İMak®
REDÜKTÖR & VARYATÖR A.Ş.

Sonsuz Vidalı Redüktörler

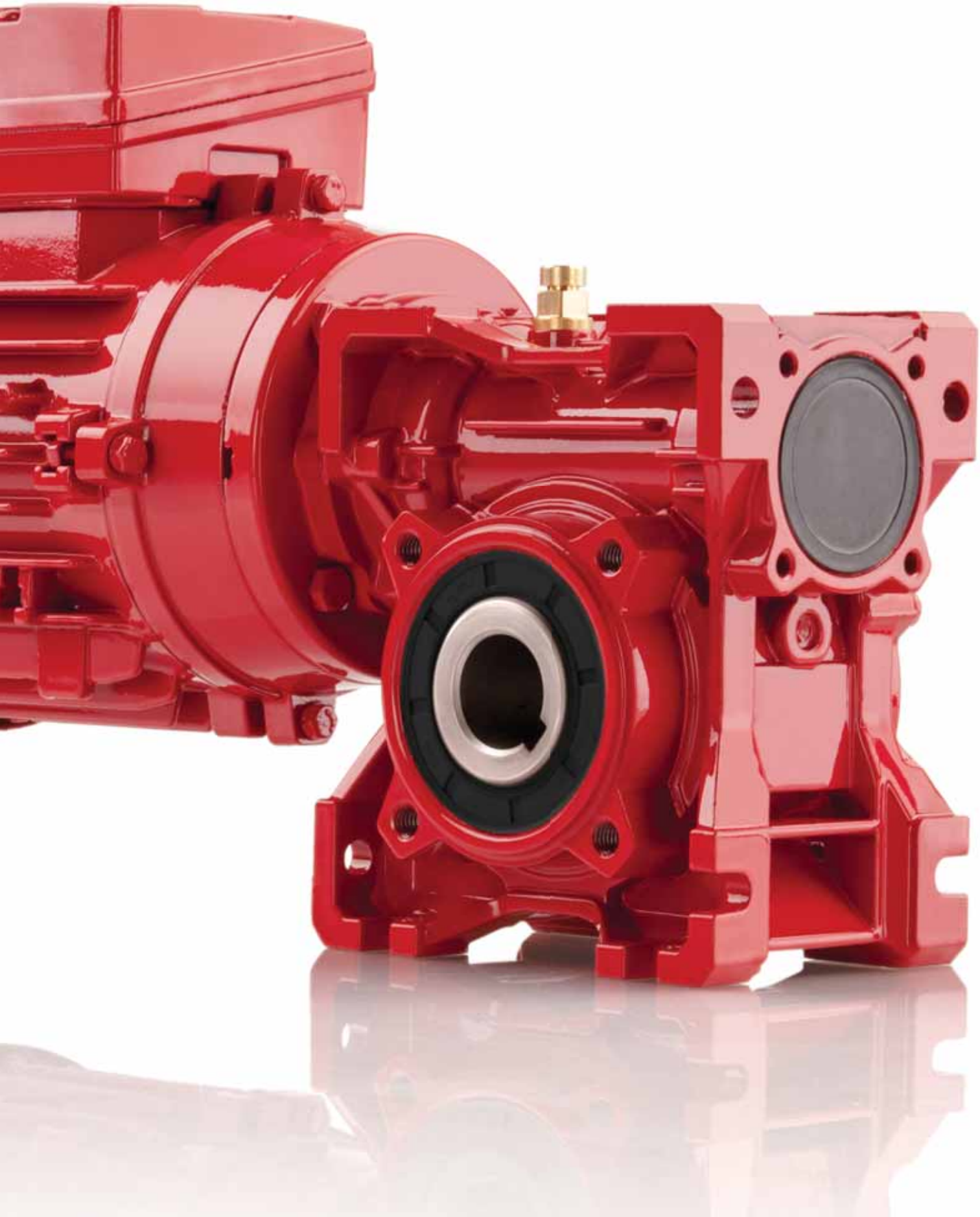
Worm Gearbox / Réducteurs à Roue et Vis Sans Fin

S03

SERIES
S
İRS
İRSD

2020
TR | EN | FR

Gearboxes and Drives / Moto Réducteurs



Genel Bilgiler

General Information
Informations générales

S

SERİSİ / SERIES / SÉRIES

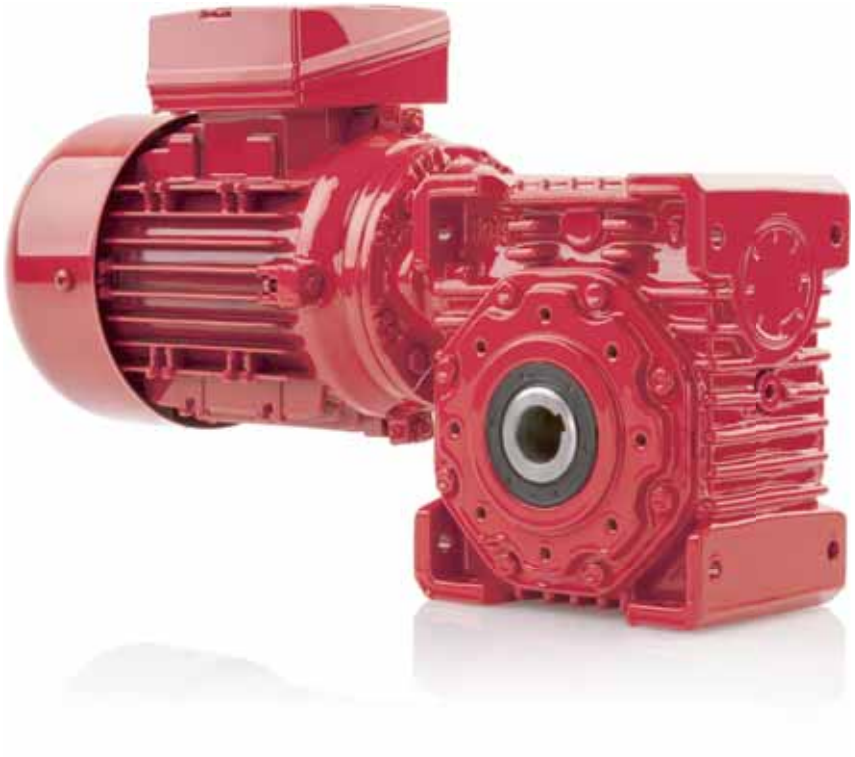
- Aluminyum gövdeli sonsuz vidalı redüktörler
- 6 Farklı gövde büyüklüğü
- 13 – 460 Nm moment aralığı
- 7,5 – 100 Tahvil aralığı

- Worm geared unit with aluminium housing
- 6 Size of housing
- Torque range from 13 to 460 Nm
- Ratio range from 7.5 to 100

- *Réducteur à roue et vis sans fin avec carter en aluminium*
- *6 tailles de carter*
- *Couple allant de 13 à 460 Nm*
- *Rapport de réduction compris entre 7.5 et 100*

İRS

SERİSİ / SERIES / SÉRIES



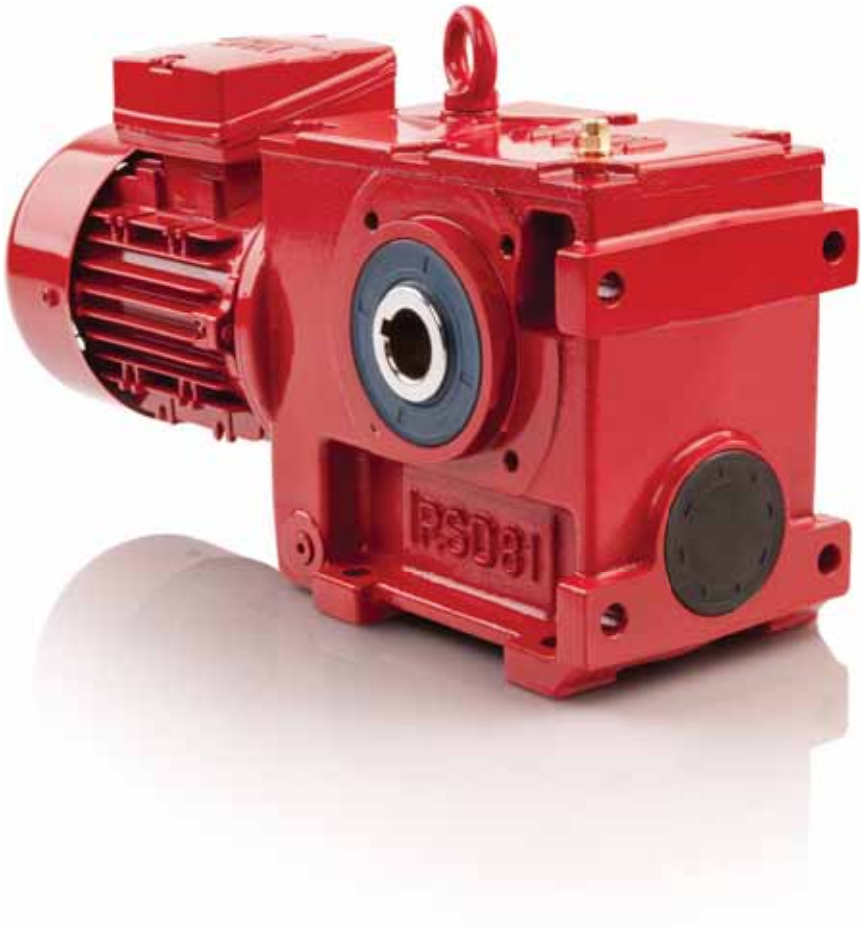
- Döküm gövdeli sonsuz vidalı redüktörler
- 8 Farklı gövde büyüklüğü
- 96 – 16876 Nm moment aralığı
- 7,25 – 115 Tahvil aralığı

- Worm geared unit with cast iron housing
- 8 Size of housing
- Torque range from 96 to 16876 Nm
- Ratio range from 7.25 to 115

- *Réducteur à roue et vis sans fin avec carter en fonte*
- *8 tailles de carter*
- *Couple allant de 96 à 16876 Nm*
- *Rapport de réduction compris entre 7.25 et 115*

İRSD

SERİSİ / SERIES / SÉRIES



- Döküm gövdeli helisel sonsuz vidalı redüktörler
- 5 Farklı gövde büyüklüğü
- 211 – 4479 Nm moment aralığı
- 25 – 333 Tahvil aralığı

- Helical worm geared unit with cast iron housing
- 5 Size of housing
- Torque range from 211 to 4479 Nm
- Ratio range from 25 to 333

- *Réducteur hélicoïdal à roue et vis sans fin avec carter en fonte*
- *5 tailles de carter*
- *Couple allant de 211 à 4479 Nm*
- *Rapport de réduction compris entre 25 et 4479*

Aluminyum gövdeli sonsuz vidalı redüktörler

Aluminium housing worm gearbox / *Réducteurs à roue et vis sans fin, carter en aluminium*

Kod	Tip tanımlama	Type designation	Spécifications des types
S…	Giriş milli - ayak montajlı - delik milli	Input shaft - foot mounted - hollow shaft	Arbre d'entrée - a patte - arbre creux
SM…	Motorlu - ayak montajlı - delik milli	With motor - foot mounted - hollow shaft	Avec moteur - a pattes - arbre creux
SP…	IEC B14 giriş flanşlı - ayak montajlı - delik milli	IEC B14 input flange - foot mounted - hollow shaft	Bride d'entrée IEC B14 - a pattes - arbre creux

Döküm gövdeli sonsuz vidalı redüktörler

Cast iron housing worm gearbox / *Réducteurs à roue et vis sans fin, carter en fonte*

Kod	Tip tanımlama	Type designation	Spécifications des types
İRSA…	Giriş milli - ayak montajlı - delik milli	Input shaft - foot mounted - hollow shaft	Arbre d'entrée - a pattes - arbre creux
İRSF…	Giriş milli - flanş montajlı - delik milli	Input shaft - flange mounted - hollow shaft	Arbre d'entrée - bride de sortie - arbre creux
İRSAM…	Motorlu - ayak montajlı - delik milli	With motor - foot mounted - hollow shaft	Avec moteur - a pattes - arbre creux
İRSFM…	Motorlu - flanş montajlı - delik milli	With motor - flange mounted - hollow shaft	Avec moteur - bride de sortie - arbre creux
İRSAP…	IEC B14 giriş flanşlı - ayak montajlı - delik milli	IEC B14 input flange - foot mounted - hollow shaft	Bride d'entrée IEC B14 - a pattes - arbre creux
İRSFP…	IEC B14 giriş flanşlı - flanş montajlı - delik milli	IEC B14 input flange - flange mounted - hollow shaft	Bride d'entrée IEC B14 - bride de sortie - arbre creux

Döküm gövdeli helisel - sonsuz vidalı redüktörler

Cast iron housing helical - worm gearbox / *Réducteurs hélicoïdal à roue et vis sans fin, carter en fonte*

Kod	Tip tanımlama	Type designation	Spécifications des types
İRSD…	Giriş milli - ayak montajlı - delik milli	Input shaft - foot mounted - hollow shaft	Arbre d'entrée - a pattes - arbre creux
İRSDF…	Giriş milli - flanş montajlı - delik milli	Input shaft - flange mounted - hollow shaft	Arbre d'entrée - bride de sortie- arbre creux
İRSDM…	Motorlu - ayak montajlı - delik milli	With motor - foot mounted - hollow shaft	Avec moteur - a pattes - arbre creux
İRSDFM…	Motorlu - flanş montajlı - delik milli	With motor - flange mounted - hollow shaft	Avec moteur - bride de sortie- arbre creux
İRSDP…	IEC B14 giriş flanşlı - ayak montajlı - delik milli	IEC B14 input flange - foot mounted - hollow shaft	Bride d'entrée IEC B14 - a pattes - arbre creux
İRSDFP…	IEC B14 giriş flanşlı - flanş montajlı - delik milli	IEC B14 input flange - flange mounted - hollow shaft	Bride d'entrée IEC B14 - bride de sortie - arbre creux
İRSDPM…	IEC pam flanşlı motorlu - ayak montajlı - delik milli	IEC PAM Flange with motor - foot mounted - hollow shaft	Bride d'entrée IEC B14 - avec moteur - arbre creux
İRSDFPM…	IEC pam flanşlı motorlu - flanş montajlı - delik milli	IEC PAM Flange with motor - flange mounted- hollow shaft	Bride d'entrée IEC B14 - avec moteur - bride de sortie - arbre creux

Redüktör opsiyonları / Gearboxes options / *Options des motoréducteurs*

Kod	Opsiyon	Options	Options
FR	Sağ taraf çıkış flanşı	Output flange right	Bride de sortie (Droite)
FL	Sol taraf çıkış flanşı	Output flange left	Bride de sortie (Gauche)
FD	Çift çıkış flanşı	Double output flange	Bride de sortie (Double)
SR	Sağ taraf çıkış mili	Output shaft right	Arbre de sortie (Droite)
SL	Sol taraf çıkış mili	Output shaft left	Arbre de sortie (gauche)
SD	Çift çıkış mili	Output shaft double	Arbre de sortie (Double)
C	Alın mili	Double input shaft	Arbre d'entrée (Double)
CBR	Alın miline fren bağlantısı	Double input shaft with brake	Double arbre d'entrée avec freins
TR	Sağ tork kolu	Torque arm right	Bras de couple (Droit)
TL	Sol tork kolu	Torque arm left	Bras de couple (Gauche)
H *	Çektirme pulu	Retaining screw washer	Epaullement (vis de fixation)
SDR **	Sağ sıkma bilezik	Shrink disk right	Frette de serrage (Droit)
SDL **	Sol sıkma bilezik	Shrink disk left	Frette de serrage (Gauche)
OC	Çıkış koruma kapağı	Output cover	Bouchon (arbre creux)

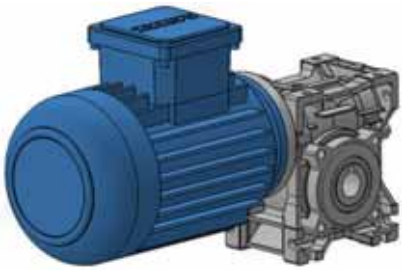
* **İRS ve İRSD redüktörler içindir.** / Only for IRS and IRSD Series / *Uniquement pour les séries IRS et IRSD*

** **İRSD Redüktörler içindir** / Only for IRSD Series / *Uniquement pour la série IRSD*

Motor Opsiyonları / Motor's options / *Options moteurs*

Kod	Opsiyon	Options	Options
BR	Fren	Brake	Frein
BRH	Manuel kollu fren	Brake with hand release	Frein avec ouverture manuel
BD	Çift fren	Double brake	Double frein
BDH	Manuel kollu çift fren	Double brake with hand release	Double frein avec ouverture manuel
E	Enkoder	Encoder	Encoder
EMK	Elektromanyetik kavrama	Electromagnetic clutches	Disque electromagnetique
CF	Harici fan	External fan	Ventilation externe
FG	Kanopi	Canopy	Canopé
U	Fansız motor (güdük)	Without fan	Sans ventilation
M	Monofaze motor	Mono phase motor	Moteur monophasé
BS	Mekanik kilit	Backstop	Roulement anti-retour

S
Giriş milli
Solid input shaft
Avec arbre de sortie



SM
Motorlu
With motor
Avec moteur

SP
IEC pam flanşli
IEC input flange
Avec bride PAM - IEC

İRSA
Giriş milli
Solid input shaft
Avec arbre de sortie

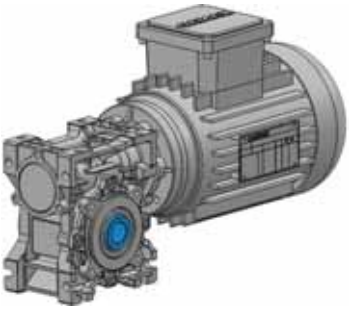
İRSAM
Motorlu
With motor
Avec moteur

İRSAP
IEC pam flanşli
IEC input flange
Avec bride de sortie PAM - IEC

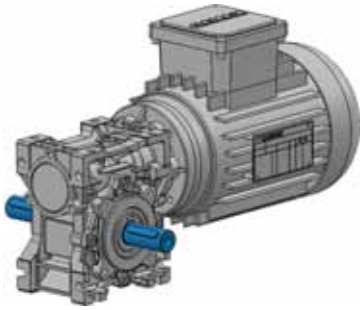
İRSD
Giriş milli
Solid input shaft
Avec arbre de sortie

İRSDM
Motorlu
With motor
Avec moteur

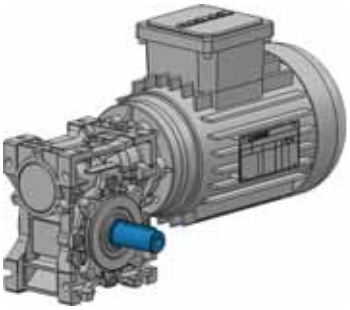
İRSDP
IEC pam flanşli
IEC input flange
Avec bride de sortie PAM - IEC



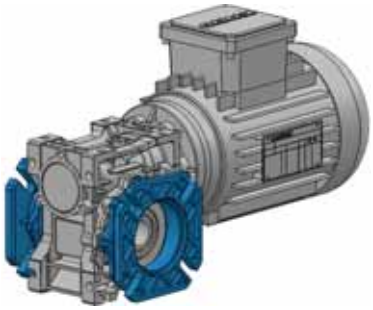
S..
Delik milli
Hollow output shaft
Arbre creux



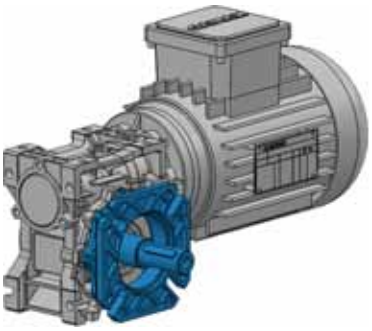
S…SD
Çift çıkış milli
Double output shaft
Double arbre de sortie



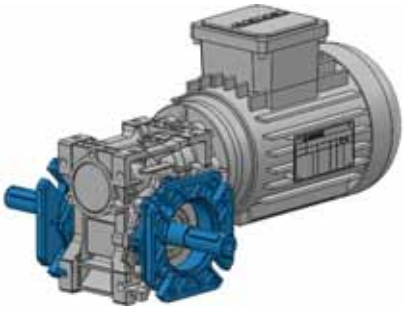
S….SL
Çıkış milli (sol)
Output shaft (Left)
Arbre de sortie (Gauche)



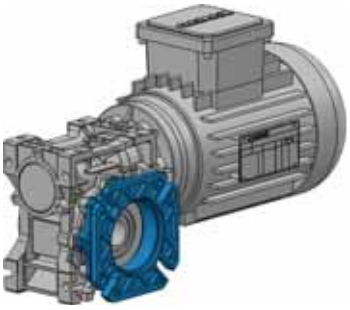
S…FD
Çift çıkış flanşlı
Double output flange
Double bride de sortie



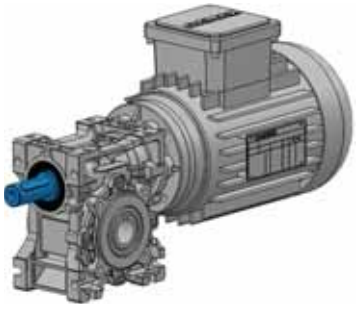
S…FL-SL
Çıkış milli - Çıkış flanşlı (sol)
Output shaft - Output flange (Left)
Arbre et bride de sortie (Gauche)



S…FD-SD
Çift çıkış flanşlı- Çift çıkış milli
Double output flange - Double output shaft
Bride de sortie double - Arbre de sortie double



S…FL
Çıkış flanşlı (sol)
Output flange (Left)
Bride de sortie (Gauche)



S…C
Alın milli
Input shaft
Arbre d'entrée

İRS..
Delik milli
Hollow output shaft
Arbre creux

İRS…SD
Çift çikiş milli
Double output shaft
Double arbre de sortie

İRS….SL
Çikiş milli (sol)
Output shaft (Left)
Arbre de sortie (Gauche)

İRSF…FD
Delik milli - Çift çikiş flanşli
Double output flange
Double bride de sortie

İRSF…FL-SL
Çikiş milli - Çikiş flanşli (sol)
Output shaft - Output flange (Left)
Arbre et bride de sortie (Gauche)

İRSF…FD-SD
Çift çikiş flanşli- Çift çikiş milli
Double output flange - Double output shaft
Bride de sortie double - Arbre de sortie double

İRSF…FL
Delik milli - Çikiş flanşli (sol)
Output flange (Left)
Bride de sortie (Gauche)

İRSA …C
Alin milli
Input shaft
Arbre d'entrée

İRSD..
Delik milli
Hollow output shaft
Arbre creux

İRSD…SD
Çift çıkış milli
Double output shaft
Double arbre de sortie

İRSD….SL
Çıkış milli (sol)
Output shaft (Left)
Arbre de sortie (Gauche)

İRSDF…FD
Çift çıkış flanşlı
Double output flange
Double bride de sortie

İRSDF…FL-SL
Çıkış milli - Çıkış flanşlı (sol)
Output shaft - Output flange (Left)
Arbre et bride de sortie (Gauche)

İRSDF…FD-SD
Çift çıkış flanşlı- Çift çıkış milli
Double output flange - Double output shaft
Bride de sortie double - Arbre de sortie double

İRSDF…FL
Delik milli - Çıkış flanşlı (sol)
Output flange (Left)
Bride de sortie (Gauche)

İRSD …C
Alın milli
Input shaft
Arbre de sortie

Çıkış mili / Output shaft / *Arbre de sortie*

Kod / Code	Varyasyon	Options	Options
111	Özel mil ölçüsü	Special shaft dimensions	Dimensions de l'arbre spécial
112	Özel mil malzemesi	Special shaft materials	Matériel de l'arbre spécial
113	Sertleştirilmiş mil	Hardened shaft	Axe durci
114	Diş çekilmiş mil	Screw	Axe à vis
115	Çoklu kama uygulaması	Shaft with multiple key	Arbre à multi clavette

Kovan / Hollow shaft / *Arbre creux*

Kod / Code	Varyasyon	Options	Options
121	Özel kovan ölçüsü	Dimensions of special shaft	Arbre creux spécial
122	Özel kovan malzemesi	Material of special output shaft	Arbre creux en matériaux spéciaux
123	Sertleştirilmiş kovan *	Hardneed steel hollow shaft	Arbre creux en acier trempé
124	Diş çekilmiş kovan**	Hollow shaft with screw	Arbre creux a vis
125	Opsiyonel kovan	Optional output shaft	Arbre creux optionnel
126	Çoklu kama uygulaması	Hollow shaft with splining	Arbre creux cannelé

*** İRSD.. Serisi için geçerlidir.** / Only for IRSD Series / *Uniquement pour la série IRSD*

****İRS.. ve İRSD.. Serileri için geçerlidir.** / Only for IRS and IRSD Series / *Uniquement pour les séries IRS et IRSD*

Giriş mili - pam mili / Input shaft / *Arbre d'entrée*

Kod / Code	Varyasyon	Options	Options
131	Özel mil ölçüsü	Dimensions of the shaft	Dimensions de l'arbre (Spécial)
132	Özel mil malzemesi	Material of special shaft	Matériaux de l'arbre (Spécial)
133	Sertleştirilmiş mil	Hardened steel shaft	Arbre en acier trempé
134	Çoklu kama uygulaması	Hollow shaft with screw	Arbre creux a vis
135	Özel alın mili	Spécial input shaft	Arbre d'entrée spécial
136	Diş çekilmiş mil	Shaft with screw	Arbre de sortie avec vis

Çıkış flanşı / Output flange / *Bride de sortie*

Kod / Code	Varyasyon	Options	Options
141	Özel flanş ölçüsü	Dimensions of special output flange	Dimensions de la bride de sortie (Spéciale)
142	Özel flanş malzemesi	Material of special output flange	Matériaux de la bride de sortie (Spéciale)
143	Opsiyonel flanş	Optional output flange	Bride de sortie optionnelle
144	Standart dışı flanş*	Special output flange	Bride d'entrée spéciale

*** İstenilen değişilklik ürünün standart flanşı üzerinde yapılamayıp yeni bir flanş tasarlanması durumudur.** / In the case your configuration require the production of a special flange / *Dans le cas oú la configuration de votre application requiert une bride d'entrée spéciale.*

Giriş flanşı / Input flange / *Bride d'entrée*

Kod / Code	Varyasyon	Options	Options
151	Özel flanş ölçüsü	Special input flange	Bride d'entrée (Spéciale)
152	Özel flanş malzemesi	Material of special input flange	Matériaux de la bride d'entrée (spéciale)
153	Standart dışı flanş*	Special output shaft	Bride de sortie spéciale

*** İstenilen değişilklik ürünün standart flanşı üzerinde yapılamayıp yeni bir flanş tasarlanması durumudur.** / In the case your configuration require the production of a special flange / *Dans le cas oú la configuration de votre application requiert une bride de sortie spéciale.*

Yağ / Oil / *Huiles*

Kod / Code	Varyasyon	Options	Options
211	Sentetik yağ VG 220 (SHC 630)	Synthetic oil VG 220 (SHC 630)	Huile synthétique VG 220 (SHC 630)
212	Gıda uyumlu yağ VG 220 (CIBUS 220)	Food compatible oil VG 220 (CIBUS 220)	Huile pour industrie agroalimentaire VG 220 (CIBUS 220)
213	-40C° Uyumlu yağ VG 220 (SHC 630)	Cold resistant oil -40C° VG 220 (SHC 630)	Huile base température -40C° VG220 (SHC 630)

Keçe-tapa / Seal-cover / *Joint- bouchon*

Kod / Code	Varyasyon	Options	Options
221	Özel ölçü keçe	Dimensions of special seal	Dimensions du joint (Spécial)
222	Özel ölçü tapa	Dimensions of special cover	Dimensions du bouchon (Spécial)
223	Özel marka keçe	Special brand of seal	Marque du joint (Spécial)
224	Özel marka tapa	Special brand of cover	Marque du bouchon (Spécial)
225	Viton keçe	Viton seal	Joint en viton
226	Özel tip keçe uygulaması	Special configuration of seal	Configuration spéciale du joint
227	Toz kapağı	Dust cover	Bouchon anti-poussière

Rulman / Bearing / *Roulement*

Kod / Code	Varyasyon	Options	Options
231	Güçlendirilmiş çıkış rulmanı	Reinfored output bearing	Roulement renforcé (Sortie)
232	Güçlendirilmiş giriş rulmanı	Reinforced input bearing	Roulement renforcée (Entrée)
233	Özel marka rulman	Special brand of bearing	Marque du roulement (Spécial)
234	Özel ölçü rulman	Special dimensions of bearing	Dimensions du roulement (Spécial)
235	Mekanik kilit CW*	Backstop bearing (CW)	Roulement anti-retour (CW)
236	Mekanik kilit CCW*	Backstop bearing (CCW)	Roulement anti-retour (CCW)

*** İRO ve YP serileri için geçerlidir, diğer serilerde motora uygulanmaktadır.** / Available in YP and IRO Series, the other series are equiped with backstop bearings at motor side / *Disponible pour les séries YP et IRO, les autres séries sont équipés de roulement anti-retour placés sur le moteur.*

Gövde / Housing / *Carter*

Kod / Code	Varyasyon	Options	Options
241	Özel işlenmiş gövde	Special housing	Carter spéciale
242	Özel malzeme	Special housing materials	Carter avec matériaux spéciaux

Boya / Paint / *Peinture*

Kod / Code	Varyasyon	Options	Options
251	Özel renk boya	Special paint color	Couleur spéciale
252	Özel tip boya	Special paint type	Type de peinture spéciale
253	Epoksi boya	Epoxy paint	Peinture epoxy
254	Akrilik boya (dış ortam)	Acrilic paint	Peinture acrylique (Environement extérieur)
255	Su bazlı boya	Water based paint	Peinture à base d'eau
256	Antikorozif boya	Anti-corrosion paint	Peinture anti-corrosion

Dişli / Gears / *Pignons*

Kod / Code	Varyasyon	Options	Options
261*	Özel imalat dişli	Special gear	Pignons spéciaux
262	Katalog dışı tahvil	Gear ratio (Catalogue)	Rapport de réduction des pignons (Catalogue)

*** 261 kodu, 262 yi kapsamaktadır.** / 261 and 262 codes are equivalent / *Les codes 261 et 262 sont équivalents*

Voltaj - Frekans / Voltage and frequency / *Voltage et frequence*

Kod / Code	Varyasyon	Options	Options
311	Özel voltaj motor	Special Voltage	Voltage spécial
312	Özel frekans motor	Special frequency	Fréquence spéciale

***400 V 50 Hz dışı tüm sarımlar standart dışı kabul edilir.** / 400 V 50 Hz are considered as standard / *400 V 50 Hz sont les normes standards*

Koruma sınıfı / IP Classification / *Classification IP*

Kod / Code	Varyasyon	Options	Options
321	IP 54	IP 54	IP 54
322	IP 56	IP 56	IP 56
323	IP 65	IP 65	IP 65
324	IP 66	IP 66	IP 66

IP 55 Standart kabul edilir / IP 55 is our standard / *IP 55 étant la classe standard*

İzolasyon sınıfı / Isolation class / *Classe d'isolations*

Kod / Code	Varyasyon	Options	Options
331	B sınıfı	B - class	Classe - B
332	H sınıfı	H - class	Classe - H

*** F izolasyon sınıfı standart kabul edilir.** / F class is accepted as a standard / *La classe F étant la norme d'isolation standard*
*** 0 C° ile 40 C° aralığı dışındaki ortam sıcaklıkları ini fabrikaya danışınızı.** / Adapted for outside environment with temperature in between 0 C° and 40 C° / *Adapté aux environnements exterieurs avec une température comprises entre 0° C et 40° C*

Rulman / Bearing / *Roulement*

Kod / Code	Varyasyon	Options	Options
341	Sıcak ortam rulmanı*	Bearing for hot environment	Roulement pour environement a températures élévées
342	Soğuk ortam rulmanı*	Bearing for cold environment	Roulement pour environement a températures négatives
343	İzole rulman	Isolated bearing	Roulement isolé
344	Gresörlük	Bearing with greasing nipples	Roulement avec graisseurs
345	Mekanik kilit CW	Backstop bearing (CW)	Roulement anti-retour (CW)
346	Mekanik kilit CCW	Backstop bearing (CCW)	Roulement anti-retou (CCW)

*** 0 C° ile 40 C° aralığı dışındaki ortam sıcaklıkları ini fabrikaya danışınızı /** For outside environment with temperature out of 0C° and 40C° consult our technical team / *Pour des environnements avec des température non comprises entre 0C° et 40C° consulté nos équipes techniques.*

Marka / Brand / *Marque*

Kod / Code	Varyasyon	Options	Options
351	Gamak Motor	Gamak Motor	Gamak Moteur
352	Volt Elektrik Motor	Volt Motor	Volt Moteur
353	Aemot Motor	Aemot Motor	Aemot Moteur
354	Wat Motor	Wat Motor	Wat Moteur
356	Diğer	Diğer	Diğer

Verim sınıfı / Efficiency classifications / *Classes d'efficience énergétique*

Kod / Code	Varyasyon	Options	Options
361	IE1	IE1	IE1
362	IE3	IE3	IE3
363	IE4	IE4	IE4

*** IE 2 verim sınıfı standart kabul edilir.** / IE 2 is the standard category / *IE 2 étant la norme standard*

Fren markasi / Brake's brand / *Marque du frein*

Kod / Code	Varyasyon	Options	Options
411	EMF fren	EMF brake	Frein - EMF
412	Fatih fren	Fatih brake	Frein - Fatih
413	Diğer	Other	Autres

Fren tipi / Type of brake / *Type de frein*

Kod / Code	Varyasyon	Options	Options
421	220 V soğutmalı	220 V cooler	220 V - avec refroidissement
422	24 V soğutmalı	24 V cooler	24 V - avec refroidissement
423	220 V soğutmasız*	220 V without cooler	220 V - sans refroissement
424	24 V soğutmasız*	24 V without cooler	24 V - sans refroissement
425	Çift balatalı fren	Double disk brake	Frein avec double disque
426	Özel tip fren	Special brake type	Type de frein spécial
427	Özel voltaj fren	Special voltage for brake	Frein avec voltage spécial

* Soğutmasız frenlerde motor fan muhafazası bulunmamaktadır / The brake wihout cooling are installed without fan or cover / Les freins sans refroissiment ne sont pas équipés de couvercle ou d'hélice.

Enkoder / Encoder / *Codeur*

Kod / Code	Varyasyon	Options	Options
431	HPL 100 Pulse rotary enkoder	HPL 100 Pulse rotary encoder	HPL 100 Codeur d'impulsions rotatif
432	HPL 360 Pulse rotary enkoder	HPL 360 Pulse rotary encoder	HPL 360 Codeur d'impulsions rotatif
433	HPL 500 Pulse rotary enkoder	HPL 500 Pulse rotary encoder	HPL 500 Codeur d'impulsions rotatif
434	HPL 1024 Pulse rotary enkoder	HPL 1024 Pulse rotary encoder	HPL 1024 Codeur d'impulsions rotatif
435	HPL 2048 Pulse rotary enkoder	HPL 2048 Pulse rotary encoder	HPL 2048 Codeur d'impulsions rotatif
436	HTL 1024 Pulse rotary enkoder	HTL 1024 Pulse rotary encoder	HTL 1024 Codeur d'impulsions rotatif
437	HTL 2048 Pulse rotary enkoder	HTL 2048 Pulse rotary encoder	HTL 2048 Codeur d'impulsions rotatif
438	TTL 1024 Pulse rotary enkoder	TTL 1024 Pulse rotary encoder	HTL 1024 Codeur d'impulsions rotatif
439	TTL 2048 Pulse rotary enkoder	TTL 2048 Pulse rotary encoder	TTL 2048 Codeur d'impulsions rotatif
440	Diğer	Others	Autres

*** Diğer encoder çeşitleri için fabrikaya danişiniz** / For different type of encoder contact our sales team / *Pour des type de codeurs différents contactez notre équipe téchnique*

Termistör - Isitici / Thermistor and heater / *Thermistatet chauffage*

Kod / Code	Varyasyon	Options	Options
441	PTC X 1 termistör	PTC X 1 thermistor	PTC X 1 Thermistat
442	Bimetal termostat	Bimetallic switch	Interupteur bilame
443	Basın sensörü	Pressure sensor	Senseur pression
444	110 V sargı ısıtıcı	110 V coil heat	Bobine chauffante 110 V
445	220 V sargı ısıtıcı	220 V colt hear	Bobine chauffante 220 V
446	PT 100	PT 100	PT 100

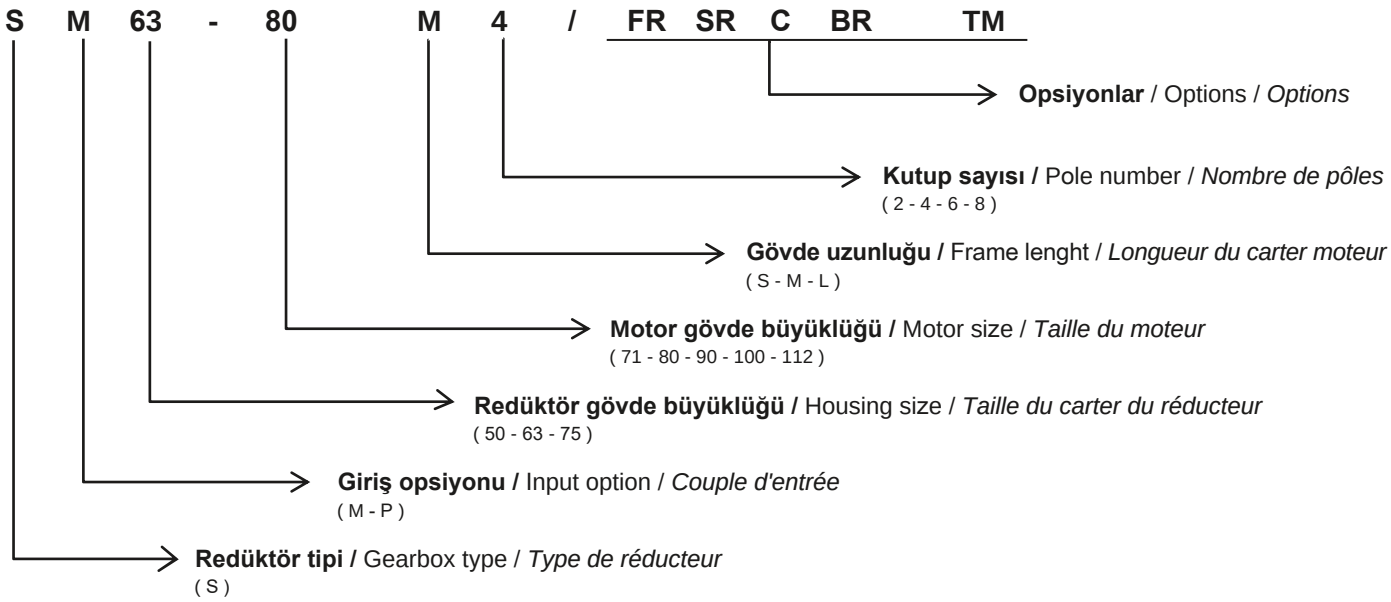
Harici fan / External Fan / *Ventilateur externe*

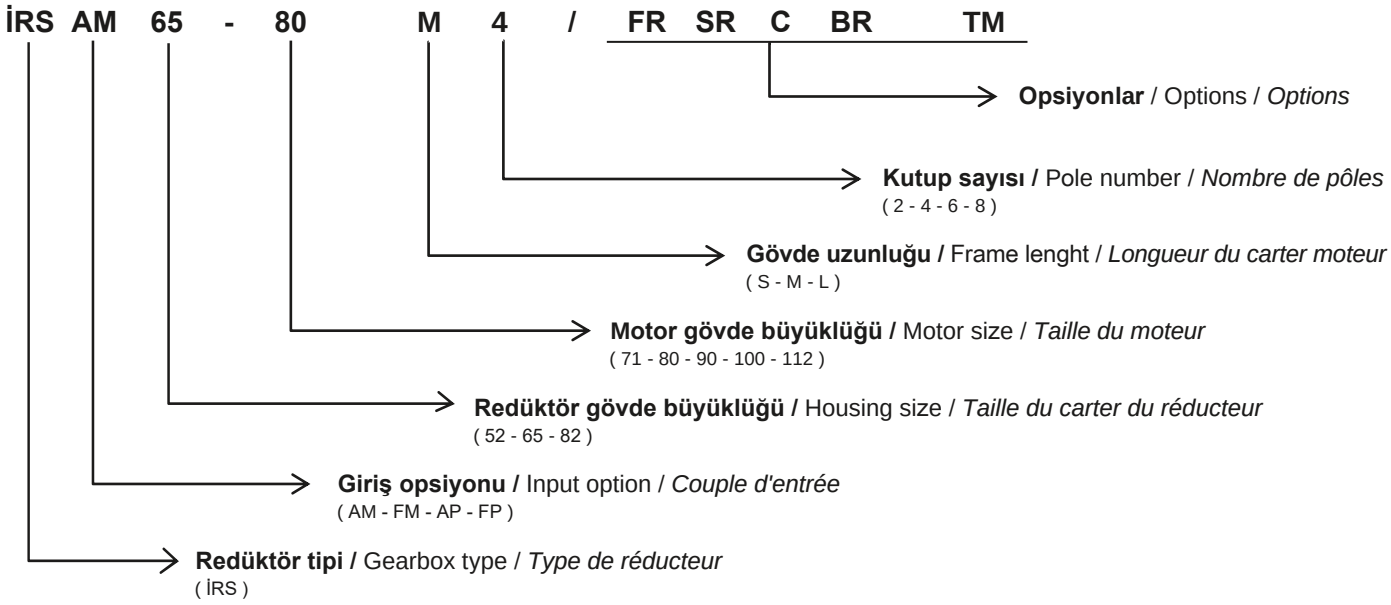
Kod / Code	Varyasyon	Options	Options
451	24 VDC (EBM)	24 VDC (EBM)	24 VDC (EBM)
452	230 VAC (EBM)	230 VAC (EBM)	230 VAC (EBM)
453	380 VAC (EBM)	380 VAC (EBM)	380 VAC (EBM)
454	230 VAC	230 VAC	230 VAC
455	380 VAC	380 VAC	380 VAC

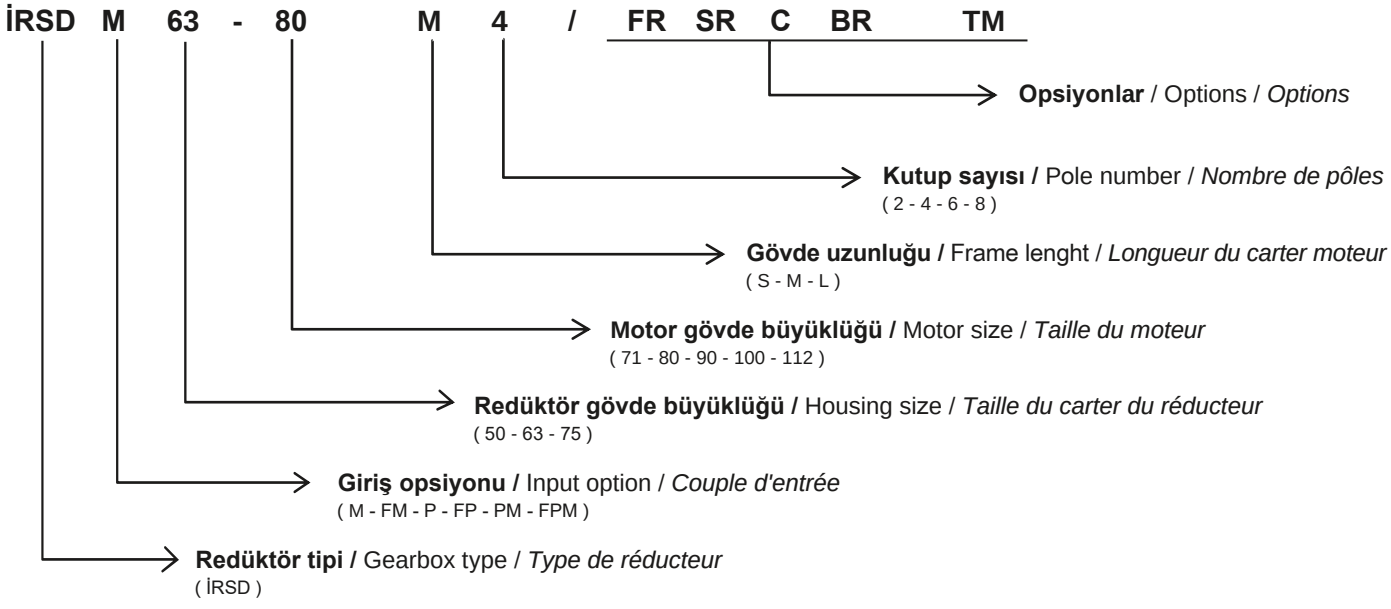
Özel Motorlar / Special motor / *Moteur spécial*

Kod / Code	Varyasyon	Options	Options
461	Servo motor*	Servo motor	Servo moteur
462	DC motor*	DC motor	Moteur DC
463	Vektör motor	Vector motor	Moteur vecteur
464	Tork motoru	Tork motor	Moteur à couple élevé
465	Hidro motor*	Hydraulic motor	Moteur hydraulique
466	Pnömatik motor*	Compressed air motor	Moteur a air comprimé
467	Ex-proof motor	Explosion proof motor	Moteur anti-explosion
468	Senkron relüktans motor	Synchronous reluctance motors	Moteur à reluctance synchrone
469	Senkron motor*	Synchronous motors	Moteurs synchrones
470	Müşteri motoru	Customer's motor	Moteur en provenance du client

*** Motorlar firmamiz tarafindan tedarik edilmemektedir** / Our factory is not providing such motors / *Moteur non fournis par notre usine*
Özel motor kodlari motorlarin farbrikamiz tarafindan takildiği durumlarda uygulanir / Motors installed in our factory / *Moteur installés dans notre usine*


S M 63 - 80 M 4 / FR SR C BR TM
Opsiyonlar / Options / Options
Kutup sayısı / Pole number / Nombre de pôles
(2 - 4 - 6 - 8)
Gövde uzunluğu / Frame lenght / Longueur du carter moteur
(S - M - L)
Motor gövde büyüklüğü / Motor size / Taille du moteur
(71 - 80 - 90 - 100 - 112)
Redüktör gövde büyüklüğü / Housing size / Taille du carter du réducteur
(50 - 63 - 75)
Giriş opsiyonu / Input option / Couple d'entrée
(M - P)
Redüktör tipi / Gearbox type / Type de réducteur
(S)


İRS AM 65 - 80 M 4 / FR SR C BR TM
Opsiyonlar / Options / Options
Kutup sayısı / Pole number / Nombre de pôles
(2 - 4 - 6 - 8)
Gövde uzunluğu / Frame lenght / Longueur du carter moteur
(S - M - L)
Motor gövde büyüklüğü / Motor size / Taille du moteur
(71 - 80 - 90 - 100 - 112)
Redüktör gövde büyüklüğü / Housing size / Taille du carter du réducteur
(52 - 65 - 82)
Giriş opsiyonu / Input option / Couple d'entrée
(AM - FM - AP - FP)
Redüktör tipi / Gearbox type / Type de réducteur
(İRS)


İRSD M 63 - 80 M 4 / FR SR C BR TM
Opsiyonlar / Options / Options
Kutup sayısı / Pole number / Nombre de pôles
(2 - 4 - 6 - 8)
Gövde uzunluğu / Frame lenght / Longueur du carter moteur
(S - M - L)
Motor gövde büyüklüğü / Motor size / Taille du moteur
(71 - 80 - 90 - 100 - 112)
Redüktör gövde büyüklüğü / Housing size / Taille du carter du réducteur
(50 - 63 - 75)
Giriş opsiyonu / Input option / Couple d'entrée
(M - FM - P - FP - PM - FPM)
Redüktör tipi / Gearbox type / Type de réducteur
(İRSD)

Servis Faktörü (F_s)
Servis Faktörü = İşletme Katsayısı = (F_s)

Redüktörlerdeki bu değer, tahrik edeceği makinenin bütün teknik ve karakteristik özelliklerine dayanma süresine bağlıdır. Genel olarak makineler yüklenme bakımından üç tip karakteristik gösterirler.

1. HAFİF YÜK (U)
2. ORTA YÜK (M)
3. AĞIR YÜK (H)

Üç değişik yükleme biçiminde çalışan, üç ayrı makinede üretilen momentler birbirine eşitte olsalar, ağır çalışan makinede daha büyük işletme katsayılı Redüktör kullanılmaktadır.

Günlük çalışma saati ise, çalışan dişli ve transmisyon elemanlarının malzeme yorulmasına maruz kalması bakımından, çalışma saatinin fazla olması halinde zararlı yönde etki eder.

Star-Stop durumuna gelince, her makinenin ilk kalkış esnasında en yüksek yüke maruz kaldığı düşünülürse tehlikeli görülür. Müteakip çalışmalarda bu daha aşağıya düşer.

Kataloğumuzda işletme katsayılarının nasıl kullanıldığının anlaşılması için bir misal ile belirtelim.

Önce tablo-1'den makinenin çalışma sahasına göre karakteristiğini belirleyelim. Makinemiz elektrik motor tahrikli ZİNCİR KOVALI EKSKAVATÖR ise yükleme durumu AĞIR' dır. (H) Tablo 2'den makine 24 saat çalışacağına göre minimum işletme katsayısı F_S = 2 bulunur.

Service Factor (F_s)

Value of the service factor of a gearbox depends on all technical and characteristic specifications of a driven machine. Generally machines have three types of loading characteristics:

1. UNIFORM LOAD (U)
2. MODERATE LOAD (M)
3. HEAVY LOAD (H)

Even if the torques required by three different machines operating at three different load specifications are equal.

Gearbox of the machine operating under heavy load conditions should have greater service factor.

Daily working period has effect on gearbox elements due to the materials fatigue of working parts.

It must be taken into account that all machines are subject to the greatest load at the first start, so that the number of starts has also effect on service factor.

This is an example how to use the service factor given in the cataloque.

Load specification of machine should be determined first, from table 1 in our example, the machine is CHAIN BUCKET EXCAVATOR driven by electric motor has HEAVY load specification and daily operation time is 24 hours. So that minimum service factor F_S = 2 is taken from Table 2.

Service facteur (F_s)

La valeur du service facteur d'un motoréducteur dépend des charactéristique de l'application. Ont distingue trois type de charges différentes

1. Charges uniformes (U)
2. Charges modérées (M)
3. Charges élévées (H)

Les spécifications des charges restent les même lorsque trois machines différentes sont soumises à des charges distinctes.

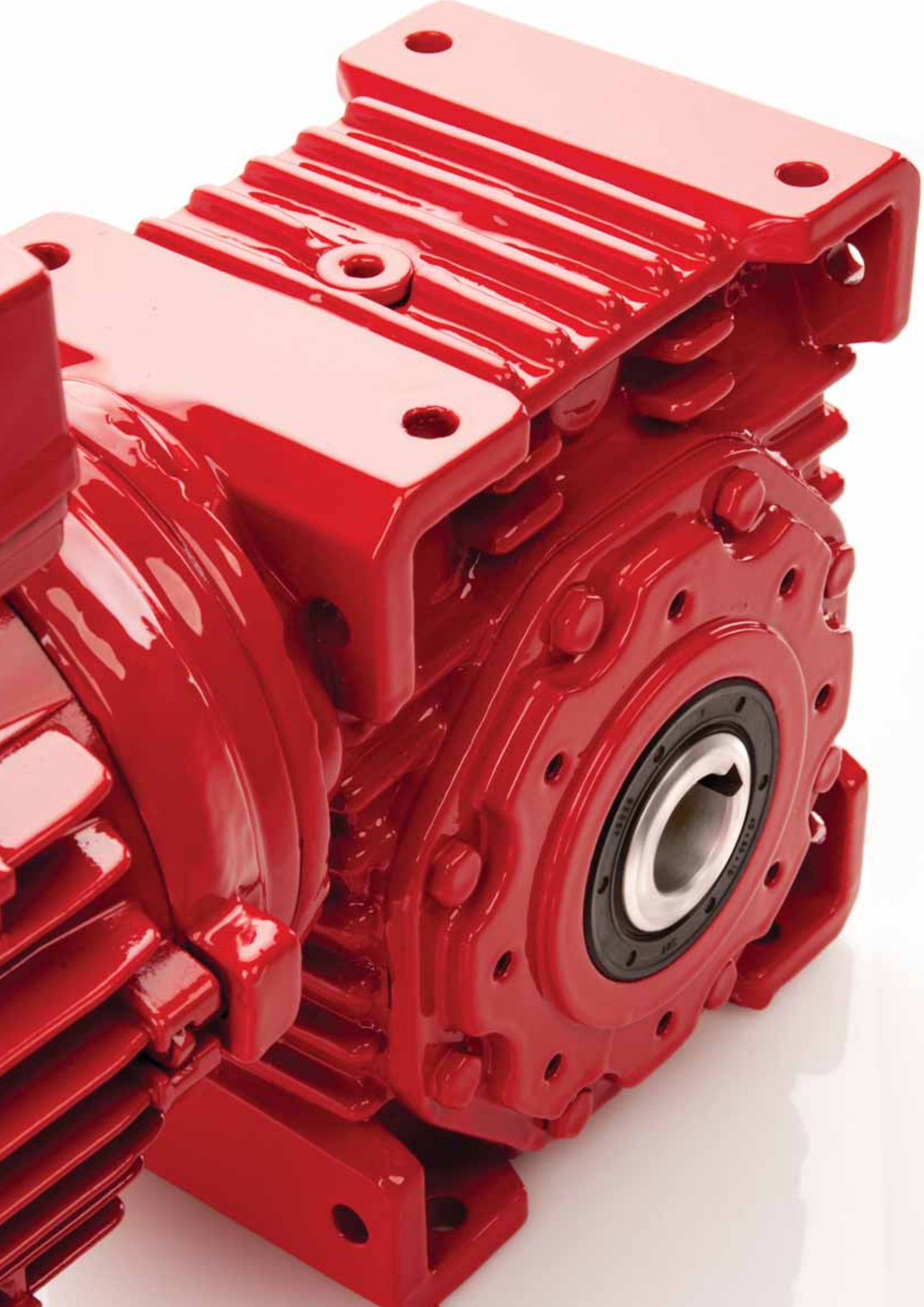
Les réducteurs utilisés dans des applications soumises à de fortes charges doivent obligatoirement avoir des services facteurs élevés.

Le nombre d'heures d'utilisations journalières a une influence directe sur l'usure des pièces et composants du réducteur.

Le réducteur est soumis à une charge maximale lors du démarrage de l'application. Le nombre d'arrét/rédemarrage est donc à prendre en compte lors de l'analyse du service facteur.

L'example çi-dessous explique le processus d'analyse et de calcul du service facteur.

L'application étudiée est un excavateur a godets (Tableau 1) , le réducteur est actionné par un moteur éléctrique. La charge est "élévée" et la durée de fonctionnement journaliére est de 24h. En se basant sur le tableau 2, le service facteur minimum requis est F_S = 2



Ekskavatörler		Excavators		Excavateur	
Zincir kovalı ekskavatörler	H	Chain-Bucket excavators	H	Excavateurs à gaudets	H
Paletli yürüyüşler	H	Travelling gears (Caterpiller)	H	Convoyeur à étage	H
Ray üzerinde yürüyüşler	M	Travelling gears (Rails)	M	Convoyeur à rails	M
Manevra mekanizmaları	U	Manoevring winches	U	Grues à manœuvre	U
Emiş pompaları	M	Pumps	M	Pompes	M
Kovalı çarklar	H	Bucket wheels	H	Roue à gaudets	H
Dönüş mekanizmalar	M	Slewing gears	M	Pignons rotatif	M

İnşaat Makinaları		Building Machines		Machine de Construction	
İnşaat asansörleri	U	Hoists	U	Grues de construction	U
Betoniyerler	M	Concrete mixers	M	Malaxeur à béton	M
Yol inşaat makinaları	M	Road contruction machines	M	Machine de construction(routes)	M

Kaldırma ve İletme Tesisleri		Conveyor		Convoyeurs	
Zincirli konveyör	M	Through chain conveyors	M	Convoyeurs à chaines	M
Mafsal bantlı konveyörler	M	Link conveyors	M	Convoyeur à bande souple	M
Lastik bantlı konveyörler (Dökme Yükler)	U	Belt conveyors (Bulk Goods)	U	Convoyeur à bande rigide	U
Lastik bantlı elevatörler	M	Ballast elevators	M	Elevateurs à bande	M
Lastik cepli elevatörler	M	Ballast pocket elevators	M	Elevateur à poche	M
Lastik bantlı konveyörler (Parça Yükler)	M	Belt conveyors (Piece Goods)	M	Convoyeur à bande	M
Askılı konveyörler	U	Chain conveyors	U	Convoyeur à chaines	U
Yük asansörleri	M	Goods lifts	M	Elévateur à chaines	M
Kovalı elevatörler (Toz Malzeme)	U	Bucket elevators (Flour Goods)	U	Elévateur à godets (graviers)	U
Helezon konveyör	M	Screw conveyors	M	Vis d'Archimède	M
Kovalı elevatörler (Parçalı Malzeme)	M	Bucket elevators (Piece Goods)	M	Elévateurs à godets (Roches	M
Eğik asansörler	H	Inclined hoists	H	Grues inclinées	H
Çelik bantlı konveyörler	M	Steel belt conveyors	M	Convoyeur à bande (Acier)	M
Paletli konveyörler	M	Apron conveyors	M	Convoyeurs à palettes	M

Tahrik Makinası Torque Machine *Machines couplées*	**Günlük Çalışma Müddeti (Saat)** Daily Working Period (Hour) *Utilisation journalière (Heure)*	**Makinanın Yükleme Karakteristiği** Load Characteristics of Machines *Caractéristique des charges*		
		Hafif Yük U Uniform Load U *Charge uniforme U*	**Orta Yük M** Moderate Load M *Charge modérée M*	**Ağır Yük H** Heavy Load H *Charge élevée H*
Elekt. Motorlu / Elect. Motor / *Moteurs éléct.* **Türbin** / Turbin / *Turbine* **Hidrolik** / Hydrolic / *Hydraulique*	0…..3	0.8	1	1.5
	3….10	1	1.25	1.75
	10…24	1.25	1.5	2
Pistonlu Makinalar (4….6 Silindir Piston Machines (4….6 Cylindir) *Machine à pistons (4…..6 Cylindres)*	0…..3	1	1.25	2
	3….10	1.25	1.5	2
	10…24	1.5	1.75	2
Pistonlu Makinalar (1….2 Silindir) Piston Machines (1….2 Cylindir) *Machine à pistons (1…..2 Cylindres)*	0…..3	1.25	1.5	2
	3….10	1.5	1.75	2.25
	10…24	1.75	2	2.5

Kimya Endüstrisi		Chemical Industry		Industrie Chimique	
Soğutma tamburları	M	Cooling drums	M	Tambours de refroidissement	M
Karıştırıcılar	M	Mixers	M	Mixeurs	M
Çalkalayıcılar (Hafif Akışkanlar)	U	Agitators (Liquids)	U	Agitateurs (Liquides)	U
Çalkalayıcılar (Ağır Akışkanlar)	M	Agitators (Semi Liquids)	M	Agitateurs (Semi liquide)	M
Tambur kurutucuları	M	Drying drums	M	Tambours de séchage	M
Sanrifüjler	U	Centrifuges (Lights)	U	Centrifugeuse (Légère)	U
Sanrifüjler	H	Centrifuges (Heavy)	H	Centrifugeuse (Lourde)	H

Petrol Endüstrisi		Oil Industry		Pétrole et Hydrocarbures	
Boru hattı pompaları	M	Pipeline pumps	M	Pompes à oléoducs	M
Kuyu açma mekanizmaları	H	Rotary drilling equipment	H	Foreuse à cylindres	H

Vantilatör Ve Aspiratörler		Fans		Ventilations	
Pistonlu vantilatörler	M	Rotary piston blowers	M	Souffleurs rotatifs	M
Vantilatör (Aksiyal ve Radyal)	U	Blowers (Axial and Radial)	U	Souffleurs (Axe et radial)	U
Santrifüj (türbinli) körük	H	Centrifugal	H	Centrifugeuse	H

Kauçuk Makinaları		Rubber Machines		Industrie du Caoutchouc	
Ekstruder ve kanderler	H	Extruders and calenders	H	Extrudeuse	H
Yoğurma makinaları	H	Pug mills	H	Malaxeur	H
Karıştırıcılar	M	Mixers	M	Mixeurs	M
Silindirleme makinaları	H	Rolling mills	H	Presse	H

Ağaç İşleme Makinaları		Wood Working Machine		Industries Forestières	
Yontma tamburları	H	Backers	H	Presse à bois	H
Planya makinaları	M	Planing machines	M	Aplanisseuses	M
Ağaç işleme tezgahları	U	Wood working machines	U	Découpe de bois	U
Şerit testereler	H	Band saws	H	Scie	H

Yıkama Makinaları		Washing Machines		Laveuses	
Yıkama makinaları	U	Washing machines	U	Machine de lavage	U
Tamburlu kurutucular	M	Tumblers	M	Tambours	M

Tahrik Makinası Torque Machine *Machines couplées*	**Günlük Çalışma Müddeti (Saat)** Daily Working Period (Hour) *Utilisation journalière (Heure)*	**Makinanın Yükleme Karakteristiği** Load Characteristics of Machines *Caractéristique des charges*		
		Hafif Yük U Uniform Load U *Charge uniforme U*	**Orta Yük M** Moderate Load M *Charge modérée M*	**Ağır Yük H** Heavy Load H *Charge élevée H*
Elekt. Motorlu / Elect. Motor / *Moteurs éléct.* **Türbin** / Turbin / *Turbine* **Hidrolik** / Hydrolic / *Hydraulique*	0…..3	0.8	1	1.5
	3….10	1	1.25	1.75
	10…24	1.25	1.5	2
Pistonlu Makinalar (4….6 Silindir Piston Machines (4….6 Cylindir) *Machine à pistons (4…..6 Cylindres)*	0…..3	1	1.25	2
	3….10	1.25	1.5	2
	10…24	1.5	1.75	2
Pistonlu Makinalar (1….2 Silindir) Piston Machines (1….2 Cylindir) *Machine à pistons (1…..2 Cylindres)*	0…..3	1.25	1.5	2
	3….10	1.5	1.75	2.25
	10…24	1.75	2	2.5

Vinç Tesisleri		Cranes		Grues	
Bom kaldırma	H	Derricking jib bomm gear	H	Bras ouvrant	H
Vinç yürüyüşerleri	U	Travelling gears	U	Grues(Charriot)	U
Yük kaldırma	H	Hoist gears	H	Grues	H
Dönüş tertibatları	U	Slewing gears	U	Pignons rotatifs	U

Metal İşleme Makinaları		Metal Working Machines		Métalurgie et Acieries	
Planya makineleri	S	Planing machine	S	Aplaniseuses	S
Çekiç tokmak	S	Hammer	S	Marteau	S
Oyma makinesi	S	Engraving machine	S	Graveuses	S
Presler	H	Presses	H	Presses	H
Makaslar (Giyotin)	M	Shears	M	Découpeuses	M
Sıcak basma presleri	H	Forging presses	H	Presse à forge	H
Takım tezgahları (Ana Tahrik)	M	Machines tools (Main Drives)	M	Machine outil (Axe principal)	M
Takım tezgahları (Yardımcı Tahrik)	U	Machines tools (Auxiliarly Drives)	U	Machine outil (axe secondaire)	U

Gıda Endüstri Makinaları		Food Industry Machines		Industrie Agroalimentaire	
Doldurma makinaları (Şişe, Kavanoz vs.)	U	Filling machines (Bottles, Contaniers.)	U	Embouteilleuse	U
Yoğurma makinaları	M	Kneading machines	M	Malaxeurs	M
Ambalaj makinaları	U	Packaging machines	U	Machine d'emballage	U
Şeker kamışı kırıcıları	M	Cane crushers	M	Presse à canne	M
Şeker kamışı kesicileri	M	Cane cutters	M	Découpeuse de canne	M
Şeker kamışı öğütücüleri	H	Cane millis	H	Broyeurs de cannes	H
Şeker pancarı kesicileri	M	Sugar beet cutters	M	Découpeuse de betteraves	M
Şeker pancarı yıkayıcıları	M	Suger beet washers	M	Laveuse à betteraves	M

Pompalar		Pumps		Pompes	
Pistonlu pompalar (Q1 / 100)	H	Piston pumps (Q1 / 100)	H	Pompes à piston (Q1 / 100)	H
Pistonlu pompalar (Q1 / 100 : 1 / 20)	M	Piston pumps (Q1 / 100 : 1 / 20)	M	Pompes à piston (Q1 / 100 : 1 / 20)	M
Türbin (Hafif Akışkan)	U	Turbin (Light - Liquids)	U	Turbine (Liquides légers)	U
Türbin (Ağır Akışkan)	M	Turbin (Semi - Liquids)	M	Turbine (Semi-liquide)	M

Tahrik Makinası Torque Machine *Machines couplées*	**Günlük Çalışma Müddeti (Saat)** Daily Working Period (Hour) *Utilisation journalière (Heure)*	**Makinanın Yükleme Karakteristiği** Load Characteristics of Machines *Caractéristique des charges*		
		Hafif Yük U Uniform Load U *Charge uniforme U*	**Orta Yük M** Moderate Load M *Charge modérée M*	**Ağır Yük H** Heavy Load H *Charge élevée H*
Elekt. Motorlu / Elect. Motor / *Moteurs éléct.* **Türbin** / Turbin / *Turbine* **Hidrolik** / Hydrolic / *Hydraulique*	0…..3	0.8	1	1.5
	3….10	1	1.25	1.75
	10…24	1.25	1.5	2
Pistonlu Makinalar (4….6 Silindir Piston Machines (4….6 Cylindir) *Machine à pistons (4…..6 Cylindres)*	0…..3	1	1.25	2
	3….10	1.25	1.5	2
	10…24	1.5	1.75	2
Pistonlu Makinalar (1….2 Silindir) Piston Machines (1….2 Cylindir) *Machine à pistons (1…..2 Cylindres)*	0…..3	1.25	1.5	2
	3….10	1.5	1.75	2.25
	10…24	1.75	2	2.5

Kağit Endüstri Makinaları		Paper Industry Machines		Indusrtie Papetière	
Düzleme silindirleri	H	Glazing Cylinders	H	Cylindres appliniseurs	H
Holender	M	Hollenders	M	Holenders	M
Kağıt hamur makineleri	H	Pulpers	H	Pulpeuses	H
Kalender	H	Calender	H	Calendrier	H
Taş presler	H	Stone Presses	H	Presse	H
Vakum presler	H	Vacum Presses	H	Presse à aspiration	H
Kuru silindirler	H	Drying Cylinders	H	Cylindres de séchage	H

Taş ve Kil Makinaları		Stone and Clay Working Machines		Roches et Argiles	
Kırıcılar	H	Breakers	H	Broyeurs	H
Döner fırınlar	M	Rotary ovens	M	Four rotatifs	M
Çekiçli değirmenler	H	Hammer mills	H	Broyeux à marteaux	H
Bilyalı değirmenler	H	Ball mills	H	Broyeurs à billes	H
Çarpmalı öğütücüler	H	Beater mills	H	Broyeux à percussions	H
Tuğla presleri	H	Brick presses	H	Presse à pavès	H

Tekstil Makinaları		Textile Machines		Industrie du Textile	
Sargı makinaları (Q1 / 100)	M	Batchers (Q1 / 100)	M	Machines d'emballages	M
Basma ve boyama mak.	M	Printing and dyeing machines	M	Presse et imprimante	M
Dokuma tezgahları	M	Looms	M	Tisseuse	M

Kompresörler		Compressors		Compresseurs	
Turbo kompresör	M	Turbo compressors	M	Turbocompresseurs	M

Silindirleme ve Çekme Tesisleri		Metal Rolling Mills		Aciéries	
Sac kesme makineleri	H	Sheet metal cutting machines	H	Découpeuses	H
Hız ayarlı silindirler	M	Roller adjustment drivers	M	Ajusteuse à presses	M
Çubuk kesme makinaları	H	Billet shears	H	Scies	H
Kabuk sıyırma makinaları	H	Descaling machines	H	Eplucheuse	H
Tel çekme tesisleri	M	Wire drawing machines	M	Enrouleuses	M
Soğuk çekme tesisleri	H	Cooling beds	H	Bande de refroidissements	H
Rulolu nakil (Hafif)	M	Roller tables (Lights)	M	Enrouleuses (légères)	M
Rulolu nakil (Ağır)	H	Roller tables (Heavy)	H	Enrouleuses (lourdes)	H
Silindir haddeleme	H	Manipulators	H	Cylindres	H

Tahrik Makinası Torque Machine *Machines couplées*	**Günlük Çalışma Müddeti (Saat)** Daily Working Period (Hour) *Utilisation journalière (Heure)*	**Makinanın Yükleme Karakteristiği** Load Characteristics of Machines *Caractéristique des charges*		
		Hafif Yük U Uniform Load U *Charge uniforme U*	**Orta Yük M** Moderate Load M *Charge modérée M*	**Ağır Yük H** Heavy Load H *Charge élevée H*
Elekt. Motorlu / Elect. Motor / *Moteurs éléct.* **Türbin** / Turbin / *Turbine* **Hidrolik** / Hydrolic / *Hydraulique*	0…..3	0.8	1	1.5
	3….10	1	1.25	1.75
	10…24	1.25	1.5	2
Pistonlu Makinalar (4….6 Silindir Piston Machines (4….6 Cylindir) *Machine à pistons (4…..6 Cylindres)*	0…..3	1	1.25	2
	3….10	1.25	1.5	2
	10…24	1.5	1.75	2
Pistonlu Makinalar (1….2 Silindir) Piston Machines (1….2 Cylindir) *Machine à pistons (1…..2 Cylindres)*	0…..3	1.25	1.5	2
	3….10	1.5	1.75	2.25
	10…24	1.75	2	2.5

Frenler

1) Pervanesiz frenler
Elektrik motorunun arkasındaki soğutma kapağı takılmayarak bunların yerine monte edilen frenlerdir. Kısa süreli çalışan motorlarda bu tip frenler kullanılır.

2) Pervaneli frenler
Elektrik motorunun motor mili ve fan kapağı uzatılarak monte edilen frenlerdir. Devamlı çalışan motorlarda bu tip frenler kullanılır.

3) Mikro anahtarlı frenler
Elektrik motorlarının demeraj akımının yüksek olması ve freni açmada gecikmesi dolayısıyla istenmeyen durumlar meydana gelir. Bunları önlemek için, frenin üzerine konulan bir mikro anahtar vasıtasıyla freni açtıktan hemen sonra motorun çalışması sağlanır. Bu tip frenler özellikle büyük güçteki redüktörlerin elektrik motorları için uygundur.

Redüktörlerin ani veya gecikmeli frenlenmesi
Gecikmeli veya ani frenlenen redüktörler birçok sanayi makinalarında kullanılmaktadır. Bu sebepten frenler hem ani hem de gecikmeli fren yapacak şekilde dizayn edilmişlerdir. Frenlerin elektrik bağlantısında yapılacak bir değişiklikle ani veya gecikmeli frenleme sağlanır. Her frenli redüktör ile birlikte elektrik bağlantı şeması verilmektedir.

Frenli redüktörleri teslim aldığınızda fren bağlantısının gecikmeli olarak yapıldığını unutmayınız.

Brakes

1) Brakes without cooling fan
Brake which is mounted on fan side of electric motor by cancelling cooling fan and fan cover of motor. This type of brake is used for a short period running motors.

2) Brakes with cooling fan
Brake which is mounted on fan side of electric motor by extending motor shaft and fan cover to use fan. This type of brake is necesarry for continuously running motors

3) Brakes with micro switch
Because of high starting current of motors delayed disengagement of magnetic brakes undesirable conditions occur. To prevent this situation, starting of motor is provided after disengagement of brake by means of brake by means of a micro switch installed on the brake. This type of brake is especially suitable for high power geared motors.

Non-delayed or delayed braking of geared motors
Delayed or non-delayed geared motors are used in many industrial machines. Therefore, brakes are designed to operate in both delayed and non-delayed conditions. This is supplied with each brake mounted geared motor.

Please do not forget that the brakes are connected for delayed operations standard.

Freins

1) Freins sans hélices de refroidissements
Freins montés directement à l'emplacement de l'hélice de refroidissement. Dans cette configuration l'hélice et le couvercle extérieur sont retirés. Ce type de configuration est conseillé pour les applications et moteurs avec une durée de fonctionnement réduite.

2) Freins avec hélice de refroidissement
Le frein est monté directement à l'arrière de l'emplacement de l'hélice de refroidissement. Ce type de configuration nécessite une prolongation de l'arbre d'entrainement du moteur. Ce type de configuration est conseillé pour les applications nécessitant un usage continu du frein.

3) Frein à ouverture manuelle
La forte charge appliquée par le moteur sur certains freins entraine une prolongation de la période de blocage. Afin d'éviter un arrêt prolongé certains freins sont équipés d'un clé d'ouverture manuelle, cette option permet un redémarrage immédiat du moteur. Ce type de freins est particulièrement adapté aux moteurs à forte puissance.

Freins avec ou sans retardement d'arrêt.
Les motoréducteurs équipés de freins à retardement d'arrêt sont utilisés dans notre nombreuses applications et secteurs.
Les freins sont conçus pour opérés avec ou sans l'option de retardement. Cette option est disponible pour l'ensemble de notre gamme de motoréducteurs. A noter que le freins dois être correctement connecté pour permettre un fonctionnement optimale de cette option.

Fren alışma Voltajları

Frenler 24V-DC veya 220V-AC ile çalışacak şekilde imal edilir. 220 voltluk frenlerin bağlantıları motor klemens kutusunda yapılmaktadır. 24V ile çalışan frenlerin bağlantısı için ayrıca 220/30V trafo ile doğrultucu gerekmektedir. İstenildiğinde bunlar firmamızca temin edilmektedir.

Frenli redüktörlerin elektrik motorlarına toprak hattı bağlantısı muhakkak yapılmalıdır.

Fren Siparişlerinde Belirtilmesi Gereken Hususlar

1) Fren Momenti
2) Fren Tipi
3) Fren voltajı

24V ile çalışan fren siparişlerinde trafolu doğrultucu istenip istenmediğini lütfen belirtiniz.

Fren bağlantı şemaları

Operating Voltage of Brakes

Brakes are manufactured to operate at 24V-DC or 220V-AC. 220V brakes are connected to the motor terminal box directly, but 220/30V transformer with rectifier unit needed for 24V operating brakes. This unit will be supplied if required.

Geared brake motors must be earthed.

Required Ordering Data for Brakes

1) Brake Torque
2) Brake Type
3) Brake Operating Voltage.

Please inform as if you need 220/30V transformer with rectifier unit for 24V operating brakes

Brake connection types

Voltage et Caractéristique des Freins

Les freins sont adaptés à un voltage de 24V-DC ou 220V-AC. Les freins fonctionnant sous 220V sont directement connectés à la boite de Klemens, Les freins fonctionnant sous 24V doivent impérativement être couplés à un transformeur, cette unité est disponible en option.

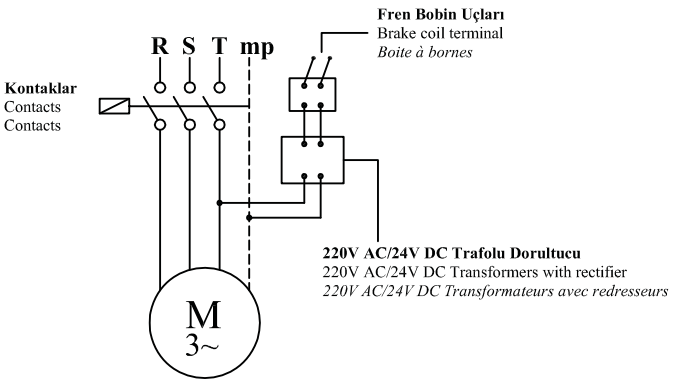
Données Nécessaire à la Commande d'un Frein.

1) Couple des freins
2) Type de freins
3) Type de voltage

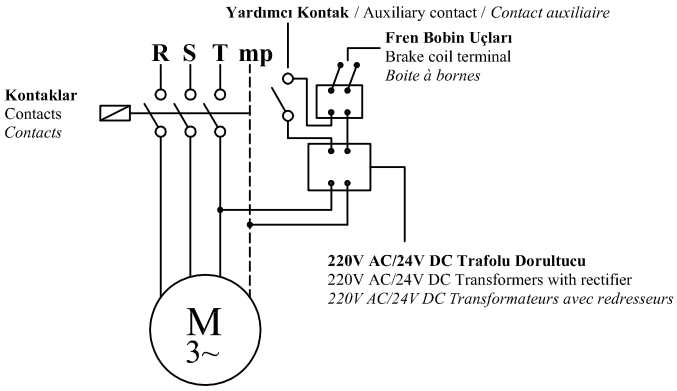
Veillez à nous informer si une unité de transformation 220/30V est nécessaire au branchement de votre frein (24 V)

Type de connexion des freins

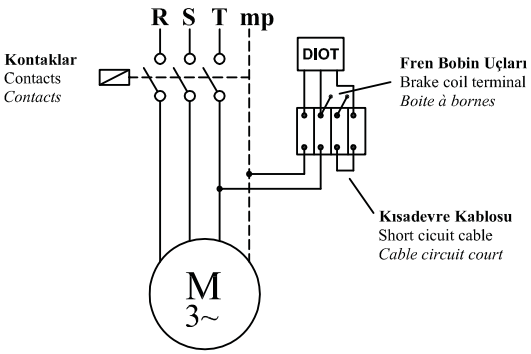
Gecikmeli Frenleme (24V)
Delayed Running Brake (24V)
Frein à retardement (24 V)



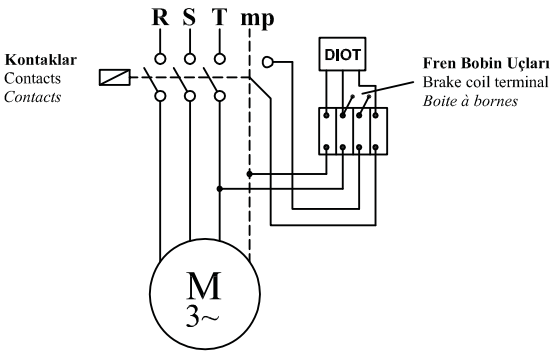
Ani Frenleme (24V)
Sudden Running Brake (24V)
Frein à arrêt immédiat(24 V)



Gecikmeli Frenleme (220V)
Delayed Running Brake (220V)
Frein à retardement (220 V)



Ani Frenleme (220V)
Sudden Running Brake (220V)
Frein à arrêt immédiat(220 V)



Tablo 1 / Table 1 / *Tableau 1*

Motor Büyüklüğü Motor Size *Dimensions du moteur*	n1 d/d / r.p.m / r.p.m			
	750	1000	1500	3000
	Güç / Power / *Puissance* [kW]			
63			0,12 - 0,18	0,18 - 0,25
71	0,09 - 0,12	0,18 - 0,28	0,25 - 0,37	0,37 - 0,55
80	0,18 - 0,25	0,37 - 0,55	0,55 - 0,75	0,75 - 1,1
90 S	0,37	0,75	1,1	1,5
90 L	0,55	1,1	1,5	2,2
100	0,75 - 1,1	1,5	2,2 - 3	3
112	1,5	2,2	4	4
132 S	2,2	3	5,5	5,5 - 7,5
132 M	3	4 - 5,5	7,5	11
160 M	4-5,5	7,5	11	15
160 L	7,5	11	15	18,5
180 M			18,5	22
180 L	11	15	22	
200	15	18,5 - 22	30	30 - 37
225 S	18,5		37	
225 M	22	30	45	45
250	30	37	55	55
280 S	37	45	75	75
280 M	45	55	90	90

Tablo 2 / Table 2 / *Tableau 2*

Motor Büyüklüğü Motor Size *Dimensions du moteur*	**Fren Momenti [kgm]** Braking Torque [kgm] *Puissance de freinage [kgm]*																			
	Hafif Frenleme Light Braking *Freins legers*										**Kuvvetli Frenleme** Strong Braking *Freins lourds*									
	0,5	1	2,5	4	5	10	20	30	50	80	0,5	1	2,5	4	5	10	20	30	50	80
63	■										■									
71	■											■								
80	■	■										■								
90 S		■											■							
90 L			■										■							
100			■											■	■					
112			■	■											■					
132 S				■	■											■				
132 M					■	■										■				
160 M						■											■			
160 L						■	■										■			
180 M							■											■		
180 L							■											■		
200							■	■											■	
225 S								■											■	
225 M									■										■	■
250									■											■
280 S									■	■										■
280 M										■										■

Kontrol ve bakım redüktörler

- Redüktörlerin yağ seviyesi ve miktarını kontrol ediniz. Yağın cinsini İ.MAK kataloğunda yer alan yağ çizelgelerini kullanarak seçiniz.
- Havalandırma tapasının faal olup olmadığına bakınız. Hava tahliye deliği çalışmaz ise redüktör gövdesinin içinde biriken hava, basınç oluşturarak keçelerden yağ sızmasına sebep olur. Böylece yağ azalarak çevre kirliliğine yol açar ve redüktörün verimli çalışmasını engellemiş olur.
- Redüktör bağlantı cıvatalarının gevşeyip gevşemediğini kontrol ediniz, gevşeyen cıvatalar var ise sıkmak suretiyle tedbir alınız. Redüktör montajında meydana gelen eksen kaçıklığında zararlı sarsıntılara dikkat ediniz.
- Redüktörün ilk çalıştırmadan 500 saat sonra, sonraki her 6000 saatte periyodik olarak yağını değiştiriniz.
- Özel hususlar ve çalışma şartları hakkında mutlaka firmamıza danışınız.

Control and maintenance gearboxes

- Check the oil levels and quantity of your gearboxes. Choose the type and quantity of oil from the İ.MAK catalogue.
- Check if the ventilation stopper is active or not. If the air evacuation hole does not work properly, the accumulated air in the gearbox trunk might causes pressure and gas leakage from the mats.
- Before starting your geared motors, proceed to the checking of connection bolts and screw. Check if they have loosened or not during transport or installation. Take measures by firming loosened bolts. A wrong connexion might create vibration to the axis and conduct to damage of the geared motor.
- Change the oil after 500 hours of initial operation and periodically every 6000 hours of operating the geared motor.
- If you are facing any technical issue, please consult the user guide delivered with the geared motor. In case of special issue or emergency please directly contact your reseller or the closest I-MAK technical center.

Contrôle et maintenance des réducteurs

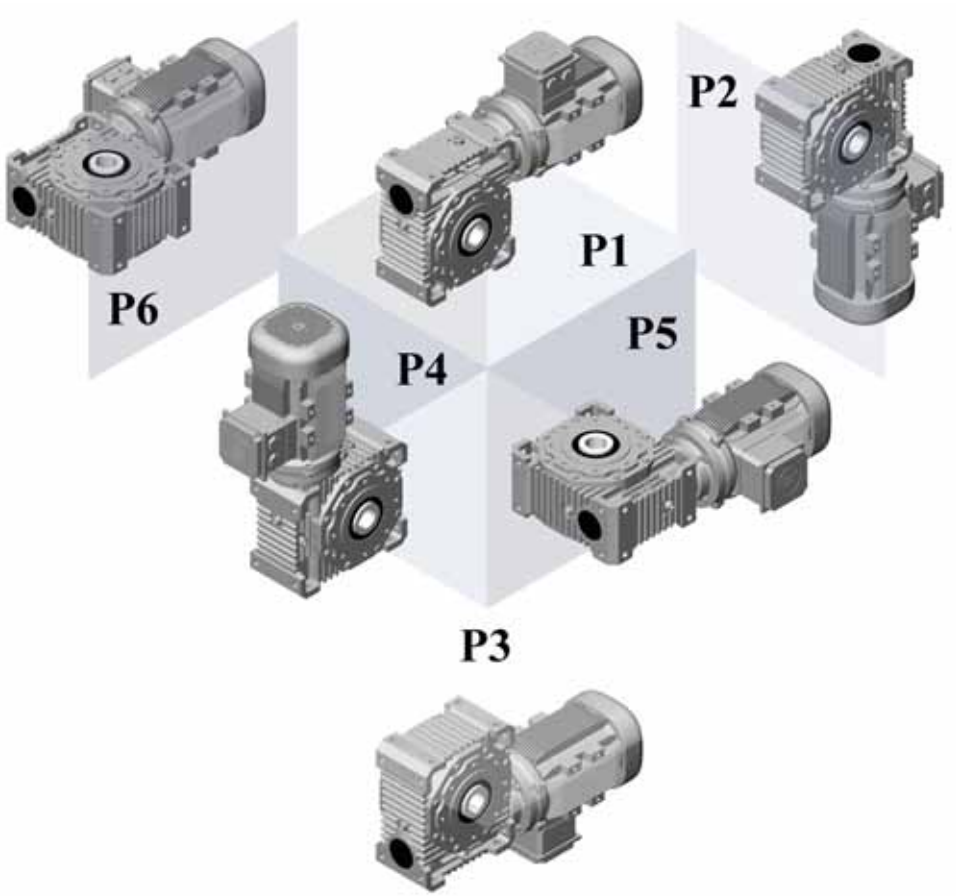
- Vérifiez le niveau et la quantité d'huile de façons régulière. Consultez le catalogue I-MAK pour obtenir les niveaux d'huiles requis en fonction du modèle et de la position du réducteur.
- Vérifiez le fonctionnement de la valve d'aération. L'absence d'évacuation de l'air peut provoquer une augmentation de la pression dans le réducteur pouvant conduire à des fuites d'huiles.
- Contrôler les vis et boulons reliant le moteur au réducteur, en cas de mauvaise fermeture le moteur peut créer des vibrations de l'arbre entrainant l'endommagement du motoréducteur.
- La première vidange doit être effectuée après 500 heures d'utilisations du motoréducteur, les vidanges suivantes doivent être effectuées au bout de 6000 heures d'utilisations.
- En cas de problèmes techniques, consultez le manuel d'utilisation fournis à la livraison du motoréducteur. En cas de problèmes particulier ou d'urgence, veillez à contacter votre revendeur ou le centre technique I-MAK le plus proche.

İRSA.... ,S....

Ayak montajlı redüktörlerde montaj pozisyonu “P” ile gösterilir

Foot mounted gearboxes position are defined as “P”

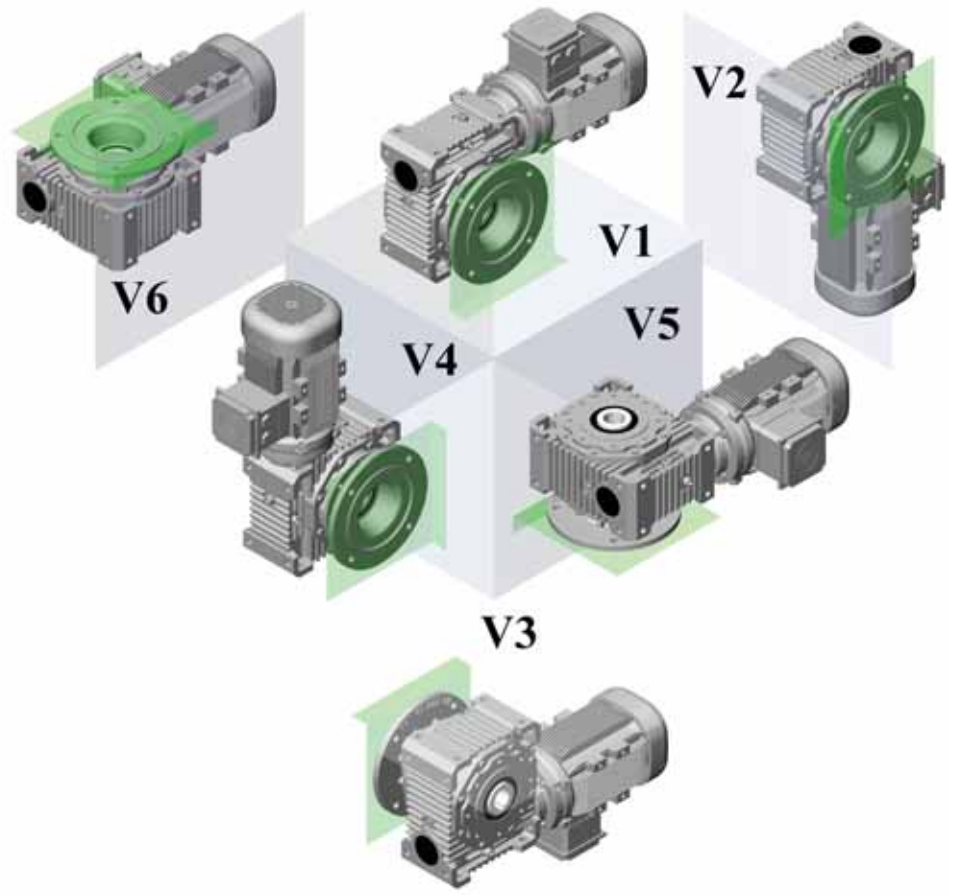
Les positions de montages des réducteurs à pattes sont définis par “P”



Flanş montajlı redüktörlerde montaj pozisyonu “V” ile gösterilir

Flange mounted gearboxes position are defined as “V”

Les positions de montages des réducteurs à brides sont définis par “V”

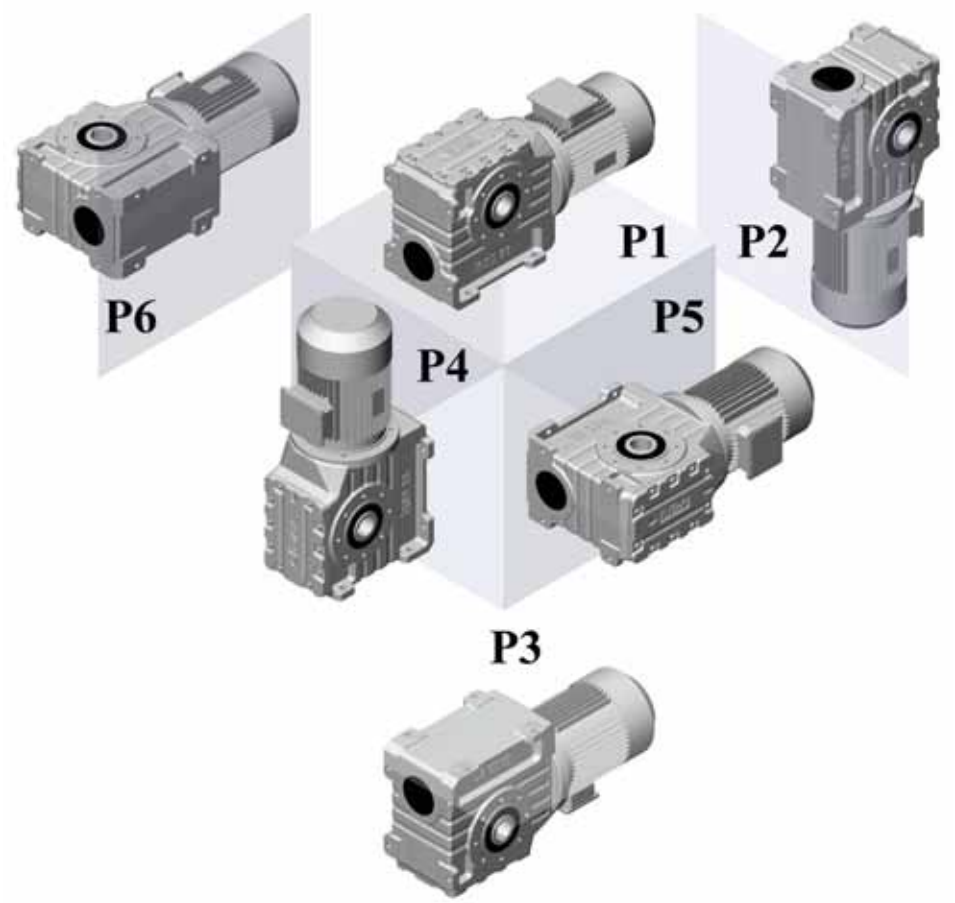


İRSD

Ayak montajlı redüktörlerde montaj pozisyonu “P” ile gösterilir

Foot mounted gearboxes position are defined as “P”

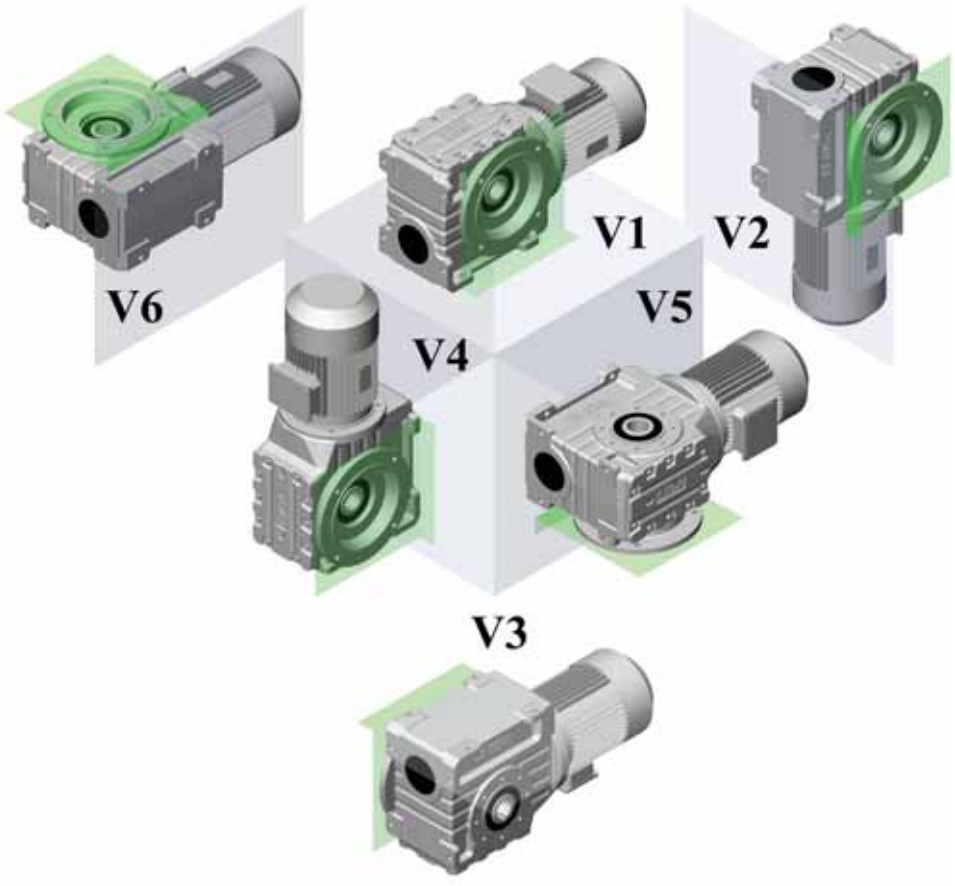
Les positions de montages des réducteurs à pattes sont définis par “P”



Flanş montajlı redüktörlerde montaj pozisyonu “V” ile gösterilir

Flange mounted gearboxes position are defined as “V”

Les positions de montages des réducteurs à brides sont définis par “V”



Yağ Cinsi Lubrsicant *Art des Lubrifiant*	**ISO Viskozite sinifi** Viscocity class *Catégorie de viscosite*	DIN 51517-3	**Kullanim sicakliği** Usage temperature *Gebrauchs température d'usage* C°	**Firma** Firm *Marque*						
				Mobil	ARAL	bp	Shell	Castrol	KLÜBER LUBRICATION	BELGIN
Mineral Yağ Mineral Oil *Huile Minéral*	ISO VG 320	CLP	-10.....+90	Mobilgear 600 XP 320	Degol BG 320	Energol GR-XP 320	Omala S2 GX 320	Alpha SP 320	Klüberoil GEM 1 N 320	Recompound FL 320
	ISO VG 220	CLP	-10.....+90	Mobilgear 600 XP 220	Degol BG 220	Energol GR-XP 220	Omala S2 GX 220	Alpha SP 220	Klüberoil GEM 1 N 220	Recompound FL 220
	ISO VG 150	CLP	-10.....+90	Mobilgear 600 XP 150	Degol BG 150	Energol GR-XP 150	Omala S2 GX 150	Alpha SP 150	Klüberoil GEM 1 N 150	Recompound FL 150
	ISO VG 100	CLP	-15.....+90	Mobilgear 600 XP 100	-	-	Omala S2 GX 100	Alpha SP 100	Klüberoil GEM 1 N 100	Recompound FL 100
Sentetik Yağ Synthetic Oil *Huile Synthétique*	ISO VG 320	CLP HC	-30.....+110	Mobil SHC Gear 320	Degol GS 320	Enersyn SG-XP320	Omala S4 GX V 320	Optigear Synthetic PD 320 ES	Klübersynth GEM 4 N 320	Recompound Syn 320
	ISO VG 220	CLP HC	-35.....+110	Mobil SHC Gear 220	Degol GS 220	Enersyn SG-XP220	Omala S4 GX V 220	Optigear Synthetic PD 220 ES	Klübersynth GEM 4 N 220	Recompound Syn 220
	ISO VG 150	CLP HC	-40.....+110	Mobil SHC Gear 150	Degol GS 150	Enersyn SG-XP150	Omala S4 GX V 150	Optigear Synthetic PD 150 ES	Klübersynth GEM 4 N 150	Recompound Syn 150
	ISO VG 100	CLP HC	-45.....+110	Mobil SHC 627	-	-	-	Optigear Synthetic PD 100 ES	Klübersynth GEM 4 N 100	Recompound Syn 100

Tip Type *Type*	**Bağlanti pozisyonlari için yağ miktarlari (litre)** Oil quantities per mounting positions (liter) *Quantités d'huiles en fonction de la position de montage (litres)*											
	P1	V1	P5	P6	V5	V6	P3	V3	P4	P2	V4	V2
SM 30	0,04											
SM 40	0,08											
SM 50	0,16											
SM 63	0,34											
SM 75	0,55											
SM 90	0,82											

Tip Type *Type*	**Bağlanti pozisyonlari için yağ miktarlari (litre)** Oil quantities per mounting positions (liter) *Quantités d'huiles en fonction de la position de montage (litres)*											
	P1	V1	P5	P6	V5	V6	P3	V3	P4	P2	V4	V2
İRS_M 52	0,6		0,65				0,3		0,5			
İRS_M 65	1,25		1,35				0,75		1			
İRS_M 82	2,25		2,35				1		2			
İRS_M 102	2,3		2,5				1,5		2			
İRS_M 127	4,5		4,75				3		4			
İRS_M 162	12		12,5				8		10			
İRS_M 201	18		24				23		21			
İRS_M 250	31		40				38		35			

Tip Type *Type*	**Bağlanti pozisyonlari için yağ miktarlari (litre)** Oil quantities per mounting positions (liter) *Quantités d'huiles en fonction de la position de montage (litres)*											
	P1	V1	P5	P6	V5	V6	P3	V3	P4	P2	V4	V2
İRSD_ 53	2		1,8				2		1,5			
İRSD_ 63	3		2,5				3		2			
İRSD_ 73	5		4				5		4			
İRSD_ 83	13		12				13		12			
İRSD_ 161	17		16				17		16			

Bazı uygulamalarda redüktör kullanıcıları redüktör durduğunda sistemin ağırlıkla beraber geri kaymasını istemez.
Bu gibi durumlarda redüktörlerde kilitli rulman uygulaması yapılır.
Buna göre aşağıda verilen tiplere göre dönüş yönü belirtilmelidir.

Ccw : Saat Yönünün Tersi
Cw : Saat Yönü

In certain applications when the machinery stops, the operator would not like the gearbox to slip and loose its adjustment. Under these circumstances, the gearbox would be equipped with a locked ball bearing. Accordingly, the direction of rotation should be noted as shown below.

Ccw : Counterclockwise
Cw : Clockwise

Afin de répondre aux besoins de précision et de sécurité de certaines applications, nos réducteurs sont disponibles avec une option anti-retour. Cette option se compose d'un roulement anti-retour qui permet au réducteur de rester dans la position d'arrêt jusqu'au redémarrage de l'application par l'opérateur.

Ccw : Sens anti-horaire
Cw : Sens horaire

W1

W2

Standart montaj şekli "W1" dir. Aksi belirtilmediği sürece standart şekilde montajlanır.

The standard mounting position is "W1", if the mounting position is not defined during the order, the mounting position is always "W1"

La position de montage standard est W1, si aucune position de montage n'est précisée lors de la prise de commande, la position W1 sera attribuée par défaut.

N1

N2

E1

E2

"1" konumunda ikinci redüktör FL-SL opsiyonları ile birlikte uygulanır. "2"konumunda ikinci redüktör FR-SR opsiyonları ile birlikte uygulanır.

The first column is defining the mounting position of the second gearbox when on the left side. The second column is defining the mounting position of the second gearbox when on the right side.

La première colonne définit la position de montage du second réducteur lorsqu'il est installé sur la gauche du premier réducteur. La seconde colonne définit la position de montage du second réducteur lorsqu'il est installé sur la droite du premier réducteur.

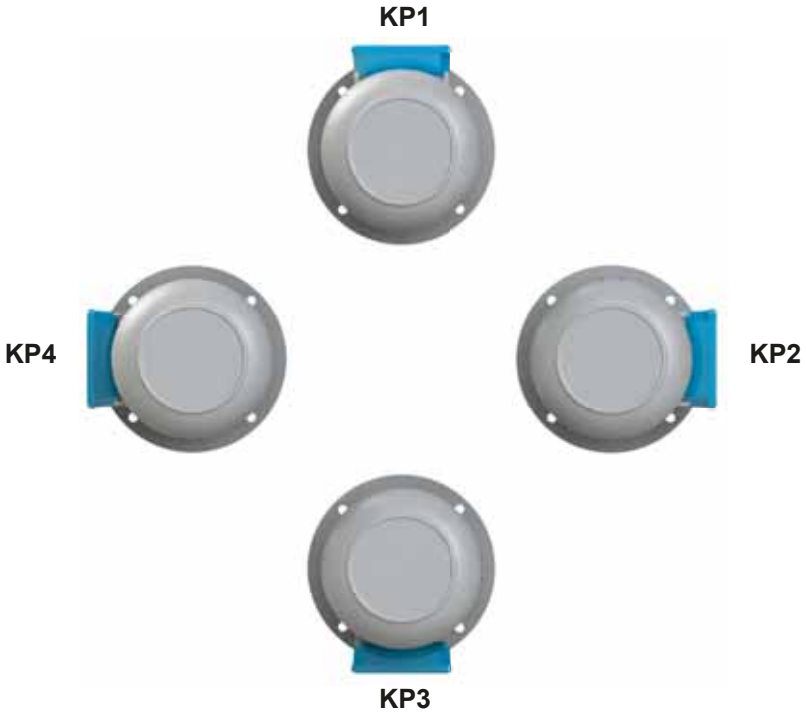
S1

S2

Standart klemens pozisyonu “KP1” dir, aksi belirtilmediği sürece standart pozisyonda yapılır.

The standard mounting position is “KP1”, if the mounting position is not defined during the order, the mounting position is always “KP1”

La position de montage standard est “KP1”, si aucune position de montage n’est précisée lors de la prise de commande, la position”KP1” sera attribuée par défaut.



Rakor Yönleri
Cable Entry / *Entrée des câbles*

Standart rakor yönü "A" dır, belirtilmediği sürece standart yönde yapılır.

The standard position of the cable entry is “A”, if the position is not specified during the order, the mounting position will be accepted as “A”

La position standard de l'entrée des cables est"A", si aucune position de montage n'est précisée lors de la prise de commande, la position "A" sera attribuée par défault.

A YÖNÜ | B YÖNÜ | C YÖNÜ | D YÖNÜ

1500 d/d Motorlar / Motors / *Moteurs*

Kod	Güç (KW)	Hız (d/d)	Anma Akımı	Moment (Nm)	Verim		IE Sınıfı	Çalışma Sınıfı
					100%	75%		
Code	Power (KW)	Speed (r.p.m.)	Rated Current	Torque (Nm)	Efficiency		IE Class	Duty Type
					100%	75%		
Code	Puissance (kW)	Vitesse (r.p.m)	Ampère	Couple (Nm)	Efficience		Classe IE	Classe d'utilisation
					100%	75%		
63M4a	0,12	1365	0,41	0,84	57,1	57,1	IE1	S1
63M4b	0,18	1340	0,60	1,28	59,7	59,7	IE1	S1
C63M4	0,25	1350	0,95	1,77	60,7	60,7	IE1	S1
71M4a	0,25	1380	0,81	1,73	61,9	61,8	IE1	S1
71M4b	0,37	1390	1,15	2,54	68,1	68,1	IE1	S1
C71M4	0,55	1385	1,50	3,75	68,6	68,6	IE1	S1
80M4a	0,55	1365	1,60	3,85	69,1	69,0	IE1	S1
80M4b	0,75	1410	2,10	5,08	79,6	79,6	IE2	S1
90S4	1,1	1420	2,60	7,39	82,0	82,0	IE2	S1
90L4	1,5	1430	3,50	10,02	83,0	83,0	IE2	S1
C90L4	2,2	1435	5,00	14,60	84,4	84,5	IE2	S1
100L4a	2,2	1435	5,00	14,60	84,5	84,6	IE2	S1
100L4b	3	1435	6,60	20,00	85,5	85,7	IE2	S1
C100L4	4	1455	8,20	26,30	86,5	86,6	IE2	S1
112M4	4	1455	8,20	26,30	86,7	86,8	IE2	S1
132S4	5,5	1465	11,20	35,90	87,9	88,8	IE2	S1
132M4	7,5	1465	15,40	48,90	89,0	89,1	IE2	S1
C132M4	11	1465	21,00	71,70	89,9	90,0	IE2	S1
160M4	11	1465	21,00	71,70	90,0	90,1	IE2	S1
160L4	15	1465	29,80	97,80	90,6	90,7	IE2	S1
180M4	18,5	1470	34,50	120,00	91,3	91,4	IE2	S1
180L4	22	1470	42,50	143,00	91,7	91,4	IE2	S1

1000 d/d Motorlar / Motors / *Moteurs*

Kod	Güç (KW)	Hız (d/d)	Anma Akımı	Moment (Nm)	Verim		IE Sınıfı	Çalışma Sınıfı
					100%	75%		
Code	Power (KW)	Speed (r.p.m.)	Rated Current	Torque (Nm)	Efficiency		IE Class	Duty Type
					100%	75%		
Code	Puissance (kW)	Vitesse (r.p.m)	Ampère	Couple (Nm)	Efficience		Classe IE	Classe d'utilisation
					100%	75%		
71M6a	0,18	915	0,61	1,88	63,0	62,9	IE1	S1
71M6b	0,25	915	0,83	2,61	63,8	63,7	IE1	S1
80M6a	0,37	910	1,10	3,88	72,9	72,8	IE1	S1
80M6b	0,55	890	1,50	5,90	70,4	70,3	IE1	S1
90S6	0,75	920	2,00	7,79	75,9	75,9	IE2	S1
90L6	1,1	930	2,90	11,30	78,1	78,1	IE2	S1
100L6	1,5	945	3,60	15,20	79,8	79,7	IE2	S1
112M6	2,2	950	5,40	22,00	81,8	81,7	IE2	S1
132S6	3	960	6,90	29,80	83,3	83,2	IE2	S1
132M6a	4	960	9,00	39,80	84,6	84,5	IE2	S1
132M6b	5,5	960	12,30	54,70	86,0	86,0	IE2	S1
160M6	7,5	960	15,00	74,60	87,2	87,2	IE2	S1
160L6	11	965	22,00	108,90	88,7	88,7	IE2	S1
180L6	15	965	29,00	148,00	89,7	89,7	IE2	S1

* Motor teknik değerleri GAMAK marka motorlar içindir, kullanılan diğer markalar için değişiklik gösterebilir.

		
		YERLİ MALI BELGESİ Domestic goods certificate *Certificat de produit national*
	TSEK	**TÜRK STANDARTLARI ENSTİTÜSÜ KRİTERE UYGUNLUK BELGESİ** Certificate of conformity to Turkish standards *Certificats de conformité aux standards Turcs*
	TÜRK PATENT ENSTİTÜSÜ	**MARKA YENİLEME BELGESİ** Certificate of trademark registration *Certificat d'enregistrement de marque*
	ISO	**ISO 9001:2008 YÖNETİM SİSTEMİ** ISO 9000:2008 Quality management system *ISO 9000:2008 : Sytémes de management de la qualité*
	ISO	**ISO10002:2004 MÜŞTERİ MEMNUNİYETİ YÖNETİM SİSTEMİ** ISO 10002:2004 Customer satisfaction management system *ISO 10002:2004 Management de la qualité - Satisfaction clients*
	ISO	**OHSAS 18001:2007 İŞ SAĞLIĞI VE GÜVENLİĞİ YÖNETİM SİSTEMİ** OHSAS 18001:2007 : Occupational health and safety management *OHSAS 18001:2007 : Management de la santé et de la sécurité au travail*
	CE	**AT UYGUNLUK BEYANI** CE Declaration of conformity *Déclaration de conformité aux standards CE*
	Ex	**EC TYPE EXAMINATION CERTIFICATE** ATEX Certificate *Certificat ATEX*

Sonsuz Vidalı Motorlu Redüktörler Güç ve Devir Tabloları

Worm Geared Motors - Performances Tables

Moto-réducteurs à roue et vis sans fin avec moteur - Table de performances

P_1 **GÜÇ** Power *Puissance* **[kW]** Hp	n_2 **Çıkış Devri** Output Speeds *Vitesse de sortie* **[r.p.m]**	**İ** **Tahvil** Ratio *Rapport de réduction*	S_f **Servis Faktörü** Service Factor *Service facteur*	M_2 **Çıkış Momenti** Output Torque *Couple de sortie* **[Nm]**	F_{Qlo} **Rad. Yük** Over Loads *Charges radiales* **[N]**	**Tip** Type			**kg**
	0,76	1800	0,90	547	8180	**SM**	**90 S 40 / 63 M 4a**	87	18
	0,57	2400	0,90	695	8180			88	
	0,91	1500	1,01	553	8300				
	1,1	1200	1,19	472	8300				
	1,5	900	1,51	370	8300				
	1,8	750	1,74	322	8300	**İRSAM**	**82 S 40 / 63 M 4a**	105	31
	2,3	600	2,09	268	8300	**İRSFM**		106	33
	3,0	450	2,61	215	8300				
	4,6	300	3,77	149	8300				
	6,1	225	4,84	116	8300				
	0,91	1500	0,90	495	7380				
	1,1	1200	1,10	415	7380				
	1,5	900	1,30	335	7380				
	1,8	750	1,50	299	7380				
	2,3	600	1,80	248	7380	**SM**	**75 S 40 / 63 M 4a**	85	15
	2,7	500	2,01	188	7380			86	
	3,4	400	2,50	164	7380				
	4,6	300	3,30	134	7380				
	5,5	250	3,20	120	7380				
	1,5	900	0,80	319	6270				
	1,8	750	1,00	285	6270				
	2,3	600	1,10	237	6270				
	2,7	500	1,10	217	6270				
	3,4	400	1,60	156	6270	**SM**	**63 S 30 / 63 M 4a**	83	11
	4,6	300	2,10	127	6270			84	
0,12	**5,5**	250	2,00	117	6270				
0,16	**6,8**	200	2,60	97	6270				
	9,1	150	3,40	77	6270				
	2,7	500	0,70	500	4840				
	3,4	400	0,80	400	4840				
	4,6	300	1,20	300	4840				
	5,5	250	1,00	250	4840	**SM**	**50 S 30 / 63 M 4a**	81	8
	6,8	200	1,30	200	4788			82	
	9,1	150	1,80	150	4350				
	14	100	2,60	100	3800				
	14	100	1,30	41	4280	**SM**	**50 / 63 M 4a**	73	7
	17	80	1,80	35	3973			74	
	14	100	0,70	39	3118				
	17	80	1,00	35	2895				
	23	60	1,30	29	2630				
	27	50	1,60	26	2475	**SM**	**40 / 63 M 4a**	71	5,5
	34	40	2,10	22	2298			72	
	46	30	2,80	17	2087				
	55	25	2,50	16	1964				
	68	20	3,30	13	1824				
	27	50	0,80	23	1286				
	34	40	1,00	20	1194				
	46	30	1,30	16	1085				
	55	25	1,60	14	1021	**SM**	**30 / 63 M 4a**	69	4,5
	68	20	1,50	12	948			70	
	91	15	2,00	10	861				
	137	10	2,80	7	752				
	182	7,5	3,20	5	750				
	0,95	1409	0,79	1257	11800				
0,18	**1,2**	1091	1,03	974	11800	**İRSAM**	**102 İR 43 / 63 M 4b**	113	52
0,25	**1,6**	842	1,33	751	11800	**İRSFM**		114	56
	2,0	685	1,63	611	11800				

P_1 GÜÇ Power *Puissance* [kW] Hp	n_2 Çıkış Devri Output Speeds *Vitesse de sortie* [r.p.m]	İ Tahvil Ratio *Rapport de réduction*	S_f Servis Faktörü Service Factor *Service facteur*	M_2 Çıkış Momenti Output Torque *Couple de sortie* [Nm]	F_{Q1o} Rad. Yük Over Loads *Charges radiales* [N]	Tip Type			kg
	1,2	1200	1,00	629	8180	SM	90 S 40 / 63 M 4b	87 88	18
	0,93	1500	0,80	735	8180				
	1,5	900	0,99	565	7700	İRSAM İRSFM	82 S 40 / 63 M 4b	105 106	32 34
	1,8	750	1,14	492	7700				
	2,2	600	1,37	410	7700				
	3,0	450	1,71	328	7700				
	4,5	300	2,46	227	7700				
	6,0	225	3,17	177	7700				
	1,5	900	0,90	502	7420	SM	75 S 40 / 63 M 4b	85 86	15
	1,8	750	1,00	448	7420				
	2,2	600	1,20	372	7420				
	2,7	500	1,30	282	7420				
	3,4	400	1,70	246	7420				
	4,5	300	2,20	200	7420				
	5,4	250	2,10	180	7420				
	6,7	200	2,80	150	7420				
	2,7	500	0,90	265	6245	SM	63 S 30 / 63 M 4b	83 84	12
	3,4	400	1,10	228	6245				
	4,5	300	1,50	175	6245				
	5,4	250	1,40	171	6110				
	8,9	150	1,90	113	5650				
	13	100	1,90	81	4950				
	9,2	100	1,40	92	6250	SM	63 / 71 M 6a	75 76	11
	11	80	1,70	71	6030				
	15	60	2,30	68	5450				
	18	50	2,70	59	5100				
	23	40	3,40	50	4750				
0,18	4,5	300	0,80	183	4800	SM	50 S 30 / 63 M 4b	81 82	9
	6,7	200	0,90	141	4700				
0,25	8,9	150	1,20	112	4400				
	11	80	0,90	76	4521	SM	50 / 71 M 6a	73 74	8
	15	60	1,20	64	4156				
	18	50	1,40	57	3920				
	23	40	1,80	49	3708				
	31	30	2,40	40	3350				
	37	25	2,10	35	3215				
	46	20	2,80	29	3100				
	13	100	0,90	61	4310	SM	50 / 63 M 4b	73 74	7
	17	80	1,20	53	3944				
	23	40	1,00	48	2662	SM	40 / 71 M 6a	71 72	7
	31	30	1,40	38	2516				
	37	25	1,30	35	2405				
	46	20	1,70	29	2200				
	61	15	2,20	23	2105				
	92	10	3,00	16	2043				
	22	60	0,90	43	2545	SM	40 / 63 M 4b	71 72	6
	27	50	1,10	39	2426				
	34	40	1,40	32	2271				
	45	30	1,80	26	2116				
	54	25	1,70	23	2078				
	67	20	2,20	19	2010				
	89	15	2,90	15	1987				
	45	30	0,90	24	1056	SM	30 / 63 M 4b	69 70	5,5
	54	25	1,00	21	1041				
	67	20	1,00	18	955				
	89	15	1,30	14	920				
	134	10	1,90	10	853				
	179	7,5	2,40	8	706				

P_1 **GÜÇ** Power *Puissance* [kW] Hp	n_2 **Çıkış Devri** Output Speeds *Vitesse de sortie* [r.p.m]	**İ Tahvil** Ratio *Rapport de réduction*	S_f **Servis Faktörü** Service Factor *Service facteur*	M_2 **Çıkış Momenti** Output Torque *Couple de sortie* [Nm]	F_{Q1o} **Rad. Yük** Over Loads *Charges radiales* [N]	**Tip** Type			kg
	0,70	1984	1,27	1409	16500	**İRSAM İRSFM**	**127 İRS 65 / 71 M 4a**	109 110	85 89
	0,86	1600	1,31	1367	16500				
	1,1	1248	1,61	1116	16500				
	1,4	960	2,09	858	16500				
	1,7	800	2,27	789	16500				
	2,2	624	2,80	640	16500				
	0,92	1503	0,96	1858	16500	**İRSAM İRSFM**	**127 İR 43 / 71 M 4a**	115 116	83 87
	1,4	1019	1,42	1260	16500				
	1,6	838	1,73	1036	16500				
	2,0	675	2,15	835	16500				
	2,4	568	2,55	703	16500				
	3,0	467	3,10	578	16500				
	3,3	416	3,49	514	16500				
	0,92	1500	0,90	1114	10500	**İRSAM İRSFM**	**102 İRS 52 / 71 M 4a**	107 108	56 60
	1,2	1140	1,04	963	10500				
	1,6	870	1,32	757	10500				
	1,8	750	1,45	691	10500				
	2,4	570	1,78	562	10500				
	3,2	435	2,30	434	10500				
	2,2	633	1,31	762	10500	**İRSAM İRSFM**	**102 İR 43 / 71 M 4a**	113 114	53 57
	2,6	533	1,56	641	10500				
	3,1	438	1,89	527	10500				
	3,5	390	2,13	469	10500				
	4,1	337	2,46	406	10500	**İRSAM İRSFM**	**102 İR 42 / 71 M 4a**	113 114	52 56
	5,3	260	3,19	313	10500				
	7,6	182	4,55	220	10500				
	9,4	147	5,65	177	10500				
0,25 0,34	2,3	600	1,20	512	8180	**SM**	**90 S 40 / 71 M 4a**	87 88	19
	1,8	750	0,90	598	8180				
	1,5	900	0,80	667	8180				
	1,7	795	0,85	664	7600	**İRSAM İRSFM**	**82 S 40 / 71 M 4a**	105 106	33 35
	2,3	600	1,01	553	7600				
	3,1	450	1,26	443	7600				
	4,6	300	1,83	306	7600				
	6,1	225	2,35	238	7600				
	2,8	500	0,90	391	7420	**SM**	**75 S 40 / 71 M 4a**	85 86	16
	3,5	400	1,20	342	7420				
	4,6	300	1,60	278	7420				
	5,5	250	1,50	250	7420				
	6,9	200	2,00	209	7420				
	9,2	150	2,60	165	6752				
	14	100	3,00	116	5813				
	11	82	1,76	118	6450	**İRSAM İRSFM**	**65 / 71 M 6b**	91 92	23 24
	15	62	2,36	83	6325				
	18	50	3,36	82	6123				
	23	39	4,64	67	5841				
	9,2	100	1,00	127	6225	**SM**	**63 / 71 M 6b**	75 76	12
	11	80	1,20	113	6026				
	15	60	1,60	94	5410				
	18	50	2,00	82	5093				
	23	40	2,40	70	4711				
	14	100	1,30	89	5590	**SM**	**63 / 71 M 4a**	75 76	11
	17	80	1,50	79	5187				
	23	60	2,10	64	4705				
	28	50	2,50	57	4432				
	35	40	3,10	48	4109				

P_1 GÜÇ Power *Puissance* [kW] Hp	n_2 Çıkış Devri Output Speeds *Vitesse de sortie* [r.p.m]	İ Tahvil Ratio *Rapport de réduction*	S_f Servis Faktörü Service Factor *Service facteur*	M_2 Çıkış Momenti Output Torque *Couple de sortie* [Nm]	F_{Q1o} Rad. Yük Over Loads *Charges radiales* [N]	Tip Type			kg
	15	62	1,32	89	4252	İRSAM İRSFM	52 / 71 M 6b	89 90	17 19
	18	50	1,68	78	4160				
	24	38	2,52	64	4112				
	32	29	3,41	50	4064				
	37	25	2,52	46	4016				
	48	19	3,60	38	3975				
	63	14,5	4,93	29	3920				
	15	60	0,90	89	4180	SM	50 / 71 M 6b	73 74	9
	18	50	1,00	80	3940				
	23	40	1,30	68	3623				
	31	30	1,70	55	3453				
	37	25	1,50	49	3369				
	46	20	2,00	41	3298				
	61	15	2,90	32	3156				
	22	62	1,76	60	4356	İRSAM İRSFM	52 / 71 M 4a	89 90	15 17
	28	50	2,24	50	4269				
	36	38	3,39	43	4122				
	48	29	4,52	34	4063				
	55	25	3,36	31	4023				
	73	19	4,85	25	3987				
	95	14,5	6,58	20	3850				
0,25 0,34	17	80	0,90	74	4264	SM	50 / 71 M 4a	73 74	8
	23	60	1,20	61	4019				
	28	50	1,40	55	3695				
	35	40	1,80	46	3522				
	46	30	2,40	37	3436				
	55	25	2,20	33	3364				
	69	20	2,90	27	3219				
	31	30	1,00	53	2440	SM	40 / 71 M 6b	71 72	8
	37	25	0,90	48	2285				
	46	20	1,20	40	2193				
	61	15	1,60	31	1945				
	92	10	2,20	22	1820				
	122	7,5	2,70	17	1785				
	35	40	1,00	45	2489	SM	40 / 71 M 4a	71 72	7
	46	30	1,30	36	2331				
	55	25	1,20	32	2237				
	69	20	1,60	27	1984				
	92	15	2,10	21	1856				
	138	10	3,00	15	1821				
	69	20	0,70	25	965	SM	30 / C63 M 4	69 70	6
	92	15	1,00	20	865				
	138	10	1,30	14	795				
	184	7,5	1,70	11	744				
	0,87	1600	1,00	1793	17300	İRSAM İRSFM	127 İRS 65 / 71 M 4b	109 110	91 97
	1,1	1248	1,13	1591	17300				
	1,5	928	1,47	1219	17300				
	1,7	800	1,61	928	17300				
0,37 0,5	2,2	624	1,93	723	17300				
	2,9	480	2,48	506	17300				
	4,5	312	3,54	493	17300				
	2,1	675	1,46	1227	17300	İRSAM İRSFM	127 İR 43 / 71 M 4b	115 116	84 90
	2,4	568	1,74	1032	17300				
	3,0	467	2,11	849	17300				
	3,3	416	2,37	755	17300				

P_1 **GÜÇ** Power *Puissance* **[kW]** Hp	n_2 **Çıkış Devri** Output Speeds *Vitesse de sortie* **[r.p.m]**	**İ Tahvil** Ratio *Rapport de réduction*	S_f **Servis Faktörü** Service Factor *Service facteur*	M_2 **Çıkış Momenti** Output Torque *Couple de sortie* **[Nm]**	F_{Q1o} **Rad. Yük** Over Loads *Charges radiales* **[N]**	**Tip** Type			kg
	1,6	870	0,90	1113	9600	**İRSAM İRSFM**	**102 İRS 52 / 71 M 4b**	107 108	57 61
	1,9	750	0,98	1016	9600				
	2,4	570	1,21	826	9600				
	3,2	435	1,57	638	9600				
	2,2	633	0,89	1120	9600	**İRSAM İRSFM**	**102 İR 43 / 71 M 4b**	113 114	54 58
	2,6	533	1,06	942	9600				
	3,2	438	1,29	775	9600				
	3,6	390	1,45	689	9600				
	4,1	337	1,68	596	9600	**İRSAM İRSFM**	**102 İR 42 / 71 M 4b**	113 114	53 57
	5,3	260	2,17	460	9600				
	7,6	182	3,10	323	9600				
	9,5	147	3,84	260	9600				
	11	80	1,70	185	8180	**SM**	**90 / 80 M 6a**	79 80	20
	9,0	100	1,30	212	8180				
	4,7	300	1,50	402	8180	**SM**	**90 S 40 / 71 M 4b**	87 88	20
	3,5	400	1,20	523	8180				
	2,8	500	0,90	611	8180				
	2,3	600	0,80	757	8180				
	3,1	450	0,86	651	7550	**İRSAM İRSFM**	**82 S 40 / 71 M 4b**	105 106	34 36
	4,6	300	1,24	450	7550				
	6,2	225	1,60	350	7550				
	3,5	400	0,80	506	7400	**SM**	**75 S 40 / 71 M 4b**	85 86	17
	4,6	300	1,10	412	7400				
	5,6	250	1,00	370	7400				
	7,0	200	1,40	309	7400				
	9,3	150	1,70	245	6852				
0,37 0,5	**14**	100	2,10	172	6455				
	9,1	100	1,00	200	7380	**SM**	**75 / 80 M 6a**	77 78	17
	11	80	1,30	176	7123				
	15	60	1,70	146	6350				
	18	50	2,00	126	6241				
	23	40	2,60	108	6112				
	30	30	3,30	87	6053				
	36	25	3,10	77	5987				
	11	82	1,2	175	6320	**İRSAM İRSFM**	**65 / 80 M 6a**	91 92	22 24
	15	62	1,6	123	6285				
	18	50	2,3	122	6124				
	23	39	3,1	100	6098				
	30	30	3,9	76	6025				
	36	25	3,2	73	5963				
	47	20	4,5	58	5951				
	61	15	5,5	44	5820				
	93	9,75	6,7	32	5750				
	11	80	0,80	167	5237	**SM**	**63 / 80 M 6a**	75 76	14
	15	60	1,10	139	5156				
	18	50	1,30	122	5111				
	23	40	1,70	104	5091				
	30	30	2,10	84	5012				
	36	25	2,00	75	4863				
	46	20	2,70	61	4765				
	14	100	0,90	131	5595	**SM**	**63 / 71 M 4b**	75 76	12
	17	80	1,00	117	5525				
	23	60	1,40	95	5123				
	28	50	1,70	85	4982				
	35	40	2,10	72	4713				

P_1 **GÜÇ** Power *Puissance* **[kW]** Hp	n_2 **Çıkış Devri** Output Speeds *Vitesse de sortie* **[r.p.m]**	**İ Tahvil** Ratio *Rapport de réduction*	S_f **Servis Faktörü** Service Factor *Service facteur*	M_2 **Çıkış Momenti** Output Torque *Couple de sortie* **[Nm]**	F_{Q1o} **Rad. Yük** Over Loads *Charges radiales* **[N]**	**Tip** Type			kg
	15	62	0,89	132	3850	**İRSAM İRSFM**	**52 / 80 M 6a**	89 90	19 20
	18	50	1,14	116	3810				
	24	38	1,70	96	3756				
	31	29	2,30	74	3701				
	36	25	1,70	68	3640				
	48	19	2,43	56	3562				
	63	14,5	3,33	43	3502				
	96	9,5	3,55	31	3427				
	126	7,25	4,89	21	3326				
	30	30	1,20	81	3353	**SM**	**50 / 80 M 6a**	73 74	12
	36	25	1,00	73	3186				
	46	20	1,40	60	2987				
	61	15	2,00	47	2740				
	91	10	2,80	33	2417				
	22	62	1,19	88	3927	**İRSAM İRSFM**	**52 / 71 M 4b**	89 90	16 18
	28	50	1,52	74	3848				
	37	38	2,29	64	3831				
0,37	**48**	29	3,05	50	3738				
0,5	**56**	25	2,27	46	3676				
	73	19	3,28	37	3633				
	96	14,5	4,45	29	3607				
	146	9,5	4,77	20	3496				
	192	7,25	6,49	16	3359				
	23	60	0,80	91	3646	**SM**	**50 / 71 M 4b**	73 74	9
	28	50	1,00	81	3465				
	35	40	1,20	69	3248				
	46	30	1,60	55	2980				
	56	25	1,50	49	2831				
	70	20	1,90	40	2653				
	93	15	2,60	31	2433				
	46	30	0,90	54	2108	**SM**	**40 / 71 M 4b**	71 72	8
	56	25	0,80	48	2003				
	70	20	1,10	40	1879				
	93	15	1,40	31	1723				
	139	10	2,10	21	1519				
	185	7,5	2,50	16	1394				
	1,1	1248	0,74	2409	12980	**İRSAM İRSFM**	**127 İRS 65 / 80 M 4a**	109 110	92 98
	1,4	960	0,94	1909	12980				
	1,7	800	1,06	1685	12980				
	2,2	624	1,28	1405	12980				
	2,9	480	1,64	1095	12980				
	4,4	312	2,34	766	12980				
	5,8	240	3,00	597	12980				
	2,5	550	1,19	1511	12980	**İRSAM İRSFM**	**127 İR 52 / 80 M 4a**	117 118	91 97
0,55	**2,9**	482	135,00	1324	12980				
0,75	**3,7**	378	1,72	1039	12980				
	4,6	303	2,15	833	12980				
	2,4	570	0,80	1250	8470	**İRSAM İRSFM**	**102 İRS 52 / 80 M 4a**	107 108	59 63
	3,2	435	1,03	966	8470				
	4,9	285	1,60	625	8470				
	6,4	218	2,07	483	8470				
	5,3	260	1,43	696	8470	**İRSAM İRSFM**	**102 İR 42 / 80 M 4a**	113 114	54 58
	7,6	182	2,05	488	8470				
	9,4	147	2,54	394	8470				
	18	80	1,50	189	6783	**SM**	**90 / 80 M 4a**	79 80	20
	14	100	1,20	221	7140				

P_1 **GÜÇ** Power *Puissance* **[kW]** Hp	n_2 **Çıkış Devri** Output Speeds *Vitesse de sortie* **[r.p.m]**	**İ** **Tahvil** Ratio *Rapport de réduction*	S_f **Servis Faktörü** Service Factor *Service facteur*	M_2 **Çıkış Momenti** Output Torque *Couple de sortie* **[Nm]**	F_{Qlo} **Rad. Yük** Over Loads *Charges radiales* **[N]**	**Tip** Type			**kg**
	18	50	2,00	198	6719	**SM**	**90 / 80 M 6b**	79 80	22
	15	60	1,60	224	7140				
	11	80	1,10	275	7859				
	9,0	100	0,90	315	8180				
	14	62	2,11	205	7900	**İRSAM** **İRSFM**	**82 / 80 M 6b**	93 94	32 36
	17	53	2,80	206	7850				
	22	40	3,63	151	7721				
	30	30	5,36	122	7516				
	11	80	0,80	262	7033	**SM**	**75 / 80 M 6b**	77 78	18
	15	60	1,10	217	6326				
	18	50	1,40	187	5896				
	22	40	1,70	161	5420				
	14	100	0,90	210	6538	**SM**	**75 / 80 M 4a**	77 78	16
	17	80	1,10	183	6010				
	23	60	1,40	149	5407				
	28	50	1,70	131	5039				
	35	40	2,20	110	4633				
	11	82	0,80	266,2	5715	**İRSAM** **İRSFM**	**65 / 80 M 6b**	91 92	27 28
	14	62	1,07	186,6	5682				
	18	50	1,53	185,9	5601				
	23	39	2,11	152	5496				
	30	30	2,60	115	5326				
	15	60	0,70	207	5257	**SM**	**63 / 80 M 6b**	75 76	16
	18	50	0,90	181	4995				
	22	40	1,10	154	4682				
0,55	**30**	30	1,40	124	4296				
0,75	**17**	82	1,09	174	5823	**İRSAM** **İRSFM**	**65 / 80 M 4a**	91 92	25 26
	22	62	1,40	127	5741				
	28	50	2,06	123	5703				
	36	39	2,81	101	5620				
	46	30	3,38	77	5573				
	55	25	2,91	71	5403				
	71	20	4,05	58	5362				
	92	15	4,78	44	5250				
	142	9,75	6,14	31	5123				
	17	80	0,70	174	4808	**SM**	**63 / 80 M 4a**	75 76	13
	23	60	0,90	142	4410				
	28	50	1,10	126	4189				
	35	40	1,40	107	3926				
	46	30	1,90	84	3601				
	55	25	1,80	74	3421				
	69	20	2,40	62	3208				
	92	15	3,20	47	2944				
	23	38	1,14	146	3305	**İRSAM** **İRSFM**	**52 / 80 M 6b**	89 90	20 21
	31	29	1,55	113	3245				
	36	25	1,15	103	3200				
	47	19	1,64	85	3158				
	61	14,5	2,24	66	3091				
	94	9,5	2,39	47	2980				
	123	7,25	3,29	32	2880				
	30	30	0,80	121	3453	**SM**	**50 / 80 M 6b**	73 74	13
	36	25	0,70	108	3218				
	45	20	0,90	90	2958				
	59	15	1,30	70	2661				

P_1 **GÜÇ** Power *Puissance* **[kW]** Hp	n_2 **Çıkış Devri** Output Speeds *Vitesse de sortie* **[r.p.m]**	**İ Tahvil** Ratio *Rapport de réduction*	S_f **Servis Faktörü** Service Factor *Service facteur*	M_2 **Çıkış Momenti** Output Torque *Couple de sortie* **[Nm]**	F_{Q1o} **Rad. Yük** Over Loads *Charges radiales* **[N]**	**Tip** Type			**kg**
	22	62	0,80	132	3320				
	28	50	1,02	110	3245				
	36	38	1,54	95	3215				
	48	29	2,05	75	3158				
	55	25	1,53	68	3112	**İRSAM İRSFM**	**52 / 80 M 4a**	89 90	19 20
	73	19	2,20	55	2980				
	96	14,5	2,99	43	2885				
0,55	**146**	9,5	3,21	30	2756				
	191	7,25	4,37	23	2641				
0,75	**46**	30	1,10	82	2703				
	55	25	1,00	72	2568				
	69	20	1,30	60	2407				
	92	15	1,70	47	2208	**SM**	**50 / 80 M 4a**	73 74	11
	139	10	2,40	33	1948				
	185	7,5	3,10	25	1787				
	69	20	0,70	59	1754				
	92	15	0,90	47	1609	**SM**	**40 / C71 M 4**	71 72	9,5
	139	10	1,40	32	1419				
	185	7,5	1,70	24	1302				
	0,89	1590	0,82	4095	21500				
	1,2	1200	1,04	3233	21500				
	1,6	900	1,38	2425	21500	**İRSAM İRSFM**	**162 İRS 82 / 80 M 4b**	111 112	199 222
	1,8	795	1,42	2363	21500				
	2,4	600	1,81	1854	21500				
	2,3	624	0,97	1855	11610				
	2,9	480	1,24	1445	11610	**İRSAM İRSFM**	**127 İRS 65 / 80 M 4b**	109 110	93 99
	4,5	312	1,77	1012	11610				
	5,9	240	2,28	788	11610				
	2,6	550	0,90	1995	11610				
	2,9	482	1,03	1748	11610				
	3,7	378	1,31	1372	11610	**İRSAM İRSFM**	**127 İR 52 / 80 M 4b**	117 118	92 98
	4,7	303	1,63	1100	11610				
	6,1	229	2,15	833	11610				
	7,6	186	2,65	676	11610				
	3,2	435	0,78	1275	8100				
	4,9	285	1,21	825	8100	**İRSAM İRSFM**	**102 İRS 52 / 80 M 4b**	107 108	60 64
	6,5	218	1,57	638	8100				
	9,9	143	1,76	457	8100				
0,75	**157**	9	2,28	353	8100				
	28	50	1,80	184	5799				
1	**23**	60	1,50	212	6163	**SM**	**90 / 80 M 4b**	79 80	23
	18	80	1,10	258	6783				
	14	100	0,90	302	7306				
	30	30	2,60	179	5667				
	23	40	1,80	226	6238	**SM**	**90 / 90 S 6a**	79 80	24
	18	50	1,40	271	6719				
	15	60	1,10	306	7140				
	15	62	1,55	270	7700				
	17	53	2,05	272	7700				
	23	40	2,67	199	7700	**İRSAM İRSFM**	**82 / 90 S 6a**	93 94	38 40
	31	30	3,93	161	7700				
	35	26,5	2,93	159	7700				
	46	20	3,73	121	7700				
	15	60	0,80	296	6088				
	18	50	1,00	255	5784				
	23	40	1,30	220	5420				
	31	30	1,60	177	4973	**SM**	**75 / 90 S 6a**	77 78	20
	37	25	1,60	155	4725				
	46	20	2,10	127	4430				
	61	15	2,70	99	4065				

P_1 **GÜÇ** Power *Puissance* **[kW]** Hp	n_2 **Çıkış Devri** Output Speeds *Vitesse de sortie* **[r.p.m]**	**İ** **Tahvil** Ratio *Rapport de réduction*	S_f **Servis Faktörü** Service Factor *Service facteur*	M_2 **Çıkış Momenti** Output Torque *Couple de sortie* **[Nm]**	F_{Q1o} **Rad. Yük** Over Loads *Charges radiales* **[N]**	**Tip** Type			kg
	18	80	0,80	250	5783				
	24	60	1,10	203	5304				
	28	50	1,30	179	5039				
	35	40	1,60	149	4723	**SM**	**75 / 80 M 4b**	77 78	18
	47	30	2,10	118	4334				
	56	25	2,10	104	4119				
	71	20	2,80	85	3862				
	18	50	1,12	245	5423				
	24	39	1,55	200	5263				
	31	30	1,91	152	5123				
	37	25	1,60	146	5050	**İRSAM** **İRSFM**	**65 / 90 S 6a**	91 92	28 29
	47	19,5	2,24	117	4950				
	61	15	2,71	89	4812				
	94	9,75	3,30	64	4756				
	23	40	0,80	210	4506				
	31	30	1,00	170	4132				
	37	25	1,00	151	3927				
	46	20	1,30	124	3681	**SM**	**63 / 90 S 6a**	75 76	17
	61	15	1,70	98	3376				
	92	10	2,30	68	2979				
	123	7,5	2,90	53	2734				
	17	82	0,80	233	5127				
	23	62	1,03	170	5296				
	28	50	1,51	165	5200				
	36	39	2,06	135	5055				
0,75	**47**	30	2,48	104	4955	**İRSAM** **İRSFM**	**65 / 80 M 4b**	91 92	26 27
1	**56**	25	2,14	95	4957				
	72	19,5	2,97	77	4856				
	94	15	3,51	59	4744				
	145	9,75	4,50	42	4701				
	188	7,5	5,49	32	4635				
	28	50	0,80	171	4189				
	35	40	1,00	145	3926				
	47	30	1,40	115	3601	**SM**	**63 / 80 M 4b**	75 76	15
	56	25	1,30	101	3421				
	71	20	1,70	84	3208				
	94	15	2,30	64	2944				
	28	50	0,75	147	2608				
	37	38	1,13	127	2554				
	49	29	1,51	100	2501				
	56	25	1,12	91	2478	**İRSAM** **İRSFM**	**52 / 80 M 4b**	89 90	20 21
	74	19	1,62	74	2435				
	97	14,5	2,19	57	2397				
	148	9,5	2,35	41	2359				
	194	7,25	3,20	31	2321				
	47	30	0,80	112	2703				
	56	25	0,70	99	2568				
	71	20	1,00	82	2407	**SM**	**50 / 80 M 4b**	73 74	12
	94	15	1,30	64	2208				
	141	10	1,80	45	1948				
	188	7,5	2,30	34	1787				
	1,6	900	0,90	3739	20700				
1,1	**1,8**	795	0,96	3486	20700	**İRSAM** **İRSFM**	**162 İRS 82 / 90 S 4a**	111 112	201 224
1,5	**2,3**	600	1,24	2700	20700				
	3,1	450	1,59	2103	20700				
	4,7	300	2,28	1471	20700				

P_1 GÜÇ Power *Puissance* [kW] Hp	n_2 Çıkış Devri Output Speeds *Vitesse de sortie* [r.p.m]	İ Tahvil Ratio *Rapport de réduction*	S_f Servis Faktörü Service Factor *Service facteur*	M_2 Çıkış Momenti Output Torque *Couple de sortie* [Nm]	F_{Q1o} Rad. Yük Over Loads *Charges radiales* [N]	Tip Type			kg
	1,9	755	0,82	4094	20700	İRSAM İRSFM	162 İR 63 / 90 S 4a	119 120	206 209
	2,2	645	0,96	3498	20700				
	2,6	545	1,13	2958	20700				
	2,9	480	0,85	2105	10800	İRSAM İRSFM	127 İRS 65 / 90 S 4a	109 110	96 102
	4,5	312	12,00	1491	10800				
	5,9	240	1,56	1147	10800				
	3,8	378	0,90	1997	10800	İRSAM İRSFM	127 İR 52 / 90 S 4a	117 118	95 101
	4,8	303	1,12	1601	10800				
	6,3	229	1,48	1213	10800				
	7,7	186	1,82	984	10800				
	8,9	161	2,11	851	10800				
	11	130	2,61	687	10800				
	11	82	1,44	519	7900	İRSAM İRSFM	102 / 90 S 4a	95 96	54 58
	15	63	1,86	399	7900				
	19	50	2,69	378	7900				
	36	25	1,60	231	5333	SM	90 / 90 L 6b	79 80	26
	30	30	1,80	263	5667				
	23	40	1,20	331	6238				
	18	50	1,00	397	6719				
	15	60	0,80	448	7140				
	35	40	1,60	225	5383	SM	90 / 90 S 4a	79 80	25
	28	50	1,30	270	5799				
	23	60	1,00	311	6163				
	15	62	1,05	392	6852	İRSAM İRSFM	82 / 90 L 6b	93 94	40 42
	18	53	1,40	395	6700				
	23	40	1,82	289	6623				
	31	30	2,68	234	6496				
	35	27	2,00	230	6382				
	47	20	2,54	176	6267				
1,1 1,5	62	15	3,91	134	6153				
	93	10	3,95	94	6038				
	23	62	1,36	275	6623	İRSAM İRSFM	82 / 90 S 4a	93 94	38 40
	27	53	2,09	267	6470				
	36	40	2,34	198	6382				
	47	30	3,46	160	6247				
	54	27	2,65	149	6153				
	71	20	3,29	115	6057				
	95	15	5,00	90	5960				
	142	10	5,10	63	5800				
	23	40	0,90	322	5318	SM	75 / 90 L 6b	77 78	21
	31	30	1,10	259	4878				
	37	25	1,10	228	4635				
	47	20	1,40	187	4344				
	62	15	1,80	145	3985				
	93	10	2,30	100	3516				
	124	7,5	2,80	77	3195				
	24	60	0,70	297	5254	SM	75 / 90 S 4a	77 78	20
	28	50	0,90	263	4991				
	36	40	1,10	219	4678				
	47	30	1,40	173	4292				
	57	25	1,40	152	4078				
	71	20	1,90	125	3824				
	95	15	2,40	97	3474				
	24	39	1,06	291	4865	İRSAM İRSFM	65 / 90 L 6b	91 92	26 28
	31	30	1,30	220	4801				
	37	25	1,09	212	4723				
	48	19,5	1,53	170	4650				
	62	15	1,85	129	4555				
	95	9,75	2,25	93	4489				
	124	7,5	2,90	71	4321				

P_1 **GÜÇ** Power *Puissance* **[kW]** Hp	n_2 **Çıkış Devri** Output Speeds *Vitesse de sortie* **[r.p.m]**	**İ** **Tahvil** Ratio *Rapport de réduction*	S_f **Servis Faktörü** Service Factor *Service facteur*	M_2 **Çıkış Momenti** Output Torque *Couple de sortie* **[Nm]**	F_{Qlo} **Rad. Yük** Over Loads *Charges radiales* **[N]**	**Tip** Type			kg
1,1 1,5	**47**	20	0,90	182	3791	**SM**	**63 / 90 L 6b**	75 76	20
	62	15	1,20	144	3444				
	93	10	1,50	99	3009				
	124	7,5	2,00	77	2734				
	28	50	1,03	240	4910	**İRSAM İRSFM**	**65 / 90 S 4a**	91 92	26 28
	36	39	1,41	196	4801				
	47	30	1,69	151	4723				
	57	25	1,46	139	4650				
	73	19,5	2,02	113	4555				
	95	15	2,39	87	4489				
	146	9,75	3,07	61	4321				
	189	7,5	3,74	47	4259				
	47	30	0,90	169	3533	**SM**	**63 / 90 S 4a**	75 76	17
	57	25	0,90	148	3356				
	71	20	1,20	123	3146				
	95	15	1,60	95	2886				
	142	10	2,10	65	2546				
	189	7,5	2,60	50	2336				
1,5 2	**2,4**	600	0,99	3376	19950	**İRSAM İRSFM**	**162 İRS 82 / 90 L 4a**	111 112	203 226
	3,2	450	1,28	2629	19950				
	4,8	300	1,82	1839	19950				
	4,7	303	0,83	1475	9650	**İRSAM İRSFM**	**127 İR 52 / 90 L 4a**	117 118	97 103
	6,2	229	1,09	1117	9650				
	7,7	186	1,34	907	9650				
	8,9	161	1,56	784	9650				
	11	130	1,93	632	9650				
	11	83	1,80	705	9650	**İRSAM İRSFM**	**127 / 100 L 6a**	97 98	91 95
	15	65	2,33	581	9650				
	18	52	3,47	544	9650				
	24	40	4,67	437	9650				
	12	82	1,05	696	7750	**İRSAM İRSFM**	**102 / 100 L 6a**	95 96	63 67
	15	63	1,37	535	7750				
	19	50	1,97	508	7750				
	24	40	2,61	418	7720				
	32	30	3,50	318	7690				
	38	25	2,87	296	7520				
	47	20	3,80	240	7300				
	90	10	2,70	138	3929	**SM**	**90 / 100 L 6a**	79 80	31
	60	15	2,10	201	4498				
	45	20	1,50	258	4951				
	36	25	1,20	314	5333				
	30	30	1,30	358	5667				
	70	20	2,10	172	4273	**SM**	**90 / 90 L 4a**	79 80	28
	56	25	1,60	210	4603				
	47	30	1,70	239	4891				
	35	40	1,20	307	5383				
	28	50	0,90	368	5799				
	23	60	0,80	424	6163				
	18	53	1,03	530	6650	**İRSAM İRSFM**	**82 / 100 L 6a**	93 94	44 46
	24	40	1,33	388	6450				
	32	30	1,97	314	6420				
	36	26,5	1,47	309	6380				
	47	20	1,86	236	6190				
	63	15	2,87	180	6050				
	95	10	2,90	126	5960				

P_1 GÜÇ Power *Puissance* [kW] Hp	n_2 Çıkış Devri Output Speeds *Vitesse de sortie* [r.p.m]	İ Tahvil Ratio *Rapport de réduction*	S_f Servis Faktörü Service Factor *Service facteur*	M_2 Çıkış Momenti Output Torque *Couple de sortie* [Nm]	F_{Q1o} Rad. Yük Over Loads *Charges radiales* [N]	Tip Type			kg
1,5 2	23	62	1,00	373	6450	İRSAM İRSFM	82 / 90 L 4a	93 94	40 42
	27	53	1,53	361	6420				
	36	40	1,71	268	6380				
	48	30	2,53	216	6190				
	54	26,5	1,95	202	6050				
	72	20	2,41	156	5960				
	95	15	3,67	122	5800				
	143	10	3,74	85	5680				
	47	20	1,10	255	4181	SM	75 / 100 L 6a	77 78	29
	63	15	1,30	198	3835				
	95	10	1,70	137	3382				
	126	7,5	2,00	105	3103				
	36	40	0,80	299	4547	SM	75 / 90 L 4a	77 78	22
	48	30	1,00	236	4171				
	57	25	1,00	207	3962				
	72	20	1,40	170	3713				
	95	15	1,70	132	3407				
	143	10	2,20	90	3005				
	191	7,5	2,70	68	2757				
	29	50	0,75	325,6	4817	İRSAM İRSFM	65 / 90 L 4a	91 92	28 29
	37	39	1,03	265,7	4707				
	48	30	1,24	204,4	4676				
	57	25	1,07	187,8	4559				
	73	19,5	1,48	152,4	4466				
	95	15	1,75	117,2	4445				
	147	9,75	2,25	83,0	4195				
	191	7,5	2,74	63,9	4112				
	72	20	1,10	255	4181	SM	63 / 90 L 4a	75 76	19
	95	15	1,30	198	3835				
	143	10	1,70	137	3382				
	191	7,5	2,00	105	3103				
2,2 3	3,9	366	0,91	3627	19800	İRSAM İRSFM	162 İR 62 / 100 L 4a	119 120	207 230
	4,8	302	1,10	2993	19800				
	5,6	255	1,30	2530	19800				
	6,8	213	1,56	2110	19800				
	8,0	180	1,85	1781	19800				
	9,0	160	2,08	1582	19800				
	11	135	2,47	1335	19800				
	13	111	2,99	1103	19800				
	11	87	2,14	1116	19800	İRSAM İRSFM	162 / 112 M 6a	99 100	190 213
	18	54	4,27	836	19800				
	23	42	5,54	659	19800				
	11	83	1,23	1028	9500	İRSAM İRSFM	127 / 112 M 6a	97 98	100 104
	15	65	1,59	848	9500				
	18	52	2,36	794	9500				
	24	40	3,18	637	9420				
	30	32	3,96	531	9300				
	17	83	1,58	753	9500	İRSAM İRSFM	127 / 100 L 4a	97 98	88 92
	22	65	2,00	619	9450				
	28	52	3,05	548	9300				
	36	40	4,00	433	9220				
	18	82	1,00	720	7730	İRSAM İRSFM	102 / 100 L 4a	95 96	59 63
	23	63	1,20	572	7620				
	29	50	1,75	505	7590				
	36	40	2,27	422	7540				
	48	30	3,00	325	7420				
	57	25	2,52	289	7360				
	72	20	3,32	237	7250				
	96	15	4,36	180	7100				
	144	10	4,87	126	7030				
	191	7,5	6,36	96	6950				

P_1 **GÜÇ** Power *Puissance* **[kW]** Hp	n_2 **Çıkış Devri** Output Speeds *Vitesse de sortie* **[r.p.m]**	**İ** **Tahvil** Ratio *Rapport de réduction*	S_f **Servis Faktörü** Service Factor *Service facteur*	M_2 **Çıkış Momenti** Output Torque *Couple de sortie* **[Nm]**	F_{Q1o} **Rad. Yük** Over Loads *Charges radiales* **[N]**	**Tip** Type			kg
2,2 3	**187**	7,5	2,90	101	3081	**SM**	**90 / 100 L 4a**	79 80	30
	140	10	2,30	134	3391				
	93	15	1,90	194	3882				
	70	20	1,40	252	4273				
	56	25	1,10	308	4603				
	47	30	1,20	351	4891				
	120	7,5	2,20	156	3570	**SM**	**90 / 112 M 6a**	79 80	39
	90	10	1,80	203	3929				
	60	15	1,40	294	4498				
	45	20	1,00	378	4951				
	27	53	1,04	528	6320	**İRSAM** **İRSFM**	**82 / 100 L 4a**	93 94	43 45
	36	40	1,17	392	6250				
	48	30	1,73	316	6125				
	54	26,5	1,33	295	6050				
	72	20	1,64	228	5975				
	96	15	2,50	178	5950				
	144	10	2,55	124	5900				
	72	20	0,90	249	3609	**SM**	**75 / 100 L 4a**	77 78	26
	96	15	1,20	194	3310				
	144	10	1,50	132	2919				
	191	7,5	1,80	100	2678				
3 4	**5,1**	280	1,10	4150	28460	**İRSAM** **İRSFM**	**201 İR 72 / 100 L 4b**	101 102	355 367
	6,4	224	1,40	3323	28460				
	7,9	182	1,70	2700	28460				
	9,6	150	2,00	2220	28460				
	12	122	2,50	1801	28460				
	14	100	3,10	1477	28460				
	11	87	1,57	1506	19800	**İRSAM** **İRSFM**	**162 / 132 S 6b**	99 100	201 224
	18	54	3,13	1128	19800				
	23	42	4,07	890	19800				
	32	30	5,73	663	19800				
	17	83	1,16	1027	9500	**İRSAM** **İRSFM**	**127 / 100 L 4b**	97 98	91 95
	22	65	1,47	844	9400				
	28	52	2,23	747	9320				
	36	40	2,93	591	9240				
	45	32	3,60	486	9520				
	55	26	3,23	420	9360				
	72	20	4,27	327	9210				
	90	16	5,40	268	9180				
	110	13	4,73	223	8930				
	23	63	0,88	780	7620	**İRSAM** **İRSFM**	**102 / 100 L 4b**	95 96	62 66
	29	50	1,28	689	7590				
	36	40	1,67	575	7480				
	48	30	2,20	443	7620				
	57	25	1,85	394	7530				
	72	20	2,43	323	7450				
	96	15	3,20	246	7360				
	144	10	3,57	172	7290				
	191	7,5	4,67	130	7130				
	187	7,5	2,10	138	3081	**SM**	**90 / 100 L 4b**	79 80	36
	140	10	1,70	182	3391				
	93	15	1,40	264	3882				
	70	20	1,00	344	4273				
	56	25	0,80	420	4603				
	47	30	0,90	479	4891				

P_1 **GÜÇ** Power *Puissance* **[kW]** Hp	n_2 **Çıkış Devri** Output Speeds *Vitesse de sortie* **[r.p.m]**	**İ** **Tahvil** Ratio *Rapport de réduction*	S_f **Servis Faktörü** Service Factor *Service facteur*	M_2 **Çıkış Momenti** Output Torque *Couple de sortie* **[Nm]**	F_{Q1o} **Rad. Yük** Over Loads *Charges radiales* **[N]**	**Tip** Type			**kg**
3 4	**36**	40	0,86	535	6250	**İRSAM İRSFM**	**82 / 100 L 4b**	93 94	45 47
	48	30	1,27	431	6125				
	54	26,5	0,97	402	6050				
	72	20	1,21	311	5975				
	96	15	1,83	243	5950				
	144	10	1,87	170	5900				
	191	7,5	2,70	129	5860				
4 5,5	**5,2**	280	0,83	5457	28460	**İRSAM İRSFM**	**201 İR 72 / 112 M 4b**	121 122	342 374
	6,5	224	1,04	4369	28460				
	8,0	182	1,28	3550	28460				
	9,8	150	1,55	2918	28460				
	12	122	1,91	2369	28460				
	15	100	2,33	1941	28460				
	12	83	2,25	2081	28460	**İRSAM İRSFM**	**201 / 132 M 6a**	101 102	344 376
	15	63	3,27	1780	28460				
	17	55	4,00	1620	28460				
	24	40	4,31	1210	28460				
	11	87	1,18	2008	19800	**İRSAM İRSFM**	**162 / 132 M 6a**	99 100	209 232
	18	54	2,35	1504	19800				
	23	42	3,05	1187	19800				
	32	30	4,30	883	19800				
	46	21	4,38	669	19800				
	18	83	0,87	1351	9406	**İRSAM İRSFM**	**127 / 112 M 4b**	97 98	100 104
	22	65	1,10	1109	9216				
	28	52	1,67	983	9228				
	36	40	2,20	777	9059				
	45	32	2,70	639	9333				
	56	26	2,42	553	9267				
	73	20	3,20	431	8942				
	91	16	4,05	353	9089				
	112	13	3,55	294	9020				
	29	50	0,96	906	7545	**İRSAM İRSFM**	**102 / 112 M 4b**	95 96	66 69
	36	40	1,25	756	7441				
	49	30	1,65	583	7406				
	58	25	1,39	519	7471				
	73	20	1,83	425	7382				
	97	15	2,40	323	7376				
	146	10	2,68	226	7146				
	194	7,5	3,50	171	7218				
	187	7,5	1,60	184	3081	**SM**	**90 / 112 M 4b**	79 80	42
	140	10	1,30	243	3391				
	93	15	1,00	352	3882				
	70	20	0,80	458	4273				
	48	30	0,95	575	6127	**İRSAM İRSFM**	**82 / C100 L 4**	93 94	52 54
	54	26,5	0,73	536	6005				
	72	20	0,90	415	5990				
	96	15	1,38	323	5858				
	144	10	1,40	226	5833				
	191	7,5	2,02	172	5842				
5,5 7,5	**12**	83	1,68	2909	28100	**İRSAM İRSFM**	**201 / 132 M 6b**	101 102	351 383
	15	63	2,22	2246	28100				
	17	55	2,93	2193	28100				
	24	40	4,28	1647	28100				
	11	87	0,85	2761	19800	**İRSAM İRSFM**	**162 / 132 M 6b**	99 100	216 251
	18	54	1,71	2068	19800				
	23	42	2,22	1632	19800				
	32	30	3,13	1215	19800				
	46	21	3,18	919	19800				
	64	15	4,55	681	19800				

P_1 **GÜÇ** Power *Puissance* **[kW]** Hp	n_2 **Çıkış Devri** Output Speeds *Vitesse de sortie* **[r.p.m]**	**İ** **Tahvil** Ratio *Rapport de réduction*	S_f **Servis Faktörü** Service Factor *Service facteur*	M_2 **Çıkış Momenti** Output Torque *Couple de sortie* **[Nm]**	F_{Q1o} **Rad. Yük** Over Loads *Charges radiales* **[N]**	**Tip** Type			**kg**
5,5 7,5	**17**	87	1,07	1996	19800	**İRSAM İRSFM**	**162 / 132 S 4c**	99 100	202 227
	27	54	2,16	1433	19800				
	35	42	2,75	1129	19800				
	49	30	3,82	839	19800				
	54	27	3,16	794	19800				
	70	21	3,95	625	19800				
	98	15	5,55	457	19800				
	23	65	0,80	1515	9560	**İRSAM İRSFM**	**127 / C112 M 4**	97 98	102 106
	28	52	1,22	1342	9520				
	37	40	1,60	1061	9410				
	46	32	1,96	872	9630				
	56	26	1,76	755	9350				
	73	20	2,33	588	9260				
	92	16	2,95	482	9450				
	113	13	2,58	401	9210				
	147	10	3,42	312	8960				
7,5 10	**12**	83	1,20	3901	27500	**İRSAM İRSFM**	**201 / 160 M 6b**	101 102	415 447
	15	63	1,75	3337	27500				
	17	55	2,13	3037	27500				
	24	40	2,30	2268	27500				
	18	54	1,25	2820	19800	**İRSAM İRSFM**	**162 / 160 M 6b**	99 100	230 303
	23	42	1,63	2225	19800				
	32	30	2,29	1656	19800				
	46	21	2,33	1253	19800				
	64	15	3,33	929	19800				
	17	87	0,79	2722	19800	**İRSAM İRSFM**	**162 / 132 M 4b**	99 100	212 235
	27	54	1,59	1954	19800				
	35	42	2,01	1540	19800				
	49	30	2,80	1144	19800				
	70	21	2,89	852	19800				
	98	15	4,07	623	19800				
	37	40	1,17	1447	9373	**İRSAM İRSFM**	**127 / 132 M 4b**	97 98	119 123
	46	32	1,44	1189	9333				
	56	26	1,29	1030	9317				
	73	20	1,71	802	9441				
	92	16	2,16	657	9167				
	113	13	1,89	547	9168				
	147	10	2,51	425	9175				
	183	8	3,17	344	9119				
11 15	**19**	52	2,09	4492	33000	**İRSAM İRSFM**	**250 / 160 L 6b**	103 104	626 656
	24	40	3,55	3547	33000				
	37	26	5,73	2910	33000				
	48	20	6,20	1962	33000				
	15	63	1,00	4526	25850	**İRSAM İRSFM**	**201 / 160 L 6b**	101 102	430 462
	18	55	1,36	4251	25850				
	24	40	2,00	3222	25850				
	32	30	2,09	2482	25850				
	18	54	0,85	4115	23250	**İRSAM İRSFM**	**162 / 160 L 6b**	99 100	296 319
	23	42	1,11	3246	23250				
	32	30	1,56	2417	23250				
	46	21	1,59	1829	23250				
	64	15	2,27	1355	23250				
	27	54	1,08	2865	23250	**İRSAM İRSFM**	**162 / 160 M 4b**	99 100	273 296
	35	42	1,37	2259	23250				
	49	30	1,91	1678	23250				
	70	21	1,97	1250	23250				
	98	15	2,77	914	23250				
	140	10,5	2,86	625	23250				
	195	7,5	4,00	479	23250				

P_1 **GÜÇ** Power *Puissance* **[kW]** Hp	n_2 **Çıkış Devri** Output Speeds *Vitesse de sortie* **[r.p.m]**	**İ** **Tahvil** Ratio *Rapport de réduction*	S_f **Servis Faktörü** Service Factor *Service facteur*	M_2 **Çıkış Momenti** Output Torque *Couple de sortie* **[Nm]**	F_{Q1o} **Rad. Yük** Over Loads *Charges radiales* **[N]**	**Tip** Type			**kg**
11 15	**37**	40	0,80	2123	9465	**İRSAM İRSFM**	**127 / C132 M 4**	97 98	124 132
	46	32	0,98	1744	9333				
	56	26	0,88	1510	9317				
	73	20	1,16	1176	9441				
	92	16	1,47	964	9167				
	113	13	1,29	802	9168				
	147	10	1,71	624	9175				
	183	8	2,16	505	9119				
15 20	**15**	63	1,27	5424	32700	**İRSAM İRSFM**	**250 / 180 L 6a**	103 104	684 704
	19	52	2,00	5712	32700				
	24	40	2,73	4513	32700				
	31	31	2,93	3589	32700				
	37	26	3,33	3203	32700				
	48	20	4,00	2494	32700				
	28	52	2,47	3966	32700	**İRSAM İRSFM**	**250 / 160 L 4a**	103 104	637 667
	37	40	3,27	3090	32700				
	47	31	3,93	2395	32700				
	56	26	3,53	2161	32700				
	73	20	4,80	1682	32700				
	95	15,5	5,73	1303	32700				
	147	10	6,93	870	32700				
	27	55	1,33	4033	25100	**İRSAM İRSFM**	**201 / 160 L 4a**	101 102	442 474
	37	40	1,88	3051	25100				
	49	30	1,95	2317	25100				
	53	27,5	2,58	2232	25100				
	73	20	2,79	1662	25100				
	98	15	2,79	1261	25100				
	107	13,75	3,77	1183	25100				
	147	10	4,05	870	25100				
	195	7,5	5,51	653	25100				
	35	42	1,01	3114	22400	**İRSAM İRSFM**	**162 / 160 L 4a**	99 100	298 318
	49	30	1,42	2312	22400				
	70	21	1,48	1723	22400				
	98	15	2,06	1260	22400				
	140	10,5	2,11	892	22400				
	195	7,5	2,95	681	22400				
18,5 25	**28**	52	2,00	4875	32450	**İRSAM İRSFM**	**250 / 180 M 4b**	103 104	657 687
	37	40	2,65	3798	32450				
	47	31	3,19	2943	32450				
	57	26	2,86	2656	32450				
	74	20	3,89	2067	32450				
	95	15,5	4,65	1602	32450				
	147	10	5,62	1070	32450				
	190	7,75	6,76	829	32450				
	27	55	1,06	4958	24650	**İRSAM İRSFM**	**201 / 180 M 4b**	101 102	462 494
	37	40	1,54	3750	24650				
	49	30	2,04	2848	24650				
	53	28	1,52	2743	24650				
	74	20	2,23	2043	24650				
	98	15	2,99	1550	24650				
	107	13,75	2,21	1454	24650				
	147	10	3,25	1070	24650				
	196	7,5	4,35	802	24650				

P_1 **GÜÇ** Power *Puissance* **[kW]** Hp	n_2 **Çıkış Devri** Output Speeds *Vitesse de sortie* **[r.p.m]**	**İ Tahvil** Ratio *Rapport de réduction*	S_f **Servis Faktörü** Service Factor *Service facteur*	M_2 **Çıkış Momenti** Output Torque *Couple de sortie* **[Nm]**	F_{Qlo} **Rad. Yük** Over Loads *Charges radiales* **[N]**	**Tip** Type			kg
18,5 25	**35**	42	0,82	3786	21200	**İRSAM İRSFM**	**162 / C160 L 4**	99 100	285 305
	49	30	1,14	2812	21200				
	70	21	1,17	2095	21200				
	98	15	1,65	1532	21200				
	140	10,5	1,70	1047	21200				
	196	7,5	2,38	802	21200				
22 30	**28**	52	1,68	5797	32200	**İRSAM İRSFM**	**250 / 180 L 4b**	103 104	682 702
	37	40	2,23	4516	32200				
	47	31	2,68	3500	32200				
	74	20	3,27	2458	32200				
	95	15,5	3,91	1905	32200				
	147	10	4,73	1272	32200				
	190	7,75	5,68	986	32200				

Sonsuz Vidalı Redüktörler Ölçü Sayfaları

Worm Gearbox Dimension Pages

Réducteurs à roue et vis sans fin dimensions

Servis Faktörü Service Factor *Service facteur* $S_f = 1$	P_1 **GÜÇ** Power *Puissance* [kW]	n_2 **Çıkış Devri** Output Speeds *Vitesse de sortie* [r.p.m] (n1=1400rpm)	**İ Tahvil** Ratio *Rapport de réduction*	**η Verim** Efficiency *efficience* [%]	M_2 **Çıkış Momenti** Output Torque *Couple de sortie* [Nm]	F_{Q1} **Rad. Yük** Over Loads *Charges radiales* [N]	F_{Q1o} **Rad. Yük** Over Loads *Charges radiales* [N]	**Tip** Type			kg
13-21 Nm	0,05	18	80	48	13	190	1250	**S**	**30**	67 68	1,2
	0,07	23	60	54	15	190	1250				
	0,09	28	50	56	17	190	1250				
	0,11	35	40	60	18	190	1250				
	0,13	47	30	66	18	190	1250				
	0,17	56	25	71	21	190	1250				
	0,18	70	20	75	18	190	1250				
	0,23	93	15	78	18	190	1250				
	0,31	140	10	80	17	190	1250				
	0,40	187	7,5	83	17	190	1250				
28-42 Nm	0,09	14	100	45	28	330	2100	**S**	**40**	69 70	2,1
	0,12	18	80	49	32	330	2100				
	0,14	23	60	55	32	330	2100				
	0,18	28	50	61	37	330	2100				
	0,22	35	40	65	39	330	2100				
	0,30	47	30	68	42	330	2100				
	0,30	56	25	71	36	330	2100				
	0,35	70	20	74	35	330	2100				
	0,46	93	15	79	37	330	2100				
	0,66	140	10	82	37	330	2100				
	0,85	187	7,5	85	37	330	2100				
50-71 Nm	0,16	14	100	46	50	450	3000	**S**	**50**	71 72	3,3
	0,20	18	80	53	58	450	3000				
	0,26	23	60	57	61	450	3000				
	0,31	28	50	61	64	450	3000				
	0,40	35	40	65	71	450	3000				
	0,50	47	30	68	70	450	3000				
	0,50	56	25	71	61	450	3000				
	0,64	70	20	74	65	450	3000				
	0,85	93	15	79	69	450	3000				
	1,11	140	10	82	62	450	3000				
	1.54	187	7,5	85	67	450	3000				
96-152 Nm	0,44	23	62	56	104	490	3400	**İRSA İRSF**	**52**	87 88	9 11
	0,56	28	50	58	111	490	3400				
	0,85	37	38	66	145	490	3400				
	1,13	48	29	68	152	490	3400				
	0,84	56	25	72	103	490	3400				
	1,21	74	19	77	121	490	3400				
	1,64	97	14,5	78	127	490	3400				
	1,77	147	9,5	84	96	490	3400				
	2.4	193	7,25	85	101	490	3400				
114-145 Nm	0,32	14	100	52	114	650	4200	**S**	**63**	73 74	6
	0,38	18	80	58	120	650	4200				
	0,50	23	60	60	123	650	4200				
	0,60	28	50	62	127	650	4200				
	0,75	35	40	67	137	650	4200				
	1,00	47	30	71	145	650	4200				
	0,99	56	25	74	125	650	4200				
	1,20	70	20	78	128	650	4200				
	1,60	93	15	80	131	650	4200				
	2,20	140	10	82	123	650	4200				
	2.81	187	7,5	85	122	650	4200				
176-280 Nm	0,6	17	82	56	188	670	4900	**İRSA İRSF**	**65**	89 90	14 15
	0,77	23	62	54	176	670	4900				
	1,13	28	50	65	251	670	4900				
	1,55	36	39	68	280	670	4900				
	1,86	47	30	68	259	670	4900				

Servis Faktörü Service Factor *Service facteur* $S_f = 1$	P_1 **GÜÇ** Power *Puissance* [kW]	n_2 **Çıkış Devri** Output Speeds *Vitesse de sortie* [r.p.m] (n1=1400rpm)	**İ Tahvil** Ratio *Rapport de réduction*	**η Verim** Efficiency *efficience* [%]	M_2 **Çıkış Momenti** Output Torque *Couple de sortie* [Nm]	F_{Q1} **Rad. Yük** Over Loads *Charges radiales* [N]	F_{Q1o} **Rad. Yük** Over Loads *Charges radiales* [N]	**Tip** Type			kg
176-280 Nm	**1,6**	56	25	75	205	670	4900	**İRSA İRSF**	**65**	89 90	14 15
	2,23	72	19,5	78	231	670	4900				
	2,63	93	15	78	210	670	4900				
	3,37	144	9,75	85	191	670	4900				
	4,11	187	7,5	85	179	670	4900				
172-221 Nm	**0,48**	14	100	53	174	700	5800	**S**	**75**	75 76	9
	0,56	18	80	58	177	700	5800				
	0,75	23	60	60	184	700	5800				
	0,85	28	50	63	183	700	5800				
	1,1	35	40	67	201	700	5800				
	1,5	47	30	72	221	700	5800				
	1,5	56	25	76	194	700	5800				
	1,8	70	20	78	192	700	5800				
	2,2	93	15	80	180	700	5800				
	3	140	10	84	172	700	5800				
	4	187	7,5	86	176	700	5800				
270-460 Nm	**0,67**	14	100	59	270	7306	1270	**S**	**90**	77 78	12
	0,83	18	80	63	285	6783	1270				
	1,1	23	60	71	320	6163	1270				
	1,4	28	50	71	339	5799	1270				
	1,8	35	40	73	359	5383	1270				
	2,6	47	30	77	410	4891	1270				
	2,4	56	25	83	340	4603	1270				
	3,1	70	20	84	355	4273	1270				
	4,1	93	15	86	361	3882	1270				
	5,1	140	10	89	310	3391	1270				
	6,3	187	7,5	90	290	3081	1270				
325-560 Nm	**1,5**	23	62	60	381	850	6900	**İRSA İRSF**	**82**	91 92	24 26
	2,3	26	53	68	565	850	6900				
	2,57	35	40	67	470	850	6900				
	3,8	47	30	72	560	850	6900				
	2,92	53	26,5	76	401	850	6900				
	3,62	70	20	78	385	850	6900				
	5,5	93	15	81	456	850	6900				
	5,6	140	10	85	325	850	6900				
	8,1	187	7,5	86	356	850	6900				
623-1000 Nm	**2,20**	17	82	60	738	1450	10000	**IRSA IRSF**	**102**	93 94	39 43
	2,64	22	63	62	703	1450	10000				
	3,85	28	50	69	906	1450	10000				
	5,00	35	40	72	982	1450	10000				
	6,60	47	30	74	999	1450	10000				
	5,55	56	25	79	748	1450	10000				
	7,30	70	20	81	807	1450	10000				
	9,60	93	15	82	805	1450	10000				
	10,70	140	10	86	628	1450	10000				
	14,00	187	7,5	87	623	1450	10000				
1083-1792 Nm	**3,47**	17	83	62	1218	2300	17000	**İRSA İRSF**	**127**	95 96	69 73
	4,4	22	65	65	1268	2300	17000				
	6,7	27	52	72	1711	2300	17000				
	8,8	35	40	74	1777	2300	17000				
	10,8	44	32	76	1792	2300	17000				
	9,7	54	26	81	1393	2300	17000				
	12,8	70	20	82	1432	2300	17000				
	16,2	88	16	84	1485	2300	17000				
	14,2	108	13	86	1083	2300	17000				
	18,8	140	10	87	1116	2300	17000				

Servis Faktörü Service Factor *Service facteur* $S_f = 1$	P_1 **GÜÇ** Power *Puissance* [kW]	n_2 **Çıkış Devri** Output Speeds *Vitesse de sortie* [r.p.m] (n1=1400rpm)	**İ Tahvil** Ratio *Rapport de réduction*	**η Verim** Efficiency *efficience* [%]	M_2 **Çıkış Momenti** Output Torque *Couple de sortie* [Nm]	F_{Q1} **Rad. Yük** Over Loads *Charges radiales* [N]	F_{Q1o} **Rad. Yük** Over Loads *Charges radiales* [N]	**Tip** Type			kg
1873-3352 Nm	**4,6**	13	111	62	2159	2900	21500	**IRSA IRSF**	**162**	97 98	163 186
	5,9	16	87	64	2241	2900	21500				
	11,9	26	54	74	3244	2900	21500				
	15,1	33	42	75	3245	2900	21500				
	21,0	47	30	78	3352	2900	21500				
	17,4	52	27	82	2628	2900	21500				
	21,7	67	21	83	2580	2900	21500				
	30,5	93	15	85	2653	2900	21500				
	31,5	133	10,5	83	1873	2900	21500				
	44,0	187	7,5	89	2003	2900	21500				
3521-5746 Nm	**7,5**	12	115	65	3824	3250	24750	**İRSA İRSF**	**201**	99 100	300 332
	11	17	83	68	4235	3250	24750				
	14	22	63	70	4212	3250	24750				
	19	25	55	75	5346	3250	24750				
	27	35	40	78	5746	3250	24750				
	28	47	30	79	4527	3250	24750				
	37	51	27,5	83	5761	3250	24750				
	40	70	20	85	4639	3250	24750				
	40	93	15	86	3520	3250	24750				
	54	102	13,75	88	4457	3250	24750				
	58	140	10	89	3521	3250	24750				
	79	187	7,5	89	3597	3250	24750				
5791-13370 Nm	**23**	22	63	58	5733	3750	29000	**IRSA IRSF**	**250**	101 102	493 513
	37	27	52	78	10237	3750	29000				
	49	35	40	79	10562	3750	29000				
	59	45	31	79	9856	3750	29000				
	53	54	26	85	7990	3750	29000				
	72	70	20	86	8448	3750	29000				
	86	90	15,5	86	7820	3750	29000				
	104	140	10	89	6314	3750	29000				
	125	181	7,75	89	5881	3750	29000				

Servis Faktörü Service Factor *Service facteur* $S_f = 1$	P_1 **GÜÇ** Power *Puissance* [kW]	n_2 **Çıkış Devri** Output Speeds *Vitesse de sortie* [r.p.m] (n1=900rpm)	**İ Tahvil** Ratio *Rapport de réduction*	**η Verim** Efficiency *efficience* [%]	M_2 **Çıkış Momenti** Output Torque *Couple de sortie* [Nm]	F_{Q1} **Rad. Yük** Over Loads *Charges radiales* [N]	F_{Q1o} **Rad. Yük** Over Loads *Charges radiales* [N]	**Tip** Type			kg
15-22 Nm	0,04	11	80	43	15	190	1300	**S**	**30**	67 68	1,2
	0,06	15	60	45	17	190	1300				
	0,07	18	50	48	18	190	1300				
	0,09	23	40	52	20	190	1300				
	0,11	30	30	61	21	190	1300				
	0,12	36	25	68	22	190	1300				
	0,12	45	20	72	18	190	1300				
	0,16	60	15	74	19	190	1300				
	0,23	90	10	77	19	190	1300				
	0,29	120	7,5	81	19	190	1300				
31-43 Nm	0,07	9	100	42	31	330	2250	**S**	**40**	69 70	2,1
	0,09	11	80	44	34	330	2250				
	0,10	15	60	52	33	330	2250				
	0,12	18	50	55	35	330	2250				
	0,16	23	40	61	41	330	2250				
	0,21	30	30	65	43	330	2250				
	0,21	36	25	69	38	330	2250				
	0,26	45	20	72	40	330	2250				
	0,35	60	15	77	43	330	2250				
	0,49	90	10	80	42	330	2250				
	0,64	120	7,5	82	42	330	2250				
49-80 Nm	0,11	9	100	42	49	450	3300	**S**	**50**	71 72	3,3
	0,15	11	80	46	59	450	3300				
	0,20	15	60	52	66	450	3300				
	0,25	18	50	55	73	450	3300				
	0,3	23	40	61	78	450	3300				
	0,35	30	30	65	72	450	3300				
	0,35	36	25	69	64	450	3300				
	0,45	45	20	72	69	450	3300				
	0,65	60	15	77	80	450	3300				
	0,90	90	10	80	76	450	3300				
	1.11	120	7,5	84	74	450	3300				
103-173 Nm	0,33	15	62	55	119	490	3550	**İRSA İRSF**	**52**	87 88	9 11
	0,42	18	50	60	134	490	3550				
	0,63	24	38	65	165	490	3550				
	0,85	31	29	66	173	490	3550				
	0,63	36	25	70	117	490	3550				
	0,90	47	19	76	138	490	3550				
	1,23	62	14,5	77	146	490	3550				
	1,32	95	9,5	83	110	490	3550				
	1.81	124	7,25	74	103	490	3550				
119-162 Nm	0,25	9	100	45	119	650	4350	**S**	**63**	73 74	6
	0,27	11	80	52	119	650	4350				
	0,37	15	60	56	132	650	4350				
	0,42	18	50	58	129	650	4350				
	0,55	23	40	63	147	650	4350				
	0,75	30	30	68	162	650	4350				
	0,68	36	25	70	126	650	4350				
	0,90	45	20	74	141	650	4350				
	1,10	60	15	78	137	650	4350				
	1,70	90	10	80	144	650	4350				
	2,20	120	7,5	84	147	650	4350				
198-317 Nm	0,44	11	82	55	211	670	4900	**İRSA İRSF**	**65**	89 90	14 15
	0,59	15	62	51	198	670	4900				
	0,84	18	50	63	281	670	4900				
	1,16	23	39	66	317	670	4900				
	1,43	30	30	65	296	670	4900				

Servis Faktörü Service Factor *Service facteur* $S_f = 1$	P_1 **GÜÇ** Power *Puissance* [kW]	n_2 **Çıkış Devri** Output Speeds *Vitesse de sortie* [r.p.m] (n1=900rpm)	**İ Tahvil** Ratio *Rapport de réduction*	**η Verim** Efficiency *efficience* [%]	M_2 **Çıkış Momenti** Output Torque *Couple de sortie* [Nm]	F_{Q1} **Rad. Yük** Over Loads *Charges radiales* [N]	F_{Q1o} **Rad. Yük** Over Loads *Charges radiales* [N]	**Tip** Type			kg
198-317 Nm	1,20	36	25	75	239	670	4900	**İRSA İRSF**	**65**	89 90	14 15
	1,68	46	19,5	77	268	670	4900				
	2,03	60	15	76	246	670	4900				
	2,47	92	9,75	84	215	670	4900				
	3,19	120	7,5	84	213	670	4900				
178-242 Nm	0,35	9	100	48	178	700	6000	**S**	**75**	75 76	9
	0,40	11	80	54	183	700	6000				
	0,52	15	60	56	185	700	6000				
	0,62	18	50	59	194	700	6000				
	0,8	23	40	63	214	700	6000				
	1,10	30	30	69	242	700	6000				
	1,10	36	25	72	210	700	6000				
	1,40	45	20	75	223	700	6000				
	1,75	60	15	78	217	700	6000				
	2,5	90	10	81	215	700	6000				
	3	120	7,5	85	203	700	6000				
280-460 Nm	0,49	9	100	54	281	8180	1270	**S**	**90**	77 78	12
	0,63	11	80	59	316	7859	1270				
	0,86	15	60	64	350	7140	1270				
	1,1	18	50	67	391	6719	1270				
	1,4	23	40	69	410	6238	1270				
	1,90	30	30	76	460	5667	1270				
	1,80	36	25	77	368	5333	1270				
	2,30	45	20	80	390	4951	1270				
	3,1	60	15	85	419	4498	1270				
	4	90	10	87	369	3929	1270				
	4,8	120	7,5	89	340	3570	1270				
383-648 Nm	1,16	15	62	56	427	850	7100	**İRSA İRSF**	**82**	91 92	24 26
	1,54	17	53	66	572	850	7100				
	2,00	23	40	64	543	850	7100				
	2,95	30	30	69	648	850	7100				
	2,20	34	26,5	77	476	850	7100				
	2,00	45	20	78	331	850	7100				
	4,3	60	15	79	541	850	7100				
	4,35	90	10	83	383	850	7100				
	6,3	120	7,5	85	426	850	7100				
758-1170 Nm	1,58	11	82	56	770	1450	10400	**IRSA IRSF**	**102**	93 94	39 43
	2,50	14	63	56	936	1450	10400				
	2,96	18	50	67	1052	1450	10400				
	3,92	23	40	69	1148	1450	10400				
	5,25	30	30	70	1170	1450	10400				
	4,30	36	25	78	890	1450	10400				
	5,70	45	20	79	956	1450	10400				
	7,66	60	15	80	975	1450	10400				
	8,40	90	10	85	758	1450	10400				
	11,20	120	7,5	85	758	1450	10400				
1313-2216 Nm	2,7	11	83	56	1332	2300	17000	**İRSA İRSF**	**127**	95 96	69 73
	3,5	14	65	59	1424	2300	17000				
	5,2	17	52	69	1980	2300	17000				
	7	23	40	72	2139	2300	17000				
	8,7	28	32	75	2216	2300	17000				
	7,6	35	26	79	1656	2300	17000				
	10,2	45	20	80	1732	2300	17000				
	13	56	16	81	1788	2300	17000				
	11,2	69	13	85	1313	2300	17000				
	15	90	10	85	1353	2300	17000				

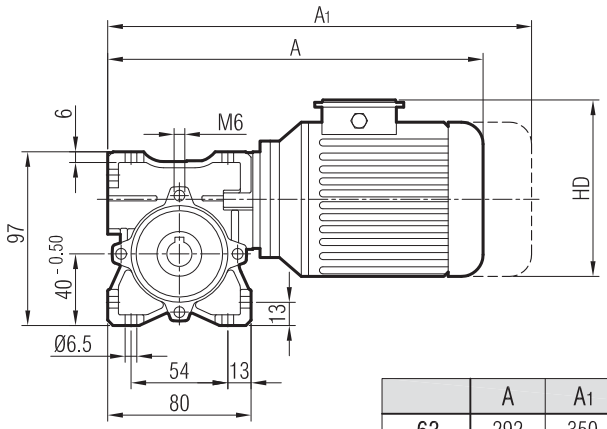
Servis Faktörü Service Factor *Service facteur* $S_f = 1$	P_1 **GÜÇ** Power *Puissance* [kW]	n_2 **Çıkış Devri** Output Speeds *Vitesse de sortie* [r.p.m] (n1=900rpm)	**İ Tahvil** Ratio *Rapport de réduction*	**η Verim** Efficiency *efficience* [%]	M_2 **Çıkış Momenti** Output Torque *Couple de sortie* [Nm]	F_{Q1} **Rad. Yük** Over Loads *Charges radiales* [N]	F_{Q1o} **Rad. Yük** Over Loads *Charges radiales* [N]	**Tip** Type			kg
2443-3860 Nm	**4,7**	10	87	58	2517	2900	21500	**IRSA IRSF**	**162**	97 98	163 186
	9,4	17	54	70	3770	2900	21500				
	12,2	21	42	71	3860	2900	21500				
	17,2	30	30	74	4052	2900	21500				
	13,7	33	27	80	3140	2900	21500				
	17,5	43	21	80	3120	2900	21500				
	25,0	60	15	83	3303	2900	21500				
	25,5	86	10,5	86	2443	2900	21500				
	36,0	120	7,5	87	2493	2900	21500				
4392-7237 Nm	**6,1**	8	115	59	4392	3250	24750	**İRSA İRSF**	**201**	99 100	300 332
	9	11	83	63	4994	3250	24750				
	11	14	63	66	4853	3250	24750				
	15	16	55	71	6215	3250	24750				
	22	23	40	74	6910	3250	24750				
	23	30	30	76	5564	3250	24750				
	31	33	27,5	80	7237	3250	24750				
	32	45	20	83	5637	3250	24750				
	33	60	15	84	4412	3250	24750				
	45	65	13,75	86	5646	3250	24750				
	48	90	10	87	4431	3250	24750				
	65	120	7,5	88	4552	3250	24750				
7367-13226 Nm	**19**	14	63	58	7367	3750	29000	**IRSA IRSF**	**250**	101 102	493 513
	30	17	52	74	12249	3750	29000				
	41	23	40	76	13226	3750	29000				
	44	29	31	78	11289	3750	29000				
	50	35	26	83	11449	3750	29000				
	60	45	20	84	10696	3750	29000				
	72	58	15,5	85	10066	3750	29000				
	80	90	10	88	7470	3750	29750				
	106	116	7,75	89	7758	3750	29750				

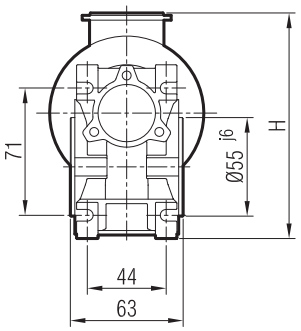
Servis Faktörü Service Factor *Service facteur* $S_f = 1$	P_1 **GÜÇ** Power *Puissance* [kW]	n_2 **Çıkış Devri** Output Speeds *Vitesse de sortie* [r.p.m] (n1=700rpm)	**İ Tahvil** Ratio *Rapport de réduction*	**η Verim** Efficiency *efficience* [%]	M_2 **Çıkış Momenti** Output Torque *Couple de sortie* [Nm]	F_{Q1} **Rad. Yük** Over Loads *Charges radiales* [N]	F_{Q1o} **Rad. Yük** Over Loads *Charges radiales* [N]	**Tip** Type			kg
16-25 Nm	0,04	9	80	41	18	190	1350	**S**	**30**	67 68	1,2
	0,05	12	60	43	18	190	1350				
	0,06	14	50	47	19	190	1350				
	0,08	18	40	53	23	190	1350				
	0,09	23	30	60	22	190	1350				
	0,11	28	25	66	25	190	1350				
	0,11	35	20	69	21	190	1350				
	0,15	47	15	72	22	190	1350				
	0,2	70	10	76	21	190	1350				
	0,26	93	7,5	80	21	190	1350				
33-48 Nm	0,06	7	100	40	33	330	2300	**S**	**40**	69 70	2,1
	0,08	9	80	42	37	330	2300				
	0,09	12	60	49	36	330	2300				
	0,12	14	50	52	43	330	2300				
	0,14	18	40	60	46	330	2300				
	0,18	23	30	64	47	330	2300				
	0,18	28	25	68	42	330	2300				
	0,23	35	20	71	45	330	2300				
	0,31	47	15	75	48	330	2300				
	0,44	70	10	78	47	330	2300				
	0,56	93	7,5	81	46	330	2300				
57-87 Nm	0,10	7	100	40	55	450	3450	**S**	**50**	71 72	3,3
	0,13	9	80	44	62	450	3450				
	0,17	12	60	49	68	450	3450				
	0,21	14	50	54	77	450	3450				
	0,26	18	40	60	85	450	3450				
	0,33	23	30	64	86	450	3450				
	0,33	28	25	68	77	450	3450				
	0,40	35	20	71	77	450	3450				
	0,57	47	15	75	87	450	3450				
	0,80	70	10	78	85	450	3450				
	1.02	93	7,5	82	86	450	3450				
119-210 Nm	0,27	11	62	52	119	490	3850	**İRSA İRSF**	**52**	87 88	9 11
	0,35	14	50	55	131	490	3850				
	0,53	18	38	62	170	490	3850				
	0,71	24	29	65	183	490	3850				
	0,52	28	25	69	122	490	3850				
	0,75	37	19	75	146	490	3850				
	1,40	48	14,5	76	210	490	3850				
	1,10	74	9,5	82	117	490	3850				
	1.53	97	7,25	83	126	490	3850				
120-168 Nm	0,20	7	100	44	120	650	4470	**S**	**63**	73 74	6
	0,23	9	80	50	126	650	4470				
	0,32	12	60	53	139	650	4470				
	0,37	14	50	56	141	650	4470				
	0,49	18	40	61	163	650	4470				
	0,62	23	30	66	167	650	4470				
	0,60	28	25	69	141	650	4470				
	0,77	35	20	72	151	650	4470				
	0,98	47	15	75	150	650	4470				
	1,49	70	10	78	159	650	4470				
	1.90	93	7,5	82	159	650	4470				
215-335 Nm	0,37	9	82	52	215	670	5750	**İRSA İRSF**	**65**	89 90	14 15
	0,50	11	62	50	211	670	5750				
	0,70	14	50	61	291	670	5750				
	0,97	18	39	65	335	670	5750				
	1,22	23	30	64	320	670	5750				

Servis Faktörü Service Factor *Service facteur* $S_f = 1$	P_1 **GÜÇ** Power *Puissance* [kW]	n_2 **Çıkış Devri** Output Speeds *Vitesse de sortie* [r.p.m] (n1=700rpm)	**İ Tahvil** Ratio *Rapport de réduction*	**η Verim** Efficiency *efficience* [%]	M_2 **Çıkış Momenti** Output Torque *Couple de sortie* [Nm]	F_{Q1} **Rad. Yük** Over Loads *Charges radiales* [N]	F_{Q1o} **Rad. Yük** Over Loads *Charges radiales* [N]	**Tip** Type			kg
215-335 Nm	1,00	28	25	74	252	670	5750	**İRSA İRSF**	**65**	89 90	14 15
	1,41	36	19,5	76	285	670	5750				
	1,72	47	15	75	264	670	5750				
	2,08	72	9,75	83	230	670	5750				
	2,71	93	7,5	83	230	670	5750				
182-248 Nm	0,29	7	100	46	182	700	6150	**S**	**75**	75 76	9
	0,36	9	80	50	196	700	6150				
	0,45	12	60	52	192	700	6150				
	0,53	14	50	57	206	700	6150				
	0,71	18	40	61	236	700	6150				
	0,93	23	30	65	247	700	6150				
	0,92	28	25	70	220	700	6150				
	1,20	35	20	73	239	700	6150				
	1,52	47	15	75	233	700	6150				
	2,17	70	10	78	231	700	6150				
	2,65	93	7,5	82	222	700	6150				
255-454 Nm	0,38	7	100	49	254	8180	1270	**S**	**90**	77 78	12
	0,49	9	80	55	294	8180	1270				
	0,67	12	60	57	313	8180	1270				
	0,86	14	50	63	370	8174	1270				
	1,09	18	40	65	387	7588	1270				
	1,48	23	30	75	454	6894	1270				
	1,4	28	25	71	339	6487	1270				
	1,79	35	20	76	371	6022	1270				
	2,41	47	15	84	414	5472	1270				
	3,11	70	10	85	361	4780	1270				
	3,73	93	7,5	88	336	4343	1270				
418-701 Nm	0,98	11	62	55	456	850	7300	**İRSA İRSF**	**82**	91 92	24 26
	1,29	13	53	65	606	850	7300				
	1,70	18	40	63	584	850	7300				
	2,52	23	30	68	701	850	7300				
	1,85	26	26,5	76	508	850	7300				
	2,39	35	20	75	489	850	7300				
	3,65	47	15	78	583	850	7300				
	3,74	70	10	82	418	850	7300				
	5,40	93	7,5	84	464	850	7300				
825-1271 Nm	1,35	9	82	55	831	1450	11600	**IRSA IRSF**	**102**	93 94	39 43
	1,75	11	63	57	857	1450	11600				
	2,53	14	50	66	1139	1450	11600				
	3,35	18	40	68	1243	1450	11600				
	4,50	23	30	69	1271	1450	11600				
	3,65	28	25	77	959	1450	11600				
	4,90	35	20	78	1043	1450	11600				
	6,60	47	15	79	1067	1450	11600				
	7,20	70	10	84	825	1450	11600				
	9,70	93	7,5	85	844	1450	11600				
1415-2323 Nm	2,32	8	83	57	1497	2300	19000	**İRSA İRSF**	**127**	95 96	69 73
	3,00	11	65	57	1516	2300	19000				
	4,40	13	52	68	2123	2300	19000				
	6,00	18	40	69	2259	2300	19000				
	7,60	22	32	70	2323	2300	19000				
	6,50	27	26	78	1798	2300	19000				
	8,80	35	20	79	1897	2300	19000				
	11,3	44	16	80	1973	2300	19000				
	9,50	54	13	84	1415	2300	19000				
	12,9	70	10	85	1496	2300	19000				

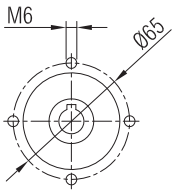
Servis Faktörü Service Factor *Service facteur* $S_f = 1$	P_1 **GÜÇ** Power *Puissance* [kW]	n_2 **Çıkış Devri** Output Speeds *Vitesse de sortie* [r.p.m] (n1=700rpm)	**İ Tahvil** Ratio *Rapport de réduction*	**η Verim** Efficiency *efficience* [%]	M_2 **Çıkış Momenti** Output Torque *Couple de sortie* [Nm]	F_{Q1} **Rad. Yük** Over Loads *Charges radiales* [N]	F_{Q1o} **Rad. Yük** Over Loads *Charges radiales* [N]	**Tip** Type			kg
2626-4479 Nm	**3,1**	6	111	57	2676	2900	23500	**IRSA IRSF**	**162**	97 98	163 186
	4,1	8	87	58	2823	2900	23500				
	8,1	13	54	69	4117	2900	23500				
	10,6	17	42	69	4191	2900	23500				
	15,2	23	30	72	4479	2900	23500				
	11,8	26	27	79	3434	2900	23500				
	15,4	33	21	79	3486	2900	23500				
	22	47	15	81	3647	2900	23500				
	22,5	67	10,5	84	2707	2900	23500				
	32	93	7,5	86	2816	2900	23500				
4740-8003 Nm	**5,3**	6	115	57	4740	3250	27300	**İRSA İRSF**	**201**	99 100	300 332
	7	8	83	60	4756	3250	27300				
	10	11	63	62	5329	3250	27300				
	13	13	55	68	6633	3250	27300				
	19	18	40	72	7465	3250	27300				
	20	23	30	74	6057	3250	27300				
	27	25	27,5	79	8003	3250	27300				
	28	35	20	81	6188	3250	27300				
	29	47	15	82	4866	3250	27300				
	40	51	13,75	85	6378	3250	27300				
	43	70	10	86	5045	3250	27300				
	59	93	7,5	87	5252	3250	27300				
8839-14538 Nm	**18**	11	63	58	8973	3750	31000	**IRSA IRSF**	**250**	101 102	493 513
	26	13	52	72	13281	3750	31000				
	36	18	40	74	14538	3750	31000				
	39	23	31	76	12536	3750	31000				
	45	27	26	81	12929	3750	31000				
	53	35	20	82	11858	3750	31000				
	65	45	15,5	83	11408	3750	31000				
	78	70	10	87	9258	3750	31000				
	95	90	7,75	88	8839	3750	31000				

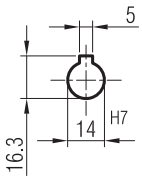
SM 30

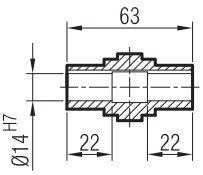




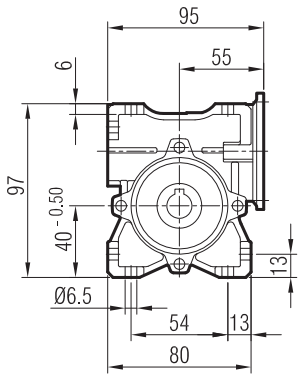
	A	A1	H	HD
63	292	350	169	162

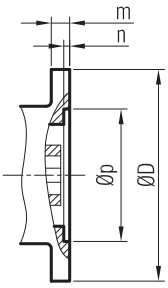


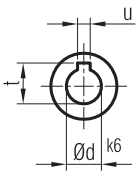


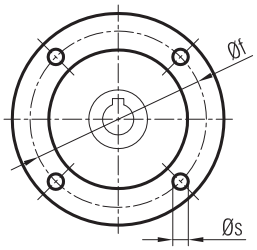


SP 30



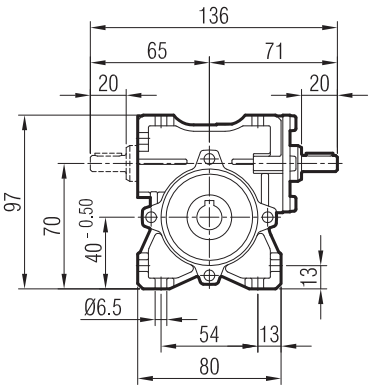


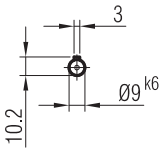


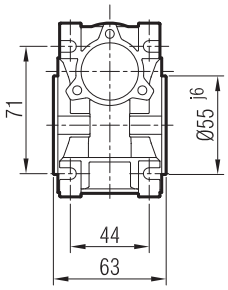


IEC B14	m	n	p	f	D	d	t	u	s
63	9	4.5	60	75	90	11	12.8	4	6

S 30

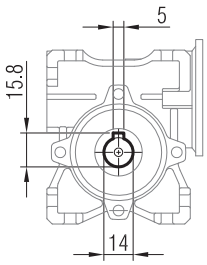




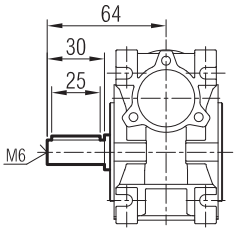


"A1" Ölçüsü Frenli Motorlar içindir.
Dimension "A1" is for motors with brake.
Le dimensions "A1" correspond aux moteurs équipés de freins.

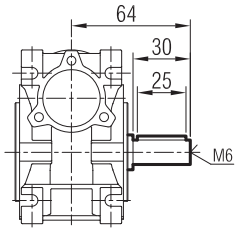
SM / SP / S



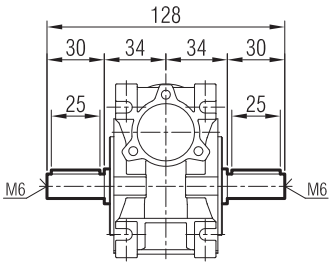
- SR



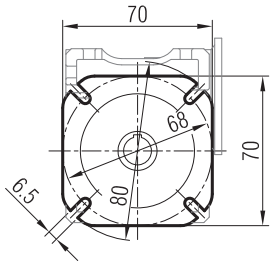
- SL



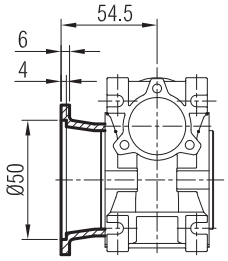
- SD



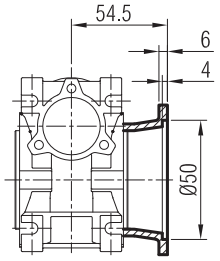
SM / SP / S



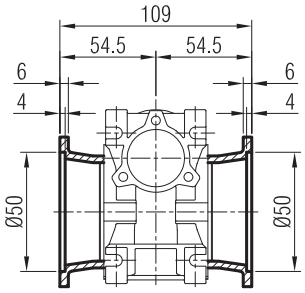
- FR



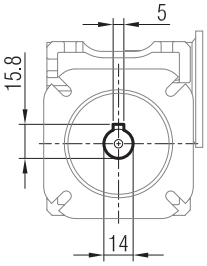
- FL



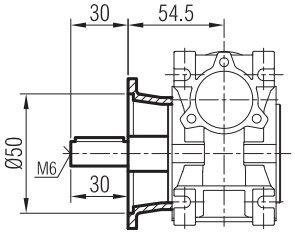
- FD



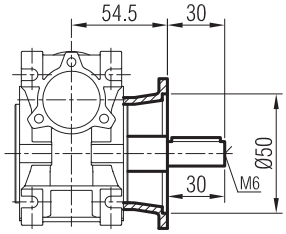
SM / SP / S



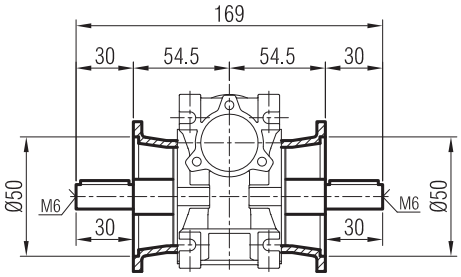
- FR - SR



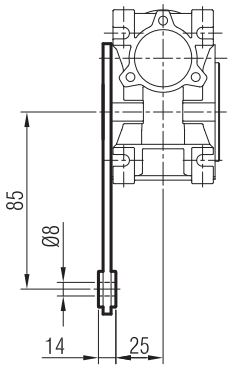
- FL - SL



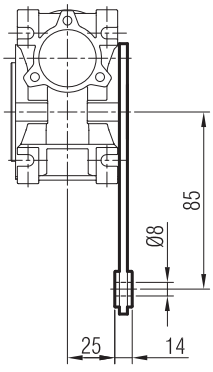
- FD - SD

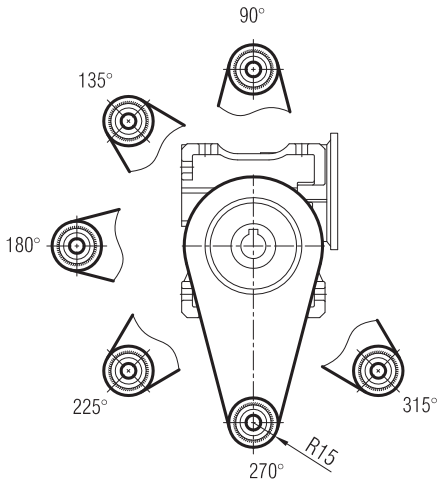


- TR

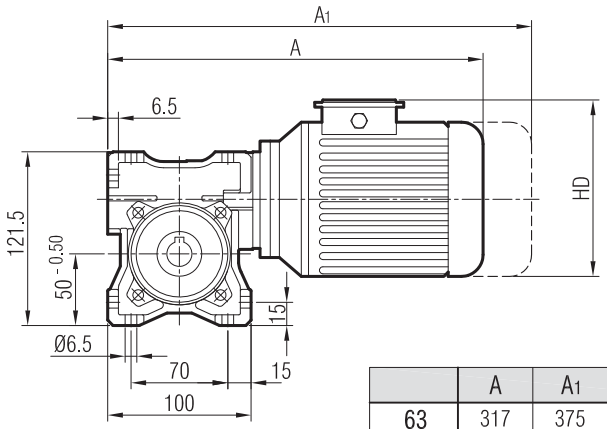


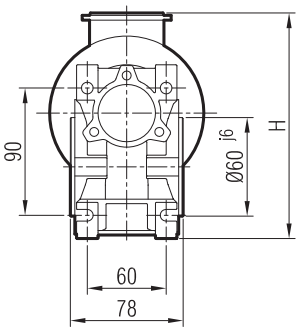
- TL



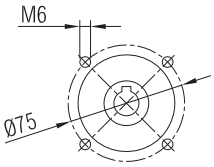


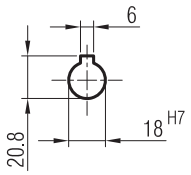
SM 40

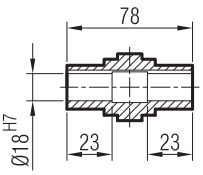




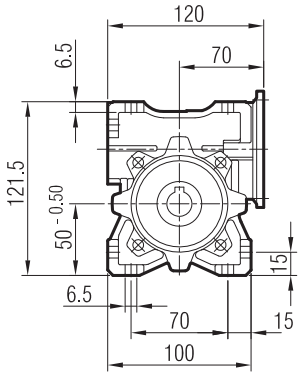
	A	A1	H	HD
63	317	375	189	162
71	343	395	201	182

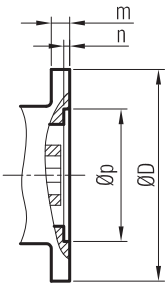


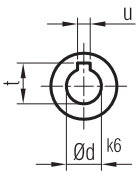


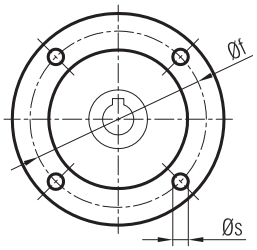


SP 40



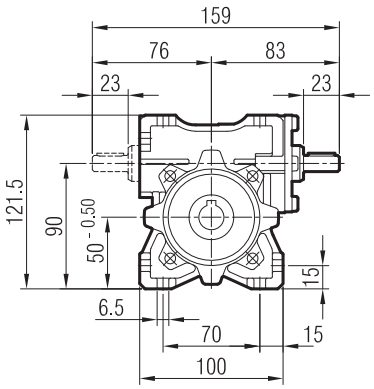


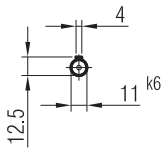


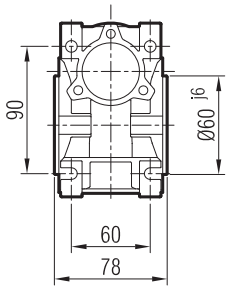


IEC B14	m	n	p	f	D	d	t	u	s
63	10	4.5	60	75	90	11	12.8	4	6
71	10	4.5	70	85	105	14	16.3	5	7

S 40

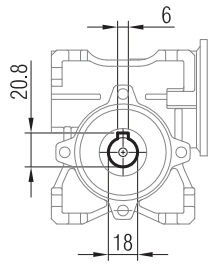




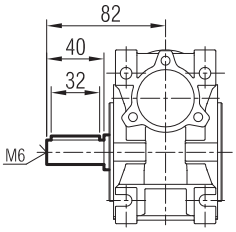


"A1" Ölçüsü Frenli Motorlar içindir.
Dimension "A1" is for motors with brake.
Le dimensions "A1" correspond aux moteurs équipés de freins.

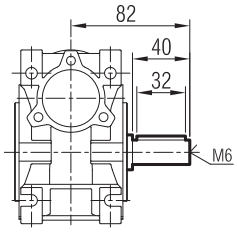
SM / SP / S



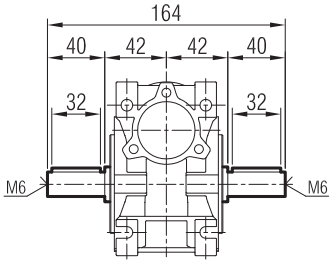
- SR



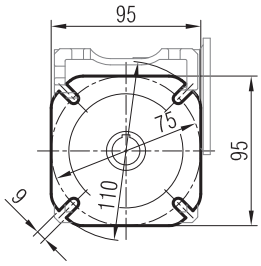
- SL



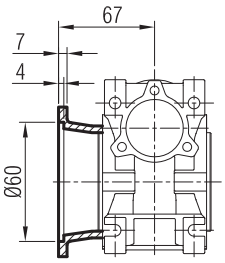
- SD



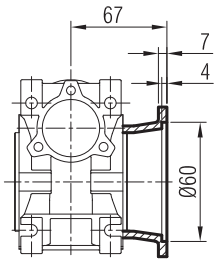
SM / SP / S



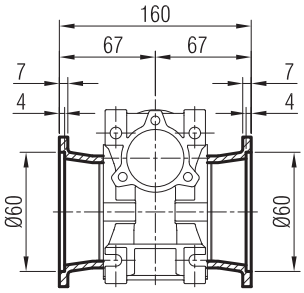
- FR



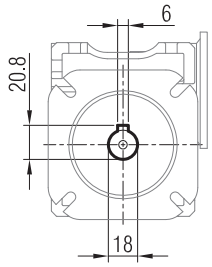
- FL



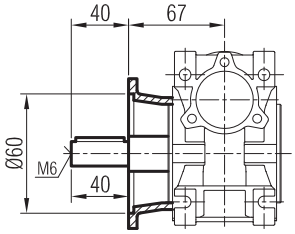
- FD



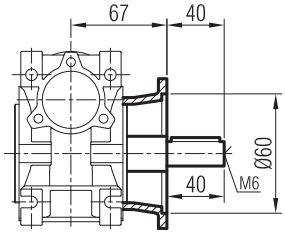
SM / SP / S



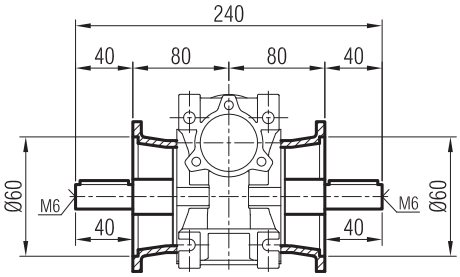
- FR - SR



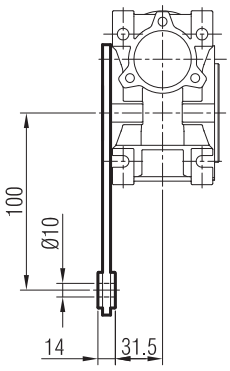
- FL - SL



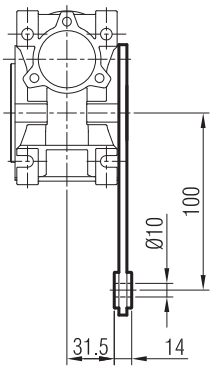
- FD - SD

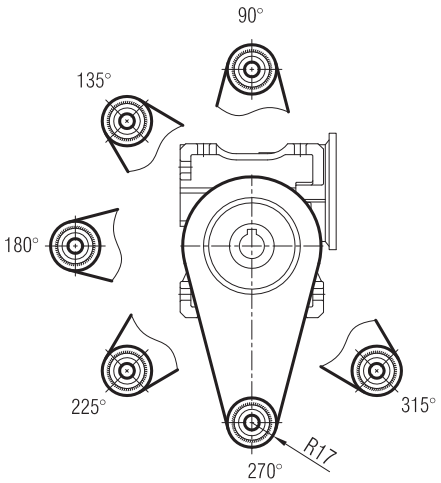


- TR

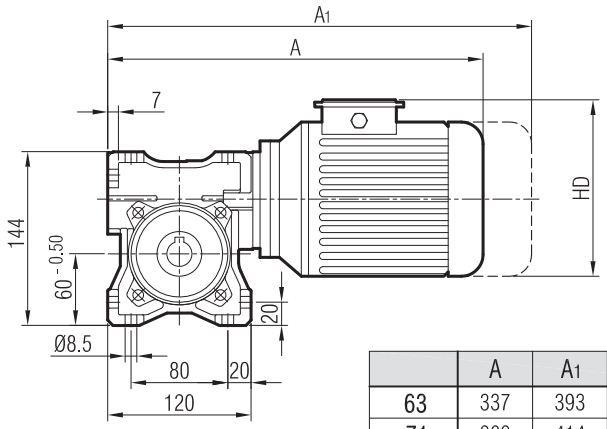


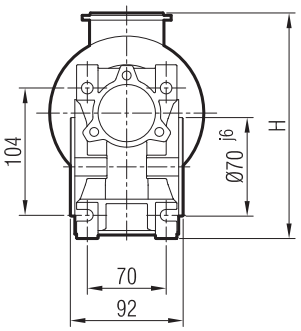
- TL



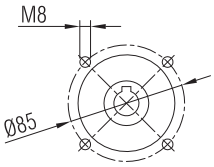


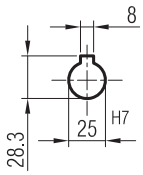
SM 50

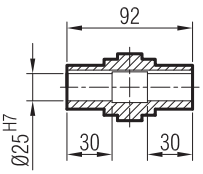




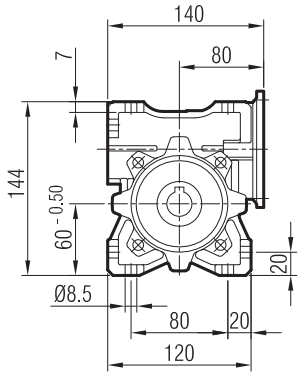
	A	A1	H	HD
63	337	393	209	162
71	363	414	221	182
80	384	453	228	198

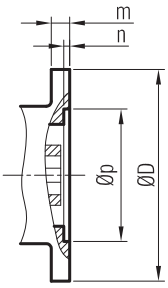


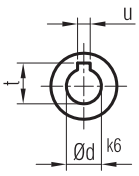


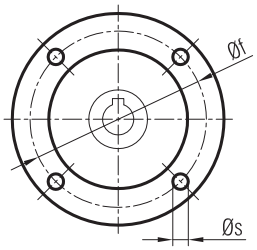


SP 50



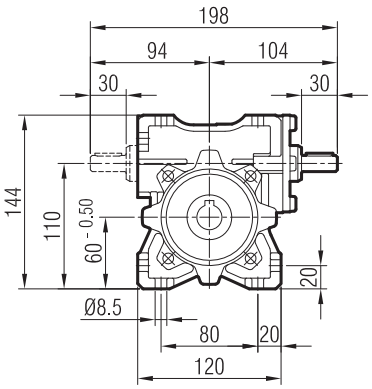


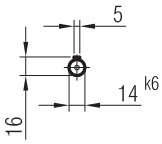


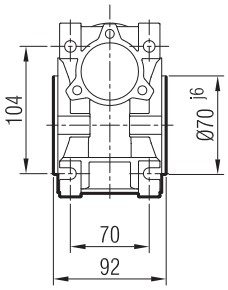


IEC B14	m	n	p	f	D	d	t	u	s
63	10	4.5	60	75	90	11	12.8	4	6
71	10	4.5	70	85	105	14	16.3	5	7
80	10	4.5	80	100	120	19	21.8	6	7

S 50

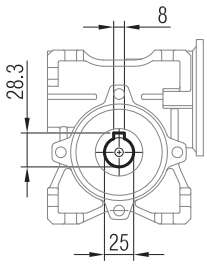




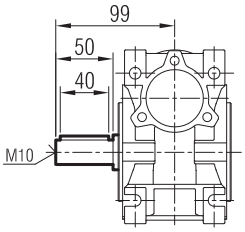


"A1" Ölçüsü Frenli Motorlar içindir.
Dimension "A1" is for motors with brake.
Le dimensions "A1" correspond aux moteurs équipés de freins.

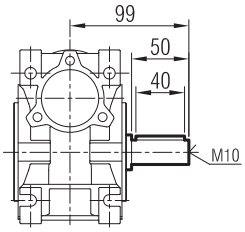
SM / SP / S



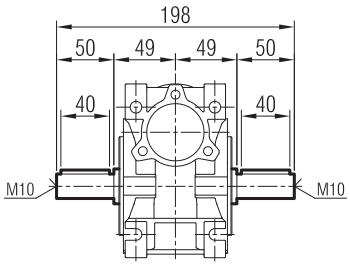
- SR



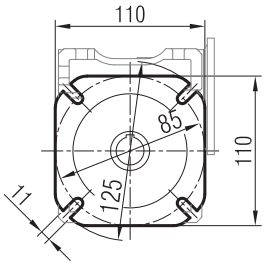
- SL



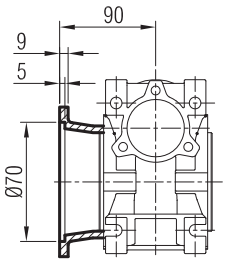
- SD



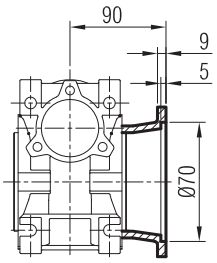
SM / SP / S



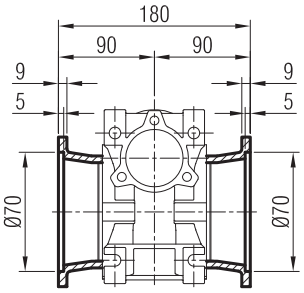
- FR



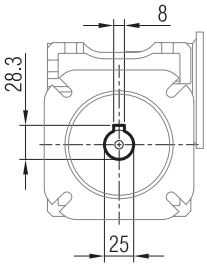
- FL



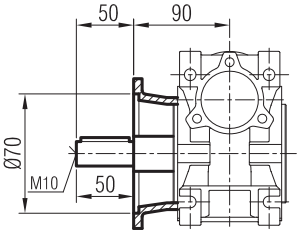
- FD



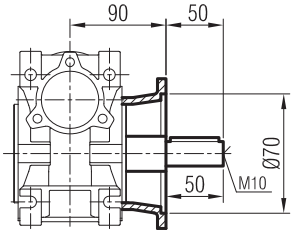
SM / SP / S



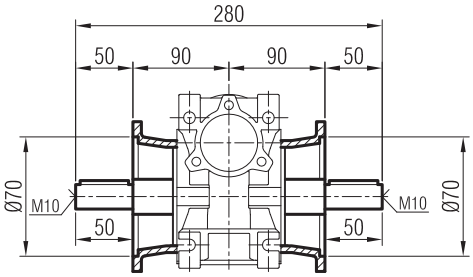
- FR - SR



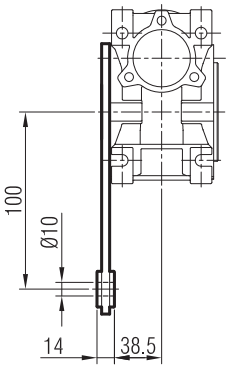
- FL - SL



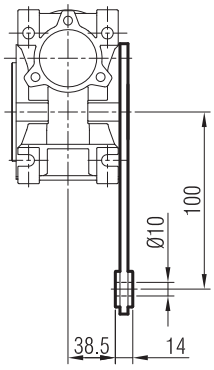
- FD - SD

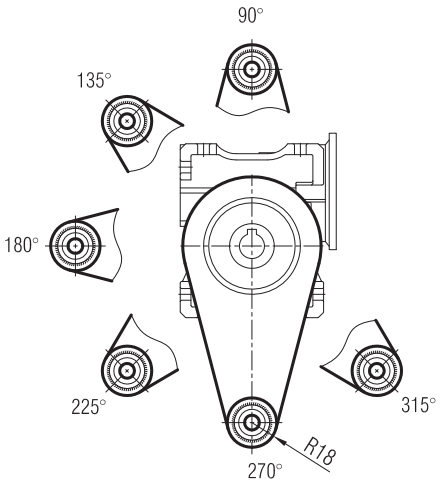


- TR

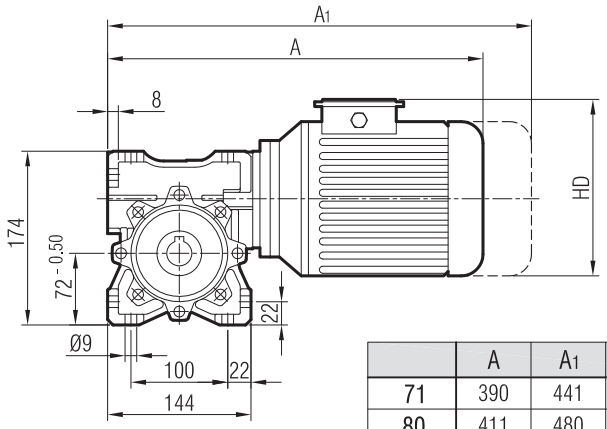


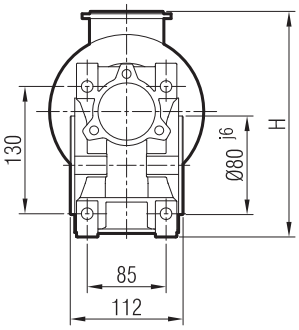
- TL



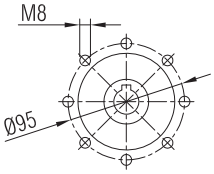


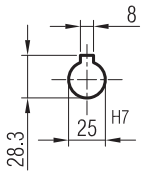
SM 63

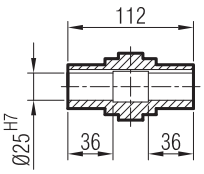




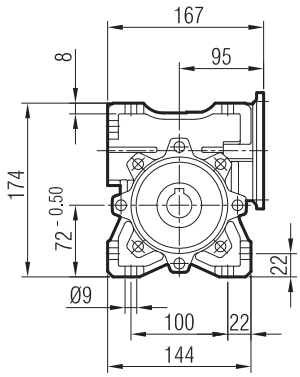
	A	A1	H	HD
71	390	441	246	182
80	411	480	253	198
90 S	426	492	267	222
90 L	451	517	267	241

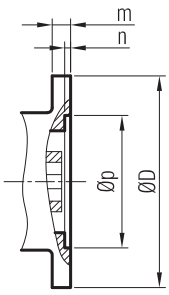


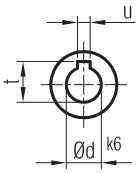


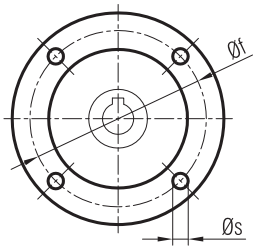


SP 63



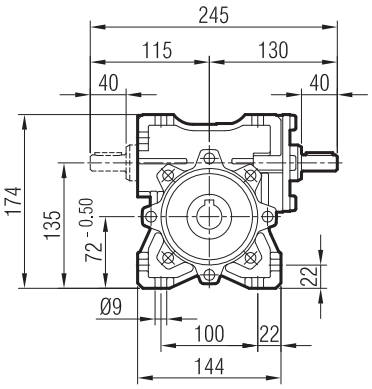


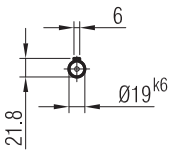


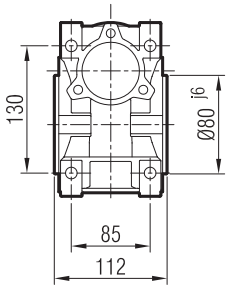


IEC B14	m	n	p	f	D	d	t	u	s
71	10	4.5	70	85	105	14	16.3	5	7
80	10	4.5	80	100	120	19	21.8	6	7
90	11	5	95	115	140	24	27.3	8	9

S 63

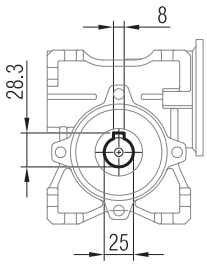




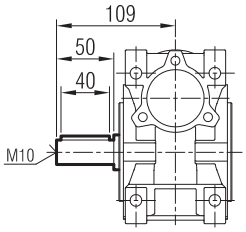


"A1" Ölçüsü Frenli Motorlar içindir.
Dimension "A1" is for motors with brake.
Le dimensions "A1" correspond aux moteurs équipés de freins.

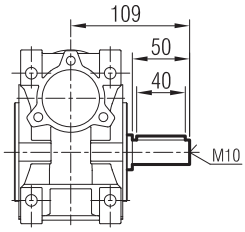
SM / SP / S



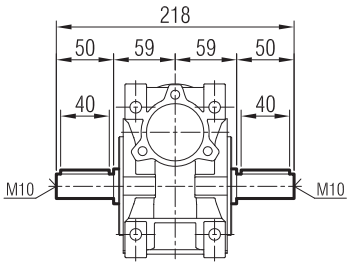
- SR



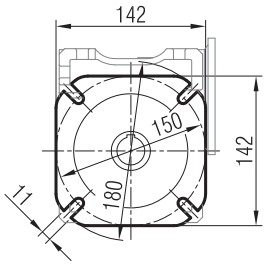
- SL



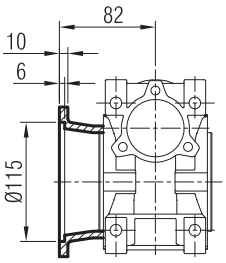
- SD



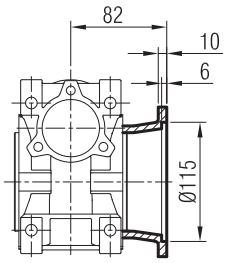
SM / SP / S



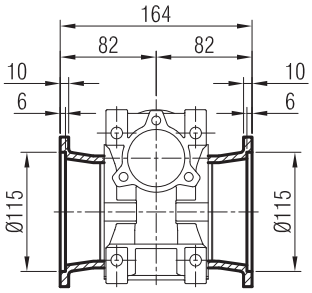
- FR



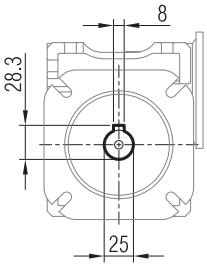
- FL



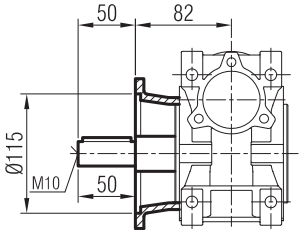
- FD



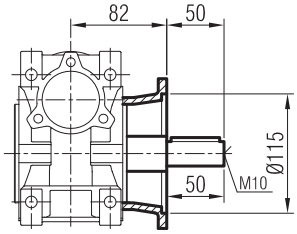
SM / SP / S



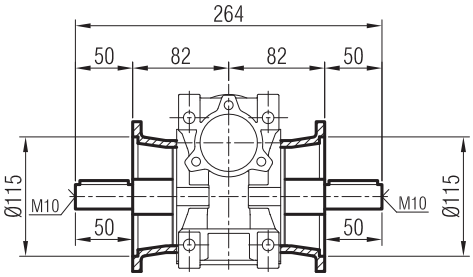
- FR - SR



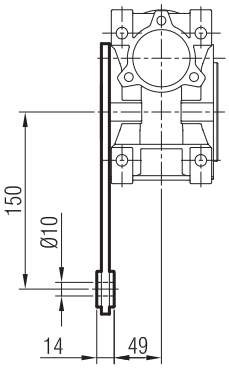
- FL - SL



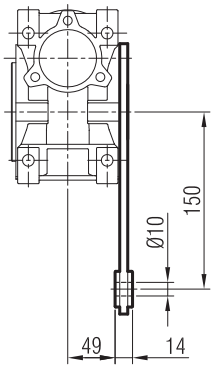
- FD - SD

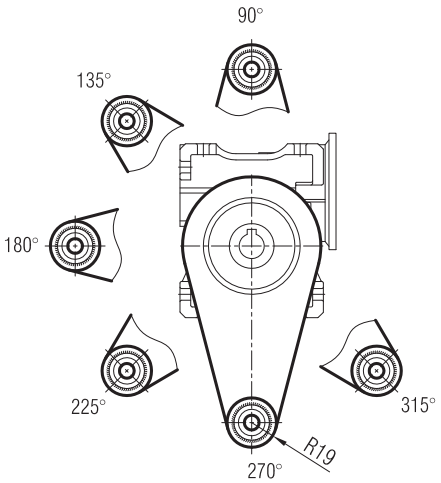


- TR

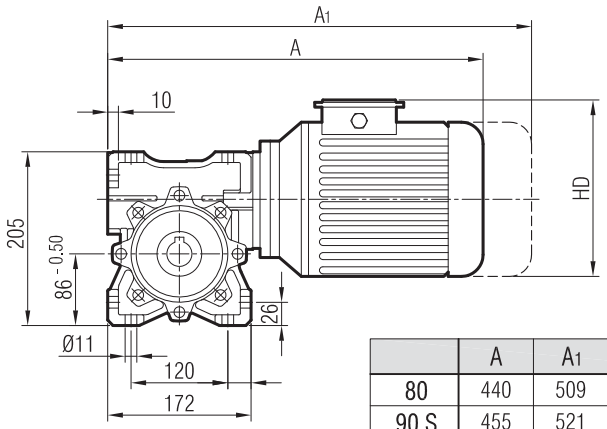


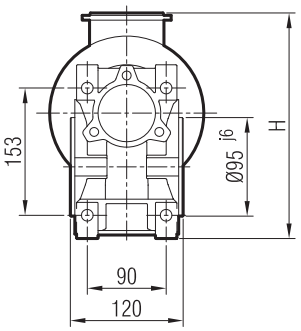
- TL



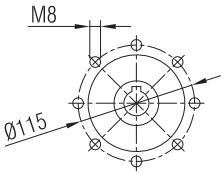


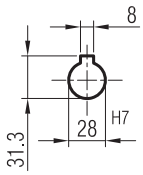
SM 75

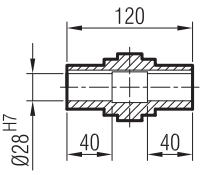




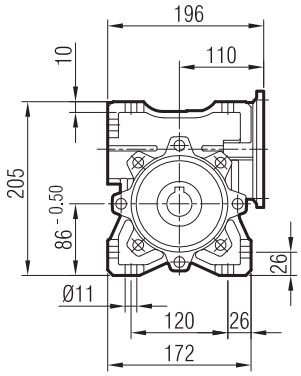
	A	A1	H	HD
80	440	509	279	198
90 S	455	521	293	222
90 L	480	546	293	222
100	512	590	302	241

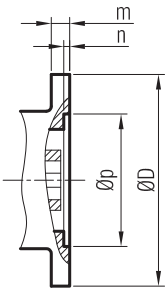


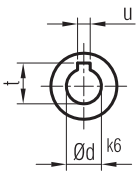


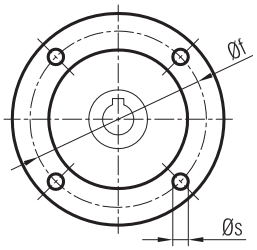


SP 75



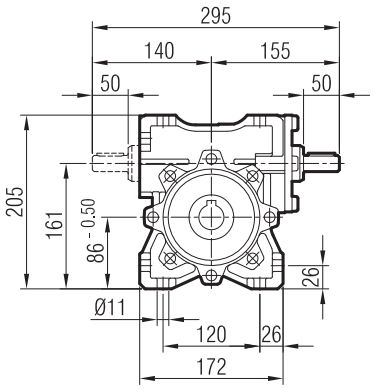


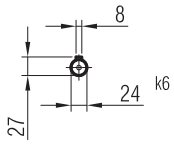


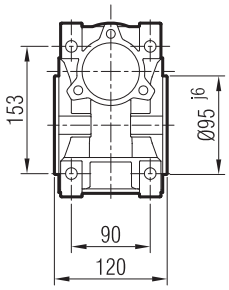


IEC B14	m	n	p	f	D	d	t	u	s
80	10	4.5	80	100	120	19	21.8	6	7
90	11	5	95	115	140	24	27.3	8	10
100	11	5	110	130	160	28	31.3	8	10

S 75







"A1" Ölçüsü Frenli Motorlar içindir.
Dimension "A1" is for motors with brake.
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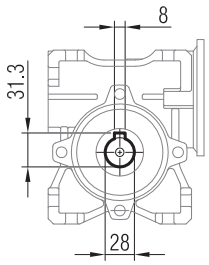
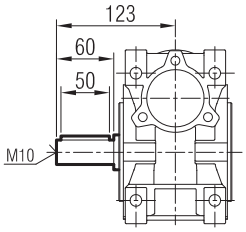
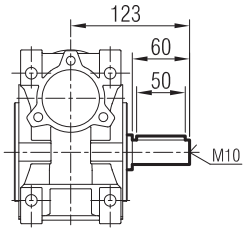
SM / SP / S



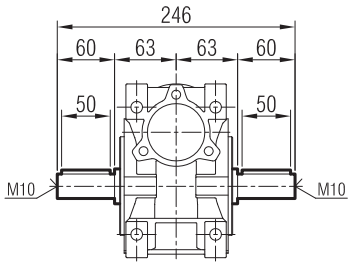
- SR



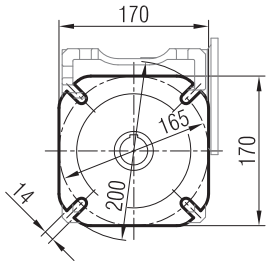
- SL



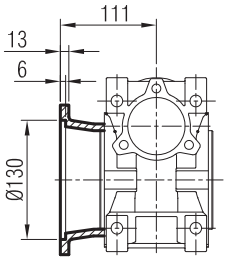
- SD



SM / SP / S



- FR



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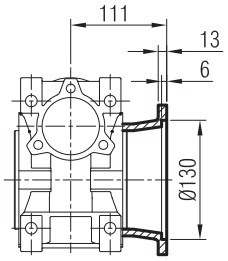

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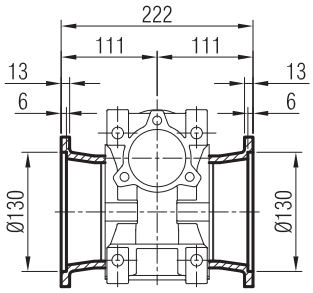
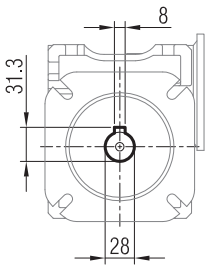
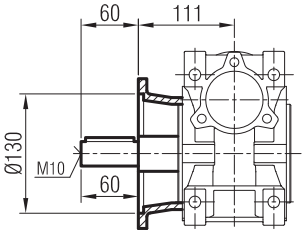


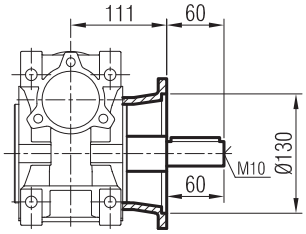
SM / SP / S



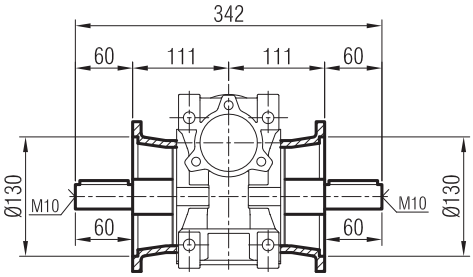
- FR - SR



- FL - SL



- FD - SD



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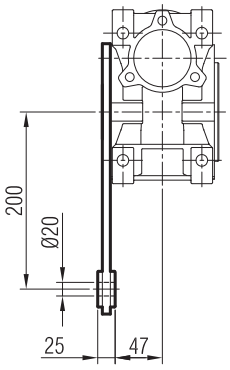
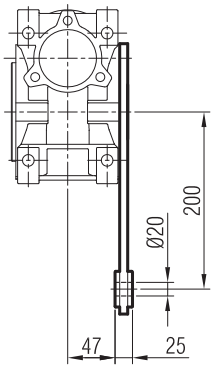
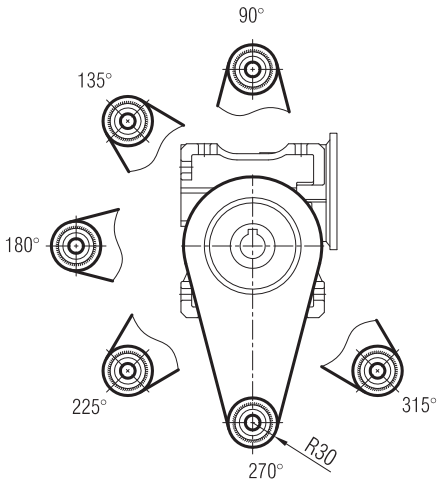
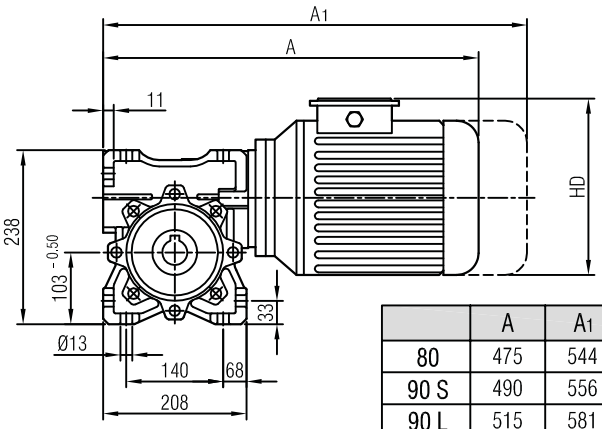


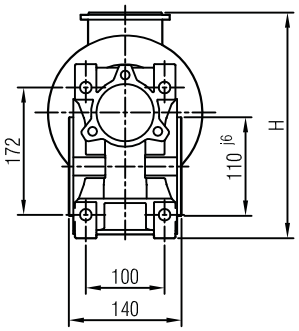
- TL



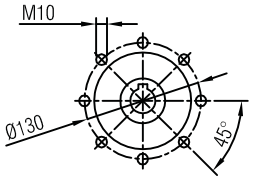


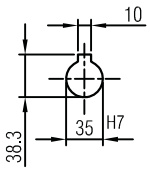
SM 90

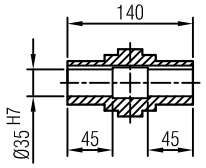




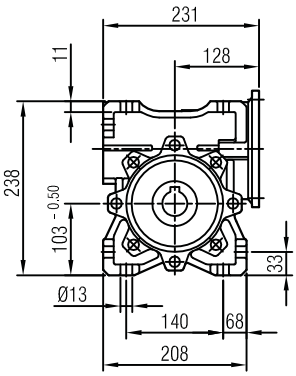
	A	A1	H	HD
80	475	544	312	198
90 S	490	556	313	216
90 L	515	581	313	216
100	547	625	320	235
112	567	650	335	258

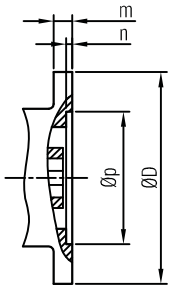


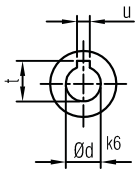


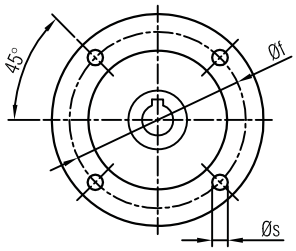


SP 90





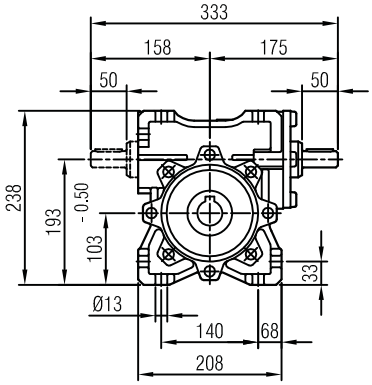


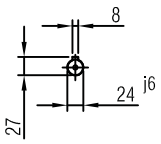


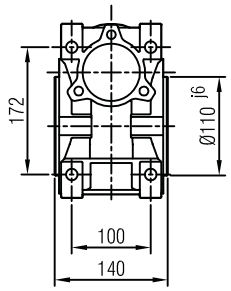
IEC B14	m	n	p	f	D	d	t	u	s
80	10	4.5	80	100	120	19	21.8	6	7
90	11	5	95	115	140	24	27.3	8	10
100-112	11	5	110	130	160	28	31.3	8	10

IEC B5	m	n	p	f	D	d	t	u	s
80	10	5	130	165	200	19	21.8	6	M10
90	11	5	130	165	200	24	27.3	8	M10
100-112	11	5	110	130	250	28	31.3	8	M12

S 90

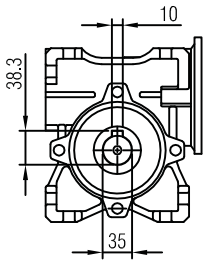




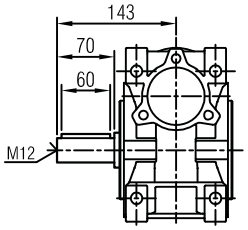


"A1" Ölçüsü Frenli Motorlar içindir.
Dimension "A1" is for motors with brake.
Le dimensions "A1" correspond aux moteurs équipés de freins.

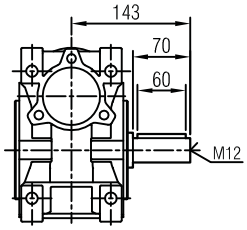
SM / SP / S



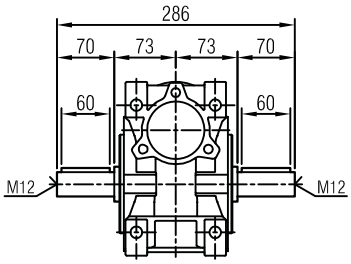
- SR



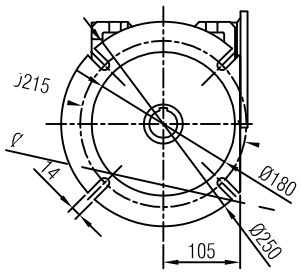
- SL



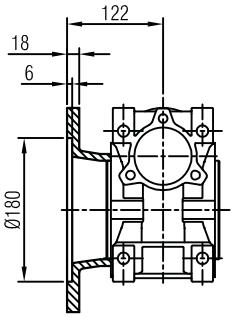
- SD



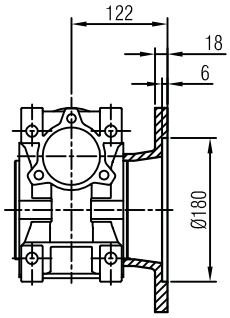
SM / SP / S



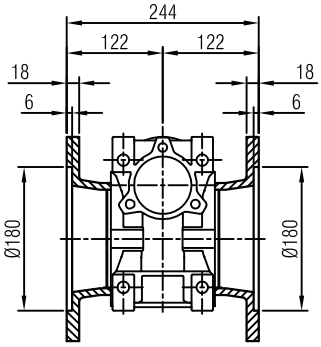
- FR



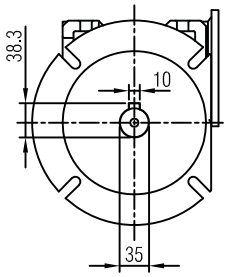
- FL



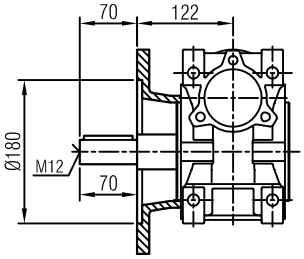
- FD



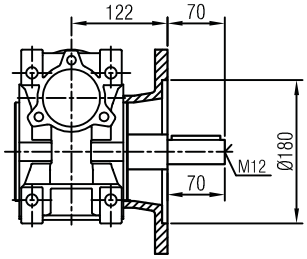
SM / SP / S



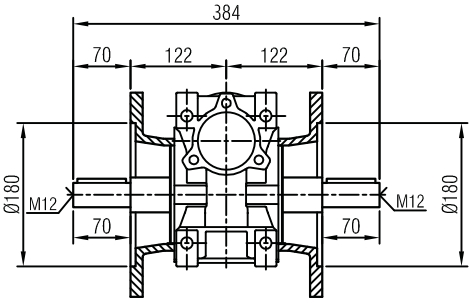
- FR - SR



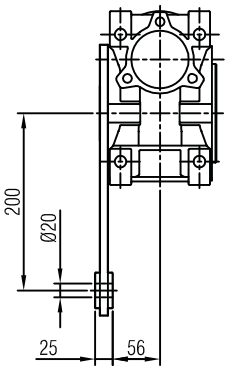
- FL - SL



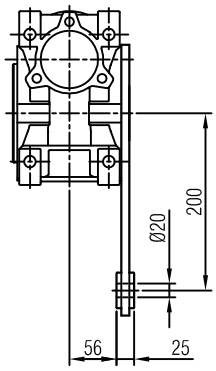
- FD - SD

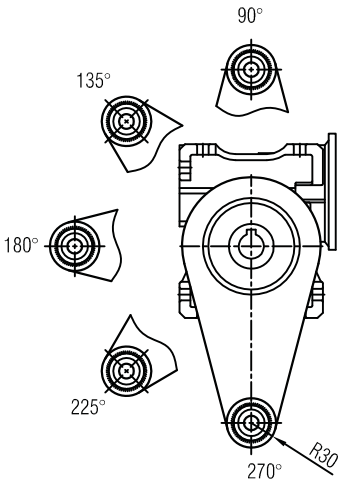


- TR

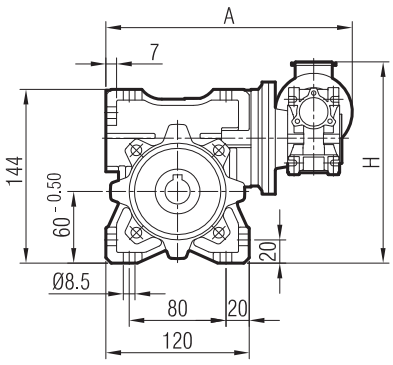


- TL

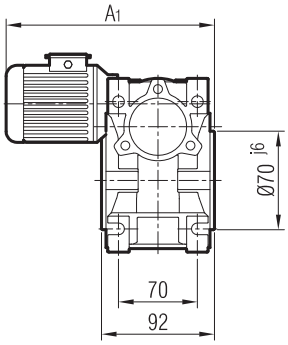


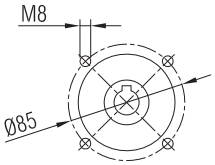


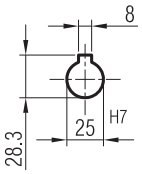
SM 50 S 30

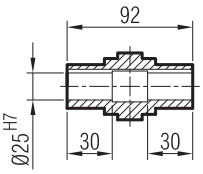


	A	A1	H
63	256	298	210

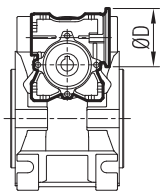


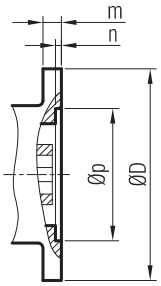


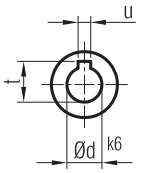


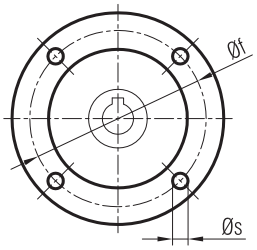


SP 50 S 30



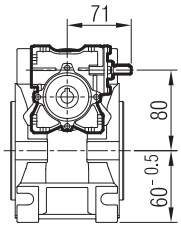


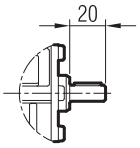


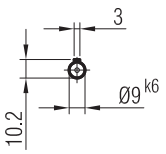


IEC B14	m	n	p	f	D	d	t	u	s
63	9	4.5	60	75	90	11	12.8	4	6

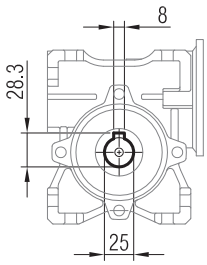
S 50 S 30



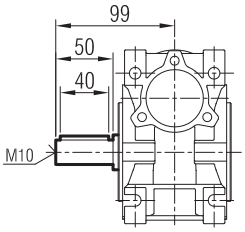




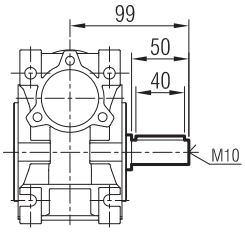
SM / SP / S



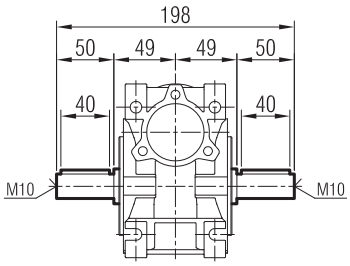
- SR



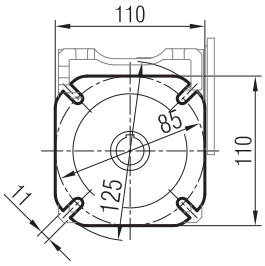
- SL



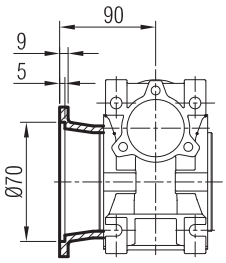
- SD



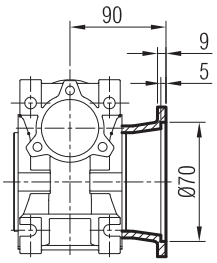
SM / SP / S



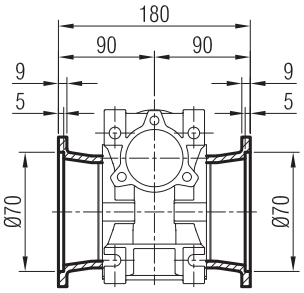
- FR



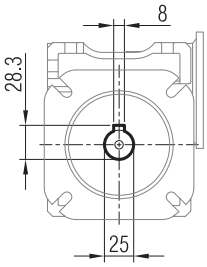
- FL



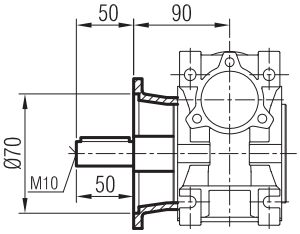
- FD



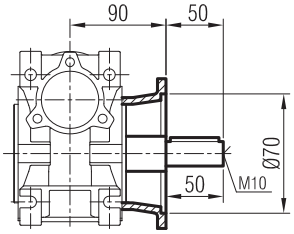
SM / SP / S



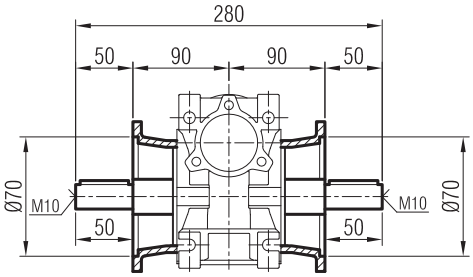
- FR - SR



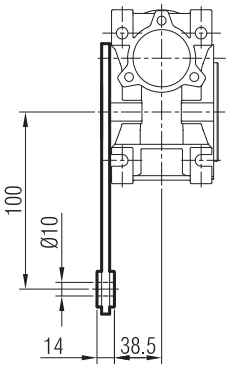
- FL - SL



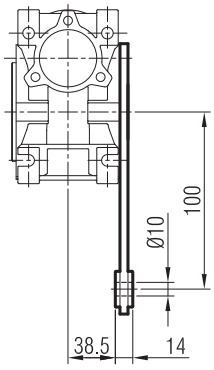
- FD - SD

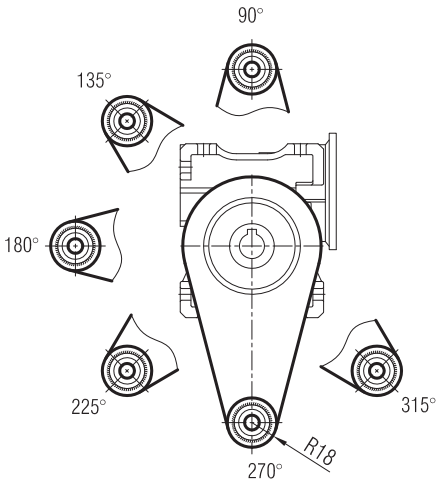


- TR

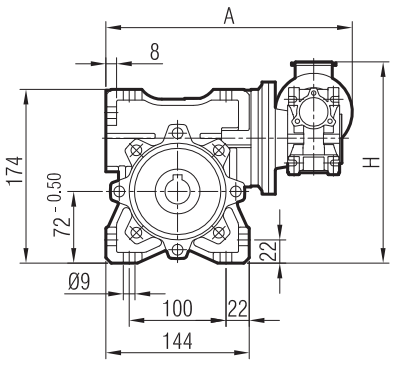


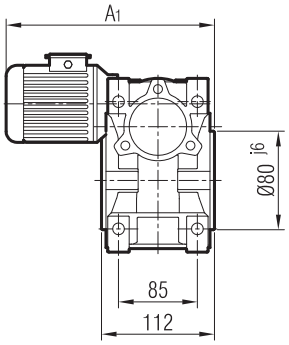
- TL



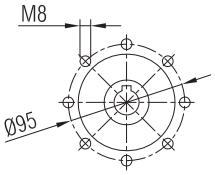


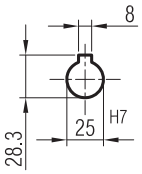
SM 63 S 30

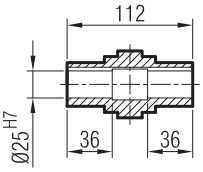




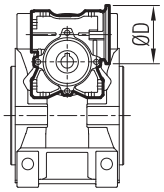
	A	A1	H
63	283	308	264

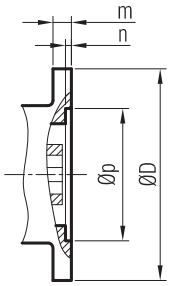


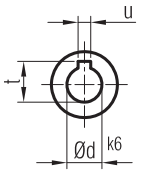


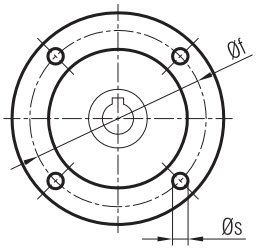


SP 63 S 30



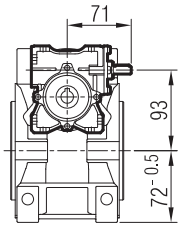


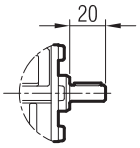


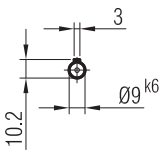


IEC B14	m	n	p	f	D	d	t	u	s
63	9	4.5	60	75	90	11	12.8	4	6

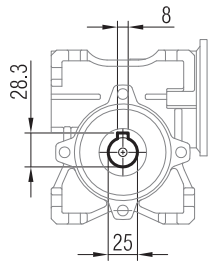
S 63 S 30



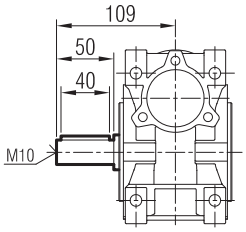




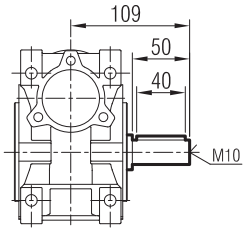
SM / SP / S



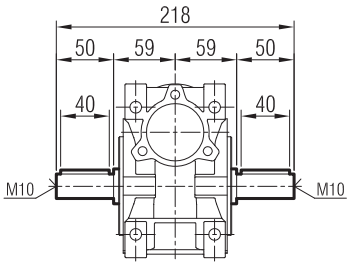
- SR



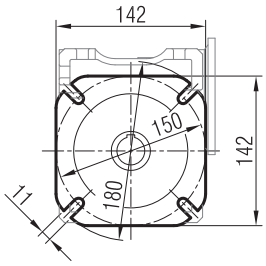
- SL



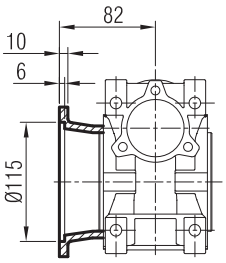
- SD



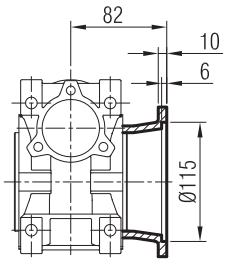
SM / SP / S



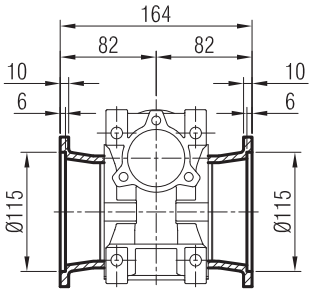
- FR



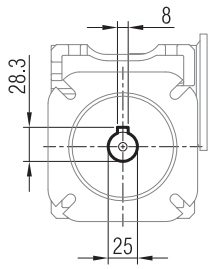
- FL



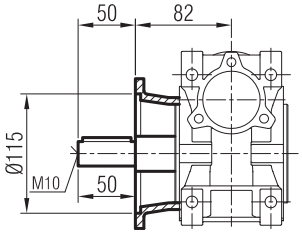
- FD



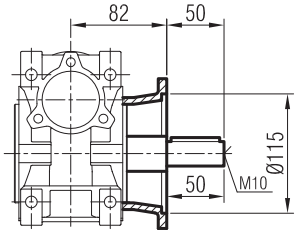
SM / SP / S



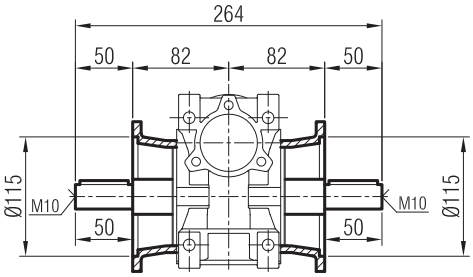
- FR - SR



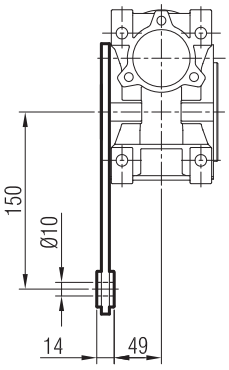
- FL - SL



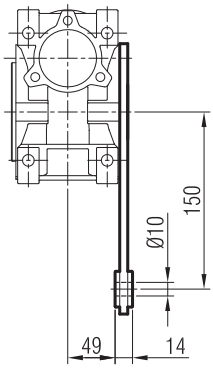
- FD - SD

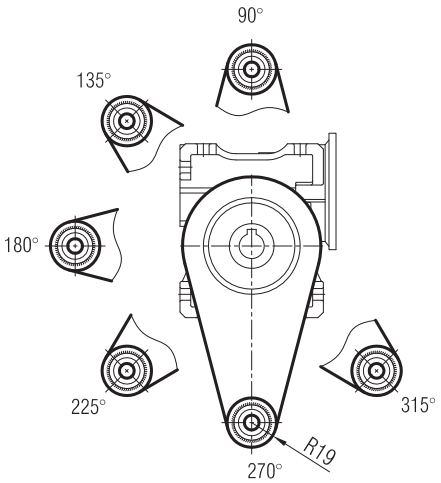


- TR

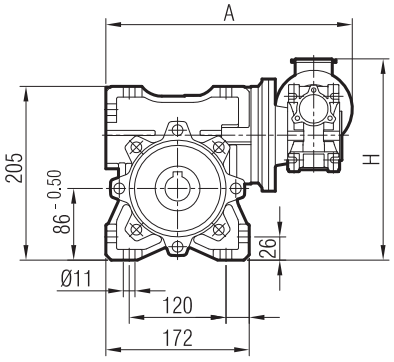


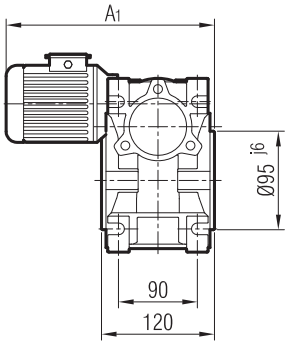
- TL



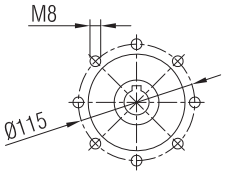


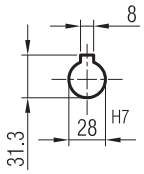
SM 75 S 40

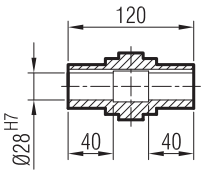




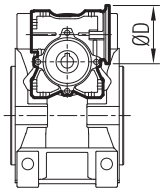
	A	A1	H
63	312	385	300
71	320	426	312

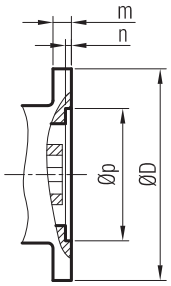


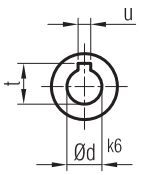


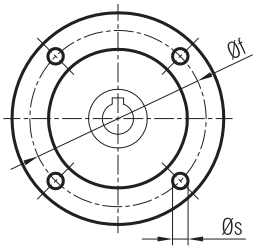


SP 75 S 40



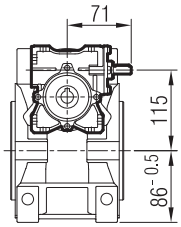


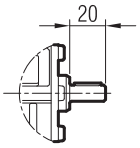


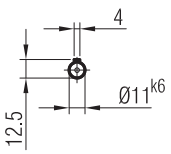


IEC B14	m	n	p	f	D	d	t	u	s
63	10	4.5	60	75	90	11	12.8	4	6
71	10	4.5	70	85	105	14	16.3	5	7

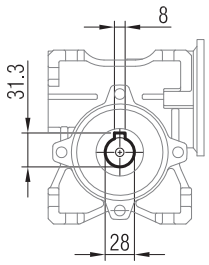
S 75 S 40







SM / SP / S



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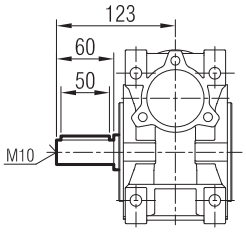
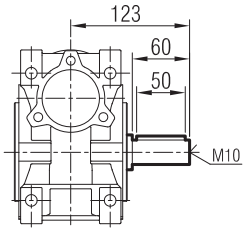
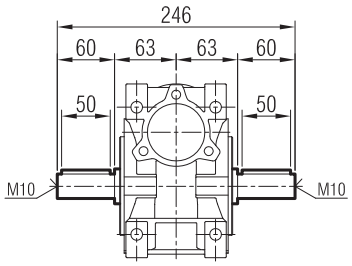


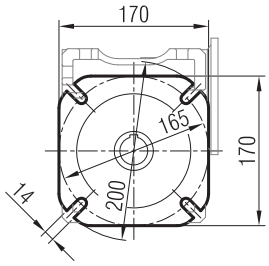
- SL



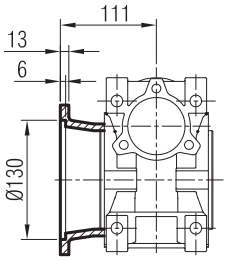
- SD



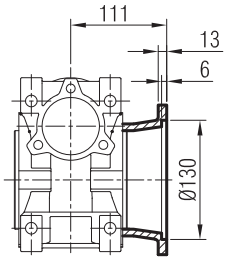
SM / SP / S



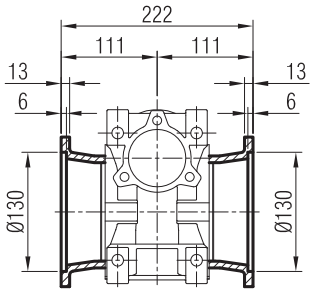
- FR



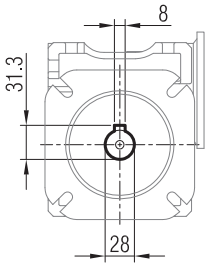
- FL



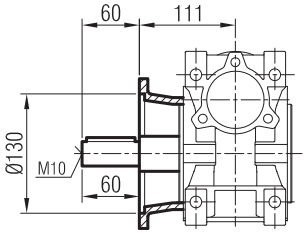
- FD



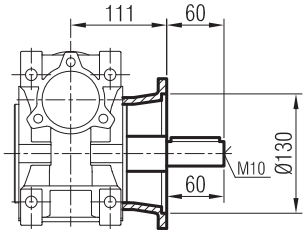
SM / SP / S



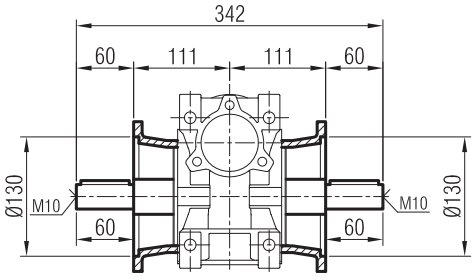
- FR - SR



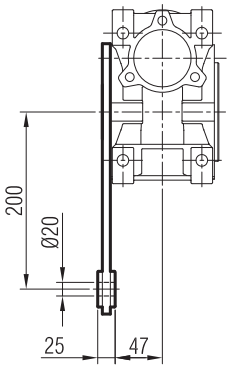
- FL - SL



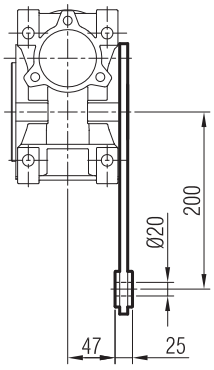
- FD - SD

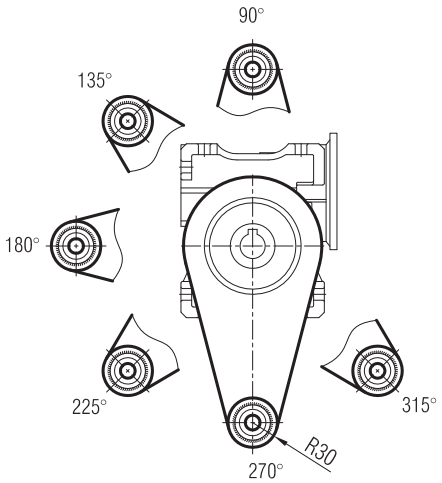


- TR

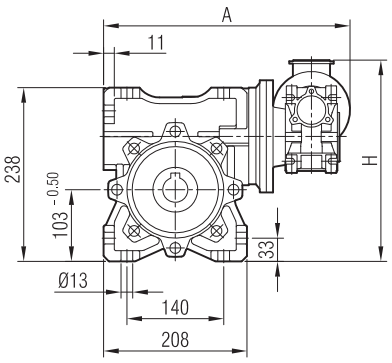


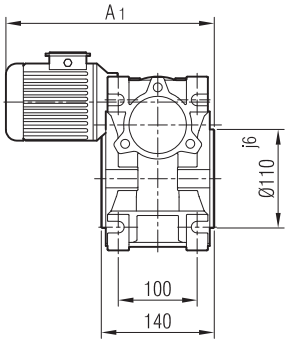
- TL



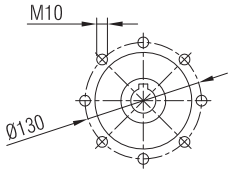


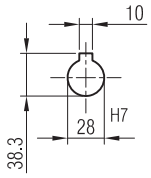
SM 90 S 40

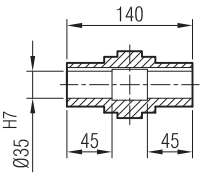




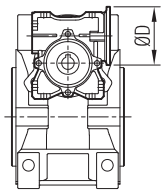
	A	A1	H
63	357	337	242
71	367	363	304

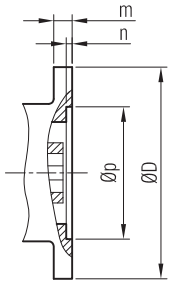


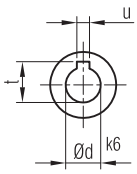


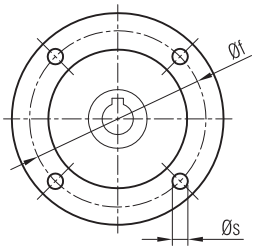


SP 90 S 40



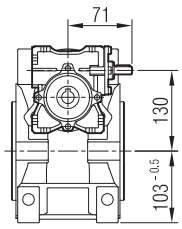


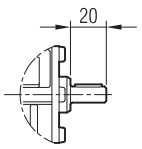


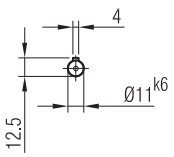


IEC B14	m	n	p	f	D	d	t	u	s
63	10	4.5	60	75	90	11	12.8	4	6
71	10	4.5	70	85	105	14	16.3	5	7

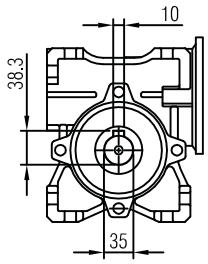
S 90 S 40



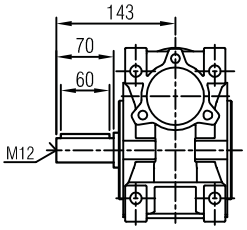




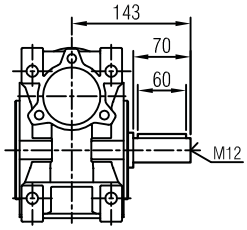
SM / SP / S



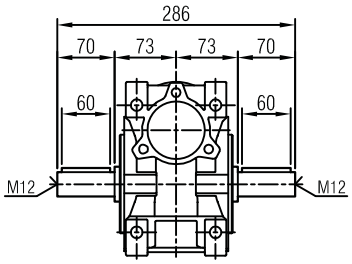
- SR



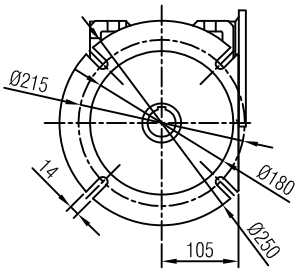
- SL



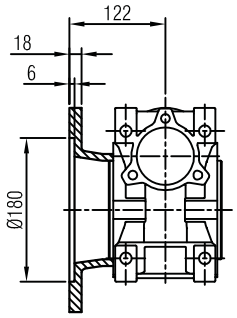
- SD



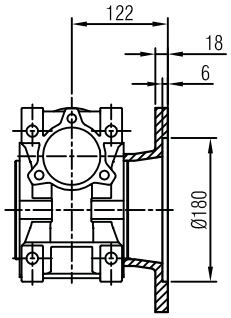
SM / SP / S



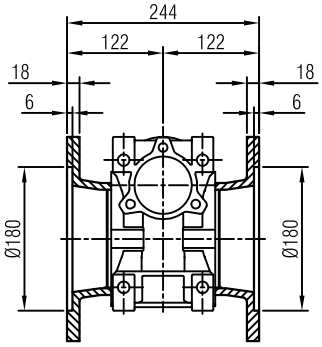
- FR



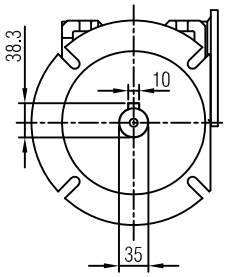
- FL



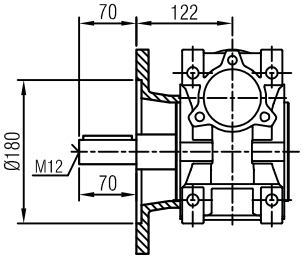
- FD



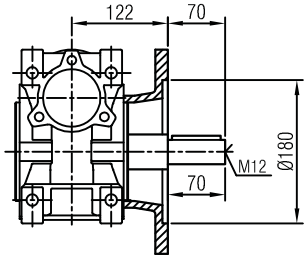
SM / SP / S



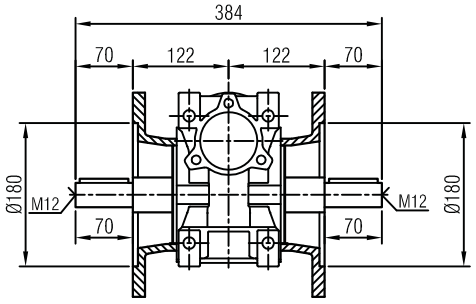
- FR - SR



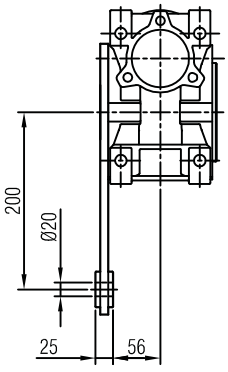
- FL - SL



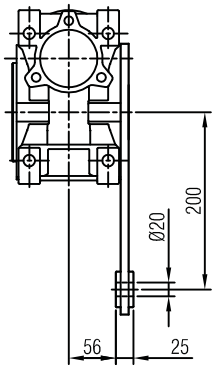
- FD - SD

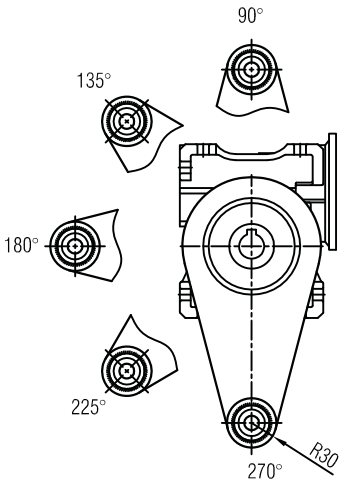


- TR

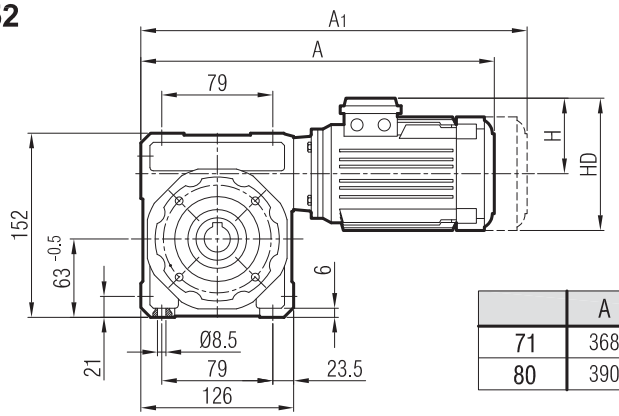


- TR

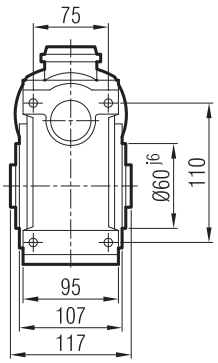


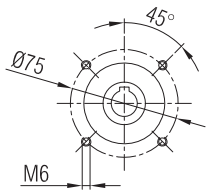


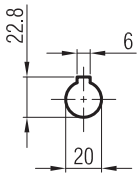
İRSAM 52

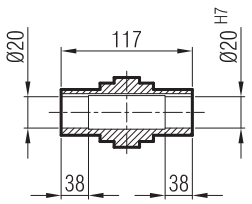


	A	A1	H	HD
71	368	441	111	182
80	390	472	118	198

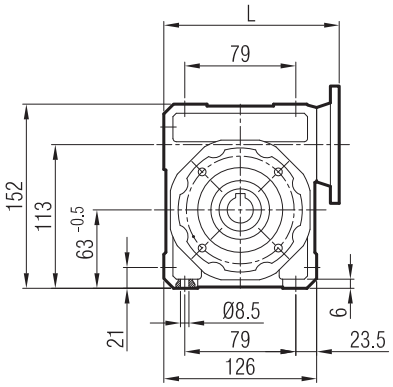


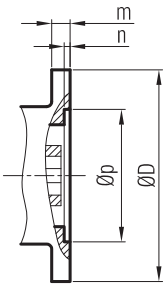


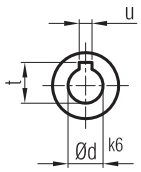


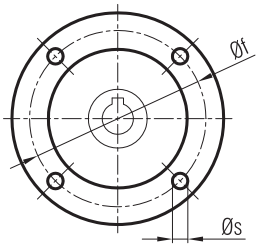


İRSAP 52



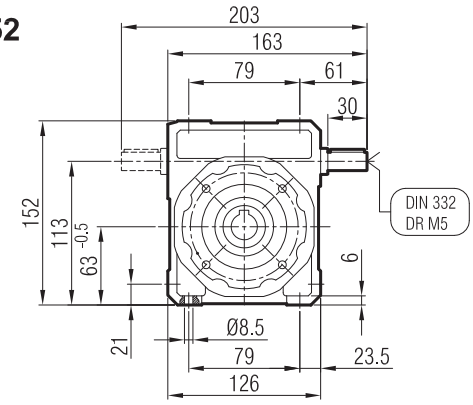


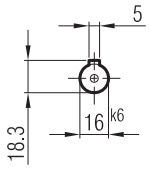


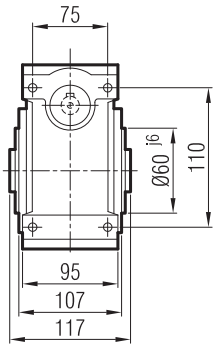


IEC B14	L	m	n	p	f	D	d	t	u	s
71	145	8	3.5	70	85	105	14	16.3	5	7
80	146	8	4	80	100	120	19	21.8	6	7

İRSA 52

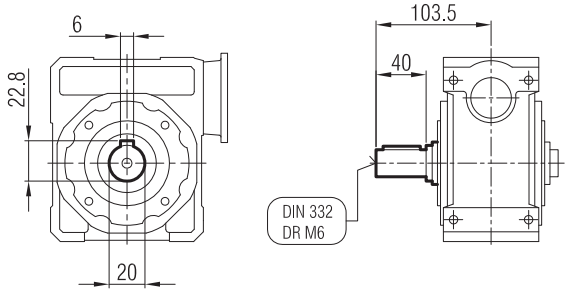




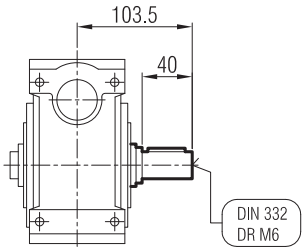


İRSAM / İRSAP / İRSA

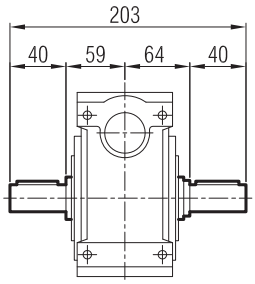
- SR



- SL

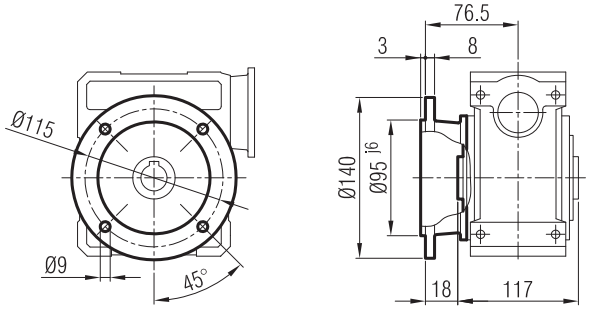


- SD

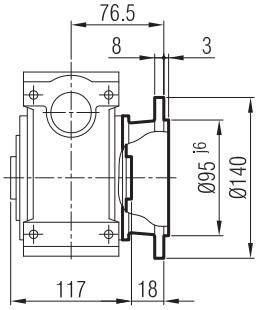


İRSFM / İRSFP / İRSF

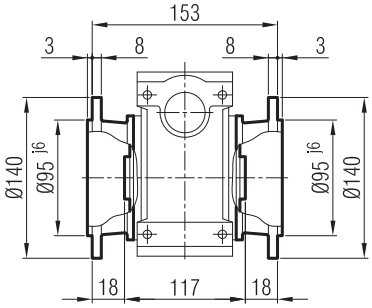
- FR



- FL

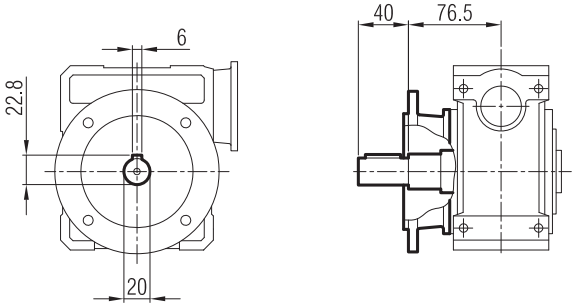


- FD

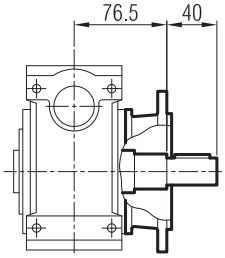


İRSFM / İRSFP / İRSF

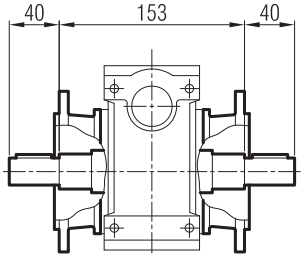
- FR - SR



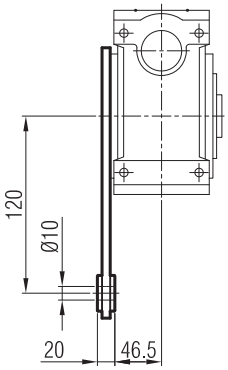
- FL - SL



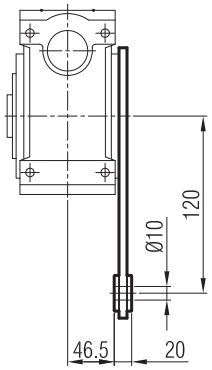
- FD - SD

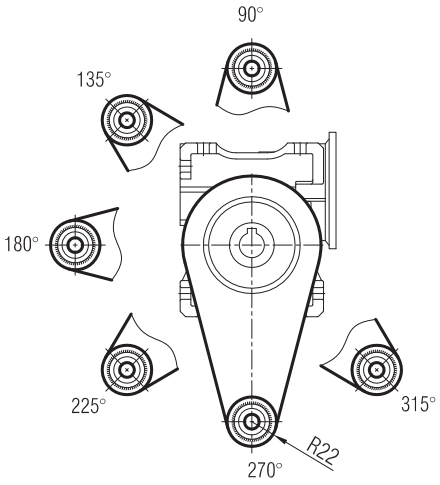


- TR

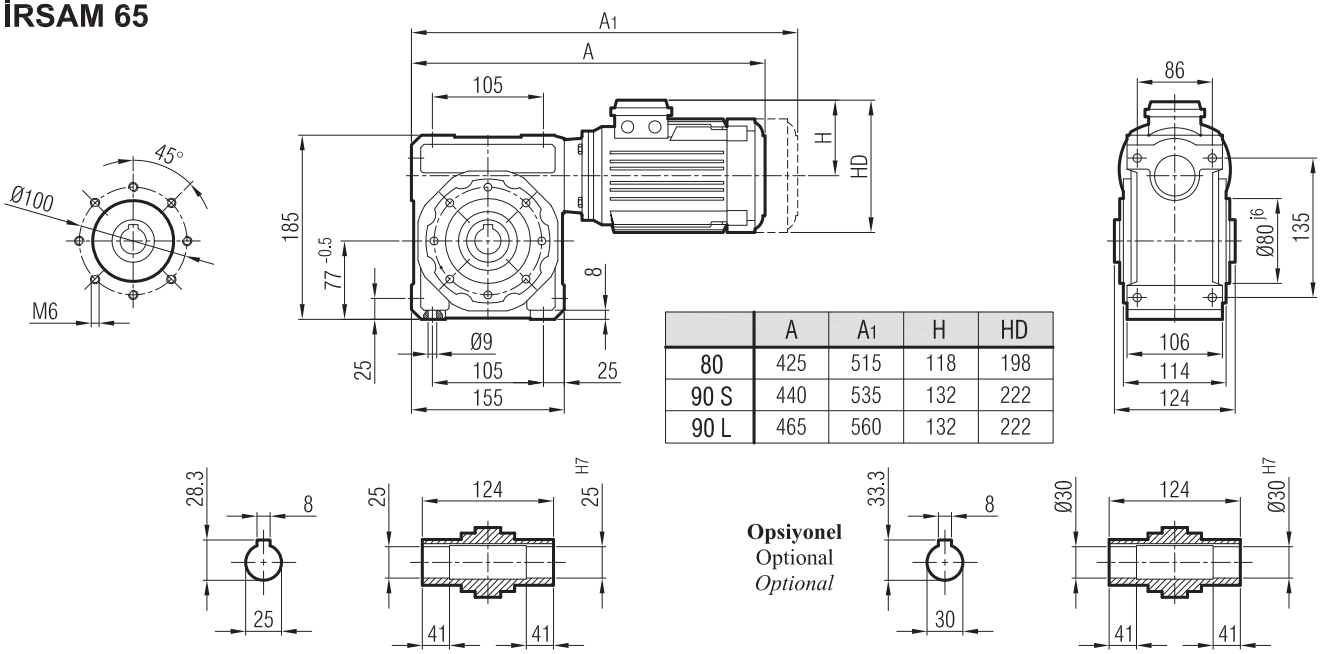


- TL



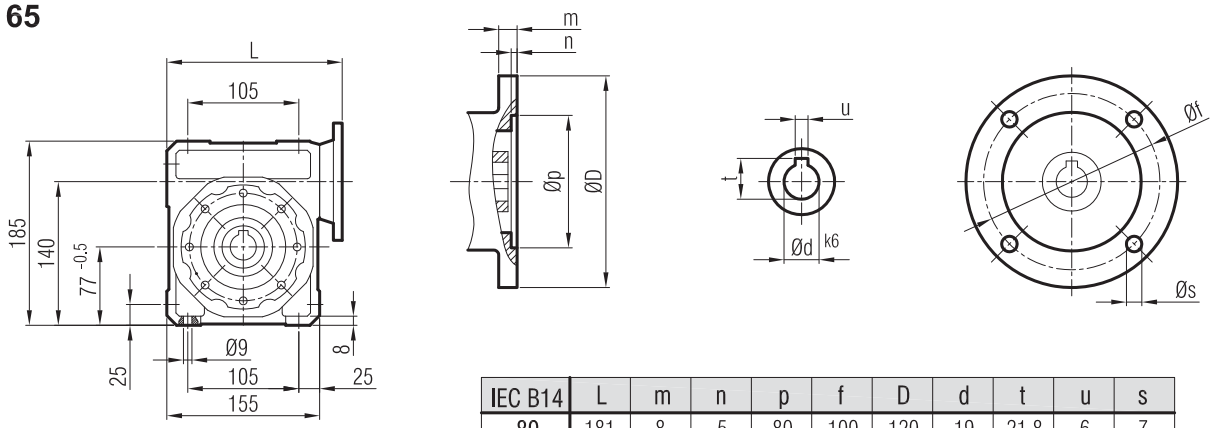


İRSAM 65



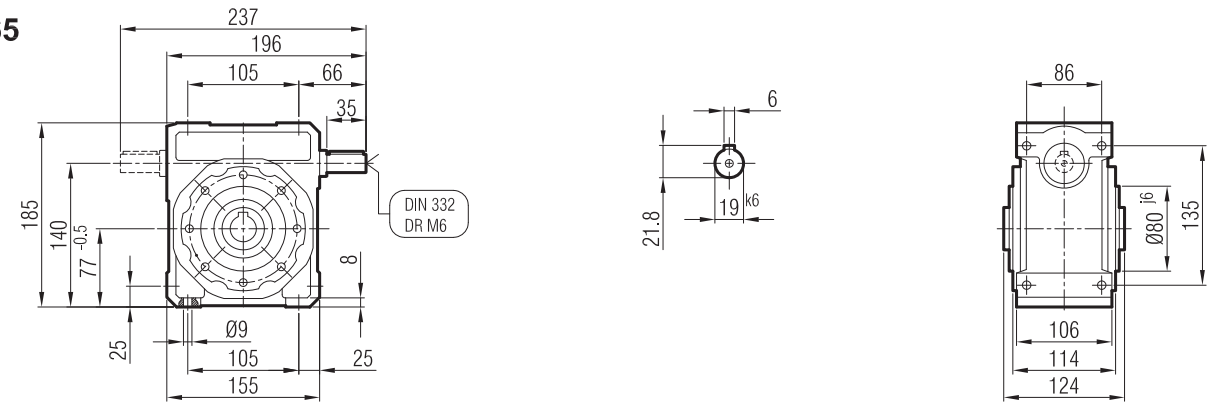
	A	A1	H	HD
80	425	515	118	198
90 S	440	535	132	222
90 L	465	560	132	222

İRSAP 65



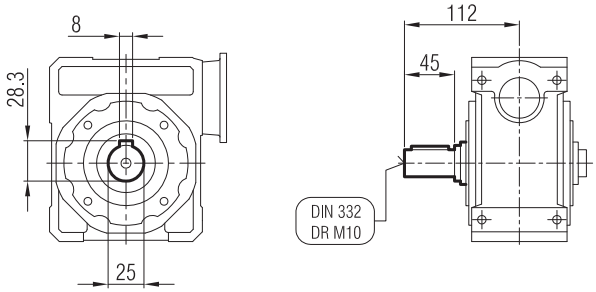
IEC B14	L	m	n	p	f	D	d	t	u	s
80	181	8	5	80	100	120	19	21.8	6	7
90	181	10	5	95	115	140	24	27.3	8	9

İRSA 65

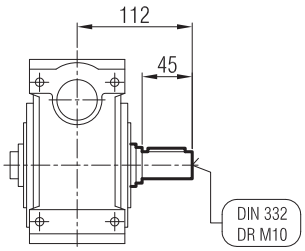


İRSAM / İRSAP / İRSA

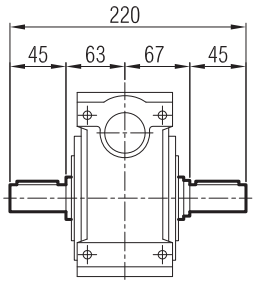
- SR



- SL

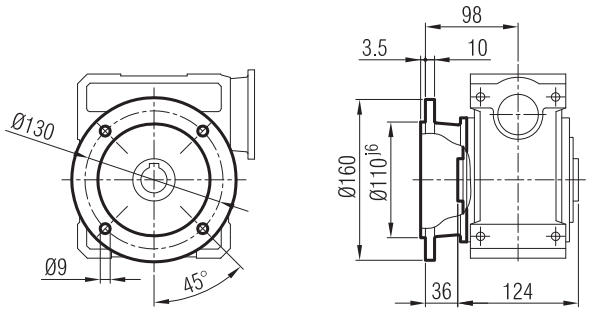


- SD

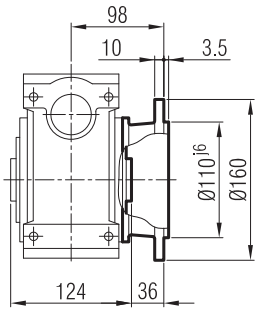


İRSFM / İRSFP / İRSF

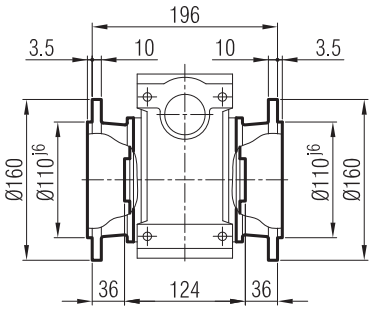
- FR



- FL

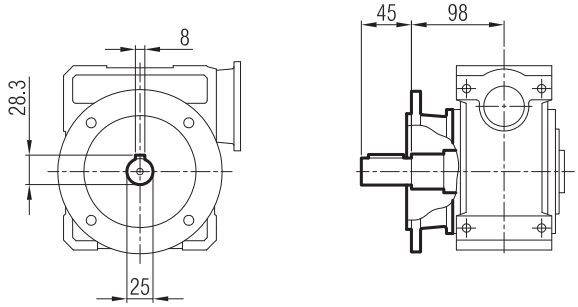


- FD

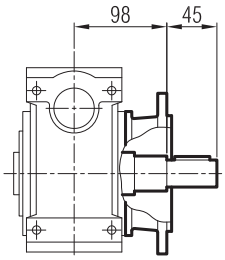


İRSFM / İRSFP / İRSF

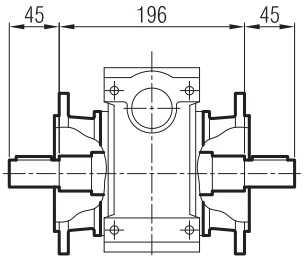
- FR - SR



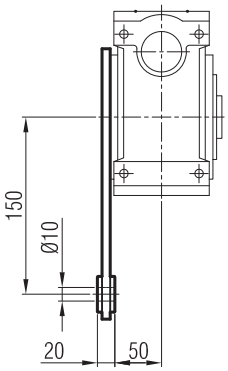
- FL - SL



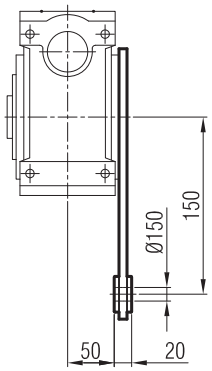
- FD - SD

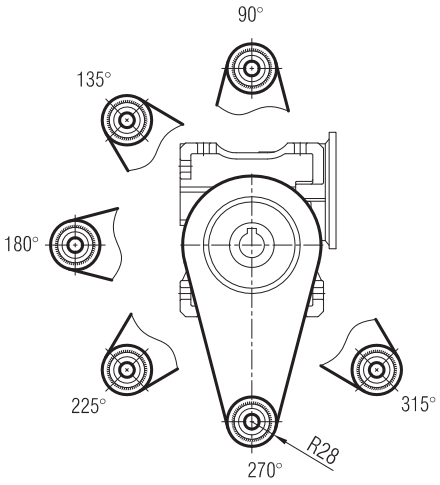


- TR

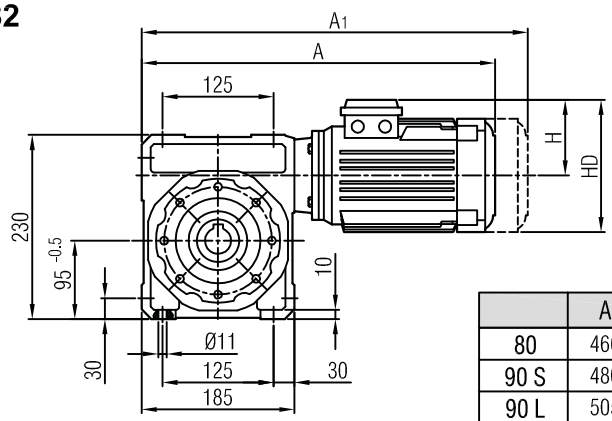


- TL

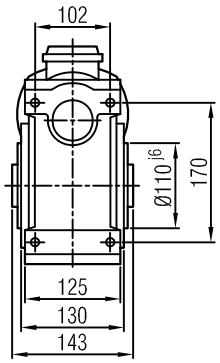


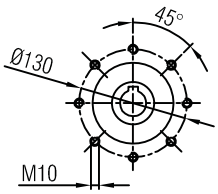


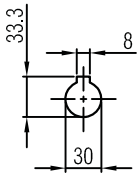
İRSAM 82

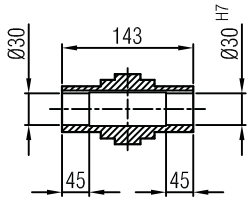


	A	A1	H	HD
80	466	549	118	198
90 S	480	565	132	222
90 L	505	590	132	222
100	540	625	141	241

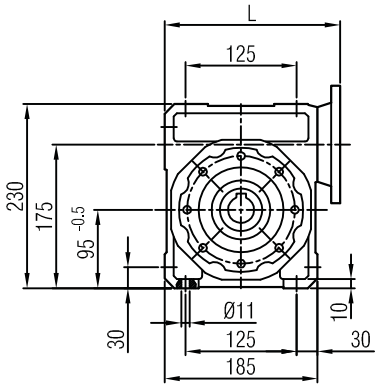


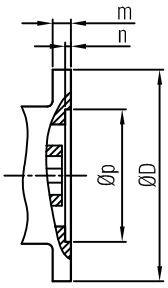


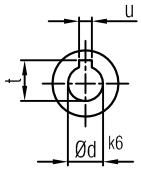


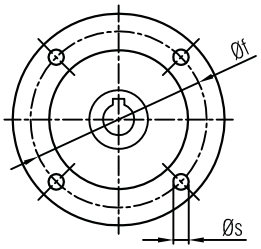


İRSAP 82



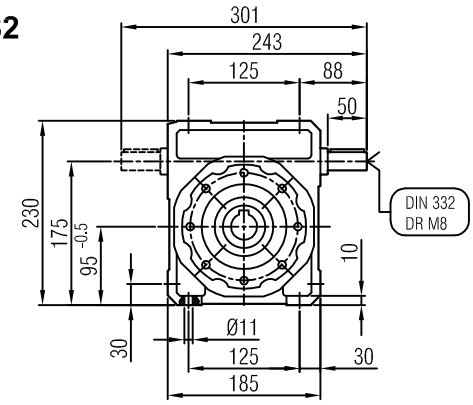


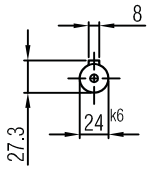


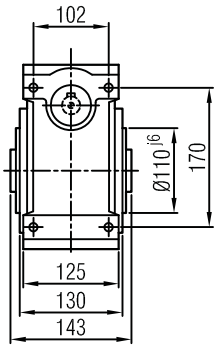


IEC B14	L	m	n	p	f	D	d	t	u	s
80	222	9	5	80	100	120	19	21.8	6	9
90	222	10	5	95	115	140	24	27.3	8	9

İRSA 82

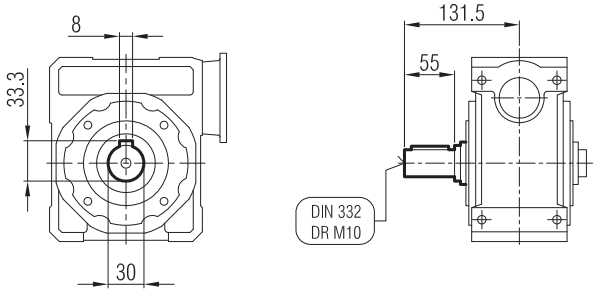




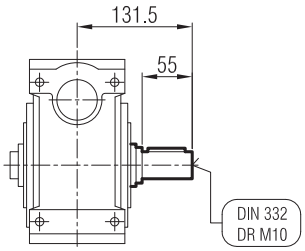


İRSAM / İRSAP / İRSA

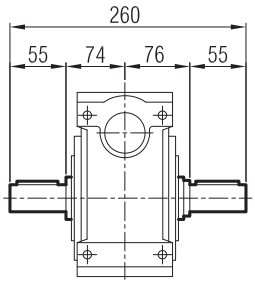
- SR



- SL

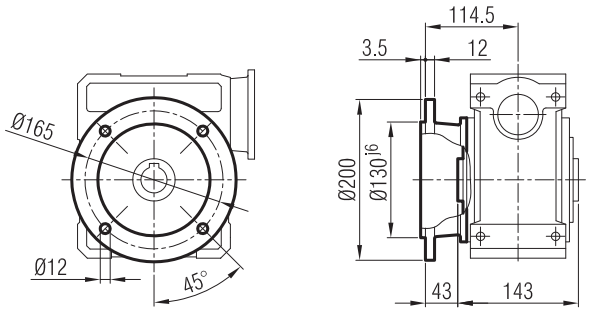


- SD

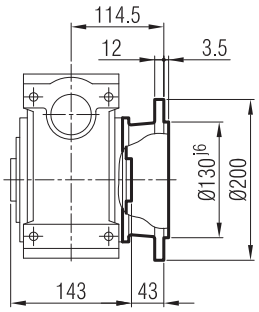


İRSFM / İRSFP / İRSF

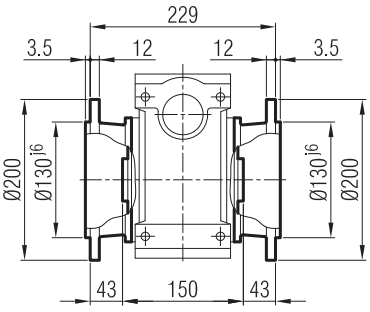
- FR



- FL

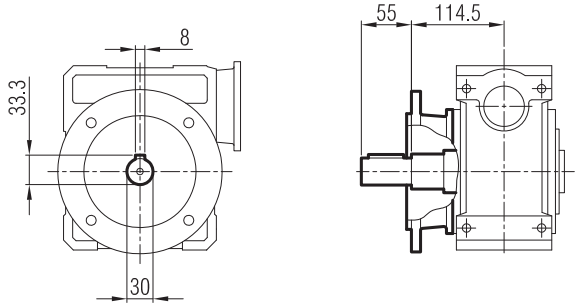


- FD

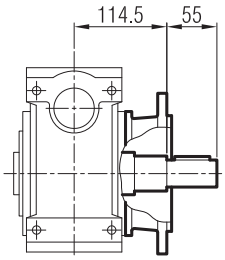


İRSFM / İRSFP / İRSF

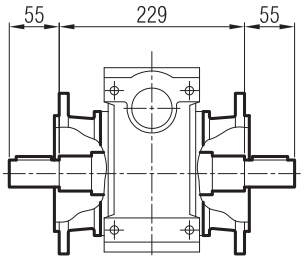
- FR - SR



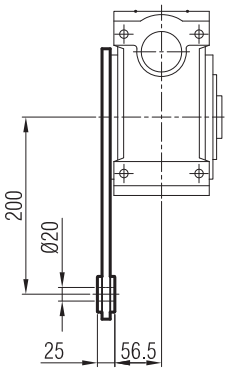
- FL - SL



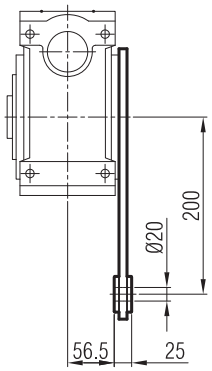
- FD - SD

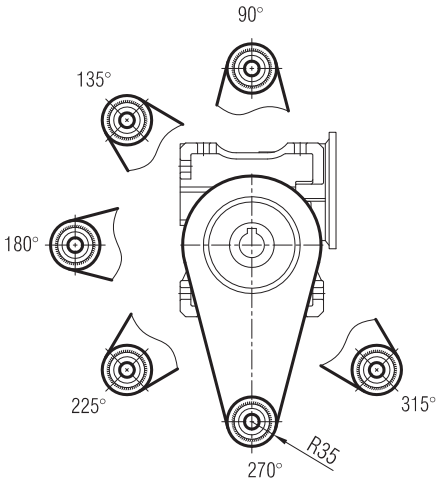


- TR

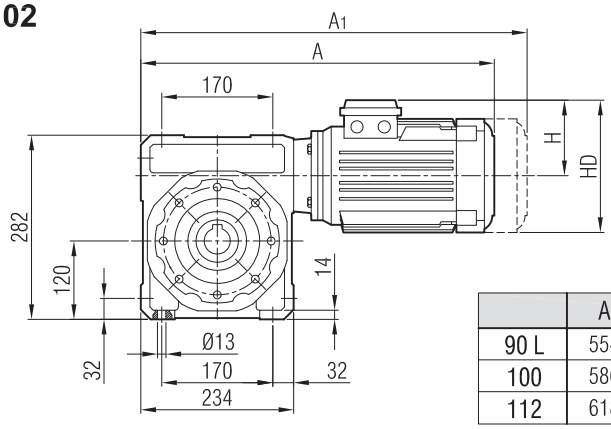


- TL

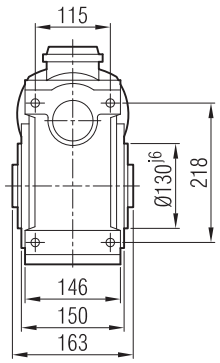


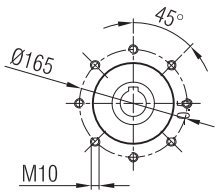


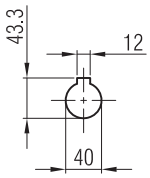
İRSAM 102

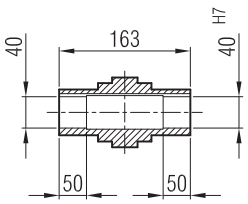


	A	A1	H	HD
90 L	554	639	132	222
100	586	688	141	241
112	618	720	149	261

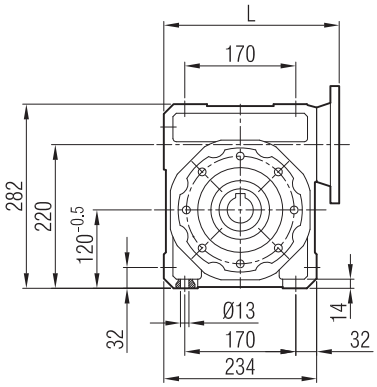


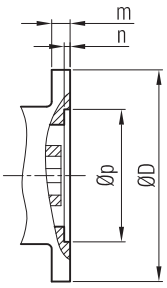


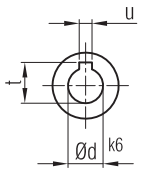


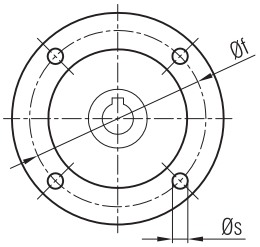


İRSAP 102



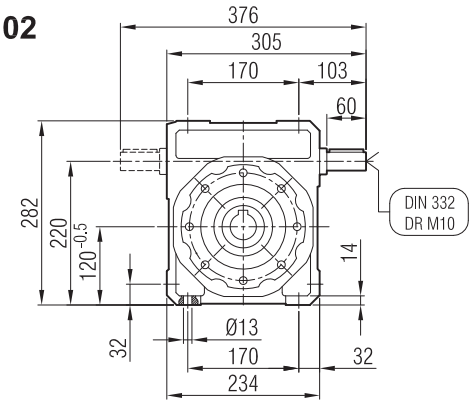


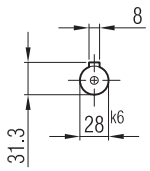


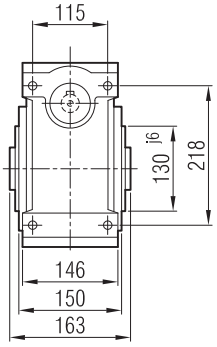


IEC B14	L	m	n	p	f	D	d	t	u	s
90	271	10	5	95	115	140	24	27.3	8	9
100	271	10	5	110	130	160	28	31.3	8	9
112	271	10	5	110	130	160	28	31.3	8	9

İRSA 102

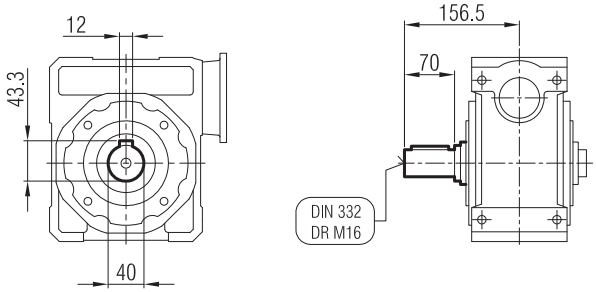




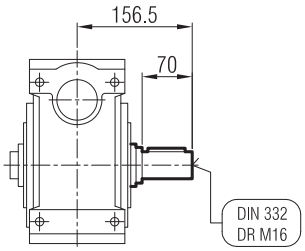


İRSAM / İRSAP / İRSA

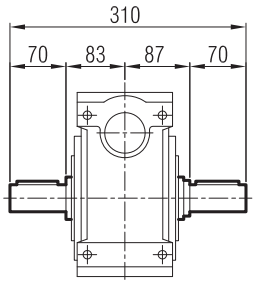
- SR



- SL

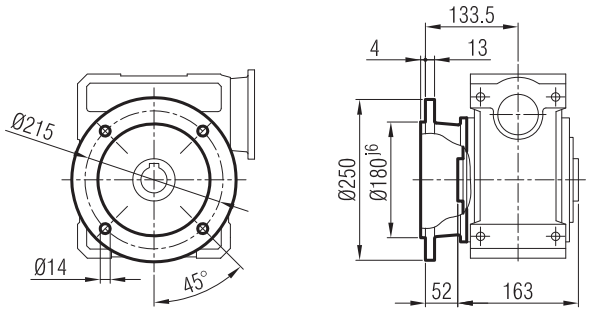


- SD

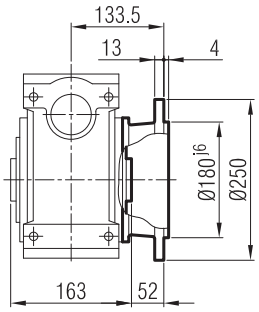


İRSFM / İRSFP / İRSF

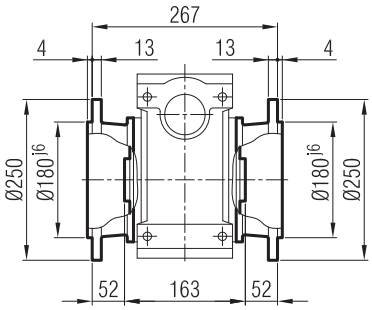
- FR



- FL

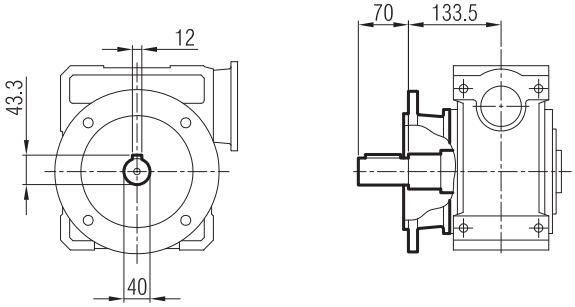


- FD

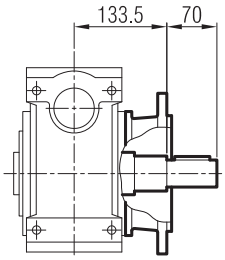


İRSFM / İRSFP / İRSF

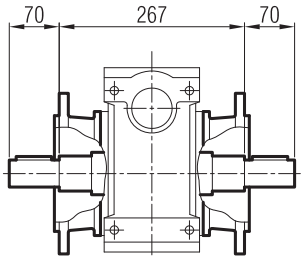
- FR - SR



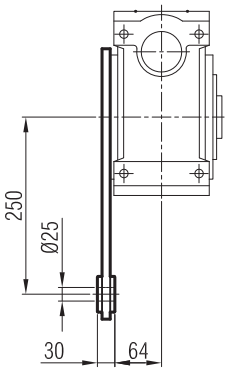
- FL - SL



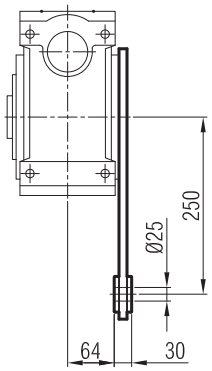
- FD - SD

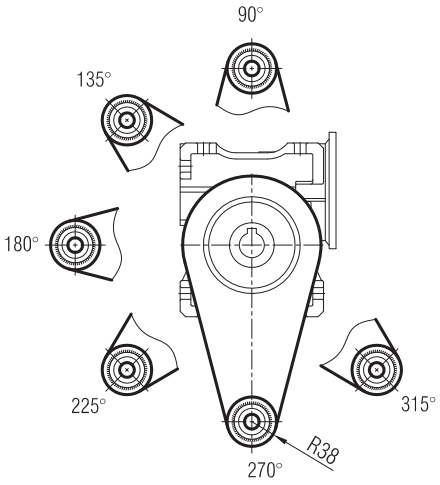


- TR

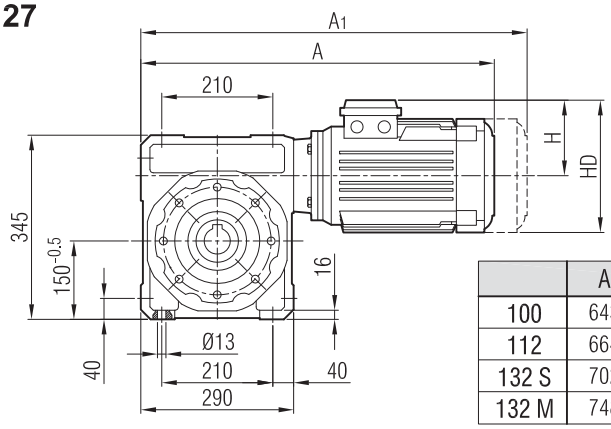


- TL

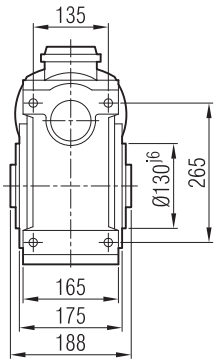


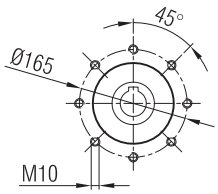


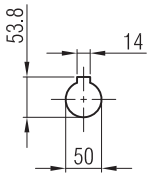
İRSAM 127

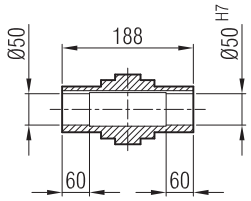


	A	A1	H	HD
100	643	745	141	241
112	664	789	149	261
132 S	702	844	182	314
132 M	748	890	182	314

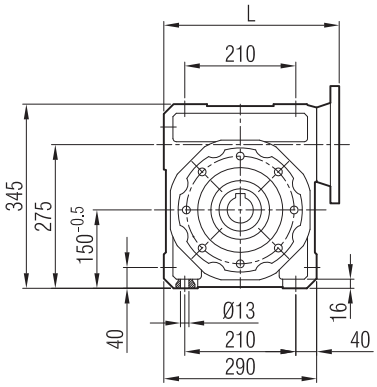


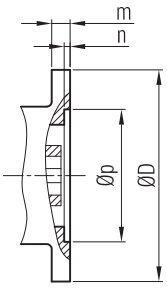


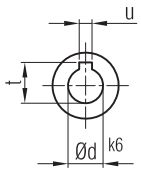


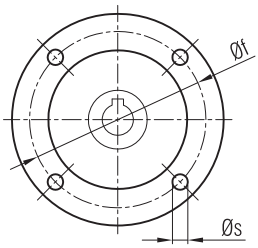


İRSAP 127



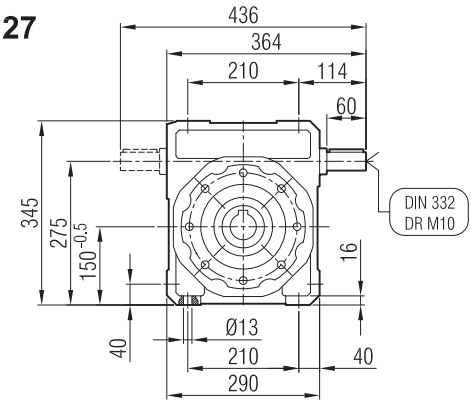


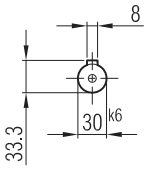


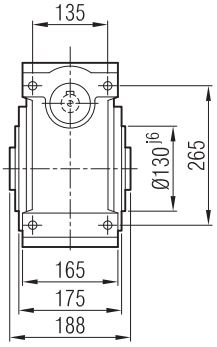


IEC B14	L	m	n	p	f	D	d	t	u	s
100	328	11	5	110	130	160	28	31.3	8	9
112	328	11	5	110	130	160	28	31.3	8	9
132	328	23	5	130	165	200	38	41.3	10	11

İRSA 127

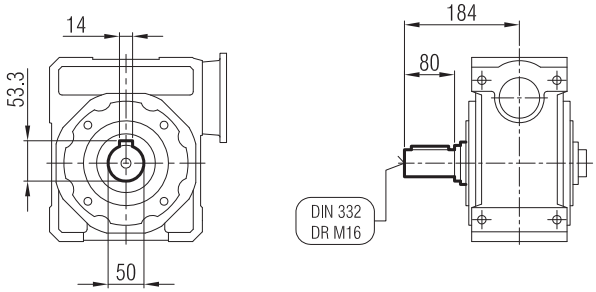




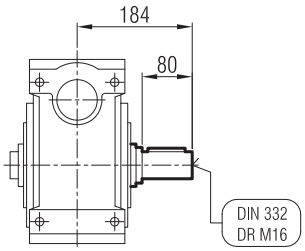


İRSAM / İRSAP / İRSA

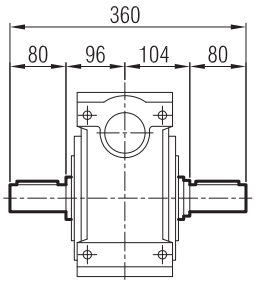
- SR



- SL

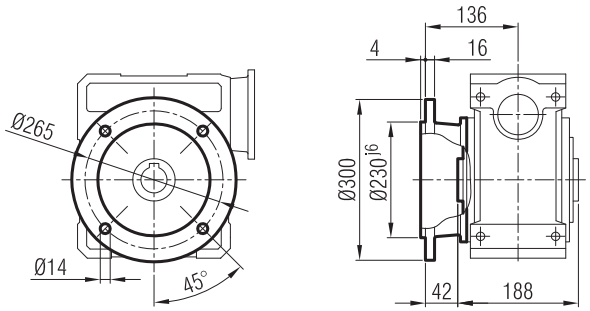


- SD

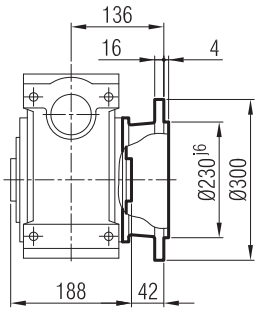


İRSFM / İRSFP / İRSF

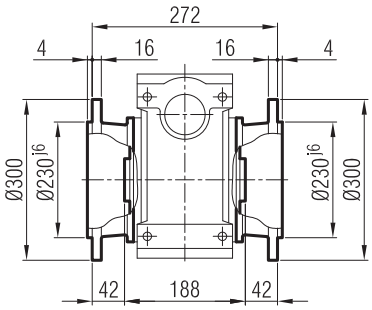
- FR



- FL

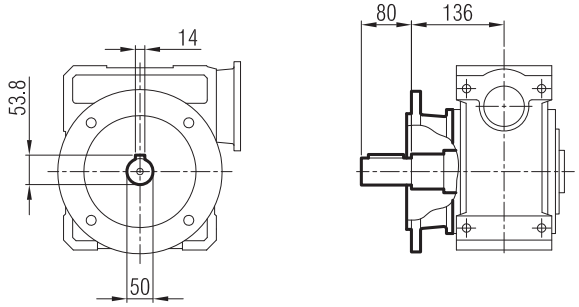


- FD

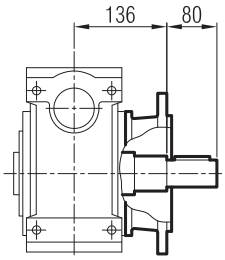


İRSFM / İRSFP / İRSF

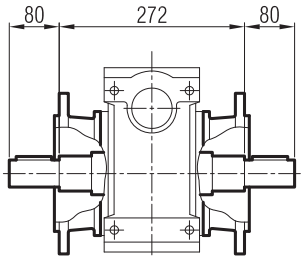
- FR - SR



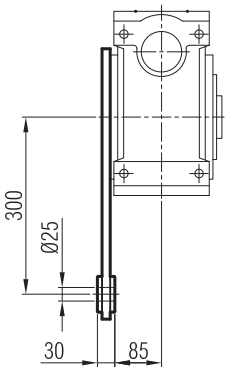
- FL - SL



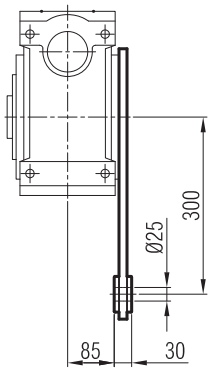
- FD - SD

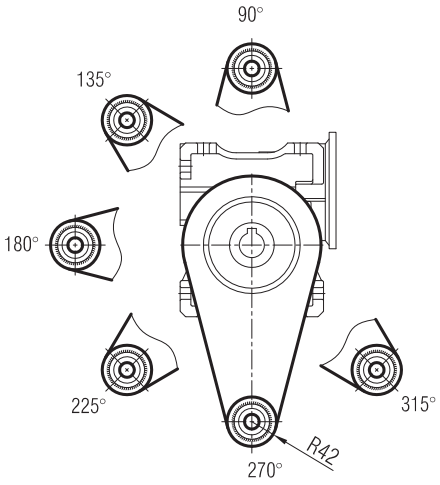


- TR

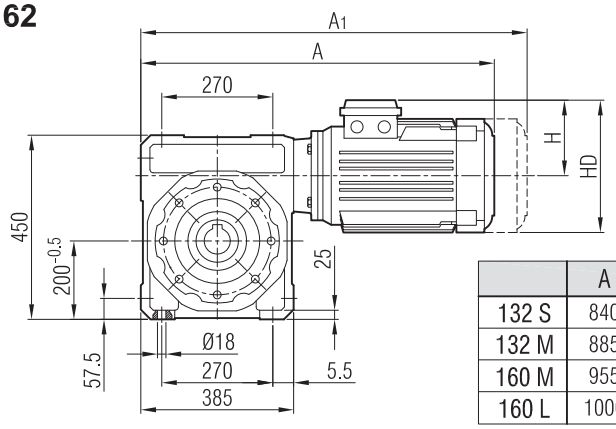


- TL

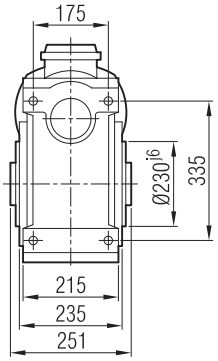


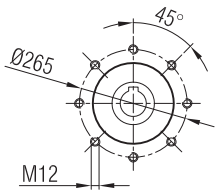


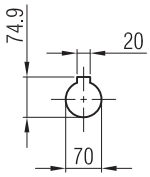
İRSAM 162

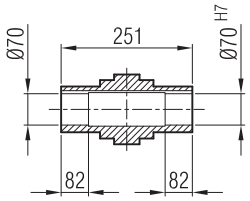


	A	A1	H	HD
132 S	840	981	182	314
132 M	885	1027	182	314
160 M	955	1145	225	385
160 L	1000	1190	225	385

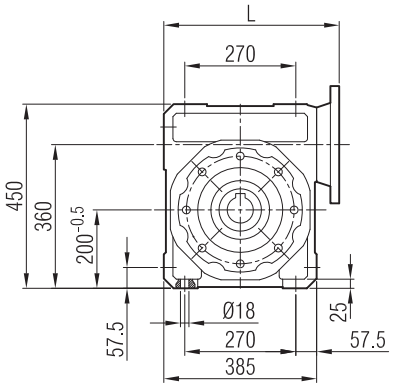


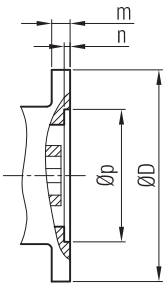


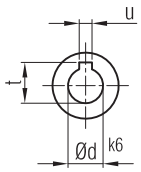


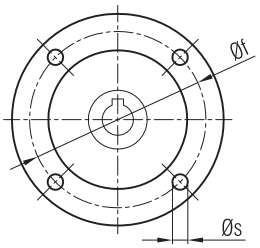


İRSAP 162



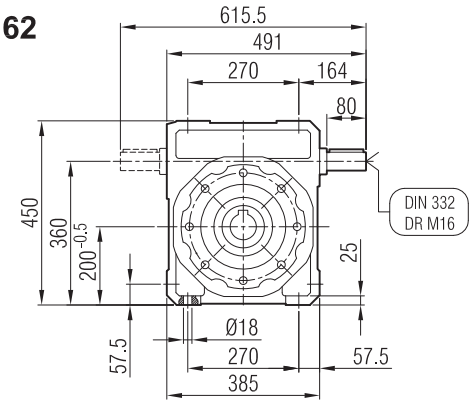


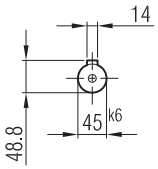


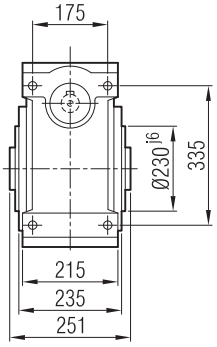


IEC B14	L	m	n	p	f	D	d	t	u	s
132	446	23	5	130	165	200	38	41.3	10	11
160	446	23	5	180	215	250	42	45.3	12	13

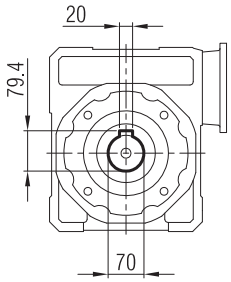
İRSA 162



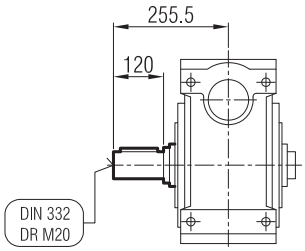




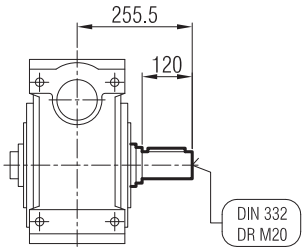
İRSAM / İRSAP / İRSA



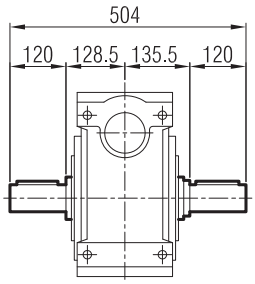
- SR



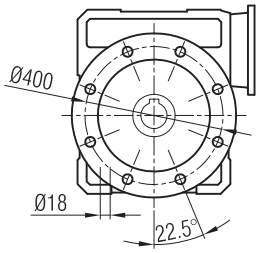
- SL



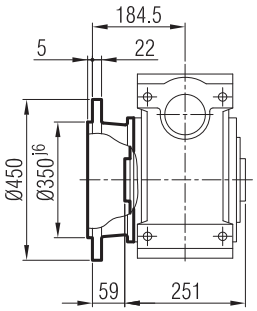
- SD



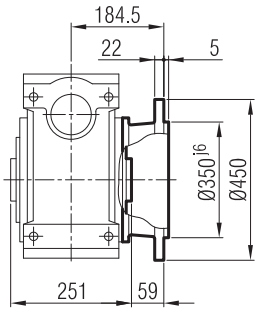
İRSFM / İRSFP / İRSF



- FR



- FL



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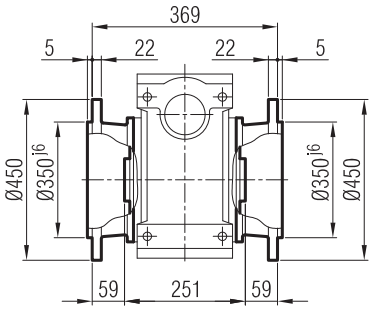
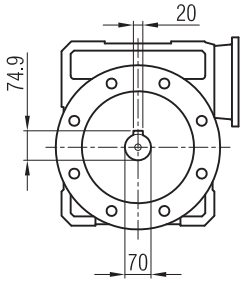
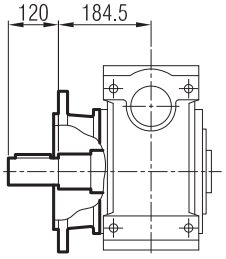


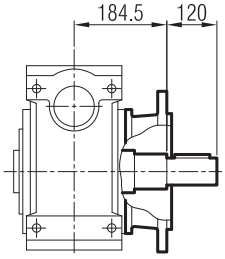
İRSFM / İRSFP / İRSF



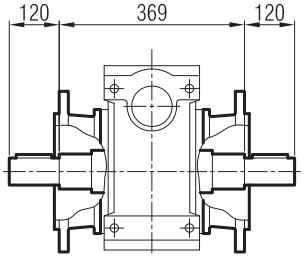
- FR - SR



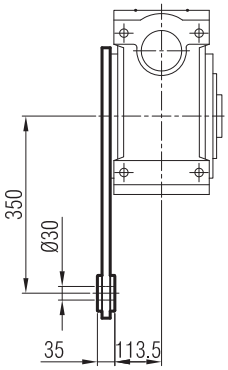
- FL - SL



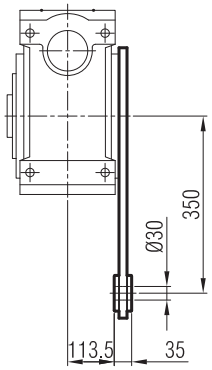
- FD - SD

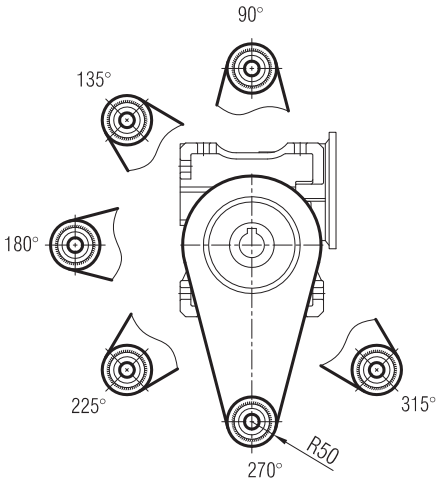


- TR

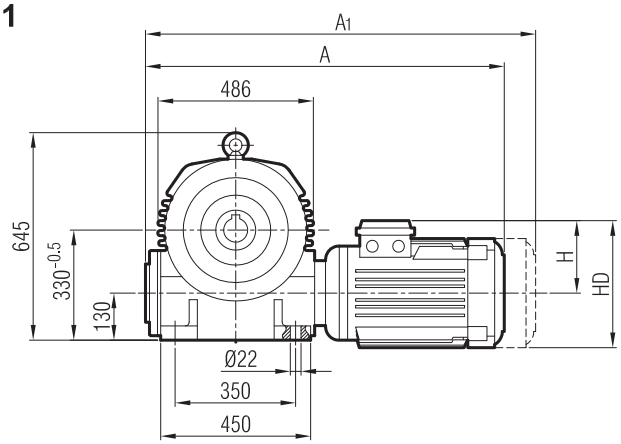


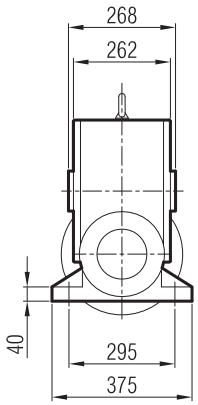
- TL

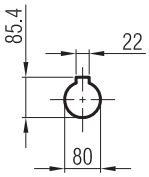




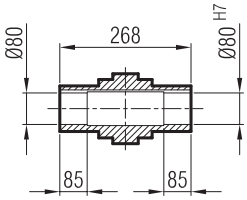
İRSAM 201







	A	A1	H	HD
132 S	888	1030	182	314
132 M	934	1076	182	314
160 M	1002	1192	225	385
160 L	1046	1236	225	385



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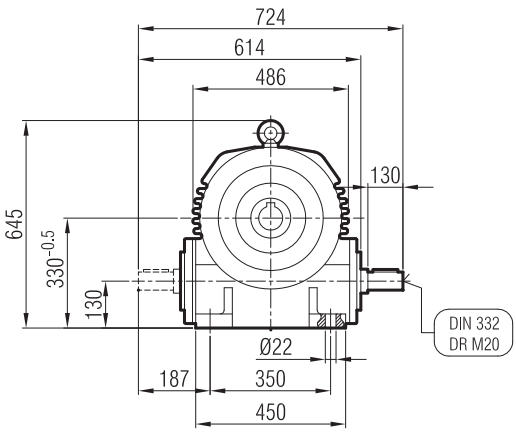
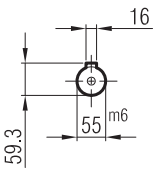
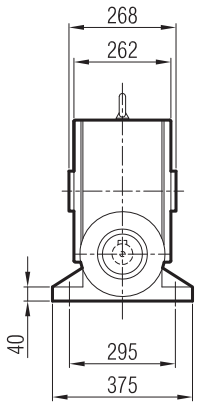
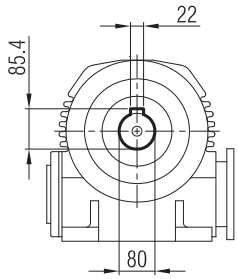


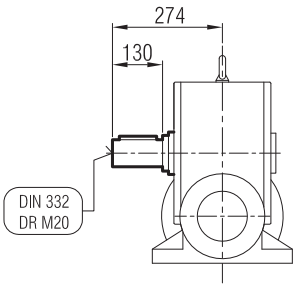




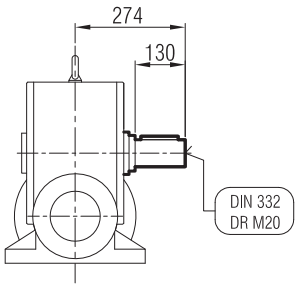
İRSAM / İRSA



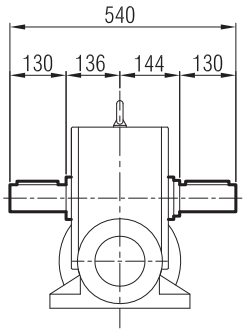
- SR



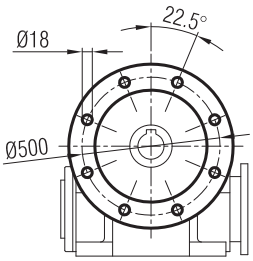
- SL



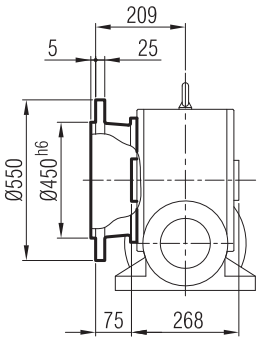
- SD



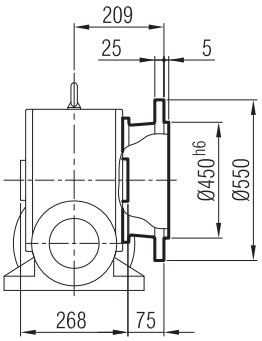
İRSFM / İRSF



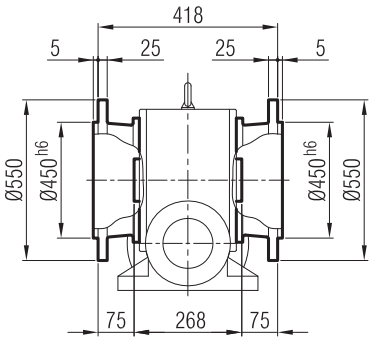
- FR



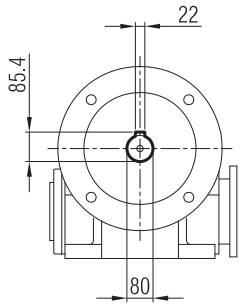
- FL



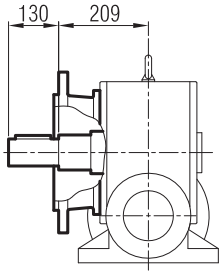
- FD



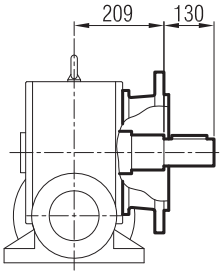
İRSFM / İRSF



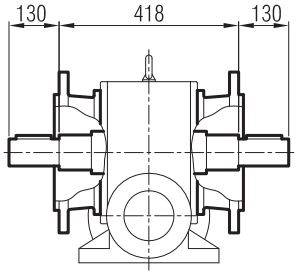
- FR - SR



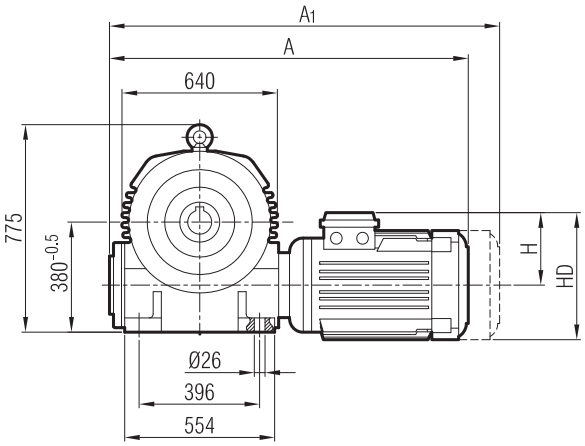
- FL - SL

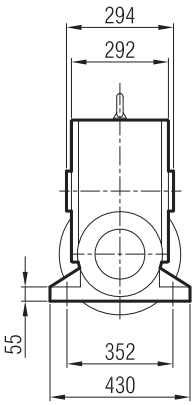


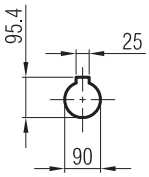
- FD - SD



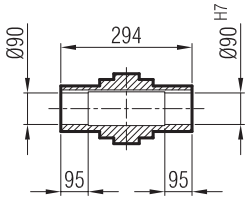
İRSAM 250



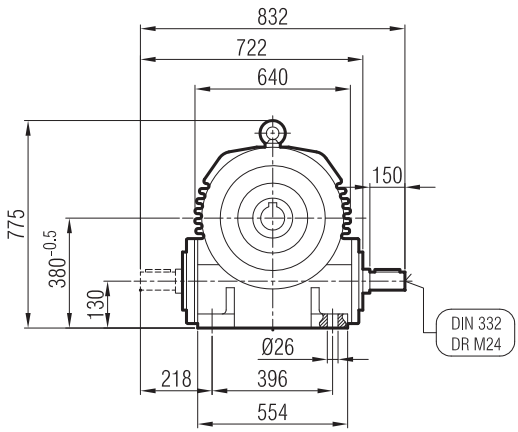


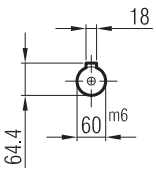


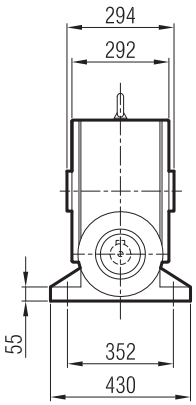
	A	A1	H	HD
160 L	1150	1340	225	385
180 M	1161	1356	248	428
180 L	1199	1394	248	428



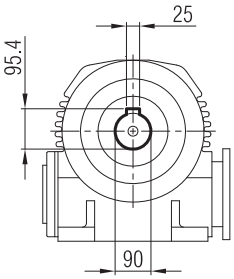
İRSA 250



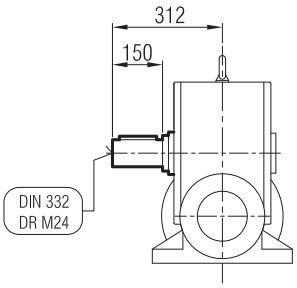




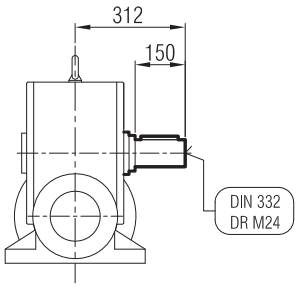
İRSAM / İRSA



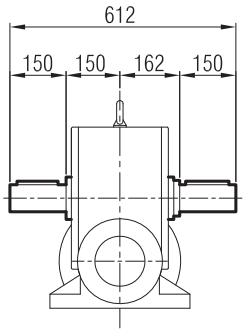
- SR



- SL



- SD



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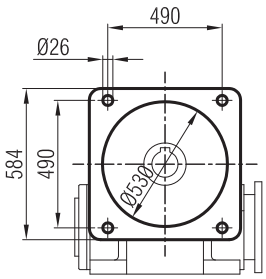

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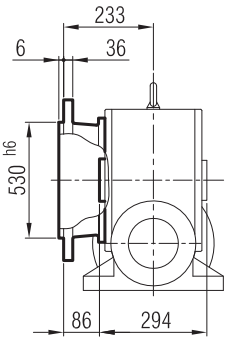
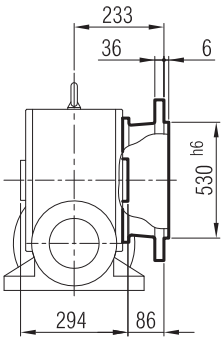
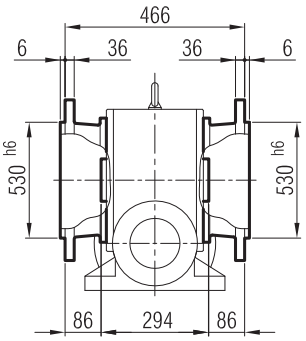


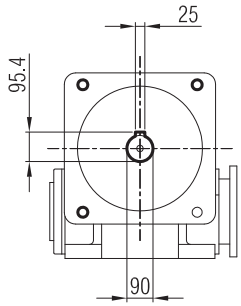
- FL



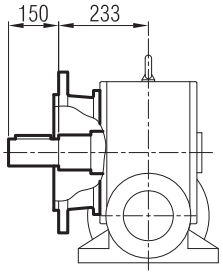
- FD



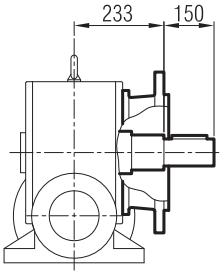
İRSFM / İRSF



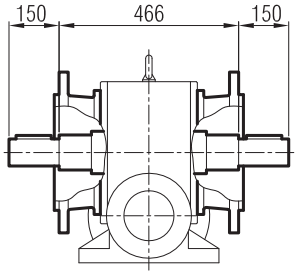
- FR - SR



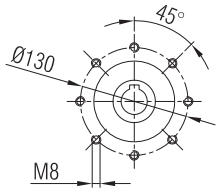
- FL - SL

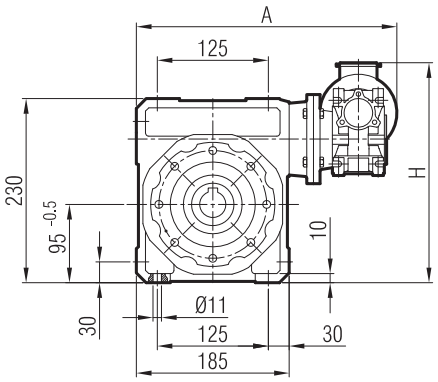


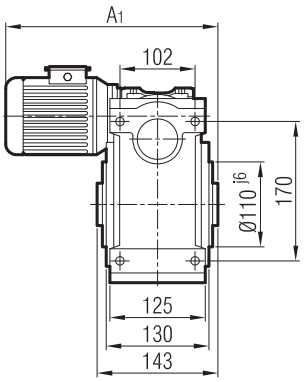
- FD - SD



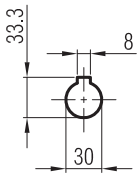
İRSAM 82 S 40

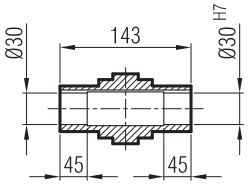




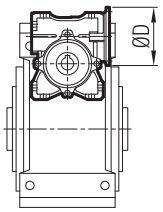


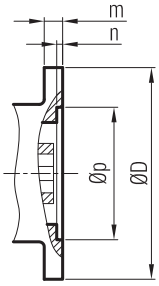
	A	A1	H
63	423	339	377
71	440	365	397

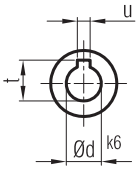


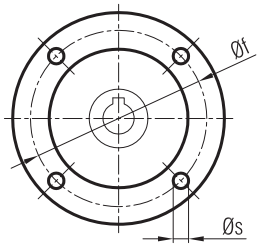


İRSAP 82 S 40



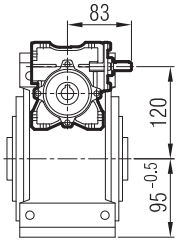


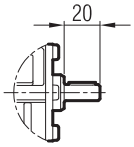


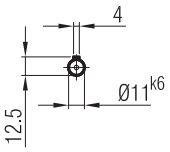


IEC B14	m	n	p	f	D	d	t	u	s
63	10	4.5	60	75	90	11	12.8	4	6
71	10	4.5	70	85	105	14	16.3	5	7

İRSA 82 S 40

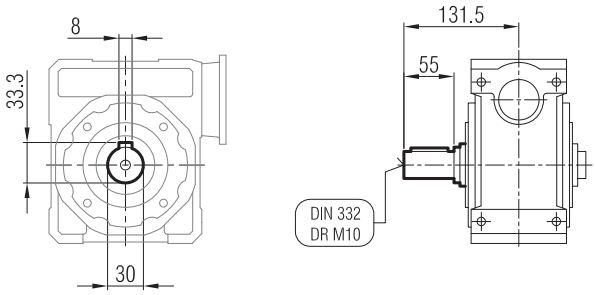




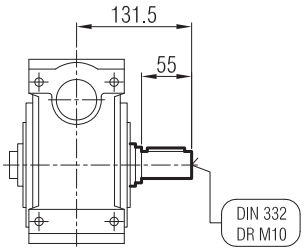


İRSAM / İRSAP / İRSA

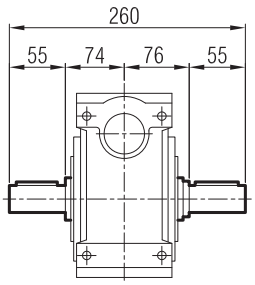
- SR



- SL

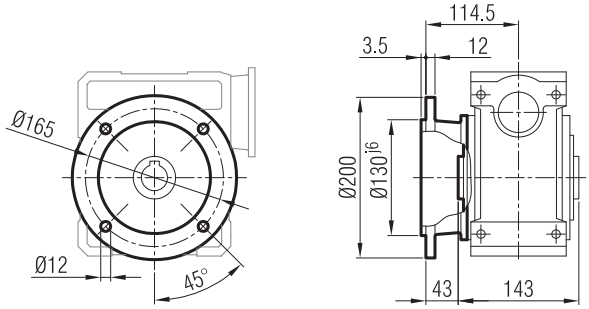


- SD

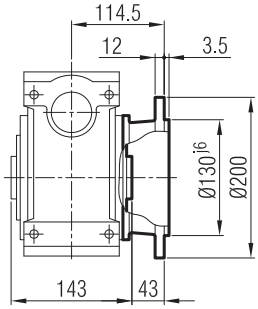


İRSFM / İRSFP / İRSF

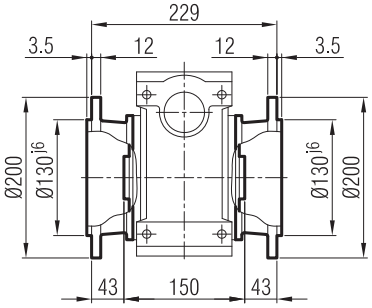
- FR



- FL

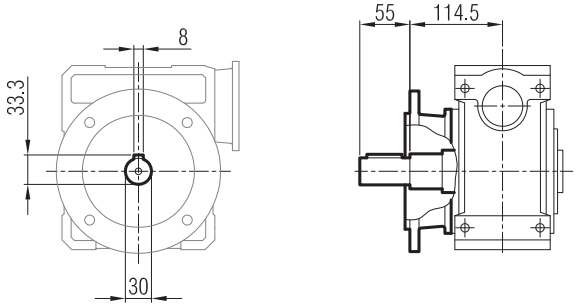


- FD

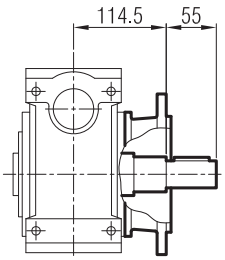


İRSFM / İRSFP / İRSF

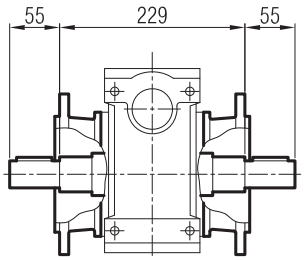
- FR - SR



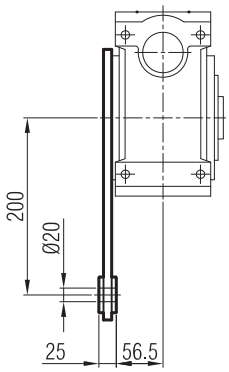
- FL - SL



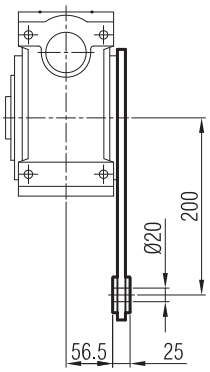
- FD - SD

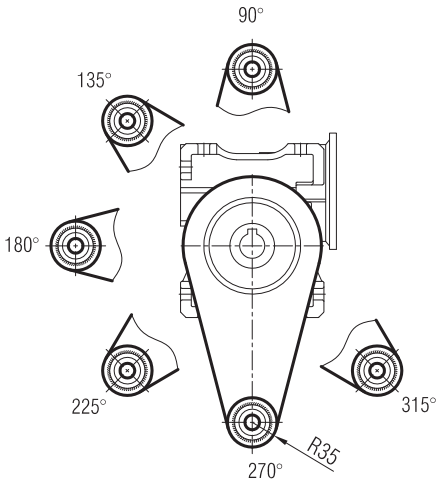


- TR

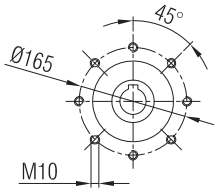


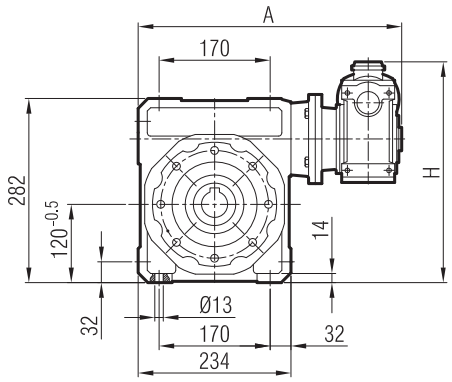
- TL

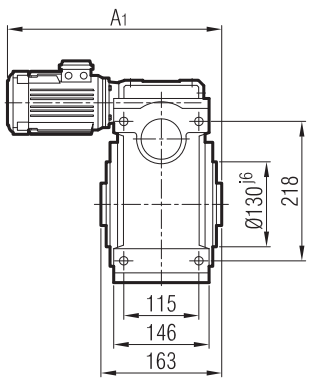




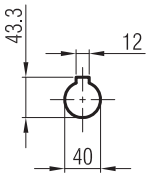
İRSAM 102 İRS 52

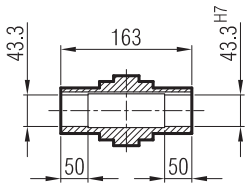




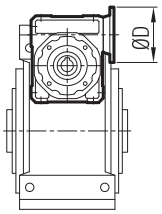


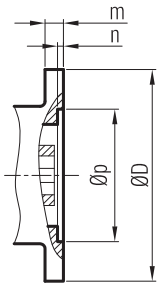
	A	A1	H
71	406	387	336
80	406	409	343

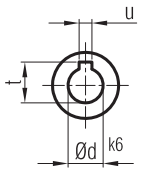


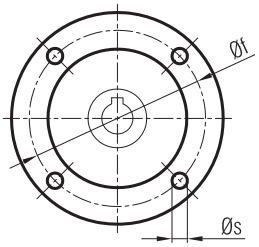


İRSAP 102 İRS 52



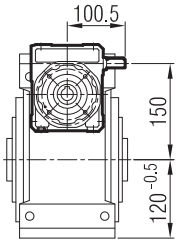


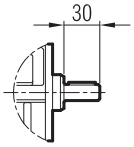


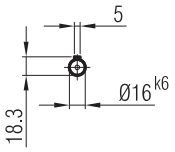


IEC B14	m	n	p	f	D	d	t	u	s
71	8	3.5	70	85	105	14	16.3	5	7
80	8	4	80	100	120	19	21.8	6	7

İRSA 102 İRS 52

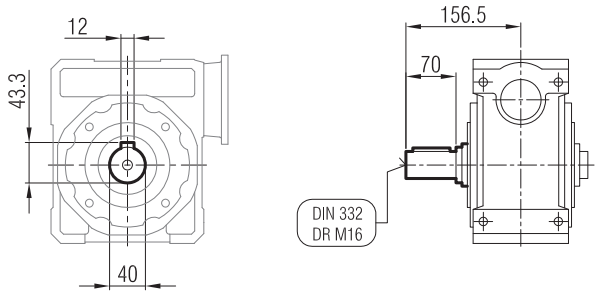




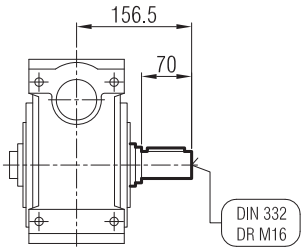


İRSAM / İRSAP / İRSA

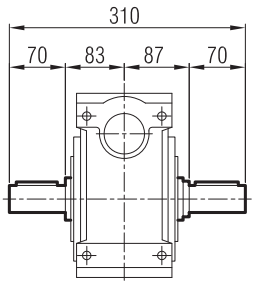
- SR



- SL

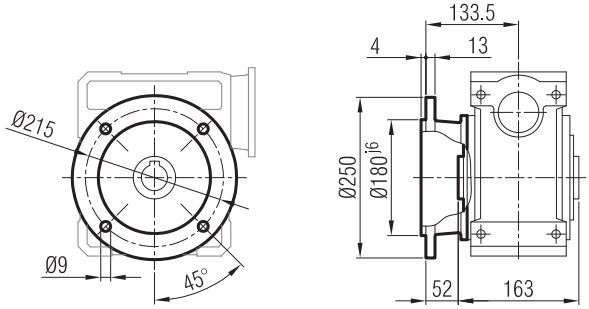


- SD

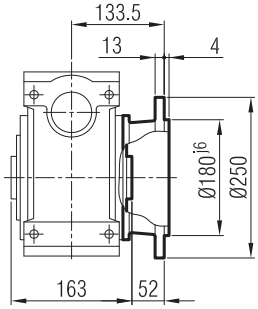


İRSFM / İRSFP / İRSF

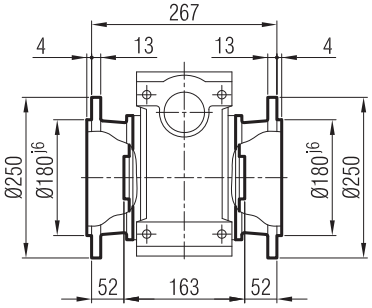
- FR



- FL

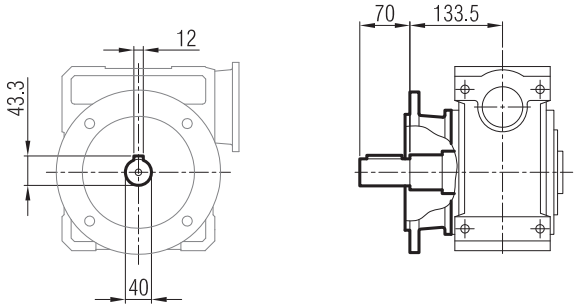


- FD

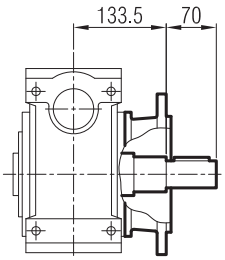


İRSFM / İRSFP / İRSF

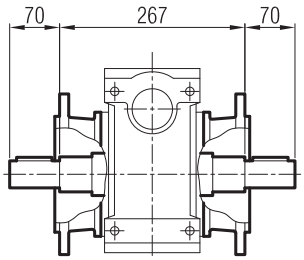
- FR - SR



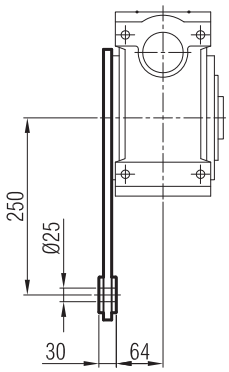
- FL - SL



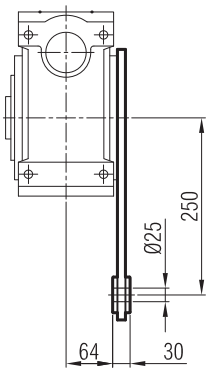
- FD - SD

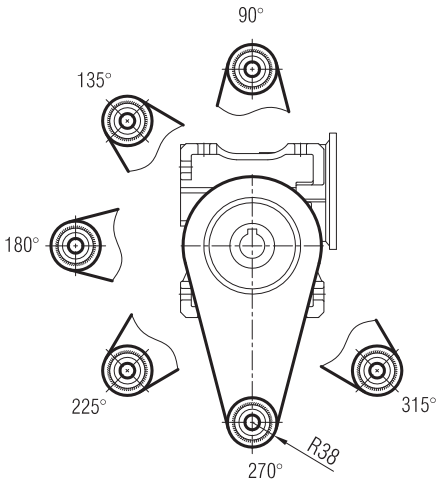


- TR

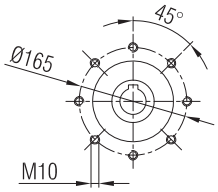


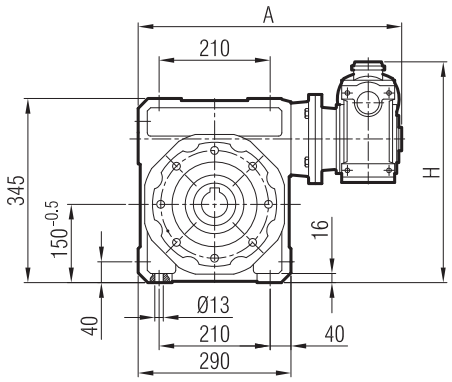
- TL

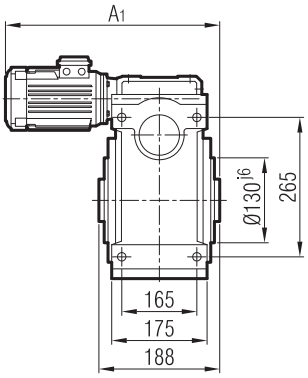




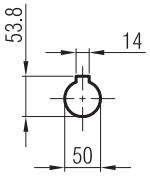
İRSAM 127 İRS 65

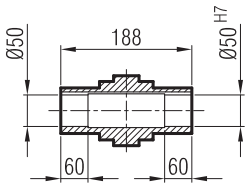




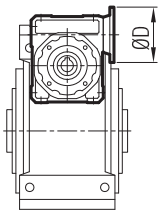


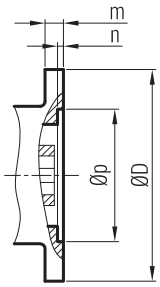
	A	A1	H
90 S	488	457	470
90 L	488	482	470

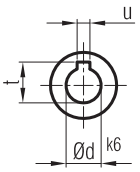


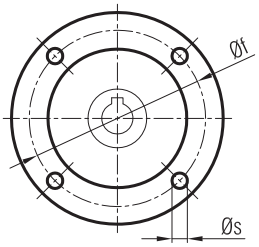


İRSAP 127 İRS 65



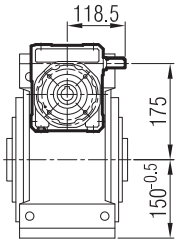


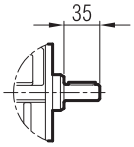


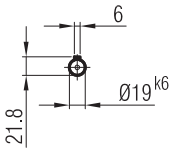


IEC B14	m	n	p	f	D	d	t	u	s
90	10	5	95	115	140	24	27.3	8	9

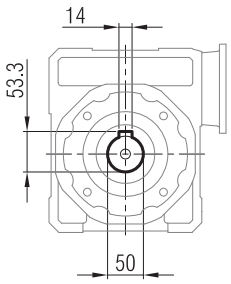
İRSA 127 İRS 65



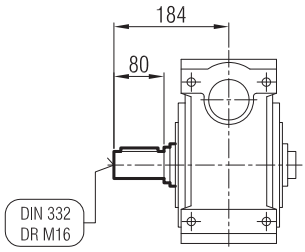




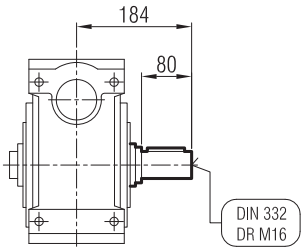
İRSAM / İRSAP / İRSA



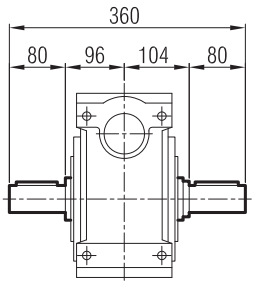
- SR



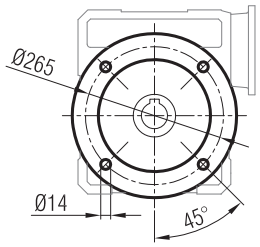
- SL



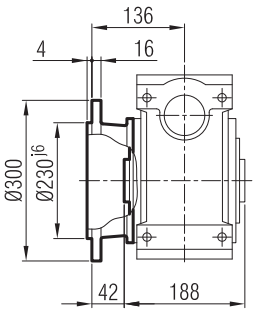
- SD



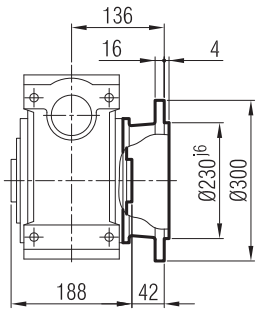
İRSFM / İRSFP / İRSF



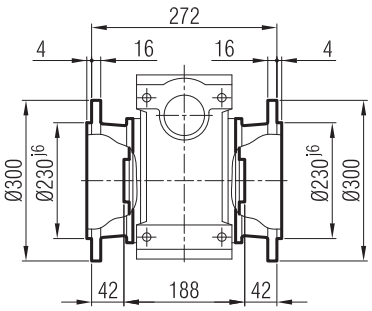
- FR



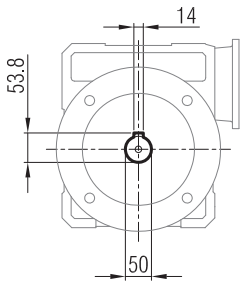
- FL



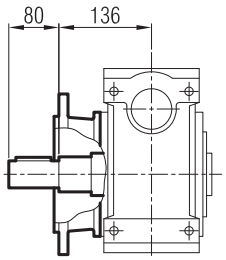
- FD



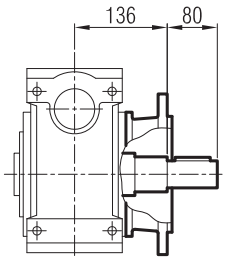
İRSFM / İRSFP / İRSF



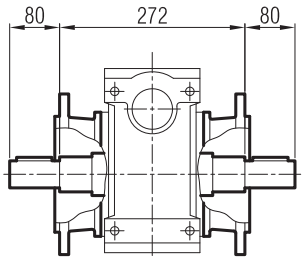
- FR - SR



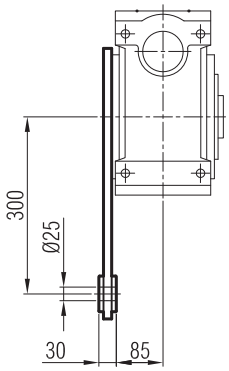
- FL - SL



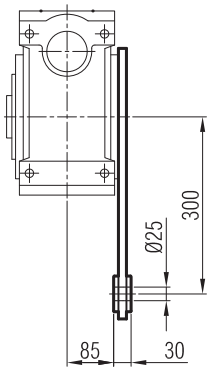
- FD - SD

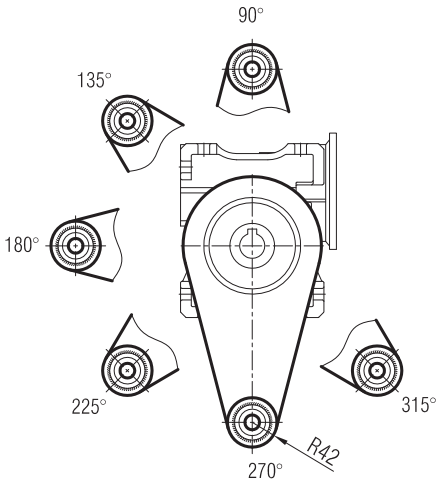


- TR

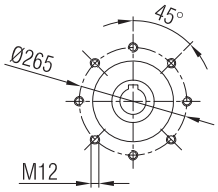


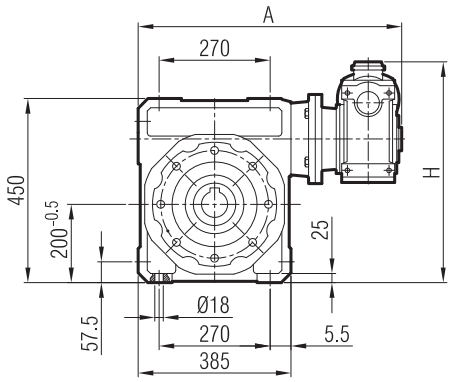
- TL

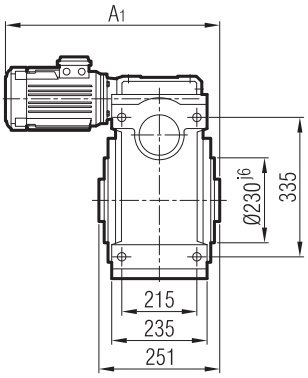




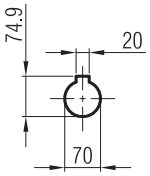
İRSAM 162 İRS 82

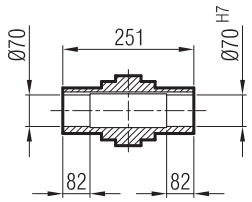




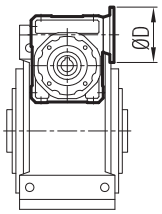


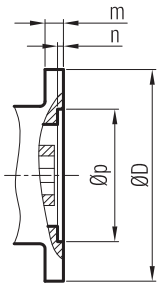
	A	A1	H
80	632	374	653

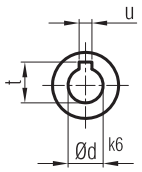


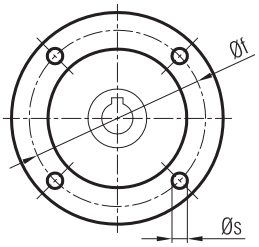


İRSAP 162 İRS 82



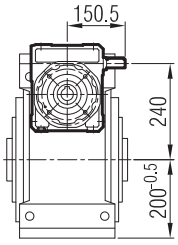


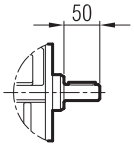


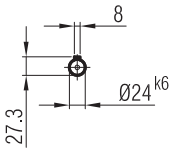


IEC B14	m	n	p	f	D	d	t	u	s
90	10	5	95	115	140	24	27.3	8	9

İRSA 162 İRS 82

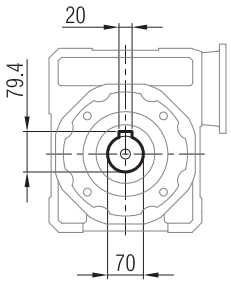


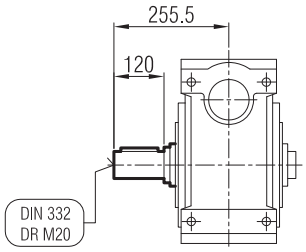




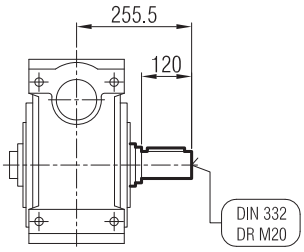
İRSAM / İRSAP / İRSA

- SR

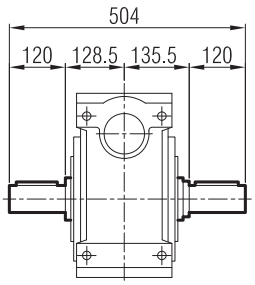




- SL

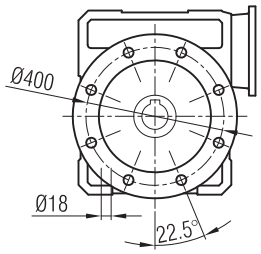


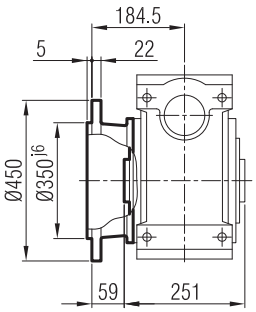
- SD



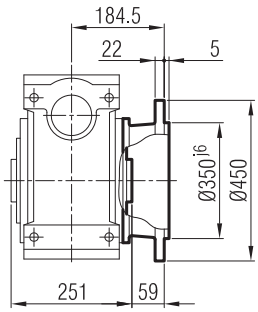
İRSFM / İRSFP / İRSF

- FR

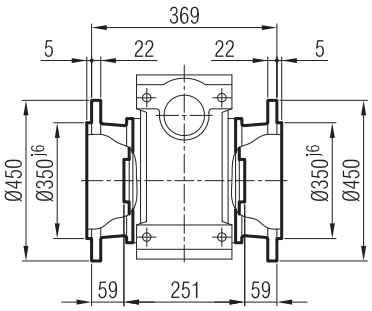




- FL

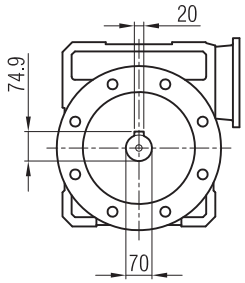


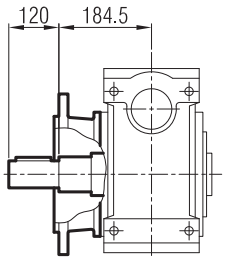
- FD



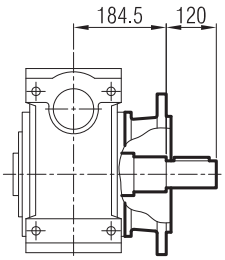
İRSFM / İRSFP / İRSF

- FR - SR

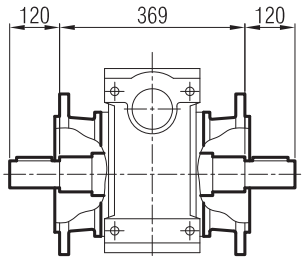




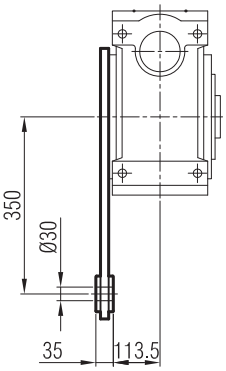
- FL - SL



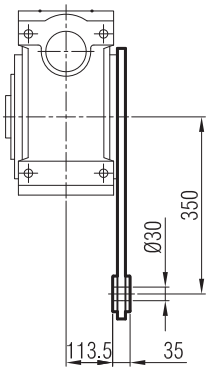
- FD - SD

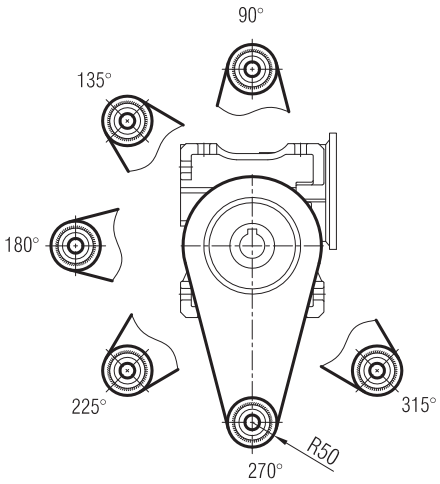


- TR

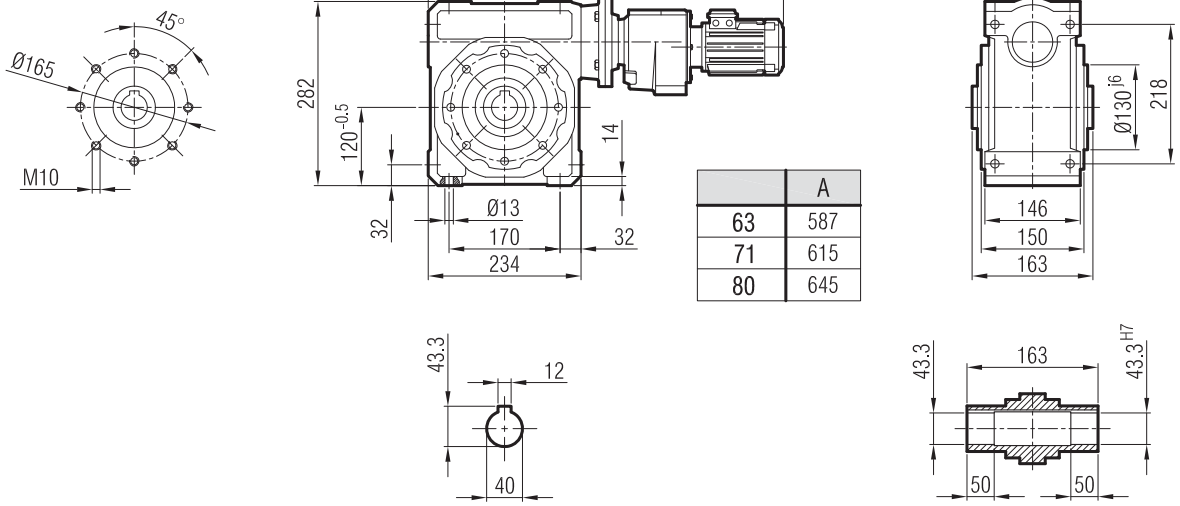


- TL



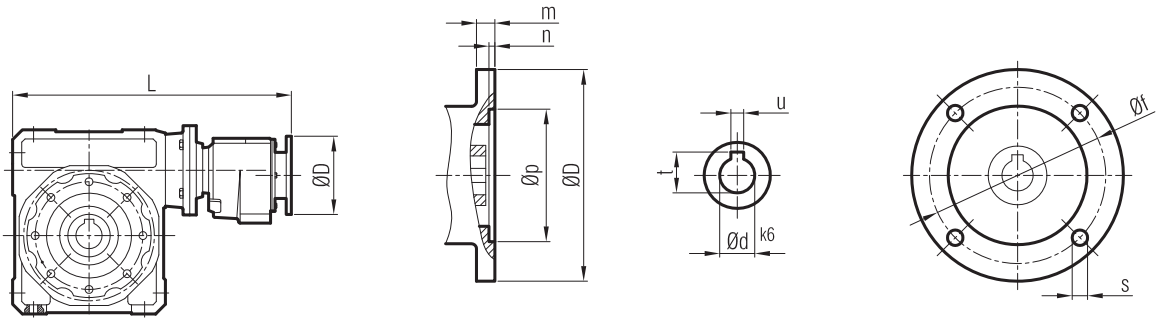


İRSAM 102 İR 43
İRSAM 102 İR 42



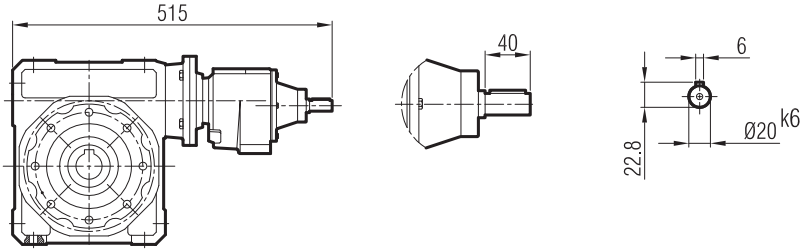
	A
63	587
71	615
80	645

İRSAP 102 İR 43
İRSAP 102 İR 42



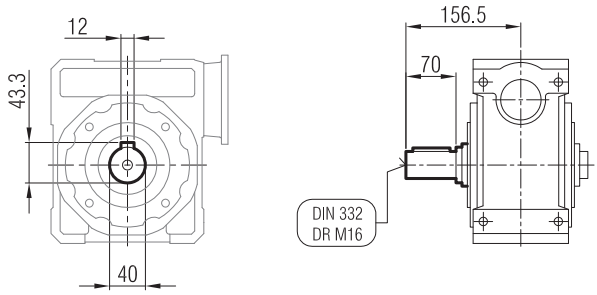
IEC B5	L	m	n	p	f	D	d	t	u	s
63	432	8	4	95	115	140	11	12.8	4	M8
71	440	9	4	110	130	160	14	16.3	5	M8
80	442	12	5	130	165	200	19	21.8	6	M10

İRSA 102 İR 43
İRSA 102 İR 42

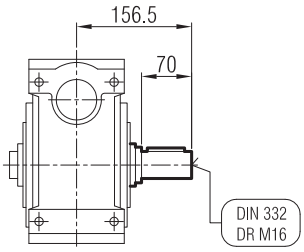


İRSAM / İRSAP / İRSA

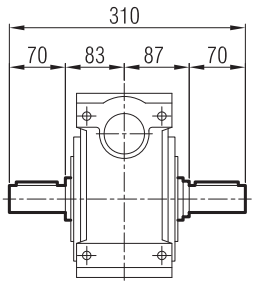
- SR



- SL

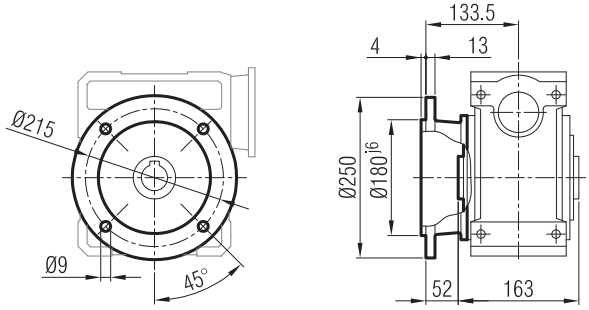


- SD

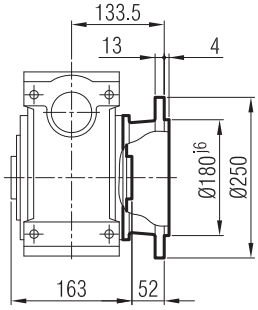


İRSFM / İRSFP / İRSF

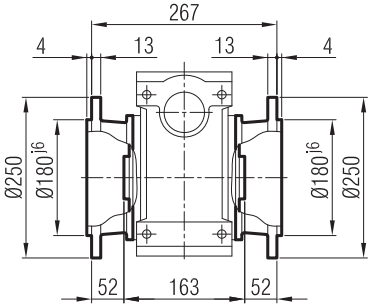
- FR



- FL

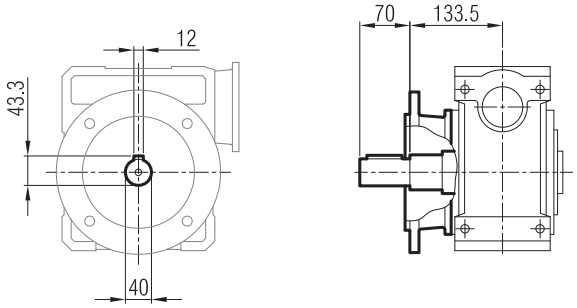


- FD

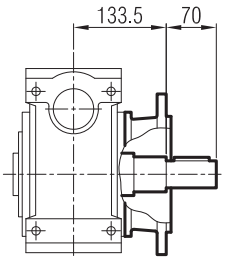


İRSFM / İRSFP / İRSF

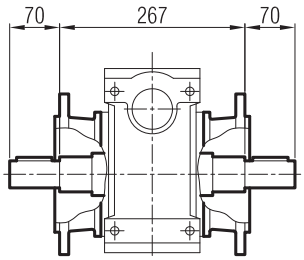
- FR - SR



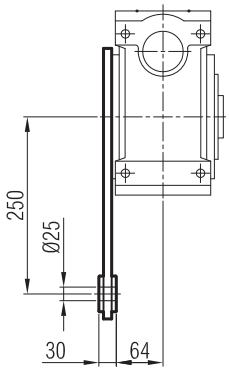
- FL - SL



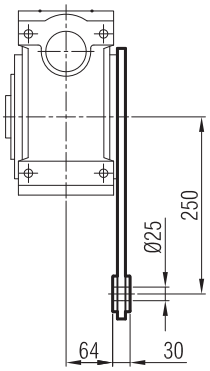
- FD - SD

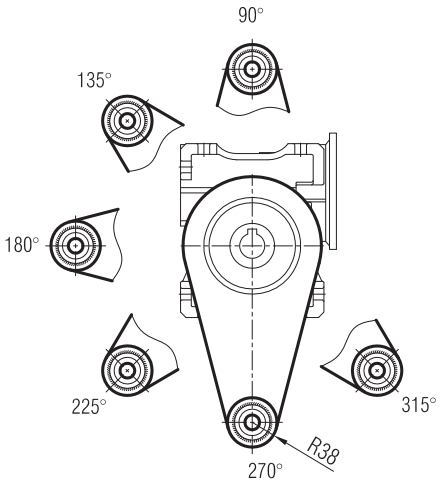


- TR

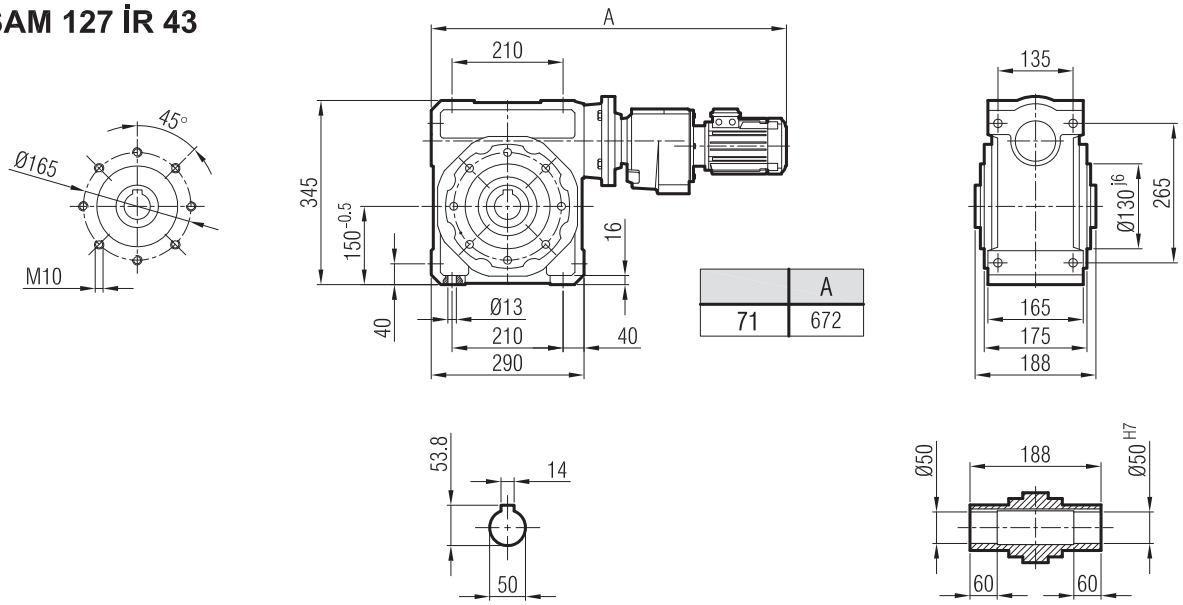


- TL



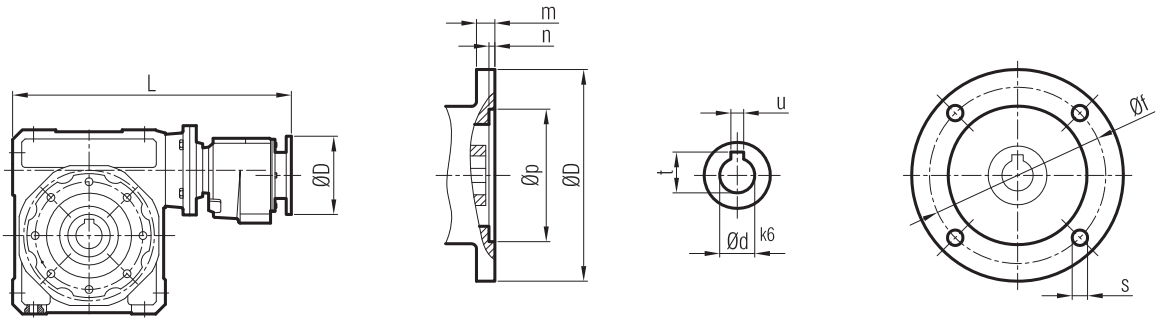


İRSAM 127 İR 43



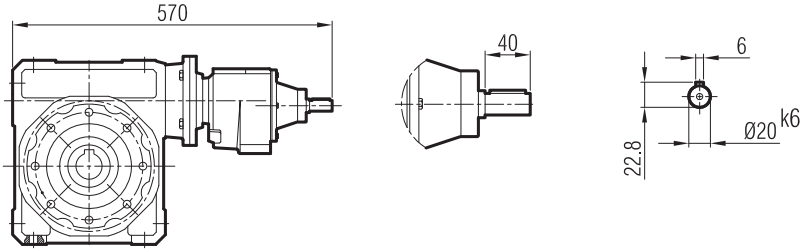
	A
71	672

İRSAP 127 İR 43

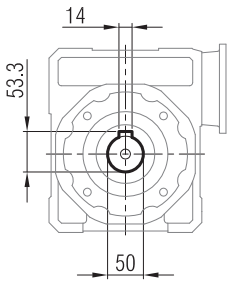


IEC B5	L	m	n	p	f	D	d	t	u	s
71	497	9	4	110	130	160	14	16.3	5	M8

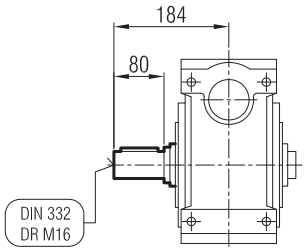
İRSA 127 İR 43



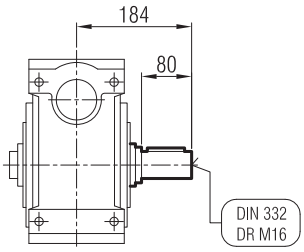
İRSAM / İRSAP / İRSA



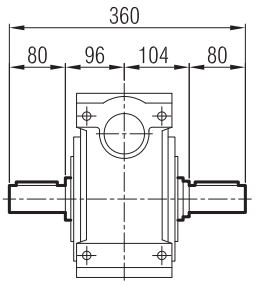
- SR



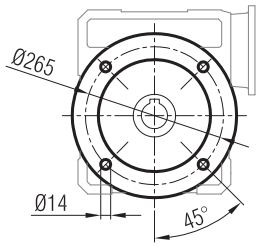
- SL



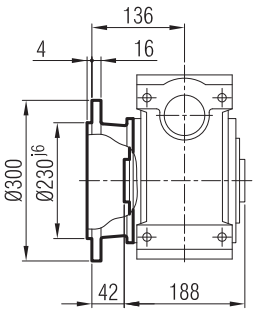
- SD



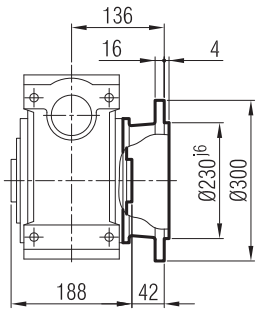
İRSFM / İRSFP / İRSF



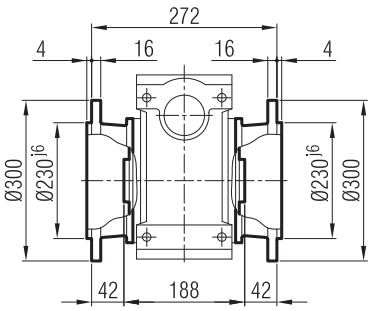
- FR



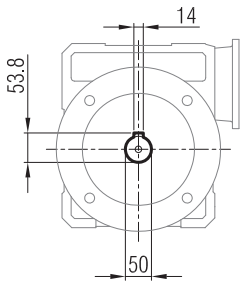
- FL



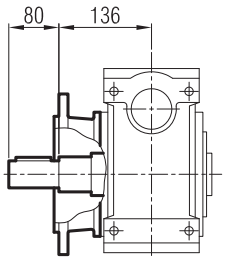
- FD



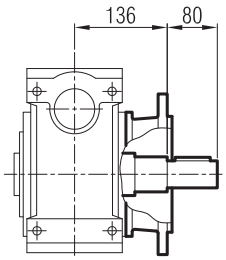
İRSFM / İRSFP / İRSF



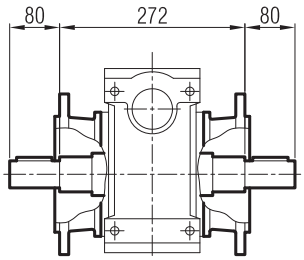
- FR - SR



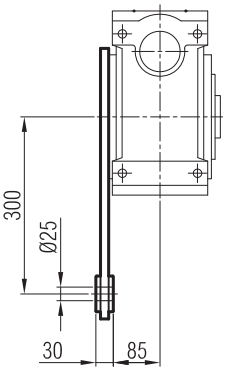
- FL - SL



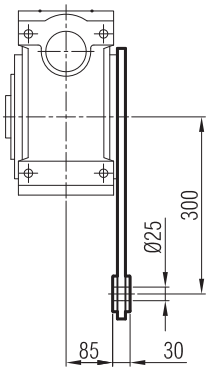
- FD - SD

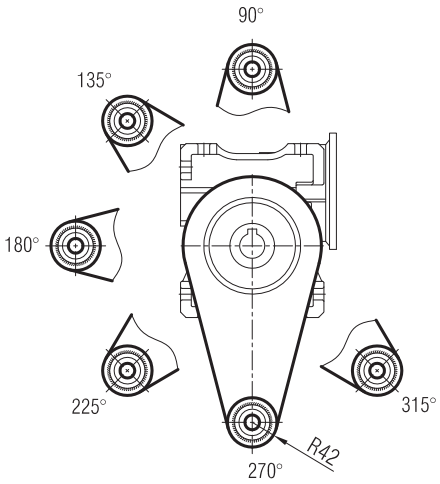


- TR

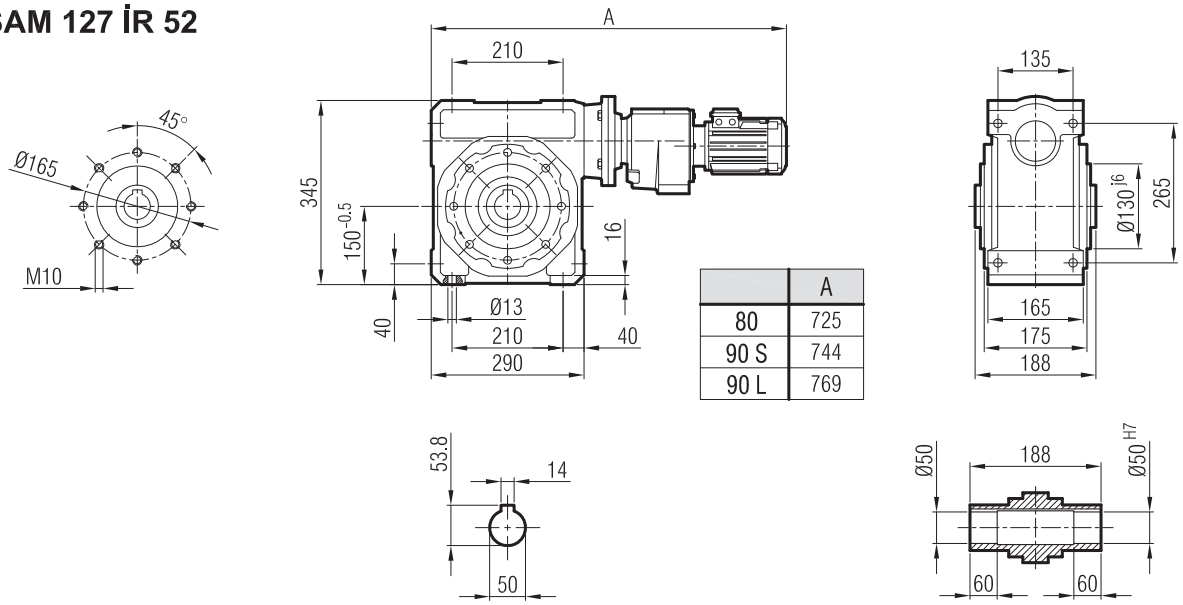


- TL



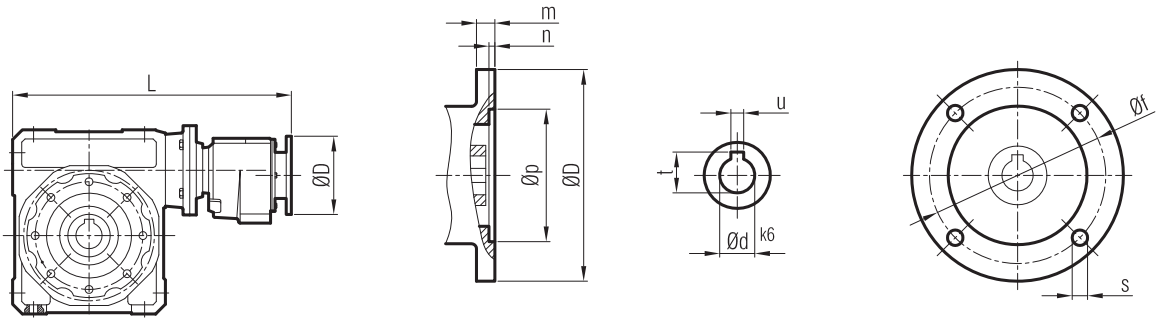


İRSAM 127 İR 52



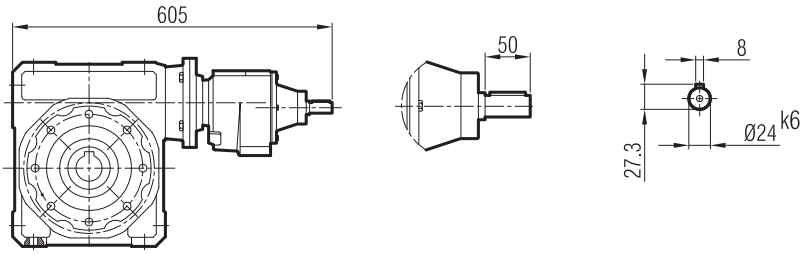
	A
80	725
90 S	744
90 L	769

İRSAP 127 İR 52



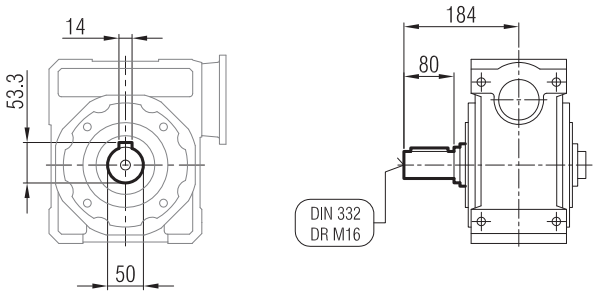
IEC B5	L	m	n	p	f	D	d	t	u	s
80	572	12	5	130	165	200	19	21.8	6	M10
90	572	12	5	130	165	200	24	27.3	8	M10

İRSA 127 İR 52

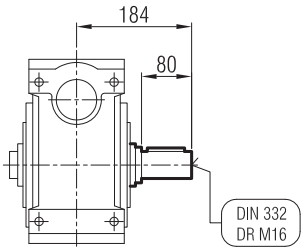


İRSAM / İRSAP / İRSA

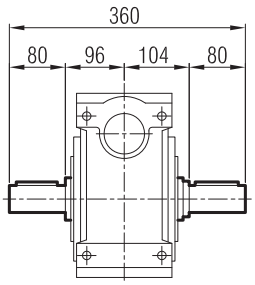
- SR



- SL

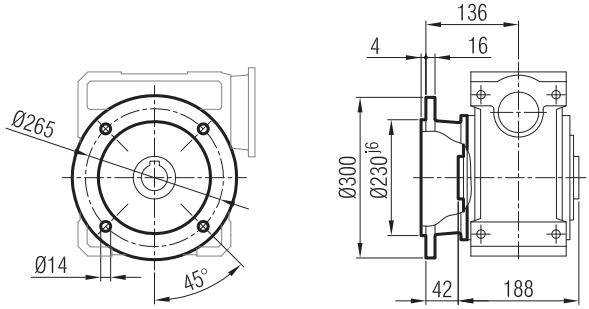


- SD

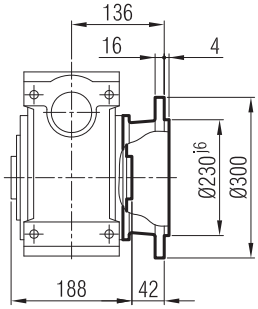


İRSFM / İRSFP / İRSF

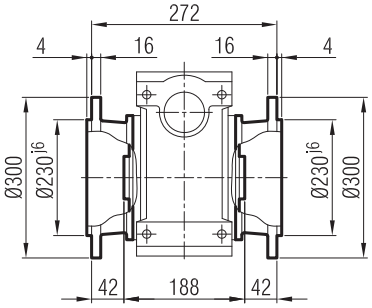
- FR



- FL

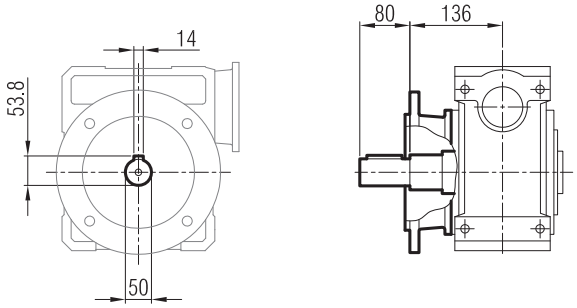


- FD

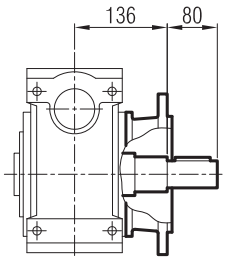


İRSFM / İRSFP / İRSF

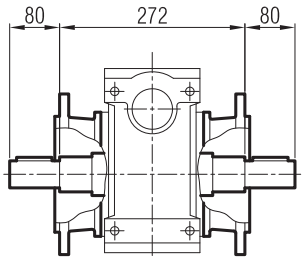
- FR - SR



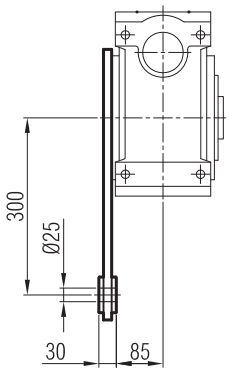
- FL - SL



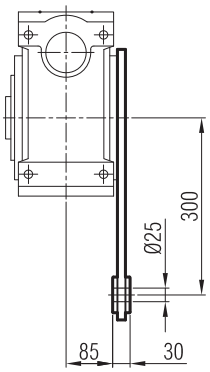
- FD - SD

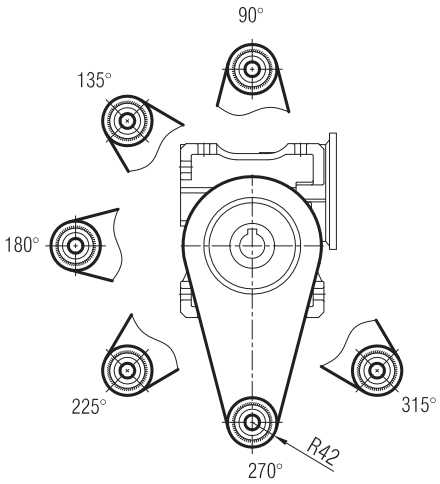


- TR

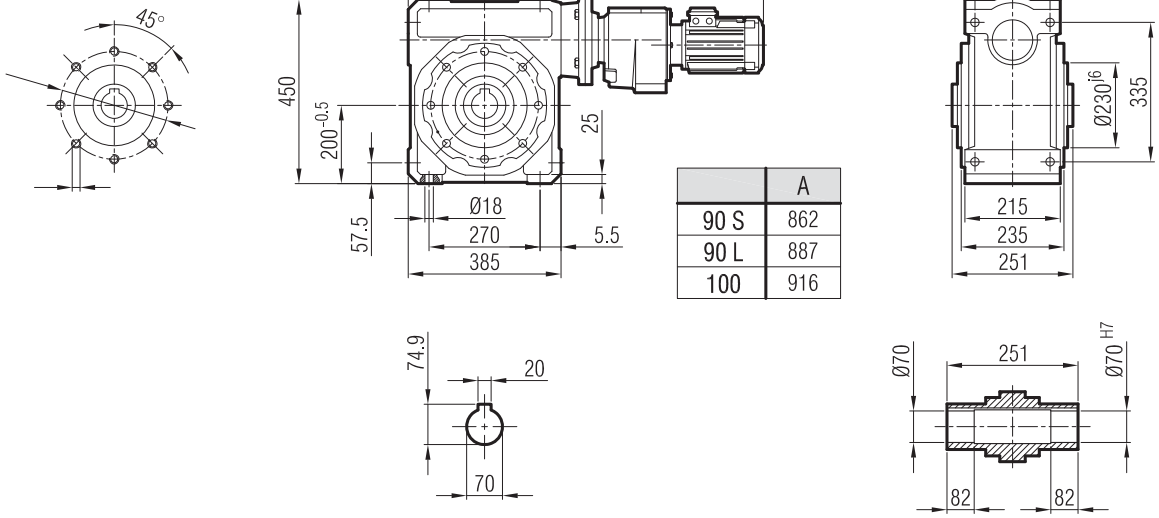


- TL



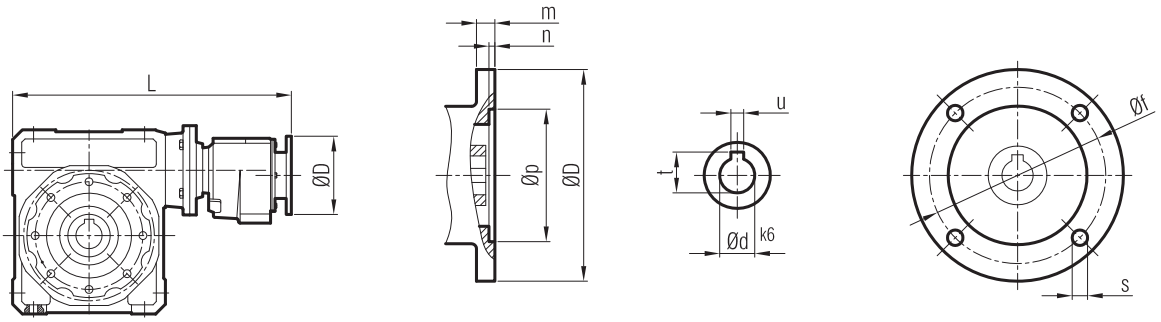


İRSAM 162 İR 63
İRSAM 162 İR 62



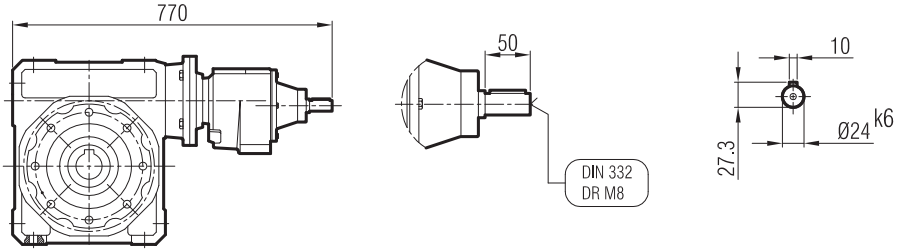
	A
90 S	862
90 L	887
100	916

İRSAP 162 İR 63
İRSAP 162 İR 62



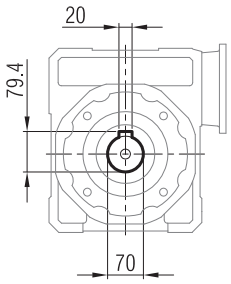
IEC B5	L	m	n	p	f	D	d	t	u	s
90	677	12	5	130	165	200	24	27.3	8	M10
100	690	14	5	180	215	250	28	31.3	8	M12

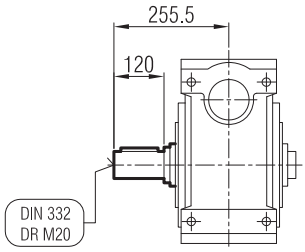
İRSA 162 İR 63
İRSA 162 İR 62



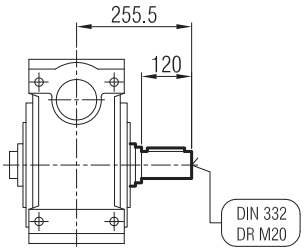
İRSAM / İRSAP / İRSA

- SR

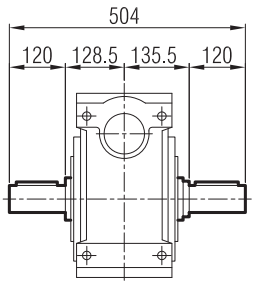




- SL

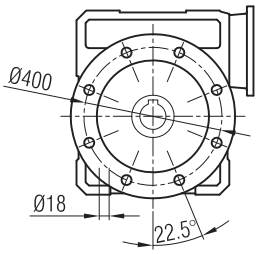


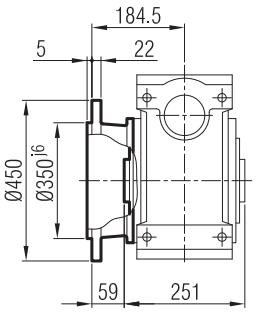
- SD



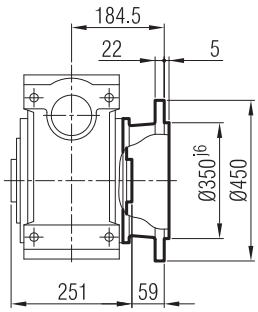
İRSFM / İRSFP / İRSF

- FR

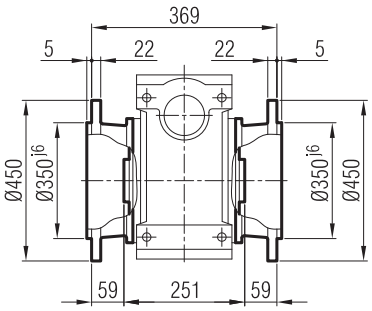




- FL

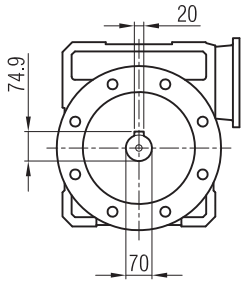


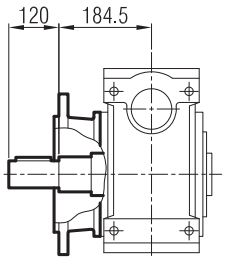
- FD



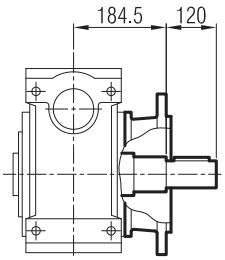
İRSFM / İRSFP / İRSF

- FR - SR

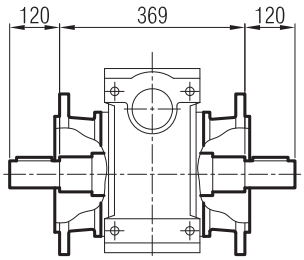




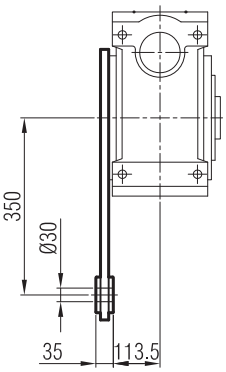
- FL - SL



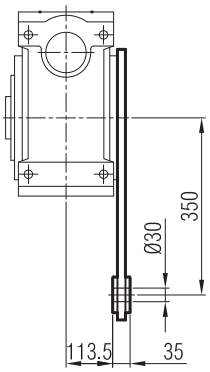
- FD - SD

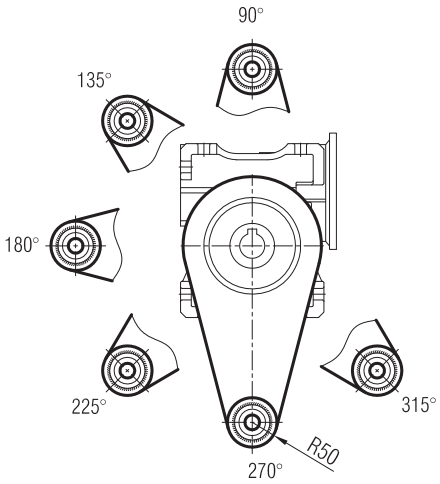


- TR

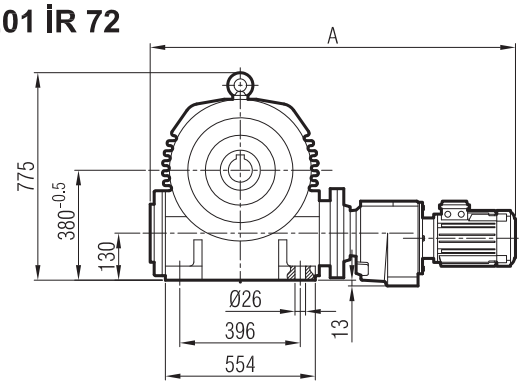


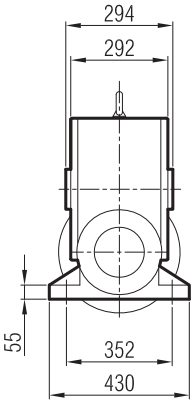
- TL

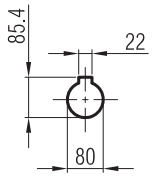




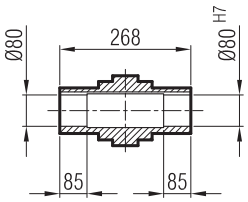
İRSAM 201 İR 72



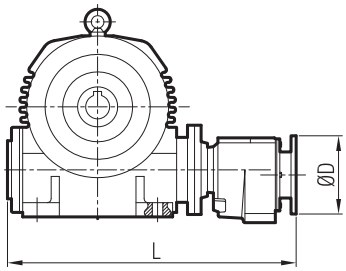


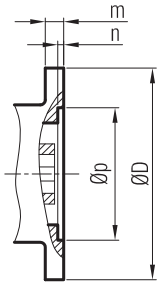


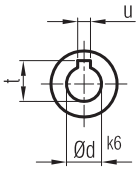
	A
100	1080
112	1282

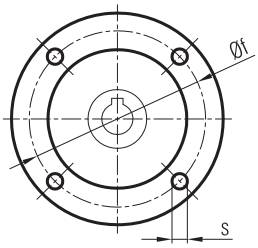


İRSAP 201 İR 72



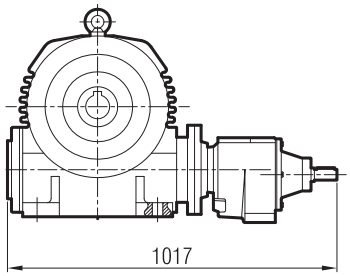


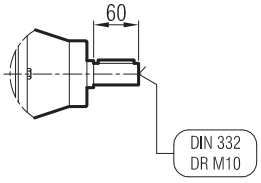


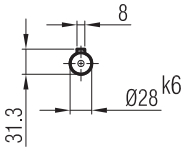


IEC B5	L	m	n	p	f	D	d	t	u	s
100	924	14	5	180	215	250	28	31.3	8	M12
112	924	14	5	180	215	250	28	31.3	8	M12

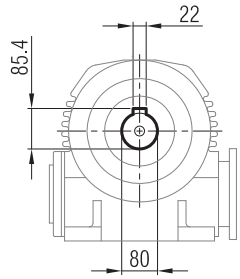
İRSA 201 İR 72







İRSAM / İRSA



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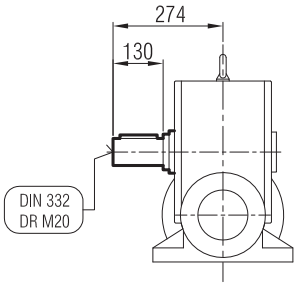

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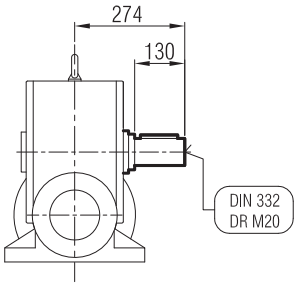

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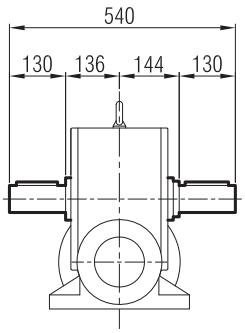
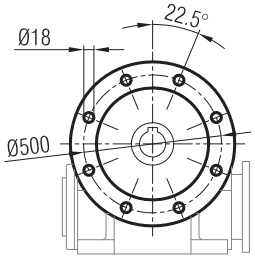


İRSFM / İRSF



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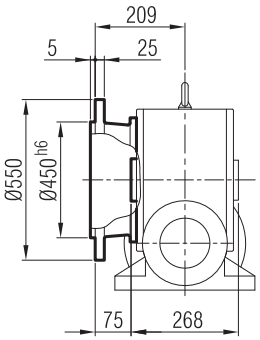

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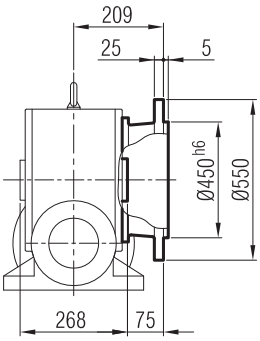

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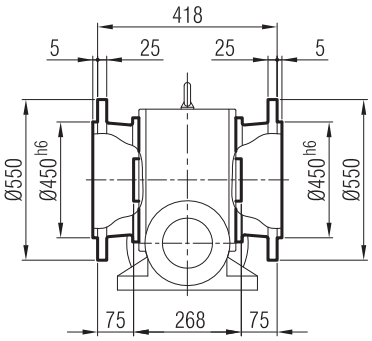

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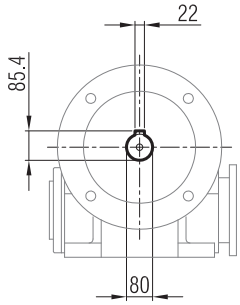
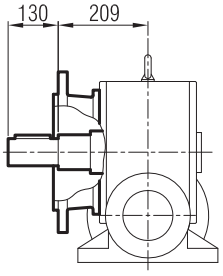
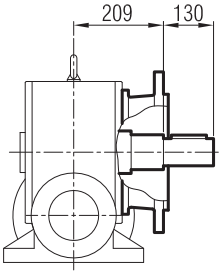


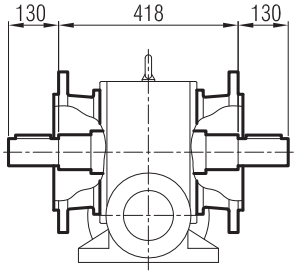
- FR - SR



- FL - SL



- FD - SD




i.Mak

Helisel Sonsuz Vidalı Motorlu Redüktörler Güç ve Devir Tabloları

Helical Worm Geared Motors - Performances Tables

Moto-réducteurs hélicoïdaux à roue et vis sans fin avec moteur - Table de performances

P_1 GÜÇ Power *Puissance* [kW] Hp	n_2 Çıkış Devri Output Speeds *Vitesse de sortie* [r.p.m]	i_s Sonsuz Vida Tahvili Worm Ratio *Rapport de réduction*	i_t Toplam Tahvil Total Ratio *Raapport de réduction total*	S_f Servis Faktörü Service Factor *Service facteur*	M_2 Çıkış Momenti Output Torque *Couple de sortie* [Nm]	F_{Qlo} Rad. Yük Over Loads *Charges radiales* [N]	Tip Type			kg
	3,1	62	285,89	2,00	323	9900	İRSDPM İRSDFPM	63 / 71 M 6a	155 156	34 37
	3,4	62	267,58	2,10	308	9900				
	3,9	53	228,74	2,70	295	9900	İRSDM İRSDFM	63 / 71 M 6a	155 156	34 37
	4,3	62	210,26	2,60	235	9900				
0,18	5,0	53	179,74	3,30	230	9900				
0,25	3,3	82	271,89	0,95	285	6150				
	3,8		238,19	1,07	250	6150				
	4,4	62	205,58	1,36	210	6150	İRSDM İRSDFM	53 / 71 M 6a	153 154	16 18
	5,0		180,10	1,51	183	6150				
	5,4	50	165,79	1,83	204	6150				
	6,2		145,24	2,00	175	6150				
	2,1	106	429,05	2,90	661	21000				
	2,4		382,52	3,10	603	21000	İRSDM İRSDFM	83 / 80 M 6a	159 160	89 99
	2,6		343,44	3,40	533	21000				
	2,7	83	335,95	4,00	522	21000				
	3,1	62	285,89	1,44	455	9900	İRSDPM İRSDFPM	63 / 71 M 6b	155 156	34 37
	3,4	62	267,58	1,51	428	9900				
	3,9	53	228,74	1,94	410	9900	İRSDM İRSDFM	63 / 71 M 6b	155 156	34 37
	4,3	62	210,26	1,87	328	9900				
	5,0	53	179,74	2,38	320	9900				
	4,9	62	285,89	2,10	288	9900	İRSDPM İRSDFPM	63 / 71 M 4a	155 156	33 36
	5,2	62	267,58	2,20	270	9900				
	6,1	53	228,74	2,80	262	9900	İRSDM İRSDFM	63 / 71 M 4a	155 156	33 36
	6,7	62	210,26	2,70	210	9900				
	7,8	53	179,74	3,40	205	9900				
	8,2	62	169,93	3,10	172	9900				
0,25	3,8	82	238,19	0,77	345	6100				
0,34	4,4	62	205,58	0,98	295	6100				
	5,0		180,10	1,08	255	6100				
	5,4	50	165,79	1,32	283	6100	İRSDM İRSDFM	53 / 71 M 6b	153 154	17 19
	6,2		145,24	1,44	245	6100				
	7,0	39	129,32	2,70	215	6100				
	7,9		113,29	2,10	190	6100				
	9,0		100,04	2,30	170	6100				
	5,1	82	271,89	0,99	260	6100				
	5,9		238,19	1,11	220	6100				
	6,8	62	205,58	1,39	185	6100				
	7,8		180,10	1,51	160	6100				
	8,4	50	165,79	1,91	182	6100	İRSDM İRSDFM	53 / 71 M 4a	153 154	15 17
	9,6		145,24	2,10	160	6100				
	11	39	129,32	2,60	140	6100				
	12		113,29	2,90	130	6100				
	14		100,04	3,20	109	6100				
	16	50	88,92	3,50	95	6100				
	18		79,44	3,80	90	6100				
	2,1	106	429,05	1,96	978	21000				
	2,4		382,52	2,09	893	21000				
	2,6		343,44	2,30	790	21000	İRSDM İRSDFM	83 / 80 M 6a	159 160	89 99
0,37	2,7	83	335,95	2,70	774	21000				
0,5	3,0		299,52	2,84	696	21000				
	3,4	65	263,10	3,72	615	21000				
	3,8		234,57	4,01	550	21000				

P_1 GÜÇ Power *Puissance* [kW] Hp	n_2 Çıkış Devri Output Speeds *Vitesse de sortie* [r.p.m]	i_s Sonsuz Vida Tahvili Worm Ratio *Rapport de réduction*	i_t Toplam Tahvil Total Ratio *Raapport de réduction total*	S_f Servis Faktörü Service Factor *Service facteur*	M_2 Çıkış Momenti Output Torque *Couple de sortie* [Nm]	F_{Qlo} Rad. Yük Over Loads *Charges radiales* [N]	Tip Type			kg
	3,3	106	429,05	2,80	685	21000	İRSDPM İRSDFPM	83 / 71 M 4b	159 160	77 87
	3,7		382,52	3,00	609	21000				
	4,1		343,44	3,30	548	21000				
	4,2	83	335,95	3,80	514	21000				
	2,6	82	340,95	1,43	800	15250	İRSDM İRSDFM	73 / 80 M 6a	157 158	58 63
	3,0		300,67	1,59	695	15250				
	3,4	63	261,95	2,00	635	15250				
	3,9		231,00	2,20	550	15250				
	4,3	50	207,89	2,70	559	15250				
	4,1	82	340,95	2,00	510	15250	İRSDM İRSDFM	73 / 71 M 4b	157 158	56 61
	5,3	63	261,95	2,80	260	15250				
	3,1	62	285,89	0,97	674	9800	İRSDPM İRSDFPM	63 / 80 M 6a	155 156	36 39
	3,4	62	267,58	1,02	633	9800	İRSDM İRSDFM	63 / 80 M 6a	155 156	36 39
	3,9	53	228,74	1,31	607	9800				
	4,3	62	210,26	1,26	485	9800				
	5,0	53	179,74	1,61	474	9800				
	4,9	62	285,89	1,42	425	9800	İRSDPM İRSDFPM	63 / 71 M 4b	155 156	33 36
	5,2	62	267,58	1,49	400	9800	İRSDM İRSDFM	63 / 71 M 4b	155 156	33 36
	6,1	53	228,74	1,89	388	9800				
0,37	6,7	62	210,26	1,82	303	9800				
0,5	7,8	53	179,74	2,30	255	9800				
	8,2	62	169,93	2,09	245	9800				
	9,6	53	145,26	2,77	233	9800				
	10	40	135,57	3,18	215	9800				
	11	53	131,59	2,97	180	9800				
	13	40	109,63	3,72	165	9800				
	5,4	50	165,79	0,89	419	6040	İRSDM İRSDFM	53 / 80 M 6a	153 154	17 19
	6,2		145,24	0,97	365	6040				
	7,0	39	129,32	1,80	320	6040				
	7,9		113,29	1,41	285	6040				
	9,0		100,04	1,53	252	6040				
	6,8	62	205,58	0,94	275	6040	İRSDM İRSDFM	53 / 71 M 4b	153 154	16 18
	7,8		180,10	1,02	180	6040				
	8,4	50	165,79	1,29	269	6040				
	9,6		145,24	1,41	235	6040				
	11	39	129,32	1,80	205	6040				
	12		113,29	1,99	190	6040				
	14		100,04	2,20	162	6040				
	16		88,92	2,40	140	6040				
	18		79,44	2,60	130	6040				
	20	30	68,40	2,90	120	6040				
	23		61,11	3,20	100	6040				
	26		54,83	3,40	90	6040				
	28		49,35	3,70	85	6040				
	2,1	106	429,05	1,32	1454	21000	İRSDM İRSDFM	83 / 80 M 6b	159 160	90 100
	2,4		382,52	1,41	1328	21001				
	2,6		343,44	1,55	1175	21002				
0,55	2,7	83	335,95	1,82	1150	21003				
0,75	3,0		299,52	1,91	1035	21004				
	3,4	65	263,10	2,50	913	21005				
	3,8		234,57	2,70	817	21006				
	4,3	52	210,48	3,40	843	21007				
	4,8		187,65	3,70	755	21008				

P_1 GÜÇ Power *Puissance* [kW] Hp	n_2 Çıkış Devri Output Speeds *Vitesse de sortie* [r.p.m]	i_s Sonsuz Vida Tahvili Worm Ratio *Rapport de réduction*	i_t Toplam Tahvil Total Ratio *Raapport de réduction total*	S_f Servis Faktörü Service Factor *Service facteur*	M_2 Çıkış Momenti Output Torque *Couple de sortie* [Nm]	F_{Qlo} Rad. Yük Over Loads *Charges radiales* [N]	Tip Type			kg
	3,3	106	429,05	1,88	1019	21000	İRSDM İRSDFM	83 / 80 M 4a	159 160	88 98
	3,7		382,52	2,02	906	21000				
	4,1		343,44	2,22	815	21000				
	4,2	83	335,95	2,56	764	21000				
	4,7		299,52	2,83	683	21000				
	5,3	65	263,10	3,43	635	21000				
	6,0		234,57	3,76	261	21000				
	2,6	82	340,95	0,96	1195	15170	İRSDM İRSDFM	73 / 80 M 6b	157 158	58 63
	3,0		300,67	1,07	1135	15170				
	3,4	63	261,95	1,35	940	15170				
	3,9		231,00	1,48	820	15170				
	4,3	50	207,89	1,82	830	15170				
	4,1	82	340,95	1,35	755	15170	İRSDM İRSDFM	73 / 80 M 4a	157 158	57 62
	4,7		300,67	1,55	675	15170				
	5,3	63	261,95	1,88	505	15170				
	6,1		231,00	2,09	525	15170				
	6,7	50	207,89	2,69	533	15170				
	7,6		183,33	2,96	470	15170				
	8,6		163,04	3,23	420	15170				
	9,6		145,24	3,48	370	15170				
	11		128,26	3,80	325	15170				
	3,9	53	228,74	0,88	902	9670	İRSDM İRSDFM	63 / 80 M 6b	155 156	36 39
	4,3	62	210,26	0,85	720	9670				
	5,0	53	179,74	1,08	704	9670				
	4,9	62	285,89	0,95	630	9670	İRSDPM İRSDFPM	63 / 80 M 4a	155 156	36 39
0,55 0,75	5,2	62	267,58	1,00	595	9670	İRSDM İRSDFM	63 / 80 M 4a	155 156	36 39
	6,1	53	228,74	1,27	577	9670				
	6,7	62	210,26	1,23	460	9670				
	7,8	53	179,74	1,55	450	9670				
	8,2	62	169,93	1,41	375	9670				
	9,6	53	145,26	1,86	365	9670				
	10	40	135,57	2,14	345	9670				
	11	53	131,59	2,00	320	9670				
	13	40	109,63	2,50	265	9670				
	14	30	101,74	3,12	265	9670				
	14	40	99,31	2,68	248	9670				
	16		90,32	2,86	216	9670				
	17	30	82,22	3,68	220	9670				
	19	40	75,43	3,22	183	9670				
	22		63,59	3,60	158	9670				
	23		60,74	3,70	150	9670				
	7,0	39	129,32	0,84	480	5890	İRSDM İRSDFM	53 / 80 M 6b	153 154	19 21
	7,9		113,29	0,95	425	5890				
	9,0		100,04	1,03	374	5890				
	8,4	50	165,79	0,87	400	5890	İRSDM İRSDFM	53 / 80 M 4a	153 154	18 20
	9,6		145,24	0,95	350	5891				
	11	39	129,32	1,21	305	5890				
	12		113,29	1,34	280	5890				
	14		100,04	1,47	240	5890				
	16		88,92	1,60	210	5890				
	18		79,44	1,73	195	5890				
	18	30	76,96	1,86	195	5890				
	20		68,40	1,99	175	5890				
	23		61,11	2,10	150	5890				
	26		54,83	2,30	135	5890				

P_1 GÜÇ Power *Puissance* [kW] Hp	n_2 Çıkış Devri Output Speeds *Vitesse de sortie* [r.p.m]	i_s Sonsuz Vida Tahvili Worm Ratio *Rapport de réduction*	i_t Toplam Tahvil Total Ratio *Raapport de réduction total*	S_f Servis Faktörü Service Factor *Service facteur*	M_2 Çıkış Momenti Output Torque *Couple de sortie* [Nm]	F_{Qlo} Rad. Yük Over Loads *Charges radiales* [N]	Tip Type			kg
0,55 0,75	**28**	30	49,35	2,50	125	5890	**İRSDM İRSDFM**	**53 / 80 M 4a**	153 154	18 20
	31		44,55	2,70	115	5890				
	35		40,29	2,80	100	5890				
	37		38,28	2,90	95	5890				
	41		33,87	3,10	85	5890				
	46	15	30,56	3,00	85	5890				
	51		27,41	3,30	80	5890				
	57		24,68	3,50	70	5890				
	63		22,27	3,80	65	5890				
0,75 1	**2,5**	87	370,90	2,49	1626	25200	**İRSDPM İRSDFPM**	**161 / 90 S 6a**	161 162	173 183
	2,9		327,29	2,79	1402	25200				
	3,6		291,26	3,28	1130	25200				
	2,1	106	429,05	0,97	1983	21000	**İRSDM İRSDFM**	**83 / 90 S 6a**	159 160	93 103
	2,4		382,52	1,03	1810	21001				
	2,6		343,44	1,13	1601	21002				
	2,7	83	335,95	1,33	1568	21003				
	3,0		299,52	1,40	1412	21004				
	3,4	65	263,10	1,83	1245	21005				
	3,8		234,57	1,98	1115	21006				
	4,3	52	210,48	2,49	1149	21007				
	4,8		187,65	2,71	1029	21008				
	3,3	106	429,05	1,38	1390	21000	**İRSDM İRSDFM**	**83 / 80 M 4b**	159 160	91 101
	3,7		382,52	1,48	1235	21001				
	4,1		343,44	1,63	1112	21002				
	4,2	83	335,95	1,87	1042	21003				
	4,7		299,52	2,07	931	21004				
	5,3	65	263,10	2,52	865	21005				
	6,0		234,57	2,76	765	21006				
	6,7	52	210,48	3,60	759	21007				
	7,5		187,65	3,88	678	21008				
	3,0	82	300,67	0,78	1410	15060	**İRSDM İRSDFM**	**73 / 90 S 6a**	157 158	61 66
	3,4	63	261,95	0,99	1285	15060				
	3,9		231,00	1,09	1120	15060				
	4,3	50	207,89	1,33	1133	15060				
	4,1	82	340,95	0,99	1030	15060	**İRSDM İRSDFM**	**73 / 80 M 4b**	157 158	58 63
	4,7		300,67	1,13	920	15060				
	5,3	63	261,95	1,38	825	15060				
	6,1		231,00	1,53	717	15060				
	6,7	50	207,89	1,97	727	15060				
	7,6		183,33	2,17	641	15060				
	8,6		163,04	2,37	573	15060				
	9,6		145,24	2,55	505	15060				
	11		128,26	2,79	440	15060				
	12	40	116,19	3,43	425	15060				
	14		102,61	3,73	360	15060				
	6,1	62	228,74	0,93	785	9490	**İRSDM İRSDFM**	**63 / 80 M 4b**	155 156	37 40
	6,7		210,26	0,90	630	9491				
	7,8	53	179,74	1,13	615	9492				
	8,2	62	169,93	1,03	515	9493				
	9,6	53	145,26	1,37	500	9494				
	10	62	135,57	1,57	470	9495				
	11	53	131,59	1,47	435	9496				
	13	40	109,63	1,83	364	9497				
	14	53	101,74	2,29	364	9498				
	14	40	99,31	1,97	338	9499				
	16		90,32	2,10	295	9500				
	17	30	82,22	2,70	298	9501				

P_1 **GÜÇ** Power *Puissance* **[kW]** Hp	n_2 **Çıkış Devri** Output Speeds *Vitesse de sortie* **[r.p.m]**	i_s **Sonsuz Vida Tahvili** Worm Ratio *Rapport de réduction*	i_t **Toplam Tahvil** Total Ratio *Raapport de réduction total*	S_f **Servis Faktörü** Service Factor *Service facteur*	M_2 **Çıkış Momenti** Output Torque *Couple de sortie* **[Nm]**	F_{Qlo} **Rad. Yük** Over Loads *Charges radiales* **[N]**	**Tip** Type			kg
0,75 1	**19**	40	75,43	2,36	245	9502	**İRSDM İRSDFM**	**63 / 80 M 4b**	155 156	37 40
	19	30	74,48	2,90	265	9503				
	21		67,74	3,08	240	9504				
	22	40	63,59	2,64	215	9505				
	23		60,74	2,71	205	9506				
	25	30	56,57	3,52	203	9507				
	26	40	53,79	2,90	180	9508				
	29	30	47,69	3,81	175	9509				
	11	39	129,32	0,89	420	5650	**İRSDM İRSDFM**	**53 / 80 M 4b**	153 154	19 21
	12		113,29	0,98	380	5650				
	14		100,04	1,08	328	5650				
	16		88,92	1,17	285	5650				
	18		79,44	1,27	270	5650				
	18	30	76,96	1,37	265	5650				
	20		68,40	1,46	240	5650				
	23		61,11	1,58	210	5650				
	26		54,83	1,70	185	5650				
	28		49,35	1,82	170	5650				
	31		44,55	1,97	155	5650				
	35		40,29	2,10	135	5650				
	37		38,28	2,10	130	5650				
	41		33,87	2,30	115	5650				
	46	15	30,56	2,20	120	5650				
	51		27,41	2,40	108	5650				
	57		24,68	2,60	95	5650				
	63		22,27	2,80	85	5650				
	70		20,14	2,90	78	5650				
	73		19,14	3,00	75	5650				
	83		16,94	3,20	65	5650				
1,1 1,5	**2,5**	87	370,90	1,70	2386	25000	**İRSDPM İRSDFPM**	**161 / 90 L 6b**	161 162	168 178
	2,9		327,29	1,90	2056	25000				
	3,2		291,26	2,06	1863	25000				
	3,6		261,00	2,24	1657	25000				
	4,0	54	230,21	3,25	1808	25000				
	4,5		203,14	3,61	1573	25000				
	5,0		180,78	3,94	1392	25000				
	6,0		162,00	4,30	1247	25000				
	2,7	83	335,95	0,91	2300	20750	**İRSDM İRSDFM**	**83 / 90 L 6b**	159 160	95 105
	3,0		299,52	0,95	2070	20750				
	3,4	65	263,10	1,25	1827	20750				
	3,8		234,57	1,35	1635	20750				
	4,3	52	210,48	1,70	1685	20750				
	4,8		187,65	1,85	1510	20750				
	3,3	106	429,05	0,94	2038	20750	**İRSDM İRSDFM**	**83 / 90 S 4a**	159 160	93 103
	3,7		382,52	1,01	1812	20751				
	4,1		343,44	1,11	1631	20752				
	4,2	83	335,95	1,28	1530	20753				
	4,7		299,52	1,41	1366	20754				
	5,3	65	263,10	1,72	1270	20755				
	6,0		234,57	1,88	1121	20756				
	6,7	52	210,48	2,45	1113	20757				
	7,5		187,65	2,65	994	20758				
	8,6		161,90	3,40	891	20759				
	9,7		144,35	3,70	798	20760				
	4,7	82	300,67	0,77	1350	14750	**İRSDM İRSDFM**	**73 / 90 S 4a**	157 158	61 67
	5,3	63	261,95	0,94	1210	14750				
	6,1		231,00	1,04	1050	14750				

P_1 GÜÇ Power *Puissance* [kW] Hp	n_2 Çıkış Devri Output Speeds *Vitesse de sortie* [r.p.m]	i_s Sonsuz Vida Tahvili Worm Ratio *Rapport de réduction*	i_t Toplam Tahvil Total Ratio *Raapport de réduction total*	S_f Servis Faktörü Service Factor *Service facteur*	M_2 Çıkış Momenti Output Torque *Couple de sortie* [Nm]	F_{Qlo} Rad. Yük Over Loads *Charges radiales* [N]	Tip Type			kg
	6,7		207,89	1,35	1066	14750				
	7,6		183,33	1,48	940	14750				
	8,6	50	163,04	1,61	840	14750				
	9,6		145,24	1,74	745	14750				
	11		128,26	1,90	650	14750	İRSDM	73 / 90 S 4a	157	61
	12		116,19	2,34	620	14750	İRSDFM		158	67
	14	40	102,61	2,54	530	14750				
	15		91,20	2,80	495	14750				
	16		87,14	3,20	480	14750				
	18	30	76,96	3,50	425	14750				
	20		68,40	3,80	380	14750				
	9,6	53	145,26	0,93	730	9250				
	10	62	135,57	1,07	690	9250				
	11	53	131,59	1,00	640	9250				
	13	40	109,63	1,25	530	9250				
	14	53	101,74	1,56	530	9250				
	14	40	99,31	1,34	495	9250				
	16		90,32	1,43	430	9250				
	17	30	82,22	1,84	438	9250				
	19	40	75,43	1,61	365	9250	İRSDM	63 / 90 S 4a	155	58
	19	30	74,48	1,98	390	9250	İRSDFM		156	61
	21		67,74	2,10	355	9250				
1,1	22	40	63,59	1,80	315	9250				
1,5	23		60,74	1,85	301	9250				
	25	30	56,57	2,40	298	9250				
	26	40	53,79	1,98	265	9250				
	29		47,69	2,60	255	9250				
	31	30	45,56	2,70	240	9250				
	35		40,34	2,90	213	9250				
	16	39	88,92	0,80	420	5400				
	18		79,44	0,86	395	5400				
	18		76,96	0,93	390	5400				
	20		68,40	1,00	350	5400				
	23		61,11	1,08	305	5400				
	26		54,83	1,16	270	5400				
	28	30	49,35	1,24	250	5400				
	31		44,55	1,34	225	5400				
	35		40,29	1,42	200	5400	İRSDM	53 / 90 S 4a	153	22
	37		38,28	1,45	190	5400	İRSDFM		154	24
	41		33,87	1,57	170	5400				
	46		30,56	1,54	175	5400				
	51		27,41	1,65	155	5400				
	57		24,68	1,78	140	5400				
	63	15	22,27	1,90	128	5400				
	70		20,14	2,00	115	5400				
	73		19,14	2,10	110	5400				
	83		16,94	2,20	95	5400				
	2,5		370,90	1,25	3252	24700				
	3,0	87	327,29	1,39	2804	24700	İRSDM	161 / 100 L 6a	161	168
	3,5		261,00	1,64	2259	24700	İRSDFM		162	178
	4,0		235,22	1,76	2034	24700				
1,5	3,4	65	263,10	0,92	2491	20000				
2	3,8		234,57	0,99	2229	20000	İRSDM	83 / 100 L 6a	159	98
	4,3	52	210,48	1,25	2298	20000	İRSDFM		160	108
	4,8		187,65	1,36	2059	20000				
	4,1	106	343,44	0,81	2223	20000	İRSDM	83 / 90 L 4a	159	96
	4,2	83	335,95	0,94	2084	20001	İRSDFM		160	106

P_1 GÜÇ Power *Puissance* [kW] Hp	n_2 Çıkış Devri Output Speeds *Vitesse de sortie* [r.p.m]	i_s Sonsuz Vida Tahvili Worm Ratio *Rapport de réduction*	i_t Toplam Tahvil Total Ratio *Raapport de réduction total*	S_f Servis Faktörü Service Factor *Service facteur*	M_2 Çıkış Momenti Output Torque *Couple de sortie* [Nm]	F_{Qlo} Rad. Yük Over Loads *Charges radiales* [N]	Tip Type			kg
	4,7	83	299,52	1,04	1862	20000				
	5,3	65	263,10	1,26	1731	20000				
	6,0		234,57	1,38	1529	20000				
	6,7	52	210,48	1,80	1517	20000				
	7,5		187,65	1,94	1355	20000	İRSDM İRSDFM	83 / 90 L 4a	159 160	96 106
	8,6		161,90	2,50	1215	20000				
	9,7		144,35	2,70	1088	20000				
	11	40	129,60	2,94	950	20000				
	12		117,04	3,16	871	20000				
	13		104,00	3,38	804	20000				
	6,7	50	207,89	0,99	1454	14440				
	7,6		183,33	1,09	1282	14440				
	8,6		163,04	1,18	1146	14440				
	9,6		145,24	1,28	1015	14440				
	11		128,26	1,39	885	14440				
	12	40	116,19	1,72	845	14440				
	14		102,61	1,86	725	14440				
	15		91,20	2,05	675	14440				
	16	30	87,14	2,35	650	14440	İRSDM İRSDFM	73 / 90 L 4a	157 158	69 74
	18		76,96	2,57	580	14440				
	20		68,40	2,79	520	14440				
	23		61,11	3,08	454	14440				
	26		54,83	3,23	400	14440				
	28		49,35	3,37	370	14440				
	31		44,55	3,52	335	14440				
	35		40,29	3,81	298	14440				
1,5 2	38		36,49	3,96	275	14440				
	13	40	109,63	0,92	725	8900				
	14	53	101,74	1,14	725	8900				
	14	40	99,31	0,98	675	8900				
	16		90,32	1,05	590	8900				
	17	30	82,22	1,35	598	8900				
	19	40	75,43	1,18	495	8900				
	19	30	74,48	1,45	535	8900				
	21		67,74	1,54	485	8900	İRSDM İRSDFM	63 / 90 L 4a	155 156	40 43
	22	40	63,59	1,32	430	8900				
	23		60,74	1,36	410	8900				
	25	30	56,57	1,76	405	8900				
	26	40	53,79	1,45	360	8900				
	29	30	47,69	1,91	350	8900				
	31		45,56	1,98	325	8900				
	35		40,34	2,13	290	8900				
	23	30	61,11	0,79	415	5400				
	26		54,83	0,85	370	5400				
	28		49,35	0,91	340	5400				
	31		44,55	0,98	310	5400				
	35		40,29	1,04	275	5400				
	37		38,28	1,07	260	5400				
	41		33,87	1,15	235	5400	İRSDM İRSDFM	53 / 90 L 4a	153 154	24 26
	46	15	30,56	1,13	240	5400				
	51		27,41	1,21	215	5400				
	57		24,68	1,30	190	5400				
	63		22,27	1,39	175	5400				
	70		20,14	1,47	155	5400				
	73		19,14	1,52	150	5400				
	83		16,94	1,63	130	5400				

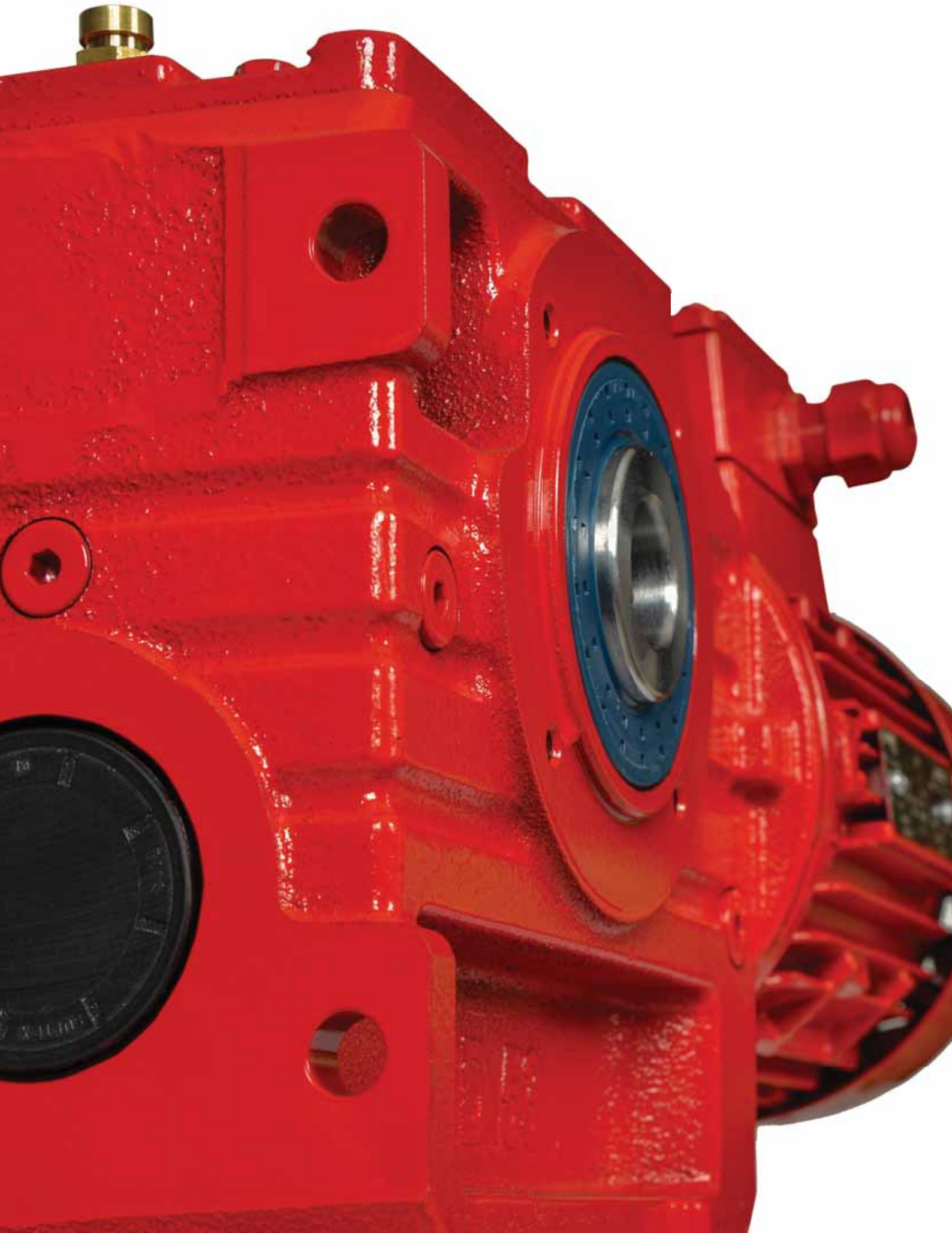
P_1 GÜÇ Power *Puissance* [kW] Hp	n_2 Çıkış Devri Output Speeds *Vitesse de sortie* [r.p.m]	i_s Sonsuz Vida Tahvili Worm Ratio *Rapport de réduction*	i_t Toplam Tahvil Total Ratio *Raapport de réduction total*	S_f Servis Faktörü Service Factor *Service facteur*	M_2 Çıkış Momenti Output Torque *Couple de sortie* [Nm]	F_{Qlo} Rad. Yük Over Loads *Charges radiales* [N]	Tip Type			kg
	5,0	87	291,26	1,38	2687	24350	İRSDM İRSDFM	161 / 100 L 4a	161	175
	5,5		261,00	1,49	2393	24350			162	185
	6,0		235,22	1,59	2194	24350				
	7,0	54	203,14	2,47	2186	24350				
	8,0		180,78	2,68	1937	24350				
	9,0		162,00	2,90	1738	24350				
	10,0		146,00	3,10	1561	24350				
	4,3	52	210,48	0,85	3370	19450	İRSDM İRSDFM	83 / 112 M 6a	159	111
	4,8		187,65	0,93	3020	19450			160	121
	5,3	65	263,10	0,86	2539	19450	İRSDM İRSDFM	83 / 100 L 4a	159	98
	6,0		234,57	0,94	2243	19450			160	108
	6,7	52	210,48	1,23	2225	19450				
	7,5		187,65	1,32	1988	19450				
	8,6		161,90	1,70	1782	19450				
	9,7		144,35	1,85	1596	19450				
	11	40	129,60	2,00	1393	19450				
	12		117,04	2,15	1277	19450				
	13		104,00	2,30	1179	19450				
	15	32	93,63	2,80	1049	19450				
	17		83,20	3,00	926	19450				
	19		74,67	3,14	828	19450				
	21		67,31	3,41	749	19450				
	23		59,83	3,55	684	19450				
	25		55,73	3,82	629	19450				
	8,6	50	163,04	0,81	1681	14100				
	9,6		145,24	0,87	1485	14100				
2,2	11		128,26	0,95	1300	14100				
3	12	40	116,19	1,17	1240	14100				
	14		102,61	1,27	1065	14100				
	15		91,20	1,40	990	14100				
	16	30	87,14	1,60	955	14100				
	18		76,96	1,75	850	14100				
	20		68,40	1,90	765	14100				
	23		61,11	2,10	655	14100				
	26		54,83	2,20	590	14100	İRSDM İRSDFM	73 / 100 L 4a	157	67
	28		49,35	2,30	545	14100			158	73
	31		44,55	2,40	495	14100				
	35		40,29	2,60	435	14100				
	38		36,49	2,70	403	14100				
	42		33,08	2,90	365	14100				
	46	15	30,66	3,00	369	14100				
	51		27,41	3,20	330	14100				
	57		24,68	3,40	300	14100				
	63		22,27	3,60	270	14100				
	70		20,14	3,80	240	14100				
	17	30	82,22	0,92	877	8700				
	19	40	75,43	0,81	730	8700				
	19	30	74,48	0,99	785	8700				
	21		67,74	1,05	710	8700				
	22	40	63,59	0,90	630	8700				
	23		60,74	0,93	603	8700	İRSDM İRSDFM	63 / 100 L 4a	155	42
	25	30	56,57	1,20	595	8700			156	45
	26	40	53,79	0,99	530	8700				
	29	30	47,69	1,30	515	8700				
	31		45,56	1,35	480	8700				
	35		40,34	1,45	425	8700				

P_1 GÜÇ Power *Puissance* [kW] Hp	n_2 Çıkış Devri Output Speeds *Vitesse de sortie* [r.p.m]	i_s Sonsuz Vida Tahvili Worm Ratio *Rapport de réduction*	i_t Toplam Tahvil Total Ratio *Raapport de réduction total*	S_f Servis Faktörü Service Factor *Service facteur*	M_2 Çıkış Momenti Output Torque *Couple de sortie* [Nm]	F_{Qlo} Rad. Yük Over Loads *Charges radiales* [N]	Tip Type			kg
2,2 3	41	30	33,87	0,78	340	5400	İRSDM İRSDFM	53 / 100 L 4a	153 154	28 30
	46	15	30,56	0,77	350	5400				
	51		27,41	0,82	215	5400				
	57		24,68	0,89	280	5400				
	63		22,27	0,95	255	5400				
	70		20,14	1,00	230	5400				
	73		19,14	1,04	220	5400				
	83		16,94	1,11	195	5400				
3 4	5,5	87	261,00	1,09	3263	24100	İRSDM İRSDFM	161 / 100 L 4b	161 162	174 184
	6,0		235,22	1,17	2991	24100				
	6,5		213,00	1,24	2678	24100				
	7,5		193,65	1,31	2425	24100				
	9,0	54	162,00	2,13	2370	24100				
	10,0		146,00	2,27	2119	24100				
	11		132,21	2,43	1932	24100				
	12		120,19	2,58	1753	24100				
	6,7	52	210,48	0,90	3034	19100	İRSDM İRSDFM	83 / 100 L 4b	159 160	105 115
	7,5		187,65	0,97	2710	19100				
	8,6		161,90	1,25	2430	19100				
	9,7		144,35	1,35	2175	19100				
	11	40	129,60	1,47	1899	19100				
	12		117,04	1,58	1741	19100				
	13		104,00	1,69	1607	19100				
	15	32	93,63	2,00	1430	19100				
	17		83,20	2,20	1262	19100				
	19		74,67	2,30	1129	19100				
	21		67,31	2,50	1022	19100				
	23		59,83	2,60	933	19100				
	25		55,73	2,80	858	19100				
	28		50,29	2,90	766	19100				
	31		45,84	3,10	692	19100				
	33		41,85	3,20	650	19100				
	37		38,24	3,40	580	19100				
	41		33,94	3,60	523	19100				
	12	40	116,19	0,86	1695	13700	İRSDM İRSDFM	73 / 100 L 4b	157 158	69 74
	14		102,61	0,93	1450	13700				
	15		91,20	1,03	1355	13700				
	16	30	87,14	1,17	1305	13700				
	18		76,96	1,28	1160	13700				
	20		68,40	1,39	1045	13700				
	23		61,11	1,54	908	13700				
	26		54,83	1,61	800	13700				
	28		49,35	1,69	745	13700				
	31		44,55	1,76	675	13700				
	35		40,29	1,91	596	13700				
	38		36,49	1,98	550	13700				
	42		33,08	2,13	495	13700				
	46	15	30,66	2,20	500	13700				
	51		27,41	2,35	450	13700				
	57		24,68	2,49	405	13700				
	63		22,27	2,64	365	13700				
	70		20,14	2,79	330	13700				
	77		18,24	2,93	300	13700				
	85		16,54	3,08	270	13700				
	25	30	56,57	0,88	810	8700	İRSDM İRSDFM	63 / 100 L 4b	155 156	42 45
	29		47,69	0,95	700	8700				
	31		45,56	0,99	655	8700				
	35		40,34	1,06	580	8700				

P_1 GÜÇ Power *Puissance* [kW] Hp	n_2 Çıkış Devri Output Speeds *Vitesse de sortie* [r.p.m]	i_s Sonsuz Vida Tahvili Worm Ratio *Rapport de réduction*	i_t Toplam Tahvil Total Ratio *Raapport de réduction total*	S_f Servis Faktörü Service Factor *Service facteur*	M_2 Çıkış Momenti Output Torque *Couple de sortie* [Nm]	F_{Qlo} Rad. Yük Over Loads *Charges radiales* [N]	Tip Type			kg
	5,5	87	261,00	0,82	4351	23500				
	6,0		235,22	0,88	3989	23500				
	6,7		213,00	0,93	3521	23500				
	7,0	54	203,14	1,36	3974	23500				
	8,0		180,78	1,48	3523	23500				
	9,0		162,00	1,60	3160	23500				
	10,0		146,00	1,70	2839	23500	**İRSDM İRSDFM**	**161 / 112 M 4b**	161 162	184 194
	11		132,21	1,82	2577	23500				
	12		126,00	2,10	2495	23500				
	11	42	120,19	1,93	2338	23500				
	13		113,56	2,25	2236	23500				
	14		102,83	2,39	2027	23500				
	15		93,48	2,52	1844	23500				
	8,6	52	161,90	0,94	3240	18500				
	9,7		144,35	0,98	2900	18500				
	11	40	129,60	1,10	2533	18500				
	12		117,04	1,19	2322	18500				
	13		104,00	1,27	2143	18500				
	15	32	93,63	1,47	1907	18500				
	17		83,20	1,65	1683	18500				
	19		74,67	1,73	1506	18500	**İRSDM**		159	111
	21		67,31	1,88	1362	18500	**İRSDFM**	**83 / 112 M 4b**	160	121
4	**23**		59,83	1,95	1244	18500				
5,5	**25**		55,73	2,10	1144	18500				
	28		50,29	2,18	1022	18500				
	31		45,84	2,33	923	18500				
	33		41,85	2,40	867	18500				
	37		38,24	2,55	773	18500				
	41		33,94	2,70	698	18500				
	15	40	91,20	0,77	1805	13200				
	16	30	87,14	0,88	1740	13200				
	18		76,96	0,96	1545	13200				
	20		68,40	1,05	1390	13200				
	23		61,11	1,16	1210	13200				
	26		54,83	1,21	1070	13200				
	28		49,35	1,27	995	13200				
	31		44,55	1,32	898	13200				
	35		40,29	1,43	795	13200	**İRSDM**		157	73
	38		36,49	1,49	730	13200	**İRSDFM**	**73 / 112 M 4b**	158	78
	42		33,08	1,60	660	13200				
	46	15	30,66	1,65	670	13200				
	51		27,41	1,76	605	13200				
	57		24,68	1,87	540	13200				
	63		22,27	1,98	490	13200				
	70		20,14	2,09	440	13200				
	77		18,24	2,20	400	13200				
	85		16,54	2,31	360	13200				
	9,0	87	161,57	0,80	3740	23500				
	9,5		148,13	0,84	3427	23500				
	11		136,07	0,88	3136	23500				
	13	54	109,63	1,48	2942	23000				
5,5	**14**		100,28	1,57	2675	23000	**İRSDM**		161	193
7,5	**16**		91,95	1,65	2450	23000	**İRSDFM**	**161 / 132 S 4c**	162	203
	17	42	85,27	1,94	2322	23000				
	18		78,00	2,25	2116	23000				
	20		71,51	2,14	1937	23000				
	24	30	60,91	2,76	1634	23000				

P_1 GÜÇ Power *Puissance* [kW] Hp	n_2 Çıkış Devri Output Speeds *Vitesse de sortie* [r.p.m]	i_s Sonsuz Vida Tahvili Worm Ratio *Rapport de réduction*	i_t Toplam Tahvil Total Ratio *Raapport de réduction total*	S_f Servis Faktörü Service Factor *Service facteur*	M_2 Çıkış Momenti Output Torque *Couple de sortie* [Nm]	F_{Qlo} Rad. Yük Over Loads *Charges radiales* [N]	Tip Type			kg
5,5 7,5	26	30	55,71	2,89	1495	23000	İRSDM İRSDFM	161 / 132 S 4c	161 162	193 203
	28		51,08	3,03	1372	23000				
	31		46,92	3,15	1260	23000				
	42		33,66	3,66	903	23000				
	11	40	129,60	0,80	3482	17250	İRSDM İRSDFM	83 / 132 S 4c	159 160	122 132
	12		117,04	0,86	3192	17250				
	13		104,00	0,92	2947	17250				
	15	32	93,63	1,07	2623	17250				
	17		83,20	1,20	2314	17250				
	19		74,67	1,25	2070	17250				
	21		67,31	1,36	1873	17250				
	23		59,83	1,42	1710	17250				
	25		55,73	1,53	1574	17250				
	28		50,29	1,58	1405	17250				
	31		45,84	1,69	1269	17250				
	33		41,85	1,75	1192	17250				
	37		38,24	1,85	1063	17250				
	41		33,94	1,96	960	17250				
	20	30	68,40	0,76	1915	13200	İRSDM İRSDFM	73 / 132 S 4c	157 158	84 89
	23		61,11	0,84	1665	13200				
	26		54,83	0,88	1470	13200				
	28		49,35	0,92	1365	13200				
	31		44,55	0,96	1235	13200				
	35		40,29	1,04	1095	13200				
	38		36,49	1,08	1008	13200				
	42		33,08	1,16	910	13200				
	46	15	30,66	1,20	920	13200				
	51		27,41	1,28	830	13200				
	57		24,68	1,36	745	13200				
	63		22,27	1,44	670	13200				
	70		20,14	1,52	605	13200				
	77		18,24	1,60	550	13200				
	85		16,54	1,68	500	13200				
7,5 10	13	54	109,63	1,08	4012	22440	İRSDM İRSDFM	161 / 132 M 4b	161 162	201 211
	14		100,28	1,15	3648	22440				
	16		91,95	1,21	3342	22440				
	17	42	85,27	1,42	3166	22440				
	18		78,00	1,65	2885	22440				
	20		71,51	1,57	2642	22440				
	22		65,69	1,64	2437	22440				
	24	30	60,91	2,02	2228	22440				
	26		55,71	2,12	2039	22440				
	28		51,08	2,22	1869	22440				
	31		46,92	2,31	1718	22440				
	43		33,66	2,68	1232	22440				
	15	32	93,63	0,79	3576	17000	İRSDM İRSDFM	83 / 132 M 4b	159 160	129 139
	17		83,20	0,88	3156	17000				
	19		74,67	0,92	2824	17000				
	21		67,31	1,00	2555	17000				
	23		59,83	1,04	2333	17000				
	25		55,73	1,12	2146	17000				
	28		50,29	1,16	1916	17000				
	31		45,84	1,24	1731	17000				
	33		41,85	1,28	1626	17000				
	37		38,24	1,36	1450	17000				
	41		33,94	1,44	1308	17000				

P_1 GÜÇ Power *Puissance* [kW] Hp	n_2 Çıkış Devri Output Speeds *Vitesse de sortie* [r.p.m]	i_s Sonsuz Vida Tahvili Worm Ratio *Rapport de réduction*	i_t Toplam Tahvil Total Ratio *Raapport de réduction total*	S_f Servis Faktörü Service Factor *Service facteur*	M_2 Çıkış Momenti Output Torque *Couple de sortie* [Nm]	F_{Qlo} Rad. Yük Over Loads *Charges radiales* [N]	Tip Type			 kg
	35	30	40,29	0,76	1490	13200				
	38		36,49	0,79	1375	13200				
	42		33,08	0,85	1245	13200				
	46	15	30,66	0,88	1255	13200				
7,5	51		27,41	0,94	1135	13200	**İRSDM**		157	91
10	57		24,68	1,00	1015	13200	**İRSDFM**	**73 / 132 M 4b**	158	96
	63		22,27	1,06	920	13200				
	70		20,14	1,11	825	13200				
	77		18,24	1,17	750	13200				
	85		16,54	1,23	680	13200				
	17	42	85,27	0,97	4573	22440				
	19		78,00	1,13	4202	22440				
	20		71,51	1,07	3887	22440				
	22		65,69	1,12	3534	22440				
	24	30	60,91	1,38	3397	22440				
	26		55,71	1,45	3071	22440				
	28		51,08	1,52	2851	22440	**İRSDM**		161	210
	31		46,92	1,57	2575	22440	**İRSDFM**	**161 / C132 M 4**	162	220
11	43		33,66	1,83	1857	22440				
15	47	15	30,45	2,01	1855	22440				
	51		27,86	2,11	1710	22440				
	56		25,54	2,20	1557	22440				
	61		23,46	2,28	1429	22440				
	85		16,83	2,66	1026	22440				
	28	32	50,29	0,79	2810	17000				
	31		45,84	0,85	2538	17000				
	33		41,85	0,87	2384	17000	**İRSDM**		159	166
	37		38,24	0,93	2126	17000	**İRSDFM**	**83 / 160 M 4b**	160	171
	41		33,94	0,98	1919	17000				



Helisel Sonsuz Vidalı Redüktörler Güç ve Devir Tabloları

Helical Worm Gear Unit - Performances Tables

Réducteurs Hélicoïdaux à roue et vis sans fin - Table de performances

Servis Faktörü Service Factor *Betriebsfaktor* $S_f = 1$	P_1 **GÜÇ** Power *Leistung* [kW]	n_2 **Çıkış Devri** Output Speeds *Abtriebswelle Drehzahlen* [r.p.m] (n_1=1400rpm)	$İ_s$ **Sonsuz Vida Tahvili** Worm Ratio *Schnecken Übersetzung*	$İ_t$ **Toplam Tahvil** Total Ratio *Gesamt Übersetzung*	**η Verim** Efficiency *Wirkungsgrad* [%]	M_2 **Çıkış Momenti** Output Torque *Abtriebswelle Drehmomente* [Nm]	F_{Q1} **Rad. Yük** Over Loads *Querkräfte* [N]	F_{Q1o} **Rad. Yük** Over Loads *Querkräfte* [N]	**Tip** Type *Typ*			kg
270-420 Nm	**0,26**	5,15	82	272	56	270	420	6000	**İRSD İRSDF**	**53**	153 154	13 15
	0,30	5,88		238		270	420	6000				
	0,36	6,81	62	206	54	270	420	6000				
	0,41	7,77		180		270	420	6000				
	0,37	8,44	50	166	65	270	420	6000				
	0,46	9,64		145		290	420	6000				
	0,74	10,83	39	129		420	420	6000				
	0,85	12,36		113		420	420	6000				
	0,66	13,99		100		290	420	6000				
	1,1	15,74		88,92		420	420	6000				
	1,2	17,62		79,44		420	420	6000				
	1,2	18,19	30	76,96	68	410	420	6000				
	1,3	20,47		68,40		410	420	6000				
	1,5	22,91		61,11		410	420	6000				
	1,6	25,53		54,83		410	420	6000				
	1,8	28,37		49,35		410	420	6000				
	2,0	31,43		44,55		410	420	6000				
	2,2	34,75		40,29		410	420	6000				
	2,3	36,58		38,28		410	420	6000				
	2,6	41,33		33,87		410	420	6000				
	2,6	45,82	15	30,56	78	410	420	6000				
	2,9	51,07		27,41		410	420	6000				
	3,2	56,73		24,68		410	420	6000				
	3,5	62,86		22,27		410	420	6000				
	3,9	69,51		20,14		410	420	6000				
	4,1	73,16		19,14		410	420	6000				
	4,6	82,67		16,94		410	420	6000				
510-870 Nm	**0,55**	4,90	62	286	60	634	700	8700	**İRSD İRSDF**	**63**	155 156	22 25
	0,55	5,23		268		594	700	8700				
	0,66	6,12	53	229	68	692	700	8700				
	0,75	6,66	62	210	60	636	700	8700				
	0,77	7,79	53	180	68	636	700	8700				
	0,75	8,24	62	170	60	514	700	8700				
	1,1	9,64	53	145	68	730	700	8700				
	1,1	10,33	40	136	67	662	700	8700				
	1,0	10,64	53	132	68	602	700	8700				
	1,5	12,77	40	110	67	741	700	8700				
	1,4	13,76	30	102	72	698	700	8700				
	1,5	14,10	40	99,31	67	671	700	8700				
	1,5	15,50		90,32		610	700	8700				
	2,2	17,03	30	82,22	72	876	700	8700				
	2,2	18,56	40	75,43	67	747	700	8700				
	2,4	18,80	30	74,48		793	700	8700				
	2,4	20,67		67,74		721	700	8700				
	2,2	22,02	40	63,59		630	700	8700				
	2,2	23,05		60,74		602	700	8700				
	2,2	24,75	30	56,57	72	602	700	8700				
	3,4	26,03	40	53,79	67	821	700	8700				
	3,0	29,36	30	47,69	72	693	700	8700				
	3,0	30,73		45,56		662	700	8700				
	4,5	34,70		40,34		871	700	8700				

Servis Faktörü Service Factor *Betriebsfaktor* $S_f = 1$	P_1 GÜÇ Power *Leistung* [kW]	n_2 Çıkış Devri Output Speeds *Abtriebswelle Drehzahlen* [r.p.m] (n_1=1400rpm)	$İ_s$ Sonsuz Vida Tahvili Worm Ratio *Schnecken Übersetzung*	$İ_t$ Toplam Tahvil Total Ratio *Gesamt Übersetzung*	η Verim Efficiency *Wirkungsgrad* [%]	M_2 Çıkış Momenti Output Torque *Abtriebswelle Drehmomente* [Nm]	F_{Q1} Rad. Yük Over Loads *Querkräfte* [N]	F_{Q1o} Rad. Yük Over Loads *Querkräfte* [N]	Tip Type *Typ*			kg
680-1870 Nm	0,75	4,11	82	341	60	1031	1100	13300	İRSD İRSDF	73	157 158	55 60
	1,1	4,66		301		1334	1100	13300				
	1,1	5,34	63	262	62	1201	1100	13300				
	1,1	6,06		231		1059	1100	13300				
	1,5	6,73	50	208	69	1284	1100	13300				
	1,5	7,64		183		1150	1100	13300				
	1,5	8,59		163		1033	1100	13300				
	2,2	9,64		145		1482	1100	13300				
	2,2	10,92		128		1309	1100	13300				
	3,0	12,05	40	116	72	1687	1100	13300				
	3,0	13,64		103		1490	1100	13300				
	4,0	15,35		91,20		1766	1100	13300				
	4,0	16,07	30	87,14	74	1734	1100	13300				
	4,0	18,19		76,96		1531	1100	13300				
	5,5	20,47		68,40		1872	1100	13300				
	5,5	22,91		61,11		1672	1100	13300				
	5,5	25,53		54,83		1500	1100	13300				
	5,5	28,37		49,35		1350	1100	13300				
	5,5	31,43		44,55		1219	1100	13300				
	7,5	34,75		40,29		1503	1100	13300				
	7,5	38,37		36,49		1361	1100	13300				
	7,5	42,33		33,08		1234	1100	13300				
	7,5	45,67	15	30,66	82	1267	1100	13300				
	7,5	51,07		27,41		1133	1100	13300				
	7,5	56,73		24,68		1020	1100	13300				
	7,5	62,86		22,27		921	1100	13300				
	7,5	69,51		20,14		833	1100	13300				
	7,5	76,74		18,24		754	1100	13300				
	7,5	84,65		16,54		684	1100	13300				
1670-3540 Nm	1,2	3,26	106	429	63	2038	1550	18800	İRSD İRSDF	83	159 160	97 107
	1,2	3,66		383		1812	1550	18800				
	1,2	4,08		343		1631	1550	18800				
	1,3	4,17	83	336	62	1873	1550	18800				
	1,5	4,67		300		1873	1550	18800				
	2,2	5,32	65	263	65	2529	1550	18800				
	2,2	5,97		235		2255	1550	18800				
	3,0	6,65	52	210	72	3056	1550	18800				
	3,0	7,46		188		2725	1550	18800				
	3,1	8,65		162		2447	1550	18800				
	3,2	9,70		144		2209	1550	18800				
	5,5	10,80	40	130	74	3546	1550	18800				
	5,5	11,96		117		3202	1550	18800				
	5,5	13,46		104		2846	1550	18800				
	5,5	14,95		93,63		2554	1550	18800				
	7,5	16,83	32	83,20	76	3188	1550	18800				
	7,5	18,75		74,67		2861	1550	18800				
	7,5	20,80		67,31		2579	1550	18800				
	7,5	23,40		59,83		2293	1550	18800				
	7,5	25,12		55,73		2135	1550	18800				
	11,0	27,84		50,29		2826	1550	18800				
	11,0	30,54		45,84		2576	1550	18800				
	11,0	33,46		41,85		2352	1550	18800				
	11,0	36,61		38,24		2149	1550	18800				
	11,0	41,25		33,94		1907	1550	18800				

Servis Faktörü Service Factor *Betriebsfaktor* $S_f = 1$	P_1 **GÜÇ** Power *Leistung* [kW]	n_2 **Çıkış Devri** Output Speeds *Abtriebswelle Drehzahlen* [r.p.m] (n_1=1400rpm)	$İ_s$ **Sonsuz Vida Tahvili** Worm Ratio *Schnecken Übersetzung*	$İ_t$ **Toplam Tahvil** Total Ratio *Gesamt Übersetzung*	**η Verim** Efficiency *Wirkungsgrad* [%]	M_2 **Çıkış Momenti** Output Torque *Abtriebswelle Drehmomente* [Nm]	F_{Q1} **Rad. Yük** Over Loads *Querkräfte* [N]	F_{Q1o} **Rad. Yük** Over Loads *Querkräfte* [N]	**Tip** Type *Typ*			kg
3400-6000 Nm	**2,6**	5,36	54	261	73	3274	2120	22000	**İRSD İRSDF**	**161**	161 162	160 170
	3,0	5,95		235		3430	2120	22000				
	3,2	6,57		213		3317	2120	22000				
	3,4	7,23		194		3186	2120	22000				
	6,3	6,89	87	203	63	5380	2120	22000				
	6,8	7,74		181		5213	2120	22000				
	7,4	8,64		162		5045	2120	22000				
	7,8	9,59	87	146	63	4834	2120	22000				
	8,4	10,59		132		4687	2120	22000				
	8,9	11,65		120		4518	2120	22000				
	8,3	11,11	42	126	74	5222	2120	22000				
	8,9	12,33		114		5039	2120	22000				
	9,1	13,62		103		4652	2120	22000				
	10,0	14,98		93,48		4652	2120	22000				
	10,6	16,42		85,27		4481	2120	22000				
	12,3	17,95		78,00		4756	2120	22000				
	11,7	19,58		71,51		4153	2120	22000				
	12,2	21,31		65,69		3988	2120	22000				
	14,3	22,99	30	60,90	77	4518	2120	22000				
	15,0	25,13		55,71		4330	2120	22000				
	15,7	27,41		51,08		4162	2120	22000				
	16,4	29,84		46,92		3976	2120	22000				
	18,8	41,60		33,65		3270	2120	22000				

Servis Faktörü Service Factor *Betriebsfaktor* $S_f = 1$	P_1 GÜÇ Power *Leistung* [kW]	n_2 Çıkış Devri Output Speeds *Abtriebswelle Drehzahlen* [r.p.m] (n_1=900rpm)	$İ_s$ Sonsuz Vida Tahvili Worm Ratio *Schnecken Übersetzung*	$İ_t$ Toplam Tahvil Total Ratio *Gesamt Übersetzung*	η Verim Efficiency *Wirkungsgrad* [%]	M_2 Çıkış Momenti Output Torque *Abtriebswelle Drehmomente* [Nm]	F_{Q1} Rad. Yük Over Loads *Querkräfte* [N]	F_{Q1o} Rad. Yük Over Loads *Querkräfte* [N]	Tip Type *Typ*			kg
270-420 Nm	0,17	3,31	82	272	56	270	420	6000	İRSD İRSDF	53	153 154	13 15
	0,19	3,78		238		270	420	6000				
	0,23	4,38	62	206	54	270	420	6000				
	0,27	5,00		180		270	420	6000				
	0,24	5,43	50	166	65	270	420	6000				
	0,29	6,20		145		290	420	6000				
	0,48	6,96	39	129		420	420	6000				
	0,55	7,94		113		420	420	6000				
	0,43	9,00		100		290	420	6000				
	0,69	10,12		88,92		420	420	6000				
	0,78	11,33		79,44		420	420	6000				
	0,75	11,69	30	76,96	68	410	420	6000				
	0,84	13,16		68,40		410	420	6000				
	0,94	14,73		61,11		410	420	6000				
	1,1	16,42		54,83		410	420	6000				
	1,2	18,24		49,35		410	420	6000				
	1,3	20,20		44,55		410	420	6000				
	1,4	22,34		40,29		410	420	6000				
	1,5	23,51		38,28		410	420	6000				
	1,7	26,57		33,87		410	420	6000				
	1,6	29,46	15	30,56	78	410	420	6000				
	1,8	32,83		27,41		410	420	6000				
	2,0	36,47		24,68		410	420	6000				
	2,3	40,41		22,27		410	420	6000				
	2,5	44,68		20,14		410	420	6000				
	2,6	47,03		19,14		410	420	6000				
	3,0	53,14		16,94		410	420	6000				
510-870 Nm	0,35	3,15	62	286	60	634	700	8700	İRSD İRSDF	63	155 156	22 25
	0,35	3,36		268		594	700	8700				
	0,43	3,93	53	229	68	692	700	8700				
	0,48	4,28	62	210	60	636	700	8700				
	0,50	5,01	53	180	68	636	700	8700				
	0,48	5,30	62	170	60	514	700	8700				
	0,71	6,20	53	145	68	730	700	8700				
	0,70	6,64	40	136	67	662	700	8700				
	0,64	6,84	53	132	68	602	700	8700				
	0,96	8,21	40	110	67	741	700	8700				
	0,91	8,85	30	102	72	698	700	8700				
	0,96	9,06	40	99,31	67	671	700	8700				
	0,96	9,96		90,32		610	700	8700				
	1,4	10,95	30	82,22	72	876	700	8700				
	1,4	11,93	40	75,43	67	747	700	8700				
	1,5	12,08	30	74,48		793	700	8700				
	1,5	13,29		67,74		721	700	8700				
	1,4	14,15	40	63,59		630	700	8700				
	1,4	14,82		60,74		602	700	8700				
	1,4	15,91	30	56,57	72	602	700	8700				
	2,2	16,73	40	53,79	67	821	700	8700				
	1,9	18,87	30	47,69	72	693	700	8700				
	1,9	19,76		45,56		662	700	8700				
	2,9	22,31		40,34		871	700	8700				

Servis Faktörü Service Factor *Betriebsfaktor* $S_f = 1$	P_1 GÜÇ Power *Leistung* [kW]	n_2 Çıkış Devri Output Speeds *Abtriebswelle Drehzahlen* [r.p.m] (n_1=900rpm)	$İ_s$ Sonsuz Vida Tahvili Worm Ratio *Schnecken Übersetzung*	$İ_t$ Toplam Tahvil Total Ratio *Gesamt Übersetzung*	η Verim Efficiency *Wirkungsgrad* [%]	M_2 Çıkış Momenti Output Torque *Abtriebswelle Drehmomente* [Nm]	F_{Q1} Rad. Yük Over Loads *Querkräfte* [N]	F_{Q1o} Rad. Yük Over Loads *Querkräfte* [N]	Tip Type *Typ*			kg
680-1870 Nm	0,48	2,64	82	341	60	1031	1100	13300	İRSD İRSDF	73	157 158	55 60
	0,71	2,99		301		1334	1100	13300				
	0,71	3,44	63	262	62	1201	1100	13300				
	0,71	3,90		231		1059	1100	13300				
	0,95	4,33	50	208	69	1284	1100	13300				
	0,97	4,91		183		1150	1100	13300				
	0,98	5,52		163		1033	1100	13300				
	1,4	6,20		145		1482	1100	13300				
	1,4	7,02		128		1309	1100	13300				
	1,9	7,75	40	116	72	1687	1100	13300				
	1,9	8,77		103		1490	1100	13300				
	2,6	9,87		91,20		1766	1100	13300				
	2,6	10,33	30	87,14	74	1734	1100	13300				
	2,6	11,69		76,96		1531	1100	13300				
	3,5	13,16		68,40		1872	1100	13300				
	3,5	14,73		61,11		1672	1100	13300				
	3,5	16,42		54,83		1500	1100	13300				
	3,5	18,24		49,35		1350	1100	13300				
	3,5	20,20		44,55		1219	1100	13300				
	4,8	22,34		40,29		1503	1100	13300				
	4,8	24,67		36,49		1361	1100	13300				
	4,8	27,21		33,08		1234	1100	13300				
	4,8	29,36	15	30,66	82	1267	1100	13300				
	4,8	32,83		27,41		1133	1100	13300				
	4,8	36,47		24,68		1020	1100	13300				
	4,8	40,41		22,27		921	1100	13300				
	4,8	44,68		20,14		833	1100	13300				
	4,8	49,33		18,24		754	1100	13300				
	4,8	54,42		16,54		684	1100	13300				
1670-3540 Nm	0,77	2,10	106	429	63	2038	1550	18800	İRSD İRSDF	83	159 160	97 107
	0,77	2,35		383		1812	1550	18800				
	0,77	2,62		343		1631	1550	18800				
	0,86	2,68	83	336	62	1873	1550	18800				
	0,96	3,00		300		1873	1550	18800				
	1,4	3,42	65	263	65	2529	1550	18800				
	1,4	3,84		235		2255	1550	18800				
	1,9	4,28	52	210	72	3056	1550	18800				
	1,9	4,80		188		2725	1550	18800				
	2,0	5,56		162		2447	1550	18800				
	2,0	6,23		144		2209	1550	18800				
	3,5	6,94	40	130	74	3546	1550	18800				
	3,5	7,69		117		3202	1550	18800				
	3,5	8,65		104		2846	1550	18800				
	3,5	9,61		93,63		2554	1550	18800				
	4,8	10,82	32	83,20	76	3188	1550	18800				
	4,8	12,05		74,67		2861	1550	18800				
	4,8	13,37		67,31		2579	1550	18800				
	4,8	15,04		59,83		2293	1550	18800				
	4,8	16,15		55,73		2135	1550	18800				
	7,1	17,90		50,29		2826	1550	18800				
	7,1	19,63		45,84		2576	1550	18800				
	7,1	21,51		41,85		2352	1550	18800				
	7,1	23,53		38,24		2149	1550	18800				
	7,1	26,52		33,94		1907	1550	18800				

Servis Faktörü Service Factor *Betriebsfaktor* $S_f = 1$	P_1 **GÜÇ** Power *Leistung* [kW]	n_2 **Çıkış Devri** Output Speeds *Abtriebswelle Drehzahlen* [r.p.m] (n_1=900rpm)	$İ_s$ **Sonsuz Vida Tahvili** Worm Ratio *Schnecken Übersetzung*	$İ_t$ **Toplam Tahvil** Total Ratio *Gesamt Übersetzung*	η **Verim** Efficiency *Wirkungsgrad* [%]	M_2 **Çıkış Momenti** Output Torque *Abtriebswelle Drehmomente* [Nm]	F_{Q1} **Rad. Yük** Over Loads *Querkräfte* [N]	F_{Q1o} **Rad. Yük** Over Loads *Querkräfte* [N]	**Tip** Type *Typ*			kg
3400-6000 Nm	**1,6**	3,45	54	261	73	3274	2120	22000	**İRSD İRSDF**	**161**	161 162	160 170
	1,9	3,83		235		3430	2120	22000				
	2,0	4,23		213		3317	2120	22000				
	2,2	4,65		194		3186	2120	22000				
	4,0	4,43	87	203	63	5380	2120	22000				
	4,4	4,98		181		5213	2120	22000				
	4,7	5,56		162		5045	2120	22000				
	5,0	6,16	87	146	63	4834	2120	22000				
	5,4	6,81		132		4687	2120	22000				
	5,7	7,49		120		4518	2120	22000				
	5,4	7,14	42	126	74	5222	2120	22000				
	5,7	7,93		114		5039	2120	22000				
	5,8	8,75		103		4652	2120	22000				
	6,4	9,63		93,48		4652	2120	22000				
	6,8	10,55		85,27		4481	2120	22000				
	7,9	11,54		78,00		4756	2120	22000				
	7,5	12,59		71,51		4153	2120	22000				
	7,8	13,70		65,69		3988	2120	22000				
	9,2	14,78	30	60,90	77	4518	2120	22000				
	9,7	16,16		55,71		4330	2120	22000				
	10,1	17,62		51,08		4162	2120	22000				
	10,5	19,18		46,92		3976	2120	22000				
	12,1	26,75		33,65		3270	2120	22000				

Servis Faktörü Service Factor *Betriebsfaktor* $S_f = 1$	P_1 **GÜÇ** Power *Leistung* [kW]	n_2 **Çıkış Devri** Output Speeds *Abtriebswelle Drehzahlen* [r.p.m] (n_1=700rpm)	i_s **Sonsuz Vida Tahvili** Worm Ratio *Schnecken Übersetzung*	i_t **Toplam Tahvil** Total Ratio *Gesamt Übersetzung*	η **Verim** Efficiency *Wirkungsgrad* [%]	M_2 **Çıkış Momenti** Output Torque *Abtriebswelle Drehmomente* [Nm]	F_{Q1} **Rad. Yük** Over Loads *Querkräfte* [N]	F_{Q1o} **Rad. Yük** Over Loads *Querkräfte* [N]	**Tip** Type *Typ*			kg
270-420 Nm	**0,13**	2,57	82	272	56	270	420	6000	**İRSD İRSDF**	**53**	153 154	13 15
	0,15	2,94		238		270	420	6000				
	0,18	3,41	62	206	54	270	420	6000				
	0,21	3,89		180		270	420	6000				
	0,19	4,22	50	166	65	270	420	6000				
	0,23	4,82		145		290	420	6000				
	0,37	5,41	39	129		420	420	6000				
	0,42	6,18		113		420	420	6000				
	0,33	7,00		100		290	420	6000				
	0,54	7,87		88,92		420	420	6000				
	0,60	8,81		79,44		420	420	6000				
	0,58	9,10	30	76,96	68	410	420	6000				
	0,66	10,23		68,40		410	420	6000				
	0,73	11,45		61,11		410	420	6000				
	0,82	12,77		54,83		410	420	6000				
	0,91	14,18		49,35		410	420	6000				
	1,0	15,71		44,55		410	420	6000				
	1,1	17,38		40,29		410	420	6000				
	1,2	18,29		38,28		410	420	6000				
	1,3	20,67		33,87		410	420	6000				
	1,3	22,91	15	30,56	78	410	420	6000				
	1,4	25,54		27,41		410	420	6000				
	1,6	28,37		24,68		410	420	6000				
	1,8	31,43		22,27		410	420	6000				
	1,9	34,75		20,14		410	420	6000				
	2,0	36,58		19,14		410	420	6000				
	2,3	41,33		16,94		410	420	6000				
510-870 Nm	**0,27**	2,45	62	286	60	634	700	8700	**İRSD İRSDF**	**63**	155 156	22 25
	0,28	2,62		268		594	700	8700				
	0,33	3,06	53	229	68	692	700	8700				
	0,37	3,33	62	210	60	636	700	8700				
	0,39	3,89	53	180	68	636	700	8700				
	0,37	4,12	62	170	60	514	700	8700				
	0,55	4,82	53	145	68	730	700	8700				
	0,54	5,16	40	136	67	662	700	8700				
	0,50	5,32	53	132	68	602	700	8700				
	0,75	6,39	40	110	67	741	700	8700				
	0,71	6,88	30	102	72	698	700	8700				
	0,75	7,05	40	99,31	67	671	700	8700				
	0,75	7,75		90,32		610	700	8700				
	1,1	8,51	30	82,22	72	876	700	8700				
	1,1	9,28	40	75,43	67	747	700	8700				
	1,2	9,40	30	74,48		793	700	8700				
	1,2	10,33		67,74		721	700	8700				
	1,1	11,01	40	63,59		630	700	8700				
	1,1	11,52		60,74		602	700	8700				
	1,1	12,37	30	56,57	72	602	700	8700				
	1,7	13,01	40	53,79	67	821	700	8700				
	1,5	14,68	30	47,69	72	693	700	8700				
	1,5	15,37		45,56		662	700	8700				
	2,2	17,35		40,34		871	700	8700				

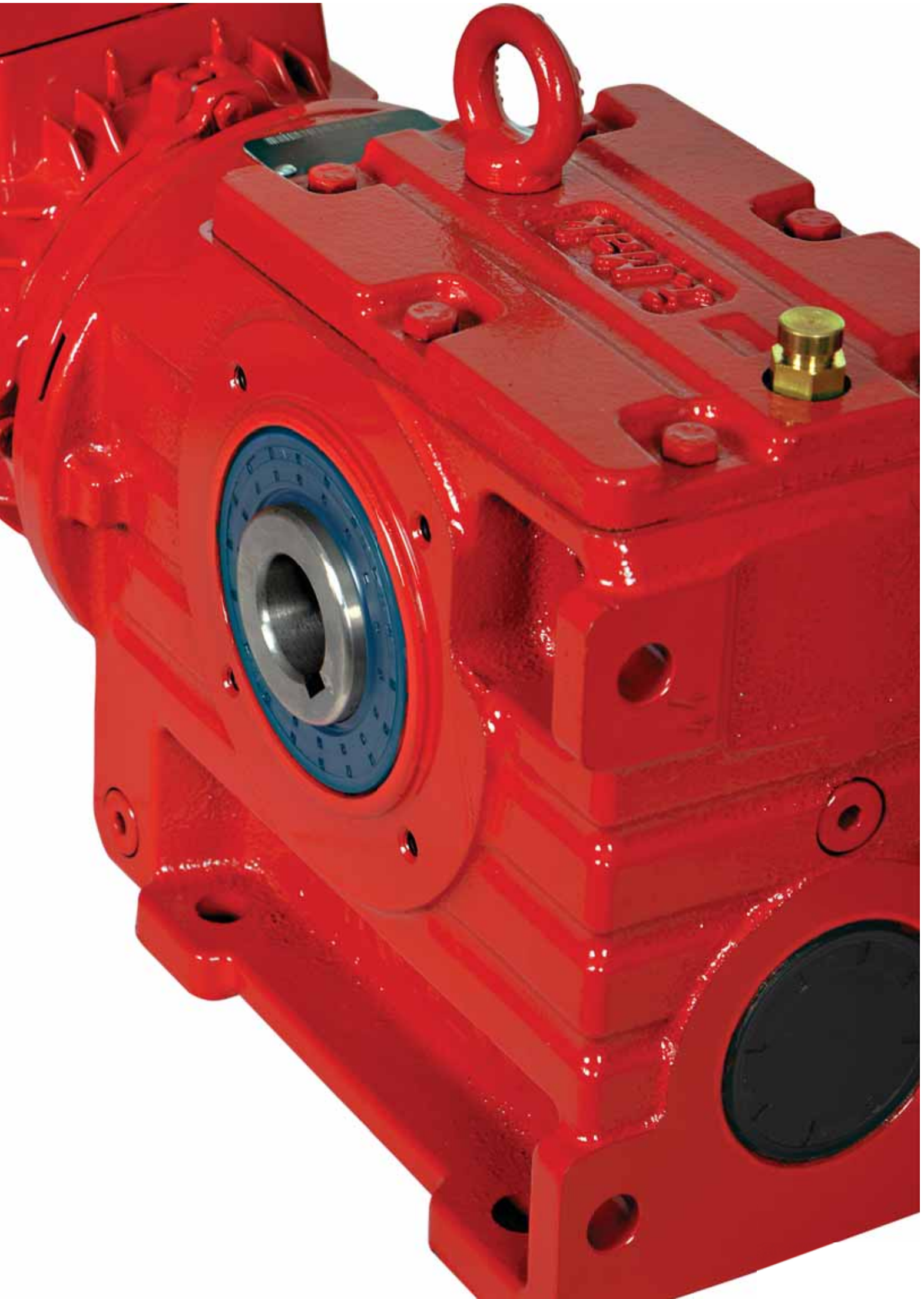
Servis Faktörü Service Factor *Betriebsfaktor* $S_f = 1$	P_1 GÜÇ Power *Leistung* [kW]	n_2 Çıkış Devri Output Speeds *Abtriebswelle Drehzahlen* [r.p.m] (n_1=700rpm)	$İ_s$ Sonsuz Vida Tahvili Worm Ratio *Schnecken Übersetzung*	$İ_t$ Toplam Tahvil Total Ratio *Gesamt Übersetzung*	η Verim Efficiency *Wirkungsgrad* [%]	M_2 Çıkış Momenti Output Torque *Abtriebswelle Drehmomente* [Nm]	F_{Q1} Rad. Yük Over Loads *Querkräfte* [N]	F_{Q1o} Rad. Yük Over Loads *Querkräfte* [N]	Tip Type *Typ*			kg
680-1870 Nm	0,37	2,05	82	341	60	1031	1100	13300	İRSD İRSDF	73	157 158	55 60
	0,55	2,33		301		1334	1100	13300				
	0,55	2,67	63	262	62	1201	1100	13300				
	0,55	3,03		231		1059	1100	13300				
	0,74	3,37	50	208	69	1284	1100	13300				
	0,75	3,82		183		1150	1100	13300				
	0,76	4,29		163		1033	1100	13300				
	1,1	4,82		145		1482	1100	13300				
	1,1	5,46		128		1309	1100	13300				
	1,5	6,02	40	116	72	1687	1100	13300				
	1,5	6,82		103		1490	1100	13300				
	2,0	7,68		91,20		1766	1100	13300				
	2,0	8,03	30	87,14	74	1734	1100	13300				
	2,0	9,10		76,96		1531	1100	13300				
	2,8	10,23		68,40		1872	1100	13300				
	2,7	11,45		61,11		1672	1100	13300				
	2,7	12,77		54,83		1500	1100	13300				
	2,7	14,18		49,35		1350	1100	13300				
	2,8	15,71		44,55		1219	1100	13300				
	3,7	17,38		40,29		1503	1100	13300				
	3,7	19,19		36,49		1361	1100	13300				
	3,7	21,16		33,08		1234	1100	13300				
	3,7	22,83	15	30,66	82	1267	1100	13300				
	3,7	25,54		27,41		1133	1100	13300				
	3,7	28,37		24,68		1020	1100	13300				
	3,8	31,43		22,27		921	1100	13300				
	3,8	34,75		20,14		833	1100	13300				
	3,7	38,37		18,24		754	1100	13300				
	3,8	42,33		16,54		684	1100	13300				
1670-3540 Nm	0,60	1,63	106	429	63	2038	1550	18800	İRSD İRSDF	83	159 160	97 107
	0,60	1,83		383		1812	1550	18800				
	0,60	2,04		343		1631	1550	18800				
	0,67	2,08	83	336	62	1873	1550	18800				
	0,75	2,34		300		1873	1550	18800				
	1,1	2,66	65	263	65	2529	1550	18800				
	1,1	2,98		235		2255	1550	18800				
	1,5	3,33	52	210	72	3056	1550	18800				
	1,5	3,73		188		2725	1550	18800				
	1,6	4,32		162		2447	1550	18800				
	1,6	4,85		144		2209	1550	18800				
	2,7	5,40	40	130	74	3546	1550	18800				
	2,7	5,98		117		3202	1550	18800				
	2,8	6,73		104		2846	1550	18800				
	2,7	7,48		93,63		2554	1550	18800				
	3,7	8,41	32	83,20	76	3188	1550	18800				
	3,7	9,38		74,67		2861	1550	18800				
	3,7	10,40		67,31		2579	1550	18800				
	3,8	11,70		59,83		2293	1550	18800				
	3,7	12,56		55,73		2135	1550	18800				
	5,5	13,92		50,29		2826	1550	18800				
	5,5	15,27		45,84		2576	1550	18800				
	5,5	16,73		41,85		2352	1550	18800				
	5,5	18,30		38,24		2149	1550	18800				
	5,5	20,63		33,94		1907	1550	18800				

Servis Faktörü Service Factor *Betriebsfaktor* $S_f = 1$	P_1 **GÜÇ** Power *Leistung* [kW]	n_2 **Çıkış Devri** Output Speeds *Abtriebswelle Drehzahlen* [r.p.m] (n_1=700rpm)	$İ_s$ **Sonsuz Vida Tahvili** Worm Ratio *Schnecken Übersetzung*	$İ_t$ **Toplam Tahvil** Total Ratio *Gesamt Übersetzung*	**η Verim** Efficiency *Wirkungsgrad* [%]	M_2 **Çıkış Momenti** Output Torque *Abtriebswelle Drehmomente* [Nm]	F_{Q1} **Rad. Yük** Over Loads *Querkräfte* [N]	F_{Q1o} **Rad. Yük** Over Loads *Querkräfte* [N]	**Tip** Type *Typ*			kg
3400-6000 Nm	**1,3**	2,68	54	261	73	3274	2120	22000	**İRSD İRSDF**	**161**	161 162	160 170
	1,5	2,98		235		3430	2120	22000				
	1,6	3,29		213		3317	2120	22000				
	1,7	3,61		194		3186	2120	22000				
	3,1	3,45	87	203	63	5380	2120	22000				
	3,4	3,87		181		5213	2120	22000				
	3,7	4,32		162		5045	2120	22000				
	3,9	4,79	87	146	63	4834	2120	22000				
	4,2	5,30		132		4687	2120	22000				
	4,4	5,82		120		4518	2120	22000				
	4,2	5,56	42	126	74	5222	2120	22000				
	4,5	6,16		114		5039	2120	22000				
	4,5	6,81		103		4652	2120	22000				
	5,0	7,49		93,48		4652	2120	22000				
	5,3	8,21		85,27		4481	2120	22000				
	6,1	8,97		78,00		4756	2120	22000				
	5,8	9,79		71,51		4153	2120	22000				
	6,1	10,66		65,69		3988	2120	22000				
	7,2	11,49	30	60,90	77	4518	2120	22000				
	7,5	12,57		55,71		4330	2120	22000				
	7,9	13,70		51,08		4162	2120	22000				
	8,2	14,92		46,92		3976	2120	22000				
	9,4	20,80		33,65		3270	2120	22000				

Servis Faktörü Service Factor *Betriebsfaktor* $S_f = 1$	P_1 GÜÇ Power *Leistung* [kW]	n_2 Çıkış Devri Output Speeds *Abtriebswelle Drehzahlen* [r.p.m] (n_1=500rpm)	$İ_s$ Sonsuz Vida Tahvili Worm Ratio *Schnecken Übersetzung*	$İ_t$ Toplam Tahvil Total Ratio *Gesamt Übersetzung*	η Verim Efficiency *Wirkungsgrad* [%]	M_2 Çıkış Momenti Output Torque *Abtriebswelle Drehmomente* [Nm]	F_{Q1} Rad. Yük Over Loads *Querkräfte* [N]	F_{Q1o} Rad. Yük Over Loads *Querkräfte* [N]	Tip Type *Typ*			kg
270-420 Nm	0,09	1,84	82	272	56	270	420	6000	İRSD İRSDF	53	153 154	13 15
	0,11	2,10		238		270	420	6000				
	0,13	2,43	62	206	54	270	420	6000				
	0,15	2,78		180		270	420	6000				
	0,13	3,02	50	166	65	270	420	6000				
	0,16	3,44		145		290	420	6000				
	0,27	3,87	39	129		420	420	6000				
	0,30	4,41		113		420	420	6000				
	0,24	5,00		100		290	420	6000				
	0,39	5,62		88,92		420	420	6000				
	0,43	6,29		79,44		420	420	6000				
	0,42	6,50	30	76,96	68	410	420	6000				
	0,47	7,31		68,40		410	420	6000				
	0,52	8,18		61,11		410	420	6000				
	0,58	9,12		54,83		410	420	6000				
	0,65	10,13		49,35		410	420	6000				
	0,72	11,22		44,55		410	420	6000				
	0,80	12,41		40,29		410	420	6000				
	0,84	13,06		38,28		410	420	6000				
	0,95	14,76		33,87		410	420	6000				
	0,91	16,36	15	30,56	78	410	420	6000				
	1,0	18,24		27,41		410	420	6000				
	1,1	20,26		24,68		410	420	6000				
	1,3	22,45		22,27		410	420	6000				
	1,4	24,82		20,14		410	420	6000				
	1,5	26,13		19,14		410	420	6000				
	1,6	29,52		16,94		410	420	6000				
510-870 Nm	0,20	1,75	62	286	60	634	700	8700	İRSD İRSDF	63	155 156	22 25
	0,20	1,87		268		594	700	8700				
	0,24	2,19	53	229	68	692	700	8700				
	0,27	2,38	62	210	60	636	700	8700				
	0,28	2,78	53	180	68	636	700	8700				
	0,27	2,94	62	170	60	514	700	8700				
	0,39	3,44	53	145	68	730	700	8700				
	0,39	3,69	40	136	67	662	700	8700				
	0,36	3,80	53	132	68	602	700	8700				
	0,54	4,56	40	110	67	741	700	8700				
	0,51	4,91	30	102	72	698	700	8700				
	0,54	5,03	40	99,31	67	671	700	8700				
	0,54	5,54		90,32		610	700	8700				
	0,79	6,08	30	82,22	72	876	700	8700				
	0,79	6,63	40	75,43	67	747	700	8700				
	0,84	6,71	30	74,48		793	700	8700				
	0,84	7,38		67,74		721	700	8700				
	0,79	7,86	40	63,59		630	700	8700				
	0,79	8,23		60,74		602	700	8700				
	0,79	8,84	30	56,57	72	602	700	8700				
	1,2	9,29	40	53,79	67	821	700	8700				
	1,1	10,48	30	47,69	72	693	700	8700				
	1,1	10,98		45,56		662	700	8700				
	1,6	12,39		40,34		871	700	8700				

Servis Faktörü Service Factor *Betriebsfaktor* $S_f = 1$	P_1 **GÜÇ** Power *Leistung* [kW]	n_2 **Çıkış Devri** Output Speeds *Abtriebswelle Drehzahlen* [r.p.m] (n_1=500rpm)	i_s **Sonsuz Vida Tahvili** Worm Ratio *Schnecken Übersetzung*	i_t **Toplam Tahvil** Total Ratio *Gesamt Übersetzung*	η **Verim** Efficiency *Wirkungsgrad* [%]	M_2 **Çıkış Momenti** Output Torque *Abtriebswelle Drehmomente* [Nm]	F_{Q1} **Rad. Yük** Over Loads *Querkräfte* [N]	F_{Q1o} **Rad. Yük** Over Loads *Querkräfte* [N]	**Tip** Type *Typ*			kg
680-1870 Nm	**0,27**	1,47	82	341	60	1031	1100	13300	**İRSD İRSDF**	**73**	157 158	55 60
	0,39	1,66		301		1334	1100	13300				
	0,39	1,91	63	262	62	1201	1100	13300				
	0,39	2,16		231		1059	1100	13300				
	0,53	2,41	50	208	69	1284	1100	13300				
	0,54	2,73		183		1150	1100	13300				
	0,54	3,07		163		1033	1100	13300				
	0,79	3,44		145		1482	1100	13300				
	0,79	3,90		128		1309	1100	13300				
	1,1	4,30	40	116	72	1687	1100	13300				
	1,1	4,87		103		1490	1100	13300				
	1,4	5,48		91,20		1766	1100	13300				
	1,4	5,74	30	87,14	74	1734	1100	13300				
	1,4	6,50		76,96		1531	1100	13300				
	2,0	7,31		68,40		1872	1100	13300				
	2,0	8,18		61,11		1672	1100	13300				
	2,0	9,12		54,83		1500	1100	13300				
	2,0	10,13		49,35		1350	1100	13300				
	2,0	11,22		44,55		1219	1100	13300				
	2,7	12,41		40,29		1503	1100	13300				
	2,7	13,70		36,49		1361	1100	13300				
	2,7	15,12		33,08		1234	1100	13300				
	2,7	16,31	15	30,66	82	1267	1100	13300				
	2,7	18,24		27,41		1133	1100	13300				
	2,7	20,26		24,68		1020	1100	13300				
	2,7	22,45		22,27		921	1100	13300				
	2,7	24,82		20,14		833	1100	13300				
	2,7	27,41		18,24		754	1100	13300				
	2,7	30,23		16,54		684	1100	13300				
1670-3540 Nm	**0,43**	1,17	106	429	63	2038	1550	18800	**İRSD İRSDF**	**83**	159 160	97 107
	0,43	1,31		383		1812	1550	18800				
	0,43	1,46		343		1631	1550	18800				
	0,48	1,49	83	336	62	1873	1550	18800				
	0,54	1,67		300		1873	1550	18800				
	0,79	1,90	65	263	65	2529	1550	18800				
	0,79	2,13		235		2255	1550	18800				
	1,1	2,38	52	210	72	3056	1550	18800				
	1,1	2,66		188		2725	1550	18800				
	1,1	3,09		162		2447	1550	18800				
	1,1	3,46		144		2209	1550	18800				
	2,0	3,86	40	130	74	3546	1550	18800				
	2,0	4,27		117		3202	1550	18800				
	2,0	4,81		104		2846	1550	18800				
	2,0	5,34		93,63		2554	1550	18800				
	2,7	6,01	32	83,20	76	3188	1550	18800				
	2,7	6,70		74,67		2861	1550	18800				
	2,7	7,43		67,31		2579	1550	18800				
	2,7	8,36		59,83		2293	1550	18800				
	2,7	8,97		55,73		2135	1550	18800				
	3,9	9,94		50,29		2826	1550	18800				
	3,9	10,91		45,84		2576	1550	18800				
	3,9	11,95		41,85		2352	1550	18800				
	3,9	13,07		38,24		2149	1550	18800				
	3,9	14,73		33,94		1907	1550	18800				

Servis Faktörü Service Factor *Betriebsfaktor* $S_f = 1$	P_1 **GÜÇ** Power *Leistung* [kW]	n_2 **Çıkış Devri** Output Speeds *Abtriebswelle Drehzahlen* [r.p.m] (n_1=500rpm)	$İ_s$ **Sonsuz Vida Tahvili** Worm Ratio *Schnecken Übersetzung*	$İ_t$ **Toplam Tahvil** Total Ratio *Gesamt Übersetzung*	η **Verim** Efficiency *Wirkungsgrad* [%]	M_2 **Çıkış Momenti** Output Torque *Abtriebswelle Drehmomente* [Nm]	F_{Q1} **Rad. Yük** Over Loads *Querkräfte* [N]	F_{Q1o} **Rad. Yük** Over Loads *Querkräfte* [N]	**Tip** Type *Typ*			kg
3400-6000 Nm	**0,91**	1,92	54	261	73	3274	2120	22000	**İRSD İRSDF**	**161**	161 162	160 170
	1,1	2,13		235		3430	2120	22000				
	1,1	2,35		213		3317	2120	22000				
	1,2	2,58		194		3186	2120	22000				
	2,2	2,46	87	203	63	5380	2120	22000				
	2,4	2,77		181		5213	2120	22000				
	2,6	3,09		162		5045	2120	22000				
	2,8	3,42	87	146	63	4834	2120	22000				
	3,0	3,78		132		4687	2120	22000				
	3,2	4,16		120		4518	2120	22000				
	3,0	3,97	42	126	74	5222	2120	22000				
	3,2	4,40		114		5039	2120	22000				
	3,2	4,86		103		4652	2120	22000				
	3,6	5,35		93,48		4652	2120	22000				
	3,8	5,86		85,27		4481	2120	22000				
	4,4	6,41		78,00		4756	2120	22000				
	4,2	6,99		71,51		4153	2120	22000				
	4,4	7,61		65,69		3988	2120	22000				
	5,1	8,21	30	60,90	77	4518	2120	22000				
	5,4	8,98		55,71		4330	2120	22000				
	5,6	9,79		51,08		4162	2120	22000				
	5,8	10,66		46,92		3976	2120	22000				
	6,7	14,86		33,65		3270	2120	22000				

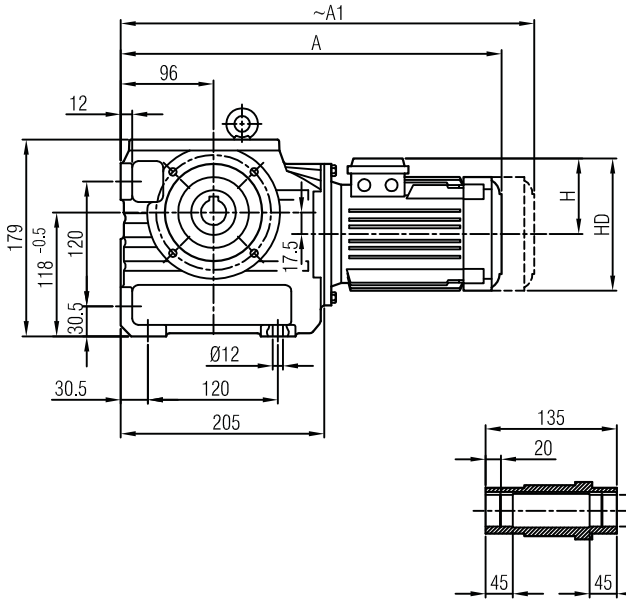


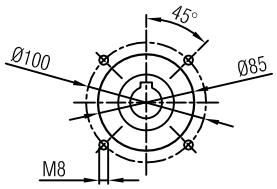
Helisel Sonsuz Vidalı Redüktörler Ölçü Sayfaları

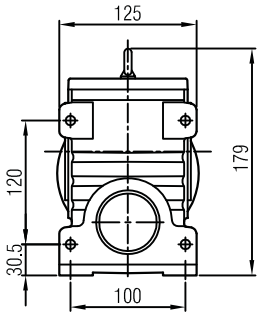
Helical,Worm Gearbox

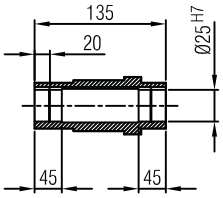
Réducteurs hélicoïdaux à roue et vis sans fin

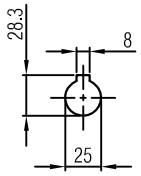
İRSDM 53







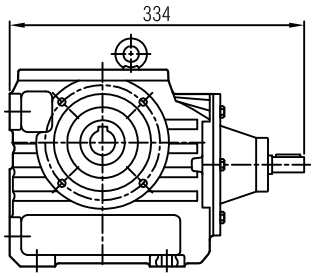


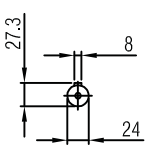


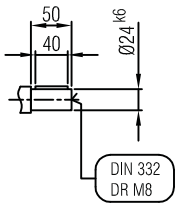
	71	80	90 S	90 L	100	
A	423	450	479	504	544	
A_1	474	519	545	570	622	
H	111	118	126	126	134	
HD	182	198	216	216	234	
AC	138	156	176	176	194	

"A_1" Ölçüsü Frenli Motorlar içindir.
Dimension "A_1" is for motors with brake.
Le dimensions "A1" correspond aux moteurs équipés de freins.

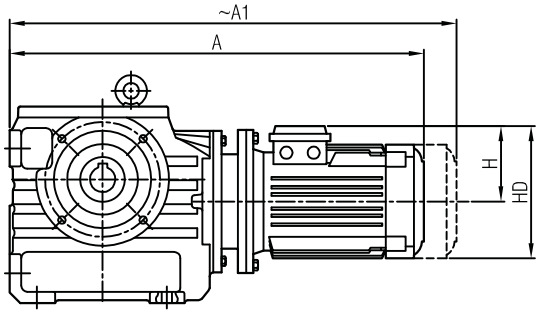
İRSD 53







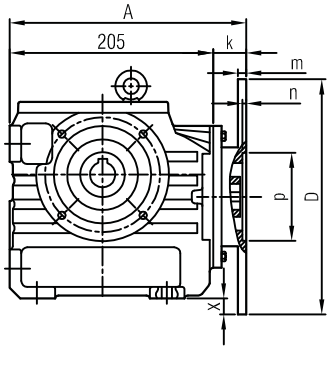
İRSDPM 53

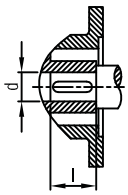


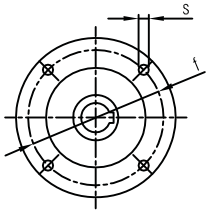
	71/B5	80/B5	90 S/B5	90 L/B5	100/B5
A	472	495	510	535	581
A_1	523	564	576	601	659
H	111	118	126	126	134
HD	182	198	216	216	234
AC	138	156	176	176	194

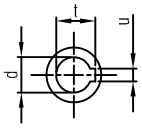
"A_1" Ölçüsü Frenli Motorlar içindir.
Dimension "A_1" is for motors with brake.
Le dimensions "A1" correspond aux moteurs équipés de freins.

İRSDP 53

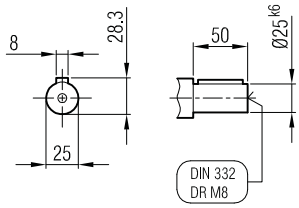




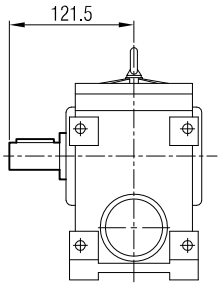




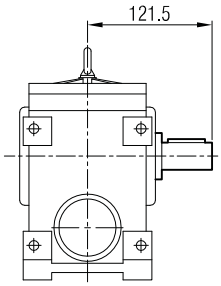
	A	Øp	Øf	ØD	s	k	m	n	Ød	l	t	u	x
71/B5	249	110	130	160	M8	44	9	4	14	30	16.3	5	-
80/B5	251	130	165	200	M10	46	12	5	19	40	21.8	6	-
90/B5	251	130	165	200	M10	46	12	5	24	50	27.3	8	-
100/B5	265	180	215	250	M12	60	14	5	28	60	31.3	8	24.5



... -SR



... -SL



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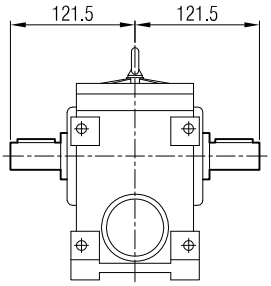
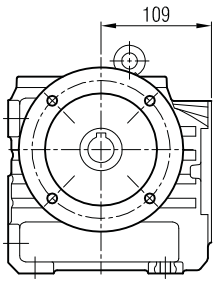
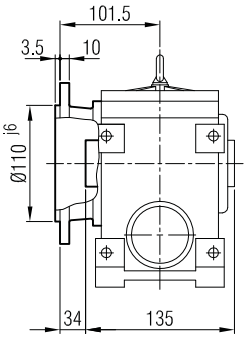




... -FR



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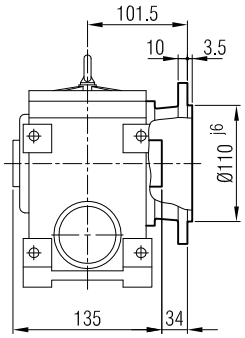

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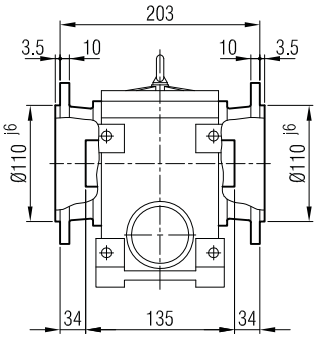

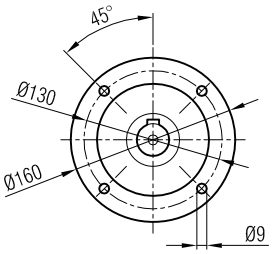

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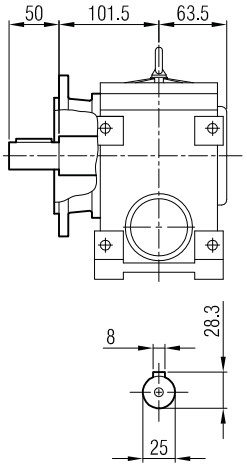

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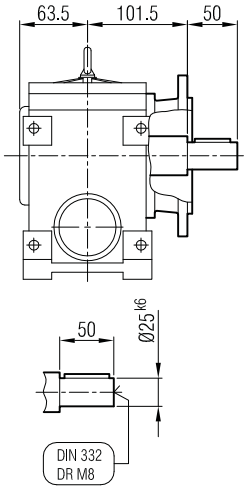

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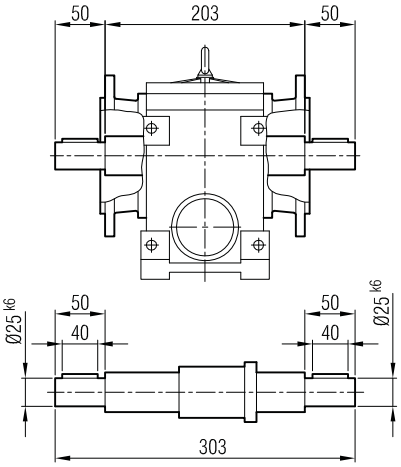
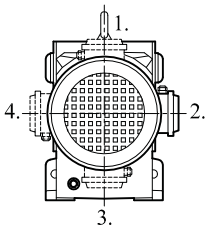


Klemens Pozisyonları
Terminal Box Positions
Klemenskasten Positionen



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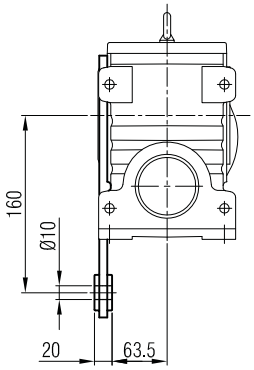

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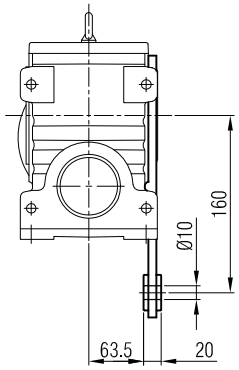
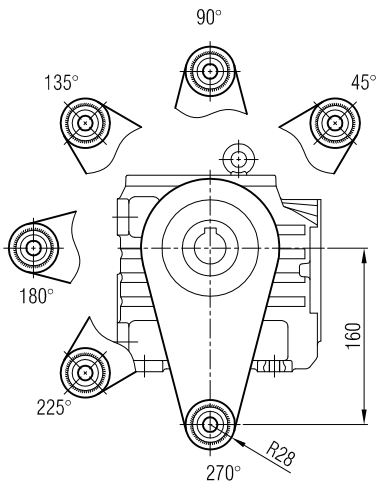
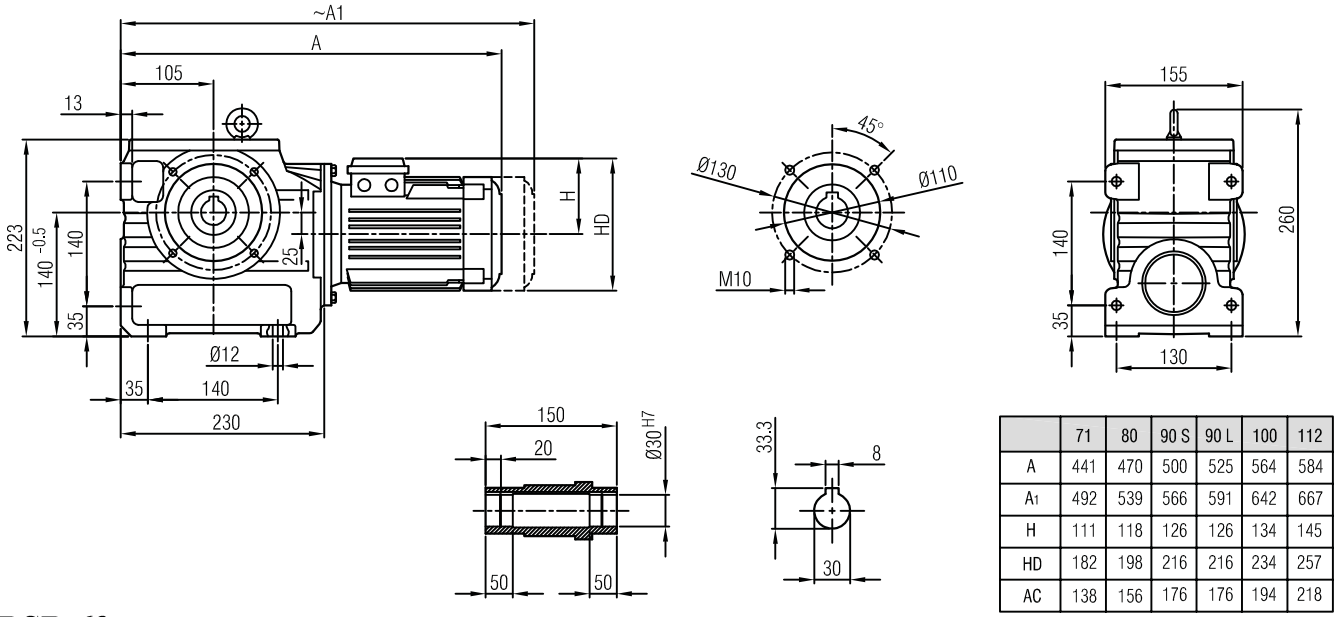




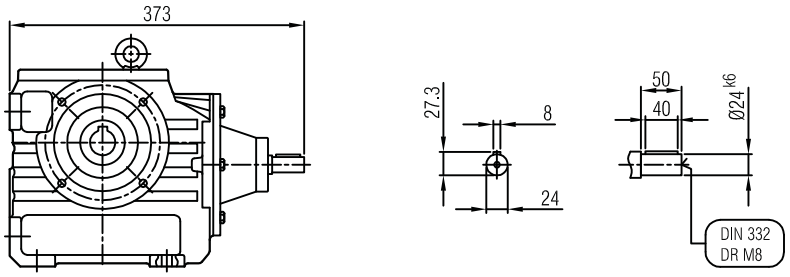
İRSDM 63



	71	80	90 S	90 L	100	112
A	441	470	500	525	564	584
A_1	492	539	566	591	642	667
H	111	118	126	126	134	145
HD	182	198	216	216	234	257
AC	138	156	176	176	194	218

"A_1" Ölçüsü Frenli Motorlar içindir.
Dimension "A_1" is for motors with brake.
Le dimensions "A1" correspond aux moteurs équipés de freins.

İRSD 63



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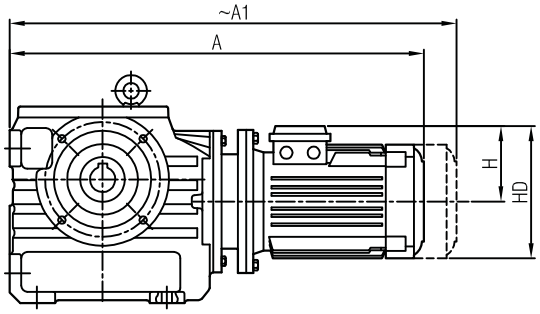
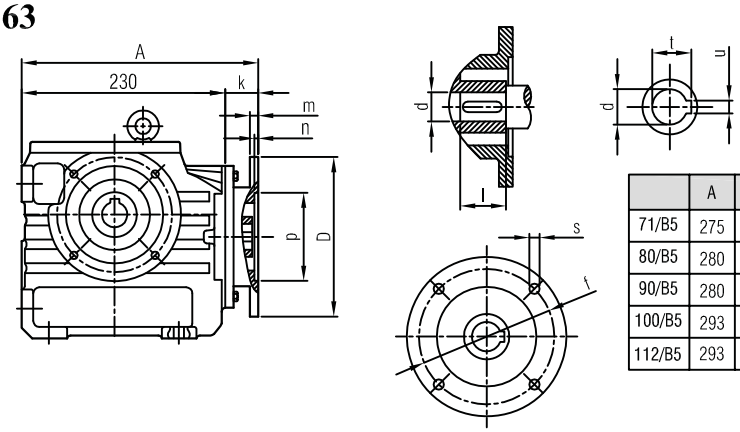


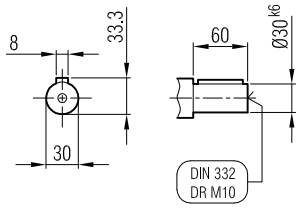
	71/B5	80/B5	90 S/B5	90 L/B5	100/B5	112/B5
A	498	524	539	564	609	629
A_1	549	593	605	630	687	712
H	111	118	126	126	134	145
HD	182	198	216	216	234	257
AC	138	156	176	176	194	218

"A_1" Ölçüsü Frenli Motorlar içindir.
Dimension "A_1" is for motors with brake.
Le dimensions "A1" correspond aux moteurs équipés de freins.

İRSDP 63



	A	Øp	Øf	ØD	s	k	m	n	Ød	l	t	u
71/B5	275	110	130	160	M8	45	9	4	14	30	16.3	5
80/B5	280	130	165	200	M10	50	12	5	19	40	21.8	6
90/B5	280	130	165	200	M10	50	12	5	24	50	27.3	8
100/B5	293	180	215	250	M12	63	14	5	28	60	31.3	8
112/B5	293	180	215	250	M12	63	14	5	28	60	31.3	8



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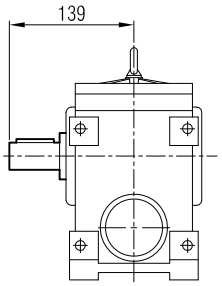

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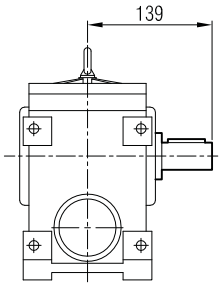

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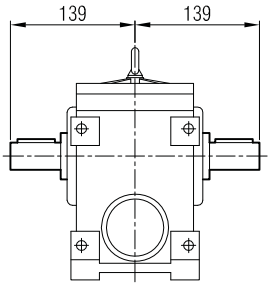

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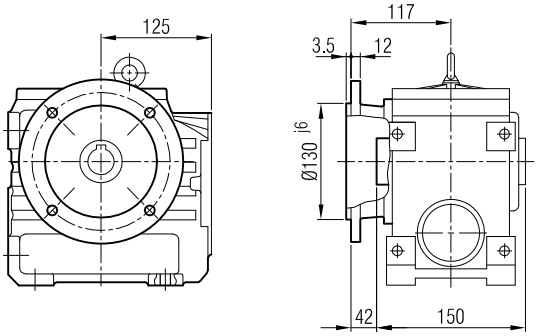

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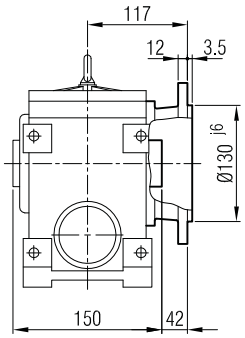

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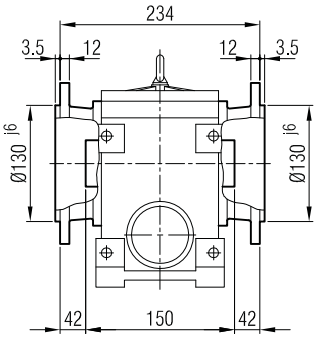

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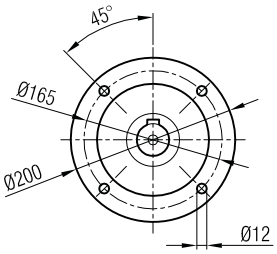

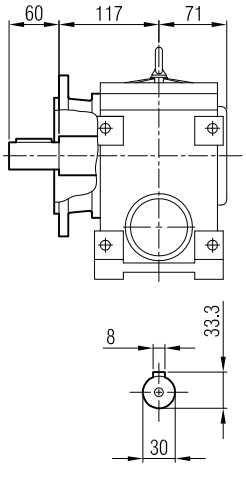

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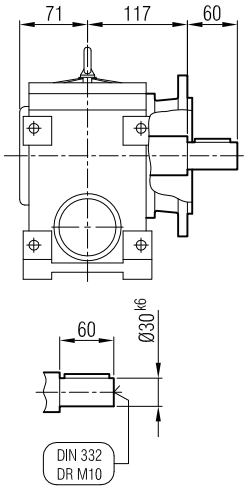

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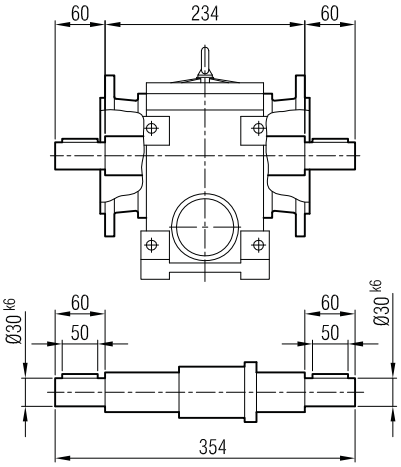
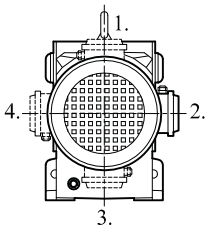


Klemens Pozisyonları
Terminal Box Positions
Klemenskasten Positionen



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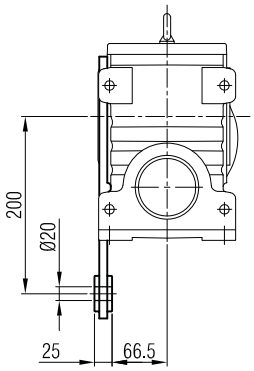

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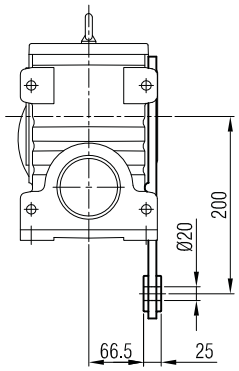
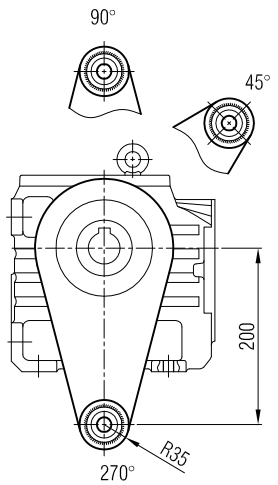
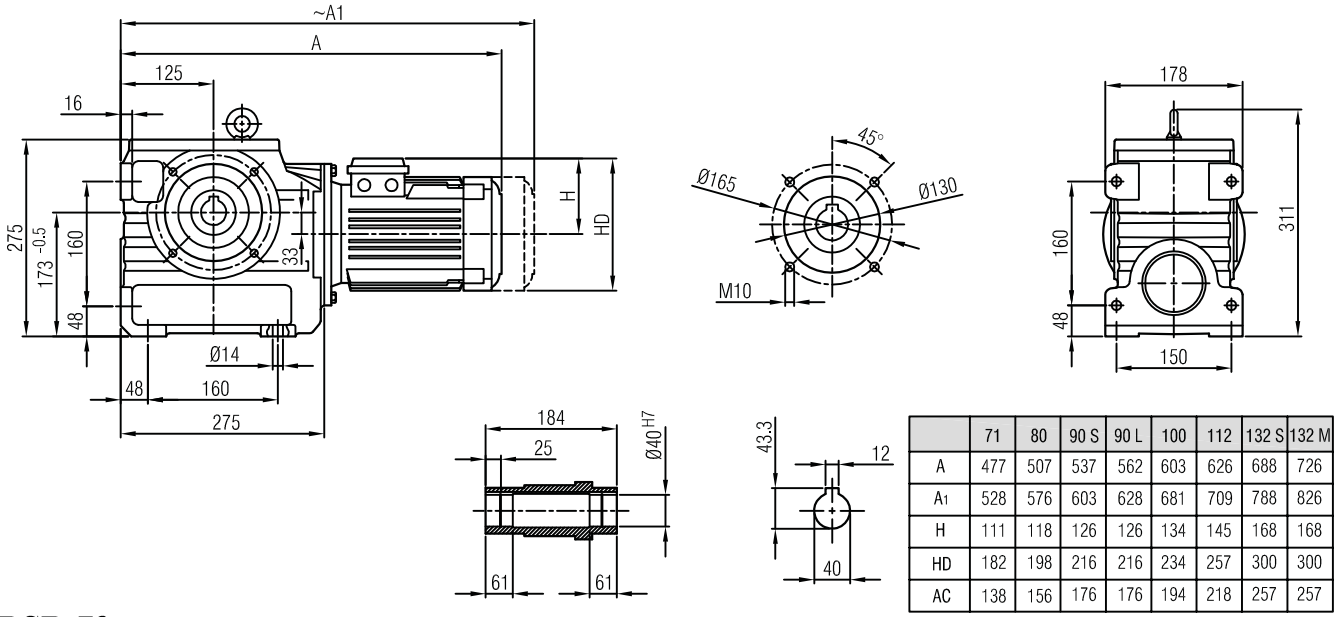




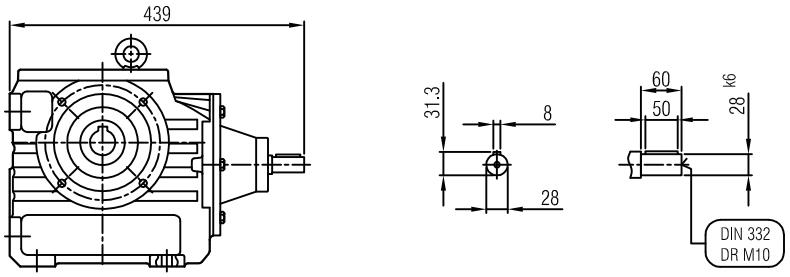
İRSDM 73



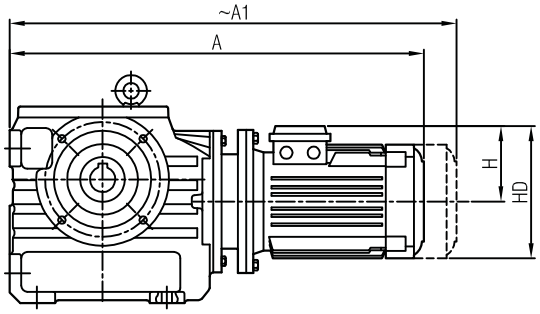
	71	80	90 S	90 L	100	112	132 S	132 M
A	477	507	537	562	603	626	688	726
A_1	528	576	603	628	681	709	788	826
H	111	118	126	126	134	145	168	168
HD	182	198	216	216	234	257	300	300
AC	138	156	176	176	194	218	257	257

"A_1" Ölçüsü Frenli Motorlar içindir.
Dimension "A_1" is for motors with brake.
Le dimensions "A1" correspond aux moteurs équipés de freins.

İRSD 73



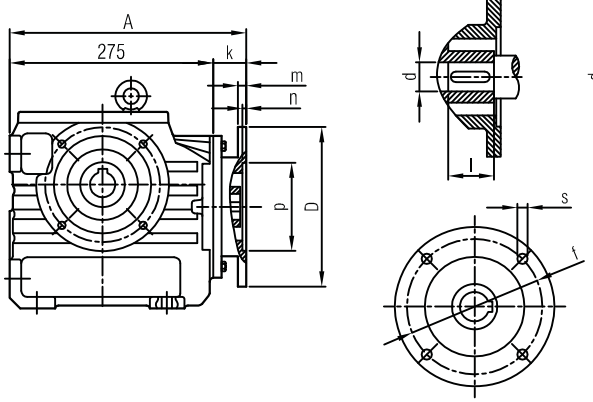
İRSDPM 73



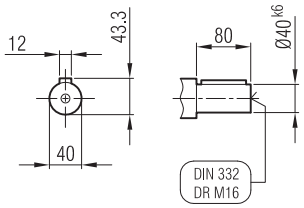
	71/B5	80/B5	90 S/B5	90 L/B5	100/B5	112/B5	132 S/B5	132 M/B5
A	553	586	601	626	663	683	751	789
A_1	604	655	667	692	741	766	851	889
H	111	118	126	126	134	145	168	168
HD	182	198	216	216	234	257	300	300
AC	138	156	176	176	194	218	257	257

"A_1" Ölçüsü Frenli Motorlar içindir.
Dimension "A_1" is for motors with brake.
Le dimensions "A1" correspond aux moteurs équipés de freins.

İRSDP 73



	A	Øp	Øf	ØD	s	k	m	n	Ød	l	t	u
71/B5	330	110	130	160	M8	55	10	4	14	30	16.3	5
80/B5	342	130	165	200	M10	67	12	5	19	40	21.8	6
90/B5	342	130	165	200	M10	67	12	5	24	50	27.3	8
100/B5	347	180	215	250	M12	71.5	14	5	28	60	31.3	8
112/B5	347	180	215	250	M12	71.5	14	5	28	60	31.3	8
132/B5	371	230	265	300	M12	95.5	17	5	38	80	41.3	10



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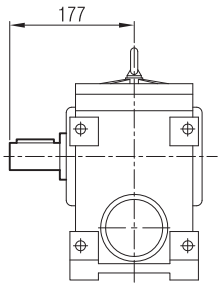

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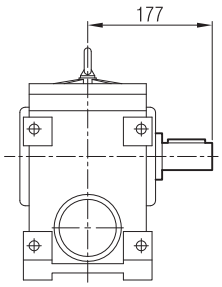

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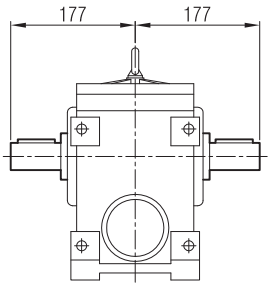

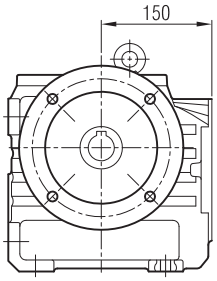

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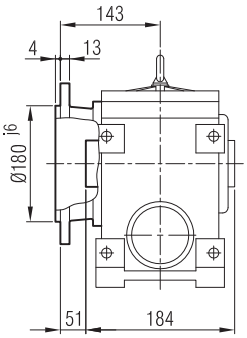

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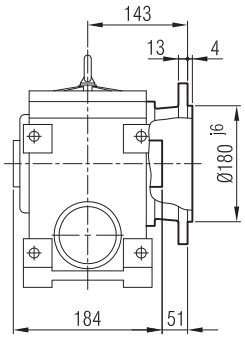

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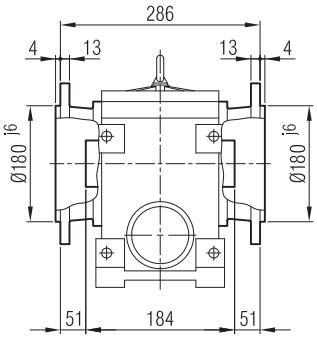

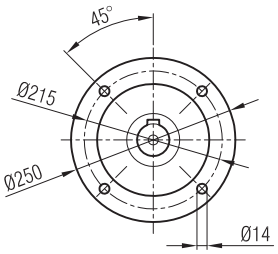

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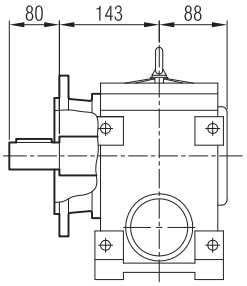

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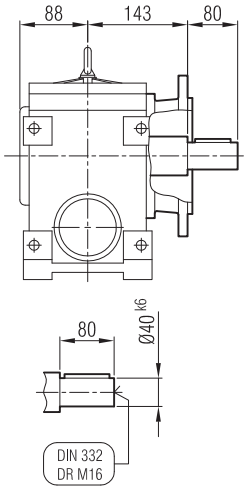

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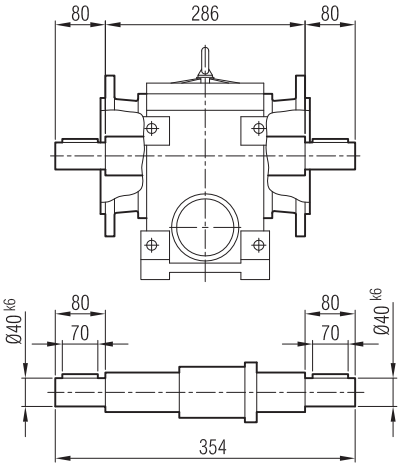
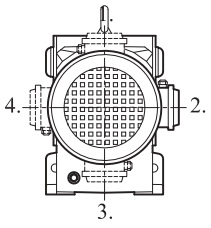


Klemens Pozisyonları
Terminal Box Positions
Klemenskasten Positionen



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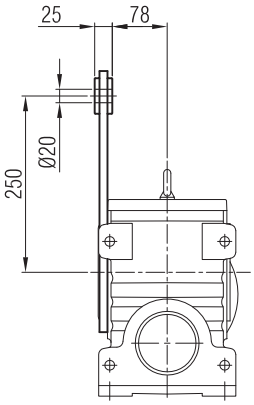

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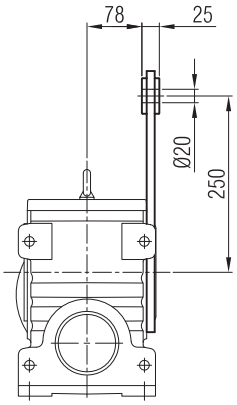
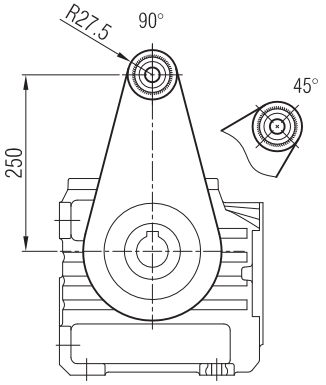
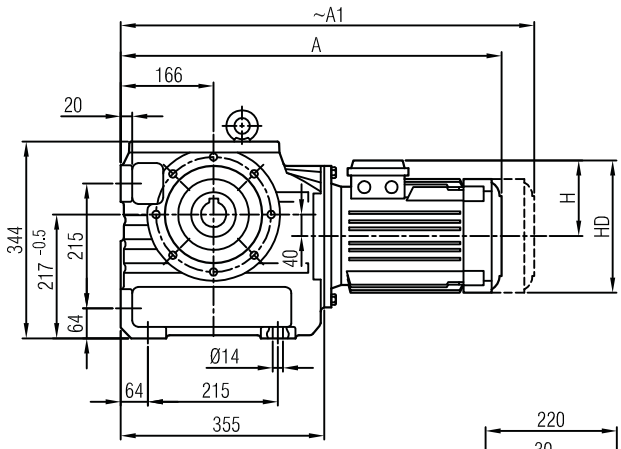
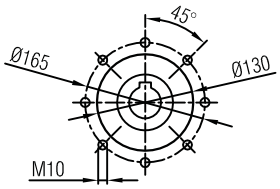
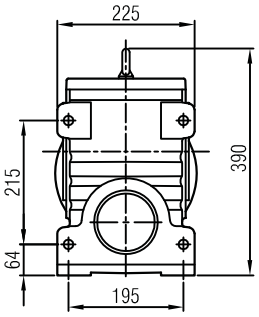


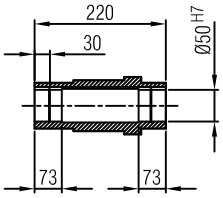


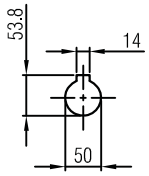
İRSDM 83







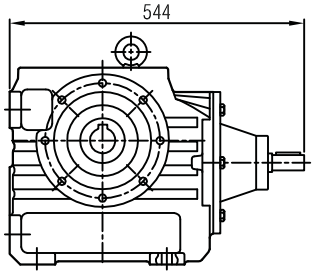


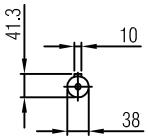


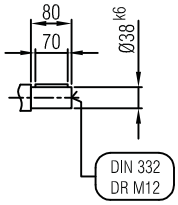
	80	90 S	90 L	100	112	132 S	132 M	160 M
A	577	605	630	670	692	754	792	894
A_1	646	671	696	748	775	854	892	1009
H	118	126	126	134	145	168	168	220
HD	198	216	216	234	257	300	300	380
AC	156	176	176	194	218	257	257	310

"A_1" Ölçüsü Frenli Motorlar içindir.
Dimension "A_1" is for motors with brake.
Le dimensions "A1" correspond aux moteurs équipés de freins.

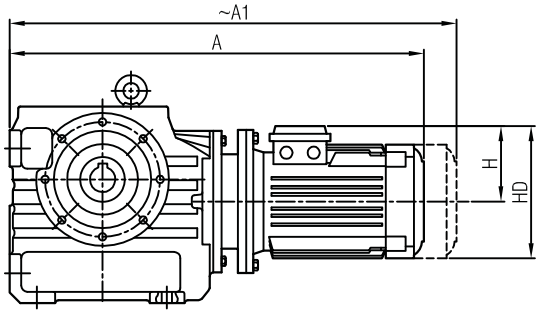
İRSD 83







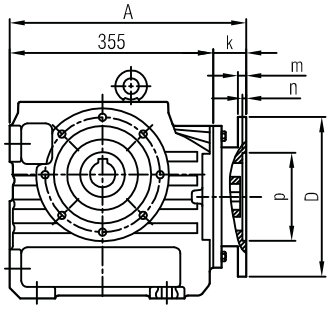
İRSDPM 83

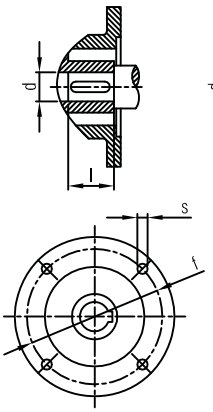


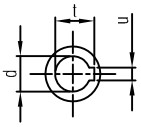
	80/B5	90 S/B5	90 L/B5	100/B5	112/B5	132 S/B5	132 M/B5	160 M/B5
A	665	680	705	745	765	830	868	956
A_1	734	746	771	823	848	930	968	1071
H	118	126	126	134	145	168	168	220
HD	198	216	216	234	257	300	300	380
AC	156	176	176	194	218	257	257	310

"A_1" Ölçüsü Frenli Motorlar içindir.
Dimension "A_1" is for motors with brake.
Le dimensions "A1" correspond aux moteurs équipés de freins.

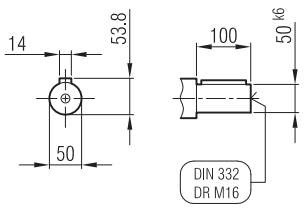
İRSDP 83







	A	Øp	Øf	ØD	s	k	m	n	Ød	l	t	u
80/B5	421	130	165	200	M10	66	12	5	19	40	21.8	6
90/B5	421	130	165	200	M10	66	12	5	24	50	27.3	8
100/B5	429	180	215	250	M12	74	14	5	28	60	31.3	8
112/B5	429	180	215	250	M12	74	14	5	28	60	31.3	8
132/B5	450	230	265	300	M12	95	17	6	38	80	41.3	10
160/B5	466	250	300	350	M14	111	18	6.5	42	110	45.3	12



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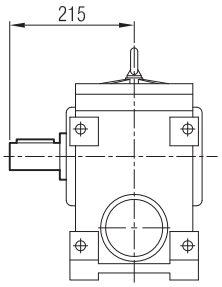

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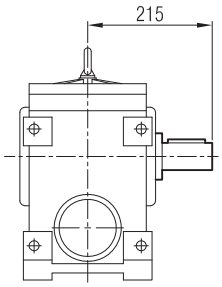
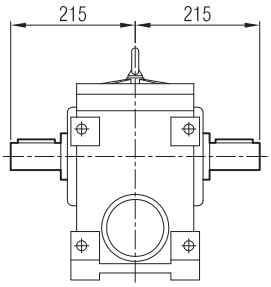
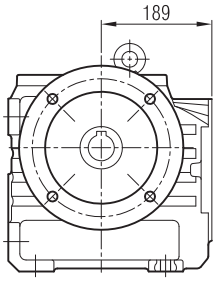


... -SD





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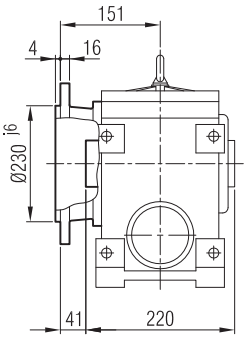

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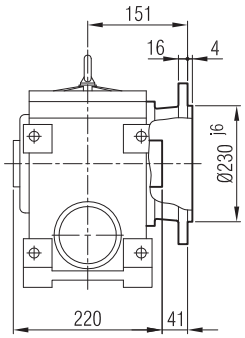

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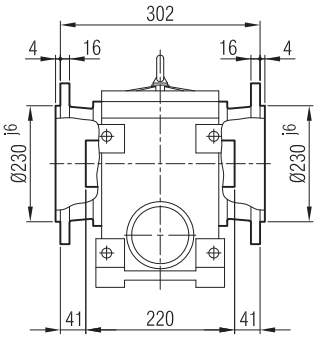

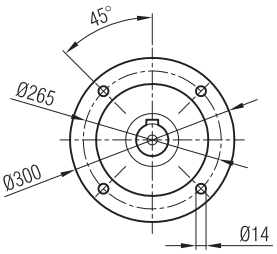

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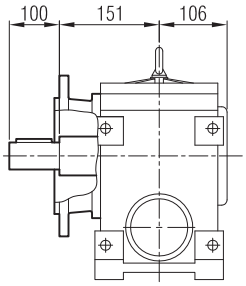

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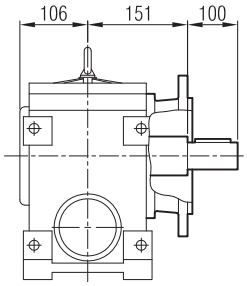

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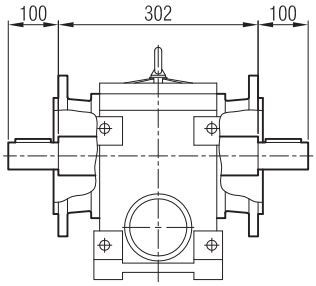
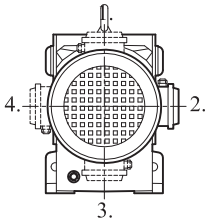
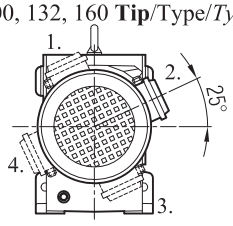


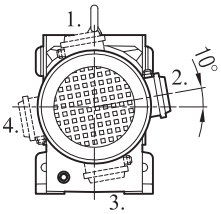
Klemens Pozisyonları
Terminal Box Positions
Klemenskasten Positionen



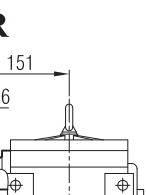
90, 100, 132, 160 **Tip**/Type/*Typ*

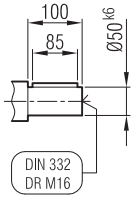


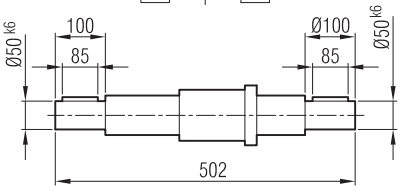
80 **Tip**/Type/*Typ*



112 **Tip**/Type/*Typ*







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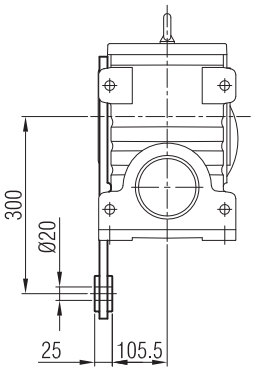

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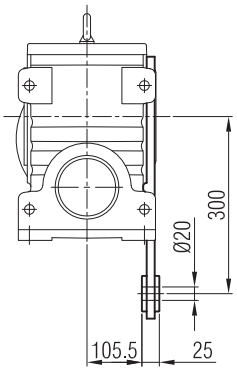
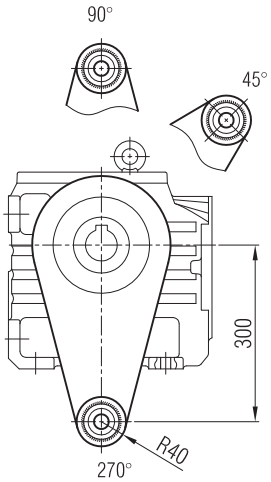
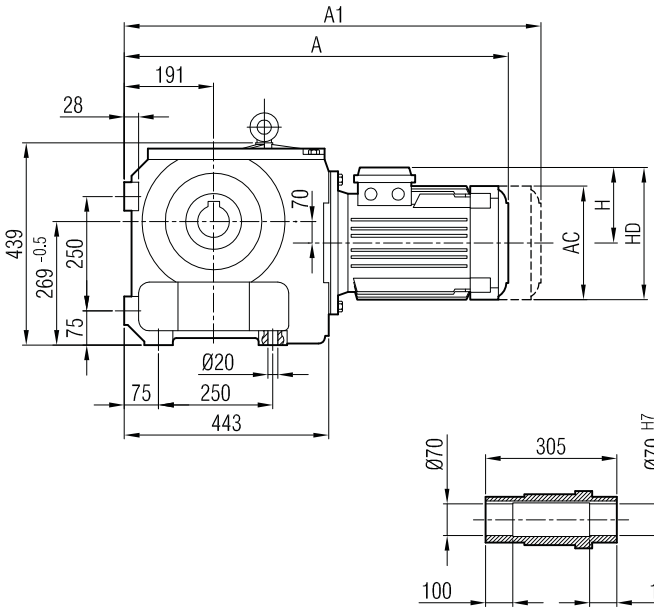
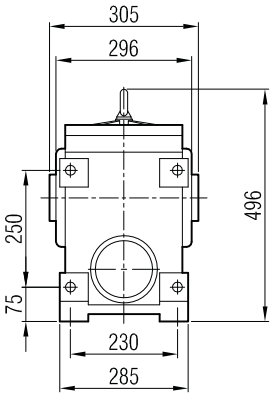




İRSDM 161

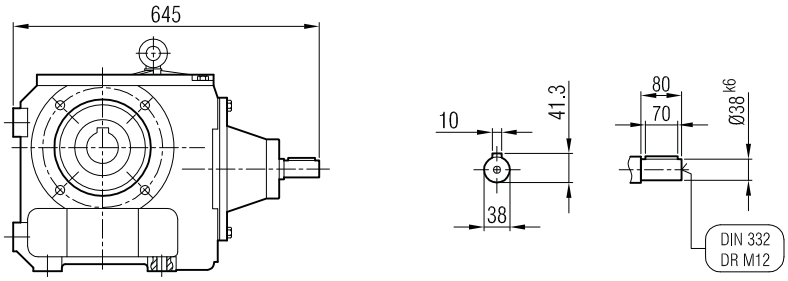




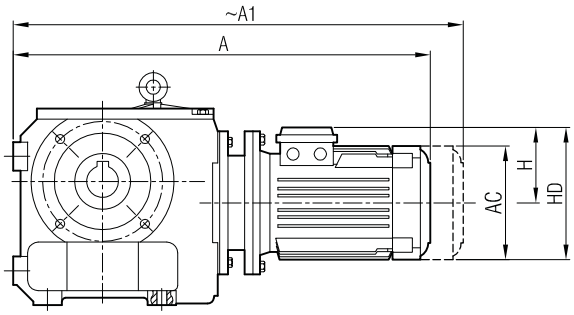
	90 S	90 L	100	112	132 S	132 M
A	784	810	755	778	825	871
A1	879	905	870	903	980	1030
H	126	126	134	145	168	168
HD	216	216	234	257	300	300
AC	176	176	194	218	257	257

"A1" Ölçüsü Frenli Motorlar içindir.
Dimension "A1" is for motors with brake.
Le dimensions "A1" correspond aux moteurs équipés de freins.

İRSD 161



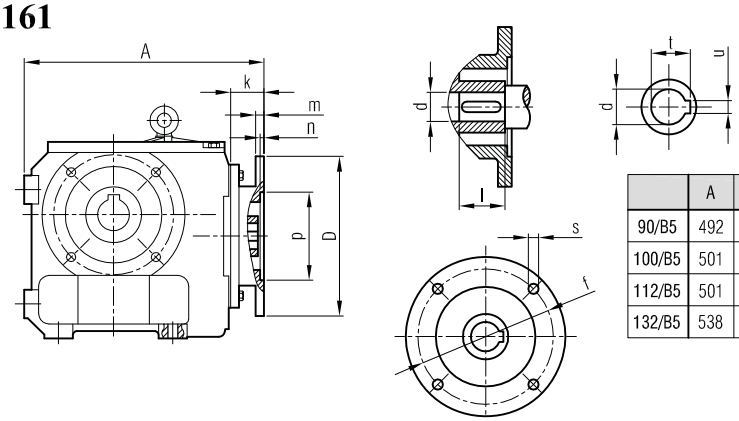
İRSDPM 161



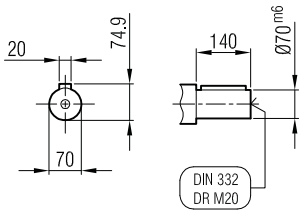
	90 S/B5	90 L/B5	100/B5	112/B5	132 S/B5	132 M/B5
A	751	776	817	837	918	956
A1	817	842	895	920	1018	1056
H	126	126	134	145	168	168
HD	216	216	234	257	300	300
AC	176	176	194	218	257	257

"A1" Ölçüsü Frenli Motorlar içindir.
Dimension "A1" is for motors with brake.
Le dimensions "A1" correspond aux moteurs équipés de freins.

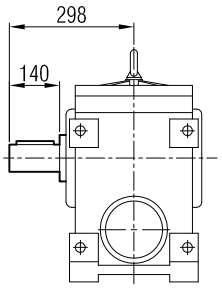
İRSDP 161



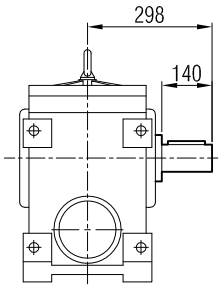
	A	Øp	Øf	ØD	s	k	m	n	Ød	l	t	u
90/B5	492	130	165	200	M10	49	12	5	24	50	27.3	8
100/B5	501	180	215	250	M12	58	14	5	28	50	31.3	8
112/B5	501	180	215	250	M12	58	14	5	28	50	31.3	8
132/B5	538	230	265	300	M12	95	17	6	38	80	41.3	10



... -SR



... -SL



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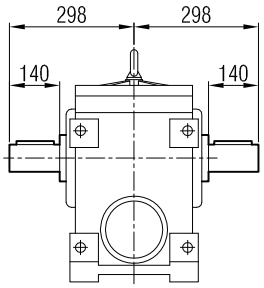

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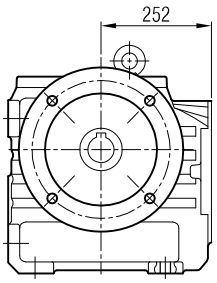

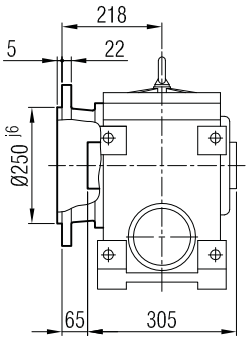

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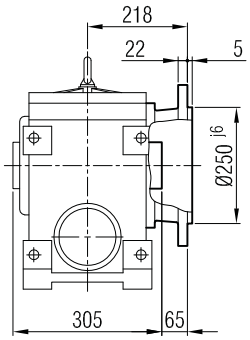

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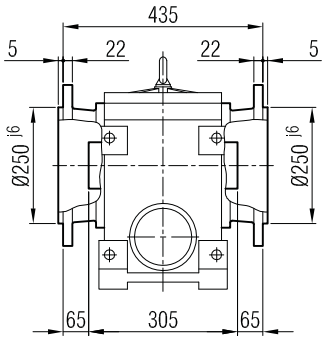

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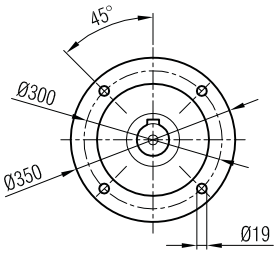

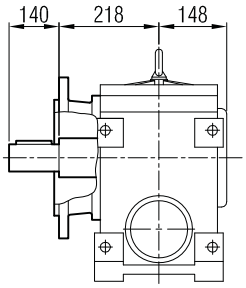

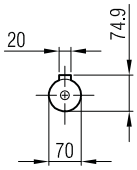

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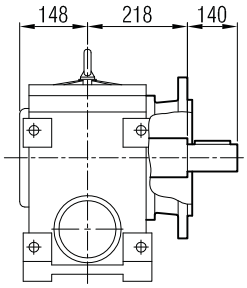

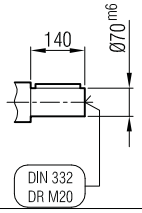

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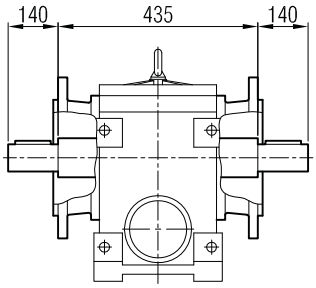
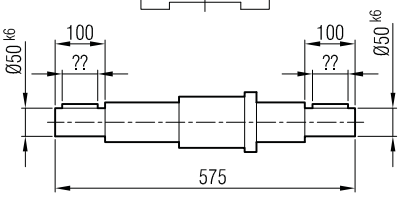
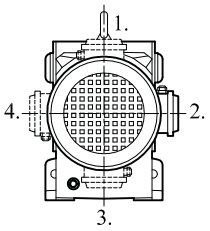




Klemens Pozisyonları
Terminal Box Positions
Klemenskasten Positionen



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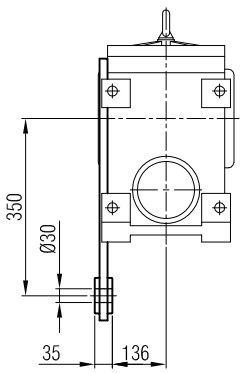

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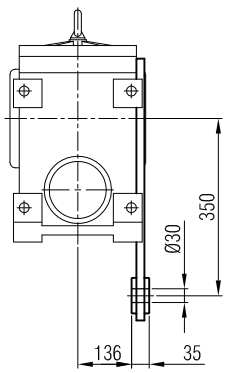
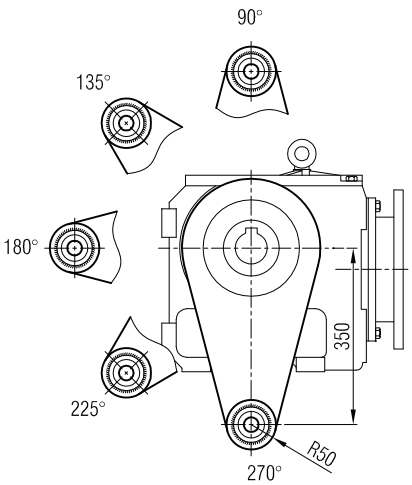


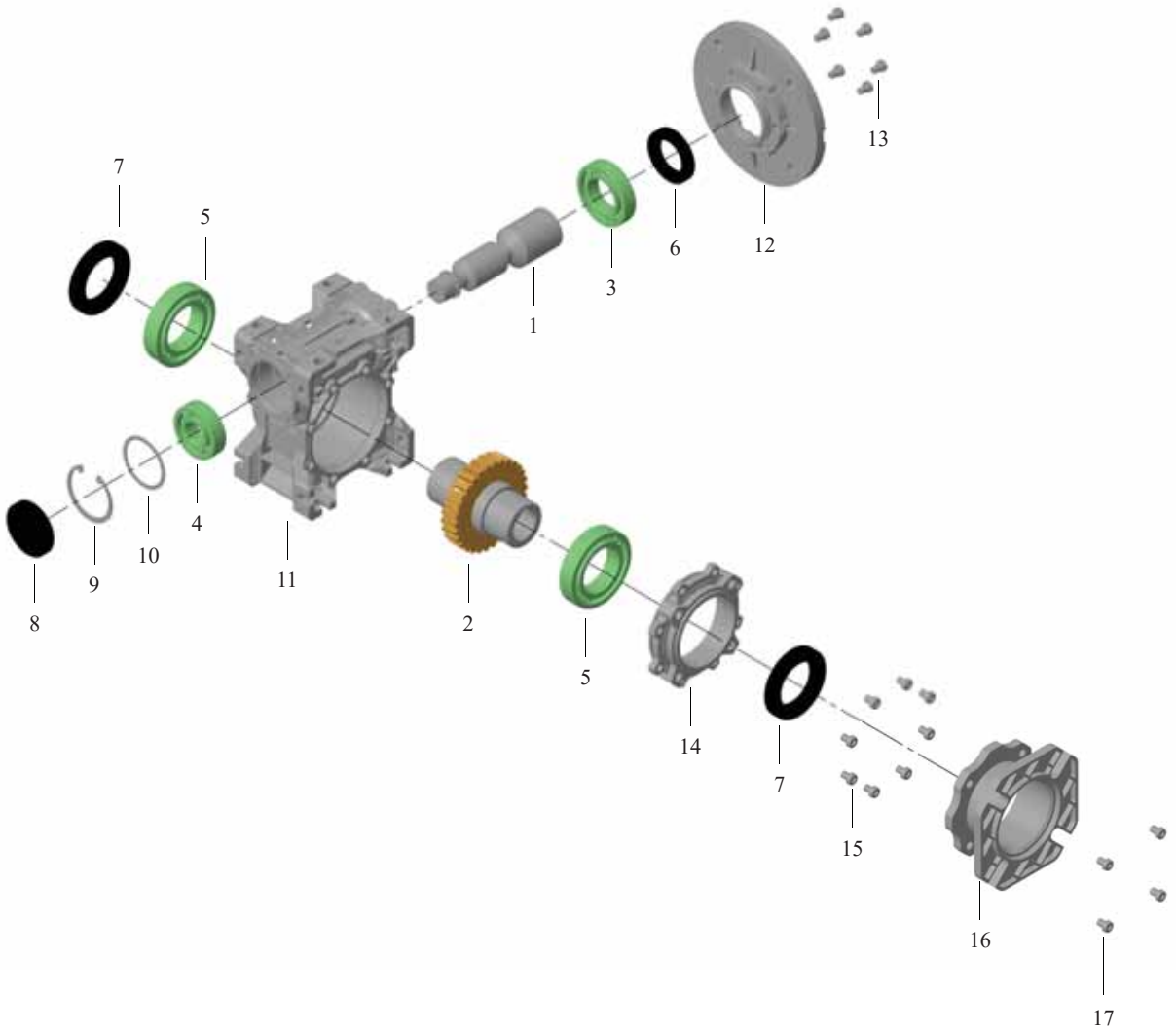


Yedek Parça Listeleri

General Parts List

Liste des composants

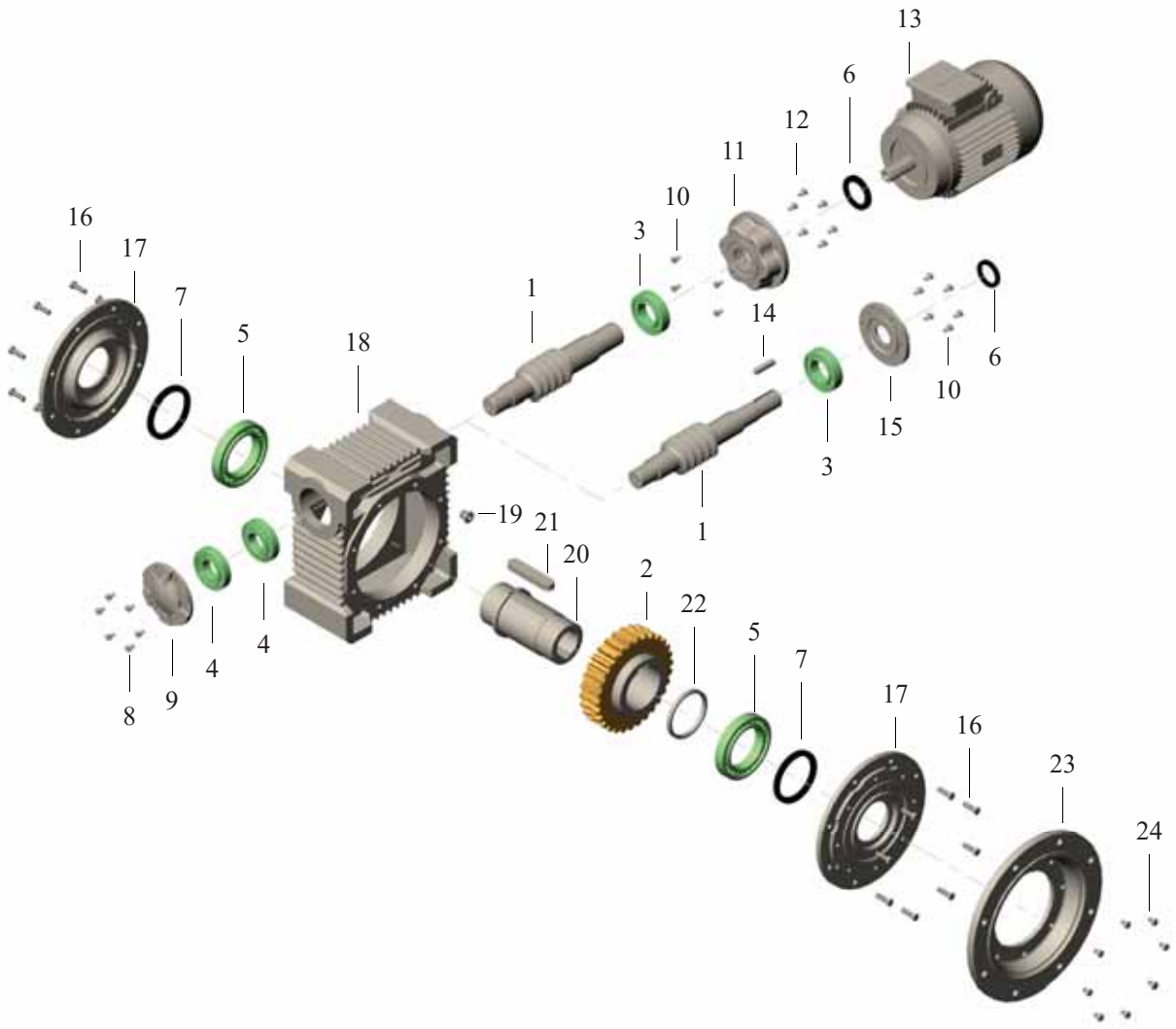
TİP / TYPE
SM / SP / S } 30-40-50-63-75-90



TİP / TYPE
SM / SP / S } 30-40-50-63-75-90

1 - Sonsuz Vida	1 - Worm	*1 - Roue*
2 - Sonsuz Vida Çarkı	2 - Worm Wheel	*2 - Vis sans fin*
3 - Rulman	3 - Bearing	*3 - Roulement*
4 - Rulman	4 - Bearing	*4 - Roulement*
5 - Rulman	5 - Bearing	*5 - Roulement*
6 - Keçe	6 - Seal	*6 - Joint*
7 - Keçe	7 - Seal	*7 - Joint*
8 - Tapa	8 - Locking Cover	*8 - Bouchon*
9 - Segman	9 - Circlip	*9 - Circlip*
10 - Pul	10 - Washer	*10 - Joint*
11 - Gövde	11 - Gear Case	*11 - Carter*
12 - Pam Flanş (IEC)	12 - IEC Flange	*12 - Bride IEC*
13 - Cıvata	13 - Bolt	*13 - Vis*
14 - Kapak	14 - Cover	*14 - Couvercle*
15 - Cıvata	15 - Bolt	*15 - Vis*
16 - Flanş	16 - Flange	*16 - Bride*
17 - Cıvata	17 - Bolt	*17 - Vis*

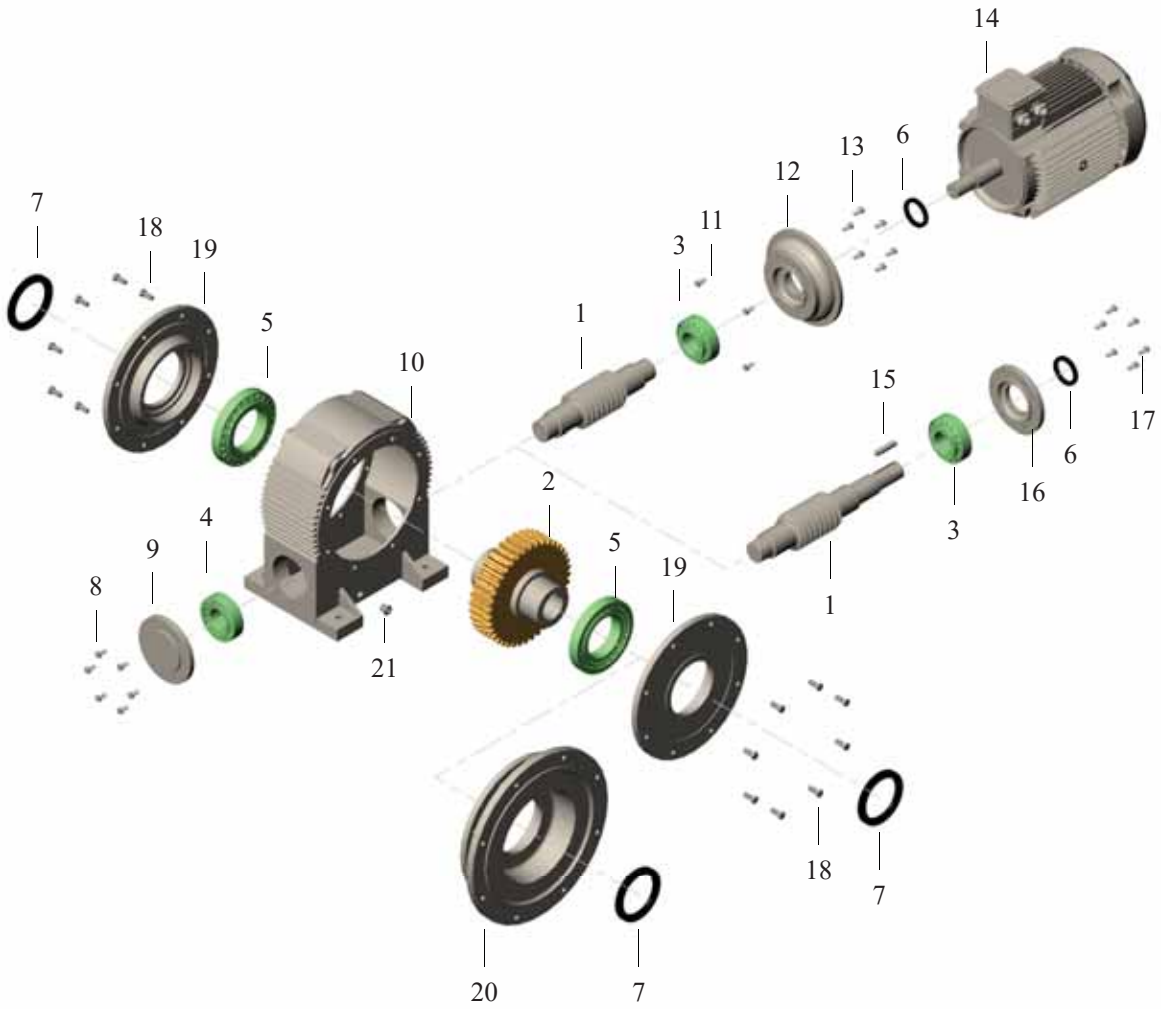
TİP / TYPE
İRSA / İRSF / İRSAP / İRSFP / İRSAM / İRSFM } 52-65-82-102-127-162



TİP / TYPE
İRSA / İRSF / İRSAP / İRSFP / İRSAM / İRSFM } 52-65-82-102-127-162

1 - Sonsuz Vida	1 - Worm	*1 - Roue*
2 - Sonsuz Vida Çarkı	2 - Worm Wheel	*2 - Vis sans fin*
3 - Rulman	3 - Bearing	*3 - Roulement*
4 - Rulman	4 - Bearing	*4 - Roulement*
5 - Rulman	5 - Bearing	*5 - Roulement*
6 - Keçe	6 - Seal	*6 - Joint*
7 - Keçe	7 - Seal	*7 - Joint*
8 - Cıvata	8 - Bolt	*8 - Vis*
9 - Rulman Baskı Kapağı	9 - Bearing Cover	*9 - Couvercle*
10 - Cıvata	10 - Bolt	*10 - Vis*
11 - Pam Flanş (IEC)	11 - IEC Flange	*11 - Bride IEC*
12 - Cıvata	12 - Bolt	*12 - Vis*
13 - Motor	13 - Electric Motor	*13 - Moteur éléctrique*
14 - Kama	14 - Key	*14 - Clavette*
15 - Keçe Kapağı	15 - Seal Cover	*15 - Joint*
16 - Cıvata	16 - Bolt	*16 - Vis*
17 - Keçe Kapağı	17 - Seal Cover	*17 - Joint*
18 - Gövde	18 - Gear Case	*18 - Carter*
29 - Yağ Tapası	29 - Oil Plug	*29 - Bouchon d'huile*
20 - Kovan	20 - Hollow Shalt	*20 - Arbre creux*
21 - Kama	21 - Key	*21 - Clavette*
22 - Burç	22 - Spacer	*22 - Anneau d'espacement*
23 - Flanş	23 - Flange	*23 - Bride*
24 - Cıvata	24 - Bolt	*24 - Vis*

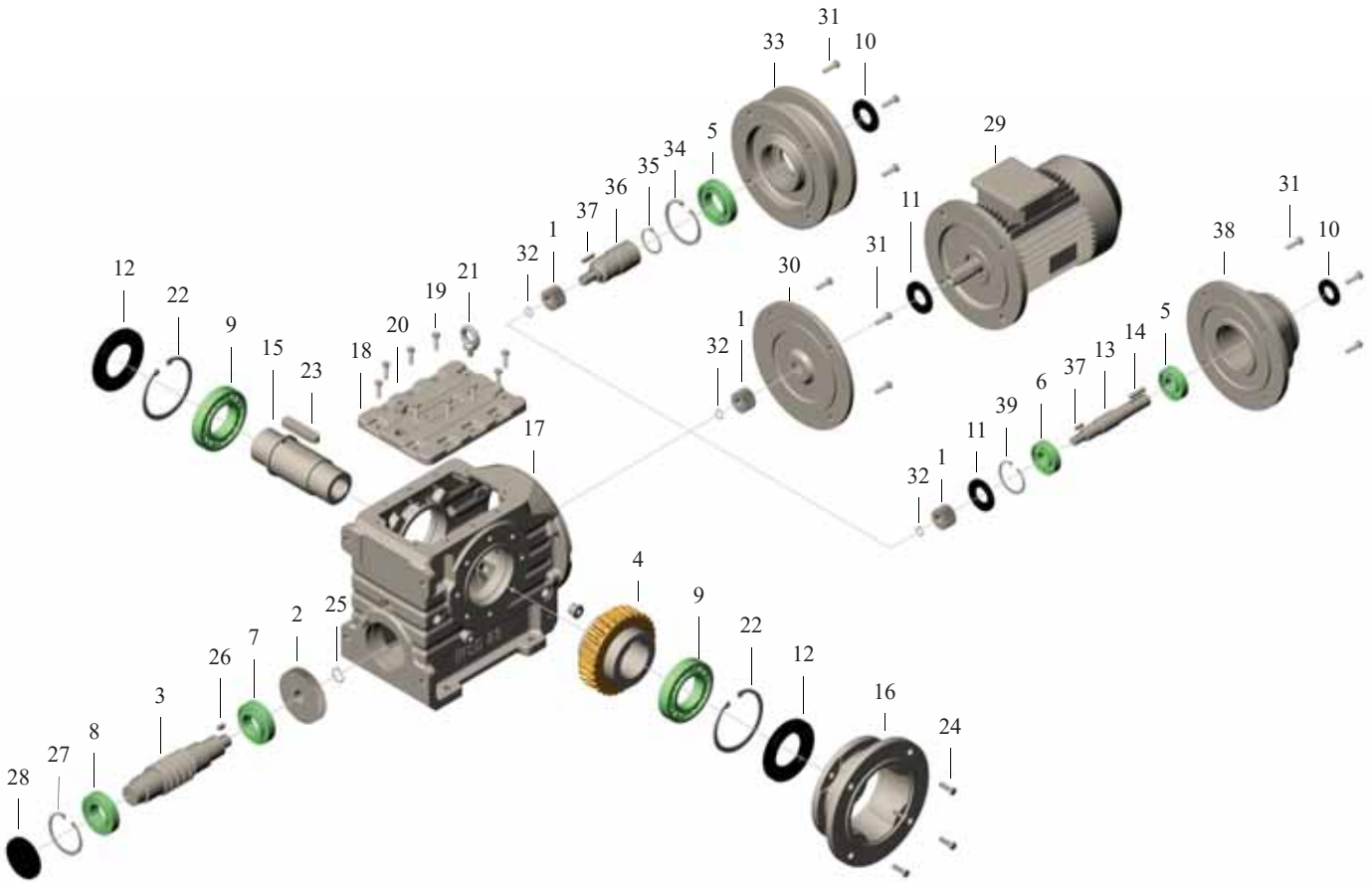
TİP / TYPE
İRSA / İRSF / İRSAP / İRSFP / İRSAM / İRSFM } 201-250



TİP / TYPE
İRSA / İRSF / İRSAP / İRSFP / İRSAM / İRSFM } 201-250

1 - Sonsuz Vida	1 - Worm	*1 - Roue*
2 - Sonsuz Vida Çarkı	2 - Worm Wheel	*2 - Vis sans fin*
3 - Rulman	3 - Bearing	*3 - Roulement*
4 - Rulman	4 - Bearing	*4 - Roulement*
5 - Rulman	5 - Bearing	*5 - Roulement*
6 - Keçe	6 - Seal	*6 - Joint*
7 - Keçe	7 - Seal	*7 - Joint*
8 - Cıvata	8 - Bolt	*8 - Vis*
9 - Rulman Baskı Kapağı	9 - Bearing Cover	*9 - Couvercle*
10 - Gövde	10 - Gear Case	*10 - Carter*
11 - Cıvata	11 - Bolt	*11 - Vis*
12 - Motor Bağlantı Kapağı	12 - Motor Mounting Adapter	*12 - Motoranschlussflansch*
13 - Cıvata	13 - Bolt	*13 - Vis*
14 - Motor	14 - Electric Motor	*14 - Moteur éléctrique*
15 - Kama	15 - Key	*15 - Clavette*
16 - Keçe Kapağı	16 - Seal Cover	*16 - Joint*
17 - Cıvata	17 - Bolt	*17 - Vis*
18 - Cıvata	18 - Bolt	*18 - Vis*
19 - Keçe Kapağı	19 - Seal Cover	*19 - Joint*
20 - Flanş	20 - Flange	*20 - Bride*
21 - Yağ Tapası	21 - Oil Plug	*21 - Bouchon d'huile*

TİP / TYPE
İRSD / İRSDF / İRSDP / İRSDFP / İRSDM / İRSDFM } 53-63-73-83



TİP / TYPE
İRSD / İRSDF / İRSDP / İRSDFP / İRSDM / İRSDFM } 53-63-73-83

1 - Dişli Z1	1 - Gear Z1	*1 - Pignon Z1*
2 - Dişli Z2	2 - Gear Z2	*2 - Pignon Z2*
3 - Sonsuz Vida	3 - Worm	*3 - Roue*
4 - Sonsuz Vida Çarkı	4 - Worm Wheel	*4 - Vis sans fin*
5 - Rulman	5 - Bearing	*5 - Roulement*
6 - Rulman	6 - Bearing	*6 - Roulement*
7 - Rulman	7 - Bearing	*7 - Roulement*
8 - Rulman	8 - Bearing	*8 - Roulement*
9 - Rulman	9 - Bearing	*9 - Roulement*
10 - Keçe	10 - Seal	*10 - Joint*
11 - Keçe	11 - Seal	*11 - Joint*
12 - Keçe	12 - Seal	*12 - Joint*
13 - Giriş Mili	13 - Input Shaft	*13 - Arbre d'entrée*
14 - Kama	14 - Key	*14 - Clavette*
15 - Kovan	15 - Hollow Shalt	*15 - Arbre creux*
16 - Flanş	16 - Flange	*16 - Bride*
17 - Gövde	17 - Gear Case	*17 - Carter*
18 - Kapak	18 - Cover	*18 - Couvercle*
19 - Cıvata	19 - Bolt	*19 - Vis*
20 - Yağ Tapası	20 - Oil Plug	*20 - Bouchon d'huile*
21 - Taşıma Kancası	21 - Lifting Eye Bolt	*21 - Anneau de levage*
22 - Segman	22 - Circlip	*22 - Circlip*
23 - Kama	23 - Key	*23 - Clavette*
24 - Cıvata	24 - Bolt	*24 - Vis*
25 - Segman	25 - Circlip	*25 - Circlip*
26 - Kama	26 - Key	*26 - Clavette*
27 - Segman	27 - Circlip	*27 - Circlip*
28 - Tapa	28 - Locking Cover	*28 - Bouchon*
29 - Motor	29 - Electric Motor	*29 - Moteur éléctrique*
30 - Motor Bağlantı Kapağı	30 - Motor Mounting Adapter	*30 - Bride moteur*
31 - Cıvata	31 - Bolt	*31 - Vis*
32 - Segman	32 - Circlip	*32 - Circlip*
33 - Pam Flanş	33 - IEC Flange	*33 - Bride IEC*
34 - Segman	34 - Circlip	*34 - Circlip*
35 - Segman	35 - Circlip	*35 - Circlip*
36 - Ara Bağlantı Mili	36 - Connection Shaft	*36 - Arbre connecteur*
37 - Kama	37 - Key	*37 - Clavette*
38 - Motorsuz Kapak	38 - Input cover	*38 - Bride d'entrée*
39 - Segman	39 - Circlip	*39 - Circlip*

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