



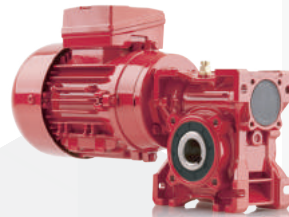
**I.Mak**®

REDÜKTÖR & VARYATÖR A.Ş.

## **Sonsuz Vidalı Redüktörler**

**Worm Gearbox / Réducteurs à Roue et Vis Sans Fin**

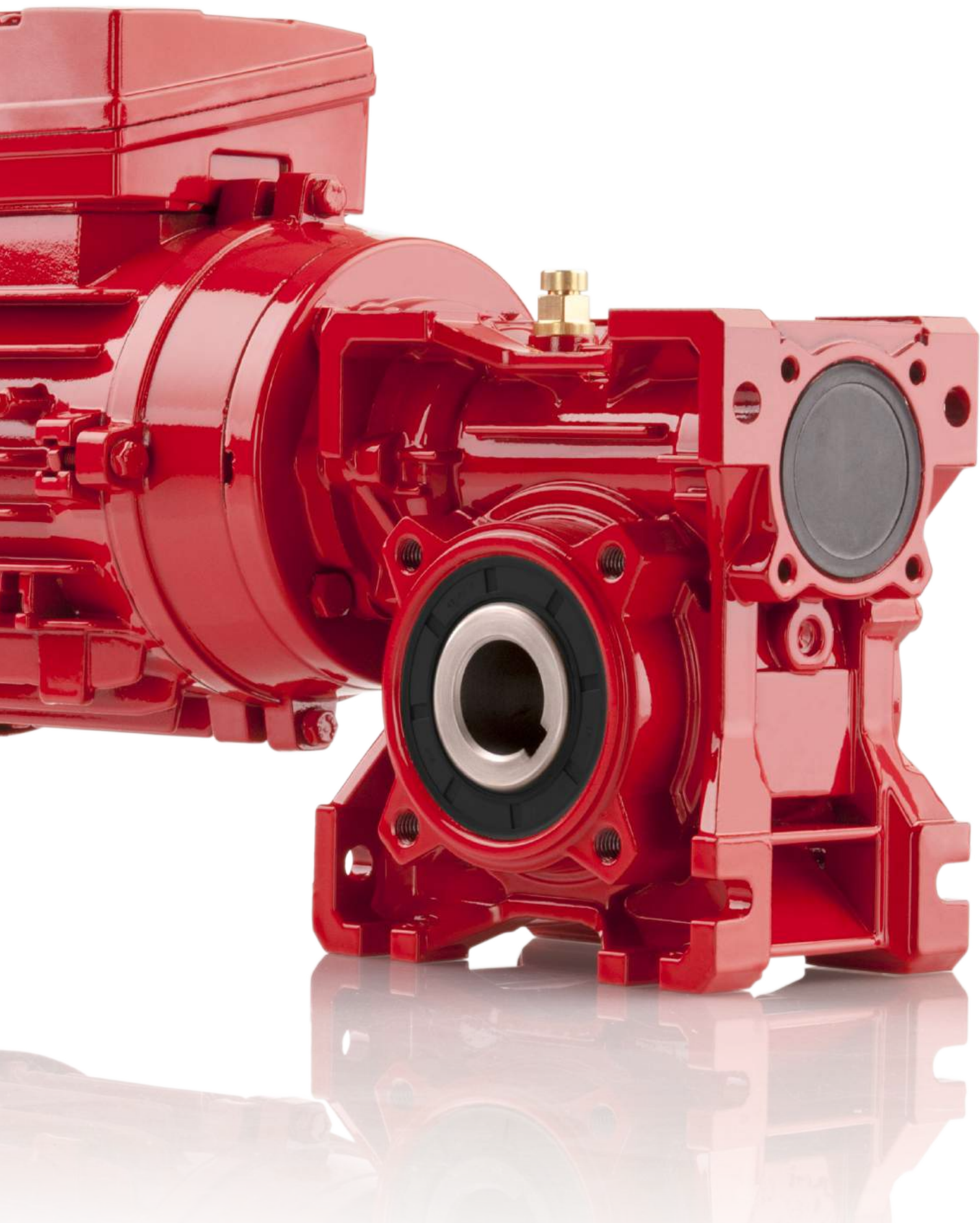
**S02**



SERIES  
S  
IRS  
IRSD

**2018**  
TR | EN | FR

Gearboxes and Drives / Moto Réducteurs

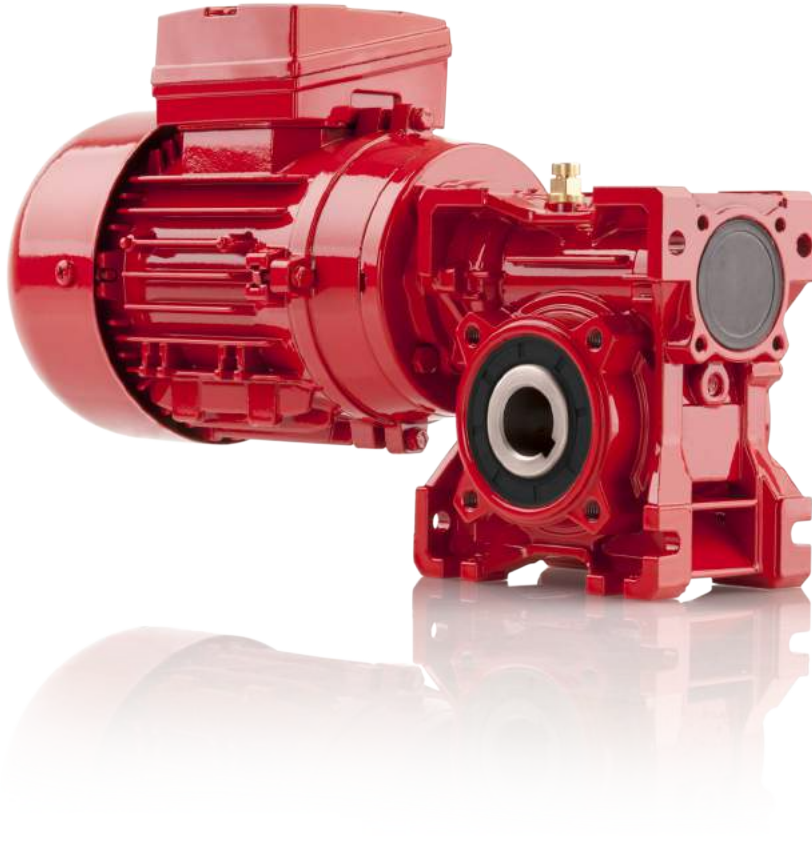


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# S

SERİSİ / SERIES / SÉRIES



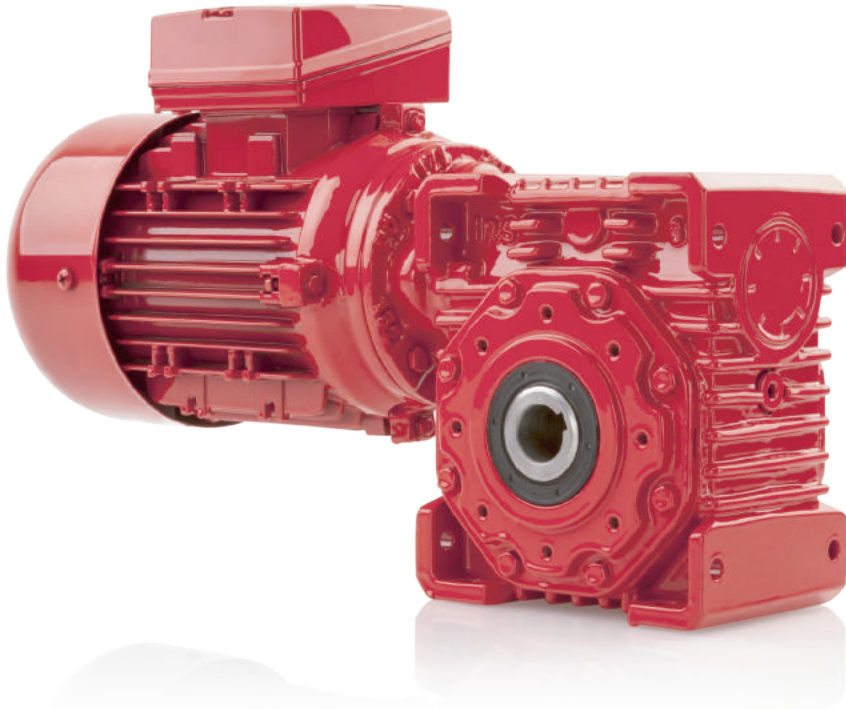
- Aluminyum gövdeli sonsuz vidalı redüktörler
- 5 Farklı gövde büyüklüğü
- 13 – 388 Nm moment aralığı
- 7,5 – 100 Tahvil aralığı

- Worm geared unit with aluminium housing
- 5 Size of housing
- Torque range from 13 to 388 Nm
- Ratio range from 7.5 to 100

- *Réducteur à roue et vis sans fin avec carter en aluminium*
- *5 tailles de carter*
- *Couple allant de 13 à 388 Nm*
- *Rapport de réduction compris entre 7.5 et 100*

# iRS

SERİSİ / SERIES / SÉRIES



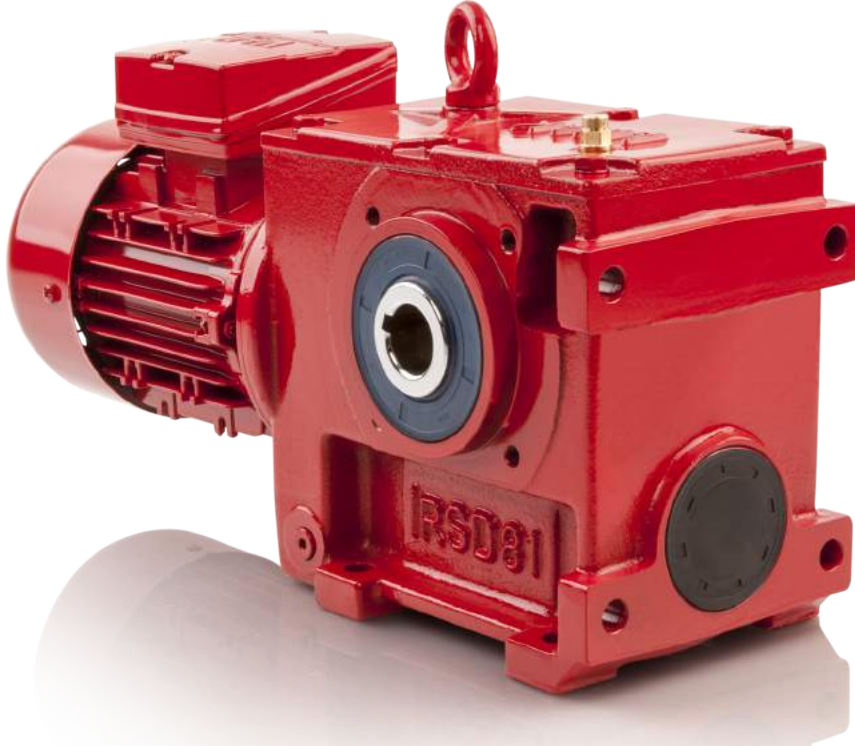
- Döküm gövdeli sonsuz vidalı redüktörler
- 8 Farklı gövde büyüklüğü
- 96 – 16876 Nm moment aralığı
- 7,25 – 115 Tahvil aralığı

- 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

## Genel Bilgiler

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General Information  
*Informations g n rales*



### Alüminyum 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

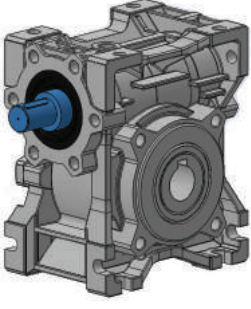
Cast iron housing worm gearbox / Réducteurs à roue et vis sans fin, carter en fonte

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

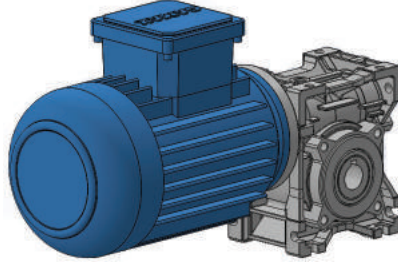
### Döküm gövdeli helisel - sonsuz vidalı redüktörler

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

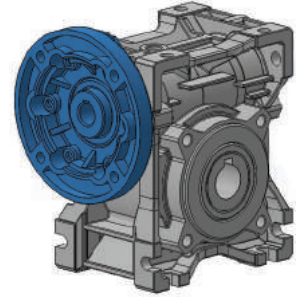
Kod	Tip tanımlama	Type designation	Spécifications des types
İRSD...	Giriş milli - ayak montajlı - delik milli	Input shaft - foot mounted - hollow shaft	Arbre d'entrée - a pattes - arbre creux
İRSDF...	Giriş milli - flanş montajlı - delik milli	Input shaft - flange mounted - hollow shaft	Arbre d'entrée - 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



**S**  
**Giriş milli**  
Solid input shaft  
*Avec arbre de sortie*



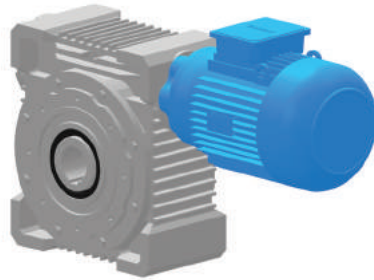
**SM**  
**Motorlu**  
With motor  
*Avec moteur*



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



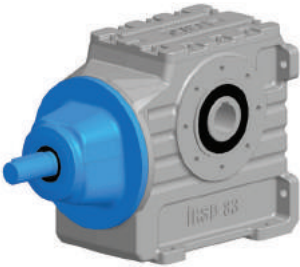
**İRSA**  
**Giriş milli**  
Solid input shaft  
*Avec arbre de sortie*



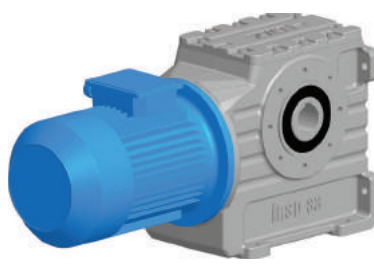
**İRSAM**  
**Motorlu**  
With motor  
*Avec moteur*



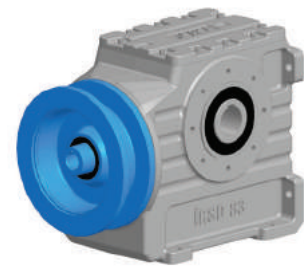
**İRSAP**  
**IEC pam flanşli**  
IEC input flange  
*Avec bride de sortie PAM - IEC*



**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*

## Redüktör opsiyonları / Gearboxes options / Options des motoréducteurs

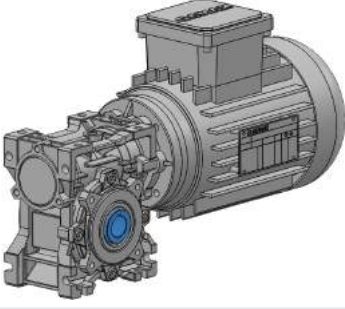
Kod	Opsiyon	Options	Options
FR	Sağ taraf çıkış flanşı	Output flange right	Bride de sortie ( Droite )
FL	Sol taraf çıkış flanşı	Output flange left	Bride de sortie ( Gauche )
FD	Çift çıkış flanşı	Double output flange	Bride de sortie ( Double )
SR	Sağ taraf çıkış mili	Output shaft right	Arbre de sortie ( 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	Epaulement ( 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

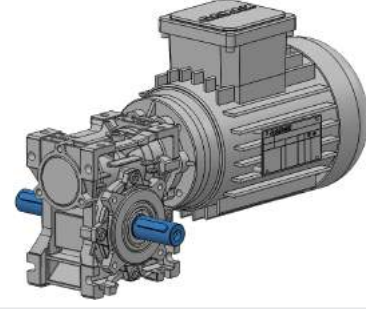
\*\* İRSD Redüktörler içindir / Only for IRSD Series / Uniquement pour la série IRSD

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

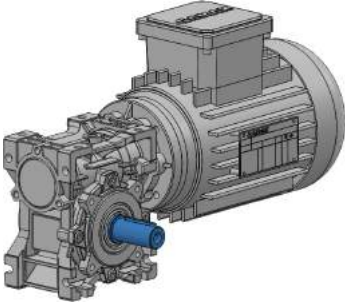
Kod	Opsiyon	Options	Options
BR	Fren	Brake	Frein
BRH	Manuel kollu fren	Brake with hand release	Frein avec ouverture manuel
BD	Çift fren	Double brake	Double frein
BDH	Manuel kollu çift fren	Double brake with hand release	Double frein avec ouverture manuel
E	Enkoder	Encoder	Encoder
EMK	Elektromanyetik kavrama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



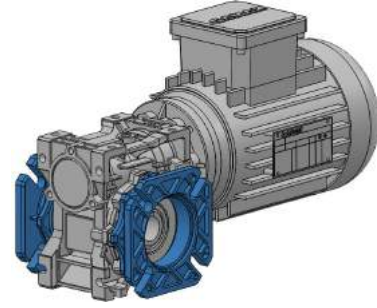
**S..**  
**Delik milli**  
Hollow output shaft  
*Arbre creux*



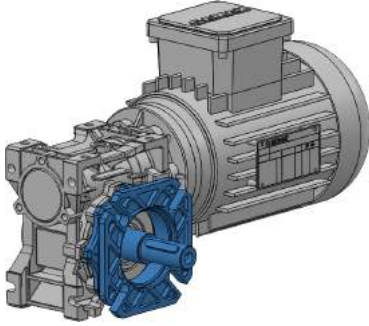
**S...SD**  
**Çift çıkış milli**  
Double output shaft  
*Double arbre de sortie*



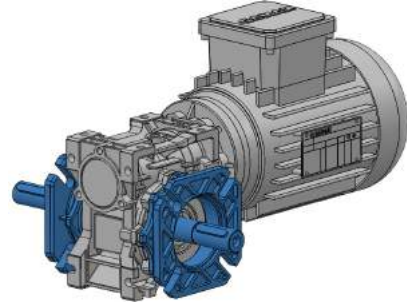
**S...SL**  
**Çıkış milli (sol)**  
Output shaft ( Left )  
*Arbre de sortie ( Gauche )*



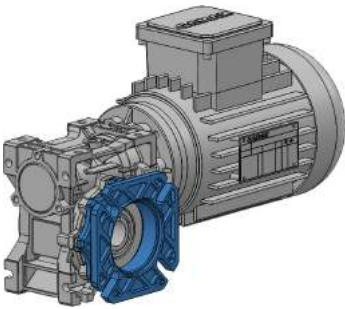
**S...FD**  
**Çift çıkış flanşlı**  
Double output flange  
*Double bride de sortie*



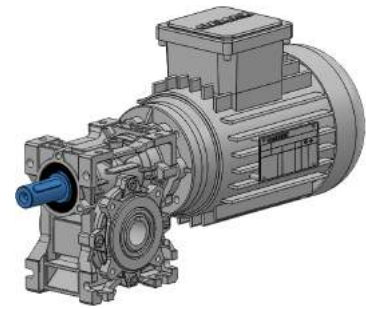
**S...FL-SL**  
**Çıkış milli - Çıkış flanşlı (sol)**  
Output shaft - Output flange ( Left )  
*Arbre et bride de sortie ( Gauche )*



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



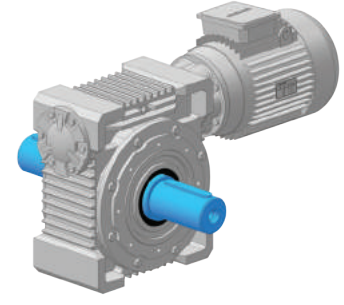
**S...FL**  
**Çıkış flanşlı (sol)**  
Output flange ( Left )  
*Bride de sortie ( Gauche )*



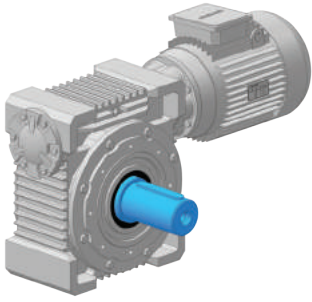
**S...C**  
**Alın milli**  
Input shaft  
*Arbre d'entrée*



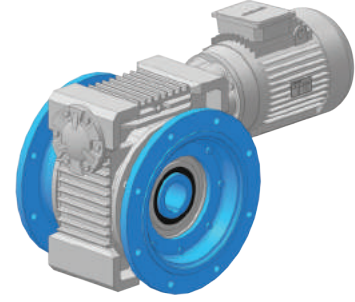
**İRS..**  
**Delik milli**  
Hollow output shaft  
*Arbre creux*



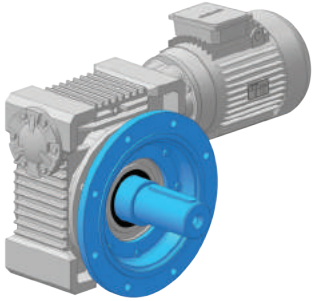
**İRS...SD**  
**Çift çıkış milli**  
Double output shaft  
*Double arbre de sortie*



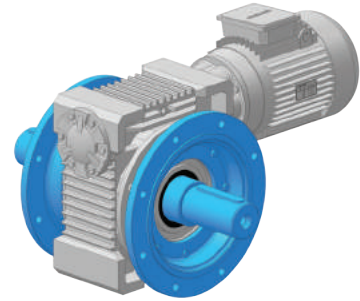
**İRS...SL**  
**Çıkış milli (sol)**  
Output shaft ( Left )  
*Arbre de sortie ( Gauche )*



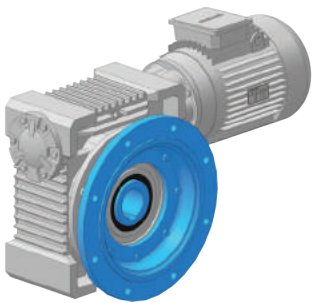
**İRSF...FD**  
**Delik milli - Çift çıkış flanşlı**  
Double output flange  
*Double bride de sortie*



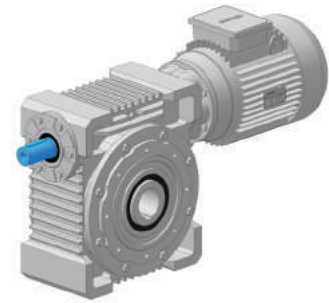
**İRSF...FL-SL**  
**Çıkış milli - Çıkış flanşlı (sol)**  
Output shaft - Output flange ( Left )  
*Arbre et bride de sortie ( Gauche )*



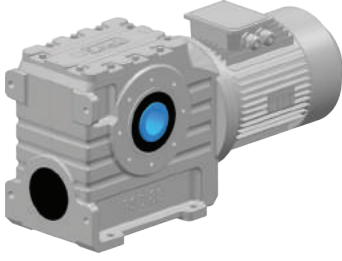
**İRSF...FD-SD**  
**Çift çıkış flanşlı - Çift çıkış milli**  
Double output flange - Double output shaft  
*Bride de sortie double - Arbre de sortie double*



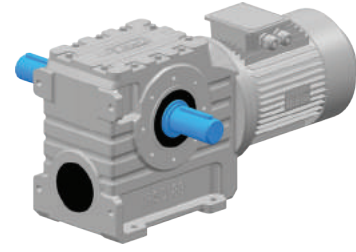
**İRSF...FL**  
**Delik milli - Çıkış flanşlı (sol)**  
Output flange ( Left )  
*Bride de sortie ( Gauche )*



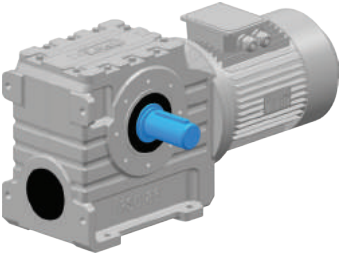
**İRSA ...C**  
**Alın milli**  
Input shaft  
*Arbre d'entrée*



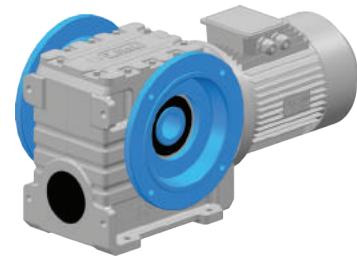
**İRSD..**  
**Delik milli**  
Hollow output shaft  
*Arbre creux*



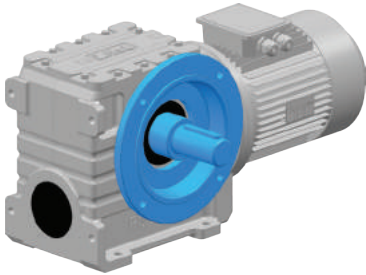
**İRSD...SD**  
**Çift çıkış milli**  
Double output shaft  
*Double arbre de sortie*



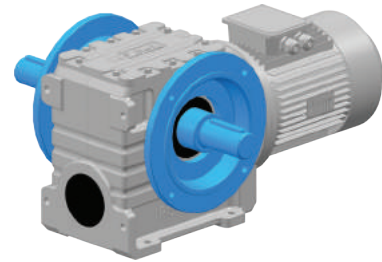
**İRSD...SL**  
**Çıkış milli (sol)**  
Output shaft ( Left )  
*Arbre de sortie ( Gauche )*



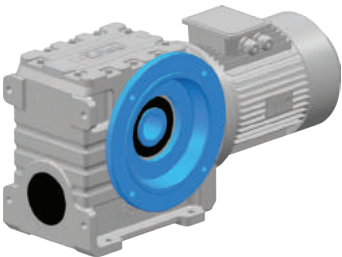
**İRSDF...FD**  
**Çift çıkış flanşlı**  
Double output flange  
*Double bride de sortie*



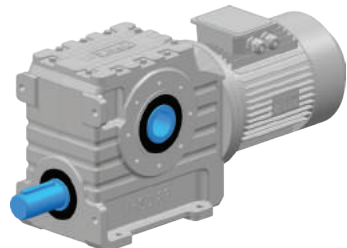
**İRSDF...FL-SL**  
**Çıkış milli - Çıkış flanşlı (sol)**  
Output shaft - Output flange ( Left )  
*Arbre et bride de sortie ( Gauche )*



**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 / Bride**

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 *	Hardened 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 / Bride pam**

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 değişiklik 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 où 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 değişiklik 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 où 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	Reinforced 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 equipped 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)	Acrylic paint	Peinture acrylique (Environnement extérieur)
255	Su bazlı boya	Water based paint	Peinture à base d'eau
256	Antikorozyon 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 fréquence**

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 danışınız. / Adapted for outside environment with temperature in between 0 C° and 40 C° / Adapté aux environnements extérieurs 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 environnement a températures élevées
342	Soğuk ortam rulmanı*	Bearing for cold environment	Roulement pour environnement 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 danışınız / 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	IE 1	IE 1	IE 1
362	IE 3	IE 3	IE 3
363	IE 4	IE 4	IE 4

\* 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	Nursan fren	Nursan brake	Frein - Nursan
412	EMF fren	EMF brake	Frein - EMF
413	Fatih fren	Fatih brake	Frein - Fatih
414	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 refroidissement
424	24 V soğutmasız*	24 V without cooler	24 V - sans refroidissement
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 without cooling are installed without fan or cover / Les freins sans refroidissement 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 enkoder çeşitleri için fabrikaya danışınız / For different type of encoder contact our sales team / Pour des type de codeurs différents contactez notre équipe technique

## 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	Interrupteur 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 coil heat	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 firmamız tarafından tedarik edilmemektedir / Our factory is not providing such motors / Moteur non fournis par notre usine  
Özel motor kodlari motorlari farbrikamiz tarafından takildiği durumlarda uygulanir / Motors installed in our factory / Moteur installés dans notre usine

<b>S</b>	<b>M</b>	<b>63</b>	<b>-</b>	<b>80</b>	<b>M</b>	<b>4</b>	<b>/</b>	<b>FR</b>	<b>SR</b>	<b>C</b>	<b>BR</b>	<b>TM</b>
Redüktör tipi / Gearbox type / Type de réducteur ( S - IRS - IRSD )	Giriş opsiyonu / Input option / Couple d'entrée ( S - SM - SP )	Redüktör gövde büyüklüğü / Housing size / Taille du carter du réducteur ( 30 - 40 - 50 - 63 - 75 )		Motor gövde büyüklüğü / Motor size / Taille du moteur ( 71 - 80 - 90 - 100 - 112 )	Gövde uzunluğu / Frame length / Longueur du carter moteur ( S - M - L )	Kutup sayısı / Pole number / Nombre de pôles ( 2 - 4 - 6 - 8 )				Opsiyonlar / Options / Options		

<b>İRSD</b>	<b>F</b>	<b>P</b>	<b>83</b>	<b>-</b>	<b>IEC</b>	<b>100</b>	<b>B14</b>	<b>/</b>	<b>ST</b>	<b>C</b>	<b>SDR</b>	
Redüktör tipi / Gearbox type / Type de réducteur ( S - IRS - IRSD )	Montaj opsiyonu / Mounting option / Options de montage ( IRSD - IRSF )	Giriş opsiyonu / Input option / Couple d'entrée ( IRSDM - IRSA - IRSAP )	Redüktör gövde büyüklüğü / Housing size / Taille du carter du réducteur ( 52 - 65 - 82 - 102 - 127 - 162 - 201 - 250 )		IEC Giriş opsiyonu / Input options (IEC) / Options d'entrée (IEC) ( 71 B14 - 80 B14 - 90 B14 - 100 B14 - 112 B14 )					Opsiyonlar / Options / Options		

<b>İRS</b>	<b>A</b>	<b>M</b>	<b>102</b>	<b>İRS</b>	<b>52</b>	<b>-</b>	<b>71</b>	<b>M</b>	<b>4</b>	<b>/</b>	<b>W1</b>	<b>/</b>	<b>U</b>
Redüktör tipi / Gearbox type / Type de réducteur ( S - IRS - IRSD )		Redüktör gövde büyüklüğü / Housing size / Taille du carter du réducteur ( 52 - 65 - 82 - 102 - 127 - 162 - 201 - 250 )	İkinci kutu tipi / Housing type of the second gearbox / Type du second réducteur ( IRS - İR - S )	İkinci kutu gövde büyüklüğü / Second gearbox housing size / Taille du carter du second réducteur ( 52 - 65 - 82 - 102 - 127 - 162 )		Motor büyüklüğü / Motor size / Taille du moteur ( 71 - 80 - 90 - 100 - 112 )	Gövde uzunluğu / Frame length / Longueur du carter moteur ( S - M - L )	Kutup sayısı / Pole number / Nombre de pôles ( 2 - 4 - 6 - 8 )			İkinci kutu bağlantı şekli / Mounting position for the second gearbox / Position de montage pour le second réducteur ( DB1 - DB2 - DB3 - DB4 - DB5 - DB6 - DB7 - DB8 )		Opsiyonlar / Options / Options

**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 catalogue.

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 caractéristique de l'application. Ont distingue trois type de charges différentes

1. Charges uniformes (U)
2. Charges modérées (M)
3. Charges élevées (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'arrêt/rédémarrage est donc à prendre en compte lors de l'analyse du service facteur.

L'exemple çı-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 électrique. La charge est "élevée" et la durée de fonctionnement journalière 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 (Caterpillar)	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 Makinalar		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 construction 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
<b>Elekt. Motorlu</b> / Elect. Motor / Moteurs élect. <b>Türbin</b> / Turbin / Turbine <b>Hidrolik</b> / Hydraulic / Hydraulique	0....3	0.8	1	1.5
	3....10	1	1.25	1.75
	10...24	1.25	1.5	2
<b>Pistonlu Makinalar ( 4....6 Silindir</b> 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
<b>Pistonlu Makinalar ( 1....2 Silindir</b> 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

Ventilatör 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) köruk	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
Silindirme 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 testereleler	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
<b>Elekt. Motorlu</b> / Elect. Motor / <i>Moteurs élect.</i> <b>Türbin</b> / Turbin / <i>Turbine</i> <b>Hidrolik</b> / Hydraulic / <i>Hydraulique</i>	0....3	0.8	1	1.5
	3....10	1	1.25	1.75
	10...24	1.25	1.5	2
<b>Pistonlu Makinalar ( 4....6 Silindir )</b> Piston Machines ( 4....6 Cylindir ) <i>Machine à pistons ( 4.....6 Cylindres )</i>	0....3	1	1.25	2
	3....10	1.25	1.5	2
	10...24	1.5	1.75	2
<b>Pistonlu Makinalar ( 1....2 Silindir )</b> Piston Machines ( 1....2 Cylindir ) <i>Machine à pistons ( 1.....2 Cylindres )</i>	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		Métallurgie 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 Tahrir )	M	Machines tools ( Main Drives )	M	Machine outil ( Axe principal )	M
Takım tezgahları ( Yardımcı Tahrir )	U	Machines tools ( Auxiliarily Drives )	U	Machine outil ( axe secondaire )	U

Gıda Endüstri Makinaları		Food Industry Machines		Industrie Agroalimentaire	
Doldurma makinaları ( Şişe, Kavanoz vs.)	U	Filling machines ( Bottles, Containers.)	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

Tahrir 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
<b>Elekt. Motorlu</b> / Elect. Motor / Moteurs élect. <b>Türbin</b> / Turbin / Turbine <b>Hidrolik</b> / Hydraulic / Hydraulique	0....3	0.8	1	1.5
	3....10	1	1.25	1.75
	10...24	1.25	1.5	2
<b>Pistonlu Makinalar ( 4....6 Silindir</b> 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
<b>Pistonlu Makinalar ( 1....2 Silindir</b> 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



Kağıt 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

Silindirme ve Çekme Tesisleri		Metal Rolling Mills		Acieries	
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
<b>Elekt. Motorlu</b> / Elect. Motor / <i>Moteurs élect.</i> <b>Türbin</b> / Turbin / <i>Turbine</i> <b>Hidrolik</b> / Hydrolic / <i>Hydraulique</i>	0.....3	0.8	1	1.5
	3....10	1	1.25	1.75
	10...24	1.25	1.5	2
<b>Pistonlu Makinalar ( 4....6 Silindir</b> Piston Machines ( 4....6 Cylindir ) <i>Machine à pistons ( 4.....6 Cylindres )</i>	0.....3	1	1.25	2
	3....10	1.25	1.5	2
	10...24	1.5	1.75	2
<b>Pistonlu Makinalar ( 1.....2 Silindir)</b> Piston Machines ( 1.....2 Cylindir ) <i>Machine à pistons ( 1.....2 Cylindres )</i>	0.....3	1.25	1.5	2
	3....10	1.5	1.75	2.25
	10...24	1.75	2	2.5

## 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 entraînant 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, veuillez à contacter votre revendeur ou le centre technique I-MAK le plus proche.

## 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 makinelerinde 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 necessary 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'entraînement 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 entraîne 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 alıştırma 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 boîte de Klemens, Les freins fonctionnant sous 24V doivent impérativement être couplés à un transformateur, cette unité est disponible en option.

### Données Nécessaire à la Commande d'un Frein.

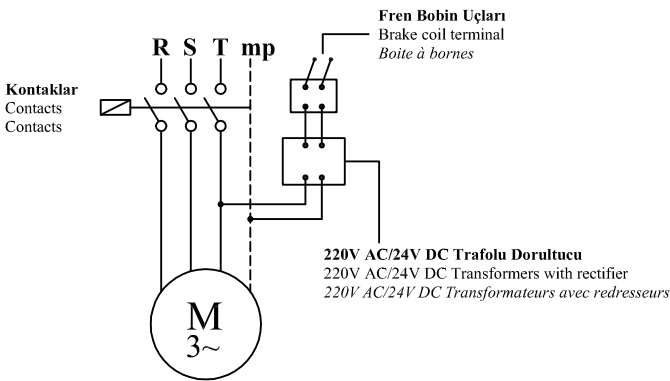
- 1) Couple des freins
- 2) Type de freins
- 3) Type de voltage

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

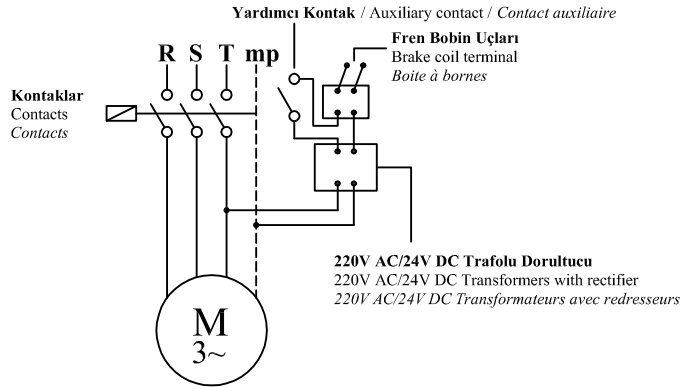
#### Gecikmeli Frenleme (24V)

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



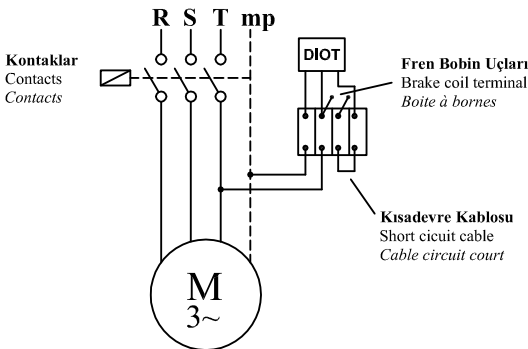
#### Ani Frenleme (24V)

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



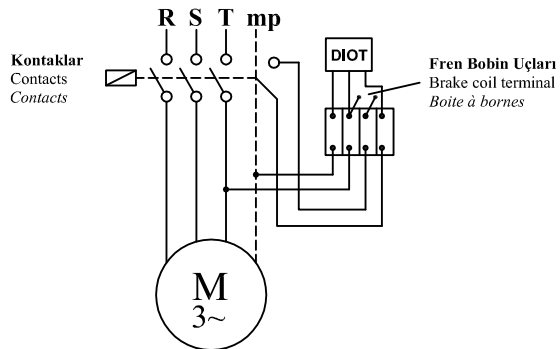
#### Gecikmeli Frenleme (220V)

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																				

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.

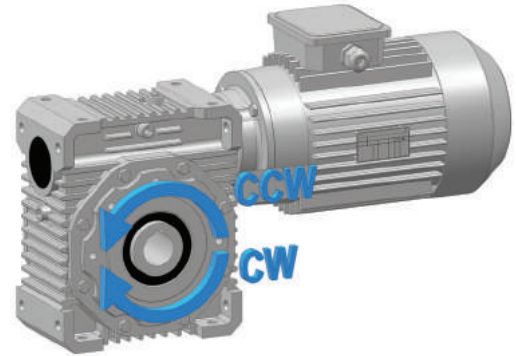
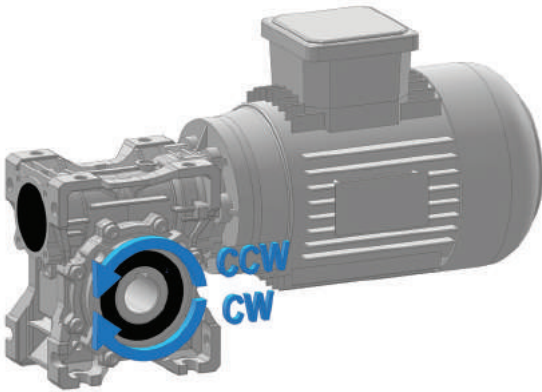
**Ccw : Saat Yönünün Tersi**  
**Cw : Saat Yönü**

In certain applications when the machinery stops, the operator would not like the gearbox to slip and lose 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**







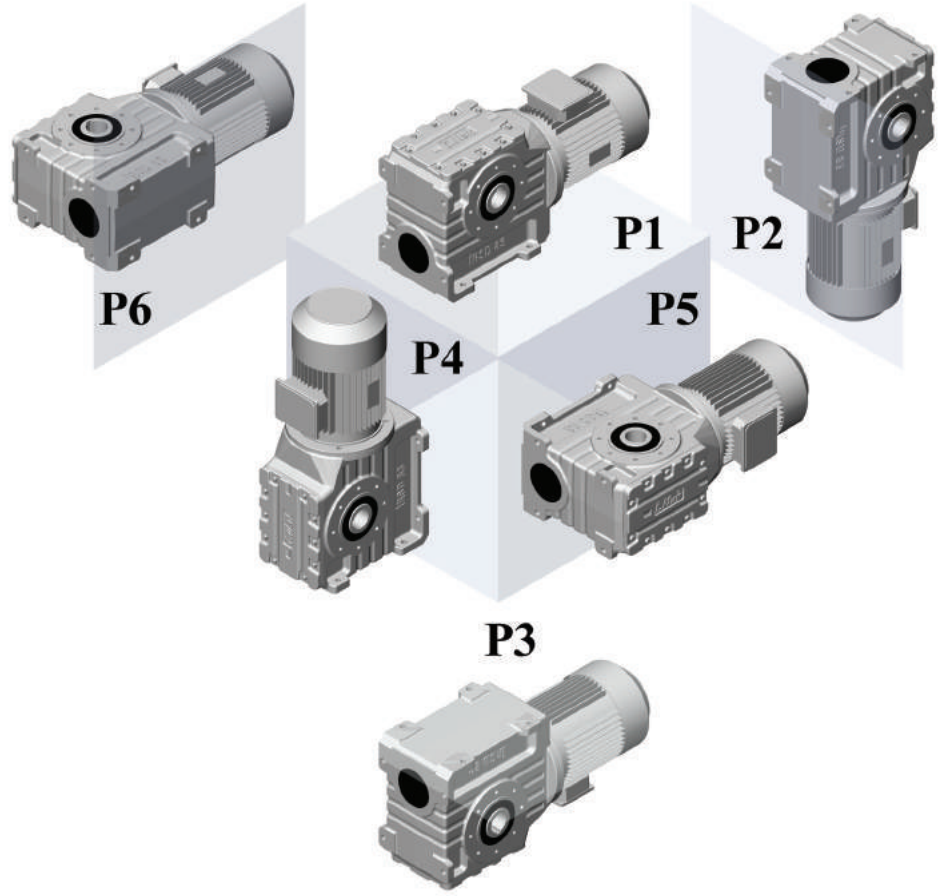


## İRSD

Ayak montajlı redüktörlerde  
montaj pozisyonu "P" ile  
gösterilir

Foot mounted gearboxes  
position are defined as "P"

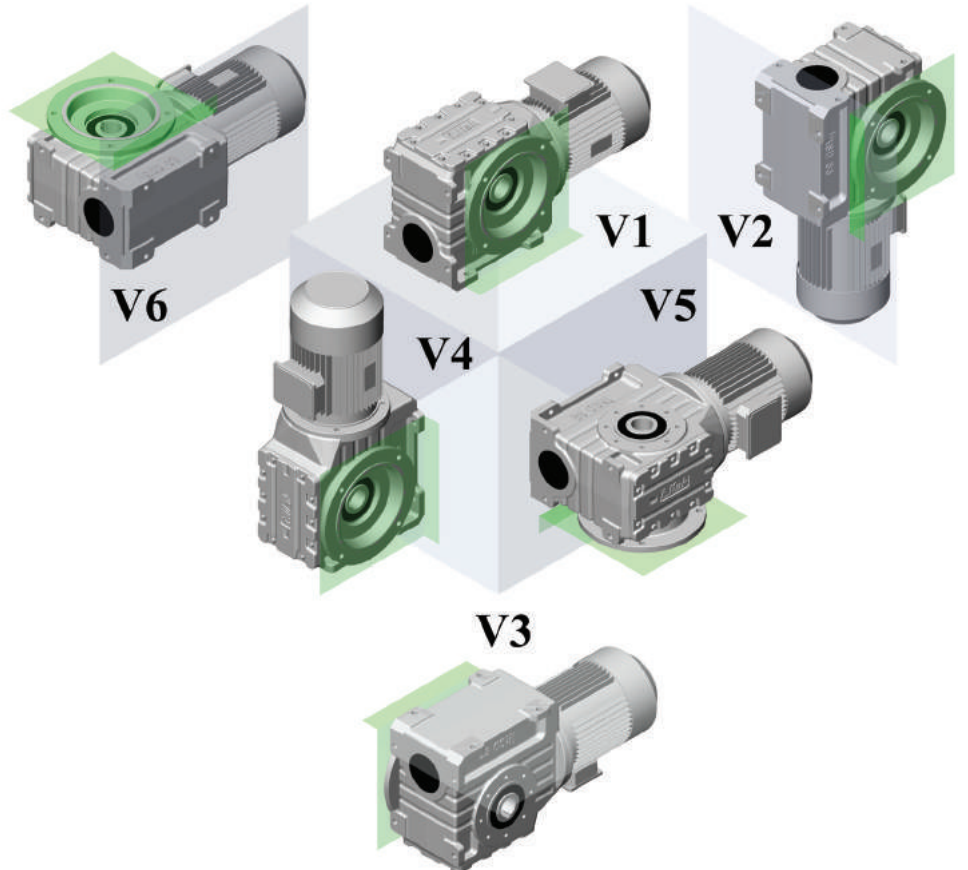
Les positions de montages  
des réducteurs à pattes sont  
définis par "P"



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"

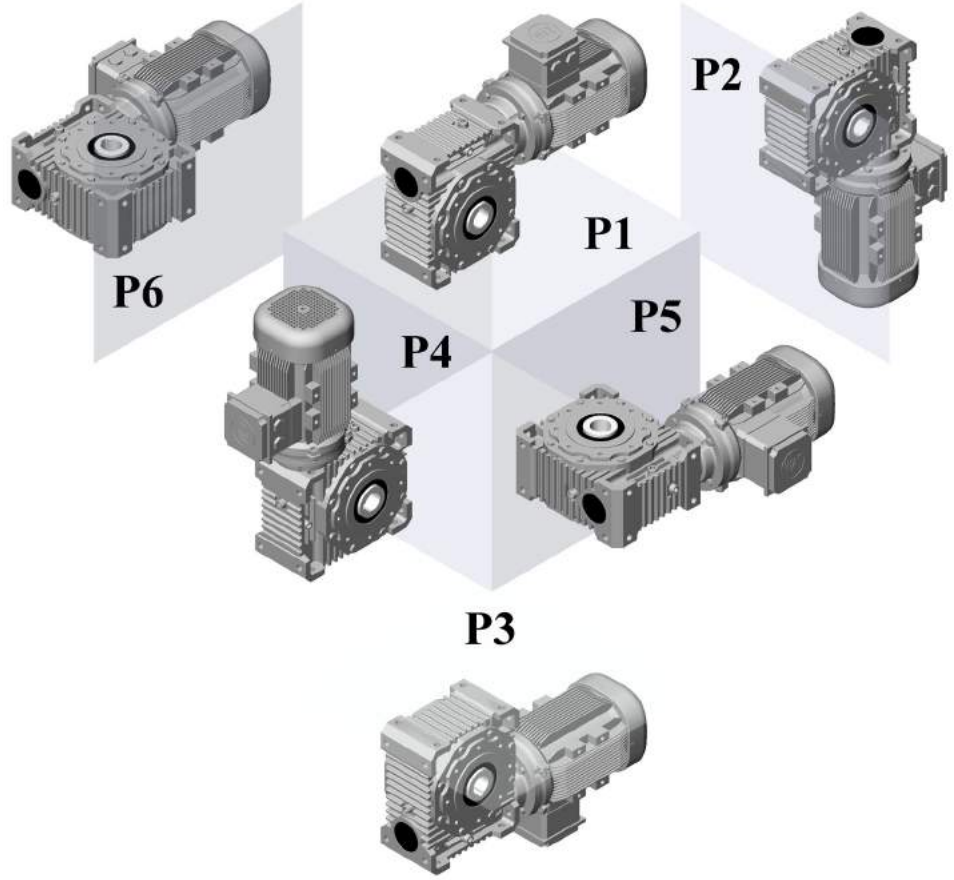


İRSA.... ,S....

Ayak montajlı redüktörlerde  
montaj pozisyonu "P" ile  
gösterilir

Foot mounted gearboxes  
position are defined as "P"

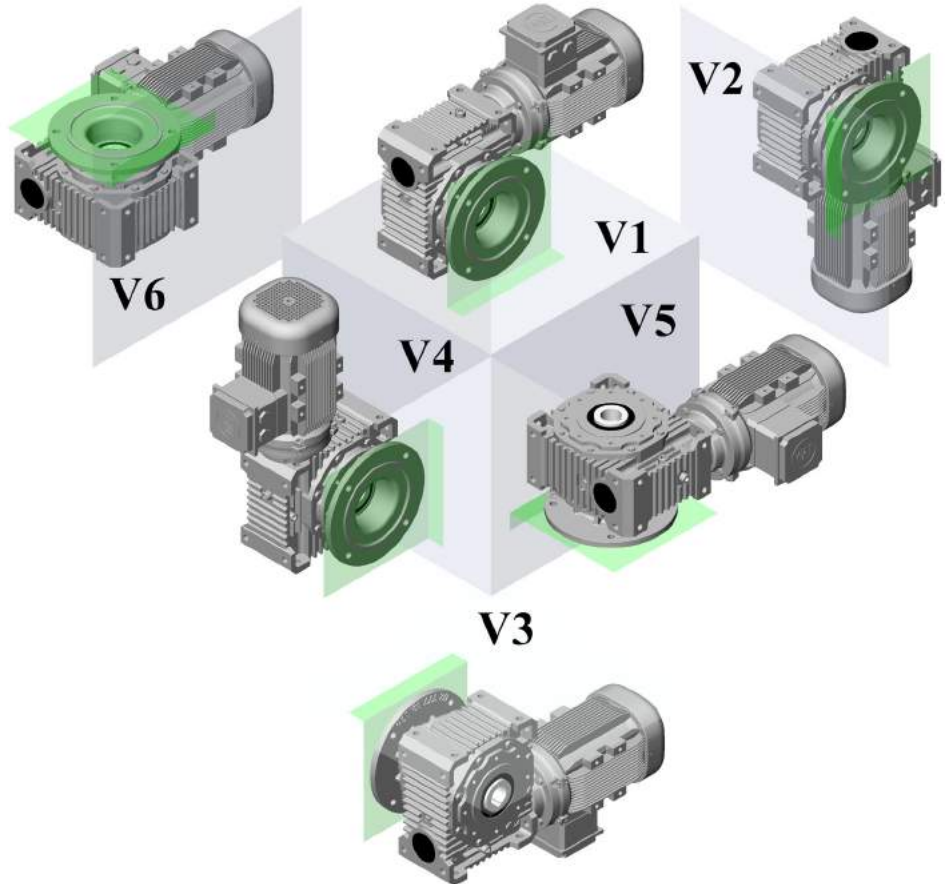
Les positions de montages  
des réducteurs à pattes sont  
définis par "P"



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"

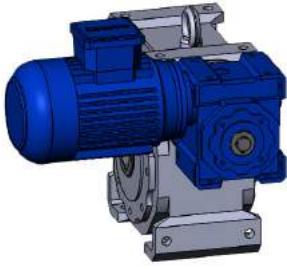


Tip Type Type	Bağlantı pozisyonları için yağ miktarları ( litre ) Oil quantities per mounting positions ( liter ) Quantités d'huiles en fonction de la position de montage ( litres )											
	P1	V1	P5	P6	V5	V6	P3	V3	P4	P2	V4	V2
SM 30	0,04											
SM 40	0,08											
SM 50	0,16											
SM 63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

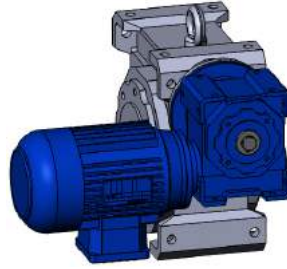
Tip Type Type	Bağlantı pozisyonları için yağ miktarları ( litre ) Oil quantities per mounting positions ( liter ) Quantités d'huiles en fonction de la position de montage ( litres )											
	P1	V1	P5	P6	V5	V6	P3	V3	P4	P2	V4	V2
İRS_M 52	0,6		0,65				0,3		0,5			
İRS_M 65	1,25		1,35				0,75		1			
İRS_M 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	Bağlantı pozisyonları için yağ miktarları ( 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			

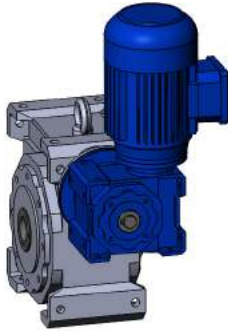
Yağ Cinsi Lubrifiant Art des Lubrifiant	ISO Viskozite sınıfı Viscosity class Catégorie de viscosité	DIN 51517-3	Kullanım sıcaklığı Usage temperature Gebrauchs temperatur d'usage C°	Firma Firm Marque						
				Mobil	ARAL	bp	Shell	Castrol	KLÜBER LUBRICATION	BELGiN
Mineral Yağ Mineral Oil Huile Minéral	ISO VG 320	CLP	0.....+100	Mobilgea XMP 320	Degol BG 320	Energol GR-XP 320	Omala F320	Alpha SP 320	GEM 1 320 N	Belgear M - 320 - süper
	ISO VG 220	CLP	-5.....+100	Mobilgea XMP 220	Degol BG 220	Energol GR-XP 220	Omala F220	Alpha SP 220	GEM 1 220 N	Belgear M - 220 - süper
	ISO VG 150	CLP	-5.....+100	Mobilgea XMP 150	Degol BG 150	Energol GR-XP 150	Omala 150	Alpha SP 150	GEM 1 150 N	Belgear M - 150 - süper
	ISO VG 100	CLP	-5.....+100	-	Degol BG 220	Energol GR-XP 220	Omala 100	Alpha SP 100	GEM 1 100 N	Belgear M - 100 - süper
Sentetik Yağ Synthetic Oil Huile Synthétique	ISO VG 320	CLP PG	-25.....+140	Gylgoyle 320	Degol GS 320	Enersyn SG-XP320	Tivela S 320	Alphasyn PG 320	Klübersynth GH 6-320	-
	ISO VG 220	CLP PG	-25.....+140	-	Degol GS 220	Enersyn SG-XP220	Tivela S 220	Alphasyn PG 220	Klübersynth GH 6-220	-
	ISO VG 150	CLP PG	-30.....+140	-	Degol GS 150	Enersyn SG-XP150	Tivela S 150	Alphasyn PG 150	Klübersynth GH 6-150	-
	ISO VG 100	CLP PG	-30.....+140	-	-	-	-	-	Klübersynth GH 6-100	-



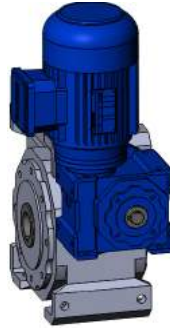
**W1**



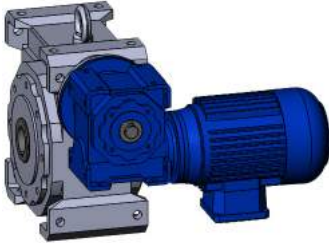
**W2**



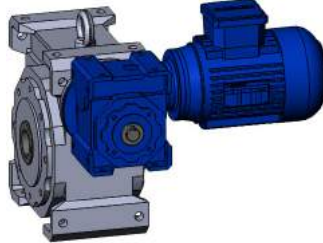
**N1**



**N2**



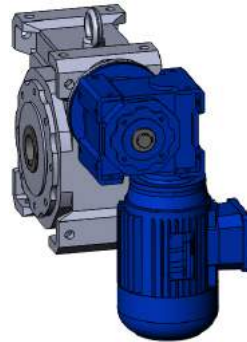
**E1**



**E2**



**S1**



**S2**

**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.*

**“1” konumunda ikinci redüktör FL-SL opsiyonları ile birlikte uygulanır. “2” konumunda ikinci redüktör FR-SR opsiyonları ile birlikte uygulanır.**

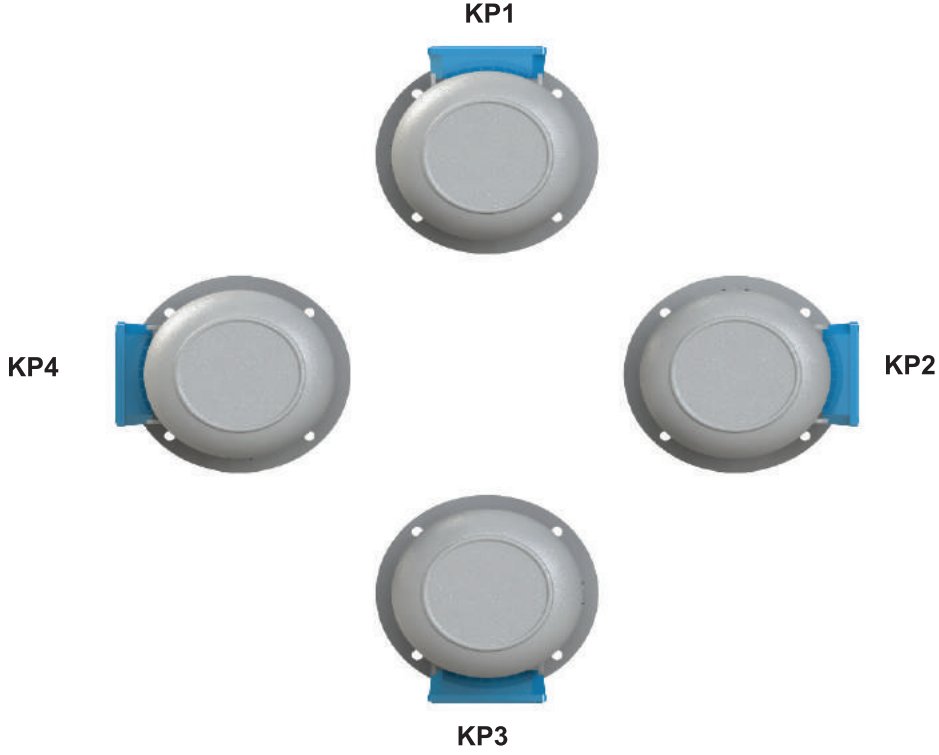
The first column is defining the mounting position of the second gearbox when on the left side. The second column is defining the mounting position of the second gearbox when on the right side.

*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.*

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.

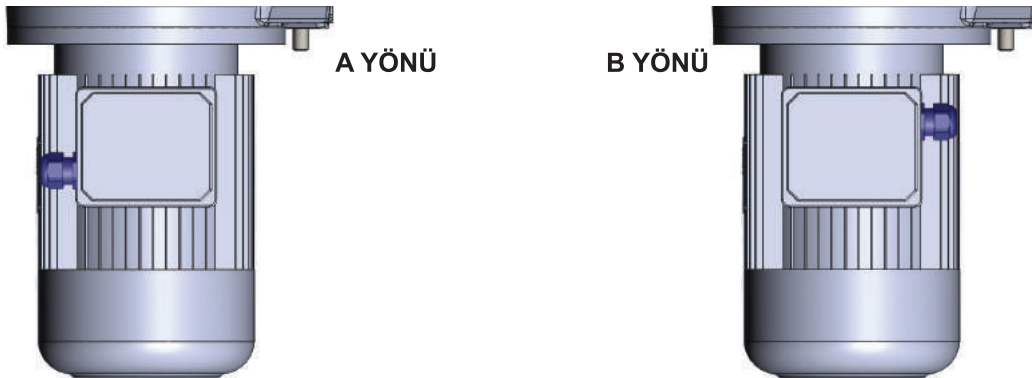
**Rakor Yönleri**

Cable Entry / Entrée des câbles

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

The standard position of the cable entry is "A", if the position is not defined during the order, the mounting position is always "A"

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



**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**

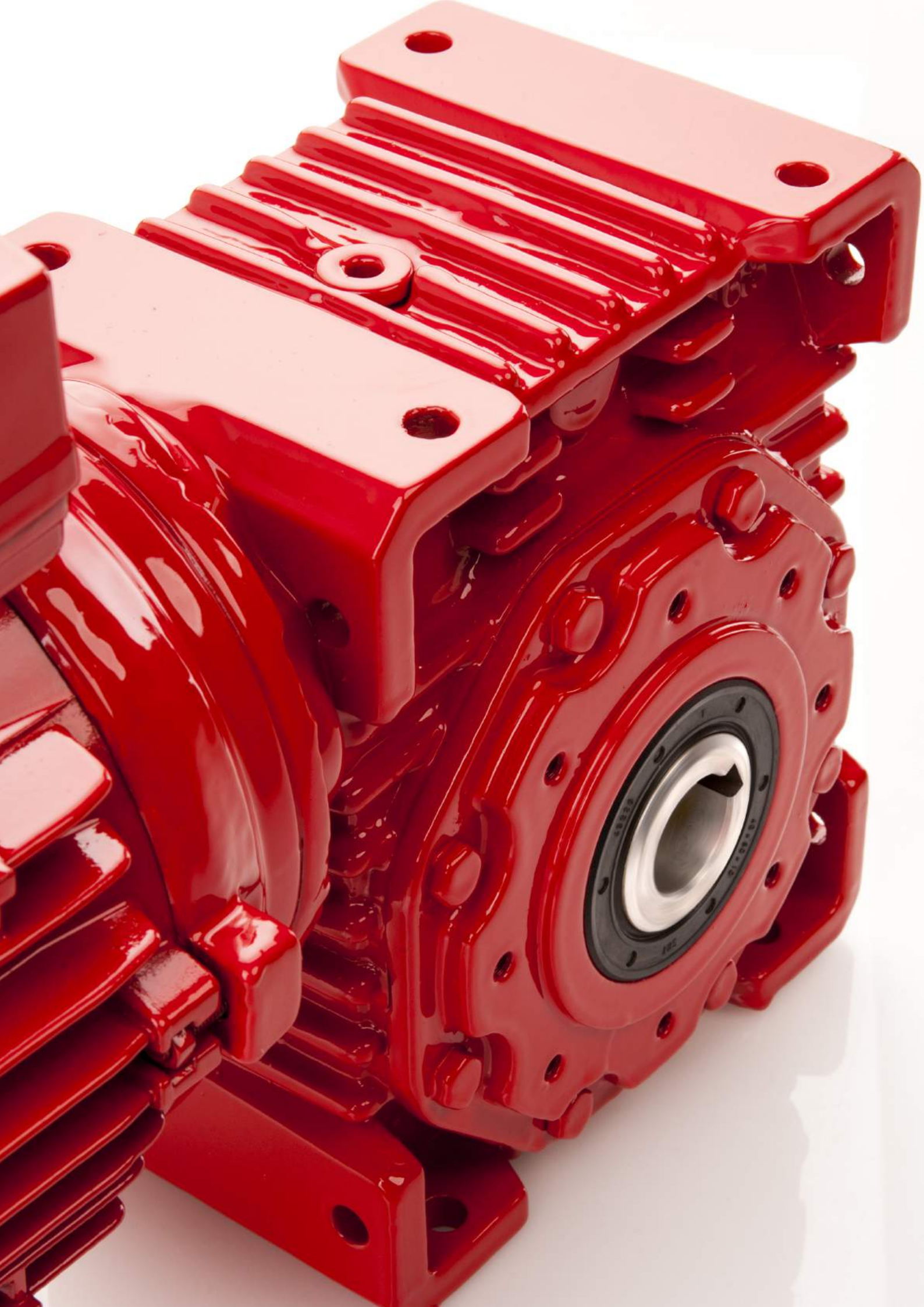
Kod	Güç (KW)	Hız (d/d)	Anma Akımı	Moment (Nm)	Verim		IE Sınıfı	Çalışma Sınıfı
					100%	75%		
Code	Power (KW)	Speed (r.p.m.)	Rated Current	Torque (Nm)	Efficiency		IE Class	Duty Type
					100%	75%		
Code	Puissance (kW)	Vitesse (r.p.m)	Ampère	Couple (Nm)	Efficience		Classe IE	Classe d'utilisation
					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.

Tip Type	Tahvil / Ratio / Rapport de réduction	Motor büyüklüğü / Motor frame size / Dimensions du moteur				
		IEC 63 B14	IEC 71 B14	IEC 80 B14	IEC 90 B14	IEC 100 B14
S 30	7,5					
	10					
	15					
	20					
	25					
	30					
	40					
	50					
	60					
S 40	7,5					
	10					
	15					
	20					
	25					
	30					
	40					
	50					
	60					
S 50	7,5					
	10					
	15					
	20					
	25					
	30					
	40					
	50					
	60					
S 63	7,5					
	10					
	15					
	20					
	25					
	30					
	40					
	50					
	60					
S 75	7,5					
	10					
	15					
	20					
	25					
	30					
	40					
	50					
	60					
80						
100						

Alüminyum Gövdeli Redüktörlerde Tahvil Oranlarına Bağlanabilecek Motor Büyüklükleri / List of Possible Combination of Ratio and Housing for Aluminium Worm Gearboxes / Combinaisons rapports de réduction / puissance moteur (Roue et vis sans fin-Aluminium)





## Sonsuz Vidalı Motorlu Redüktörler Güç ve Devir Tabloları

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Worm Geared Motors - Performances Tables

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



P1 GÜÇ Power Puissance [kW] Hp	n <sub>2</sub> Çıkış Devri Output Speeds Vitesse de sortie [r.p.m]	i Tahvil Ratio Rapport de réduction	f <sub>s</sub> Servis Faktörü Service Factor Service facteur	M <sub>2</sub> Çıkış Momenti Output Torque Couple de sortie [Nm]	F <sub>Q10</sub> Rad. Yük Over Loads Charges radiales [N]	Tip Type			
									kg
0,12 0,16	0,9	1500	1,01	553	8300	İRSAM İRSFM	82 S 40 / 63 M 4a	116	30 32
	1,1	1200	1,19	472	8300				
	1,5	900	1,51	370	8300				
	1,8	750	1,74	322	8300				
	2,3	600	2,09	268	8300				
	3,0	450	2,61	215	8300				
	4,6	300	3,77	149	8300				
	6,1	225	4,84	116	8300				
	0,9	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				
	2,7	500	2,01	188	7380				
	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	SM	63 S 30 / 63 M 4a	96	11
	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				
	4,6	300	2,10	127	6270				
	5,5	250	2,00	117	6270				
	6,8	200	2,60	97	6270				
	9,1	150	3,40	77	6270				
	2,7	500	0,70	170	4840	SM	50 S 30 / 63 M 4a	94	8,1
	3,4	400	0,80	147	4840				
	4,6	300	1,20	122	4840				
	5,5	250	1,00	110	4840				
	6,8	200	1,30	94	4788				
	9,1	150	1,80	74	4350				
	13,7	100	2,60	54	3800				
	13,7	100	1,30	41	4280				
	17,1	80	1,80	35	3973				
	13,7	100	0,70	39	3118	SM	40 / 63 M 4a	86	5,6
	17,1	80	1,00	35	2895				
	22,8	60	1,30	29	2630				
	27,3	50	1,60	26	2475				
	34,1	40	2,10	22	2298				
45,5	30	2,80	17	2087					
54,6	25	2,50	16	1964					
68,3	20	3,30	13	1824					
27,3	50	0,80	23	1286					
34,1	40	1,00	20	1194	SM	30 / 63 M 4a	84	4,7	
45,5	30	1,30	16	1085					
54,6	25	1,60	14	1021					
68,3	20	1,50	12	948					
91,0	15	2,00	10	861					
136,5	10	2,80	7	752					
182,0	7,5	3,20	5	750					



P1 GÜÇ Power Puissance [kW] Hp	n <sub>2</sub> Çıkış Devri Output Speeds Vitesse de sortie [r.p.m]	i Tahvil Ratio Rapport de réduction	f <sub>s</sub> Servis Faktörü Service Factor Service facteur	M <sub>2</sub> Çıkış Momenti Output Torque Couple de sortie [Nm]	F <sub>Q10</sub> Rad. Yük Over Loads Charges radiales [N]	Tip Type		 kg	
0,18 0,25	1,0	1409	0,79	1257	11800	İRSAM İRSFM	102 İR 43 / 63 M 4b	124	52 56
	1,2	1091	1,03	974	11800				
	1,6	842	1,33	751	11800				
	2,0	685	1,63	611	11800				
	1,5	900	0,99	565	7700	İRSAM İRSFM	82 S 40 / 63 M 4a	116	31 33
	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	98	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	96	11
	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				
	13,4	100	1,90	81	4950	SM	50 S 30 / 63 M 4b	94	8,8
	4,5	300	0,80	183	4800				
	6,7	200	0,90	141	4700				
	8,9	150	1,20	112	4400				
	9,2	100	1,40	92	6250				
	11,4	80	1,70	71	6030	SM	63 / 71 M 6a	90	11
	15,3	60	2,30	68	5450				
	18,3	50	2,70	59	5100				
	22,9	40	3,40	50	4750				
	11,4	80	0,90	76	4521				
	15,3	60	1,20	64	4156				
	18,3	50	1,40	57	3920	SM	50 / 71 M 6a	88	8,1
	22,9	40	1,80	49	3708				
	30,5	30	2,40	40	3350				
	36,6	25	2,10	35	3215				
	45,8	20	2,80	29	3100				
	13,4	100	0,90	61	4310				
16,8	80	1,20	53	3944					
22,9	40	1,00	48	2662	SM	50 / 63 M 4b	88	7,5	
30,5	30	1,40	38	2516					
36,6	25	1,30	35	2405					
45,8	20	1,70	29	2200					
61,0	15	2,20	23	2105					
91,5	10	3,00	16	2043					

Güç Devir Tabloları / Performans Tables / Table de Performances



P1 GÜÇ Power Puissance [kW] Hp	n <sub>2</sub> Çıkış Devri Output Speeds Vitesse de sortie [r.p.m]	i Tahvil Ratio Rapport de réduction	f <sub>s</sub> Servis Faktörü Service Factor Service facteur	M <sub>2</sub> Çıkış Momenti Output Torque Couple de sortie [Nm]	F <sub>Q10</sub> Rad. Yük Over Loads Charges radiales [N]	Tip Type			kg
0,18 0,25	22,3	60	0,90	43	2545	SM	40 / 63 M 4b	86	6,3
	26,8	50	1,10	39	2426				
	33,5	40	1,40	32	2271				
	44,7	30	1,80	26	2116				
	53,6	25	1,70	23	2078				
	67,0	20	2,20	19	2010				
	89,3	15	2,90	15	1987	SM	30 / 63 M 4b	84	5,4
	44,7	30	0,90	24	1056				
	53,6	25	1,00	21	1041				
	67,0	20	1,00	18	955				
	89,3	15	1,30	14	920				
	134,0	10	1,90	10	853				
	178,7	7,5	2,40	8	706				
0,25 0,34	0,7	1984	1,27	1409	16500	İRSAM İRSFM	127 İRS 65 / 71 M 4a	120	85 89
	0,9	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				
	0,9	1503	0,96	1858	16500				
	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	İRSAM İRSFM	102 İRS 52 / 71 M 4a	118	56 60
	3,3	416	3,49	514	16500				
	0,9	1500	0,90	1114	10500				
	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				
	2,6	533	1,56	641	10500				
	3,1	438	1,89	527	10500	İRSAM İRSFM	102 İR 42 / 71 M 4a	124	52 56
	3,5	390	2,13	469	10500				
	4,1	337	2,46	406	10500				
	5,3	260	3,19	313	10500				
	7,6	182	4,55	220	10500				
	9,4	147	5,65	177	10500				
1,7	795	0,85	664	7600					
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					



P1 GÜÇ Power Puissance [kW] Hp	n <sub>2</sub> Çıkış Devri Output Speeds Vitesse de sortie [r.p.m]	i Tahvil Ratio Rapport de réduction	f <sub>s</sub> Servis Faktörü Service Factor Service facteur	M <sub>2</sub> Çıkış Momenti Output Torque Couple de sortie [Nm]	F <sub>Q10</sub> Rad. Yük Over Loads Charges radiales [N]	Tip Type		 kg	
0,25 0,34	2,8	500	0,90	391	7420	SM	75 S 40 / 71 M 4a	98	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				
	13,8	100	3,00	116	5813				
	11,2	82	1,76	118	6450	İRSAM İRSFM	65 / 71 M 6b	102	20 21
	14,8	62	2,36	83	6325				
	18,3	50	3,36	82	6123				
	23,5	39	4,64	67	5841				
	9,2	100	1,00	127	6225	SM	63 / 71 M 6b	90	12
	11,4	80	1,20	113	6026				
	15,3	60	1,60	94	5410				
	18,3	50	2,00	82	5093				
	22,9	40	2,40	70	4711				
	13,8	100	1,30	89	5590	SM	63 / 71 M 4a	90	11
	17,3	80	1,50	79	5187				
	23,0	60	2,10	64	4705				
	27,6	50	2,50	57	4432				
	34,5	40	3,10	48	4109				
	14,8	62	1,32	89	4252	İRSAM İRSFM	52 / 71 M 6b	100	17 19
	18,3	50	1,68	78	4160				
	24,1	38	2,52	64	4112				
	31,6	29	3,41	50	4064				
	36,6	25	2,52	46	4016				
	48,2	19	3,60	38	3975	SM	50 / 71 M 6b	88	9
	63,1	14,5	4,93	29	3920				
	15,3	60	0,90	89	4180				
	18,3	50	1,00	80	3940				
	22,9	40	1,30	68	3623				
	30,5	30	1,70	55	3453				
	36,6	25	1,50	49	3369				
	45,8	20	2,00	41	3298				
	61,0	15	2,90	32	3156	İRSAM İRSFM	52 / 71 M 4a	100	15 17
	22,3	62	1,76	60	4356				
	27,6	50	2,24	50	4269				
	36,3	38	3,39	43	4122				
	47,6	29	4,52	34	4063				
	55,2	25	3,36	31	4023				
72,6	19	4,85	25	3987					
95,2	14,5	6,58	20	3850	SM	50 / 71 M 4a	88	8,3	
17,3	80	0,90	74	4264					
23,0	60	1,20	61	4019					
27,6	50	1,40	55	3695					
34,5	40	1,80	46	3522					
46,0	30	2,40	37	3436					
55,2	25	2,20	33	3364					
69,0	20	2,90	27	3219					



P1 GÜÇ Power Puissance [kW] Hp	n <sub>2</sub> Çıkış Devri Output Speeds Vitesse de sortie [r.p.m]	i Tahvil Ratio Rapport de réduction	f <sub>s</sub> Servis Faktörü Service Factor Service facteur	M <sub>2</sub> Çıkış Momenti Output Torque Couple de sortie [Nm]	F <sub>Q10</sub> Rad. Yük Over Loads Charges radiales [N]	Tip Type			kg
0,25 0,34	30,5	30	1,00	53	2440	SM	40 / 71 M 6b	86	7,8
	36,6	25	0,90	48	2285				
	45,8	20	1,20	40	2193				
	61,0	15	1,60	31	1945				
	91,5	10	2,20	22	1820				
	122,0	7,5	2,70	17	1785				
	34,5	40	1,00	45	2489	SM	40 / 71 M 4a	86	7,1
	46,0	30	1,30	36	2331				
	55,2	25	1,20	32	2237				
	69,0	20	1,60	27	1984				
	92,0	15	2,10	21	1856				
	138,0	10	3,00	15	1821				
	69,0	20	0,70	25	965	SM	30 / C 63 M 4	84	6,2
	92,0	15	1,00	20	865				
138,0	10	1,30	14	795					
184,0	7,5	1,70	11	744					
0,37 0,5	0,9	1600	1,00	1793	17300	İRSAM İRSFM	127 İRS 65 / 71 M 4b	120	91 97
	1,1	1248	1,13	1591	17300				
	1,5	928	1,47	1219	17300				
	1,7	800	1,61	928	17300				
	2,2	624	1,93	723	17300				
	2,9	480	2,48	506	17300				
	4,5	312	3,54	493	17300	İRSAM İRSFM	127 İR 43 / 71 M 4b	126	84 90
	2,1	675	1,46	1227	17300				
	2,5	568	1,74	1032	17300				
	3,0	467	2,11	849	17300				
	3,3	416	2,37	755	17300	İRSAM İRSFM	102 İRS 52 / 71 M 4b	118	57 61
	1,6	870	0,90	1113	9600				
	1,9	750	0,98	1016	9600				
	2,4	570	1,21	826	9600				
	3,2	435	1,57	638	9600	İRSAM İRSFM	102 İR 43 / 71 M 4b	124	54 58
	2,2	633	0,89	1120	9600				
	2,6	533	1,06	942	9600				
	3,2	438	1,29	775	9600				
	3,6	390	1,45	689	9600	İRSAM İRSFM	102 İR 42 / 71 M 4b	124	53 57
	4,1	337	1,68	596	9600				
	5,3	260	2,17	460	9600				
	7,6	182	3,10	323	9600				
	9,5	147	3,84	260	9600	İRSAM İRSFM	82 S 40 / 71 M 4b	116	33 35
	3,1	450	0,86	651	7550				
	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	98	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					
13,9	100	2,10	172	6455					



P1 GÜÇ Power Puissance [kW] Hp	n <sub>2</sub> Çıkış Devri Output Speeds Vitesse de sortie [r.p.m]	i Tahvil Ratio Rapport de réduction	f <sub>s</sub> Servis Faktörü Service Factor Service facteur	M <sub>2</sub> Çıkış Momenti Output Torque Couple de sortie [Nm]	F <sub>Q10</sub> Rad. Yük Over Loads Charges radiales [N]	Tip Type		 kg	
<b>0,37</b> 0,5	9,1	100	1,00	200	7380	SM	75 / 80 M 6a	92	17
	11,4	80	1,30	176	7123				
	15,2	60	1,70	146	6350				
	18,2	50	2,00	126	6241				
	22,8	40	2,60	108	6112				
	30,3	30	3,30	87	6053				
	36,4	25	3,10	77	5987	İRSAM İRSFM	65 / 80 M 6a	102	22 24
	11,1	82	1,2	175	6320				
	14,7	62	1,6	123	6285				
	18,2	50	2,3	122	6124				
	23,3	39	3,1	100	6098				
	30,3	30	3,9	76	6025				
	36,4	25	3,2	73	5963				
	46,7	20	4,5	58	5951				
	60,7	15	5,5	44	5820	SM	63 / 80 M 6a	90	14
	93,3	9,75	6,7	32	5750				
	11,4	80	0,80	167	5237				
	15,2	60	1,10	139	5156				
	18,2	50	1,30	122	5111				
	22,8	40	1,70	104	5091				
	30,3	30	2,10	84	5012	SM	63 / 71 M 4b	90	12
	36,4	25	2,00	75	4863				
	45,5	20	2,70	61	4765				
	13,9	100	0,90	131	5595				
	17,4	80	1,00	117	5525				
	23,2	60	1,40	95	5123				
	27,8	50	1,70	85	4982	İRSAM İRSFM	52 / 80 M 6a	100	19 20
	34,8	40	2,10	72	4713				
	14,7	62	0,89	132	3850				
	18,2	50	1,14	116	3810				
23,9	38	1,70	96	3756					
31,4	29	2,30	74	3701					
36,4	25	1,70	68	3640					
47,9	19	2,43	56	3562					
62,8	14,5	3,33	43	3502	SM	50 / 80 M 6a	88	12	
95,8	9,5	3,55	31	3427					
125,5	7,25	4,89	21	3326					
30,3	30	1,20	81	3353					
36,4	25	1,00	73	3186					
45,5	20	1,40	60	2987					
60,7	15	2,00	47	2740	SM	50 / 80 M 6a	88	12	
91,0	10	2,80	33	2417					





P1 GÜÇ Power Puissance [kW] Hp	n <sub>2</sub> Çıkış Devri Output Speeds Vitesse de sortie [r.p.m]	i Tahvil Ratio Rapport de réduction	f <sub>s</sub> Servis Faktörü Service Factor Service facteur	M <sub>2</sub> Çıkış Momenti Output Torque Couple de sortie [Nm]	F <sub>Q10</sub> Rad. Yük Over Loads Charges radiales [N]	Tip Type			kg
<b>0,37</b> 0,5	22,4	62	1,19	88	3927	İRSAM İRSFM	52 / 71 M 4b	100	16 18
	27,8	50	1,52	74	3848				
	36,6	38	2,29	64	3831				
	47,9	29	3,05	50	3738				
	55,6	25	2,27	46	3676				
	73,2	19	3,28	37	3633				
	95,9	14,5	4,45	29	3607				
	146,3	9,5	4,77	20	3496				
	191,7	7,25	6,49	16	3359				
	23,2	60	0,80	91	3646				
	27,8	50	1,00	81	3465				
	34,8	40	1,20	69	3248				
	46,3	30	1,60	55	2980				
	55,6	25	1,50	49	2831				
	69,5	20	1,90	40	2653				
	92,7	15	2,60	31	2433				
	46,3	30	0,90	54	2108	SM	40 / 71 M 4b	86	8,1
	55,6	25	0,80	48	2003				
	69,5	20	1,10	40	1879				
	92,7	15	1,40	31	1723				
139,0	10	2,10	21	1519					
185,3	7,5	2,50	16	1394					
<b>0,55</b> 0,75	1,1	1248	0,74	2409	12980	İRSAM İRSFM	127 İRS 65 / 80 M 4a	120	92 98
	1,4	960	0,94	1909	12980				
	1,7	800	1,06	1685	12980				
	2,2	624	1,28	1405	12980				
	2,8	480	1,64	1095	12980				
	4,4	312	2,34	766	12980				
	5,7	240	3,00	597	12980				
	2,5	550	1,19	1511	12980	İRSAM İRSFM	127 İR 52 / 80 M 4a	128	91 97
	2,8	482	1,35	1324	12980				
	3,6	378	1,72	1039	12980				
	4,5	303	2,15	833	12980				
	2,4	570	0,80	1250	8470	İRSAM İRSFM	102 İRS 52 / 80 M 4a	118	59 63
	3,1	435	1,03	966	8470				
	4,8	285	1,60	625	8470				
	6,3	218	2,07	483	8470				
	5,3	260	1,43	696	8470				
	7,5	182	2,05	488	8470	İRSAM İRSFM	102 İR 42 / 80 M 4a	124	34 38
	9,3	147	2,54	394	8470				
	14,4	62	2,11	205	7900				
	16,8	53	2,80	206	7850	İRSAM İRSFM	82 / 80 M 6b	104	32 36
22,3	40	3,63	151	7721					
29,7	30	5,36	122	7516					



P1 GÜÇ Power Puissance [kW] Hp	n <sub>2</sub> Çıkış Devri Output Speeds Vitesse de sortie [r.p.m]	i Tahvil Ratio Rapport de réduction	f <sub>s</sub> Servis Faktörü Service Factor Service facteur	M <sub>2</sub> Çıkış Momenti Output Torque Couple de sortie [Nm]	F <sub>Q10</sub> Rad. Yük Over Loads Charges radiales [N]	Tip Type			kg
0,55 0,75	11,1	80	0,80	262	7033	SM	75 / 80 M 6b	92	18
	14,8	60	1,10	217	6326				
	17,8	50	1,40	187	5896				
	22,3	40	1,70	161	5420				
	13,9	100	0,90	210	6538	SM	75 / 80 M 4a	92	16
	17,3	80	1,10	183	6010				
	23,1	60	1,40	149	5407				
	27,7	50	1,70	131	5039				
	34,6	40	2,20	110	4633	İRSAM İRSFM	65 / 80 M 6b	102	27 28
	10,9	82	0,80	266,2	5715				
	14,4	62	1,07	186,6	5682				
	17,8	50	1,53	185,9	5601				
	22,8	39	2,11	152	5496	SM	63 / 80 M 6b	90	16
	29,7	30	2,60	115	5326				
	14,8	60	0,70	207	5257				
	17,8	50	0,90	181	4995				
	22,3	40	1,10	154	4682	İRSAM İRSFM	65 / 80 M 4a	102	25 26
	29,7	30	1,40	124	4296				
	16,9	82	1,09	174	5823				
	22,3	62	1,40	127	5741				
	27,7	50	2,06	123	5703	SM	63 / 80 M 4a	90	13
	35,5	39	2,81	101	5620				
	46,2	30	3,38	77	5573				
	55,4	25	2,91	71	5403				
	71,0	20	4,05	58	5362	İRSAM İRSFM	52 / 80 M 6b	100	20 21
	92,3	15	4,78	44	5250				
	142,1	9,75	6,14	31	5123				
	17,3	80	0,70	174	4808				
	23,1	60	0,90	142	4410	SM	50 / 80 M 6b	88	13
	27,7	50	1,10	126	4189				
	34,6	40	1,40	107	3926				
	46,2	30	1,90	84	3601				
	55,4	25	1,80	74	3421	İRSAM İRSFM	52 / 80 M 6b	100	20 21
	69,3	20	2,40	62	3208				
	92,3	15	3,20	47	2944				
	23,4	38	1,14	146	3305				
	30,7	29	1,55	113	3245	SM	50 / 80 M 6b	88	13
	35,6	25	1,15	103	3200				
	46,8	19	1,64	85	3158				
	61,4	14,5	2,24	66	3091				
93,7	9,5	2,39	47	2980	İRSAM İRSFM	52 / 80 M 6b	100	20 21	
122,8	7,25	3,29	32	2880					
29,7	30	0,80	121	3453					
35,6	25	0,70	108	3218					
44,5	20	0,90	90	2958	SM	50 / 80 M 6b	88	13	
59,3	15	1,30	70	2661					



P1 GÜÇ Power Puissance [kW] Hp	n <sub>2</sub> Çıkış Devri Output Speeds Vitesse de sortie [r.p.m]	i Tahvil Ratio Rapport de réduction	f <sub>s</sub> Servis Faktörü Service Factor Service facteur	M <sub>2</sub> Çıkış Momenti Output Torque Couple de sortie [Nm]	F <sub>Q10</sub> Rad. Yük Over Loads Charges radiales [N]	Tip Type		 kg	
0,55 0,75	22,3	62	0,80	132	3320	İRSAM İRSFM	52 / 80 M 4a	100	19 20
	0,75	50	1,02	110	3245				
	36,4	38	1,54	95	3215				
	47,8	29	2,05	75	3158				
	55,4	25	1,53	68	3112				
	72,9	19	2,20	55	2980				
	95,5	14,5	2,99	43	2885				
	145,8	9,5	3,21	30	2756				
	191,0	7,25	4,37	23	2641				
	46,2	30	1,10	82	2703	SM	50 / 80 M 4a	88	11
	55,4	25	1,00	72	2568				
	69,3	20	1,30	60	2407				
	92,3	15	1,70	47	2208				
	138,5	10	2,40	33	1948				
	184,7	7,5	3,10	25	1787	SM	40 / C 71 M 4	86	9,6
	69,3	20	0,70	59	1754				
	92,3	15	0,90	47	1609				
	138,5	10	1,40	32	1419				
184,7	7,5	1,70	24	1302					
0,75 1	0,9	1590	0,82	4095	21500	İRSAM İRSFM	162 İRS 82 / 80 M 4b	122	199 222
	1,2	1200	1,04	3233	21500				
	1,6	900	1,38	2425	21500				
	1,8	795	1,42	2363	21500				
	2,4	600	1,81	1854	21500				
	2,3	624	0,97	1855	11610	İRSAM İRSFM	127 İRS 65 / 80 M 4b	120	93 99
	2,9	480	1,24	1445	11610				
	4,5	312	1,77	1012	11610				
	5,9	240	2,28	788	11610				
	2,6	550	0,90	1995	11610	İRSAM İRSFM	127 İR 52 / 80 M 4b	128	92 98
	2,9	482	1,03	1748	11610				
	3,7	378	1,31	1372	11610				
	4,7	303	1,63	1100	11610				
	6,2	229	2,15	833	11610				
	7,2	186	2,65	676	11610	İRSAM İRSFM	102 İRS 52 / 80 M 4b	118	60 64
	3,2	435	0,78	1275	8100				
	5,0	285	1,21	825	8100				
	6,5	218	1,57	638	8100				
	9,9	143	1,76	457	8100				
	13,0	9	2,28	353	8100	İRSAM İRSFM	82 / 90 S 6	104	38 40
	14,8	62	1,55	270	7700				
17,4	53	2,05	272	7700					
23,0	40	2,67	199	7700					
30,7	30	3,93	161	7700					
34,7	26,5	2,93	159	7700					
46,0	20	3,73	121	7700					



P1 GÜÇ Power Puissance [kW] Hp	n <sub>2</sub> Çıkış Devri Output Speeds Vitesse de sortie [r.p.m]	i Tahvil Ratio Rapport de réduction	f <sub>s</sub> Servis Faktörü Service Factor Service facteur	M <sub>2</sub> Çıkış Momenti Output Torque Couple de sortie [Nm]	F <sub>Q10</sub> Rad. Yük Over Loads Charges radiales [N]	Tip Type		 kg	
<b>0,75</b> 1	15,3	60	0,80	296	6088	SM	75 / 90 S 6	92	20
	18,4	50	1,00	255	5784				
	23,0	40	1,30	220	5420				
	30,7	30	1,60	177	4973				
	36,8	25	1,60	155	4725				
	46,0	20	2,10	127	4430				
	61,3	15	2,70	99	4065				
	17,6	80	0,80	250	5783	SM	75 / 80 M 4b	92	18
	23,5	60	1,10	203	5304				
	28,2	50	1,30	179	5039				
	35,3	40	1,60	149	4723				
	47,0	30	2,10	118	4334				
	56,4	25	2,10	104	4119				
	70,5	20	2,80	85	3862				
	18,4	50	1,12	245	5423	İRSAM İRSFM	65 / 90 S 6	102	28 29
	23,6	39	1,55	200	5263				
	30,7	30	1,91	152	5123				
	36,8	25	1,60	146	5050				
	47,2	19,5	2,24	117	4950				
	61,3	15	2,71	89	4812				
	94,4	9,75	3,30	64	4756				
	23,0	40	0,80	210	4506	SM	63 / 90 S 6	90	17
	30,7	30	1,00	170	4132				
	36,8	25	1,00	151	3927				
	46,0	20	1,30	124	3681				
	61,3	15	1,70	98	3376				
	92,0	10	2,30	68	2979				
	122,7	7,5	2,90	53	2734				
	17,2	82	0,80	233	5127	İRSAM İRSFM	65 / 80 M 4b	102	26 27
	22,7	62	1,03	170	5296				
	28,2	50	1,51	165	5200				
	36,2	39	2,06	135	5055				
47,0	30	2,48	104	4955					
56,4	25	2,14	95	4957					
72,3	19,5	2,97	77	4856					
94,0	15	3,51	59	4744	SM	63 / 80 M 4b	90	15	
144,6	9,75	4,50	42	4701					
188,0	7,5	5,49	32	4635					
28,2	50	0,80	171	4189					
35,3	40	1,00	145	3926					
47,0	30	1,40	115	3601					
56,4	25	1,30	101	3421					
70,5	20	1,70	84	3208					
94,0	15	2,30	64	2944					



P1 GÜÇ Power Puissance [kW] Hp	n <sub>2</sub> Çıkış Devri Output Speeds Vitesse de sortie [r.p.m]	i Tahvil Ratio Rapport de réduction	f <sub>s</sub> Servis Faktörü Service Factor Service facteur	M <sub>2</sub> Çıkış Momenti Output Torque Couple de sortie [Nm]	F <sub>Q10</sub> Rad. Yük Over Loads Charges radiales [N]	Tip Type		 kg	
0,75 1	28,2	50	0,75	147	2608	İRSAM İRSFM	52 / 80 M 4b	100	20 21
	37,1	38	1,13	127	2554				
	48,6	29	1,51	100	2501				
	56,4	25	1,12	91	2478				
	74,2	19	1,62	74	2435				
	97,2	14,5	2,19	57	2397				
	148,4	9,5	2,35	41	2359				
	194,5	7,25	3,20	31	2321				
	47,0	30	0,80	112	2703	SM	50 / 80 M 4b	88	12
	56,4	25	0,70	99	2568				
	70,5	20	1,00	82	2407				
	94,0	15	1,30	64	2208				
	141,0	10	1,80	45	1948				
	188,0	7,5	2,30	34	1787				
1,6	900	0,90	3739	20700	İRSAM İRSFM				
1,8	795	0,96	3486	20700					
2,4	600	1,24	2700	20700					
3,2	450	1,59	2103	20700					
4,7	300	2,28	1471	20700					
1,9	755	0,82	4094	20700	İRSAM İRSFM	162 İR 63 / 90 S 4	130	206	
2,2	645	0,96	3498	20700					
2,6	545	1,13	2958	20700					
3,0	480	0,85	2105	10800	İRSAM İRSFM	127 İRS 65 / 90 S 4	120	96 102	
4,6	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 4	128	95 101	
4,7	303	1,12	1601	10800					
6,2	229	1,48	1213	10800					
7,6	186	1,82	984	10800					
8,8	161	2,11	851	10800					
10,9	130	2,61	687	10800	İRSAM İRSFM	102 / 90 L 6	106	56 60	
11,3	82	1,44	519	7900					
14,8	63	1,86	399	7900					
15,0	62	1,05	392	6852	İRSAM İRSFM	82 / 90 L 6	104	40 42	
17,5	53	1,40	395	6700					
23,3	40	1,82	289	6623					
31,0	30	2,68	234	6496					
35,1	27	2,00	230	6382					
46,5	20	2,54	176	6267					
62,0	15	3,91	134	6153					
93,0	10	3,95	94	6038					



P1 GÜÇ Power Puissance [kW] Hp	n <sub>2</sub> Çıkış Devri Output Speeds Vitesse de sortie [r.p.m]	i Tahvil Ratio Rapport de réduction	f <sub>s</sub> Servis Faktörü Service Factor Service facteur	M <sub>2</sub> Çıkış Momenti Output Torque Couple de sortie [Nm]	F <sub>Q10</sub> Rad. Yük Over Loads Charges radiales [N]	Tip Type		 kg					
1,1 1,5	22,9	62	1,36	275	6623	İRSAM İRSFM	82 / 90 S 4	104	38 40				
	26,8	53	2,09	267	6470								
	35,5	40	2,34	198	6382								
	47,3	30	3,46	160	6247								
	53,6	27	2,65	149	6153								
	71,0	20	3,29	115	6057								
	94,7	15	5,00	90	5960								
	142,0	10	5,10	63	5800								
	23,3	40	0,90	322	5318	SM	75 / 90 S 6	92	23				
	31,0	30	1,10	259	4878								
	37,2	25	1,10	228	4635								
	46,5	20	1,40	187	4344								
	62,0	15	1,80	145	3985								
	93,0	10	2,30	100	3516								
	124,0	7,5	2,80	77	3195								
	23,7	60	0,70	297	5254					SM	75 / 90 S 4	92	20
	28,4	50	0,90	263	4991								
	35,5	40	1,10	219	4678								
	47,3	30	1,40	173	4292								
	56,8	25	1,40	152	4078								
	71,0	20	1,90	125	3824								
	94,7	15	2,40	97	3474								
	23,8	39	1,06	291	4865	İRSAM İRSFM	65 / 90 L 6	92	29 30				
	31,0	30	1,30	220	4801								
	37,2	25	1,09	212	4723								
	47,7	19,5	1,53	170	4650								
	62,0	15	1,85	129	4555								
	95,4	9,75	2,25	93	4489								
	124,0	7,5	2,90	71	4321								
	46,5	20	0,90	182	3791					SM	63 / 90 L 6	90	20
	62,0	15	1,20	144	3444								
	93,0	10	1,50	99	3009								
	124,0	7,5	2,00	77	2734								
	28,4	50	1,03	240	4910	İRSAM İRSFM	65 / 90 S 4	102	26 28				
	36,4	39	1,41	196	4801								
	47,3	30	1,69	151	4723								
	56,8	25	1,46	139	4650								
	72,8	19,5	2,02	113	4555								
	94,7	15	2,39	87	4489								
	145,6	9,75	3,07	61	4321								
189,3	7,5	3,74	47	4259									
47,3	30	0,90	169	3533	SM	63 / 90 S 4	90	17					
56,8	25	0,90	148	3356									
71,0	20	1,20	123	3146									
94,7	15	1,60	95	2886									
142,0	10	2,10	65	2546									
189,3	7,5	2,60	50	2336									



P1 GÜÇ Power Puissance [kW] Hp	n <sub>2</sub> Çıkış Devri Output Speeds Vitesse de sortie [r.p.m]	i Tahvil Ratio Rapport de réduction	f <sub>s</sub> Servis Faktörü Service Factor Service facteur	M <sub>2</sub> Çıkış Momenti Output Torque Couple de sortie [Nm]	F <sub>Q10</sub> Rad. Yük Over Loads Charges radiales [N]	Tip Type			kg
1,5 2	2,4	600	0,99	3376	19950	İRSAM İRSFM	162 İRS 82 / 90 L 4	122	203 226
	3,2	450	1,28	2629	19950				
	4,7	300	1,82	1839	19950	İRSAM İRSFM	127 İR 52 / 90 L 4	128	97 103
	4,7	303	0,83	1475	9650				
	6,2	229	1,09	1117	9650				
	7,7	186	1,34	907	9650				
	8,9	161	1,56	784	9650				
	11,0	130	1,93	632	9650				
	11,4	83	1,80	705	9650				
	14,5	65	2,33	581	9650				
	18,2	52	3,47	544	9650	İRSAM İRSFM	127 / 100 L 6	108	91 95
	23,6	40	4,67	437	9650				
	11,5	82	1,05	696	7750	İRSAM İRSFM	102 / 100 L 6	106	61 65
	15,0	63	1,37	535	7750				
	18,9	50	1,97	508	7750				
	23,6	40	2,61	418	7720				
	31,5	30	3,50	318	7690				
	37,8	25	2,87	296	7520				
	47,3	20	3,80	240	7300				
	17,8	53	1,03	530	6650				
	23,6	40	1,33	388	6450				
	31,5	30	1,97	314	6420				
	35,7	26,5	1,47	309	6380				
	47,3	20	1,86	236	6190				
	63,0	15	2,87	180	6050				
	94,5	10	2,90	126	5960				
	23,1	62	1,00	373	6450	İRSAM İRSFM	82 / 90 L 4	104	40 42
	27,0	53	1,53	361	6420				
	35,8	40	1,71	268	6380				
	47,7	30	2,53	216	6190				
	54,0	26,5	1,95	202	6050				
	71,5	20	2,41	156	5960				
	95,3	15	3,67	122	5800				
	143,0	10	3,74	85	5680				
	47,3	20	1,10	255	4181	SM	75 / 100 L 6	92	29
	63,0	15	1,30	198	3835				
	94,5	10	1,70	137	3382				
	126,0	7,5	2,00	105	3103	SM	75 / 90 L 4	92	22
	35,8	40	0,80	299	4547				
	47,7	30	1,00	236	4171				
57,2	25	1,00	207	3962					
71,5	20	1,40	170	3713					
95,3	15	1,70	132	3407					
143,0	10	2,20	90	3005					
190,7	7,5	2,70	68	2757					



P1 GÜÇ Power Puissance [kW] Hp	n <sub>2</sub> Çıkış Devri Output Speeds Vitesse de sortie [r.p.m]	i Tahvil Ratio Rapport de réduction	f <sub>s</sub> Servis Faktörü Service Factor Service facteur	M <sub>2</sub> Çıkış Momenti Output Torque Couple de sortie [Nm]	F <sub>Q10</sub> Rad. Yük Over Loads Charges radiales [N]	Tip Type			kg
1,5 2	28,6	50	0,75	325,6	4817	İRSAM İRSFM	65 / 90 L 4	102	28 29
	36,7	39	1,03	265,7	4707				
	47,7	30	1,24	204,4	4676				
	57,2	25	1,07	187,8	4559				
	73,3	19,5	1,48	152,4	4466				
	95,3	15	1,75	117,2	4445				
	146,7	9,75	2,25	83,0	4195				
	190,7	7,5	2,74	63,9	4112				
	71,5	20	1,10	255	4181	SM	63 / 90 L 4	90	19
	95,3	15	1,30	198	3835				
	143,0	10	1,70	137	3382				
	190,7	7,5	2,00	105	3103				
2,2 3	3,9	366	0,91	3627	19800	İRSAM İRSFM	162 İR 62 / 100 L 4a	130	207 230
	4,8	302	1,10	2993	19800				
	5,6	255	1,30	2530	19800				
	6,7	213	1,56	2110	19800				
	8,0	180	1,85	1781	19800				
	9,0	160	2,08	1582	19800				
	10,7	135	2,47	1335	19800				
	12,9	111	2,99	1103	19800				
	10,9	87	2,14	1116	19800	İRSAM İRSFM	162 / 112 M 6	110	190 213
	17,6	54	4,27	836	19800				
	22,6	42	5,54	659	19800				
	11,4	83	1,23	1028	9500				
	14,6	65	1,59	848	9500				
	18,3	52	2,36	794	9500				
	23,8	40	3,18	637	9420				
	29,7	32	3,96	531	9300	İRSAM İRSFM	127 / 100 L 4a	108	88 92
	17,3	83	1,58	753	9500				
	22,1	65	2,00	619	9450				
	27,6	52	3,05	548	9300				
	35,9	40	4,00	433	9220	İRSAM İRSFM	102 / 100 L 4a	106	59 63
	17,5	82	1,00	720	7730				
	22,8	63	1,20	572	7620				
	28,7	50	1,75	505	7590				
	35,9	40	2,27	422	7540				
47,8	30	3,00	325	7420					
57,4	25	2,52	289	7360					
71,8	20	3,32	237	7250					
95,7	15	4,36	180	7100					
143,5	10	4,87	126	7030					
191,3	7,5	6,36	96	6950					





P1 GÜÇ Power Puissance [kW] Hp	n <sub>2</sub> Çıkış Devri Output Speeds Vitesse de sortie [r.p.m]	i Tahvil Ratio Rapport de réduction	f <sub>s</sub> Servis Faktörü Service Factor Service facteur	M <sub>2</sub> Çıkış Momenti Output Torque Couple de sortie [Nm]	F <sub>Q10</sub> Rad. Yük Over Loads Charges radiales [N]	Tip Type		 kg	
2,2 3	27,1	53	1,04	528	6320	İRSAM İRSFM	82 / 100 L 4	104	43 45
	35,9	40	1,17	392	6250				
	47,8	30	1,73	316	6125				
	54,2	26,5	1,33	295	6050				
	71,8	20	1,64	228	5975				
	95,7	15	2,50	178	5950				
	143,5	10	2,55	124	5900				
	71,8	20	0,90	249	3609	SM	75 / 100 L 4a	92	26
	95,7	15	1,20	194	3310				
	143,5	10	1,50	132	2919				
	191,3	7,5	1,80	100	2678				
3 4	5,1	280	1,10	4150	28460	İRSAM İRSFM	201 İR 72 / 100 L 4	132	355 367
	6,4	224	1,40	3323	28460				
	7,9	182	1,70	2700	28460				
	9,6	150	2,00	2220	28460				
	11,8	122	2,50	1801	28460				
	14,4	100	3,10	1477	28460				
	11,0	87	1,57	1506	19800	İRSAM İRSFM	162 / 132 S 6	110	201 224
	17,8	54	3,13	1128	19800				
	22,9	42	4,07	890	19800				
	32,0	30	5,73	663	19800				
	17,3	83	1,16	1027	9500	İRSAM İRSFM	127 / 100 L 4b	108	91 95
	22,1	65	1,47	844	9400				
	27,6	52	2,23	747	9320				
	35,9	40	2,93	591	9240				
	44,8	32	3,60	486	9520				
	55,2	26	3,23	420	9360				
	71,8	20	4,27	327	9210				
	89,7	16	5,40	268	9180				
	110,4	13	4,73	223	8930				
	22,8	63	0,88	780	7620				
	28,7	50	1,28	689	7590				
	35,9	40	1,67	575	7480				
	47,8	30	2,20	443	7620				
	57,4	25	1,85	394	7530				
	71,8	20	2,43	323	7450				
	95,7	15	3,20	246	7360				
	143,5	10	3,57	172	7290				
	191,3	7,5	4,67	130	7130				
	35,9	40	0,86	535	6250	İRSAM İRSFM	82 / 100 L 4b	104	45 47
	47,8	30	1,27	431	6125				
	54,2	26,5	0,97	402	6050				
	71,8	20	1,21	311	5975				
	95,7	15	1,83	243	5950				
143,5	10	1,87	170	5900					
191,3	7,5	2,70	129	5860					



P1 GÜÇ Power Puissance [kW] Hp	n <sub>2</sub> Çıkış Devri Output Speeds Vitesse de sortie [r.p.m]	i Tahvil Ratio Rapport de réduction	f <sub>s</sub> Servis Faktörü Service Factor Service facteur	M <sub>2</sub> Çıkış Momenti Output Torque Couple de sortie [Nm]	F <sub>Q10</sub> Rad. Yük Over Loads Charges radiales [N]	Tip Type			kg
4 5,5	5,2	280	0,83	5457	28460	İRSAM İRSFM	201 İR 72 / 112 M 4	132	342 374
	6,5	224	1,04	4369	28460				
	8,0	182	1,28	3550	28460				
	9,7	150	1,55	2918	28460				
	12,0	122	1,91	2369	28460				
	14,6	100	2,33	1941	28460				
	11,6	83	2,25	2081	28460	İRSAM İRSFM	201 / 132 M 6a	112	344 376
	15,2	63	3,27	1780	28460				
	17,5	55	4,00	1620	28460				
	24,0	40	4,31	1210	28460				
	11,0	87	1,18	2008	19800	İRSAM İRSFM	162 / 132 M 6a	110	209 232
	17,8	54	2,35	1504	19800				
	22,9	42	3,05	1187	19800				
	32,0	30	4,30	883	19800				
	45,7	21	4,38	669	19800				
	17,5	83	0,87	1351	9406	İRSAM İRSFM	127 / 112 M 4b	108	100 104
	22,4	65	1,10	1109	9216				
	28,0	52	1,67	983	9228				
	36,4	40	2,20	777	9059				
	45,5	32	2,70	639	9333				
	56,0	26	2,42	553	9267				
	72,8	20	3,20	431	8942				
	90,9	16	4,05	353	9089				
	111,9	13	3,55	294	9020				
	29,1	50	0,96	906	7545	İRSAM İRSFM	102 / 112 M 4	106	66 69
	36,4	40	1,25	756	7441				
	48,5	30	1,65	583	7406				
	58,2	25	1,39	519	7471				
	72,8	20	1,83	425	7382				
	97,0	15	2,40	323	7376				
145,5	10	2,68	226	7146					
194,0	7,5	3,50	171	7218					
47,8	30	0,95	575	6127	İRSAM İRSFM	82 / C 100 L 4	104	52 54	
54,2	26,5	0,73	536	6005					
71,8	20	0,90	415	5990					
95,7	15	1,38	323	5858					
143,5	10	1,40	226	5833					
191,3	7,5	2,02	172	5842					
5,5 7,5	11,6	83	1,68	2909	28100	İRSAM İRSFM	201 / 132 M 6b	112	351 383
	15,2	63	2,22	2246	28100				
	17,5	55	2,93	2193	28100				
	24,0	40	4,28	1647	28100				
	11,0	87	0,85	2761	19800	İRSAM İRSFM	162 / 132 M 6b	110	216 251
	17,8	54	1,71	2068	19800				
	22,9	42	2,22	1632	19800				
	32,0	30	3,13	1215	19800				
	45,7	21	3,18	919	19800				
	64,0	15	4,55	681	19800				



P1 GÜÇ Power Puissance [kW] Hp	n <sub>2</sub> Çıkış Devri Output Speeds Vitesse de sortie [r.p.m]	i Tahvil Ratio Rapport de réduction	f <sub>s</sub> Servis Faktörü Service Factor Service facteur	M <sub>2</sub> Çıkış Momenti Output Torque Couple de sortie [Nm]	F <sub>Q10</sub> Rad. Yük Over Loads Charges radiales [N]	Tip Type		 kg	
5,5 7,5	16,8	87	1,07	1996	19800	İRSAM İRSFM	162 / 132 S 4c	110	202 227
	27,1	54	2,16	1433	19800				
	34,9	42	2,75	1129	19800				
	48,8	30	3,82	839	19800				
	54,3	27	3,16	794	19800				
	69,8	21	3,95	625	19800				
	97,7	15	5,55	457	19800				
	22,5	65	0,80	1515	9560	İRSAM İRSFM	127 / C 112 M 4	108	102 106
	28,2	52	1,22	1342	9520				
	36,6	40	1,60	1061	9410				
	45,8	32	1,96	872	9630				
	56,3	26	1,76	755	9350				
	73,3	20	2,33	588	9260				
	91,6	16	2,95	482	9450				
112,7	13	2,58	401	9210					
146,5	10	3,42	312	8960					
7,5 10	11,6	83	1,20	3901	27500	İRSAM İRSFM	201 / 160 M 6b	112	415 447
	15,2	63	1,75	3337	27500				
	17,5	55	2,13	3037	27500				
	24,0	40	2,30	2268	27500				
	17,8	54	1,25	2820	19800	İRSAM İRSFM	162 / 160 M 6b	110	280 303
	22,9	42	1,63	2225	19800				
	32,0	30	2,29	1656	19800				
	45,7	21	2,33	1253	19800				
	64,0	15	3,33	929	19800				
	16,8	87	0,79	2722	19800	İRSAM İRSFM	162 / 132 M 4b	110	212 235
	27,1	54	1,59	1954	19800				
	34,9	42	2,01	1540	19800				
	48,8	30	2,80	1144	19800				
	69,8	21	2,89	852	19800				
	97,7	15	4,07	623	19800				
	36,6	40	1,17	1447	9373	İRSAM İRSFM	127 / 132 M 4b	108	119 123
	45,8	32	1,44	1189	9333				
	56,3	26	1,29	1030	9317				
	73,3	20	1,71	802	9441				
	91,6	16	2,16	657	9167				
112,7	13	1,89	547	9168					
146,5	10	2,51	425	9175					
183,1	8	3,17	344	9119					
11 15	18,6	52	2,09	4492	33000	İRSAM İRSFM	250 / 160 L 6b	114	626 656
	24,1	40	3,55	3547	33000				
	37,1	26	5,73	2910	33000				
	48,3	20	6,20	1962	33000				



P1 GÜÇ Power Puissance [kW] Hp	n <sub>2</sub> Çıkış Devri Output Speeds Vitesse de sortie [r.p.m]	i Tahvil Ratio Rapport de réduction	f <sub>s</sub> Servis Faktörü Service Factor Service facteur	M <sub>2</sub> Çıkış Momenti Output Torque Couple de sortie [Nm]	F <sub>Q10</sub> Rad. Yük Over Loads Charges radiales [N]	Tip Type			kg
11 15	15,3	63	1,00	4526	25850	İRSAM İRSFM	201 / 160 L 6b	112	430 462
	17,5	55	1,36	4251	25850				
	24,1	40	2,00	3222	25850				
	32,2	30	2,09	2482	25850				
	17,9	54	0,85	4115	23250	İRSAM İRSFM	162 / 160 L 6b	110	296 319
	23,0	42	1,11	3246	23250				
	32,2	30	1,56	2417	23250				
	46,0	21	1,59	1829	23250				
	64,3	15	2,27	1355	23250	İRSAM İRSFM	162 / 160 M 4b	110	273 296
	27,1	54	1,08	2865	23250				
	34,9	42	1,37	2259	23250				
	48,8	30	1,91	1678	23250				
	69,8	21	1,97	1250	23250				
	97,7	15	2,77	914	23250				
	139,5	10,5	2,86	625	23250	İRSAM İRSFM	127 / C132 M 4	108	124 132
	195,3	7,5	4,00	479	23250				
	36,6	40	0,80	2123	9465				
	45,8	32	0,98	1744	9333				
	56,3	26	0,88	1510	9317				
	73,3	20	1,16	1176	9441				
91,6	16	1,47	964	9167					
112,7	13	1,29	802	9168					
146,5	10	1,71	624	9175					
183,1	8	2,16	505	9119					
15 20	15,3	63	1,27	5424	32700	İRSAM İRSFM	250 / 180 L 6a	114	684 704
	18,6	52	2,00	5712	32700				
	24,1	40	2,73	4513	32700				
	31,1	31	2,93	3589	32700				
	37,1	26	3,33	3203	32700				
	48,3	20	4,00	2494	32700	İRSAM İRSFM	250 / 160 L 4a	114	637 667
	28,2	52	2,47	3966	32700				
	36,6	40	3,27	3090	32700				
	47,3	31	3,93	2395	32700				
	56,3	26	3,53	2161	32700				
	73,3	20	4,80	1682	32700	İRSAM İRSFM	201 / 160 L 4a	112	442 474
	94,5	15,5	5,73	1303	32700				
	146,5	10	6,93	870	32700				
	26,6	55	1,33	4033	25100				
	36,6	40	1,88	3051	25100				
	48,8	30	1,95	2317	25100				
	53,3	27,5	2,58	2232	25100				
	73,3	20	2,79	1662	25100				
	97,7	15	2,79	1261	25100				
	106,5	13,75	3,77	1183	25100				
146,5	10	4,05	870	25100					
195,3	7,5	5,51	653	25100					



P1 GÜÇ Power Puissance [kW] Hp	n <sub>2</sub> Çıkış Devri Output Speeds Vitesse de sortie [r.p.m]	i Tahvil Ratio Rapport de réduction	f <sub>s</sub> Servis Faktörü Service Factor Service facteur	M <sub>2</sub> Çıkış Momenti Output Torque Couple de sortie [Nm]	F <sub>Q10</sub> Rad. Yük Over Loads Charges radiales [N]	Tip Type			kg
15 20	34,9	42	1,01	3114	22400	İRSAM İRSFM	162 / 160 L 4a	110	298 318
	48,8	30	1,42	2312	22400				
	69,8	21	1,48	1723	22400				
	97,7	15	2,06	1260	22400				
	139,5	10,5	2,11	892	22400				
	195,3	7,5	2,95	681	22400				
18,5 25	28,3	52	2,00	4875	32450	İRSAM İRSFM	250 / 180 M 4b	114	657 687
	36,8	40	2,65	3798	32450				
	47,4	31	3,19	2943	32450				
	56,5	26	2,86	2656	32450				
	73,5	20	3,89	2067	32450				
	94,8	15,5	4,65	1602	32450				
	147,0	10	5,62	1070	32450				
	189,7	7,75	6,76	829	32450	İRSAM İRSFM	201 / 180 M 4b	112	462 494
	26,7	55	1,06	4958	24650				
	36,8	40	1,54	3750	24650				
	49,0	30	2,04	2848	24650				
	53,5	28	1,52	2743	24650				
	73,5	20	2,23	2043	24650				
	98,0	15	2,99	1550	24650	İRSAM İRSFM	162 / C160 L 4	110	285 305
	106,9	13,75	2,21	1454	24650				
	147,0	10	3,25	1070	24650				
	196,0	7,5	4,35	802	24650				
	35,0	42	0,82	3786	21200				
49,0	30	1,14	2812	21200					
70,0	21	1,17	2095	21200	İRSAM İRSFM	250 / 180 L 4b	114	682 702	
98,0	15	1,65	1532	21200					
140,0	10,5	1,70	1047	21200					
196,0	7,5	2,38	802	21200					
28,3	52	1,68	5797	32200					
36,8	40	2,23	4516	32200					
47,4	31	2,68	3500	32200					
73,5	20	3,27	2458	32200					
94,8	15,5	3,91	1905	32200					
147,0	10	4,73	1272	32200					
189,7	7,75	5,68	986	32200					

## Sonsuz Vidalı Redüktörler Güç ve Devir Tabloları

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Worm Gear Unit - Performances Tables

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



$n_1 = 1400$  d/d

Servis Faktörü	P1 GÜÇ	$n_2$ Çıkış Devri	i Tahvil	$\eta$ Verim	$M_2$ Çıkış Momenti	$F_{Q1}$ Rad. Yük	$F_{Q1o}$ Rad. Yük	Tip Type			
Service Factor <i>Service Facteur</i> <i>Sf = 1</i>	Power <i>Puissance</i>	Output Speeds <i>Vitesse de sortie</i>	Ratio <i>Rapport de réduction</i>	Efficiency <i>efficience</i>	Output Torque <i>Couple de sortie</i>	Over Loads <i>Charges radiales</i>	Over Loads <i>Charges radiales</i>				kg
	[kW] Hp	[r.p.m]		[ % ]	[Nm]	[N]	[N]				
13-21 Nm	0,05	18	80	48	13	190	1250	S	30	84	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	86	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	88	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	100	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				
	2,40	193	7,25	85	101	490	3400				



$n_1 = 1400$  d/d

Servis Faktörü	P1 GÜÇ	$n_2$ Çıkış Devri	i Tahvil	$\eta$ Verim	$M_2$ Çıkış Momenti	$F_{Q1}$ Rad. Yük	$F_{Q1o}$ Rad. Yük	Tip Type			
Service Factor	Power	Output Speeds	Ratio	Efficiency	Output Torque	Over Loads	Over Loads				
Service Facteur $S_f = 1$	Puissance	Vitesse de sortie	Rapport de réduction	efficience	Couple de sortie	Charges radiales	Charges radiales				
	[kW] Hp	[r.p.m]		[ % ]	[Nm]	[N]	[N]				kg
114-145 Nm	0,32	14	100	52	114	650	4200	S	63	90	5,8
	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	0,60	17	82	56	188	670	4900	İRSA İRSF	65	102	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				
	1,60	56	25	75	205	670	4900				
	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	92	8,6
	0,56	18	80	58	177	700	5800				
	0,75	23	60	60	184	700	5800				
	0,85	28	50	63	183	700	5800				
	1,10	35	40	67	201	700	5800				
	1,50	47	30	72	221	700	5800				
	1,50	56	25	76	194	700	5800				
	1,80	70	20	78	192	700	5800				
	2,20	93	15	80	180	700	5800				
	3,00	140	10	84	172	700	5800				
	4,00	187	7,5	86	176	700	5800				
325-560 Nm	1,50	23	62	60	381	850	6900	İRSA İRSF	82	104	24 26
	2,30	26	53	68	565	850	6900				
	2,57	35	40	67	470	850	6900				
	3,80	47	30	72	560	850	6900				
	2,92	53	26,5	76	401	850	6900				
	3,62	70	20	78	385	850	6900				
	5,50	93	15	81	456	850	6900				
	5,60	140	10	85	325	850	6900				
	8,10	187	7,5	86	356	850	6900				





$n_1 = 1400$  d/d

Servis Faktörü Service Factor Service Facteur Sf = 1	P1	$n_2$	i	$\eta$	$M_2$	$F_{Q1}$	$F_{Q10}$	Tip Type			kg
	GÜÇ	Çıkış Devri	Tahvil	Verim	Çıkış Momenti	Rad. Yük	Rad. Yük				
	Power	Output Speeds	Ratio	Efficiency	Output Torque	Over Loads	Over Loads				
	Puissance	Vitesse de sortie	Rapport de réduction	efficience	Couple de sortie	Charges radiales	Charges radiales				
[kW] Hp	[r.p.m]		[ % ]	[Nm]	[N]	[N]					
623-999 Nm	2,20	17	82	60	738	1450	10000	İRSA İRSF	102	106	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	108	69 73
	4,40	22	65	65	1268	2300	17000				
	6,70	27	52	72	1711	2300	17000				
	8,80	35	40	74	1777	2300	17000				
	10,80	44	32	76	1792	2300	17000				
	9,70	54	26	81	1393	2300	17000				
	12,80	70	20	82	1432	2300	17000				
	16,20	88	16	84	1485	2300	17000				
	14,20	108	13	86	1083	2300	17000				
	18,80	140	10	87	1116	2300	17000				
1873-3352 Nm	4,60	13	111	62	2159	2900	21500	İRSA İRSF	162	110	163 186
	5,90	16	87	64	2241	2900	21500				
	11,90	26	54	74	3244	2900	21500				
	15,10	33	42	75	3245	2900	21500				
	21,00	47	30	78	3352	2900	21500				
	17,40	52	27	82	2628	2900	21500				
	21,70	67	21	83	2580	2900	21500				
	30,50	93	15	85	2653	2900	21500				
	31,50	133	10,5	83	1873	2900	21500				
	44,00	187	7,5	89	2003	2900	21500				
3521-5746 Nm	7,5	12	115	65	3824	3250	24750	İRSA İRSF	201	112	300 332
	11,0	17	83	68	4235	3250	24750				
	14,0	22	63	70	4212	3250	24750				
	19,0	25	55	75	5346	3250	24750				
	27,0	35	40	78	5746	3250	24750				
	28,0	47	30	79	4527	3250	24750				
	37,0	51	27,5	83	5761	3250	24750				
	40,0	70	20	85	4639	3250	24750				
	40,0	93	15	86	3520	3250	24750				
	54,0	102	13,75	88	4457	3250	24750				
	58,0	140	10	89	3521	3250	24750				
	79,0	187	7,5	89	3597	3250	24750				



$n_1 = 1400$  d/d

Servis Faktörü Service Factor Service Facteur Sf = 1	P1	$n_2$	i	$\eta$	$M_2$	$F_{Q1}$	$F_{Q10}$	Tip Type			kg
	GÜÇ Power Puissance [kW] Hp	Çıkış Devri Output Speeds Vitesse de sortie [r.p.m]	Tahvil Ratio Rapport de réduction	Verim Efficiency efficience [ % ]	Çıkış Momenti Output Torque Couple de sortie [Nm]	Rad. Yük Over Loads Charges radiales [N]	Rad. Yük Over Loads Charges radiales [N]				
5791-13370 Nm	23,0	22	63	58	5791	3750	29000	İRSA İRSF	250	114	493 513
	37,0	27	52	78	10237	3750	29000				
	49,0	35	40	79	13370	3750	29000				
	59,0	45	31	79	9856	3750	29000				
	53,0	54	26	85	7990	3750	29000				
	72,0	70	20	86	8448	3750	29000				
	86,0	90	15,5	86	7820	3750	29000				
	104,0	140	10	89	6314	3750	29000				
	125,0	181	7,75	89	5881	3750	29000				



$n_1 = 900$  d/d

Servis Faktörü Service Factor Service Facteur Sf = 1	P1	$n_2$	i	$\eta$	$M_2$	$F_{Q1}$	$F_{Q1o}$	Tip Type			kg
	GÜÇ	Çıkış Devri	Tahvil	Verim	Çıkış Momenti	Rad. Yük	Rad. Yük				
	Power	Output Speeds	Ratio	Efficiency	Output Torque	Over Loads	Over Loads				
	Puissance	Vitesse de sortie	Rapport de réduction	efficience	Couple de sortie	Charges radiales	Charges radiales				
[kW] Hp	[r.p.m]		[ % ]	[Nm]	[N]	[N]					
15-22 Nm	0,04	11	80	43	15	190	1300	S	30	84	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	86	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				
0,15		11	80	46	59	450	3300				
0,20		15	60	52	66	450	3300				
0,25		18	50	55	73	450	3300				
0,30		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	100
	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				

Güç Devir Tabloları / Performans Tables / Table de Performances



$n_1 = 900$  d/d

Servis Faktörü Service Factor Service Facteur Sf = 1	P1	$n_2$	i	$\eta$	$M_2$	$F_{Q1}$	$F_{Q10}$	Tip Type			kg
	Güç Power Puissance [kW] Hp	Çıkış Devri Output Speeds Vitesse de sortie [r.p.m]	Tahvil Ratio Rapport de réduction	Verim Efficiency efficience [ % ]	Çıkış Momenti Output Torque Couple de sortie [Nm]	Rad. Yük Over Loads Charges radiales [N]	Rad. Yük Over Loads Charges radiales [N]				
119-162 Nm	0,25	9	100	45	119	650	4350	S	63	90	5,8
	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	102	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				
	1,20	36	25	75	239	670	4900				
	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				
	2,20	120	7,5	84	147	650	4350				
	178-242 Nm	0,35	9	100	48	178	700				
0,40		11	80	54	183	700	6000				
0,52		15	60	56	185	700	6000				
0,62		18	50	59	194	700	6000				
0,80		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				
2,50		90	10	81	215	700	6000				
3,00		120	7,5	85	203	700	6000				
383-648 Nm	1,16	15	62	56	427	850	7100	İRSA İRSF	82	104	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				
	2,0	45	20	78	463	850	7100				
	4,30	60	15	79	541	850	7100				
	4,35	90	10	83	383	850	7100				
	6,30	120	7,5	85	426	850	7100				



$n_1 = 900$  d/d

Güç Devir Tabloları / Performans Tables / Table de Performances

Servis Faktörü	P1 GÜÇ	$n_2$ Çıkış Devri	i Tahvil	$\eta$ Verim	$M_2$ Çıkış Momenti	$F_{Q1}$ Rad. Yük	$F_{Q1o}$ Rad. Yük	Tip Type			
Service Factor <i>Service Facteur</i> <i>Sf = 1</i>	Power <i>Puissance</i>	Output Speeds <i>Vitesse de sortie</i>	Ratio <i>Rapport de réduction</i>	Efficiency <i>efficience</i>	Output Torque <i>Couple de sortie</i>	Over Loads <i>Charges radiales</i>	Over Loads <i>Charges radiales</i>				
	[kW] Hp	[r.p.m]		[ % ]	[Nm]	[N]	[N]				kg
758-1170 Nm	1,58	11	82	56	770	1450	10400	İRSA İRSF	102	106	39 43
	2,05	14	63	56	767	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	2,70	11	83	56	1332	2300	17000	İRSA İRSF	127	108	69 73
	3,50	14	65	59	1424	2300	17000				
	5,20	17	52	69	1980	2300	17000				
	7,00	23	40	72	2139	2300	17000				
	8,70	28	32	75	2216	2300	17000				
	7,60	35	26	79	1656	2300	17000				
	10,20	45	20	80	1732	2300	17000				
	13,00	56	16	81	1788	2300	17000				
	11,20	69	13	85	1313	2300	17000				
	15,00	90	10	85	1353	2300	17000				
2443-3860 Nm	4,70	10	87	58	2517	2900	21500	İRSA İRSF	162	110	163 186
	9,40	17	54	70	3770	2900	21500				
	12,20	21	42	71	3860	2900	21500				
	17,20	30	30	74	4052	2900	21500				
	13,70	33	27	80	3140	2900	21500				
	17,50	43	21	80	3120	2900	21500				
	25,00	60	15	83	3303	2900	21500				
	25,50	86	10,5	86	2443	2900	21500				
	36,00	120	7,5	87	2493	2900	21500				
	4392-7237 Nm	6,1	8	115	59	4392	3250				
9,0		11	83	63	4994	3250	24750				
11,0		14	63	66	4853	3250	24750				
15,0		16	55	71	6215	3250	24750				
22,0		23	40	74	6759	3250	24750				
23,0		30	30	76	5564	3250	24750				
31,0		33	27,5	80	7237	3250	24750				
32,0		45	20	83	5637	3250	24750				
33,0		60	15	84	4412	3250	24750				
45,0		65	13,75	86	5646	3250	24750				
48,0		90	10	87	4431	3250	24750				
65,0		120	7,5	88	4552	3250	24750				



$n_1 = 900$  d/d

Servis Faktörü Service Factor Service Facteur Sf = 1	P1	$n_2$	i	$\eta$	$M_2$	$F_{Q1}$	$F_{Q1o}$	Tip Type			
	GÜÇ Power Puissance [kW] Hp	Çıkış Devri Output Speeds Vitesse de sortie [r.p.m]	Tahvil Ratio Rapport de réduction	Verim Efficiency efficience [ % ]	Çıkış Momenti Output Torque Couple de sortie [Nm]	Rad. Yük Over Loads Charges radiales [N]	Rad. Yük Over Loads Charges radiales [N]				
7367-13226 Nm	19,0	14	63	58	7367	3750	29000	İRSA İRSF	250	114	493 513
	30,0	17	52	74	12249	3750	29000				
	41,0	23	40	76	13226	3750	29000				
	44,0	29	31	78	11289	3750	29000				
	50,0	35	26	83	11449	3750	29000				
	60,0	45	20	84	10696	3750	29000				
	72,0	70	15,5	85	10066	3750	29000				
	8,0	90	10	88	8124	3750	29750				
	106,0	116	7,75	89	7758	3750	29750				



$n_1 = 700$  d/d

Servis Faktörü	P1 GÜÇ	$n_2$ Çıkış Devri	i Tahvil	$\eta$ Verim	$M_2$ Çıkış Momenti	$F_{Q1}$ Rad. Yük	$F_{Q1o}$ Rad. Yük	Tip Type			
Service Factor	Power	Output Speeds	Ratio	Efficiency	Output Torque	Over Loads	Over Loads				
Service Facteur <i>Sf = 1</i>	Puissance	Vitesse de sortie	Rapport de réduction	efficience	Couple de sortie	Charges radiales	Charges radiales				
	[kW] Hp	[r.p.m]		[ % ]	[Nm]	[N]	[N]				kg
16-25 Nm	0,04	9	80	41	16	190	1350	S	30	84	1,2
	0,05	12	60	43	18	190	1350				
	0,06	14	50	47	20	190	1350				
	0,08	18	40	53	22	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				
	0,20	70	10	76	21	190	1350				
	0,26	93	7,5	80	22	190	1350				
33-48 Nm	0,06	7	100	40	33	330	2300	S	40	86	2,1
	0,08	9	80	42	36	330	2300				
	0,09	12	60	49	37	330	2300				
	0,12	14	50	52	41	330	2300				
	0,14	18	40	60	45	330	2300				
	0,18	23	30	64	48	330	2300				
	0,18	28	25	68	43	330	2300				
	0,23	35	20	71	44	330	2300				
	0,31	47	15	75	48	330	2300				
	0,44	70	10	78	46	330	2300				
	0,56	93	7,5	81	46	330	2300				
57-87 Nm	0,10	7	100	40	57	450	3450	S	50	88	3,3
	0,13	9	80	44	64	450	3450				
	0,17	12	60	49	70	450	3450				
	0,21	14	50	54	77	450	3450				
	0,26	18	40	60	86	450	3450				
	0,33	23	30	64	86	450	3450				
	0,33	28	25	68	76	450	3450				
	0,40	35	20	71	78	450	3450				
	0,57	47	15	75	87	450	3450				
	0,80	70	10	78	85	450	3450				
	1,02	93	7,5	82	85	450	3450				
119-210 Nm	0,27	11	62	52	119	490	3850	İRSA İRSF	52	100	9 11
	0,35	14	50	55	131	490	3850				
	0,53	189	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				



$n_1 = 700$  d/d

Servis Faktörü	P1 GÜÇ	$n_2$ Çıkış Devri	i Tahvil	$\eta$ Verim	$M_2$ Çıkış Momenti	$F_{Q1}$ Rad. Yük	$F_{Q1o}$ Rad. Yük	Tip Type			
Service Factor	Power	Output Speeds	Ratio	Efficiency	Output Torque	Over Loads	Over Loads				
Service Facteur $S_f = 1$	Puissance	Vitesse de sortie	Rapport de réduction	efficience	Couple de sortie	Charges radiales	Charges radiales				
	[kW] Hp	[r.p.m]		[ % ]	[Nm]	[N]	[N]				kg
120-168 Nm	0,20	7	100	44	120	650	4470	S	63	90	5,8
	0,23	9	80	50	126	650	4470				
	0,32	12	60	53	138	650	4470				
	0,37	14	50	56	142	650	4470				
	0,49	18	40	61	162	650	4470				
	0,62	23	30	66	168	650	4470				
	0,60	28	25	69	141	650	4470				
	0,77	35	20	72	151	650	4470				
	0,98	47	15	75	151	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	102	14 15
	0,50	11	62	50	211	670	5750				
	0,70	14	50	61	219	670	5750				
	0,97	18	39	65	335	670	5750				
	1,22	23	30	64	320	670	5750				
	1,00	28	25	74	252	670	5750				
	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	92	8,6
	0,36	9	80	50	194	700	6150				
	0,45	12	60	52	193	700	6150				
	0,53	14	50	57	208	700	6150				
	0,71	18	40	61	236	700	6150				
	0,93	23	30	65	248	700	6150				
	0,92	28	25	70	219	700	6150				
	1,20	35	20	73	239	700	6150				
	1,52	47	15	75	234	700	6150				
	2,17	70	10	78	231	700	6150				
2,65	93	7,5	82	222	700	6150					
418-701 Nm	0,98	11	62	55	456	850	7300	İRSA İRSF	82	104	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				





$n_1 = 700$  d/d

Servis Faktörü Service Factor Service Facteur Sf = 1	P1	$n_2$	i	$\eta$	$M_2$	$F_{Q1}$	$F_{Q10}$	Tip Type			kg
	GÜÇ	Çıkış Devri	Tahvil	Verim	Çıkış Momenti	Rad. Yük	Rad. Yük				
	Power	Output Speeds	Ratio	Efficiency	Output Torque	Over Loads	Over Loads				
	Puissance	Vitesse de sortie	Rapport de réduction	efficience	Couple de sortie	Charges radiales	Charges radiales				
[kW] Hp	[r.p.m]		[ % ]	[Nm]	[N]	[N]					
825-1271 Nm	1,35	9	82	55	831	1450	11600	İRSA İRSF	102	106	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	108	69 75
	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				
	11,30	44	16	80	1973	2300	19000				
	9,50	54	13	84	1415	2300	19000				
	12,90	70	10	85	1496	2300	19000				
2676-4479 Nm	3,1	6	111	57	2676	2900	23500	İRSA İRSF	162	110	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				
	22,0	47	15	81	3647	2900	23500				
	22,5	67	10,5	84	2707	2900	23500				
	32,0	93	7,5	86	2816	2900	23500				
4740-8003 Nm	5,3	6	115	57	4740	3250	27300	İRSA İRSF	201	112	300 332
	7,0	8	83	60	4756	3250	27300				
	10,0	11	63	62	5329	3250	27300				
	13,0	13	55	68	6633	3250	27300				
	19,0	18	40	72	7465	3250	27300				
	20,0	23	30	74	6057	3250	27300				
	27,0	25	27,5	79	8003	3250	27300				
	28,0	35	20	81	6188	3250	27300				
	29,0	47	15	82	4866	3250	27300				
	40,0	51	13,75	85	6378	3250	27300				
	43,0	70	10	86	5045	3250	27300				
	59,0	93	7,5	87	5252	3250	27300				



$n_1 = 700$  d/d

Servis Faktörü Service Factor Service Facteur Sf = 1	P1	$n_2$	i	$\eta$	$M_2$	$F_{Q1}$	$F_{Q1o}$	Tip Type			
	GÜÇ Power Puissance [kW] Hp	Çıkış Devri Output Speeds Vitesse de sortie [r.p.m]	Tahvil Ratio Rapport de réduction	Verim Efficiency efficience [ % ]	Çıkış Momenti Output Torque Couple de sortie [Nm]	Rad. Yük Over Loads Charges radiales [N]	Rad. Yük Over Loads Charges radiales [N]				
8839-14538 Nm	18,0	11	63	58	8973	3750	31000	İRSA İRSF	250	114	493 513
	26,0	13	52	72	13281	3750	31000				
	36,0	18	40	74	14538	3750	31000				
	39,0	23	31	76	12536	3750	31000				
	45,0	27	26	81	12929	3750	31000				
	53,0	35	20	82	11858	3750	31000				
	65,0	45	15,5	83	11408	3750	31000				
	78,0	70	10	87	9258	3750	31000				
	95,0	90	7,75	88	8839	3750	31000				



$n_1 = 450$  d/d

Servis Faktörü Service Factor Service Facteur Sf = 1	P1	$n_2$	i	$\eta$	$M_2$	$F_{Q1}$	$F_{Q1o}$	Tip Type			kg
	Güç	Çıkış Devri	Tahvil	Verim	Çıkış Momenti	Rad. Yük	Rad. Yük				
	Power	Output Speeds	Ratio	Efficiency	Output Torque	Over Loads	Over Loads				
	Puissance	Vitesse de sortie	Rapport de réduction	efficience	Couple de sortie	Charges radiales	Charges radiales				
[kW] Hp	[r.p.m]		[ % ]	[Nm]	[N]	[N]					
17-28 Nm	0,03	6	80	38	17	190	1400	S	30	84	1,2
	0,04	8	60	40	18	190	1400				
	0,04	9	50	45	21	190	1400				
	0,05	11	40	53	24	190	1400				
	0,06	15	30	58	23	190	1400				
	0,08	18	25	64	28	190	1400				
	0,08	23	20	66	23	190	1400				
	0,11	30	15	70	24	190	1400				
	0,14	45	10	75	23	190	1400				
	0,19	60	7,5	79	24	190	1400				
35-53 Nm	0,04	5	100	37	35	330	2370	S	40	86	2,1
	0,05	6	80	40	37	330	2370				
	0,07	8	60	45	41	330	2370				
	0,09	9	50	49	47	330	2370				
	0,10	11	40	58	49	330	2370				
	0,13	15	30	62	53	330	2370				
	0,13	18	25	66	47	330	2370				
	0,16	23	20	70	48	330	2370				
	0,23	30	15	72	52	330	2370				
	0,31	45	10	67	50	330	2370				
	0,40	60	7,5	63	50	330	2370				
64-99 Nm	0,08	5	100	37	64	450	3600	S	50	88	3,3
	0,10	6	80	41	69	450	3600				
	0,13	8	60	46	74	450	3600				
	0,14	9	50	53	81	450	3600				
	0,19	11	40	58	93	450	3600				
	0,25	15	30	62	99	450	3600				
	0,25	18	25	66	88	450	3600				
	0,29	23	20	70	86	450	3600				
	0,41	30	15	72	93	450	3600				
	0,58	45	10	75	93	450	3600				
	0,76	60	7,5	79	96	450	3600				
112-195 Nm	0,19	7	62	49	112	490	4050	İRSA İRSF	52	100	9 11
	0,25	9	50	51	135	490	4050				
	0,37	12	38	59	176	490	4050				
	0,51	16	29	62	195	490	4050				
	0,37	18	25	66	130	490	4050				
	0,53	24	19	72	154	490	4050				
	0,74	31	14,5	77	175	490	4050				
	0,78	47	9,5	81	127	490	4050				
	1,1	62	7,25	82	139	490	4050				



$n_1 = 450$  d/d

Servis Faktörü Service Factor Service Facteur Sf = 1	P1	$n_2$	i	$\eta$	$M_2$	$F_{Q1}$	$F_{Q1o}$	Tip Type			kg
	Güç Power Puissance [kW] Hp	Çıkış Devri Output Speeds Vitesse de sortie [r.p.m]	Tahvil Ratio Rapport de réduction	Verim Efficiency efficience [ % ]	Çıkış Momenti Output Torque Couple de sortie [Nm]	Rad. Yük Over Loads Charges radiales [N]	Rad. Yük Over Loads Charges radiales [N]				
120-177 Nm	0,13	5	100	42	120	650	5200	S	63	90	5,8
	0,16	6	80	48	132	650	5200				
	0,22	8	60	50	143	650	5200				
	0,27	9	50	54	155	650	5200				
	0,26	11	40	58	177	650	5200				
	0,43	15	30	63	173	650	5200				
	0,43	18	25	68	156	650	5200				
	0,54	23	20	70	160	650	5200				
	0,72	30	15	72	165	650	5200				
	1,08	45	10	76	174	650	5200				
	1,35	60	7,5	79	170	650	5200				
111-400 Nm	0,26	5	82	49	222	670	6250	İRSA İRSF	65	102	14 15
	0,54	7	62	48	341	670	6250				
	0,65	9	50	58	400	670	6250				
	0,65	12	39	62	334	670	6250				
	0,68	15	30	62	268	670	6250				
	0,68	18	25	72	260	670	6250				
	0,76	23	19,5	74	233	670	6250				
	0,78	30	15	74	184	670	6250				
	0,85	46	9,75	82	144	670	6250				
	0,85	60	7,5	82	111	670	6250				
185-257 Nm	0,20	5	100	44	185	700	6500	S	75	92	8,6
	0,25	6	80	48	205	700	6500				
	0,32	8	60	50	201	700	6500				
	0,38	9	50	55	221	700	6500				
	0,52	11	40	58	257	700	6500				
	0,63	15	30	63	253	700	6500				
	0,63	18	25	68	227	700	6500				
	0,85	23	20	70	254	700	6500				
	1,08	30	15	73	251	700	6500				
	1,55	45	10	75	247	700	6500				
	1,89	60	7,5	80	241	700	6500				
502-1202 Nm	0,72	7	62	53	502	850	8500	İRSA İRSF	82	104	24 26
	0,92	8	53	62	642	850	8500				
	1,25	11	40	62	658	850	8500				
	2,86	15	30	66	1202	850	8500				
	1,33	17	26,5	74	554	850	8500				
	1,75	23	20	74	550	850	8500				
	2,70	30	15	77	662	850	8500				
	2,75	45	10	82	479	850	8500				
	4,00	60	7,5	84	535	850	8500				



$n_1 = 450$  d/d

Servis Faktörü Service Factor Service Facteur Sf = 1	P1	$n_2$	i	$\eta$	$M_2$	$F_{Q1}$	$F_{Q10}$	Tip Type			
	GÜÇ	Çıkış Devri	Tahvil	Verim	Çıkış Momenti	Rad. Yük	Rad. Yük				
	Power	Output Speeds	Ratio	Efficiency	Output Torque	Over Loads	Over Loads				
	Puissance	Vitesse de sortie	Rapport de réduction	efficience	Couple de sortie	Charges radiales	Charges radiales				
[kW] Hp	[r.p.m]		[ % ]	[Nm]	[N]	[N]					
922-1450 Nm	1,00	5	82	53	922	1450	12500	İRSA İRSF	102	106	39 43
	1,30	7	63	56	973	1450	12500				
	1,84	9	50	64	1250	1450	12500				
	2,47	11	40	66	1384	1450	12500				
	3,40	15	30	67	1450	1450	12500				
	2,65	18	25	76	1069	1450	12500				
	3,60	23	20	77	1177	1450	12500				
	4,95	30	15	78	1229	1450	12500				
	5,35	45	10	84	954	1450	12500				
	7,30	60	7,5	84	976	1450	12500				
1645-2678 Nm	1,72	5	83	56	1697	2300	20000	İRSA İRSF	127	108	69 75
	2,28	7	65	55	1730	2300	20000				
	3,20	9	52	66	2331	2300	20000				
	4,50	11	40	67	2559	2300	20000				
	5,80	14	32	68	2678	2300	20000				
	4,80	17	26	77	2039	2300	20000				
	6,60	23	20	78	2185	2300	20000				
	8,60	28	16	79	2307	2300	20000				
	7,10	35	13	84	1645	2300	20000				
	9,70	45	10	84	1729	2300	20000				
3034-5184 Nm	2,3	4	111	56	3034	2900	25000	İRSA İRSF	162	110	163 186
	3,1	5	87	54	3091	2900	25000				
	6,1	8	54	67	4684	2900	25000				
	8,1	11	42	67	4837	2900	25000				
	11,8	15	30	69	5184	2900	25000				
	8,9	17	27	78	3978	2900	25000				
	11,7	21	21	78	4067	2900	25000				
	17,2	30	15	79	4326	2900	25000				
	17,3	43	10,5	84	3238	2900	25000				
	25,0	60	7,5	85	3382	2900	25000				
5369-9437 Nm	4,0	4	115	55	5369	3250	29000	İRSA İRSF	201	112	300 332
	6,0	5	83	58	6130	3250	29000				
	8,0	7	63	59	6311	3250	29000				
	10,0	8	55	66	7704	3250	29000				
	15,0	11	40	69	8786	3250	29000				
	15,0	15	30	71	6781	3250	29000				
	21,0	16	24,5	77	9437	3250	29000				
	22,0	23	20	79	7377	3250	29000				
	22,0	30	15	81	5673	3250	29000				
	31,0	33	13,75	84	7599	3250	29000				
	33,0	45	10	85	5953	3250	29000				
	46,0	60	7,5	86	6367	3250	29000				



$n_1 = 450$  d/d

Servis Faktörü Service Factor Service Facteur Sf = 1	P1	$n_2$	i	$\eta$	$M_2$	$F_{Q1}$	$F_{Q1o}$	Tip Type			kg
	GÜÇ Power Puissance [kW] Hp	Çıkış Devri Output Speeds Vitesse de sortie [r.p.m]	Tahvil Ratio Rapport de réduction	Verim Efficiency efficience [ % ]	Çıkış Momenti Output Torque Couple de sortie [Nm]	Rad. Yük Over Loads Charges radiales [N]	Rad. Yük Over Loads Charges radiales [N]				
10856-16876 Nm	14,0	7	63	58	10856	3750	33000	İRSA İRSF	250	114	493 513
	21,0	9	52	69	15991	3750	33000				
	28,0	11	40	71	16876	3750	33000				
	30,0	15	31	74	14605	3750	33000				
	36,0	17	26	79	15693	3750	33000				
	42,0	23	20	81	14440	3750	33000				
	52,0	29	15,5	81	13855	3750	33000				
	62,0	45	10	86	11316	3750	33000				
	77,0	58	7,75	86	10891	3750	33000				



$n_1 = 1400$  d/d

Servis Faktörü Service Factor Service Facteur Sf = 1	P1	$n_2$	i	$\eta$	$M_2$	$F_{Q1}$	$F_{Q10}$	Tip Type			
	GÜÇ	Çıkış Devri	Tahvil	Verim	Çıkış Momenti	Rad. Yük	Rad. Yük				
	Power	Output Speeds	Ratio	Efficiency	Output Torque	Over Loads	Over Loads				
	Puissance	Vitesse de sortie	Rapport de réduction	efficience	Couple de sortie	Charges radiales	Charges radiales				
[kW] Hp	[r.p.m]		[ % ]	[Nm]	[N]	[N]				kg	
69 - 142 Nm	0,01	0,35	4000	25	69	4820	195	S	50 S 30	94	4,6
	0,02	0,47	3000	26	105	4820	195				
	0,03	0,58	2400	28	136	4820	195				
	0,03	0,78	1800	30	112	4820	195				
	0,04	0,93	1500	35	143	4820	195				
	0,04	1,17	1200	38	125	4820	195				
	0,05	1,56	900	41	126	4820	195				
	0,06	1,87	750	44	134	4820	195				
	0,07	2,33	600	46	132	4820	195				
	0,08	2,80	500	42	115	4820	195				
	0,10	3,50	400	45	123	4820	195				
	0,14	4,67	300	50	142	4820	195				
	0,12	5,60	250	53	109	4820	195				
	0,15	7,00	200	56	115	4820	195				
	0,22	9,33	150	59	132	4820	195				
0,31	14,00	100	60	127	4820	195					
132 - 262 Nm	0,03	0,35	4000	22	177	6200	195	S	63 S 30	96	7,1
	0,04	0,47	3000	23	184	6200	195				
	0,05	0,58	2400	27	217	6200	195				
	0,07	0,78	1800	29	249	6200	195				
	0,08	0,93	1500	31	256	6200	195				
	0,08	1,17	1200	34	220	6200	195				
	0,11	1,56	900	37	247	6200	195				
	0,13	1,87	750	39	262	6200	195				
	0,15	2,33	600	41	249	6200	195				
	0,16	2,80	500	34	187	6200	195				
	0,2	3,50	400	40	220	6200	195				
	0,26	4,67	300	42	223	6200	195				
	0,24	5,60	250	49	199	6200	195				
	0,32	7,00	200	50	219	6200	195				
	0,34	9,33	150	53	185	6200	195				
0,34	14,00	100	57	132	6200	195					
221 - 388 Nm	0,03	0,28	5000	22	221	7300	340	S	75 S 40	98	11
	0,04	0,35	4000	24	257	7300	340				
	0,06	0,47	3000	25	301	7300	340				
	0,07	0,58	2400	29	332	7300	340				
	0,10	0,78	1800	31	381	7300	340				
	0,11	0,93	1500	34	384	7300	340				
	0,12	1,17	1200	36	353	7300	340				
	0,16	1,56	900	39	384	7300	340				
	0,18	1,87	750	42	388	7300	340				
	0,21	2,33	600	43	373	7300	340				
	0,24	2,80	500	37	305	7300	340				
	0,30	3,50	400	44	361	7300	340				
	0,40	4,67	300	47	386	7300	340				
	0,38	5,60	250	50	325	7300	340				
	0,50	7,00	200	53	363	7300	340				
	0,64	9,33	150	55	358	7300	340				
	0,76	14,00	100	57	296	7300	340				



$n_1 = 1400$  d/d

Servis Faktörü	P1 GÜÇ	$n_2$ Çıkış Devri	i Tahvil	$\eta$ Verim	$M_2$ Çıkış Momenti	$F_{Q1}$ Rad. Yük	$F_{Q10}$ Rad. Yük	Tip Type			
Service Factor	Power	Output Speeds	Ratio	Efficiency	Output Torque	Over Loads	Over Loads				
Service Facteur Sf = 1	Puissance	Vitesse de sortie	Rapport de réduction	efficience	Couple de sortie	Charges radiales	Charges radiales				
	[kW] Hp	[r.p.m]		[ % ]	[Nm]	[N]	[N]			kg	
325 - 565 Nm	0,04	0,28	4960	29	381	7400	340	İRSAM İRSFM	82 S 40	116	27 29
	0,05	0,38	3720	33	381	7400	340				
	0,07	0,44	3180	37	565	7400	340				
	0,08	0,53	2650	41	565	7400	340				
	0,09	0,66	2120	44	565	7400	340				
	0,10	0,88	1600	44	470	7400	340				
	0,12	0,93	1500	44	560	7400	340				
	0,15	1,17	1200	47	560	7400	340				
	0,19	1,56	900	49	560	7400	340				
	0,21	1,87	750	51	560	7400	340				
	0,26	2,33	600	53	560	7400	340				
	0,32	3,11	450	57	560	7400	340				
	0,46	4,67	300	59	560	7400	340				
	0,60	6,22	225	61	560	7400	340				
	0,67	9,33	150	66	456	7400	340				
0,68	14,00	100	70	325	7400	340					
703 - 999 Nm	0,06	0,28	5084	34	738	8100	410	İRSAM İRSFM	102 İRS 52	118	51 55
	0,08	0,34	4100	35	738	8100	410				
	0,09	0,44	3150	36	703	8100	410				
	0,11	0,58	2394	41	703	8100	410				
	0,15	0,74	1900	46	906	8100	410				
	0,23	0,93	1500	43	999	8100	410				
	0,26	1,23	1140	49	999	8100	410				
	0,33	1,61	870	50	999	8100	410				
	0,37	1,87	750	53	999	8100	410				
	0,45	2,46	570	57	999	8100	410				
	0,58	3,22	435	58	999	8100	410				
	0,83	4,91	285	62	999	8100	410				
	1,07	6,44	218	63	999	8100	410				
	1,20	9,82	143	69	805	8100	410				
	1,56	12,87	109	70	805	8100	410				
1218 - 1792 Nm	0,10	0,27	5146	33	1218	10800	410	İRSAM İRSFM	127 İRS 65	120	85 91
	0,11	0,34	4150	40	1218	10800	410				
	0,14	0,43	3250	42	1268	10800	410				
	0,17	0,55	2535	44	1268	10800	410				
	0,32	0,71	1984	41	1792	10800	410				
	0,33	0,88	1600	49	1792	10800	410				
	0,41	1,12	1248	52	1792	10800	410				
	0,53	1,46	960	52	1792	10800	410				
	0,58	1,75	800	57	1792	10800	410				
	0,71	2,24	624	59	1792	10800	410				
	0,92	2,92	480	59	1792	10800	410				
	1,30	4,49	312	65	1792	10800	410				
	1,69	5,83	240	65	1792	10800	410				
	1,95	8,97	156	71	1485	10800	410				
	2,54	11,67	120	71	1485	10800	410				





$n_1 = 1400$  d/d

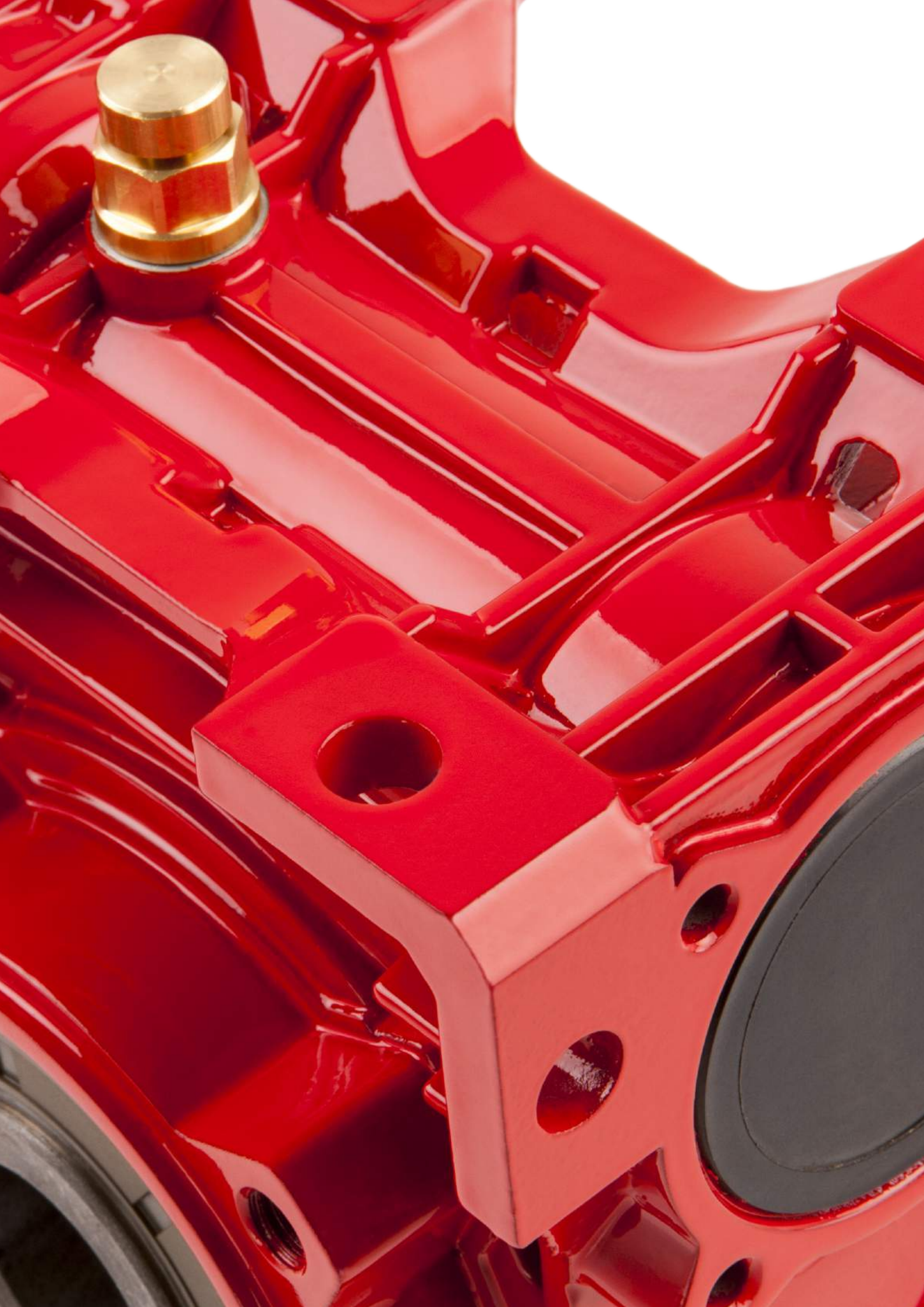
Servis Faktörü Service Factor Service Facteur Sf = 1	P1	$n_2$	i	$\eta$	$M_2$	$F_{Q1}$	$F_{Q10}$	Tip Type			
	GÜÇ Power Puissance [kW] Hp	Çıkış Devri Output Speeds Vitesse de sortie [r.p.m]	Tahvil Ratio Rapport de réduction	Verim Efficiency efficience [ % ]	Çıkış Momenti Output Torque Couple de sortie [Nm]	Rad. Yük Over Loads Charges radiales [N]	Rad. Yük Over Loads Charges radiales [N]				
2241 - 3352 Nm	0,16	0,26	5394	38	2241	19800	850	İRSAM İRSFM	162 İRS 82	122	190 213
	0,16	0,30	4611	44	2241	19800	850				
	0,32	0,42	3348	44	3244	19800	850				
	0,33	0,49	2862	50	3244	19800	850				
	0,42	0,63	2226	51	3245	19800	850				
	0,56	0,83	1680	50	3245	19800	850				
	0,70	1,11	1260	54	3245	19800	850				
	0,97	1,56	900	56	3352	19800	850				
	1,04	1,76	795	59	3352	19800	850				
	1,35	2,33	600	61	3352	19800	850				
	1,73	3,11	450	63	3352	19800	850				
	2,47	4,67	300	66	3352	19800	850				
	3,26	6,22	225	67	3352	19800	850				
	3,59	9,33	150	72	2653	19800	850				
	4,73	12,44	113	73	2653	19800	850				

Güç Devir Tabloları / Performans Tables / Table de Performances



$n_1 = 1400$  d/d

Servis Faktörü	P1 GÜÇ	$n_2$ Çıkış Devri	i Tahvil	$\eta$ Verim	$M_2$ Çıkış Momenti	$F_{Q1}$ Rad. Yük	$F_{Q10}$ Rad. Yük	Tip Type			
Service Factor <i>Service Facteur</i> <i>Sf = 1</i>	Power <i>Puissance</i>	Output Speeds <i>Vitesse de sortie</i>	Ratio <i>Rapport de réduction</i>	Efficiency <i>efficience</i>	Output Torque <i>Couple de sortie</i>	Over Loads <i>Charges radiales</i>	Over Loads <i>Charges radiales</i>				
	[kW] Hp	[r.p.m]		[ % ]	[Nm]	[N]	[N]			kg	
957 - 992 Nm	0,14	0,99	1409	70	957	7000	390	İRSAM İRSFM	102 İR 43	124	50 54
	0,19	1,28	1091	70	966	7000	390				
	0,24	1,66	841	70	962	7000	390				
	0,29	2,04	685	70	959	7000	390				
	0,33	2,21	633	70	990	7000	390				
	0,39	2,63	533	70	992	7000	390				
	0,47	3,20	438	70	988	7000	390	İRSAM İRSFM	102 İR 42	124	49 53
	0,53	3,59	390	70	991	7000	390				
	0,62	4,15	337	70	990	7000	390				
	0,80	5,38	260	70	991	7000	390				
	1,14	7,68	182	70	991	7000	390				
	1,41	9,52	147	70	991	7000	390				
1732 - 1809 Nm	0,24	0,93	1503	71	1747	9650	390	İRSAM İRSFM	127 İR 43	126	80 86
	0,36	1,37	1019	71	1753	9650	390				
	0,43	1,67	838	71	1756	9650	390				
	0,54	2,07	675	71	1758	9650	390				
	0,64	2,46	568	71	1755	9650	390				
	0,78	3,00	467	71	1754	9650	390				
	0,87	3,37	416	71	1757	9650	390	İRSAM İRSFM	127 İR 52	128	86 92
	0,65	2,55	550	71	1743	9650	475				
	0,74	2,91	482	71	1732	9650	475				
	0,95	3,70	378	71	1732	9650	475				
	1,18	4,61	303	71	1738	9650	475				
	1,61	6,10	229	71	1792	9650	475				
	1,99	7,52	186	71	1793	9650	475				
	2,32	8,70	161	71	1809	9650	475				
2,87	10,78	130	71	1807	9650	475					
3411 - 3436 Nm	2,02	3,83	366	68	3436	19800	590	İRSAM İRSFM	162 İR 62	130	292 313
	2,44	4,63	302	68	3422	19800	590				
	2,88	5,48	255	68	3413	19800	590				
	3,45	6,57	213	68	3413	19800	590				
	4,09	7,79	180	68	3411	19800	590				
	4,62	8,77	160	68	3420	19800	590				
	5,48	10,39	135	68	3423	19800	590				
	6,62	12,58	111	68	3419	19800	590				
4241 - 4257 Nm	3,27	5,00	280	68	4246	25100	1200	İRSAM İRSFM	201 İR 72	132	338 370
	4,08	6,25	224	68	4241	25100	1200				
	5,04	7,69	182	68	4257	25100	1200				
	6,12	9,35	150	68	4250	25100	1200				
	7,53	11,52	122	68	4244	25100	1200				
	9,21	14,06	100	68	4255	25100	1200				



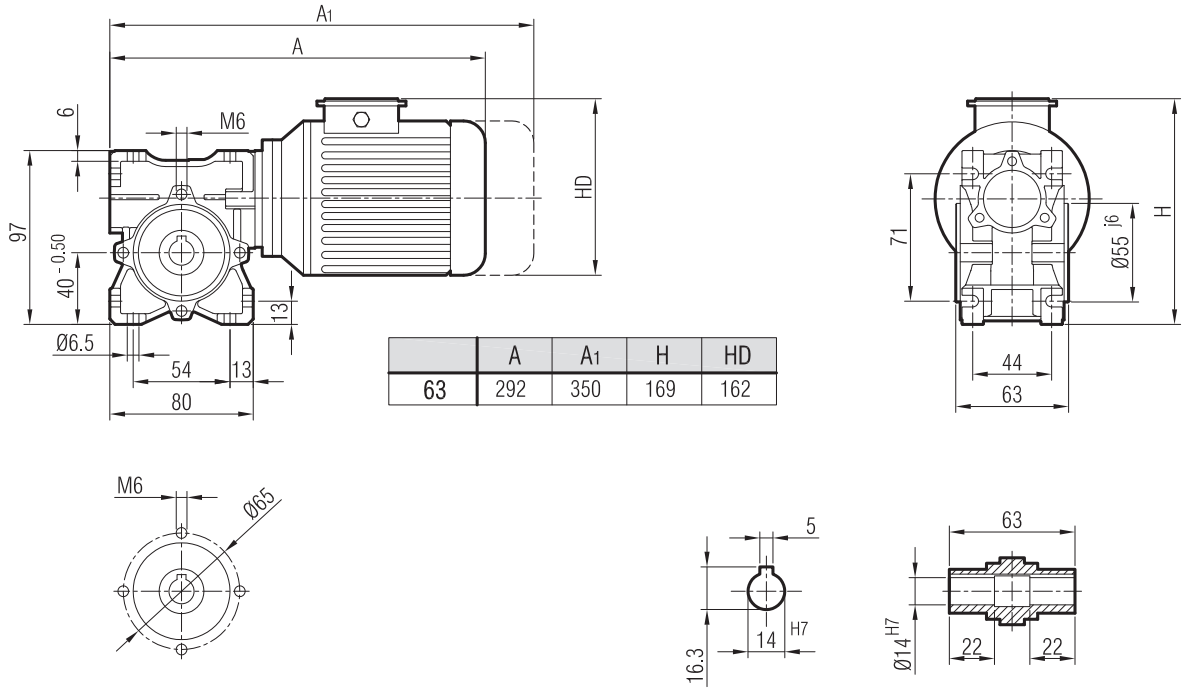
## Sonsuz Vidalı Redüktörler Ölçü Sayfaları

Worm Gearbox Dimension Pages

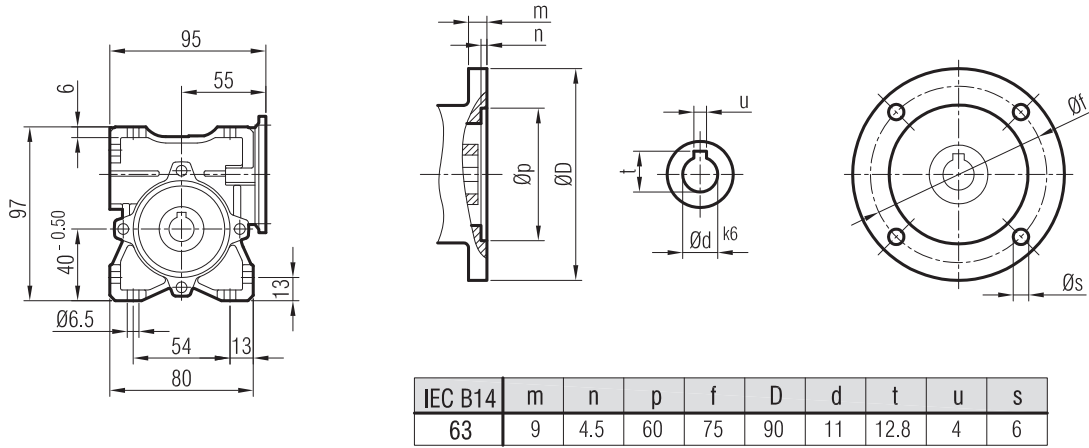
*Réducteurs à roue et vis sans fin dimensions*



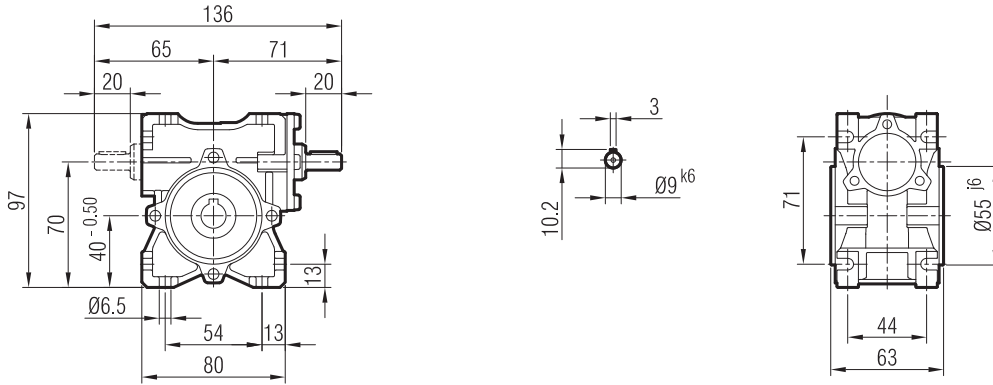
**SM 30**



**SP 30**



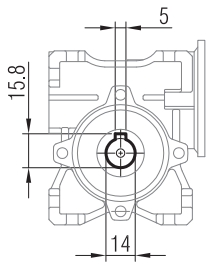
**S 30**



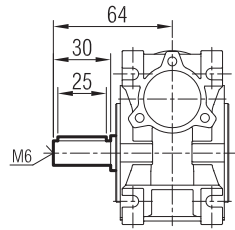
"A1" Ölçüsü Frenli Motorlar içindir.  
Dimension "A1" is for motors with brake.  
Le dimensions "A1" correspond aux moteurs équipés de freins.



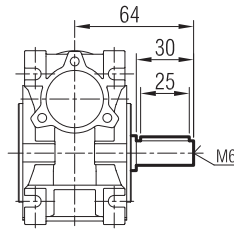
**SM / SP / S**



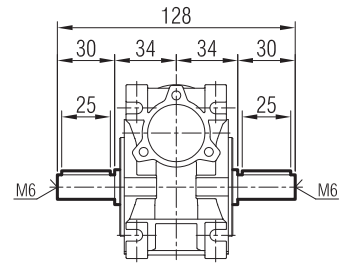
**- SR**



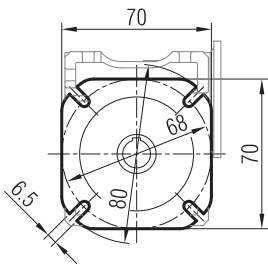
**- SL**



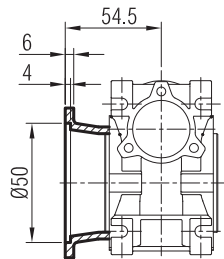
**- SD**



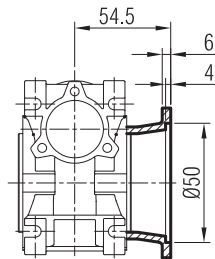
**SM / SP / S**



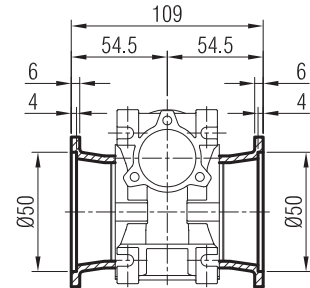
**- FR**



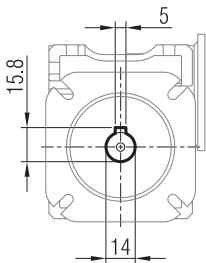
**- FL**



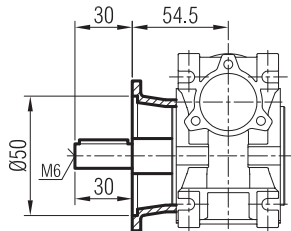
**- FD**



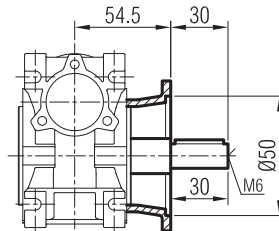
**SM / SP / S**



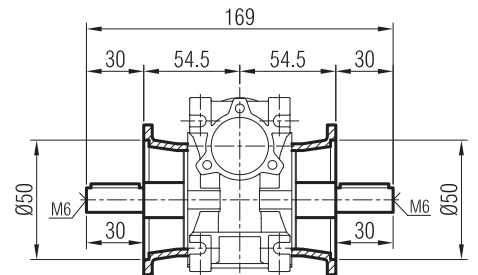
**- FR - SR**



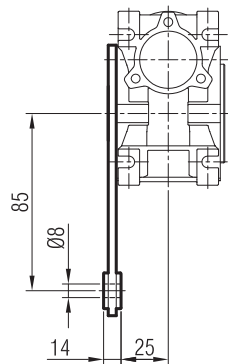
**- FL - SL**



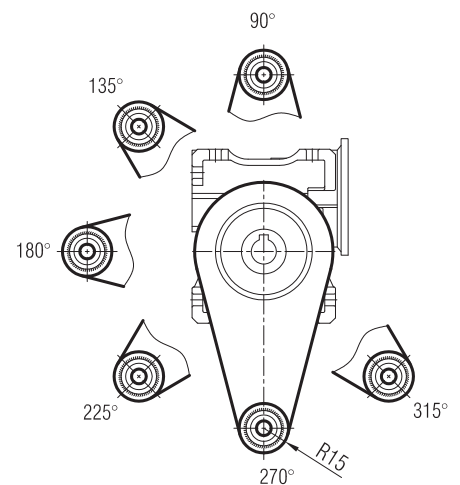
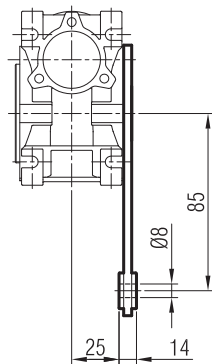
**- FD - SD**



**- TR**

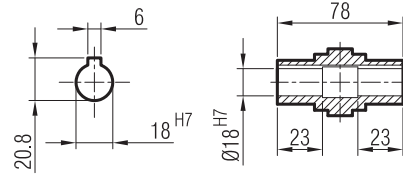
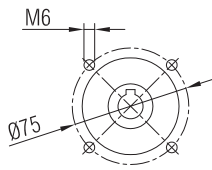
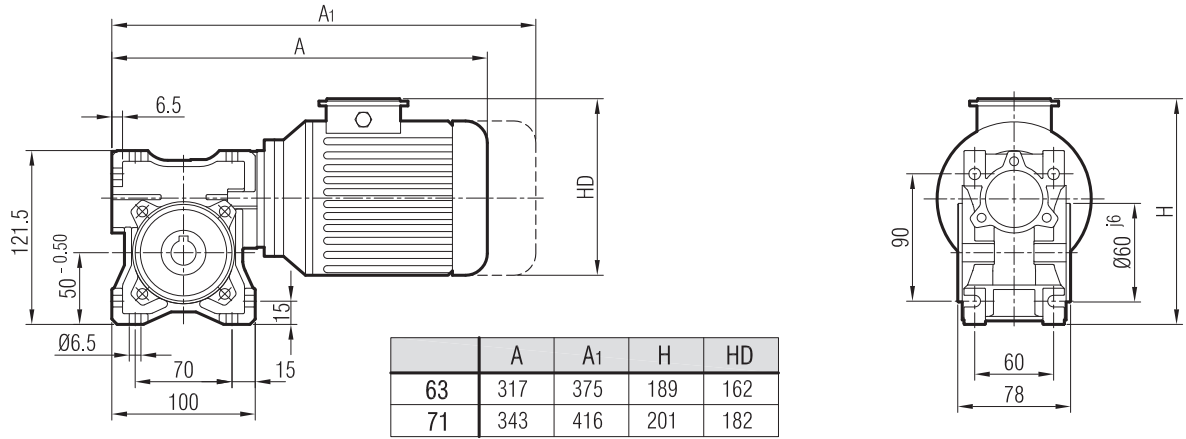


**- TL**

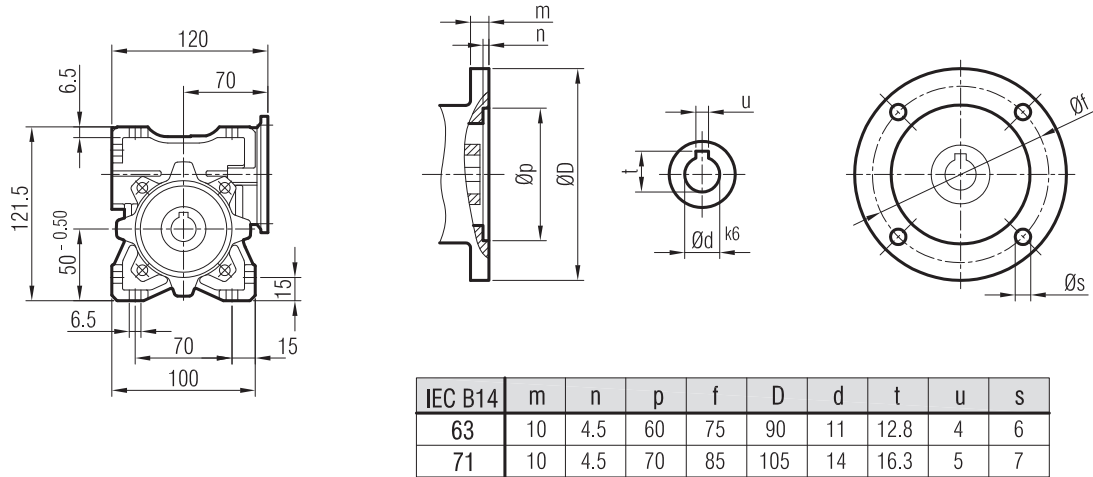




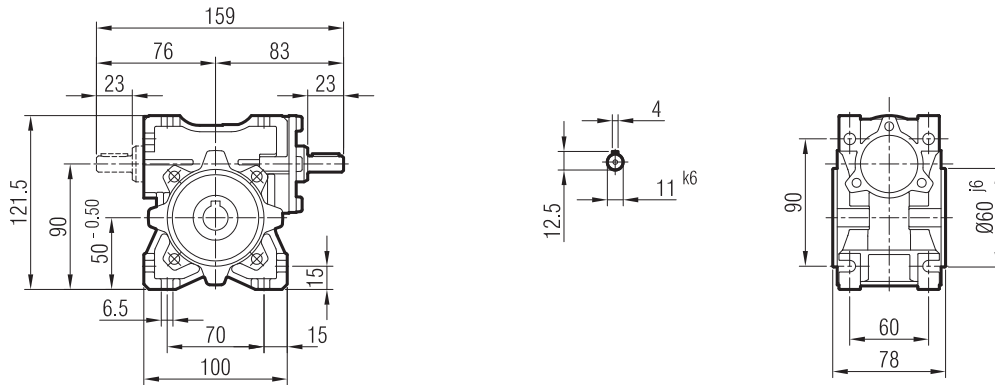
**SM 40**



**SP 40**



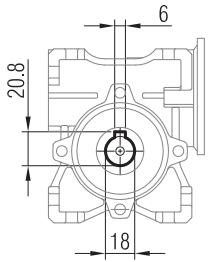
**S 40**



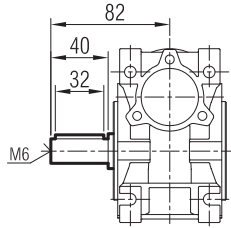
"A1" Ölçüsü Frenli Motorlar içindir.  
Dimension "A1" is for motors with brake.  
Le dimensions "A1" correspond aux moteurs équipés de freins.



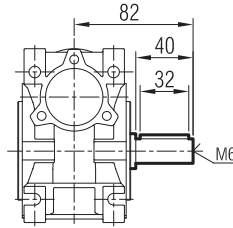
**SM / SP / S**



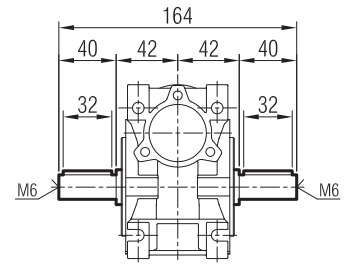
**- SR**



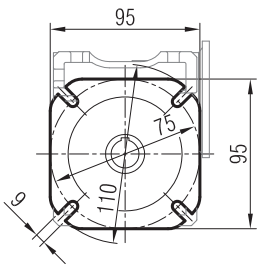
**- SL**



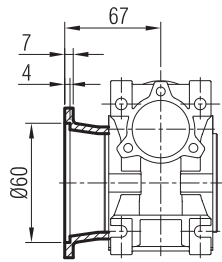
**- SD**



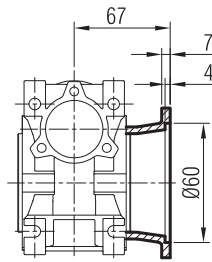
**SM / SP / S**



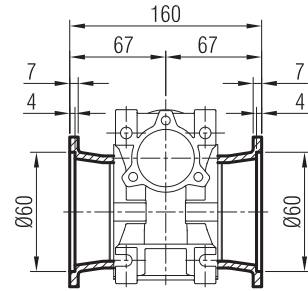
**- FR**



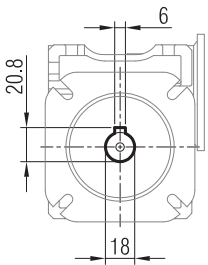
**- FL**



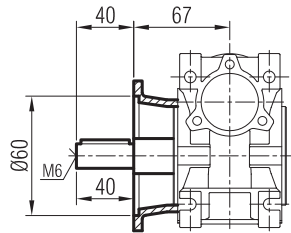
**- FD**



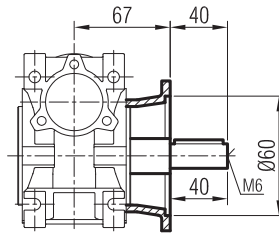
**SM / SP / S**



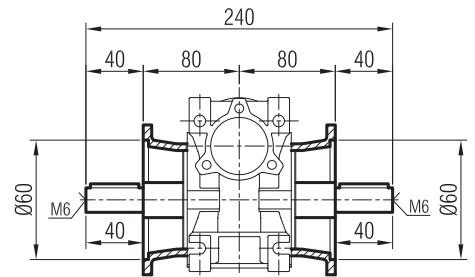
**- FR - SR**



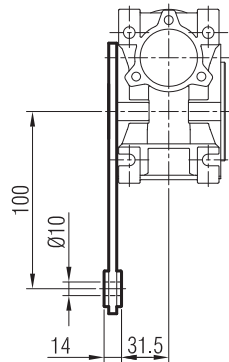
**- FL - SL**



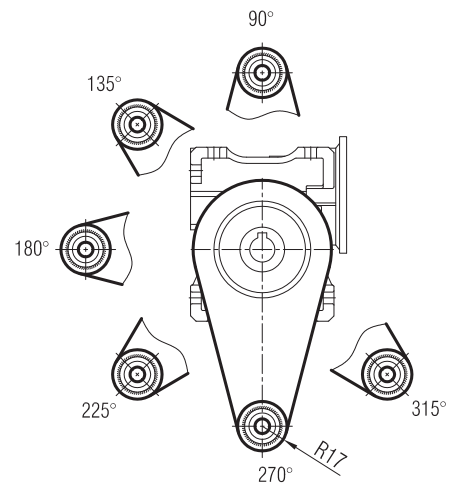
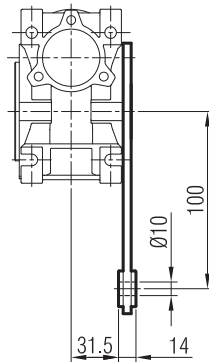
**- FD - SD**



**- TR**



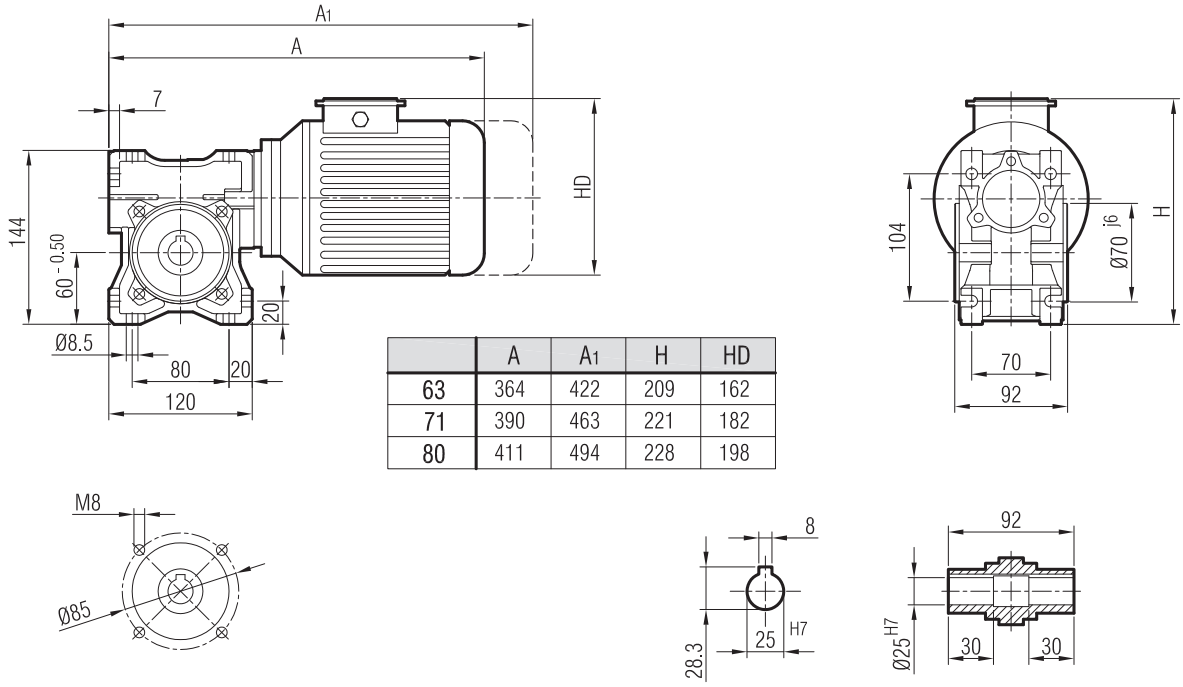
**- TL**



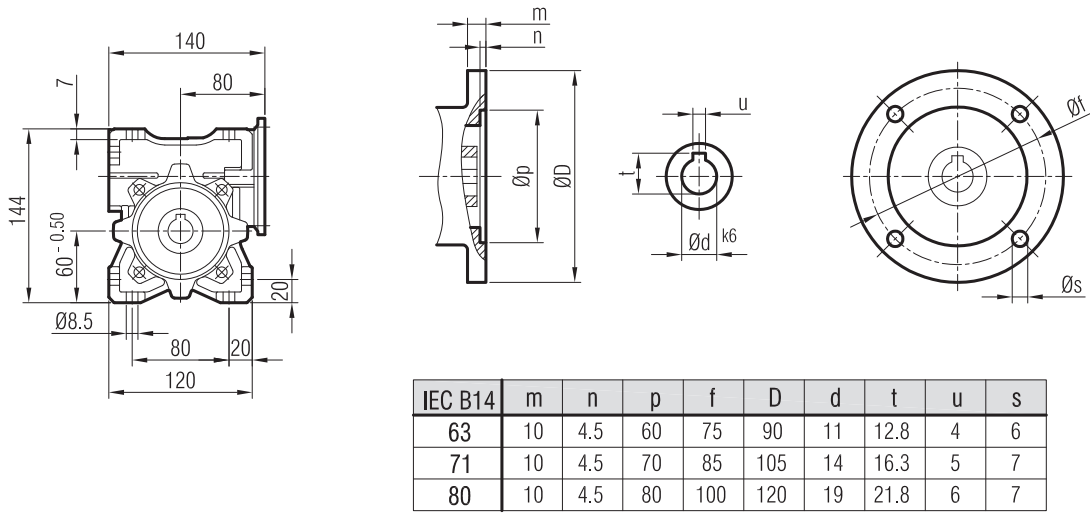




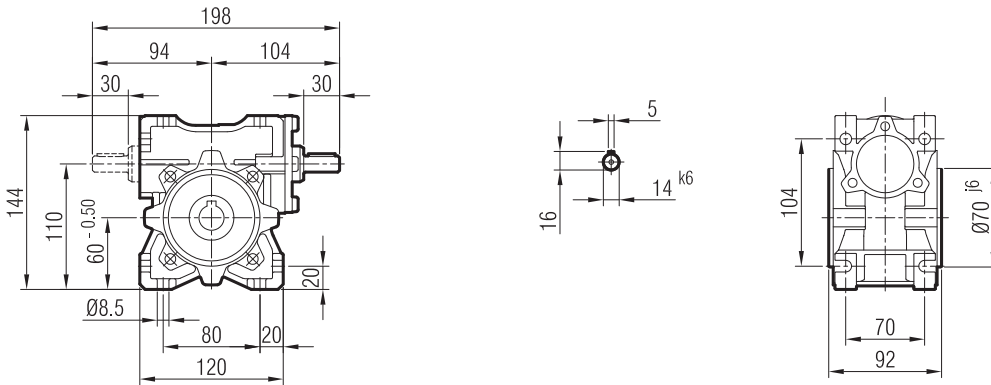
**SM 50**



**SP 50**



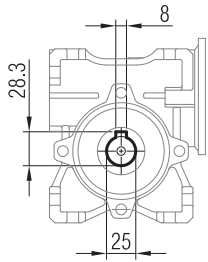
**S 50**



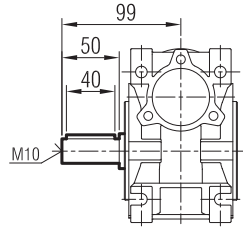
"A1" Ölçüsü Frenli Motorlar içindir.  
Dimension "A1" is for motors with brake.  
Le dimensions "A1" correspond aux moteurs équipés de freins.



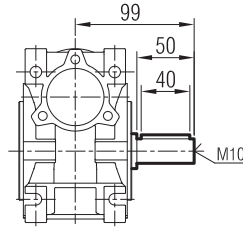
**SM / SP / S**



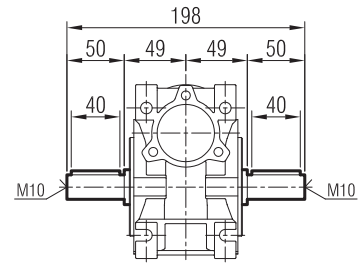
**- SR**



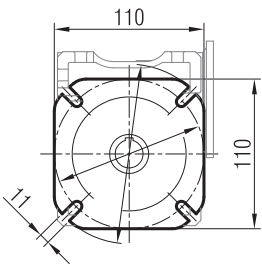
**- SL**



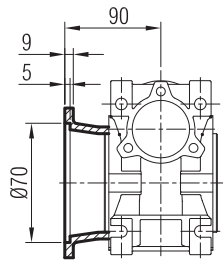
**- SD**



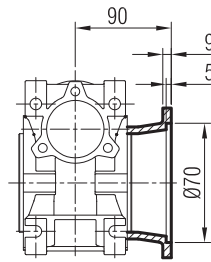
**SM / SP / S**



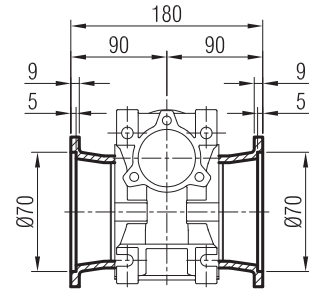
**- FR**



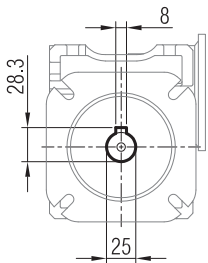
**- FL**



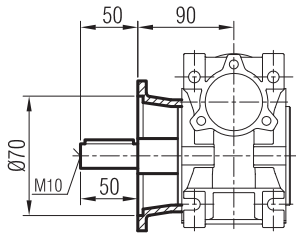
**- FD**



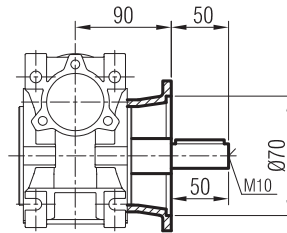
**SM / SP / S**



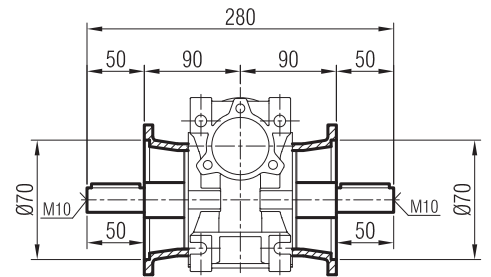
**- FR - SR**



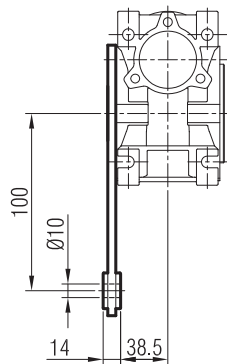
**- FL - SL**



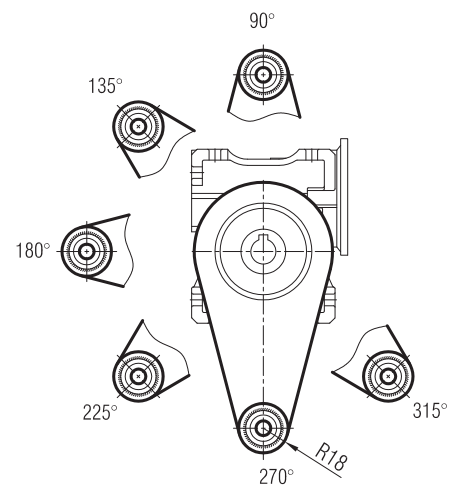
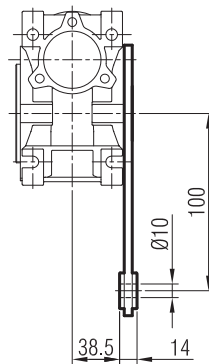
**- FD - SD**



**- TR**

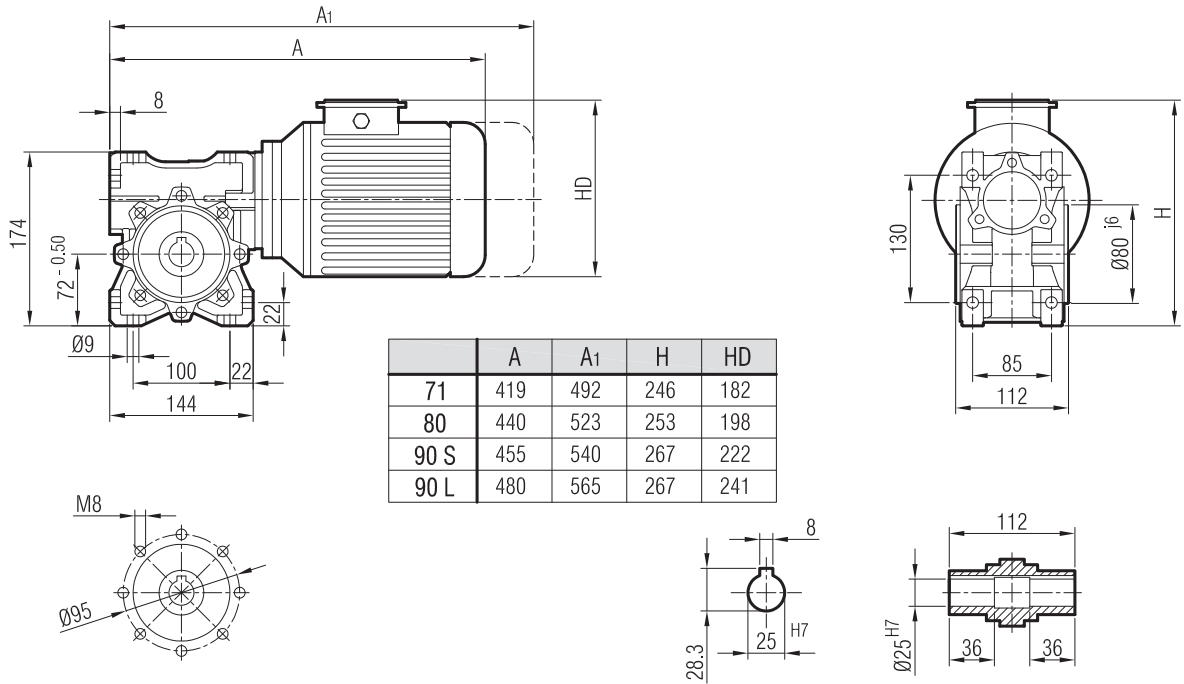


**- TL**

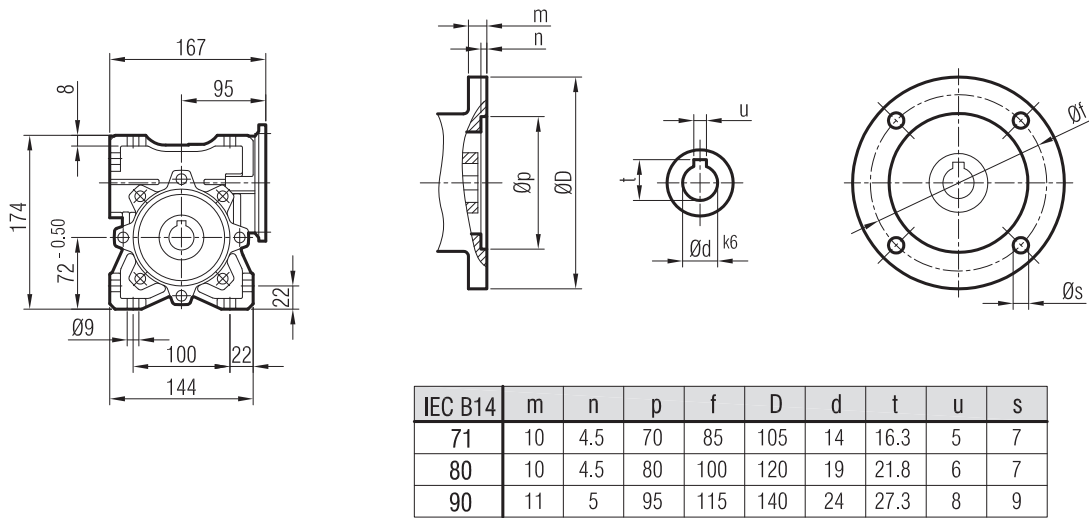




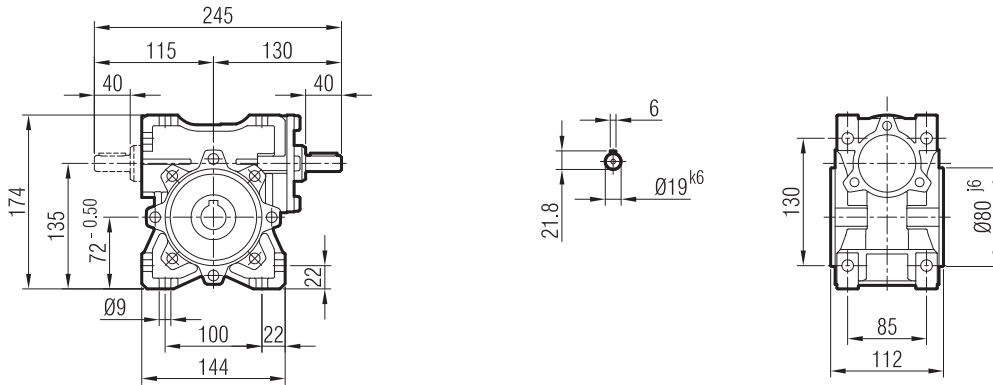
**SM 63**



**SP 63**



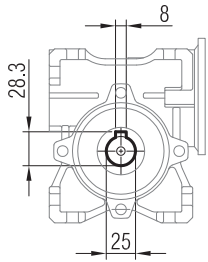
**S 63**



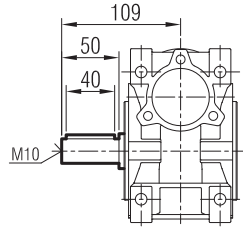
**"A1" Ölçüsü Frenli Motorlar içindir.**  
Dimension "A1" is for motors with brake.  
*Le dimensions "A1" correspond aux moteurs équipés de freins.*



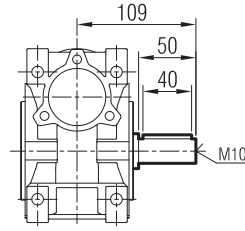
**SM / SP / S**



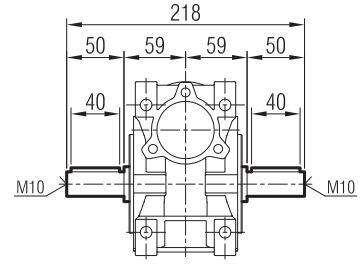
**- SR**



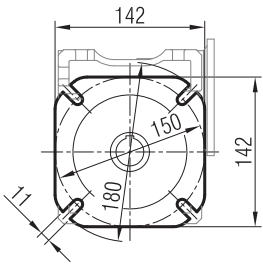
**- SL**



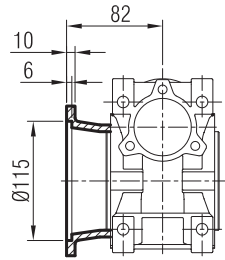
**- SD**



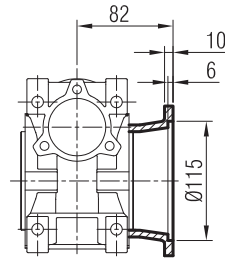
**SM / SP / S**



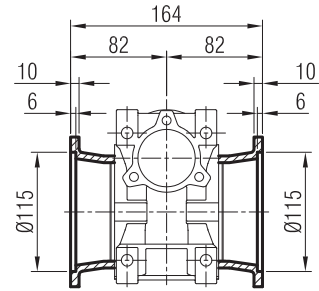
**- FR**



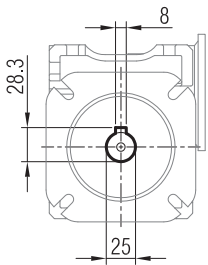
**- FL**



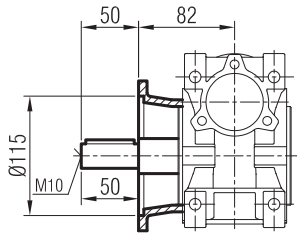
**- FD**



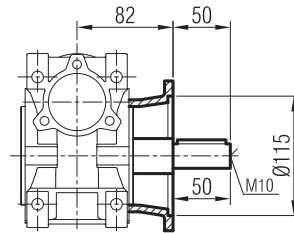
**SM / SP / S**



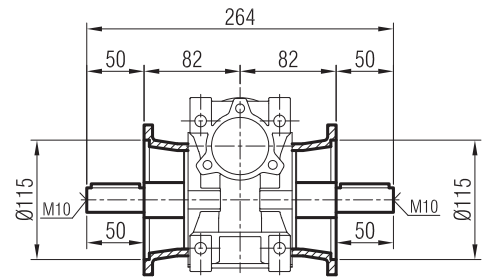
**- FR - SR**



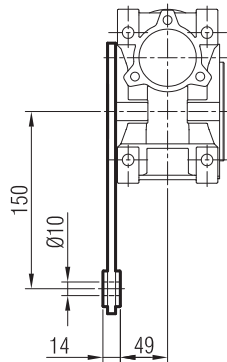
**- FL - SL**



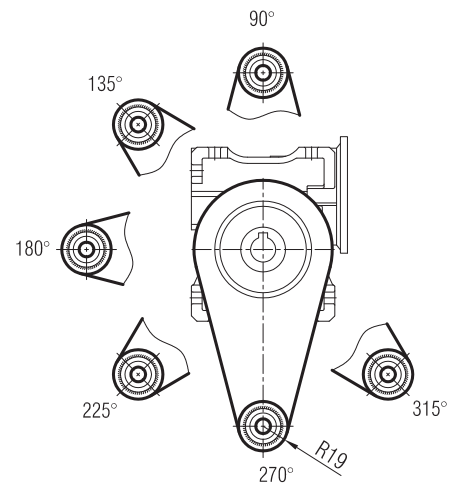
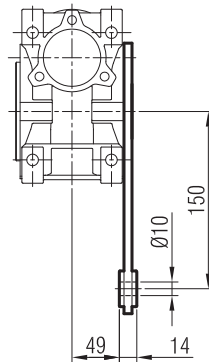
**- FD - SD**



**- TR**

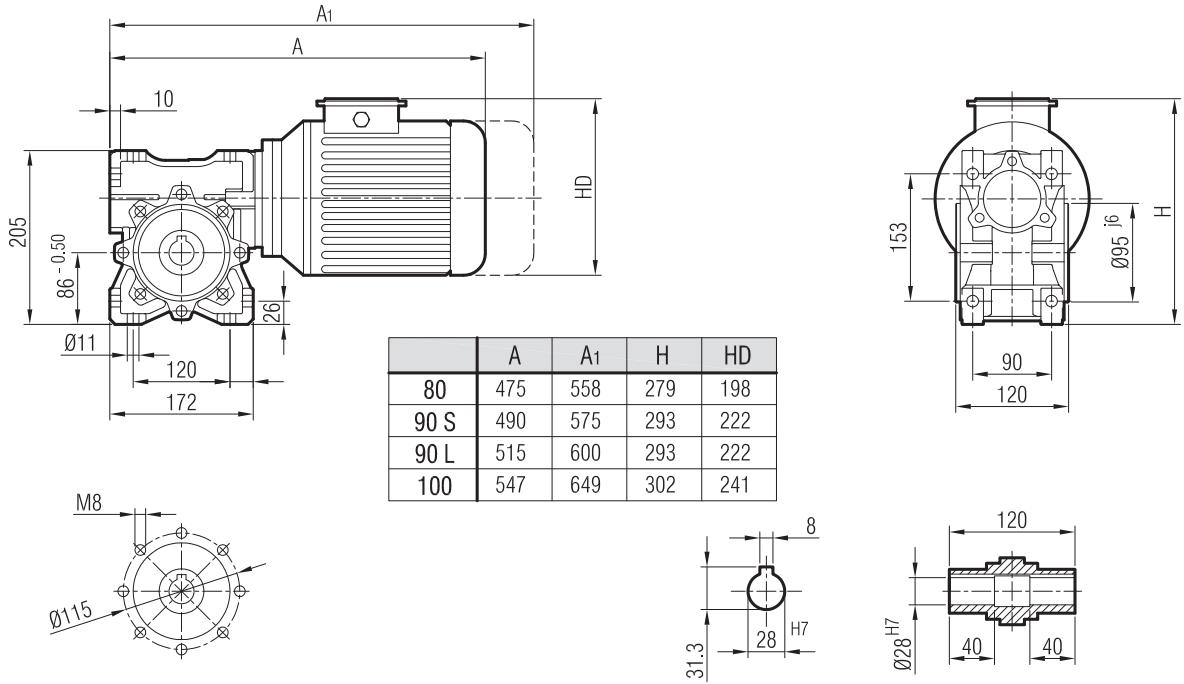


**- TL**

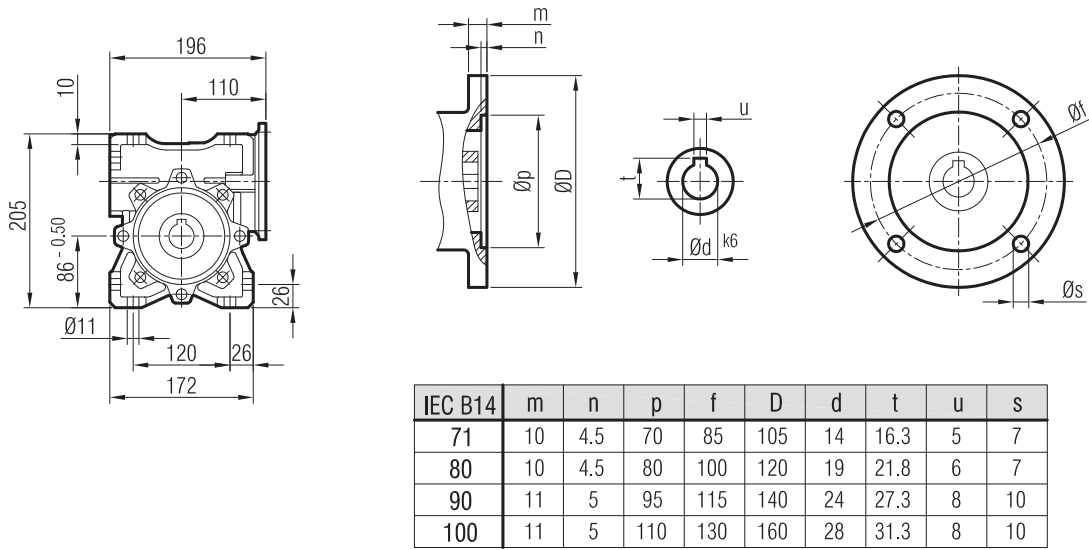




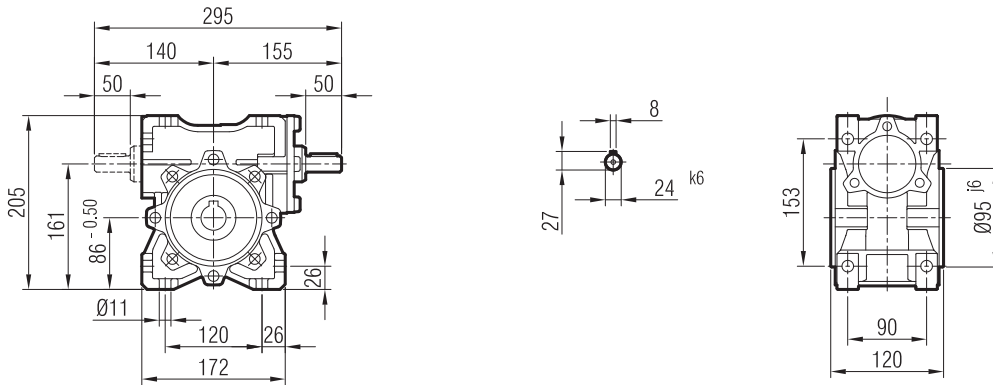
**SM 75**



**SP 75**



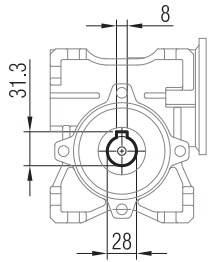
**S 75**



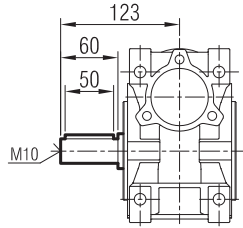
"A1" Ölçüsü Frenli Motorlar içindir.  
Dimension "A1" is for motors with brake.  
Le dimensions "A1" correspond aux moteurs équipés de freins.



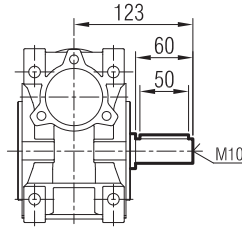
**SM / SP / S**



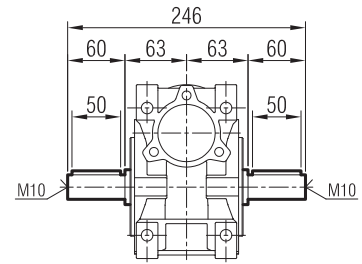
**- SR**



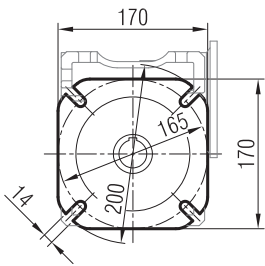
**- SL**



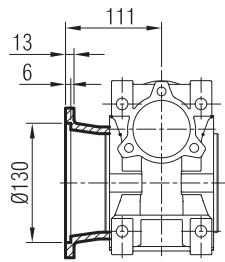
**- SD**



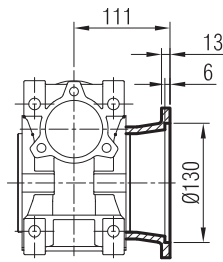
**SM / SP / S**



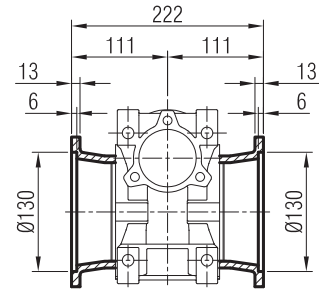
**- FR**



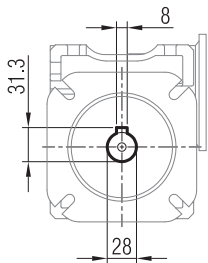
**- FL**



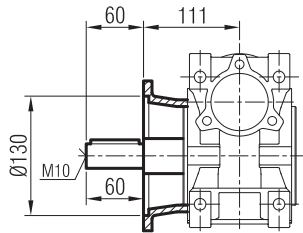
**- FD**



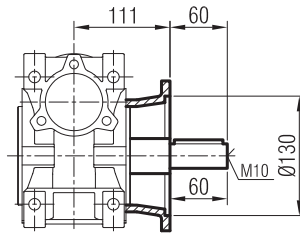
**SM / SP / S**



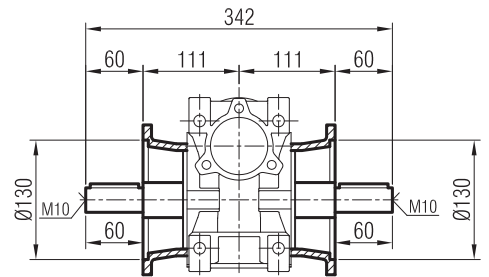
**- FR - SR**



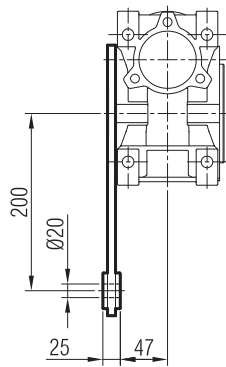
**- FL - SL**



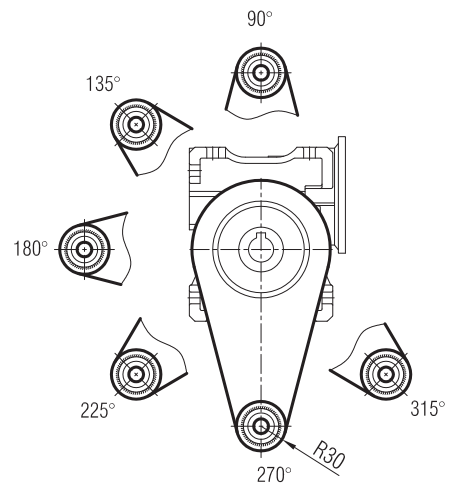
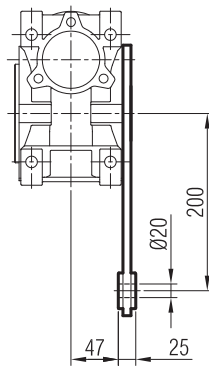
**- FD - SD**



**- TR**

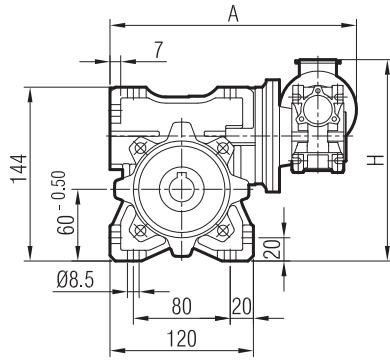


**- TL**

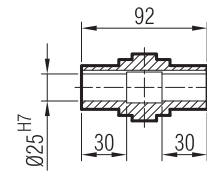
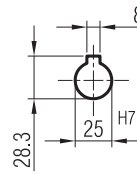
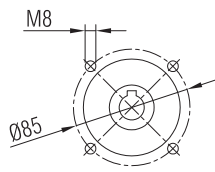
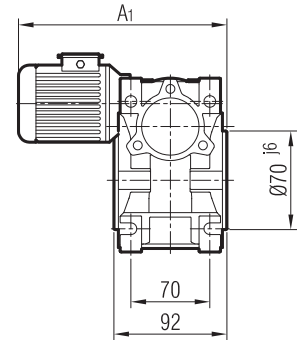




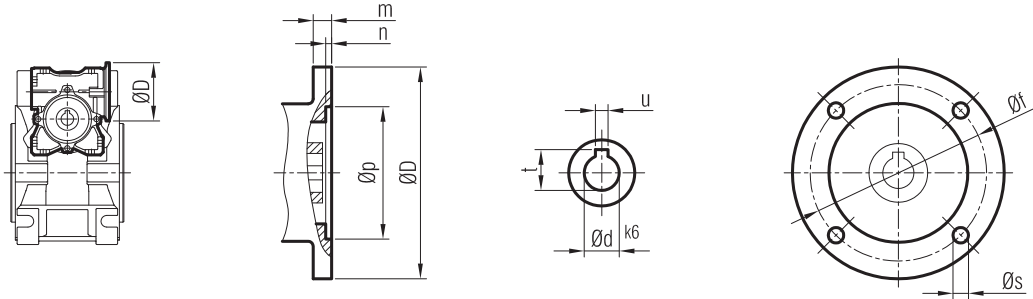
**SM 50 S 30**



	A	A <sub>1</sub>	H
63	256	298	210

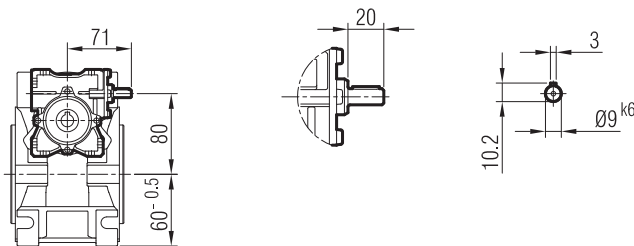


**SP 50 S 30**



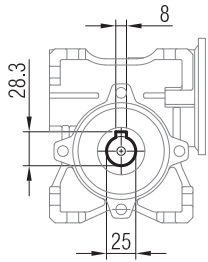
IEC B14	m	n	p	f	D	d	t	u	s
63	9	4.5	60	75	90	11	12.8	4	6

**S 50 S 30**

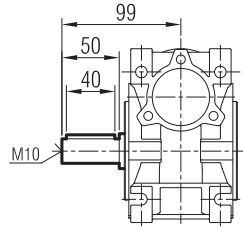




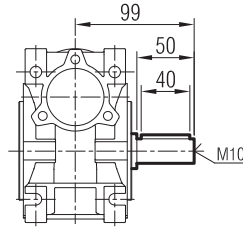
**SM / SP / S**



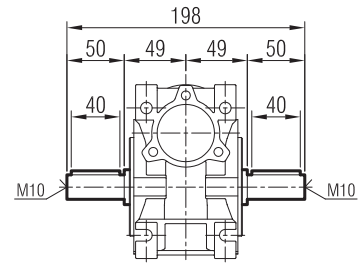
**- SR**



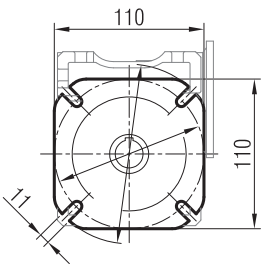
**- SL**



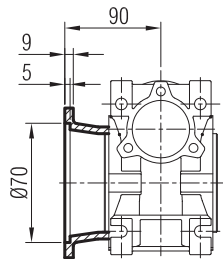
**- SD**



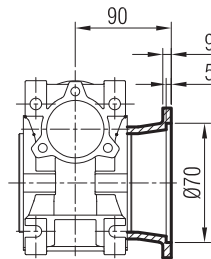
**SM / SP / S**



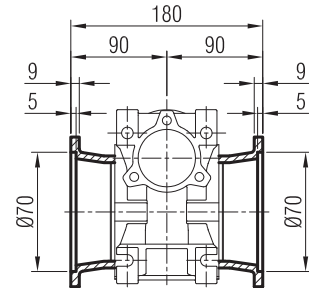
**- FR**



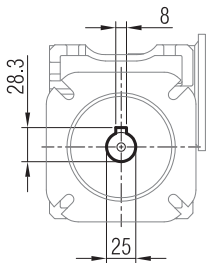
**- FL**



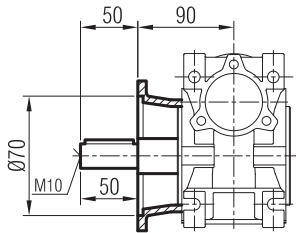
**- FD**



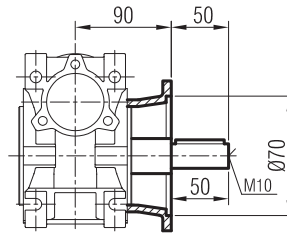
**SM / SP / S**



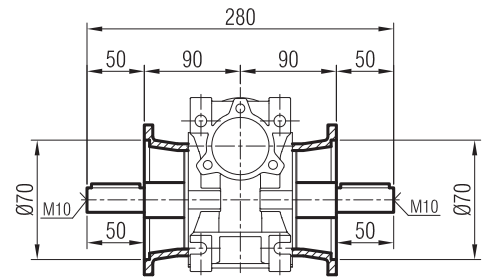
**- FR - SR**



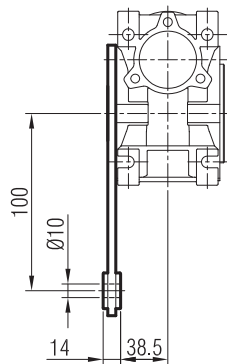
**- FL - SL**



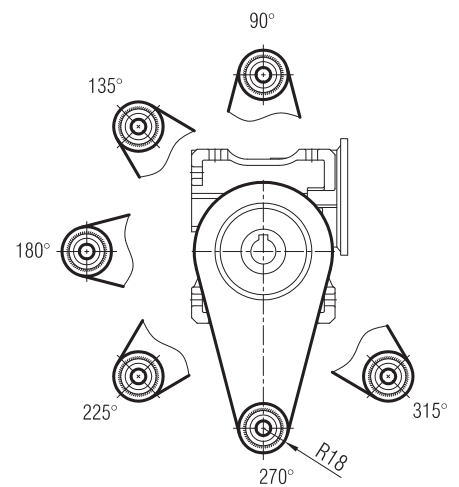
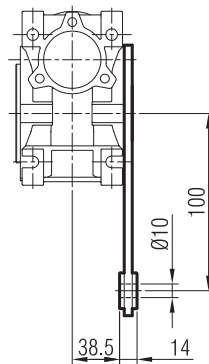
**- FD - SD**



**- TR**



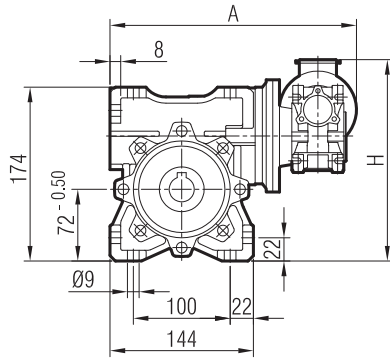
**- TL**



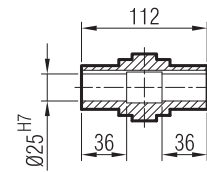
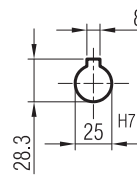
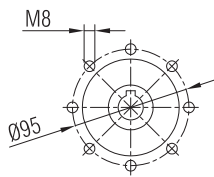
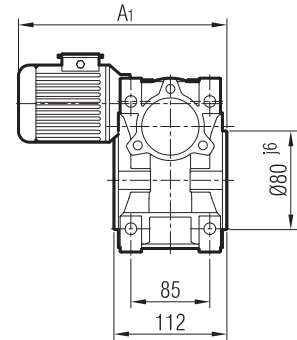




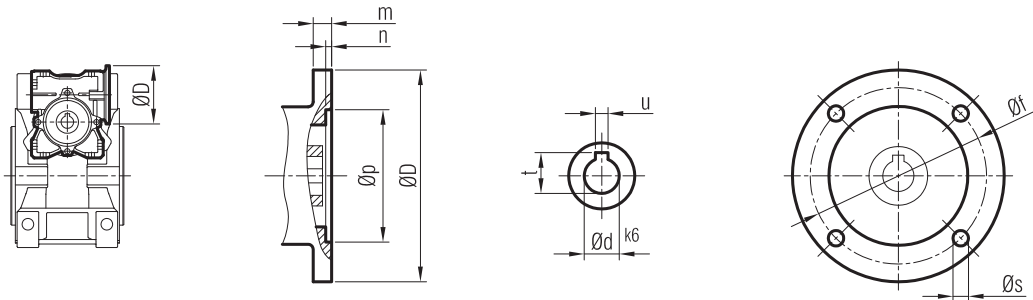
**SM 63 S 30**



	A	A <sub>1</sub>	H
63	283	308	264

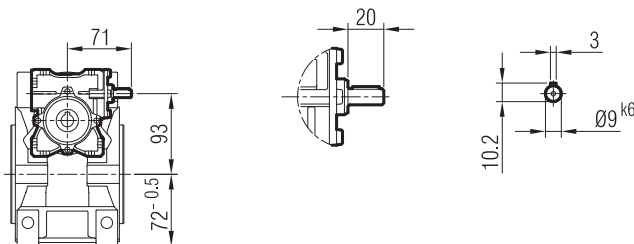


**SP 63 S 30**



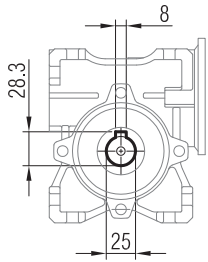
IEC B14	m	n	p	f	D	d	t	u	s
63	9	4.5	60	75	90	11	12.8	4	6

**S 63 S 30**

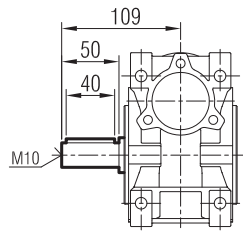




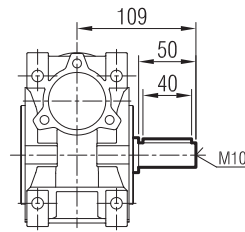
**SM / SP / S**



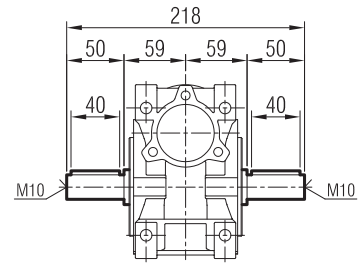
**- SR**



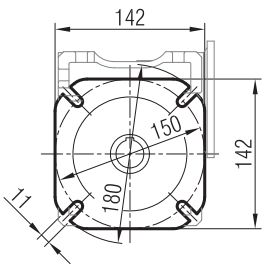
**- SL**



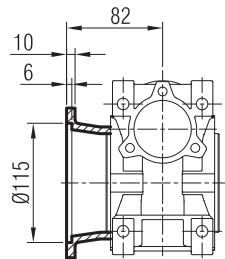
**- SD**



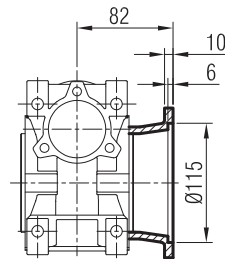
**SM / SP / S**



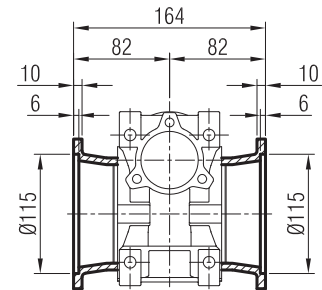
**- FR**



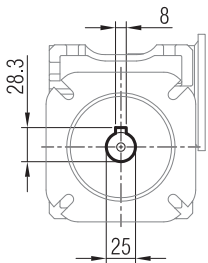
**- FL**



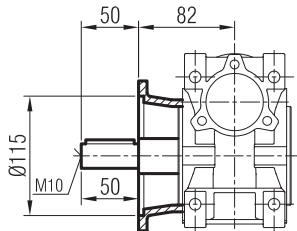
**- FD**



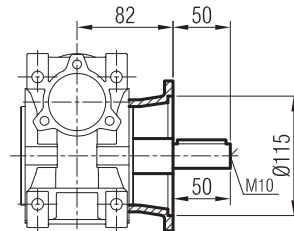
**SM / SP / S**



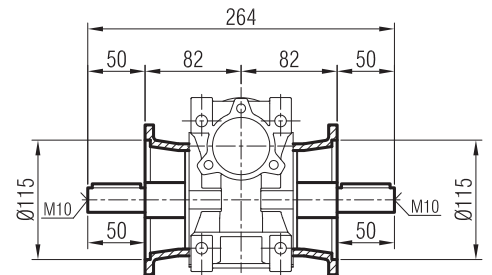
**- FR - SR**



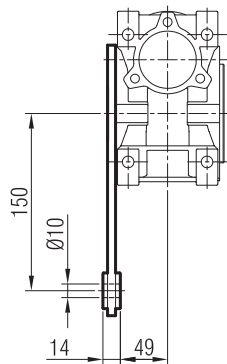
**- FL - SL**



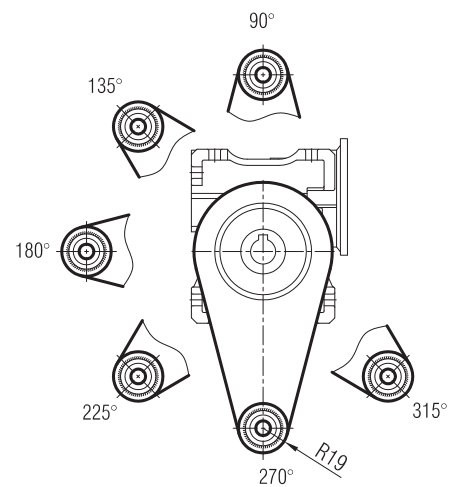
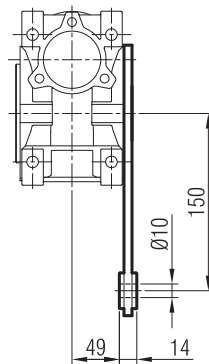
**- FD - SD**



**- TR**

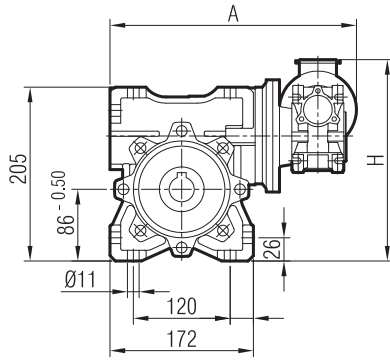


**- TL**

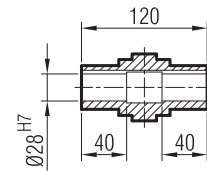
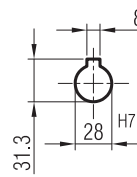
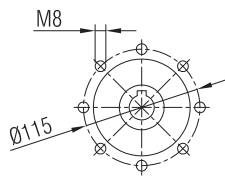
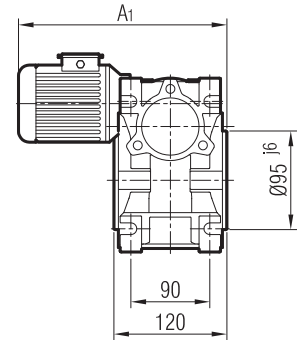




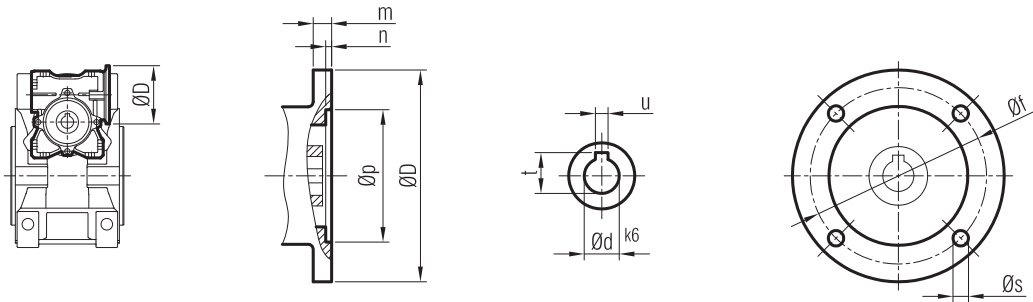
**SM 75 S 40**



	A	A <sub>1</sub>	H
63	312	385	300
71	320	426	312

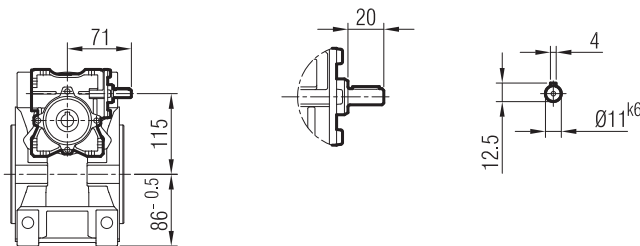


**SP 75 S 40**



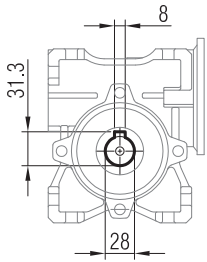
IEC B14	m	n	p	f	D	d	t	u	s
63	10	4.5	60	75	90	11	12.8	4	6
71	10	4.5	70	85	105	14	16.3	5	7

**S 75 S 40**

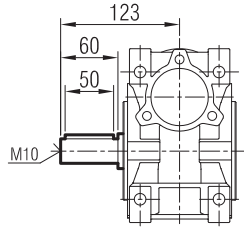




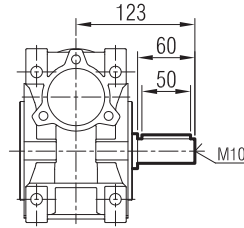
**SM / SP / S**



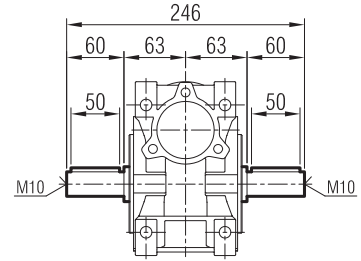
**- SR**



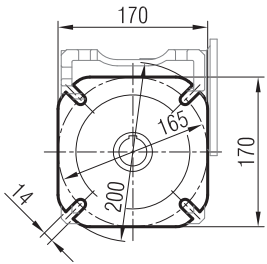
**- SL**



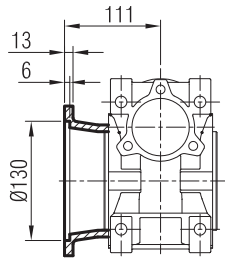
**- SD**



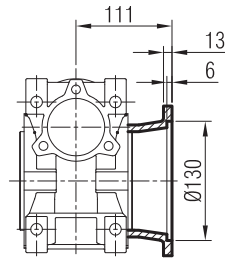
**SM / SP / S**



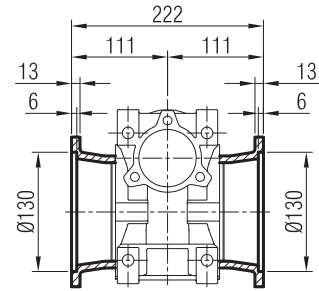
**- FR**



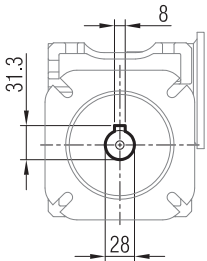
**- FL**



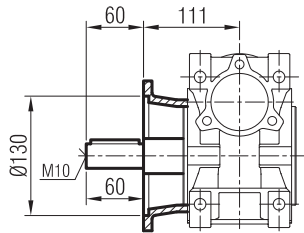
**- FD**



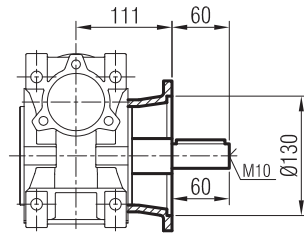
**SM / SP / S**



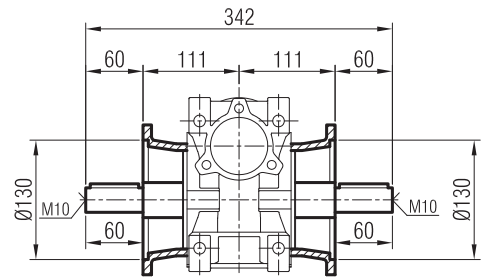
**- FR - SR**



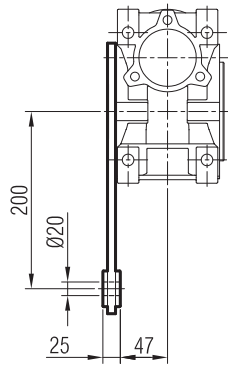
**- FL - SL**



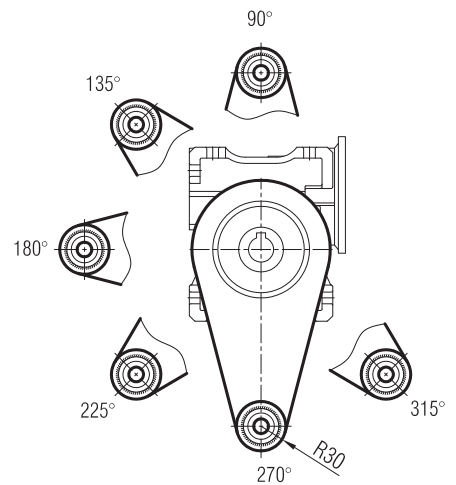
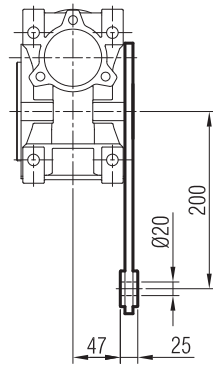
**- FD - SD**



**- TR**

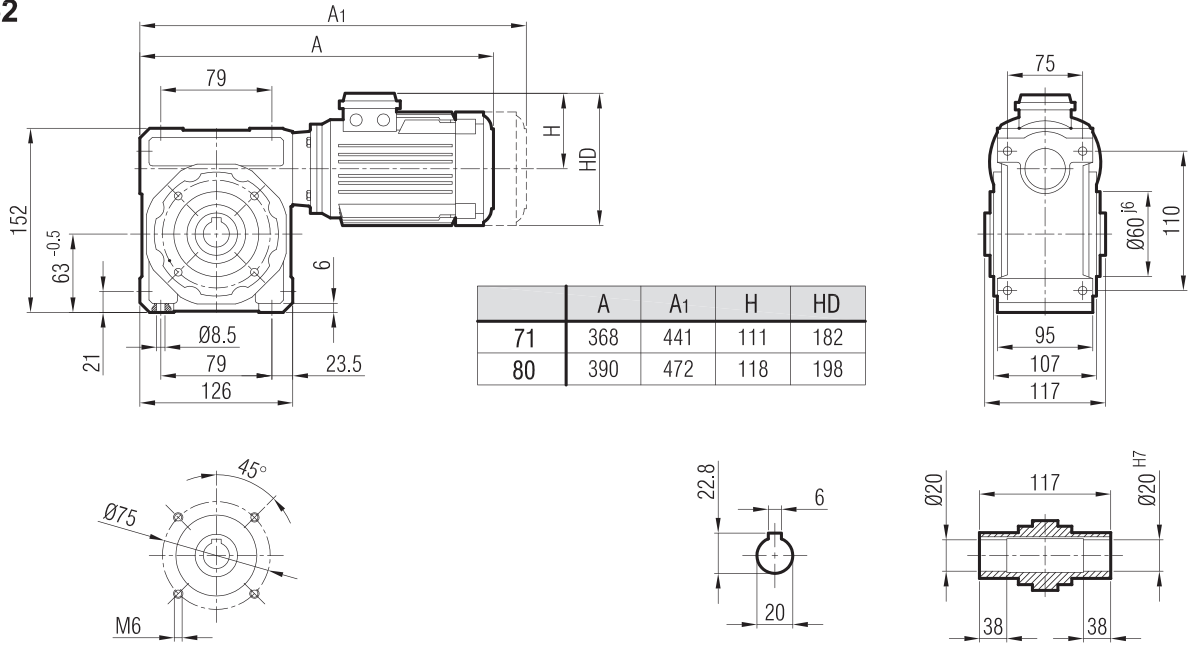


**- TL**

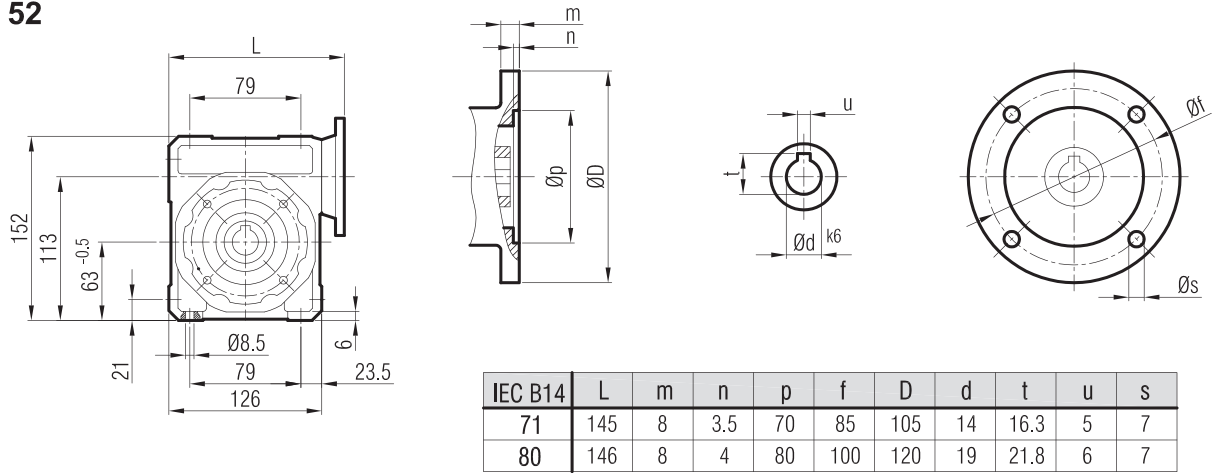




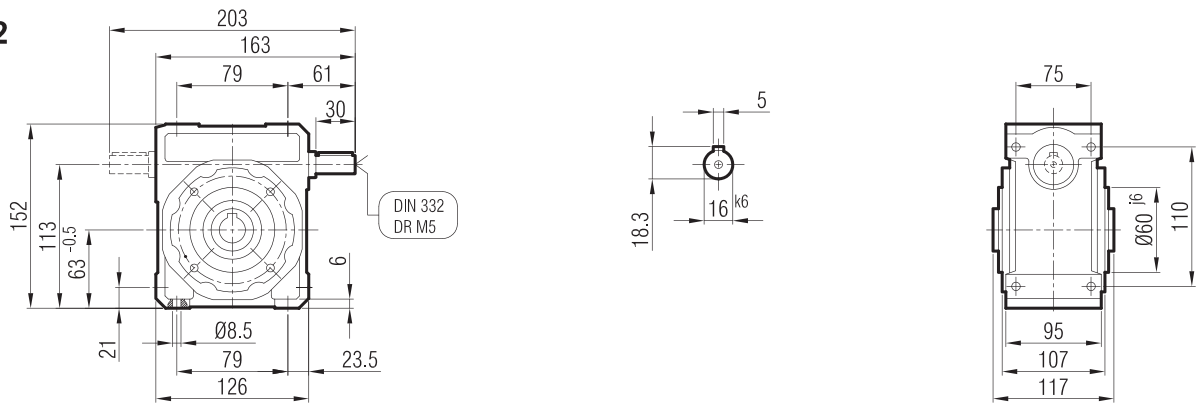
**İRSAM 52**



**İRSAP 52**



**İRSA 52**



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

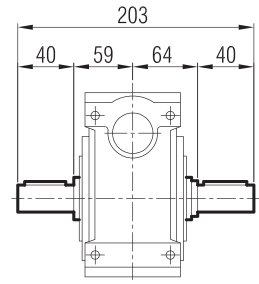
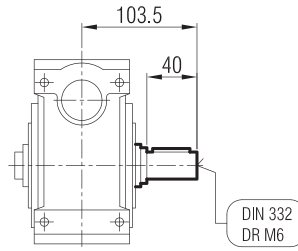
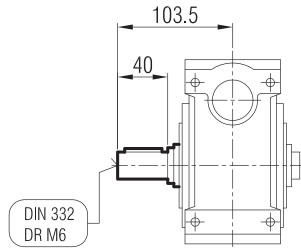
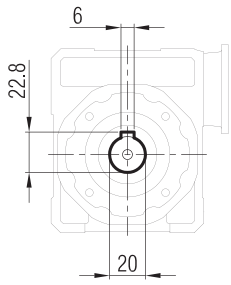


**İRSAM / İRSAP / İRSA**

**- SR**

**- SL**

**- SD**

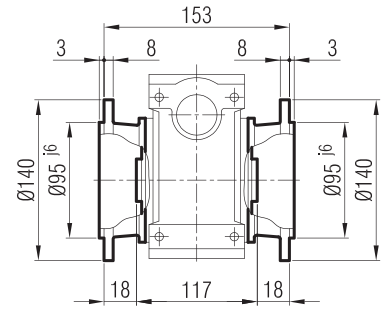
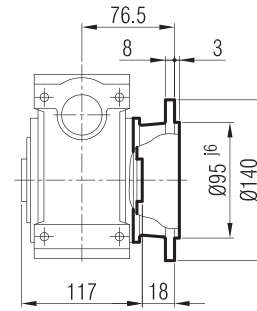
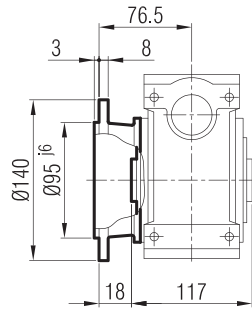
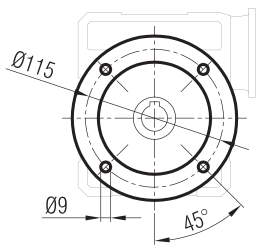


**İRSFM / İRSFP / İRSF**

**- FR**

**- FL**

**- FD**

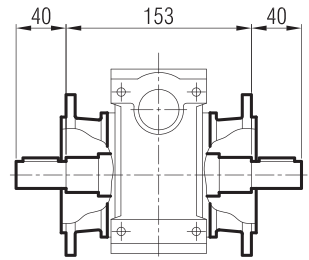
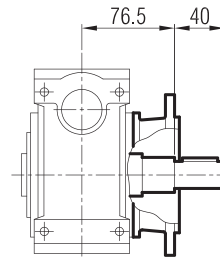
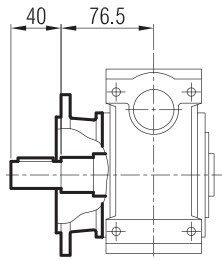
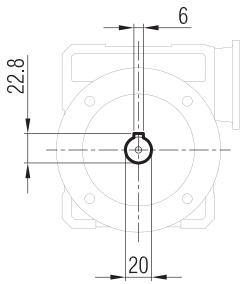


**İRSFM / İRSFP / İRSF**

**- FR - SR**

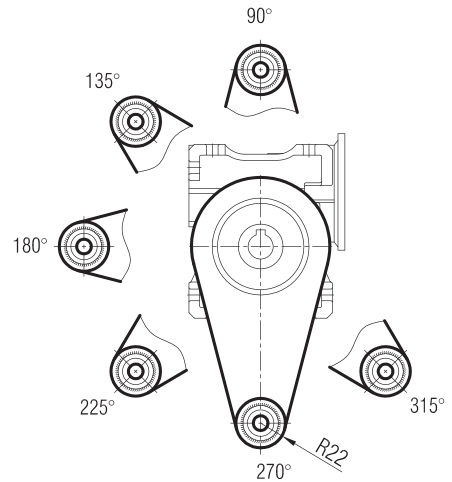
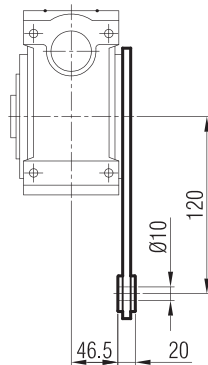
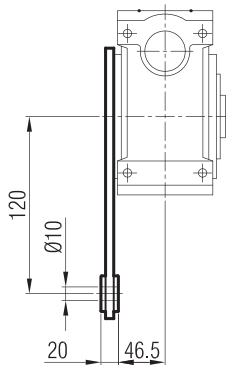
**- FL - SL**

**- FD - SD**



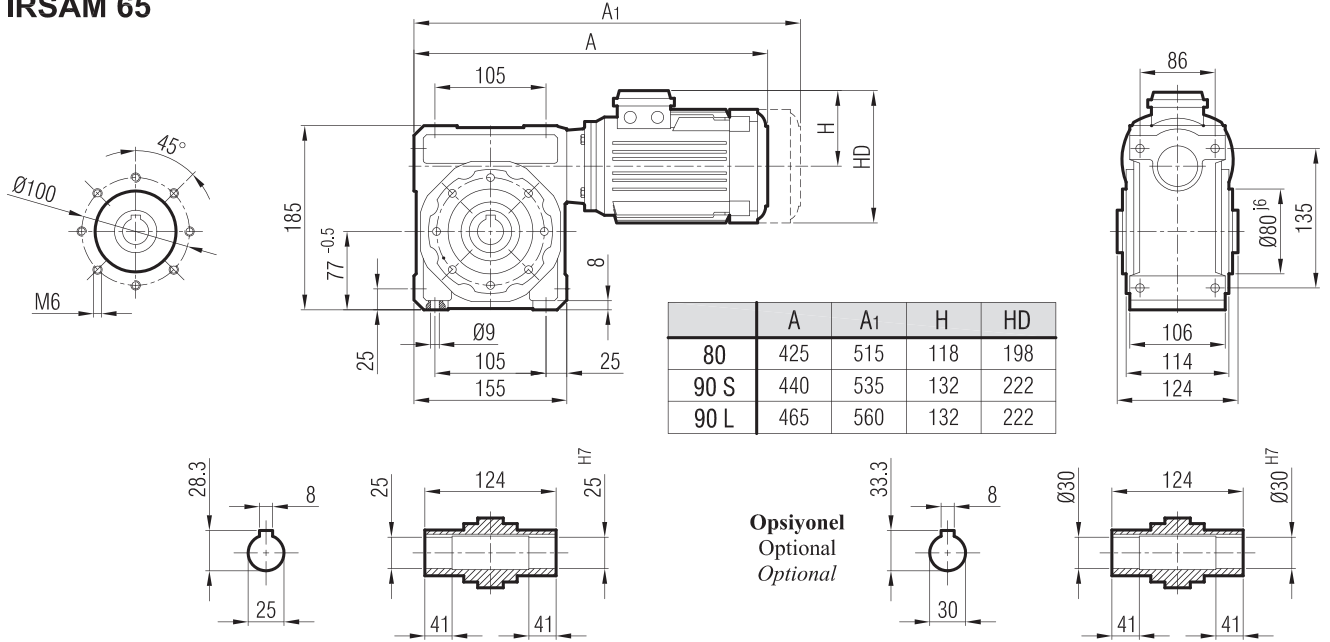
**- TR**

**- TL**

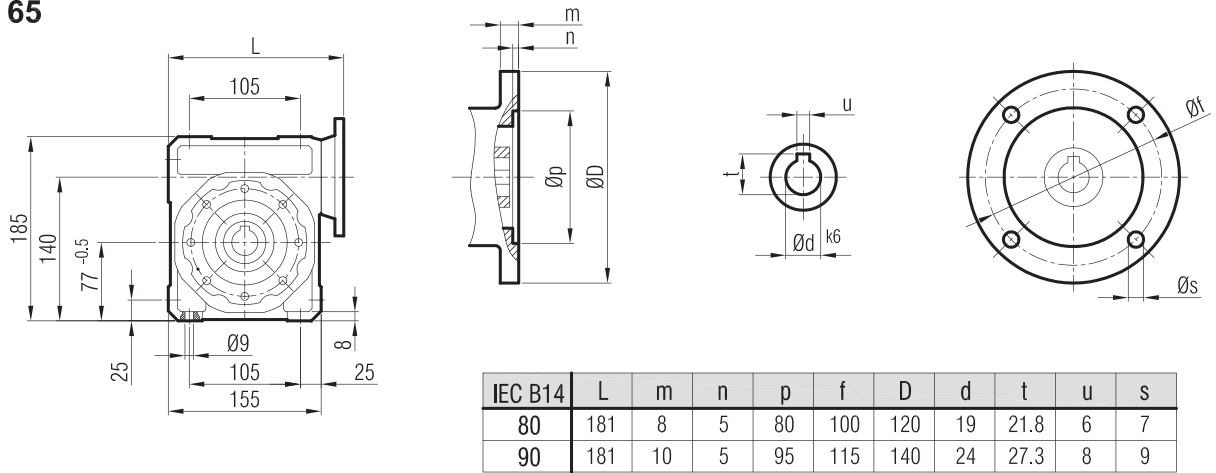




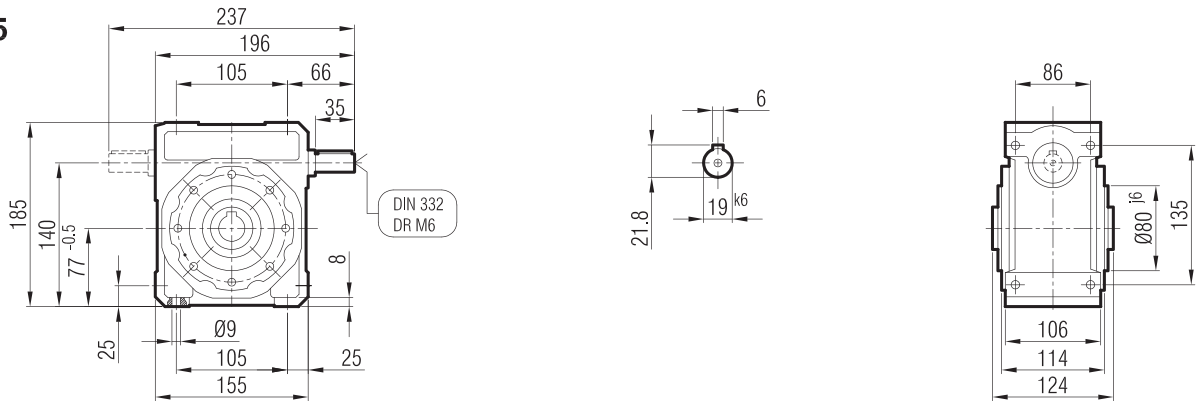
**İRSAM 65**



**İRSAP 65**



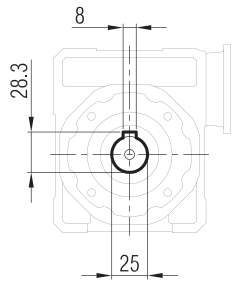
**İRSA 65**



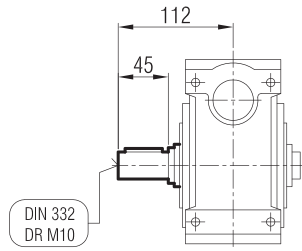
**"A1" Ölçüsü Frenli Motorlar içindir.**  
Dimension "A1" is for motors with brake.  
Le dimensions "A1" correspond aux moteurs équipés de freins.



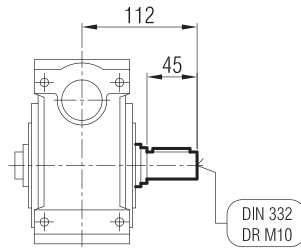
**İRSAM / İRSAP / İRSA**



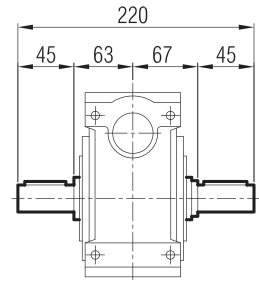
**- SR**



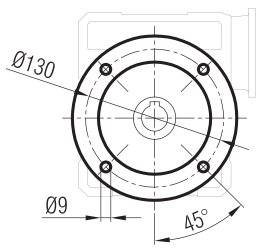
**- SL**



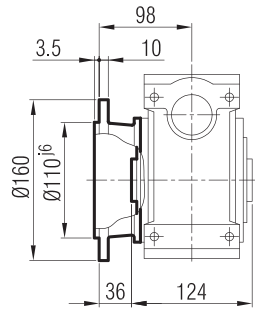
**- SD**



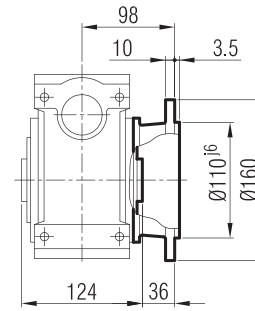
**İRSFM / İRSFP / İRSF**



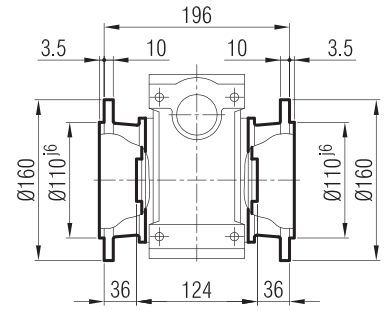
**- FR**



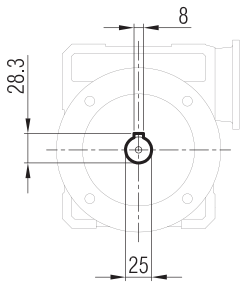
**- FL**



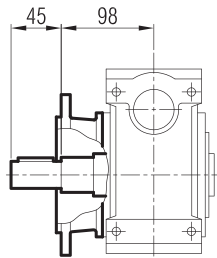
**- FD**



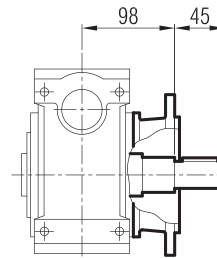
**İRSFM / İRSFP / İRSF**



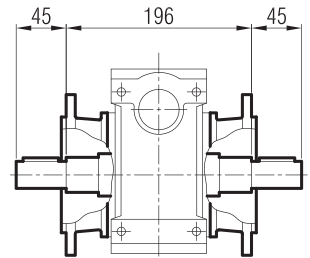
**- FR - SR**



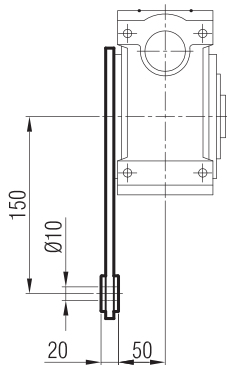
**- FL - SL**



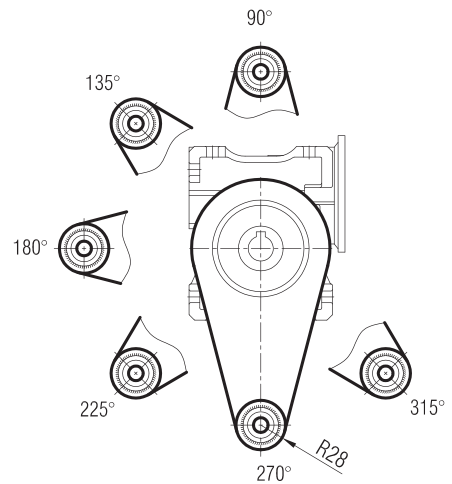
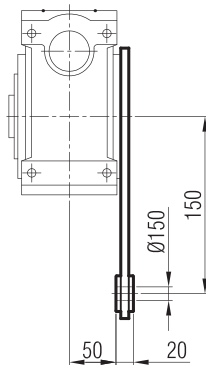
**- FD - SD**



**- TR**



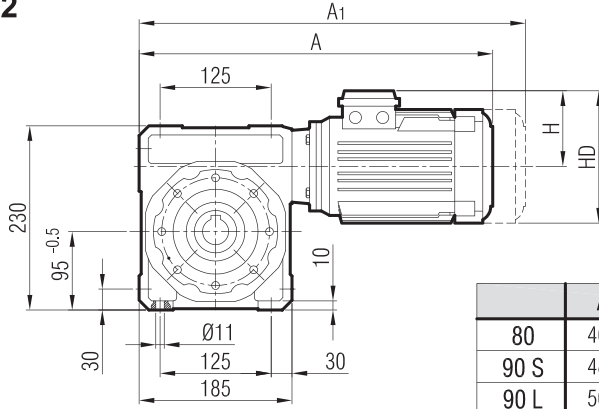
**- TL**



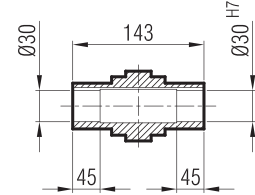
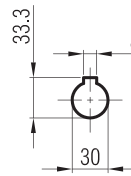
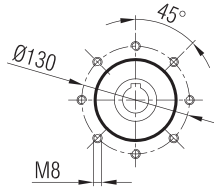
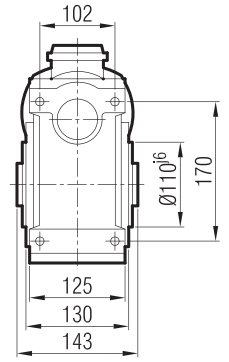




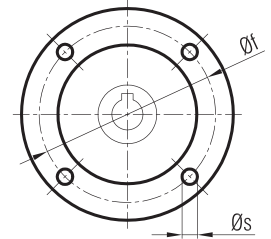
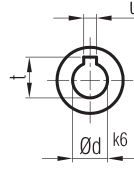
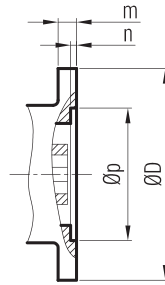
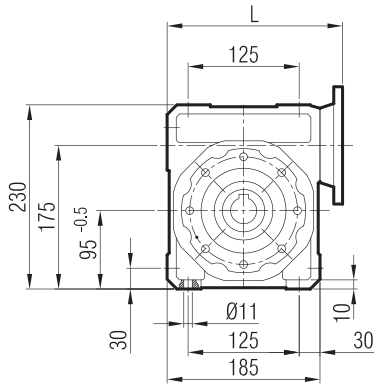
**İRSAM 82**



	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

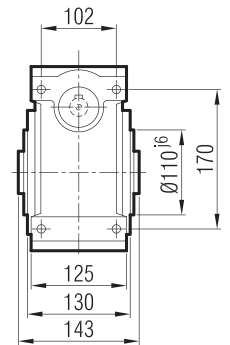
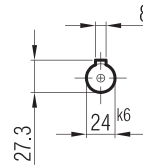
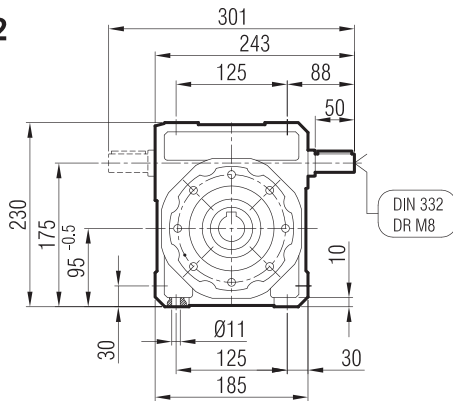


**İRSAP 82**



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

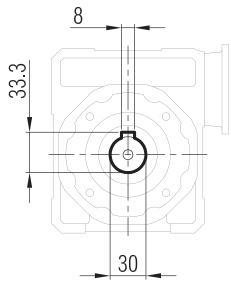
**İRSA 82**



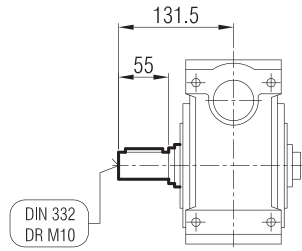
"A1" Ölçüsü Frenli Motorlar içindir.  
Dimension "A1" is for motors with brake.  
Le dimensions "A1" correspond aux moteurs équipés de freins.



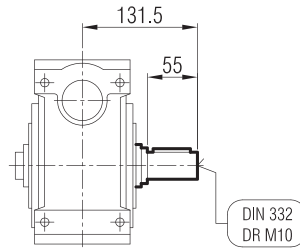
**İRSAM / İRSAP / İRSA**



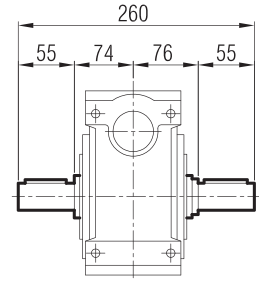
**- SR**



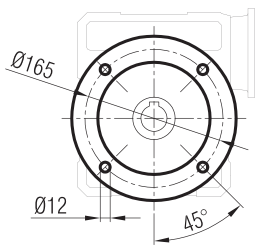
**- SL**



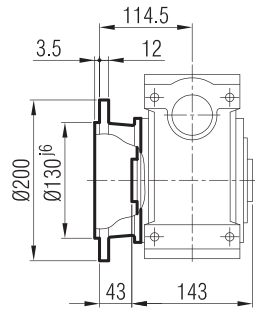
**- SD**



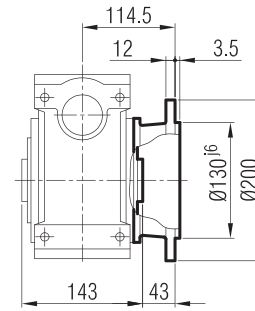
**İRSFM / İRSFP / İRSF**



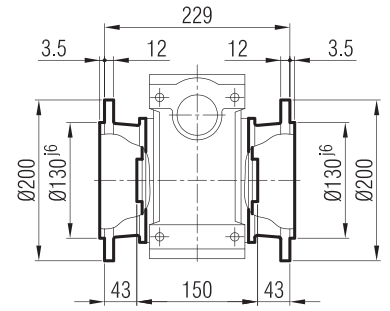
**- FR**



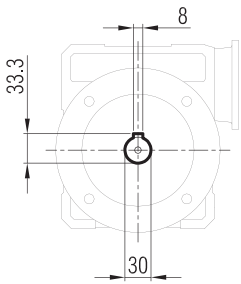
**- FL**



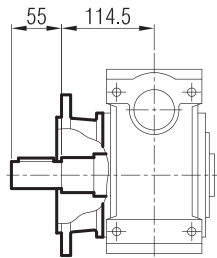
**- FD**



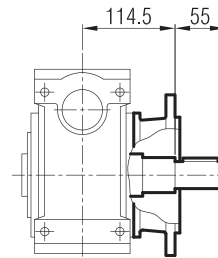
**İRSFM / İRSFP / İRSF**



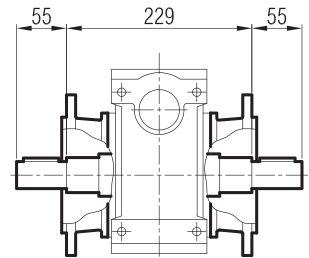
**- FR - SR**



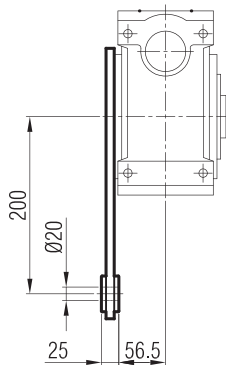
**- FL - SL**



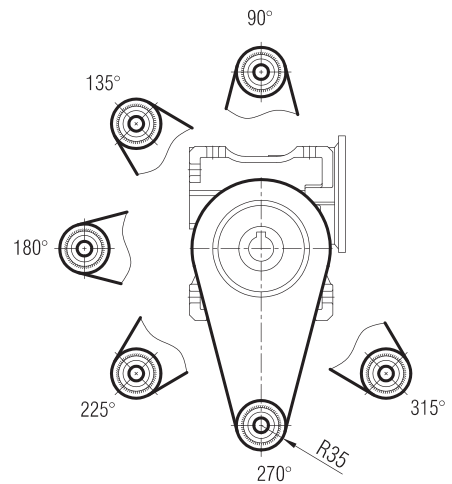
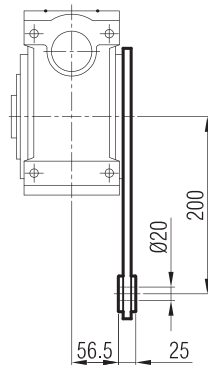
**- FD - SD**



**- TR**

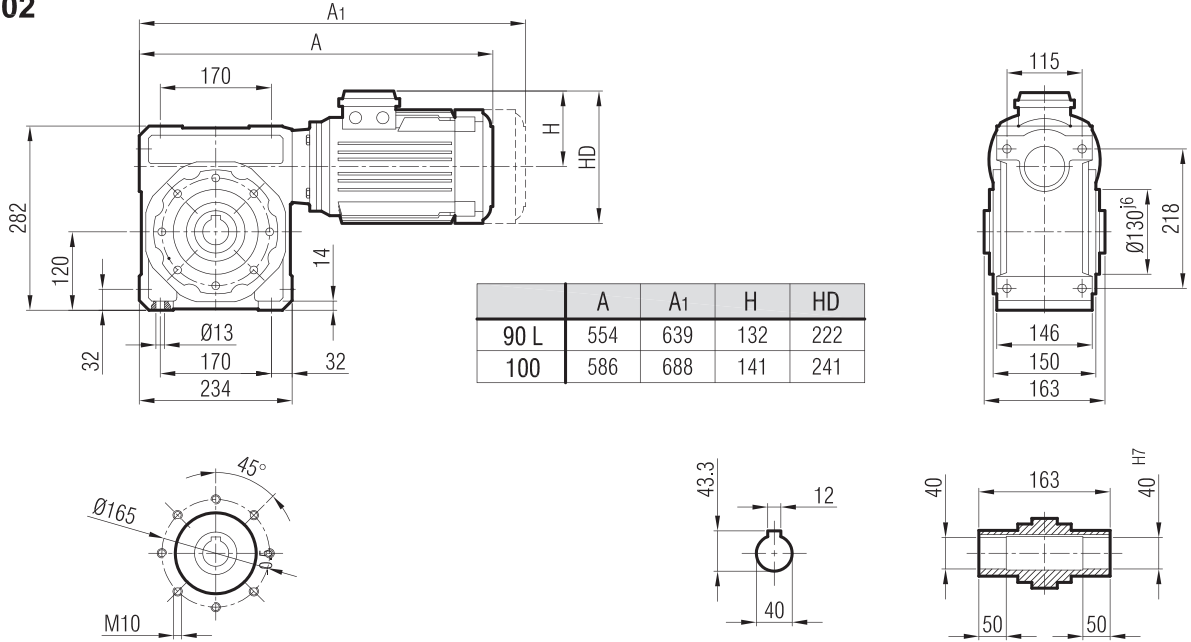


**- TL**

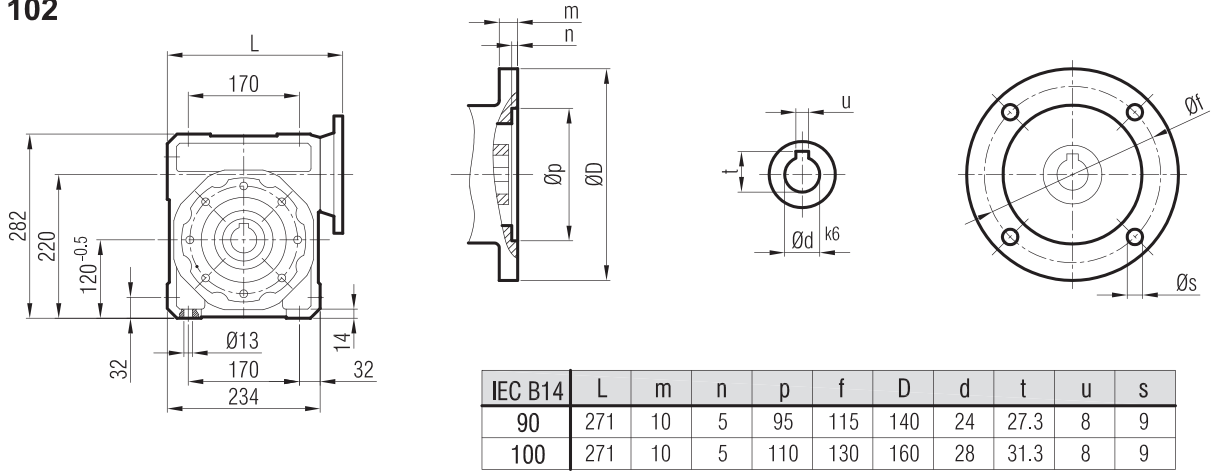




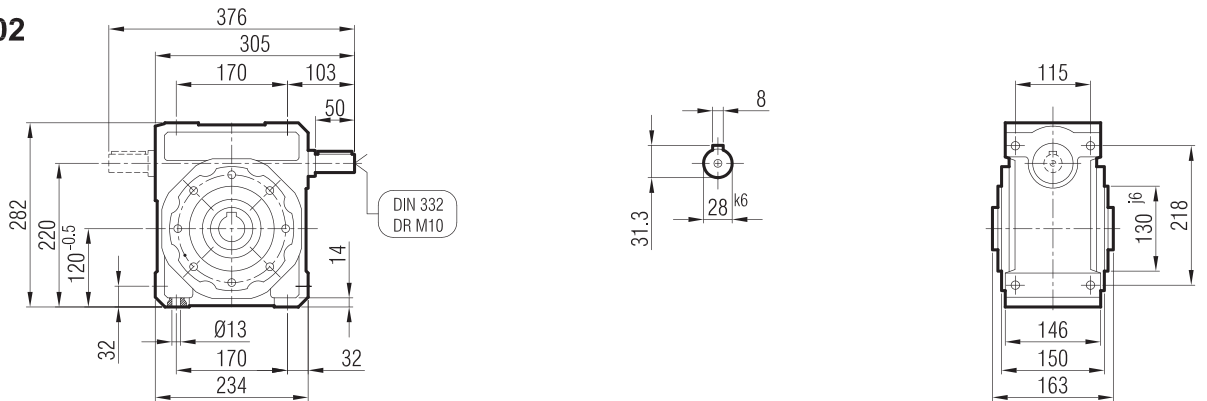
**İRSAM 102**



**İRSAP 102**



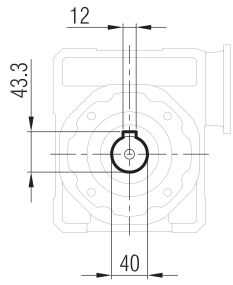
**İRSA 102**



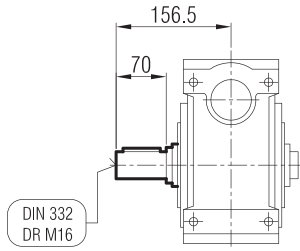
**"A1" Ölçüsü Frenli Motorlar içindir.**  
Dimension "A1" is for motors with brake.  
Le dimensions "A1" correspond aux moteurs équipés de freins.



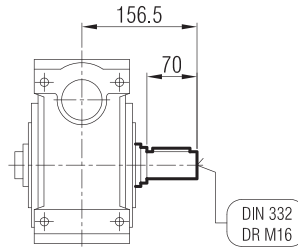
**IRSAM / IRSAP / IRSA**



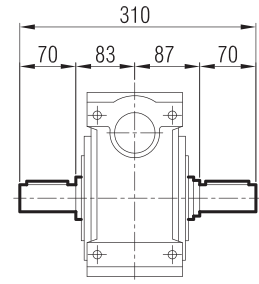
**- SR**



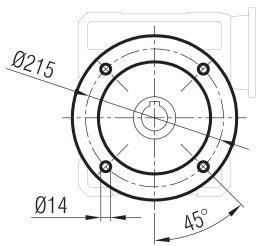
**- SL**



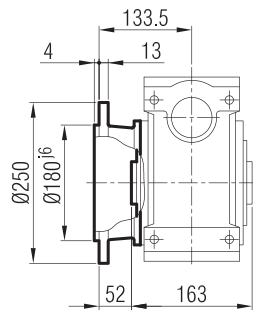
**- SD**



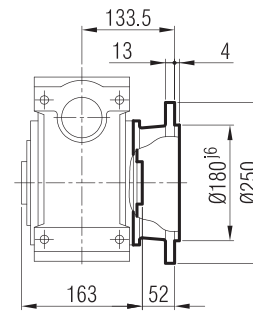
**IRSFM / IRSFP / IRSF**



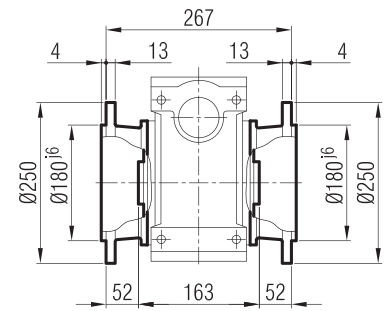
**- FR**



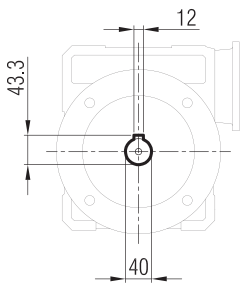
**- FL**



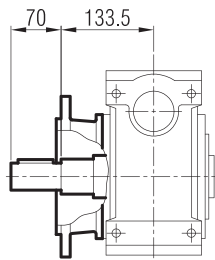
**- FD**



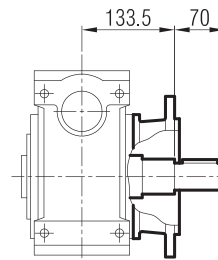
**IRSFM / IRSFP / IRSF**



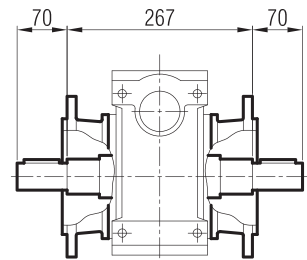
**- FR - SR**



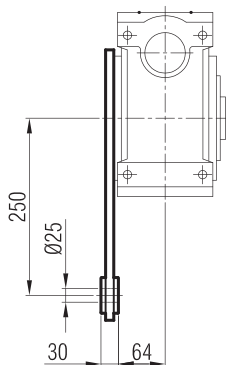
**- FL - SL**



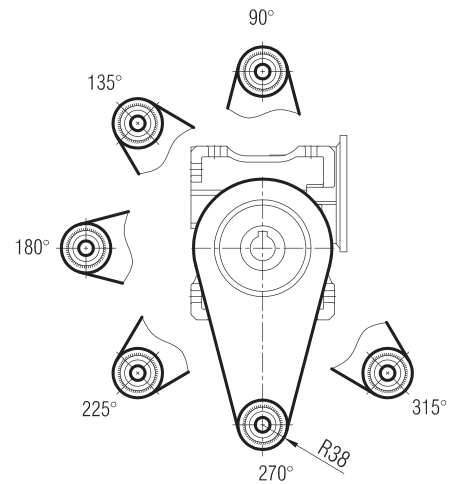
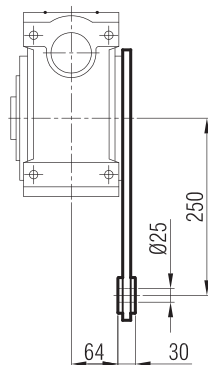
**- FD - SD**



**- TR**

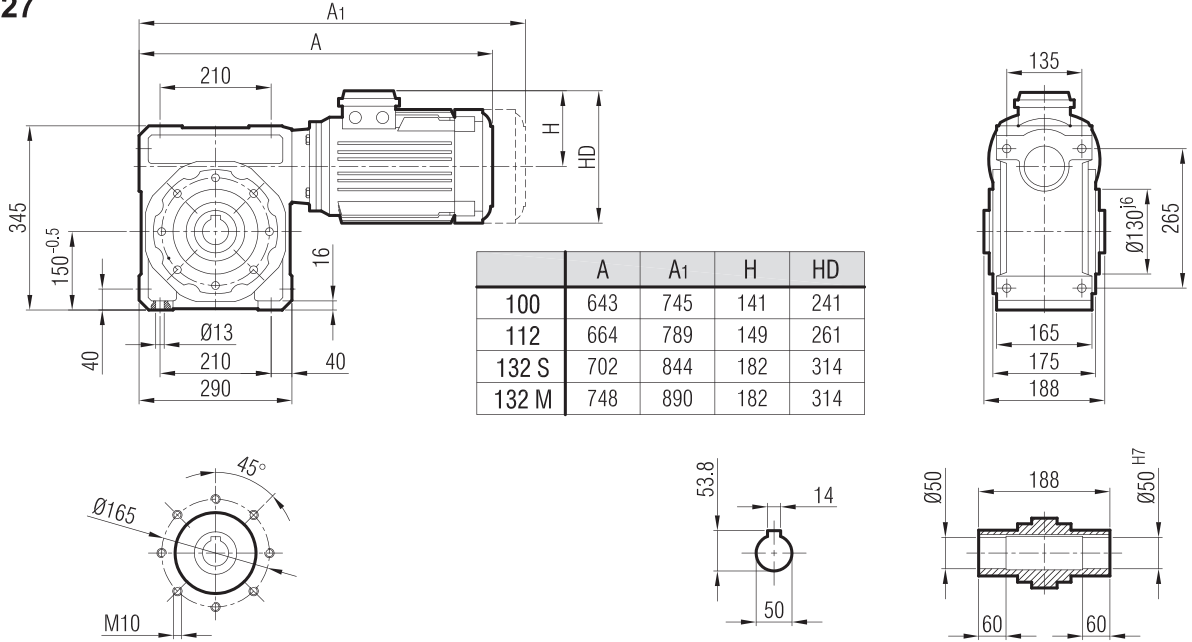


**- TL**

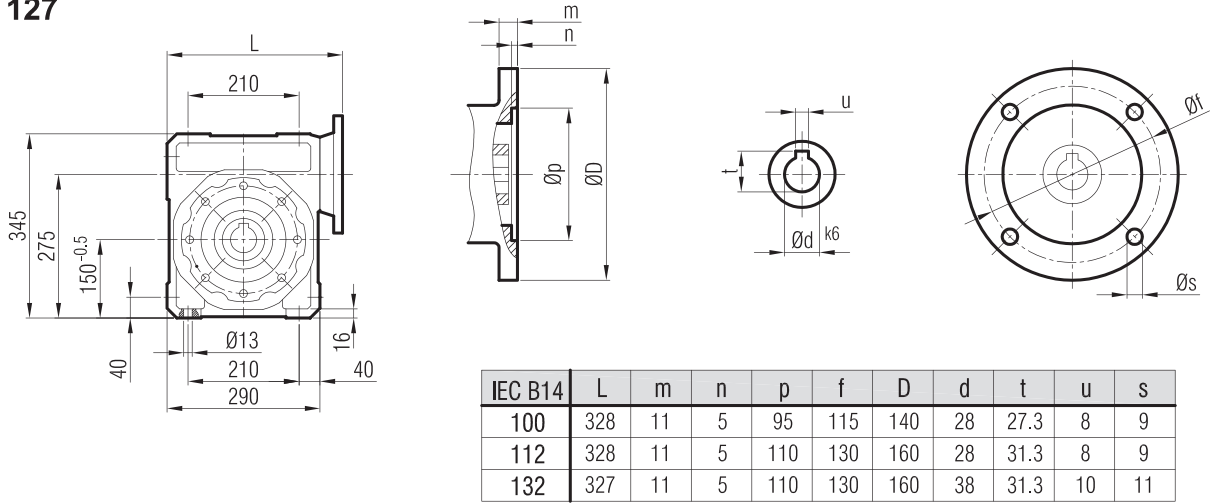




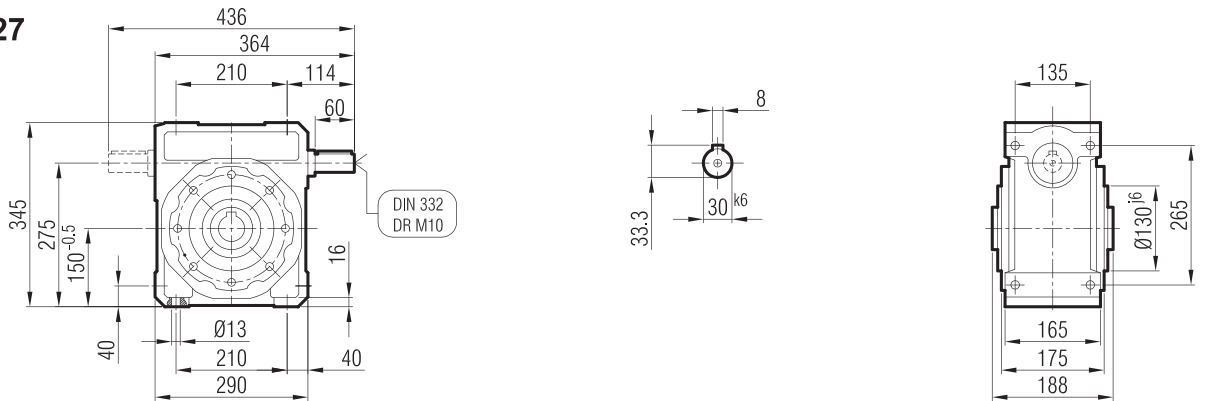
**İRSAM 127**



**İRSAP 127**



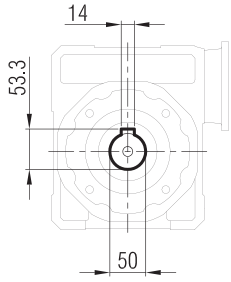
**İRSA 127**



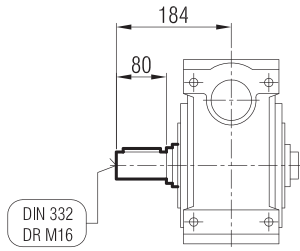
"A<sub>1</sub>" Ölçüsü Frenli Motorlar içindir.  
Dimension "A<sub>1</sub>" is for motors with brake.  
Le dimensions "A<sub>1</sub>" correspond aux moteurs équipés de freins.



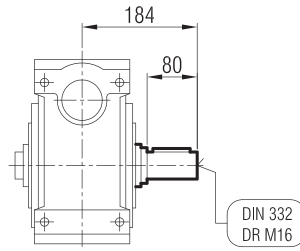
**İRSAM / İRSAP / İRSA**



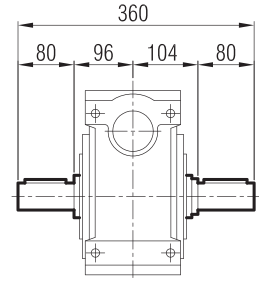
**- SR**



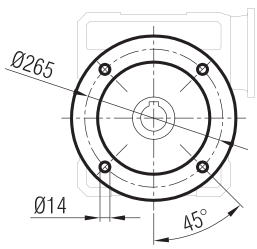
**- SL**



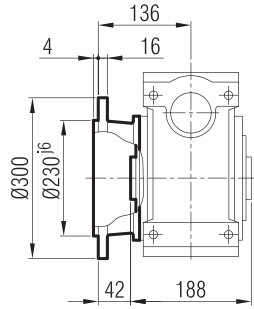
**- SD**



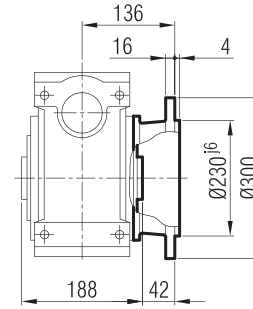
**İRSFM / İRSFP / İRSF**



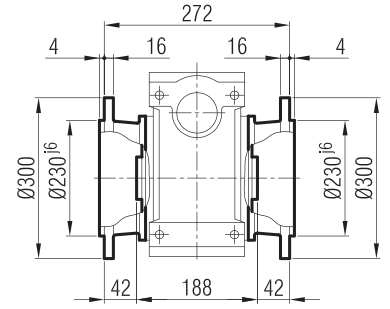
**- FR**



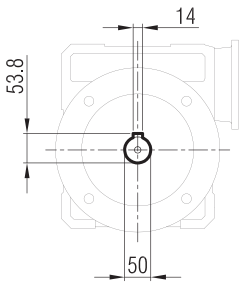
**- FL**



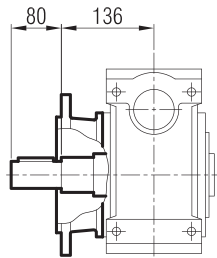
**- FD**



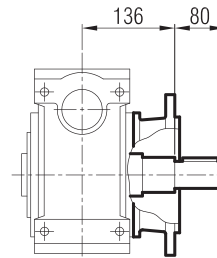
**İRSFM / İRSFP / İRSF**



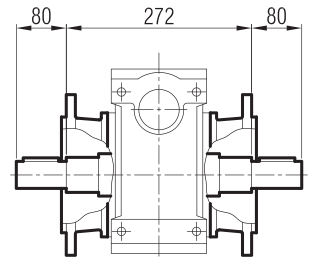
**- FR - SR**



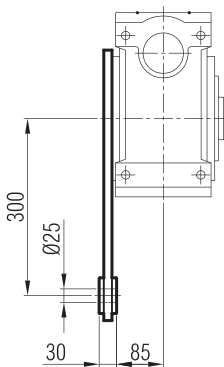
**- FL - SL**



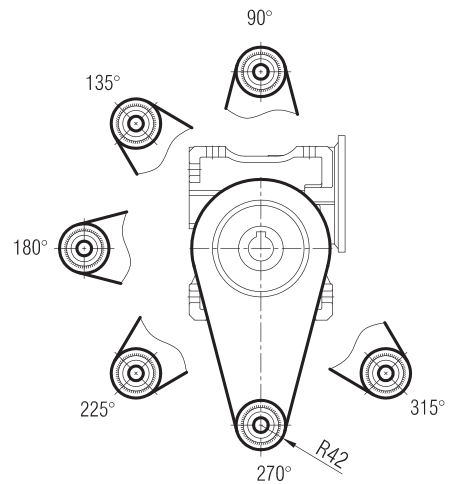
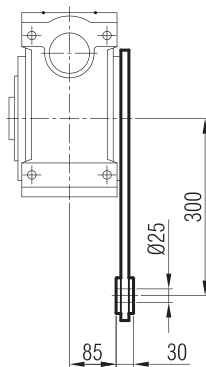
**- FD - SD**



**- TR**

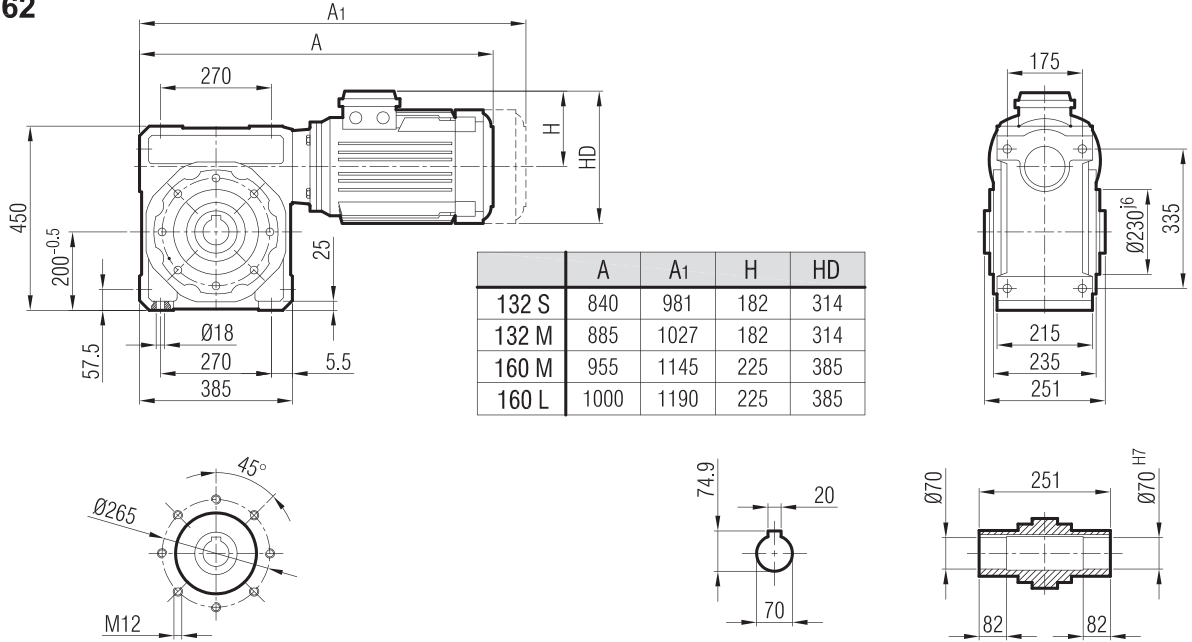


**- TL**

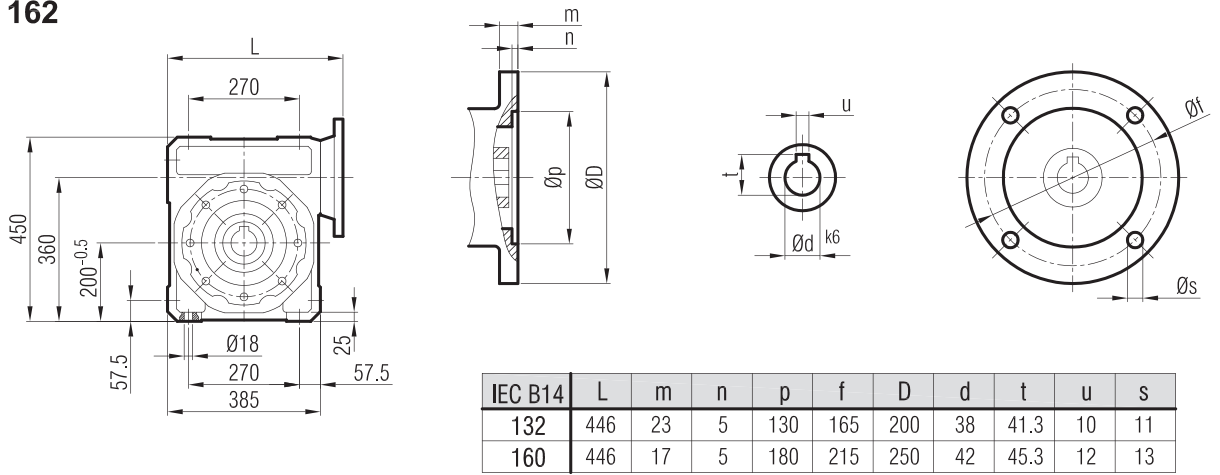




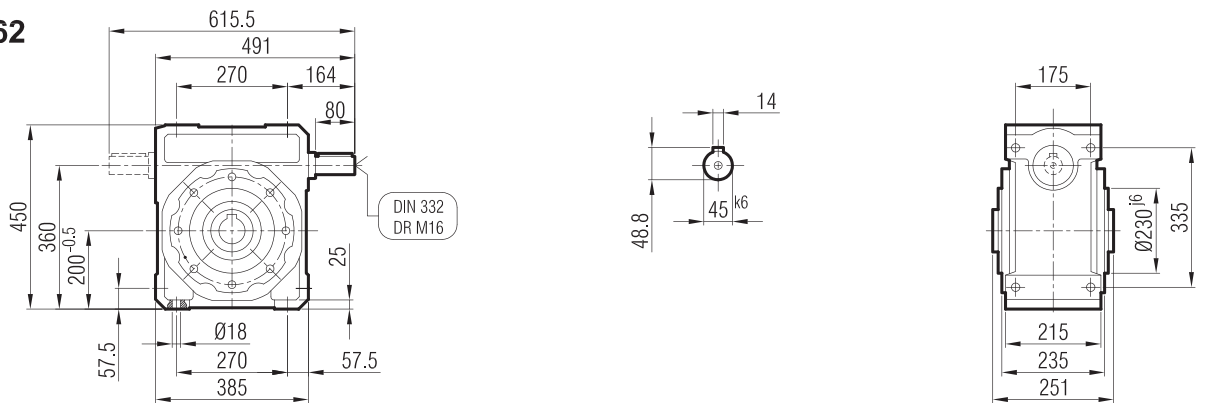
**İRSAM 162**



**İRSAP 162**



**İRSA 162**



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

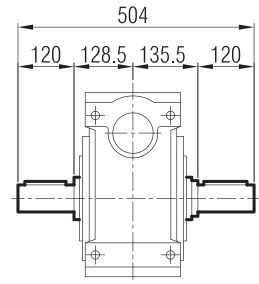
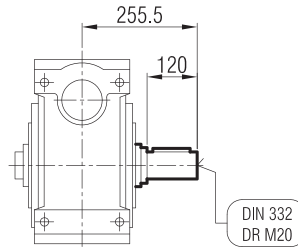
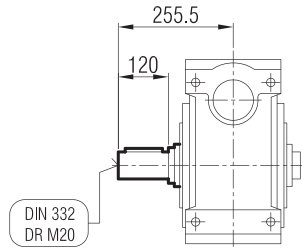
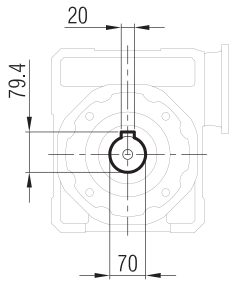


**IRSAM / IRSAP / IRSA**

**- SR**

**- SL**

**- SD**

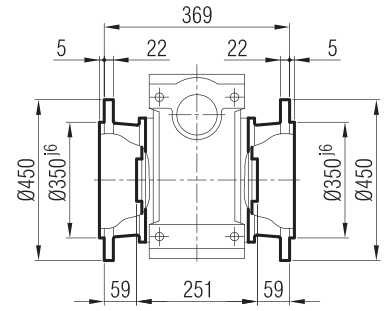
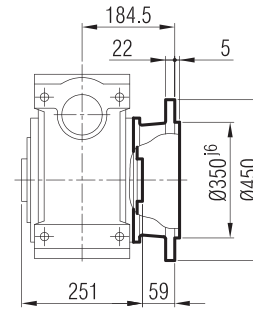
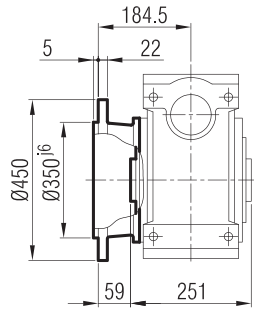
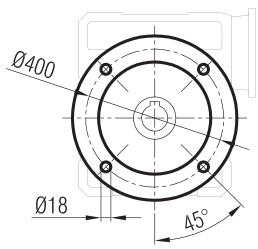


**IRSFM / IRSFP / IRSF**

**- FR**

**- FL**

**- FD**

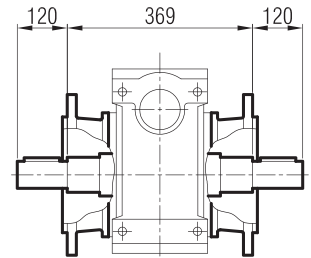
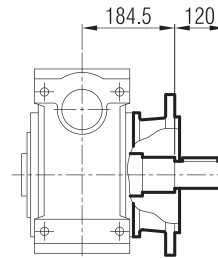
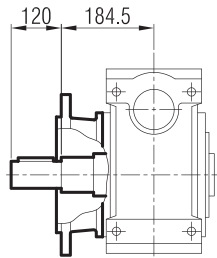
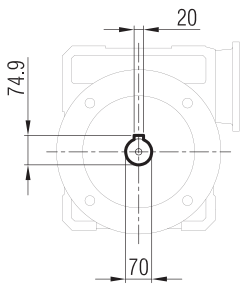


**IRSFM / IRSFP / IRSF**

**- FR - SR**

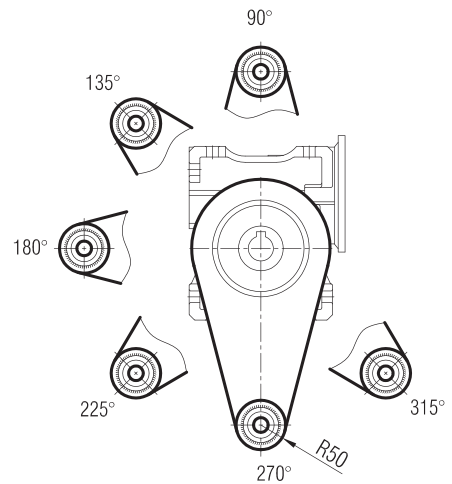
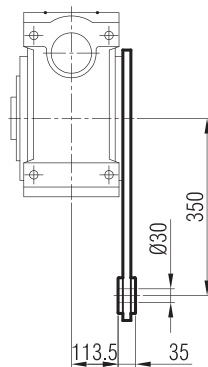
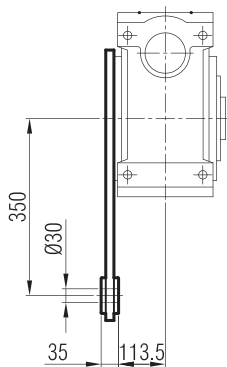
**- FL - SL**

**- FD - SD**



**- TR**

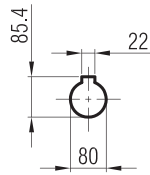
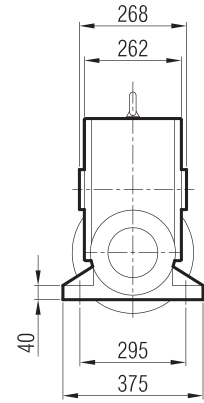
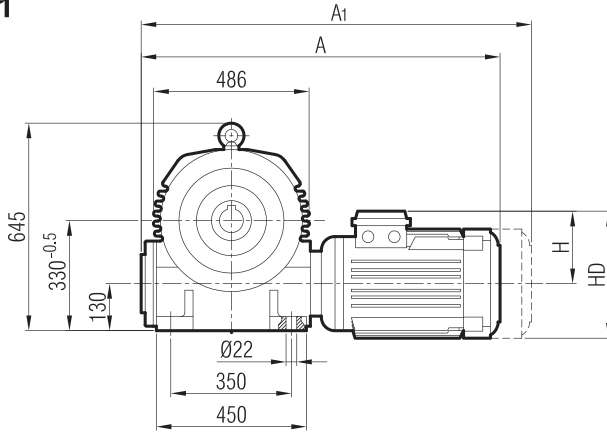
**- TL**



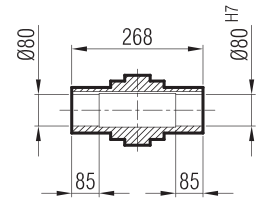




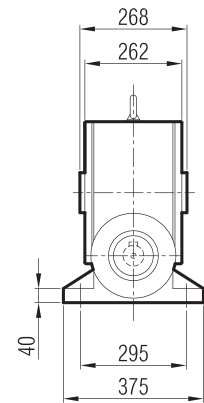
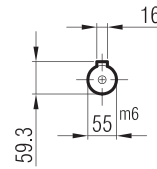
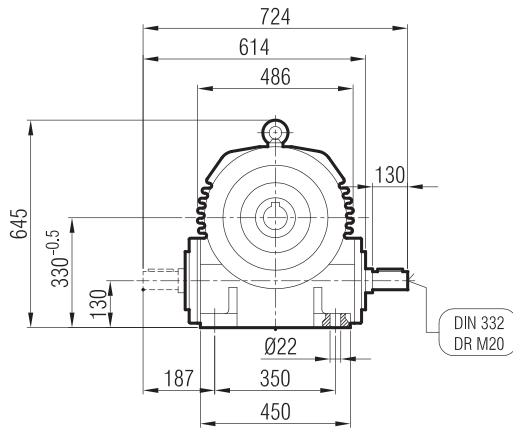
**İRSAM 201**



	A	A <sub>1</sub>	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



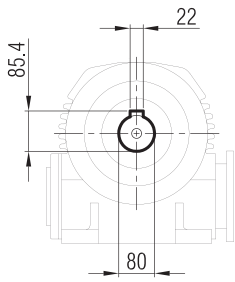
**İRSA 201**



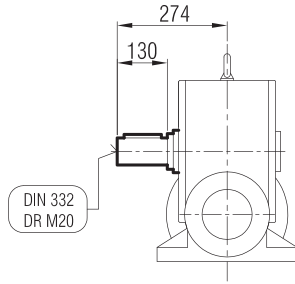
**"A<sub>1</sub>" Ölçüsü Frenli Motorlar İçindir.**  
Dimension "A<sub>1</sub>" is for motors with brake.  
Le dimensions "A<sub>1</sub>" correspond aux moteurs équipés de freins.



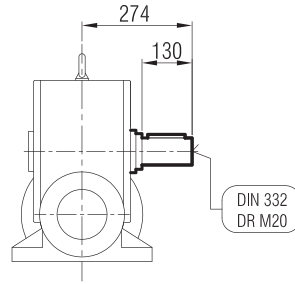
**IRSAM / IRSA**



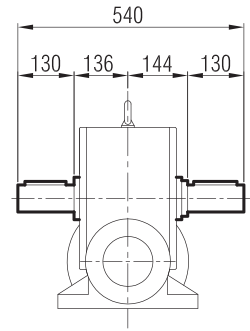
**- SR**



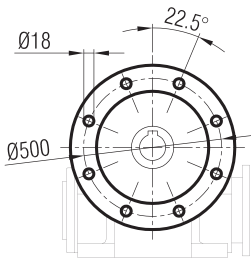
**- SL**



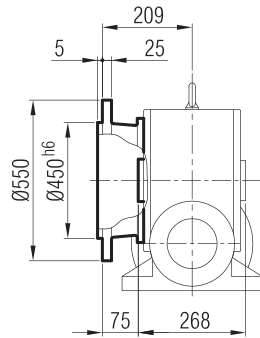
**- SD**



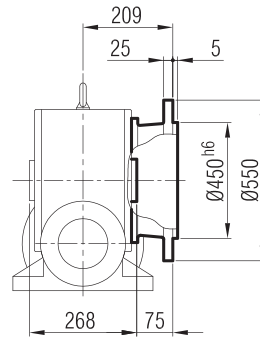
**İRSFM / İRSF**



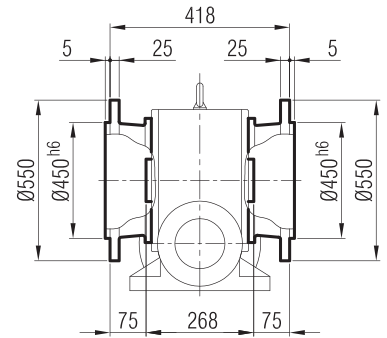
**- FR**



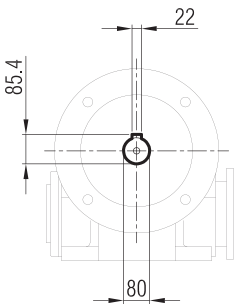
**- FL**



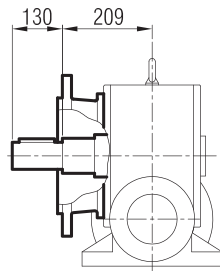
**- FD**



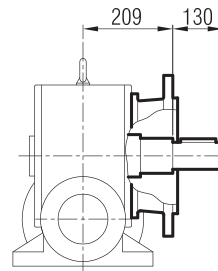
**İRSFM / İRSF**



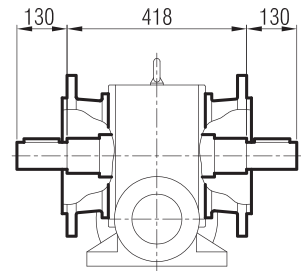
**- FR - SR**



**- FL - SL**

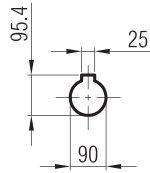
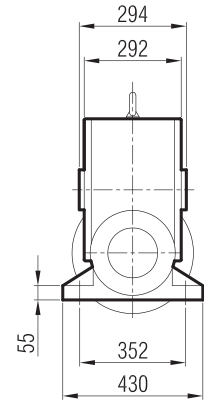
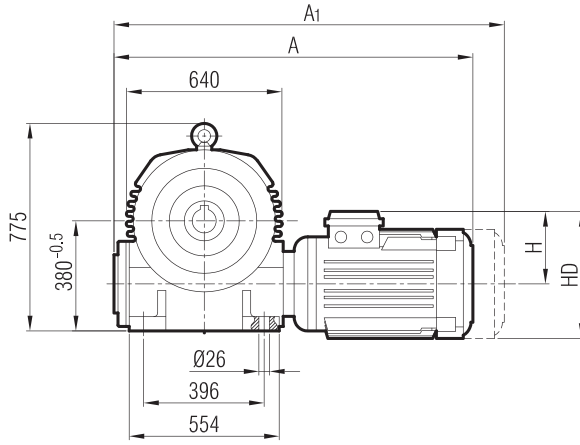


**- FD - SD**

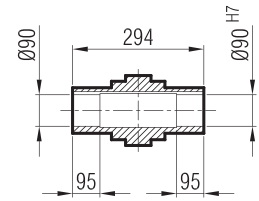




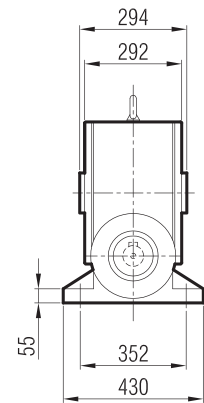
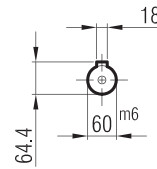
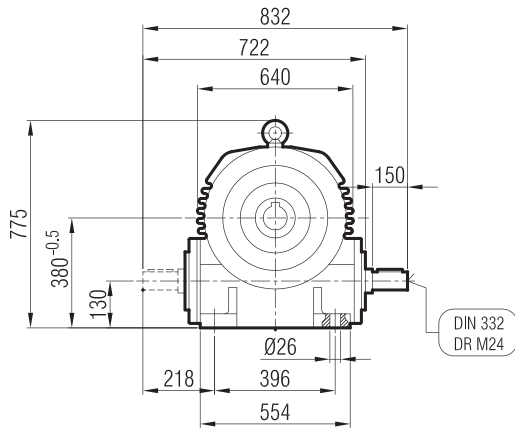
**İRSAM 250**



	A	A <sub>1</sub>	H	HD
160 L	1150	1340	225	385
180 M	1161	1356	248	428
180 L	1199	1394	248	428



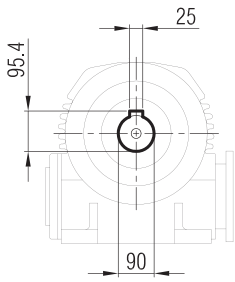
**İRSA 250**



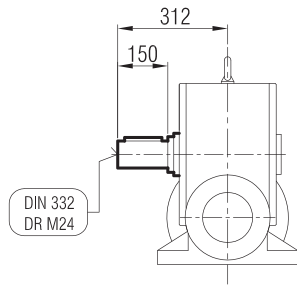
**"A<sub>1</sub>" Ölçüsü Frenli Motorlar İçindir.**  
Dimension "A<sub>1</sub>" is for motors with brake.  
Le dimensions "A<sub>1</sub>" correspond aux moteurs équipés de freins.



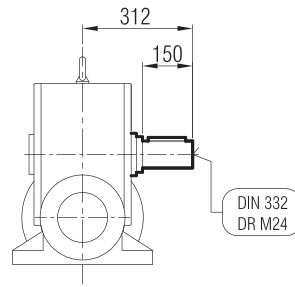
**İRSAM / İRSA**



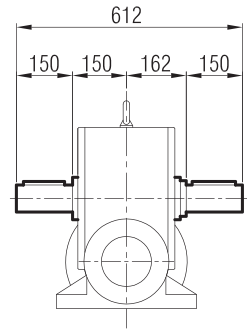
**- SR**



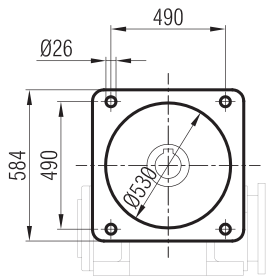
**- SL**



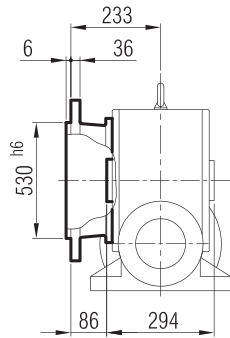
**- SD**



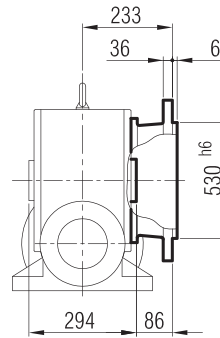
**İRSFM / İRSF**



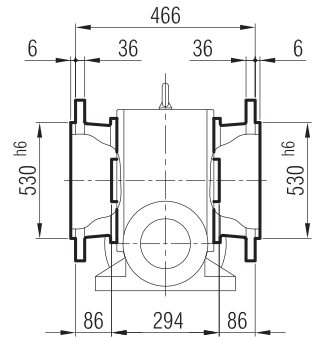
**- FR**



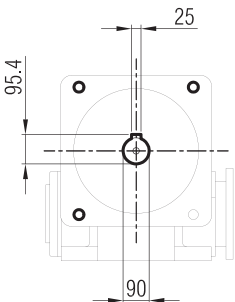
**- FL**



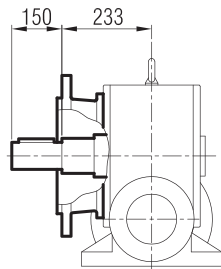
**- FD**



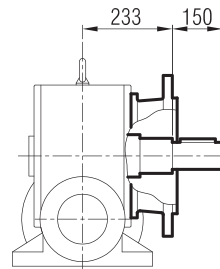
**İRSFM / İRSF**



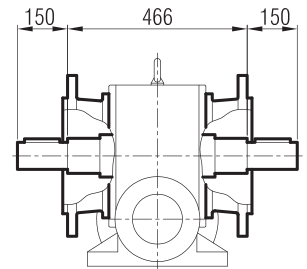
**- FR - SR**



**- FL - SL**

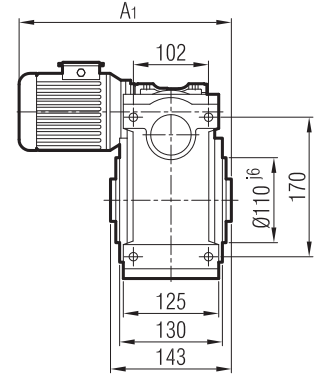
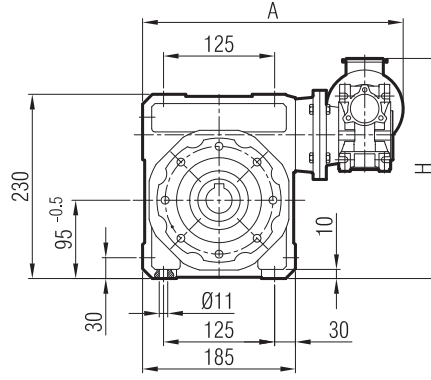
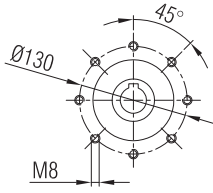


**- FD - SD**

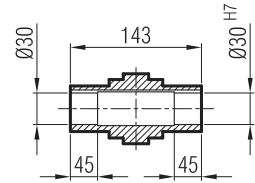
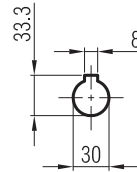




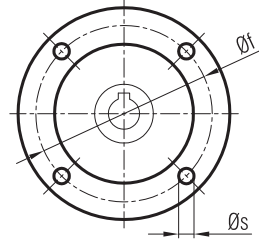
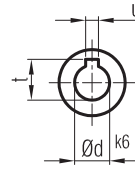
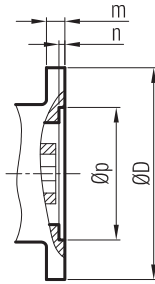
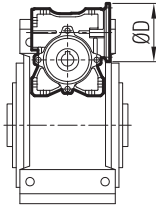
**İRSAM 82 S 40**



	A	A1	H
63	423	339	377
71	440	365	397

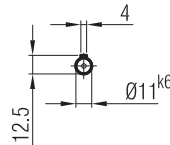
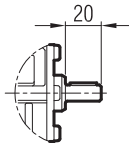
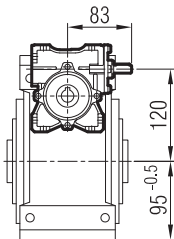


**İRSAP 82 S 40**



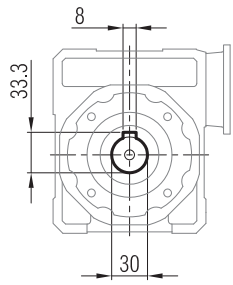
IEC B14	m	n	p	f	D	d	t	u	s
63	10	4.5	60	75	90	11	12.8	4	6
71	10	4.5	70	85	105	14	16.3	5	7

**İRSA 82 S 40**

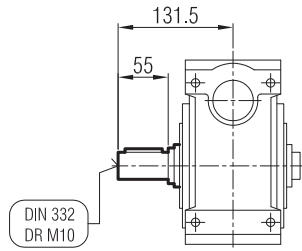




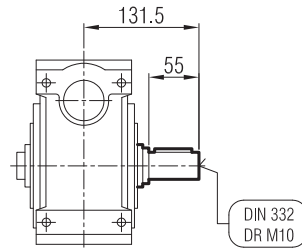
**İRSAM / İRSAP / İRSA**



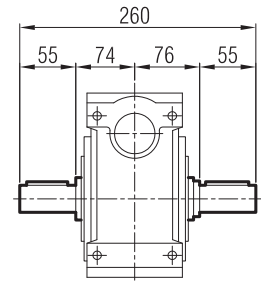
**- SR**



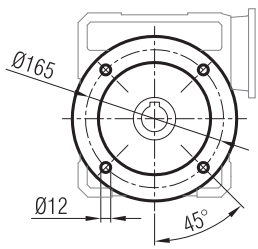
**- SL**



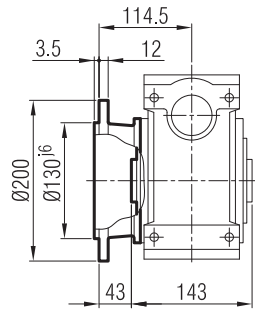
**- SD**



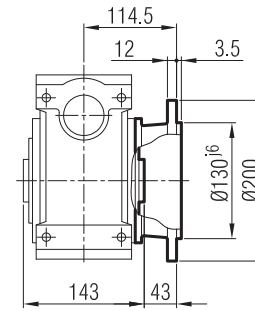
**İRSFM / İRSFP / İRSF**



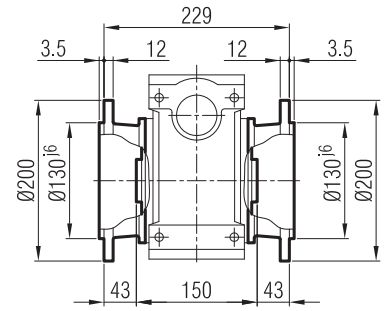
**- FR**



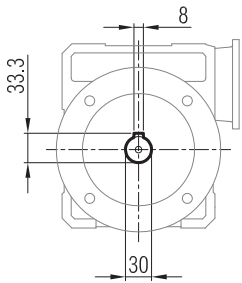
**- FL**



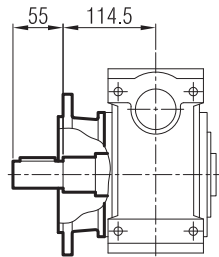
**- FD**



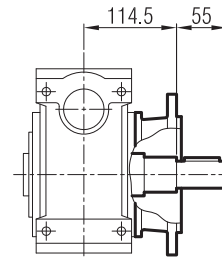
**İRSFM / İRSFP / İRSF**



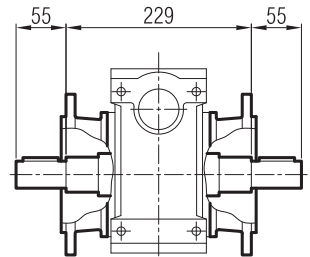
**- FR - SR**



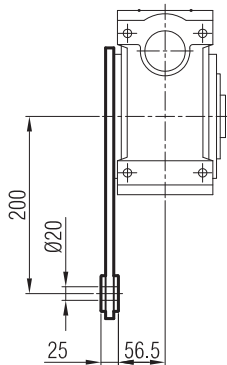
**- FL - SL**



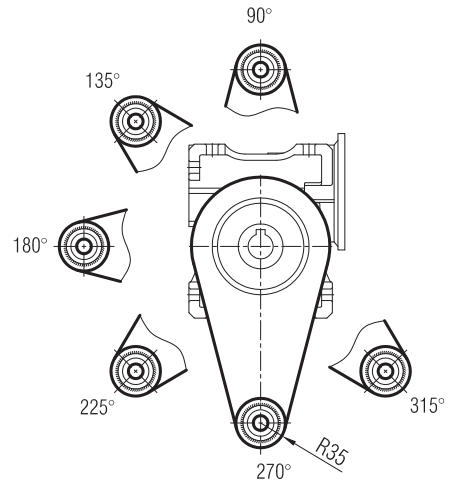
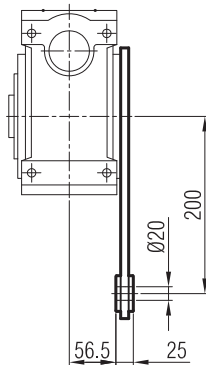
**- FD - SD**



**- TR**

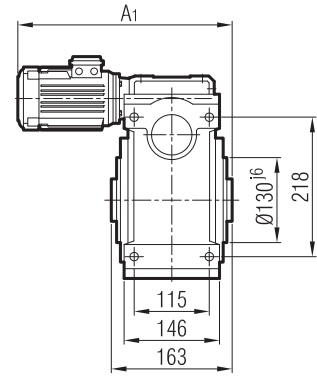
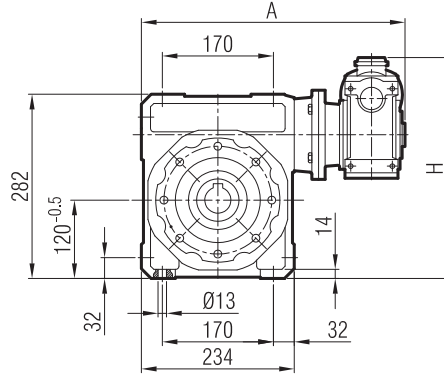
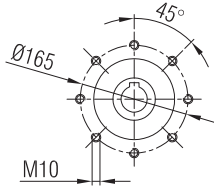


**- TL**

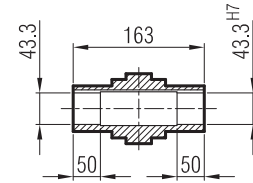
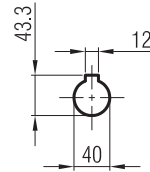




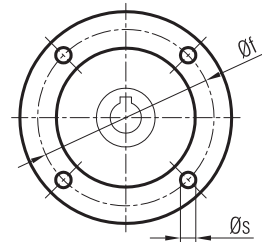
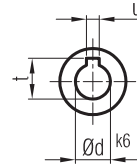
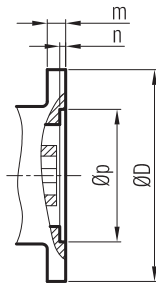
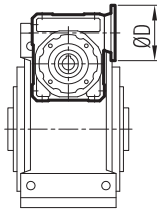
**İRSAM 102 İRS 52**



	A	A <sub>1</sub>	H
71	406	387	336
80	406	409	343

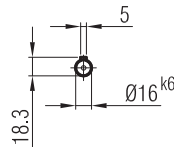
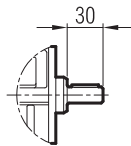
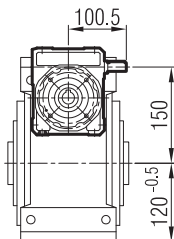


**İRSAP 102 İRS 52**



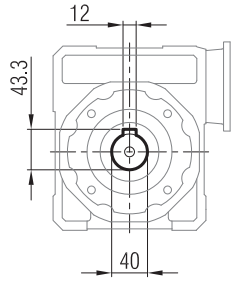
IEC B14	m	n	p	f	D	d	t	u	s
71	8	3.5	70	85	105	14	16.3	5	7
80	8	4	80	100	120	19	21.8	6	7

**İRSA 102 İRS 52**

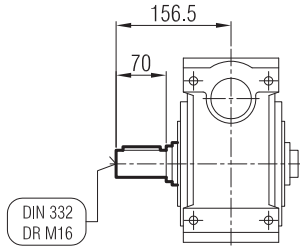




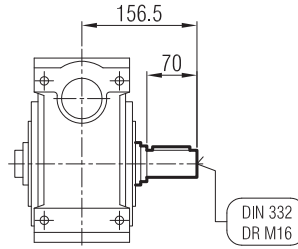
**İRSAM / İRSAP / İRSA**



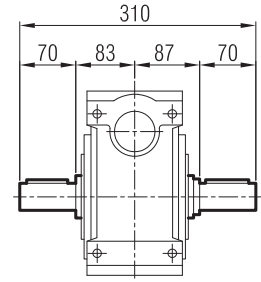
**- SR**



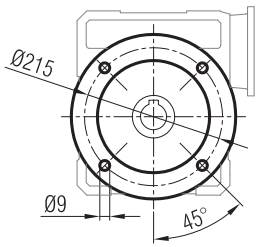
**- SL**



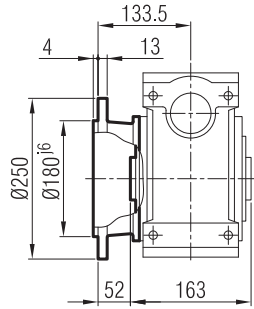
**- SD**



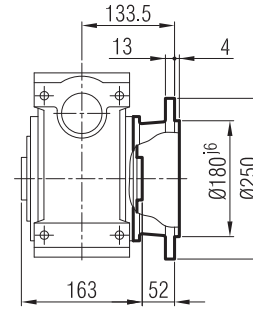
**İRSFM / İRSFP / İRSF**



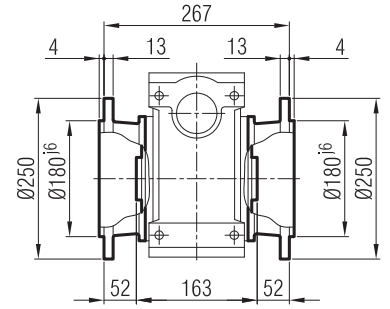
**- FR**



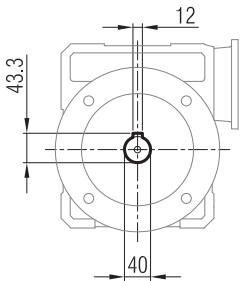
**- FL**



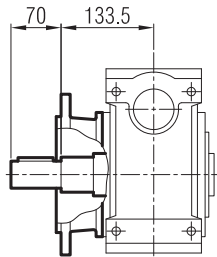
**- FD**



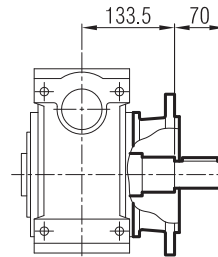
**İRSFM / İRSFP / İRSF**



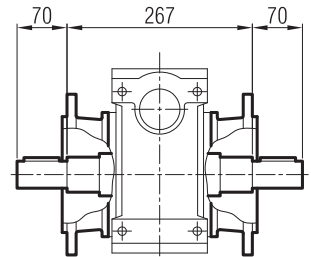
**- FR - SR**



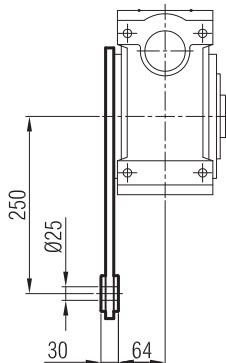
**- FL - SL**



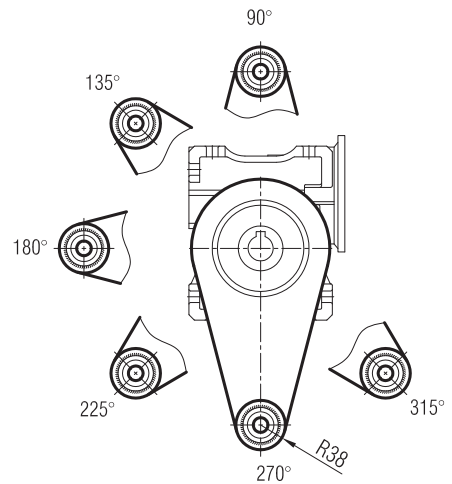
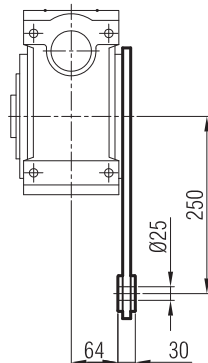
**- FD - SD**



**- TR**



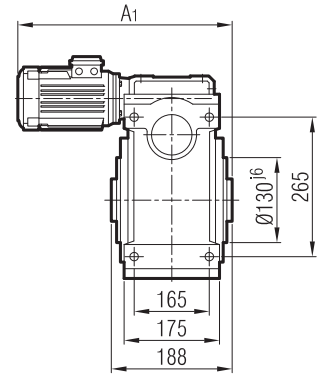
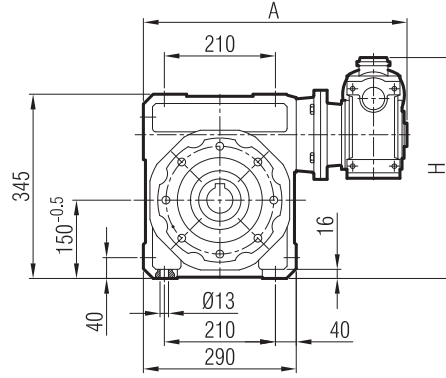
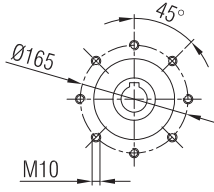
**- TL**



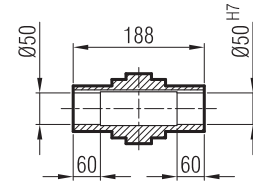
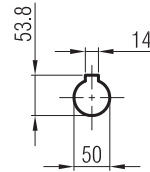




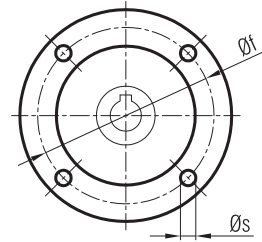
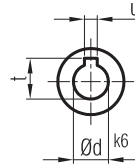
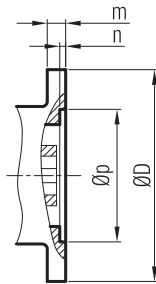
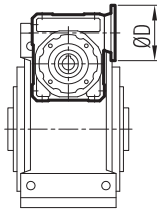
**İRSAM 127 İRS 65**



	A	A <sub>1</sub>	H
90 S	488	457	470
90 L	488	482	470

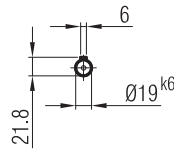
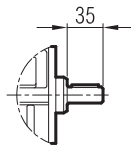
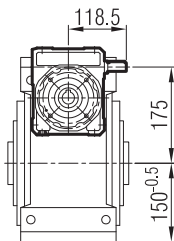


**İRSAP 127 İRS 65**



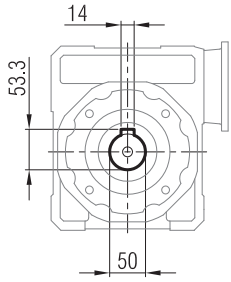
IEC B14	m	n	p	f	D	d	t	u	s
90	10	5	95	115	140	24	27.3	8	9

**İRSA 127 İRS 65**

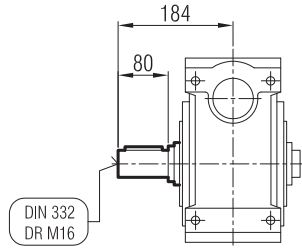




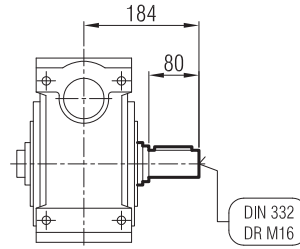
**İRSAM / İRSAP / İRSA**



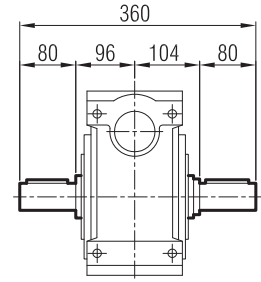
**- SR**



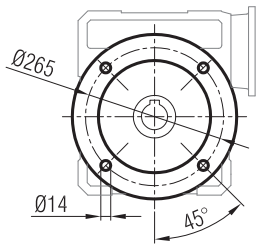
**- SL**



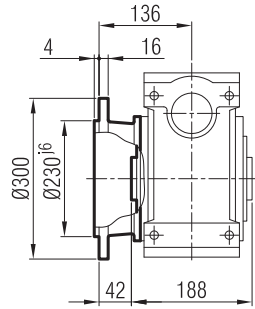
**- SD**



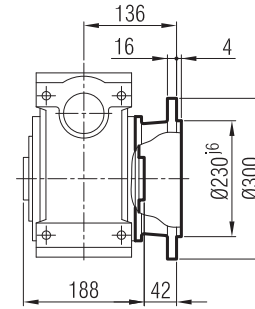
**İRSFM / İRSFP / İRSF**



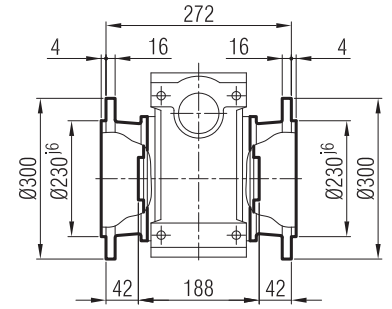
**- FR**



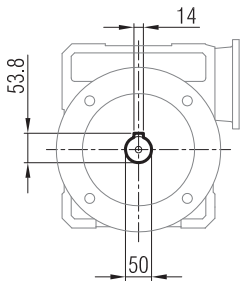
**- FL**



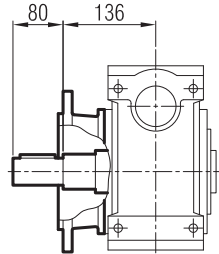
**- FD**



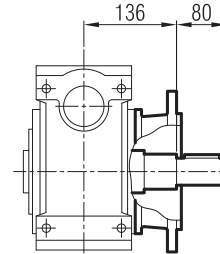
**İRSFM / İRSFP / İRSF**



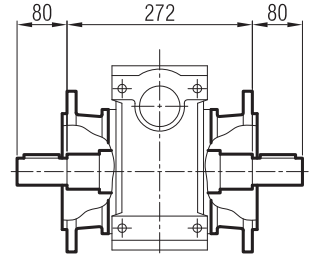
**- FR - SR**



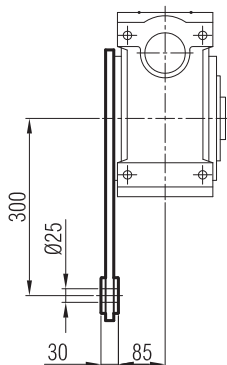
**- FL - SL**



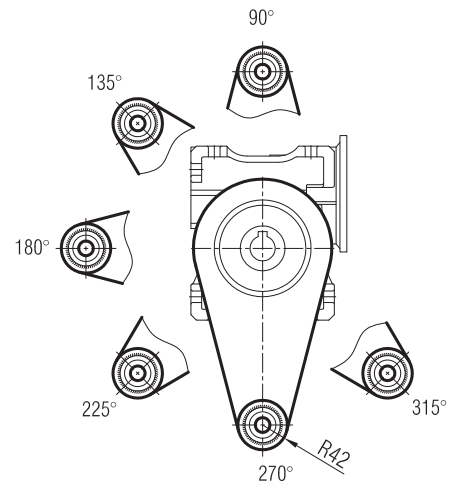
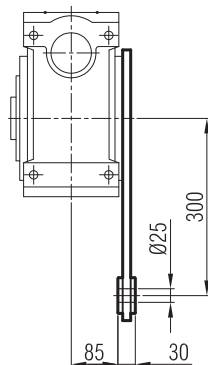
**- FD - SD**



**- TR**

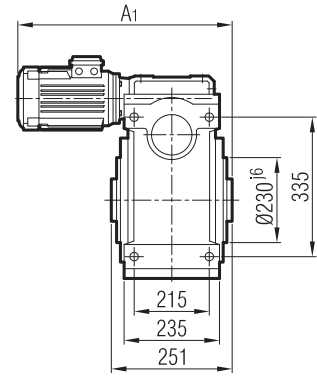
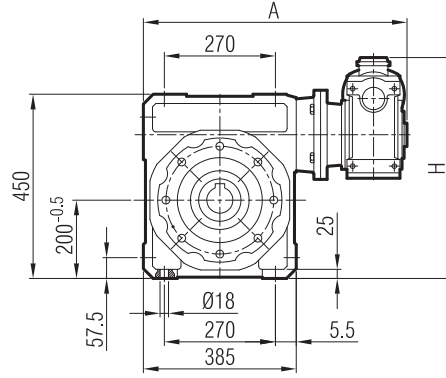
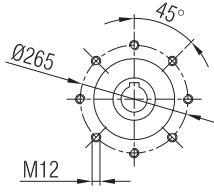


**- TL**

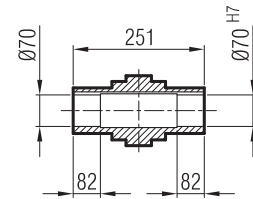
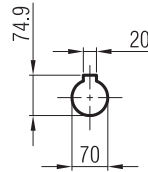




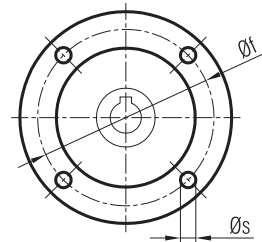
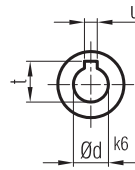
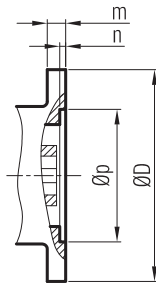
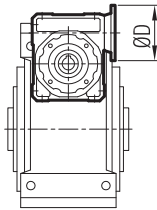
**İRSAM 162 İRS 82**



	A	A <sub>1</sub>	H
80	632	374	653

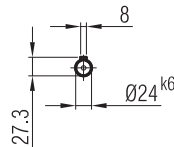
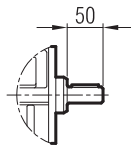
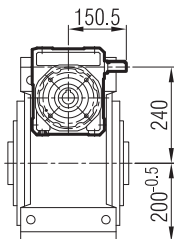


**İRSAP 162 İRS 82**



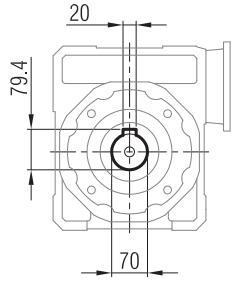
IEC B14	m	n	p	f	D	d	t	u	s
90	10	5	95	115	140	24	27.3	8	9

**İRSA 162 İRS 82**

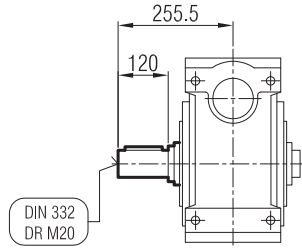




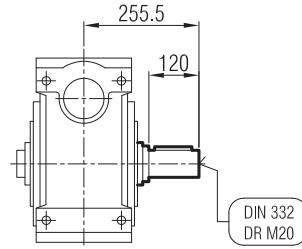
**İRSAM / İRSAP / İRSA**



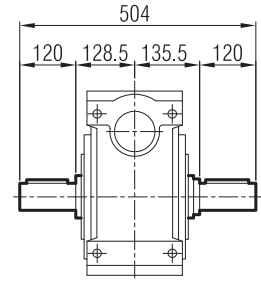
**- SR**



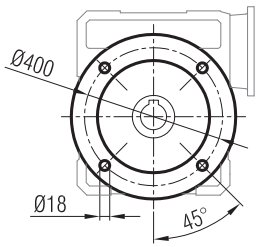
**- SL**



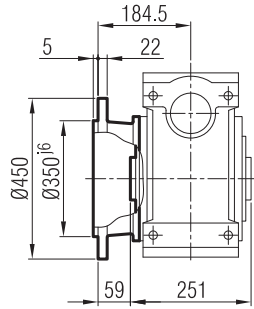
**- SD**



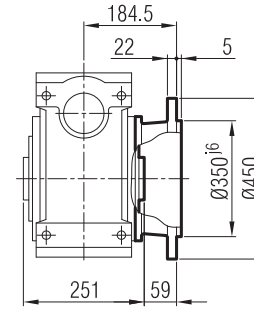
**İRSFM / İRSFP / İRSF**



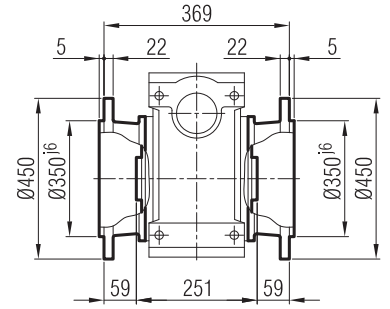
**- FR**



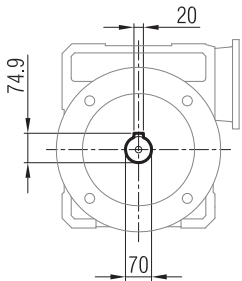
**- FL**



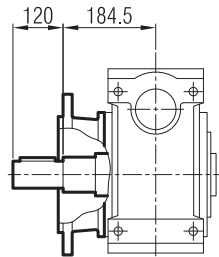
**- FD**



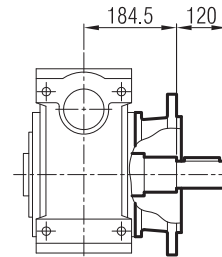
**İRSFM / İRSFP / İRSF**



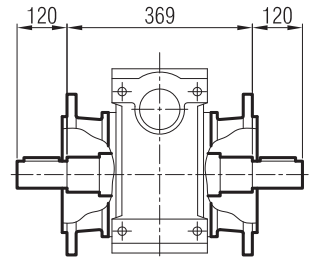
**- FR - SR**



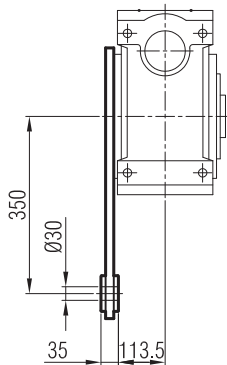
**- FL - SL**



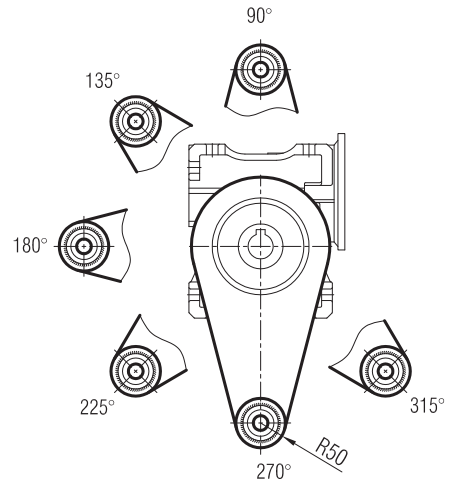
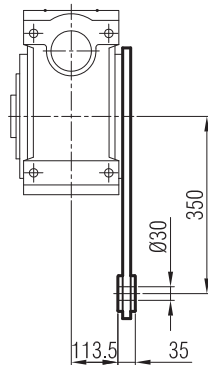
**- FD - SD**



**- TR**

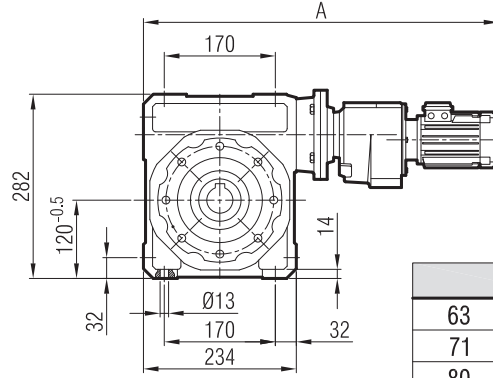
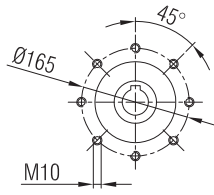


**- TL**

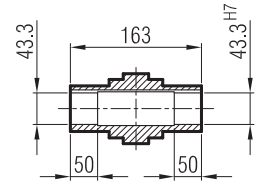
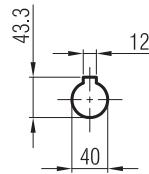
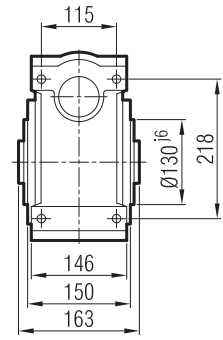




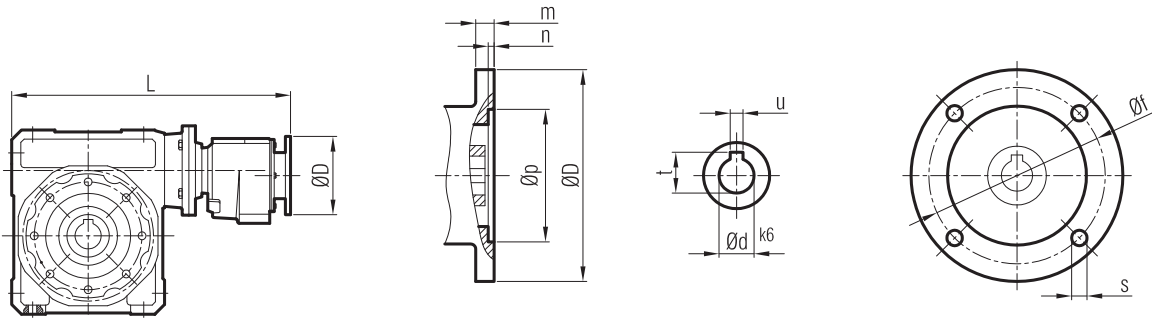
**İRSAM 102 İR 43**  
**İRSAM 102 İR 42**



	A
63	587
71	615
80	645

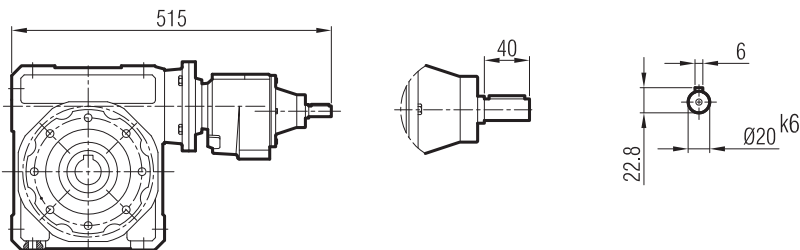


**İRSAP 102 İR 43**  
**İRSAP 102 İR 42**



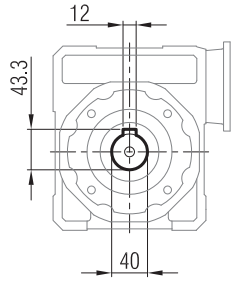
IEC B5	L	m	n	p	f	D	d	t	u	s
63	432	8	4	95	115	140	11	12.8	4	M8
71	440	9	4	110	130	160	14	16.3	5	M8
80	442	12	5	130	165	200	19	21.8	6	M10

**IRSA 102 İR 43**  
**IRSA 102 İR 42**

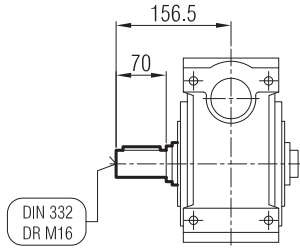




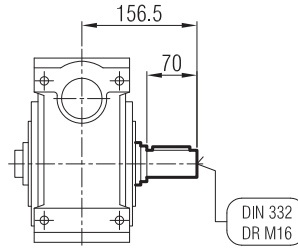
**İRSAM / İRSAP / İRSA**



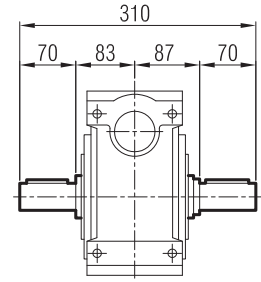
**- SR**



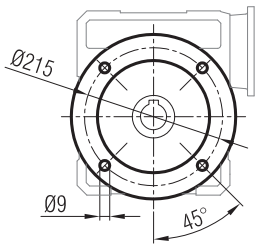
**- SL**



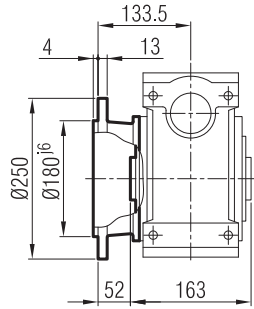
**- SD**



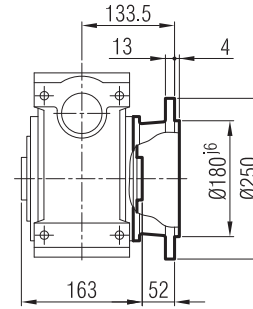
**İRSFM / İRSFP / İRSF**



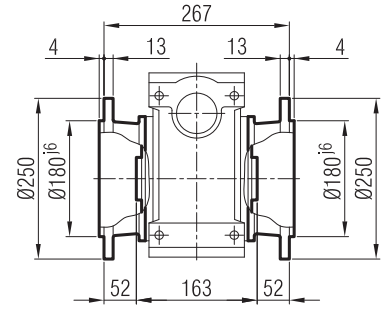
**- FR**



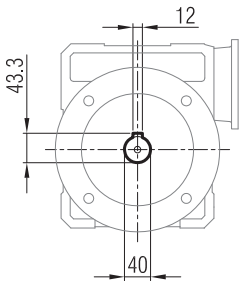
**- FL**



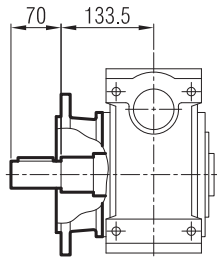
**- FD**



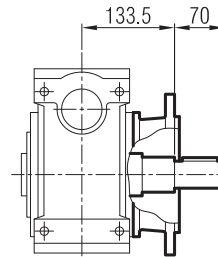
**İRSFM / İRSFP / İRSF**



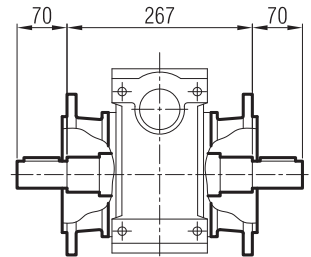
**- FR - SR**



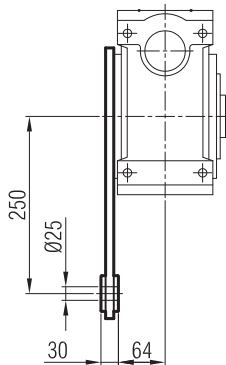
**- FL - SL**



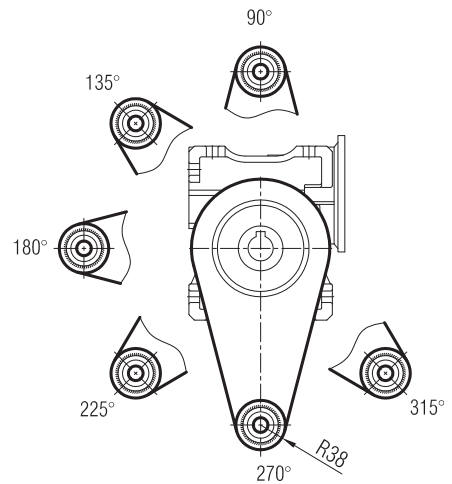
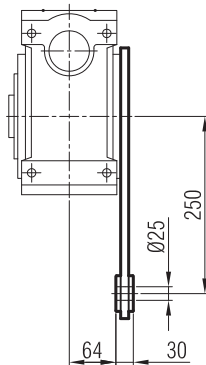
**- FD - SD**



**- TR**

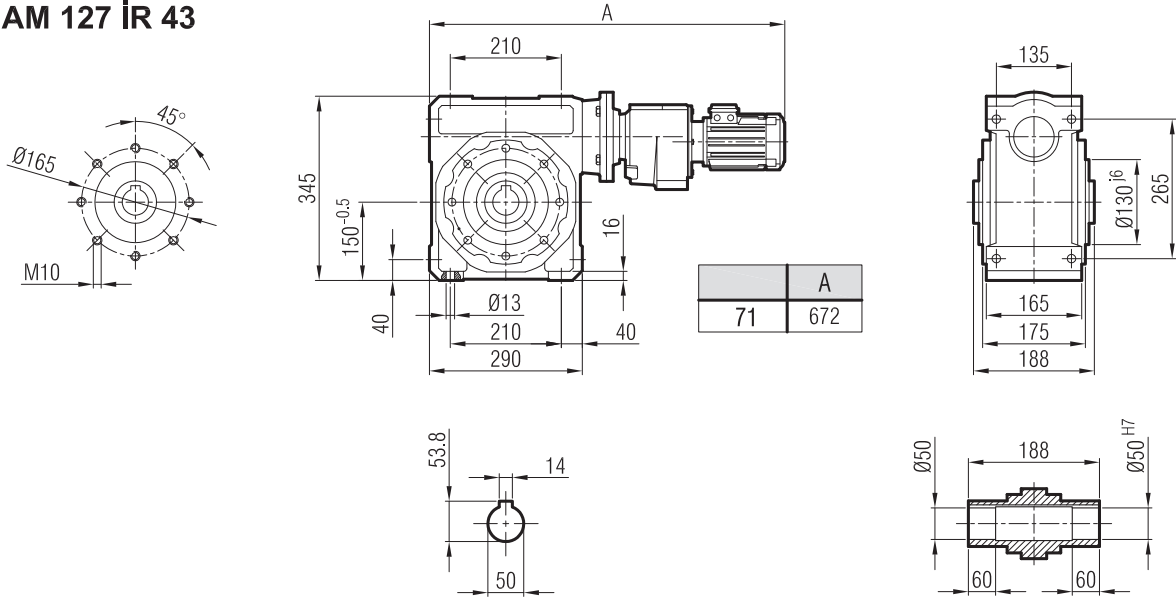


**- TL**

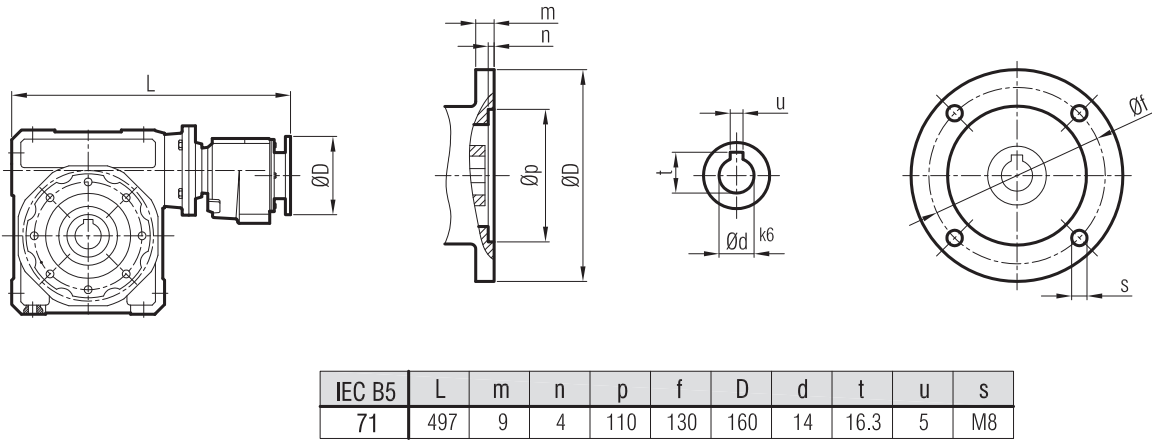




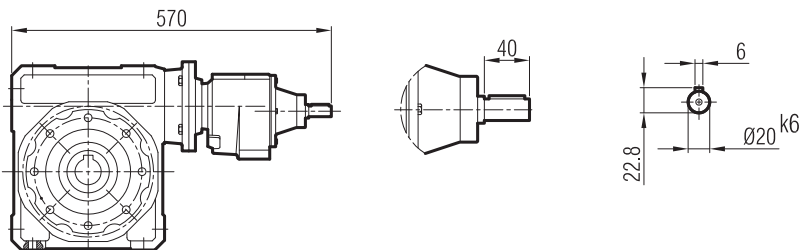
**İRSAM 127 İR 43**



**İRSAP 127 İR 43**

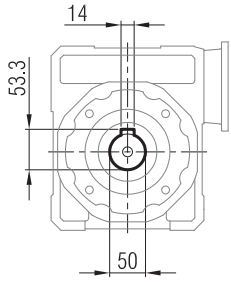


**IRSA 127 İR 43**

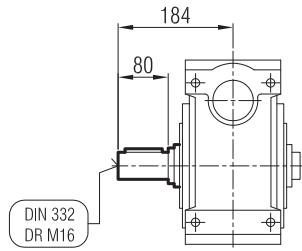




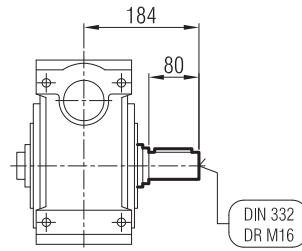
**İRSAM / İRSAP / İRSA**



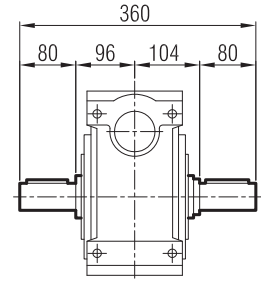
**- SR**



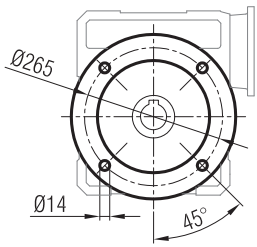
**- SL**



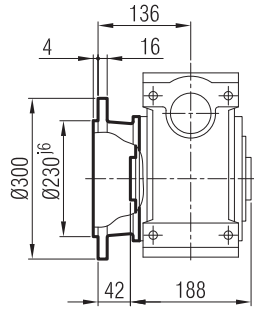
**- SD**



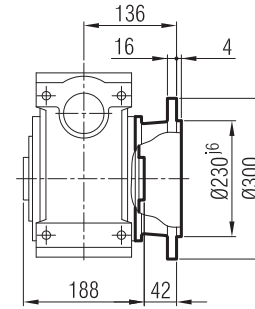
**İRSFM / İRSFP / İRSF**



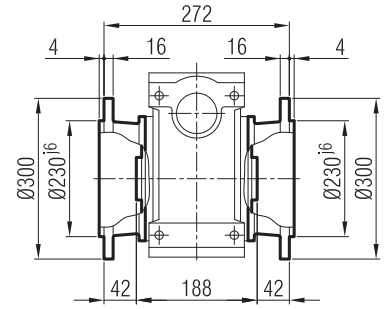
**- FR**



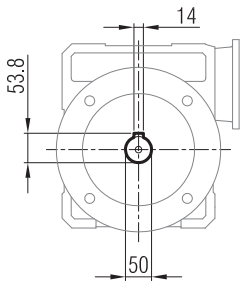
**- FL**



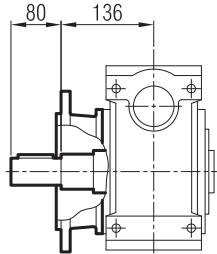
**- FD**



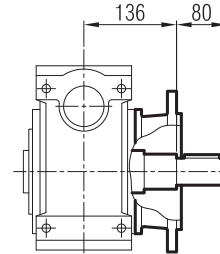
**İRSFM / İRSFP / İRSF**



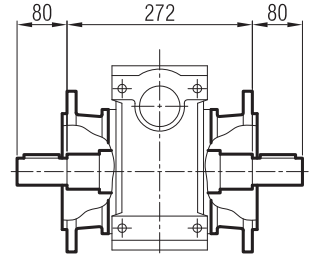
**- FR - SR**



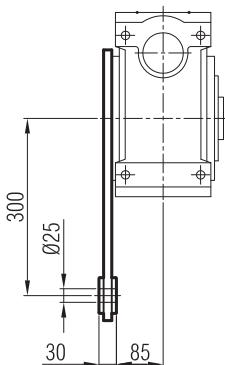
**- FL - SL**



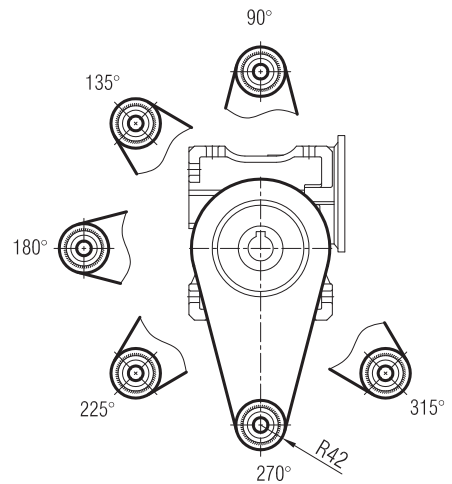
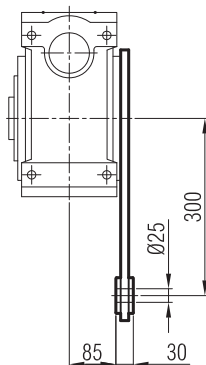
**- FD - SD**



**- TR**



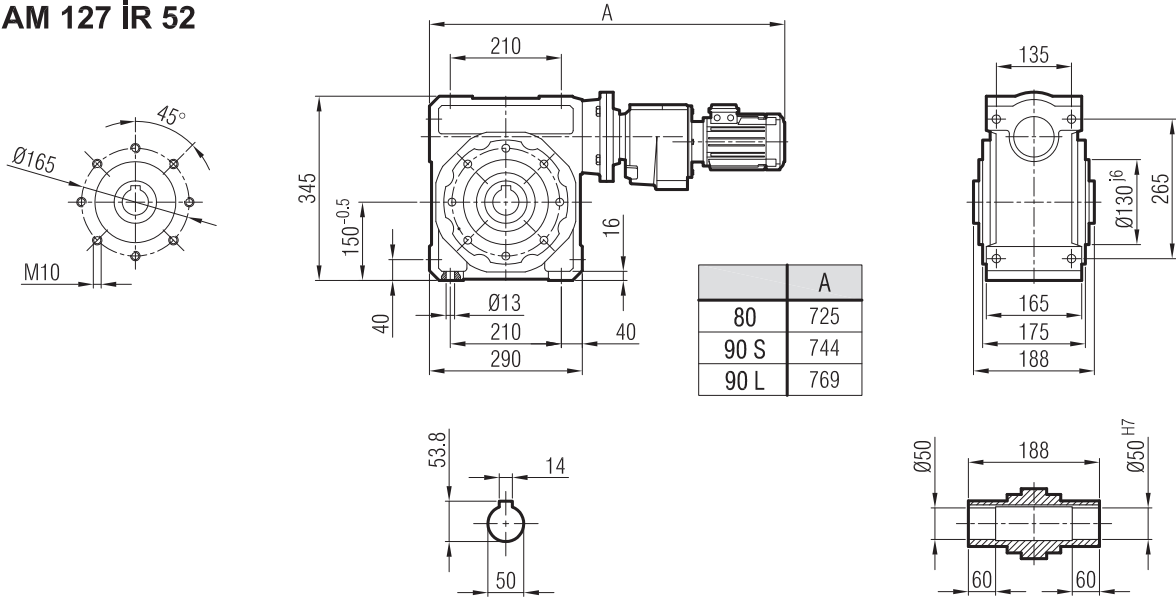
**- TL**



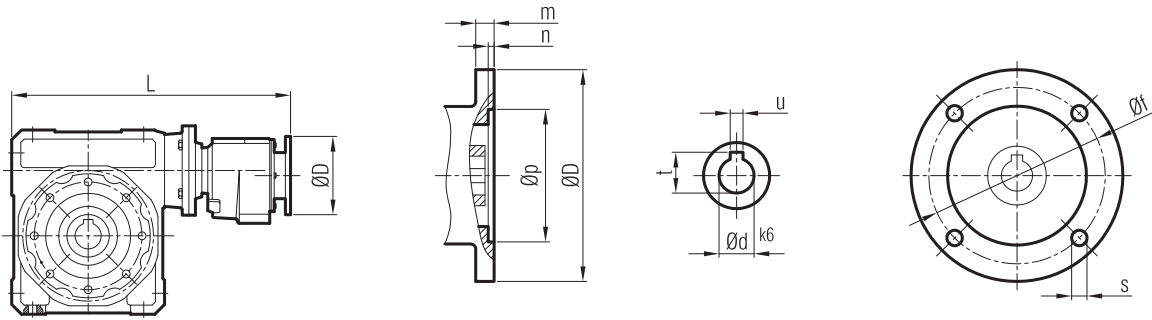




**İRSAM 127 İR 52**

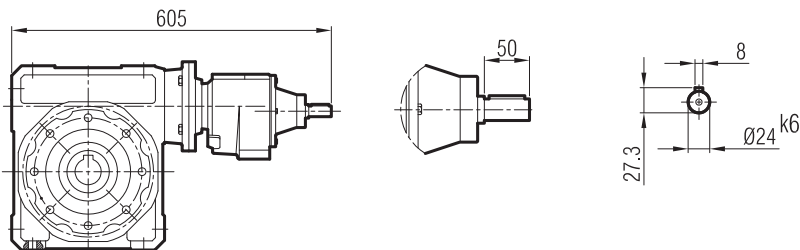


**İRSAP 127 İR 52**



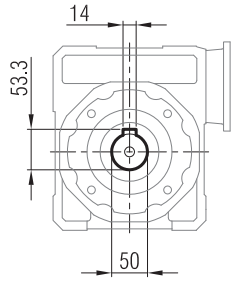
IEC B5	L	m	n	p	f	D	d	t	u	s
80	572	12	5	130	165	200	19	21.8	6	M10
90	572	12	5	130	165	200	24	27.3	8	M10

**IRSA 127 İR 52**

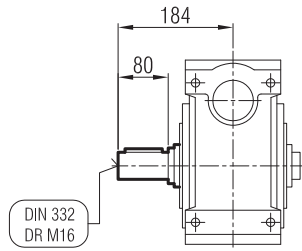




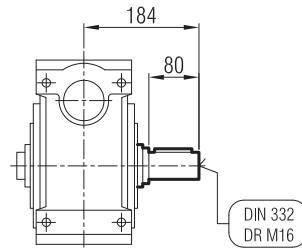
**İRSAM / İRSAP / İRSA**



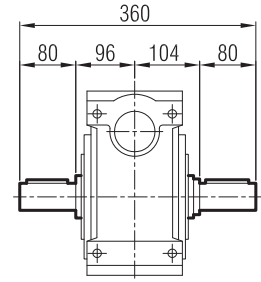
**- SR**



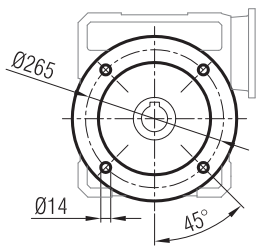
**- SL**



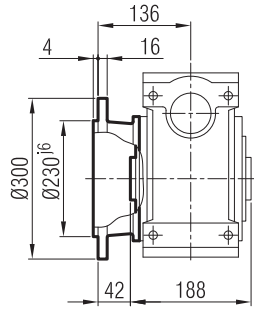
**- SD**



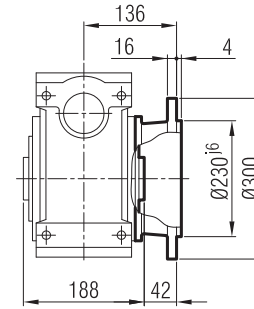
**İRSFM / İRSFP / İRSF**



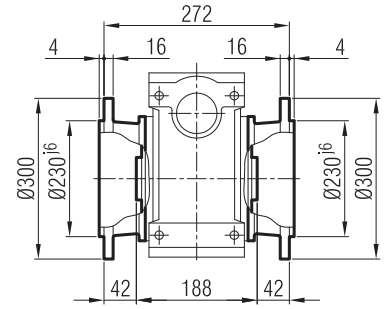
**- FR**



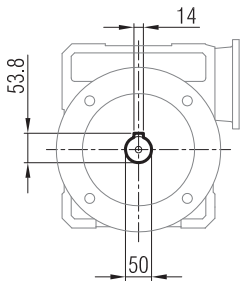
**- FL**



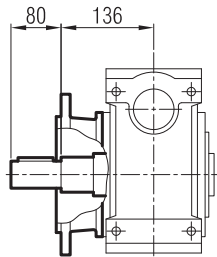
**- FD**



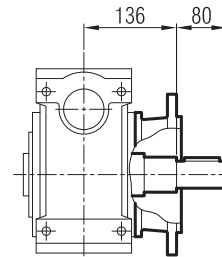
**İRSFM / İRSFP / İRSF**



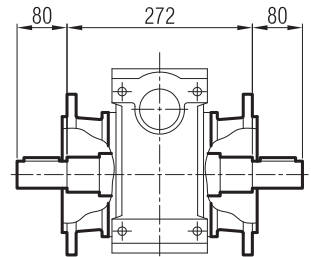
**- FR - SR**



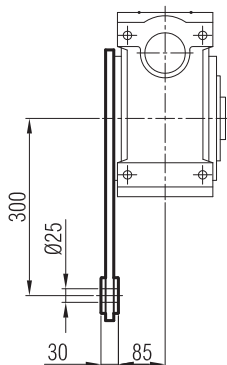
**- FL - SL**



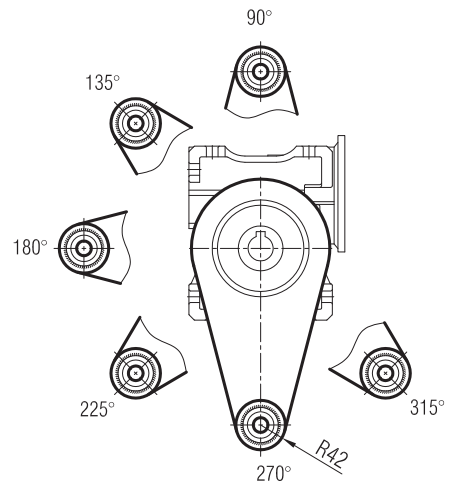
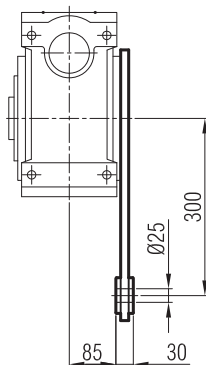
**- FD - SD**



**- TR**

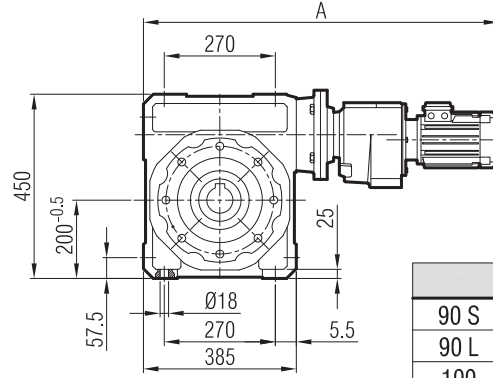
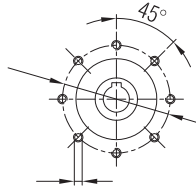


**- TL**

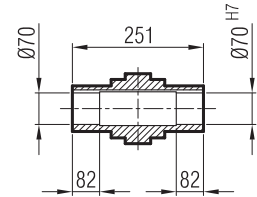
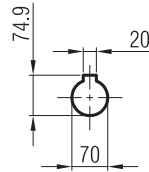
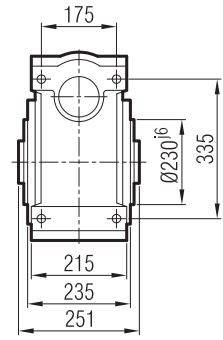




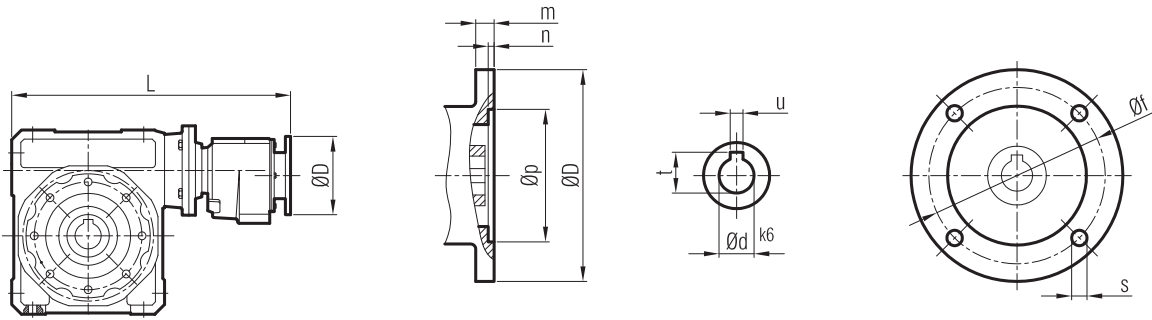
**İRSAM 162 İR 63**  
**İRSAM 162 İR 62**



	A
90 S	862
90 L	887
100	916

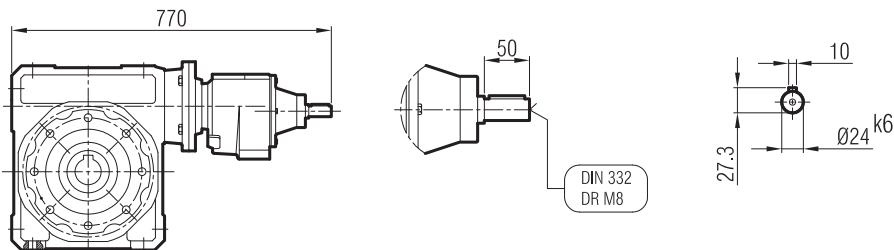


**İRSAP 162 İR 63**  
**İRSAP 162 İR 62**



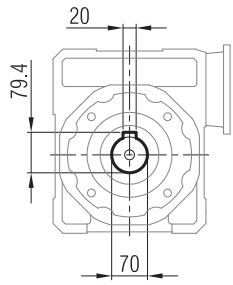
IEC B5	L	m	n	p	f	D	d	t	u	s
90	677	12	5	130	165	200	24	27.3	8	M10
100	690	14	5	180	215	250	28	31.3	8	M12

**IRSA 162 İR 63**  
**IRSA 162 İR 62**

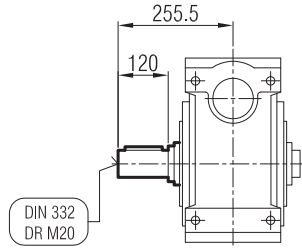




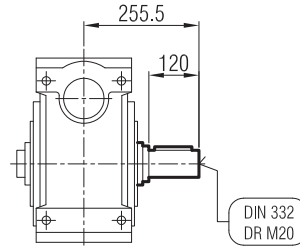
**İRSAM / İRSAP / İRSA**



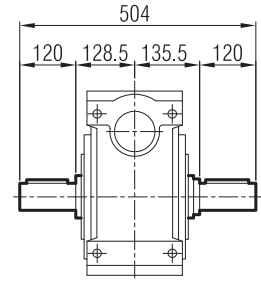
**- SR**



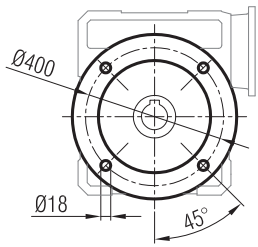
**- SL**



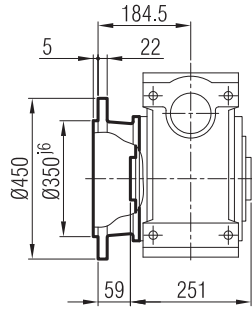
**- SD**



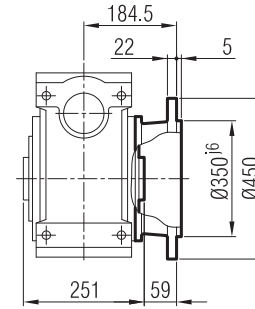
**İRSFM / İRSFP / İRSF**



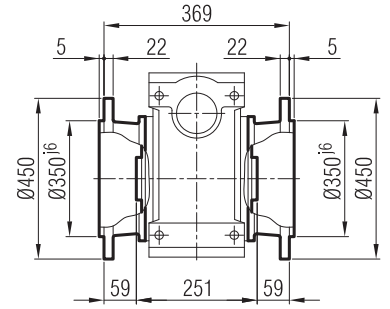
**- FR**



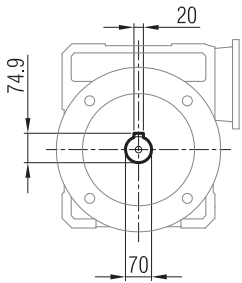
**- FL**



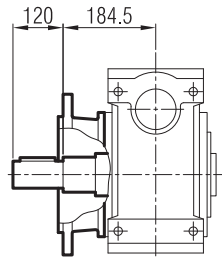
**- FD**



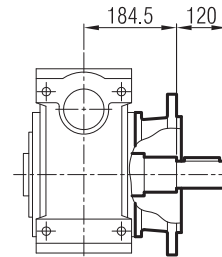
**İRSFM / İRSFP / İRSF**



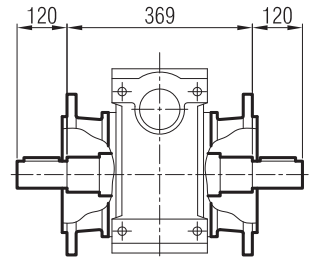
**- FR - SR**



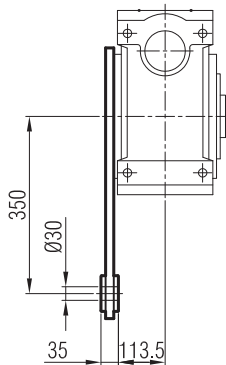
**- FL - SL**



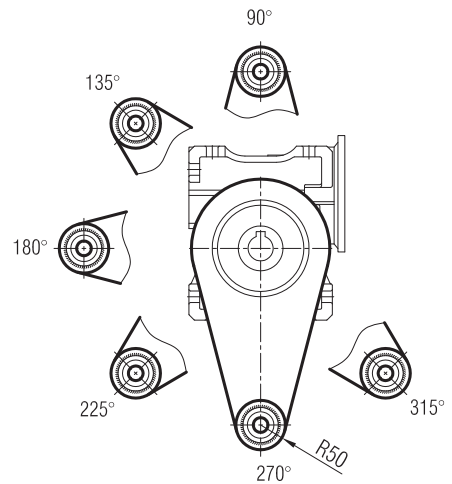
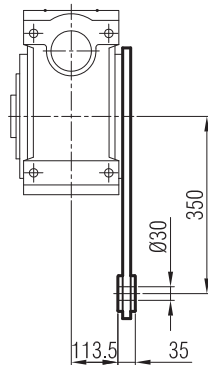
**- FD - SD**



**- TR**

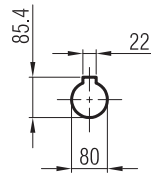
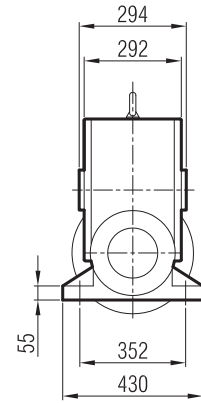
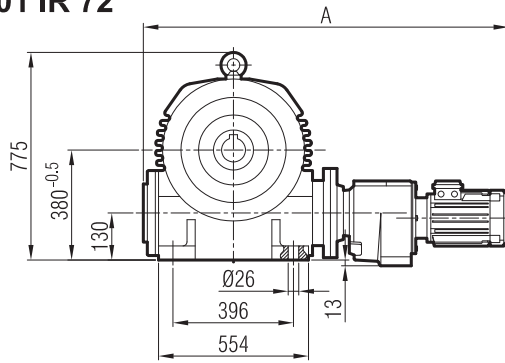


**- TL**

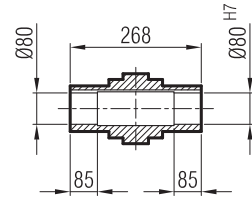




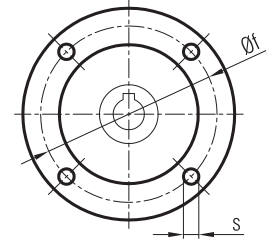
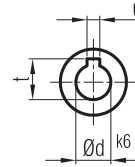
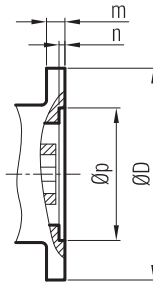
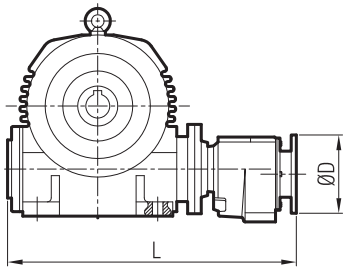
**IRSAM 201 İR 72**



	A
100	1080
112	1282

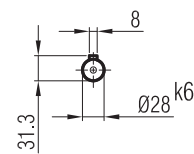
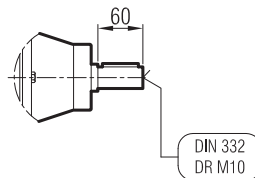
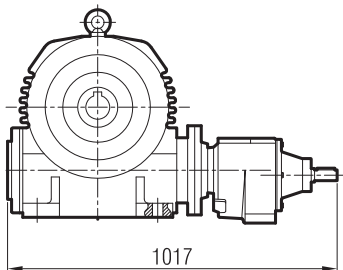


**IRSAP 201 İR 72**



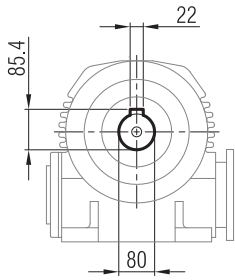
IEC B5	L	m	n	p	f	D	d	t	u	s
100	924	14	5	180	215	250	28	31.3	8	M12
112	924	14	5	180	215	250	28	31.3	8	M12

**IRSA 201 İR 72**

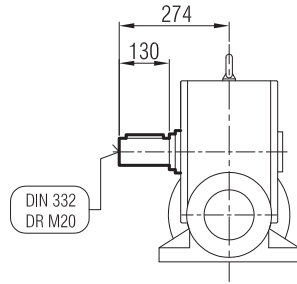




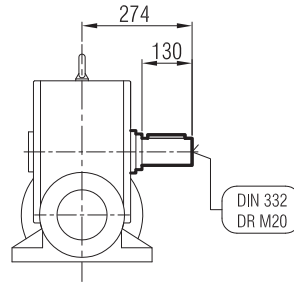
**İRSAM / İRSA**



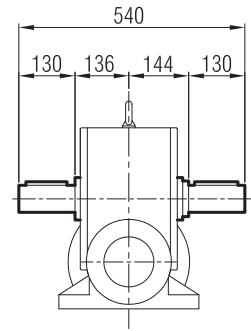
**- SR**



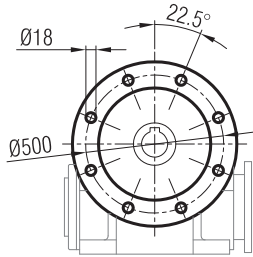
**- SL**



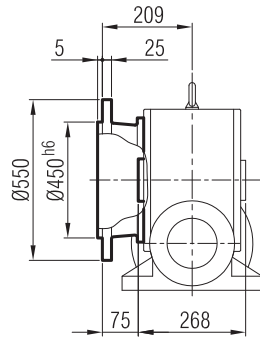
**- SD**



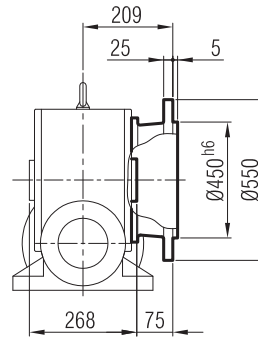
**İRSFM / İRSF**



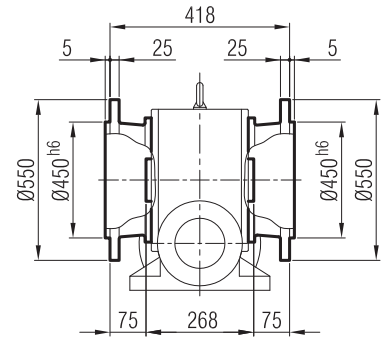
**- FR**



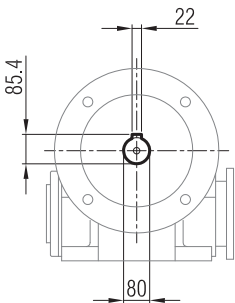
**- FL**



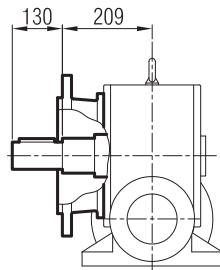
**- FD**



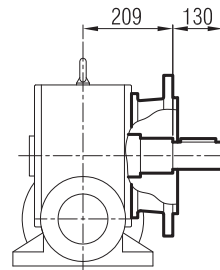
**İRSFM / İRSF**



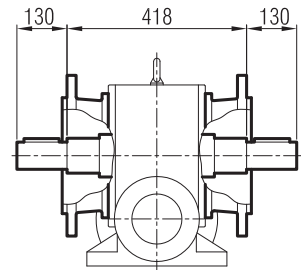
**- FR - SR**



**- FL - SL**



**- FD - SD**





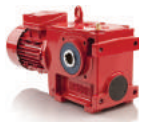
**i.Mak** TREK CE  
Generators and Drives  
Serial 3580195  
Type 1150M 53-71 IM A  
Power 25 kW  
n: 1500  
MADE IN SWITZERLAND

# Helisel Sonsuz Vidalalı 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*





P1 GÜÇ Power Puissance [kW] Hp	n <sub>2</sub> Çıkış Devri Output Speeds Vitesse de sortie [r.p.m]	i Sonsuz V. Tahvili Worm Ratio Rapport de réduction	i <sub>t</sub> Toplam Tahvil Total Ratio Rapport de réduction total	f <sub>s</sub> Servis Faktörü Service Factor Service facteur	M <sub>2</sub> Çıkış Momenti Output Torque Couple de sortie [Nm]	F <sub>Q10</sub> Rad. Yük Over Loads Charges radiales [N]	Tip Type			kg
0,12 0,16	5,1	82	272	2,06	123	6100	İRSDPM İRSDFPM	53 / 63 M 4a	166	14 16
	5,9		238	2,31	108	6100				
	6,8	62	206	2,90	90	6100				
	7,8		180	3,15	78	6100				
	8,4	50	166	4,05	87	6100				
0,18 0,25	3,4	62	268	2,10	302	9900	İRSDM İRSDFM	63 / 71 M 6a	168	34 37
	3,9	53	229	2,70	293	9900				
	4,3	62	210	2,60	237	9900				
	5,0	53	180	3,30	230	9900	İRSDM İRSDFM	53 / 71 M 6a	166	16 18
	3,3	82	272	0,95	287	6150				
	3,8		238	1,07	251	6150				
	4,4	62	206	1,36	209	6150				
	5,0		180	1,51	183	6150				
	5,4	50	166	1,83	203	6150				
	6,2		145	2,00	178	6150				
	5,1	82	272	1,38	184	6100	İRSDPM İRSDFPM	53 / 63 M 4a	166	14 16
	5,9		238	1,54	161	6100				
	6,8	62	206	1,93	134	6100				
	7,8		180	2,10	118	6100				
	8,4	50	166	2,70	130	6100				
	9,6		145	2,92	114	6100				
	11	39	129	3,61	102	6100				
0,25 0,34	3,4	62	268	1,51	420	9900	İRSDM İRSDFM	63 / 71 M 6b	168	34 37
	3,9	53	229	1,94	407	9900				
	4,3	62	210	1,87	330	9900				
	5,0	53	180	2,38	320	9900	İRSDM İRSDFM	63 / 71 M 4a	168	33 36
	5,2	62	268	2,20	270	9900				
	6,1	53	229	2,80	261	9900				
	6,7	62	210	2,70	212	9900				
	7,8	53	180	3,40	205	9900	İRSDM İRSDFM	53 / 71 M 6b	166	17 19
	8,2	62	170	3,10	171	9900				
	3,8	82	238	0,77	349	6100				
	4,4	62	206	0,98	290	6100				
	5,0		180	1,08	254	9900				
	5,4	50	166	1,32	282	6100				
	6,2		145	1,44	247	6100				
	7,0	39	129	2,70	220	6100				
	7,9		113	2,10	193	6100				
	9,0		100	2,30	170	6100				
	5,1		82	272	0,99	256	6100	İRSDM İRSDFM	53 / 71 M 4a	166
	5,9	238		1,11	224	6100				
	6,8	62	206	1,39	187	6100				
7,8	180		1,51	163	6100					
8,4	50	166	1,91	181	6100					
9,6		145	2,10	159	6100					



P1 GÜÇ Power Puissance [kW] Hp	n <sub>2</sub> Çıkış Devri Output Speeds Vitesse de sortie [r.p.m.]	i Sonsuz V. Tahvili Worm Ratio Rapport de réduction	i <sub>t</sub> Toplam Tahvil Total Ratio Rapport de réduction total	f <sub>s</sub> Servis Faktörü Service Factor	M <sub>2</sub> Çıkış Momenti Output Torque Couple de sortie [Nm]	F <sub>Q10</sub> Rad. Yük Over Loads Charges radiales [N]	Tip Type		 kg	
0,25 0,34	11	39	129	2,60	141	6100	İRSDM İRSDFM	53 / 71 M 4a	166	15 17
	12		113	2,90	124	6100				
	14		100	3,20	109	6100				
	16	50	89	3,50	97	6100				
	18		79	3,80	87	6100				
0,37 0,5	2,7	83	336	2,70	806	21000	İRSDM İRSDFM	83 / 80 M 6a	172	89 99
	3,0		300	2,84	719	21000				
	3,4	65	263	3,72	662	21000	İRSDM İRSDFM	73 / 80 M 6a	170	58 63
	3,8		235	4,01	590	21000				
	2,6	82	341	1,43	792	15250	İRSDM İRSDFM	73 / 80 M 6a	170	58 63
	3,0		301	1,59	698	15250				
	3,4	63	262	2,00	628	15250	İRSDM İRSDFM	73 / 71 M 4b	168	56 61
	3,9		231	2,20	554	15250				
	4,3	50	208	2,70	555	15250	İRSDM İRSDFM	63 / 80 M 6a	168	36 39
	4,1	82	341	2,00	509	15250				
	5,3	63	262	2,80	404	15250	İRSDM İRSDFM	63 / 71 M 4b	168	33 36
	3,4	62	268	1,02	621	9800				
	3,9	53	229	1,31	602	9800	İRSDM İRSDFM	63 / 80 M 6a	168	36 39
	4,3	62	210	1,26	488	9800				
	5,0	53	180	1,61	473	9800	İRSDM İRSDFM	63 / 71 M 4b	168	33 36
	5,2	62	268	1,49	399	9800				
	6,1	53	229	1,89	387	9800	İRSDM İRSDFM	63 / 71 M 4b	168	33 36
	6,7	62	210	1,82	314	9800				
	7,8	53	180	2,30	304	9800	İRSDM İRSDFM	63 / 71 M 4b	168	33 36
	8,2	62	170	2,09	254	9800				
	9,6	53	145	2,77	246	9800	İRSDM İRSDFM	63 / 71 M 4b	168	33 36
	10	40	136	3,18	226	9800				
	11	53	132	2,97	223	9800	İRSDM İRSDFM	63 / 71 M 4b	168	33 36
	13	40	110	3,72	183	9800				
	5,4	50	166	0,89	417	6040	İRSDM İRSDFM	53 / 80 M 6a	166	17 19
	6,2		145	0,97	365	6040				
	7,0	39	129	1,80	325	6040	İRSDM İRSDFM	53 / 80 M 6a	166	17 19
	7,9		113	1,41	285	6040				
	9,0		100	1,53	252	6040				
	6,8	62	206	0,94	276	6040	İRSDM İRSDFM	53 / 80 M 6a	166	17 19
	7,8		180	1,02	242	6040				
	8,4	50	166	1,29	268	6040	İRSDM İRSDFM	53 / 80 M 6a	166	17 19
9,6	145		1,41	235	6040					
11	39	129	1,80	209	6040	İRSDM İRSDFM	53 / 71 M 4b	166	16 18	
12		113	1,99	183	6040					
14		100	2,20	162	6040					
16		89	2,40	144	6040					
18	30	79	2,60	134	6040	İRSDM İRSDFM	53 / 71 M 4b	166	16 18	
20		69	2,90	116	6040					
23		61	3,20	103	6040					
26		55	3,40	93	6040					
28		49	3,70	83	6040					

Redüktör Yükleme Karakteristikleri / Load Characteristics of Gearboxes / Types de machines et applications

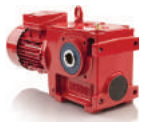


P1 GÜÇ Power Puissance [kW Hp	n <sub>2</sub> Çıkış Devri Output Speeds Vitesse de sortie [r.p.m]	i Sonsuz V. Tahvili Worm Ratio Rapport de réduction	i <sub>t</sub> Toplam Tahvil Total Ratio Rapport de réduction total	f <sub>s</sub> Servis Faktörü Service Factor Service facteur	M <sub>2</sub> Çıkış Momenti Output Torque Couple de sortie [Nm]	F <sub>Q10</sub> Rad. Yük Over Loads Charges radiales [N]	Tip Type			kg																			
											0,55	83	336	1,82	1198	21000	İRSDM	83 / 80 M 6b	172	90									
																					65	263	2,50	984	21000	İRSDM	83 / 80 M 4a	172	88
82	341	0,96	1177	15170	İRSDM	73 / 80 M 4a	170	57																					
									0,75	3,0	65	300	1,91	1068	21000	İRSDM	83 / 80 M 6b	172	100										
3,4	263	2,50	984	21000																									
	3,8	52	235	2,70	877	21000	İRSDM	83 / 80 M 4a	172	98																			
	4,3		210	3,40	872	21000																							
	4,2	83	336	2,56	770	21000	İRSDM	73 / 80 M 6b	170	63																			
	4,7		300	2,83	687	21000																							
	5,3	65	263	3,43	603	21000	İRSDM	73 / 80 M 4a	170	62																			
	6,0		235	3,76	564	21000																							
	2,6	82	341	0,96	1177	15170	İRSDM	63 / 80 M 6b	168	39																			
	3,0		301	1,07	1038	15170																							
	3,4	63	262	1,35	934	15170	İRSDM	63 / 80 M 4a	168	39																			
	3,9		231	1,48	824	15170																							
	4,3	50	208	1,82	825	15170	İRSDM	63 / 80 M 6b	168	39																			
	4,1		341	1,35	756	15170																							
	4,7	82	301	1,55	667	15170	İRSDM	63 / 80 M 4a	168	39																			
	5,3		262	1,88	601	15170																							
	6,1	63	231	2,09	530	15170	İRSDM	63 / 80 M 6b	168	39																			
	6,7		208	2,69	530	15170																							
	7,6	50	183	2,96	468	15170	İRSDM	63 / 80 M 4a	168	39																			
	8,6		163	3,23	416	15170																							
	9,6	53	145	3,48	371	15170	İRSDM	63 / 80 M 6b	168	39																			
	11		128	3,80	327	15170																							
	3,9	62	229	0,88	895	9670	İRSDM	63 / 80 M 4a	168	39																			
	4,3		210	0,85	726	9670																							
	5,0	53	180	1,08	703	9670	İRSDM	63 / 80 M 6b	168	39																			
	5,2		268	1,00	594	9670																							
	6,1	53	228	1,27	575	9670	İRSDM	63 / 80 M 4a	168	39																			
	6,7		210	1,23	466	9670																							
	7,8	53	180	1,55	452	9670	İRSDM	63 / 80 M 6b	168	39																			
	8,2		170	1,41	377	9670																							
	9,6	53	145	1,86	365	9670	İRSDM	63 / 80 M 4a	168	39																			
	10		136	2,14	336	9670																							
	11	40	132	2,00	331	9670	İRSDM	53 / 80 M 6b	166	21																			
	13		110	2,50	272	9670																							
	14	30	99	3,12	271	9670	İRSDM	63 / 80 M 6b	166	21																			
	14		90	2,68	246	9670																							
	16	40	82	2,86	224	9670	İRSDM	63 / 80 M 4a	166	21																			
	17		75	3,68	219	9670																							
	19	40	64	3,22	187	9670	İRSDM	53 / 80 M 6b	166	21																			
	22		61	3,60	158	9670																							
	23	39	129	3,70	150	9670	İRSDM	63 / 80 M 6b	166	21																			
	7,0		113	1,21	483	5890																							
	7,9	50	100	0,95	424	5890	İRSDM	53 / 80 M 4a	166	21																			
	9,0		145	1,03	374	5890																							
	9,6		129	0,95	349	5890	İRSDM	53 / 80 M 6b	166	21																			



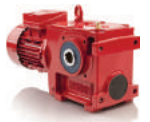
P1 GÜÇ Power Puissance [kW Hp]	n <sub>2</sub> Çıkış Devri Output Speeds Vitesse de sortie [r.p.m]	i Sonsuz V. Tahvili Worm Ratio Rapport de réduction	i <sub>t</sub> Toplam Tahvil Total Ratio Rapport de réduction total	f <sub>s</sub> Servis Faktörü Service Factor Service facteur	M <sub>2</sub> Çıkış Momenti Output Torque Couple de sortie [Nm]	F <sub>Q10</sub> Rad. Yük Over Loads Charges radiales [N]	Tip Type		 kg	
0,55 0,75	11	39	129	1,21	311	5890	İRSDM İRSDFM	53 / 80 M 4a	166	18 20
	12		113	1,34	272	5890				
	14		100	1,47	240	5890				
	16		89	1,60	214	5890				
	18		79	1,73	191	5890				
	18	30	77	1,86	193	5890				
	20		68	1,99	172	5890				
	23		61	2,10	154	5890				
	26		55	2,30	138	5890				
	28		49	2,50	124	5890				
	31		45	2,70	112	5890				
	35		40	2,80	101	5890				
	37		38	2,90	96	5890				
	41		34	3,10	85	5890				
	46		15	31	3,00	88				
	51	27		3,30	79	5890				
	57	25		3,50	71	5890				
63	22	3,80		64	5890					
0,75 1	2,5	87		371	2,49	1779	25200	İRSDM İRSDFM	161 / 90 S 6a	174
	2,9		327	2,79	1534	25200				
	3,6		261	3,28	1235	25200				
	2,7	83	336	1,33	1634	21000	İRSDM İRSDFM	83 / 90 S 6a	172	93 103
	3,0		300	1,40	1457	21000				
	3,4	65	263	1,83	1341	21000	İRSDM İRSDFM	83 / 80 M 4b	172	91 101
	3,8		235	1,98	1196	21000				
	4,3	52	210	2,49	1189	21000	İRSDM İRSDFM	83 / 80 M 4b	172	91 101
	4,8		188	2,71	1060	21000				
	4,2	83	336	1,87	1050	21000	İRSDM İRSDFM	83 / 80 M 4b	172	91 101
	4,7		300	2,07	936	21000				
	5,3	65	263	2,52	862	21000	İRSDM İRSDFM	83 / 80 M 4b	172	91 101
	6,0		235	2,76	769	21000				
	6,7	52	210	3,60	764	21000	İRSDM İRSDFM	83 / 80 M 4b	172	91 101
	7,5		188	3,88	681	21000				
	3,0	82	301	0,78	1415	15060	İRSDM İRSDFM	73 / 90 S 6a	170	61 66
	3,4	63	262	0,99	1274	15060				
	3,9		231	1,09	1123	15060				
	4,3	50	208	1,33	1125	15060	İRSDM İRSDFM	73 / 80 M 4b	170	58 63
	4,1	82	341	0,99	1031	15060				
	4,7		301	1,13	910	15060				
	5,3	63	262	1,38	819	15060	İRSDM İRSDFM	73 / 80 M 4b	170	58 63
	6,1		231	1,53	722	15060				
	6,7		208	1,97	723	15060				
	7,6	50	183	2,17	638	15060	İRSDM İRSDFM	73 / 80 M 4b	170	58 63
	8,6		163	2,37	567	15060				
	9,6		145	2,55	505	15060				
11	128		2,79	446	15060					
12	40	116	3,43	422	15060	İRSDM İRSDFM	73 / 80 M 4b	170	58 63	

Redüktör Yükleme Karakteristikleri / Load Characteristics of Gearboxes / Types de machines et applications



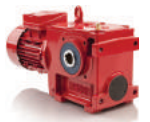
Redüktör Yükleme Karakteristikleri / Load Characteristics of Gearboxes / Types de machines et applications

P1 GÜÇ Power Puissance [kW] Hp	n <sub>2</sub> Çıkış Devri Output Speeds Vitesse de sortie [r.p.m.]	i Sonsuz V. Tahvili Worm Ratio Rapport de réduction	i <sub>t</sub> Toplam Tahvil Total Ratio Rapport de réduction total	f <sub>s</sub> Servis Faktörü Service Factor Service facteur	M <sub>2</sub> Çıkış Momenti Output Torque Couple de sortie [Nm]	F <sub>Q10</sub> Rad. Yük Over Loads Charges radiales [N]	Tip Type			kg
0,75 1	14	40	103	3,73	373	15060	İRSDM İRSDFM	73 / 80 M 4b	170	58 63
	6,7	62	210	0,90	636	9490				
	7,8	53	180	1,13	616	9490				
	8,2	62	170	1,03	514	9490				
	9,6	53	145	1,37	498	9490				
	10	62	136	1,57	410	9490				
	11	53	132	1,47	451	9490				
	13	40	110	1,83	370	9490				
	14	53	102	2,29	349	9490				
	14	40	99	1,97	335	9490				
	16	40	90	2,10	305	9490				
	17	30	82	2,70	298	9490				
	19	40	75	2,36	255	9490				
	19	30	74	2,90	270	9490				
	21	30	68	3,08	246	9490				
	22	40	64	2,64	215	9490				
	23	40	61	2,71	205	9490				
	25	30	57	3,52	205	9490				
	26	40	54	2,90	182	9490				
	29	30	48	3,81	173	9490				
	11	39	129	0,89	424	5650				
	12		113	0,98	371	5650				
	14		100	1,08	328	5650				
	16		89	1,17	291	5650				
	18		79	1,27	260	5650				
	18		77	1,37	264	5650				
	20	30	68	1,46	235	5650				
	23		61	1,58	210	5650				
	26		55	1,70	188	5650				
	28		49	1,82	169	5650				
	31		45	1,97	153	5650				
	35		40	2,10	138	5650				
	37	15	38	2,10	131	5650				
41	34		2,30	116	5650					
46	31		2,20	120	5650					
51	27		2,40	108	5650					
57	25		2,60	97	5650					
63	22		2,80	88	5650					
70	20	2,90	79	5650						
73	19	3,00	75	5650						
83	17	3,20	67	5650						
1,1 1,5	2,5	87	371	1,70	2609	25000	İRSDM İRSDFM	161 / 90 L 6b	174	168 178
	2,9		327	1,90	2249	25000				
	3,2		291	2,06	2038	25000				
	3,6		261	2,24	1812	25000				
	4,0		230	3,25	1889	25000				



P1 GÜÇ Power Puissance [kW Hp	n <sub>2</sub> Çıkış Devri Output Speeds Vitesse de sortie [r.p.m]	i Sonsuz V. Tahvil Worm Ratio Rapport de réduction	i <sub>t</sub> Toplam Tahvil Total Ratio Rapport de réduction total	f <sub>s</sub> Servis Faktörü Service Factor Service facteur	M <sub>2</sub> Çıkış Momenti Output Torque Couple de sortie [Nm]	F <sub>Q10</sub> Rad. Yük Over Loads Charges radiales [N]	Tip Type			kg
1,1 1,5	4,5	54	203	3,61	1680	25000	İRSDM İRSDFM	161 / 90 L 6b	174	168 178
	5,0		181	3,94	1512	25000				
	6,0		162	4,30	1260	25000				
	2,7	83	336	0,91	2396	20750	İRSDM İRSDFM	83 / 90 L 6b	172	95 105
	3,0		300	0,95	2136	20700				
	3,4	65	263	1,25	1967	20750	İRSDM İRSDFM	83 / 90 L 6b	172	95 105
	3,8		235	1,35	1754	20750				
	4,3	52	210	1,70	1743	20750	İRSDM İRSDFM	83 / 90 L 6b	172	95 105
	4,8		188	1,85	1554	20750				
	4,2	83	336	1,28	1540	20750	İRSDM İRSDFM	83 / 90 S 4a	172	93 103
	4,7		300	1,41	1373	20750				
	5,3	65	263	1,72	1265	20750	İRSDM İRSDFM	83 / 90 S 4a	172	93 103
	6,0		235	1,88	1128	20750				
	6,7	52	210	2,45	1121	20750	İRSDM İRSDFM	83 / 90 S 4a	172	93 103
	7,5		188	2,65	999	20750				
	8,6		162	3,40	862	20750				
	9,7	82	144	3,70	769	20750	İRSDM İRSDFM	83 / 90 S 4a	170	61 67
	4,7		301	0,77	1334	14750				
	5,3	63	262	0,94	1201	14750	İRSDM İRSDFM	73 / 90 S 4a	170	61 67
	6,1		231	1,04	1059	14750				
	6,7	50	208	1,35	1061	14750	İRSDM İRSDFM	73 / 90 S 4a	170	61 67
	7,6		183	1,48	935	14750				
	8,6		163	1,61	832	14750				
	9,6	40	145	1,74	741	14750	İRSDM İRSDFM	73 / 90 S 4a	170	61 67
	11		128	1,90	654	14750				
	12	30	116	2,34	619	14750	İRSDM İRSDFM	73 / 90 S 4a	170	61 67
	14		103	2,54	546	14750				
	15		91	2,80	486	14750				
	16	40	87	3,20	477	14750	İRSDM İRSDFM	73 / 90 S 4a	170	61 67
	18		77	3,50	421	14750				
	20	53	68	3,80	374	14750	İRSDM İRSDFM	63 / 90 S 4a	168	58 61
	9,6		145	0,93	730	9250				
	10	62	136	1,07	602	9250	İRSDM İRSDFM	63 / 90 S 4a	168	58 61
	11	53	132	1,00	662	9250				
	13	40	110	1,25	543	9250	İRSDM İRSDFM	63 / 90 S 4a	168	58 61
	14	53	102	1,56	512	9250				
	14	40	99	1,34	492	9250	İRSDM İRSDFM	63 / 90 S 4a	168	58 61
	16		90	1,43	448	9250				
	17	30	82	1,84	438	9250	İRSDM İRSDFM	63 / 90 S 4a	168	58 61
	19	40	75	1,61	374	9250				
19	30	74	1,98	397	9250	İRSDM İRSDFM	63 / 90 S 4a	168	58 61	
21		68	2,10	361	9250					
22	40	64	1,80	315	9250	İRSDM İRSDFM	63 / 90 S 4a	168	58 61	
23		61	1,85	301	9520					
25	30	57	2,40	301	9520	İRSDM İRSDFM	63 / 90 S 4a	168	58 61	
26	40	54	1,98	267	9520					
29	48	48	2,60	254	9520	İRSDM İRSDFM	63 / 90 S 4a	168	58 61	

Redüktör Yükleme Karakteristikleri / Load Characteristics of Gearboxes / Types de machines et applications



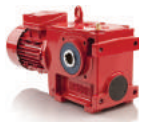
P1 GÜÇ Power Puissance [kW] Hp	n <sub>2</sub> Çıkış Devri Output Speeds Vitesse de sortie [r.p.m]	i Sonsuz V. Tahvili Worm Ratio Rapport de réduction	i <sub>t</sub> Toplam Tahvil Total Ratio Rapport de réduction total	f <sub>s</sub> Servis Faktörü Service Factor Service facteur	M <sub>2</sub> Çıkış Momenti Output Torque Couple de sortie [Nm]	F <sub>Q10</sub> Rad. Yük Over Loads Charges radiales [N]	Tip Type			kg
1,1 1,5	31	30	45	2,70	243	9250	İRSDM İRSDFM	63 / 90 S 4a	168	58 61
	35		40	2,90	215	9250				
	16	39	89	0,80	427	5400	İRSDM İRSDFM	53 / 90 S 4a	166	22 24
	18		79	0,86	382	5400				
	18		77	0,93	387	5400				
	20	30	68	1,00	344	5400				
	23		61	1,08	307	5400				
	26		55	1,16	276	5400				
	28		49	1,24	248	5400				
	31		45	1,34	224	5400				
	35		40	1,42	203	5400				
	37		38	1,45	192	5400				
	41	15	34	1,57	170	5400				
	46		31	1,54	176	5400				
	51		27	1,65	158	5400				
	57		25	1,78	142	5400				
	63		22	1,90	128	5400				
	70		20	2,00	116	5400				
	73		19	2,10	110	5400				
83	17	2,20	98	5400						
1,5 2	2,5	87	371	1,25	3558	24700				
	3,0		327	1,39	2965	24700				
	3,5		261	1,64	2541	24700				
	4,0		235	1,76	2224	24700				
	3,4	65	263	0,92	2683	20000	İRSDM İRSDFM	83 / 100 L 6a	172	98 108
	3,8		235	0,99	2392	20000				
	4,3		210	1,25	2377	20000				
	4,8	52	188	1,36	2119	20000	İRSDM İRSDFM	83 / 90 L 4a	172	96 106
	4,2	83	336	0,94	2100	20000				
	4,7		300	1,04	1873	20000				
	5,3	65	263	1,26	1725	20000				
	6,0		235	1,38	1538	20000				
	6,7		210	1,80	1528	20000				
	7,5	52	188	1,94	1362	20000				
	8,6		162	2,50	1176	20000				
	9,7		144	2,70	1048	20000				
	11	40	130	2,94	967	20000				
	12		117	3,16	873	20000				
	13		104	3,38	776	20000				
	6,7	50	208	0,99	1447	14440	İRSDM İRSDFM	73 / 90 L 4a	170	69 74
7,6	183		1,09	1276	14440					
8,6	163		1,18	1134	14440					
9,6	145		1,28	1011	14440					
11	128		1,39	892	14440					
12	116		1,72	844	14440					
14	103		1,86	745	14440					



P1 GÜÇ Power Puissance [kW] Hp	n <sub>2</sub> Çıkış Devri Output Speeds Vitesse de sortie [r.p.m.]	i Sonsuz V. Tahvili Worm Ratio Rapport de réduction	i <sub>t</sub> Toplam Tahvil Total Ratio Rapport de réduction total	f <sub>s</sub> Servis Faktörü Service Factor	M <sub>2</sub> Çıkış Momenti Output Torque Couple de sortie [Nm]	F <sub>Q10</sub> Rad. Yük Over Loads Charges radiales [N]	Tip Type		 kg						
1,5 2	15	30	91	2,05	662	14400	İRSDM İRSDFM	73 / 90 L 4a	170	69 74					
	16		87	2,35	650	14400									
	18		77	2,57	574	14400									
	20		68	2,79	510	14400									
	23		61	3,08	456	14440									
	26		55	3,23	409	14440									
	28		49	3,37	368	14440									
	31		45	3,52	332	14440									
	35		40	3,81	301	14440									
	38		36	3,96	272	14440									
		13	40	110	0,92	741	8900	İRSDM İRSDFM	63/ 90 L 4a	172	40 43				
		14	53	102	1,14	698	8900								
		14	40	99	0,98	671	8900								
		16	40	90	1,05	610	8900								
		17	30	82	1,35	597	8900								
		19	40	75	1,18	510	8900								
		19	30	74	1,45	541	8900								
		21	30	68	1,54	492	8900								
		22	40	64	1,32	430	8900								
		23	40	61	1,36	410	8900								
		25	30	57	1,76	411	8900	İRSDM İRSDFM	53 / 90 L 4a	166	24 26				
		26	40	54	1,45	363	8900								
		29	30	48	1,91	346	8900								
		31	30	46	1,98	331	8900								
		35	30	40	2,13	293	8900								
		23	30	61	0,79	419	5400								
		26		55	0,85	376	5400								
		28		49	0,91	338	5400								
		31		45	0,98	305	5400								
		35		40	1,04	276	5400								
	37	38		1,07	262	5400									
	41	34		1,15	232	5400									
	46	31		1,13	240	5400									
	51	27		1,21	216	5400									
	57	25		1,30	194	5400									
	63	15	22	1,39	175	5400	İRSDM İRSDFM	161 / 100 L 4a	174	175 185					
	70		20	1,47	158	5400									
	73		19	1,52	151	5400									
	83		17	1,63	133	5400									
2,2 3	5,0	87	291	1,38	2609	24350	İRSDM İRSDFM	161 / 100 L 4a	174	175 185					
	5,5		261	1,49	2372	24350									
	6,0		235	1,59	2174	24350									
		7,0	54	203	2,47	2159					24350	İRSDM İRSDFM	161 / 100 L 4a	174	175 185
		8,0		181	2,68	1889					24350				
		9,0		162	2,90	1680					24350				
		10,0		146	3,10	1512					24350				

Redüktör Yükleme Karakteristikleri / Load Characteristics of Gearboxes / Types de machines et applications





P1 GÜÇ Power Puissance [kW] Hp	n <sub>2</sub> Çıkış Devri Output Speeds Vitesse de sortie [r.p.m]	i Sonsuz V. Tahvili Worm Ratio Rapport de réduction	i <sub>t</sub> Toplam Tahvil Total Ratio Rapport de réduction total	f <sub>s</sub> Servis Faktörü Service Factor Service facteur	M <sub>2</sub> Çıkış Momenti Output Torque Couple de sortie [Nm]	F <sub>Q10</sub> Rad. Yük Over Loads Charges radiales [N]	Tip Type			kg				
2,2 3	4,3	52	210	0,85	3487	19450	İRSDM İRSDFM	83 / 112 M 6a	174	111 121				
	4,8		188	0,93	3108	19450								
	5,3	65	263	0,86	2529	19450								
	6,0		235	0,94	2255	19450								
	6,7	52	210	1,23	2241	19450								
	7,5		188	1,32	1998	19450								
	8,6		162	1,70	1724	19450								
	9,7		144	1,85	1537	19450								
	11	40	130	2,00	1418	19450					İRSDM İRSDFM	83 / 100 L 4a	174	98 108
	12		117	2,15	1281	19450								
	13		104	2,30	1138	19450								
	15		94	2,80	1052	19450								
	17	32	83	3,00	935	19450								
	19		75	3,14	839	19450								
	21		67	3,41	757	19450								
	23		60	3,55	672	19450								
	25		56	3,82	626	19450								
	8,6		50	163	0,81	1664	14100	İRSDM İRSDFM	73 / 100 L 4a	170				
	9,6			145	0,87	1482	14100							
	11			128	0,95	1309	14100							
	12	40		116	1,17	1237	14100							
	14		103	1,27	1093	14100								
	15		91	1,40	971	14100								
	16		87	1,60	954	14100								
	18	30	77	1,75	842	14100								
	20		68	1,90	749	14100								
	23		61	2,10	669	14100								
	26		55	2,20	600	14100								
	28		49	2,30	540	14100								
	31		45	2,40	488	14100								
	35		40	2,60	441	14100								
	38		36	2,70	399	14100								
	42	33	2,90	362	14100									
	46	15	31	3,00	372	14100								
	51		27	3,20	332	14100								
	57		25	3,40	299	14100								
	63		22	3,60	270	14100								
	70		20	3,80	244	14100								
	17		30	82	0,92	876	8700							
	19	40	75	0,81	747	8700								
	19	30	74	0,99	793	8700								
	21		68	1,05	721	8700								
22	40	64	0,90	630	8700									
23		61	0,93	602	8700									
25		57	1,20	602	8700									
26	40	54	0,99	533	8700									
29	30	48	1,30	508	8700									



P1 GÜÇ Power Puissance [kW] Hp	n <sub>2</sub> Çıkış Devri Output Speeds Vitesse de sortie [r.p.m.]	i Sonsuz V. Tahvil Worm Ratio Rapport de réduction	i <sub>t</sub> Toplam Tahvil Total Ratio Rapport de réduction total	f <sub>s</sub> Servis Faktörü Service Factor	M <sub>2</sub> Çıkış Momenti Output Torque Couple de sortie [Nm]	F <sub>Q10</sub> Rad. Yük Over Loads Charges radiales [N]	Tip Type			kg
2,2 3	31	30	46	1,35	485	8700	İRSDM İRSDFM	63 / 100 L 4a	168	42 45
	35		40	1,45	430	8700				
	41	15	34	0,78	341	5400	İRSDM İRSDFM	53 / 100 L 4a	166	28 30
	46		31	0,77	352	5400				
	51		27	0,82	316	5400				
	57		25	0,89	285	5400				
	63		22	0,95	257	5400				
	70		20	1,00	232	5400				
	73		19	1,04	221	5400				
	83		17	1,11	195	5400				
3 4	5,5	87	261	1,09	3234	24100	İRSDM İRSDFM	161 / 100 L 4b	174	174 184
	6,0		235	1,17	2965	24100				
	6,5		213	1,24	2737	24100				
	7,5		194	1,31	2372	24100				
	9,0	54	162	2,13	2290	24100	İRSDM İRSDFM	83 / 100 L 4b	172	105 115
	10,0		146	2,27	2061	24100				
	11		132	2,43	1874	24100				
	12		120	2,58	1718	24100				
	6,7	52	210	0,90	3056	19100	İRSDM İRSDFM	73 / 100 L 4b	170	69 74
	7,5		188	0,97	2725	19100				
	8,6		162	1,25	2351	19100				
	9,7		144	1,35	2096	19100				
	11	40	130	1,47	1934	19100	İRSDM İRSDFM	73 / 100 L 4b	170	69 74
	12		117	1,58	1747	19100				
	13		104	1,69	1552	19100				
	15		94	2,00	1435	19100				
	17	32	83	2,20	1275	19100	İRSDM İRSDFM	73 / 100 L 4b	170	69 74
	19		75	2,30	1144	19100				
	21		67	2,50	1032	19100				
	23		60	2,60	917	19100				
	25	30	56	2,80	854	19100	İRSDM İRSDFM	73 / 100 L 4b	170	69 74
	28		50	2,90	771	19100				
	31		46	3,10	703	19100				
	33		42	3,20	641	19100				
	37	40	38	3,40	586	19100	İRSDM İRSDFM	73 / 100 L 4b	170	69 74
	41		34	3,60	520	19100				
	12		116	0,86	1687	13700				
	14		103	0,93	1490	13700				
	15	30	91	1,03	1324	13700	İRSDM İRSDFM	73 / 100 L 4b	170	69 74
	16		87	1,17	1301	13700				
	18		77	1,28	1149	13700				
	20		68	1,39	1021	13700				
	23	40	61	1,54	912	13700	İRSDM İRSDFM	73 / 100 L 4b	170	69 74
	26		55	1,61	818	13700				
28	49		1,69	737	13700					
31	44		1,76	665	13700					

Redüktör Yükleme Karakteristikleri / Load Characteristics of Gearboxes / Types de machines et applications

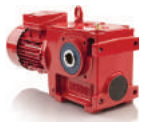


P1 GÜÇ Power Puissance [kW] Hp	n <sub>2</sub> Çıkış Devri Output Speeds Vitesse de sortie [r.p.m]	i Sonsuz V. Tahvili Worm Ratio Rapport de réduction	i <sub>t</sub> Toplam Tahvil Total Ratio Rapport de réduction total	f <sub>s</sub> Servis Faktörü Service Factor	M <sub>2</sub> Çıkış Momenti Output Torque Couple de sortie [Nm]	F <sub>Q10</sub> Rad. Yük Over Loads Charges radiales [N]	Tip Type			kg
3 4	35	30	40	1,91	601	13700	İRSDM İRSDFM	73 / 100 L 4b	170	69 74
	38		36	1,98	545	13700				
	42		33	2,13	494	13700				
	46	15	31	2,20	507	13700				
	51		27	2,35	453	13700				
	57		25	2,49	408	13700				
	63		22	2,64	368	13700				
	70		20	2,79	333	13700				
	25	30	57	0,88	821	8700				
	29		48	0,95	693	8700				
	31		46	0,99	662	8700				
	35		40	1,06	586	8700				
4 5,5	5,5	87	261	0,82	4312	23500	İRSDM İRSDFM	161 / 112 M 4b	174	184 194
	6,0		235	0,88	3953	23500				
	6,7		213	0,93	3540	23500				
	7,0	54	203	1,36	3926	23500				
	8,0		181	1,48	3435	23500				
	9,0		162	1,60	3054	23500				
	10,0		146	1,70	2748	23500				
	11		132	1,82	2498	23500				
	12	42	120	1,93	2290	23500				
	11		126	2,10	2533	23500				
	13		114	2,25	2229	23500				
	14		103	2,39	1990	23500				
	15		93	2,52	1857	23500				
	8,6	52	162	0,94	3135	18500				
	9,7		144	0,98	2795	18500				
	11	40	130	1,10	2579	18500				
	12		117	1,19	2329	18500				
	13		104	1,27	2070	18500				
	15	32	94	1,47	1914	18500				
	17		83	1,65	1700	18500				
	19		75	1,73	1526	18500				
	21		67	1,88	1376	18500				
	23		60	1,95	1223	18500				
	25		56	2,10	1139	18500				
	28		50	2,18	1028	18500				
	31		46	2,33	937	18500				
	33		42	2,40	855	18500				
	37		38	2,55	782	18500				
	41	34	2,70	694	18500					
	15	40	91	0,77	1766	13200				
	16	30	87	0,88	1734	13200				
	18		77	0,96	1531	13200				
20	68		1,05	1361	13200					
23	61		1,16	1216	13200					

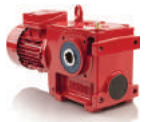


P1 GÜÇ Power Puissance [kW] Hp	n <sub>2</sub> Çıkış Devri Output Speeds Vitesse de sortie [r.p.m.]	i Sonsuz V. Tahvili Worm Ratio Rapport de réduction	i <sub>t</sub> Toplam Tahvil Total Ratio Rapport de réduction total	f <sub>s</sub> Servis Faktörü Service Factor Service facteur	M <sub>2</sub> Çıkış Momenti Output Torque Couple de sortie [Nm]	F <sub>Q10</sub> Rad. Yük Over Loads Charges radiales [N]	Tip Type		 kg		
4 5,5	26	30	55	1,21	1091	13200	İRSDM İRSDFM	73 / 112 M 4b	170	73 78	
	28		49	1,27	982	13200					
	31		45	1,32	886	13200					
	35		40	1,43	802	13200					
	38		36	1,49	726	13200					
	42		33	1,60	658	13200					
	46	15	31	1,65	676	13200					
	51		27	1,76	604	13200					
	57		25	1,87	544	13200					
	63		22	1,98	491	13200					
	70		20	2,09	444	13200					
	77		18	2,20	402	13200					
	85		17	2,31	365	13200					
	5,5 7,5		9,0	87	162	0,80					3624
9,5		148	0,84		3433	23500					
11		136	0,88		3106	23500					
13		54	110	1,48	2907	23000					
14			100	1,57	2699	23000					
16			92	1,65	2438	23000					
17		42	85	1,94	2322	23000					
18			78	2,25	2128	23000					
20			72	2,14	1915	23000					
24		30	61	2,76	1696	23000					
26			56	2,89	1533	23000					
28			51	3,03	1424	23000					
31			47	3,15	1286	23000					
42			34	3,66	949	23000					
11			40	130	0,80	3546	17250				
12		117		0,86	3202	17250					
13		104		0,92	2846	17250					
15		94		1,07	2631	17250					
17		32		83	1,20	2338	17250				
19				75	1,25	2098	17250				
21			67	1,36	1892	17250					
23			60	1,42	1681	17250					
25			56	1,53	1566	17250					
28			50	1,58	1413	17250					
31		30	46	1,69	1288	17250					
33			42	1,75	1176	17250					
37			38	1,85	1075	17250					
41			34	1,96	954	17250					
20			30	68	0,76	1872	13200				
23				61	0,84	1672	13200				
26		55		0,88	1500	13200					
28		49		0,92	1350	13200					
31		45		0,96	1219	13200					

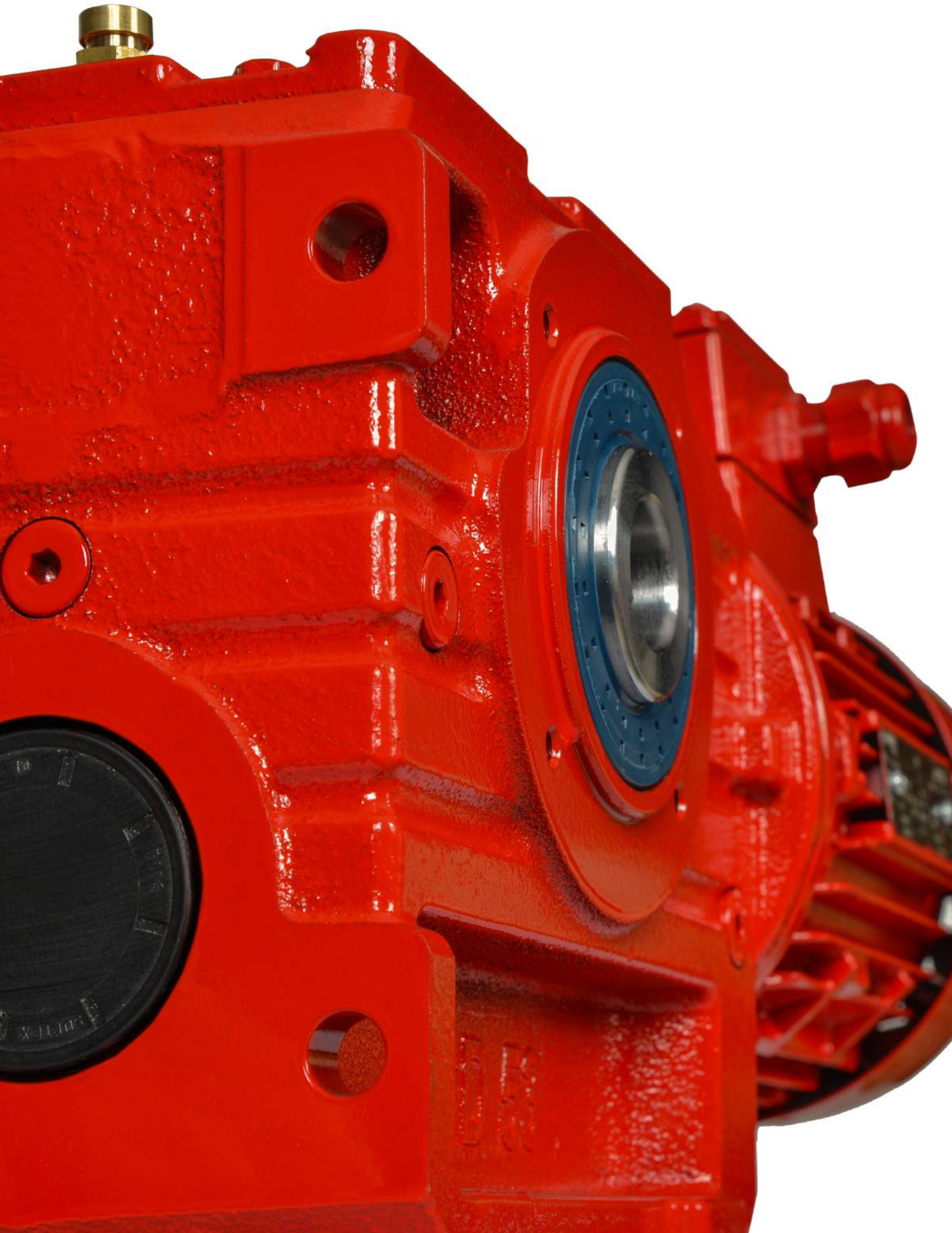
Redüktör Yükleme Karakteristikleri / Load Characteristics of Gearboxes / Types de machines et applications



P1 GÜÇ Power Puissance [kW] Hp	n <sub>2</sub> Çıkış Devri Output Speeds Vitesse de sortie [r.p.m]	i Sonsuz V. Tahvili Worm Ratio Rapport de réduction	i <sub>t</sub> Toplam Tahvil Total Ratio Rapport de réduction total	f <sub>s</sub> Servis Faktörü Service Factor Service facteur	M <sub>2</sub> Çıkış Momenti Output Torque Couple de sortie [Nm]	F <sub>Q10</sub> Rad. Yük Over Loads Charges radiales [N]	Tip Type			kg	
5,5 7,5	35	30	40	1,04	1102	13200	İRSDM İRSDFM	73 / 132 S 4c	170	84 89	
	38		36	1,08	998	13200					
	42		33	1,16	905	13200					
	46	15	31	1,20	929	13200					
	51		27	1,28	831	13200					
	57		25	1,36	748	13200					
	63		22	1,44	675	13200					
	70		20	1,52	611	13200					
	77		18	1,60	553	13200					
	85		17	1,68	501	13200					
7,5 10	13	54	110	1,08	3964	22440	İRSDM İRSDFM	161 / 132 M 4b	174	201 211	
	14		100	1,15	3604	22440					
	16		92	1,21	3303	22440					
	17	42	85	1,42	3166	22440					
	18		78	1,65	2902	22440					
	20		72	1,57	2612	22440					
	22		66	1,64	2374	22440					
	24	30	61	2,02	2313	22440					
	26		56	2,12	2091	22440					
	28		51	2,22	1941	22440					
	31		47	2,31	1753	22440					
	43		34	2,68	1264	22440					
	15		32	94	0,79	3588					17000
	17			83	0,88	3188					17000
	19	75		0,92	2861	17000					
	21	67		1,00	2579	17000					
	23	60		1,04	2293	17000					
	25	56		1,12	2135	17000					
	28	50		1,16	1927	17000					
	31	46		1,24	1756	17000					
	33	42		1,28	1604	17000					
	37	38		1,36	1465	17000					
	41	34	1,44	1301	17000						
	35	30	40	0,76	1503	13200					
	38		36	0,79	1361	13200					
	42		33	0,85	1234	13200					
46	15	31	0,88	1267	13200						
51		27	0,94	1133	13200						
57		25	1,00	1020	13200						
63		22	1,06	921	13200						
70		20	1,11	833	13200						
77		18	1,17	754	13200						
85		17	1,23	684	13200						
11 15		17	42	85	0,97	4507	22440	İRSDM İRSDFM	161 / C132 M 4	174	210 220
		19		78	1,13	4141	22440				
	20	72		1,07	3831	22440					



P1 GÜÇ Power Puissance [kW] Hp	n <sub>2</sub> Çıkış Devri Output Speeds Vitesse de sortie [r.p.m]	i Sonsuz V. Tahvili Worm Ratio Rapport de réduction	i <sub>t</sub> Toplam Tahvil Total Ratio Rapport de réduction total	f <sub>s</sub> Servis Faktörü Service Factor Service facteur	M <sub>2</sub> Çıkış Momenti Output Torque Couple de sortie [Nm]	F <sub>Q10</sub> Rad. Yük Over Loads Charges radiales [N]	Tip Type		 kg	
11 15	22	42	66	1,12	3482	22440	İRSDM İRSDFM	161 / C132 M 4	174	210 220
	24		61	1,38	3392	22440				
	26		56	1,45	3066	22440				
	28		51	1,52	2847	22440				
	31		47	1,57	2572	22440				
	43		34	1,83	1854	22440				
	47	15	30	2,01	1850	22440				
	51		28	2,11	1705	22440				
	56		26	2,20	1553	22440				
	61		23	2,28	1426	22440				
	85		17	2,66	1023	22440				
	28		32	50	0,79	2826				
	31	46		0,85	2576	17000				
	33	42		0,87	2352	17000				
	37	38		0,93	2149	17000				
	41	34		0,98	1907	17000				



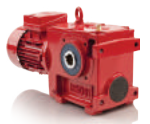
## Helisel Sonsuz Vidalı Redüktörler Güç ve Devir Tabloları

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Helical Worm Gear Unit - Performances Tables

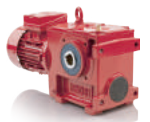
*Réducteurs Hélicoïdaux à roue et vis sans fin - Table de performances*





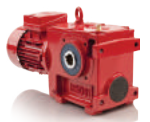
$n_1 = 1400$  d/d

Servis Faktörü Service Factor Service Facteur <i>Sf = 1</i>	P1	$n_2$	$i_s$	$i_t$	$\eta$	$M_2$	$F_{Q1}$	$F_{Q10}$	Tip Type			kg
	GÜÇ	Çıkış Devri	Sonsuz V. Tahvili	Toplam Tahvil	Verim	Çıkış Momenti	Rad. Yük	Rad. Yük				
	Power	Output Speeds	Worm Ratio	Total Ratio	Efficiency	Output Torque	Over Loads	Over Loads				
	Puissance	Vitesse de sortie	Rapport de réduction	Rapport de réduction total	efficience	Couple de sortie	Charges radiales	Charges radiales				
[kW] Hp	[r.p.m]			[ % ]	[Nm]	[N]	[N]					
270-420 Nm	0,26	5,1	82	271,89	56	270	420	6000	İRSD İRSDF	53	166	13 15
	0,30	5,8		238,19		270	420	6000				
	0,36	6,8	62	205,58	54	270	420	6000				
	0,41	7,7		180,10		270	420	6000				
	0,37	8,4	50	166,04	65	270	420	6000				
	0,46	9,6		145,24		290	420	6000				
	0,74	10,8	39	129,32	68	420	420	6000				
	0,85	12,3		113,29		420	420	6000				
	0,66	13,9	30	100,85	78	290	420	6000				
	1,1	15,7		88,92		420	420	6000				
	1,2	17,6	15	79,44	60	420	420	6000				
	1,2	18,1		76,96		410	420	6000				
	1,3	20,4	40	68,40	67	410	420	6000				
	1,5	22,9		61,11		410	420	6000				
	1,6	25,5	30	54,83	72	410	420	6000				
	1,8	28,3		49,35		410	420	6000				
	2,0	31,4	40	44,55	67	410	420	6000				
	2,2	34,7		40,29		410	420	6000				
	2,3	36,5	30	38,28	72	410	420	6000				
	2,6	41,3		33,87		410	420	6000				
2,6	45,8	40	30,56	67	410	420	6000					
2,9	51,0		27,41		410	420	6000					
3,2	56,7	30	24,68	67	410	420	6000					
3,5	62,8		22,27		410	420	6000					
3,9	69,5	40	20,14	67	410	420	6000					
4,1	73,1		19,14		410	420	6000					
4,6	82,6	15	16,94	78	410	420	6000					
510-870 Nm	0,55	4,9	62	285,89	60	634	700	8700	İRSD İRSDF	63	168	22 25
	0,55	5,2		267,58		594	700	8700				
	0,66	6,1	53	228,74	68	692	700	8700				
	0,75	6,6	62	210,26	60	636	700	8700				
	0,77	7,7	53	179,74	68	636	700	8700				
	0,75	8,2	62	169,93	60	514	700	8700				
	1,1	9,6	53	145,26	68	730	700	8700				
	1,1	10	40	135,57	67	662	700	8700				
	1,0	11	53	131,59	68	602	700	8700				
	1,5	13	40	109,63	67	741	700	8700				
	1,4	14	30	101,74	72	698	700	8700				
	1,5	14	40	99,31	67	671	700	8700				
	1,5	16		90,32		610	700	8700				
	2,2	17	30	82,22	72	876	700	8700				
	2,2	19	40	75,43	67	747	700	8700				
	2,4	19	30	74,48	67	793	700	8700				
	2,4	21		67,74		721	700	8700				
	2,2	22	40	63,59	67	630	700	8700				



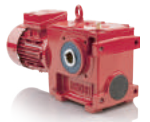
$n_1 = 1400$  d/d

Servis Faktörü Service Factor Service Facteur <i>Sf = 1</i>	P1	$n_2$	$i_s$	$i_t$	$\eta$	$M_2$	$F_{Q1}$	$F_{Q10}$	Tip Type					
	GÜÇ	Çıkış Devri	Sonsuz V. Tahvili	Toplam Tahvil	Verim	Çıkış Momenti	Rad. Yük	Rad. Yük						
	Power	Output Speeds	Worm Ratio	Total Ratio	Efficiency	Output Torque	Over Loads	Over Loads						
	Puissance	Vitesse de sortie	Rapport de réduction	Rapport de réduction total	efficience	Couple de sortie	Charges radiales	Charges radiales						
[kW] Hp	[r.p.m]			[ % ]	[Nm]	[N]	[N]					kg		
510-870 Nm	2,20	23	40	60,74	67	602	700	8700	İRSD İRSDF	63	168	22 25		
	2,20	25	30	56,57	72	602	700	8700						
	3,39	26	40	53,79	67	821	700	8700						
	3,00	29		47,69	72	693	700	8700						
	3,00	31	30	45,56		662	700	8700						
	4,46	35		40,34		871	700	8700						
680-1870 Nm	0,75	4,1	82	340,95		60	1031	1100	13300	İRSD İRSDF	73	170	55 60	
	1,10	4,7		300,67	1334		1100	13300						
	1,10	5,3		63	261,95		62	1201	1100					13300
	1,10	6,1			231,00			1059	1100					13300
	1,50	6,8	208,43		1284	1100		13300						
	1,50	7,6	183,96		1150	1100		13300						
	1,50	8,5	50	163,24	69	1033	1100	13300						
	2,20	10		145,24		1482	1100	13300						
	2,20	11		128,26		1309	1100	13300						
	3,00	12		116,19		1687	1100	13300						
	3,00	14	40	103,61	72	1490	1100	13300						
	4,00	15		91,20		1766	1100	13300						
	4,00	16		87,14		1734	1100	13300						
	4,00	18		76,96		1531	1100	13300						
	5,50	20	30	68,40	74	1872	1100	13300						
	5,50	23		61,11		1672	1100	13300						
	5,50	26		54,83		1500	1100	13300						
	5,50	28		49,35		1350	1100	13300						
	5,50	31		44,55		1219	1100	13300						
	7,50	35		40,29		1503	1100	13300						
	7,50	38		36,49		1361	1100	13300						
	7,50	42		33,08		1234	1100	13300						
	7,50	46	15	30,66	82	1267	1100	13300						
	7,50	51		27,41		1133	1100	13300						
7,50	57	24,68		1020		1100	13300							
7,50	63	22,27		921		1100	13300							
7,50	70	20,14		833		1100	13300							
7,50	77	18,24		754		1100	13300							
7,50	85	16,54		684		1100	13300							
1670-3540 Nm	1,50	4,2		83		335,95	62	2100	1550	18800	İRSD İRSDF	83	172	97 107
	1,50	4,7	299,52		1873	1550		18800						
	2,20	5,3	263,10		2529	1550		18800						
	2,20	6	65	234,57	65	2255	1550	18800						
	3,00	7		210,48		3056	1550	18800						
	3,00	7		187,65		2725	1550	18800						
	3,10	9	52	168,48	72	2447	1550	18800						
	3,20	10		152,15		2209	1550	18800						
	5,50	11		40		129,60	74	3546	1550	18800				



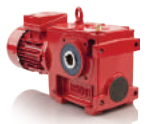
$n_1 = 1400$  d/d

Servis Faktörü Service Factor Service Facteur Sf = 1	P1	$n_2$	$i_s$	$i_t$	$\eta$	$M_2$	$F_{Q1}$	$F_{Q10}$	Tip Type			kg
	GÜÇ	Çıkış Devri	Sonsuz V. Tahvili	Toplam Tahvil	Verim	Çıkış Momenti	Rad. Yük	Rad. Yük				
	Power Puissance [kW] Hp	Output Speeds Vitesse de sortie [r.p.m]	Worm Ratio Rapport de réduction	Total Ratio Rapport de réduction total	Efficiency efficience [ % ]	Output Torque Couple de sortie [Nm]	Over Loads Charges radiales [N]	Over Loads Charges radiales [N]				
1670-3540 Nm	5,50	12	40	117,04	74	3202	1550	18800	İRSD İRSDF	83	172	97 107
	5,50	13		104,00		2846	1550	18800				
	5,50	15		93,33		2554	1550	18800				
	7,50	17	32	83,20	76	3188	1550	18800				
	7,50	19		74,67		2861	1550	18800				
	7,50	21		67,31		2579	1550	18800				
	7,50	23		59,83		2293	1550	18800				
	7,50	25		55,73		2135	1550	18800				
	11,00	28		50,29		2826	1550	18800				
	11,00	31	45,84	2576	1550	18800						
	11,00	33	41,85	2352	1550	18800						
	11,00	37	38,24	2149	1550	18800						
	11,00	41	33,94	1907	1550	18800						
3400-6000 Nm	2,56	5,4	54	261,00	73	3274	2120	22000	İRSD İRSDF	161	174	160 170
	2,97	6,0		235,22		3430	2120	22000				
	3,17	6,6		213,00		3317	2120	22000				
	3,35	7,2		193,64		3186	2120	22000				
	6,25	6,9	87	203,14	63	5380	2120	22000				
	6,81	7,7		180,78		5213	2120	22000				
	7,35	8,6		162,00		5045	2120	22000				
	7,82	10		146,00		4834	2120	22000				
	8,37	11		132,20		4687	2120	22000				
	8,88	12		120,19		4518	2120	22000				
	8,33	11	42	126,00	74	5222	2120	22000				
	8,92	12		113,55		5039	2120	22000				
	9,09	14		102,82		4652	2120	22000				
	10,00	15		93,48		4652	2120	22000				
	10,56	16		85,27		4481	2120	22000				
	12,26	18		78,00		4756	2120	22000				
	11,67	20		71,51		4153	2120	22000				
	12,20	21		65,69		3988	2120	22000				
	14,33	23		60,90		4518	2120	22000				
	15,01	25		55,71		4330	2120	22000				
15,74	27	30	51,08	77	4162	2120	22000					
16,37	30		46,92		3976	2120	22000					
18,77	42		33,65		3270	2120	22000					



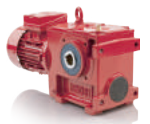
$n_1 = 900 \text{ d/d}$

Servis Faktörü Service Factor Service Facteur <i>Sf = 1</i>	P1	$n_2$	$i_s$	$i_t$	$\eta$	$M_2$	$F_{Q1}$	$F_{Q10}$	Tip Type			kg
	Güç	Çıkış Devri	Sonsuz V. Tahvili	Toplam Tahvil	Verim	Çıkış Momenti	Rad. Yük	Rad. Yük				
	Power	Output Speeds	Worm Ratio	Total Ratio	Efficiency	Output Torque	Over Loads	Over Loads				
	Puissance	Vitesse de sortie	Rapport de réduction	Rapport de réduction total	efficience	Couple de sortie	Charges radiales	Charges radiales				
[kW] Hp	[r.p.m]			[ % ]	[Nm]	[N]	[N]					
270-420 Nm	0,17	3,3	82	271,89	56	270	420	6000	İRSD İRSDF	53	166	13 15
	0,19	3,8		238,19		270	420	6000				
	0,23	4,4	62	205,58	54	270	420	6000				
	0,27	5,0		180,10		270	420	6000				
	0,28	5,4	50	167,04	65	270	420	6000				
	0,29	6,2		145,24		290	420	6000				
	0,48	7,0	39	129,32	68	420	420	6000				
	0,55	7,9		113,29		420	420	6000				
	0,42	8,8		101,85		290	420	6000				
	0,69	10,1		88,92		420	420	6000				
	0,78	11,3	30	79,44	78	420	420	6000				
	0,75	11,7		76,96		410	420	6000				
	0,84	13,2		68,40		410	420	6000				
	0,94	14,7		61,11		410	420	6000				
	1,05	16,4		54,83		410	420	6000				
	1,17	18,2		49,35		410	420	6000				
	1,29	20,2		44,55		410	420	6000				
	1,43	22,3		40,29		410	420	6000				
	1,51	23,5	15	38,28	67	410	420	6000				
	1,70	26,6		33,87		410	420	6000				
	1,65	29,5		30,56		410	420	6000				
	1,83	32,8		27,41		410	420	6000				
	2,04	36,5		24,68		410	420	6000				
	2,26	40,4		22,27		410	420	6000				
2,50	44,7	20,14		410		420	6000					
2,63	47,0	19,14		410		420	6000					
2,97	53,1	16,94	410	420	6000							
510-870 Nm	0,35	3,1	62	285,89	60	634	700	8700	İRSD İRSDF	63	168	22 25
	0,35	3,4		267,58		594	700	8700				
	0,43	3,9	53	228,74	68	692	700	8700				
	0,48	4,3	62	210,26	60	636	700	8700				
	0,50	5,0	53	179,74	68	636	700	8700				
	0,48	5,3	62	169,93	60	514	700	8700				
	0,71	6,2	53	145,26	68	730	700	8700				
	0,70	7	40	135,57	67	662	700	8700				
	0,64	7	53	131,59	68	602	700	8700				
	0,96	8	40	109,63	67	741	700	8700				
	0,91	9	30	101,74	72	698	700	8700				
	0,96	9	40	99,31	67	671	700	8700				
	0,96	10		90,32		610	700	8700				
	1,41	11	30	82,22	72	876	700	8700				
	1,41	12	40	75,43	67	747	700	8700				
	1,52	12	74,48	793		700	8700					
	1,52	13	30	67,74	67	721	700	8700				
	1,41	14	40	63,59		630	700	8700				



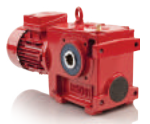
$n_1 = 900 \text{ d/d}$

Servis Faktörü Service Factor Service Facteur <i>Sf = 1</i>	P1	$n_2$	$i_s$	$i_t$	$\eta$	$M_2$	$F_{Q1}$	$F_{Q10}$	Tip Type			
	GÜÇ	Çıkış Devri	Sonsuz V. Tahvili	Toplam Tahvil	Verim	Çıkış Momenti	Rad. Yük	Rad. Yük				
	Power	Output Speeds	Worm Ratio	Total Ratio	Efficiency	Output Torque	Over Loads	Over Loads				
	Puissance	Vitesse de sortie	Rapport de réduction	Rapport de réduction total	efficience	Couple de sortie	Charges radiales	Charges radiales	[ % ]	[ Nm ]	[ N ]	[ N ]
510-870 Nm	1,41	15	40	60,74	67	602	700	8700	İRSDF	63	168	22 25
	1,41	16	30	56,57	72	602	700	8700				
	2,18	17	40	53,79	67	821	700	8700				
	1,93	19		47,69		693	700	8700				
	1,93	20	30	45,56	72	662	700	8700				
	2,87	22		40,34		871	700	8700				
680-1870 Nm	0,48	2,6	82	340,95	60	1031	1100	13300	İRSDF	73	170	55 60
	0,71	3,0		300,67		1334	1100	13300				
	0,71	3,4		261,95		1201	1100	13300				
	0,71	3,9		231,00		1059	1100	13300				
	0,96	4,4	63	205,43	62	1284	1100	13300				
	0,96	4,9		183,96		1150	1100	13300				
	0,96	5,4		165,24		1033	1100	13300				
	1,41	6	50	145,24	69	1482	1100	13300				
	1,41	7		128,26		1309	1100	13300				
	1,93	8	40	116,19	72	1687	1100	13300				
	1,93	9		102,61		1490	1100	13300				
	2,57	10		91,20		1766	1100	13300				
	2,57	10		87,14		1734	1100	13300				
	2,57	12	30	76,96	72	1531	1100	13300				
	3,54	13		68,40		1872	1100	13300				
	3,54	15		61,11		1672	1100	13300				
	3,54	16		54,83		1500	1100	13300				
	3,53	18		49,35		1350	1100	13300				
	3,54	20		44,55		1219	1100	13300				
	4,82	22		40,29		1503	1100	13300				
	4,82	25		36,49		1361	1100	13300				
	4,82	27	33,08	1234	1100	13300						
	4,82	29	15	30,66	82	1267	1100	13300				
	4,82	33		27,41		1133	1100	13300				
4,82	36	24,68		1020		1100	13300					
4,82	40	22,27		921		1100	13300					
4,82	45	20,14		833		1100	13300					
4,82	49	18,24		754		1100	13300					
4,82	54	16,54		684		1100	13300					



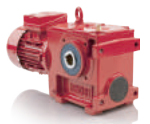
$n_1 = 900$  d/d

Servis Faktörü Service Factor Service Facteur Sf = 1	P1	$n_2$	$i_s$	$i_t$	$\eta$	$M_2$	$F_{Q1}$	$F_{Q10}$	Tip Type			kg
	GÜÇ Power Puissance [kW] Hp	Çıkış Devri Output Speeds Vitesse de sortie [r.p.m]	Sonsuz V. Tahvili Worm Ratio Rapport de réduction	Toplam Tahvil Total Ratio Rapport de réduction total	Verim Efficiency efficience [ % ]	Çıkış Momenti Output Torque Couple de sortie [Nm]	Rad. Yük Over Loads Charges radiales [N]	Rad. Yük Over Loads Charges radiales [N]				
1670-3540 Nm	3,54	8	40	117,04	74	3202	1550	18800	İRSDF	83	172	97 107
	3,54	9		104,00		2846	1550	18800				
	3,54	10		93,33		2554	1550	18800				
	4,82	11	32	83,20	76	3188	1550	18800				
	4,82	12		74,67		2861	1550	18800				
	4,82	13		67,31		2579	1550	18800				
	4,82	15		59,83		2293	1550	18800				
	4,82	16		55,73		2135	1550	18800				
	7,07	18		50,29		2826	1550	18800				
	7,07	20		45,84		2576	1550	18800				
	7,07	22		41,85		2352	1550	18800				
	7,07	24		38,24		2149	1550	18800				
	7,07	27		33,94		1907	1550	18800				
	3400-6000 Nm	1,64	3,4	54	261,00	73	3274	2120				
1,91		3,8	235,22		3430		2120	22000				
2,04		4,2	213,00		3317		2120	22000				
2,16		4,6	193,64		3186		2120	22000				
4,02		4,4	87	203,14	63	5380	2120	22000				
4,38		5,0		180,78		5213	2120	22000				
4,73		5,6		162,00		5045	2120	22000				
5,03		6		146,00		4834	2120	22000				
5,38		7		132,20		4687	2120	22000				
5,71		7		120,19		4518	2120	22000				
5,36		7		126,00		5222	2120	22000				
5,73		8		113,55		5039	2120	22000				
5,85		9	102,82	4652	2120	22000						
6,43		10	42	93,48	74	4652	2120	22000				
6,79		11		85,27		4481	2120	22000				
7,88		12		78,00		4756	2120	22000				
7,50		13		71,51		4153	2120	22000				
7,84		14		65,69		3988	2120	22000				
9,21		15		60,90		4518	2120	22000				
9,65		16		55,71		4330	2120	22000				
10,12	18	51,08		4162		2120	22000					
10,52	19	46,92	3976	2120	22000							
12,07	27	30	33,65	77	3270	2120	22000					



$n_1 = 700$  d/d

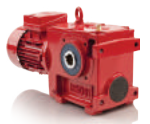
Servis Faktörü Service Factor Service Facteur <i>Sf = 1</i>	P1	$n_2$	$i_s$	$i_t$	$\eta$	$M_2$	$F_{Q1}$	$F_{Q10}$	Tip Type			kg
	GÜÇ	Çıkış Devri	Sonsuz V. Tahvili	Toplam Tahvil	Verim	Çıkış Momenti	Rad. Yük	Rad. Yük				
	Power	Output Speeds	Worm Ratio	Total Ratio	Efficiency	Output Torque	Over Loads	Over Loads				
	<i>Puissance</i>	<i>Vitesse de sortie</i>	<i>Rapport de réduction</i>	<i>Rapport de réduction total</i>	<i>efficience</i>	<i>Couple de sortie</i>	<i>Charges radiales</i>	<i>Charges radiales</i>				
[kW] Hp	[r.p.m]			[ % ]	[Nm]	[N]	[N]					
270-420 Nm	0,13	2,6	82	271,89	56	270	420	6000	İRSD İRSDF	53	166	13 15
	0,15	2,9		238,19		270	420	6000				
	0,18	3,4	62	205,58	54	270	420	6000				
	0,21	3,9		180,10		270	420	6000				
	0,21	4,2	50	167,04	65	270	420	6000				
	0,23	4,8		145,24		290	420	6000				
	0,37	5,4	39	129,32	68	420	420	6000				
	0,42	6,2		113,29		420	420	6000				
	0,33	6,9	30	101,85	78	290	420	6000				
	0,54	7,9		88,92		420	420	6000				
	0,60	8,8	15	79,44	60	420	420	6000				
	0,58	9,1		76,96		410	420	6000				
	0,66	10,2	40	68,40	67	410	420	6000				
	0,73	11,5		61,11		410	420	6000				
	0,82	12,8	30	54,83	72	410	420	6000				
	0,91	14,2		49,35		410	420	6000				
	1,01	15,7	40	44,55	67	410	420	6000				
	1,11	17,4		40,29		410	420	6000				
	1,17	18,3	30	38,28	72	410	420	6000				
	1,32	20,7		33,87		410	420	6000				
1,28	22,9	40	30,56	67	410	420	6000					
1,43	25,5		27,41		410	420	6000					
1,58	28,4	30	24,68	72	410	420	6000					
1,76	31,4		22,27		410	420	6000					
1,94	34,8	40	20,14	67	410	420	6000					
2,04	36,6		19,14		410	420	6000					
2,31	41,3	16,94	410	420	6000							
510-870 Nm	0,27	2,4	62	285,89	60	634	700	8700	İRSD İRSDF	63	168	22 25
	0,28	2,6		267,58		594	700	8700				
	0,33	3,1	53	228,74	68	692	700	8700				
	0,37	3,3	62	210,26	60	636	700	8700				
	0,39	3,9	53	179,74	68	636	700	8700				
	0,37	4,1	62	169,93	60	514	700	8700				
	0,55	4,8	53	145,26	68	730	700	8700				
	0,54	5	40	135,57	67	662	700	8700				
	0,50	5	53	131,59	68	602	700	8700				
	0,75	6	40	109,63	67	741	700	8700				
	0,71	7	30	101,74	72	698	700	8700				
	0,75	7	40	99,31	67	671	700	8700				
	0,75	8		90,32		610	700	8700				
	1,10	9	30	82,22	72	876	700	8700				
	1,10	9	40	75,43	67	747	700	8700				
	1,18	9	30	74,48		793	700	8700				
	1,18	10		67,74	721	700	8700					
	1,10	11	40	63,59	67	630	700	8700				



$n_1 = 700$  d/d

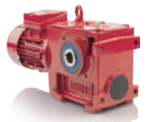
Servis Faktörü Service Factor Service Facteur <i>Sf = 1</i>	P1	$n_2$	$i_s$	$i_t$	$\eta$	$M_2$	$F_{Q1}$	$F_{Q10}$	Tip Type					
	GÜÇ	Çıkış Devri	Sonsuz V. Tahvili	Toplam Tahvil	Verim	Çıkış Momenti	Rad. Yük	Rad. Yük						
	Power	Output Speeds	Worm Ratio	Total Ratio	Efficiency	Output Torque	Over Loads	Over Loads						
	Puissance	Vitesse de sortie	Rapport de réduction	Rapport de réduction total	efficience	Couple de sortie	Charges radiales	Charges radiales	[kW] Hp	[r.p.m]	[ % ]	[Nm]	[N]	[N]
510-870 Nm	1,10	12	40	60,74	67	602	700	8700	İRSD İRSDF	63	168	22 25		
	1,10	12	30	56,57	72	602	700	8700						
	1,69	13	40	53,79	67	821	700	8700						
	1,50	15		47,69		693	700	8700						
	1,50	15	30	45,56	72	662	700	8700						
	2,23	17		40,34		871	700	8700						
680-1870 Nm	0,37	2,1	82	340,95	60	1031	1100	13300	İRSD İRSDF	73	170	55 60		
	0,55	2,3		300,67		1334	1100	13300						
	0,55	2,7		261,95		1201	1100	13300						
	0,55	3,0	231,00	1059	1100	13300								
	0,75	3,4	63	205,43	62	1284	1100	13300						
	0,75	3,8		183,96		1150	1100	13300						
	0,75	4,2		165,24		1033	1100	13300						
	1,10	5	50	145,24	69	1482	1100	13300						
	1,10	5		128,26		1309	1100	13300						
	1,50	6	40	116,19	72	1687	1100	13300						
	1,50	7		102,61		1490	1100	13300						
	2,00	8		91,20		1766	1100	13300						
	2,00	8		87,14		1734	1100	13300						
	2,00	9		76,96		1531	1100	13300						
	2,75	10		68,40		1872	1100	13300						
	2,75	11	30	61,11	74	1672	1100	13300						
	2,75	13		54,83		1500	1100	13300						
	2,75	14		49,35		1350	1100	13300						
	2,75	16		44,55		1219	1100	13300						
	3,75	17		40,29		1503	1100	13300						
	3,75	19		36,49		1361	1100	13300						
	3,75	21	15	33,08	82	1234	1100	13300						
	3,75	23		30,66		1267	1100	13300						
	3,75	26		27,41		1133	1100	13300						
3,75	28	24,68		1020		1100	13300							
3,75	31	22,27		921		1100	13300							
3,75	35	20,14		833		1100	13300							
3,75	38	40	18,24	74	754	1100	13300							
3,75	42		16,54		684	1100	13300							
1670-3510 Nm	0,75	2,1	83	335,95	62	2100	1550	18800	İRSD İRSDF	83	172	97 107		
	0,75	2,3		299,52		1873	1550	18800						
	1,10	2,7	65	263,10	65	2529	1550	18800						
	1,10	3,0		234,57		2255	1550	18800						
	1,50	3	52	210,48	72	3056	1550	18800						
	1,50	4		187,65		2725	1550	18800						
	1,50	4		168,48		2447	1550	18800						
	1,50	5		152,15		2209	1550	18800						
	2,75	5	40	129,60	74	3546	1550	18800						





$n_1 = 700$  d/d

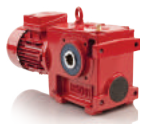
Servis Faktörü Service Factor Service Facteur <i>Sf = 1</i>	P1	$n_2$	$i_s$	$i_t$	$\eta$	$M_2$	$F_{Q1}$	$F_{Q10}$	Tip Type			kg
	GÜÇ	Çıkış Devri	Sonsuz V. Tahvili	Toplam Tahvil	Verim	Çıkış Momenti	Rad. Yük	Rad. Yük				
	Power Puissance [kW] Hp	Output Speeds Vitesse de sortie [r.p.m]	Worm Ratio Rapport de réduction	Total Ratio Rapport de réduction total	Efficiency efficience [ % ]	Output Torque Couple de sortie [Nm]	Over Loads Charges radiales [N]	Over Loads Charges radiales [N]				
1670-3510 Nm	2,75	6	40	117,04	74	3202	1550	18800	İRSDF	83	172	97 107
	2,75	7		104,00		2846	1550	18800				
	2,75	8		93,33		2554	1550	18800				
	3,75	8	32	83,20	76	3188	1550	18800				
	3,75	9		74,67		2861	1550	18800				
	3,75	10		67,31		2579	1550	18800				
	3,75	12		59,83		2293	1550	18800				
	3,75	13		55,73		2135	1550	18800				
	5,50	14		50,29		2826	1550	18800				
	5,50	15	45,84	2576	1550	18800						
	5,50	17	41,85	2352	1550	18800						
	5,50	18	38,24	2149	1550	18800						
5,50	21	33,94	1907	1550	18800							
3400-6000 Nm	1,28	2,7	54	261,00	73	3274	2120	22000	İRSDF	161	174	160 170
	1,49	3,0		235,22		3430	2120	22000				
	1,59	3,3		213,00		3317	2120	22000				
	1,68	3,6		193,64		3186	2120	22000				
	3,13	3,4	87	203,14	63	5380	2120	22000				
	3,40	3,9		180,78		5213	2120	22000				
	3,68	4,3		162,00		5045	2120	22000				
	3,91	5		146,00		4834	2120	22000				
	4,19	5		132,20		4687	2120	22000				
	4,44	6		120,19		4518	2120	22000				
	4,17	6	42	126,00	74	5222	2120	22000				
	4,46	6		113,55		5039	2120	22000				
	4,55	7		102,82		4652	2120	22000				
	5,00	7		93,48		4652	2120	22000				
	5,28	8		85,27		4481	2120	22000				
	6,13	9		78,00		4756	2120	22000				
	5,84	10	30	71,51	77	4153	2120	22000				
	6,10	11		65,69		3988	2120	22000				
	7,17	11		60,90		4518	2120	22000				
	7,51	13		55,71		4330	2120	22000				
	7,87	14		51,08		4162	2120	22000				
8,18	15	46,92		3976		2120	22000					
9,39	21	33,65	3270	2120	22000							



$n_1 = 500 \text{ d/d}$

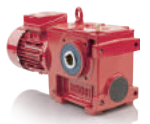
Servis Faktörü	P1	$n_2$	$i_s$	$i_t$	$\eta$	$M_2$	$F_{Q1}$	$F_{Q10}$	Tip Type			
Service Factor	GÜÇ	Çıkış Devri	Sonsuz V. Tahvili	Toplam Tahvil	Verim	Çıkış Momenti	Rad. Yük	Rad. Yük				
Service Facteur $S_f = 1$	Power	Output Speeds	Worm Ratio	Total Ratio	Efficiency	Output Torque	Over Loads	Over Loads				
	Puissance	Vitesse de sortie	Rapport de réduction	Rapport de réduction total	efficience	Couple de sortie	Charges radiales	Charges radiales				
	[kW] Hp	[r.p.m]			[ % ]	[Nm]	[N]	[N]			kg	
270-420 Nm	0,09	1,8	82	271,89	56	270	420	6000	İRSD İRSDF	53	166	13 15
	0,11	2,1		238,19		270	420	6000				
	0,13	2,4	62	205,58	54	270	420	6000				
	0,15	2,8		180,10		270	420	6000				
	0,15	3,0	50	167,04	65	270	420	6000				
	0,16	3,4		145,24		290	420	6000				
	0,27	3,9	39	129,32	65	420	420	6000				
	0,30	4,4		113,29		420	420	6000				
	0,23	4,9	39	101,85	68	290	420	6000				
	0,39	5,6		88,92		420	420	6000				
	0,43	6,3	30	79,44	68	420	420	6000				
	0,42	6,5		76,96		410	420	6000				
	0,47	7,3	30	68,40	78	410	420	6000				
	0,52	8,2		61,11		410	420	6000				
	0,58	9,1	30	54,83	78	410	420	6000				
	0,65	10,1		49,35		410	420	6000				
	0,72	11,2	15	44,55	78	410	420	6000				
	0,80	12,4		40,29		410	420	6000				
	0,84	13,1	15	38,28	78	410	420	6000				
	0,95	14,8		33,87		410	420	6000				
0,91	16,4	15	30,56	78	410	420	6000					
1,02	18,2		27,41		410	420	6000					
1,13	20,3	15	24,68	78	410	420	6000					
1,25	22,4		22,27		410	420	6000					
1,39	24,8	15	20,14	78	410	420	6000					
1,46	26,1		19,14		410	420	6000					
1,65	29,5	15	16,94	78	410	420	6000					

510-870 Nm	0,20	1,7	62	285,89	60	634	700	8700	İRSD İRSDF	63	168	22 25
	0,20	1,9		267,58		594	700	8700				
	0,24	2,2	53	228,74	68	692	700	8700				
	0,27	2,4	62	210,26	60	636	700	8700				
	0,28	2,8	53	179,74	68	636	700	8700				
	0,27	2,9	62	169,93	60	514	700	8700				
	0,39	3,4	53	145,26	68	730	700	8700				
	0,39	4	40	135,57	67	662	700	8700				
	0,36	4	53	131,59	68	602	700	8700				
	0,54	5	40	109,63	67	741	700	8700				
	0,51	5	30	101,74	72	698	700	8700				
	0,54	5	40	99,31	67	671	700	8700				
	0,54	6		90,32		610	700	8700				
	0,79	6	30	82,22	72	876	700	8700				
	0,79	7	40	75,43	67	747	700	8700				
	0,84	7	30	74,48	67	793	700	8700				
	0,84	7		67,74		721	700	8700				
	0,79	8	40	63,59	67	630	700	8700				



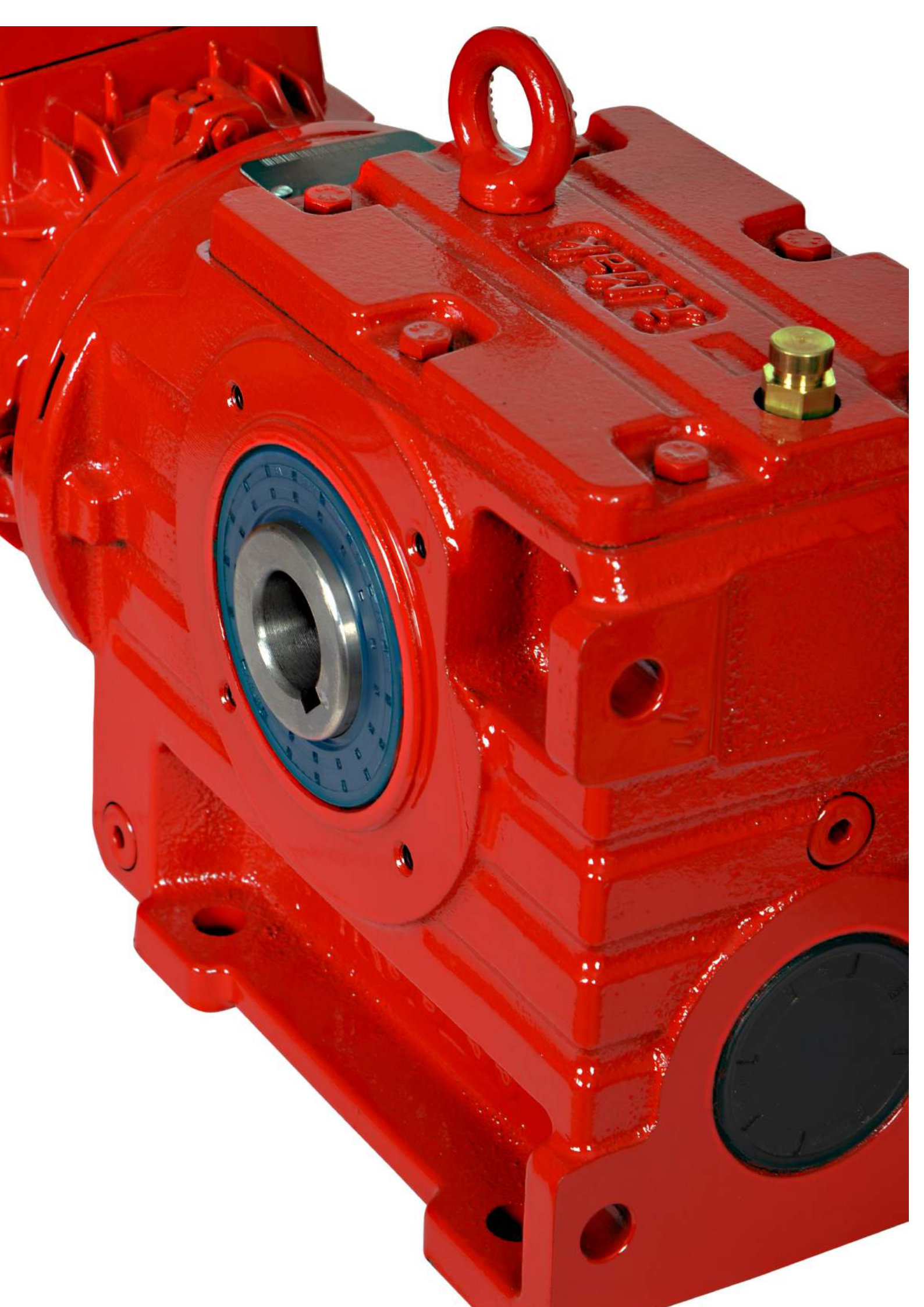
$n_1 = 500 \text{ d/d}$

Servis Faktörü Service Factor Service Facteur <i>Sf = 1</i>	P1	$n_2$	$i_s$	$i_t$	$\eta$	$M_2$	$F_{Q1}$	$F_{Q10}$	Tip Type					
	GÜÇ	Çıkış Devri	Sonsuz V. Tahvili	Toplam Tahvil	Verim	Çıkış Momenti	Rad. Yük	Rad. Yük						
	Power	Output Speeds	Worm Ratio	Total Ratio	Efficiency	Output Torque	Over Loads	Over Loads						
	Puissance	Vitesse de sortie	Rapport de réduction	Rapport de réduction total	efficience	Couple de sortie	Charges radiales	Charges radiales	[ % ]	[ Nm ]	[ N ]	[ N ]	kg	
510-870 Nm	0,79	8	40	60,74	67	602	700	8700	İRSD İRSDF	63	168	22 25		
	0,79	9	30	56,57	72	602	700	8700						
	1,21	9	40	53,79	67	821	700	8700						
	1,07	10		47,69		693	700	8700						
	1,07	11	30	45,56	72	662	700	8700						
	1,59	12		40,34		871	700	8700						
680-1870 Nm	0,27	1,5	82	340,95	60	1031	1100	13300	İRSD İRSDF	73	170	55 60		
	0,39	1,7		300,67		1334	1100	13300						
	0,39	1,9		63		261,95	62	1201					1100	13300
	0,39	2,2				231,00		1059					1100	13300
	0,54	2,4	50	205,43	69	1284	1100	13300						
	0,54	2,7		183,96		1150	1100	13300						
	0,54	3,0		165,24		1033	1100	13300						
	0,79	3	40	145,24	72	1482	1100	13300						
	0,79	4		128,26		1309	1100	13300						
	1,07	4		116,19		1687	1100	13300						
	1,07	5		102,61		1490	1100	13300						
	1,43	5	30	91,20	74	1766	1100	13300						
	1,43	6		87,14		1734	1100	13300						
	1,43	6		76,96		1531	1100	13300						
	1,96	7	15	68,40	82	1872	1100	13300						
	1,96	8		61,11		1672	1100	13300						
	1,96	9		54,83		1500	1100	13300						
	1,96	10		49,35		1350	1100	13300						
	1,96	11		44,55		1219	1100	13300						
	2,68	12		40,29		1503	1100	13300						
	2,68	14		36,49		1361	1100	13300						
	2,68	15		33,08		1234	1100	13300						
	2,68	16	30,66	1267	1100	13300								
	2,68	18	27,41	1133	1100	13300								
2,68	20	24,68	1020	1100	13300									
2,68	22	22,27	921	1100	13300									
2,68	25	20,14	833	1100	13300									
2,68	27	18,24	754	1100	13300									
2,68	30	16,54	684	1100	13300									
1670-3540 Nm	0,54	1,5	83	335,95	62	2100	1550	18800	İRSD İRSDF	83	172	97 107		
	0,54	1,7		299,52		1873	1550	18800						
	0,79	1,9	65	263,10	65	2529	1550	18800						
	0,79	2,1		234,57		2255	1550	18800						
	1,07	2	52	210,48	72	3056	1550	18800						
	1,07	3		187,65		2725	1550	18800						
	1,07	3		168,48		2447	1550	18800						
	1,07	3		152,15		2209	1550	18800						
	1,96	4	40	129,60	74	3546	1550	18800						



$n_1 = 500$  d/d

Servis Faktörü Service Factor Service Facteur <i>Sf = 1</i>	P1	$n_2$	$i_s$	$i_t$	$\eta$	$M_2$	$F_{Q1}$	$F_{Q10}$	Tip Type			kg
	GÜÇ Power Puissance [kW] Hp	Çıkış Devri Output Speeds Vitesse de sortie [r.p.m]	Sonsuz V. Tahvili Worm Ratio Rapport de réduction	Toplam Tahvil Total Ratio Rapport de réduction total	Verim Efficiency efficience [ % ]	Çıkış Momenti Output Torque Couple de sortie [Nm]	Rad. Yük Over Loads Charges radiales [N]	Rad. Yük Over Loads Charges radiales [N]				
1670-3540 Nm	1,96	4	40	117,04	74	3202	1550	18800	İRSD İRSDF	83	172	97 107
	1,96	5		104,00		2846	1550	18800				
	1,96	5		93,33		2554	1550	18800				
	2,68	6	32	83,20	76	3188	1550	18800				
	2,68	7		74,67		2861	1550	18800				
	2,68	7		67,31		2579	1550	18800				
	2,68	8		59,83		2293	1550	18800				
	2,68	9		55,73		2135	1550	18800				
	3,93	10		50,29		2826	1550	18800				
	3,93	11		45,84		2576	1550	18800				
	3,93	12		41,85		2352	1550	18800				
	3,93	13		38,24		2149	1550	18800				
	3,93	15	33,94	1907	1550	18800						
3400-6000 Nm	0,91	1,9	54	261,00	73	3274	2120	22000	İRSD İRSDF	161	174	160 170
	1,06	2,1		235,22		3430	2120	22000				
	1,13	2,3		213,00		3317	2120	22000				
	1,20	2,6		193,64		3186	2120	22000				
	2,23	2,5	87	203,14	63	5380	2120	22000				
	2,43	2,8		180,78		5213	2120	22000				
	2,63	3,1		162,00		5045	2120	22000				
	2,79	3		146,00		4834	2120	22000				
	2,99	4		132,20		4687	2120	22000				
	3,17	4		120,19		4518	2120	22000				
	2,98	4		126,00		5222	2120	22000				
	3,19	4		113,55		5039	2120	22000				
	3,25	5	42	102,82	74	4652	2120	22000				
	3,57	5		93,48		4652	2120	22000				
	3,77	6		85,27		4481	2120	22000				
	4,38	6		78,00		4756	2120	22000				
	4,17	7		71,51		4153	2120	22000				
	4,36	8		65,69		3988	2120	22000				
	5,12	8		60,90		4518	2120	22000				
	5,36	9		55,71		4330	2120	22000				
5,62	10	30	51,08	77	4162	2120	22000					
5,85	11		46,92		3976	2120	22000					
6,70	15		33,65		3270	2120	22000					



## Helisel Sonsuz Vidalı Redüktörler Ölçü Sayfaları

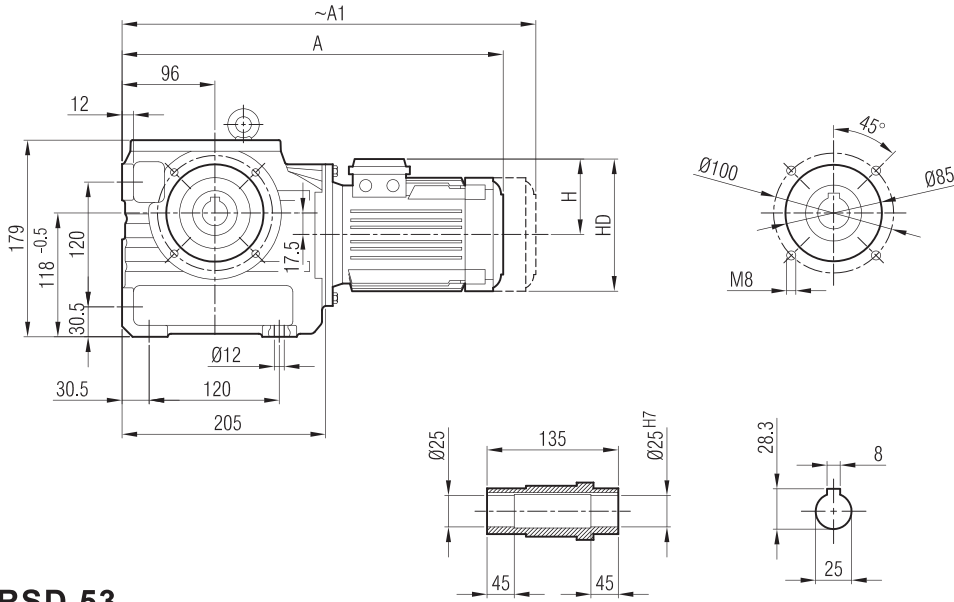
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Helical, Worm Gearbox

*Réducteurs hélicoïdaux à roue et vis sans fin*



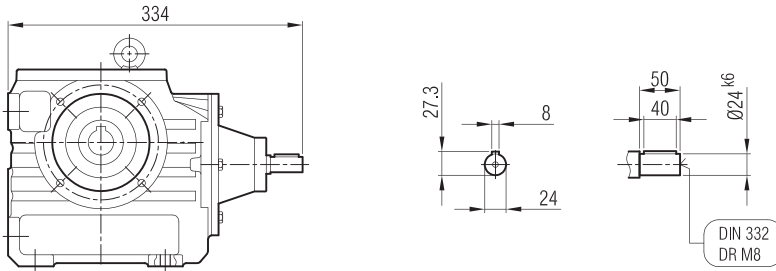
**İRSDM 53**



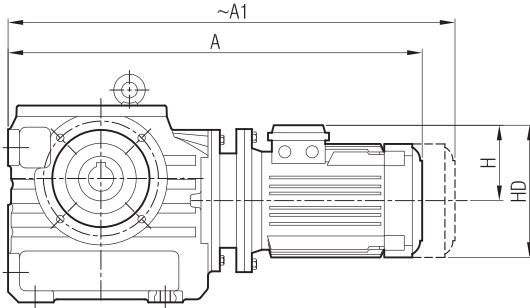
	71	80	90 S	90 L	100
A	423	450	479	504	544
A <sub>1</sub>	474	519	545	570	622
H	111	118	126	126	134
HD	182	198	216	216	234
AC	138	156	176	176	194

**"A<sub>1</sub>" Ölçüsü Frenli Motorlar içindir.**  
Dimension "A<sub>1</sub>" is for motors with brake.  
Le dimensions "A<sub>1</sub>" correspond aux moteurs équipés de freins.

**İRSD 53**



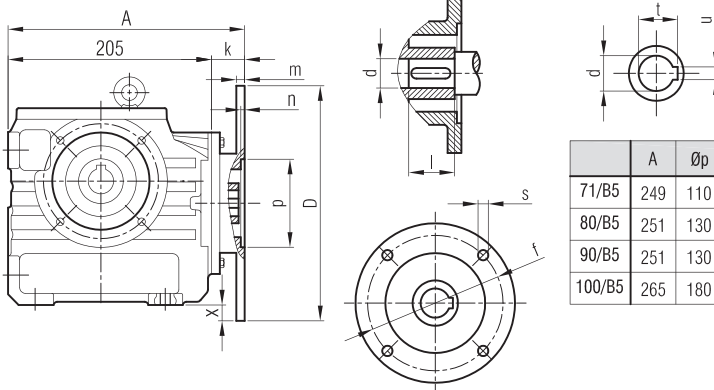
**İRSDPM 53**



	71/B5	80/B5	90 S/B5	90 L/B5	100/B5
A	472	495	510	535	581
A <sub>1</sub>	523	564	576	601	659
H	111	118	126	126	134
HD	182	198	216	216	234
AC	138	156	176	176	194

**"A<sub>1</sub>" Ölçüsü Frenli Motorlar içindir.**  
Dimension "A<sub>1</sub>" is for motors with brake.  
Le dimensions "A<sub>1</sub>" correspond aux moteurs équipés de freins.

**İRSDP 53**

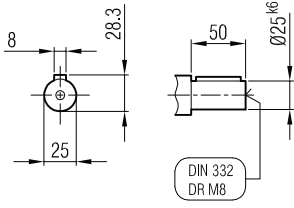


	A	Øp	Øf	ØD	s	k	m	n	Ød	l	t	u	x
71/B5	249	110	130	160	M8	44	9	4	14	30	16.3	5	-
80/B5	251	130	165	200	M10	46	12	5	19	40	21.8	6	-
90/B5	251	130	165	200	M10	46	12	5	24	50	27.3	8	-
100/B5	265	180	215	250	M12	60	14	5	28	60	31.3	8	24.5

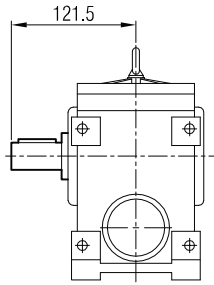
**"A<sub>1</sub>" Ölçüsü Frenli Motorlar içindir.**  
Dimension "A<sub>1</sub>" is for motors with brake.  
Le dimensions "A<sub>1</sub>" correspond aux moteurs équipés de freins.



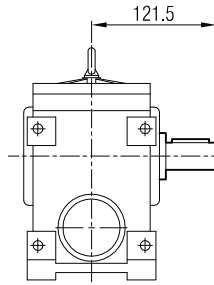
**İRSDM 53**



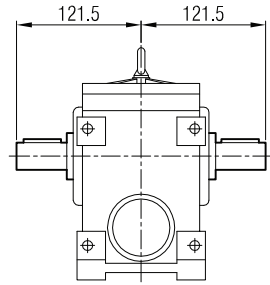
**... -SR**



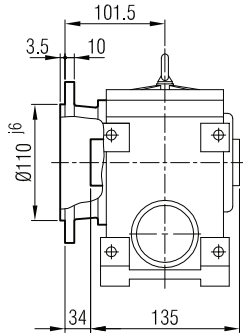
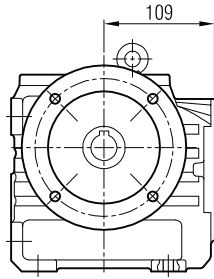
**... -SL**



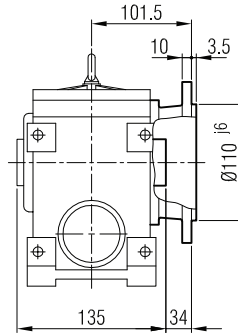
**... -SD**



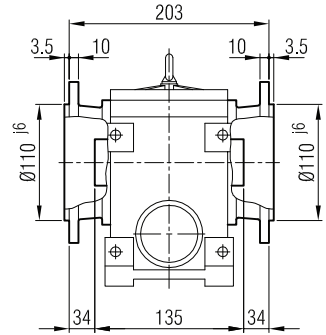
**... -FR**



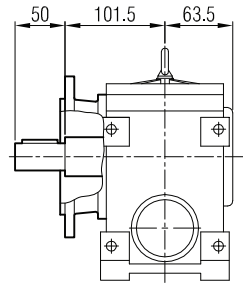
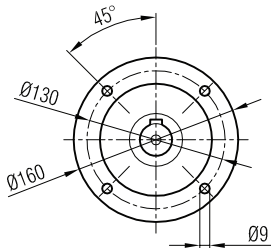
**... -FL**



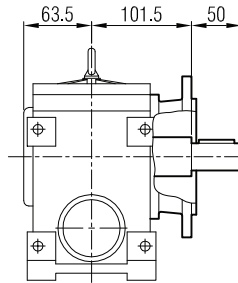
**... -FD**



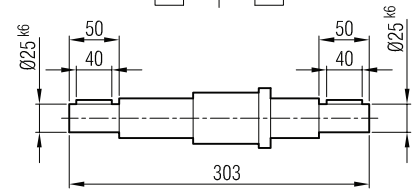
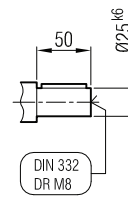
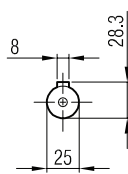
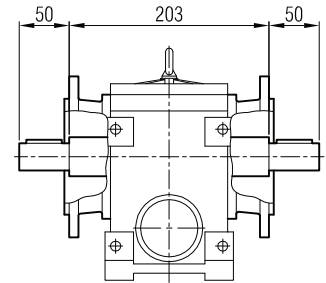
**... -FR -SR**



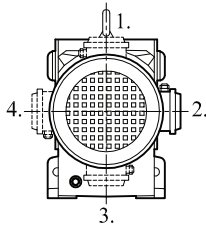
**... -FL -SL**



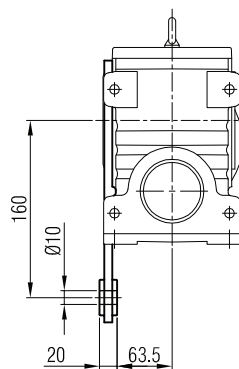
**... -FD -SD**



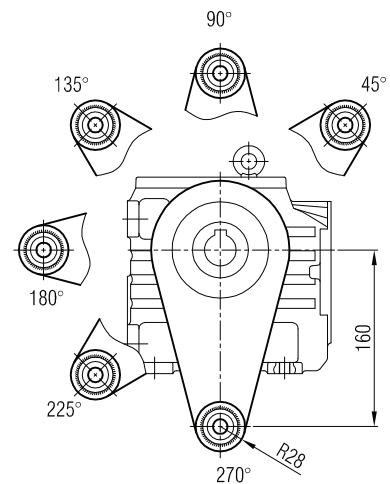
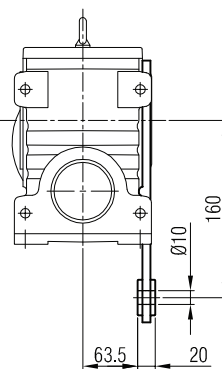
**Klemens Pozisyonları**  
Terminal Box Positions  
Klemenskasten Positionen



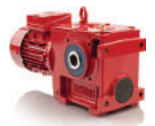
**-TR**



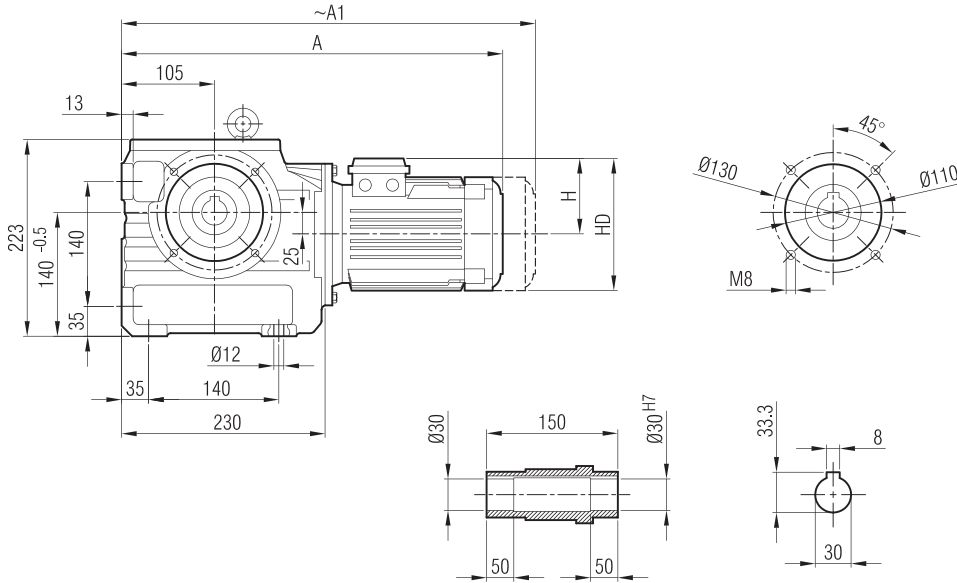
**-TL**







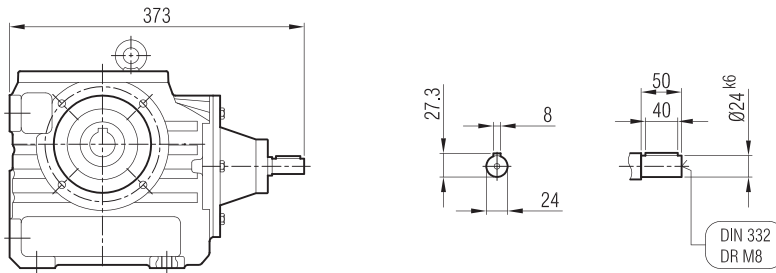
**İRSDM 63**



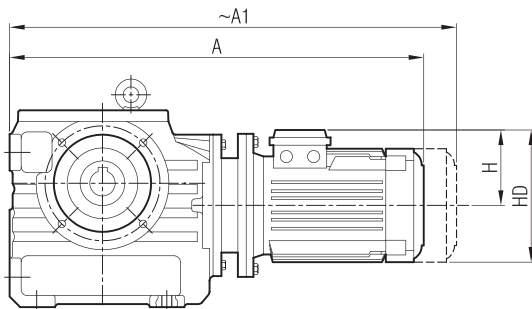
	71	80	90 S	90 L	100	112
A	441	470	500	525	564	584
A <sub>1</sub>	492	539	566	591	642	667
H	111	118	126	126	134	145
HD	182	198	216	216	234	257
AC	138	156	176	176	194	218

**"A<sub>1</sub>" Ölçüsü Frenli Motorlar içindir.**  
Dimension "A<sub>1</sub>" is for motors with brake.  
Le dimensions "A<sub>1</sub>" correspondent aux moteurs équipés de freins.

**İRSD 63**



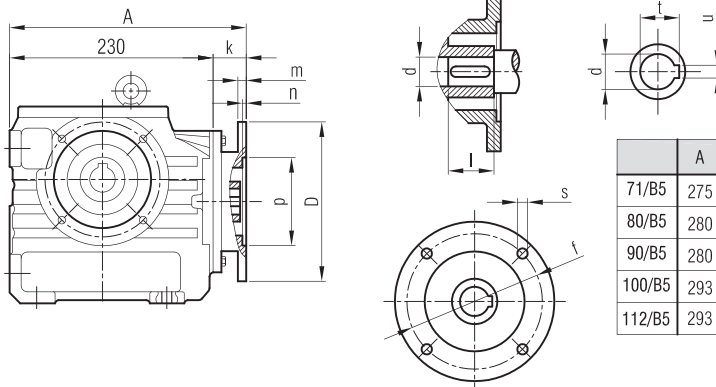
**İRSDPM 63**



	71/B5	80/B5	90 S/B5	90 L/B5	100/B5	112/B5
A	498	524	539	564	609	629
A <sub>1</sub>	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

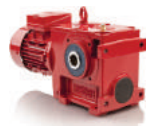
**"A<sub>1</sub>" Ölçüsü Frenli Motorlar içindir.**  
Dimension "A<sub>1</sub>" is for motors with brake.  
Le dimensions "A<sub>1</sub>" correspondent aux moteurs équipés de freins.

**İRSDP 63**

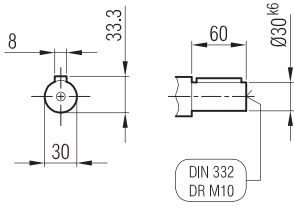


	A	Øp	Øf	ØD	s	k	m	n	Ød	l	t	u
71/B5	275	110	130	160	M8	45	9	4	14	30	16.3	5
80/B5	280	130	165	200	M10	50	12	5	19	40	21.8	6
90/B5	280	130	165	200	M10	50	12	5	24	50	27.3	8
100/B5	293	180	215	250	M12	63	14	5	28	60	31.3	8
112/B5	293	180	215	250	M12	63	14	5	28	60	31.3	8

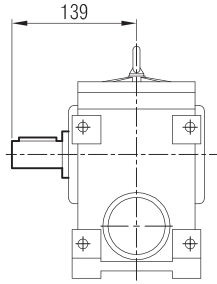
**"A<sub>1</sub>" Ölçüsü Frenli Motorlar içindir.**  
Dimension "A<sub>1</sub>" is for motors with brake.  
Le dimensions "A<sub>1</sub>" correspondent aux moteurs équipés de freins.



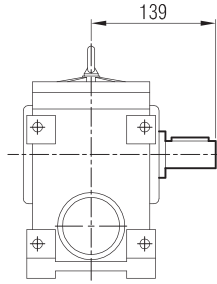
**İRSDM 63**



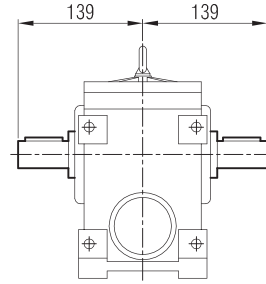
**-SR**



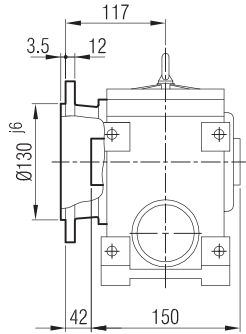
**-SL**



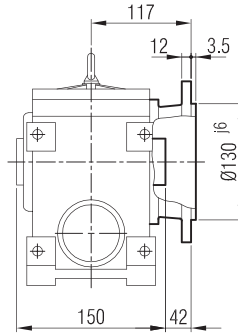
**-SD**



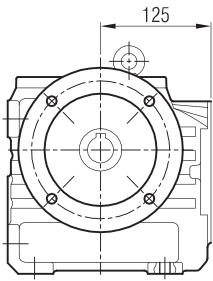
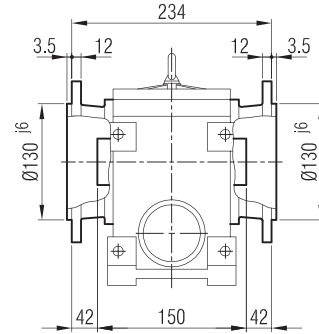
**-FR**



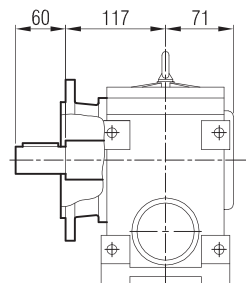
**-FL**



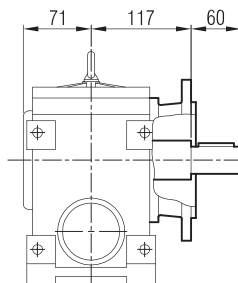
**-FD**



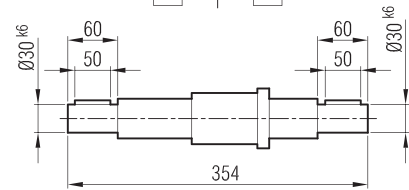
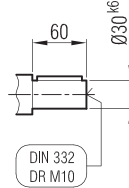
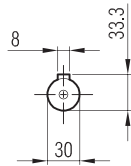
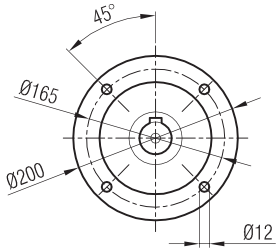
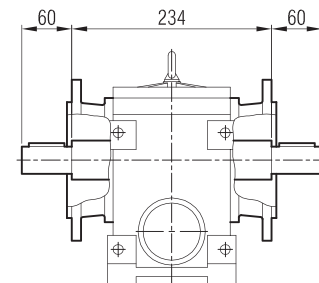
**-FR -SR**



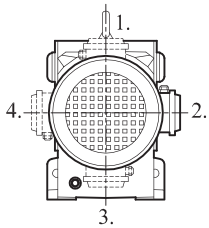
**-FL -SL**



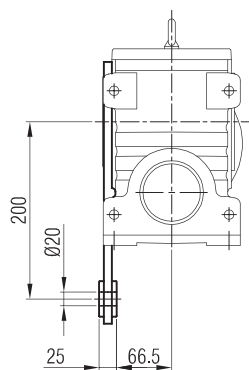
**-FD -SD**



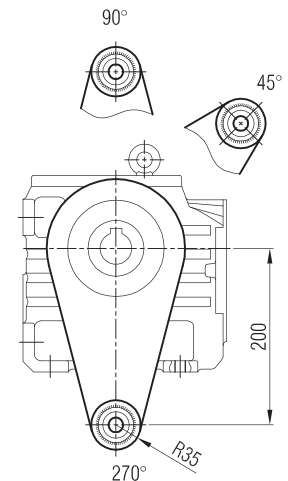
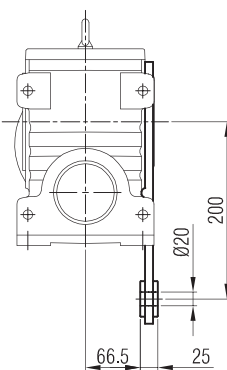
**Klemens Pozisyonları**  
Terminal Box Positions  
Klemenskasten Positionen

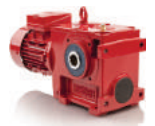


**-TR**

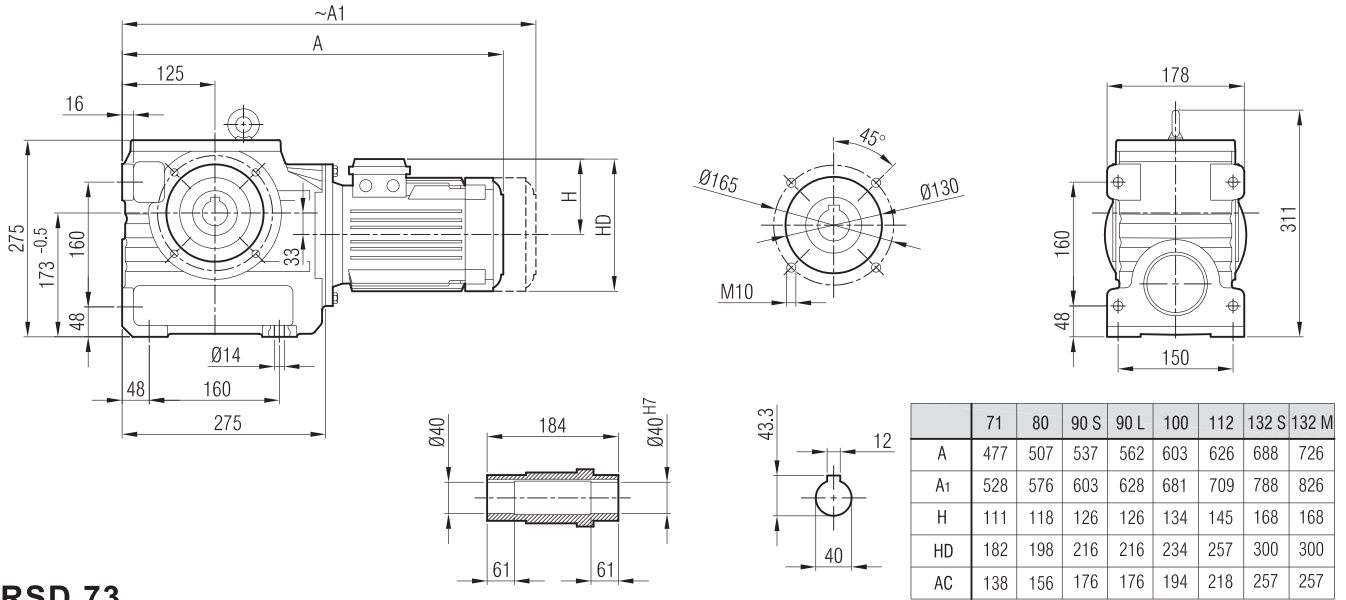


**-TL**

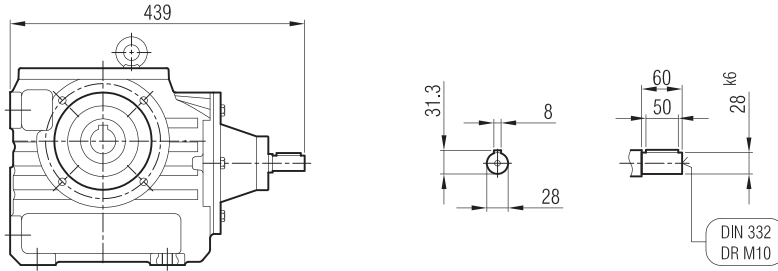




**İRSDM 73**

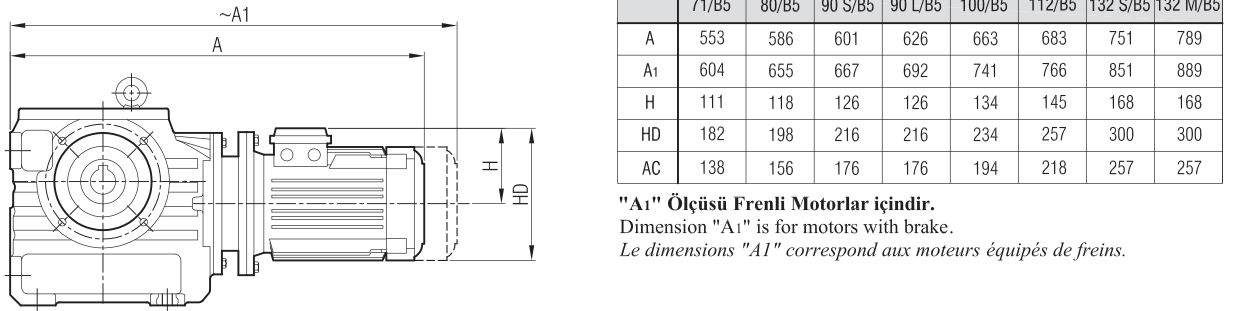


**İRSD 73**



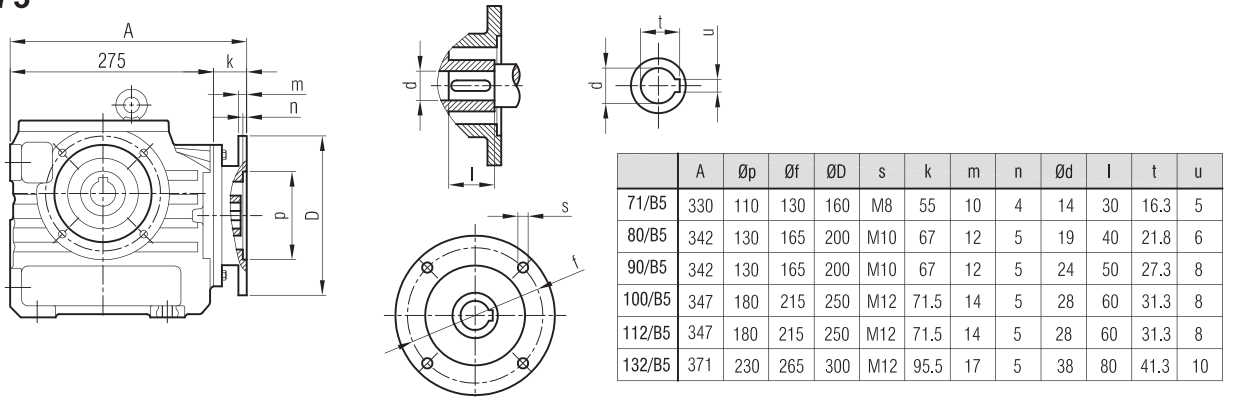
**"A<sub>1</sub>" Ölçüsü Frenli Motorlar İçindir.**  
Dimension "A<sub>1</sub>" is for motors with brake.  
Le dimensions "A<sub>1</sub>" correspondent aux moteurs équipés de freins.

**İRSDPM 73**

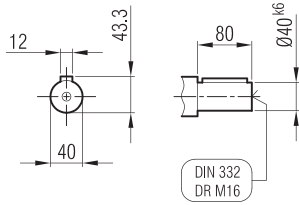
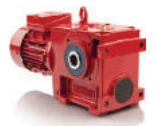


**"A<sub>1</sub>" Ölçüsü Frenli Motorlar İçindir.**  
Dimension "A<sub>1</sub>" is for motors with brake.  
Le dimensions "A<sub>1</sub>" correspondent aux moteurs équipés de freins.

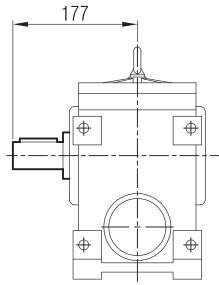
**İRSDP 73**



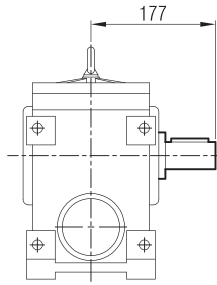
**"A<sub>1</sub>" Ölçüsü Frenli Motorlar İçindir.**  
Dimension "A<sub>1</sub>" is for motors with brake.  
Le dimensions "A<sub>1</sub>" correspondent aux moteurs équipés de freins.



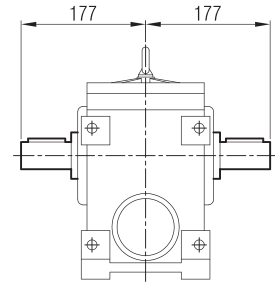
**-SR**



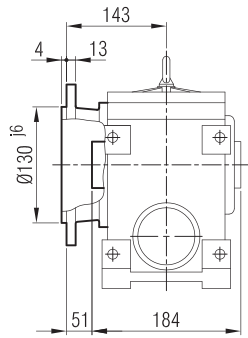
**-SL**



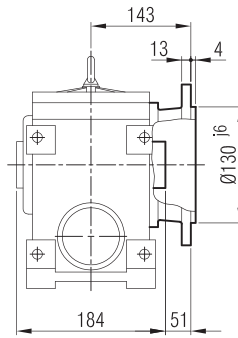
**-SD**



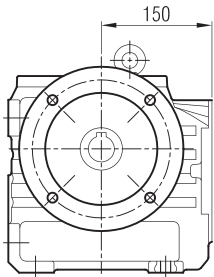
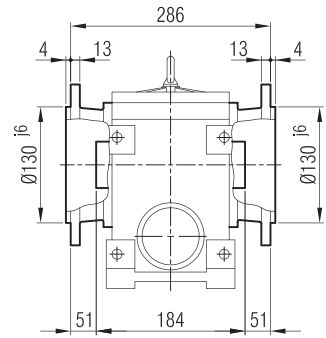
**-FR**



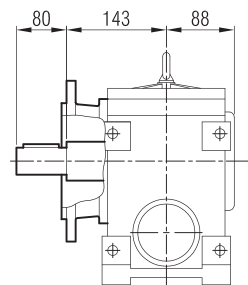
**-FL**



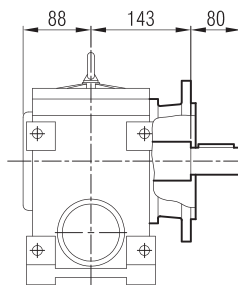
**-FD**



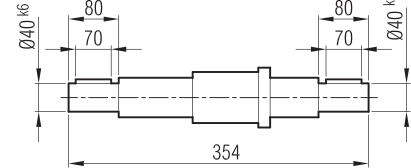
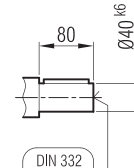
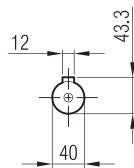
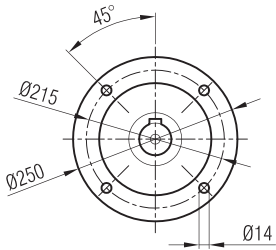
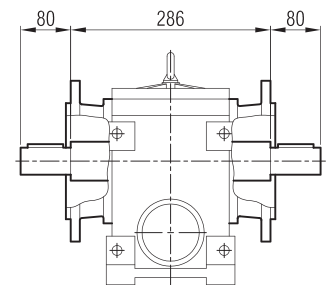
**-FR -SR**



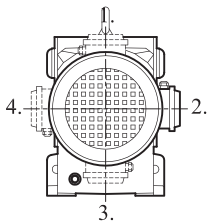
**-FL -SL**



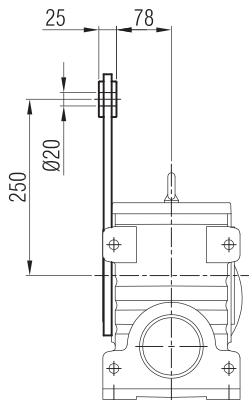
**-FD -SD**



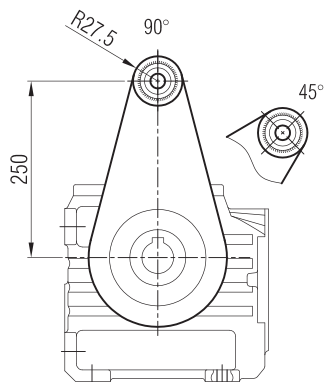
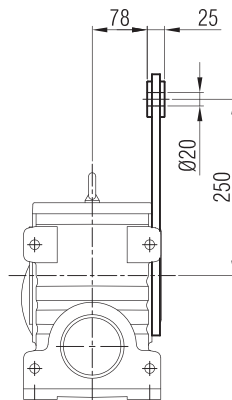
**Klemens Pozisyonları**  
Terminal Box Positions  
Klemenskasten Positionen

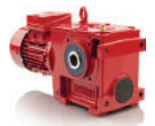


**-TR**

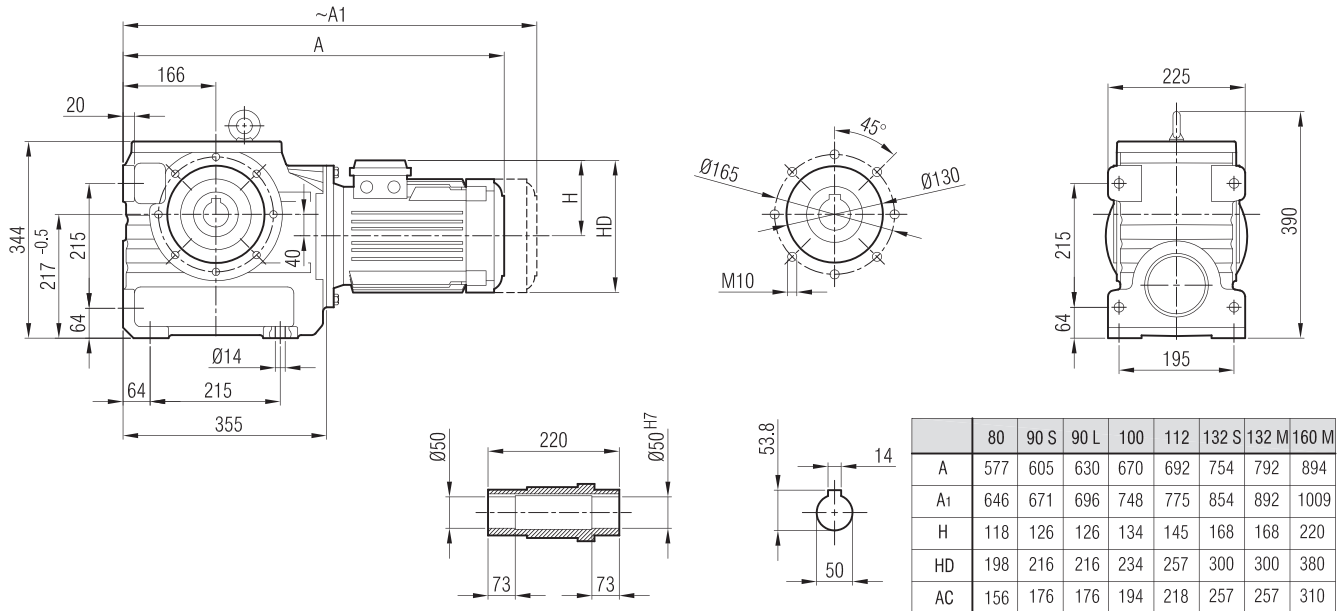


**-TL**

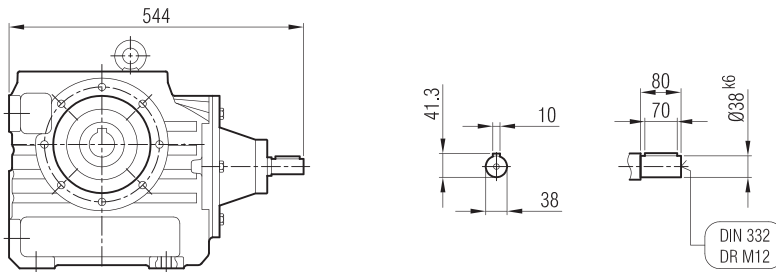




**İRSDM 83**

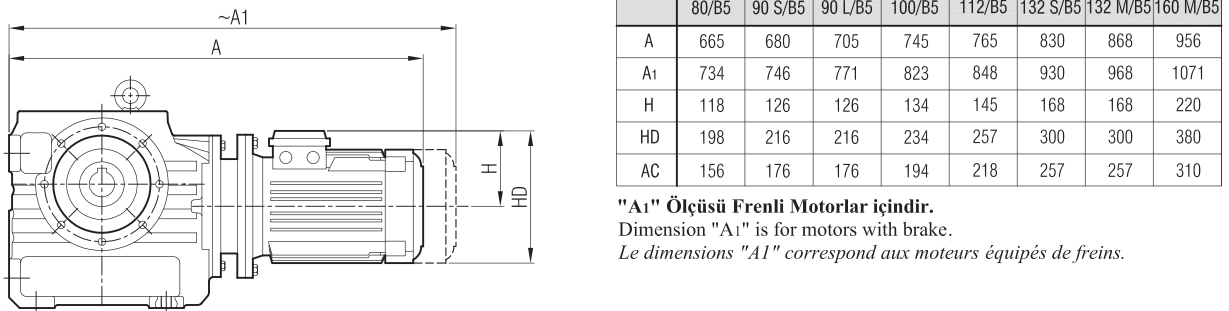


**İRSD 83**



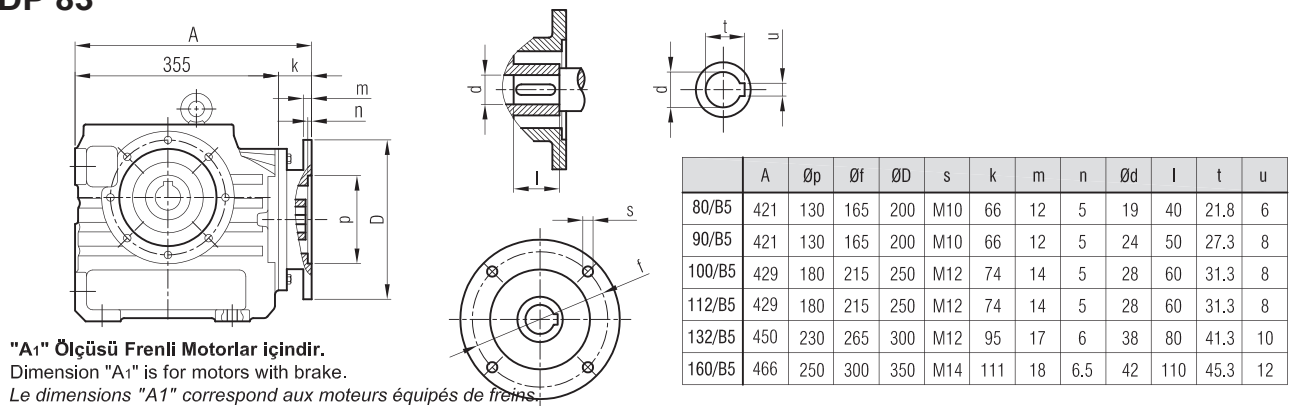
**"A<sub>1</sub>" Ölçüsü Frenli Motorlar içindir.**  
Dimension "A<sub>1</sub>" is for motors with brake.  
Le dimensions "A<sub>1</sub>" correspond aux moteurs équipés de freins.

**İRSDPM 83**

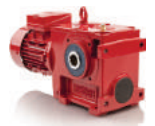


**"A<sub>1</sub>" Ölçüsü Frenli Motorlar içindir.**  
Dimension "A<sub>1</sub>" is for motors with brake.  
Le dimensions "A<sub>1</sub>" correspond aux moteurs équipés de freins.

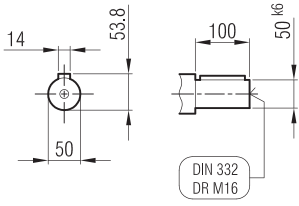
**İRSDP 83**



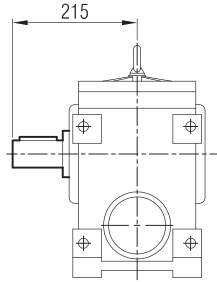
**"A<sub>1</sub>" Ölçüsü Frenli Motorlar içindir.**  
Dimension "A<sub>1</sub>" is for motors with brake.  
Le dimensions "A<sub>1</sub>" correspond aux moteurs équipés de freins.



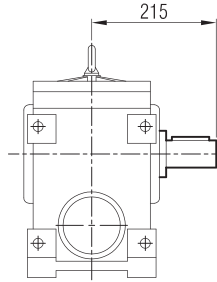
**İRSDM 83**



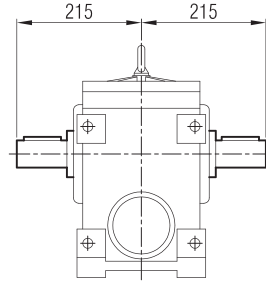
**... -SR**



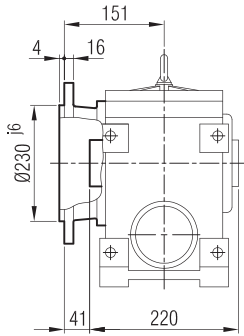
**... -SL**



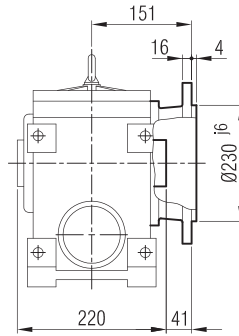
**... -SD**



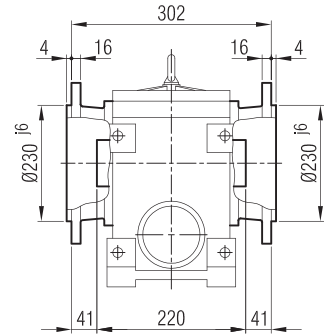
**... -FR**



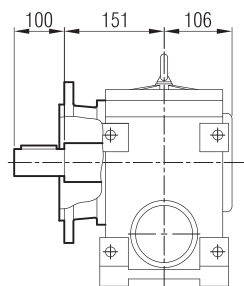
**... -FL**



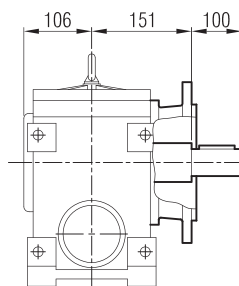
**... -FD**



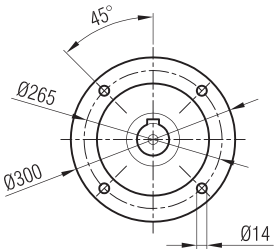
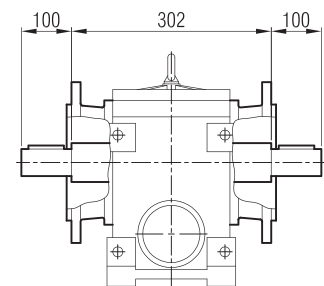
**... -FR -SR**



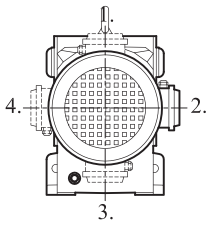
**... -FL -SL**



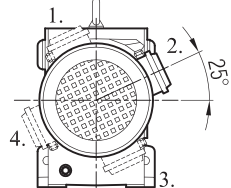
**... -FD -SD**



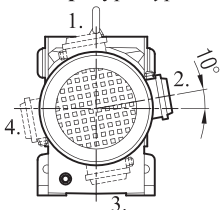
**Klemens Pozisyonları**  
Terminal Box Positions  
Klemenskasten Positionen



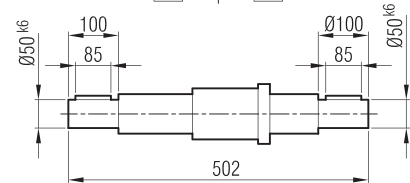
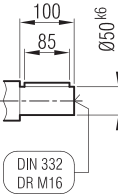
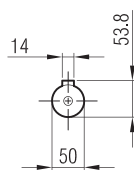
90, 100, 132, 160 Tip/Type/Typ



80 Tip/Type/Typ

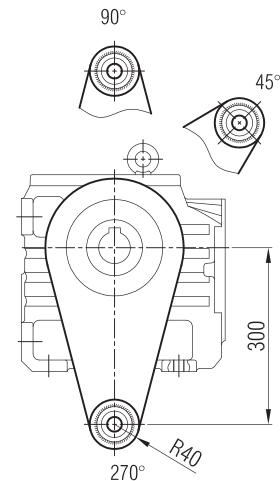
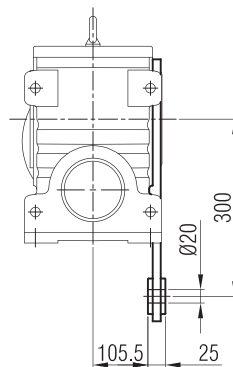
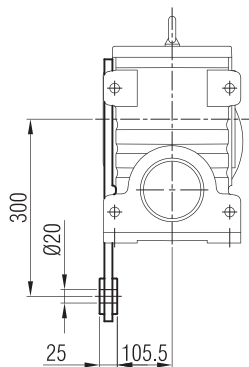


112 Tip/Type/Typ



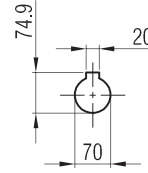
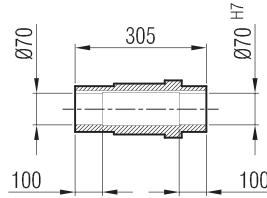
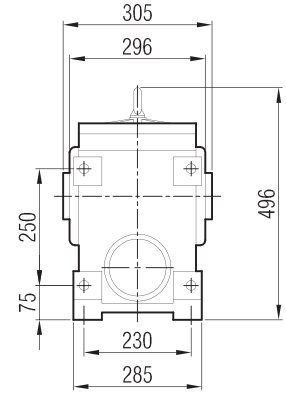
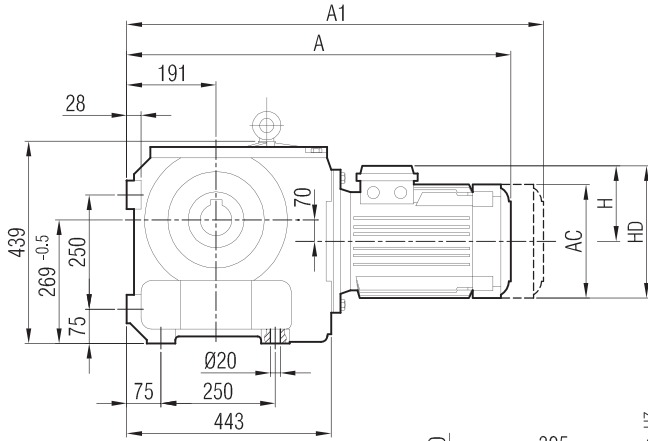
**-TR**

**-TL**



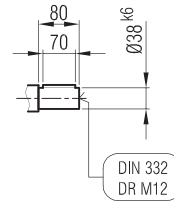
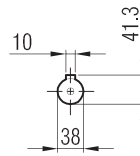
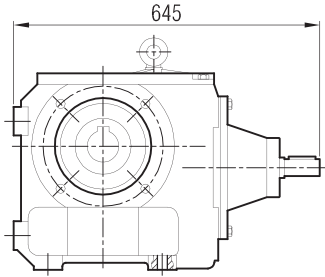


**İRSDM 161**



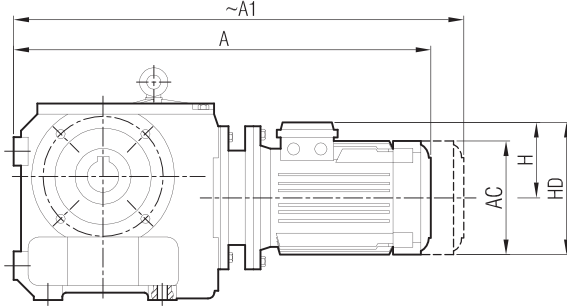
	90 S	90 L	100	112	132 S	132 M
A	784	810	755	778	825	871
A <sub>1</sub>	879	905	870	903	980	1030
H	126	126	134	145	168	168
HD	216	216	234	257	300	300
AC	176	176	194	218	257	257

**İRSD 161**



"A<sub>1</sub>" Ölçüsü Frenli Motorlar içindir.  
Dimension "A<sub>1</sub>" is for motors with brake.  
Le dimensions "A<sub>1</sub>" correspond aux moteurs équipés de freins.

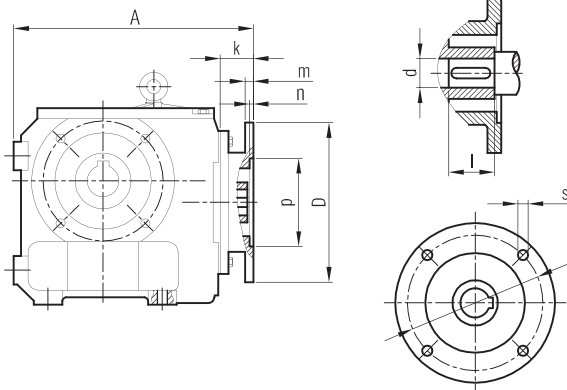
**İRSDPM 161**



	90 S/B5	90 L/B5	100/B5	112/B5	132 S/B5	132 M/B5
A	751	776	817	837	918	956
A <sub>1</sub>	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

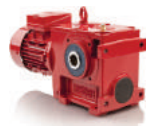
"A<sub>1</sub>" Ölçüsü Frenli Motorlar içindir.  
Dimension "A<sub>1</sub>" is for motors with brake.  
Le dimensions "A<sub>1</sub>" correspond aux moteurs équipés de freins.

**İRSDP 161**

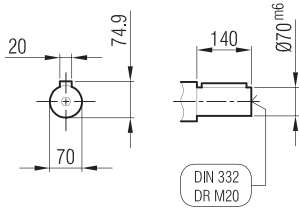


	A	Øp	Øf	ØD	s	k	m	n	Ød	l	t	u
90/B5	492	130	165	200	M10	49	12	5	24	50	27.3	8
100/B5	501	180	215	250	M12	58	14	5	28	50	31.3	8
112/B5	501	180	215	250	M12	58	14	5	28	50	31.3	8
132/B5	538	230	265	300	M12	95	17	6	38	80	41.3	10

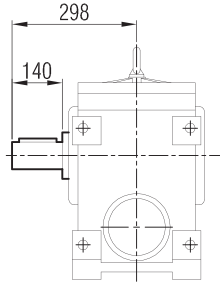
"A<sub>1</sub>" Ölçüsü Frenli Motorlar içindir.  
Dimension "A<sub>1</sub>" is for motors with brake.  
Le dimensions "A<sub>1</sub>" correspond aux moteurs équipés de freins.



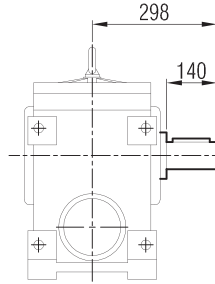
**İRSDM 161**



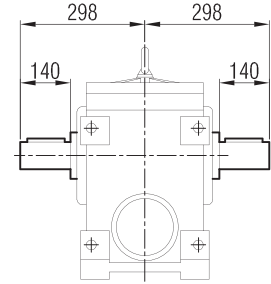
**... -SR**



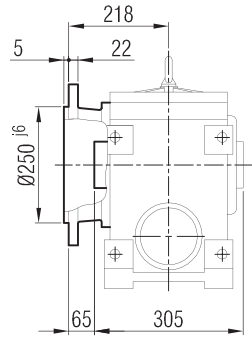
**... -SL**



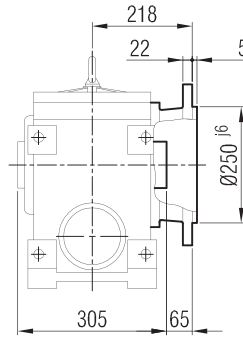
**... -SD**



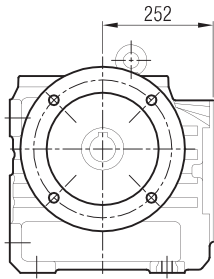
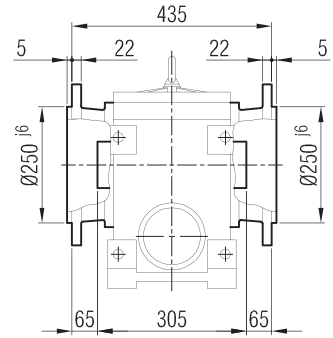
**... -FR**



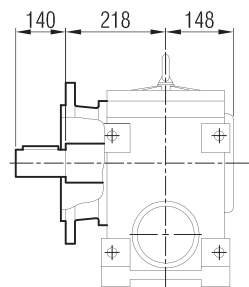
**... -FL**



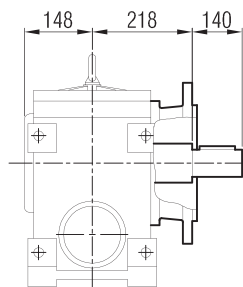
**... -FD**



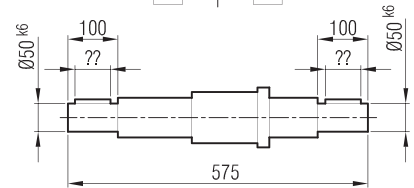
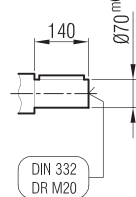
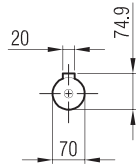
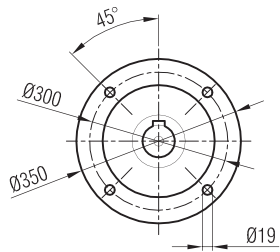
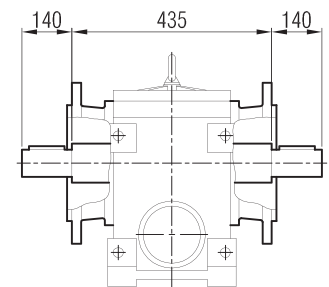
**... -FR -SR**



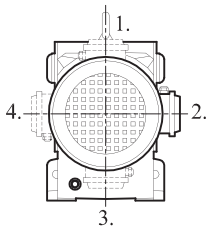
**... -FL -SL**



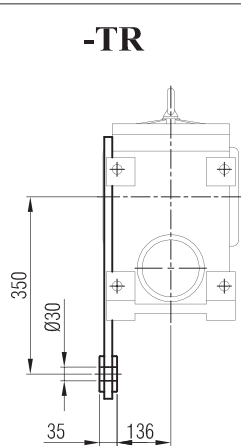
**... -FD -SD**



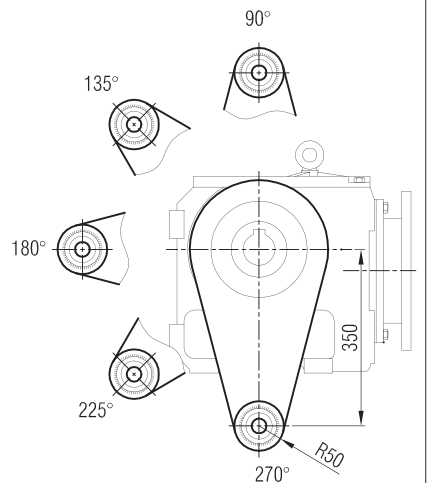
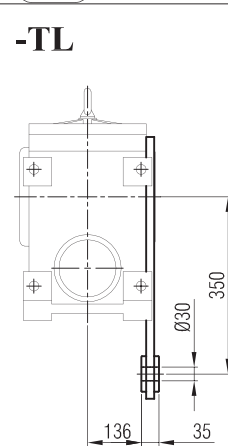
**Klemens Pozisyonları**  
Terminal Box Positions  
Klemenskasten Positionen



**-TR**



**-TL**







## Yedek Parça Listeleri

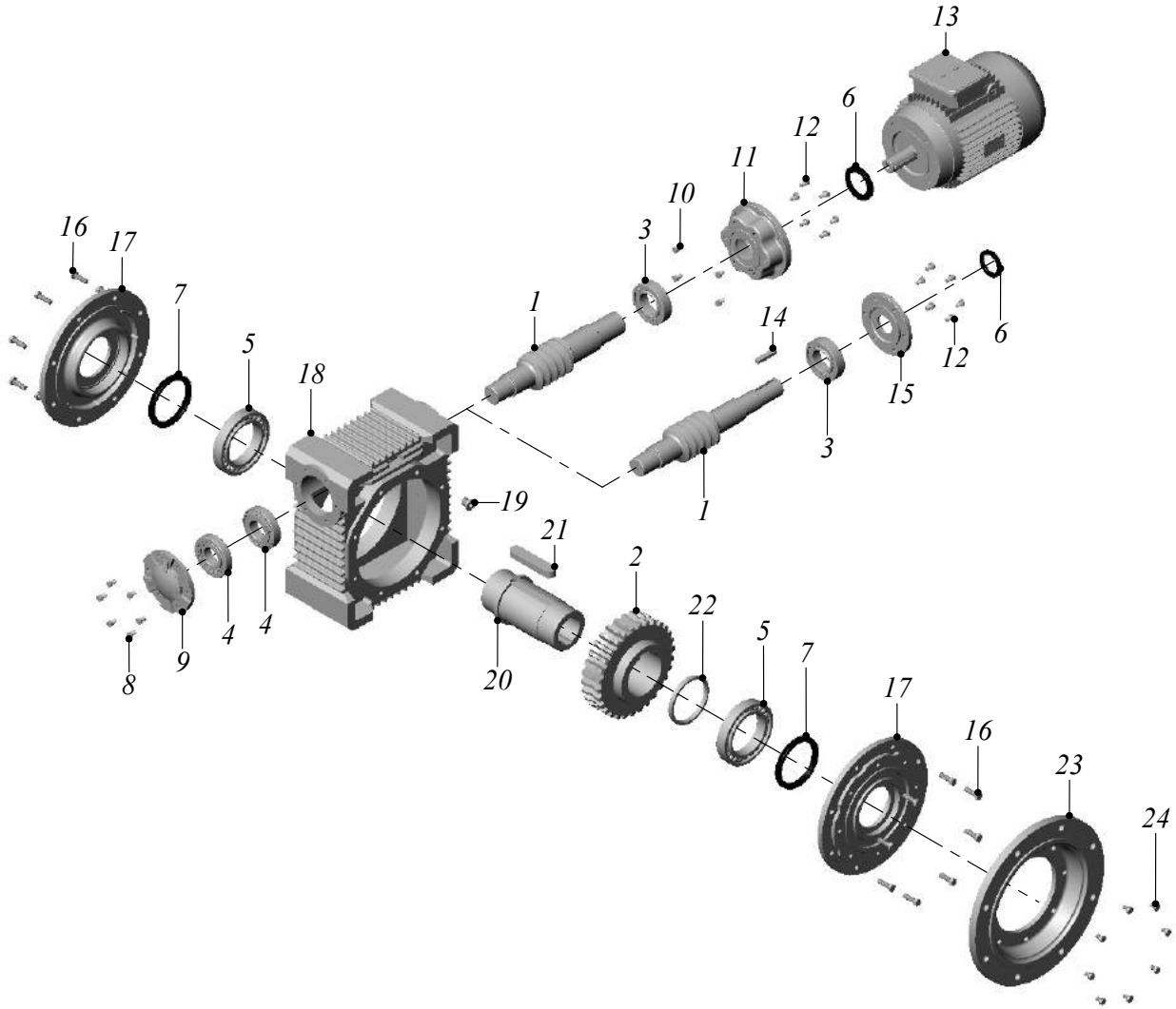
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General Parts List

*Liste des composants*

**TİP / TYPE****İRSAM - İRSAP - İRSA****İRSFM - İRSFP - İRSF**

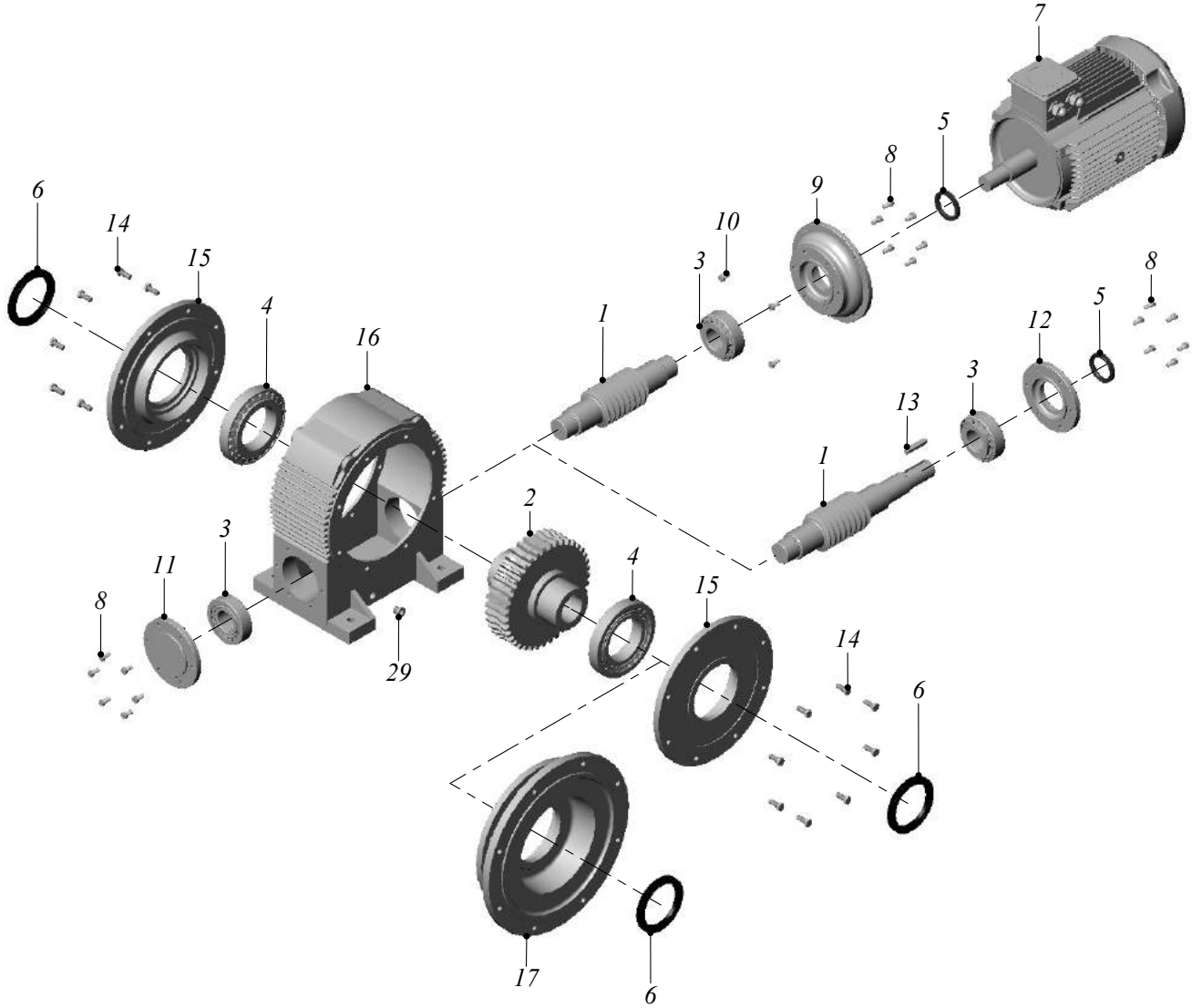
} 52-65-82-102-127-162



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

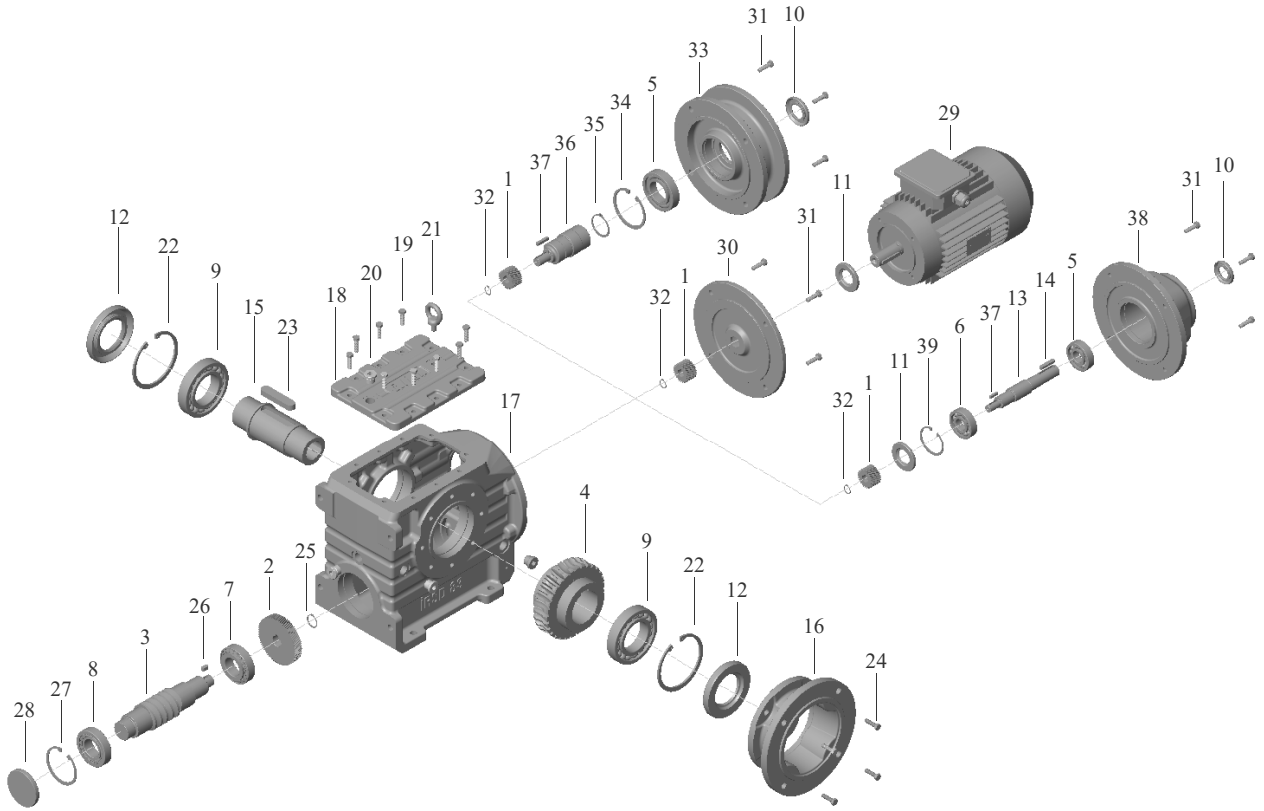
<b>1 - Sonsuz Vida</b>	1 - Worm	<i>1 - Roue</i>
<b>2 - Sonsuz Vida Çarkı</b>	2 - Worm Wheel	<i>2 - Vis sans fin</i>
<b>3 - Rulman</b>	3 - Bearing	<i>3 - Roulement</i>
<b>4 - Rulman</b>	4 - Bearing	<i>4 - Roulement</i>
<b>5 - Rulman</b>	5 - Bearing	<i>5 - Roulement</i>
<b>6 - Keçe</b>	6 - Seal	<i>6 -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

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



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

<b>1 - Sonsuz Vida</b>	<b>1 - Worm</b>	<i>1 - Roue</i>
<b>2 - Sonsuz Vida Çarkı</b>	<b>2 - Worm Wheel</b>	<i>2 - Vis sans fin</i>
<b>3 - Rulman</b>	<b>3 - Bearing</b>	<i>3 - Roulement</i>
<b>4 - Rulman</b>	<b>4 - Bearing</b>	<i>4 - Roulement</i>
<b>5 - Keçe</b>	<b>5 - Seal</b>	<i>5 - Joint</i>
<b>6 - Keçe</b>	<b>6 - Seal</b>	<i>6 - Joint</i>
<b>7 - Motor</b>	<b>7 - Electric Motor</b>	<i>7 - Moteur électrique</i>
<b>8 - Cıvata</b>	<b>8 - Bolt</b>	<i>8 - Vis</i>
<b>9 - Pam Flanş (IEC)</b>	<b>9 - IEC Flange</b>	<i>9 - Bride IEC</i>
<b>10 - Cıvata</b>	<b>10 - Bolt</b>	<i>10 - Vis</i>
<b>11 - Rulman Baskı Kapağı</b>	<b>11 - Bearing Cover</b>	<i>11 - Couvercle</i>
<b>12 - Keçe Kapağı</b>	<b>12 - Seal Cover</b>	<i>12 - Joint</i>
<b>13 - Kama</b>	<b>13 - Key</b>	<i>13 - Clavette</i>
<b>14 - Cıvata</b>	<b>14 - Bolt</b>	<i>14 - Vis</i>
<b>15 - Keçe Kapağı</b>	<b>15 - Seal Cover</b>	<i>15 - Joint</i>
<b>16 - Gövde</b>	<b>16 - Gear Case</b>	<i>16 - Carter</i>
<b>17 - Flanş</b>	<b>17 - Flange</b>	<i>17 - Bride</i>

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

**TİP / TYPE****İRSĐ / İRSDF / İRSDP / İRSDFP / İRSĐM / İRSDFM } 53-63-73-83-161**

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 électrique
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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