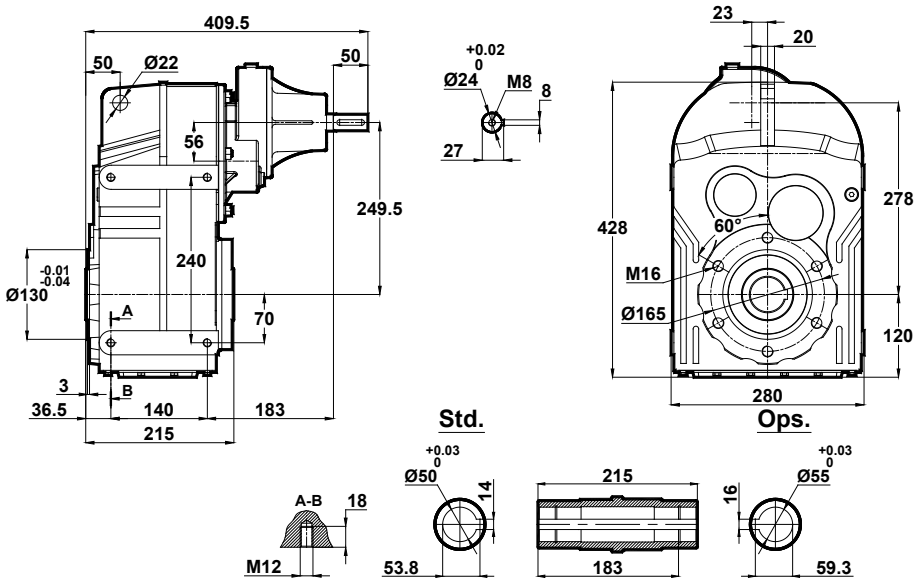
Opsiyonel Flanş Ölçüleri
Optional Flange Dimensions
Auswählbare Flanschabmessungen



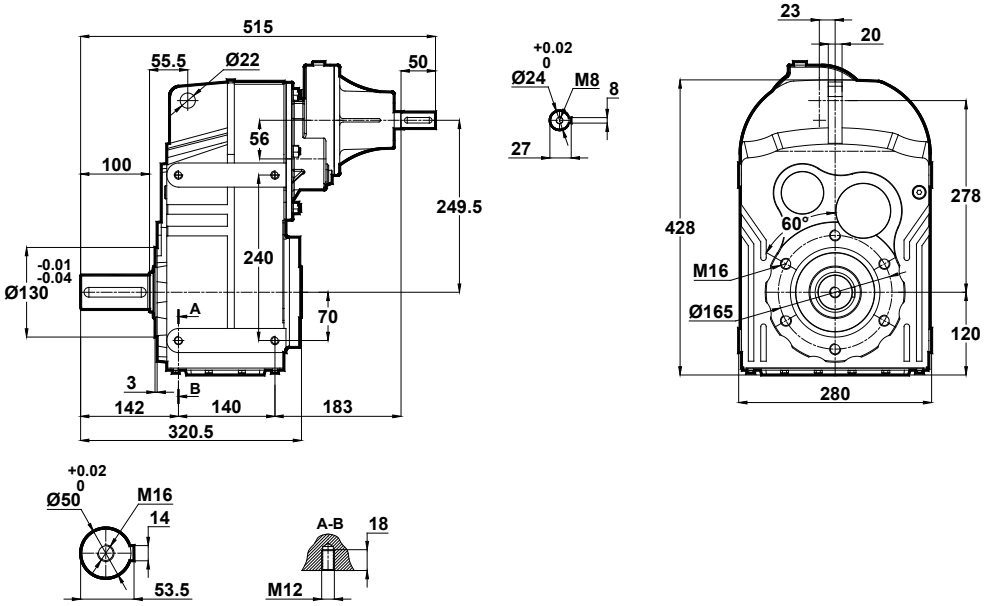
Diğer opsiyonel flanş ölçüleri için sayfa 326'ya bakınız.
Please see on page 326 for other optional flange dimensions
Siehe Siete 326 für andere auswählbare Flanschabmessungen

-Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole according to DIN 332, sheet 2* / Zentrierung mit Gewinde nach DIN 332, Blatt 2

DT474.00

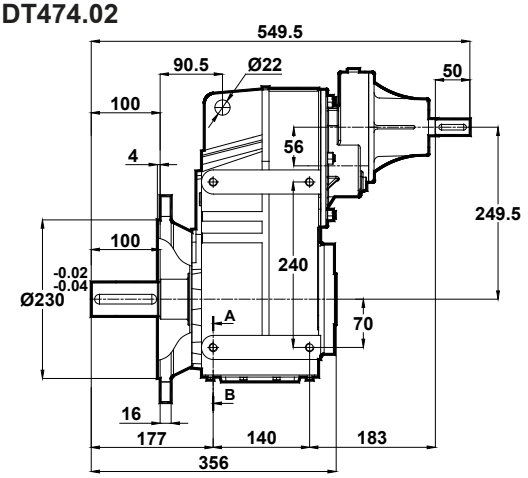


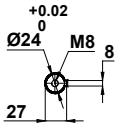
DT474.01

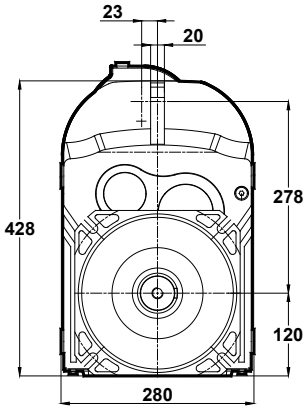


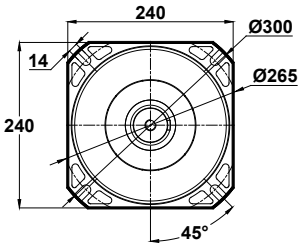
-Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole according to DIN 332, sheet 2* / Zentrierung mit Gewinde nach DIN 332, Blatt 2

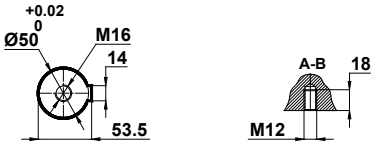
DT474.02



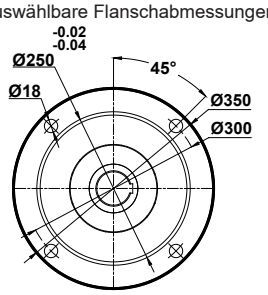






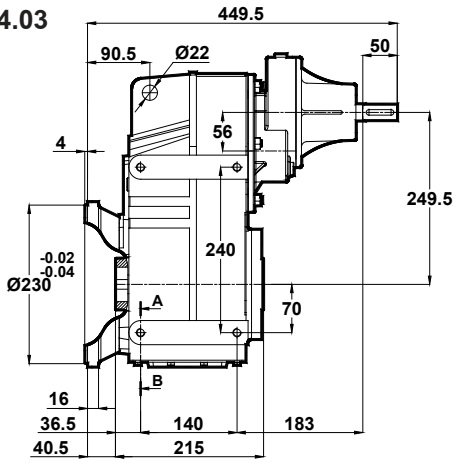


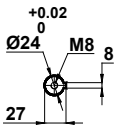
Opsiyonel Flanş Ölçüleri
Optional Flange Dimensions
Auswählbare Flanschabmessungen

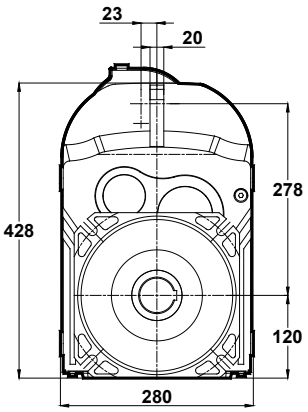


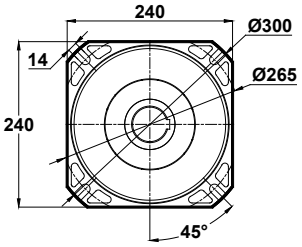
Diğer opsiyonel flanş ölçüleri için sayfa 326'ya bakınız.
Please see on page 326 for other optional flange dimensions
Siehe Siete 326 für andere auswählbare Flanschabmessungen

DT474.03

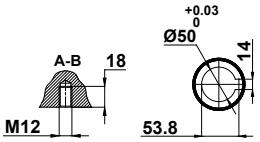


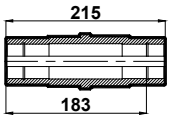




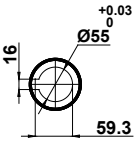


Std.

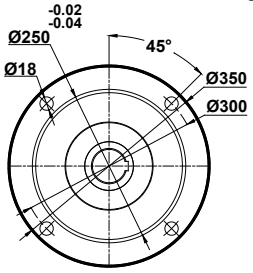




Ops.



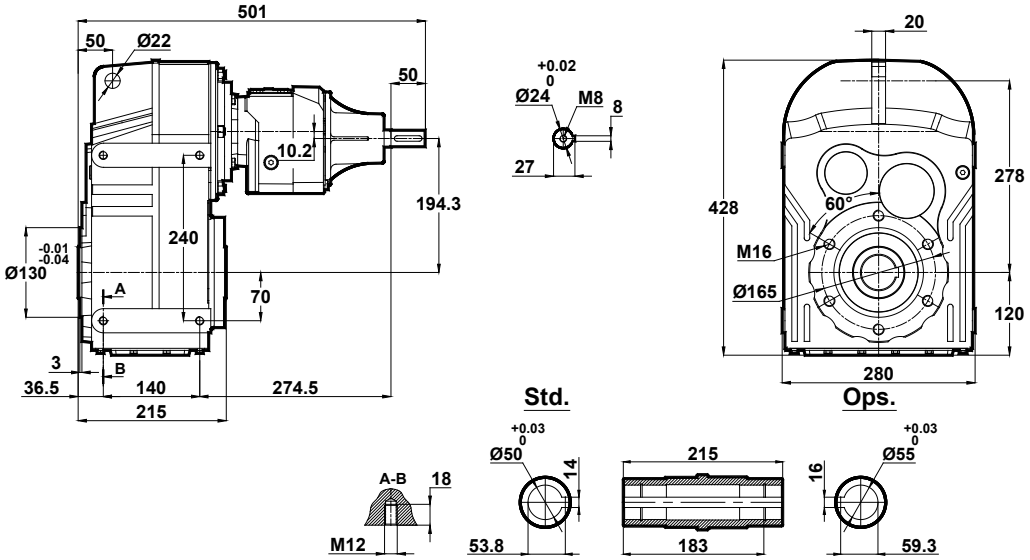
Opsiyonel Flanş Ölçüleri
Optional Flange Dimensions
Auswählbare Flanschabmessungen



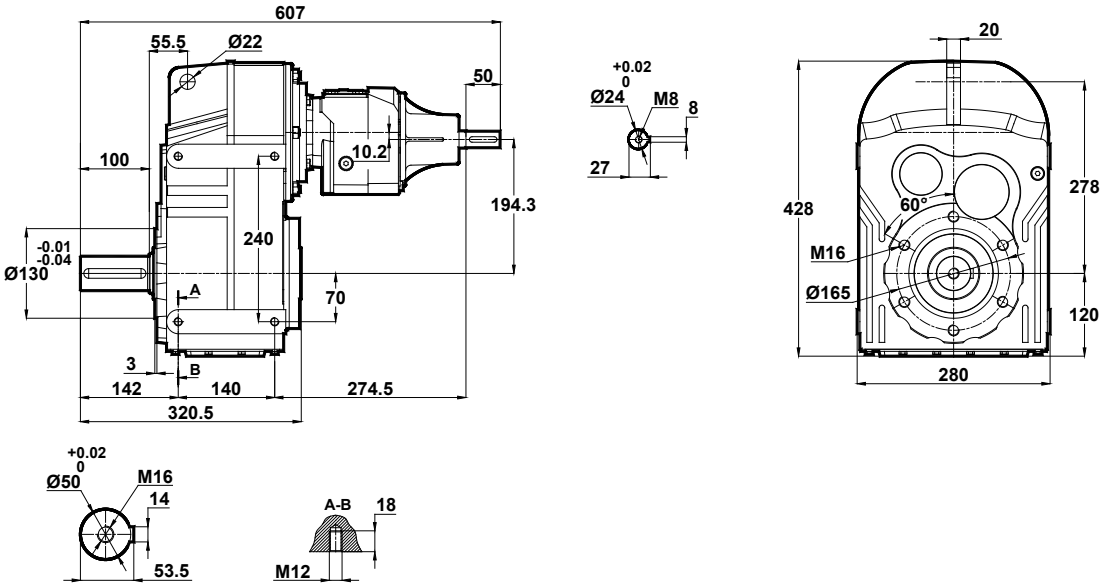
Diğer opsiyonel flanş ölçüleri için sayfa 326'ya bakınız.
Please see on page 326 for other optional flange dimensions
Siehe Siete 326 für andere auswählbare Flanschabmessungen

-Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole according to DIN 332, sheet 2* / Zentrierung mit Gewinde nach DIN 332, Blatt 2

DT475.00
DT476.00

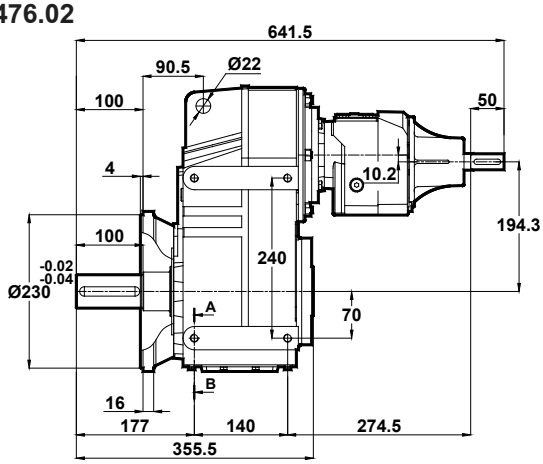


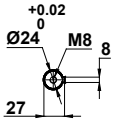
DT475.01
DT476.01

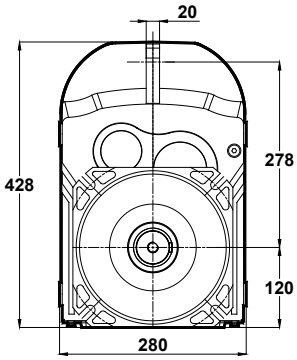


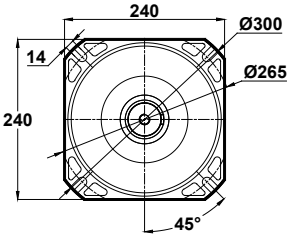
-Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole according to DIN 332, sheet 2* / Zentrierung mit Gewinde nach DIN 332, Blatt 2

DT475.02
DT476.02

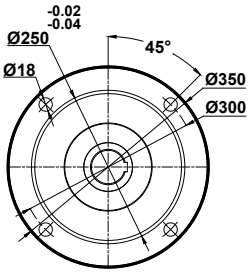






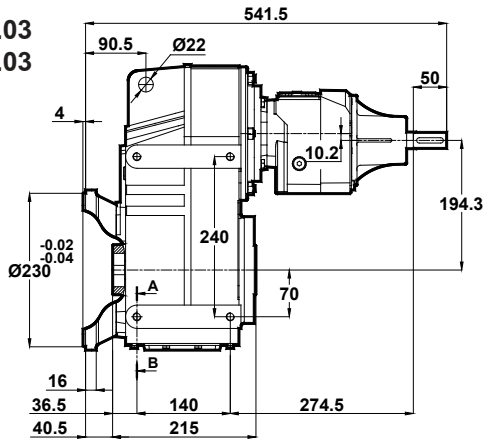


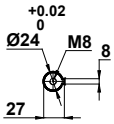
Opsiyonel Flanş Ölçüleri
Optional Flange Dimensions
Auswählbare Flanschabmessungen

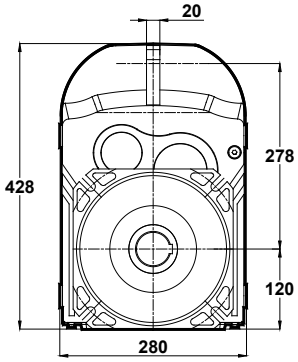


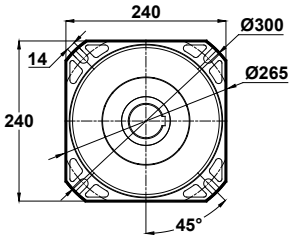
Diğer opsiyonel flanş ölçüleri için sayfa 326'ya bakınız.
Please see on page 326 for other optional flange dimensions
Siehe Siete 326 für andere auswählbare Flanschabmessungen

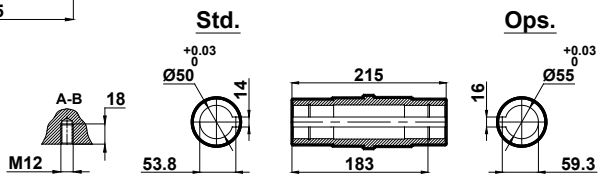
DT475.03
DT476.03



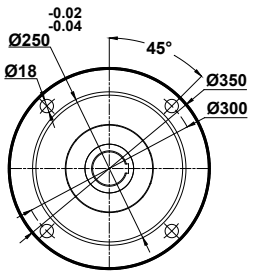








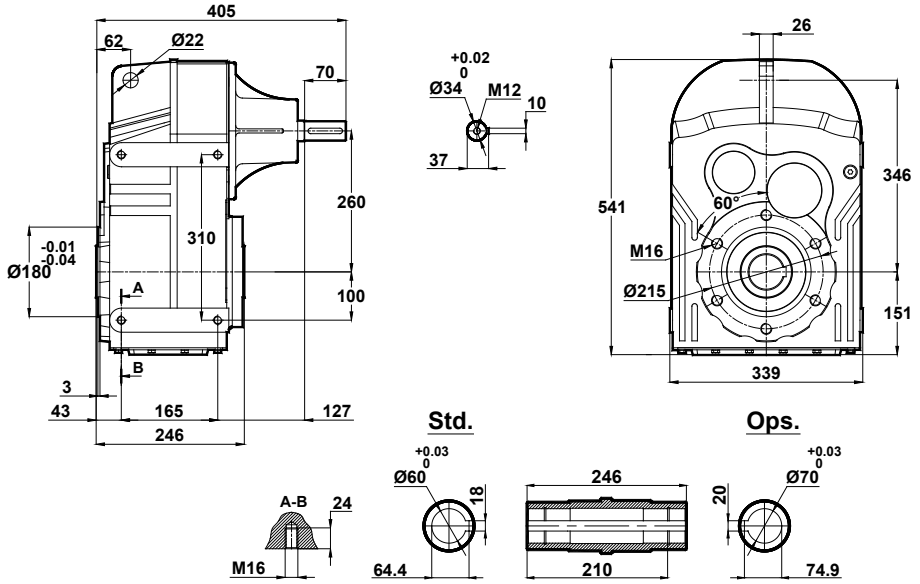
Opsiyonel Flanş Ölçüleri
Optional Flange Dimensions
Auswählbare Flanschabmessungen



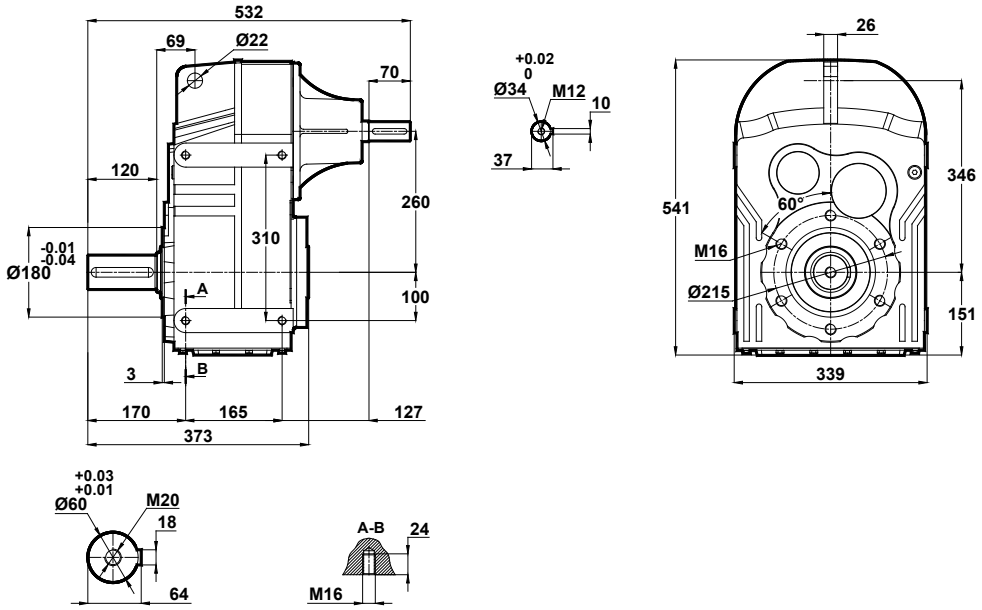
Diğer opsiyonel flanş ölçüleri için sayfa 326'ya bakınız.
Please see on page 326 for other optional flange dimensions
Siehe Siete 326 für andere auswählbare Flanschabmessungen

-Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole according to DIN 332, sheet 2* / Zentrierung mit Gewinde nach DIN 332, Blatt 2

DT572.00
DT573.00

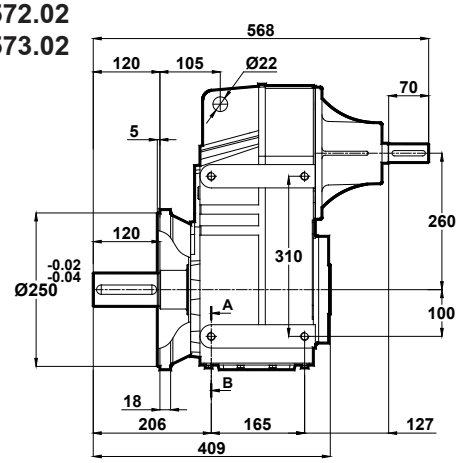


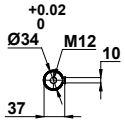
DT572.01
DT573.01

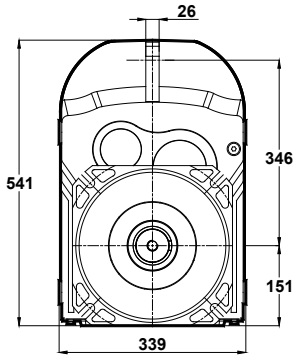


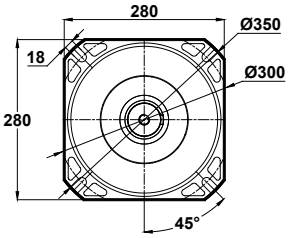
-Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole according to DIN 332, sheet 2* / Zentrierung mit Gewinde nach DIN 332, Blatt 2

DT572.02
DT573.02

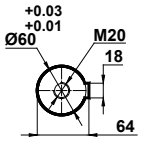


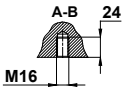


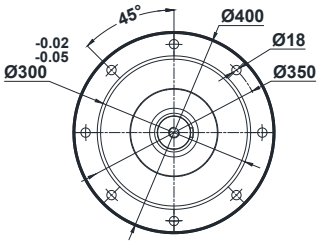




Opsiyonel Flanş Ölçüleri
Optional Flange Dimensions
Auswählbare Flanschabmessungen

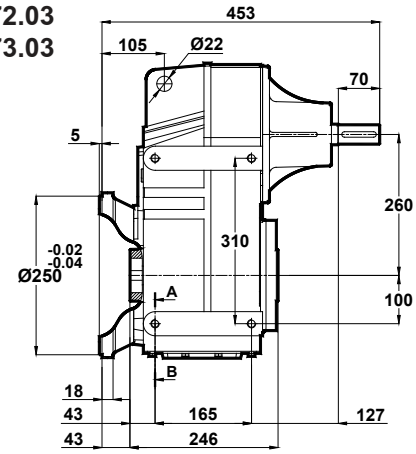


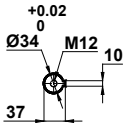


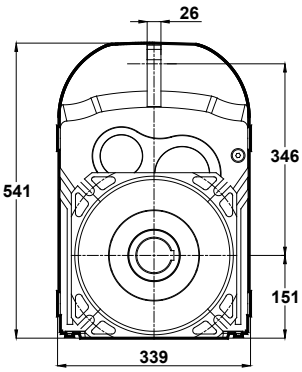


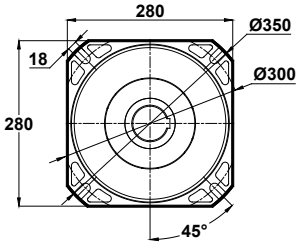
Diğer opsiyonel flanş ölçüleri için sayfa 326'ya bakınız.
Please see on page 326 for other optional flange dimensions
Siehe Siete 326 für andere auswählbare Flanschabmessungen

DT572.03
DT573.03

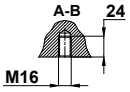




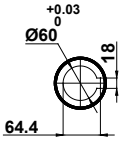


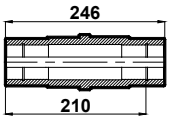


Opsiyonel Flanş Ölçüleri
Optional Flange Dimensions
Auswählbare Flanschabmessungen

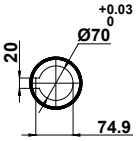


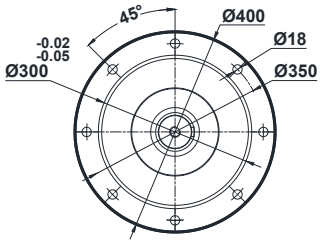
Std.





Ops.

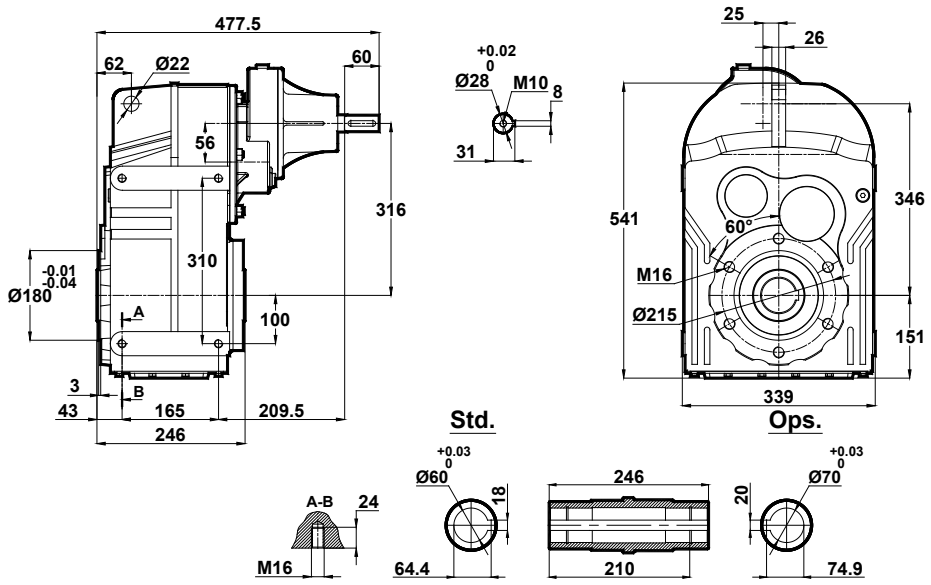




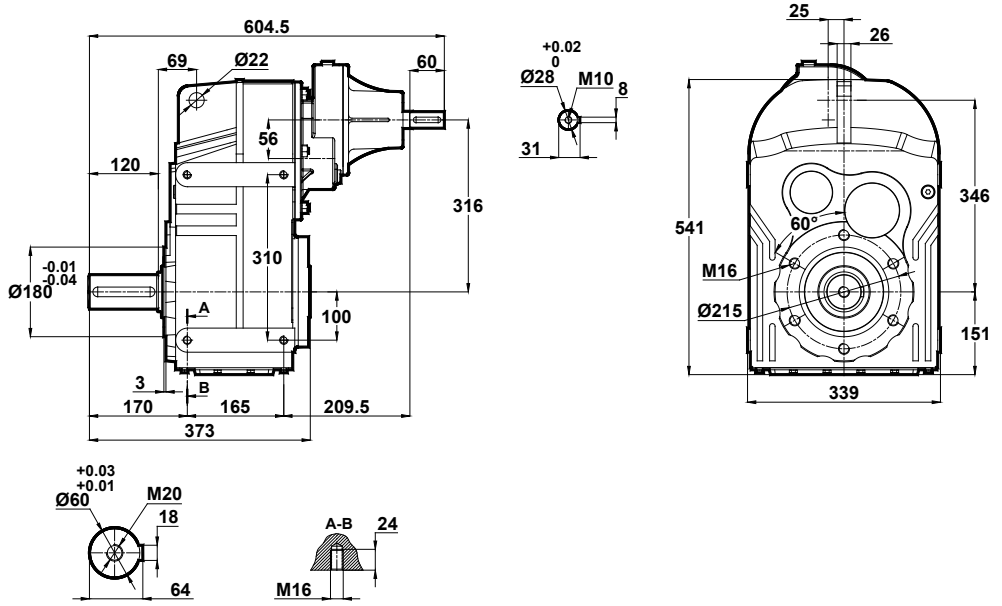
Diğer opsiyonel flanş ölçüleri için sayfa 326'ya bakınız.
Please see on page 326 for other optional flange dimensions
Siehe Siete 326 für andere auswählbare Flanschabmessungen

-Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole according to DIN 332, sheet 2* / Zentrierung mit Gewinde nach DIN 332, Blatt 2

DT574.00

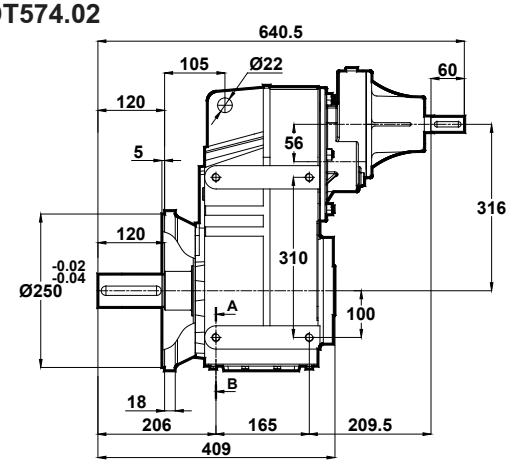


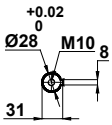
DT574.01

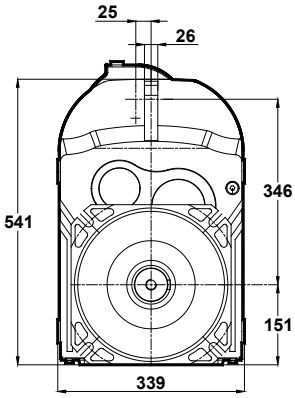


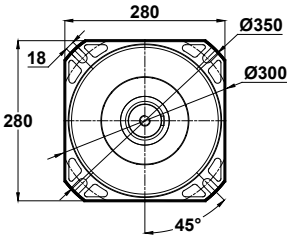
-Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole according to DIN 332, sheet 2* / Zentrierung mit Gewinde nach DIN 332, Blatt 2

DT574.02

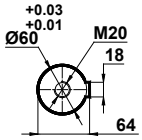


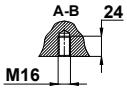


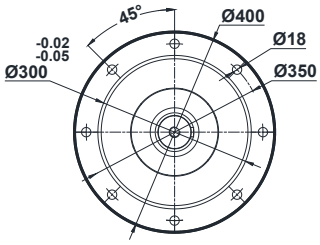




Opsiyonel Flanş Ölçüleri
Optional Flange Dimensions
Auswählbare Flanschabmessungen

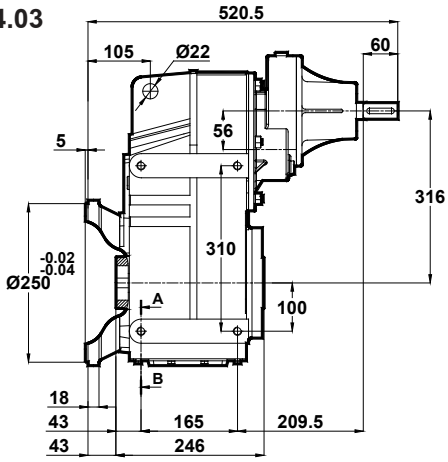


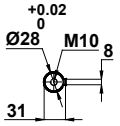


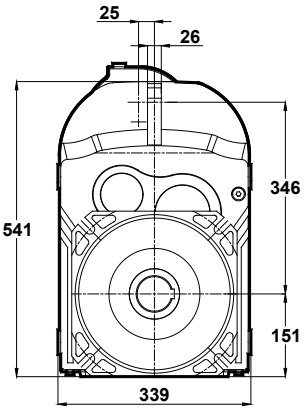


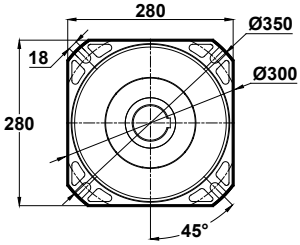
Diğer opsiyonel flanş ölçüleri için sayfa 326'ya bakınız.
Please see on page 326 for other optional flange dimensions
Siehe Siete 326 für andere auswählbare Flanschabmessungen

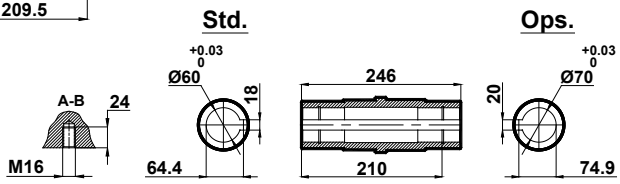
DT574.03



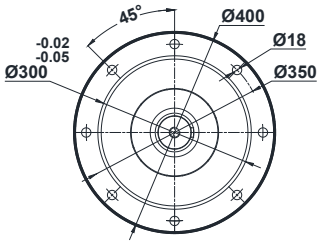








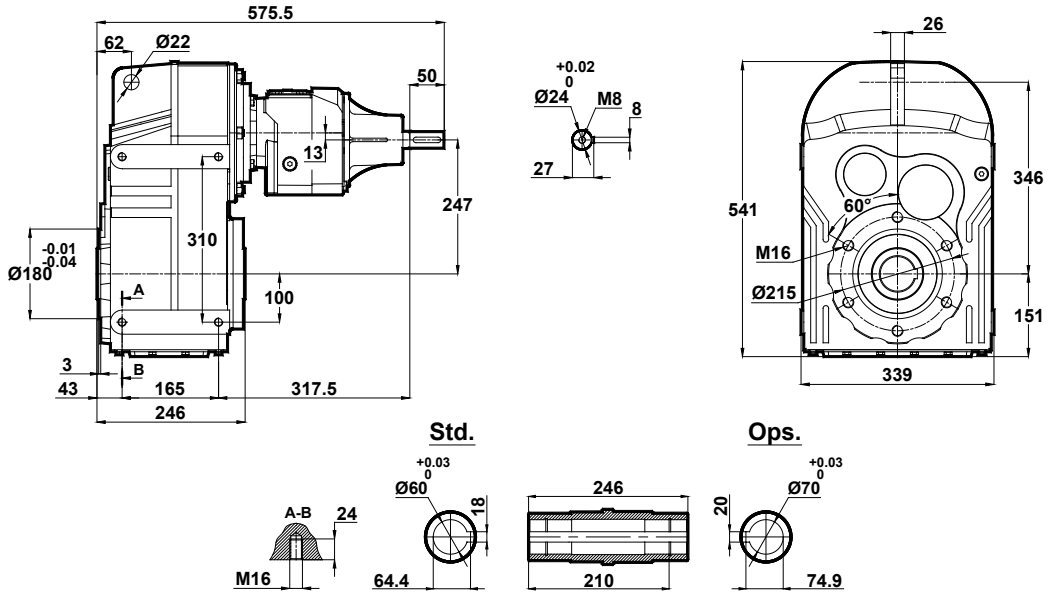
Opsiyonel Flanş Ölçüleri
Optional Flange Dimensions
Auswählbare Flanschabmessungen



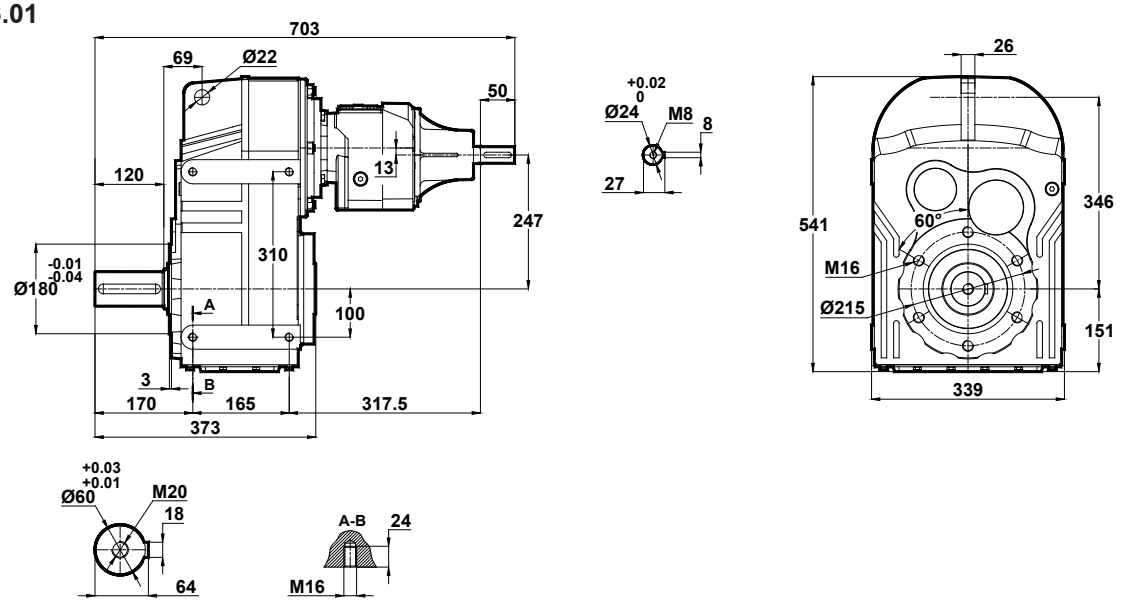
Diğer opsiyonel flanş ölçüleri için sayfa 326'ya bakınız.
Please see on page 326 for other optional flange dimensions
Siehe Siete 326 für andere auswählbare Flanschabmessungen

-Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole according to DIN 332, sheet 2* / Zentrierung mit Gewinde nach DIN 332, Blatt 2

DT575.00
DT576.00

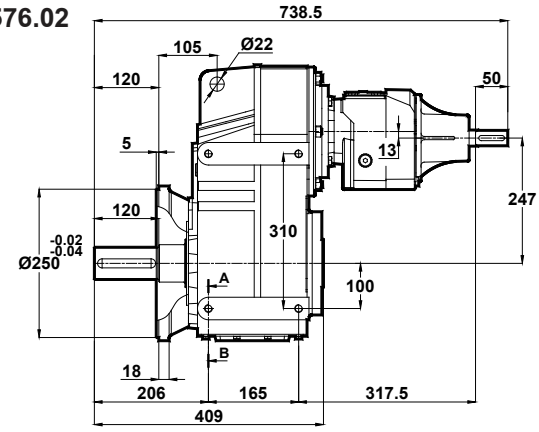


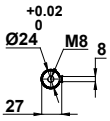
DT575.01
DT576.01

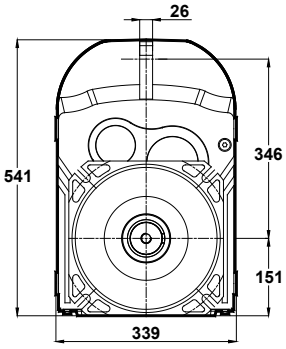


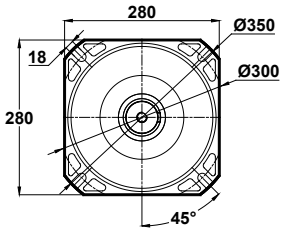
-Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole according to DIN 332, sheet 2* / Zentrierung mit Gewinde nach DIN 332, Blatt 2

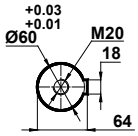
DT575.02
DT576.02

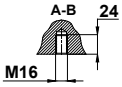




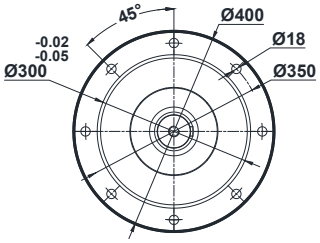






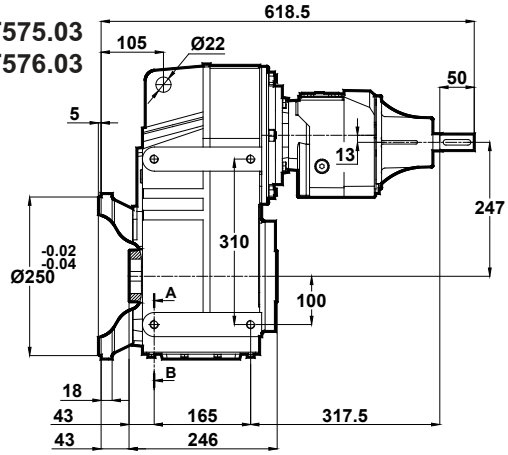


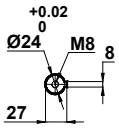
Opsiyonel Flanş Ölçüleri
Optional Flange Dimensions
Auswählbare Flanschabmessungen

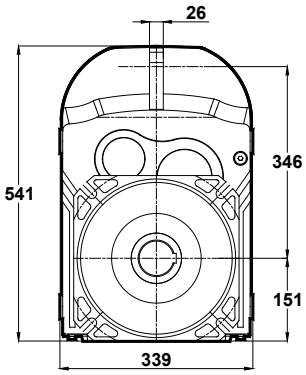


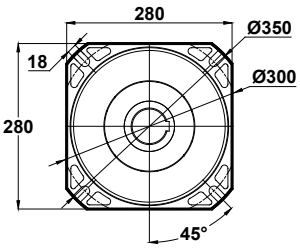
Diğer opsiyonel flanş ölçüleri için sayfa 326'ya bakınız.
Please see on page 326 for other optional flange dimensions
Siehe Siete 326 für andere auswählbare Flanschabmessungen

DT575.03
DT576.03

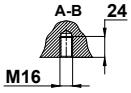


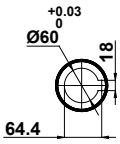


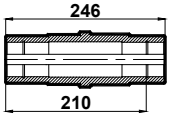




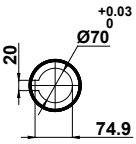
Std.



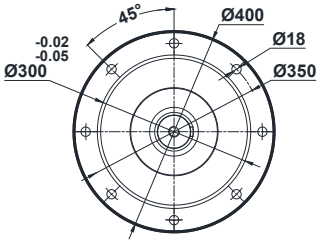




Ops.



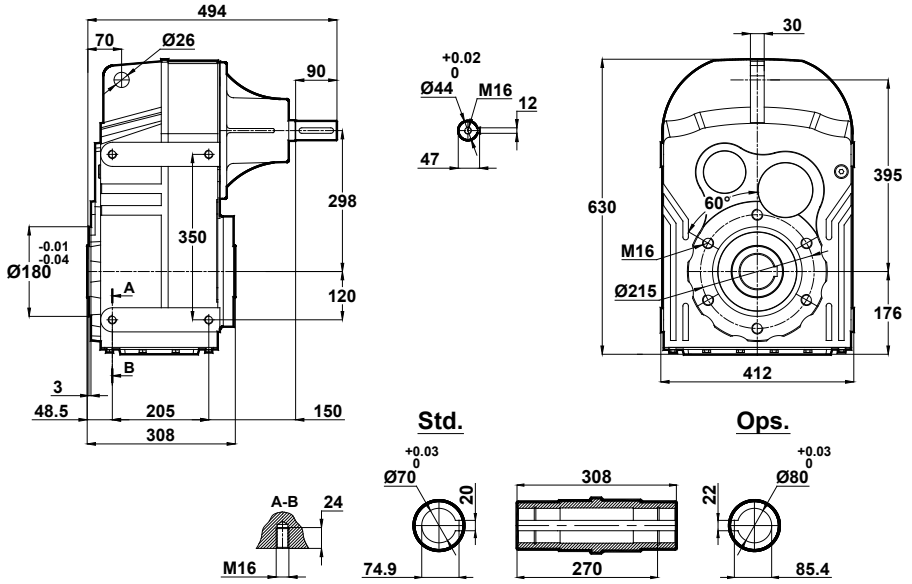
Opsiyonel Flanş Ölçüleri
Optional Flange Dimensions
Auswählbare Flanschabmessungen



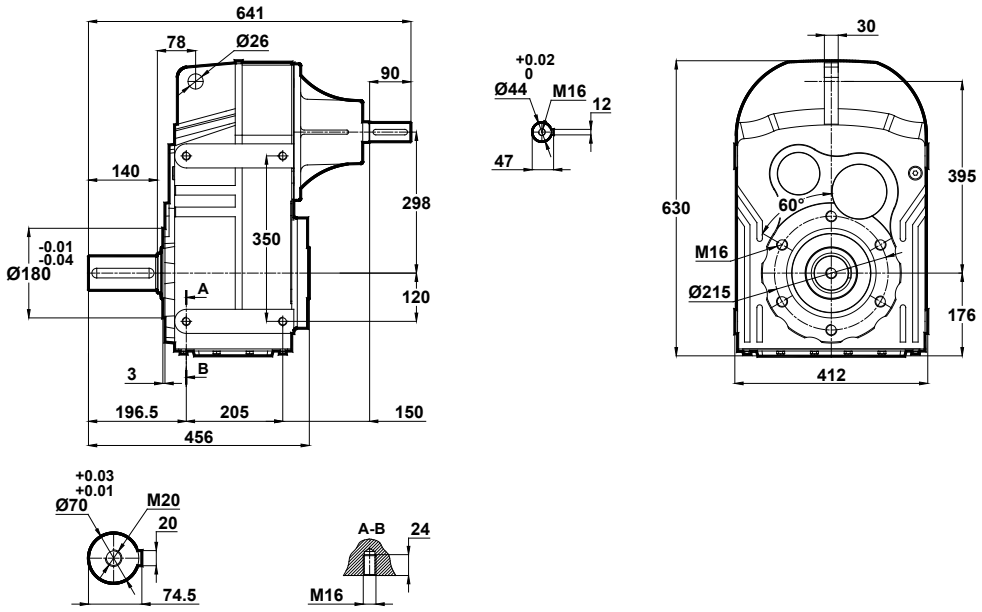
Diğer opsiyonel flanş ölçüleri için sayfa 326'ya bakınız.
Please see on page 326 for other optional flange dimensions
Siehe Siete 326 für andere auswählbare Flanschabmessungen

-Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole according to DIN 332, sheet 2* / Zentrierung mit Gewinde nach DIN 332, Blatt 2

DT672.00
DT673.00

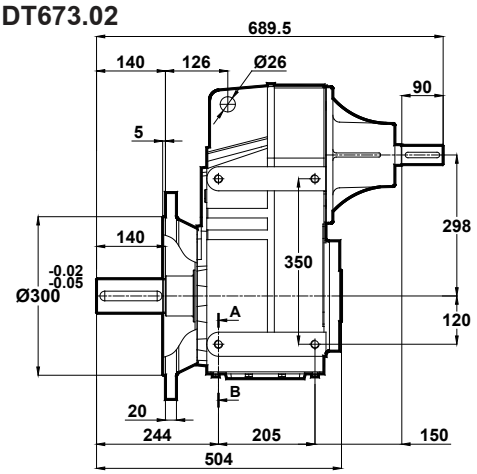


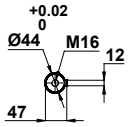
DT672.01
DT673.01

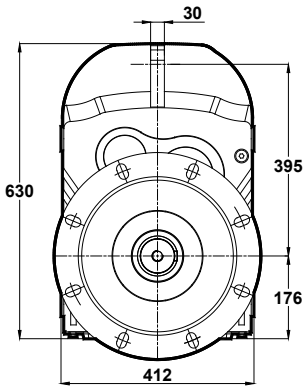


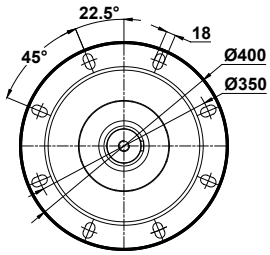
-Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole according to DIN 332, sheet 2* / Zentrierung mit Gewinde nach DIN 332, Blatt 2

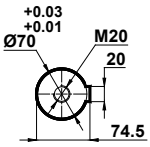
DT672.02
DT673.02

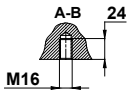




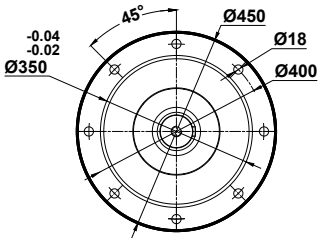






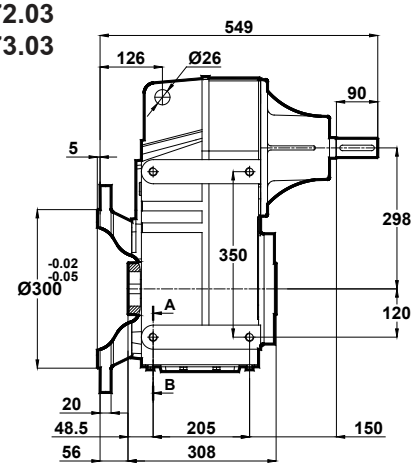


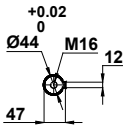
Opsiyonel Flanş Ölçüleri
Optional Flange Dimensions
Auswählbare Flanschabmessungen

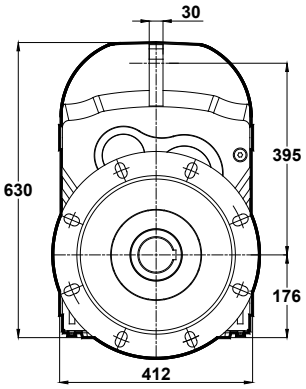


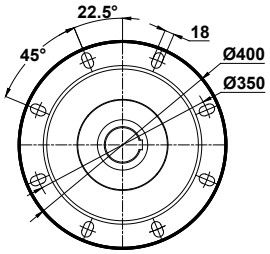
Diğer opsiyonel flanş ölçüleri için sayfa 326'ya bakınız.
Please see on page 326 for other optional flange dimensions
Siehe Siete 326 für andere auswählbare Flanschabmessungen

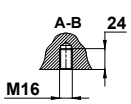
DT672.03
DT673.03



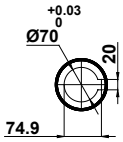


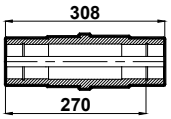




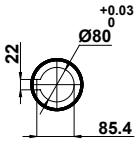


Std.

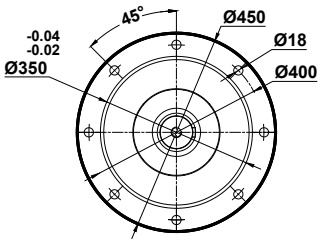




Ops.



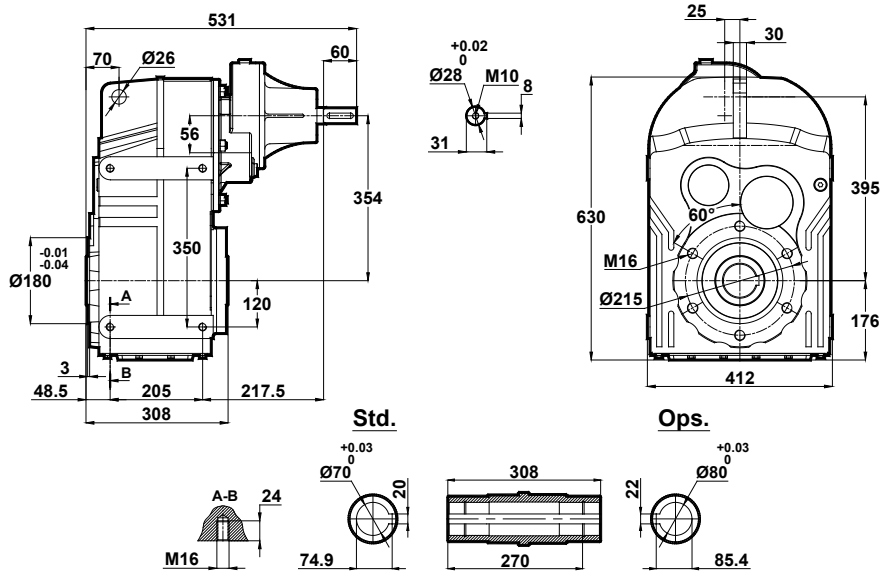
Opsiyonel Flanş Ölçüleri
Optional Flange Dimensions
Auswählbare Flanschabmessungen



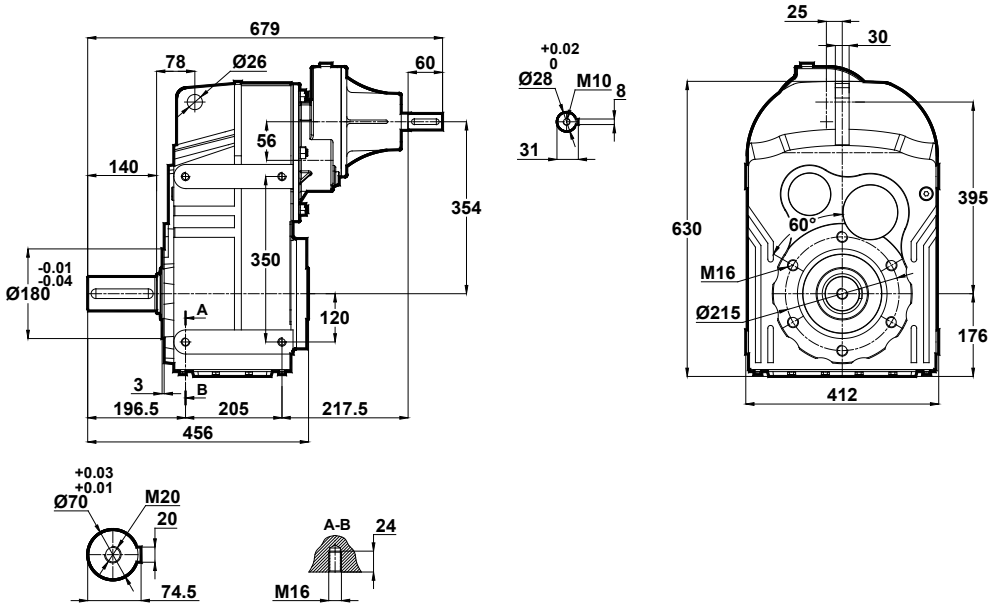
Diğer opsiyonel flanş ölçüleri için sayfa 326'ya bakınız.
Please see on page 326 for other optional flange dimensions
Siehe Siete 326 für andere auswählbare Flanschabmessungen

-Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole according to DIN 332, sheet 2* / Zentrierung mit Gewinde nach DIN 332, Blatt 2

DT674.00

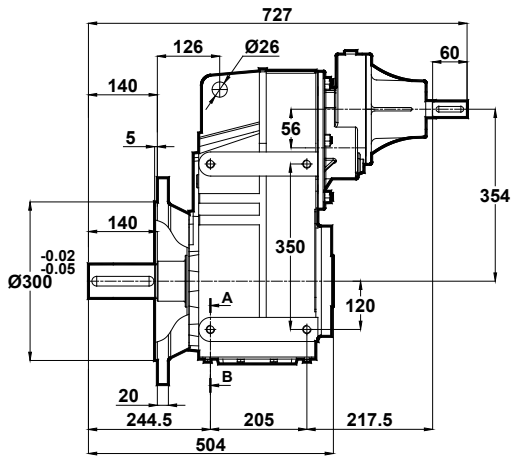


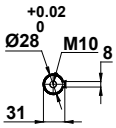
DT674.01

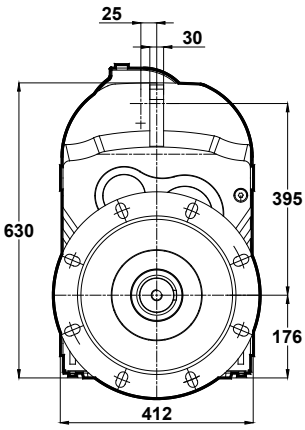


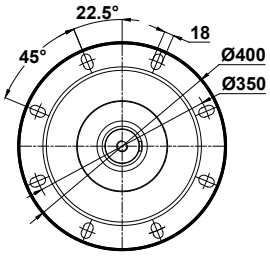
-Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole according to DIN 332, sheet 2* / Zentrierung mit Gewinde nach DIN 332, Blatt 2

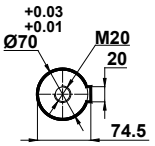
DT674.02

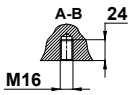




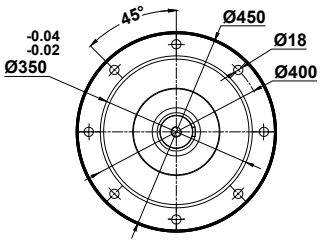






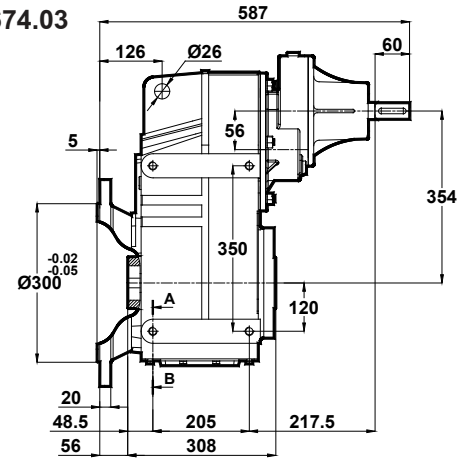


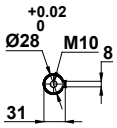
Opsiyonel Flanş Ölçüleri
Optional Flange Dimensions
Auswählbare Flanschabmessungen

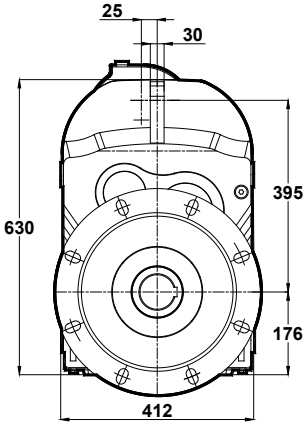


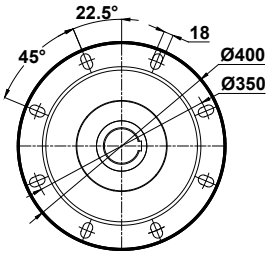
Diğer opsiyonel flanş ölçüleri için sayfa 326'ya bakınız.
Please see on page 326 for other optional flange dimensions
Siehe Siete 326 für andere auswählbare Flanschabmessungen

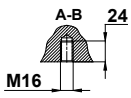
DT674.03



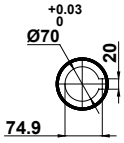


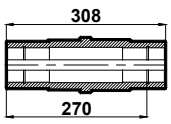




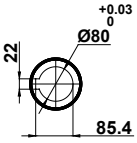


Std.

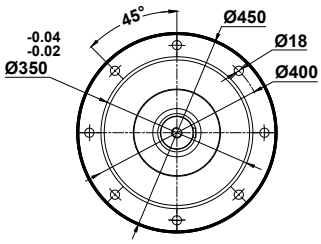




Ops.



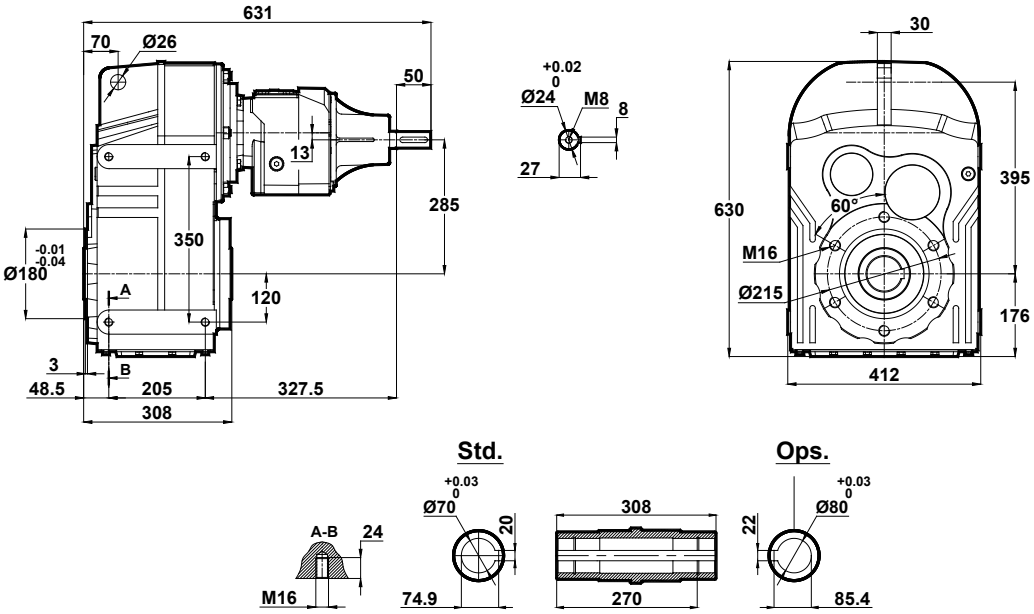
Opsiyonel Flanş Ölçüleri
Optional Flange Dimensions
Auswählbare Flanschabmessungen



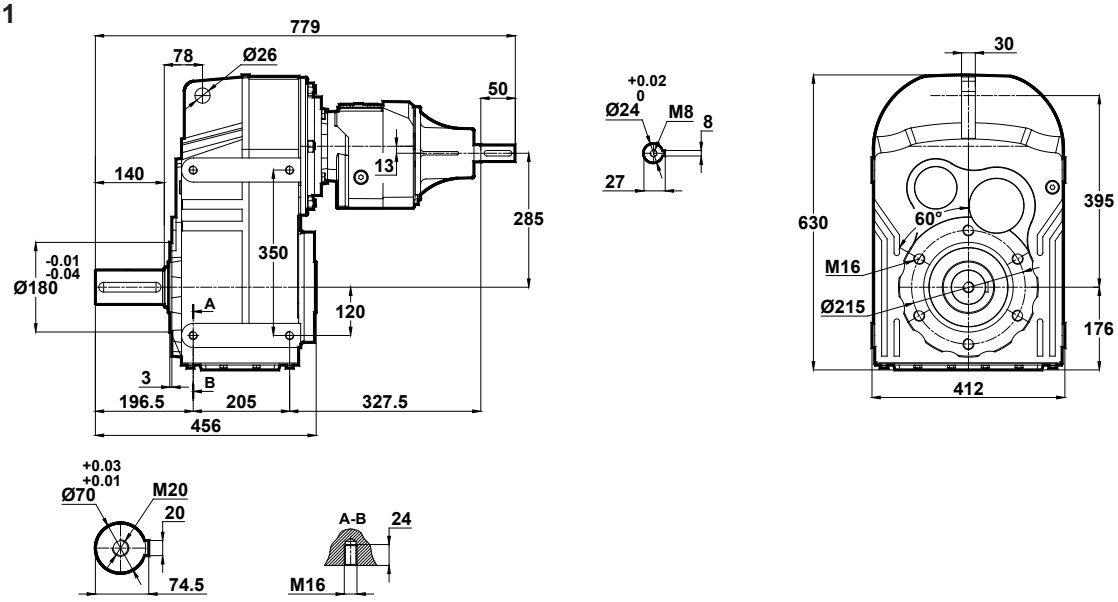
Diğer opsiyonel flanş ölçüleri için sayfa 326'ya bakınız.
Please see on page 326 for other optional flange dimensions
Siehe Siete 326 für andere auswählbare Flanschabmessungen

-Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole according to DIN 332, sheet 2* / Zentrierung mit Gewinde nach DIN 332, Blatt 2

DT675.00
DT676.00

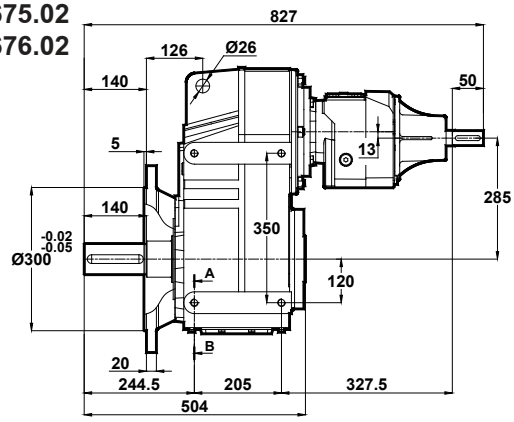


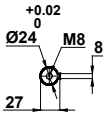
DT675.01
DT676.01

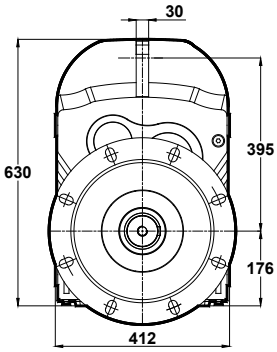


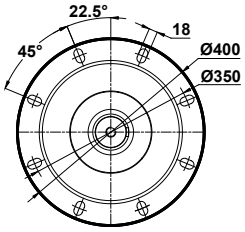
-Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole according to DIN 332, sheet 2* / Zentrierung mit Gewinde nach DIN 332, Blatt 2

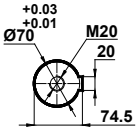
DT675.02
DT676.02

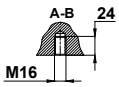




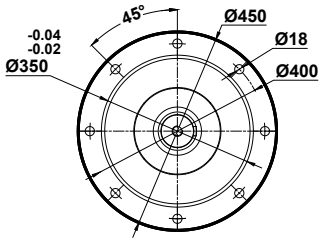






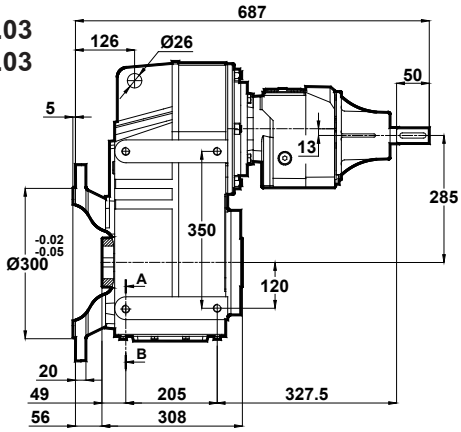


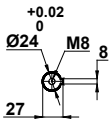
Opsiyonel Flanş Ölçüleri
Optional Flange Dimensions
Auswählbare Flanschabmessungen

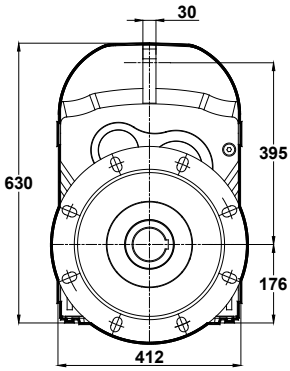


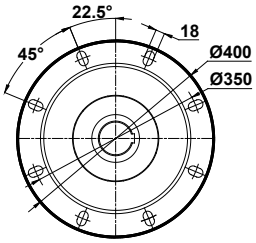
Diğer opsiyonel flanş ölçüleri için sayfa 326'ya bakınız.
Please see on page 326 for other optional flange dimensions
Siehe Siete 326 für andere auswählbare Flanschabmessungen

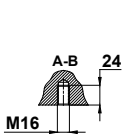
DT675.03
DT676.03



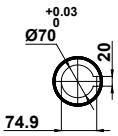


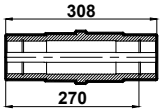




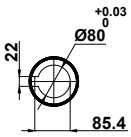


Std.

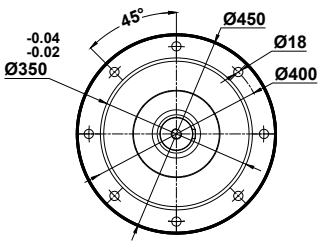




Ops.



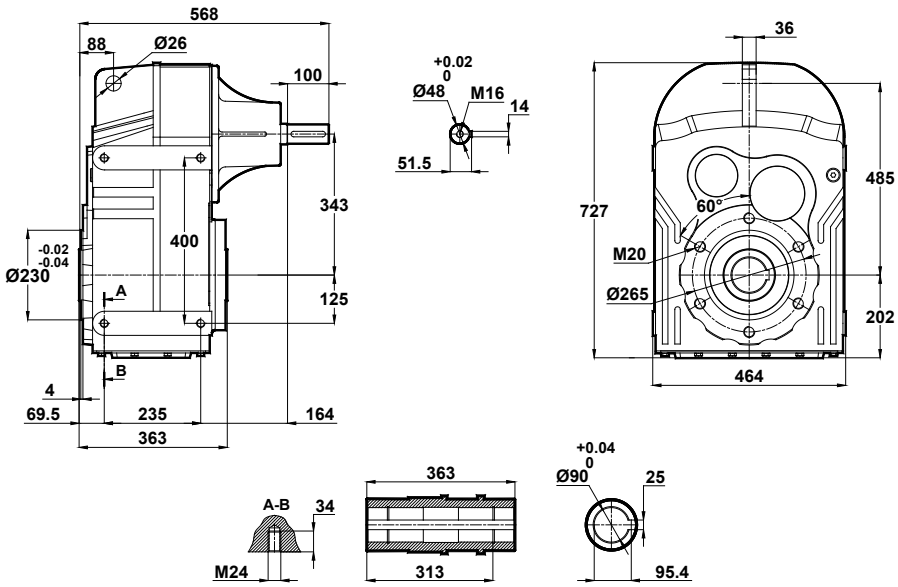
Opsiyonel Flanş Ölçüleri
Optional Flange Dimensions
Auswählbare Flanschabmessungen



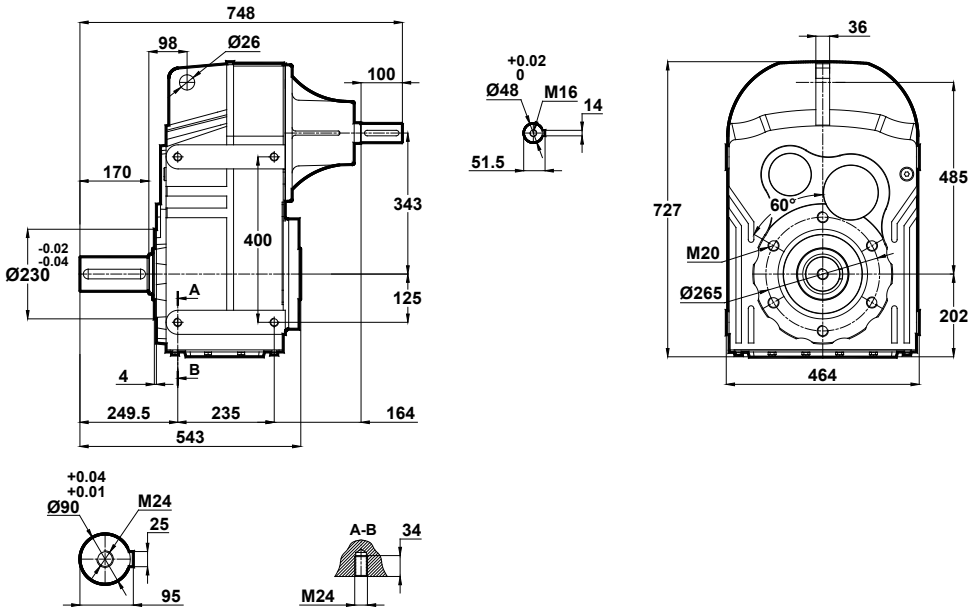
Diğer opsiyonel flanş ölçüleri için sayfa 326'ya bakınız.
Please see on page 326 for other optional flange dimensions
Siehe Siete 326 für andere auswählbare Flanschabmessungen

-Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole according to DIN 332, sheet 2* / Zentrierung mit Gewinde nach DIN 332, Blatt 2

DT772.00
DT773.00

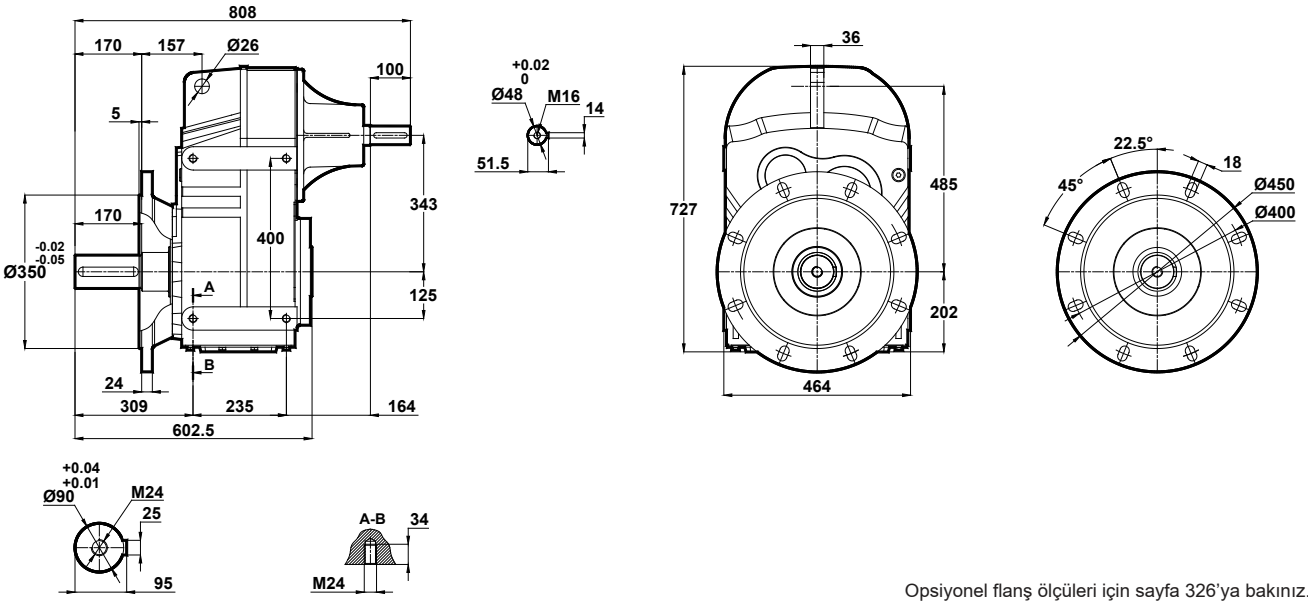


DT772.01
DT773.01



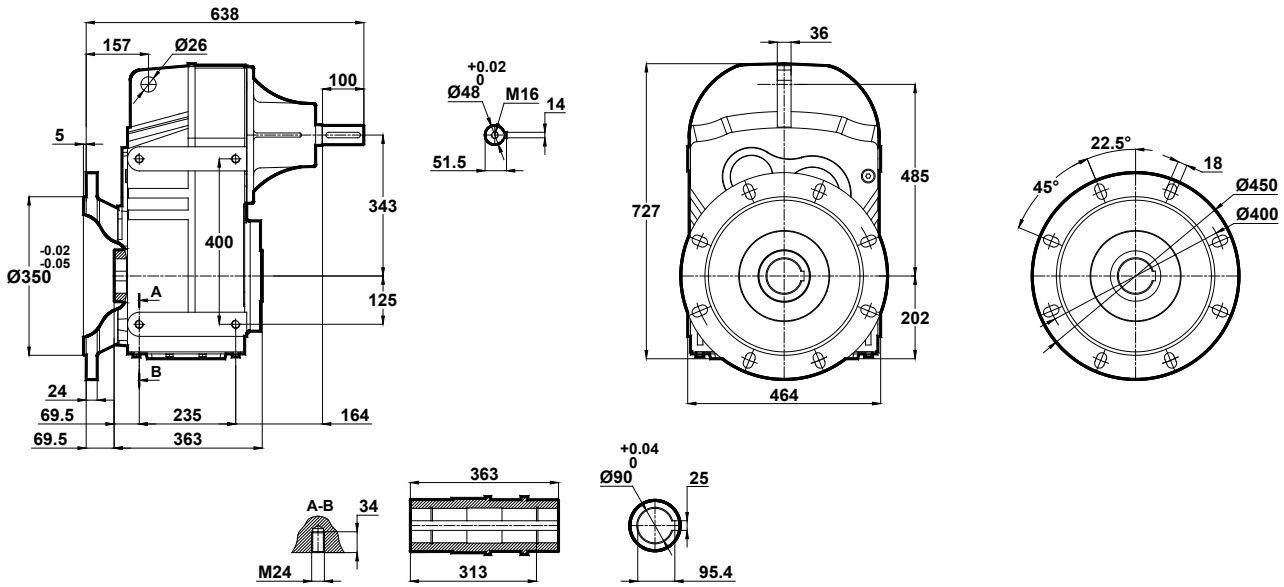
-Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole according to DIN 332, sheet 2* / Zentrierung mit Gewinde nach DIN 332, Blatt 2

DT772.02
DT773.02



Opsiyonel flanş ölçüleri için sayfa 326'ya bakınız.
Please see on page 326 for optional flange dimensions
Siehe Siete 326 für auswählbare Flanschabmessungen

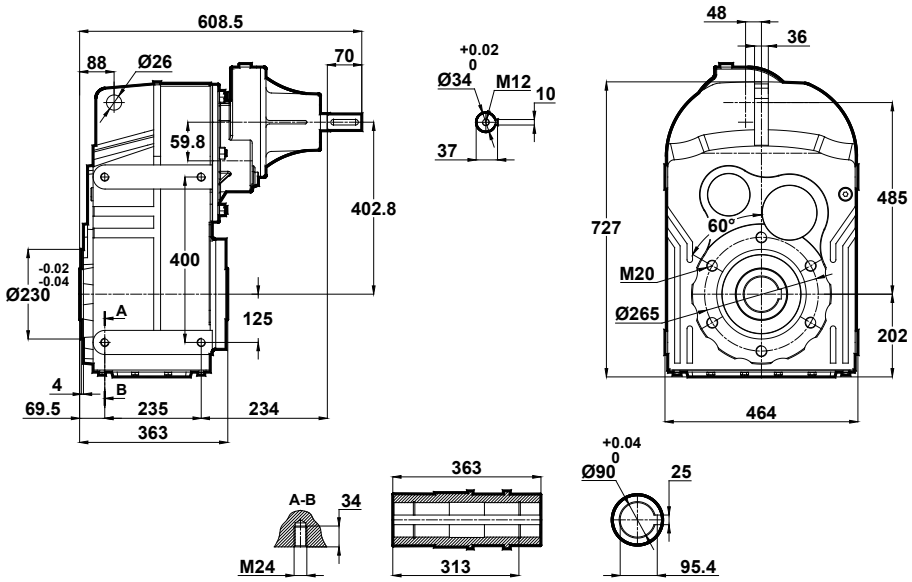
DT772.03
DT773.03



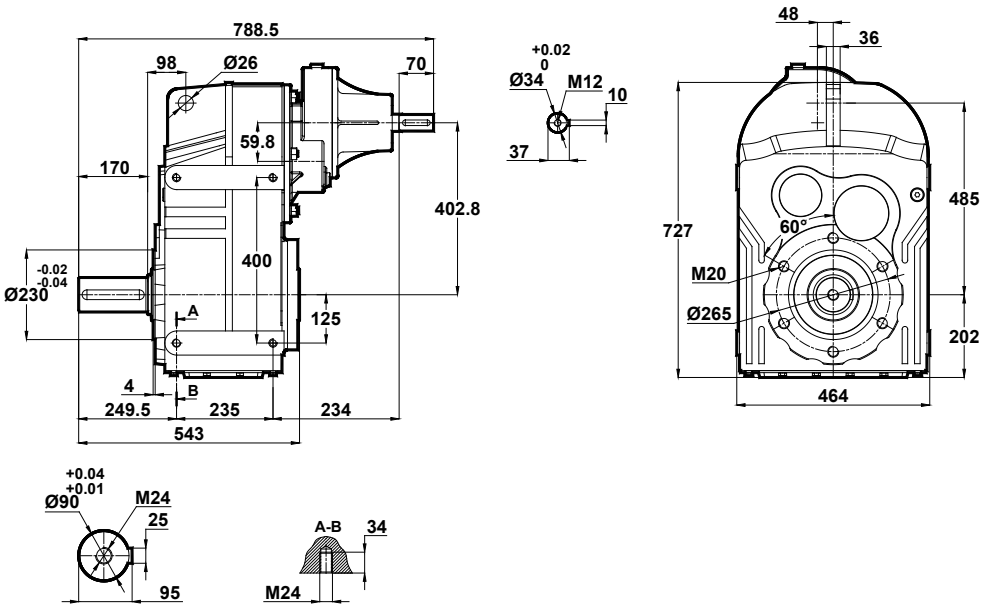
Opsiyonel flanş ölçüleri için sayfa 326'ya bakınız.
Please see on page 326 for optional flange dimensions
Siehe Siete 326 für auswählbare Flanschabmessungen

-Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole according to DIN 332, sheet 2* / Zentrierung mit Gewinde nach DIN 332, Blatt 2

DT774.00

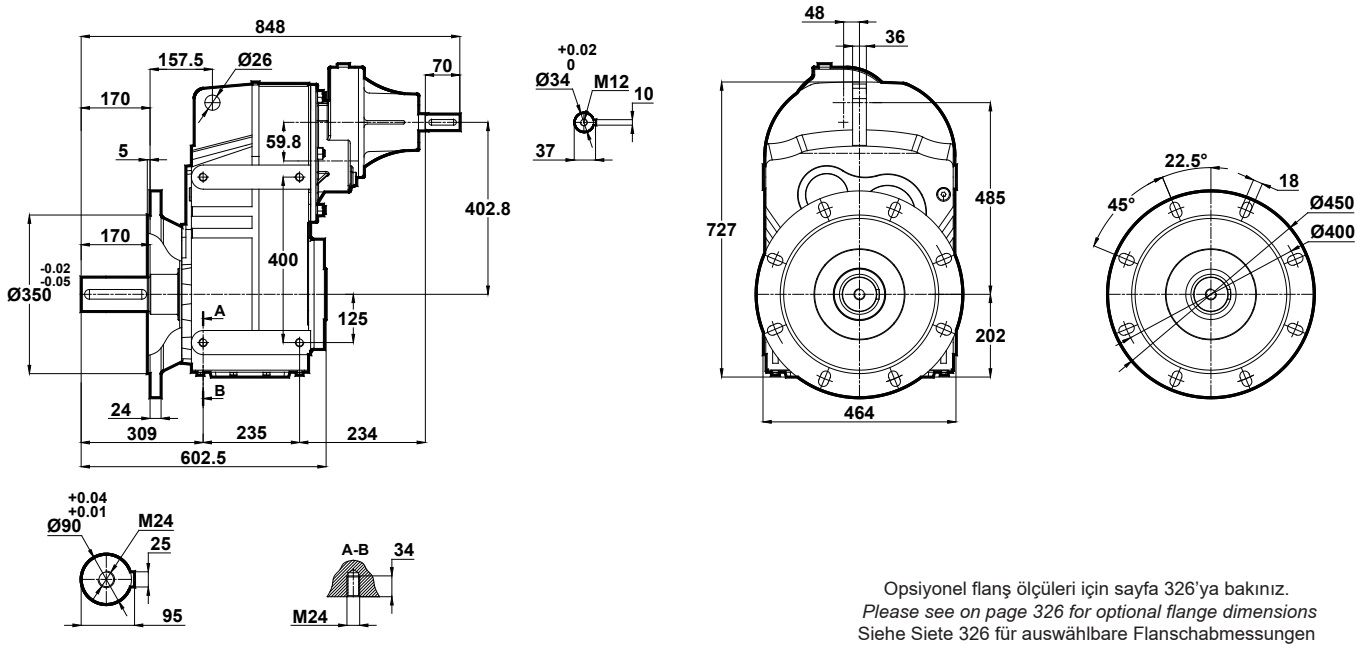


DT774.01



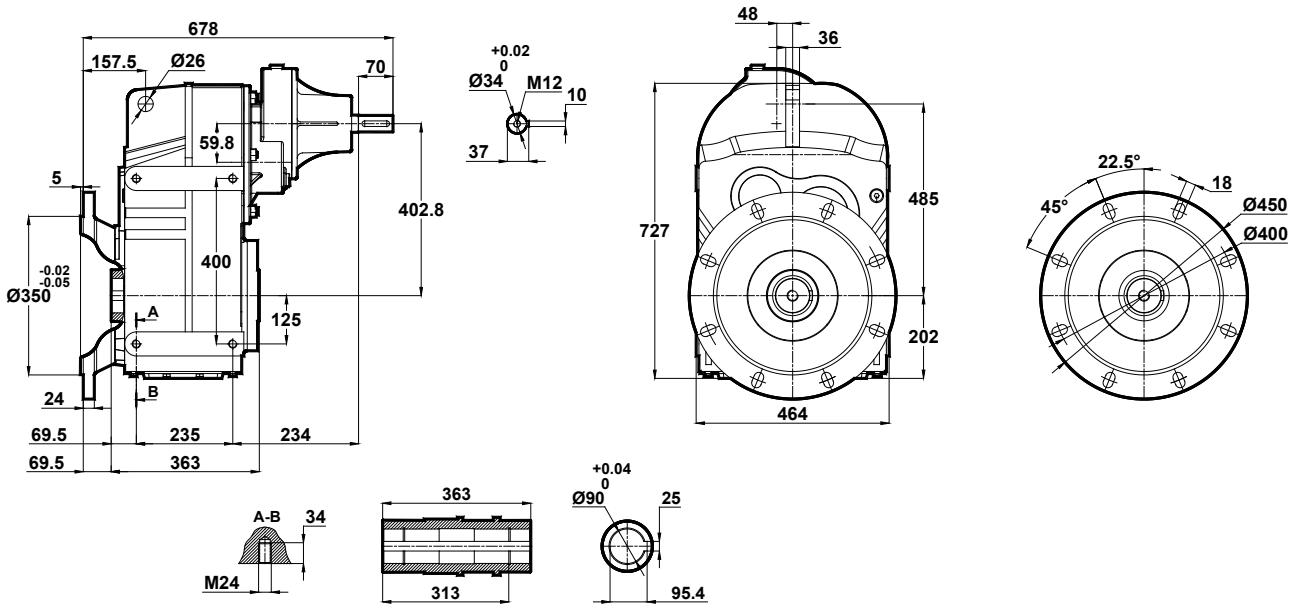
-Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole according to DIN 332, sheet 2* / Zentrierung mit Gewinde nach DIN 332, Blatt 2

DT774.02



Opsiyonel flanş ölçüleri için sayfa 326'ya bakınız.
Please see on page 326 for optional flange dimensions
Siehe Siete 326 für auswählbare Flanschabmessungen

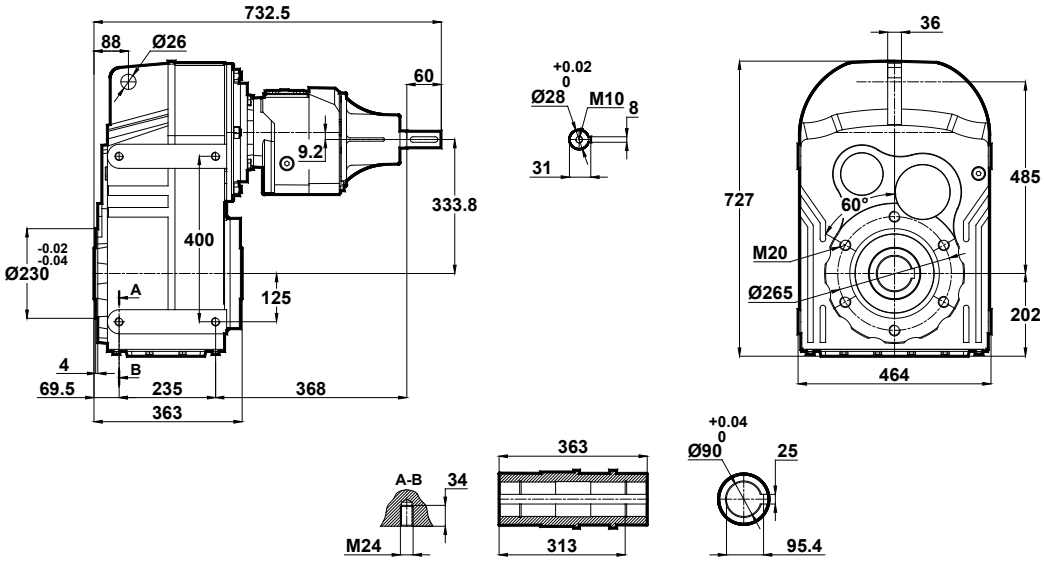
DT774.03



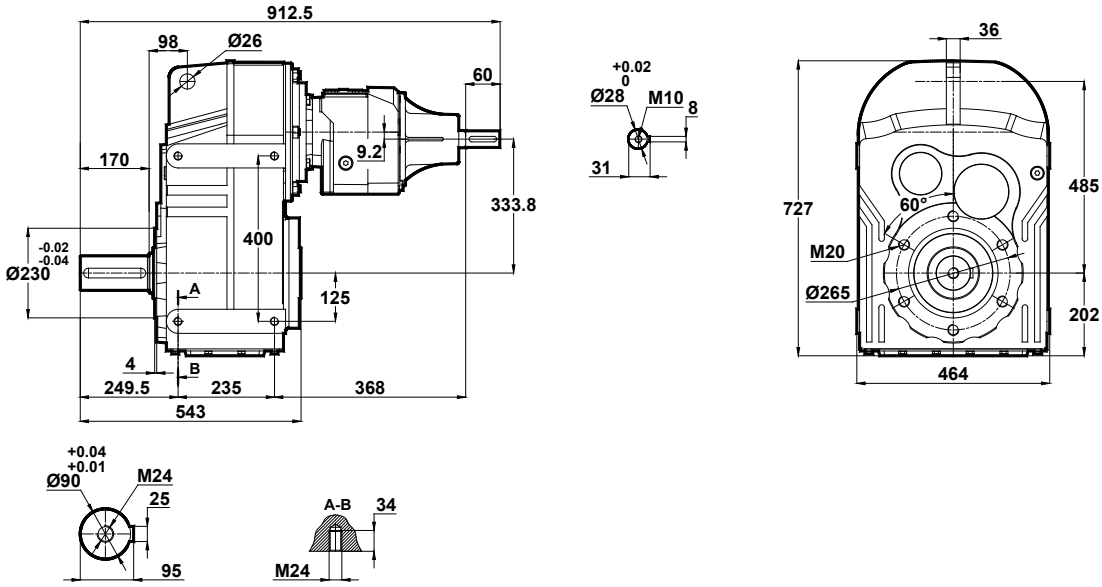
Opsiyonel flanş ölçüleri için sayfa 326'ya bakınız.
Please see on page 326 for optional flange dimensions
Siehe Siete 326 für auswählbare Flanschabmessungen

-Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole according to DIN 332, sheet 2* / Zentrierung mit Gewinde nach DIN 332, Blatt 2

DT775.00
DT776.00

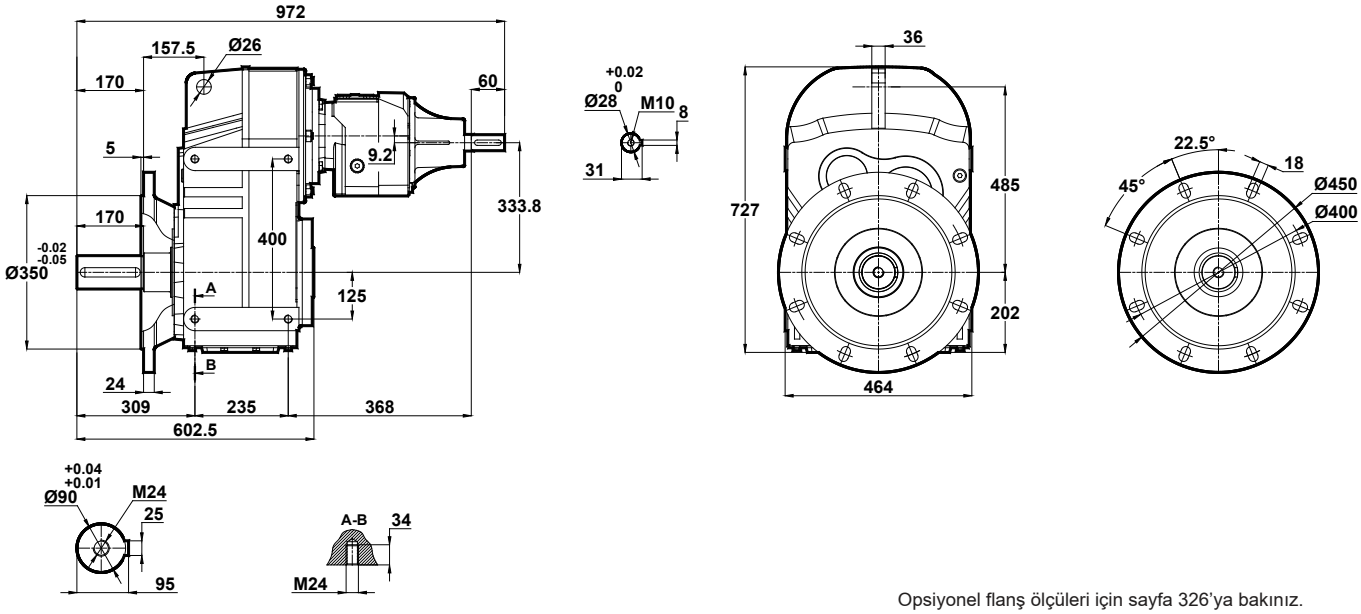


DT775.01
DT776.01



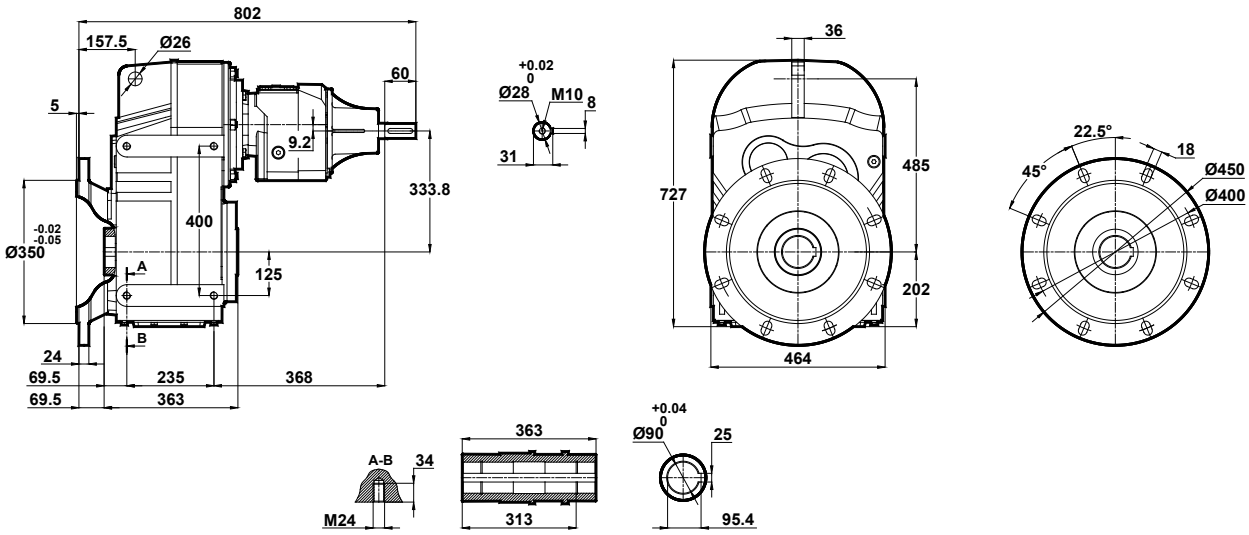
-Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole according to DIN 332, sheet 2* / Zentrierung mit Gewinde nach DIN 332, Blatt 2

DT775.02
DT776.02



Opsiyonel flanş ölçüleri için sayfa 326'ya bakınız.
Please see on page 326 for optional flange dimensions
Siehe Siete 326 für auswählbare Flanschabmessungen

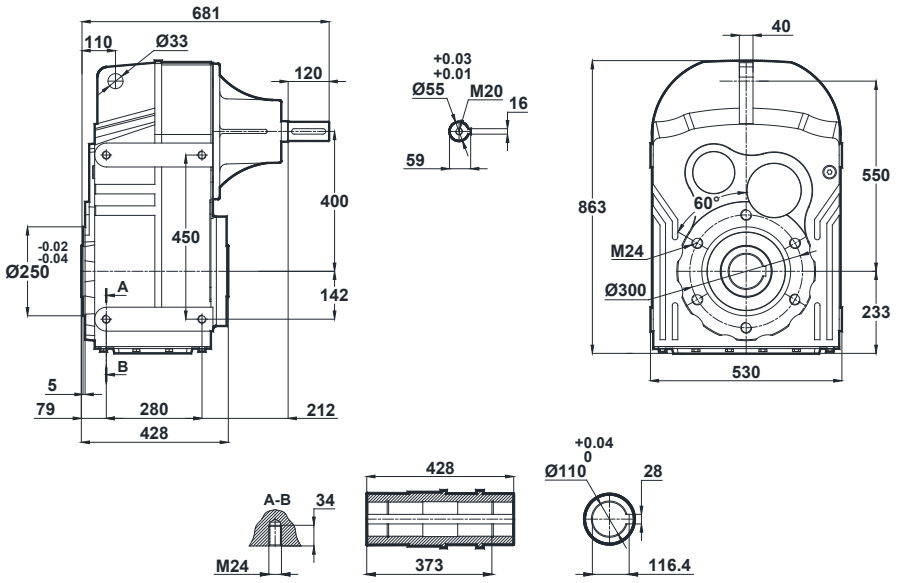
DT775.03
DT776.03



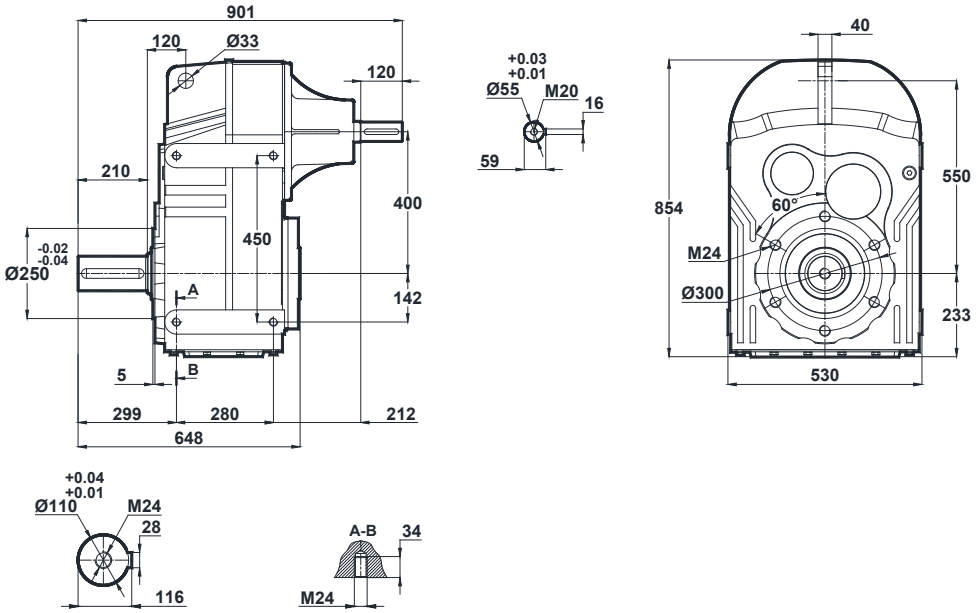
Opsiyonel flanş ölçüleri için sayfa 326'ya bakınız.
Please see on page 326 for optional flange dimensions
Siehe Siete 326 für auswählbare Flanschabmessungen

-Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole according to DIN 332, sheet 2* / Zentrierung mit Gewinde nach DIN 332, Blatt 2

DT872.00
DT873.00

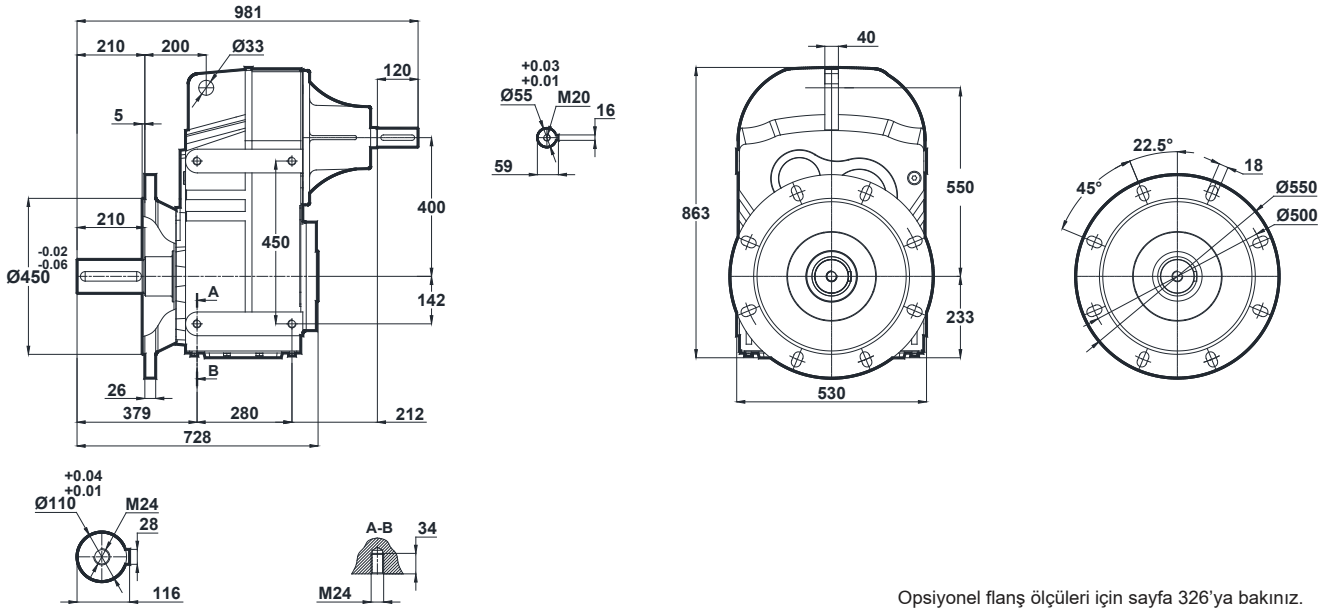


DT872.01
DT873.01



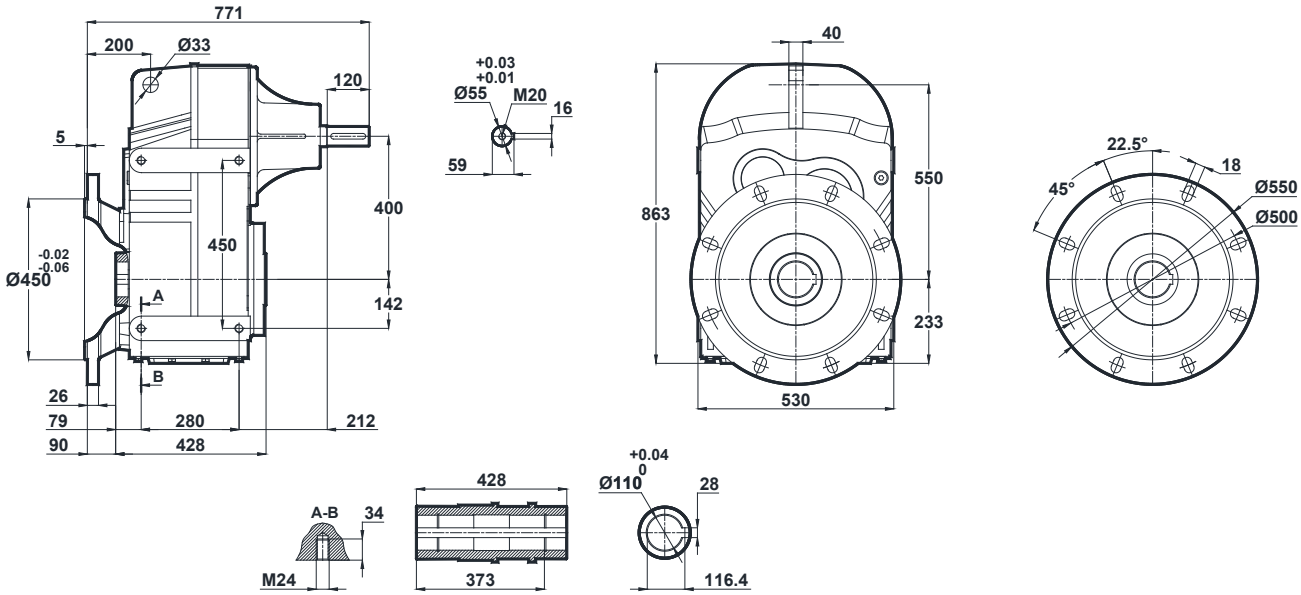
-Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole according to DIN 332, sheet 2* / Zentrierung mit Gewinde nach DIN 332, Blatt 2

DT872.02
DT873.02



Opsiyonel flanş ölçüleri için sayfa 326'ya bakınız.
Please see on page 326 for optional flange dimensions
Siehe Siete 326 für auswählbare Flanschabmessungen

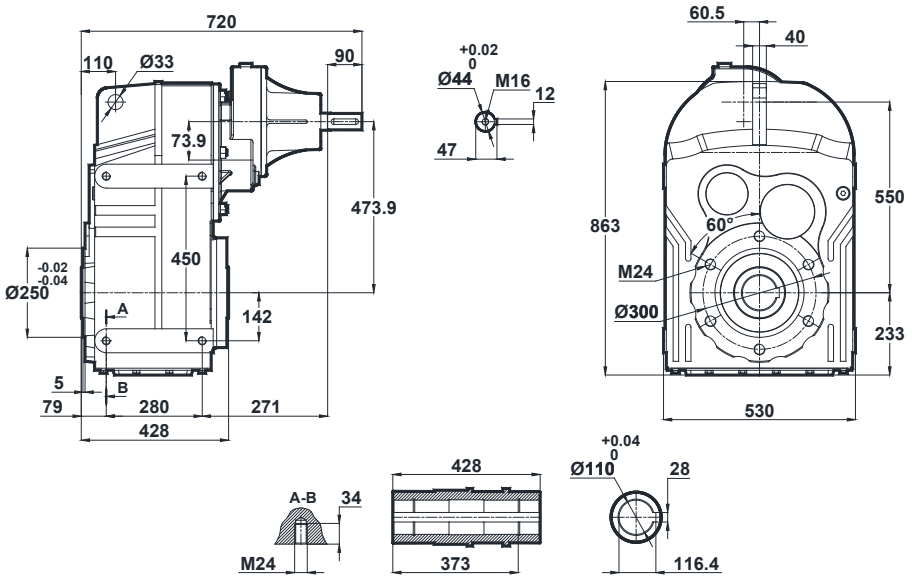
DT872.03
DT873.03



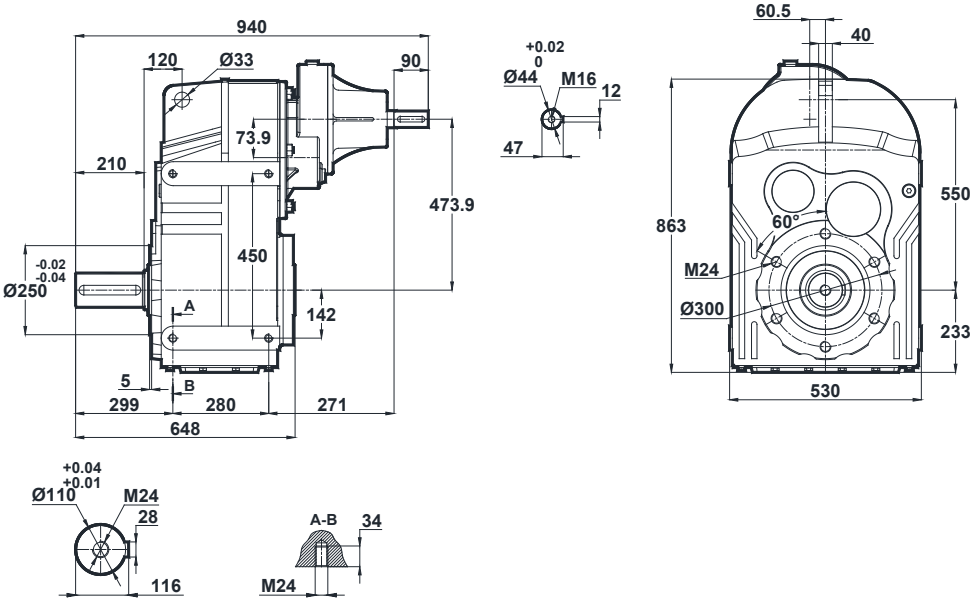
Opsiyonel flanş ölçüleri için sayfa 326'ya bakınız.
Please see on page 326 for optional flange dimensions
Siehe Siete 326 für auswählbare Flanschabmessungen

-Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole according to DIN 332, sheet 2* / Zentrierung mit Gewinde nach DIN 332, Blatt 2

DT874.00

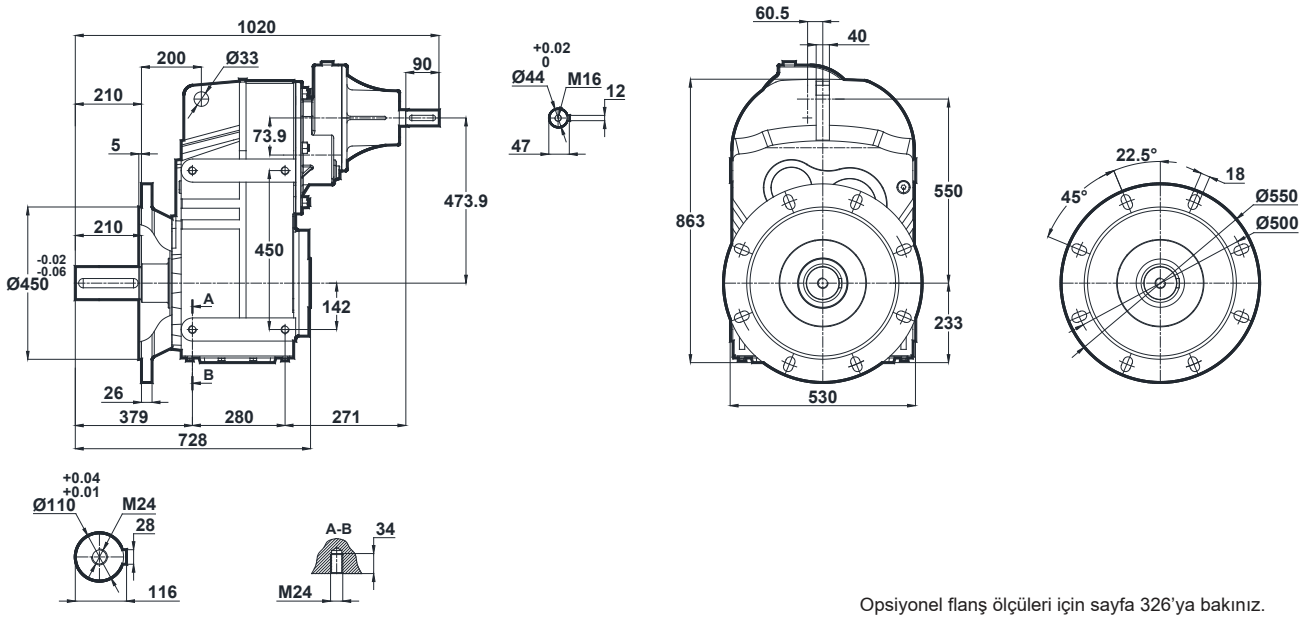


DT874.01



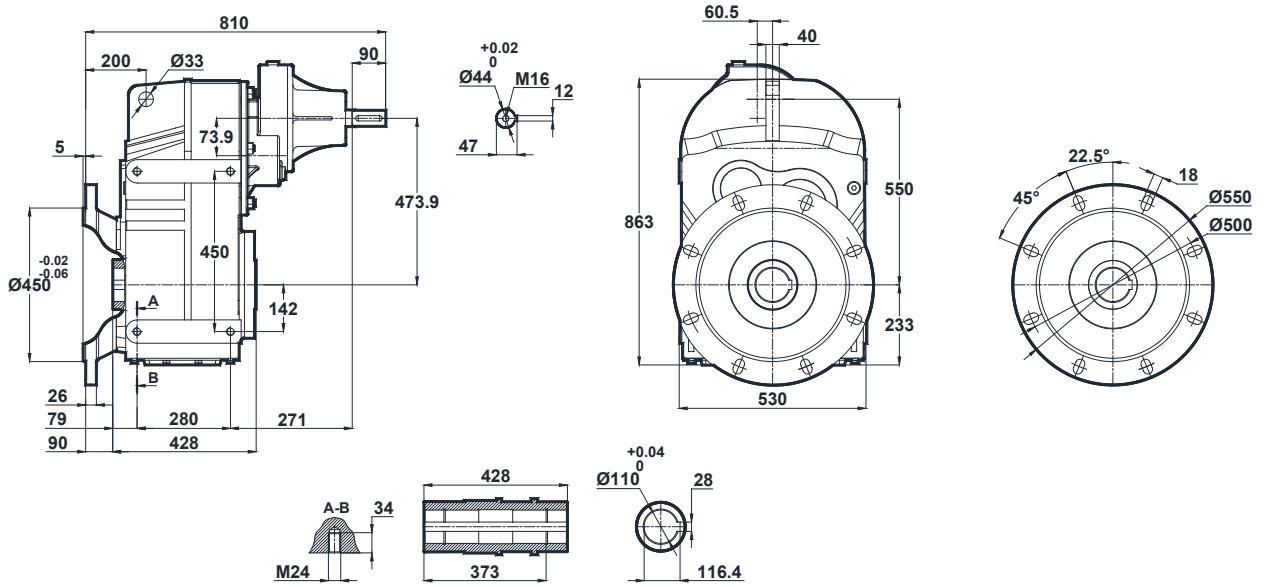
-Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole according to DIN 332, sheet 2* / Zentrierung mit Gewinde nach DIN 332, Blatt 2

DT874.02



Opsiyonel flanş ölçüleri için sayfa 326'ya bakınız.
Please see on page 326 for optional flange dimensions
Siehe Siete 326 für auswählbare Flanschabmessungen

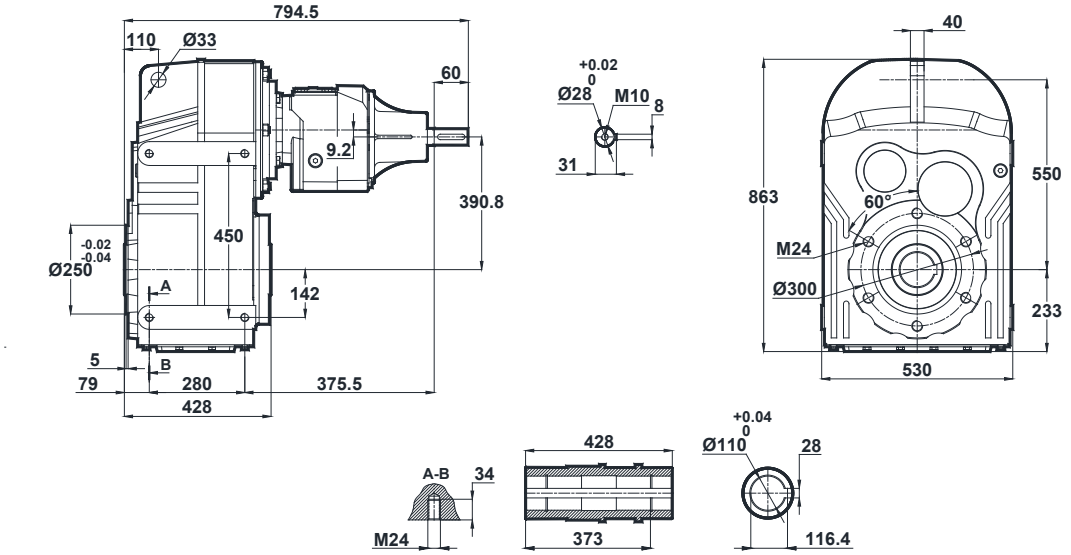
DT874.03



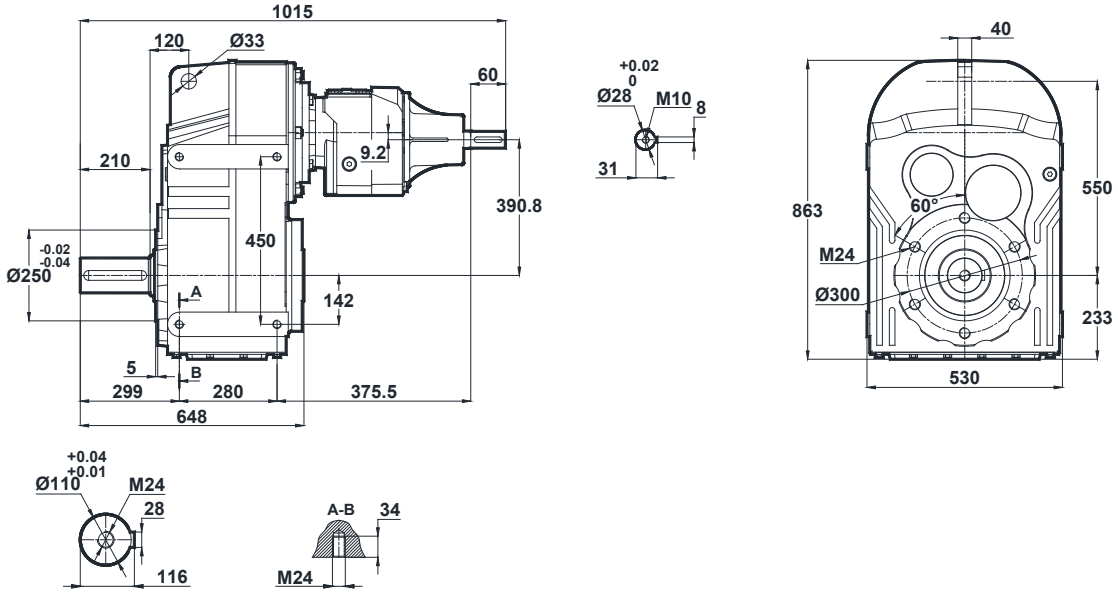
Opsiyonel flanş ölçüleri için sayfa 326'ya bakınız.
Please see on page 326 for optional flange dimensions
Siehe Siete 326 für auswählbare Flanschabmessungen

-Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole according to DIN 332, sheet 2* / Zentrierung mit Gewinde nach DIN 332, Blatt 2

DT875.00
DT876.00

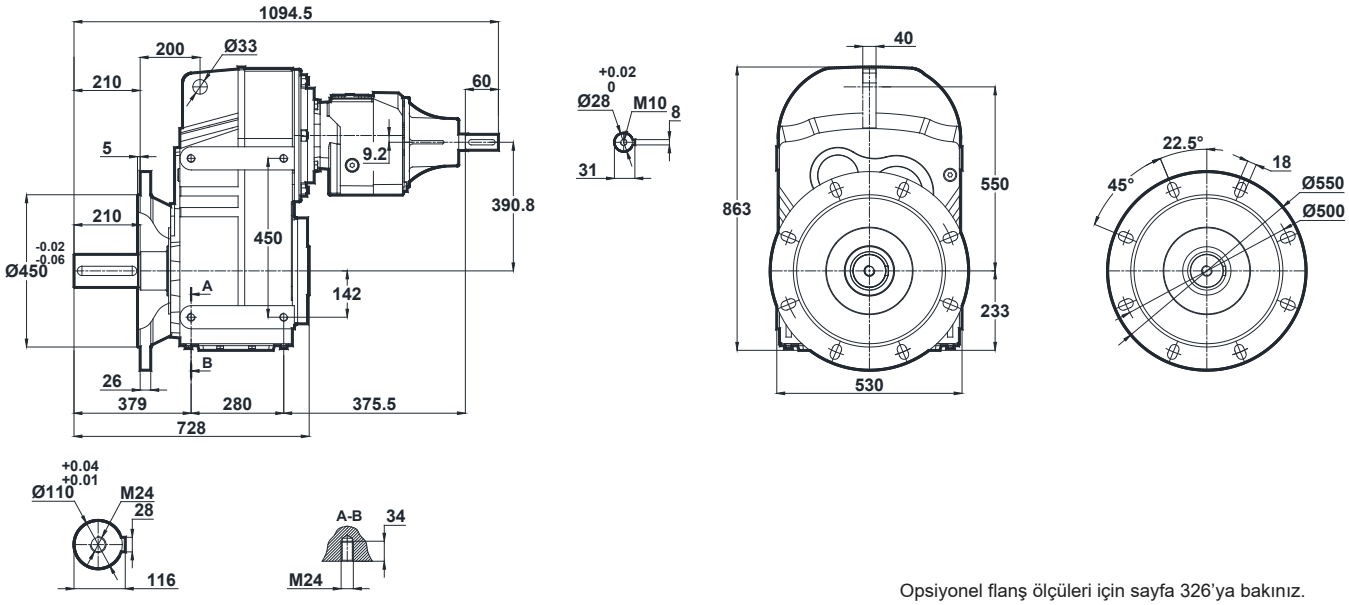


DT875.01
DT876.01



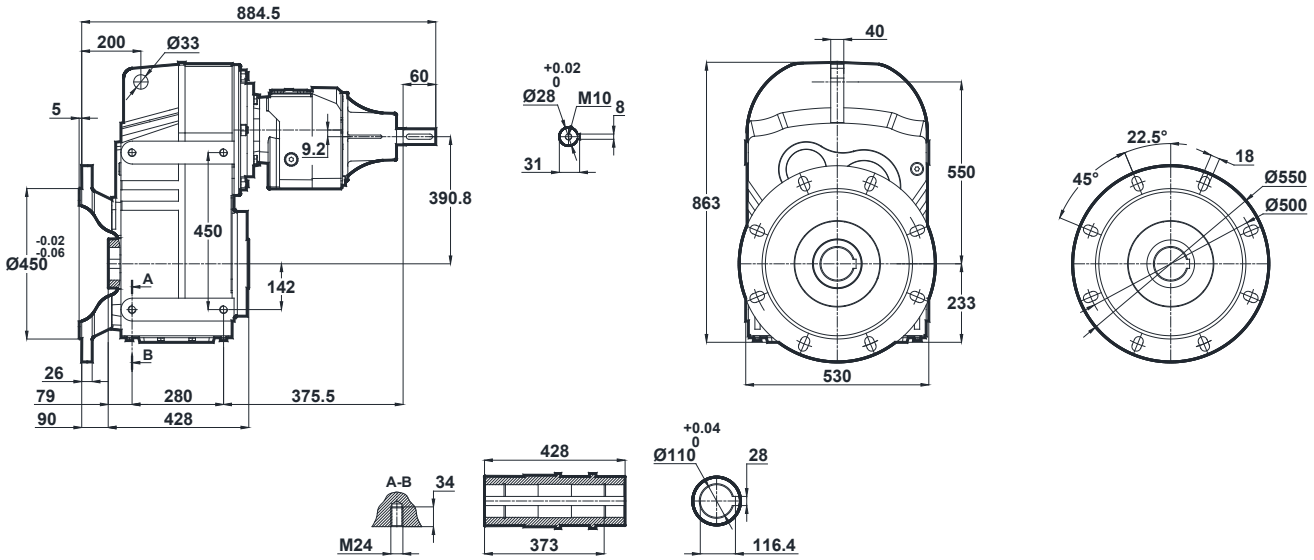
-Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole according to DIN 332, sheet 2* / Zentrierung mit Gewinde nach DIN 332, Blatt 2

DT875.02
DT876.02



Opsiyonel flanş ölçüleri için sayfa 326'ya bakınız.
Please see on page 326 for optional flange dimensions
Siehe Siete 326 für auswählbare Flanschabmessungen

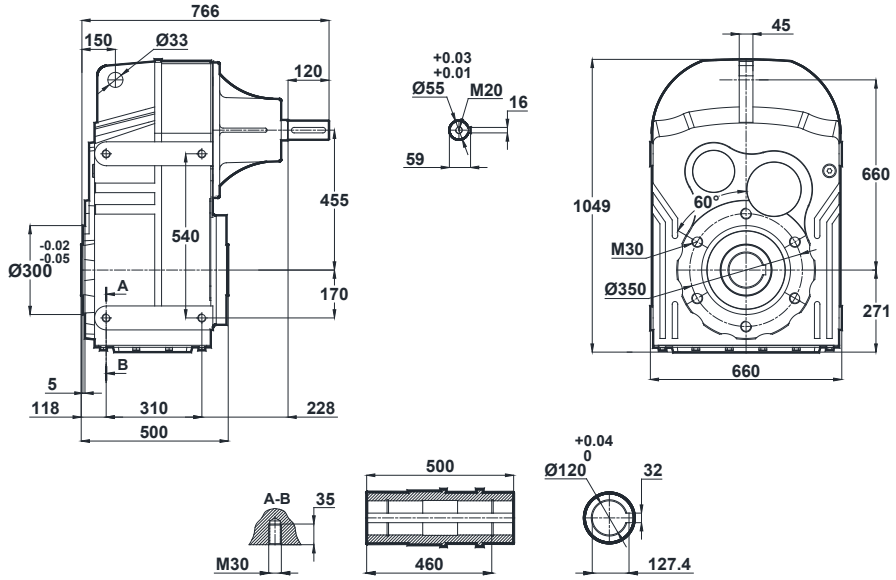
DT875.03
DT876.03



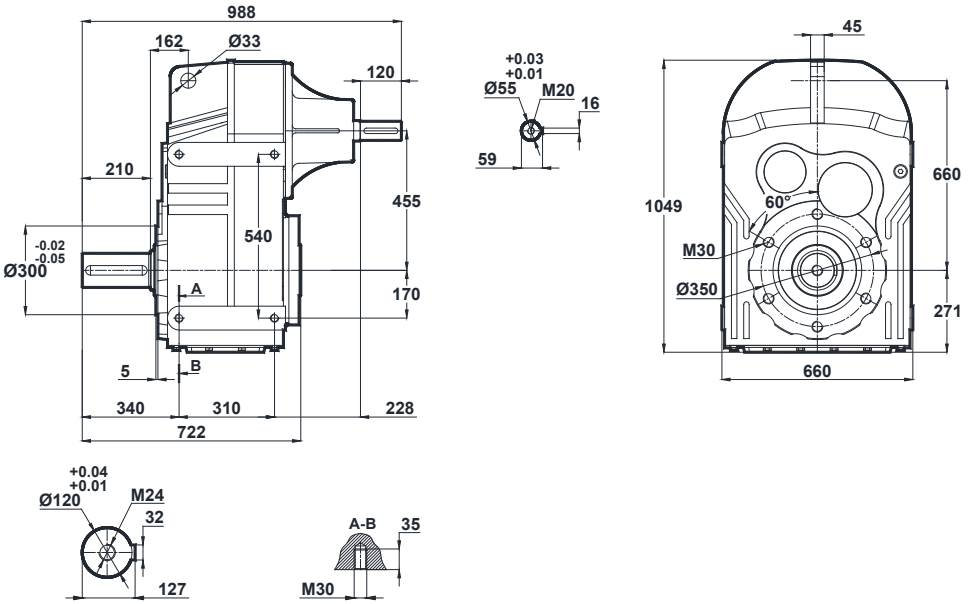
Opsiyonel flanş ölçüleri için sayfa 326'ya bakınız.
Please see on page 326 for optional flange dimensions
Siehe Siete 326 für auswählbare Flanschabmessungen

-Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole according to DIN 332, sheet 2* / Zentrierung mit Gewinde nach DIN 332, Blatt 2

DT972.00
DT973.00

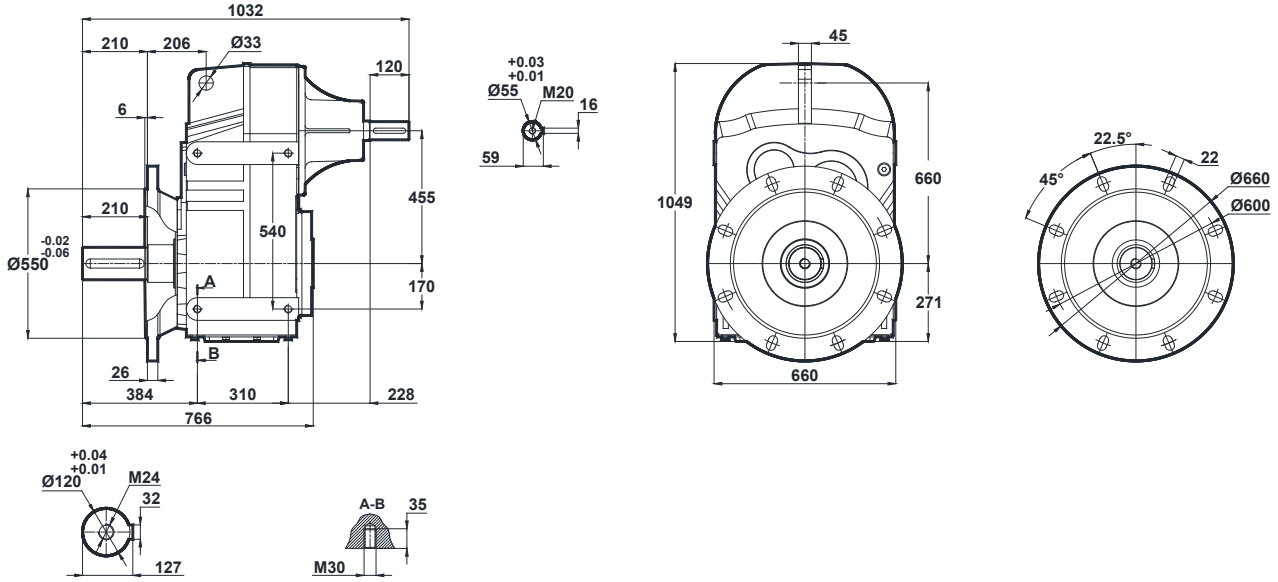


DT972.01
DT973.01

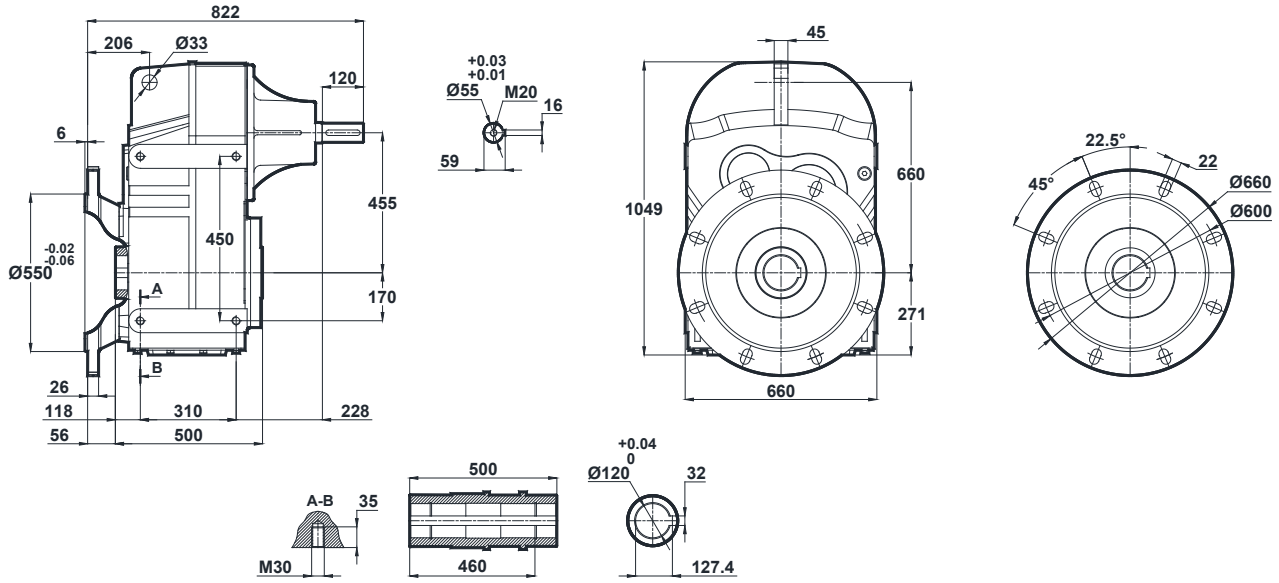


-Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole according to DIN 332, sheet 2* / Zentrierung mit Gewinde nach DIN 332, Blatt 2

DT972.02
DT973.02

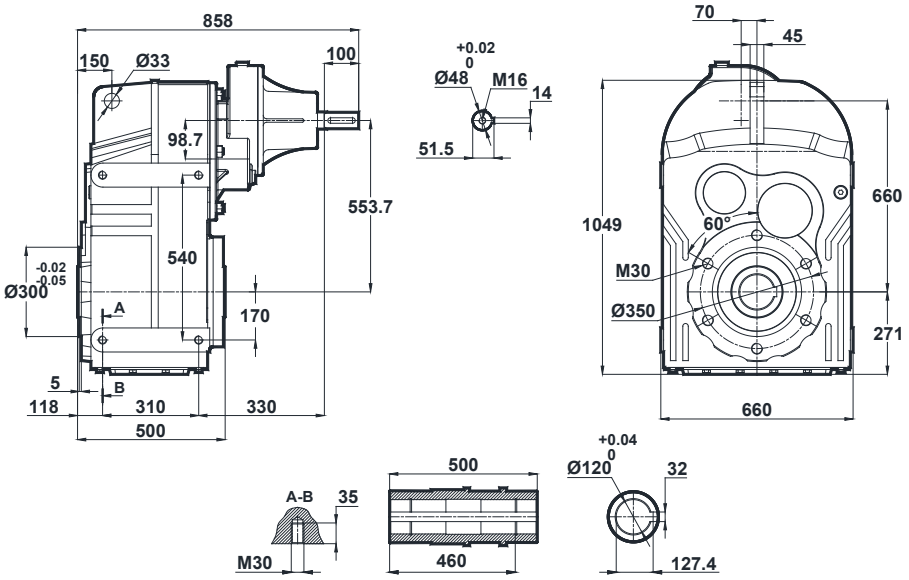


DT972.03
DT973.03

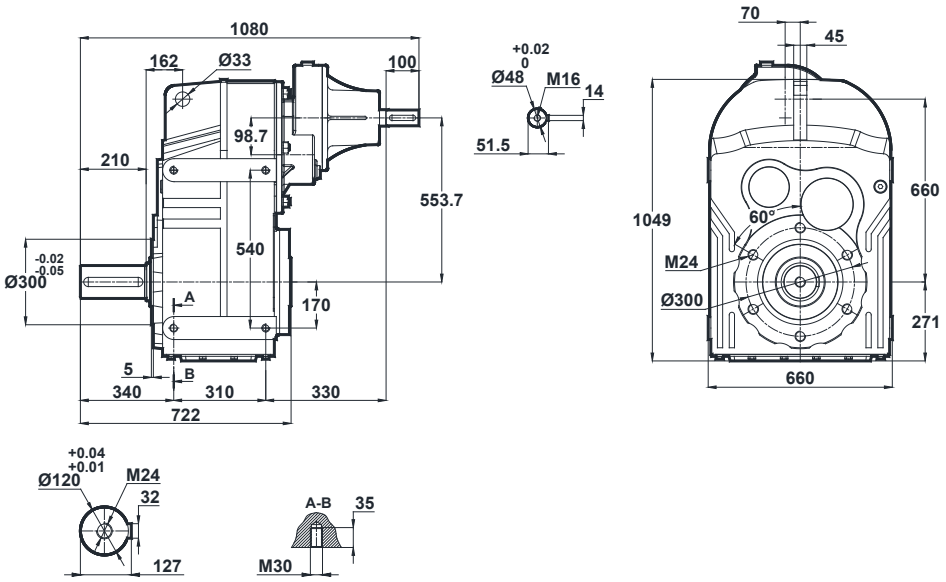


-Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole according to DIN 332, sheet 2* / Zentrierung mit Gewinde nach DIN 332, Blatt 2

DT974.00

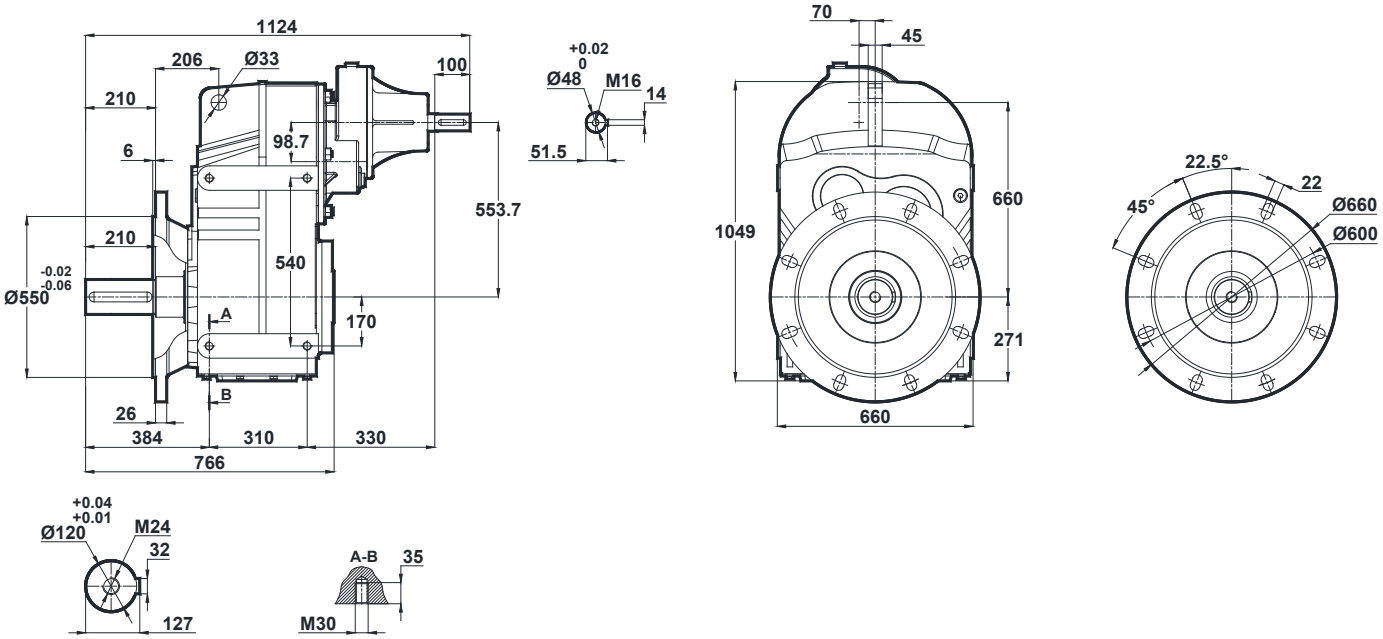


DT974.01

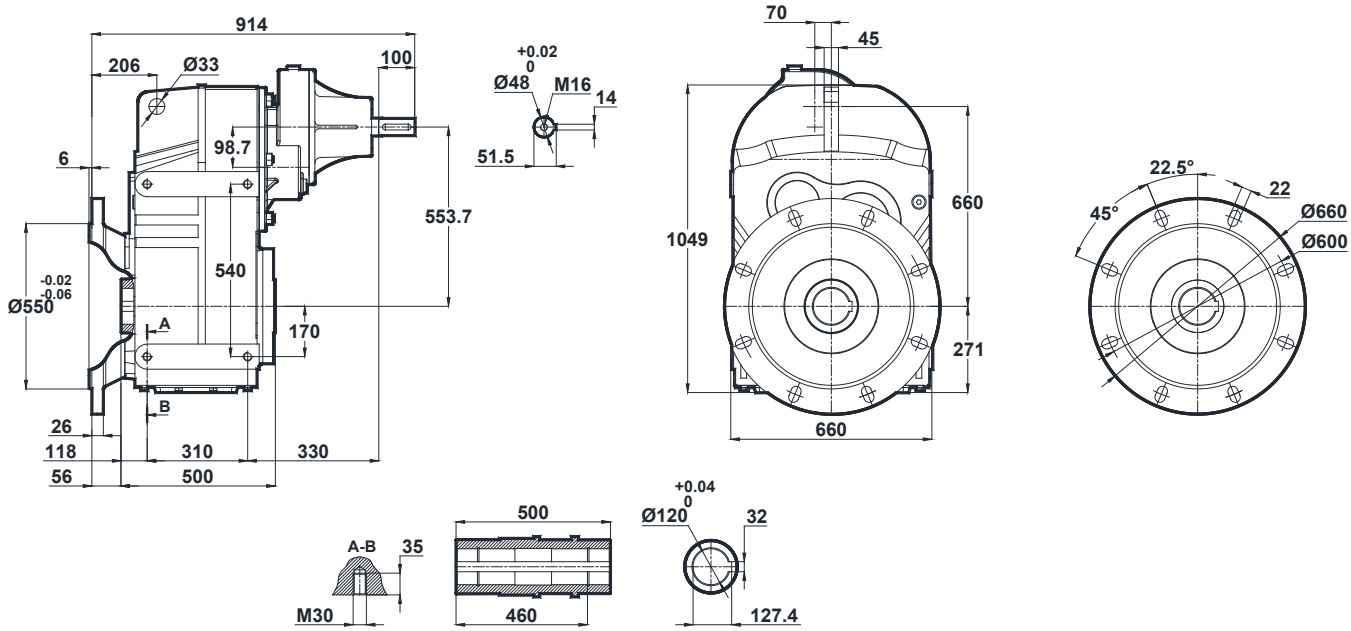


-Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole according to DIN 332, sheet 2* / Zentrierung mit Gewinde nach DIN 332, Blatt 2

DT974.02

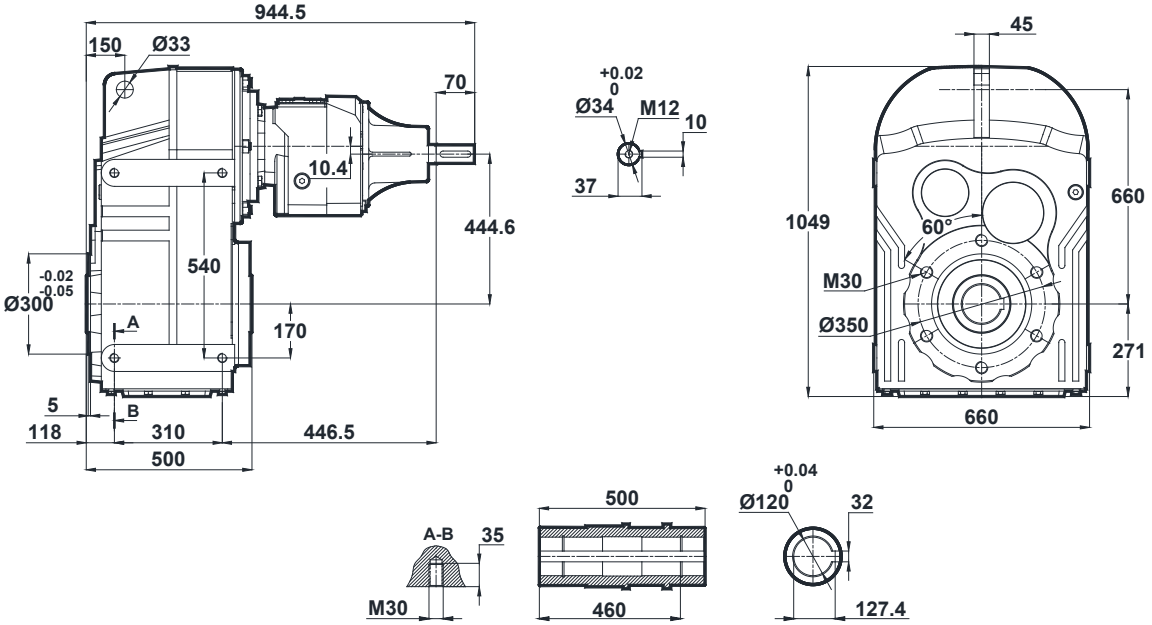


DT974.03

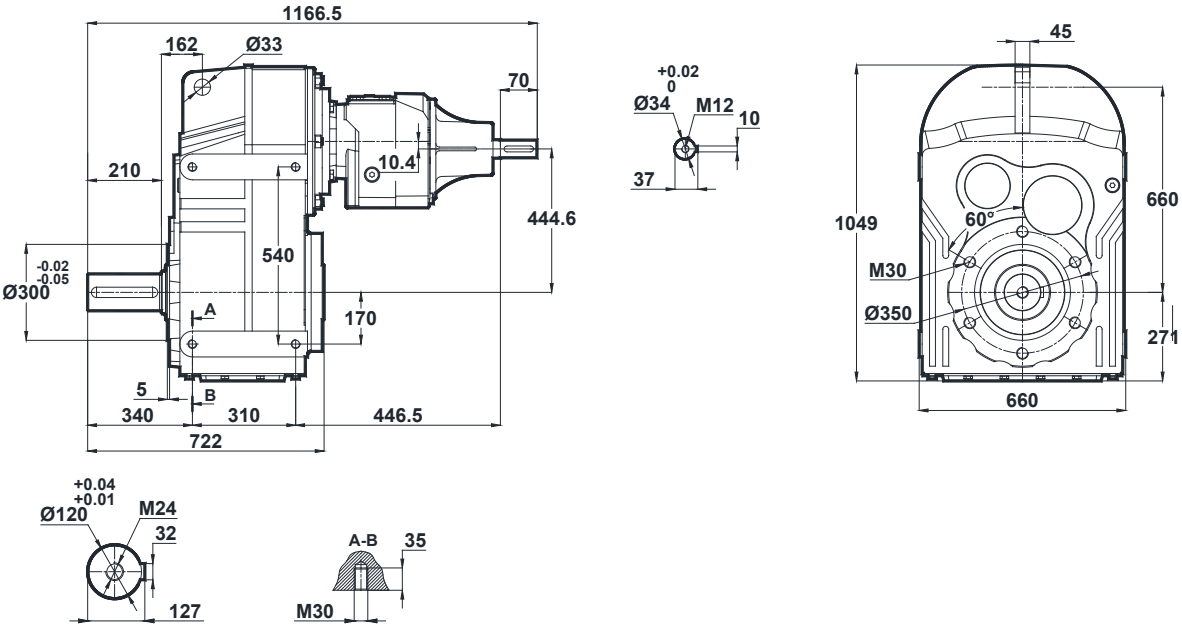


-Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole according to DIN 332, sheet 2* / Zentrierung mit Gewinde nach DIN 332, Blatt 2

DT975.00
DT976.00

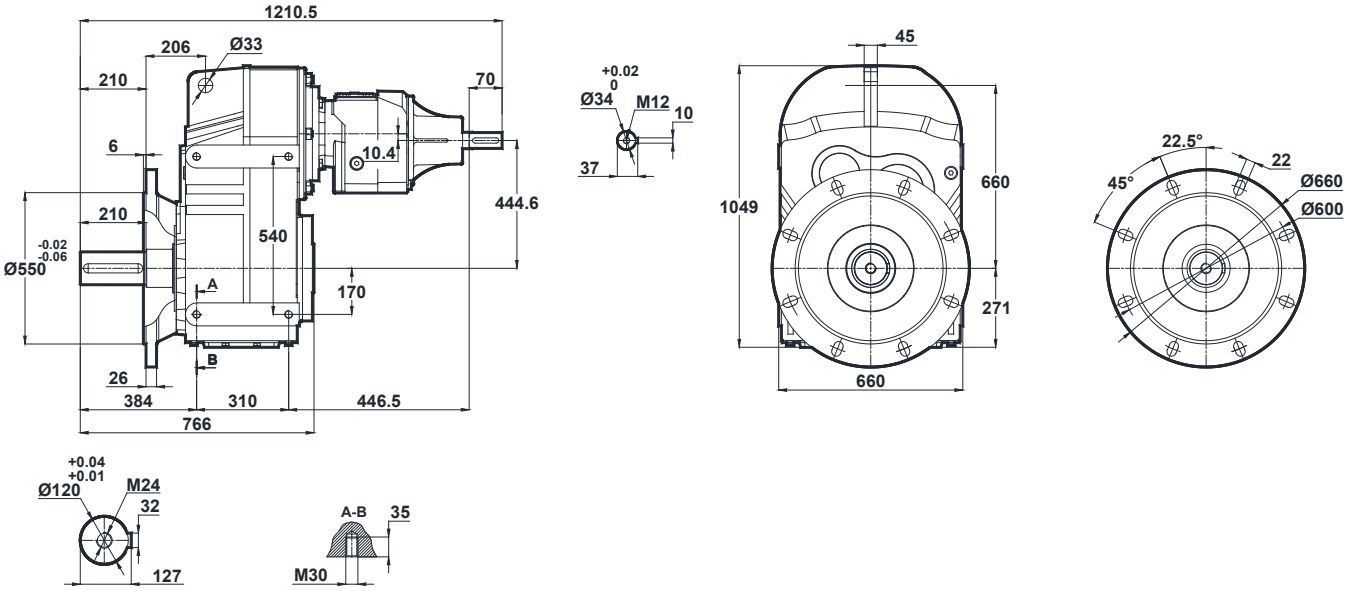


DT975.01
DT976.01

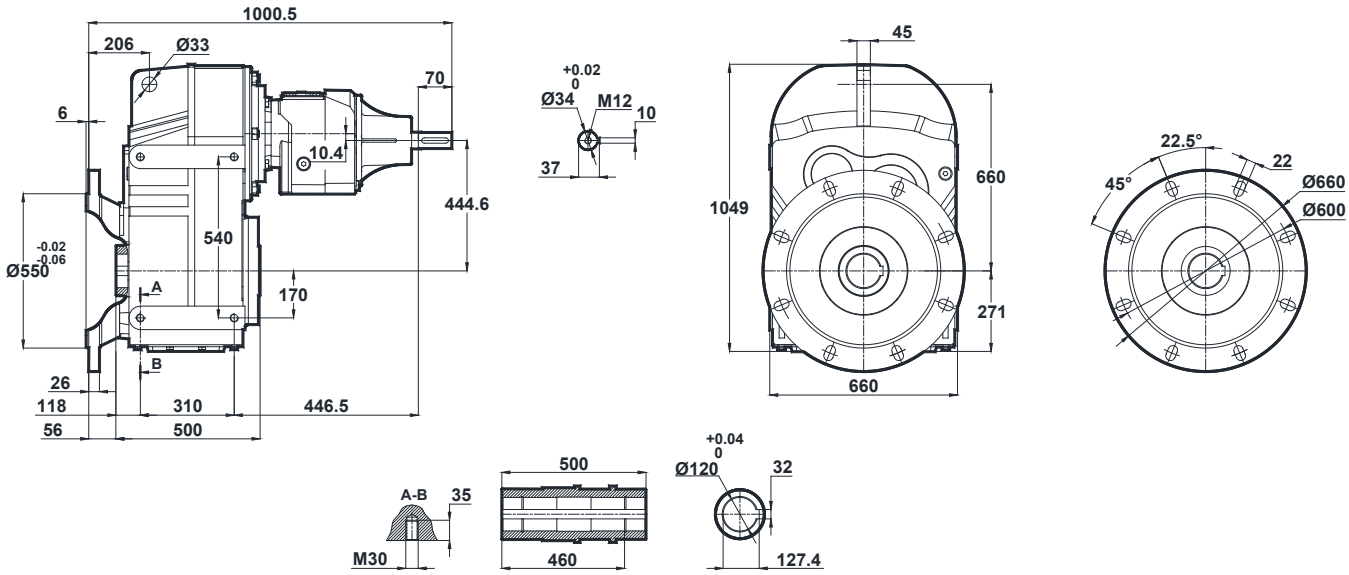


-Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole according to DIN 332, sheet 2* / Zentrierung mit Gewinde nach DIN 332, Blatt 2

DT975.02
DT976.02

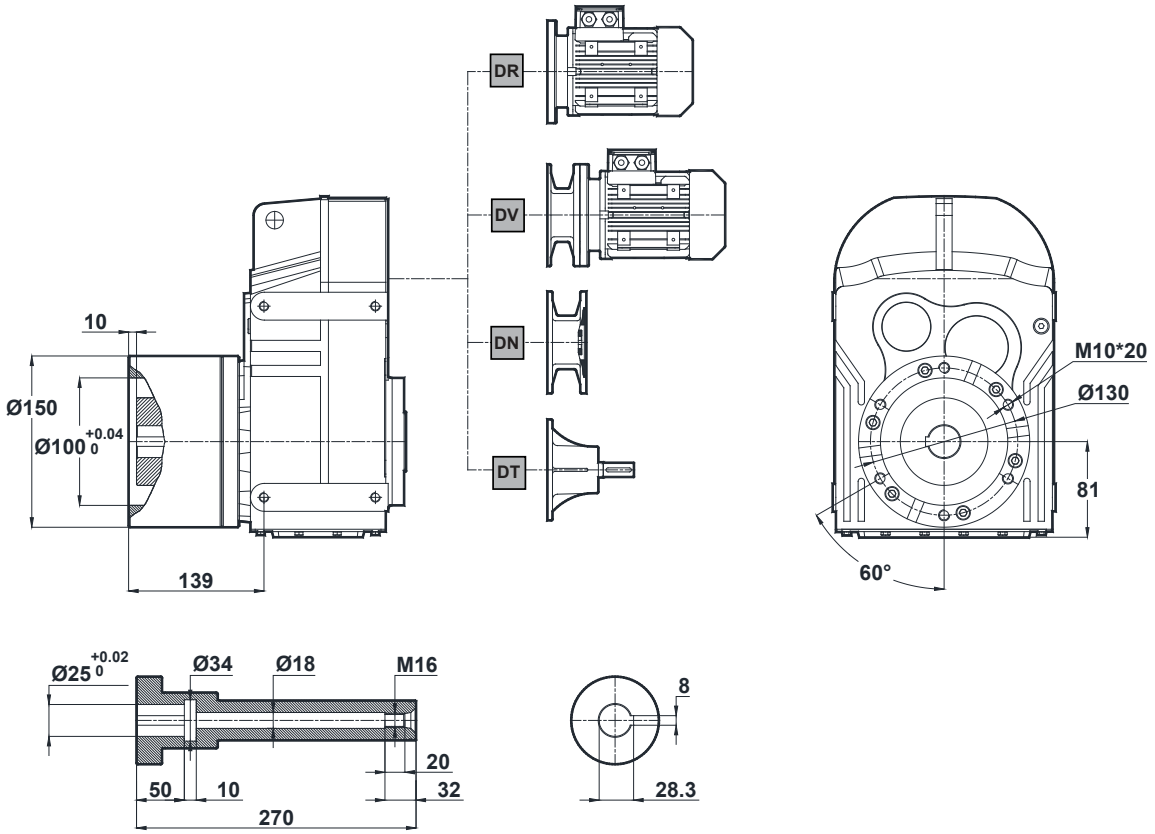


DT975.03
DT976.03

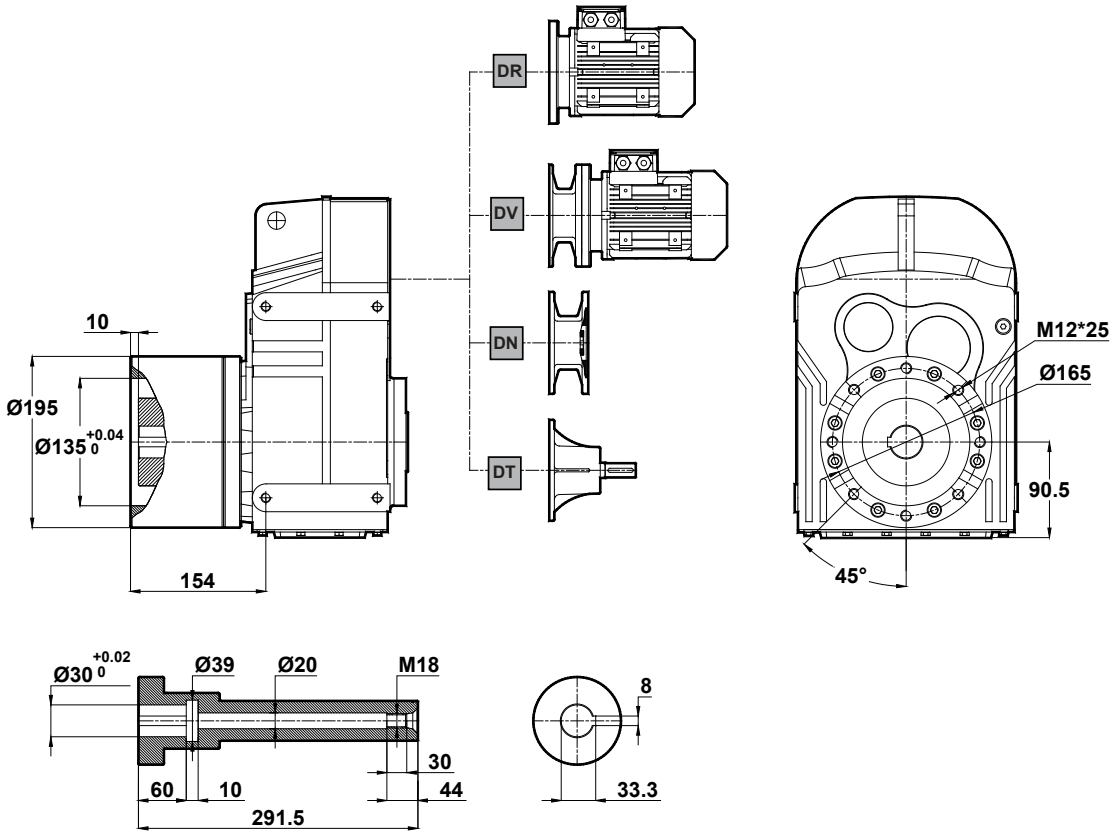


-Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole according to DIN 332, sheet 2* / Zentrierung mit Gewinde nach DIN 332, Blatt 2

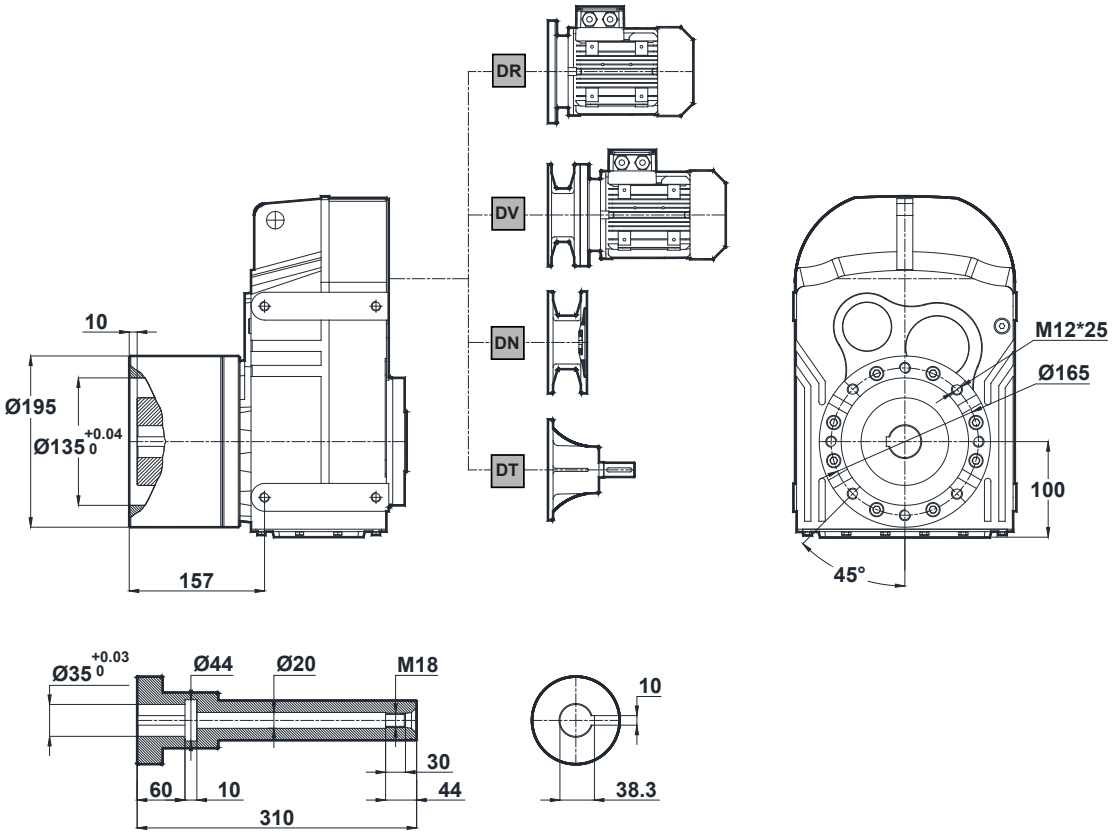
D.27.0E


DR
DV
DN
DT
10
Ø150
Ø100 +0.04 0
139
M10*20
Ø130
81
60°
Ø25 +0.02 0
Ø34
Ø18
M16
50
10
270
20
32
8
28.3

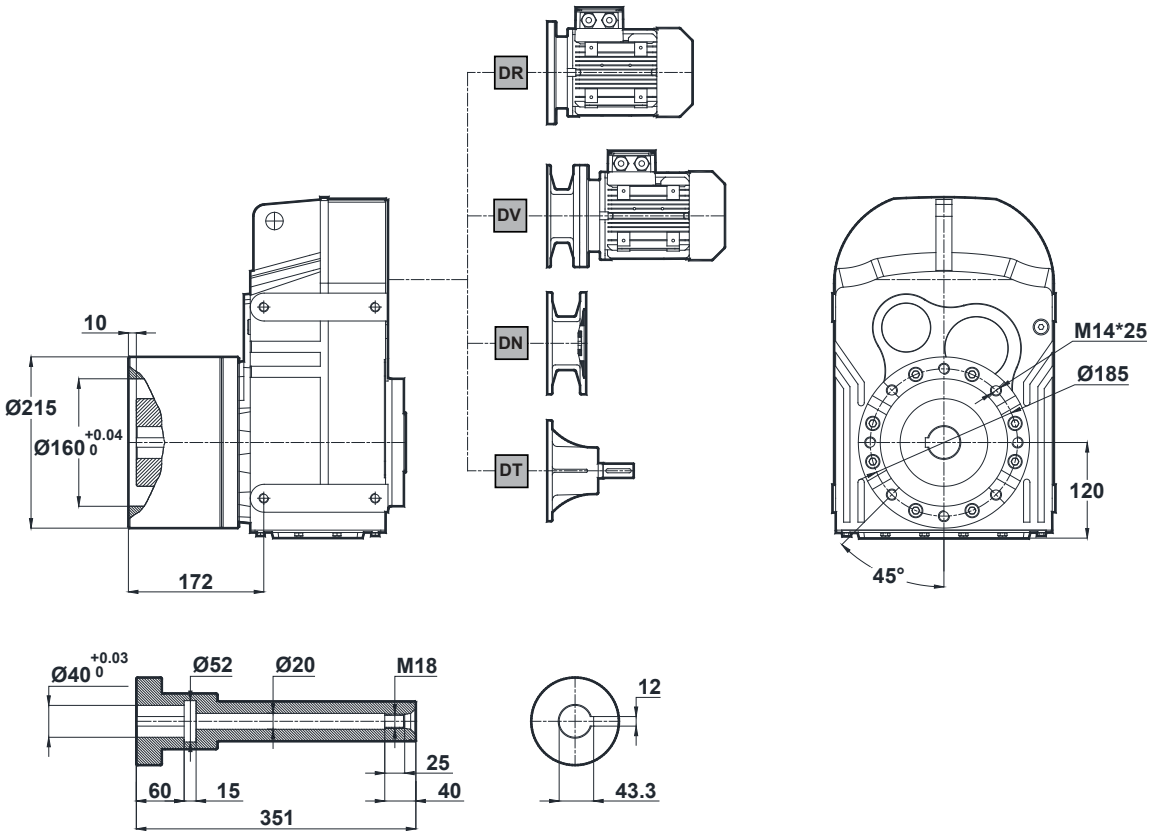
D.28.0E


DR
DV
DN
DT
10
Ø195
Ø135 +0.04 0
154
M12*25
Ø165
90.5
45°
Ø30 +0.02 0
Ø39
Ø20
M18
60
10
291.5
30
44
8
33.3

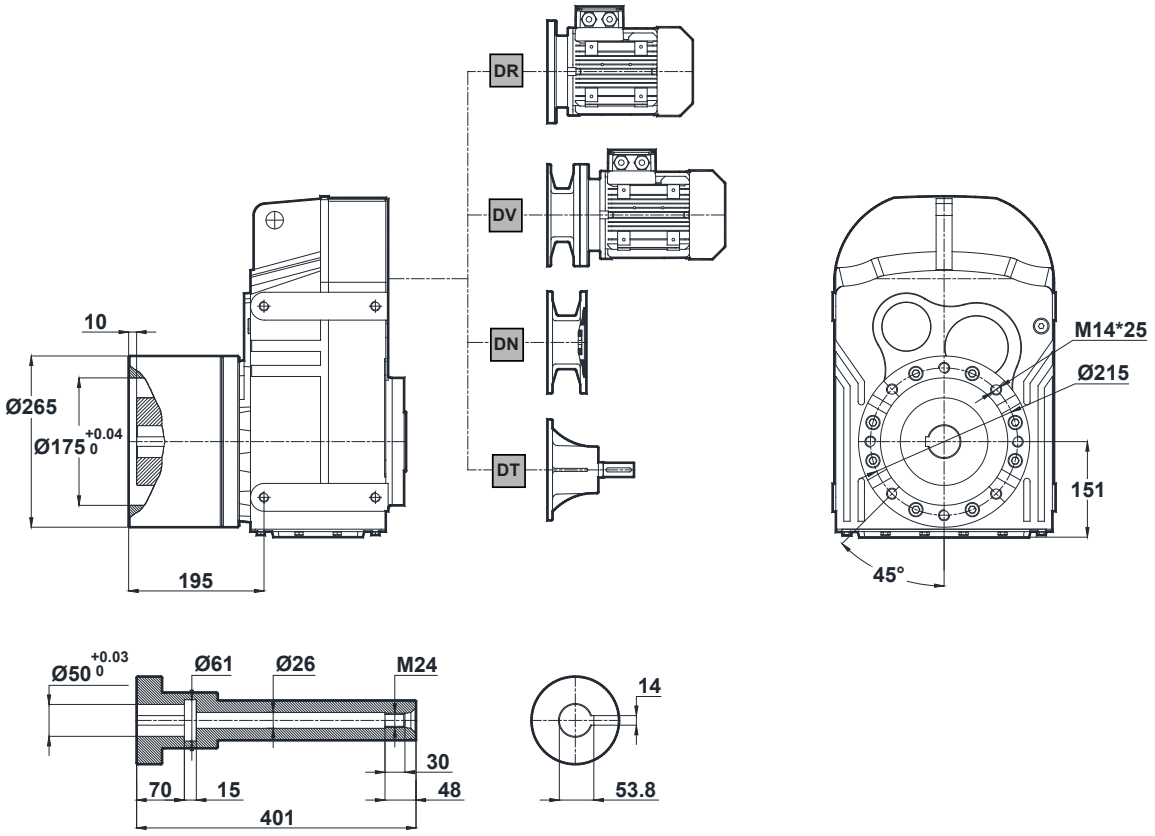
D.37.0E


DR
DV
DN
DT
10
Ø195
Ø135 +0.04 0
157
M12*25
Ø165
100
45°
Ø35 +0.03 0
Ø44
Ø20
M18
30
60
10
44
310
10
38.3

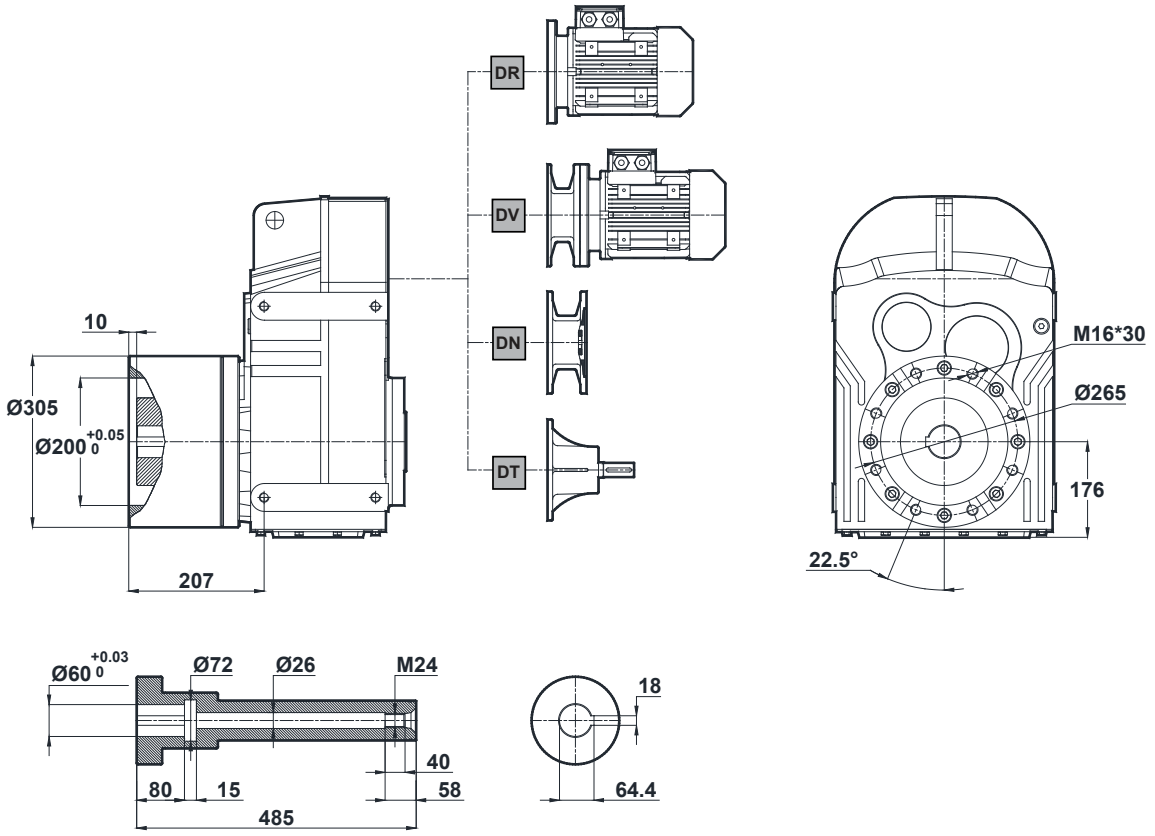
D.47.0E


DR
DV
DN
DT
10
Ø215
Ø160 +0.04 0
172
M14*25
Ø185
120
45°
Ø40 +0.03 0
Ø52
Ø20
M18
25
60
15
40
351
12
43.3

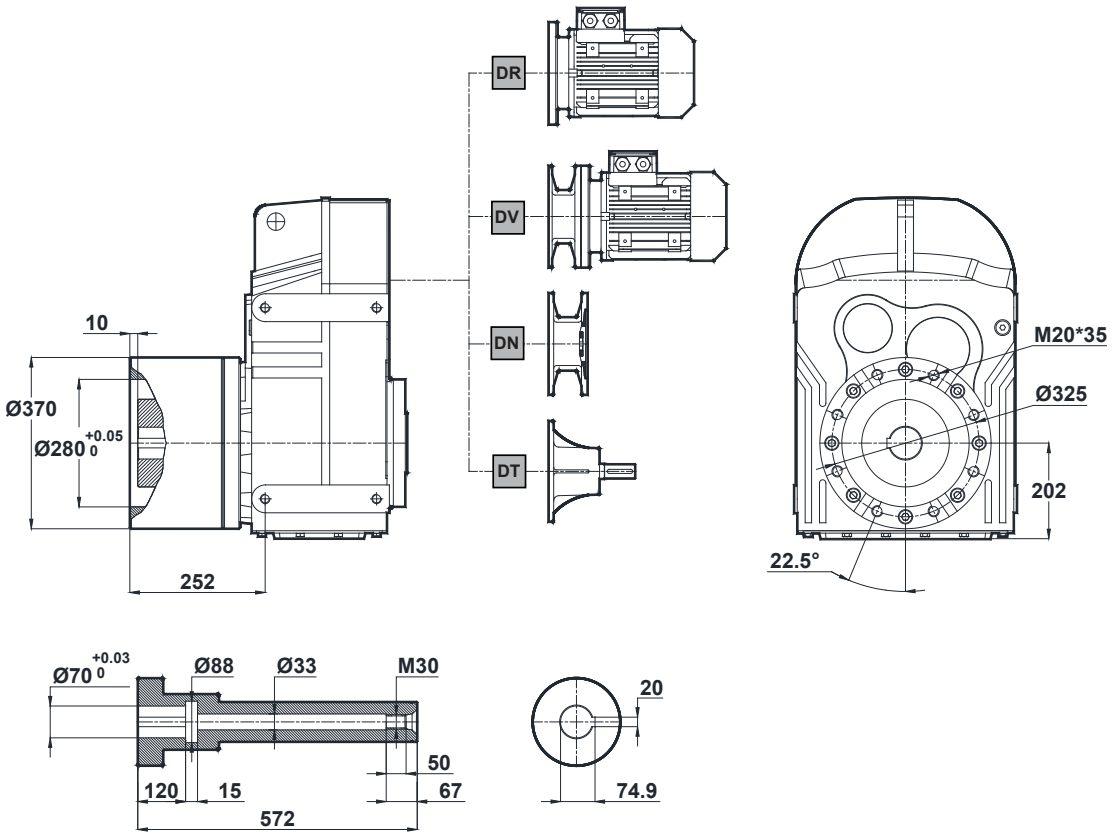
D.57.0E


DR
DV
DN
DT
10
Ø265
Ø175 +0.04 0
195
M14*25
Ø215
151
45°
Ø50 +0.03 0
Ø61
Ø26
M24
70
15
401
30
48
14
53.8

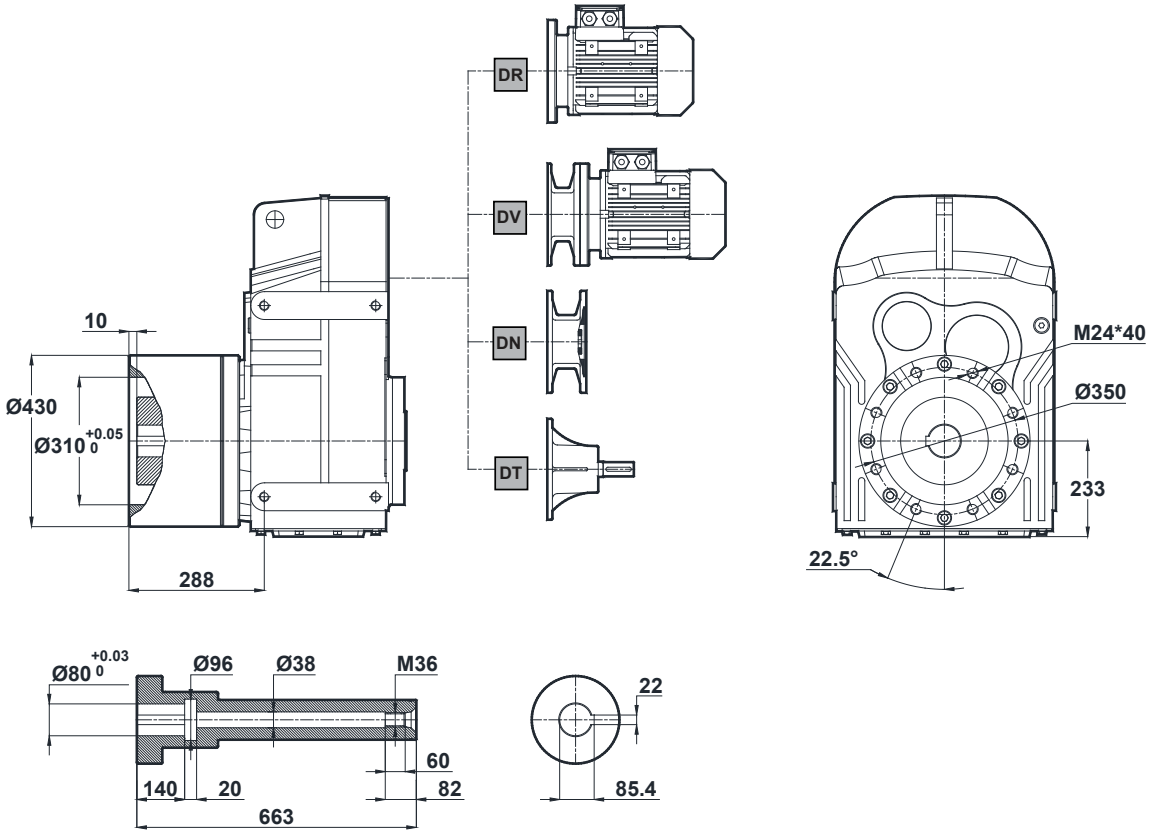
D.67.0E


DR
DV
DN
DT
10
Ø305
Ø200 +0.05 0
207
M16*30
Ø265
176
22.5°
Ø60 +0.03 0
Ø72
Ø26
M24
80
15
485
40
58
18
64.4

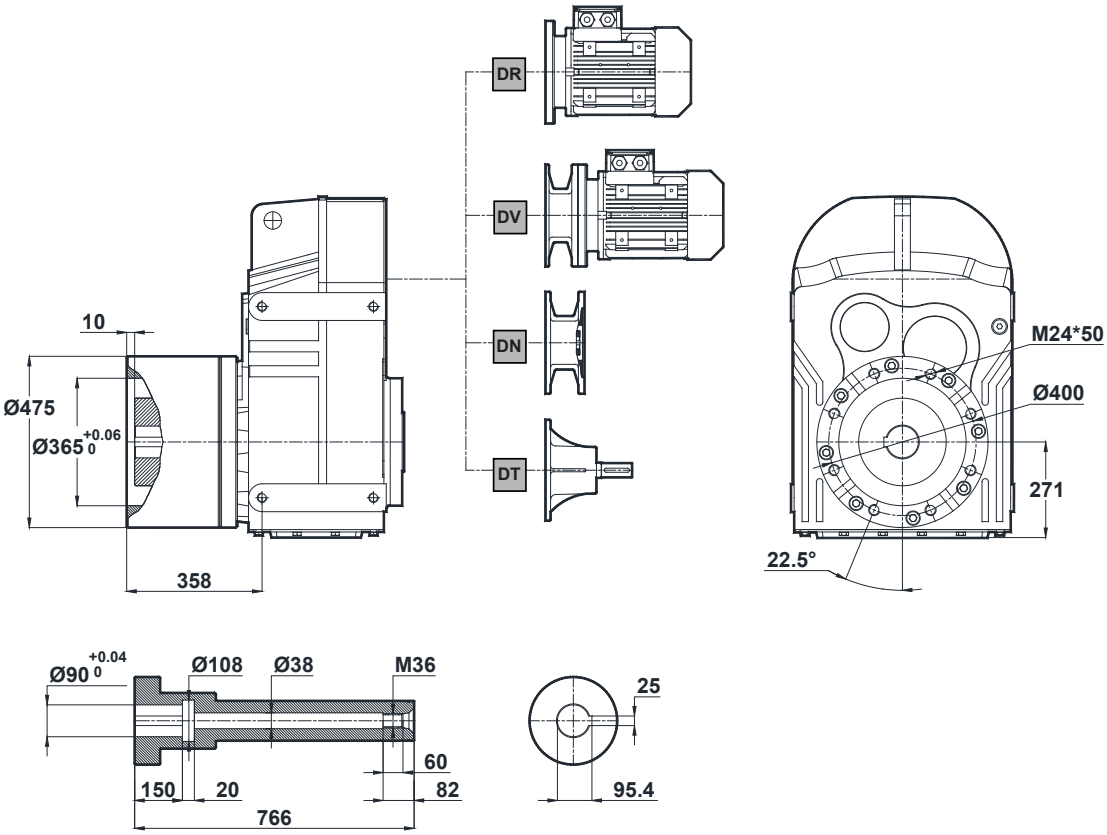
D.77.0E


DR
DV
DN
DT
10
Ø370
Ø280 +0.05 0
252
M20*35
Ø325
202
22.5°
Ø70 +0.03 0
Ø88
Ø33
M30
50
67
120
15
572
20
74.9

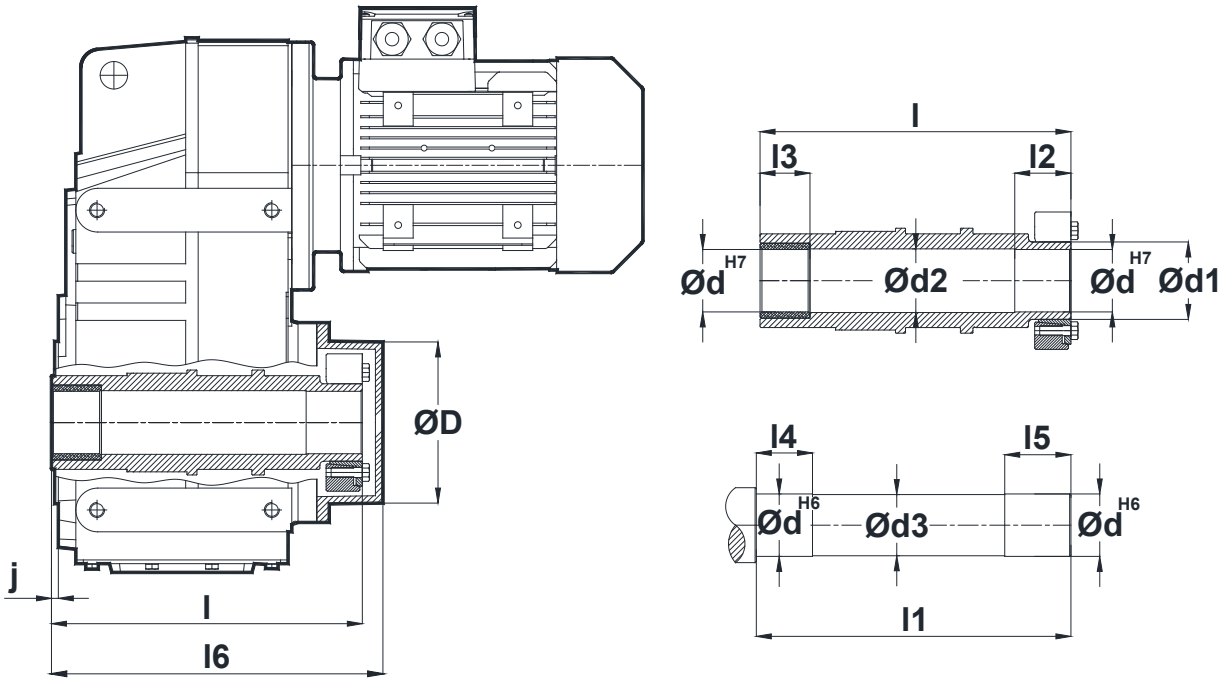
D.87.0E


DR
DV
DN
DT
10
Ø430
Ø310 +0.05 0
288
M24*40
Ø350
233
22.5°
Ø80 +0.03 0
Ø96
Ø38
M36
60
82
140
20
663
22
85.4

D.97.0E


DR
DV
DN
DT
10
Ø475
Ø365 +0.06 0
358
M24*50
Ø400
271
22.5°
Ø90 +0.04 0
Ø108
Ø38
M36
60
150
20
82
766
25
95.4

D SERİSİ DELİK MİLLİ SIKMA BİLEZİKLİ REDÜKTÖRLER
D SERIES HOLLOW SHAFT WITH SHRINK DISC CONNECTOR
D SERIE HOHLWELLE MIT SCHRUMPFSCHEIBE

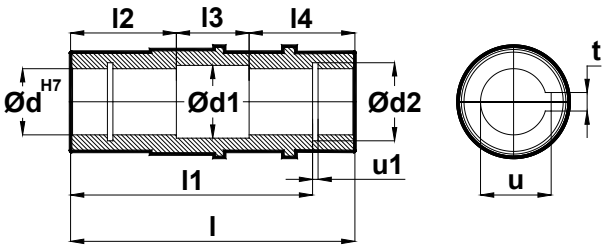


İstenilen yüzey pürüzlülüğü değeri: Rz ≤ 16 µm
Desired surface roughness value: Rz ≤ 16 µm
Gewünschtes Oberflächenrauhigkeitswert: Rz ≤ 16 µm

Tipi *Type* Typ	ØD	Ød	Ød1	Ød2	Ød3	l	l1	l2	l3	l4	l5	l6	j	M	Z	Ta[Nm]
D.07.. 0S	73	25	30	26	24	131	134	30	20	25	38	142,5	4	M5	6	4
D.17.. 0S	85	30	36	31	29	146	149	30	20	25	38	162	4	M6	5	12
D.27.. 0S	94	35	44	36	34	186	189	35	25	30	43	201	4.5	M6	7	12
D.28.. 0S	104	40	50	41	39	197	200	35	30	35	43	213	5	M6	8	12
D.37.. 0S	106	40	50	41	39	216	219	40	35	40	48	232	6	M6	8	12
D.47.. 0S	129	50	62	51	49	249	252	45	40	45	53	266	5.5	M6	10	12
D.57.. 0S	159	60	75	61	59	282	285	50	45	50	58	305	5.5	M8	7	30
D.67.. 0S	164	70	80	71	69	345	348	55	50	55	63	366	6	M8	7	30
D.77.. 0S	204	90	110	91	89	418	421	70	60	70	83	440	7.5	M10	9	59
D.87.. 0S	252	110	140	111	109	492	495	80	70	80	93	519	9	M12	10	100
D.97.. 0S	288	120	155	121	119	570	573	90	80	90	103	593	10	M12	12	100

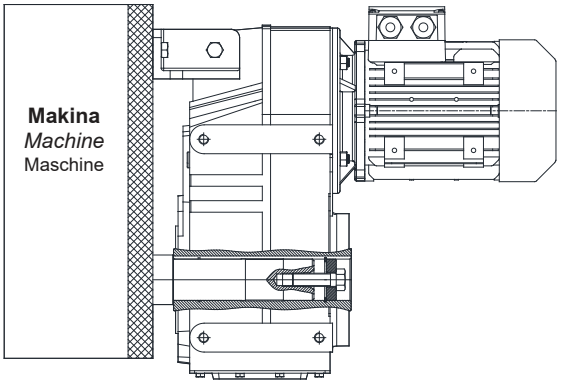
M: **Civata Ölçüsü** / Bolt dimension / Muttergröße
Z: **Civata Sayısı** / Bolt Quantity / Anzahl von Muttern
Ta: **Sıkma Momenti** / Tightening Torque / Schrumpfmoment

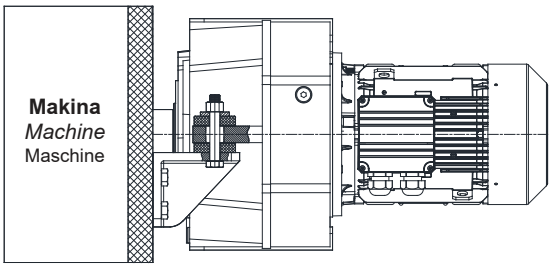
D serisi redüktör kovan ölçüleri
Hollow Shaft Dimensions for D Series Gearboxes
Hohlwelleabmessungen Von D Serie Getrieben



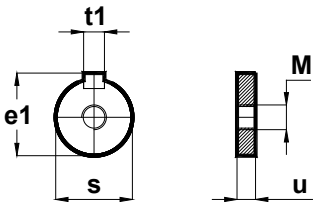
Tip *Type* Typ	d	d1	d2	l	l1	l2	l3	l4	u1	t	u
D.07..	25	26	26.2	108	94	40	28	40	1.3	8	28.3
D.17..	30	31	31.4	120	105	45	30	45	1.3	8	33.3
D.27..	35	36	37	157	132	60	37	60	1.6	10	38.3
D.28..	40	41	42.5	166	142	64	38	64	1.85	12	43.3
D.37..	40	41	42.5	185	156	70	45	70	1.85	12	43.3
D.47..	50	51	53	215	183	82	51	82	2.15	14	53.8
D.57..	60	61	63	246	210	96	54	96	2.15	18	64.4
D.67..	70	71	73	308	270	110	88	110	2.65	20	74.9
D.77..	90	91	93.5	363	313	135	93	135	3.15	25	95.4
D.87..	110	111	114	428	373	160	108	160	4.15	28	116.4
D.97..	120	121	124	500	460	180	140	180	4.15	32	127.4

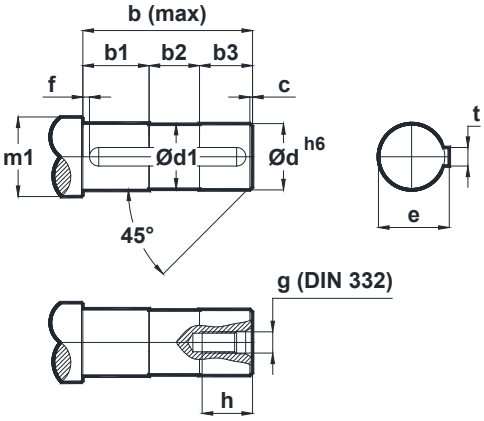
Moment kolu bağlantı detayı
Torque Arm Mounting details
Drehmomentstütze montage zeichnungen





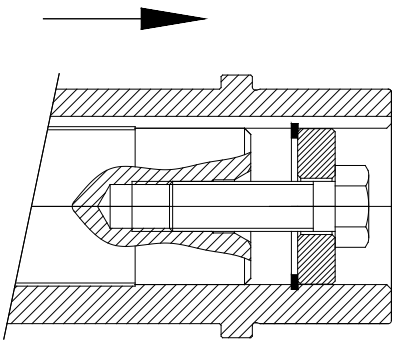
D SERİSİ REDÜKTÖRLERDE TAVSİYE EDİLEN MİL BOYU MONTAJ-DEMONTAJ ŞEKLİ VE AKSESUARLARI
ADVISED SHAFT DIMENSIONS AND ACCESSORIES ASSEMBLING FOR D SERIES GEARBOXES
EMPFOHLENE WELLEN MASSEN UND VERBINDUNGSELEMENTE BEI MONTAGE FÜR D SERIE GETRIEBE



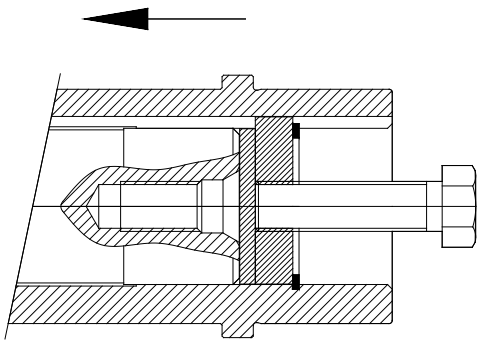


Tipi *Type* Typ	s	u	e1	t1	M	d	d1	m1	f	b	b1	b2	b3	c	g	h	e	t
D.07..	24.7	8	28	7.5	M12	25	24	30		82	45	18	19	1	M10	24	28	8
D.17..	29.7	10	33	7.5	M12	30	29	36		89	50	20	19	1	M10	24	33	8
D.27..	34.7	12	38	9.5	M16	35	34	43		114	65	27	22	1	M12	30	38	10
D.28..	39.7	12	43	11.5	M20	40	39	50		124	69	28	27	2	M16	38	43	12
D.37..	39.7	12	43	11.5	M20	40	39	50		138	75	35	28	2	M16	38	43	12
D.47..	49.7	12	53.5	13.5	M20	50	49	60	5	165	87	41	37	3	M16	38	53.5	14
D.57..	59.7	16	64	17.5	M24	60	59	75		188	101	44	43	3	M20	44	64	18
D.67..	69.7	16	74.5	19.5	M24	70	69	85		248	115	78	55	4	M20	44	74.5	20
D.77..	89.7	20	95	24.5	M30	90	89	110		287	140	83	64	4	M24	52	95	25
D.87..	109.7	20	116	27.5	M30	110	109	130		347	165	98	84	4	M24	52	116	28
D.97..	119.7	20	127	31	M30	120	119	140		434	185	130	119	4	M24	52	127	32

Mil Çektirme / *Shaft Mounting* / Einziehen

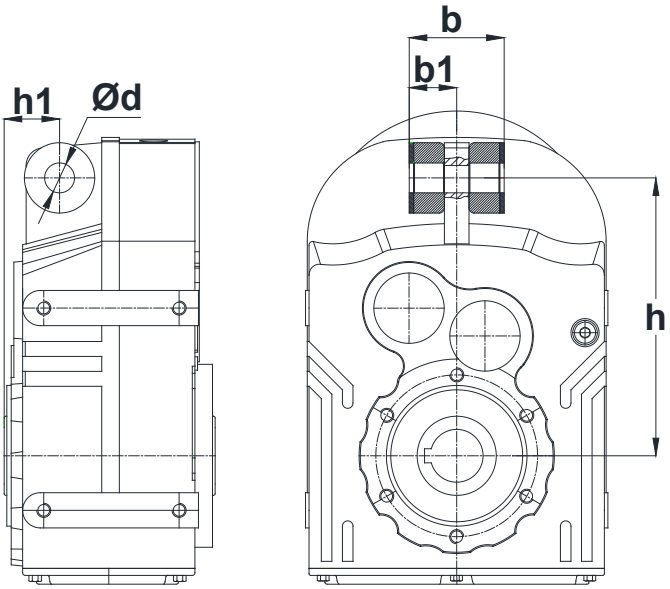


Mil Çıkartma / *Shaft Pulling Out* / Heraus Drücken



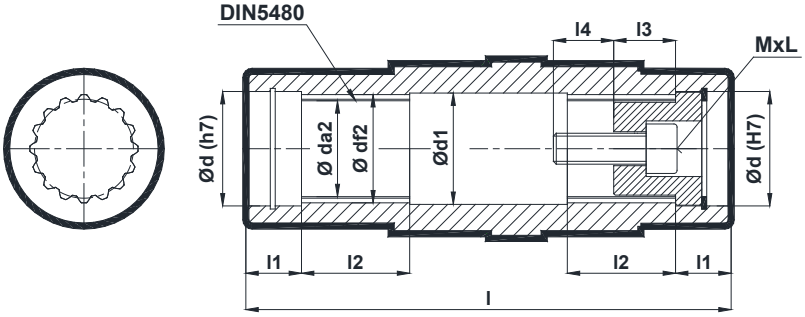
6 Köşe Başlı Civata / *6 Contour Bolt* / Sechskantschraube
(DIN ISO 4014 . DIN ISO 4017)
(DIN ISO 8765)

D Serisi Redüktörlerde Moment Kolu Bağlantı Ölçüleri
Torque Arm Mounting Dimensions for D Series Gear Units
Montageabmessungen der Drehmomentstütze von D Serie Getriebe



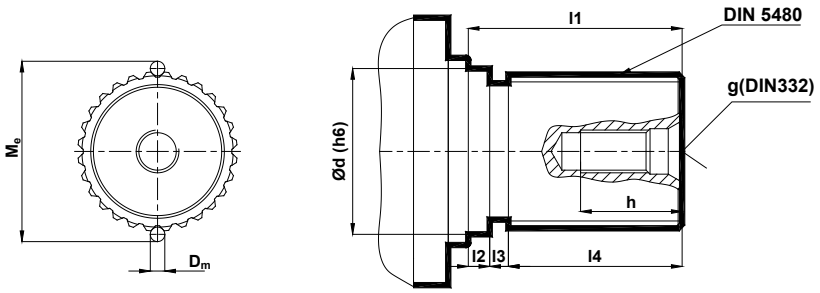
Tip *Type* Typ	d	b	b1	h	h1
D.07..	14	42	21	147	26.5
D.17.	17	54	27	158	31.5
D.27.	17	54	27	170	32
D.28.	17	54	27	198	40.5
D.37.	17	56	28	218	41
D.47.	22	80	40	278	50
D.57.	22	86	43	346	62
D.67.	26	110	55	395	70
D.77.	26	116	58	485	88
D.87.	32	160	80	550	110
D.97.	32	165	82.5	660	150

D.07.. - D.97.. DIN 5480 ÇOKLU KAMA ÖLÇÜLERİ
D.07.. - D.97.. DIMENSIONS OF SPLINED HOLLOW SHAFT TO DIN 5480
D.07.. - D.97.. ABMESSUNGEN VON HOHLWELLE MIT VIELKEILVERZAHNUNG NACH DIN 5480



Tip *Type* Typ	DIN5480	ød (H7)	ød1	ød2	øda2	ødf2	l	l1	l2	l3	l4	MxL
D07	N25x1.25x30x18x9H	27	26	48	22.5	25.25	104	17	22	20	20	M10x60
D17	N30x1,25x30x22x9H	32	31	53	27,5	30,25	120	18	25	20	20	M10x60
D27 **D28**	N35x2x30x16x9H	37	36	58 63,5	31	35,4	157 166	18	35	20	20	M10x90 M10x100
D37	N45x2x30x21x9H	47	46	74	41	45,4	185	25	45	24	32	M16x110
D47	N50x2x30x24x9H	55	51	84	46	50,4	215	25	55	24	32	M16x130
D57	N65x2x30x31x9H	72	66	104	61	65,4	246	25	65	30	40	M20x150
D67	N70x2x30x34x9H	72	71	119	66	70,4	308	25	75	30	40	M20x210
D77	N85x3x30x27x9H	90	86	139,5	79	85,6	363	26	90	30	40	M20x240
D87	N100x4x30x24x9H	110	101	169	92	100,8	428	30	105	41	50	M24x290
D97	N120x4x30x28x9H	130	121	179	112	120,8	500	35	120	41	50	M24x340

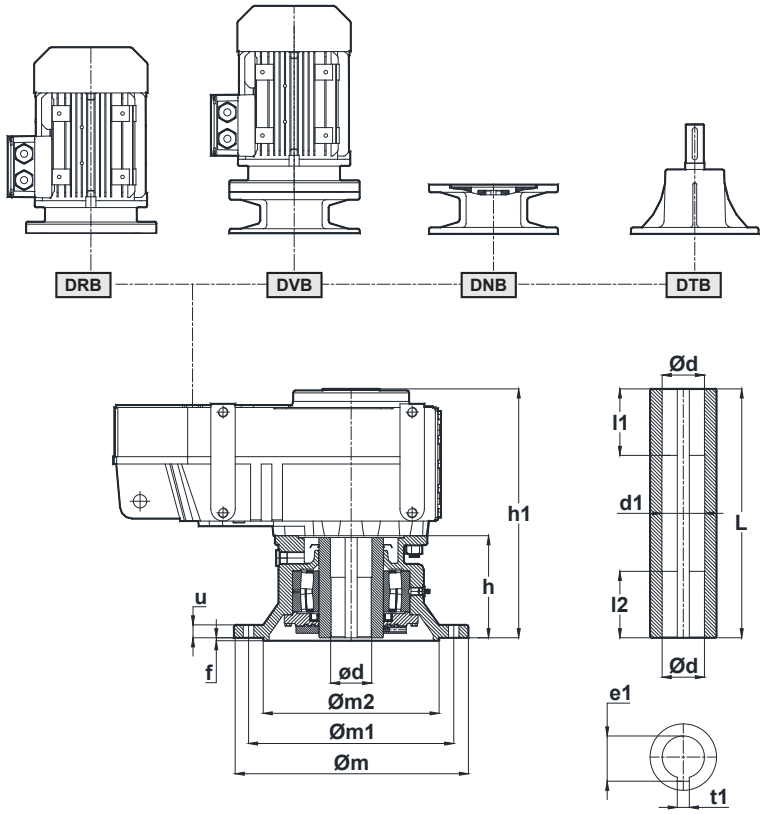
NOT: Makina mil boyu <u>tek taraflı</u> çoklu kama uzunluk ölçüsüne <u>(l1+l2)</u> göre yapılmalıdır! Delik mil boydan boya kullanılamaz!
NOTE: *The customer shaft length must be made <u>only for one sided (l1+l2)</u> splined hollow shaft dimensions! The total length (l) of the splined hollow shaft can not be used in this case!*
HINWEIS: Die Kundenwellenlänge muss <u>nur für einseitig (l1+l2)</u> Hohlwelle mit Vielkeilverzahnung gefertigt werden. Die Gesamtlänge der Hohlwelle (l) kann in diesem Fall nicht verwendet werden!



Tip *Type* Typ	DIN5480	ød	l1	l2	l3	l4	Me	Dm	g (DIN332)
D07	W25x1.25x30x18x8f	27	44	10	7	27	$28.01^{0\,/\,-0,03}$	2.75	M10x24
D17	W30x1,25x30x22x8f	32	48	11	7	30	$33,05^{0\,/\,-0,04}$	2,75	M10x24
D27 **D28**	W35x2x30x16x8f	37	58	11	7	40	$38,94^{0\,/\,-0,05}$	4,00	M10x24
D37	W45x2x30x21x8f	47	75	18	7	50	$48,88^{0\,/\,-0,05}$	4,00	M16x38
D47	W50x2x30x24x8f	55	85	18	7	60	$54,16^{0\,/\,-0,05}$	4,00	M16x38
D57	W65x2x30x31x8f	72	95	17	8	70	$68,99^{0\,/\,-0,06}$	4,00	M20x44
D67	W70x2x30x34x8f	72	105	17	8	80	$74,18^{0\,/\,-0,06}$	4,00	M20x44
D77	W85x3x30x27x8f	90	121	16	10	95	$91,02^{0\,/\,-0,05}$	6,00	M20x44
D87	W100x4x30x24x8f	110	140	20	10	110	$108,37^{0\,/\,-0,06}$	8,00	M24x52
D97	W120x4x30x28x8f	130	160	23	12	125	$127,89^{0\,/\,-0,06}$	8,00	M24x52

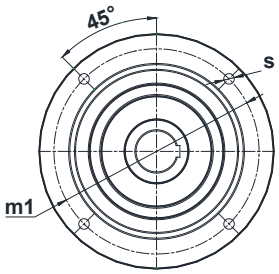
D SERİSİ DELİK MİLLİ KARIŞTIRICI REDÜKTÖRLERİ ÖLÇÜLERİ
D SERIES DRYWELL GEARBOXES WITH HOLLOW SHAFT DIMENSIONS
D SERIEN DRYWELL GETRIEBE MIT HOHLWELLE ABMESSUNGEN

0A Delik Mil Opsiyonu
0A Hollow Shaft Option
0A Hohlwelle-Ausführung

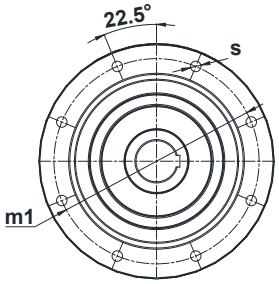


Çıkış Flanşı
Output Flange
Abtriebsflansch

D.28 - D.67



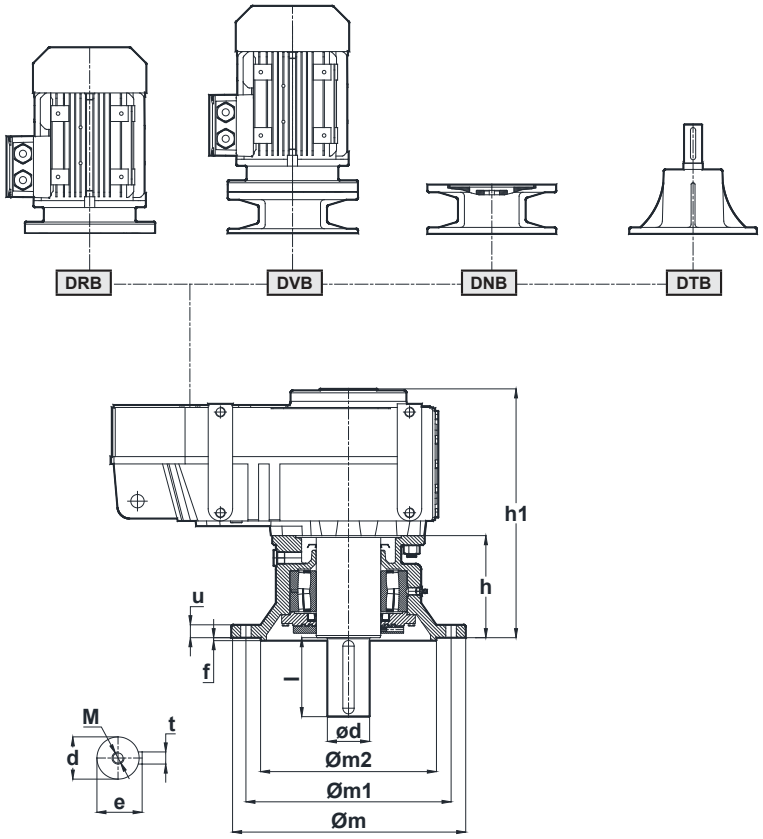
D.77 - D.97



Tip *Type* Typ	m	m1	m2	h	h1	f	u	s	L	l1	l2	d	d1	e1	t1
D.B 28	250	215	180	96	257	4	16	13,5x4	257	60	60	40	41	43,3	12
D.B 37	250	215	180	96	275,5	4	16	13,5x4	275,5	70	70	40	41	43,3	12
D.B 47	300	265	230	100	309,5	4	20	14x4	309,5	82	82	50	51	53,8	14
D.B 57	350	300	250	124	364,5	5	20	18x4	364,5	96	96	60	61	64,4	18
D.B 67	400	350	300	174	476	5	22	18x4	476	110	110	70	71	79,9	20
D.B 77	450	400	350	194	549,5	5	24	18x8	549,5	135	135	90	91	95,4	25
D.B 87	550	500	450	210	629	5	28	18x8	629	160	160	110	111	116,4	28
D.B 97	660	600	550	227	717	6	28	22x8	722	180	180	120	121	127,4	32

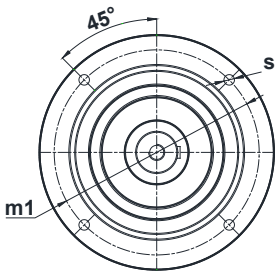
D SERİSİ DOLU MİLLİ KARIŞTIRICI REDÜKTÖRLERİ ÖLÇÜLERİ
D SERIES DRYWELL GEARBOXES WITH SOLID SHAFT DIMENSIONS
D SERIEN DRYWELL GETRIEBE MIT VOLLWELLE ABMESSUNGEN

1A Dolu Mil Opsiyonu
1A Solid Shaft Option
1A Vollwelle-Ausführung

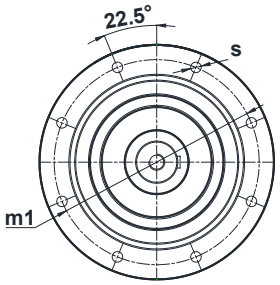


Çıkış Flanşı
Output Flange
Abtriebsflansch

D.28 - D.67



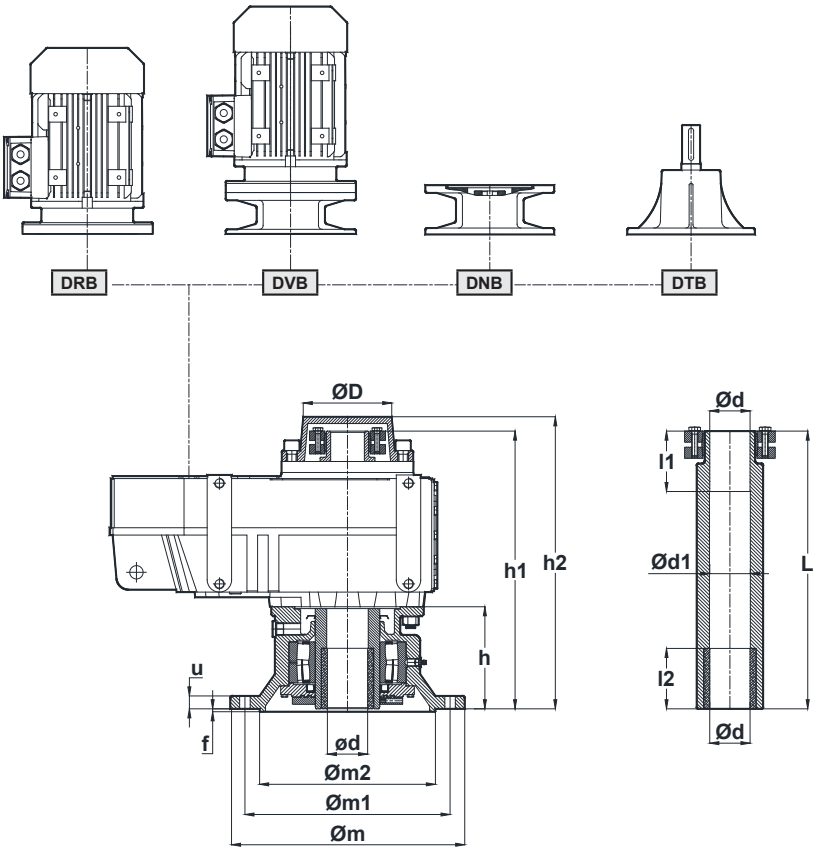
D.77 - D.97



Tip *Type* Typ	m	m1	m2	h	h1	f	u	s	d	l	e	t	M
D.B 28	250	215	180	96	255	4	16	13,5x4	40	80	43	12	M16
D.B 37	250	215	180	96	272	4	16	13,5x4	40	80	43	12	M16
D.B 47	300	265	230	100	307	4	20	14x4	50	100	53,5	14	M16
D.B 57	350	300	250	124	362	5	20	18x4	60	120	64	18	M20
D.B 67	400	350	300	174	473	5	22	18x4	75	140	79,5	20	M20
D.B 77	450	400	350	194	545	5	24	18x8	90	170	95	25	M24
D.B 87	550	500	450	210	625	5	28	18x8	110	210	116	28	M24
D.B 97	660	600	550	227	711	6	28	22x8	120	210	127	32	M24

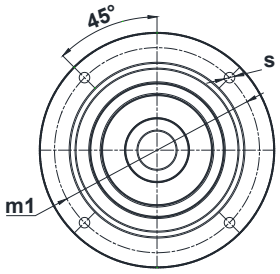
D SERİSİ SIKMA BİLEZİKLİ KARIŞTIRICI REDÜKTÖRLERİ ÖLÇÜLERİ
D SERIES DRYWELL GEARBOXES WITH SHRINK DISK DIMENSIONS
D SERIEN DRYWELL GETRIEBE MIT SCHRUMPFSCHEIBE ABMESSUNGEN

SA Sıkma Bilezik Opsiyonu
SA Shrink Disk Option
SA Schrumpfscheibe -Ausführung

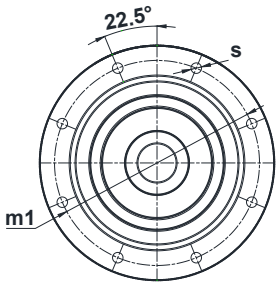


Çıkış Flanşı
Output Flange
Abtriebsflansch

D.28 - D.67



D.77 - D.97

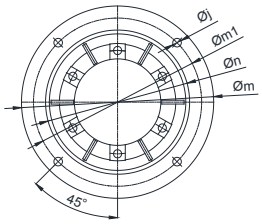


Tip *Type* Typ	m	m1	m2	h	h1	h2	f	u	s	L	l1	l2	D	d	d1
D.B 28	250	215	180	96	288	304	4	16	13,5x4	288	35	30	104	40	41
D.B 37	250	215	180	96	306.5	325	4	16	13,5x4	306.5	45	50	106	40	41
D.B 47	300	265	230	100	343.5	360	4	20	14x4	343.5	47.5	52.5	120	50	51
D.B 57	350	300	250	124	400.5	423	5	20	18x4	400.5	55	60	159	60	61
D.B 67	400	350	300	174	512	540	5	22	18x4	512	60	65	164	70	71
D.B 77	450	400	350	194	604.5	626	5	24	18x8	604.5	80	80	204	90	91
D.B 87	550	500	450	210	693	720	5	28	18x8	693	85	90	252	110	111
D.B 97	660	600	550	227	787	810	6	28	22x8	787	90	80	288	120	121

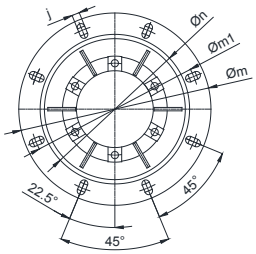
Ölçü Sayfaları
Dimension Pages
Abmessungsseiten

D SERİSİ OPSİYONEL ÇIKIŞ FLANŞ ÖLÇÜLERİ
OPTIONAL OUTPUT FLANGE DIMENSIONS FOR D SERIES
AUSWÄHLBARE ABTRIEBSFLANGEDIMENSIONEN FÜR BAUREIHE D

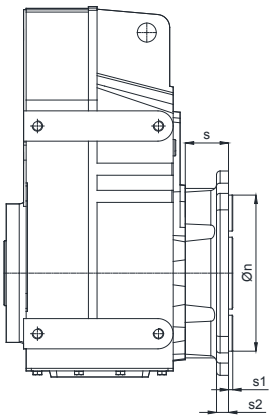
A



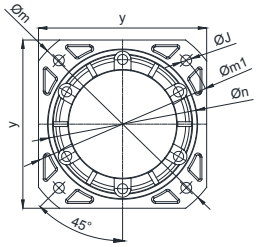
B



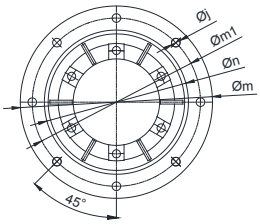
1



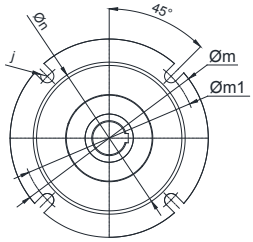
C



D



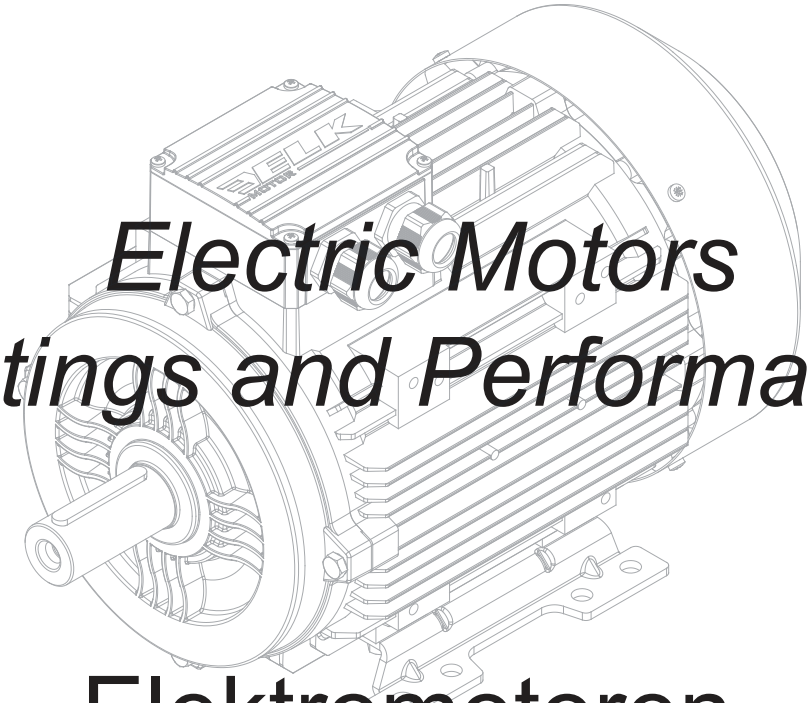
E



Tip *Type* Typ	Flanş Kodu *Flange Code* Flanschkode	Flanş Tipi *Flange Type* Flanschtyp	Montaj Ölçüleri *Mounting Dimensions* Montageabmessungen							
			øm	**øm1**	**øn**	j	**s**	**s1**	**s2**	**y**
D073 **D173**	DX05.5D173-200	E1	200	165	130	14	28	3,5	12	-
D273	DX05.5D273-250	A1	250	215	180	Ø14	39,5	4	15	-
D283 **D373**	MX05.5K373-250X05	A1	250	215	180	Ø14	86	4	15	-
	MX05.5K373-300	C1	300	265	230	14	46	4	16	240x240
	DX05.5D283-200	A1	200	165	130	12	30	4	19	-
	DX05.5D283-250	A1	250	215	180	Ø14	40	4	15	-
	DX05.5D373-300	A1	300	265	230	Ø14	40,5	4	15	-
D473	MX05.5K473-250	A1	250	215	180	14	28	4	16	-
	MX05.5K473-350	A1	350	300	250	Ø18	46,5	4	18	-
D573 **D673**	MX05.5K573X08	C1	350	300	250	Ø18	78	5	18	280x280
	MX05.5K573-300	A1	300	265	230	M12	30	4	20	-
	MX05.5K673-450	B1	450	400	350	18	62	5	22	-
	DX05.5D573-400	D1	400	350	300	Ø18	55	5	20	-
	DX05.5D673-450	D1	450	400	350	Ø18	54,5	5	20	-
D773	MX05.5K773-400	B1	400	350	300	Ø18	77	5	24	-
D873	MX05.5K873-450	B1	450	400	350	Ø18	99	5	26	-
	MX05.5K873-550X01	B1	550	500	450	18	51	5	25	-

Notlar / *Notes* / Notizen

Elektrik Motorlarının Performans Değerleri



Electric Motors Ratings and Performance

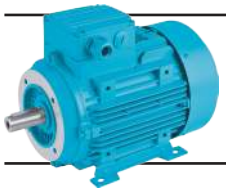
Elektromotoren Leistungsdaten

Elektrik Motorlarının Performans Değerleri
Electric Motors Ratings and Performance
Elektromotoren Leistungsdaten

400V 50Hz 3000 d/d / *400V 50Hz 3000 rpm* / 400V 50Hz 3000 UpM

IE3

Tip *Type* Typ	Tam Yük Değerleri *Full-load Data* Volllastdaten								Kalkış Değerleri *Starting Data* Startdaten		Devrilme Momenti *Breakdown Torque* Kippmo-ment	Atalet Momenti *Moment of Inertia* Trägheits-moment	B3 Motor Ağırlığı *B3 Motor Weight* B3 Motor Gewicht	Ses Seviyesi *Noise Level* Geräusch-pegel
	Güç *Power* Leistung	Devir *Speed* Drehzahl	Akım *Current* Nennstrom	Moment *Torque* Drehmoment	Güç Faktörü *Power Factor* Leistungsfaktor	Verim % η *Efficiency % η* Wirkungsgrad % η			Akım *Current* Nennstrom	Moment *Torque* Drehmoment				
	kW	d/d *rpm* UpM	A	Nm	Cosφ	4 / 4	3 / 4	1 / 2	I_A/I_N	M_A/M_N	M_K/M_N	kgm^2	kg	dB(A)
3E71M/2B	0,37	2830	0,86	1,25	0,81	76,6	77,0	75,0	6,0	2,8	3,0	0,00037	6,2	53
3E71M/2C	0,55	2830	1,19	1,86	0,84	79,4	80,2	78,8	6,1	2,9	3,3	0,00046	7,2	53
3E80M/2B	0,75	2880	1,59	2,49	0,84	80,7	82,0	81,5	6,7	3,0	3,6	0,00103	9,6	54
3E80M/2C	1,1	2880	2,26	3,64	0,85	82,7	83,0	82,4	6,8	3,1	3,8	0,00124	10,9	54
3E90S/2B	1,5	2900	2,97	4,94	0,86	84,8	85,4	84,2	7,6	3,1	3,9	0,00178	15,6	59
3E90L/2C	2,2	2900	4,25	7,24	0,87	85,9	86,8	86,1	7,2	3,0	3,8	0,00221	17,0	59
3E100L/2C	3	2910	5,58	9,85	0,89	87,1	87,6	86,9	7,9	3,0	4,1	0,00450	23,3	62
3E112M/2C	4	2915	7,28	13,1	0,90	88,1	88,8	88,2	7,5	2,6	3,9	0,00620	29,1	65
3E132S/2B	5,5	2945	9,9	17,83	0,90	89,2	89,0	88,6	8,9	2,9	3,9	0,01730	44,4	67
3E132S/2C	7,5	2945	13,2	24,32	0,91	90,1	90,5	89,7	8,4	2,6	4,0	0,02100	51,5	67
3E160M/2B	11	2950	19,7	35,6	0,88	91,2	91,0	90,5	8,0	2,6	3,9	0,03320	79,7	69
3E160M/2C	15	2950	25,9	48,55	0,91	91,9	92,1	91,6	8,9	3,1	4,2	0,03910	86,0	69
3E160L/2D	18,5	2945	31,7	60	0,91	92,4	92,7	92,3	8,9	3,1	4,2	0,04410	96,7	69
3E180M/2B	22	2957	38,1	71,05	0,90	92,7	92,9	92,0	8,6	2,6	3,9	0,06300	178	70
3E200L/2B	30	2970	52	96,46	0,89	93,6	93,8	93,6	8,9	3,2	3,5	0,16200	245	72
3E200L/2C	37	2970	62,6	119	0,91	93,7	93,8	93,4	9,3	3,2	3,4	0,17500	270	72
3E225M/2C	45	2975	75,6	144,4	0,91	94,3	94,6	94,0	9,8	3,5	3,9	0,25400	335	74
3E250M/2C	55	2970	93,3	176,9	0,90	94,4	94,8	94,5	8,9	3,3	3,4	0,38000	422	75
3E280S/2B	75	2980	127	240,35	0,90	94,7	94,7	94,0	7,5	2,7	3,2	0,79000	560	76
3E280M/2C	90	2985	150	287,94	0,91	95,0	95,1	94,5	7,6	2,7	3,1	0,90000	630	76
3G315S/2	110	2985	186	352	0,90	95,2	95,2	94,0	8,0	2,5	3,0	1,20000	742	76
3G315M/2	132	2985	223	422	0,90	95,4	95,4	94,1	8,0	2,4	3,5	1,40000	812	79
3G315L/2a	160	2985	265	512	0,91	95,6	95,6	94,2	8,0	2,5	3,0	1,50000	912	79



Elektrik Motorlarının Performans Değerleri
Electric Motors Ratings and Performance
Elektromotoren Leistungsdaten

400V 50Hz 1500 d/d / *400V 50Hz 1500 rpm* / 400V 50Hz 1500 UpM

IE3

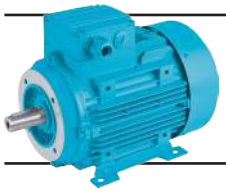
Tip *Type* Typ	Tam Yük Değerleri *Full-load Data* Volllastdaten								Kalkış Değerleri *Starting Data* Startdaten		Devrilme Momenti *Breakdown Torque* Kippmo-ment	Atalet Momenti *Moment of Inertia* Trägheits-moment	B3 Motor Ağırlığı *B3 Motor Weight* B3 Motor Gewicht	Ses Seviyesi *Noise Level* Geräusch-pegel
	Güç *Power* Leistung	Devir *Speed* Drehzahl	Akım *Current* Nennstrom	Moment *Torque* Drehmoment	Güç Faktörü *Power Factor* Leistungsfaktor	Verim % η *Efficiency % η* Wirkungsgrad % η			Akım *Current* Nennstrom	Moment *Torque* Drehmoment				
	kW	d/d *rpm* UpM	A	Nm	Cosφ	4 / 4	3 / 4	1 / 2	I_A/I_N	M_A/M_N	M_K/M_N	kgm^2	kg	dB(A)
3E71M/4C	0,25	1435	0,67	1,66	0,71	76,0	75,4	71,5	5,4	2,2	3,0	0,00082	6,8	45
3E71M/4D	0,37	1435	0,97	2,46	0,70	78,5	78,2	75,0	5,5	2,2	3,1	0,00093	7,5	45
3E80M/4C	0,55	1450	1,34	3,62	0,73	80,8	80,4	77,0	5,9	2,1	3,1	0,00200	10,5	50
3E80M/4D	0,75	1450	1,77	4,94	0,74	82,5	82,3	80,0	6,2	2,5	3,4	0,00227	11,6	50
3E90S/4C	1,1	1450	2,46	7,25	0,76	84,5	84,3	82,0	7,0	2,6	3,6	0,00355	16,3	51
3E90L/4D	1,5	1450	3,3	9,88	0,77	85,3	85,2	83,0	7,2	2,8	3,8	0,00410	18,0	51
3E100L/4C	2,2	1450	4,65	14,49	0,79	86,7	87,2	86,0	7,2	2,8	3,6	0,00780	24,4	53
3E100L/4D	3	1450	6,26	19,76	0,79	87,7	88,0	87,0	7,2	2,8	3,6	0,00890	26,7	53
3E112M/4D	4	1460	8,05	26,16	0,81	88,6	88,4	87,5	7,4	2,8	3,8	0,01430	33,9	58
3E132S/4C	5,5	1460	10,65	36	0,83	89,6	90,2	90,0	7,4	2,8	3,4	0,03060	53,4	61
3E132M/4D	7,5	1465	14,4	48,9	0,83	90,4	90,4	89,4	7,9	3,0	3,8	0,03420	59,5	61
3E160M/4C	11	1470	21	71,46	0,83	91,5	92,1	91,7	7,6	2,8	3,3	0,07010	89,2	63
3E160L/4D	15	1470	28,7	97,45	0,82	92,1	92,4	91,9	7,8	2,8	3,6	0,08600	97,5	63
3E180M/4C	18,5	1475	35	119,8	0,82	92,6	93,2	92,9	7,7	3,0	3,3	0,12900	173	64
3E180L/4D	22	1470	41,4	142,92	0,82	93,0	93,7	93,7	8,0	3,0	3,4	0,14700	187	64
3E200L/4D	30	1475	54,5	194,2	0,85	93,6	94,1	94,0	8,0	3,0	3,4	0,28400	258	65
3E225S/4C	37	1478	65,7	239	0,87	93,9	94,5	94,5	8,3	3,2	3,3	0,38200	320	66
3E225M/4D	45	1477	80	290,9	0,86	94,2	94,7	94,7	8,6	3,3	3,2	0,44100	352	67
3E250M/4D	55	1482	95,3	354,4	0,88	94,6	95,1	95,2	8,7	3,3	3,2	0,73400	470	68
3E280S/4C	75	1485	129,5	482,3	0,86	95,0	95,3	95,1	7,9	3,0	3,2	1,40000	646	69
3E280M/4D	90	1485	155,5	578,8	0,86	95,2	95,7	95,7	7,9	3,1	3,2	1,50000	670	70
3G315S/4	110	1487	194	706	0,86	95,4	95,2	95,0	7,4	2,4	3,0	2,5000	861	74
3G315M/4a	132	1488	226	847	0,88	95,6	95,4	95,3	7,4	2,4	3,0	2,8000	882	74
3G315L/4a	160	1488	275	1027	0,88	95,8	95,6	95,6	6,9	2,2	2,9	3,0000	930	74

Elektrik Motorlarının Performans Değerleri
Electric Motors Ratings and Performance
Elektromotoren Leistungsdaten

400V 50Hz 1000 d/d / *400V 50Hz 1000 rpm* / 400V 50Hz 1000 UpM

IE3

Tip *Type* Typ	Tam Yük Değerleri *Full-load Data* Volllastdaten								Kalkış Değerleri *Starting Data* Startdaten		Devrilme Momenti *Breakdown Torque* Kippmo-ment	Atalet Momenti *Moment of Inertia* Trägheits-moment	B3 Motor Ağırlığı *B3 Motor Weight* B3 Motor Gewicht	Ses Seviyesi *Noise Level* Geräusch-pegel
	Güç *Power* Leistung	Devir *Speed* Drehzahl	Akım *Current* Nennstrom	Moment *Torque* Drehmoment	Güç Faktörü *Power Factor* Leistungsfaktor	Verim % η *Efficiency % η* Wirkungsgrad % η			Akım *Current* Nennstrom	Moment *Torque* Drehmoment				
	kW	d/d *rpm* UpM	A	Nm	Cosφ	4 / 4	3 / 4	1 / 2	I_A/I_N	M_A/M_N	M_K/M_N	kgm^2	kg	dB(A)
3E71M/6C	0,18	930	0,55	1,85	0,69	68,0	67,4	62,6	3,6	2,0	2,4	0,00096	6,7	41
3E71M/6D	0,25	930	0,77	2,57	0,67	70,0	69,7	66,0	3,6	2,2	2,5	0,00116	7,5	41
3E80M/6B	0,37	930	1,03	3,8	0,70	74,0	73,8	70,0	4,4	2,1	2,6	0,00202	9,8	43
3E80M/6C	0,55	935	1,47	5,62	0,70	77,2	77,3	74,4	4,3	2,2	2,7	0,00228	10,6	43
3E90S/6B	0,75	945	1,96	7,58	0,70	78,9	79,2	77,6	4,7	2,2	2,7	0,00354	14,6	46
3E90L/6C	1,1	940	2,75	11,2	0,71	81,0	80,8	79,4	5,0	2,2	2,7	0,00428	17,0	46
3E100L/6B	1,5	955	3,5	15	0,75	82,5	82,7	81,4	5,3	2,1	2,8	0,00820	22,5	50
3E112M/6B	2,2	960	4,95	21,9	0,76	84,3	84,5	83,5	5,5	2,2	3,0	0,01320	27,2	56
3E132S/6B	3	970	6,55	29,4	0,77	85,6	85,5	84,5	6,2	2,1	3,0	0,03050	46,5	58
3E132M/6C	4	970	8,52	39,4	0,78	86,8	87,0	85,5	6,2	2,2	3,0	0,03500	51,0	58
3E132M/6D	5,5	965	11,55	54,4	0,78	88,0	88,9	88,5	6,2	2,2	3,0	0,03940	56,0	58
3E160M/6D	7,5	972	15,55	73,8	0,78	89,1	89,4	88,4	6,3	2,6	3,0	0,07870	96,0	61
3E160L/6E	11	972	22,9	108,07	0,77	90,3	90,9	90,5	6,6	2,9	3,3	0,08580	104	62
3E180L/6E	15	975	30,80	147,92	0,77	91,2	91,6	91,0	6,7	2,9	3,1	0,15300	187	63
3E200L/6C	18,5	977	36,4	180,8	0,80	91,7	91,8	91,8	6,1	2,6	2,6	0,36100	225	64
3E200L/6D	22	978	42,5	214,8	0,81	92,2	92,9	93,0	6,2	2,6	2,7	0,39400	245	64
3E225M/6C	30	985	57,6	290,8	0,81	92,9	92,9	92,6	6,6	2,6	2,7	0,60000	326	65
3E250M/6C	37	988	68,8	357,6	0,83	93,4	93,6	93,5	6,8	2,7	2,68	0,82000	432	65
3E280S/6B	45	989	82,5	434,5	0,84	93,7	93,9	93,2	6,8	2,9	2,8	1,45000	540	65
3E280M/6C	55	989	100,4	531	0,84	94,1	94,4	93,5	6,9	2,9	2,9	1,6500	575	65
3G315S/6	75	992	140	722	0,82	94,6	94,6	94,4	7,2	2,7	3,0	2,9000	805	72
3G315M/6a	90	992	166	866	0,82	94,9	94,9	94,5	7,2	2,7	3,0	3,5000	860	72
3G315M/6b	110	992	198	1059	0,84	95,1	95,1	94,9	7,2	2,7	3,0	4,2000	980	72
3G315L/6	132	992	235	1271	0,85	95,4	95,4	95,2	7,2	2,7	3,0	4,3000	1150	72
3G355M/6a	160	993	197	1539	0,82	95,6	95,6	95,0	7,0	2,4	3,2	6,8000	1185	72



Elektrik Motorlarının Performans Değerleri
Electric Motors Ratings and Performance
Elektromotoren Leistungsdaten

400V 50Hz 3000 d/d / *400V 50Hz 3000 rpm* / 400V 50Hz 3000 UpM

IE2

Tip *Type* Typ	Tam Yük Değerleri *Full-load Data* Volllastdaten								Kalkış Değerleri *Starting Data* Startdaten		Devrilme Momenti *Breakdown Torque* Kippmo-ment	Atalet Momenti *Moment of Inertia* Trägheits-moment	B3 Motor Ağırlığı *B3 Motor Weight* B3 Motor Gewicht	Ses Seviyesi *Noise Level* Geräusch-pegel
	Güç *Power* Leistung	Devir *Speed* Drehzahl	Akım *Current* Nennstrom	Moment *Torque* Drehmoment	Güç Faktörü *Power Factor* Leistungsfaktor	Verim % η *Efficiency % η* Wirkungsgrad % η			Akım *Current* Nennstrom	Moment *Torque* Drehmoment				
	kW	d/d *rpm* UpM	A	Nm	Cosφ	4 / 4	3 / 4	1 / 2	I_A/I_N	M_A/M_N	M_K/M_N	kgm^2	kg	dB(A)
G56/2b*	0,12	2800	0,35	0,41	0,74	64,5	64,1	56,9	4,2	2,5	2,8	0,00012	2,8	42
G63/2a*	0,18	2820	0,5	0,61	0,73	64,4	64,2	57,7	4,6	2,9	2,9	0,00011	3,6	52
G63/2b*	0,25	2840	0,67	0,84	0,63	67,3	67,1	60,9	4,5	2,5	2,9	0,00013	4,0	52
2E71M/2A	0,37	2790	0,9	1,26	0,80	74,2	74,5	72,5	5,0	2,5	2,8	0,00031	5,5	54
2E71M/2B	0,55	2790	1,27	1,88	0,82	75,8	77,0	76,0	5,0	2,8	2,9	0,00037	6,3	54
2E80M/2A	0,75	2850	1,67	2,51	0,83	78,0	79,0	77,5	5,7	2,5	3,0	0,00089	8,7	56
2E80M/2B	1,1	2850	2,36	3,69	0,84	80,1	81,3	80,7	5,8	2,7	3,1	0,00103	9,7	56
2E90S/2A	1,5	2880	3,17	4,98	0,83	82,5	82,6	82,0	6,0	2,6	3,3	0,00152	14,1	60
2E90L/2B	2,2	2860	4,48	7,35	0,85	83,2	85,0	85,0	6,0	2,6	3,1	0,00178	15,5	60
2E100L/2B	3	2890	5,8	9,91	0,88	84,8	85,2	84,7	7,0	2,6	3,4	0,00380	20,8	63
2E112M/2A	4	2910	7,6	13,13	0,88	86,5	87,1	86,8	7,0	2,4	3,6	0,00530	25,7	66
2E132S/2A	5,5	2935	10,2	17,9	0,88	88,2	88,4	87,6	7,9	2,8	3,9	0,01550	41	68
2E132S/2B	7,5	2925	13,6	24,5	0,90	88,5	88,8	88,6	7,6	2,6	3,9	0,01730	45,2	68
2E160M/2A	11	2940	19,6	35,73	0,90	89,8	90,0	89,0	7,4	2,7	3,6	0,02920	71,4	70
2E160M/2B	15	2935	26,9	48,8	0,89	90,3	91,0	90,7	7,0	2,6	3,5	0,03320	77,0	70
2E160L/2C	18,5	2935	32,2	60,19	0,91	91,1	91,5	91,0	8,2	2,9	3,8	0,03910	89,0	70
2E180M/2A	22	2955	39,0	71,1	0,89	91,4	91,6	90,6	7,9	2,6	3,6	0,06300	163	71
2E200L/2A	30	2965	52	96,63	0,90	92,4	92,7	92,2	8,0	2,9	3,1	0,14600	230	74
2E200L/2B	37	2965	64	119,2	0,90	92,7	93,2	93,0	8,4	3,1	3,3	0,16200	240	75
2E225M/2B	45	2970	77,4	144,7	0,90	93,2	93,5	93,0	8,6	2,7	3,7	0,22000	310	75
2E250M/2B	55	2970	94,5	176,8	0,90	93,3	93,6	93,1	7,9	2,7	3,6	0,32800	388	77
2E280S/2A	75	2978	128	240,5	0,90	93,8	94,0	93,0	7,9	2,7	3,0	0,70000	510	77
2E280M/2B	90	2980	153	288,4	0,90	94,1	94,2	93,1	7,5	2,8	3,2	0,79000	570	77
2G315S/2	110	2980	192	352	0,88	94,3	94,3	92,8	7,0	2,5	3,0	1,00000	742	79
2G315M/2a	132	2980	224	423	0,90	94,6	94,5	93,3	8,0	2,5	3,0	1,20000	812	79
2G315M/2b	160	2980	266	513	0,92	94,8	94,8	93,4	7,8	2,5	3,2	1,40000	912	79

* : **IE1 Verisi** / *IE1 Data* / IE1 Daten

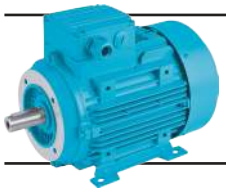
Elektrik Motorlarının Performans Değerleri
Electric Motors Ratings and Performance
Elektromotoren Leistungsdaten

400V 50Hz 1500 d/d / *400V 50Hz 1500 rpm* / 400V 50Hz 1500 UpM

IE2

Tip *Type* Typ	Tam Yük Değerleri *Full-load Data* Volllastdaten								Kalkış Değerleri *Starting Data* Startdaten		Devrilme Momenti *Breakdown Torque* Kippmo-ment	Atalet Momenti *Moment of Inertia* Trägheits-moment	B3 Motor Ağırlığı *B3 Motor Weight* B3 Motor Gewicht	Ses Seviyesi *Noise Level* Geräusch-pegel
	Güç *Power* Leistung	Devir *Speed* Drehzahl	Akım *Current* Nennstrom	Moment *Torque* Drehmoment	Güç Faktörü *Power Factor* Leistungsfaktor	Verim % η *Efficiency % η* Wirkungsgrad % η			Akım *Current* Nennstrom	Moment *Torque* Drehmoment				
	kW	d/d *rpm* UpM	A	Nm	Cosφ	4 / 4	3 / 4	1 / 2	I_A/I_N	M_A/M_N	M_K/M_N	kgm^2	kg	dB(A)
G63/4a*	0,12	1365	0,41	0,84	0,74	57,1	57,1	53,3	3,1	2,0	2,2	0,00017	3,4	43
G63/4b*	0,18	1340	0,6	1,28	0,73	59,7	59,7	55,8	2,9	2,0	2,0	0,00021	3,9	43
2E71M/4B	0,25	1425	0,71	1,68	0,69	74,0	73,5	70,5	4,4	2,0	3,0	0,00067	5,9	46
2E71M/4C	0,37	1425	1,0	2,47	0,70	76,1	75,5	71,5	4,6	2,0	3,0	0,00082	6,7	46
2E80M/4B	0,55	1440	1,45	3,65	0,71	77,1	76,7	75,0	5,2	2,0	3,0	0,00175	9,7	50
2E80M/4C	0,75	1440	1,95	4,97	0,70	79,6	79,2	77,0	5,2	2,0	3,0	0,00200	10,5	50
2E90S/4B	1,1	1440	2,6	7,3	0,75	81,4	81,4	80,5	5,6	2,2	3,1	0,00281	14,4	52
2E90L/4C	1,5	1440	3,4	9,95	0,77	82,8	83,0	82,0	6,0	2,3	3,2	0,00356	17,2	52
2E100L/4B	2,2	1445	4,85	14,6	0,78	84,3	85,3	84,2	6,0	2,4	3,2	0,00634	22,7	54
2E100L/4C	3	1440	6,42	19,89	0,79	85,5	85,7	84,6	6,3	2,4	3,3	0,00775	24,2	54
2E112M/4C	4	1450	8,2	26,35	0,81	86,8	87,4	86,5	6,6	2,5	3,4	0,01220	32	58
2E132S/4B	5,5	1455	11,2	36,1	0,81	87,7	88,6	88,0	6,7	2,6	3,2	0,02520	47,8	62
2E132M/4C	7,5	1460	15,1	49	0,81	88,7	89,0	89,0	7,0	2,7	3,3	0,03060	54,8	62
2E160M/4B	11	1465	21,3	71,7	0,83	89,8	90,3	89,5	6,9	2,4	3,0	0,05800	76,8	65
2E160L/4C	15	1460	28,8	98,12	0,83	90,6	91,3	90,9	6,9	2,6	3,0	0,07000	88,6	65
2E180M/4B	18,5	1465	34,9	120,6	0,84	91,2	91,4	91,4	6,9	2,5	3,0	0,11100	158	65
2E180L/4C	22	1465	41,4	143,40	0,84	91,6	91,7	91,5	7,1	2,6	3,2	0,12900	174	65
2E200L/4C	30	1475	55,5	194,24	0,85	92,3	93,0	93,2	7,6	3,0	3,1	0,23300	241	65
2E225S/4B	37	1475	66	239,5	0,87	93,0	93,8	93,8	7,8	3,0	3,1	0,33900	297	66
2E225M/4C	45	1475	80	291,4	0,87	93,1	94,0	94,3	7,8	3,0	3,0	0,38200	333	66
2E250M/4C	55	1478	95,5	355,4	0,89	93,5	94,3	94,4	7,9	3,2	3,0	0,62400	430	68
2E280S/4B	75	1483	130,8	482,97	0,88	94,0	94,5	94,4	7,9	3,0	3,0	1,25000	618	69
2E280M/4C	90	1484	156	579,2	0,88	94,2	94,6	94,5	7,9	3,2	3,1	1,40000	648	70
2G315S/4	110	1485	195	707	0,86	94,5	94,5	93,8	7,4	2,0	3,0	2,10000	784	74
2G315M/4a	132	1485	230	849	0,87	94,7	94,5	93,8	7,4	2,1	3,0	2,50000	861	74
2G315M/4b	160	1485	280	1029	0,87	94,9	94,9	94,0	7,0	2,0	2,9	2,80000	882	74

* : **IE1 Verisi** / *IE1 Data* / IE1 Daten



Elektrik Motorlarının Performans Değerleri
Electric Motors Ratings and Performance
Elektromotoren Leistungsdaten

400V 50Hz 1000 d/d / *400V 50Hz 1000 rpm* / 400V 50Hz 1000 UpM

IE2

Tip *Type* Typ	Tam Yük Değerleri *Full-load Data* Volllastdaten								Kalkış Değerleri *Starting Data* Startdaten		Devrilme Momenti *Breakdown Torque* Kippmo-ment	Atalet Momenti *Moment of Inertia* Trägheits-moment	B3 Motor Ağırlığı *B3 Motor Weight* B3 Motor Gewicht	Ses Seviyesi *Noise Level* Geräusch-pegel
	Güç *Power* Leistung	Devir *Speed* Drehzahl	Akım *Current* Nennstrom	Moment *Torque* Drehmoment	Güç Faktörü *Power Factor* Leistungsfaktor	Verim % η *Efficiency % η* Wirkungsgrad % η			Akım *Current* Nennstrom	Moment *Torque* Drehmoment				
	kW	d/d *rpm* UpM	A	Nm	Cosφ	4 / 4	3 / 4	1 / 2	I_A/I_N	M_A/M_N	M_K/M_N	kgm^2	kg	dB(A)
2E71M/6B	0,18	920	0,6	1,87	0,67	64,5	63,0	57,0	3,2	1,9	2,3	0,00076	5,9	42
2E71M/6C	0,25	920	0,78	2,59	0,69	66,5	66,0	61,0	3,3	1,9	2,3	0,00096	6,6	42
2E80M/6A	0,37	925	1,08	3,82	0,69	71,4	71,5	70,0	4,0	2,0	2,6	0,00176	9,1	45
2E80M/6B	0,55	932	1,5	5,64	0,72	73,5	74,0	71,0	4,2	2,1	2,6	0,00202	9,9	45
2E90S/6A	0,75	940	2,0	7,62	0,71	75,9	76,1	73,1	4,1	2,0	2,6	0,00229	13,3	48
2E90L/6B	1,1	940	2,9	11,18	0,70	78,1	78,3	75,0	4,3	2,1	2,6	0,00354	14,8	48
2E100L/6A	1,5	950	3,72	15	0,73	79,8	80,2	79,5	4,5	2,1	2,6	0,00680	20,2	52
2E112M/6A	2,2	960	5,32	21,9	0,73	81,8	82,0	81,5	5,3	2,1	2,7	0,01170	25	56
2E132S/6A	3	970	6,85	29,6	0,76	83,3	84,0	83,0	5,6	2,0	2,8	0,02610	42	60
2E132M/6B	4	970	8,8	39,38	0,77	85,2	85,7	85,3	5,2	2,1	2,6	0,03050	46	60
2E132M/6C	5,5	965	12	54,4	0,77	86,0	87,2	87,0	5,7	2,1	2,7	0,03500	51	60
2E160M/6B	7,5	972	16,3	73,68	0,76	87,2	88,1	87,7	5,6	2,4	2,7	0,05700	77,8	63
2E160L/6D	11	970	22,95	108,3	0,78	88,7	90,0	89,9	6,0	2,5	2,9	0,07870	97,8	63
2E180L/6D	15	972	31	147,4	0,78	89,7	90,5	90,2	6,2	2,5	2,9	0,13500	175	64
2E200L/6B	18,5	977	36,5	180,8	0,81	90,4	90,5	90,7	6,3	2,5	2,6	0,30100	205	64
2E200L/6C	22	978	43	214,8	0,81	91,1	91,3	91,2	6,2	2,5	2,6	0,33400	215	64
2E225M/6B	30	980	57,6	292,2	0,82	91,7	91,8	90,8	6,6	2,6	2,7	0,52000	314	65
2E250M/6B	37	982	69,6	359,80	0,83	92,3	92,6	92,5	6,8	2,7	2,8	0,68000	395	66
2E280S/6A	45	985	84,5	436	0,83	92,7	93,1	92,2	6,8	2,8	2,8	1,15000	490	66
2E280M/6B	55	985	101,5	533,2	0,84	93,1	93,2	93,5	6,9	2,9	2,8	1,45000	545	66
2G315S/6	75	990	139	723	0,83	93,7	93,7	92,4	7,0	2,0	2,5	2,40000	727	72
2G315M/6a	90	990	166	868	0,83	94,0	94,0	92,6	7,0	2,0	2,5	2,90000	805	72
2G315M/6b	110	990	198	1061	0,85	94,3	94,3	92,7	7,0	2,0	2,6	3,50000	860	72
2G315L/6a	132	990	240	1273	0,84	94,6	94,6	93,0	7,0	2,3	3,0	3,60000	1020	72
2G315L/6b	160	990	290	1543	0,84	94,8	94,8	93,2	7,0	2,3	2,7	4,20000	1120	72

Notlar / *Notes* / Notizen