

*PRODUCT PICTURE*



**TR..YDA**



**TK..AM..YDT**



**TRF..YDA**



**TK..YDT**



**TR..F..YDA**



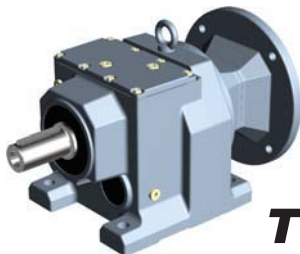
**TR..YDT**



**TRX..YDA**



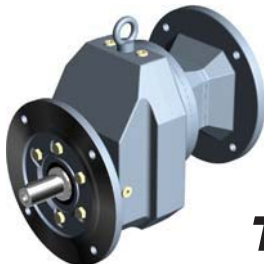
**FR..YDT**



**TR..IEC**



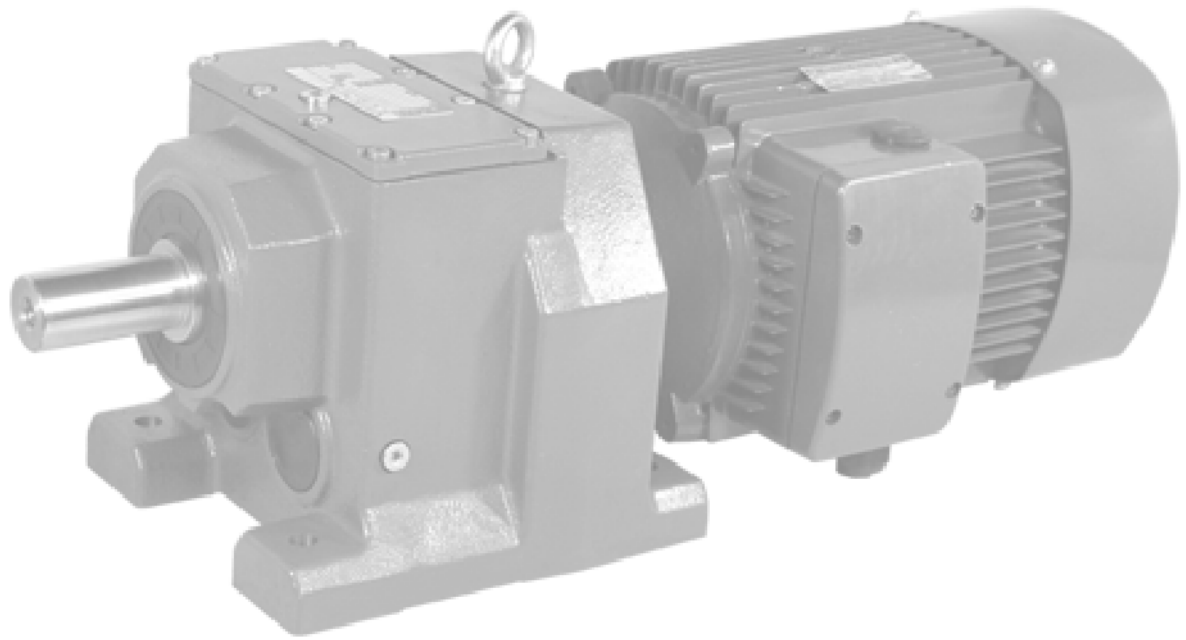
**G3..UDL..TA**



**TRX..IEC**



**G3..LM**



# **YUEMA**

## ***TR Series***

***Europe Technology & Design  
Helical Geared Motor***

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**SUMMARIZE**

TR Series helical gearmotor is a new generation mechanic-electrical integrated product, which designed basing on the modular system. It can be connected respectively with motors such as normal motor, brake motor, explosion-proof motor, frequency conversion motor, servo motor, IEC motor and so on. It can be mounted discretionary six orientation in solid space. This kind of product is widely used in drive fields such as textile, foodstuff, beverage, chemical industry, automatic arm ladder, automatic storage equipment, metallurgy, tobacco, environment-protection, logistics and so on.

**PERFORMANCE CHARACTERISTICS**

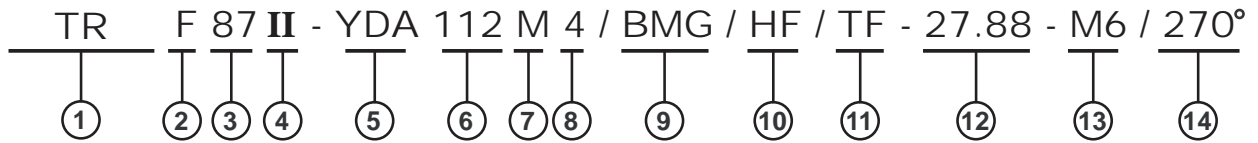
1. Transmission ratio with fine stage covers a wide range;
2. Compact structure takes up small room;
3. low vibration; low noise; low energy dissipation;
4. Refined design; reliable and wearable; wide usage;
5. Modular, multistrukture, can be combined in many forms to meet needs of all kinds of transmission conditions.

TR Series helical gearmotor of 1-stage, 2-stage or 3-stage helical gears unit and motor. The helical gear which use the material of high quality alloy steel with the surface hardened takes shape through processing of high-precision equipment. Except the TR..27 housing with aluminum alloy, all are cast iron housing. Housing is exactly processed to ensure the shape and position precision. And it reaches advantageous performance such as: strong bearing capacity, long service-life; small volume; big ratio; light weight, high efficiency, low noise.

TR Series helical gearmotor has more than ten models. Combined with TRF series, the multi-stage gear reduction can be achieved. Power 0.12-160KW; Ratio 1.3-27001; Torque 69-18000Nm. It can connect (foot, flange) discretionary and use multi-mounting positions according to customers' requirements.



**MODEL MARK**



NO	COMMENTS
1	<b>TR:</b> code for helical-gear units series
2	1). No code means foot-mounted 2). <b>F:</b> B5 flange mounted 3). <b>Z:</b> B14 flange mounted 4). <b>X:</b> single-stage foot-mounted 5). <b>XF:</b> single-stage flange-mounted
3	Specification code of gear units 27, 37,... ..
4	1) No code means foot-mounted, no flange 2) <b>F:</b> foot-mounted, <b>B5</b> output flange 3) <b>I, II, III:</b> <b>B5</b> output flange specification, default <b>I</b> not to write out is ok
5	1). <b>YDA:</b> Frame 63~132 & <b>YDT:</b> Frame 160~315, motor code 2). <b>AM:</b> <b>IEC</b> input couplings
6	Specification code of motor (high in motor centre )
7	Length code of stator core <b>D, K, L, M, ML, N, S</b>
8	Pole number of motor 2, 4, 6, 8
9	1). No code means no brake 2). <b>BMG:</b> brake
10	1). No code means no manual release device 2). <b>HF:</b> manual release device with self-locking function 3). <b>HR:</b> manual release device with outself-locking function
11	1). No code means no motor heat-protection device 2). <b>TF:</b> motor heat- protection device
12	Transmission ratio of gear units
13	<b>M1:</b> Mounting position default mounting position <b>M1</b> not to write out is ok
14	Position diagram for motor terminal box default position <b>0°(R)</b> not to write out is ok

Example: **TR47 - YDA71D4 - 121.87**

**TRF57III - AM80 - 80.55**

**TRXF67 - YDA90S4 / BMG - 1.86 - M1 / R**

RELEVANT PARAMETER

1) Power

- $P_1$  Input Power
- $P_2$  Output Power
- $P_{1n}$  Selected Motor Power
- $f_s$  Service Factor
- $\eta$  Transmission Efficiency

$$P_1 = \frac{P_2}{\eta} \text{ [kW]}$$

$$P_{1n} \geq P_1 \cdot f_s \text{ [kW]}$$

The efficiency of TR Series gear units varies with the number or gear stages, between **94 % (3-stage)**, **96% (2-stage)** and **98% (1-stage)**

2) Rotation speed

- $n_1$  Gear units input speed
- $n_2$  Gear units output speed

which in selection table means the motor rotation speed 1400/min. If driven by the external gearing, 1400r/min or lower rotation speed is suggested so as to optimize the working conditions and prolong the service life. Higher input rotation speed is permitted, but in this situation, the rated torque  $M_2$  will be reduced.

3) i Transmission ratio i

$$i = \frac{n_1}{n_2}$$

Usually transmission ratio is decimal fraction with 2 radix point tagged in selection tables.

4) Torque

$$M_2 = \frac{9550 \cdot P_1 \cdot \eta}{n_2} \text{ [Nm]}$$

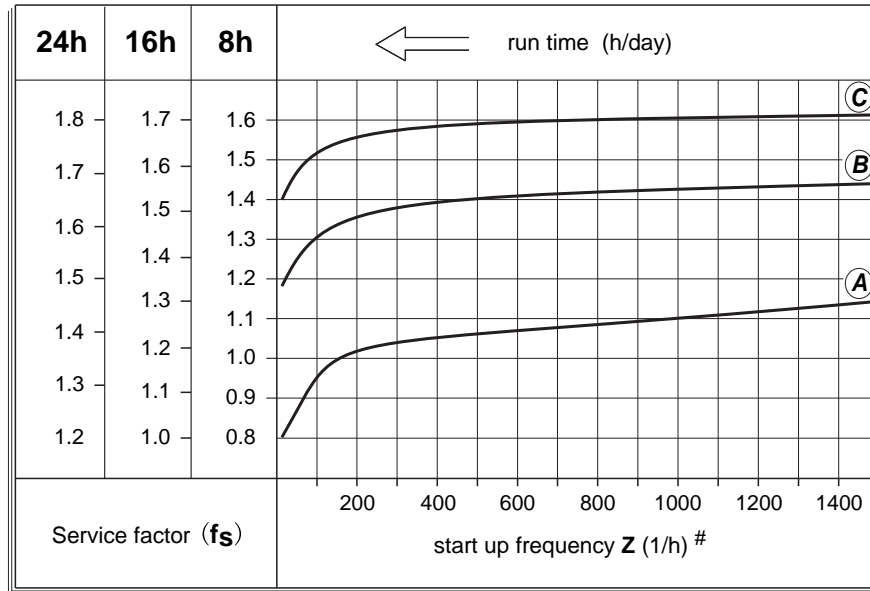
$$M_{2n} \geq M_2 \cdot f_s \text{ [Nm]}$$

- $M_2$  Output torque
- $M_{2n}$  Selected output torque
- $P_1$  Input power
- $\eta$  Transmission efficiency
- $f_s$  Service factor

5)  $f_s$  Service factor  $f_s$

The effect of the driven machine on the gear unit is taken into account to a sufficient level of accuracy using the service factor  $f_s$ . The service factor is determined according to the daily operating time and starting frequency Z. Three load classifications are considered depending on the mass acceleration factor.

You can read off the service factor applicable to your application in following Figure. The service factor selected using this diagram must be less than or equal to the service factor as given in the performance parameter table.



# Starting Frequency **Z** : The cycles include all starting and braking procedures as well as change over from low to high speed.

Load classifications :

- (A) Uniform, permitted mass acceleration factor  $\leq 0.2$
- (B) Moderate shock load, permitted mass acceleration factor  $\leq 3$
- (C) Heavy shock load, permitted mass acceleration factor  $\leq 10$

Load classifications see the addendum.

The mass acceleration factor is calculated as follows:

$$fa = \frac{Jc}{Jm}$$

**fa** Mass acceleration factor

**Jc** All external mass moments of inertia ( kgm 2 )

**Jm** Mass moment of inertia on the motor end ( kgm 2 )

If mass acceleration factors **fa** > 10, please call our Technical Service.

To keep the service-life of gear units, the use factor **f<sub>s</sub>** selected from the catalogue must be equal or slightly higher than the calculated use factor **f<sub>s</sub>**

6) Radial loads & axial loads  $F_{r2}$

When determining the resulting radial loads, the type of transmission elements, mounted on the shaft end must be considered. Various transmission elements are corresponding with following transmission element factors  $f_z$  :

Transmission element	Transmission element factor $F_z$	Comments
Gears	1.00	$\geq 17$ teeth
	1.15	$< 17$ teeth
Chain sprockets	1.00	$\geq 20$ teeth
	1.25	$< 20$ teeth
	1.40	$< 13$ teeth
V Narrow V-belt pulleys	1.75	Influence of the tensile force
Flat belt pulleys	2.50	Influence of the tensile force
Toothed belt pulleys	2.50	Influence of the tensile force

The overhung loads exerted on the motor or gear shaft is then calculated as follows:

$$F_{r2} = \frac{M_d \cdot 2000 \cdot f_z}{d_0} \text{ [N]}$$

$F_{r2}$  Radial loads [N]

$M_d$  Torque [Nm]

$d_0$  Mean diameter of the mounted transmission element [mm]

$f_z$  Transmission element factor

The basis for determining the permitted radial loads is the computation of the rated service life LH10 of the bearings (according to ISO 281). For special operating conditions, the permitted radial loads can be determined with regard to the modified service life Lna. The permitted radial loads  $F_r$  for the output shaft of foot-mounted gear units with a solid shaft are listed in the selection tables.

Contact our company in case of other versions.

The permitted radial loads given in the selection tables must be calculated using the following formula in the event of force application not in the center of the shaft end. The smaller of the two values  $F_{xL}$  (according to bearing service life) and  $F_{xW}$  (according to shaft strength) is the permitted value for the radial load at point x. Note that the calculations apply to  $M_{2 \max}$ .

$$F_{xL} = F_{r2} \cdot \frac{a}{b+x} \text{ [N]}$$

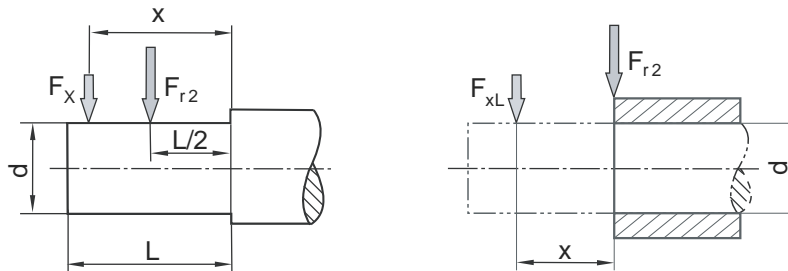
$$F_{xW} = F_{r2} \cdot \frac{c}{f+x} \text{ [N]}$$

**Fr2** = Permitted overhung load ( $x = L/2$ ) for foot-mounted gear units according to the selection tables in [N]

**x** = Distance from the shaft shoulder to the force application point in [mm]

**a, b, f** = Gear unit constant for overhung load conversion [mm]

**c** = Gear unit constant for overhung load conversion [mm]



Gear unit type	a [mm]	b [mm]	c [Nmm]	f [mm]	d [mm]	L [mm]
TRX57	43.5	23.5	1.51 x 105	34.2	20	40
TRX67	52.5	27.5	2.42 x 105	39.7	25	50
TRX77	60.5	30.5	1.95 x 105	0	30	60
TRX87	73.5	33.5	7.69 x 105	48.9	40	80
TRX97	86.5	36.5	1.43 x 106	53.9	50	100
TRX107	102.5	42.5	2.47 x 106	62.3	60	120
TR27	106.5	81.5	1.56 x 105	11.8	25	50
TR37	118	93	1.24 x 105	0	25	50
TR47	137	107	2.44 x 105	15	30	60
TR57	147.5	112.5	3.77 x 105	18	35	70
TR67	168.5	133.5	2.51 x 105	0	35	70
TR77	173.7	133.7	3.97 x 105	0	40	80
TR87	216.7	166.7	8.47 x 105	0	50	100
TR97	255.5	195.5	1.19 x 106	0	60	120
TR107	285.5	215.5	2.06 x 106	0	70	140
TR137	343.5	258.5	6.14 x 106	30	90	170
TR147	402	297	8.65 x 106	33	110	210
TR167	450	345	1.26 x 107	0	120	210

## SELECTION EXAMPLE

## 1) Gear motor

Example: Required power 16kW on driven machine, work for 8h/day, moderate shock load, so  $f_s=1.3$ ,  
**M6** foot-mounted,  $n_2=61.9$  r/min

$$i = \frac{n_1}{n_2} = \frac{1400}{61.9} = 22.62$$

$$P_{1n} \geq P_1 \cdot f_s = \frac{P_2}{\eta} \cdot f_s = \frac{16}{0.96} \times 1.3 = 21.67 \text{ [kW]}$$

Choose type:

**TR107 - YDT180L4 - 22.62 - M6**

## 2) Gear units

Example: Required torque 480Nm on driven machine, work 6h/day, uniform load, so  $f_s=1.2$ , flange-mounted,  $n_2=2.5$  r/min, choose TR../TRF..

$$i = \frac{n_1}{n_2} = \frac{1400}{2.5} = 560$$

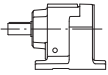
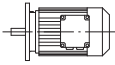
$$M_{2n} \geq M_2 \cdot f_s = 480 \times 1.2 = 576 \text{ [Nm]}$$

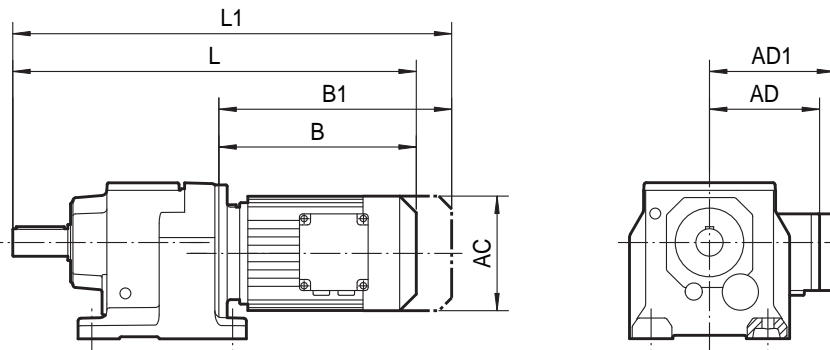
$$P_{1n} \geq P_1 \cdot f_s = \frac{M_2 \cdot n_1}{9550 \cdot \eta \cdot i} \cdot f_s = \frac{480 \times 1400}{9550 \times 0.94 \times 0.96 \times 560} \times 1.2 = 0.167 \text{ [kW]}$$

Choose type:

**TRF77 / TRF37 - YDA63M4 - 560**

**SELECTION TABLES COMMENTS**

- $P_{1n}$**  Rated power driving motor [**kW**]
- $n_2$**  Output speed [**r/min**]
- $M_{2n}$**  Output torque [**Nm**]
- $M_{2max}$**  Max. permissible output torque [**Nm**]
- $F_{r2}$**  Permissible overhung load output side [**N**]
- $i$**  Gear unit ratio
- $f_s$**  Service factor
-  Gear unit type
-  Motor type
- page** Dimension sheet page no
- \*** Finite gear unit reduction ratio



- L** Total length of gearmotor
- L1** Total length of gearmotor including brake
- B** Length of motor
- B1** Length of brake motor
- AC** Diameter of motor
- AD** Center of motor shaft to top part of terminal box
- AD1** Center of brake motor shaft to top part of terminal box.

The Below is combination Table between gear box and electromotor in each list the ratio range

Gear Unit Size	Stages	YDA63/ YDA71	YDA80	YDA90	YDA100	YDA112	YDA132S	YDA132M
TRX/TRXF57	1	1.65-5.50	1.30-4.35	1.30-3.79	1.30-2.64 3.14	1.30-2.64	1.30-2.04	1.30-2.04
TRX/TRXF67	1	2.04-6.07	1.61-5.18	1.40-4.53	1.40-3.77	1.40-3.20	1.40-2.54	1.40-2.54
TRX/TRXF77	1	2.70-8.00	2.13-6.41	1.42-5.63	1.42-4.73	1.42-4.04	1.42-3.25	1.42-3.25
TRX/TRXF87	1		3.09-8.65	2.15-7.63	1.60-6.45	1.60-5.56	1.39-4.50	1.39-4.50
TRX/TRXF97	1		4.04-8.23	2.92-8.23	2.24-8.23	2.24-7.16	1.42-5.79	1.42-5.79
TRX/TRXF107	1				2.64-6.63	2.64-6.63	1.71-6.63	1.71-6.63
TR/TRF17	2	3.83-25.23	3.83-19.71					
TR/TRF17	3	24.07-81.64	24.07-81.64	3.37-8.16				
TR/TRF27	2	3.37-28.37	3.37-22.32	10.13-19.35	3.37-6.59 10.13-15.63			
TR/TRF27	3	24.47-135.09	24.47-105.49	24.47-48.17 61.30-90.96	24.47-32.47 39.25 61.30 74.11			
TR/TRF37	2	3.41-28.32	3.41-22.27	3.41-19.31	3.41-15.60			
TR/TRF37	3	24.42-134.82	24.42-105.28	24.42-48.08 61.18-90.77	24.42-32.40 39.17 61.18 73.96			
TR/TRF47	2	4.85-7.76 10.15-33.79	3.83-26.74	3.83-23.28	3.83-16.22 19.27	3.83-16.22	3.83-6.00 8.01-12.54	3.83-6.00 8.01-12.54
TR/TRF47	3	29.88-176.88	23.59-139.99	23.59-121.87	23.59-47.75 56.73 76.23-84.90 100.86	23.59-47.75		23.59-36.93
TR/TRF57	2	6.41-9.06 11.88-26.31	5.05-26.31	4.39-26.31	4.39-21.93	4.39-18.60	4.39-7.97 9.35-14.77	4.39-7.97 9.35-14.77
TR/TRF57	3	30.18-186.89	26.97-147.92	26.97-128.77	26.97-48.23 57.29 80.55-89.71 106.58	26.97-48.23 80.55-89.71	26.97-37.30	26.97-37.30
TR/TRF67	2	6.27-7.79 12.70-28.13	4.93-7.79 10.00-28.13	4.29-28.13	4.29-23.44	4.29-19.89	4.29-15.79	4.29-15.79
TR/TRF67	3	32.27-199.81	28.83-158.14	28.83-137.67	28.83-51.56 61.26-95.91 113.94	28.83-51.56 69.75-95.91	28.83-39.88 69.75-74.17	28.83-39.88 69.75-74.17
TR/TRF77	2	8.59 15.60-23.37	6.79-8.59 12.33-23.37	5.31-23.37	5.31-23.37	5.31-23.37	5.31-18.80	5.31-18.80
TR/TRF77	3	36.83-195.24	29.00-166.59	25.23-145.67	25.23-121.42	25.23-102.99	25.23-45.81 65.77-81.80	25.23-45.81 65.77-81.80
TR/TRF87	2		19.10-34.40	7.13-9.14 13.33-34.40	5.30-34.40	5.30-34.40	5.30-27.84	5.30-27.84
TR/TRF87	3		41.74-246.54	27.88-216.54	27.88-181.77	27.88-155.34	27.88-63.68 81.92-124.97	27.88-63.68 81.92-124.97
TR/TRF97	2		22.37-32.05	9.29 16.17-32.05	7.12-9.29 12.39-32.05	7.12-9.29 12.39-32.05	4.50-32.05	4.50-32.05
TR/TRF97	3		53.21-65.21 103.44-289.74	37.13-255.71	27.58-216.28	27.58-186.30	27.58-150.78	27.58-150.78
TR/TRF107	2				15.65-30.77	15.65-30.77	5.82-7.86 10.13-30.77	5.82-7.86 10.13-30.77
TR/TRF107	3				40.37-251.15	40.37-251.15	29.49-203.16	29.49-203.16
TR/TRF137	2						7.59 12.83-29.57	7.59 12.83-29.57
TR/TRF137	3						32.91-222.60	32.91-222.60



Gear Unit Size	Stages	YDA132ML	YDT160M	YDT160L	YDT180	YDT200	YDT225	YDT250M
TRX/TRXF77	1	1.42-2.43	1.42-2.43					
TRX/TRXF87	1	1.39-3.48	1.39-3.48	1.39-3.48	1.39-2.76			
TRX/TRXF97	1	1.42-4.52	1.42-4.52	1.42-4.52	1.42-3.64	1.42-29.2		
TRX/TRXF107	1	1.44-5.19	1.44-5.19	1.44-5.19	1.44-4.20	1.44-3.38	1.44-3.38	
TR/TRF107	2	5.31-7.74 9.64-14.05	5.31-7.74 9.64-14.05					
TR/TRF77	3	25.23-33.47	25.23-33.47					
TR/TRF87	2	5.30-21.51	5.30-21.51	5.30-21.51	5.30-17.08			
TR/TRF87	3	27.88-47.58 81.92-93.38	27.88-47.58 81.92-93.38	27.88-47.58 81.92-93.38	27.88-36.84			
TR/TRF97	2	4.50-25.03	4.50-25.03	4.50-25.03	4.50-20.14	4.50-16.17		
TR/TRF97	3	27.58-59.92 72.17-116.48	27.58-59.92 72.17-116.48	27.58-59.92 72.17-116.48	27.58-47.58 72.17-92.48	27.58-37.13 72.17		
TR/TRF107	2	4.92-30.77	4.92-30.77	4.92-30.77	4.92-24.90	4.92-20.07	4.92-20.07	
TR/TRF107	3	29.49-158.68	29.49-158.68	29.49-158.68	29.49-65.60 78.57-127.68	29.49-52.68 78.57-102.53	29.49-52.68 78.57-102.53	
TR/TRF137	2	6.38-7.59 10.79-29.57	6.38-7.59 10.79-29.57	6.38-7.59 10.79-29.57	5.15-29.57	5.15-24.12	5.15-24.12	5.15-19.04
TR/TRF137	3	27.83-174.40	27.83-174.40	27.83-174.40	27.83-141.12	27.83-65.20 88.70-113.72	27.83-65.20 88.70-113.72	27.83-50.86 88.70
TR/TRF147	2	7.25 11.99-20.44	7.25 11.99-20.44	7.25 11.99-20.44	5.89-7.25 9.74-20.44	5.00-20.44	5.00-20.44	5.00-20.44
TR/TRF147	3	29.95-163.31	29.95-163.31	29.95-163.31	24.19-146.91	24.19-119.86	24.19-119.86	24.19-52.87 72.09-94.60
TR/TRF167	2		14.48-46.00	14.48-46.00	11.99-37.74	10.24-30.71	10.24-30.71	10.24-24.57
TR/TRF167	3		34.41-229.71	34.41-229.71	27.96-186.93	23.71-153.07	23.71-153.07	23.71-58.65 82.91-121.81

Gear Unit Size	Stages	YDT280	YDT315	YDT 315M_A/B				
TR/TRF147	2	5.00-20.44						
TR/TRF147	3	24.19-52.87 72.09-94.60						
TR/TRF167	2	10.24-24.57	10.24-19.03	10.24-14.48				
TR/TRF167	3	23.71-58.65 82.91-121.81	23.71-44.87 82.91-93.19	23.71-34.41				

**TRX/TRXF57-67..**

$n_a$   $n_e=1400$  1/min

TRX/TRXF57				70Nm
i	$n_a$ [1/min]	$M_{amax}$ [Nm]	$F_{Ra}$ [N]	AD
5.50	255	39	3080	AD <sub>2</sub>
5.07	276	36	3030	
4.35	322	68	2640	
3.79	369	69	2480	
3.55	394	69	2420	
3.14	446	65	2320	
2.91	481	67	2170	
2.64	530	69	1810	
2.37	591	69	1500	AD <sub>3</sub>
2.04	686	69	1070	
1.92	729	69	890	
1.65	848	69	430	
1.48	946	68	112	
1.30	1075	63	132	

TRX/TRXF67				135Nm
i	$n_a$ [1/min]	$M_{amax}$ [Nm]	$F_{Ra}$ [N]	AD
6.07	231	43	4010	AD <sub>2</sub>
5.18	270	75	3580	
4.53	309	82	3350	
4.30	326	80	3300	
3.77	371	87	3090	
3.20	438	100	2800	AD <sub>3</sub>
2.89	484	106	2640	
2.54	551	118	2000	
2.40	583	123	1530	
2.04	686	134	230	
1.86	753	126	225	
1.61	870	114	245	
1.40	1000	104	205	

**TRX/TRXF77-87..**

$n_a$   $n_e=1400$  1/min

TRX/TRXF77				215Nm
i	$n_a$ [1/min]	$M_{amax}$ [Nm]	$F_{Ra}$ [N]	AD
8.00•	175	57	6330	AD <sub>2</sub>
7.47	187	53	6200	
6.41	218	103	5600	
5.63	249	110	5300	
5.35•	262	103	5240	
4.73	296	123	4900	AD <sub>3</sub>
4.04•	347	143	4500	
3.70	378	153	4290	
3.25•	431	182	3200	AD <sub>4</sub>
3.08•	455	193	2560	
2.70	519	215	1110	
2.43	576	215	510	
2.13	657	200	435	
1.88•	745	187	335	
1.67	838	173	315	
1.42	986	155	315	

TRX/TRXF87				400Nm
i	$n_a$ [1/min]	$M_{amax}$ [Nm]	$F_{Ra}$ [N]	AD
8.65	162	139	7890	AD <sub>2</sub>
7.63	183	149	7490	
7.20•	194	140	7380	
6.45	217	192	6850	AD <sub>3</sub>
5.56•	252	225	6320	
5.07	276	250	5980	AD <sub>4</sub>
4.50•	311	290	5500	
3.78	370	305	5030	AD <sub>5</sub>
3.48	402	405	2730	
3.09	453	405	1950	
2.76	507	405	1200	
2.48	565	405	470	
2.15	651	385	42	
1.93	725	355	185	
1.60	875	315	74	
1.39	1005	290	74	

**TRX/TRXF97-107..**

$n_a$   $n_e=1400$  1/min

TRX/TRXF97				600Nm
i	$n_a$ [1/min]	$M_{amax}$ [Nm]	$F_{Ra}$ [N]	AD
8.23	170	225	9560	AD <sub>3</sub>
7.16	196	260	8950	
6.56	213	300	8500	
5.79	242	420	7630	AD <sub>4</sub>
4.91	285	395	7220	
4.52	310	595	6180	AD <sub>5</sub>
4.04	347	595	5380	
3.64•	385	595	4530	
3.30	424	595	3730	
2.92	479	595	2810	
2.64	530	595	1980	
2.24•	625	595	495	
1.96	714	570	19	
1.64	854	505	51	
1.42	986	455	132	

TRX/TRXF107				830Nm
i	$n_a$ [1/min]	$M_{amax}$ [Nm]	$F_{Ra}$ [N]	AD
6.63	211	460	9700	AD <sub>4</sub>
5.61	250	455	9080	
5.19	270	695	7850	AD <sub>5</sub>
4.65	301	695	7450	
4.20	333	830	6420	
3.81	367	830	5550	
3.38	414	830	4490	AD <sub>6</sub>
3.07	456	830	3600	
2.64	530	830	2210	
2.30	609	830	950	
1.95	718	765	600	
1.71	819	705	525	
1.44	972	645	360	

**TR/TRF17..**

$n_a$   $n_e=1400$  1/min

TR/TRF17..				85Nm
i	$n_a$ [1/min]	$M_{amax}$ [Nm]	$F_{Ra}$ [N]	
3-stages				
81.64	17	85	1890	
70.39	20	85	1890	
65.61	21	85	1890	
57.35	24	85	1890	
53.76	26	85	1890	
47.44	30	85	1890	
44.18	32	85	1890	
38.61	36	85	1890	
36.20	39	85	1890	
31.94	44	85	1870	
28.32	49	85	1780	
24.07	58	85	1650	

TR/TRF17..				85Nm
i	$n_a$ [1/min]	$M_{amax}$ [Nm]	$F_{Ra}$ [N]	
2-stages				
25.23	55	85	1690	
23.15	60	85	1620	
19.71	71	85	1500	
16.99	82	85	1400	
15.84	88	85	1350	
13.84	101	85	1270	
12.98	108	85	1230	
11.45	122	81	1180	
10.15	138	77	1140	
8.63	162	72	1090	
7.55	185	56	1040	
7.04	199	55	1010	
6.15	228	54	950	
5.76	243	53	930	
5.09	275	51	890	
4.51	310	48	870	
3.83	366	45	830	

**TR/TRF27-37..**

$n_a$   $n_e=1400$  1/min

TR/TRF27				130Nm
i	$n_a$ [1/min]	$M_{amax}$ [Nm]	$F_{Ra}$ [N]	AD
<b>3-stages</b>				
135.09	10	130	4230	AD <sub>1</sub>
123.91	11	130	4230	
105.49	13	130	4230	
90.96	15	130	4230	
84.78	17	130	4230	
74.11	19	130	4230	AD <sub>1</sub>
69.47	20	130	4180	
61.30	23	130	3980	
55.87	25	130	3840	
48.17	29	130	3630	
44.90	31	130	3530	
39.25	36	130	3350	
36.79	38	130	3260	
32.47	43	130	3100	
28.78	49	130	2950	
24.47	57	130	2770	
<b>2-stages</b>				
28.37	49	130	2940	AD <sub>2</sub>
26.09	54	130	2840	
22.32	63	130	2660	
19.35	72	130	2510	
18.08	77	130	2440	
15.63	90	130	2290	
13.28•	105	130	2140	
11.86	118	129	1990	
10.13	138	122	1890	
9.41	149	122	900	
8.16	172	116	870	
7.63•	183	112	900	
6.59	212	106	880	
5.60•	250	99	880	
5.00•	280	95	860	
4.27	328	87	920	
4.00•	350	85	910	
3.37	415	79	900	

TR/TRF37				200Nm
i	$n_a$ [1/min]	$M_{amax}$ [Nm]	$F_{Ra}$ [N]	AD
<b>3-stages</b>				
134.82	10	200	4950	AD <sub>1</sub>
123.66	11	200	4950	
105.28	13	200	4950	
90.77	15	200	4950	
84.61	17	200	4950	
73.96	19	200	4950	
69.33	20	200	4950	
61.18	23	200	4950	
55.76	25	200	4950	
48.08	29	200	4950	
44.81	31	200	4950	AD <sub>2</sub>
39.17	36	200	4760	
36.72	38	200	4540	
32.40	43	200	4120	
28.73	49	200	3740	
24.42	57	200	3240	
<b>2-stages</b>				
28.32	49	200	3690	AD <sub>2</sub>
26.03	54	185	3860	
22.27	63	200	2970	
19.31	73	200	2570	
18.05	78	200	2390	
15.60	90	200	2010	
13.25	106	190	1880	
11.83	118	183	1810	
10.11	138	170	1820	
9.47	148	167	1760	
7.97	176	156	1720	
6.67	210	144	1000	
5.67	247	142	760	
5.06	277	135	790	
4.32	324	126	820	
4.05	346	122	850	
3.41	411	112	900	

**TR/TRF47-57..**

$n_a$   $n_e=1400$  1/min

TR/TRF47				300Nm	
i	$n_a$ [1/min]	$M_{amax}$ [Nm]	$F_{Ra}$ [N]	AD	
<b>3-stages</b>					
176.88	7.9	300	5420		
162.94	8.6	300	5420		
139.99	10	300	5420		
121.87	11	300	5420		
114.17	12	300	5420		
100.86	14	300	5420		
93.68	15	300	5420		
84.90	16	300	5420		
76.23	18	300	5420		
68.54	20	300	5420		AD <sub>2</sub>
64.21	22	300	5420		
56.73	25	300	5420		
52.69	27	300	5350		
47.75	29	300	5150		
42.87	33	300	4930		
36.93	38	300	4630		
34.73	40	300	4520		
29.88	47	300	4240		
26.70	52	300	4050		
23.59	59	300	3840		
<b>2-stages</b>					
33.79	41	240	4690		
31.12	45	220	4610		
26.74	52	300	4050		
23.28	60	300	3820		
21.81	64	300	3710		
19.27	73	295	3530		
17.89	78	290	3390		
16.22	86	275	3350		
14.56	96	265	3230		
12.54	112	250	3080		AD <sub>2</sub>
11.79	119	245	3020		
10.15	138	230	2890		
9.07	154	220	2780		
8.01	175	205	2690		
7.76 •	180	163	2720		
6.96	201	159	2620		
6.00	233	156	2740		
5.64 •	248	155	2410		
4.85	289	150	2280		
4.34	323	146	2190		
3.83	366	144	2090		AD <sub>3</sub>

TR/TRF57				450Nm	
i	$n_a$ [1/min]	$M_{amax}$ [Nm]	$F_{Ra}$ [N]	AD	
<b>3-stages</b>					
186.89	7.5	450	7110		
172.17	8.1	450	7110		
147.92	9.5	450	7110		
128.77	11	450	7110		
120.63	12	450	7110		
106.58	13	450	7110		
98.99	14	450	7110		
89.71	16	450	7110		
80.55	17	450	7110		
69.23	20	450	7110		AD <sub>2</sub>
64.85	22	450	6980		
57.29	24	450	6630		
53.22	26	450	6430		
48.23	29	450	6170		
43.30	32	450	5900		
37.30 •	38	450	5530		
35.07	40	450	5390		
30.18	46	450	5050		
26.97	52	450	4800		
<b>2-stages</b>					
26.31	53	450	4750		
24.99	56	450	4640		
21.93	64	450	4370		AD <sub>2</sub>
18.60	75	450	4050		
16.79	83	450	3860		
14.77	95	435	3690		
13.95	100	430	3610		
11.88	118	405	3430		
10.79	130	390	3330		
9.35	150	370	3180		
9.06	155	375	2010		
7.97	176	355	2020		AD <sub>3</sub>
7.53	186	350	1950		
6.41	218	335	1770		
5.82	241	320	1820		
5.05	277	305	1730		
4.39	319	280	1900		

## TR/TRF67-77..

$n_a$   $n_e=1400$  1/min

TR/TRF67				600Nm	
i	$n_a$ [1/min]	$M_{amax}$ [Nm]	$F_{Ra}$ [N]	AD	
<b>3-stages</b>					
199.81	7.0	600	7170		
184.07	7.6	600	7170		
158.14	8.9	600	7170		
137.67	10	600	7170		
128.97	11	600	7170		
113.94	12	600	7170		
105.83	13	600	7170		
95.91	15	600	7170		
86.11	16	600	7170		
74.17	19	600	7170		AD <sub>2</sub>
69.75	20	600	7170		
61.26	23	600	7170		
56.89	25	600	7170		
51.56	27	600	7170		
46.29	30	600	7170		
39.88 •	35	580	7410		
37.50	37	570	7530		
32.27	43	540	7850		
28.83	49	520	8050		
<b>2-stages</b>					
28.13	50	540	7850		
26.72	52	540	7850		AD <sub>2</sub>
23.44	60	560	7640		
19.89	70	600	7170		
17.95	78	590	7290		
15.79	89	560	7130		
14.91	94	550	6980		
12.70	110	520	6650		
11.54	121	500	6500		
10.00	140	470	6220		AD <sub>3</sub>
8.70 •	161	440	5960		
7.79	180	380	5830		
7.36 •	190	370	5790		
6.27	223	330	5590		
5.70	246	310	5450		
4.93	284	290	5210		
4.29	326	270	5000		

TR/TRF77				820Nm	
i	$n_a$ [1/min]	$M_{amax}$ [Nm]	$F_{Ra}$ [N]	AD	
<b>3-stages</b>					
195.24	7.2	820	9920		
166.59	8.4	820	9920		
145.67	9.6	820	9920		
138.39	10	820	9920		
121.42	12	820	9920		
102.99	14	820	9920		
92.97	15	820	9920		
81.80	17	820	9920		
77.24	18	820	9920		
65.77	21	820	9920		AD <sub>2</sub>
57.68	24	820	9920		
52.07	27	820	9920		
45.81	31	820	9920		
43.26	32	820	9920		
36.83	38	820	9920		
33.47	42	820	9920		
29.00	48	820	9920		
25.23	55	780	10100		
<b>2-stages</b>					
23.37	60	820	8870		
21.43	65	820	8250		
18.80	74	780	7980		
17.82	79	780	7620		AD <sub>3</sub>
15.60	90	740	7390		
14.05	100	720	7050		
12.33	114	690	6740		
10.88	129	660	6490		
9.64	145	630	6300		
8.59	163	630	4110		
7.74	181	610	3940		
6.79	206	580	3850		AD <sub>4</sub>
5.99	234	540	3990		
5.31	264	510	3990		

**TR/TRF87-97..**

$n_a$   $n_e=1400$  1/min

TR/TRF87		1550Nm		
i	$n_a$ [1/min]	$M_{amax}$ [Nm]	$F_{Ra}$ [N]	AD
<b>3-stages</b>				
246.54	5.7	1550	16900	AD <sub>2</sub>
216.54	6.5	1550	16900	
205.71	6.8	1550	16900	
181.77	7.7	1550	16900	
155.34	9.0	1550	16900	
142.41	9.8	1550	16900	
124.97	11	1550	16900	
118.43	12	1550	16900	
103.65	14	1550	16900	
93.38	15	1550	16900	
81.92	17	1550	16900	
72.57	19	1550	16900	
63.68	22	1550	15800	
60.35	23	1550	15200	
52.82	27	1550	13500	
47.58	29	1550	16900	
41.74	34	1550	16900	AD <sub>3</sub>
36.84	38	1550	16800	
32.66	43	1550	16000	
27.88	50	1550	15100	
<b>2-stages</b>				
34.40	41	1550	9480	AD <sub>3</sub>
31.40	45	1550	7820	
27.84	50	1550	15000	AD <sub>4</sub>
23.40	60	1550	13900	
21.51	65	1550	13600	
19.10	73	1440	13000	
17.08	82	1390	12600	
15.35	91	1340	12100	
13.33	105	1280	11600	
11.93	117	1230	11200	
9.90	141	1180	10400	
9.14	153	1210	10500	
8.22	170	1160	10200	AD <sub>5</sub>
7.13	196	1070	9780	
6.39	219	1020	9450	
5.30	264	910	8980	

TR/TRF97		3000Nm		
i	$n_a$ [1/min]	$M_{amax}$ [Nm]	$F_{Ra}$ [N]	AD
<b>3-stages</b>				
289.74	4.8	3000	19800	AD <sub>3</sub>
255.71	5.5	3000	19800	
241.25	5.8	3000	19800	
216.28	6.5	3000	19800	
186.30	7.5	3000	19800	
170.02	8.2	3000	19800	
150.78	9.3	3000	19800	
126.75	11	3000	19800	
116.48	12	3000	19800	
103.44	14	3000	19800	
92.48	15	3000	19800	
83.15	17	3000	19800	
72.17	19	3000	19800	
65.21	21	3000	19800	
59.92	23	3000	19800	
53.21	26	3000	19800	
47.58	29	3000	19800	AD <sub>4</sub>
42.78	33	3000	19800	
37.13	38	3000	18600	
33.25	42	2890	17900	
27.58	51	2670	16900	
27.58	51	2670	16900	
<b>2-stages</b>				
32.05	44	2560	10600	AD <sub>4</sub>
27.19	51	2560	8380	
25.03	56	2830	15900	AD <sub>5</sub>
22.37	63	2720	15300	
20.14	70	2610	14800	
18.24	77	2500	14400	
16.17	87	2400	13800	
14.62	96	2300	13400	
12.39	113	2190	12700	
10.83	129	2090	12100	
9.29	151	2030	12200	
8.39	167	2030	11700	
7.12	197	2000	10900	AD <sub>6</sub>
6.21	225	1890	10500	
5.20	269	1780	9850	
4.50 •	311	1630	9500	AD <sub>6</sub>

**TR/TRF107-137..**

$n_a$   $n_e=1400$  1/min

TR/TRF107				4300Nm		
i	$n_a$ [1/min]	$M_{amax}$ [Nm]	$F_{Ra}$ [N]	AD		
<b>3-stages</b>						
251.15	5.6	4300	29500	AD <sub>3</sub>		
229.95	6.1	4300	29500			
203.16	6.9	4300	29500			
172.34	8.1	4300	29500			
158.68	8.8	4300	29500			
141.83	9.9	4300	29500			
127.68	10	4300	29500			
115.63	12	4300	29500			
102.53	14	4300	29500			
92.70	15	4300	29500			
78.57	18	4300	29500			
72.88	19	4300	29500			
65.60•	21	4300	29200		AD <sub>4</sub>	
59.41	24	4300	28000			
52.68	27	4300	26600			
47.63	29	4300	25500			
40.37•	35	4300	23800			
35.26	40	4300	22400			
29.49	47	4300	20700			
<b>2-stages</b>						
30.77	45	4300	21100	AD <sub>4</sub>		
27.58	51	4300	20100			
24.90•	56	4300	19200			
22.62	62	4300	18300			
20.07	70	4300	17300			
18.21	77	4300	16600			
15.65	89	4300	15400			
13.66	102	4300	14400	AD <sub>6</sub>		
11.59	121	4300	13300			
10.13	138	4300	12400			
8.56	164	4300	11300			
7.86	178	2970	13800			
6.66	210	2970	12800			
5.82	241	2970	12100			
4.92	285	2900	11300			

TR/TRF137				8000Nm	
i	$n_a$ [1/min]	$M_{amax}$ [Nm]	$F_{Ra}$ [N]	AD	
<b>3-stages</b>					
222.60	6.3	8000	53400	AD <sub>4</sub>	
188.45	7.4	8000	53400		
174.40	8.0	8000	53400		
156.31	9.0	8000	53400		
141.12	9.9	8000	53400		
128.18	11	8000	53400		
113.72	12	8000	53400		
103.20	14	8000	53400		
88.70	16	8000	53400		
80.91	17	8000	53400		
73.49	19	8000	53400		
65.20	21	8000	53400		
59.17	24	8000	53400		
50.86	28	8000	53400		AD <sub>5</sub>
44.39	32	8000	53400		
37.65	37	8000	53400		
32.91	43	8000	53400		
27.83	50	7680	54100		
<b>2-stages</b>					
29.57	47	7780	53900	AD <sub>6</sub>	
24.12	58	8000	49400		
22.00	64	8000	47100	AD <sub>7</sub>	
19.04	74	8000	43500		
16.80	83	8000	40600		
14.51	96	8000	37300		
12.83	109	8000	34700		
10.79	130	8000	31100		
8.71	161	7840	27600		
7.59	184	5110	39000		
6.38	219	5110	35900		
5.15	272	4600	34500		



**TR/TRF147-167..**

$n_a$   $n_e=1400$  1/min

TR/TRF147				13000Nm
i	$n_a$ [1/min]	$M_{amax}$ [Nm]	$F_{Ra}$ [N]	AD
<b>3-stages</b>				
163.31	8.6	13000	62700	AD4
146.91	9.5	13000	62700	
119.86	12	13000	62700	
109.31	13	13000	62700	
94.60	15	13000	62700	
83.47	17	13000	62700	
72.09	19	13000	62700	
66.99	21	13000	62700	
61.09	23	13000	62700	
52.87	26	13000	62700	
46.65	30	13000	62700	
40.29	35	13000	62700	AD6
35.64	39	13000	62700	AD7
29.95	47	13000	62700	
24.19	58	11900	64700	
<b>2-stages</b>				
20.44	68	12000	64600	AD8
18.04	78	10500	67000	
15.64	90	13000	62700	
13.91	101	12600	63400	
11.99	117	13000	60400	
9.74	144	13000	54400	
8.26	169	13000	49900	
7.25	193	8670	58400	
5.89	238	8670	53200	
5.00	280	8670	49300	

TR/TRF167				18000Nm	
i	$n_a$ [1/min]	$M_{amax}$ [Nm]	$F_{Ra}$ [N]	AD	
<b>3-stages</b>					
229.71	6.1	18000	120000	AD5	
186.93	7.5	18000	120000		
153.07	9.1	18000	120000		
139.98	10	18000	120000		
121.81	11	18000	120000		
107.49	13	18000	120000		
93.19	15	18000	120000		
82.91	17	18000	120000		
73.70	19	18000	120000		
67.40	21	18000	120000		AD6
58.65	24	18000	120000		
51.76	27	18000	120000		AD7
44.87	31	18000	120000		
39.92	35	18000	120000		
34.41	41	18000	120000		AD8
27.96	50	18000	120000		
23.71	59	18000	116500		
<b>2-stages</b>					
46.00	30	7000	120000	AD5	
37.74	37	9000	120000	AD6	
30.71	46	10000	120000		
24.57	57	14000	120000	AD8	
21.85	64	13000	120000		
19.03	74	16000	111400		
16.98	82	15000	108900		
14.48	97	18000	93800		
11.99	117	17000	88700		
10.24	137	17000	82500		

**TR/TRF27-37/R17..**

$n_e=1400$  1/min

TR/TRF27R17		130Nm	
i	$n_a$ [1/min]	$M_{amax}$ [Nm]	$F_{Ra}$ [N]
8612	0.16	130	4230
7425	0.19	130	4230
6921	0.20	130	4230
6050	0.23	130	4230
5217	0.27	130	4230
4661	0.30	130	4230
4073	0.34	130	4230
3516	0.40	130	4230
3160	0.44	130	4230
2763	0.51	130	4230
2414	0.58	130	4230
2110	0.66	130	4230
1862	0.75	130	4230
1822	0.77	130	4230
1625	0.86	130	4230
1580	0.89	130	4230
1464	0.96	130	4230
1434	0.98	130	4230
1270	1.1	130	4230
1254	1.1	130	4230
1101	1.3	130	4230
1100	1.3	130	4230
972	1.4	130	4230
962	1.5	130	4230
848	1.7	130	4230
840	1.7	130	4230
743	1.9	130	4230
741	1.9	130	4230
654	2.1	130	4230
649	2.2	130	4230
567	2.5	130	4230
566	2.5	130	4230
509	2.8	130	4230
499	2.8	130	4230
440	3.2	130	4230
432	3.2	130	4230
387	3.6	130	4230
381	3.7	130	4230
339	4.1	130	4230
329	4.3	130	4230
296	4.7	130	4230
290	4.8	130	4230
259	5.4	130	4230
256	5.5	130	4230
229	6.1	130	4230
227	6.2	130	4230
203	6.9	130	4230
200	7.0	130	4230
179	7.8	130	4230
177	7.9	130	4230
166	8.4	130	4230
156	9.0	130	4230
150	9.3	130	4230
141	9.9	130	4230
135	10	130	4230
124	11	130	4230
118	12	130	4230
110	13	130	4230
104	13	130	4230
94	15	130	4230
90	16	130	4230

TR/TRF37R17		200Nm	
i	$n_a$ [1/min]	$M_{amax}$ [Nm]	$F_{Ra}$ [N]
8595	0.16	200	4950
7411	0.19	200	4950
6907	0.20	200	4950
6038	0.23	200	4950
5206	0.27	200	4950
4654	0.30	200	4950
4065	0.34	200	4950
3658	0.38	200	4950
3154	0.44	200	4950
2757	0.51	200	4950
2409	0.58	200	4950
2106	0.66	200	4950
1856	0.75	200	4950
1818	0.77	200	4950
1622	0.86	200	4950
1576	0.89	200	4950
1431	0.98	200	4950
1359	1.0	200	4950
1267	1.1	200	4950
1251	1.1	200	4950
1099	1.3	200	4950
1098	1.3	200	4950
970	1.4	200	4950
960	1.5	200	4950
847	1.7	200	4950
839	1.7	200	4950
741	1.9	200	4950
740	1.9	200	4950
653	2.1	200	4950
647	2.2	200	4950
577	2.4	200	4950
566	2.5	200	4950
508	2.8	200	4950
498	2.8	200	4950
439	3.2	200	4950
431	3.2	200	4950
387	3.6	200	4950
378	3.7	200	4950
338	4.1	200	4950
328	4.3	200	4950
296	4.7	200	4950
289	4.8	200	4950
265	5.3	200	4950
259	5.4	200	4950
228	6.1	200	4950
226	6.2	200	4950
202	6.9	200	4950
199	7.0	200	4950
179	7.8	200	4950
172	8.1	200	4950
156	9.0	200	4950
150	9.3	200	4950
135	10	200	4950
130	11	200	4950
127	11	200	4950
124	11	200	4950
110	13	200	4950
104	13	200	4950
94	15	200	4950
90	16	200	4950

**TR/TRF27-37/R17..**

$n_e=1400$  1/min

TR/TRF27R17		130Nm	
i	$n_a$ [1/min]	$M_{amax}$ [Nm]	$F_{Ra}$ [N]
8612	0.16	130	4230
7425	0.19	130	4230
6921	0.20	130	4230
6050	0.23	130	4230
5217	0.27	130	4230
4661	0.30	130	4230
4073	0.34	130	4230
3516	0.40	130	4230
3160	0.44	130	4230
2763	0.51	130	4230
2414	0.58	130	4230
2110	0.66	130	4230
1862	0.75	130	4230
1822	0.77	130	4230
1625	0.86	130	4230
1580	0.89	130	4230
1464	0.96	130	4230
1434	0.98	130	4230
1270	1.1	130	4230
1254	1.1	130	4230
1101	1.3	130	4230
1100	1.3	130	4230
972	1.4	130	4230
962	1.5	130	4230
848	1.7	130	4230
840	1.7	130	4230
743	1.9	130	4230
741	1.9	130	4230
654	2.1	130	4230
649	2.2	130	4230
567	2.5	130	4230
566	2.5	130	4230
509	2.8	130	4230
499	2.8	130	4230
440	3.2	130	4230
432	3.2	130	4230
387	3.6	130	4230
381	3.7	130	4230
339	4.1	130	4230
329	4.3	130	4230
296	4.7	130	4230
290	4.8	130	4230
259	5.4	130	4230
256	5.5	130	4230
229	6.1	130	4230
227	6.2	130	4230
203	6.9	130	4230
200	7.0	130	4230
179	7.8	130	4230
177	7.9	130	4230
166	8.4	130	4230
156	9.0	130	4230
150	9.3	130	4230
141	9.9	130	4230
135	10	130	4230
124	11	130	4230
118	12	130	4230
110	13	130	4230
104	13	130	4230
94	15	130	4230
90	16	130	4230

TR/TRF37R17		200Nm	
i	$n_a$ [1/min]	$M_{amax}$ [Nm]	$F_{Ra}$ [N]
8595	0.16	200	4950
7411	0.19	200	4950
6907	0.20	200	4950
6038	0.23	200	4950
5206	0.27	200	4950
4654	0.30	200	4950
4065	0.34	200	4950
3658	0.38	200	4950
3154	0.44	200	4950
2757	0.51	200	4950
2409	0.58	200	4950
2106	0.66	200	4950
1856	0.75	200	4950
1818	0.77	200	4950
1622	0.86	200	4950
1576	0.89	200	4950
1431	0.98	200	4950
1359	1.0	200	4950
1267	1.1	200	4950
1251	1.1	200	4950
1099	1.3	200	4950
1098	1.3	200	4950
970	1.4	200	4950
960	1.5	200	4950
847	1.7	200	4950
839	1.7	200	4950
741	1.9	200	4950
740	1.9	200	4950
653	2.1	200	4950
647	2.2	200	4950
577	2.4	200	4950
566	2.5	200	4950
508	2.8	200	4950
498	2.8	200	4950
439	3.2	200	4950
431	3.2	200	4950
387	3.6	200	4950
378	3.7	200	4950
338	4.1	200	4950
328	4.3	200	4950
296	4.7	200	4950
289	4.8	200	4950
265	5.3	200	4950
259	5.4	200	4950
228	6.1	200	4950
226	6.2	200	4950
202	6.9	200	4950
199	7.0	200	4950
179	7.8	200	4950
172	8.1	200	4950
156	9.0	200	4950
150	9.3	200	4950
135	10	200	4950
130	11	200	4950
127	11	200	4950
124	11	200	4950
110	13	200	4950
104	13	200	4950
94	15	200	4950
90	16	200	4950

**TR/TRF67-77/R37..**

$n_e=1400$  1/min

TR/TRF67R37		600Nm	
i	$n_a$ [1/min]	$M_{amax}$ [Nm]	$F_{Ra}$ [N]
15361	0.09	600	7170
12931	0.11	600	7170
11996	0.12	600	7170
10097	0.14	600	7170
9066	0.15	600	7170
7816	0.18	600	7170
6732	0.21	600	7170
5970	0.23	600	7170
5268	0.27	600	7170
4680	0.30	600	7170
4136	0.34	600	7170
3566	0.39	600	7170
3125	0.45	600	7170
2745	0.51	600	7170
2682	0.52	600	7170
2460	0.57	600	7170
2403	0.58	600	7170
2136	0.66	600	7170
2094	0.67	600	7170
1852	0.76	600	7170
1805	0.78	600	7170
1652	0.85	600	7170
1629	0.86	600	7170
1471	0.95	600	7170
1432	0.98	600	7170
1379	1.0	600	7170
1259	1.1	600	7170
1109	1.3	600	7170
1106	1.3	600	7170
956	1.5	600	7170
891	1.6	600	7170
836	1.7	600	7170
750	1.9	600	7170
730	1.9	600	7170
646	2.2	600	7170
644	2.2	600	7170
574	2.4	600	7170
571	2.5	600	7170
495	2.8	600	7170
486	2.9	600	7170
443	3.2	600	7170
438	3.2	600	7170
388	3.6	600	7170
384	3.6	600	7170
359	3.9	600	7170
344	4.1	600	7170
310	4.5	600	7170
294	4.8	600	7170
264	5.3	600	7170
261	5.4	600	7170
235	6.0	600	7170
234	6.0	600	7170
201	7.0	600	7170
200	7.0	600	7170
181	7.7	600	7170
181	7.7	600	7290
176	8.0	600	7170
159	8.8	600	7170
158	8.9	600	7170

TR/TRF77R37		820Nm	
i	$n_a$ [1/min]	$M_{amax}$ [Nm]	$F_{Ra}$ [N]
16370	0.09	820	9920
15015	0.09	820	9920
13885	0.10	820	9920
12783	0.11	820	9920
11021	0.13	820	9920
9788	0.14	820	9920
8714	0.16	820	9920
7617	0.18	820	9920
6770	0.21	820	9920
5838	0.24	820	9920
5184	0.27	820	9920
4470	0.31	820	9920
3999	0.35	820	9920
3488	0.40	820	9920
3151	0.44	820	9920
3053	0.46	820	9920
2890	0.48	820	9920
2671	0.52	820	9920
2460	0.57	820	9920
2345	0.60	820	9920
2121	0.66	820	9920
2070	0.68	820	9920
1977	0.71	820	9920
1822	0.77	820	9920
1728	0.81	820	9920
1620	0.86	820	9920
1580	0.89	820	9920
1430	0.98	820	9920
1394	1.0	820	9920
1303	1.1	820	9920
1218	1.1	820	9920
1124	1.2	820	9920
1084	1.3	820	9920
1047	1.3	820	9920
940	1.5	820	9920
915	1.5	820	9920
858	1.6	820	9920
821	1.7	820	9920
757	1.8	820	9920
731	1.9	820	9920
671	2.1	820	9920
646	2.2	820	9920
571	2.5	820	9920
560	2.5	820	9920
520	2.7	820	9920
488	2.9	820	9920
451	3.1	820	9920
436	3.2	820	9920
422	3.3	820	9920
373	3.8	820	9920
365	3.8	820	9920
327	4.3	820	9920
310	4.5	820	9920
289	4.8	820	9920
276	5.1	820	9920
260	5.4	820	9920
236	5.9	820	9920
224	6.2	820	9920
221	6.3	820	9920
197	7.1	820	9920
186	7.5	820	9920
169	8.3	820	9920
149	9.4	820	9920

**TR/TRF87-97/R57..**

$n_e=1400$  1/min

TR/TRF87R57		1550Nm	
i	$n_a$ [1/min]	$M_{amax}$ [Nm]	$F_{Ra}$ [N]
17452	0.08	1550	16900
15310	0.09	1550	16900
13813	0.10	1550	16900
12025	0.12	1550	16900
10549	0.13	1550	16900
9244	0.15	1550	16900
8109	0.17	1550	16900
7038	0.20	1550	16900
6174	0.23	1550	16900
5449	0.26	1550	16900
4831	0.29	1550	16900
4206	0.33	1550	16900
4020	0.35	1550	16900
3744	0.37	1550	16900
3703	0.38	1550	16900
3233	0.43	1550	16900
3182	0.44	1550	16900
2873	0.49	1550	16900
2770	0.51	1550	16900
2595	0.54	1550	16900
2518	0.56	1550	16900
2209	0.63	1550	16900
2129	0.66	1550	16900
1961	0.71	1550	16900
1930	0.73	1550	16900
1737	0.81	1550	16900
1733	0.81	1550	16900
1524	0.92	1550	16900
1489	0.94	1550	16900
1395	1.0	1550	16900
1303	1.1	1550	16900
1232	1.1	1550	16900
1145	1.2	1550	16900
1143	1.2	1550	16900
1037	1.4	1550	16900
1008	1.4	1550	16900
994	1.4	1550	16900
931	1.5	1550	16900
885	1.6	1550	16900
881	1.6	1550	16900
802	1.7	1550	16900
776	1.8	1550	16900
754	1.9	1550	16900
685	2.0	1550	16900
649	2.2	1550	16900
599	2.3	1550	16900
580	2.4	1550	16900
538	2.6	1550	16900
525	2.7	1550	16900
472	3.0	1550	16900
456	3.1	1550	16900
400	3.5	1550	16900
398	3.5	1550	16900
361	3.9	1550	16900
352	4.0	1550	16900
305	4.6	1550	16900
300	4.7	1550	16900
268	5.2	1550	16900
256	5.5	1550	16900
236	5.9	1550	16900
232	6.0	1550	16900
232	6.0	1550	17300
209	6.7	1550	16900
195	7.2	1150	16900

TR/TRF97R57		3000Nm	
i	$n_a$ [1/min]	$M_{amax}$ [Nm]	$F_{Ra}$ [N]
21769	0.06	3000	19800
19332	0.07	3000	19800
17230	0.08	3000	19800
14999	0.09	3000	19800
13320	0.11	3000	19800
11156	0.13	3000	19800
10030	0.14	3000	19800
8706	0.16	3000	19800
7692	0.18	3000	19800
6708	0.21	3000	19800
5931	0.24	3000	19800
5161	0.27	3000	19800
4678	0.30	3000	19800
4559	0.31	3000	19800
4309	0.32	3000	19800
4004	0.35	3000	19800
3702	0.38	3000	19800
3481	0.40	3000	19800
3065	0.46	3000	19800
3019	0.46	3000	19800
2722	0.51	3000	19800
2668	0.52	3000	19800
2311	0.61	3000	19800
2245	0.62	3000	19800
2078	0.67	3000	19800
2016	0.69	3000	19800
1823	0.77	3000	19800
1733	0.81	3000	19800
1623	0.86	3000	19800
1583	0.88	3000	19800
1434	0.98	3000	19800
1396	1.0	3000	19800
1228	1.1	3000	19800
1207	1.2	3000	19800
1084	1.3	3000	19800
1069	1.3	3000	19800
938	1.5	3000	19800
934	1.5	3000	19800
878	1.6	3000	19800
824	1.7	3000	19800
755	1.9	3000	19800
737	1.9	3000	19800
632	2.2	3000	19800
625	2.2	3000	19800
560	2.5	3000	19800
549	2.6	3000	19800
484	2.9	3000	19800
466	3.0	3000	19800
431	3.2	3000	19800
420	3.3	3000	19800
379	3.7	3000	19800
370	3.8	3000	19800
349	4.0	3000	19800
336	4.2	3000	19800
297	4.7	3000	19800
296	4.7	3000	19800
270	5.2	3000	19800
249	5.6	3000	19800
234	6.0	3000	19800
227	6.2	3000	19800
209	6.7	3000	19800
249	5.6	3000	19800

**TR/TRF107-137/R77**

$n_e=1400$  1/min

TR/TRF107R77		4300Nm	
i	$n_a$ [1/min]	$M_{amax}$ [Nm]	$F_{Ra}$ [N]
20018	0.07	4300	29500
17080	0.08	4300	29500
14936	0.09	4300	29500
12829	0.11	4300	29500
11256	0.12	4300	29500
9547	0.15	4300	29500
8618	0.16	4300	29500
7583	0.18	4300	29500
6743	0.21	4300	29500
5914	0.24	4300	29500
5168	0.27	4300	29500
4435	0.32	4300	29500
3918	0.36	4300	29500
3896	0.36	4300	29500
3432	0.41	4300	29500
3343	0.42	4300	29500
3039	0.46	4300	29500
3034	0.46	4300	29500
2688	0.52	4300	29500
2653	0.53	4300	29500
2339	0.60	4300	29500
2280	0.61	4300	29500
2067	0.68	4300	29500
1987	0.70	4300	29500
1827	0.77	4300	29500
1693	0.83	4300	29500
1599	0.88	4300	29500
1550	0.90	4300	29500
1407	1.0	4300	29500
1400	1.0	4300	29500
1226	1.1	4300	29500
1209	1.2	4300	29500
1104	1.3	4300	29500
1055	1.3	4300	29500
939	1.5	4300	29500
919	1.5	4300	29500
822	1.7	4300	29500
815	1.7	4300	29500
717	2.0	4300	29500
626	2.2	4300	29500
614	2.3	4300	29500
544	2.6	4300	29500
528	2.7	4300	29500
492	2.8	4300	29500
469	3.0	4300	29500
426	3.3	4300	29500
417	3.4	4300	29500
377	3.7	4300	29500
369	3.8	4300	29500
325	4.3	4300	29500
323	4.3	4300	29500
285	4.9	4300	29500
284	4.9	4300	29500
256	5.5	4300	29500
253	5.5	4300	29500
220	6.4	4300	29500
214	6.5	4300	29500
193	7.3	4300	29500
187	7.5	4300	29500
172	8.1	4300	29500

TR/TRF137R77		8000Nm	
i	$n_a$ [1/min]	$M_{amax}$ [Nm]	$F_{Ra}$ [N]
22203	0.06	8000	53400
18945	0.07	8000	53400
16566	0.08	8000	53400
14777	0.09	8000	53400
12921	0.11	8000	53400
11712	0.12	8000	53400
10573	0.13	8000	53400
8784	0.16	8000	53400
7479	0.19	8000	53400
6559	0.21	8000	53400
5834	0.24	8000	53400
5116	0.27	8000	53400
4709	0.30	8000	53400
4464	0.31	8000	53400
4018	0.35	8000	53400
3928	0.36	8000	53400
3514	0.40	8000	53400
3454	0.41	8000	53400
3338	0.42	8000	53400
2993	0.47	8000	53400
2929	0.48	8000	53400
2658	0.53	8000	53400
2484	0.56	8000	53400
2412	0.58	8000	53400
2242	0.62	8000	53400
2073	0.68	8000	53400
1863	0.75	8000	53400
1839	0.76	8000	53400
1598	0.88	8000	53400
1586	0.88	8000	53400
1397	1.0	8000	53400
1391	1.0	8000	53400
1256	1.1	8000	53400
1226	1.1	8000	53400
1105	1.3	8000	53400
1090	1.3	8000	53400
1043	1.3	8000	53400
951	1.5	8000	53400
888	1.6	8000	53400
831	1.7	8000	53400
730	1.9	8000	53400
699	2.0	8000	53400
629	2.2	8000	53400
609	2.3	8000	53400
564	2.5	8000	53400
560	2.5	8000	53400
517	2.7	8000	53400
490	2.9	8000	53400
453	3.1	8000	53400
428	3.3	8000	53400
381	3.7	8000	53400
376	3.7	8000	53400
339	4.1	8000	53400
323	4.3	8000	53400
297	4.7	8000	53400
291	4.8	8000	53400
255	5.5	8000	53400
223	6.3	8000	53400
197	7.1	8000	53400
175	8.0	8000	53400

**TR/TRF147/R77, TR/TRF147/R87..**

$n_e = 1400$  1/min

TR/TRF147R77		13000Nm	
i	$n_a$ [1/min]	$M_{amax}$ [Nm]	$F_{Ra}$ [N]
23401	0.06	13000	62700
21342	0.07	13000	62700
18210	0.08	13000	62700
15923	0.09	13000	62700
14075	0.10	13000	62700
12344	0.11	13000	62700
11143	0.13	13000	62700
9743	0.14	13000	62700
8443	0.17	13000	62700
7307	0.19	13000	62700
6447	0.22	13000	62700
5568	0.25	13000	62700
4926	0.28	13000	62700
4325	0.32	13000	62700
3754	0.37	13000	62700
3302	0.42	13000	62700
2898	0.48	13000	62700
2555	0.55	13000	62700
2211	0.63	13000	62700
1951	0.72	13000	62700
1705	0.82	13000	62700
1536	0.91	13000	62700
1329	1.1	13000	62700
1166	1.2	13000	62700
1029	1.4	13000	62700
889	1.6	13000	62700
784	1.8	13000	62700
695	2.0	13000	62700
619	2.3	13000	62700
558	2.5	13000	62700
489	2.9	13000	62700
415	3.4	13000	62700

TR/TRF147R87		13000Nm	
i	$n_a$ [1/min]	$M_{amax}$ [Nm]	$F_{Ra}$ [N]
533	2.6	13000	62700
462	3.0	13000	62700
426	3.3	13000	62700
368	3.8	13000	62700
326	4.3	13000	62700
280	5.0	13000	62700
247	5.7	13000	62700
214	6.5	13000	62700
189	7.4	13000	62700
159	8.8	13000	62700

**TR/TRF167/R97,TR/TRF167/R107..**

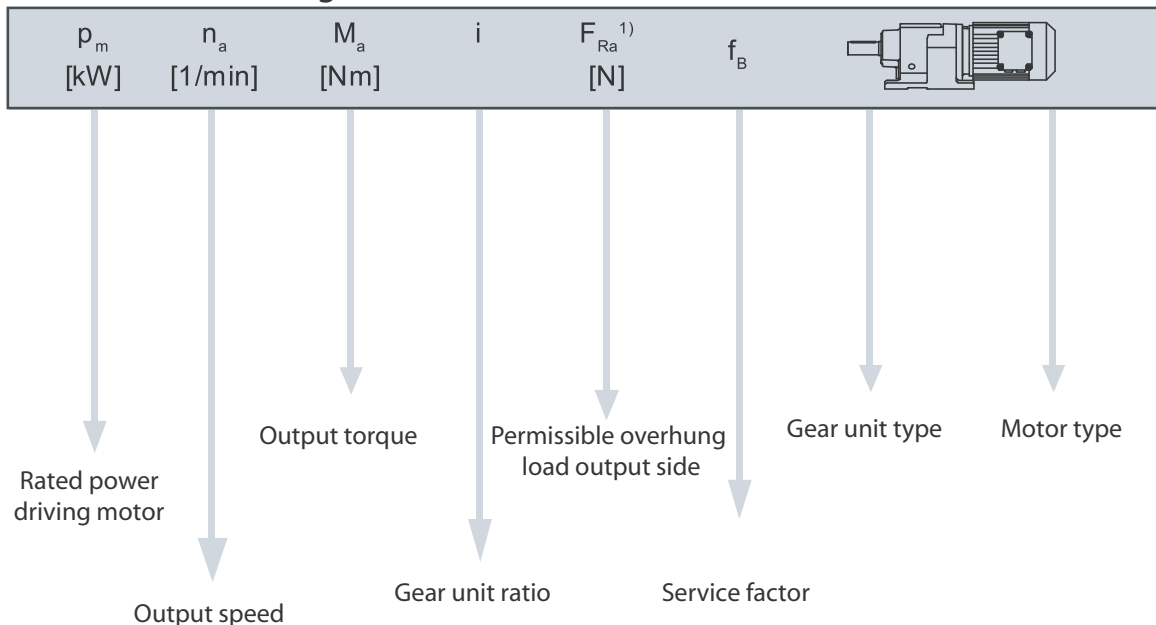
$\eta_e=1400$  1/min

TR/TRF167R97		18000Nm	
i	$n_a$ [1/min]	$M_{amax}$ [Nm]	$F_{Ra}$ [N]
27001	0.05	18000	120000
22482	0.06	18000	120000
20002	0.07	18000	120000
17361	0.08	18000	120000
15446	0.09	18000	120000
14051	0.10	18000	120000
11812	0.12	18000	120000
10509	0.13	18000	120000
9631	0.15	18000	120000
7749	0.18	18000	120000
6894	0.20	18000	120000
6077	0.23	18000	120000
5407	0.26	18000	120000
4650	0.30	18000	120000
4129	0.34	18000	120000
3692	0.38	18000	120000
3099	0.45	18000	120000
2657	0.53	18000	120000
2333	0.60	18000	120000
2085	0.67	18000	120000
1877	0.75	18000	120000
1670	0.84	18000	120000
1438	0.97	18000	120000
1279	1.1	18000	120000
1123	1.2	18000	120000
999	1.4	18000	120000
861	1.6	18000	120000
760	1.8	18000	120000
656	2.1	18000	120000
579	2.4	18000	120000
503	2.8	18000	120000
432	3.2	18000	120000
376	3.7	18000	120000
335	4.2	18000	120000
303	4.6	18000	120000
279	5.0	18000	120000

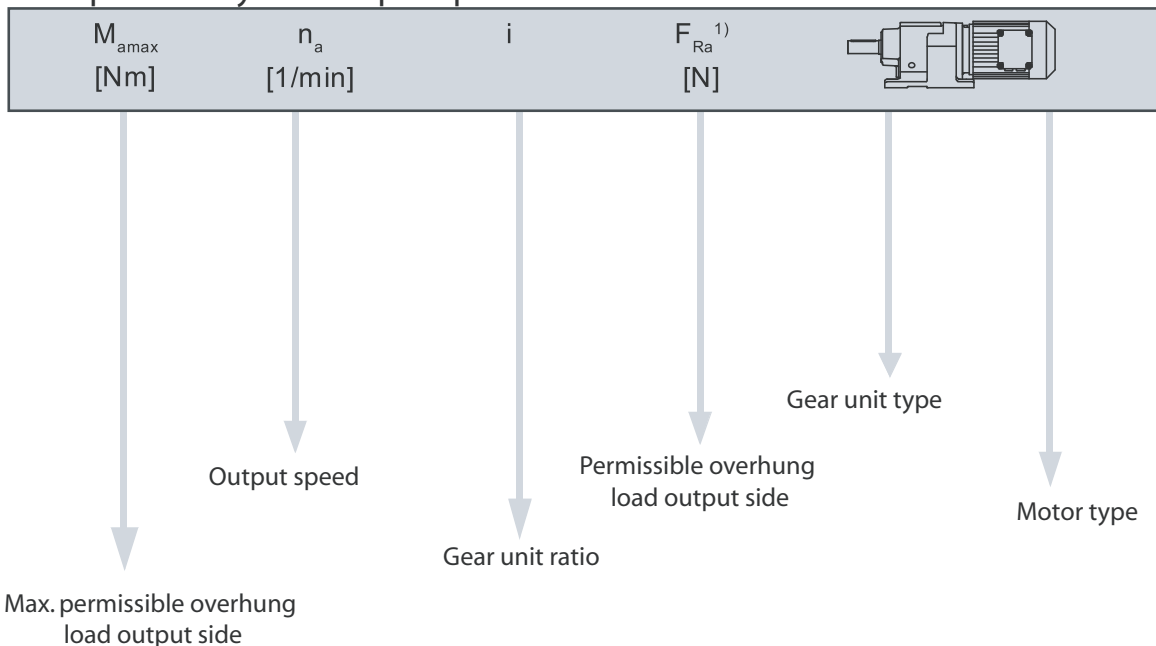
TR/TRF167R107		18000Nm	
i	$n_a$ [1/min]	$M_{amax}$ [Nm]	$F_{Ra}$ [N]
3637	0.38	18000	120000
3330	0.42	18000	120000
2757	0.51	18000	120000
2436	0.57	18000	120000
2298	0.61	18000	120000
2066	0.68	18000	120000
1849	0.76	18000	120000
1674	0.84	18000	120000
1485	0.94	18000	120000
1342	1.0	18000	120000
1229	1.1	18000	120000
1111	1.3	18000	120000
950	1.5	18000	120000
860	1.6	18000	120000
763	1.8	18000	120000
690	2.0	18000	120000
585	2.4	18000	120000
511	2.7	18000	120000
446	3.1	18000	120000
399	3.5	18000	120000
361	3.9	18000	120000
349	4.0	18000	120000
328	4.3	18000	120000
295	4.7	18000	120000
291	4.8	18000	120000
270	5.2	18000	120000
264	5.3	18000	120000
229	6.1	18000	120000
227	6.2	18000	120000
200	7.0	18000	120000
198	7.1	18000	120000
169	8.3	18000	120000
168	8.3	18000	120000



Selection table for geared motors



For particularly low output speeds



Cuttine

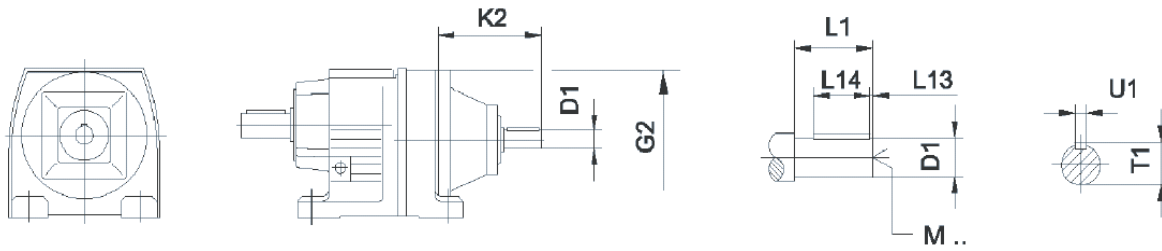
\* EEXE motor is optional

1) Overhung load specied for foot-mounted gear unit with solid shaft

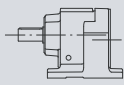
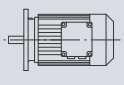
Notice :


In drives for particularly low output speeds (multi-stage geared motors),the motor power must be limited according to the maximum permitted output torque of the gear unit


**TR/TRF.. AD..**





		G2	K2	D1	L1	L13	L14	T1	U1	M
TR/TRF.. 27 TR/TRF.. 37	AD1	120	102	16	40	4	32	18	5	M5
	AD2		130	19	40	4	32	21.5	6	M6
TR/TRF..47,R..57 R..67	AD2	160	123	19	40	4	32	21.5	6	M6
	AD3		159	24	50	5	40	27	8	M8
TR/TRF..77	AD2	200	116	19	40	4	32	21.5	6	M6
	AD3		151	24	50	5	40	27	8	M8
	AD4		224	38	80	5	70	41	10	M12
TR/TRF..87	AD2	250	111	19	40	4	32	21.5	6	M6
	AD3		156	28	60	5	50	31	8	M10
	AD4		219	38	80	5	70	41	10	M12
	AD5		292	42	110	10	70	45	12	M16
TR/TRF..97	AD3	300	151	28	60	5	50	31	8	M10
	AD4		214	38	80	5	70	41	10	M12
	AD5		287	42	110	10	70	45	12	M16
	AD6		327	48	110	10	80	51.5	14	M16
TR/TRF..107	AD3	350	145	28	60	5	50	31	8	M10
	AD4		208	38	80	5	70	41	10	M12
	AD5		281	42	110	10	70	45	12	M16
	AD6		321	48	110	10	80	51.5	14	M16
TR/TRF..137	AD4	400	201	38	80	5	70	41	10	M12
	AD5		274	42	110	10	70	45	12	M16
	AD6		314	48	110	10	80	51.5	14	M16
	AD7		308	55	110	10	90	59	16	M20
TR/TRF..147	AD4	450	193	38	80	5	70	41	10	M12
	AD5		266	42	110	10	70	45	12	M16
	AD6		306	48	110	10	80	51.5	14	M16
	AD7		300	55	110	10	90	59	16	M20
	AD8		383	70	140	15	110	74.5	20	M20
TR/TRF..167	AD5	550	258	42	110	10	70	45	12	M16
	AD6		298	48	110	10	80	51.5	14	M16
	AD7		292	55	110	10	90	59	16	M20
	AD8		374	70	140	15	110	74.5	20	M20


$P_{1n}$ [kW]	$n_2$ [1/min]	$M_{2n}$ [Nm]	$i$	$F_{r2}$ [N]	$f_s$			Page	
0.12	0.06	13300	21342	62000	1.00	TR	147 / TRF 77	YDA 63S4	149
	0.08	11400	18210	65700	1.15	TRF	147 / TRF 77	YDA 63S4	149
	0.09	9930	15923	67900	1.30				
	0.10	8780	14075	69400	1.50				
	0.11	7650	12344	70700	1.70				
	0.12	6740	11143	71600	1.95				
	0.14	6040	9743	72200	2.2				
	0.16	4830	8443	73100	2.7				
	0.19	4180	7307	73400	3.1				
	0.21	3690	6447	73700	3.5				
	0.25	3190	5568	73900	4.1				
	0.11	8060	12921	53300	1.00	TR	137 / TRF 77	YDA 63S4	149
	0.12	7260	11712	54900	1.10	TRF	137 / TRF 77	YDA 63S4	149
	0.13	6390	10573	56400	1.25				
	0.16	5030	8784	58400	1.60				
	0.18	4090	7479	59400	1.95				
	0.21	4060	6559	59400	1.95				
	0.24	3190	5834	60200	2.5				
	0.27	3170	5116	60200	2.5				
	0.18	4410	7583	28800	0.95	TR	107 / TRF 77	YDA 63S4	149
	0.20	3690	6743	32400	1.15	TRF	107 / TRF 77	YDA 63S4	149
	0.23	3660	5914	32500	1.15				
	0.27	2830	5168	35500	1.50				
	0.31	2540	4435	36100	1.70				
	0.35	2270	3896	36500	1.90				
	0.45	1880	3039	36900	2.3				
	0.35	2470	3918	36200	1.75	TR	107 / TRF 77	YDA 63S4	149
	0.41	2110	3343	36700	2.0	TRF	107 / TRF 77	YDA 63S4	149
	0.45	1910	3034	36900	2.3				
	0.52	1670	2653	37100	2.6				
	0.61	1440	2280	37300	3.0				
	0.67	1300	2067	37400	3.3				
	0.30	3050	4559	17700	1.00	TR	97 / TRF 57	YDA 63S4	149
	0.34	2570	4004	23700	1.15	TRF	97 / TRF 57	YDA 63S4	149
	0.40	2270	3481	25200	1.30				
	0.29	3240	4678	18400	0.95	TR	97 / TRF 57	YDA 63S4	149
	0.32	2970	4309	20400	1.00	TRF	97 / TRF 57	YDA 63S4	149
	0.37	2560	3702	23700	1.15				
	0.46	2080	3019	26100	1.45				
	0.52	1810	2668	27100	1.65				
	0.61	1480	2245	27700	2.00				
	0.68	1310	2016	27900	2.30				
	0.80	1200	1733	28000	2.50				
	0.45	2120	3065	25900	1.4	TR	97 / TRF 57	YDA 63S4	149
	0.51	1880	2722	26800	1.6	TRF	97 / TRF 57	YDA 63S4	149
	0.60	1590	2311	27500	1.9				
	0.66	1430	2078	27700	2.1				
	0.76	1240	1823	28000	2.4				
	0.87	1070	1583	28200	2.8				
	0.99	910	1396	28300	3.3				
	1.10	775	1228	28400	3.9				
	0.48	1770	2873	15200	0.90	TR	87 / TRF 57	YDA 63S4	149
	0.70	1300	1961	18500	1.20	TRF	87 / TRF 57	YDA 63S4	149
	0.53	1790	2595	15000	0.85	TR	87 / TRF 57	YDA 63S4	149
	0.65	1430	2129	17700	1.10	TRF	87 / TRF 57	YDA 63S4	149
	0.72	1270	1930	18600	1.20				
	0.80	1120	1733	19300	1.40				

$P_{1n}$ [kW]	$n_2$ [1/min]	$M_{2n}$ [Nm]	$i$	$Fr_2$ [N]	$f_s$				Page
0.12	0.79	1150	1737	19200	1.35	TR	87 / TRF57	YDA 63S4	149
	0.91	1010	1524	19800	1.55	TRF	87 / TRF57	YDA 63S4	149
	1.1	810	1303	20000	1.90				
	1.2	710	1143	20000	2.20				
	1.6	585	885	20000	2.70				
	1.8	515	776	20000	3.00				
	2.0	450	685	20000	3.40				
	2.3	360	599	20000	4.30				
	1.1	940	1303	8660	0.85	TR	77 / TRF37	YDA 63S4	149
	1.2	800	1124	10100	1.05	TRF	77 / TRF37	YDA 63S4	149
	1.3	740	1047	10600	1.10				
	1.5	640	915	11300	1.30				
	1.1	820	1218	9910	1.00	TR	77 / TRF37	YDA 63S4	149
	1.3	740	1084	10600	1.10	TRF	77 / TRF37	YDA 63S4	149
	1.5	665	940	11200	1.25				
	1.7	525	821	12000	1.55				
	1.9	480	731	12200	1.70				
	2.1	460	646	12300	1.80				
	2.6	380	520	12600	2.20	TR	77 / TRF37	YDA 63S4	149
	3.1	325	451	12700	2.50	TRF	77 / TRF37	YDA 63S4	149
	3.3	300	422	12800	2.70				
	3.8	255	365	12900	3.20				
	1.6	630	891	7190	0.95	TR	67 / TRF37	YDA 63S4	149
	1.9	505	730	8530	1.20	TRF	67 / TRF37	YDA 63S4	149
	2.1	440	644	9060	1.35				
	2.4	385	571	9430	1.55				
	2.8	320	486	9790	1.85				
	1.7	590	836	7670	1.00	TR	67 / TRF37	YDA 63S4	149
	1.8	495	750	8630	1.20	TRF	67 / TRF37	YDA 63S4	149
	2.1	440	646	9050	1.35				
	2.4	400	574	9330	1.50				
	2.8	345	495	9660	1.75				
	3.1	285	438	9940	2.10				
	1.8	550	782	4650	0.80	TR	57 / TRF37	YDA 63S4	149
	2.0	455	678	7070	1.00	TRF	57 / TRF37	YDA 63S4	149
	2.3	415	604	7260	1.10				
	2.6	375	537	7400	1.20				
	2.9	330	471	7550	1.35				
	3.9	245	357	7770	1.85				
	4.3	215	319	7830	2.10				
	3.8	260	359	7730	1.75	TR	57 / TRF37	YDA 63S4	149
	4.3	235	324	7790	1.95	TRF	57 / TRF37	YDA 63S4	149
	4.8	205	290	7840	2.20				
	5.3	185	262	7880	2.40				
	5.6	171	246	7900	2.60				
	6.3	150	220	7930	3.00				
	2.7	345	510	4360	0.85	TR	47 / TRF37	YDA 63S4	149
3.2	285	436	5490	1.05	TRF	47 / TRF37	YDA 63S4	149	
3.4	265	408	5590	1.10					
4.0	220	344	5790	1.35					
2.8	365	502	3020	0.80	TR	47 / TRF37	YDA 63S4	149	
3.2	315	429	5350	0.95	TRF	47 / TRF37	YDA 63S4	149	
3.7	270	372	5580	1.10					
4.0	250	348	5670	1.20					
4.6	210	301	5810	1.40					
5.4	177	255	5930	1.70					
6.0	156	228	5980	1.95					
7.1	130	195	6040	2.30					


P <sub>1n</sub> [kW]	n <sub>2</sub> [1/min]	M <sub>2n</sub> [Nm]	i	Fr <sub>2</sub> [N]	fs				Page
						TR	TRF	YDA	
0.12	4.6	250	195.24*	12900	3.3	TR	77	YDA 63M6	133
	5.4	210	166.59	13000	3.9	TRF	77	YDA 63M6	134
	6.2	186	145.67	13000	4.4				
	4.5	255	199.81	10100	2.4	TR	67	YDA 63M6	130
	4.9	235	184.07	10100	2.6	TRF	67	YDA 63M6	131
	5.7	200	158.14	10300	3.0				
	6.5	175	137.67	10300	3.4				
	7.0	164	128.97	10400	3.7				
	7.9	145	113.94	10400	4.1				
	6.9	166	199.81	10300	3.6	TR	67	YDA 63S4	130
	7.5	153	184.07	10400	3.9	TRF	67	YDA 63S4	131
	4.8	240	186.89	7780	1.9	TR	57	YDA 63M6	127
	5.2	220	172.17	7820	2.1	TRF	57	YDA 63M6	128
	6.1	188	147.92	7870	2.4				
	7.0	164	128.77	7910	2.7				
	7.5	154	120.63	7920	2.9				
	8.4	136	106.58	7950	3.3				
	9.1	126	98.99	7960	3.6				
	7.4	155	186.89	7920	2.9	TR	57	YDA 63S4	127
	8.0	143	172.17	7940	3.2	TRF	57	YDA 63S4	128
	9.3	123	147.92	7960	3.7				
	11	107	128.77	7980	4.2				
	5.1	225	176.88	5760	1.35	TR	47	YDA 63M6	124
	5.5	210	162.94	5830	1.45	TRF	47	YDA 63M6	125
	6.4	178	139.99	5920	1.70				
	7.4	155	121.87	5980	1.95				
	7.8	147	176.88	6000	2.0	TR	47	YDA 63S4	124
	8.5	135	162.94	6030	2.2	TRF	47	YDA 63S4	125
	9.9	116	139.99	6070	2.6				
	11	101	121.87	6100	3.0				
	12	95	114.17	6110	3.2				
	14	84	100.86	6120	3.6				
	15	78	93.68	6130	3.9				
	6.7	172	134.82	5270	1.15	TR	37	YDA 63M6	121
	7.3	157	123.66	5410	1.25	TRF	37	YDA 63M6	122
	8.6	134	105.28	5600	1.50				
	9.9	116	90.77	5730	1.75				
	11	108	84.61	5770	1.85				
	12	94	73.96	5850	2.10				
	10	112	134.82	5750	1.80	TR	37	YDA 63S4	121
11	103	123.66	5800	1.95	TRF	37	YDA 63S4	122	
13	87	105.28	5880	2.30					
15	75	90.77	5930	2.70					
16	70	84.61	5950	2.80					
19	61	73.96	5980	3.30					
7.3	158	123.91	4090	0.80	TR	27	YDA 63M6	118	
8.5	134	105.49	4210	0.95	TRF	27	YDA 63M6	119	
9.9	116	90.96	4300	1.10					
11	108	84.78	4330	1.20					
12	94	74.11	4370	1.40					
10	112	135.09	4310	1.15	TR	27	YDA 63S4	118	
11	103	123.91	4340	1.25	TRF	27	YDA 63S4	119	
13	88	105.49	4390	1.50					
15	76	90.96	4430	1.70					
16	70	84.78	4440	1.85					
19	62	74.11	4460	2.1					
20	58	69.47	4470	2.3					


$P_{1n}$ [kW]	$n_2$ [1/min]	$M_{2n}$ [Nm]	$i$	$F_{r2}$ [N]	$f_s$				Page
0.12	23	51	61.30	4400	2.6	<b>TR</b>	<b>27</b>	<b>YDA 63S4</b>	118
	25	46	55.87	4280	2.8				<b>TRF</b>
	29	40	48.17	4090	3.3				
	31	37	44.90	4000	3.5				
	227	5	6.07	4270	8.6	<b>TRX</b>	<b>67</b>	<b>YDA 63S4</b>	108
	267	4.3	5.18	4050	17				<b>TRXF</b>
	305	3.8	4.53	3870	22				
	321	3.6	4.30*	3810	22				
	251	4.6	5.50*	3360	8.5	<b>TRX</b>	<b>57</b>	<b>YDA 63S4</b>	106
	272	4.2	5.07	3270	8.6				<b>TRXF</b>
	317	3.6	4.35	3120	19				
	364	3.1	3.79	2980	22				
	389	2.9	3.55*	2910	24				
	440	2.6	3.14	2800	25				
	474	2.4	2.91	2730	28				
	523	2.2	2.64*	2640	31				
	582	2	2.37	2550	35				
	676	1.7	2.04	2430	41				
	719	1.6	1.92*	2380	43				
	835	1.4	1.65	2260	49				
0.18	0.09	15000	14075	50900	0.85	<b>TR</b>	<b>147 / TRF77</b>	<b>YDA 63M4</b>	149
	0.11	13100	12344	62500	1.0				<b>TRF</b>
	0.12	11600	11143	65200	1.1				
	0.14	10300	9743	67300	1.25				
	0.16	8550	8443	69700	1.50				
	0.18	7400	7307	70900	1.75				
	0.20	6530	6447	71800	2.0				
	0.24	5640	5568	72500	2.3				
	0.27	5150	4926	72800	2.5				
	0.31	4420	4325	73300	2.9				
	0.35	3920	3754	73600	3.3				
	0.40	3380	3302	73800	3.9				
	0.15	8900	8784	50100	0.9	<b>TR</b>	<b>137 / TRF77</b>	<b>YDA 63M4</b>	149
	0.18	7390	7479	54600	1.1				<b>TRF</b>
	0.20	6950	6559	55500	1.15				
	0.23	5770	5834	57400	1.4				
	0.26	5420	5116	57900	1.5				
	0.30	4520	4464	59000	1.75				
	0.34	3980	3928	59500	2.0				
	0.28	5060	4709	58300	1.6	<b>TR</b>	<b>137 / TRF77</b>	<b>YDA 63M4</b>	149
	0.33	4320	4018	59200	1.85				<b>TRF</b>
	0.38	3780	3514	59700	2.1				
	0.40	3590	3338	59900	2.2				
	0.45	3150	2929	60200	2.5				
	0.30	4490	4435	28400	0.95	<b>TR</b>	<b>107 / TRF77</b>	<b>YDA 63M4</b>	149
	0.34	3980	3896	31100	1.10				<b>TRF</b>
	0.43	3220	3039	34200	1.35				
	0.34	4210	3918	29900	1.00	<b>TR</b>	<b>107 / TRF77</b>	<b>YDA 63M4</b>	149
	0.39	3590	3343	32800	1.20				<b>TRF</b>
	0.44	3260	3034	34100	1.30				
	0.50	2850	2653	35400	1.50				
	0.58	2450	2280	36200	1.75				
	0.64	2220	2067	36500	1.95				
	0.66	2100	1987	36700	2.10				
	0.72	1870	1827	36900	2.30				
	0.83	1600	1599	37200	2.70				
	0.94	1440	1400	37300	3.00				
	1.10	1230	1226	37400	3.50				

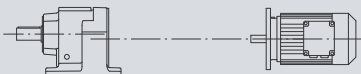
$P_{1n}$ [kW]	$n_2$ [1/min]	$M_{2n}$ [Nm]	$i$	$Fr_2$ [N]	$f_s$		Page
0.18	0.49	3000	2668	20000	1.00	TR 97 / TRF57 YDA 63M4	149
	0.59	2480	2245	24200	1.20	TRF 97 / TRF57 YDA 63M4	149
	0.65	2210	2016	25500	1.35		
	0.76	1970	1733	26500	1.50		
	0.81	1840	1623	27000	1.65		
	0.92	1610	1434	27500	1.85		
	1.1	1330	1207	27900	2.30		
	1.2	1190	1084	28000	2.50		
	1.4	1000	934	28200	3.00		
	1.5	940	878	28300	3.20		
	1.8	790	755	28400	3.80		
	0.49	3090	2722	15900	0.95	TR 97 / TRF57 YDA 63M4	149
	0.57	2620	2311	23400	1.15	TRF 97 / TRF57 YDA 63M4	149
	0.64	2360	2078	24800	1.25		
	0.89	1690	1489	15900	0.90	TR 87 / TRF57 YDA 63M4	149
	0.95	1580	1395	16700	1.00	TRF 87 / TRF57 YDA 63M4	149
	1.1	1380	1232	18000	1.10		
	1.2	1280	1145	18600	1.20		
	1.3	1150	1037	19200	1.35		
	1.4	1020	931	19800	1.50		
	1.7	860	802	20000	1.80		
	1	1680	1524	15900	0.90	TR 87 / TRF57 YDA 63M4	149
	1.0	1390	1303	17900	1.10	TRF 87 / TRF57 YDA 63M4	149
	1.2	1220	1143	18900	1.25		
	1.5	980	885	19900	1.60		
	1.7	860	776	20000	1.80		
	1.5	980	858	5830	0.85	TR 77 / TRF37 YDA 63M4	149
	1.7	850	757	9590	0.95	TRF 77 / TRF37 YDA 63M4	149
	2.0	750	671	10500	1.10		
	2.3	630	571	11400	1.30		
	1.6	890	821	9230	0.90	TR 77 / TRF37 YDA 63M4	149
	1.8	800	731	10100	1.00	TRF 77 / TRF37 YDA 63M4	149
	2.0	745	646	10500	1.10		
	2.4	645	560	11300	1.25		
	2.7	550	488	11800	1.50		
	3.0	490	436	12100	1.70		
	3.5	420	373	12400	1.95		
	4.0	370	327	12600	2.20		
	4.6	330	289	12700	2.50		
	2.3	640	571	7060	0.95	TR 67 / TRF37 YDA 63M4	149
	2.7	535	486	8250	1.10	TRF 67 / TRF37 YDA 63M4	149
	2.3	655	574	5820	0.90	TR 67 / TRF37 YDA 63M4	149
2.7	565	495	7950	1.05	TRF 67 / TRF37 YDA 63M4	149	
3.0	480	438	8740	1.25			
3.4	425	388	9160	1.40			
3.8	395	344	9380	1.55			
4.5	320	294	9800	1.90			
5.1	290	261	9920	2.10			
2.9	500	454	6650	0.9	TR 57 / TRF37 YDA 63M4	149	
3.2	455	410	7090	1.0	TRF 57 / TRF37 YDA 63M4	149	
2.8	540	471	5250	0.85	TR 57 / TRF37 YDA 63M4	149	
3.7	405	357	7300	1.10	TRF 57 / TRF37 YDA 63M4	149	
4.1	355	319	7460	1.25			
4.8	300	273	7630	1.50			
5.5	260	241	7730	1.75			
6.1	235	215	7790	1.95			


P <sub>1n</sub> [kW]	n <sub>2</sub> [1/min]	M <sub>2n</sub> [Nm]	i	Fr <sub>2</sub> [N]	fs				Page
						TR	TRF	YDA	
0.18	3.7	420	359	7230	1.05	TR	57 / TRF37	YDA 63M4	149
	4.1	380	324	7380	1.20	TRF	57 / TRF37	YDA 63M4	149
	4.5	335	290	7530	1.35				
	5.0	305	262	7620	1.50				
	5.4	280	246	7680	1.60				
	6.0	250	220	7750	1.80				
	7.0	210	188	7830	2.10				
	8.3	177	159	7890	2.60				
	4.4	350	301	4150	0.85	TR	47 / TRF37	YDA 63M4	149
	5.2	290	255	5460	1.05	TRF	47 / TRF37	YDA 63M4	149
	5.8	260	228	5630	1.15				
	6.8	220	195	5790	1.40				
	4.5	385	195.24*	12500	2.1	TR	77	YDA 63L6	133
	5.2	330	166.59	12700	2.5	TRF	77	YDA 63L6	134
	6.0	290	145.67	12800	2.9				
	6.3	275	138.39	12900	3.0				
	7.2	240	121.42	12900	3.4				
	6.8	255	195.24*	12900	3.2	TR	77	YDA 63M4	133
	7.9	215	166.59	13000	3.8	TRF	77	YDA 63M4	134
	9.1	190	145.67	13000	4.3				
	9.5	180	138.39	13000	4.6				
	4.4	395	199.81	9370	1.5	TR	67	YDA 63L6	130
	4.7	365	184.07	9560	1.65	TRF	67	YDA 63L6	131
	5.5	310	158.14	9830	1.9				
	6.3	270	137.67	10000	2.2				
	6.8	255	128.97	10100	2.4				
	7.6	225	113.94	10200	2.7				
	8.2	210	105.83	10200	2.9				
	9.1	190	95.91	10300	3.2				
	10	170	86.11	10300	3.5				
	12	147	74.17	10400	4.1				
	12	138	69.75	10400	4.4				
	6.6	260	199.81	10100	2.3	TR	67	YDA 63M4	130
	7.2	240	184.07	10100	2.5	TRF	67	YDA 63M4	131
	8.3	205	158.14	10200	2.9				
	9.6	179	137.67	10300	3.4				
	10	168	128.97	10300	3.6				
	12	148	113.94	10400	4.0				
	12	138	105.83	10400	4.4				
	4.7	370	186.89	7420	1.2	TR	57	YDA 63L6	127
	5.0	340	172.17	7510	1.3	TRF	57	YDA 63L6	128
	5.9	290	147.92	7650	1.55				
	6.8	255	128.77	7740	1.75				
	7.2	240	120.63	7780	1.9				
	7.1	245	186.89	7770	1.85	TR	57	YDA 63M4	127
	7.7	225	172.17	7810	2.0	TRF	57	YDA 63M4	128
	8.9	193	147.92	7870	2.3				
10	168	128.77	7900	2.7					
11	157	120.63	7920	2.9					
12	139	106.58	7940	3.2					
13	129	98.99	7950	3.5					
15	117	89.71	7970	3.9					
7.5	230	176.88	5740	1.3	TR	47	YDA 63M4	124	
8.1	210	162.94	5810	1.4	TRF	47	YDA 63M4	125	
9.4	182	139.99	5910	1.65					
11	159	121.87	5980	1.9					
12	149	114.17	6000	2.0					

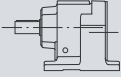
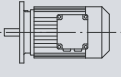



$P_{1n}$ [kW]	$n_2$ [1/min]	$M_{2n}$ [Nm]	$i$	$Fr_2$ [N]	$f_s$			Page	
0.18	13	131	100.86	6040	2.3	<b>TR</b>	<b>47</b>	<b>YDA 63M4</b>	124
	14	122	93.68	6060	2.5	<b>TRF</b>	<b>47</b>	<b>YDA 63M4</b>	125
	16	111	84.90	6080	2.7				
	17	99	76.23	6100	3.0				
	7.0	245	123.66	3060	0.8	<b>TR</b>	<b>37</b>	<b>YDA 63L6</b>	121
	8.3	210	105.28	4840	0.95	<b>TRF</b>	<b>37</b>	<b>YDA 63L6</b>	122
	9.6	179	90.77	5190	1.10				
	10	167	84.61	5310	1.20				
	9.8	176	134.82	5230	1.15	<b>TR</b>	<b>37</b>	<b>YDA 63M4</b>	121
	11	161	123.66	5370	1.25	<b>TRF</b>	<b>37</b>	<b>YDA 63M4</b>	122
	13	137	105.28	5580	1.45				
	15	118	90.77	5710	1.7				
	16	110	84.61	5760	1.8				
	18	96	73.96	5840	2.1				
	19	90	69.33	5870	2.2				
	22	80	61.18	5920	2.5				
	24	73	55.76	5940	2.8				
	27	63	48.08	5960	3.2				
	11	161	123.91	4070	0.8	<b>TR</b>	<b>27</b>	<b>YDA 63M4</b>	118
	13	137	105.49	4200	0.95	<b>TRF</b>	<b>27</b>	<b>YDA 63M4</b>	119
	15	118	90.96	4280	1.10				
	16	110	84.78	4320	1.20				
	18	97	74.11	4370	1.35				
	19	91	69.47	4380	1.45				
	22	80	61.30	4320	1.65				
	24	73	55.87	4210	1.8				
	27	63	48.17	4040	2.1				
	29	59	44.90	3960	2.2				
	34	51	39.25	3810	2.5				
	36	48	36.79	3740	2.7				
	41	42	32.47	3610	3.1				
	46	38	28.78	3480	3.5				
	54	32	24.47	3310	4.1				
	47	37	28.37	3470	3.5	<b>TR</b>	<b>27</b>	<b>YDA 63M4</b>	118
	51	34	26.09	3380	3.8	<b>TRF</b>	<b>27</b>	<b>YDA 63M4</b>	119
	59	29	22.32	3220	4.5				
	68	25	19.35	3090	5.2				
	73	24	18.08	3020	5.5				
	84	20	15.63	2890	6.4				
	99	17	13.28*	2750	7.5				
	143	12	6.07	4940	3.6	<b>TRX</b>	<b>67</b>	<b>YDA 63L6</b>	108
	168	10	5.18	4690	7.4	<b>TRXF</b>	<b>67</b>	<b>YDA 63L6</b>	109
	192	8.9	4.53	4490	9.2				
	202	8.5	4.30*	4410	9.4				
	218	7.9	6.07	4310	5.4	<b>TRX</b>	<b>67</b>	<b>YDA 63M4</b>	108
	255	6.7	5.18	4090	11	<b>TRXF</b>	<b>67</b>	<b>YDA 63M4</b>	109
	292	5.9	4.53	3920	14				
	307	5.6	4.30*	3850	14				
	350	4.9	3.77	3690	18				
	413	4.2	3.20*	3500	24				
	457	3.8	2.89	3380	28				
	519	3.3	2.54	3240	36				
	550	3.1	2.40*	3180	40				
	646	2.7	2.04	3020	50				
	158	11	5.50*	3880	3.6	<b>TRX</b>	<b>57</b>	<b>YDA 63L6</b>	106
	172	10	5.07	3780	3.6	<b>TRXF</b>	<b>57</b>	<b>YDA 63L6</b>	107
	200	8.6	4.35	3600	7.9				

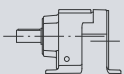
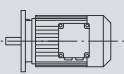
$P_{1n}$ [kW]	$n_2$ [1/min]	$M_{2n}$ [Nm]	$i$	$Fr_2$ [N]	$f_s$		Page
0.18	230	7.5	3.79	3440	9.2	<b>TRX 57</b>	<b>YDA 63M4</b> 106
	240	7.2	5.50*	3400	5.4	<b>TRXF 57</b>	<b>YDA 63M4</b> 107
	261	6.6	5.07	3310	5.5		
	303	5.7	4.35	3150	12		
	348	4.9	3.79	3010	14		
	372	4.6	3.55*	2950	15		
	421	4.1	3.14	2830	16		
	453	3.8	2.91	2760	18		
	500	3.4	2.64*	2670	20		
	557	3.1	2.37	2580	22		
	647	2.7	2.04	2460	26		
	688	2.5	1.92*	2410	28		
799	2.2	1.65	2290	31			
0.25	0.13	15200	9743	48200	0.85	<b>TR 147 / TRF77</b>	<b>YDA 63L4</b> 149
	0.15	12800	8443	63100	1.00	<b>TRF 147 / TRF77</b>	<b>YDA 63L4</b> 149
	0.18	11000	7307	66200	1.20		
	0.20	9740	6447	68100	1.35		
	0.23	8410	5568	69800	1.55		
	0.26	7600	4926	70700	1.70		
	0.30	6570	4325	71700	2.00		
	0.35	5790	3754	72400	2.30		
	0.39	5020	3302	72900	2.60		
	0.45	4380	2898	73300	3.00		
	0.22	8670	5834	51100	0.90	<b>TR 137 / TRF77</b>	<b>YDA 63L4</b> 149
	0.25	7970	5116	53500	1.00	<b>TRF 137 / TRF77</b>	<b>YDA 63L4</b> 149
	0.29	6740	4464	55800	1.20		
	0.33	5930	3928	57100	1.35		
	0.28	7430	4709	54600	1.10	<b>TR 137 / TRF77</b>	<b>YDA 63L4</b> 149
	0.32	6340	4018	56500	1.25	<b>TRF 137 / TRF77</b>	<b>YDA 63L4</b> 149
	0.37	5550	3514	57700	1.45		
	0.39	5270	3338	58100	1.50		
	0.44	4620	2929	58900	1.75		
	0.49	4190	2658	59300	1.90	<b>TR 137 / TRF77</b>	<b>YDA 63L4</b> 149
	0.54	3800	2412	59700	2.10	<b>TRF 137 / TRF77</b>	<b>YDA 63L4</b> 149
	0.63	3270	2073	60100	2.50		
	0.71	2810	1839	60500	2.80		
	0.93	2180	1397	60800	3.70		
	1.1	1890	1226	61000	4.20		
	0.43	4730	3039	25600	0.90	<b>TR 107 / TRF77</b>	<b>YDA 63L4</b> 149
	0.43	4790	3034	23600	0.90	<b>TRF 107 / TRF77</b>	<b>YDA 63L4</b> 149
	0.65	3100	1987	34600	1.40	<b>TR 107 / TRF77</b>	<b>YDA 63L4</b> 149
	0.71	2790	1827	35600	1.55	<b>TRF 107 / TRF77</b>	<b>YDA 63L4</b> 149
	0.81	2410	1599	36300	1.80		
	0.93	2140	1400	36600	2.00		
	1.1	1840	1226	36900	2.30		
	1.4	1440	939	37300	3.00		
	1.6	1240	822	37400	3.50		
	0.75	2840	1733	22000	1.05	<b>TR 97 / TRF57</b>	<b>YDA 63L4</b> 149
	0.80	2660	1623	23200	1.15	<b>TRF 97 / TRF57</b>	<b>YDA 63L4</b> 149
	0.71	2960	1823	21100	1.00	<b>TR 97 / TRF57</b>	<b>YDA 63L4</b> 149
	0.82	2570	1583	23700	1.15	<b>TRF 97 / TRF57</b>	<b>YDA 63L4</b> 149
	0.93	2230	1396	25400	1.35		
	1.1	1940	1228	26600	1.55		
1.2	1750	1069	27300	1.70			
1.4	1530	938	27600	1.95			
1.6	1300	824	27900	2.30			
1.8	1160	737	28100	2.60			
2.1	1000	632	28200	3.00			

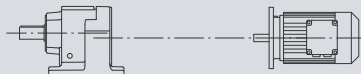
$P_{1n}$ [kW]	$n_2$ [1/min]	$M_{2n}$ [Nm]	$i$	$Fr_2$ [N]	$f_s$				Page
0.25	1.1	1850	1145	10700	0.85	TR	87 / TRF57	YDA 63L4	149
	1.2	1670	1037	16000	0.95	TRF	87 / TRF57	YDA 63L4	149
	1.4	1490	931	17400	1.05				
	1.6	1270	802	18600	1.20				
	1.1	1800	1143	14700	0.85	TR	87 / TRF57	YDA 63L4	149
	1.5	1420	885	17800	1.10	TRF	87 / TRF57	YDA 63L4	149
	1.7	1250	776	18700	1.25				
	1.9	1100	685	19400	1.40				
	2.2	930	599	20000	1.65				
	2.5	820	525	20000	1.90				
	2.9	715	456	20000	2.20				
	4.9	415	268	20000	3.70				
	2.3	920	571	8910	0.90	TR	77 / TRF37	YDA 63L4	149
						TRF	77 / TRF37	YDA 63L4	149
	2.3	930	560	8780	0.90	TR	77 / TRF37	YDA 63L4	149
	2.7	795	488	10100	1.05	TRF	77 / TRF37	YDA 63L4	149
	3.0	705	436	10900	1.15				
	3.5	610	373	11500	1.35				
	4.0	535	327	11900	1.55				
	4.5	475	289	12200	1.75				
	5.0	425	260	12400	1.95				
	5.8	355	224	12600	2.30				
	3.4	620	388	7290	0.95	TR	67 / TRF37	YDA 63L4	149
	3.8	565	344	7950	1.05	TRF	67 / TRF37	YDA 63L4	149
	4.4	465	294	8870	1.30				
	5.0	425	261	9180	1.40				
	5.5	380	234	9460	1.60				
	6.5	320	200	9780	1.85				
	7.4	280	176	9980	2.20				
	8.2	250	158	10100	2.40				
	3.4	645	384	6960	0.95	TR	67 / TRF37	YDA 63L4	149
	3.6	600	359	7550	1.00	TRF	67 / TRF37	YDA 63L4	149
	4.2	515	310	8430	1.15				
	4.9	435	264	9100	1.40				
	5.5	385	235	9420	1.55				
	6.5	325	201	9750	1.85				
	7.2	295	181	9910	2.00				
	4.1	520	319	6050	0.85	TR	57 / TRF37	YDA 63L4	149
	4.8	440	273	7160	1.05	TRF	57 / TRF37	YDA 63L4	149
	5.4	380	241	7380	1.20				
	6.0	340	215	7510	1.30				
	7.0	300	187	7630	1.50				
	7.9	260	164	7730	1.75				
	9.2	225	142	7800	2.00				
	4.0	545	324	4980	0.85	TR	57 / TRF37	YDA 63L4	149
	4.5	485	290	6950	0.95	TRF	57 / TRF37	YDA 63L4	149
	5.0	435	262	7160	1.05				
	5.3	405	246	7280	1.10				
	5.9	360	220	7450	1.25				
	5.7	375	228	2440	0.80	TR	47 / TRF37	YDA 63L4	149
6.7	315	195	5320	0.95	TRF	47 / TRF37	YDA 63L4	149	
7.1	295	182	5440	1.00					
8.5	245	154	5680	1.20					
2.4	1020	289.74	28200	3.0	TR	97	YDA 80N8	139	
2.7	900	255.71	28300	3.3	TRF	97	YDA 80N8	140	
2.8	850	241.25	28400	3.5					
3.1	760	216.28	28400	4.0					

$P_{1n}$ [kW]	$n_2$ [1/min]	$M_{2n}$ [Nm]	$i$	$Fr_2$ [N]	$f_s$		Page
0.25	2.8	870	246.54	20000	1.8	<b>TR 87</b>	<b>YDA 80N8</b> 136
	3.1	760	216.54	20000	2.0	<b>TRF 87</b>	<b>YDA 80N8</b> 137
	3.3	720	205.71	20000	2.2		
	3.7	640	181.77	20000	2.4		
	4.1	585	166.59	11600	1.4	<b>TR 77</b>	<b>YDA 80N8</b> 133
	4.7	510	145.67	12000	1.6	<b>TRF 77</b>	<b>YDA 80N8</b> 134
	4.9	485	138.39	12100	1.7		
	5.6	425	121.42	12400	1.9		
	4.5	530	195.24*	11900	1.55	<b>TR 77</b>	<b>YDA 71D6</b> 133
	5.3	450	166.59	12300	1.8	<b>TRF 77</b>	<b>YDA 71D6</b> 134
	6.0	395	145.67	12500	2.1		
	6.7	360	195.24*	12600	2.3	<b>TR 77</b>	<b>YDA 63L4</b> 133
	7.8	305	166.59	12800	2.7	<b>TRF 77</b>	<b>YDA 63L4</b> 134
	8.9	270	145.67	12900	3.1		
	9.4	255	138.39	12900	3.2		
	11	225	121.42	13000	3.7		
	4.3	555	158.14	8060	1.1	<b>TR 67</b>	<b>YDA 80N8</b> 130
	4.9	485	137.67	8730	1.25	<b>TRF 67</b>	<b>YDA 80N8</b> 131
	5.3	455	128.97	8970	1.35		
	6.0	400	113.94	9340	1.5		
	4.4	540	199.81	8190	1.1	<b>TR 67</b>	<b>YDA 71D6</b> 130
	4.8	500	184.07	8590	1.2	<b>TRF 67</b>	<b>YDA 71D6</b> 131
	5.6	430	158.14	9140	1.4		
	6.4	375	137.67	9500	1.6		
	6.8	350	128.97	9630	1.7		
	7.7	310	113.94	9840	1.95		
	8.3	285	105.83	9940	2.10		
	6.5	365	199.81	9540	1.65	<b>TR 67</b>	<b>YDA 63L4</b> 130
	7.1	340	184.07	9700	1.8	<b>TRF 67</b>	<b>YDA 63L4</b> 131
	8.2	290	158.14	9930	2.1		
	9.4	255	137.67	10100	2.4		
	10	235	128.97	10100	2.5		
	11	210	113.94	10200	2.9		
	12	194	105.83	10300	3.1		
	14	176	95.91	10300	3.4		
	15	158	86.11	10400	3.8		
	4.7	505	186.89	6450	0.9	<b>TR 57</b>	<b>YDA 71D6</b> 127
	5.1	465	172.17	7030	0.95	<b>TRF 57</b>	<b>YDA 71D6</b> 128
	6.0	400	147.92	7300	1.10		
	6.8	350	128.77	7480	1.30		
	7.3	325	120.63	7550	1.35		
	8.3	290	106.58	7660	1.55		
	8.9	270	98.99	7710	1.7		
	7.0	345	186.89	7500	1.3	<b>TR 57</b>	<b>YDA 63L4</b> 127
	7.5	315	172.17	7590	1.4	<b>TRF 57</b>	<b>YDA 63L4</b> 128
	8.8	270	147.92	7700	1.65		
	10	235	128.77	7780	1.9		
	11	220	120.63	7810	2.0		
	12	196	106.58	7860	2.3		
	13	182	98.99	7880	2.5		
14	165	89.71	7910	2.7			
16	148	80.55	7930	3.0			
19	127	69.23	7960	3.5			
7.4	325	176.88	5280	0.90	<b>TR 47</b>	<b>YDA 63L4</b> 124	
8.0	300	162.94	5420	1.00	<b>TRF 47</b>	<b>YDA 63L4</b> 125	
9.3	255	139.99	5630	1.15			
11	225	121.87	5770	1.35			


$P_{1n}$ [kW]	$n_2$ [1/min]	$M_{2n}$ [Nm]	$i$	$F_{r2}$ [N]	$f_s$			Page		
0.25	11	210	114.17	5820	1.45	<b>TR</b>	<b>47</b>	<b>YDA 63L4</b>	124	
	13	185	100.86	5900	1.60	<b>TRF</b>	<b>47</b>	<b>YDA 63L4</b>	125	
	14	172	93.68	5940	1.75					
	15	156	84.90	5980	1.9					
	17	140	76.23	6020	2.1					
	19	126	68.54	6050	2.4					
	20	118	64.21	6070	2.5					
	23	104	56.73	6090	2.9					
	25	97	52.69	6100	3.1					
	27	88	47.75	6080	3.4					
	9.6	250	134.82	2630	0.8		<b>TR</b>	<b>37</b>	<b>YDA 63L4</b>	121
	11	225	123.66	4560	0.9		<b>TRF</b>	<b>37</b>	<b>YDA 63L4</b>	122
	12	193	105.28	5030	1.05					
	14	167	90.77	5320	1.20					
	15	155	84.61	5420	1.30					
	18	136	73.96	5590	1.45					
	19	127	69.33	5650	1.55					
	21	112	61.18	5750	1.80					
	23	102	55.76	5800	1.95					
	27	88	48.08	5870	2.3					
	29	82	44.81	5760	2.4					
	33	72	39.17	5540	2.8					
	35	67	36.72	5430	3.0					
	40	60	32.40	5230	3.4					
	15	156	84.78	4100	0.85		<b>TR</b>	<b>27</b>	<b>YDA 63L4</b>	118
	18	136	74.11	4210	0.95		<b>TRF</b>	<b>27</b>	<b>YDA 63L4</b>	119
	19	128	69.47	4250	1.00					
	21	113	61.30	4190	1.15					
	23	103	55.87	4090	1.25					
	27	89	48.17	3940	1.45					
	29	83	44.90	3870	1.6					
	33	72	39.25	3730	1.8					
	35	68	36.79	3670	1.9					
	40	60	32.47	3540	2.2					
	45	53	28.78	3420	2.5					
	53	45	24.47	3270	2.9					
	46	52	28.37	3410	2.5		<b>TR</b>	<b>27</b>	<b>YDA 63L4</b>	118
	50	48	26.09	3330	2.7		<b>TRF</b>	<b>27</b>	<b>YDA 63L4</b>	119
	58	41	22.32	3180	3.2					
	67	36	19.35	3050	3.7					
	72	33	18.08	2990	3.9					
	83	29	15.63	2860	4.5					
	98	24	13.28*	2730	5.3					
	110	22	11.86	2630	5.9					
	128	19	10.13	2510	6.6					
	138	17	9.41	2440	7.1					
	159	15	8.16	2330	7.7					
170	14	7.63*	2290	8.0						
197	12	6.59	2180	8.8						
232	10	5.60*	2080	9.6						
260	9.2	5.00*	2000	10						
304	7.8	4.27	1910	11						
325	7.3	4.00*	1870	12						
386	6.2	3.37	1770	13						
145	17	6.07	4890	2.6		<b>TRX</b>	<b>67</b>	<b>YDA 71D6</b>	108	
170	14	5.18	4650	5.4		<b>TRXF</b>	<b>67</b>	<b>YDA 71D6</b>	109	
194	12	4.53	4450	6.7						
205	12	4.30*	4380	6.8						

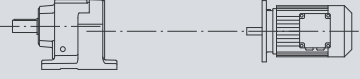
$P_{1n}$ [kW]	$n_2$ [1/min]	$M_{2n}$ [Nm]	$i$	$F_{r2}$ [N]	$f_s$			Page	
0.25	214	11	6.07	4310	3.9	<b>TRX 67</b>	<b>YDA 63L4</b>	108	
	251	9.5	5.18	4100	7.9			<b>TRXF 67</b>	<b>YDA 63L4</b>
	287	8.3	4.53	3920	9.9				
	302	7.9	4.30*	3860	10				
	345	6.9	3.77	3700	13				
	406	5.9	3.20*	3500	17				
	450	5.3	2.89	3390	20				
	511	4.7	2.54	3250	25				
	542	4.4	2.40*	3190	28				
	636	3.8	2.04	3020	35				
	160	15	5.50*	3840	2.6	<b>TRX 57</b>	<b>YDA 71D6</b>	106	
	174	14	5.07	3740	2.6	<b>TRXF 57</b>	<b>YDA 71D6</b>	107	
	202	12	4.35	3560	5.8				
	232	10	3.79	3410	6.7				
	236	10	5.50*	3390	3.9	<b>TRX 57</b>	<b>YDA 63L4</b>	106	
	257	9.3	5.07	3300	3.9	<b>TRXF 57</b>	<b>YDA 63L4</b>	107	
	299	8.0	4.35	3150	8.5				
	343	7.0	3.79	3010	9.9				
	366	6.5	3.55*	2950	11				
	414	5.8	3.14	2830	11				
	446	5.3	2.91	2760	13				
	492	4.8	2.64*	2680	14				
	548	4.4	2.37	2580	16				
	637	3.7	2.04	2460	19				
	677	3.5	1.92*	2410	20				
	787	3.0	1.65	2300	23				
	0.37	0.19	15900	7307	37500	0.8	<b>TR 147 / TRF77</b>	<b>YDA 71D4</b>	149
		0.21	14100	6447	60400	0.9	<b>TRF 147 / TRF77</b>	<b>YDA 71D4</b>	149
		0.25	12100	5568	64300	1.05			
		0.28	10900	4926	66400	1.20			
		0.32	9480	4325	68500	1.35			
		0.37	8310	3754	70000	1.55			
0.42		7240	3302	71100	1.8				
0.48		6320	2898	71900	2.1				
0.31		9740	4464	39400	0.8	<b>TR 137 / TRF77</b>	<b>YDA 71D4</b>	149	
0.35		8570	3928	51500	0.95	<b>TRF 137 / TRF77</b>	<b>YDA 71D4</b>	149	
0.34		9080	4018	49200	0.9	<b>TR 137 / TRF77</b>	<b>YDA 71D4</b>	149	
0.39		7940	3514	53500	1.0	<b>TRF 137 / TRF77</b>	<b>YDA 71D4</b>	149	
0.41		7540	3338	54300	1.05				
0.47		6620	2929	56000	1.20				
0.56		5600	2484	57600	1.45				
0.62		5030	2242	58400	1.60				
0.52		6000	2658	57000	1.35	<b>TR 137 / TRF77</b>	<b>YDA 71D4</b>	149	
0.57		5440	2412	57800	1.45	<b>TRF 137 / TRF77</b>	<b>YDA 71D4</b>	149	
0.67		4680	2073	58800	1.70				
0.75		4060	1839	59400	1.95				
0.99		3130	1397	60200	2.6				
1.1		2720	1226	60500	2.9				
1.3		2440	1090	60700	3.3				
1.4		2130	951	60900	3.8				
0.67		4660	2067	27300	0.9	<b>TR 107 / TRF77</b>	<b>YDA 71D4</b>	149	
0.82		3790	1693	31900	1.15	<b>TRF 107 / TRF77</b>	<b>YDA 71D4</b>	149	
0.89		3420	1550	33500	1.25				
0.98		3110	1407	34600	1.40				
1.1		2670	1209	35900	1.60				
1.3		2330	1055	36400	1.85				


$P_{1n}$ [kW]	$n_2$ [1/min]	$M_{2n}$ [Nm]	$i$	$F_{r2}$ [N]	$f_s$			Page	
0.37	0.69	4450	1987	28600	0.95	<b>TR</b>	<b>107 / TRF77</b>	<b>YDA 71D4</b>	149
	0.76	4030	1827	30800	1.05	<b>TRF</b>	<b>107 / TRF77</b>	<b>YDA 71D4</b>	149
	0.86	3490	1599	33200	1.25				
	0.99	3090	1400	34600	1.4				
	1.1	2670	1226	35900	1.6				
	1.5	2070	939	36700	2.1				
	1.7	1790	822	37000	2.4				
	1.1	2760	1207	22500	1.1	<b>TR</b>	<b>97 / TRF57</b>	<b>YDA 71D4</b>	149
	1.3	2470	1084	24300	1.2	<b>TRF</b>	<b>97 / TRF57</b>	<b>YDA 71D4</b>	149
	1	3180	1396	10800	0.95	<b>TR</b>	<b>97 / TRF57</b>	<b>YDA 71D4</b>	149
	1.1	2780	1228	22500	1.1	<b>TRF</b>	<b>97 / TRF57</b>	<b>YDA 71D4</b>	149
	1.3	2480	1069	24200	1.2				
	1.5	2160	938	25700	1.4				
	1.7	1860	824	26900	1.6				
	1.9	1670	737	27400	1.8				
	2.2	1430	632	27700	2.1				
	3.2	980	431	28200	3.1				
	3.6	860	379	28300	3.5				
	4.1	765	336	28400	3.9				
	1.7	1810	802	13800	0.85	<b>TR</b>	<b>87 / TRF57</b>	<b>YDA 71D4</b>	149
	1.8	1700	754	15800	0.90	<b>TRF</b>	<b>87 / TRF57</b>	<b>YDA 71D4</b>	149
	2.1	1450	649	17600	1.05				
	1.8	1780	776	15100	0.85	<b>TR</b>	<b>87 / TRF57</b>	<b>YDA 71D4</b>	149
	2.0	1570	685	16800	1.00	<b>TRF</b>	<b>87 / TRF57</b>	<b>YDA 71D4</b>	149
	2.3	1340	599	18300	1.15				
	2.6	1170	525	19100	1.3				
	3.0	1030	456	19700	1.5				
	5.2	595	268	20000	2.6				
	5.9	525	236	20000	2.9				
	2.6	1260	538	18700	1.25	<b>TR</b>	<b>87 / TRF57</b>	<b>YDA 71D4</b>	149
	2.9	1100	472	19400	1.40	<b>TRF</b>	<b>87 / TRF57</b>	<b>YDA 71D4</b>	149
	3.5	930	400	20000	1.65				
	3.8	830	361	20000	1.85				
	3.7	860	373	9520	0.95	<b>TR</b>	<b>77 / TRF37</b>	<b>YDA 71D4</b>	149
	4.2	755	327	10500	1.10	<b>TRF</b>	<b>77 / TRF37</b>	<b>YDA 71D4</b>	149
	4.8	670	289	11100	1.20				
	5.3	600	260	11600	1.35				
	6.2	510	224	12000	1.60				
	7.0	445	197	12300	1.85				
	8.2	390	169	12500	2.10				
	9.3	340	149	12700	2.40				
	4.7	665	294	4670	0.9	<b>TR</b>	<b>67 / TRF37</b>	<b>YDA 71D4</b>	149
	5.3	600	261	7550	1.0	<b>TRF</b>	<b>67 / TRF37</b>	<b>YDA 71D4</b>	149
	5.9	540	234	8220	1.1				
	6.9	460	200	8930	1.3				
2.7	1330	255.71	27900	2.3	<b>TR</b>	<b>97</b>	<b>YDA 90S8</b>	139	
2.8	1250	241.25	28000	2.4	<b>TRF</b>	<b>97</b>	<b>YDA 90S8</b>	140	
3.1	1120	216.28	28100	2.7					
3.6	970	186.30	28300	3.1					
3.1	1140	289.74	28100	2.6	<b>TR</b>	<b>97</b>	<b>YDA 80K6</b>	139	
3.5	1000	255.71	28200	3.0	<b>TRF</b>	<b>97</b>	<b>YDA 80K6</b>	140	
3.7	950	241.25	28300	3.2					
4.2	850	216.28	28400	3.5					
3.1	1130	216.54	19300	1.4	<b>TR</b>	<b>87</b>	<b>YDA 90S8</b>	136	
3.3	1070	205.71	19600	1.45	<b>TRF</b>	<b>87</b>	<b>YDA 90S8</b>	137	
3.7	940	181.77	20000	1.65					

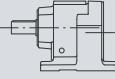
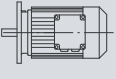
$P_{1n}$ [kW]	$n_2$ [1/min]	$M_{2n}$ [Nm]	$i$	$F_{r2}$ [N]	$f_s$				Page
0.37	3.6	970	246.54	20000	1.6	TR	87	YDA 80K6	136
	4.2	850	216.54	20000	1.8	TRF	87	YDA 80K6	137
	4.4	810	205.71	20000	1.9				
	5.0	715	181.77	20000	2.2				
	5.8	610	155.34	20000	2.5				
	6.3	560	142.41	20000	2.8				
	4.7	755	145.67	10500	1.1	TR	77	YDA 90S8	133
	4.9	720	138.39	10800	1.15	TRF	77	YDA 90S8	134
	5.6	630	121.42	11400	1.30				
	5.4	655	166.59	11200	1.25	TR	77	YDA 80K6	133
	6.2	570	145.67	11700	1.45	TRF	77	YDA 80K6	134
	6.5	545	138.39	11900	1.50				
	7.1	500	195.24*	12100	1.65	TR	77	YDA 71D4	133
	8.3	425	166.59	12400	1.9	TRF	77	YDA 71D4	134
	9.5	375	145.67	12600	2.2				
	10	355	138.39	12600	2.3				
	11	310	121.42	12800	2.6				
	13	265	102.99	12900	3.1				
	15	240	92.97	12900	3.5				
	5.7	620	158.14	7300	0.95	TR	67	YDA 80K6	130
	6.5	540	137.67	8210	1.10	TRF	67	YDA 80K6	131
	7.0	505	128.97	8530	1.20				
	7.9	445	113.94	9010	1.35				
	6.9	510	199.81	8480	1.15	TR	67	YDA 71D4	130
	7.5	470	184.07	8820	1.25	TRF	67	YDA 71D4	131
	8.7	405	158.14	9310	1.5				
	10	355	137.67	9620	1.7				
	11	330	128.97	9740	1.8				
	12	290	113.94	9920	2.1				
	13	270	105.83	10000	2.2				
	14	245	95.91	10100	2.4				
	16	220	86.11	10200	2.7				
	19	190	74.17	10300	3.2				
	20	179	69.75	10300	3.4				
	23	157	61.26	10400	3.8				
	24	146	56.89	10400	4.1				
	7.0	505	128.77	6510	0.9	TR	57	YDA 80K6	127
	7.5	475	120.63	7000	0.95	TRF	57	YDA 80K6	128
	8.4	420	106.58	7240	1.1				
	9.1	390	98.99	7350	1.15				
	7.4	480	186.89	6980	0.95	TR	57	YDA 71D4	127
	8.0	440	172.17	7140	1.0	TRF	57	YDA 71D4	128
	9.3	380	147.92	7390	1.2				
	11	330	128.77	7550	1.35				
	11	310	120.63	7610	1.45				
13	275	106.58	7700	1.65					
14	255	98.99	7750	1.80					
15	230	89.71	7800	1.95					
17	205	80.55	7840	2.2					
20	177	69.23	7890	2.5					
21	166	64.85	7910	2.7					
24	147	57.29	7760	3.1					
26	136	53.22	7600	3.3					
29	124	48.23	7380	3.6					
10	360	139.99	3490	0.85	TR	47	YDA 71D4	124	
11	310	121.87	5350	0.95	TRF	47	YDA 71D4	125	
12	290	114.17	5460	1.05					

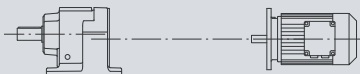



$P_{1n}$ [kW]	$n_2$ [1/min]	$M_{2n}$ [Nm]	$i$	$F_{r2}$ [N]	$f_s$			Page																																																							
0.37	14	260	100.86	5630	1.15	<b>TR</b>	<b>47</b>	<b>YDA 71D4</b>	124																																																						
	15	240	93.68	5700	1.25				<b>TRF</b>	<b>47</b>	<b>YDA 71D4</b>	125																																																			
	16	215	84.90	5790	1.40							<b>TR</b>	<b>47</b>	<b>YDA 71D4</b>	124																																																
	18	195	76.23	5870	1.55										<b>TRF</b>	<b>47</b>	<b>YDA 71D4</b>	125																																													
	20	176	68.54	5930	1.7													<b>TR</b>	<b>47</b>	<b>YDA 71D4</b>	124																																										
	21	164	64.21	5960	1.8																<b>TRF</b>	<b>47</b>	<b>YDA 71D4</b>	125																																							
	24	145	56.73	6010	2.1																			<b>TR</b>	<b>47</b>	<b>YDA 71D4</b>	124																																				
	26	135	52.69	5990	2.2																						<b>TRF</b>	<b>47</b>	<b>YDA 71D4</b>	125																																	
	29	122	47.75	5820	2.5																									<b>TR</b>	<b>47</b>	<b>YDA 71D4</b>	124																														
	32	110	42.87	5650	2.7																												<b>TRF</b>	<b>47</b>	<b>YDA 71D4</b>	125																											
	37	95	36.93	5410	3.2																															<b>TR</b>	<b>47</b>	<b>YDA 71D4</b>	124																								
	40	89	34.73	5310	3.4																																		<b>TRF</b>	<b>47</b>	<b>YDA 71D4</b>	125																					
	41	87	33.79	5270	2.8																																					<b>TR</b>	<b>47</b>	<b>YDA 71D4</b>	124																		
	44	80	31.12	5150	2.8																																								<b>TRF</b>	<b>47</b>	<b>YDA 71D4</b>	125															
	52	69	26.74	4920	4.4																																											<b>TR</b>	<b>37</b>	<b>YDA 71D4</b>	121												
	59	60	23.28	4720	5.0																																														<b>TRF</b>	<b>37</b>	<b>YDA 71D4</b>	122									
	63	56	21.81	4620	5.4																																																	<b>TR</b>	<b>37</b>	<b>YDA 71D4</b>	121						
	15	230	90.77	4250	0.85																																																				<b>TRF</b>	<b>37</b>	<b>YDA 71D4</b>	122			
	16	215	84.61	4720	0.9																																																							<b>TR</b>	<b>37</b>	<b>YDA 71D4</b>	121
	19	189	73.96	5070	1.05																																																										<b>TRF</b>
	20	178	69.33	5210	1.15	<b>TR</b>	<b>37</b>	<b>YDA 71D4</b>																																																							
	23	157	61.18	5410	1.3				<b>TRF</b>	<b>37</b>	<b>YDA 71D4</b>																																																				
	25	143	55.76	5530	1.4							<b>TR</b>	<b>37</b>	<b>YDA 71D4</b>																																																	
	29	123	48.08	5590	1.6										<b>TRF</b>	<b>37</b>	<b>YDA 71D4</b>																																														
	31	115	44.81	5480	1.75													<b>TR</b>	<b>37</b>	<b>YDA 71D4</b>																																											
	35	100	39.17	5290	2.0																<b>TRF</b>	<b>37</b>	<b>YDA 71D4</b>																																								
	38	94	36.72	5190	2.1																			<b>TR</b>	<b>37</b>	<b>YDA 71D4</b>																																					
	43	83	32.40	5010	2.4																						<b>TRF</b>	<b>37</b>	<b>YDA 71D4</b>																																		
	48	74	28.73	4850	2.7																									<b>TR</b>	<b>37</b>	<b>YDA 71D4</b>																															
	57	63	24.42	4620	3.2																												<b>TRF</b>	<b>37</b>	<b>YDA 71D4</b>																												
	49	73	28.32	4830	2.8																															<b>TR</b>	<b>37</b>	<b>YDA 71D4</b>																									
	53	67	26.03	4710	2.8																																		<b>TRF</b>	<b>37</b>	<b>YDA 71D4</b>																						
	62	57	22.27	4500	3.5																																					<b>TR</b>	<b>37</b>	<b>YDA 71D4</b>																			
	71	49	19.31	4320	4.1																																								<b>TRF</b>	<b>37</b>	<b>YDA 71D4</b>																
	76	46	18.05	4230	4.3																																											<b>TR</b>	<b>37</b>	<b>YDA 71D4</b>													
	88	40	15.60	4050	5.0																																														<b>TRF</b>	<b>37</b>	<b>YDA 71D4</b>										
	104	34	13.25	3850	5.6																																																	<b>TR</b>	<b>37</b>	<b>YDA 71D4</b>							
	117	30	11.83	3720	6.0																																																				<b>TRF</b>	<b>37</b>	<b>YDA 71D4</b>				
	23	157	61.30	3870	0.85																																																							<b>TR</b>	<b>27</b>	<b>YDA 71D4</b>	
	25	143	55.87	3800	0.90																																																										<b>TRF</b>
29	123	48.17	3680	1.05	<b>TR</b>	<b>27</b>	<b>YDA 71D4</b>	118																																																							
31	115	44.90	3620	1.15				<b>TRF</b>	<b>27</b>	<b>YDA 71D4</b>	119																																																				
35	101	39.25	3510	1.30							<b>TR</b>	<b>27</b>	<b>YDA 71D4</b>	118																																																	
38	94	36.79	3460	1.40										<b>TRF</b>	<b>27</b>	<b>YDA 71D4</b>	119																																														
43	83	32.47	3350	1.55													<b>TR</b>	<b>27</b>	<b>YDA 71D4</b>	118																																											
48	74	28.78	3250	1.75																<b>TRF</b>	<b>27</b>	<b>YDA 71D4</b>	119																																								
56	63	24.47	3110	2.10																			<b>TR</b>	<b>27</b>	<b>YDA 71D4</b>	118																																					
49	73	28.37	3240	1.80																						<b>TRF</b>	<b>27</b>	<b>YDA 71D4</b>	119																																		
53	67	26.09	3170	1.95																									<b>TR</b>	<b>27</b>	<b>YDA 71D4</b>	118																															
62	57	22.32	3040	2.3																												<b>TRF</b>	<b>27</b>	<b>YDA 71D4</b>	119																												
71	50	19.35	2920	2.6																															<b>TR</b>	<b>27</b>	<b>YDA 71D4</b>	118																									
76	46	18.08	2860	2.8																																		<b>TRF</b>	<b>27</b>	<b>YDA 71D4</b>	119																						
88	40	15.63	2750	3.3																																					<b>TR</b>	<b>27</b>	<b>YDA 71D4</b>	118																			
104	34	13.28*	2620	3.8																																								<b>TRF</b>	<b>27</b>	<b>YDA 71D4</b>	119																
174	20	5.18	4570	3.7																																											<b>TRX</b>	<b>67</b>	<b>YDA 80K6</b>	108													
199	18	4.53	4380	4.6																																														<b>TRXF</b>	<b>67</b>	<b>YDA 80K6</b>	109										
209	17	4.30*	4310	4.7																																																	<b>TRX</b>	<b>67</b>	<b>YDA 80K6</b>	108							
239	15	3.77	4130	5.9																																																				<b>TRXF</b>	<b>67</b>	<b>YDA 80K6</b>	109				

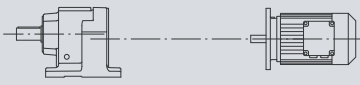
$P_{1n}$ [kW]	$n_2$ [1/min]	$M_{2n}$ [Nm]	$i$	$F_{r2}$ [N]	$f_s$				Page
0.37	227	16	6.07	4200	2.8	<b>TRX 67</b>	<b>YDA 71D4</b>	108	
	267	13.0	5.18	3990	5.6			<b>TRXF 67</b>	<b>YDA 71D4</b>
	305	12.0	4.53	3820	7.1				
	321	11.0	4.30*	3760	7.3				
	366	9.7	3.77	3610	9.0				
	431	8.2	3.20*	3420	12				
	478	7.4	2.89	3310	14				
	543	6.5	2.54	3170	18				
	575	6.1	2.40*	3110	20				
	675	5.2	2.04	2950	26				
	207	17.0	4.35	3500	4.0	<b>TRX 57</b>	<b>YDA 80K6</b>	106	
	238	15.0	3.79	3350	4.6	<b>TRXF 57</b>	<b>YDA 80K6</b>	107	
	254	14.0	3.55*	3280	5.0				
	251	14.0	5.50*	3300	2.8	<b>TRX 57</b>	<b>YDA 71D4</b>	106	
	272	13.0	5.07	3210	2.8	<b>TRXF 57</b>	<b>YDA 71D4</b>	107	
	317	11	4.35	3060	6.1				
	364	9.7	3.79	2930	7.1				
	389	9.1	3.55*	2870	7.6				
	440	8	3.14	2760	8.1				
	474	7.5	2.91	2690	8.9				
	523	6.8	2.64*	2610	10				
	582	6.1	2.37	2520	11				
	676	5.2	2.04	2400	13				
	719	4.9	1.92*	2350	14				
	835	4.2	1.65	2240	16				
	0.55	0.22	19800	6077	120000	0.90	<b>TR 167 / TRF97</b>	<b>YDA 80K4</b>	149
0.25		17600	5407	120000	1.00	<b>TRF 167 / TRF97</b>	<b>YDA 80K4</b>	149	
0.29		15000	4650	120000	1.20				
0.33		13100	4129	120000	1.35				
0.28		16900	4926	22000	0.75	<b>TR 147 / TRF77</b>	<b>YDA 80K4</b>	149	
0.31		14700	4325	53900	0.90	<b>TRF 147 / TRF77</b>	<b>YDA 80K4</b>	149	
0.36		12900	3754	62900	1.00				
0.41		11200	3302	65900	1.15				
0.47		9830	2898	68000	1.30				
0.53		8890	2555	69300	1.45	<b>TR 147 / TRF77</b>	<b>YDA 80K4</b>	149	
0.62		7700	2211	70600	1.7	<b>TRF 147 / TRF77</b>	<b>YDA 80K4</b>	149	
0.70		6790	1951	71500	1.9				
0.80		5810	1705	72400	2.2				
0.89		5210	1536	72800	2.5				
1.00		4510	1329	73300	2.9				
1.20		3920	1166	73600	3.3				
0.55		8650	2484	51200	0.9	<b>TR 137 / TRF77</b>	<b>YDA 80K4</b>	149	
						<b>TRF 137 / TRF77</b>	<b>YDA 80K4</b>	149	
0.51		9250	2658	48400	0.85	<b>TR 137 / TRF77</b>	<b>YDA 80K4</b>	149	
0.56		8400	2412	52300	0.95	<b>TRF 137 / TRF77</b>	<b>YDA 80K4</b>	149	
0.66		7220	2073	55000	1.10				
0.74		6320	1839	56500	1.25				
0.85		5420	1598	57900	1.50				
0.97		4840	1397	58600	1.65				
1.1		4220	1226	59300	1.9				
1.2		3780	1090	59700	2.1				
1.4		3300	951	60100	2.4				
1.6		2820	831	60500	2.8				
1		4830	1407	21900	0.9	<b>TR 107 / TRF77</b>	<b>YDA 80K4</b>	149	
1.1		4150	1209	30200	1.05	<b>TRF 107 / TRF77</b>	<b>YDA 80K4</b>	149	
1.3		3620	1055	32700	1.20				
1.5		3170	919	34400	1.35				


$P_{1n}$ [kW]	$n_2$ [1/min]	$M_{2n}$ [Nm]	$i$	$Fr_2$ [N]	$f_s$				Page
0.55	1.7	2830	815	35500	1.50	TR	107 / TRF77	YDA 80K4	149
	1.9	2470	717	36200	1.75	TRF	107 / TRF77	YDA 80K4	149
	2.2	2160.0	626	36600	2.0				
	1	4810.0	1400	22800	0.9	TR	107 / TRF77	YDA 80K4	149
	1.1	4180.0	1226	30100	1.05	TRF	107 / TRF77	YDA 80K4	149
	1.2	3740.0	1104	32200	1.15				
	1.4	3220.0	939	34200	1.35				
	1.7	2800.0	822	35600	1.55				
	1.7	2870.0	824	21800	1.05	TR	97 / TRF57	YDA 80K4	149
	1.8	2570.0	737	23700	1.15	TRF	97 / TRF57	YDA 80K4	149
	2.1	2200.0	632	25500	1.35				
	2.4	1920.0	560	26700	1.55				
	2.8	1670.0	484	27400	1.8				
	3.1	1510.0	431	27600	2.0				
	3.6	1320.0	379	27900	2.3				
	4.0	1180.0	336	28000	2.6				
	4.6	1030	296	28200	2.9				
	5.5	860	249	28300	3.5				
	2.6	1820	525	13600	0.85	TR	87 / TRF57	YDA 80K4	149
	3.0	1580	456	16700	1.00	TRF	87 / TRF57	YDA 80K4	149
	3.4	1370	398	18100	1.15				
	3.9	1210	352	18900	1.3				
	4.5	1040	305	19700	1.5				
	2.9	1690	472	15900	0.9	TR	87 / TRF57	YDA 80K4	149
	3.4	1420	400	17800	1.1	TRF	87 / TRF57	YDA 80K4	149
	3.8	1280	361	18600	1.2				
	4.9	990	276	4510	0.85	TR	77 / TRF37	YDA 80K4	149
	5.8	840	236	9730	1.00	TRF	77 / TRF37	YDA 80K4	149
	6.2	785	221	10200	1.05				
	7.3	660	186	11200	1.25				
	2.7	1980	255.71	26500	1.5	TR	97	YDA 90L8	139
	2.8	1860	241.25	26900	1.6	TRF	97	YDA 90L8	140
	3.1	1670	216.28	27400	1.8				
	3.1	1690	289.74	27400	1.75	TR	97	YDA 80N6	139
	3.5	1490	255.71	27700	2.0	TRF	97	YDA 80N6	140
	3.7	1410	241.25	27800	2.1				
	4.2	1260	216.28	28000	2.4				
	4.7	1120	289.74	28100	2.7	TR	97	YDA 80K4	139
	5.3	990	255.71	28200	3.0	TRF	97	YDA 80K4	140
	5.6	930	241.25	28300	3.2				
6.3	840	216.28	28400	3.6					
3.6	1440	246.54	17700	1.1	TR	87	YDA 80N6	136	
4.2	1260	216.54	18700	1.25	TRF	87	YDA 80N6	137	
4.4	1200	205.71	19000	1.3					
5.0	1060	181.77	19600	1.45					
5.8	910	155.34	20000	1.7					
5.5	950	246.54	20000	1.65	TR	87	YDA 80K4	136	
6.3	840	216.54	20000	1.85	TRF	87	YDA 80K4	137	
6.6	795	205.71	20000	1.95					
7.5	700	181.77	20000	2.2					
8.8	600	155.34	20000	2.6					
9.6	550	142.41	20000	2.8					
11	485	124.97	20000	3.2					
11	455	118.43*	20000	3.4					
13	400	103.65	20000	3.9					

$P_{1n}$ [kW]	$n_2$ [1/min]	$M_{2n}$ [Nm]	$i$	$F_{r2}$ [N]	$f_s$			Page	
0.55	8.2	645	166.59	11300	1.25	<b>TR</b>	<b>77</b>	<b>YDA 80K4</b>	133
	9.3	565	145.67	11800	1.45	<b>TRF</b>	<b>77</b>	<b>YDA 80K4</b>	134
	9.8	535	138.39	11900	1.55				
	11	470	121.42	12200	1.75				
	13	400	102.99	12500	2.1				
	15	360	92.97	12600	2.3				
	17	315	81.80	12800	2.6				
	18	300	77.24	12800	2.8				
	21	255	65.77	12900	3.2				
	8.6	610	158.14	7430	1.0	<b>TR</b>	<b>67</b>	<b>YDA 80K4</b>	130
	9.9	530	137.67	8290	1.15	<b>TRF</b>	<b>67</b>	<b>YDA 80K4</b>	131
	11	500	128.97	8600	1.20				
	12	440	113.94	9060	1.35				
	13	410	105.83	9280	1.45				
	14	370	95.91	9520	1.6				
	16	335	86.11	9730	1.8				
	18	285	74.17	9940	2.1				
	20	270	69.75	10000	2.2				
	22	235	61.26	10100	2.5				
	24	220	56.89	10200	2.7				
	11	465	120.63	7030	0.95	<b>TR</b>	<b>57</b>	<b>YDA 80K4</b>	127
	13	410	106.58	7260	1.1	<b>TRF</b>	<b>57</b>	<b>YDA 80K4</b>	128
	14	380	98.99	7370	1.2				
	15	345	89.71	7490	1.3				
	17	310	80.55	7600	1.45				
	20	265	69.23	7710	1.7				
	21	250	64.85	7750	1.8				
	24	220	57.29	7530	2.0				
	26	205	53.22	7390	2.2				
	28	186	48.23	7190	2.4				
	31	167	43.30	6980	2.7				
	36	144	37.30*	6700	3.1				
	39	136	35.07	6580	3.3				
	52	102	26.31	6060	4.4	<b>TR</b>	<b>57</b>	<b>YDA 80K4</b>	127
	54	97	24.99*	5970	4.7	<b>TRF</b>	<b>57</b>	<b>YDA 80K4</b>	128
	62	85	21.93	5740	5.3				
	73	72	18.60*	5460	6.3				
	15	360	93.68	3280	0.85	<b>TR</b>	<b>47</b>	<b>YDA 80K4</b>	124
	16	330	84.90	5230	0.9	<b>TRF</b>	<b>47</b>	<b>YDA 80K4</b>	125
	18	295	76.23	5450	1.0				
	20	265	68.54	5600	1.15				
	21	250	64.21	5670	1.20				
24	220	56.73	5790	1.35					
26	205	52.69	5770	1.45					
28	184	47.75	5630	1.65					
32	166	42.87	5470	1.8					
37	143	36.93	5260	2.1					
39	134	34.73	5180	2.2					
46	115	29.88	4970	2.6					
51	103	26.74	4820	2.9					
58	90	23.28	4630	3.3					
62	84	21.81	4550	3.6					
22	235	61.18	3910	0.85	<b>TR</b>	<b>37</b>	<b>YDA 80K4</b>	121	
24	215	55.76	4740	0.95	<b>TRF</b>	<b>37</b>	<b>YDA 80K4</b>	122	
28	186	48.08	5120	1.10					
30	173	44.81	5230	1.15					
35	151	39.17	5070	1.3					


$P_{1n}$ [kW]	$n_2$ [1/min]	$M_{2n}$ [Nm]	$i$	$F_{r2}$ [N]	$f_s$			Page		
0.55	37	142	36.72	4990	1.4	<b>TR</b>	<b>37</b>	<b>YDA 80K4</b>	121	
	42	125	32.40	4840	1.6		<b>TRF</b>	<b>37</b>	<b>YDA 80K4</b>	122
	47	111	28.73	4700	1.8					
	56	94	24.42	4500	2.1					
	61	86	22.27	4390	2.3					
	70	75	19.31	4220	2.7					
	75	70	18.05	4140	2.9					
	87	60	15.60	3970	3.3					
	103	51	13.25	3790	3.7					
	115	46	11.83	3670	4.0					
		35	152	39.25	3280	0.85	<b>TR</b>	<b>27</b>	<b>YDA 80K4</b>	118
		37	142	36.79	3240	0.90	<b>TRF</b>	<b>27</b>	<b>YDA 80K4</b>	119
		42	125	32.47	3160	1.05				
		47	111	28.78	3080	1.15				
		56	95	24.47	2970	1.40				
		61	86	22.32	2910	1.50	<b>TR</b>	<b>27</b>	<b>YDA 80K4</b>	118
		70	75	19.35	2810	1.75	<b>TRF</b>	<b>27</b>	<b>YDA 80K4</b>	119
		75	70	18.08	2760	1.85				
		87	60	15.63	2660	2.2				
		102	51	13.28*	2550	2.5				
		115	46	11.86	2470	2.8				
		134	39	10.13	2370	3.1				
		145	36	9.41	2290	3.4				
		167	32	8.16	2200	3.7				
		178	29	7.63*	2160	3.8				
		206	26	6.59	2070	4.2				
		243	22	5.60*	1980	4.6				
		272	19	5.00*	1910	4.9				
		318	17	4.27	1830	5.3				
		340	15	4.00*	1790	5.5				
		404	13	3.37	1700	6.1				
		174	30	5.18	4510	2.5	<b>TRX</b>	<b>67</b>	<b>YDA 80N6</b>	108
		199	26	4.53	4320	3.1	<b>TRXF</b>	<b>67</b>	<b>YDA 80N6</b>	109
		209	25	4.30*	4260	3.2				
		239	22	3.77	4090	4.0				
		263	20	5.18	3970	3.8	<b>TRX</b>	<b>67</b>	<b>YDA 80K4</b>	108
		300	18	4.53	3800	4.7	<b>TRXF</b>	<b>67</b>	<b>YDA 80K4</b>	109
		316	17	4.30*	3740	4.8				
		360	15	3.77	3590	6.0				
		425	12	3.20*	3410	8.1				
		471	11	2.89	3300	9.5				
		535	9.8	2.54	3170	12				
		567	9.3	2.40*	3110	13				
		666	7.9	2.04	2950	17				
		732	7.2	1.86	2860	18				
		845	6.2	1.61	2730	18				
		207	25	4.35	3440	2.7	<b>TRX</b>	<b>57</b>	<b>YDA 80N6</b>	106
		238	22	3.79	3300	3.1	<b>TRXF</b>	<b>57</b>	<b>YDA 80N6</b>	107
		254	21	3.55*	3230	3.3				
		287	18	3.14	3110	3.6				
	309	17	2.91	3040	3.9					
	312	17	4.35	3040	4.1	<b>TRX</b>	<b>57</b>	<b>YDA 80K4</b>	106	
	359	15	3.79	2910	4.7	<b>TRXF</b>	<b>57</b>	<b>YDA 80K4</b>	107	
	383	14	3.55*	2850	5.0					
	434	12	3.14	2740	5.4					
	467	11	2.91	2680	6.0					
	515	10	2.64*	2600	6.8					

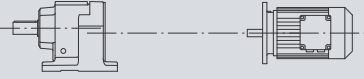
$P_{1n}$ [kW]	$n_2$ [1/min]	$M_{2n}$ [Nm]	$i$	$F_{r2}$ [N]	$f_s$				Page
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	666	7.9	2.04	2390	8.7	TRXF	57	YDA 80K4	107
	708	7.4	1.92*	2350	9.3				
	823	6.4	1.65	2230	11				
	921	5.7	1.48	2150	12				
	1045	5.0	1.30	2070	13				
0.75	0.30	20700	4650	120000	0.9	TR	167 / TRF97	YDA 80N4	149
	0.33	18200	4129	120000	1.0	TRF	167 / TRF97	YDA 80N4	149
	0.52	12100	2657	120000	1.5	TR	167 / TRF97	YDA 80N4	149
	0.59	10500	2333	120000	1.7	TRF	167 / TRF97	YDA 80N4	149
	0.66	9300	2085	120000	2.0				
	0.96	6550	1438	120000	2.8				
	0.42	15300	3302	46300	0.9	TR	147 / TRF77	YDA 80N4	149
	0.48	13400	2898	61800	1.0	TRF	147 / TRF77	YDA 80N4	149
	0.54	12100	2555	64400	1.1	TR	147 / TRF77	YDA 80N4	149
	0.62	10500	2211	67100	1.3	TRF	147 / TRF77	YDA 80N4	149
	0.71	9230	1951	68800	1.4				
	0.81	7940	1705	70400	1.65				
	0.90	7130	1536	71200	1.8				
	1.00	6170	1329	72100	2.1				
	1.20	5380	1166	72700	2.4				
	0.74	8730	1863	50900	0.9	TR	137 / TRF77	YDA 80N4	149
	0.87	7390	1586	54600	1.1	TRF	137 / TRF77	YDA 80N4	149
	0.99	6580	1391	56100	1.2				
	1.10	5920	1256	57100	1.35				
	0.67	9810	2073	37900	0.80	TR	137 / TRF77	YDA 80N4	149
	0.75	8610	1839	51400	0.95	TRF	137 / TRF77	YDA 80N4	149
	0.86	7410	1598	54600	1.1				
	0.99	6590	1397	56100	1.2				
	1.1	5750	1226	57400	1.4				
	1.3	5140	1090	58200	1.55				
	1.4	4490	951	59000	1.8				
	1.7	3860	831	59600	2.1				
	1.9	3360	730	60100	2.4				
	1.3	4940	1055	16400	0.85	TR	107 / TRF77	YDA 80N4	149
	1.5	4310	919	29400	1.0	TRF	107 / TRF77	YDA 80N4	149
	1.7	3840	815	31700	1.1				
	1.5	4400	939	28900	1.0	TR	107 / TRF77	YDA 80N4	149
	1.7	3830	822	31800	1.1	TRF	107 / TRF77	YDA 80N4	149
	3.7	1710	369	37100	2.5				
	4.3	1490	323	37200	2.9				
	2.2	2990	632	20100	1.0	TR	97 / TRF57	YDA 80N4	149
	2.5	2620	560	23400	1.15	TRF	97 / TRF57	YDA 80N4	149
	2.9	2270	484	25200	1.30				
	3.2	2050	431	26200	1.45				
	3.6	1800	379	27100	1.65				
	4.1	1600	336	27500	1.9				
	4.7	1400	296	27800	2.1				
5.5	1170	249	28100	2.6					
3.5	1870	398	9720	0.85	TR	87 / TRF57	YDA 80N4	149	
3.9	1650	352	16200	0.95	TRF	87 / TRF57	YDA 80N4	149	
4.5	1430	305	17700	1.10					
5.2	1260	268	18700	1.25					
5.9	1110	236	19400	1.40					
3.8	1740	361	15500	0.90	TR	87 / TRF57	YDA 80N4	149	
4.6	1440	300	17700	1.10	TRF	87 / TRF57	YDA 80N4	149	
5.4	1220	256	18900	1.25					

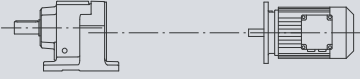
P <sub>1n</sub> [kW]	n <sub>2</sub> [1/min]	M <sub>2n</sub> [Nm]	i	Fr <sub>2</sub> [N]	fs				Page
						TR	TRF	YDA	
0.75	2.8	2610	251.15	36000	1.65	TR	107	YDA 100M8	141
	3.0	2390	229.95	36300	1.80	TRF	107	YDA 100M8	142
	3.4	2110	203.16	36700	2.00				
	3.2	2240	216.28	25300	1.35	TR	97	YDA 100M8	139
	3.7	1930	186.30	26600	1.55	TRF	97	YDA 100M8	140
	4.1	1760	170.02	27200	1.70				
	3.5	2030	255.71	26200	1.45	TR	97	YDA 90S6	139
	3.7	1920	241.25	26700	1.55	TRF	97	YDA 90S6	140
	4.2	1720	216.28	27300	1.75				
	4.8	1500	289.74	27600	2.0	TR	97	YDA 80N4	139
	5.4	1330	255.71	27900	2.3	TRF	97	YDA 80N4	140
	5.7	1250	241.25	28000	2.4				
	6.4	1120	216.28	28100	2.7				
	7.4	970	186.30	28300	3.1				
	8.1	880	170.02	28300	3.4				
	4.2	1720	216.54	15600	0.90	TR	87	YDA 90S6	136
	4.4	1640	205.71	16300	0.95	TRF	87	YDA 90S6	137
	5.0	1450	181.77	17600	1.05				
	5.8	1240	155.34	18800	1.25	TR	87	YDA 90S6	136
	6.3	1130	142.41	19300	1.35	TRF	87	YDA 90S6	137
	5.6	1280	246.54	18600	1.2	TR	87	YDA 80N4	136
	6.4	1120	216.54	19300	1.4	TRF	87	YDA 80N4	137
	6.7	1070	205.71	19600	1.45				
	7.6	940	181.77	20000	1.65				
	8.9	810	155.34	20000	1.9				
	9.7	740	142.41	20000	2.1				
	11	650	124.97	20000	2.4				
	12	615	118.43*	20000	2.5				
	13	540	103.65	20000	2.9				
	15	485	93.38	20000	3.2				
	8.3	860	166.59	9490	0.95	TR	77	YDA 80N4	133
	9.5	755	145.67	10500	1.10	TRF	77	YDA 80N4	134
	10	720	138.39	10800	1.15				
	11	630	121.42	11400	1.30	TR	77	YDA 80N4	133
	13	535	102.99	11900	1.55	TRF	77	YDA 80N4	134
	15	485	92.97	12200	1.70				
	17	425	81.80	12400	1.95				
	18	400	77.24	12500	2.1				
	21	340	65.77	12700	2.4				
	24	300	57.68	12800	2.7				
27	270	52.07	12900	3.0					
30	240	45.81	12900	3.5					
32	225	43.26	13000	3.7					
11	670	128.97	4040	0.9	TR	67	YDA 80N4	130	
12	590	113.94	7660	1.0	TRF	67	YDA 80N4	131	
13	550	105.83	8120	1.1					
14	500	95.91	8600	1.2					
16	445	86.11	9010	1.35					
19	385	74.17	9430	1.55					
20	360	69.75	9570	1.65					
23	320	61.26	9800	1.9					
24	295	56.89	9910	2.0					
27	270	51.56	10000	2.2					
30	240	46.29	10100	2.5					


$P_{1n}$ [kW]	$n_2$ [1/min]	$M_{2n}$ [Nm]	$i$	$F_{r2}$ [N]	$f_s$				Page
0.75	13	555	106.58	4610	0.8				
	14	515	98.99	6200	0.9	TR	57	YDA 80N4	127
	15	465	89.71	7040	0.95	TRF	57	YDA 80N4	128
	17	420	80.55	7240	1.10				
	20	360	69.23	7450	1.25				
	21	335	64.85	7430	1.35				
	24	295	57.29	7220	1.50				
	26	275	53.22	7090	1.65	TR	57	YDA 80N4	127
	29	250	48.23	6930	1.8	TRF	57	YDA 80N4	128
	32	225	43.30	6740	2.0				
	37	194	37.30*	6490	2.3				
	39	182	35.07	6380	2.5				
	46	157	30.18	6130	2.9				
	51	140	26.97	5940	3.2				
	52	137	26.31	5900	3.3	TR	57	YDA 80N4	127
	55	130	24.99*	5820	3.5	TRF	57	YDA 80N4	128
	63	114	21.93	5610	4.0				
	74	97	18.60*	5350	4.7				
	20	355	68.54	3660	0.85	TR	47	YDA 80N4	124
	21	335	64.21	4950	0.9	TRF	47	YDA 80N4	125
	24	295	56.73	5450	1.0				
	26	275	52.69	5480	1.1	TR	47	YDA 80N4	124
	29	250	47.75	5370	1.2	TRF	47	YDA 80N4	125
	32	225	42.87	5240	1.35				
	37	192	36.93	5060	1.55				
	40	180	34.73	4980	1.65				
	46	155	29.88	4800	1.95				
	52	139	26.70	4660	2.2				
	58	122	23.59	4510	2.5				
	52	139	26.74	4660	2.2	TR	47	YDA 80N4	124
	59	121	23.28	4490	2.5	TRF	47	YDA 80N4	125
	63	113	21.81	4420	2.7				
	72	100	19.27	4270	3.0				
	77	93	17.89	4180	3.1				
	85	84	16.22	4070	3.3				
	29	250	48.08	2330	0.80	TR	37	YDA 80N4	121
	31	235	44.81	4230	0.85	TRF	37	YDA 80N4	122
	35	205	39.17	4720	1.00				
	38	191	36.72	4740	1.05	TR	37	YDA 80N4	121
	43	168	32.40	4610	1.20	TRF	37	YDA 80N4	122
	48	149	28.73	4490	1.35				
	57	127	24.42	4320	1.60				
	62	116	22.27	4230	1.75	TR	37	YDA 80N4	121
	71	100	19.31	4080	2.00	TRF	37	YDA 80N4	122
	76	94	18.05	4010	2.10				
	88	81	15.60	3850	2.50				
	104	69	13.25	3690	2.80				
117	61	11.83	3570	3.00					
137	53	10.11	3420	3.20					
146	49	9.47	3360	3.40					
48	149	28.78	2880	0.85	TR	27	YDA 80N4	118	
56	127	24.47	2800	1.00	TRF	27	YDA 80N4	119	
62	116	22.32	2750	1.10					
71	100	19.35	2670	1.30					
76	94	18.08	2630	1.40					
88	81	15.63	2550	1.60					
104	69	13.28*	2450	1.90					




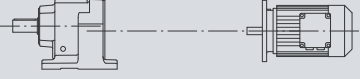
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0.75	116	62	11.86	2380	2.10	TR	27	YDA 80N4	118
	136	53	10.13	2290	2.30				TRF
	147	49	9.41	2210	2.50				
	169	42	8.16	2130	2.70				
	181	40	7.63*	2090	2.80				
	209	34	6.59	2010	3.10				
	246	29	5.60*	1930	3.40				
	276	26	5.00*	1870	3.70				
	199	36	4.53	4260	2.3	TRX	67	YDA 90S6	108
	209	34	4.30*	4200	2.3				TRXF
	239	30	3.77	4040	2.9				
	281	26	3.20*	3840	3.9				
	267	27	5.18	3900	2.80	TRX	67	YDA 80N4	108
	305	24	4.53	3750	3.50				TRXF
	321	22	4.30*	3690	3.60				
	366	20	3.77	3540	4.40				
	431	17	3.20*	3360	6.00				
	478	15	2.89	3260	7.10				
	543	13	2.54	3130	8.90				
	575	13	2.40*	3070	9.80				
	675	11	2.04	2920	13				
	743	9.6	1.86	2830	13				
	858	8.3	1.61	2700	14				
	238	30	3.79	3240	2.3	TRX	57	YDA 90S6	106
	254	28	3.55*	3180	2.4				TRXF
	287	25	3.14	3060	2.6				
	309	23	2.91	3000	2.9				
	341	21	2.64*	2910	3.3				
	317	23	4.35	2980	3.0	TRX	57	YDA 80N4	106
	364	20	3.79	2860	3.5				TRXF
	389	18	3.55*	2800	3.8				
	440	16	3.14	2700	4.0				
	474	15	2.91	2630	4.4				
	523	14	2.64*	2560	5.0				
	582	12	2.37	2470	5.6				
	676	11	2.04	2360	6.5				
	719	10	1.92*	2310	6.9				
	835	8.6	1.65	2210	8.0				
	935	7.7	1.48	2130	8.8				
	1060	6.8	1.30	2050	9.3				
1.1	0.53	17900	2657	120000	1.0	TR	167 / TRF97	YDA 90S4	149
	0.60	15600	2333	120000	1.15				TRF
	0.67	13800	2085	120000	1.30				
	0.75	12300	1877	120000	1.45				
	0.84	11000	1670	120000	1.65				
	0.97	9680	1438	120000	1.85				
	1.1	8620	1279	120000	2.10				
	1.2	7510	1123	120000	2.40				
	0.63	15300	2211	46800	0.85	TR	147 / TRF77	YDA 90S4	149
	0.72	13500	1951	61700	0.95				TRF
	0.82	11700	1705	65200	1.10				
	0.91	10500	1536	67100	1.25				
	1.1	9060	1329	69000	1.45				
	1.2	7920	1166	70400	1.65				
	1.4	6960	1029	71400	1.85				
	1.6	6030	889	72200	2.20				
	1.8	5300	784	72700	2.50				
	2.0	4680	695	73200	2.80				

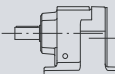
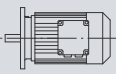
$P_{1n}$ [kW]	$n_2$ [1/min]	$M_{2n}$ [Nm]	$i$	$Fr_2$ [N]	$fs$				Page
1.1	1.0	9610	1391	41900	0.85	TR	137 / TRF77	YDA 90S4	149
	1.1	8660	1256	51200	0.90	TRF	137 / TRF77	YDA 90S4	149
	1.3	7590	1105	54200	1.05				
	1.3	7160	1043	55100	1.10				
	1.6	6070	888	56900	1.30				
	1.0	9630	1397	41500	0.85	TR	137 / TRF77	YDA 90S4	149
	1.1	8420	1226	52200	0.95	TRF	137 / TRF77	YDA 90S4	149
	1.3	7510	1090	54400	1.05				
	1.5	6560	951	56100	1.2				
	1.7	5670	831	57500	1.4				
	1.9	4950	730	58500	1.6				
	2.2	4230	629	59300	1.9				
	2.5	3830	560	59700	2.1				
	2.9	3300	490	60100	2.4				
	1.9	4930	717	17300	0.85	TR	107 / TRF77	YDA 90S4	149
	2.3	4150	614	30200	1.05	TRF	107 / TRF77	YDA 90S4	149
	2.6	3670	544	32500	1.15				
	2.8	3310	492	33900	1.30				
	3.4	2810	417	35500	1.55				
	3.8	2510	369	36200	1.70				
	4.3	2200	323	36600	1.95				
	4.9	1930	285	36800	2.20				
	5.5	1700	253	37100	2.50				
	3.2	2990	431	20300	1.00	TR	97 / TRF57	YDA 90S4	149
	3.7	2620	379	23400	1.15	TRF	97 / TRF57	YDA 90S4	149
	4.2	2330	336	24900	1.30				
	4.7	2050	296	26200	1.45				
	5.6	1710	249	27300	1.75				
	6.0	1590	234	27500	1.90				
	6.7	1430	209	27700	2.10				
	5.2	1840	268	11700	0.85	TR	87 / TRF57	YDA 90S4	149
	5.9	1630	236	16400	0.95	TRF	87 / TRF57	YDA 90S4	149
	6.7	1430	209	17700	1.10				
	5.5	1780	256	15100	0.85	TR	87 / TRF57	YDA 90S4	149
	6.0	1610	232	16500	0.95	TRF	87 / TRF57	YDA 90S4	149
	7.2	1370	195	18100	1.15				
	2.7	3940	251.15	31300	1.10	TR	107	YDA 100L8	141
	2.9	3610	229.95	32700	1.20	TRF	107	YDA 100L8	142
	3.3	3190	203.16	34300	1.35				
	3.9	2700	172.34	35800	1.60				
	3.6	2920	255.71	21500	1.05	TR	97	YDA 90L6	139
	3.8	2750	241.25	22600	1.10	TRF	97	YDA 90L6	140
	4.2	2470	216.28	24200	1.20				
	4.9	2130	186.30	25900	1.40				
	5.5	1920	255.71	26700	1.55	TR	97	YDA 90S4	139
5.8	1810	241.25	27100	1.65	TRF	97	YDA 90S4	140	
6.5	1620	216.28	27500	1.85					
7.5	1400	186.30	27800	2.20					
8.2	1280	170.02	27900	2.40					
9.3	1130	150.78	28100	2.70					
11	950	126.75	28300	3.20					
12	870	116.48	28300	3.40					
6.5	1620	216.54	16400	0.95	TR	87	YDA 90S4	136	
6.8	1540	205.71	17000	1.00	TRF	87	YDA 90S4	137	
7.7	1360	181.77	18100	1.15					
9.0	1170	155.34	19100	1.35					
9.8	1070	142.41	19600	1.45					


$P_{1n}$ [kW]	$n_2$ [1/min]	$M_{2n}$ [Nm]	$i$	$Fr_2$ [N]	$fs$				Page
1.1	11	940	124.97	20000	1.65	TR	87	YDA 90S4	136
	12	890	118.43*	20000	1.75	TRF	87	YDA 90S4	137
	14	780	103.65	20000	2.00				
	15	700	93.38	20000	2.20				
	17	615	81.92	20000	2.50				
	19	545	72.57	20000	2.90				
	22	480	63.68*	20000	3.20				
	23	455	60.35*	20000	3.40				
	27	395	52.82	20000	3.90				
	12	910	121.42	8990	0.90	TR	77	YDA 90S4	133
	14	775	102.99	10300	1.05	TRF	77	YDA 90S4	134
	15	700	92.97	10900	1.20				
	17	615	81.80	11500	1.35	TR	77	YDA 90S4	133
	18	580	77.24	11700	1.40	TRF	77	YDA 90S4	134
	21	495	65.77	12100	1.65				
	24	435	57.68	12400	1.90				
	27	390	52.07	12500	2.10				
	31	345	45.81	12700	2.40				
	32	325	43.26	12700	2.50				
	38	275	36.83	12900	3.00				
	42	250	33.47	12900	3.30				
	16	645	86.11	6820	0.95	TR	67	YDA 90S4	130
	19	555	74.17	8040	1.10	TRF	67	YDA 90S4	131
	20	525	69.75	8370	1.15				
	23	460	61.26	8920	1.30				
	25	425	56.89	9160	1.40				
	27	385	51.56	9420	1.55				
	30	345	46.29	9650	1.75				
	35	300	39.88*	9890	1.95				
	37	280	37.50	9970	2.00				
	43	240	32.27	10100	2.20				
	49	215	28.83	10200	2.40				
	50	210	28.13	10200	2.60	TR	67	YDA 90S4	130
	52	200	26.72	10100	2.70	TRF	67	YDA 90S4	131
	60	176	23.44	9730	3.20				
	70	149	19.89	9270	4.00				
	20	520	69.23	5990	0.85	TR	57	YDA 90S4	127
	22	485	64.85	6850	0.90	TRF	57	YDA 90S4	128
	24	430	57.29	6700	1.05				
	26	400	53.22	6610	1.15	TR	57	YDA 90S4	127
	29	360	48.23	6490	1.25	TRF	57	YDA 90S4	128
	32	325	43.30	6350	1.40				
	38	280	37.30*	6140	1.60				
	40	265	35.07	6060	1.70				
	46	225	30.18	5850	2.00				
	52	200	26.97	5690	2.20				
	53	197	26.31	5650	2.30	TR	57	YDA 90S4	127
	56	188	24.99*	5580	2.40	TRF	57	YDA 90S4	128
	64	165	21.93	5400	2.70				
	75	140	18.60*	5170	3.20				
83	126	16.79	5030	3.60					
29	360	47.75	3500	0.85	TR	47	YDA 90S4	124	
33	320	42.87	4850	0.95	TRF	47	YDA 90S4	125	
38	275	36.93	4720	1.10					
40	260	34.73	4660	1.15					
47	225	29.88	4520	1.35					
52	200	26.70	4410	1.50					
59	177	23.59	4290	1.70					

$P_{1n}$ [kW]	$n_2$ [1/min]	$M_{2n}$ [Nm]	$i$	$Fr_2$ [N]	$fs$				Page
1.1	60	175	23.28	4270	1.70	<b>TR</b>	<b>47</b>	<b>YDA 90S4</b>	124
	64	164	21.81	4210	1.85	<b>TRF</b>	<b>47</b>	<b>YDA 90S4</b>	125
	73	145	19.27	4080	2.00				
	78	134	17.89	4010	2.20				
	86	122	16.22	3910	2.30				
	96	109	14.56	3800	2.40				
	112	94	12.54	3650	2.70				
	119	89	11.79	3590	2.80				
	138	76	10.15	3450	3.00				
	154	68	9.07	3340	3.20				
	43	245	32.40	2900	0.80	<b>TR</b>	<b>37</b>	<b>YDA 90S4</b>	121
	49	215	28.73	3300	0.95	<b>TRF</b>	<b>37</b>	<b>YDA 90S4</b>	122
	57	183	24.42	3720	1.10				
	73	145	19.31	3840	1.40				
	78	135	18.05	3790	1.50				
90	117	15.60	3660	1.70					
106	99	13.25	3520	1.90	<b>TR</b>	<b>37</b>	<b>YDA 90S4</b>	121	
118	89	11.83	3430	2.10	<b>TRF</b>	<b>37</b>	<b>YDA 90S4</b>	122	
139	76	10.11	3290	2.20					
148	71	9.47	3230	2.40					
176	60	7.97	3090	2.60					
210	50	6.67	2920	2.90					
247	43	5.67	2790	3.30					
277	38	5.06	2700	3.60					
72	145	19.35	2430	0.90	<b>TR</b>	<b>27</b>	<b>YDA 90S4</b>	118	
77	136	18.08	2410	0.95	<b>TRF</b>	<b>27</b>	<b>YDA 90S4</b>	119	
90	117	15.63	2360	1.10					
105	100	13.28*	2290	1.30					
118	89	11.86	2240	1.45					
138	76	10.13	2160	1.60					
172	61	8.16	2010	1.90					
184	57	7.63*	1980	1.95					
212	50	6.59	1920	2.1					
250	42	5.60*	1840	2.4					
280	38	5.00*	1790	2.5					
328	32	4.27	1720	2.7					
350	30	4.00*	1690	2.8					
415	25	3.37	1610	3.1					
203	52	13.28*	1980	2.5	<b>TR</b>	<b>27</b>	<b>YDA 80N2</b>	118	
228	46	11.86	1920	2.8	<b>TRF</b>	<b>27</b>	<b>YDA 80N2</b>	119	
267	39	10.13	1840	3.1					
287	37	9.41	1780	3.3					
331	32	8.16	1720	3.7					
354	30	7.63*	1690	3.8					
410	26	6.59	1620	4.1					
482	22	5.60*	1550	4.5					
540	20	5.00*	1500	4.9					
632	17	4.27	1430	5.2					
675	16	4.00*	1410	5.5					
801	13	3.37	1340	6.0					
249	42	5.63	5680	2.6	<b>TRX</b>	<b>77</b>	<b>YDA 90S4</b>	110	
262	40	5.35*	5590	2.6	<b>TRXF</b>	<b>77</b>	<b>YDA 90S4</b>	111	
296	36	4.73	5380	3.5					
203	52	4.53	4130	1.6	<b>TRX</b>	<b>67</b>	<b>YDA 90L6</b>	108	
214	49	4.30*	4070	1.65	<b>TRXF</b>	<b>67</b>	<b>YDA 90L6</b>	109	
244	43	3.77	3920	2.0					

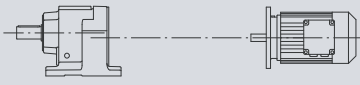
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1.1	309	34	4.53	3660	2.4	<b>TRX 67</b>	<b>YDA 90S4</b>	108	
	326	32	4.30*	3610	2.5	<b>TRXF 67</b>	<b>YDA 90S4</b>	109	
	371	28	3.77	3470	3.1				
	438	24	3.20*	3300	4.2				
	485	22	2.89	3200	4.9				
	551	19	2.54	3070	6.2				
	583	18	2.40*	3020	6.8				
	685	15	2.04	2870	8.8				
	754	14	1.86	2780	9.1				
	870	12	1.61	2660	9.4				
	1000	11	1.40*	2550	9.9				
	243	43	3.79	3120	1.6	<b>TRX 57</b>	<b>YDA 90L6</b>	106	
	259	41	3.55*	3060	1.7	<b>TRXF 57</b>	<b>YDA 90L6</b>	107	
	293	36	3.14	2960	1.8				
	316	33	2.91	2900	2.0				
	348	30	2.64*	2820	2.3				
	369	28	3.79	2780	2.4	<b>TRX 57</b>	<b>YDA 90S4</b>	106	
	394	27	3.55*	2730	2.6	<b>TRXF 57</b>	<b>YDA 90S4</b>	107	
	446	24	3.14	2630	2.8				
	481	22	2.91	2570	3.1				
	530	20	2.64*	2500	3.5				
	591	18	2.37	2420	3.9				
	686	15	2.04	2310	4.5				
	729	14	1.92*	2270	4.8				
	847	12	1.65	2160	5.6				
	948	11	1.48	2090	6.1				
	1075	9.8	1.30	2010	6.4				
	1.5	0.60	21400	2333.00	120000	0.85	<b>TR 167 / TRF97</b>	<b>YDA 90L4</b>	149
		0.68	19000	2085.00	120000	0.95	<b>TRF 167 / TRF97</b>	<b>YDA 90L4</b>	149
0.75		17000	1877.00	120000	1.05				
0.84		15100	1670.00	120000	1.20				
0.98		13300	1438.00	120000	1.35				
1.1		11800	1279.00	120000	1.50				
1.3		10300	1123.00	120000	1.75				
1.4		9180	999.00	120000	1.95				
3.3		3920	426.00	73600	3.30	<b>TR 147 / TRF87</b>	<b>YDA 90L4</b>	149	
3.8		3380	368.00	73800	3.80	<b>TRF 147 / TRF87</b>	<b>YDA 90L4</b>	149	
0.83		15900	1705.00	37900	0.80	<b>TR 147 / TRF77</b>	<b>YDA 90L4</b>	149	
0.92		14300	1536.00	58600	0.90	<b>TRF 147 / TRF77</b>	<b>YDA 90L4</b>	149	
1.1		12400	1329.00	63900	1.05				
1.2		10800	1166.00	66500	1.20				
1.4		9530	1029.00	68400	1.35				
1.6		8250	889.00	70000	1.60				
1.8		7260	784.00	71100	1.80				
2.0		6420	695.00	71900	2.00				
2.3		5780	619.00	72400	2.30				
2.5		5200	558.00	72800	2.50				
1.4		9770	1043.00	38800	0.80	<b>TR 137 / TRF77</b>	<b>YDA 90L4</b>	149	
1.6		8290	888.00	52700	0.95	<b>TRF 137 / TRF77</b>	<b>YDA 90L4</b>	149	
2.0		6500	699.00	56200	1.25				
2.3		5640	609.00	57600	1.40				
1.3		10200	1090.00	26100	0.80	<b>TR 137 / TRF77</b>	<b>YDA 90L4</b>	149	
1.5		8940	951.00	49900	0.90	<b>TRF 137 / TRF77</b>	<b>YDA 90L4</b>	149	
1.7		7750	831.00	53900	1.05				
1.9		6770	730.00	55800	1.20				
2.2		5800	629.00	57300	1.40				
2.5		5230	560.00	58100	1.55				


$P_{1n}$ [kW]	$n_2$ [1/min]	$M_{2n}$ [Nm]	$i$	$Fr_2$ [N]	$fs$		Page	
1.5	2.9	4530	490.00	59000	1.75	<b>TR 137 / TRF77</b>	<b>YDA 90L4</b>	149
	3.3	3950	428.00	59600	2.00	<b>TRF 137 / TRF77</b>	<b>YDA 90L4</b>	149
	3.7	3560	381.00	59900	2.30			
	4.4	3020	323.00	60300	2.70			
	2.7	4900	528.00	18500	0.90	<b>TR 107 / TRF77</b>	<b>YDA 90L4</b>	149
						<b>TRF 107 / TRF77</b>	<b>YDA 90L4</b>	149
	2.6	5030	544.00	10400	0.85	<b>TR 107 / TRF77</b>	<b>YDA 90L4</b>	149
	2.9	4550	492.00	28100	0.95	<b>TRF 107 / TRF77</b>	<b>YDA 90L4</b>	149
	3.4	3850	417.00	31700	1.10			
	3.8	3440	369.00	33400	1.25			
	4.4	3000	323.00	34900	1.45			
	3.0	4470	469.00	28500	0.95			
	4.2	3170	336.00	11300	0.95	<b>TR 97 / TRF57</b>	<b>YDA 90L4</b>	149
	4.8	2790	296.00	22400	1.10	<b>TRF 97 / TRF57</b>	<b>YDA 90L4</b>	149
	5.7	2330	249.00	24900	1.30			
	6.0	2180	234.00	25600	1.40			
	6.8	1950	209.00	26600	1.55			
	3.0	4710	229.95	26500	0.90	<b>TR 107</b>	<b>YDA 112M8</b>	141
	3.5	4160	203.16	30200	1.05	<b>TRF 107</b>	<b>YDA 112M8</b>	142
	4.1	3530	172.34	33100	1.20			
	4.4	3250	158.68	34100	1.30			
	3.7	3910	251.15	31400	1.10	<b>TR 107</b>	<b>YDA 100M6</b>	141
	4.0	3580	229.95	32900	1.20	<b>TRF 107</b>	<b>YDA 100M6</b>	142
	4.5	3160	203.16	34400	1.35			
	5.3	2680	172.34	35900	1.60			
	5.8	2470	158.68	36200	1.75			
	6.5	2210	141.83	36500	1.95			
	5.5	2600	255.71	23500	1.15	<b>TR 97</b>	<b>YDA 90L4</b>	139
	5.8	2450	241.25	24300	1.20	<b>TRF 97</b>	<b>YDA 90L4</b>	140
	6.5	2200	216.28	25600	1.35			
	7.6	1890	186.30	26800	1.60			
	8.3	1730	170.02	27300	1.75			
	9.3	1530	150.78	27600	1.95			
	11	1290	126.75	27900	2.30			
	12	1180	116.48	28000	2.50			
	14	1050	103.44	28200	2.90			
	15	940	92.48	28300	3.20			
	7.8	1850	181.77	11400	0.85	<b>TR 87</b>	<b>YDA 90L4</b>	136
	9.1	1580	155.34	16700	1.00	<b>TRF 87</b>	<b>YDA 90L4</b>	137
	9.9	1450	142.41	17600	1.05			
	11	1270	124.97	18600	1.20			
	12	1200	118.43*	19000	1.30			
	14	1050	103.65	19600	1.45			
	15	950	93.38	20000	1.65			
	17	830	81.92	20000	1.85			
	19	735	72.57	20000	2.10			
	22	645	63.68*	20000	2.40			
	23	615	60.35*	20000	2.50			
	27	535	52.82	20000	2.90			
	30	485	47.58	20000	3.20			
34	425	41.74	20000	3.70				
38	375	36.84*	19600	4.10				
15	940	92.97	8500	0.85	<b>TR 77</b>	<b>YDA 90L4</b>	133	
17	830	81.80	9820	1.00	<b>TRF 77</b>	<b>YDA 90L4</b>	134	
18	785	77.24	10200	1.05				
21	670	65.77	11100	1.25				
24	585	57.68	11600	1.40				


$P_{1n}$ [kW]	$n_2$ [1/min]	$M_{2n}$ [Nm]	$i$	$Fr_2$ [N]	$fs$			Page	
1.5	27	530	52.07	11900	1.55	<b>TR</b>	<b>77</b>	<b>YDA 90L4</b>	133
	31	465	45.81	12200	1.75	<b>TRF</b>	<b>77</b>	<b>YDA 90L4</b>	134
	33	440	43.26	12300	1.85				
	38	375	36.83	12600	2.20				
	42	340	33.47	12700	2.40				
	49	295	29.00	12500	2.80				
	56	255	25.23	12000	3.00				
	60	240	23.37	11800	3.50	<b>TR</b>	<b>77</b>	<b>YDA 90L4</b>	133
	66	220	21.43	11500	3.80	<b>TRF</b>	<b>77</b>	<b>YDA 90L4</b>	134
	75	191	18.80	11000	4.10				
	23	620	61.26	7280	0.95	<b>TR</b>	<b>67</b>	<b>YDA 90L4</b>	130
	25	580	56.89	7810	1.05	<b>TRF</b>	<b>67</b>	<b>YDA 90L4</b>	131
	27	525	51.56	8370	1.15				
	30	470	46.29	8830	1.30				
	35	405	39.88*	9300	1.45				
	38	380	37.50	9460	1.50				
	44	330	32.27	9750	1.65				
	49	295	28.83	9920	1.80				
	50	285	28.13	9950	1.90				
	53	270	26.72	9850	2.00				
	60	240	23.44	9500	2.40				
	71	200	19.89	9070	3.00				
	79	182	17.95	8810	3.20				
	27	540	53.22	5140	0.85	<b>TR</b>	<b>57</b>	<b>YDA 90L4</b>	127
	29	490	48.23	6010	0.90	<b>TRF</b>	<b>57</b>	<b>YDA 90L4</b>	128
	33	440	43.30	5920	1.00				
	38.0	380	37.30*	5770	1.20	<b>TR</b>	<b>57</b>	<b>YDA 90L4</b>	127
	40	355	35.07	5710	1.25	<b>TRF</b>	<b>57</b>	<b>YDA 90L4</b>	128
	47	305	30.18	5540	1.45				
	52	275	26.97	5420	1.65				
	54	265	26.31	5390	1.70	<b>TR</b>	<b>57</b>	<b>YDA 90L4</b>	127
	56	255	24.99*	5330	1.75	<b>TRF</b>	<b>57</b>	<b>YDA 90L4</b>	128
	64	225	21.93	5170	2.00				
	76	189	18.60*	4980	2.40				
	84	171	16.79	4850	2.60				
	95	150	14.77*	4700	2.90				
	101	142	13.95*	4630	3.00				
	119	121	11.88	4440	3.40				
	38	375	36.93	2380	0.80	<b>TR</b>	<b>47</b>	<b>YDA 90L4</b>	124
	41	355	34.73	3840	0.85	<b>TRF</b>	<b>47</b>	<b>YDA 90L4</b>	125
	47	305	29.88	4220	1.00				
	53	270	26.70	4140	1.10				
	60	240	23.59	4050	1.25				
	61	235	23.28	4040	1.25				
	65	220	21.81	3990	1.35				
73	196	19.27	3890	1.50					
79	182	17.89	3830	1.60	<b>TR</b>	<b>47</b>	<b>YDA 90L4</b>	124	
87	165	16.22	3740	1.65	<b>TRF</b>	<b>47</b>	<b>YDA 90L4</b>	125	
97	148	14.56	3650	1.80					
112	127	12.54	3520	1.95					
120	120	11.79	3470	2.10					
139	103	10.15	3340	2.20					
155	92	9.07	3240	2.40					
176	81	8.01	3140	2.50					
182	79	7.76*	3060	2.10					
203	71	6.96	2980	2.30					
235	61	6.00	2860	2.60					


$P_{1n}$ [kW]	$n_2$ [1/min]	$M_{2n}$ [Nm]	$i$	$Fr_2$ [N]	$f_s$				Page		
1.5	250	57	5.64*	2810	2.70	<b>TR</b>	<b>47</b>	<b>YDA 90L4</b>	124		
	291	49	4.85	2700	3.00			<b>TRF</b>	<b>47</b>	<b>YDA 90L4</b>	125
	325	44	4.34	2610	3.30						
	368	39	3.83	2520	3.70						
	73	196	19.31	2660	1.00	<b>TR</b>	<b>37</b>	<b>YDA 90L4</b>	121		
	78	183	18.05	2840	1.10			<b>TRF</b>	<b>37</b>	<b>YDA 90L4</b>	122
	90	159	15.60	3160	1.25						
	106	135	13.25	3350	1.40						
	119	120	11.83	3270	1.50						
	140	103	10.11	3160	1.65						
	149	96	9.47	3110	1.75						
	177	81	7.97	2980	1.95						
	211	68	6.67	2820	2.10						
	249	58	5.67	2710	2.50						
	279	51	5.06	2630	2.60						
	326	44	4.32	2520	2.90						
	348	41	4.05	2470	3.00						
	414	35	3.41	2360	3.20						
	211	68	13.25	2850	2.80	<b>TR</b>	<b>37</b>	<b>YDA 90S2</b>	121		
	237	61	11.83	2770	3.00			<b>TRF</b>	<b>37</b>	<b>YDA 90S2</b>	122
	277	52	10.11	2650	3.30						
	296	48	9.47	2610	3.50						
	351	41	7.97	2480	3.80						
	90	159	15.63	1700	0.80	<b>TR</b>	<b>27</b>	<b>YDA 90L4</b>	118		
	106	135	13.28*	2020	0.95			<b>TRF</b>	<b>27</b>	<b>YDA 90L4</b>	119
	119	121	11.86	2080	1.05						
	139	103	10.13	2030	1.20						
	173	83	8.16	1880	1.40						
	185	78	7.63*	1860	1.45						
	214	67	6.59	1810	1.60						
	252	57	5.60*	1750	1.75						
	282	51	5.00*	1710	1.85						
	330	43	4.27	1650	2.00						
	353	41	4.00*	1630	2.10						
	418	34	3.37	1560	2.30						
	236	61	11.86	1820	2.10	<b>TR</b>	<b>27</b>	<b>YDA 90S2</b>	118		
	276	52	10.13	1760	2.40			<b>TRF</b>	<b>27</b>	<b>YDA 90S2</b>	119
	343	42	8.16	1640	2.80						
	367	39	7.63*	1610	2.90						
	425	34	6.59	1550	3.20						
	500	29	5.60*	1490	3.50						
	560	26	5.00*	1450	3.70						
	656	22	4.27	1390	4.00						
	700	21	4.00*	1360	4.20						
	831	17	3.37	1300	4.60						
	250	57	5.63	5580	1.90	<b>TRX</b>	<b>77</b>	<b>YDA 90L4</b>	110		
	264	54	5.35*	5490	1.90			<b>TRXF</b>	<b>77</b>	<b>YDA 90L4</b>	111
	298	48	4.73	5300	2.60						
	349	41	4.04*	5050	3.50						
	381	38	3.70	4920	4.10						
	434	33	3.25*	4720	5.50						
	458	31	3.08*	4650	6.20						
	523	27	2.70	4460	7.90						
	581	25	2.43	4310	8.70						
	312	46	4.53	3570	1.80	<b>TRX</b>	<b>67</b>	<b>YDA 90L4</b>	108		
	328	44	4.30*	3520	1.85			<b>TRXF</b>	<b>67</b>	<b>YDA 90L4</b>	109
	374	38	3.77	3390	2.30						

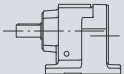
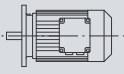



$P_{1n}$ [kW]	$n_2$ [1/min]	$M_{2n}$ [Nm]	$i$	$Fr_2$ [N]	$fs$				Page
1.5	441	33	3.20*	3230	3.10	TRX 67	YDA 90L4	108	
	488	29	2.89	3140	3.60				TRXF 67
	555	26	2.54	3020	4.60				
	588	24	2.40*	2970	5.00				
	690	21	2.04	2820	6.40				
	759	19	1.86	2740	6.70				
	876	16	1.61	2620	7.00				
	1005	14	1.40*	2510	7.30				
	372	39	3.79	2700	1.80	TRX 57	YDA 90L4	106	
	397	36	3.55*	2650	1.90	TRXF 57	YDA 90L4	107	
	450	32	3.14	2560	2.00				
	484	30	2.91	2510	2.30				
	534	27	2.64*	2440	2.60				
	595	24	2.37	2360	2.90				
	691	21	2.04	2260	3.30				
	734	20	1.92*	2220	3.50				
	853	17	1.65	2120	4.10				
	955	15	1.48	2050	4.50				
	1080	13	1.30	1980	4.70				
	2.2	0.84	22600	1670	120000	0.80	TR 167 / TRF97	YDA 100M4	149
0.98		19700	1438	120000	0.90	TRF 167 / TRF97	YDA 100M4	149	
1.1		17500	1279	120000	1.05				
1.3		15300	1123	120000	1.15				
1.4		13600	999	120000	1.30				
1.6		11800	861	120000	1.55				
1.9		10400	760	120000	1.75				
2.1		8730	656	120000	2.10				
2.6		7200	533	71100	1.80	TR 147 / TRF87	YDA 100M4	149	
3.1		6190	462	72100	2.10	TRF 147 / TRF87	YDA 100M4	149	
3.3		5820	426	72400	2.20				
3.8		5030	368	72900	2.60				
4.3		4450	326	73300	2.90				
1.2		16000	1166	36000	0.80	TR 147 / TRF77	YDA 100M4	149	
1.4		14100	1029	60300	0.90	TRF 147 / TRF77	YDA 100M4	149	
1.6		12200	889	64200	1.05				
1.8		10800	784	66600	1.20				
2.0		9520	695	68500	1.35				
2.3		8550	619	69700	1.50				
2.5		7690	558	70600	1.70				
2.9		6730	489	71600	1.95				
2.0		9620	699	41800	0.85	TR 137 / TRF77	YDA 100M4	149	
2.3		8350	609	52500	0.95	TRF 137 / TRF77	YDA 100M4	149	
1.9		10000	730	33300	0.80	TR 137 / TRF77	YDA 100M4	149	
2.2		8610	629	51400	0.95	TRF 137 / TRF77	YDA 100M4	149	
2.5		7730	560	54000	1.05				
2.9		6720	490	55900	1.20				
3.3		5860	428	57200	1.35				
3.7		5260	381	58100	1.50				
4.4		4460	323	59000	1.80				
4.8		4020	291	59500	2.00				
5.5		3510	255	59900	2.30				
6.3		3070	223	60300	2.60				
4.4		4450	323	28600	0.95	TR 107 / TRF77	YDA 100M4	149	
4.9		3920	285	31400	1.10	TRF 107 / TRF77	YDA 100M4	149	
5.6		3470	253	33300	1.25				
6.6		2940	214	35100	1.45				
4.4		4540	325	28100	0.95				

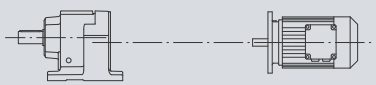
$P_{1n}$ [kW]	$n_2$ [1/min]	$M_{2n}$ [Nm]	$i$	$F_{r2}$ [N]	$f_s$		Page	
2.2	6.8	2880	209	21800	1.05	<b>TR 97 / TRF57</b>	<b>YDA 100M4</b>	149
						<b>TRF 97 / TRF57</b>	<b>YDA 100M4</b>	149
	3.1	6680	222.60*	55900	1.20	<b>TR 137</b>	<b>YDA 132S8</b>	143
	3.7	5660	188.45	57500	1.40	<b>TRF 137</b>	<b>YDA 132S8</b>	144
	4.0	5230	174.40*	58100	1.55			
	4.5	4690	156.31	58800	1.70			
	5.0	4240	141.12*	59300	1.90			
	5.5	3850	128.18	59600	2.10	<b>TR 137</b>	<b>YDA 132S8</b>	143
	6.2	3410	113.72	60000	2.30	<b>TRF 137</b>	<b>YDA 132S8</b>	144
	6.8	3100	103.20*	60300	2.60			
	4.6	4540	203.16	28100	0.95	<b>TR 107</b>	<b>YDA 112M6</b>	141
	5.5	3850	172.34	31700	1.10	<b>TRF 107</b>	<b>YDA 112M6</b>	142
	5.9	3550	158.68	33000	1.20			
	6.6	3170	141.83	34400	1.35			
	5.6	3740	251.15	32200	1.15	<b>TR 107</b>	<b>YDA 100M4</b>	141
	6.1	3430	229.95	33500	1.25	<b>TRF 107</b>	<b>YDA 100M4</b>	142
	6.9	3030	203.16	34900	1.40			
	8.2	2570	172.34	36100	1.65	<b>TR 107</b>	<b>YDA 100M4</b>	141
	8.9	2360	158.68	36300	1.80	<b>TRF 107</b>	<b>YDA 100M4</b>	142
	9.9	2110	141.83	36600	2.00			
	11	1900	127.68	36900	2.30			
	12	1720	115.63	37000	2.50			
	14	1530	102.53	37200	2.80			
	15	1380	92.70	37300	3.10			
	6.5	3220	216.28	7030	0.95	<b>TR 97</b>	<b>YDA 100M4</b>	139
	7.6	2780	186.30	22500	1.10	<b>TRF 97</b>	<b>YDA 100M4</b>	140
	8.3	2530	170.02	23900	1.20			
	9.3	2250	150.78	25300	1.35	<b>TR 97</b>	<b>YDA 100M4</b>	139
	11	1890	126.75	26800	1.60	<b>TRF 97</b>	<b>YDA 100M4</b>	140
	12	1740	116.48	27300	1.75			
	14	1540	103.44	27600	1.95			
	15	1380	92.48	27800	2.20			
	17	1240	83.15	28000	2.40			
	20	1080	72.17	28200	2.80			
	22	970	65.21	27700	3.10			
	24	890	59.92	27000	3.40			
	27	795	53.21	26100	3.80			
	30	710	47.58	25300	4.20			
	11	1860	124.97	10100	0.85	<b>TR 87</b>	<b>YDA 100M4</b>	136
	12	1760	118.43*	15200	0.90	<b>TRF 87</b>	<b>YDA 100M4</b>	137
	14	1540	103.65	17000	1.00			
	15	1390	93.38	17900	1.10			
	17	1220	81.92	18900	1.25			
	19	1080	72.57	19500	1.45			
	22	950	63.68*	20000	1.65			
23	900	60.35*	20000	1.70				
27	785	52.82	20000	1.95				
30	710	47.58	20000	2.20				
34	620	41.74	19900	2.50				
38	550	36.84*	19200	2.80				
43	485	32.66*	18500	3.20				
41	515	34.40*	18800	2.9	<b>TR 87</b>	<b>YDA 100M4</b>	136	
45	470	31.40	18300	3.3	<b>TRF 87</b>	<b>YDA 100M4</b>	137	
51	415	27.84*	17700	3.7				
60	350	23.40	16800	4.5				
66	320	21.51	16400	4.7				

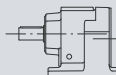
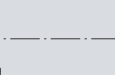
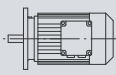
$P_{1n}$ [kW]	$n_2$ [1/min]	$M_{2n}$ [Nm]	$i$	$Fr_2$ [N]	$fs$				Page
2.2	21	980	65.77	5470	0.85	TR	77	YDA 100M4	133
	24	860	57.68	9540	0.95	TRF	77	YDA 100M4	134
	27	775	52.07	10300	1.05				
	31	685	45.81	11000	1.20				
	33	645	43.26	11300	1.25				
	38	550	36.83	11800	1.50				
	42	500	33.47	12100	1.65				
	49	430	29.00	12100	1.9				
	56	375	25.23	11700	2.1				
	60	350	23.37	11400	2.4				
	66	320	21.43	11200	2.6				
	75	280	18.80	10800	2.8				
	79	265	17.82*	10600	2.9				
	90	230	15.60	10200	3.2				
	100	210	14.05	9910	3.4				
	35	595	39.88*	7630	1.0	TR	67	YDA 100M4	130
	38	560	37.50	8020	1.0	TRF	67	YDA 100M4	131
	44	480	32.27	8750	1.1				
	49	430	28.83	9140	1.2				
	60	350	23.44	9140	1.6	TR	67	YDA 100M4	130
	71	295	19.89	8760	2.0	TRF	67	YDA 100M4	131
	79	270	17.95	8530	2.2				
	89	235	15.79	8240	2.4				
	95	220	14.91	8110	2.5				
	111	189	12.70	7760	2.8				
	122	172	11.54	7560	2.9				
	141	149	10.00	7250	3.2				
	162	130	8.70*	6960	3.4				
	181	116	7.79	6760	3.3				
	38	555	37.30*	4490	0.80	TR	57	YDA 100M4	127
	40	525	35.07	5110	0.85	TRF	57	YDA 100M4	128
	47	450	30.18	5030	1.00				
	52	400	26.97	4960	1.10				
	64	325	21.93	4800	1.4	TR	57	YDA 100M4	127
	76	275	18.60*	4660	1.6	TRF	57	YDA 100M4	128
	84	250	16.79	4570	1.8				
	95	220	14.77*	4450	2.0				
	101	210	13.95*	4390	2.1				
	119	177	11.88	4230	2.3				
	131	161	10.79	4140	2.4				
	151	139	9.35	4000	2.7				
	156	135	9.06	3980	2.8				
	177	119	7.97	3850	3.0				
	107	197	26.31	4340	2.3	TR	57	YDA 90L2	127
	112	187	24.99*	4290	2.4	TRF	57	YDA 90L2	128
	128	164	21.93	4160	2.8				
	151	139	18.60*	3990	3.2				
	167	126	16.79	3890	3.6				
	190	111	14.77*	3760	3.9				
	201	104	13.95*	3710	4.1				
73	285	19.27	3550	1.05	TR	47	YDA 100M4	124	
87	240	16.22	3460	1.15	TRF	47	YDA 100M4	125	
97	215	14.56	3400	1.20					
112	187	12.54	3310	1.35					
120	176	11.79	3270	1.40					
139	151	10.15	3160	1.50					
155	135	9.07	3090	1.65					

P <sub>1n</sub> [kW]	n <sub>2</sub> [1/min]	M <sub>2n</sub> [Nm]	i	Fr <sub>2</sub> [N]	fs			Page	
						TR	TRF		
2.2	176	119	8.01	3000	1.70	<b>TR</b>	<b>47</b>	<b>YDA 100M4</b>	124
	182	116	7.76*	2910	1.40	<b>TRF</b>	<b>47</b>	<b>YDA 100M4</b>	125
	203	104	6.96	2840	1.55				
	235	89	6.00	2740	1.75				
	250	84	5.64*	2700	1.85				
	291	72	4.85	2600	2.10				
	325	65	4.34	2530	2.30				
	368	57	3.83	2440	2.50				
	121	174	23.28	3260	1.70	<b>TR</b>	<b>47</b>	<b>YDA 90L2</b>	124
	129	163	21.81	3220	1.85	<b>TRF</b>	<b>47</b>	<b>YDA 90L2</b>	125
	146	144	19.27	3130	2.10				
	157	134	17.89	3080	2.20				
	173	121	16.22	3010	2.30				
	193	109	14.56	2930	2.40				
	224	94	12.54	2830	2.70				
	238	88	11.79	2780	2.80				
	277	76	10.15	2680	3.00				
	310	68	9.07	2600	3.20				
	351	60	8.01	2510	3.40				
	90	230	15.60	1070	0.85	<b>TR</b>	<b>37</b>	<b>YDA 100M4</b>	121
	106	198	13.25	1660	0.95	<b>TRF</b>	<b>37</b>	<b>YDA 100M4</b>	122
	119	176	11.83	1990	1.05				
	140	151	10.11	2360	1.15				
	149	141	9.47	2480	1.20				
	177	119	7.97	2750	1.30				
	211	99	6.67	2470	1.45				
	249	84	5.67	2570	1.70				
	279	75	5.06	2500	1.80				
	326	64	4.32	2410	1.95				
	348	60	4.05	2370	2.00				
	414	51	3.41	2270	2.20				
	146	144	19.31	2440	1.40	<b>TR</b>	<b>37</b>	<b>YDA 90L2</b>	121
	156	135	18.05	2560	1.50	<b>TRF</b>	<b>37</b>	<b>YDA 90L2</b>	122
	180	117	15.60	2780	1.70				
	212	99	13.25	2700	1.90				
	237	89	11.83	2630	2.10				
	278	76	10.11	2540	2.30				
	297	71	9.47	2500	2.40				
	352	60	7.97	2390	2.60				
	421	50	6.67	2260	2.90				
	496	42	5.67	2170	3.40				
	555	38	5.06	2100	3.60				
	650	32	4.32	2010	3.90				
	694	30	4.05	1980	4.00	<b>TR</b>	<b>37</b>	<b>YDA 90L2</b>	121
	824	26	3.41	1880	4.40	<b>TRF</b>	<b>37</b>	<b>YDA 90L2</b>	122
	139	151	10.13	1120	0.80	<b>TR</b>	<b>27</b>	<b>YDA 100M4</b>	118
214	98	6.59	1130	1.10	<b>TRF</b>	<b>27</b>	<b>YDA 100M4</b>	119	
252	83	5.60*	1390	1.20					
282	75	5.00*	1540	1.30					
330	64	4.27	1540	1.35					
353	60	4.00*	1520	1.45					
418	50	3.37	1470	1.55					
212	99	13.28*	1710	1.30	<b>TR</b>	<b>27</b>	<b>YDA 90L2</b>	118	
237	89	11.86	1680	1.45	<b>TRF</b>	<b>27</b>	<b>YDA 90L2</b>	119	
277	76	10.13	1640	1.60					
344	61	8.16	1520	1.90					
369	57	7.63*	1500	1.95					


$P_{1n}$ [kW]	$n_2$ [1/min]	$M_{2n}$ [Nm]	$i$	$Fr_2$ [N]	$f_s$			Page	
2.2	426	49	6.59	1460	2.20	<b>TR</b>	<b>27</b>	<b>YDA 90L2</b>	118
	502	42	5.60*	1410	2.40	<b>TRF</b>	<b>27</b>	<b>YDA 90L2</b>	119
	562	37	5.00*	1380	2.50				
	658	32	4.27	1330	2.70				
	703	30	4.00*	1310	2.80				
	834	25	3.37	1250	3.10				
	298	70	4.73	5180	1.75	<b>TRX</b>	<b>77</b>	<b>YDA 100M4</b>	110
	349	60	4.04*	4950	2.40	<b>TRXF</b>	<b>77</b>	<b>YDA 100M4</b>	111
	381	55	3.7	4820	2.80				
	434	48	3.25*	4640	3.80				
	458	46	3.08*	4560	4.20				
	523	40	2.7	4380	5.40				
	581	36	2.43	4250	5.90				
	662	32	2.13	4080	6.30				
	750	28	1.88*	3920	6.70				
	846	25	1.67	3780	7.00				
	991	21	1.42	3590	7.30				
	374	56	3.77	3280	1.55	<b>TRX</b>	<b>67</b>	<b>YDA 100M4</b>	108
	441	48	3.20*	3130	2.10	<b>TRXF</b>	<b>67</b>	<b>YDA 100M4</b>	109
	488	43	2.89	3050	2.50				
	555	38	2.54	2940	3.10				
	588	36	2.40*	2890	3.40				
	690	30	2.04	2760	4.40				
	759	28	1.86	2680	4.60				
	876	24	1.61	2570	4.80				
	1005	21	1.40*	2460	5.00				
	450	47	3.14	2450	1.40	<b>TRX</b>	<b>57</b>	<b>YDA 100M4</b>	106
	534	39	2.64*	2340	1.75	<b>TRXF</b>	<b>57</b>	<b>YDA 100M4</b>	107
595	35	2.37	2280	1.95					
691	30	2.04	2190	2.30					
734	29	1.92*	2150	2.40					
853	25	1.65	2060	2.80					
955	22	1.48	1990	3.10					
1080	19	1.3	1930	3.30					
3.0	1.2	21200	1123	120000	0.85	<b>TR</b>	<b>167 / TRF97</b>	<b>YDA 100L4</b>	149
	1.4	18900	999	120000	0.95	<b>TRF</b>	<b>167 / TRF97</b>	<b>YDA 100L4</b>	149
	1.6	16300	861	120000	1.10				
	1.8	14400	760	120000	1.25				
	2.1	12200	656	120000	1.50				
	2.8	9330	503	120000	1.95				
	2.6	9990	533	67800	1.30	<b>TR</b>	<b>147 / TRF87</b>	<b>YDA 100L4</b>	149
	3.0	8610	462	69600	1.50	<b>TRF</b>	<b>147 / TRF87</b>	<b>YDA 100L4</b>	149
	3.3	8060	426	70200	1.60				
	3.8	6960	368	71400	1.85				
	4.3	6150	326	72100	2.10				
	5.0	5230	280	72800	2.50				
	1.6	16900	889	21900	0.75	<b>TR</b>	<b>147 / TRF77</b>	<b>YDA 100L4</b>	149
	1.8	14900	784	52000	0.85	<b>TRF</b>	<b>147 / TRF77</b>	<b>YDA 100L4</b>	149
	2.0	13200	695	62300	1.00				
	2.3	11800	619	64900	1.10				
	2.5	10600	558	66900	1.20				
	2.9	9280	490	48100	0.85	<b>TR</b>	<b>137 / TRF77</b>	<b>YDA 100L4</b>	149
	3.3	8100	428	53200	1.00	<b>TRF</b>	<b>137 / TRF77</b>	<b>YDA 100L4</b>	149
	3.7	7260	381	54900	1.10				
	4.3	6160	323	56800	1.30				
	4.8	5540	291	57700	1.45				
5.5	4840	255	58600	1.65					
6.3	4240	223	59300	1.90					


P <sub>1n</sub> [kW]	n <sub>2</sub> [1/min]	M <sub>2n</sub> [Nm]	i	Fr <sub>2</sub> [N]	fs				Page
						TR	TRF	YDA	
3.0	2.7	9990	517	34100	0.80	TR	137 / TRF77	YDA 100L4	149
	3.1	8760	453	50700	0.90	TRF	137 / TRF77	YDA 100L4	149
	5.5	4790	253	23500	0.90	TR	107 / TRF77	YDA 100L4	149
	6.5	4060	214	30700	1.05	TRF	107 / TRF77	YDA 100L4	149
	7.5	3550	187	33000	1.20				
	5.5	4930	256	17400	0.85	TR	107 / TRF77	YDA 100L4	149
						TRF	107 / TRF77	YDA 100L4	149
	3.2	8860	222.60*	50300	0.90	TR	137	YDA 132M8	143
	3.8	7500	188.45	54400	1.05	TRF	137	YDA 132M8	144
	4.1	6940	174.40*	55500	1.15				
	4.6	6220	156.31	56700	1.30				
	5.1	5620	141.12*	57600	1.40				
	5.6	5100	128.18	58300	1.55	TR	137	YDA 132M8	143
	6.3	4520	113.72	59000	1.75	TRF	137	YDA 132M8	144
	7.0	4110	103.20*	59400	1.95				
	8.1	3530	88.70*	59900	2.30				
	4.2	6780	222.60*	55800	1.20	TR	137	YDA 132S6	143
	5.0	5740	188.45	57400	1.40	TRF	137	YDA 132S6	144
	5.4	5320	174.40*	58000	1.50				
	6.0	4760	156.31	58700	1.70				
	6.7	4300	141.12*	59200	1.85				
	7.3	3910	128.18	59600	2.10				
	8.3	3470	113.72	60000	2.30				
	9.1	3150	103.20*	60200	2.50				
	5.9	4840	158.68	21600	0.90	TR	107	YDA 132S6	141
	6.6	4320	141.83	29300	1.00	TRF	107	YDA 132S6	142
	7.4	3890	127.68	31500	1.10				
	6.1	4710	229.95	26500	0.90	TR	107	YDA 100L4	141
	6.9	4160	203.16	30200	1.05	TRF	107	YDA 100L4	142
	8.1	3530	172.34	33100	1.20				
	8.8	3250	158.68	34100	1.30				
	9.9	2900	141.83	35300	1.50				
	11	2610	127.68	36000	1.65				
	12	2370	115.63	36300	1.80				
	14	2100	102.53	36700	2.10				
	15	1900	92.70	36900	2.30				
	18	1610	78.57	35900	2.70				
	19	1490	72.88	35200	2.90				
	9.3	3090	150.78	16200	0.95	TR	97	YDA 100L4	139
	11	2590	126.75	23600	1.15	TRF	97	YDA 100L4	140
	12	2380	116.48	24700	1.25				
	14	2120	103.44	25900	1.40				
	15	1890	92.48	26800	1.60				
	17	1700	83.15	27300	1.75				
	19	1480	72.17	27700	2.00				
21	1330	65.21	27000	2.30					
23	1230	59.92	26400	2.50					
26	1090	53.21	25600	2.80					
29	970	47.58	24800	3.10					
33	880	42.78	24000	3.40					
38	760	37.13	23100	4.00					
42	680	33.25	22400	4.30					
15	1910	93.38	3630	0.80	TR	87	YDA 100L4	136	
17	1680	81.92	16000	0.90	TRF	87	YDA 100L4	137	
19	1490	72.57	17400	1.05					
22	1300	63.68*	18400	1.20					

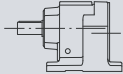
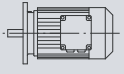
$P_{1n}$ [kW]	$n_2$ [1/min]	$M_{2n}$ [Nm]	$i$	$F_{r2}$ [N]	$f_s$		Page
3.0	23	1230	60.35*	18800	1.25	<b>TR 87</b>	<b>YDA 100L4</b> 136
	27	1080	52.82	19500	1.45	<b>TRF 87</b>	<b>YDA 100L4</b> 137
	29	970	47.58	19900	1.60		
	34	850	41.74	19400	1.80		
	38	755	36.84*	18700	2.10		
	43	670	32.66*	18100	2.30		
	50	570	27.88	17400	2.60		
	41	705	34.40*	18400	2.10	<b>TR 87</b>	<b>YDA 100L4</b> 136
	45	640	31.40	17900	2.40	<b>TRF 87</b>	<b>YDA 100L4</b> 137
	50	570	27.84*	17400	2.70		
	60	480	23.40	16500	3.20		
	65	440	21.51	16100	3.40		
	73	390	19.10	15600	3.70		
	82	350	17.08*	15100	4.00		
	91	315	15.35	14600	4.30		
	31	940	45.81	8670	0.85	<b>TR 77</b>	<b>YDA 100L4</b> 133
	32	890	43.26	9270	0.95	<b>TRF 77</b>	<b>YDA 100L4</b> 134
	38	755	36.83	10500	1.10		
	42	685	33.47	11000	1.20		
	48	595	29.00	11600	1.40	<b>TR 77</b>	<b>YDA 100L4</b> 133
	55	515	25.23	11300	1.50	<b>TRF 77</b>	<b>YDA 100L4</b> 134
	60	480	23.37	11100	1.70	<b>TR 77</b>	<b>YDA 100L4</b> 133
	65	440	21.43	10800	1.85	<b>TRF 77</b>	<b>YDA 100L4</b> 134
	74	385	18.80	10500	2.00		
	79	365	17.82*	10300	2.10		
	90	320	15.60	9980	2.30		
	100	290	14.05	9700	2.50		
	114	250	12.33	9350	2.70		
	129	225	10.88	9030	3.00		
	145	197	9.64	8720	3.20		
	163	176	8.59	8500	3.60		
	181	158	7.74	8240	3.90		
	206	139	6.79	7920	4.20		
	60	480	23.44	8730	1.15	<b>TR 67</b>	<b>YDA 100L4</b> 130
	70	405	19.89	8420	1.45	<b>TRF 67</b>	<b>YDA 100L4</b> 131
	78	365	17.95	8230	1.60		
	89	325	15.79	7980	1.75		
	94	305	14.91	7860	1.80		
	110	260	12.70	7550	2.00		
	121	235	11.54	7360	2.10		
140	205	10.00	7090	2.30			
52	550	26.97	4330	0.80	<b>TR 57</b>	<b>YDA 100L4</b> 127	
64	450	21.93	4380	1.00	<b>TRF 57</b>	<b>YDA 100L4</b> 128	
75	380	18.60*	4300	1.20			
83	345	16.79	4250	1.30			
95	300	14.77*	4160	1.45			
100	285	13.95*	4130	1.50			
118	245	11.88	4010	1.65			
130	220	10.79	3940	1.75			
150	191	9.35	3820	1.95			
155	185	9.06	3810	2.00			
176	163	7.97	3700	2.20			
186	154	7.53	3650	2.30			
218	131	6.41	3520	2.60			
240	119	5.82	3430	2.70			
277	103	5.05	3310	3.00			
319	90	4.39	3190	3.10			


$P_{1n}$ [kW]	$n_2$ [1/min]	$M_{2n}$ [Nm]	$i$	$F_{r2}$ [N]	$f_s$				Page
3.0	128	225	21.93	3950	2.00	<b>TR</b>	<b>57</b>	<b>YDA 100M2</b>	127
	151	190	18.60*	3820	2.40	<b>TRF</b>	<b>57</b>	<b>YDA 100M2</b>	128
	167	172	16.79	3730	2.60				
	190	151	14.77*	3620	2.90				
	201	143	13.95*	3570	3.00				
	236	122	11.88	3440	3.30				
	259	110	10.79	3360	3.50				
	86	330	16.22	2030	0.85	<b>TR</b>	<b>47</b>	<b>YDA 100L4</b>	124
	96	300	14.56	2500	0.90	<b>TRF</b>	<b>47</b>	<b>YDA 100L4</b>	125
	112	255	12.54	3040	0.95				
	119	240	11.79	3040	1.00				
	138	210	10.15	2970	1.10				
	154	186	9.07	2910	1.20				
	175	164	8.01	2840	1.25				
	181	159	7.76*	2740	1.05				
	201	143	6.96	2680	1.10				
	233	123	6.00	2610	1.25				
	248	115	5.64*	2580	1.35				
	288	99	4.85	2490	1.50				
	323	89	4.34	2430	1.65				
	365	78	3.83	2360	1.85				
	237	121	11.79	2670	2.00	<b>TR</b>	<b>47</b>	<b>YDA 100M2</b>	124
	276	104	10.15	2580	2.20	<b>TRF</b>	<b>47</b>	<b>YDA 100M2</b>	125
	309	93	9.07	2510	2.40				
	349	82	8.01	2430	2.50				
	361	79	7.76*	2370	2.10				
	402	71	6.96	2310	2.20				
	467	61	6.00	2220	2.50				
	496	58	5.64*	2190	2.70				
	577	50	4.85	2100	3.00				
	646	44	4.34	2040	3.30				
	731	39	3.83	1970	3.70				
	139	205	10.11	780	0.80	<b>TR</b>	<b>37</b>	<b>YDA 100L4</b>	121
	148	194	9.47	1010	0.85	<b>TRF</b>	<b>37</b>	<b>YDA 100L4</b>	122
	176	163	7.97	1510	0.95				
	210	137	6.67	1250	1.05				
	247	116	5.67	1630	1.25				
	277	104	5.06	1830	1.30				
	324	88	4.32	2070	1.45				
	346	83	4.05	2140	1.45				
	411	70	3.41	2180	1.60				
	277	103	10.11	2340	1.65	<b>TR</b>	<b>37</b>	<b>YDA 100M2</b>	121
	296	97	9.47	2380	1.70	<b>TRF</b>	<b>37</b>	<b>YDA 100M2</b>	122
	351	82	7.97	2290	1.90				
	420	68	6.67	2170	2.10				
	494	58	5.67	2090	2.50				
	553	52	5.06	2030	2.60				
648	44	4.32	1950	2.90					
692	41	4.05	1920	3.00					
821	35	3.41	1840	3.20					
250	115	5.60*	360	0.85	<b>TR</b>	<b>27</b>	<b>YDA 100L4</b>	118	
280	102	5.00*	615	0.95	<b>TRF</b>	<b>27</b>	<b>YDA 100L4</b>	119	
328	87	4.27	910	1.00					
350	82	4.00*	1010	1.05					
415	69	3.37	1230	1.15					

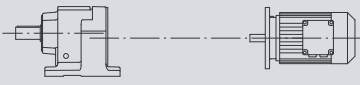



$P_{1n}$ [kW]	$n_2$ [1/min]	$M_{2n}$ [Nm]	$i$	$F_{r2}$ [N]	$f_s$		Page
3.0	425	67	6.59	1260	1.55	<b>TR 27</b>	<b>YDA 100M2</b> 118
	500	57	5.60*	1330	1.75	<b>TRF 27</b>	<b>YDA 100M2</b> 119
	560	51	5.00*	1300	1.85		
	656	44	4.27	1260	2.00		
	700	41	4.00*	1240	2.10		
	831	35	3.37	1200	2.30		
	217	132	6.45	7130	1.45	<b>TRX 87</b>	<b>YDA 100L4</b> 112
	252	114	5.56*	6830	2.00	<b>TRXF 87</b>	<b>YDA 100L4</b> 113
	276	104	5.07	6650	2.40		
	311	92	4.50*	6430	3.20		
	370	77	3.78	6100	3.90		
	296	97	4.73	5050	1.25	<b>TRX 77</b>	<b>YDA 100L4</b> 110
	347	83	4.04*	4830	1.75	<b>TRXF 77</b>	<b>YDA 100L4</b> 111
	378	76	3.70	4720	2.00		
	431	67	3.25*	4550	2.70		
	455	63	3.08*	4480	3.10		
	371	77	3.77	3150	1.15	<b>TRX 67</b>	<b>YDA 100L4</b> 108
	438	66	3.20*	3030	1.55	<b>TRXF 67</b>	<b>YDA 100L4</b> 109
	485	59	2.89	2950	1.80		
	551	52	2.54	2850	2.30		
	583	49	2.40*	2810	2.50		
	685	42	2.04	2690	3.20		
	754	38	1.86	2610	3.30		
	870	33	1.61	2510	3.50		
	1000	29	1.40*	2410	3.60		
	446	64	3.14	2330	1.00	<b>TRX 57</b>	<b>YDA 100L4</b> 106
	530	54	2.64*	2240	1.30	<b>TRXF 57</b>	<b>YDA 100L4</b> 107
	591	49	2.37	2180	1.40		
	686	42	2.04	2100	1.65		
	729	39	1.92*	2070	1.75		
847	34	1.65	1990	2.00			
948	30	1.48	1930	2.30			
1075	27	1.30	1870	2.40			
4.0	1.7	21500	861	120000	0.85	<b>TR 167 / TRF97</b>	<b>YDA 112M4</b> 149
	1.9	19000	760	120000	0.95	<b>TRF 167 / TRF97</b>	<b>YDA 112M4</b> 149
	2.2	16100	656	120000	1.10		
	2.8	12400	503	120000	1.45		
	3.8	9260	376	120000	1.95		
	4.2	8240	335	120000	2.20		
	2.7	13200	533	62200	1.00	<b>TR 147 / TRF87</b>	<b>YDA 112M4</b> 149
	3.1	11400	462	65600	1.15	<b>TRF 147 / TRF87</b>	<b>YDA 112M4</b> 149
	3.3	10600	426	66800	1.20		
	3.9	9190	368	68900	1.40		
	4.4	8130	326	70200	1.60		
	5.1	6920	280	71400	1.90		
	5.7	6110	247	72100	2.10		
	6.7	5280	214	72800	2.50		
	7.5	4670	189	73200	2.80		
	9.0	3920	159	73600	3.30		
	2.3	15500	619	43200	0.85	<b>TR 147 / TRF77</b>	<b>YDA 112M4</b> 149
	2.5	14000	558	60500	0.95	<b>TRF 147 / TRF77</b>	<b>YDA 112M4</b> 149
	2.9	12300	489	64100	1.05		
	3.4	10400	415	67200	1.25		

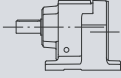
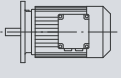
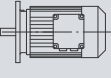
$P_{1n}$ [kW]	$n_2$ [1/min]	$M_{2n}$ [Nm]	$i$	$Fr_2$ [N]	$fs$			Page		
4.0	3.7	9570	381	42700	0.85	TR	137 / TRF77	YDA 112M4	149	
	4.4	8120	323	53100	1.00	TRF	137 / TRF77	YDA 112M4	149	
	4.9	7310	291	54800	1.10					
	5.6	6390	255	56400	1.25					
	6.4	5600	223	57600	1.45					
	3.8	9560	376	43000	0.85	TR	137 / TRF77	YDA 112M4	149	
	4.2	8600	339	51400	0.95	TRF	137 / TRF77	YDA 112M4	149	
	4.8	7540	297	54300	1.05					
	7.6	4680	187	27200	0.90	TR	107 / TRF77	YDA 112M4	149	
							TRF	107 / TRF77	YDA 112M4	149
	7.3	4890	193	19000	0.90	TR	107 / TRF77	YDA 112M4	149	
	8.2	4380	172	29000	1.00	TRF	107 / TRF77	YDA 112M4	149	
	4.4	8660	163.31	69500	1.50	TR	147	YDA 132ML8	145	
	4.9	7790	146.91	70500	1.65	TRF	147	YDA 132ML8	146	
	6.0	6360	119.86	71900	2.00					
	6.6	5800	109.31	72400	2.20					
	4.1	9250	174.40*	48400	0.85	TR	137	YDA 132ML8	143	
	4.6	8290	156.31	52700	0.95	TRF	137	YDA 132ML8	144	
	5.1	7490	141.12*	54400	1.05					
	5.6	6800	128.18	55700	1.20					
	6.3	6030	113.72	57000	1.35					
	7.0	5470	103.20*	57800	1.45					
	4.3	8860	222.60*	50300	0.90	TR	137	YDA 132M6	143	
	5.1	7500	188.45	54400	1.05	TRF	137	YDA 132M6	144	
	5.5	6940	174.40*	55500	1.15					
	6.1	6220	156.31	56700	1.30					
	6.8	5620	141.12*	57600	1.40					
	7.5	5100	128.18	58300	1.55					
	8.4	4520	113.72	59000	1.75	TR	137	YDA 132M6	143	
	9.3	4110	103.20*	59400	1.95	TRF	137	YDA 132M6	144	
	11	3530	88.70*	59900	2.30					
	8.2	4640	172.34	27500	0.95	TR	107	YDA 112M4	141	
	9.0	4270	158.68	29600	1.00	TRF	107	YDA 112M4	142	
	10	3820	141.83	31900	1.15					
	11	3430	127.68	33400	1.25					
	12	3110	115.63	34600	1.40					
	14	2760	102.53	35700	1.55					
	15	2490	92.70	36200	1.70					
	18	2110	78.57	34900	2.00					
	19	1960	72.88	34200	2.20					
	22	1760	65.60*	33200	2.40					
	24	1600	59.41	32300	2.70					
	27	1420	52.68	31300	3.00					
12	3130	116.48	13800	0.95	TR	97	YDA 112M4	139		
14	2780	103.44	22400	1.10	TRF	97	YDA 112M4	140		
15	2490	92.48	24100	1.20						
17	2240	83.15	25400	1.35						
20	1940	72.17	26600	1.55						
22	1750	65.21	26000	1.70						
24	1610	59.92	25500	1.85						
27	1430	53.21	24700	2.10						
30	1280	47.58	24000	2.30						
33	1150	42.78	23400	2.60						
38	1000	37.13	22500	3.00						
43	890	33.25	21800	3.20						


$P_{1n}$ [kW]	$n_2$ [1/min]	$M_{2n}$ [Nm]	$i$	$Fr_2$ [N]	$f_s$			Page	
4.0	44	860	32.05	21600	3.00	TR	97	YDA 112M4	139
	52	730	27.19	20600	3.50	TRF	97	YDA 112M4	140
	57	675	25.03	20100	4.20				
	63	600	22.37	19500	4.50				
	71	540	20.14	18900	4.80				
	22	1710	63.68*	13300	0.90	TR	87	YDA 112M4	136
	24	1620	60.35*	13900	0.95	TRF	87	YDA 112M4	137
	27	1420	52.82	15200	1.10				
	30	1280	47.58	16000	1.20	TR	87	YDA 112M4	136
	34	1120	41.74	16800	1.40	TRF	87	YDA 112M4	137
	39	990	36.84*	17400	1.55				
	43	880	32.66*	17500	1.75				
	51	750	27.88	16800	2.00				
	41	930	34.40*	17600	1.60	TR	87	YDA 112M4	136
	45	840	31.40	17400	1.85	TRF	87	YDA 112M4	137
	51	750	27.84*	16800	2.10				
	61	630	23.40	16100	2.50				
	66	580	21.51	15700	2.60				
	74	515	19.10	15200	2.80				
	83	460	17.08*	14700	3.00				
	92	415	15.35	14300	3.20				
	107	360	13.33	13700	3.60				
	119	320	11.93	13300	3.80				
	39	990	36.83	4070	0.85	TR	77	YDA 112M4	133
	42	900	33.47	9100	0.90	TRF	77	YDA 112M4	134
	49	780	29.00	10300	1.05				
	56	680	25.23	10800	1.15				
	61	630	23.37	10600	1.30	TR	77	YDA 112M4	133
	66	575	21.43	10400	1.40	TRF	77	YDA 112M4	134
	76	505	18.80	10100	1.55				
	80	480	17.82*	9950	1.65				
	91	420	15.60	9630	1.75				
	101	380	14.05	9380	1.90				
	115	330	12.33	9070	2.10				
	131	295	10.88	8780	2.30				
	147	260	9.64	8500	2.40				
	165	230	8.59	8320	2.70				
	183	210	7.74	8070	2.90				
	209	183	6.79	7770	3.20				
	237	161	5.99*	7490	3.40				
	267	143	5.31*	7230	3.60				
	71	535	19.89	7960	1.10	TR	67	YDA 112M4	130
	79	485	17.95	7800	1.20	TRF	67	YDA 112M4	131
	90	425	15.79	7600	1.30				
	95	400	14.91	7510	1.35				
	112	340	12.70	7240	1.50	TR	67	YDA 112M4	130
	123	310	11.54	7080	1.60	TRF	67	YDA 112M4	131
142	270	10.00	6840	1.75					
163	235	8.70*	6600	1.90					
182	210	7.79	6440	1.80					
193	198	7.36*	6340	1.85					
227	169	6.27	6070	1.95					
249	153	5.70	5920	2.00					
288	133	4.93	5680	2.20					
331	116	4.29	5460	2.30					

$P_{1n}$ [kW]	$n_2$ [1/min]	$M_{2n}$ [Nm]	$i$	$F_{r2}$ [N]	$f_s$				Page
4.0	76	500	18.60*	3520	0.90	<b>TR</b>	<b>57</b>	<b>YDA 112M4</b>	127
	85	450	16.79	3830	1.00	<b>TRF</b>	<b>57</b>	<b>YDA 112M4</b>	128
	96	395	14.77*	3800	1.10				
	102	375	13.95*	3780	1.15				
	120	320	11.88	3710	1.25				
	132	290	10.79	3660	1.35				
	152	250	9.35	3580	1.45				
	157	245	9.06	3590	1.55				
	178	215	7.97	3500	1.65				
	189	205	7.53	3470	1.75				
	222	172	6.41	3350	1.95				
	244	157	5.82	3280	2.00				
	281	136	5.05	3180	2.30				
	323	118	4.39	3070	2.40				
	140	275	10.15	1960	0.85	<b>TR</b>	<b>47</b>	<b>YDA 112M4</b>	124
	157	245	9.07	2350	0.90	<b>TRF</b>	<b>47</b>	<b>YDA 112M4</b>	125
	177	215	8.01	2640	0.95				
	204	187	6.96	2480	0.85				
	237	161	6.00	2430	0.95				
	252	152	5.64*	2410	1.00				
	293	131	4.85	2350	1.15				
	327	117	4.34	2300	1.25				
	371	103	3.83	2250	1.40				
	176	215	16.22	2640	1.25	<b>TR</b>	<b>47</b>	<b>YDA 112M2</b>	124
	196	195	14.56	2600	1.35	<b>TRF</b>	<b>47</b>	<b>YDA 112M2</b>	125
	228	168	12.54	2540	1.50				
	242	158	11.79	2510	1.55				
	282	136	10.15	2440	1.70				
	315	121	9.07	2390	1.80				
	357	107	8.01	2320	1.90				
	369	104	7.76*	2250	1.55				
	411	93	6.96	2200	1.70				
477	80	6.00	2130	1.95					
507	75	5.64*	2100	2.10					
589	65	4.85	2020	2.30					
660	58	4.34	1970	2.50					
746	51	3.83	1910	2.80					
255	150	5.56*	6630	1.50	<b>TRX</b>	<b>87</b>	<b>YDA 112M4</b>	112	
280	137	5.07	6470	1.85	<b>TRXF</b>	<b>87</b>	<b>YDA 112M4</b>	113	
316	121	4.50*	6260	2.40					
375	102	3.78	5960	3.00					
351	109	4.04*	4670	1.30	<b>TRX</b>	<b>77</b>	<b>YDA 112M4</b>	110	
383	100	3.70	4560	1.55	<b>TRXF</b>	<b>77</b>	<b>YDA 112M4</b>	111	
437	87	3.25*	4410	2.10					
461	83	3.08*	4350	2.30					
527	73	2.70	4190	3.00					
585	65	2.43	4070	3.30					
667	57	2.13	3920	3.50					
755	51	1.88*	3780	3.70					
852	45	1.67	3650	3.90					
998	38	1.42	3480	4.10					
444	86	3.20*	2870	1.15	<b>TRX</b>	<b>67</b>	<b>YDA 112M4</b>	108	
492	78	2.89	2810	1.35	<b>TRXF</b>	<b>67</b>	<b>YDA 112M4</b>	109	
559	68	2.54	2730	1.75					
592	65	2.40*	2690	1.90					
695	55	2.04	2580	2.40					
765	50	1.86	2520	2.50					

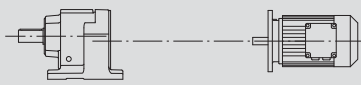
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4.0	883	43	1.61	2420	2.60	<b>TRX 67</b>	<b>YDA 112M4</b>	108
	1015	38	1.40*	2330	2.80	<b>TRXF 67</b>	<b>YDA 112M4</b>	109
	538	71	2.64*	1670	0.95	<b>TRX 57</b>	<b>YDA 112M4</b>	106
	599	64	2.37	1780	1.10	<b>TRXF 57</b>	<b>YDA 112M4</b>	107
	696	55	2.04	1910	1.25			
	740	52	1.92*	1940	1.35			
	859	44	1.65	1900	1.55			
	962	40	1.48	1840	1.70			
1090	35	1.30	1790	1.80				
5.5	2.2	22200	656	120000	0.80	<b>TR 167 / TRF97</b>	<b>YDA 132S4</b>	149
	2.5	19400	579	120000	0.95	<b>TRF 167 / TRF97</b>	<b>YDA 132S4</b>	149
	2.8	17000	503	120000	1.05			
	3.3	14500	432	120000	1.25			
	3.8	12700	376	120000	1.40			
	4.3	11300	335	120000	1.60			
	4.7	10200	303	120000	1.75			
	5.1	9360	279	120000	1.90			
	3.1	15700	462	41200	0.85	<b>TR 147 / TRF87</b>	<b>YDA 132S4</b>	149
	3.4	14600	426	55400	0.90	<b>TRF 147 / TRF87</b>	<b>YDA 132S4</b>	149
	3.9	12600	368	63500	1.05			
	4.4	11100	326	66000	1.15			
	5.1	9520	280	68500	1.35			
	5.8	8400	247	69900	1.55			
	6.7	7250	214	71100	1.80			
	7.6	6410	189	71900	2.00			
	3.1	17000	229.71	120000	1.05	<b>TR 167</b>	<b>YDT 160M8</b>	147
	3.8	13800	186.93*	120000	1.30	<b>TRF 167</b>	<b>YDT 160M8</b>	148
	4.6	11300	153.07	120000	1.60			
	5.1	10400	139.98	120000	1.75			
	5.8	9010	121.81*	120000	2.00			
	4.4	12100	163.31	64400	1.10	<b>TR 147</b>	<b>YDT 160M8</b>	145
	4.8	10900	146.91	66500	1.20	<b>TRF 147</b>	<b>YDT 160M8</b>	146
	5.9	8870	119.86	69300	1.45			
	6.5	8090	109.31	70200	1.60			
	5.9	8930	163.31	69200	1.45	<b>TR 147</b>	<b>YDA 132ML6</b>	145
	6.5	8040	146.91	70300	1.60	<b>TRF 147</b>	<b>YDA 132ML6</b>	146
	8.0	6560	119.86	71700	2.00			
	8.8	5980	109.31	72200	2.20	<b>TR 147</b>	<b>YDA 132ML6</b>	145
	10	5180	94.60*	72800	2.50	<b>TRF 147</b>	<b>YDA 132ML6</b>	146
	12	4570	83.47	73200	2.90			
	5.5	9480	128.18	44400	0.85	<b>TR 137</b>	<b>YDT 160M8</b>	143
	6.2	8410	113.72	52200	0.95	<b>TRF 137</b>	<b>YDT 160M8</b>	144
	6.9	7630	103.20*	54200	1.05			
	8.0	6560	88.70*	56100	1.20			
	5.5	9540	174.40*	43300	0.85	<b>TR 137</b>	<b>YDA 132ML6</b>	143
	6.1	8550	156.31	51600	0.95	<b>TRF 137</b>	<b>YDA 132ML6</b>	144
	6.8	7720	141.12*	54000	1.05			
	7.5	7010	128.18	55300	1.15			
	8.4	6220	113.72	56700	1.30			
	9.3	5650	103.20*	57600	1.40			
	6.4	8180	222.60*	53000	1.00	<b>TR 137</b>	<b>YDA 132S4</b>	143
7.6	6920	188.45	55500	1.15	<b>TRF 137</b>	<b>YDA 132S4</b>	144	
8.2	6410	174.40*	56400	1.25				
9.2	5740	156.31	57400	1.40				
10	5180	141.12*	58200	1.55				

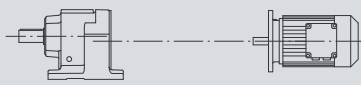
$P_{1n}$ [kW]	$n_2$ [1/min]	$M_{2n}$ [Nm]	$i$	$Fr_2$ [N]	$f_s$			Page	
5.5	11	4710	128.18	58800	1.70	TR	137	YDA 132S4	143
	13	4180	113.72	59300	1.90	TRF	137	YDA 132S4	144
	14	3790	103.20*	59700	2.10				
	16	3260	88.70*	60200	2.50				
	18	2970	80.91*	60400	2.70				
	19	2700	73.49	60500	3.00				
	22	2390	65.20	60700	3.30				
	24	2170	59.17*	60900	3.70				
	28	1870	50.86*	61000	4.30				
	11	4690	127.68	27100	0.90	TR	107	YDA 132S4	141
	12	4250	115.63	29800	1.00	TRF	107	YDA 132S4	142
	14	3770	102.53	32100	1.15				
	15	3400	92.70	33500	1.25				
	18	2890	78.57	33500	1.50				
	20	2680	72.88	32900	1.60				
	22	2410	65.60*	32100	1.80				
	24	2180	59.41	31300	1.95				
	27	1930	52.68	30300	2.20				
	30	1750	47.63	29500	2.50				
	35	1480	40.37*	28200	2.90				
	17	3050	83.15	17600	1.00	TR	97	YDA 132S4	139
	20	2650	72.17	21800	1.15	TRF	97	YDA 132S4	140
	22	2390	65.21	24600	1.25				
	24	2200	59.92	24200	1.35				
	27	1950	53.21	23600	1.55				
	30	1750	47.58	23000	1.70				
	33	1570	42.78	22500	1.90				
	39	1360	37.13	21700	2.20				
	43	1220	33.25	21100	2.40				
	52	1010	27.58	20100	2.60				
	45	1180	32.05	20900	2.20	TR	97	YDA 132S4	139
	53	1000	27.19	20000	2.60	TRF	97	YDA 132S4	140
	57	920	25.03	19600	3.10				
	64	820	22.37	19000	3.30				
	71	740	20.14	18400	3.50				
	78	670	18.24	17900	3.70				
	88	595	16.17	17300	4.00				
	30	1750	47.58	15400	0.90	TR	87	YDA 132S4	136
	34	1530	41.74	17000	1.00	TRF	87	YDA 132S4	137
	39	1350	36.84*	17200	1.15				
	44	1200	32.66*	16700	1.30				
	51	1020	27.88	16100	1.45				
51	1020	27.84*	16100	1.50	TR	87	YDA 132S4	136	
61	860	23.40	15500	1.80	TRF	87	YDA 132S4	137	
66	790	21.51	15200	1.90					
75	700	19.10	14700	2.10					
84	625	17.08*	14300	2.20					
93	565	15.35	13900	2.40					
107	490	13.33	13400	2.60					
120	440	11.93	13000	2.80					
144	365	9.90*	12300	3.30					
156	335	9.14*	12200	3.60					
174	300	8.22	11800	3.80					
200	260	7.13	11300	4.10					
76	690	18.80	9240	1.15	TR	77	YDA 132S4	133	
80	655	17.82*	9400	1.20	TRF	77	YDA 132S4	134	
92	575	15.60	9150	1.30					


$P_{1n}$ [kW]	$n_2$ [1/min]	$M_{2n}$ [Nm]	$i$	$Fr_2$ [N]	$f_s$				Page
5.5	102	515	14.05	8950	1.40	TR	77	YDA 132S4	133
	116	455	12.33	8690	1.50	TRF	77	YDA 132S4	134
	131	400	10.88	8440	1.65				
	148	355	9.64	8190	1.80				
	166	315	8.59	8080	2.00				
	185	285	7.74	7860	2.20				
	211	250	6.79	7580	2.30				
	239	220	5.99*	7320	2.50				
	269	195	5.31*	7070	2.60				
	91	580	15.79	6610	0.95	TR	67	YDA 132S4	130
	96	550	14.91	6900	1.00	TRF	67	YDA 132S4	131
	113	465	12.70	6810	1.10				
	124	425	11.54	6690	1.20				
	143	365	10.00	6500	1.30				
	164	320	8.70*	6310	1.40				
	183	285	7.79	6180	1.35				
	194	270	7.36*	6100	1.35				
	228	230	6.27	5860	1.45				
	251	210	5.70	5720	1.50				
	290	181	4.93	5510	1.60				
	333	158	4.29	5310	1.70				
	331	159	8.70*	5300	2.80	TR	67	YDA 132S2	130
	369	142	7.79	5160	2.70	TRF	67	YDA 132S2	131
	391	134	7.36*	5080	2.80				
	460	114	6.27	4860	2.90				
	506	104	5.70	4730	3.00				
	584	90	4.93	4540	3.20				
	671	78	4.29	4350	3.50				
	97	545	14.77*	1730	0.80	TR	57	YDA 132S4	127
	103	510	13.95*	2070	0.85	TRF	57	YDA 132S4	128
	120	435	11.88	2900	0.95				
	132	395	10.79	3270	1.00				
	153	345	9.35	3240	1.10	TR	57	YDA 132S4	127
	179	295	7.97	3220	1.20	TRF	57	YDA 132S4	128
	190	275	7.53	3200	1.25				
	223	235	6.41	3120	1.40				
	246	215	5.82	3080	1.50				
	283	185	5.05	3000	1.65				
	326	161	4.39	2920	1.75				
	308	171	9.35	2930	2.20	TR	57	YDA 132S2	127
	361	145	7.97	2850	2.40	TRF	57	YDA 132S2	128
	383	137	7.53	2820	2.60				
	449	117	6.41	2720	2.90				
	494	106	5.82	2660	3.00				
	571	92	5.05	2560	3.30				
	656	80	4.39	2470	3.50				
	295	178	4.85	1870	0.85	TR	47	YDA 132S4	124
	330	159	4.34	2110	0.90	TRF	47	YDA 132S4	125
	373	141	3.83	2080	1.00				
	230	230	12.54	1730	1.10	TR	47	YDA 132S2	124
	244	215	11.79	1910	1.15	TRF	47	YDA 132S2	125
	284	185	10.15	2250	1.25				
	318	165	9.07	2220	1.35				
359	146	8.01	2170	1.40					
480	109	6.00	2000	1.45					
511	103	5.64*	1970	1.50					
593	89	4.85	1920	1.70					

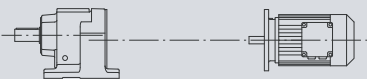
$P_{1n}$ [kW]	$n_2$ [1/min]	$M_{2n}$ [Nm]	$i$	$Fr_2$ [N]	$fs$				Page
5.5	664	79	4.34	1870	1.85	<b>TR</b>	<b>47</b>	<b>YDA 132S2</b>	124
	752	70	3.83	1820	2.10	<b>TRF</b>	<b>47</b>	<b>YDA 132S2</b>	125
	216	245	6.63*	10500	1.90	<b>TRX</b>	<b>107</b>	<b>YDA 132S4</b>	116
	255	205	5.61	9980	2.20	<b>TRXF</b>	<b>107</b>	<b>YDA 132S4</b>	117
	276	191	5.19	9760	3.70				
	307	171	4.65	9460	4.10				
	247	215	5.79	8380	1.95	<b>TRX</b>	<b>97</b>	<b>YDA 132S4</b>	114
	291	180	4.91	8010	2.20	<b>TRXF</b>	<b>97</b>	<b>YDA 132S4</b>	115
	316	166	4.52	7820	3.60				
	354	149	4.04	7580	4.00				
	393	134	3.64*	7350	4.50				
	434	121	3.30	7140	4.90				
	489	107	2.92	6890	5.50				
	541	97	2.64	6690	6.10				
	638	82	2.24*	6360	7.20				
	731	72	1.96	6110	7.90				
	874	60	1.64	5780	8.40				
	1010	52	1.42	5530	8.80				
	318	165	4.50*	6040	1.75	<b>TRX</b>	<b>87</b>	<b>YDA 132S4</b>	112
	378	139	3.78	5770	2.20	<b>TRXF</b>	<b>87</b>	<b>YDA 132S4</b>	113
	411	128	3.48	5640	3.20				
	463	113	3.09	5460	3.60				
	518	101	2.76*	5290	4.00				
	576	91	2.48	5130	4.50				
	664	79	2.15	4930	4.90				
	440	119	3.25*	4220	1.50	<b>TRX</b>	<b>77</b>	<b>YDA 132S4</b>	110
	464	113	3.08*	4160	1.70	<b>TRXF</b>	<b>77</b>	<b>YDA 132S4</b>	111
	530	99	2.70	4030	2.20				
	589	89	2.43	3920	2.40				
	671	78	2.13	3780	2.60				
	761	69	1.88*	3660	2.70				
	858	61	1.67	3540	2.80				
	1005	52	1.42	3380	3.00				
	563	93	2.54	2550	1.25	<b>TRX</b>	<b>67</b>	<b>YDA 132S4</b>	108
	596	88	2.40*	2520	1.40	<b>TRXF</b>	<b>67</b>	<b>YDA 132S4</b>	109
	700	75	2.04	2430	1.80				
	770	68	1.86	2380	1.85				
	889	59	1.61	2300	1.95				
	1020	51	1.40*	2220	2.00				
	700	75	2.04	665	0.90	<b>TRX</b>	<b>57</b>	<b>YDA 132S4</b>	106
	745	71	1.92*	755	1.00	<b>TRXF</b>	<b>57</b>	<b>YDA 132S4</b>	107
	866	61	1.65	940	1.15				
969	54	1.48	1020	1.25					
1095	48	1.30	1160	1.30					
2.8	23400	503	120000	0.75	<b>TR</b>	<b>167 / TRF97</b>	<b>YDA 132M4</b>	149	
3.3	19900	432	120000	0.90	<b>TRF</b>	<b>167 / TRF97</b>	<b>YDA 132M4</b>	149	
3.8	17500	376	120000	1.05					
4.3	15600	335	120000	1.15					
4.7	14000	303	120000	1.30					
5.1	12900	279	120000	1.40					
4.4	15200	326	47300	0.85	<b>TR</b>	<b>147 / TRF87</b>	<b>YDA 132M4</b>	145	
5.1	13000	280	62600	1.00	<b>TRF</b>	<b>147 / TRF87</b>	<b>YDA 132M4</b>	146	
5.8	11500	247	65400	1.15					
6.7	9940	214	67900	1.30					
7.6	8790	189	69400	1.50					
9.0	7390	159	71000	1.75					

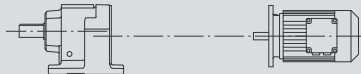



$P_{1n}$ [kW]	$n_2$ [1/min]	$M_{2n}$ [Nm]	$i$	$Fr_2$ [N]	$f_s$		Page
7.5	3.1	22900	229.71	120000	0.80	<b>TR 167</b>	<b>YDT 160L8</b> 147
	3.9	18600	186.93*	120000	0.95	<b>TRF 167</b>	<b>YDT 160L8</b> 148
	4.7	15200	153.07	120000	1.20		
	5.1	13900	139.98	120000	1.30		
	5.9	12100	121.81*	120000	1.50		
	4.2	17100	229.71	120000	1.05	<b>TR 167</b>	<b>YDT 160M6</b> 147
	5.1	13900	186.93*	120000	1.30	<b>TRF 167</b>	<b>YDT 160M6</b> 148
	6.3	11400	153.07	120000	1.60		
	6.9	10400	139.98	120000	1.70		
	7.9	9090	121.81*	120000	2.00		
	8.9	8020	107.49	120000	2.20		
	10	6950	93.19	120000	2.60		
	12	6190	82.91*	120000	2.90		
	13	5500	73.70*	120000	3.30		
	14	5030	67.40	120000	3.60		
	4.4	16200	163.31	32800	0.80	<b>TR 147</b>	<b>YDT 160L8</b> 145
	4.9	14600	146.91	55100	0.90	<b>TRF 147</b>	<b>YDT 160L8</b> 146
	6.0	11900	119.86	64700	1.10		
	6.6	10900	109.31	66500	1.20		
	5.9	12200	163.31	64200	1.05	<b>TR 147</b>	<b>YDT 160M6</b> 145
	6.5	11000	146.91	66300	1.20	<b>TRF 147</b>	<b>YDT 160M6</b> 146
	8.0	8940	119.86	69200	1.45		
	8.8	8150	109.31	70100	1.60		
	10	7060	94.60*	71300	1.85		
	12	6230	83.47	72000	2.10		
	7.6	9440	188.45	45300	0.85	<b>TR 137</b>	<b>YDA 132M4</b> 143
	8.2	8730	174.40*	50800	0.90	<b>TRF 137</b>	<b>YDA 132M4</b> 144
	9.2	7830	156.31	53700	1.00		
	10	7070	141.12*	55200	1.15		
	11	6420	128.18	56400	1.25		
	13	5700	113.72	57500	1.40		
	14	5170	103.20*	58200	1.55		
	16	4440	88.70*	59100	1.80		
	18	4050	80.91*	59500	1.95		
	19	3680	73.49	59800	2.20		
	22	3270	65.20	60100	2.50		
	24	2960	59.17*	60400	2.70		
	28	2550	50.86*	60600	3.10		
	15	4640	92.70	27500	0.95	<b>TR 107</b>	<b>YDA 132M4</b> 141
	18	3940	78.57	31300	1.10	<b>TRF 107</b>	<b>YDA 132M4</b> 142
	20	3650	72.88	31300	1.20		
	22	3290	65.60*	30600	1.30		
	24	2980	59.41	30000	1.45		
	27	2640	52.68	29200	1.65		
	30	2390	47.63	28500	1.80		
	35	2020	40.37*	27300	2.10		
	41	1770	35.26	26400	2.40		
	48	1480	29.49	25200	2.90		
	46	1540	30.77	25500	2.80	<b>TR 107</b>	<b>YDA 132M4</b> 141
	52	1380	27.58	24700	3.10	<b>TRF 107</b>	<b>YDA 132M4</b> 142
57	1250	24.90*	24100	3.50			
63	1130	22.62	23400	3.80			
24	3000	59.92	19700	1.00	<b>TR 97</b>	<b>YDA 132M4</b> 139	
27	2670	53.21	22200	1.15	<b>TRF 97</b>	<b>YDA 132M4</b> 140	
30	2380	47.58	21800	1.25			
33	2140	42.78	21300	1.40			
39	1860	37.13	20700	1.60			


P <sub>1n</sub> [kW]	n <sub>2</sub> [1/min]	M <sub>2n</sub> [Nm]	i	Fr <sub>2</sub> [N]	fs			Page	
						TR	TRF		
7.5	43	1670	33.25	20200	1.75	<b>TR</b>	<b>97</b>	<b>YDA 132M4</b>	139
	52	1380	27.58	19400	1.95	<b>TRF</b>	<b>97</b>	<b>YDA 132M4</b>	140
	45	1610	32.05	20000	1.60	<b>TR</b>	<b>97</b>	<b>YDA 132M4</b>	139
	53	1360	27.19	19300	1.90	<b>TRF</b>	<b>97</b>	<b>YDA 132M4</b>	140
	57	1250	25.03	18900	2.30				
	64	1120	22.37	18400	2.40				
	71	1010	20.14	17900	2.60				
	78	910	18.24	17500	2.70				
	39	1840	36.84*	11500	0.85	<b>TR</b>	<b>87</b>	<b>YDA 132M4</b>	136
	44	1640	32.66*	15700	0.95	<b>TRF</b>	<b>87</b>	<b>YDA 132M4</b>	137
	51	1400	27.88	15200	1.05				
	51	1390	27.84*	15200	1.10	<b>TR</b>	<b>87</b>	<b>YDA 132M4</b>	136
	61	1170	23.40	14700	1.30	<b>TRF</b>	<b>87</b>	<b>YDA 132M4</b>	137
	66	1080	21.51	14500	1.40				
	75	960	19.10	14100	1.50				
	84	860	17.08*	13700	1.65				
	93	770	15.35	12500	1.75				
	107	670	13.33	12900	1.90				
	120	600	11.93	12600	2.10				
	144	495	9.90*	12000	2.40				
	156	460	9.14*	11900	2.60				
	174	410	8.22	11600	2.80				
	200	355	7.13	11100	3.00				
	224	320	6.39	10800	3.20				
	270	265	5.30*	10200	3.40				
	76	940	18.80	5310	0.85	<b>TR</b>	<b>77</b>	<b>YDA 132M4</b>	133
	80	890	17.82*	5720	0.85	<b>TRF</b>	<b>77</b>	<b>YDA 132M4</b>	134
	92	780	15.60	6610	0.95				
	102	705	14.05	7180	1.00				
	116	615	12.33	7750	1.10				
	131	545	10.88	8010	1.20				
	148	485	9.64	7810	1.30				
	166	430	8.59	7620	1.45				
	185	390	7.74	7590	1.55				
	211	340	6.79	7340	1.70				
	239	300	5.99*	7110	1.80				
	269	265	5.31*	6890	1.90				
	113	635	12.70	4240	0.80	<b>TR</b>	<b>67</b>	<b>YDA 132M4</b>	130
	124	580	11.54	4860	0.85	<b>TRF</b>	<b>67</b>	<b>YDA 132M4</b>	131
	143	500	10.00	5620	0.95				
	164	435	8.70*	5930	1.00				
	183	390	7.79	5500	0.95				
	194	370	7.36*	5720	1.00				
	228	315	6.27	5600	1.05				
	251	285	5.70	5480	1.10				
290	245	4.93	5300	1.15					
333	215	4.29	5130	1.25					
179	400	7.97	980	0.90	<b>TR</b>	<b>57</b>	<b>YDA 132M4</b>	127	
190	375	7.53	1280	0.95	<b>TRF</b>	<b>57</b>	<b>YDA 132M4</b>	128	
223	320	6.41	2020	1.05					
246	290	5.82	2380	1.10					
283	255	5.05	2760	1.20					
326	220	4.39	2710	1.25					
196	365	14.77*	2580	1.20	<b>TR</b>	<b>57</b>	<b>YDA 132M2</b>	127	
208	345	13.95*	2780	1.25	<b>TRF</b>	<b>57</b>	<b>YDA 132M2</b>	128	
244	295	11.88	2780	1.40					
269	265	10.79	2750	1.45					

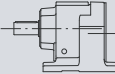
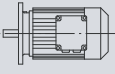
$P_{1n}$ [kW]	$n_2$ [1/min]	$M_{2n}$ [Nm]	$i$	$F_{r2}$ [N]	$f_s$				Page
7.5	310	230	9.35	2710	1.60	<b>TR</b>	<b>57</b>	<b>YDA 132M2</b>	127
	364	197	7.97	2670	1.80				<b>TRF</b>
	385	186	7.53	2640	1.90				
	452	158	6.41	2570	2.10				
	498	144	5.82	2520	2.20				
	575	125	5.05	2440	2.50				
	660	108	4.39	2370	2.60				
	216	330	6.63*	10100	1.40	<b>TRX</b>	<b>107</b>	<b>YDA 132M4</b>	116
	255	280	5.61	9690	1.60				<b>TRXF</b>
	276	260	5.19	9490	2.70				
	307	235	4.65	9210	3.00				
	340	210	4.20*	8950	3.90				
	247	290	5.79	8080	1.45	<b>TRX</b>	<b>97</b>	<b>YDA 132M4</b>	114
	291	245	4.91	7750	1.60				<b>TRXF</b>
	316	225	4.52	7580	2.60				
	354	205	4.04	7360	2.90				
	393	182	3.64*	7160	3.30				
	434	165	3.30	6960	3.60				
	489	146	2.92	6730	4.10				
	318	225	4.50*	5760	1.30	<b>TRX</b>	<b>87</b>	<b>YDA 132M4</b>	112
	378	189	3.78	5530	1.60				<b>TRXF</b>
	411	174	3.48	5420	2.30				
	463	155	3.09	5260	2.60				
	518	138	2.76*	5110	2.90				
	576	124	2.48	4970	3.30				
	664	108	2.15	4780	3.60				
	741	97	1.93	4640	3.70				
	894	80	1.60*	4400	3.90				
	1030	70	1.39	4230	4.20				
	440	163	3.25*	3820	1.10	<b>TRX</b>	<b>77</b>	<b>YDA 132M4</b>	110
	464	154	3.08*	3890	1.25				<b>TRXF</b>
	530	135	2.70	3820	1.60				
	589	122	2.43	3730	1.75				
	671	107	2.13	3620	1.85				
	761	94	1.88*	3510	2.00				
	858	84	1.67	3400	2.10				
	1005	71	1.42	3260	2.20				
	563	127	2.54	1500	0.95	<b>TRX</b>	<b>67</b>	<b>YDA 132M4</b>	108
	596	120	2.40*	1610	1.00				<b>TRXF</b>
	700	102	2.04	1810	1.30				
	770	93	1.86	1930	1.35				
	889	81	1.61	2060	1.40				
1020	70	1.40*	2080	1.50					
3.8	21400	376	120000	0.85	<b>TR</b>	<b>167 / TRF97</b>	<b>YDA 132ML4</b>	149	
4.3	19000	335	120000	0.95				<b>TRF</b>	<b>167 / TRF97</b>
4.8	17100	303	120000	1.05					
5.2	15700	279	120000	1.15					
5.1	15900	280	37800	0.80	<b>TR</b>	<b>147 / TRF87</b>	<b>YDA 132ML4</b>	149	
5.8	14000	247	60400	0.95				<b>TRF</b>	<b>147 / TRF87</b>
6.7	12100	214	64300	1.05					
7.6	10700	189	66700	1.20					
9.1	9020	159	69100	1.45					
8.8	9960	163.31	67800	1.30	<b>TR</b>	<b>147</b>	<b>YDA 132ML4</b>	145	
9.8	8960	146.91	69200	1.45				<b>TRF</b>	<b>147</b>
12	7310	119.86	71000	1.80					

P <sub>1n</sub> [kW]	n <sub>2</sub> [1/min]	M <sub>2n</sub> [Nm]	i	Fr <sub>2</sub> [N]	fs			Page	
						TR	TRF		
9.2	13	6670	109.31	71600	1.95	TR	147	YDA 132ML4	145
	15	5770	94.60*	72400	2.30	TRF	147	YDA 132ML4	146
	17	5090	83.47	72900	2.60				
	20	4400	72.09	73300	3.00				
	22	4090	66.99	73500	3.20				
	9.2	9540	156.31	43400	0.85	TR	137	YDA 132ML4	143
	10	8610	141.12*	51400	0.95	TRF	137	YDA 132ML4	144
	11	7820	128.18	53800	1.00				
	13	6940	113.72	55500	1.15				
	14	6300	103.20*	56600	1.25	TR	137	YDA 132ML4	143
	16	5410	88.70*	57900	1.50	TRF	137	YDA 132ML4	144
	18	4940	80.91*	58500	1.60				
	20	4480	73.49	59000	1.80				
	22	3980	65.20	59500	2.00				
	24	3610	59.17*	59900	2.20				
	28	3100	50.86*	60300	2.60				
	32	2710	44.39	60500	3.00				
	18	4790	78.57	23300	0.90	TR	107	YDA 132ML4	141
	20	4450	72.88	28600	0.95	TRF	107	YDA 132ML4	142
	22	4000	65.60*	29400	1.05				
	24	3620	59.41	28800	1.20				
	27	3210	52.68	28100	1.35				
	30	2910	47.63	27500	1.50				
	36	2460	40.37*	26500	1.75				
	41	2150	35.26	25700	2.00				
	49	1800	29.49	24600	2.40				
	47	1880	30.77	24900	2.30	TR	107	YDA 132ML4	141
	52	1680	27.58	24200	2.60	TRF	107	YDA 132ML4	142
	58	1520	24.90*	23500	2.80				
	64	1380	22.62	23000	3.10				
	72	1220	20.07	22200	3.50				
	27	3250	53.21	3280	0.90	TR	97	YDA 132ML4	139
	30	2900	47.58	20600	1.05	TRF	97	YDA 132ML4	140
	34	2610	42.78	20300	1.15				
	39	2270	37.13	19800	1.30				
	43	2030	33.25	19400	1.40				
	52	1680	27.58	18700	1.60				
	58	1530	25.03	18300	1.85				
	64	1370	22.37	17900	2.00				
	71	1230	20.14	17400	2.10				
	79	1110	18.24	17000	2.30				
	89	990	16.17	16500	2.40				
98	890	14.62	16100	2.60					
116	755	12.39	15400	2.90					
67	1310	21.51	13900	1.15	TR	87	YDA 132ML4	136	
75	1170	19.10	13600	1.25	TRF	87	YDA 132ML4	137	
84	1040	17.08*	13200	1.35					
94	940	15.35	13000	1.45					
108	810	13.33	12600	1.55					
121	730	11.93	12200	1.70					
145	605	9.90*	11700	1.95					
158	560	9.14*	11700	2.20					
175	500	8.22	11400	2.30					
202	435	7.13	10900	2.50					
225	390	6.39	10600	2.60					


$P_{1n}$ [kW]	$n_2$ [1/min]	$M_{2n}$ [Nm]	$i$	$F_{r2}$ [N]	$f_s$		Page
9.2	102	860	14.05	4740	0.85	<b>TR 77</b>	<b>YDA 132ML4</b> 133
	117	750	12.33	5610	0.90	<b>TRF 77</b>	<b>YDA 132ML4</b> 134
	132	665	10.88	6280	1.00		
	149	590	9.64	6800	1.05		
	186	470	7.74	6300	1.30	<b>TR 77</b>	<b>YDA 132ML4</b> 133
	212	415	6.79	6720	1.40	<b>TRF 77</b>	<b>YDA 132ML4</b> 134
	240	365	5.99*	6920	1.50		
	271	325	5.31*	6720	1.55		
	277	315	5.19	9240	2.20	<b>TRX 107</b>	<b>YDA 132ML4</b> 116
	310	285	4.65	8990	2.50	<b>TRXF 107</b>	<b>YDA 132ML4</b> 117
343	255	4.20*	8760	3.20			
377	235	3.81	8540	3.60			
425	205	3.38	8270	4.00			
318	275	4.52	7370	2.20	<b>TRX 97</b>	<b>YDA 132ML4</b> 114	
356	245	4.04	7170	2.40	<b>TRXF 97</b>	<b>YDA 132ML4</b> 115	
396	220	3.64*	6980	2.70			
437	200	3.30	6800	3.00			
493	178	2.92	6590	3.30			
545	161	2.64	6410	3.70			
643	137	2.24*	6120	4.40			
736	119	1.96	5890	4.80			
880	100	1.64	5590	5.10			
1015	86	1.42	5360	5.30			
414	210	3.48	5220	1.90	<b>TRX 87</b>	<b>YDA 132ML4</b> 112	
466	188	3.09	5080	2.20	<b>TRXF 87</b>	<b>YDA 132ML4</b> 113	
522	168	2.76*	4950	2.40			
580	151	2.48	4820	2.70			
669	131	2.15	4650	2.90			
747	118	1.93	4520	3.00			
900	98	1.60*	4300	3.20			
1035	85	1.39	4140	3.40			
593	148	2.43	3010	1.45	<b>TRX 77</b>	<b>YDA 132ML4</b> 110	
676	130	2.13	3160	1.55	<b>TRXF 77</b>	<b>YDA 132ML4</b> 111	
766	115	1.88*	3260	1.65			
864	102	1.67	3280	1.70			
1010	87	1.42	3160	1.80			
4.9	19600	295	120000	0.90	<b>TR 167 / TRF107</b>	<b>YDT 160M4</b> 149	
5.3	18200	270	120000	1.00	<b>TRF 167 / TRF107</b>	<b>YDT 160M4</b> 149	
6.3	15400	229	120000	1.15			
7.2	13400	200	120000	1.35			
8.5	11300	169	120000	1.60			
5	20000	291	120000	0.90			
4.3	22800	335	120000	0.80	<b>TR 167 / TRF97</b>	<b>YDT 160M4</b> 149	
4.8	20500	303	120000	0.90	<b>TRF 167 / TRF97</b>	<b>YDT 160M4</b> 149	
5.2	18900	279	120000	0.95			
5.8	16800	247	22800	0.75	<b>TR 147 / TRF87</b>	<b>YDT 160M4</b> 149	
6.7	14500	214	56000	0.90	<b>TRF 147 / TRF87</b>	<b>YDT 160M4</b> 149	
7.6	12900	189	63000	1.00			
9.1	10800	159	66600	1.20			
5.1	20500	186.93*	120000	0.90	<b>TR 167</b>	<b>YDT 160L6</b> 147	
6.3	16700	153.07	120000	1.05	<b>TRF 167</b>	<b>YDT 160L6</b> 148	
6.9	15300	139.98	120000	1.20			
7.9	13300	121.81*	120000	1.35			
6.3	16800	229.71	120000	1.05	<b>TR 167</b>	<b>YDT 160M4</b> 147	
7.7	13600	186.93*	120000	1.30	<b>TRF 167</b>	<b>YDT 160M4</b> 148	
9.4	11200	153.07	120000	1.60			
10	10200	139.98	120000	1.75			

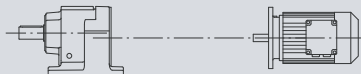
$P_{1n}$ [kW]	$n_2$ [1/min]	$M_{2n}$ [Nm]	$i$	$Fr_2$ [N]	$f_s$			Page	
11.0	12	8890	121.81*	120000	2.00	TR	167	YDT 160M4	147
	13	7840	107.49	120000	2.30	TRF	167	YDT 160M4	148
	15	6800	93.19	120000	2.70				
	17	6050	82.91*	120000	3.00				
	6.5	16100	146.91	35400	0.80	TR	147	YDT 160L6	145
	8.0	13100	119.86	62400	1.00	TRF	147	YDT 160L6	146
	8.8	12000	109.31	64600	1.10				
	10	10400	94.60*	67300	1.25				
	12	9130	83.47	69000	1.40				
	8.8	11900	163.31	64700	1.10	TR	147	YDT 160M4	145
	9.8	10700	146.91	66700	1.20	TRF	147	YDT 160M4	146
	12	8740	119.86	69400	1.50				
	13	7970	109.31	70300	1.65				
	15	6900	94.60*	71400	1.90				
	17	6090	83.47	72100	2.10				
	20	5260	72.09	72800	2.50				
	22	4890	66.99	73000	2.70				
	24	4460	61.09	73300	2.90				
	27	3860	52.87	73600	3.40				
	10	10300	141.12*	23300	0.80	TR	137	YDT 160M4	143
	11	9350	128.18	46900	0.85	TRF	137	YDT 160M4	144
	13	8300	113.72	52700	0.95				
	14	7530	103.20*	54400	1.05				
	16	6470	88.70*	56300	1.25				
	18	5900	80.91*	57200	1.35				
	20	5360	73.49	57900	1.50				
	22	4760	65.20	58700	1.70				
	24	4320	59.17*	59200	1.85				
	28	3710	50.86*	59800	2.20				
	32	3240	44.39	60200	2.50				
	38	2750	37.65	60500	2.90				
	44	2400	32.91	60700	3.30				
	22	4790	65.60*	23700	0.90	TR	107	YDT 160M4	141
	24	4330	59.41	27600	1.00	TRF	107	YDT 160M4	142
	27	3840	52.68	27100	1.10				
	30	3470	47.63	26600	1.25				
	36	2940	40.37*	25700	1.45				
	41	2570	35.26	25000	1.65				
	49	2150	29.49	24000	2.00				
	47	2240	30.77	24200	1.90	TR	107	YDT 160M4	141
	52	2010	27.58	23600	2.10	TRF	107	YDT 160M4	142
	58	1820	24.90*	23100	2.40				
	64	1650	22.62	22500	2.60				
	72	1460	20.07	21800	2.90				
	79	1330	18.21	21300	3.20				
	34	3120	42.78	14500	0.95	TR	97	YDT 160M4	139
	39	2710	37.13	18900	1.10	TRF	97	YDT 160M4	140
	43	2430	33.25	18600	1.20				
52	2010	27.58	18000	1.35					
58	1830	25.03	17700	1.55	TR	97	YDT 160M4	139	
64	1630	22.37	17300	1.65	TRF	97	YDT 160M4	140	
71	1470	20.14	16900	1.80					
79	1330	18.24	16600	1.90					
89	1180	16.17	16100	2.00					
98	1070	14.62	15700	2.20					
116	900	12.39	15100	2.40					
133	790	10.83	14600	2.70					


$P_{1n}$ [kW]	$n_2$ [1/min]	$M_{2n}$ [Nm]	$i$	$Fr_2$ [N]	$f_s$				Page
11.0	155	675	9.29	14300	3.00	TR	97	YDT 160M4	139
	172	610	8.39	13900	3.30	TRF	97	YDT 160M4	140
	202	520	7.12	13200	3.90				
	232	455	6.21	12700	4.20				
	67	1570	21.51	13200	0.95	TR	87	YDT 160M4	136
	75	1390	19.10	13000	1.05	TRF	87	YDT 160M4	137
	84	1250	17.08*	12800	1.10				
	94	1120	15.35	12500	1.20	TR	87	YDT 160M4	136
	108	970	13.33	12200	1.30	TRF	87	YDT 160M4	137
	121	870	11.93	11900	1.40				
	145	720	9.90*	11400	1.65				
	158	665	9.14*	11500	1.80				
	175	600	8.22	11200	1.95				
	202	520	7.13	10800	2.10				
	225	465	6.39	10400	2.20				
	272	385	5.30*	9910	2.40				
	132	795	10.88	4250	0.85	TR	77	YDT 160M4	133
	149	705	9.64	5000	0.90	TRF	77	YDT 160M4	134
	186	565	7.74	4630	1.10				
	212	495	6.79	5250	1.15				
	240	435	5.99*	5720	1.25				
	271	390	5.31*	6090	1.30				
	277	380	5.19	9000	1.85	TRX	107	YDT 160M4	116
	310	340	4.65	8770	2.10	TRXF	107	YDT 160M4	117
	343	305	4.20*	8560	2.70				
	377	280	3.81	8360	3.00				
	425	245	3.38	8100	3.40				
	469	225	3.07	7900	3.70				
	545	193	2.64*	7580	4.30				
	318	330	4.52	7150	1.80	TRX	97	YDT 160M4	114
	356	295	4.04	6970	2.00	TRXF	97	YDT 160M4	115
	396	265	3.64*	6800	2.20				
	437	240	3.30	6640	2.50				
	493	215	2.92	6440	2.80				
	545	193	2.64	6280	3.10				
	643	163	2.24*	6000	3.60				
	736	143	1.96	5790	4.00				
	880	119	1.64	5500	4.20				
	1015	103	1.42	5280	4.40				
	414	255	3.48	5030	1.60	TRX	87	YDT 160M4	112
	466	225	3.09	4910	1.80	TRXF	87	YDT 160M4	113
	522	200	2.76*	4790	2.00				
	580	181	2.48	4680	2.20				
	669	157	2.15	4530	2.50	TRX	87	YDT 160M4	112
747	141	1.93	4400	2.50	TRXF	87	YDT 160M4	113	
900	117	1.60*	4200	2.70					
1035	102	1.39	4050	2.90					
593	177	2.43	1890	1.20	TRX	77	YDT 160M4	110	
676	155	2.13	2140	1.30	TRXF	77	YDT 160M4	111	
766	137	1.88*	2330	1.35					
864	122	1.67	2460	1.40					
1010	104	1.42	2580	1.50					
15.0	6.4	20800	229.00	120000	0.85	TR	167 / TRF107	YDT 160L4	149
	7.3	18200	200.00	120000	1.00	TRF	167 / TRF107	YDT 160L4	149
	8.6	15300	169.00	120000	1.20				
	6.4	20900	227.00	120000	0.85	TR	167 / TRF107	YDT 160L4	149
	7.4	18200	198.00	120000	1.00	TRF	167 / TRF107	YDT 160L4	149


$P_{1n}$ [kW]	$n_2$ [1/min]	$M_{2n}$ [Nm]	$i$	$Fr_2$ [N]	$fs$			Page	
15.0	6.3	22600	153.07	120000	0.80	TR	167	YDT 180L6	147
	6.9	20700	139.98	120000	0.85	TRF	167	YDT 180L6	148
	8.0	18000	121.81*	120000	1.00				
	9.0	15900	107.49	120000	1.15				
	6.4	22500	229.71	120000	0.80	TR	167	YDT 160L4	147
	7.8	18300	186.93*	120000	1.00	TRF	167	YDT 160L4	148
	9.5	15000	153.07	120000	1.20	TR	167	YDT 160L4	147
	10	13700	139.98	120000	1.30	TRF	167	YDT 160L4	148
	12	12000	121.81*	120000	1.50				
	14	10500	107.49	120000	1.70				
	16	9140	93.19	120000	1.95				
	18	8130	82.91*	120000	2.20				
	20	7230	73.70*	120000	2.50				
	22	6610	67.40	120000	2.70				
	8.9	16100	109.31	34400	0.80	TR	147	YDT 180L6	145
	10	14000	94.60*	60600	0.95	TRF	147	YDT 180L6	146
	12	12300	83.47	64000	1.05				
	13	10600	72.09	66800	1.20				
	14	9890	66.99	67900	1.30				
	8.9	16000	163.31	36200	0.80	TR	147	YDT 160L4	145
	9.9	14400	146.91	57400	0.90	TRF	147	YDT 160L4	146
	12	11800	119.86	65000	1.10				
	13	10700	109.31	66700	1.20				
	15	9280	94.60*	68800	1.40	TR	147	YDT 160L4	145
	17	8190	83.47	70100	1.60	TRF	147	YDT 160L4	146
	20	7070	72.09	71300	1.85				
	22	6570	66.99	71700	2.00				
	24	5990	61.09	72200	2.20				
	28	5190	52.87	72800	2.50				
	31	4580	46.65	73200	2.80				
	14	10100	103.20*	30700	0.80	TR	137	YDT 160L4	143
	16	8700	88.70*	51000	0.90	TRF	137	YDT 160L4	144
	18	7940	80.91*	53500	1.00				
	20	7210	73.49	55000	1.10				
	22	6400	65.20	56400	1.25	TR	137	YDT 160L4	143
	25	5800	59.17*	57300	1.40	TRF	137	YDT 160L4	144
	29	4990	50.86*	58400	1.60				
	33	4360	44.39	59100	1.85				
	39	3690	37.65	59800	2.20				
	44	3230	32.91	60200	2.50				
	52	2730	27.83	60500	2.80				
	31	4670	47.63	24500	0.90	TR	107	YDT 160L4	141
	36	3960	40.37*	23900	1.10	TRF	107	YDT 160L4	142
	41	3460	35.26	23400	1.25				
50	2890	29.49	22600	1.50					
47	3020	30.77	22800	1.40	TR	107	YDT 160L4	141	
53	2710	27.58	22400	1.60	TRF	107	YDT 160L4	142	
59	2440	24.90*	21900	1.75					
65	2220	22.62	21400	1.95					
73	1970	20.07	20900	2.20					
80	1790	18.21	20400	2.40					
93	1540	15.65	19700	2.80					
107	1340	13.66	19000	3.20					
53	2710	27.58	16500	1.00	TR	97	YDT 160L4	139	
58	2460	25.03	16300	1.15	TRF	97	YDT 160L4	140	
65	2200	22.37	16100	1.25					
72	1980	20.14	15800	1.30					





$P_{1n}$ [kW]	$n_2$ [1/min]	$M_{2n}$ [Nm]	$i$	$F_{r2}$ [N]	$f_s$				Page
15.0	80	1790	18.24	15600	1.40	TR	97	YDT 160L4	139
	90	1590	16.17	15200	1.50	TRF	97	YDT 160L4	140
	100	1430	14.62	14900	1.60				
	118	1220	12.39	14400	1.80				
	135	1060	10.83	14000	1.95				
	157	910	9.29	13800	2.20				
	174	820	8.39	13400	2.50				
	205	700	7.12	12800	2.90				
	235	610	6.21	12400	3.10				
	85	1680	17.08*	11600	0.85	TR	87	YDT 160L4	136
	95	1510	15.35	11500	0.90	TRF	87	YDT 160L4	137
	110	1310	13.33	11300	1.00				
	122	1170	11.93	11100	1.05				
	147	970	9.90*	10700	1.20	TR	87	YDT 160L4	136
	160	900	9.14*	11000	1.35	TRF	87	YDT 160L4	137
	178	810	8.22	10700	1.45				
	205	700	7.13	10300	1.55				
	229	625	6.39	10100	1.65				
	275	520	5.30*	9600	1.75				
	281	510	5.19	8440	1.35	TRX	107	YDT 160L4	116
	314	455	4.65	8260	1.50	TRXF	107	YDT 160L4	117
	348	410	4.20*	8100	2.00				
	383	375	3.81	7930	2.20				
	431	330	3.38	7720	2.50	TRX	107	YDT 160L4	116
	475	300	3.07	7540	2.80	TRXF	107	YDT 160L4	117
	553	260	2.64*	7260	3.20				
	634	225	2.30	7010	3.70				
	747	192	1.95	6710	4.00				
	855	168	1.71	6470	4.20				
	1010	142	1.44	6170	4.60				
	323	445	4.52	6660	1.35	TRX	97	YDT 160L4	114
	361	395	4.04	6530	1.50	TRXF	97	YDT 160L4	115
	401	355	3.64*	6400	1.65				
	443	325	3.30	6270	1.85				
	499	285	2.92	6110	2.10				
	552	260	2.64	5970	2.30				
	652	220	2.24*	5730	2.70				
	746	192	1.96	5550	3.00				
	892	161	1.64	5290	3.20				
	1030	139	1.42	5090	3.30				
	420	340	3.48	4260	1.20	TRX	87	YDT 160L4	112
	473	305	3.09	4510	1.35	TRXF	87	YDT 160L4	113
	529	270	2.76*	4430	1.50				
	588	245	2.48	4350	1.65				
	678	210	2.15	4230	1.80				
	757	189	1.93	4130	1.90	TRX	87	YDT 160L4	112
	913	157	1.60*	3960	2.00	TRXF	87	YDT 160L4	113
	1050	137	1.39	3840	2.10				
18.5	7.8	22500	186.93*	120000	0.80	TR	167	YDT 180M4	147
	9.6	18500	153.07	120000	1.00	TRF	167	YDT 180M4	148
	10	16900	139.98	120000	1.05				
	12	14700	121.81*	120000	1.25				
	14	13000	107.49	120000	1.40	TR	167	YDT 180M4	147
	16	11200	93.19	120000	1.60	TRF	167	YDT 180M4	148
	18	10000	82.91*	120000	1.80				
	20	8890	73.70*	120000	2.00				
	22	8130	67.40	120000	2.20				
	25	7070	58.65	120000	2.60				


$P_{1n}$ [kW]	$n_2$ [1/min]	$M_{2n}$ [Nm]	$i$	$Fr_2$ [N]	$fs$		Page
18.5	12	14500	119.86	56900	0.90	<b>TR 147</b>	<b>YDT 180M4</b> 145
	13	13200	109.31	62300	1.00	<b>TRF 147</b>	<b>YDT 180M4</b> 146
	15	11400	94.60*	65600	1.15		
	18	10100	83.47	67700	1.30	<b>TR 147</b>	<b>YDT 180M4</b> 145
	20	8690	72.09	69500	1.50	<b>TRF 147</b>	<b>YDT 180M4</b> 146
	22	8080	66.99	70200	1.60		
	24	7370	61.09	71000	1.75		
	28	6380	52.87	71900	2.00		
	31	5630	46.65	72500	2.30		
	36	4860	40.29	73000	2.70		
	18	9760	80.91*	39000	0.80	<b>TR 137</b>	<b>YDT 180M4</b> 143
	20	8860	73.49	50200	0.90	<b>TRF 137</b>	<b>YDT 180M4</b> 144
	22	7860	65.20	53700	1.00		
	25	7140	59.17*	55100	1.10		
	29	6130	50.86*	56800	1.30	<b>TR 137</b>	<b>YDT 180M4</b> 143
	33	5350	44.39	58000	1.50	<b>TRF 137</b>	<b>YDT 180M4</b> 144
	39	4540	37.65	58900	1.75		
	45	3970	32.91	59500	2.00		
	53	3360	27.83	60100	2.30		
	50	3570	29.57*	59900	2.20	<b>TR 137</b>	<b>YDT 180M4</b> 143
	61	2910	24.12	60400	2.80	<b>TRF 137</b>	<b>YDT 180M4</b> 144
	67	2650	22.00*	60600	3.00		
	77	2300	19.04*	60800	3.50		
	87	2030	16.80*	60900	4.00		
	36	4870	40.37*	20200	0.90	<b>TR 107</b>	<b>YDT 180M4</b> 141
	42	4250	35.26	22000	1.00	<b>TRF 107</b>	<b>YDT 180M4</b> 142
	50	3560	29.49	21500	1.20		
	59	3000	24.90*	20900	1.45		
	65	2730	22.62	20600	1.60		
	73	2420	20.07	20100	1.80		
	80	2200	18.21	19700	1.95		
	94	1890	15.65	19100	2.30		
	107	1650	13.66	18500	2.60		
	126	1400	11.59	17800	3.10		
	145	1220	10.13	17200	3.50		
	186	950	7.86	16300	3.10		
	220	800	6.66	15600	3.70		
	73	2430	20.14	14900	1.05	<b>TR 97</b>	<b>YDT 180M4</b> 139
	80	2200	18.24	14700	1.15	<b>TRF 97</b>	<b>YDT 180M4</b> 140
	91	1950	16.17	14500	1.25		
	100	1760	14.62	14200	1.30		
	118	1490	12.39	13800	1.45		
	135	1310	10.83	13500	1.60		
	158	1120	9.29	13400	1.80		
	175	1010	8.39	13100	2.00		
	206	860	7.12	12600	2.30		
	236	750	6.21	12100	2.50		
	282	625	5.20	11600	2.80		
	326	545	4.50*	11100	3.00		
	110	1610	13.33	10600	0.80	<b>TR 87</b>	<b>YDT 180M4</b> 136
123	1440	11.93	10400	0.85	<b>TRF 87</b>	<b>YDT 180M4</b> 137	
148	1190	9.90*	10200	1.00			
160	1100	9.14*	10600	1.10			
178	990	8.22	10300	1.15			
205	860	7.13	10000	1.25			
229	770	6.39	9770	1.30			
276	640	5.30*	9350	1.40			

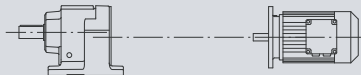
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18.5	349	505	4.20*	7710	1.65	<b>TRX 107</b>	<b>YDT 180M4</b> 116
	384	460	3.81	7580	1.80	<b>TRXF 107</b>	<b>YDT 180M4</b> 117
	433	410	3.38	7400	2.00		
	477	370	3.07	7250	2.20		
	555	320	2.64*	7010	2.60	<b>TRX 107</b>	<b>YDT 180M4</b> 116
	636	280	2.30	6780	3.00	<b>TRXF 107</b>	<b>YDT 180M4</b> 117
	750	235	1.95	6510	3.30		
	858	205	1.71	6290	3.40		
	1015	174	1.44	6020	3.70		
	402	440	3.64*	6060	1.35	<b>TRX 97</b>	<b>YDT 180M4</b> 114
	444	400	3.30	5960	1.50	<b>TRXF 97</b>	<b>YDT 180M4</b> 115
	501	355	2.92	5830	1.70		
	554	320	2.64	5710	1.85		
	654	270	2.24*	5510	2.20		
	749	235	1.96	5350	2.40		
	895	197	1.64	5120	2.60		
	1035	171	1.42	4940	2.70		
	531	335	2.76*	3040	1.20	<b>TRX 87</b>	<b>YDT 180M4</b> 112
	590	300	2.48	3340	1.35	<b>TRXF 87</b>	<b>YDT 180M4</b> 113
	680	260	2.15	3630	1.50		
760	235	1.93	3820	1.55			
916	193	1.60*	3770	1.65			
1055	168	1.39	3670	1.75			
22.0	9.6	22000	153.07	120000	0.80	<b>TR 167</b>	<b>YDT 180L4</b> 147
	10	20100	139.98	120000	0.90	<b>TRF 167</b>	<b>YDT 180L4</b> 148
	12	17500	121.81*	120000	1.05		
	14	15400	107.49	120000	1.15	<b>TR 167</b>	<b>YDT 180L4</b> 147
	16	13400	93.19	120000	1.35	<b>TRF 167</b>	<b>YDT 180L4</b> 148
	18	11900	82.91*	120000	1.50		
	20	10600	73.70*	120000	1.70		
	22	9670	67.40	120000	1.85		
	25	8410	58.65	120000	2.10		
	28	7420	51.76	120000	2.40		
	33	6430	44.87	120000	2.80		
	13	15700	109.31	41300	0.85	<b>TR 147</b>	<b>YDT 180L4</b> 145
	15	13600	94.60*	61500	0.95	<b>TRF 147</b>	<b>YDT 180L4</b> 146
	18	12000	83.47	64600	1.10		
	20	10300	72.09	67300	1.25		
	22	9610	66.99	68300	1.35	<b>TR 147</b>	<b>YDT 180L4</b> 145
	24	8760	61.09	69400	1.50	<b>TRF 147</b>	<b>YDT 180L4</b> 146
	28	7580	52.87	70800	1.70		
	31	6690	46.65	71600	1.95		
	36	5780	40.29	72400	2.30		
41	5110	35.64	72900	2.50			
49	4300	29.95	73400	3.00			
22	9350	65.20	46900	0.85	<b>TR 137</b>	<b>YDT 180L4</b> 143	
25	8480	59.17*	51900	0.95	<b>TRF 137</b>	<b>YDT 180L4</b> 144	
29	7290	50.86*	54800	1.10			
33	6370	44.39	56500	1.25			
39	5400	37.65	57900	1.50			
45	4720	32.91	58700	1.70			
53	3990	27.83	59500	1.90			
50	4240	29.57*	59300	1.85	<b>TR 137</b>	<b>YDT 180L4</b> 143	
61	3460	24.12	60000	2.30	<b>TRF 137</b>	<b>YDT 180L4</b> 144	
67	3150	22.00*	60200	2.50			
77	2730	19.04*	60500	2.90			
87	2410	16.80*	60700	3.30			

$P_{1n}$ [kW]	$n_2$ [1/min]	$M_{2n}$ [Nm]	$i$	$Fr_2$ [N]	$f_s$			Page
22.0	101	2080	14.51	60900	3.90	<b>TR 137</b>	<b>YDT 180L4</b>	143
	114	1840	12.83	61000	4.40	<b>TRF 137</b>	<b>YDT 180L4</b>	144
	42	5060	35.26	7280	0.85	<b>TR 107</b>	<b>YDT 180L4</b>	141
	50	4230	29.49	20400	1.00	<b>TRF 107</b>	<b>YDT 180L4</b>	142
	59	3570	24.90*	20000	1.20			
	65	3240	22.62	19700	1.35			
	73	2880	20.07	19300	1.50			
	80	2610	18.21	19000	1.65			
	94	2240	15.65	18500	1.90			
	107	1960	13.66	18000	2.20			
	126	1660	11.59	17300	2.60			
	145	1450	10.13	16800	3.00			
	171	1230	8.56	16100	3.50			
	186	1130	7.86	16100	2.60			
	220	960	6.66	15400	3.10			
	252	840	5.82	14800	3.60			
	73	2890	20.14	14000	0.90	<b>TR 97</b>	<b>YDT 180L4</b>	139
	80	2620	18.24	13900	0.95	<b>TRF 97</b>	<b>YDT 180L4</b>	140
	91	2320	16.17	13700	1.05			
	100	2100	14.62	13600	1.10			
	118	1780	12.39	13200	1.25			
	135	1550	10.83	13000	1.35			
	158	1330	9.29	13100	1.50			
	175	1200	8.39	12800	1.70			
	206	1020	7.12	12300	1.95			
	236	890	6.21	11900	2.10			
	282	745	5.20	11400	2.40			
	326	645	4.50*	10900	2.50			
	148	1420	9.90*	9640	0.85	<b>TR 87</b>	<b>YDT 180L4</b>	136
	160	1310	9.14*	10100	0.90	<b>TRF 87</b>	<b>YDT 180L4</b>	137
	178	1180	8.22	9960	1.00			
	205	1020	7.13	9700	1.05			
	229	920	6.39	9490	1.10			
	276	760	5.30*	9110	1.20			
	349	600	4.20*	7330	1.40	<b>TRX 107</b>	<b>YDT 180L4</b>	116
	384	545	3.81	7230	1.50	<b>TRXF 107</b>	<b>YDT 180L4</b>	117
	433	485	3.38	7090	1.70			
	477	440	3.07	6960	1.90			
	555	380	2.64*	6760	2.20			
	636	330	2.30	6560	2.50			
	750	280	1.95	6320	2.70			
	858	245	1.71	6120	2.90			
	1015	205	1.44	5870	3.10			
	402	520	3.64*	5720	1.15	<b>TRX 97</b>	<b>YDT 180L4</b>	114
	444	475	3.30	5650	1.25	<b>TRXF 97</b>	<b>YDT 180L4</b>	115
	501	420	2.92	5560	1.40			
	554	380	2.64	5460	1.55			
	654	320	2.24*	5300	1.85			
	749	280	1.96	5160	2.00			
	895	235	1.64	4960	2.20			
	1035	205	1.42	4790	2.20			
	531	395	2.76*	1270	1.00	<b>TRX 87</b>	<b>YDT 180L4</b>	112
590	355	2.48	1710	1.15	<b>TRXF 87</b>	<b>YDT 180L4</b>	113	
680	310	2.15	2160	1.25				
760	275	1.93	2450	1.30				
916	230	1.60*	2750	1.35				
1055	200	1.39	3030	1.45				

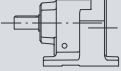
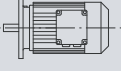
$P_{1n}$ [kW]	$n_2$ [1/min]	$M_{2n}$ [Nm]	$i$	$Fr_2$ [N]	$fs$		Page
30	14	20900	107.49	120000	0.85	<b>TR 167</b>	<b>YDT 200L4</b> 147
	16	18200	93.19	120000	1.00	<b>TRF 167</b>	<b>YDT 200L4</b> 148
	18	16200	82.91*	120000	1.10		
	20	14400	73.70*	120000	1.25		
	22	13100	67.40	120000	1.35		
	25	11400	58.65	120000	1.55		
	28	10100	51.76	120000	1.80		
	33	8740	44.87	120000	2.10		
	37	7780	39.92	120000	2.30		
	43	6710	34.41	120000	2.70		
	53	5450	27.96	120000	3.30		
	62	4620	23.71	120000	3.90		
	18	16300	83.47	32400	0.80	<b>TR 147</b>	<b>YDT 200L4</b> 145
	20	14000	72.09	60400	0.95	<b>TRF 147</b>	<b>YDT 200L4</b> 146
	22	13100	66.99	62500	1.00		
	24	11900	61.09	64700	1.10		
	28	10300	52.87	67300	1.25		
	32	9090	46.65	69000	1.45		
	36	7850	40.29	70500	1.65		
	41	6950	35.64	71400	1.85		
	49	5840	29.95	72300	2.20		
	61	4710	24.19	73100	2.50		
	72	3980	20.44	73600	3.00		
	82	3510	18.04	73800	3.00		
	94	3050	15.64	74000	4.30		
	29	9910	50.86*	35800	0.80	<b>TR 137</b>	<b>YDT 200L4</b> 143
	33	8650	44.39	51200	0.90	<b>TRF 137</b>	<b>YDT 200L4</b> 144
	39	7340	37.65	54700	1.10		
	45	6410	32.91	56400	1.25		
	53	5420	27.83	57900	1.40		
	61	4700	24.12	58800	1.70		
	67	4290	22.00*	59200	1.85		
	77	3710	19.04*	59800	2.20		
	88	3270	16.80*	60100	2.40		
	101	2830	14.51	59500	2.80	<b>TR 137</b>	<b>YDT 200L4</b> 143
	115	2500	12.83	58400	3.20	<b>TRF 137</b>	<b>YDT 200L4</b> 144
	136	2100	10.79	56600	3.80		
	194	1480	7.59	53300	3.50		
	230	1240	6.38	51300	4.10		
	73	3910	20.07	17600	1.10	<b>TR 107</b>	<b>YDT 200L4</b> 141
	81	3550	18.21	17400	1.20	<b>TRF 107</b>	<b>YDT 200L4</b> 142
	94	3050	15.65	17100	1.40		
	108	2660	13.66	16800	1.60		
	127	2260	11.59	16300	1.90		
	145	1970	10.13	15900	2.20		
	172	1670	8.56	15400	2.60		
	187	1530	7.86	15500	1.95		
	221	1300	6.66	14900	2.30		
	252	1140	5.82	14400	2.60		
	299	960	4.92	13700	3.00		
	101	2850	14.62	12000	0.80	<b>TR 97</b>	<b>YDT 200L4</b> 139
	119	2420	12.39	11900	0.90	<b>TRF 97</b>	<b>YDT 200L4</b> 140
	136	2110	10.83	11800	1.00		
	158	1810	9.29	12300	1.10		
	175	1640	8.39	12100	1.25		
	207	1390	7.12	11700	1.45		
	237	1210	6.21	11400	1.55		

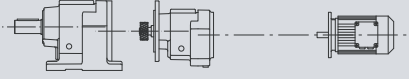
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30	283	1010	5.20	10900	1.75	<b>TR 97</b>	<b>YDT 200L4</b>	139
	327	880	4.50*	10500	1.85	<b>TRF 97</b>	<b>YDT 200L4</b>	140
	434	660	3.38	6370	1.25	<b>TRX 107</b>	<b>YDT 200L4</b>	116
	479	600	3.07	6310	1.40	<b>TRXF 107</b>	<b>YDT 200L4</b>	117
	557	515	2.64*	6180	1.60			
	638	450	2.30	6050	1.85			
	752	380	1.95	5870	2.00			
	860	335	1.71	5720	2.10			
	1020	280	1.44	5520	2.30			
	503	570	2.92	3120	1.05	<b>TRX 97</b>	<b>YDT 200L4</b>	114
	556	515	2.64	3560	1.15	<b>TRXF 97</b>	<b>YDT 200L4</b>	115
	656	435	2.24*	4050	1.35			
	751	380	1.96	4450	1.50			
	898	320	1.64	4580	1.60			
1040	275	1.42	4450	1.65				
37	16	22400	93.19	120000	0.80	<b>TR 167</b>	<b>YDT 225S4</b>	147
	18	19900	82.91*	120000	0.90	<b>TRF 167</b>	<b>YDT 225S4</b>	148
	20	17700	73.70*	120000	1.00			
	22	16200	67.40	120000	1.10			
	25	14100	58.65	120000	1.30			
	28	12400	51.76	120000	1.45			
	33	10800	44.87	120000	1.65			
	37	9600	39.92	120000	1.90			
	43	8270	34.41	120000	2.20			
	53	6720	27.96	120000	2.70			
	48	7380	30.71	120000	1.35	<b>TR 167</b>	<b>YDT 225S4</b>	147
	60	5900	24.57	120000	2.40	<b>TRF 167</b>	<b>YDT 225S4</b>	148
	67	5250	21.85	120000	2.50			
	77	4580	19.03	120000	3.50			
	87	4080	16.98	120000	3.70			
	22	16100	66.99	35000	0.80	<b>TR 147</b>	<b>YDT 225S4</b>	145
	24	14700	61.09	54200	0.90	<b>TRF 147</b>	<b>YDT 225S4</b>	146
	28	12700	52.87	63200	1.00			
	32	11200	46.65	65900	1.15	<b>TR 147</b>	<b>YDT 225S4</b>	145
	36	9680	40.29	68200	1.35	<b>TRF 147</b>	<b>YDT 225S4</b>	146
	41	8570	35.64	69700	1.50			
	49	7200	29.95	71100	1.80			
	61	5810	24.19	72400	2.10			
	72	4910	20.44	73000	2.40	<b>TR 147</b>	<b>YDT 225S4</b>	145
	82	4340	18.04	73400	2.40	<b>TRF 147</b>	<b>YDT 225S4</b>	146
	94	3760	15.64	73700	3.50			
	106	3340	13.91	73900	3.80			
	39	9050	37.65	49400	0.90	<b>TR 137</b>	<b>YDT 225S4</b>	143
	45	7910	32.91	53600	1.00	<b>TRF 137</b>	<b>YDT 225S4</b>	144
	53	6690	27.83	55900	1.15			
	61	5800	24.12	57300	1.40	<b>TR 137</b>	<b>YDT 225S4</b>	143
	67	5290	22.00*	58000	1.50	<b>TRF 137</b>	<b>YDT 225S4</b>	144
77	4580	19.04*	57800	1.75				
88	4040	16.80*	57300	2.00				
101	3490	14.51	56600	2.30	<b>TR 137</b>	<b>YDT 225S4</b>	143	
115	3080	12.83	55800	2.60	<b>TRF 137</b>	<b>YDT 225S4</b>	144	
136	2590	10.79	54400	3.10				
169	2090	8.71	52600	3.70				
194	1820	7.59	51900	2.80				
230	1530	6.38	50100	3.30				
285	1240	5.15	47800	3.70				

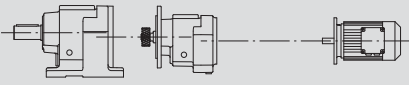
$P_{1n}$ [kW]	$n_2$ [1/min]	$M_{2n}$ [Nm]	$i$	$Fr_2$ [N]	$f_s$		Page
37	73	4820	20.07	16100	0.90	<b>TR 107</b>	<b>YDT 225S4</b> 141
	81	4380	18.21	16100	1.00	<b>TRF 107</b>	<b>YDT 225S4</b> 142
	94	3760	15.65	15900	1.15		
	108	3280	13.66	15700	1.30		
	127	2790	11.59	15400	1.55		
	145	2430	10.13	15100	1.75		
	172	2060	8.56	14700	2.10		
	187	1890	7.86	15000	1.55		
	221	1600	6.66	14400	1.85		
	252	1400	5.82	14000	2.10		
	299	1180	4.92	13400	2.50		
	434	810	3.38	4470	1.00	<b>TRX 107</b>	<b>YDT 225S4</b> 116
	479	740	3.07	4950	1.10	<b>TRXF 107</b>	<b>YDT 225S4</b> 117
	557	635	2.64*	5530	1.30		
	638	555	2.30	5610	1.50		
	752	470	1.95	5490	1.65		
	860	410	1.71	5370	1.70		
	1020	345	1.44	5220	1.85		
45	20	21500	73.70*	120000	0.85	<b>TR 167</b>	<b>YDT 225M4</b> 147
	22	19700	67.40	120000	0.90	<b>TRF 167</b>	<b>YDT 225M4</b> 148
	25	17100	58.65	120000	1.05		
	28	15100	51.76	120000	1.20		
	33	13100	44.87	120000	1.35	<b>TR 167</b>	<b>YDT 225M4</b> 147
	37	11700	39.92	120000	1.55	<b>TRF 167</b>	<b>YDT 225M4</b> 148
	43	10100	34.41	120000	1.80		
	53	8170	27.96	120000	2.20		
	62	6930	23.71	120000	2.60		
	48	8980	30.71	120000	1.10	<b>TR 167</b>	<b>YDT 225M4</b> 147
	60	7180	24.57	120000	1.95	<b>TRF 167</b>	<b>YDT 225M4</b> 148
	67	6390	21.85	120000	2.00		
	77	5560	19.03	120000	2.90		
	87	4960	16.98	120000	3.00		
	28	15500	52.87	44400	0.85	<b>TR 147</b>	<b>YDT 225M4</b> 145
	32	13600	46.65	61300	0.95	<b>TRF 147</b>	<b>YDT 225M4</b> 146
	36	11800	40.29	65000	1.10		
	41	10400	35.64	67200	1.25		
	49	8760	29.95	69400	1.50		
	61	7070	24.19	71300	1.70		
	72	5970	20.44	72200	2.00		
	82	5270	18.04	72800	2.00		
	94	4570	15.64	73200	2.80		
	106	4070	13.91	73500	3.10		
	123	3510	11.99	73800	3.70		
	203	2120	7.25	74300	4.10		
	45	9620	32.91	41700	0.85	<b>TR 137</b>	<b>YDT 225M4</b> 143
	53	8130	27.83	51200	0.95	<b>TRF 137</b>	<b>YDT 225M4</b> 144
	61	7050	24.12	52400	1.15		
	67	6430	22.00*	52900	1.25		
77	5570	19.04*	53300	1.45			
88	4910	16.80*	53400	1.65			
101	4240	14.51	53200	1.90			
115	3750	12.83	52800	2.10			
136	3150	10.79	51900	2.50			
169	2550	8.71	50500	3.10			
194	2220	7.59	50200	2.30			
230	1860	6.38	48700	2.70			
285	1510	5.15	46700	3.10			

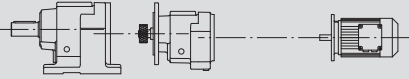
$P_{1n}$ [kW]	$n_2$ [1/min]	$M_{2n}$ [Nm]	$i$	$F_{r2}$ [N]	$f_s$				Page	
45	94	4580	15.65	14600	0.95	<b>TR 107</b>	<b>YDT 225M4</b>		141	
	108	3990	13.66	14600	1.10				<b>TRF 107</b>	<b>YDT 225M4</b>
	127	3390	11.59	14400	1.25					
	145	2960	10.13	14300	1.45					
	172	2500	8.56	14000	1.70					
	187	2300	7.86	14400	1.30					
	221	1950	6.66	14000	1.50					
	252	1700	5.82	13600	1.75					
	299	1440	4.92	13100	2.00					
	434	990	3.38	1360	0.85	<b>TRX 107</b>	<b>YDT 225M4</b>		116	
	479	900	3.07	2080	0.90	<b>TRXF 107</b>	<b>YDT 225M4</b>		117	
	557	770	2.64*	2970	1.10					
	638	675	2.30	3640	1.25					
	752	570	1.95	4200	1.35					
	860	500	1.71	4540	1.40					
	1020	420	1.44	4880	1.55					
	55	25	20900	58.65	120000	0.85	<b>TR 167</b>	<b>YDT 250M4</b>		147
		29	18400	51.76	120000	1.00	<b>TRF 167</b>	<b>YDT 250M4</b>		148
33		16000	44.87	120000	1.15					
37		14200	39.92	120000	1.25					
43		12300	34.41	120000	1.45					
53		9960	27.96	120000	1.80					
62		8440	23.71	120000	2.10					
60		8750	24.57	120000	1.60	<b>TR 167</b>	<b>YDT 250M4</b>		147	
68		7780	21.85	120000	1.65	<b>TRF 167</b>	<b>YDT 250M4</b>		148	
77		6780	19.03	120000	2.40					
87		6050	16.98	120000	2.50					
102		5150	14.48	120000	3.50					
123		4270	11.99	120000	4.00					
32		16600	46.65	26600	0.80	<b>TR 147</b>	<b>YDT 250M4</b>		145	
37		14300	40.29	58200	0.90	<b>TRF 147</b>	<b>YDT 250M4</b>		146	
41		12700	35.64	63300	1.00					
49		10700	29.95	66800	1.20					
61		8610	24.19	69600	1.40					
72		7280	20.44	71100	1.65					
82		6420	18.04	71900	1.65					
94		5570	15.64	72500	2.30					
106		4950	13.91	73000	2.50					
123		4270	11.99	73400	3.00					
151		3470	9.74	73800	3.80					
203		2580	7.25	74200	3.40					
250		2100	5.89	72500	4.10					
77		6780	19.04*	47800	1.20	<b>TR 137</b>	<b>YDT 250M4</b>		143	
88		5980	16.80*	48500	1.35	<b>TRF 137</b>	<b>YDT 250M4</b>		144	
102		5170	14.51	48900	1.55					
115		4570	12.83	49000	1.75	<b>TR 137</b>	<b>YDT 250M4</b>		143	
137		3840	10.79	48800	2.10	<b>TRF 137</b>	<b>YDT 250M4</b>		144	
169		3100	8.71	48000	2.50					
194		2700	7.59	48100	1.90					
231		2270	6.38	46900	2.30					
286		1830	5.15	45200	2.50					

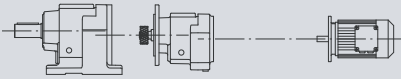


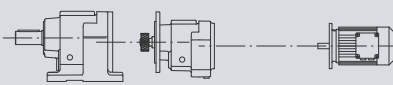
$P_{1n}$ [kW]	$n_2$ [1/min]	$M_{2n}$ [Nm]	$i$	$Fr_2$ [N]	$fs$			Page
75	33	21700	44.87	120000	0.85	<b>TR 167</b>	<b>YDT 280S4</b>	147
	37	19300	39.92	120000	0.95	<b>TRF 167</b>	<b>YDT 280S4</b>	148
	43	16700	34.41	120000	1.10			
	53	13500	27.96	120000	1.35			
	62	11500	23.71	120000	1.55			
	60	11900	24.57	120000	1.20	<b>TR 167</b>	<b>YDT 280S4</b>	147
	68	10600	21.85	120000	1.25	<b>TRF 167</b>	<b>YDT 280S4</b>	148
	78	9210	19.03	120000	1.75			
	87	8220	16.98	120000	1.85			
	102	7000	14.48	120000	2.60			
	123	5800	11.99	116600	2.90			
	145	4950	10.24	112800	3.40			
	49	14500	29.95	56500	0.90	<b>TR 147</b>	<b>YDT 280S4</b>	145
	61	11700	24.19	65100	1.00	<b>TRF 147</b>	<b>YDT 280S4</b>	146
	72	9890	20.44	67900	1.20			
	82	8730	18.04	69500	1.20			
	95	7570	15.64	70800	1.70			
	106	6730	13.91	71600	1.85			
	123	5800	11.99	72400	2.20			
	152	4710	9.74	73100	2.80			
179	4000	8.26	73500	3.30				
204	3510	7.25	73100	2.50				
251	2850	5.89	70100	3.00				
296	2420	5.00	67600	3.60				
90	37	23200	39.92	120000	0.80	<b>TR 167</b>	<b>YDT 280M4</b>	147
	43	20000	34.41	120000	0.90	<b>TRF 167</b>	<b>YDT 280M4</b>	148
	53	16200	27.96	120000	1.10			
	62	13800	23.71	120000	1.30			
	78	11100	19.03	120000	1.45			
	87	9860	16.98	120000	1.50			
	102	8410	14.48	117300	2.10			
	123	6960	11.99	113500	2.40			
	145	5940	10.24	110100	2.90			
	95	9080	15.64	69000	1.45	<b>TR 147</b>	<b>YDT 280M4</b>	145
	106	8080	13.91	70200	1.55	<b>TRF 147</b>	<b>YDT 280M4</b>	146
	123	6960	11.99	71400	1.85			
	152	5660	9.74	72500	2.30			
	179	4800	8.26	73000	2.70			
	204	4210	7.25	70900	2.10			
	251	3420	5.89	68300	2.50			
296	2900	5.00	66100	3.00				
110	53	19800	27.96	117100	0.90	<b>TR 167</b>	<b>YDT 315S4</b>	147
	63	16800	23.71	116900	1.05	<b>TRF 167</b>	<b>YDT 315S4</b>	148
	78	13500	19.03	115500	1.20			
	87	12000	16.98	114300	1.25			
	103	10200	14.48	112200	1.75			
	124	8480	11.99	109300	2.00			
	145	7240	10.24	106500	2.40			
132	63	20100	23.71	107900	0.90	<b>TR 167</b>	<b>YDT315M4</b>	147
	78	16200	19.03	108300	1.00	<b>TRF 167</b>	<b>YDT315M4</b>	148
	87	14400	16.98	107800	1.05			
	103	12300	14.48	106700	1.45			
	124	10200	11.99	104700	1.65			
	145	8690	10.24	102600	1.95			
160	103	14900	14.48	99700	1.20	<b>TR 167</b>	<b>YDT315M4A</b>	147
	124	12300	11.99	98900	1.40	<b>TRF 167</b>	<b>YDT315M4A</b>	148
	145	10500	10.24	97600	1.60			

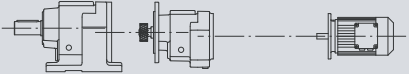
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300	0.10	13598	5420	TR 47 / TRF37	YDA 63S4 149
	0.11	12472	5420	TRF 47 / TRF37	YDA 63S4 149
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	0.15	9155	5420		
	0.16	8534	5420		
	0.18	7460	5420		
	0.20	6993	5420		
	0.22	6171	5420		
	0.25	5624	5420		
	0.28	4849	5420		
	0.31	4520	5420		
	0.35	3951	5420		
	0.37	3704	5420		
	0.42	3268	5420		
	0.48	2898	5420		
	0.56	2463	5420		
	0.53	2598	5420	TR 47 / TRF37	YDA 63S4 149
	0.58	2383	5420	TRF 47 / TRF37	YDA 63S4 149
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	0.79	1749	5420		
	0.85	1630	5420		
	0.97	1425	5420		
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	1.2	1179	5420		
	1.3	1074	5420		
	1.5	927	5420		
	1.6	863	5420		
	1.8	755	5420		
	2.5	546	5420	TR 47 / TRF37	YDA 63S4 149
	2.8	502	5420	TRF 47 / TRF37	YDA 63S4 149
	3.1	429	5420	TR 47 / TRF37	YDA 63M4 149
	3.6	372	5420	TRF 47 / TRF37	YDA 63M4 149
3.8	348	5420			
4.4	301	5420			
5.1	255	5420	TR 47 / TRF37	YDA 63L4 149	
5.7	228	5420	TRF 47 / TRF37	YDA 63L4 149	
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	0.11	12095	7110	TRF 57 / TRF37	YDA 63S4 149
	0.13	10860	7110		
	0.15	9445	7110		
	0.16	8480	7110		
	0.19	7312	7110		
	0.21	6521	7110		
	0.25	5585	7110		
	0.28	4928	7110		
	0.32	4378	7110		
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	0.41	3344	7110		
	0.47	2907	7110		
	0.54	2567	7110		
	0.61	2244	7110		
	0.70	1967	7110		
	0.80	1732	7110	TR 57 / TRF37	YDA 63S4 149
	0.89	1555	7110	TRF 57 / TRF37	YDA 63S4 149
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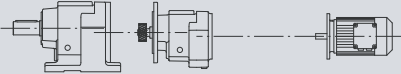
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450	1.9	678	7110	TR 57 / TRF37	YDA 63M4 149
	2.2	604	7110	TRF 57 / TRF37	YDA 63M4 149
	2.5	537	7110		
	2.8	471	7110		
	3.6	357	7110	TR 57 / TRF37	YDA 63L4 149
	4.1	319	7110	TRF 57 / TRF37	YDA 63L4 149
	5.1	273	7110	TR 57 / TRF37	YDA 71D4 149
	5.7	241	7110	TRF 57 / TRF37	YDA 71D4 149
600	0.09	15361	7560	TR 67 / TRF37	YDA 63S4 149
	0.11	12931	7560	TRF 67 / TRF37	YDA 63S4 149
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	0.14	10097	7560		
	0.15	9066	7560		
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	0.20	6732	7560		
	0.23	5970	7560		
	0.26	5268	7560		
	0.29	4680	7560		
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	0.39	3566	7560		
	0.44	3125	7560		
	0.50	2745	7560		
	0.57	2403	7560		
	0.51	2682	7560	TR 67 / TRF37	YDA 63S4 149
	0.56	2460	7560	TRF 67 / TRF37	YDA 63S4 149
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	0.85	1629	7560		
	0.94	1471	7560		
	1.0	1379	7560		
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	2.3	571	7560	TRF 67 / TRF37	YDA 63M4 149
	2.7	486	7560	TR 67 / TRF37	YDA 63L4 149
				TRF 67 / TRF37	YDA 63L4 149
	0.84	1652	7560	TR 67 / TRF37	YDA 63S4 149
	0.96	1432	7560	TRF 67 / TRF37	YDA 63S4 149
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	1.6	836	7560	TR 67 / TRF37	YDA 63M4 149
	1.8	750	7560	TRF 67 / TRF37	YDA 63M4 149
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2.3	574	7560			
2.6	495	7560	TR 67 / TRF37	YDA 63L4 149	
3.0	438	7560	TRF 67 / TRF37	YDA 63L4 149	
3.4	388	7560			
4	344	7560	TR 67 / TRF37	YDA 71D4 149	
4.7	294	7560	TRF 67 / TRF37	YDA 71D4 149	
820	0.08	16370	9920	TR 77 / TRF37	YDA 63S4 149
	0.09	15015	9920	TRF 77 / TRF37	YDA 63S4 149
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	0.11	12783	9920		
	0.13	11021	9920		
	0.14	9788	9920		
	0.16	8714	9920		
	0.18	7617	9920		
	0.20	6770	9920		
	0.24	5838	9920		

$M_{2 \max}$ [Nm]	$n_2$ [1/min]	$i$	$Fr_2$ [N]		Page
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	0.31	4470	9920	TRF 77 / TRF37	YDA 63S4 149
	0.35	3999	9920		
	0.40	3488	9920		
	0.45	3053	9920		
	0.52	2671	9920		
	0.44	3151	9920	TR 77 / TRF37	YDA 63S4 149
	0.48	2890	9920	TRF 77 / TRF37	YDA 63S4 149
	0.56	2460	9920		
	0.65	2121	9920		
	0.70	1977	9920		
	0.80	1728	9920		
	0.85	1620	9920		
	0.97	1430	9920		
	1.1	1303	9920		
	1.2	1124	9920	TR 77 / TRF37	YDA 63M4 149
	1.3	1047	9920	TRF 77 / TRF37	YDA 63M4 149
	1.4	915	9920		
	1.5	858	9920		
	1.7	757	9920		
	1.9	671	9920	TR 77 / TRF37	YDA 63L4 149
	2.3	571	9920	TRF 77 / TRF37	YDA 63L4 149
	2.3	560	9920	TR 77 / TRF37	YDA 63L4 149
				TRF 77 / TRF37	YDA 63L4 149
	2.8	488	9920	TR 77 / TRF37	YDA 71D4 149
	3.2	436	9920	TRF 77 / TRF37	YDA 71D4 149
	3.7	373	9920		
	4.2	327	9920		
	4.7	289	9920	TR 77 / TRF37	YDA 80K4 149
	5.2	260	9920	TRF 77 / TRF37	YDA 80K4 149
1550	0.08	17452	16900	TR 87 / TRF57	YDA 63S4 149
	0.09	15310	16900	TRF 87 / TRF57	YDA 63S4 149
	0.10	13813	16900		
	0.11	12025	16900		
	0.13	10549	16900		
	0.15	9244	16900		
	0.17	8109	16900		
	0.20	7038	16900		
	0.22	6174	16900		
	0.25	5449	16900		
	0.29	4831	16900		
	0.33	4206	16900		
	0.37	3744	16900		
	0.43	3233	16900		
	0.48	2873	16900		
	0.67	1961	16900	TR 87 / TRF57	YDA 63M4 149
				TRF 87 / TRF57	YDA 63M4 149
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	0.43	3182	16900	TRF 87 / TRF57	YDA 63S4 149
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	0.53	2595	16900		
	0.62	2129	16900	TR 87 / TRF57	YDA 63M4 149
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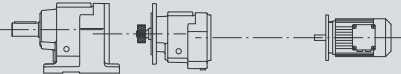
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	1.1	1145	16900				
	1.2	1037	16900				
	1.7	802	16900	TR 87 / TRF57	YDA 71D4	149	
	1.8	754	16900	TRF 87 / TRF57	YDA 71D4	149	
	0.76	1737	16900	TR 87 / TRF57	YDA 63M4	149	
	0.87	1524	16900	TRF 87 / TRF57	YDA 63M4	149	
	1.0	1303	16900	TR 87 / TRF57	YDA 63L4	149	
				TRF 87 / TRF57	YDA 63L4	149	
	1.4	1008	16900	TR 87 / TRF57	YDA 80K4	149	
				TRF 87 / TRF57	YDA 80K4	149	
	1.6	885	16900	TR 87 / TRF57	YDA 71D4	149	
				TRF 87 / TRF57	YDA 71D4	149	
	2.0	685	16900	TR 87 / TRF57	YDA 80K4	149	
	2.3	599	16900	TRF 87 / TRF57	YDA 80K4	149	
	3.5	398	16900	TR 87 / TRF57	YDA 80N4	149	
	3.9	352	16900	TRF 87 / TRF57	YDA 80N4	149	
	4.6	305	16900	TR 87 / TRF57	YDA 90S4	149	
	5.2	268	16900	TRF 87 / TRF57	YDA 90S4	149	
	2.5	538	16900	TR 87 / TRF57	YDA 80K4	149	
	2.9	472	16900	TRF 87 / TRF57	YDA 80K4	149	
	3.5	400	16900	TR 87 / TRF57	YDA 80N4	149	
	3.8	361	16900	TRF 87 / TRF57	YDA 80N4	149	
	4.7	300	16900	TR 87 / TRF57	YDA 90S4	149	
	5.5	256	16900	TRF 87 / TRF57	YDA 90S4	149	
	3000	0.06	21769	19800	TR 97 / TRF57	YDA 63S4	149
		0.07	19332	19800	TRF 97 / TRF57	YDA 63S4	149
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0.09		14999	19800				
0.10		13320	19800				
0.12		11156	19800				
0.14		10030	19800				
0.16		8706	19800				
0.18		7692	19800				
0.21		6708	19800				
0.23		5931	19800				
0.27		5161	19800				
0.33		4004	19800	TR 97 / TRF57	YDA 63M4	149	
0.38		3481	19800	TRF 97 / TRF57	YDA 63M4	149	
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0.6		2016	19800				
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0.9		1623	19800	TRF 97 / TRF57	YDA 71D4	149	
1.0		1434	19800				
1.1		1207	19800	TR 97 / TRF57	YDA 80K4	149	
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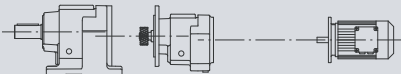
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	1.0	1396	19800					
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	1.3	1069	19800	TRF	97 / TRF57	YDA 80K4	149	
	1.4	938	19800					
	1.7	824	19800	TR	97 / TRF57	YDA 80N4	149	
	1.9	737	19800	TRF	97 / TRF57	YDA 80N4	149	
	2.2	632	19800	TR	97 / TRF57	YDA 90S4	149	
	2.5	560	19800	TRF	97 / TRF57	YDA 90S4	149	
	2.9	484	19800					
	3.3	431	19800	TR	97 / TRF57	YDA 90L4	149	
	3.7	379	19800	TRF	97 / TRF57	YDA 90L4	149	
	4.2	336	19800					
	4.8	296	19800	TR	97 / TRF57	YDA 100M4	149	
	5.7	249	19800	TRF	97 / TRF57	YDA 100M4	149	
	6.0	234	19800					
		2.2	625	19800	TR	97 / TRF57	YDA 90S4	149
		2.6	549	19800	TRF	97 / TRF57	YDA 90S4	149
		5.2	270	19800	TR	97 / TRF57	YDA 100M4	149
	6.2	227	19800	TRF	97 / TRF57	YDA 100M4	149	
4300	0.07	20018	29500	TR	107 / TRF77	YDA 63S4	149	
	0.08	17080	29500	TRF	107 / TRF77	YDA 63S4	149	
	0.09	14936	29500					
	0.11	12829	29500					
	0.12	11256	29500					
	0.14	9547	29500					
	0.16	8618	29500					
	0.18	7583	29500					
	0.20	6743	29500	TR	107 / TRF77	YDA 63M4	149	
	0.22	5914	29500	TRF	107 / TRF77	YDA 63M4	149	
	0.26	5168	29500					
	0.30	4435	29500					
	0.33	3896	29500	TR	107 / TRF77	YDA 63L4	149	
	0.43	3039	29500	TRF	107 / TRF77	YDA 63L4	149	
	0.34	3918	29500	TR	107 / TRF77	YDA 63M4	149	
				TRF	107 / TRF77	YDA 63M4	149	
	0.39	3343	29500	TR	107 / TRF77	YDA 63L4	149	
	0.43	3034	29500	TRF	107 / TRF77	YDA 63L4	149	
	0.5	2653	29500	TR	107 / TRF77	YDA 71D4	149	
	0.6	2280	29500	TRF	107 / TRF77	YDA 71D4	149	
	0.7	2067	29500					
	0.8	1693	29500	TR	107 / TRF77	YDA 80K4	149	
	0.9	1550	29500	TRF	107 / TRF77	YDA 80K4	149	
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	1.1	1209	29500	TR	107 / TRF77	YDA 80N4	149	
	1.3	1055	29500	TRF	107 / TRF77	YDA 80N4	149	
	1.5	919	29500	TR	107 / TRF77	YDA 90S4	149	
	1.7	815	29500	TRF	107 / TRF77	YDA 90S4	149	
	1.9	717	29500					
	2.2	626	29500	TR	107 / TRF77	YDA 90L4	149	
2.7	528	29500	TRF	107 / TRF77	YDA 90L4	149		
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			TRF	107 / TRF77	YDA 71D4	149		

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	1.2	1104	29500	TRF 107 / TRF77	YDA 80N4	149
	1.5	939	29500			
	1.7	822	29500	TR 107 / TRF77	YDA 90S4	149
				TRF 107 / TRF77	YDA 90S4	149
	2.3	614	29500	TR 107 / TRF77	YDA 90L4	149
	2.6	544	29500	TRF 107 / TRF77	YDA 90L4	149
	2.9	492	29500			
	3.4	417	29500	TR 107 / TRF77	YDA 100M4	149
	3.8	369	29500	TRF 107 / TRF77	YDA 100M4	149
	4.4	323	29500			
	4.9	285	29500	TR 107 / TRF77	YDA 100L4	149
	5.5	253	29500	TRF 107 / TRF77	YDA 100L4	149
	6.6	214	29500	TR 107 / TRF77	YDA 112M4	149
	7.6	187	29500	TRF 107 / TRF77	YDA 112M4	149
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				TRF 107 / TRF77	YDA 90L4	149
	3.3	426	29500	TR 107 / TRF77	YDA 100M4	149
	3.7	377	29500	TRF 107 / TRF77	YDA 100M4	149
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	4.9	284	29500	TR 107 / TRF77	YDA 100L4	149
	5.5	256	29500	TRF 107 / TRF77	YDA 100L4	149
	6.5	220	29500	TR 107 / TRF77	YDA 112M4	149
	7.3	193	29500	TRF 107 / TRF77	YDA 112M4	149
	8.2	172	29500			
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	0.09	14777	53400			
	0.11	12921	53400			
	0.1	11712	53400	TR 137 / TRF77	YDA 63M4	149
	0.1	10573	53400	TRF 137 / TRF77	YDA 63M4	149
	0.2	8784	53400			
	0.2	7479	53400	TR 137 / TRF77	YDA 63L4	149
	0.2	6559	53400	TRF 137 / TRF77	YDA 63L4	149
	0.2	5834	53400			
	0.3	5116	53400	TR 137 / TRF77	YDA 71D4	149
	0.3	4464	53400	TRF 137 / TRF77	YDA 71D4	149
	0.4	3928	53400			
	0.39	3454	53400	TR 137 / TRF77	YDA 80K4	149
	0.45	2993	53400	TRF 137 / TRF77	YDA 80K4	149
	0.29	4709	53400	TR 137 / TRF77	YDA 71D4	149
	0.34	4018	53400	TRF 137 / TRF77	YDA 71D4	149
	0.39	3514	53400	TR 137 / TRF77	YDA 80K4	149
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	0.62	2242	53400	TR 137 / TRF77	YDA 80N4	149
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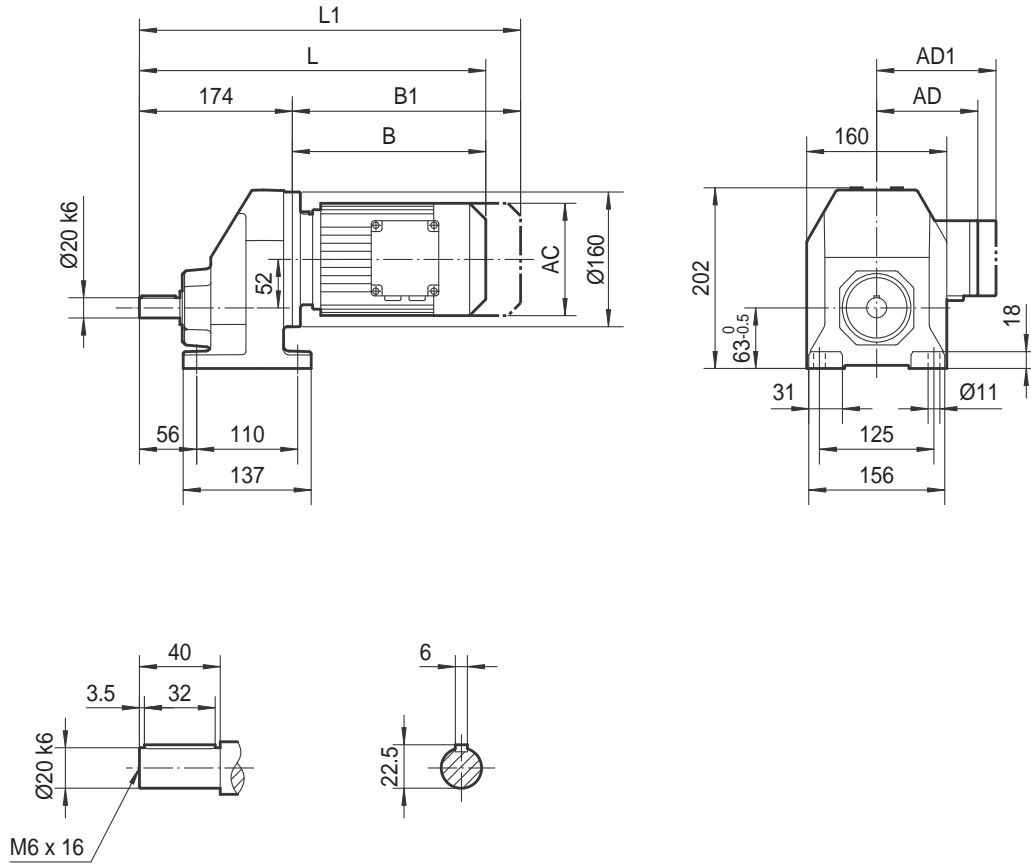
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	1.0	1397	53400	TRF 137 / TRF77	YDA 90S4	149
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	1.3	1090	53400	TR 137 / TRF77	YDA 90L4	149
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	2.5	560	53400	TR 137 / TRF77	YDA 100L4	149
	2.9	490	53400	TRF 137 / TRF77	YDA 100L4	149
	3.3	428	53400	TR 137 / TRF77	YDA 112M4	149
	3.7	381	53400	TRF 137 / TRF77	YDA 112M4	149
	4.4	323	53400	TR 137 / TRF77	YDA 132S4	149
	4.9	291	53400	TRF 137 / TRF77	YDA 132S4	149
	5.6	255	53400			
	2.5	564	53400	TR 137 / TRF77	YDA 100L4	149
	2.7	517	53400	TRF 137 / TRF77	YDA 100L4	149
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	0.3	4926	62700	TRF 147 / TRF77	YDA 80K4	149
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	0.5	2898	62700			
	0.6	2555	62700	TR 147 / TRF77	YDA 90S4	149
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	1.6	889	62700	TR 147 / TRF77	YDA 100L4 149
	1.8	784	62700	TRF 147 / TRF77	YDA 100L4 149
	2.0	695	62700	TR 147 / TRF77	YDA 112M4 149
	2.3	619	62700	TRF 147 / TRF77	YDA 112M4 149
	2.5	558	62700		
	2.9	489	62700	TR 147 / TRF77	YDA 132S4 149
				TRF 147 / TRF77	YDA 132S4 149
	2.7	533	62700	TR 147 / TRF87	YDA 112M4 149
				TRF 147 / TRF87	YDA 112M4 149
	3.1	462	62700	TR 147 / TRF87	YDA 132S4 149
	3.4	426	62700	TRF 147 / TRF87	YDA 132S4 149
	3.9	368	62700	TR 147 / TRF87	YDA 132M4 149
	4.4	326	62700	TRF 147 / TRF87	YDA 132M4 149
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6.7	214	62700	TR 147 / TRF87	YDA 160M4 149	
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	0.08	17361	120000		
	0.09	15446	120000		
	0.10	14051	120000		
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	0.13	10509	120000		
	0.14	9631	120000		
	0.18	7749	120000	TR 167 / TRF97	YDA 90S4 149
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	0.22	6077	120000	TR 167 / TRF97	YDA 80K4 149
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	0.38	3692	120000	TR 167 / TRF97	YDA 90S4 149
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	0.5	2657	120000	TR 167 / TRF97	YDA 90L4 149
	0.6	2333	120000	TRF 167 / TRF97	YDA 90L4 149
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	0.8	1877	120000	TR 167 / TRF97	YDA 100M4 149
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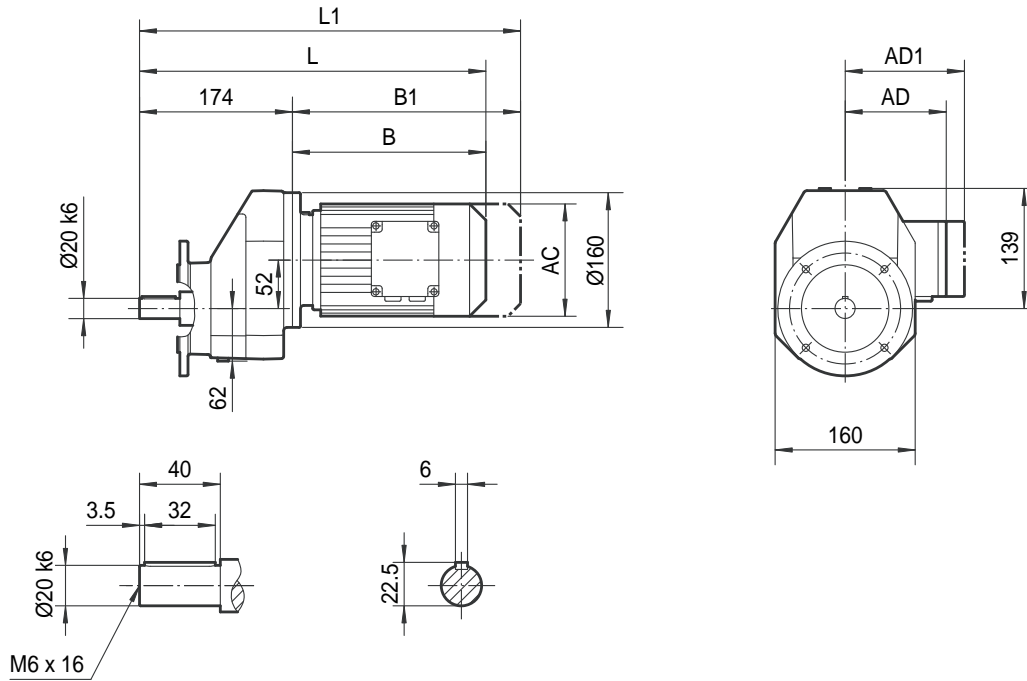
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	6.4	229	120000	TR 167 / TRF107	YDT 160L4	149
	7.3	200	120000	TRF 167 / TRF107	YDT 160L4	149
	5.0	291	120000	TR 167 / TRF107	YDT 160M4	149
				TRF 167 / TRF107	YDT 160M4	149
	5.5	264	120000	TR 167 / TRF107	YDT 160L4	149
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**TRX57 ..**

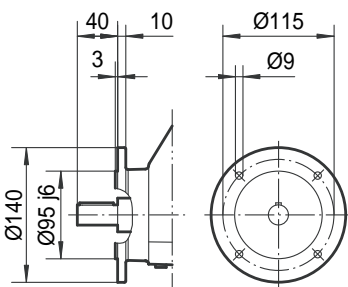


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AC	132	145	145	197	197	197	221	221			
AD	105	122	122	154	166	166	179	179			
AD1	105	127	127	161	166	166	182	182			
B	185	199	249	269	319	349	354	402			
B1	240	263	313	354	404	434	434	482			
L	359	373	423	443	493	523	528	576			
L1	414	437	487	528	578	608	608	656			

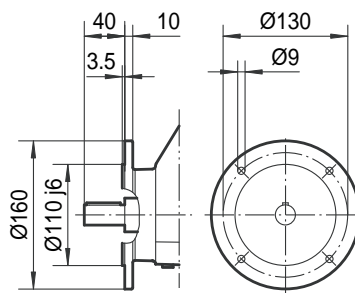
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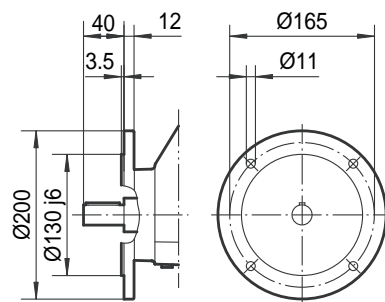
**I**  
Ø140



**II**  
Ø160

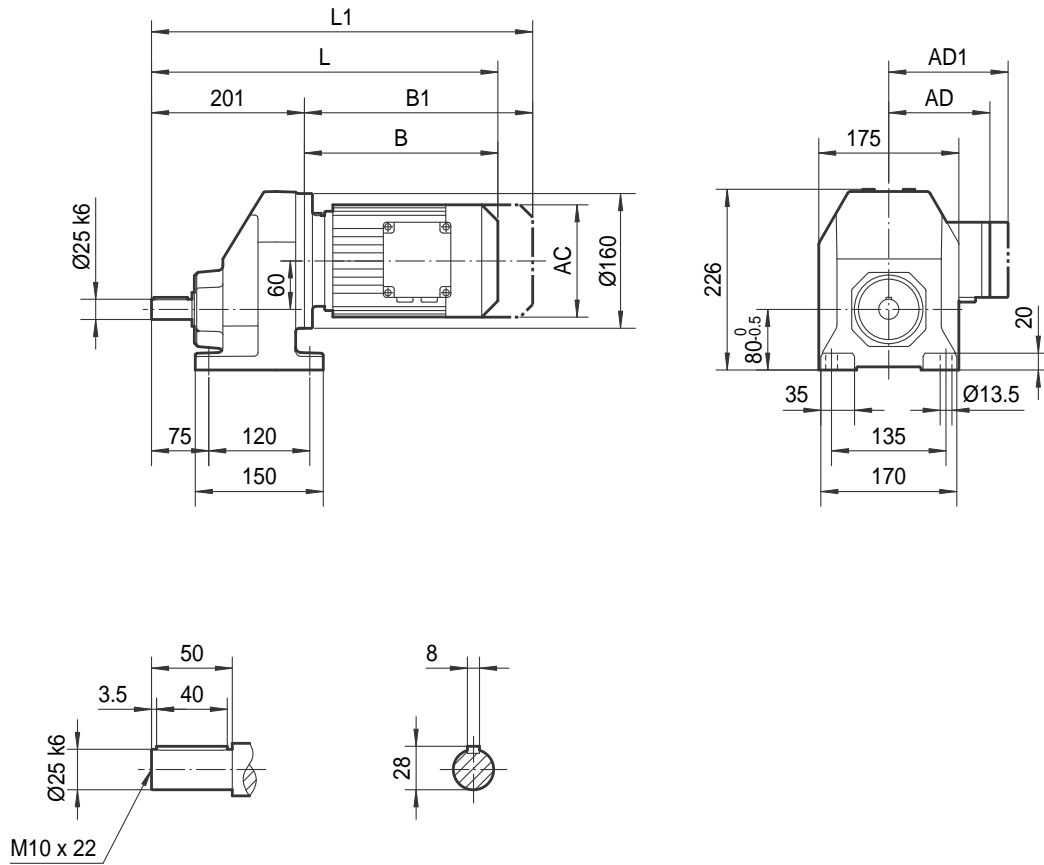


**III**  
Ø200



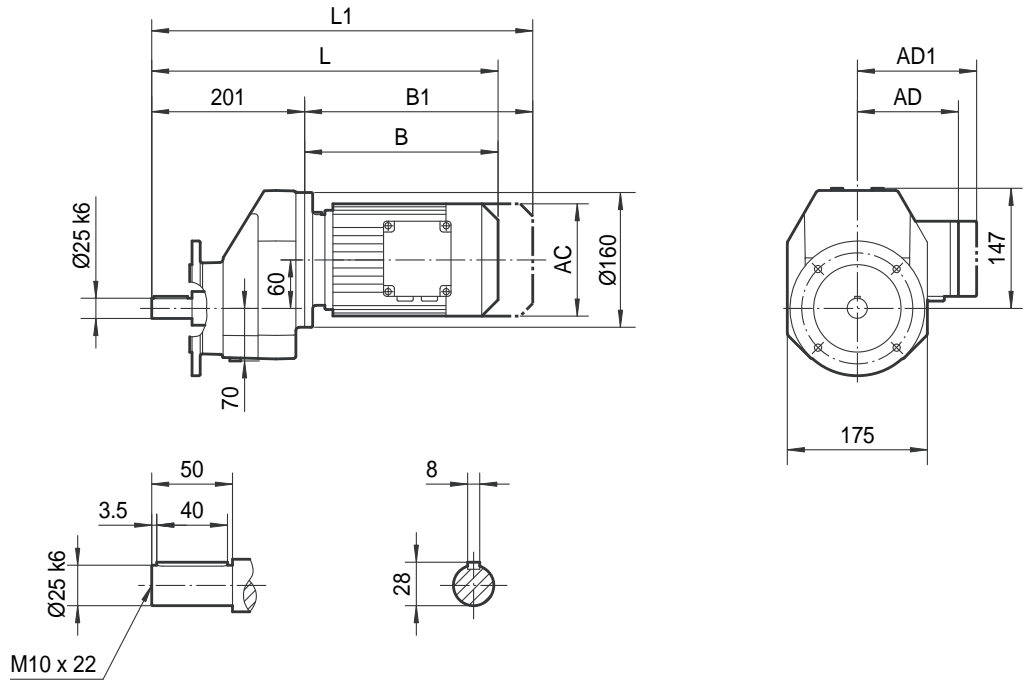
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AC	132	145	145	197	197	197	221	221			
AD	105	122	122	154	166	166	179	179			
AD1	105	127	127	161	166	166	182	182			
B	185	199	249	269	319	349	354	402			
B1	240	263	313	354	404	434	434	482			
L	359	373	423	443	493	523	528	576			
L1	414	437	487	528	578	608	608	656			

**TRX67..**

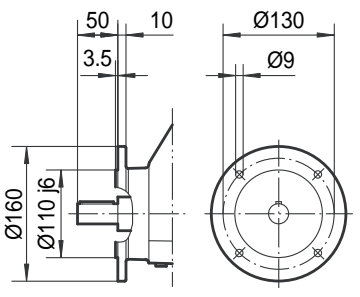


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AD	105	122	122	154	166	166	179	179	230		
AD1	105	127	127	161	166	166	182	182	230		
B	185	199	249	269	319	349	354	402	424		
B1	240	263	313	354	404	434	434	482	536		
L	386	400	450	470	520	550	555	603	625		
L1	441	464	514	555	605	635	635	683	737		

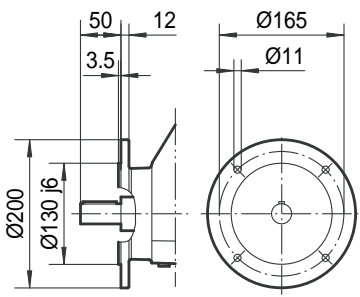
TRXF67..



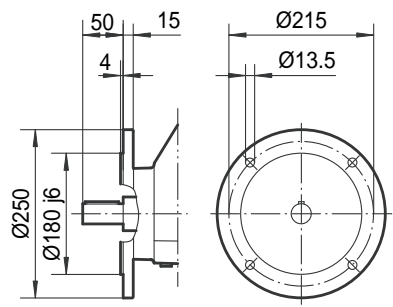
**I**  
Ø160



**II**  
Ø200

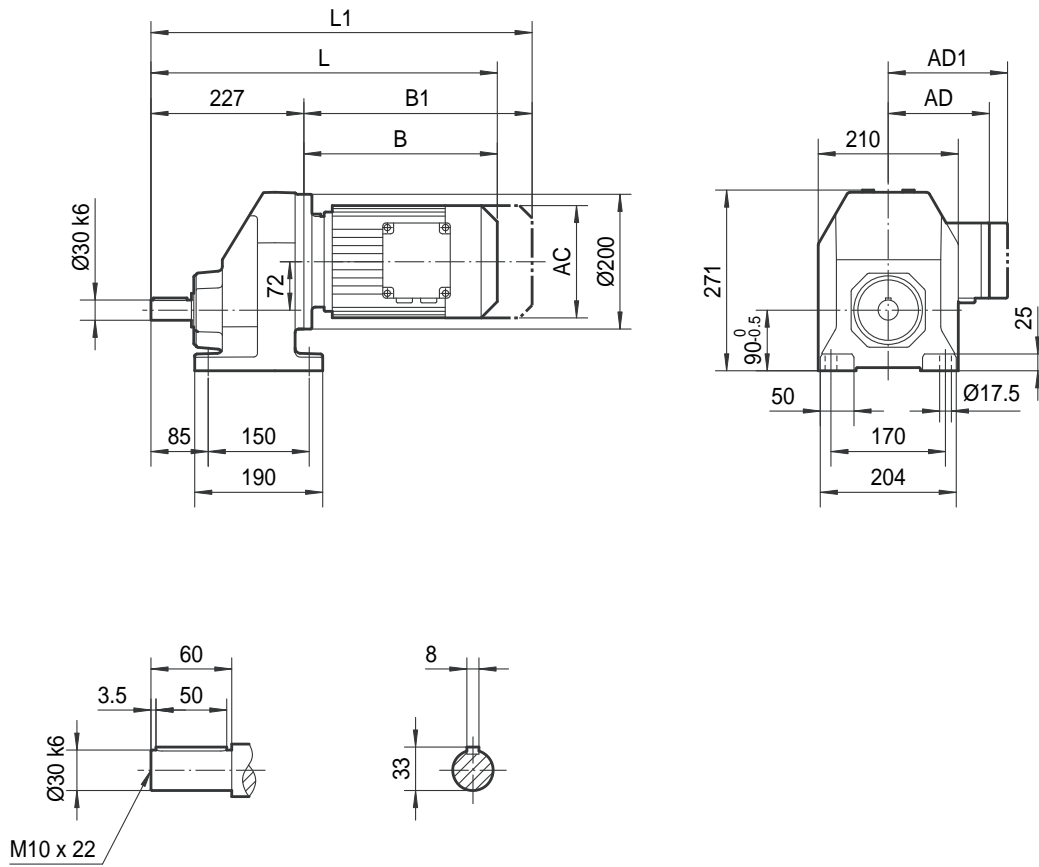


**III**  
Ø250



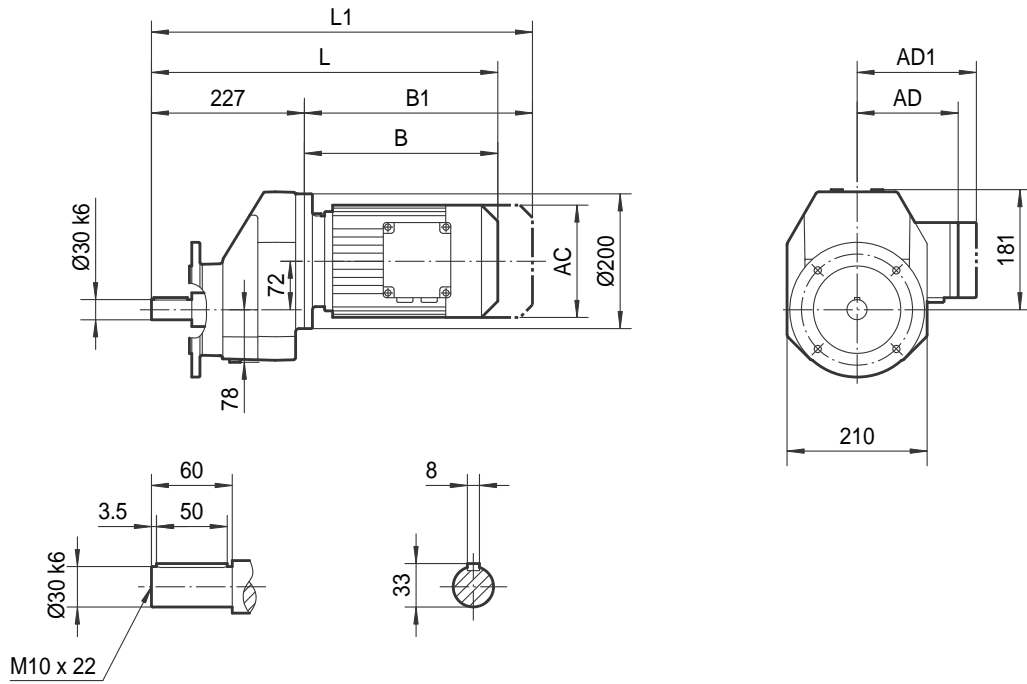
YDA	63..	71D	80..	90..	100M	100L	112M	132S	132M		
AC	132	145	145	197	197	197	221	221	275		
AD	105	122	122	154	166	166	179	179	230		
AD1	105	127	127	161	166	166	182	182	230		
B	185	199	249	269	319	349	354	402	424		
B1	240	263	313	354	404	434	434	482	536		
L	386	400	450	470	520	550	555	603	625		
L1	441	464	514	555	605	635	635	683	737		

**TRX77..**

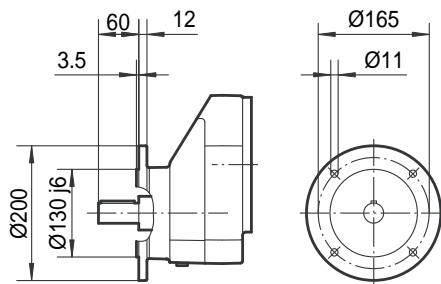


YDA	90..	100M	100L	112M	132S	132M	132ML	YDT160M			
AC	197	197	197	221	221	275	275	275			
AD	154	166	166	179	179	230	230	230			
AD1	161	166	166	182	182	230	230	230			
B	261	311	341	345	390	412	472	472			
B1	346	396	426	425	470	524	584	584			
L	488	538	568	572	617	639	699	699			
L1	573	623	653	652	697	751	811	811			

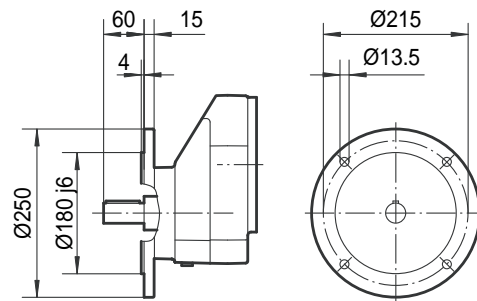
TRXF77..



**I**  
Ø200



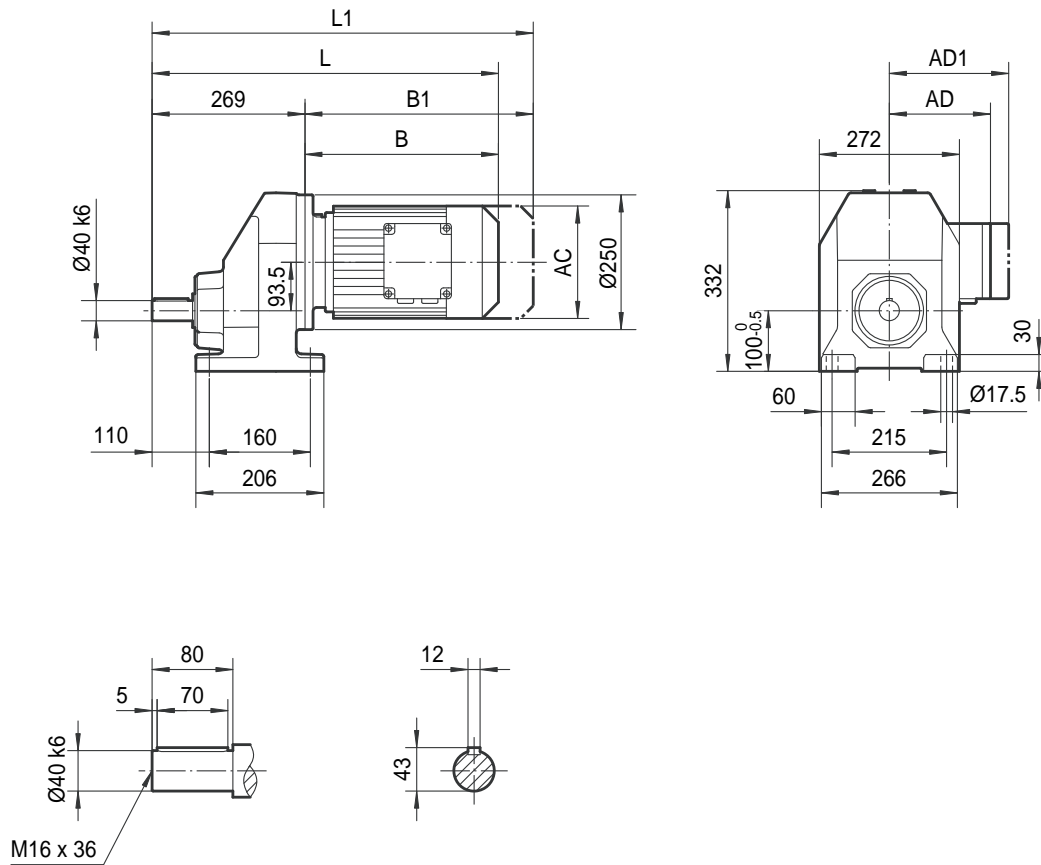
**II**  
Ø250



YDA	90..	100M	100L	112M	132S	132M	132ML	YDT160M			
AC	197	197	197	221	221	275	275	275			
AD	154	166	166	179	179	230	230	230			
AD1	161	166	166	182	182	230	230	230			
B	261	311	341	345	390	412	472	472			
B1	346	396	426	425	470	524	584	584			
L	488	538	568	572	617	639	699	699			
L1	573	623	653	652	697	751	811	811			

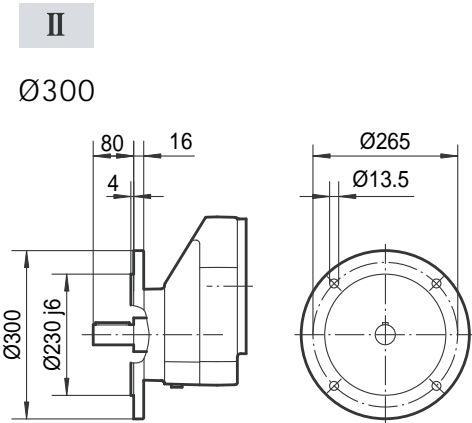
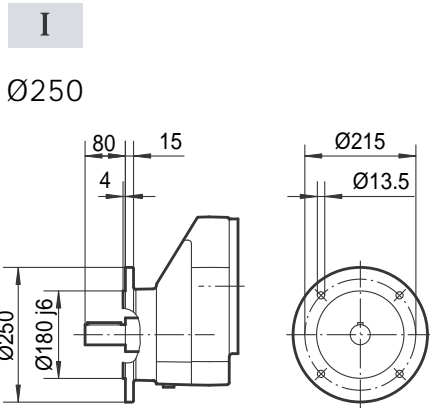
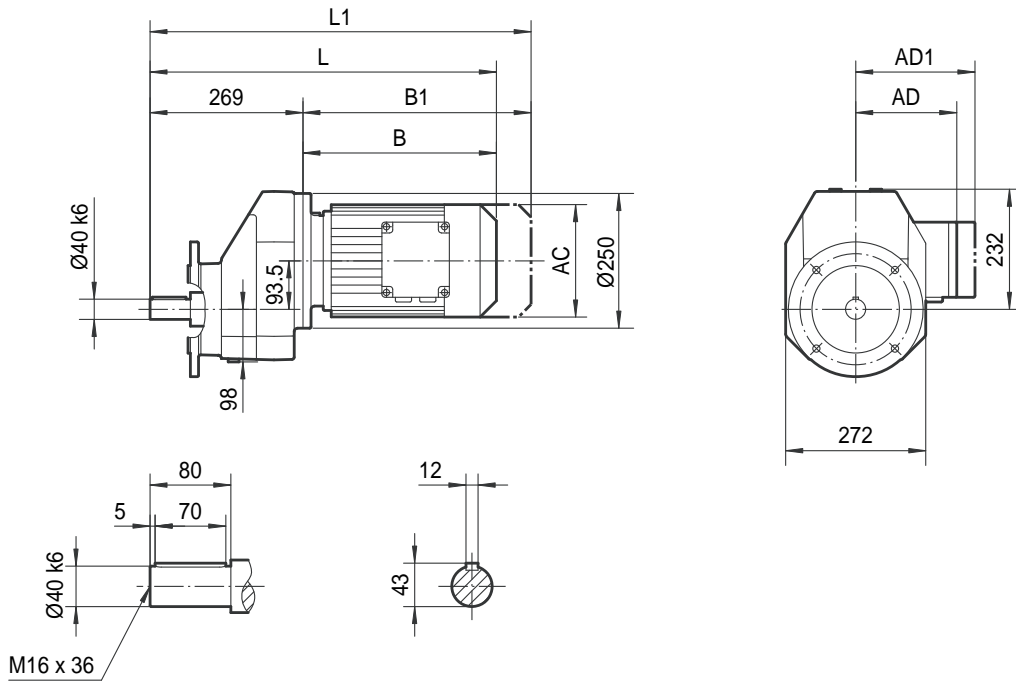


**TRX87..**



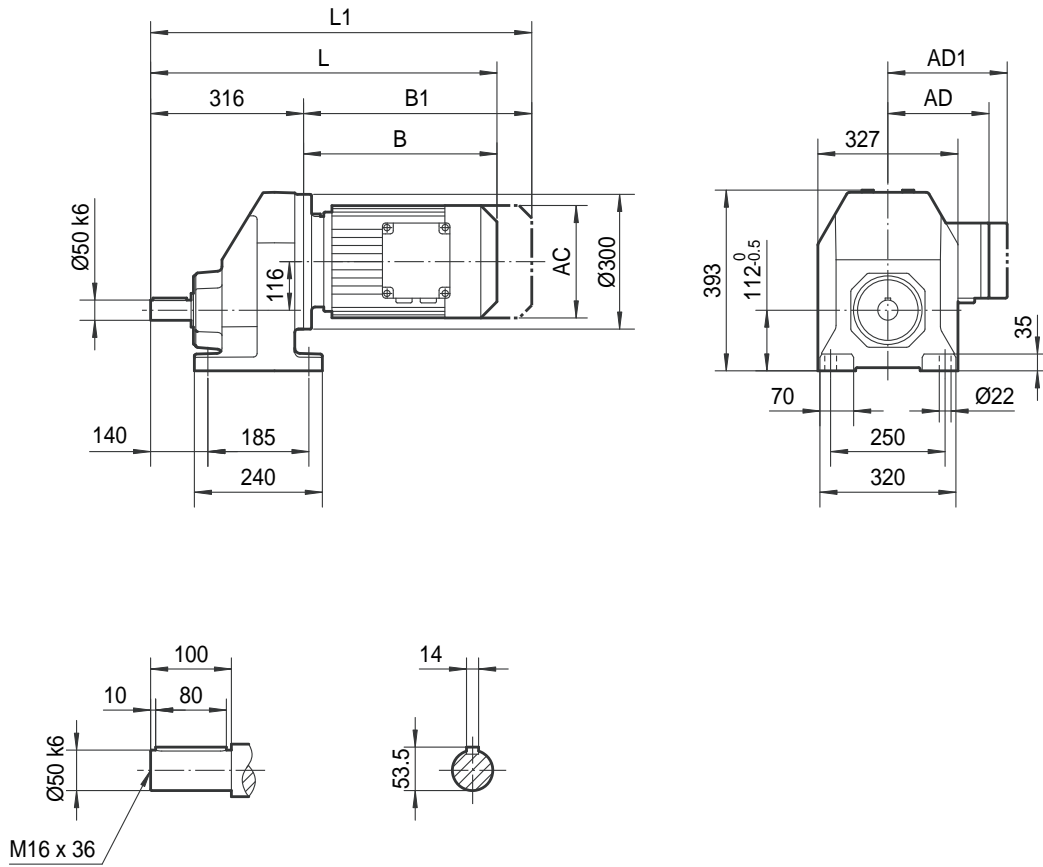
YDA	100L	112M	132S	132M	132ML	YDT160M	YDT160L	YDT180..			
AC	197	221	221	275	275	275	331	331			
AD	166	179	179	230	230	230	258	258			
AD1	166	182	182	230	230	230	258	258			
B	337	340	385	407	467	467	514	586			
B1	422	420	465	519	579	579	670	742			
L	606	609	654	676	736	736	783	855			
L1	691	689	734	788	848	848	939	1011			

TRXF87..



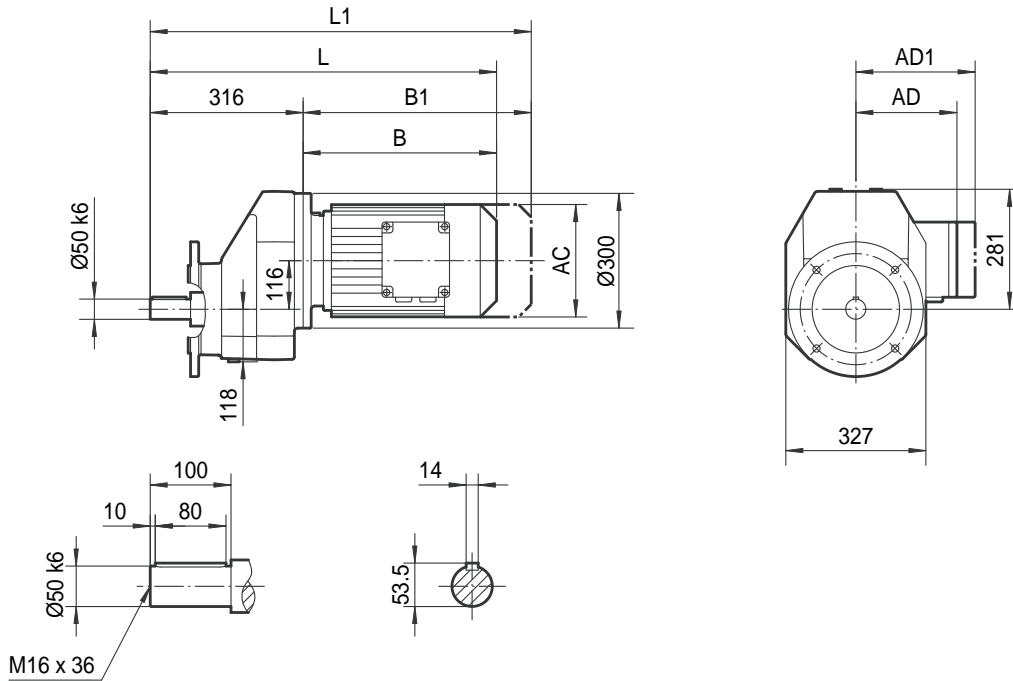
YDA	100L	112M	132S	132M	132ML	YDT160M	YDT160L	YDT180..			
AC	197	221	221	275	275	275	331	331			
AD	166	179	179	230	230	230	258	258			
AD1	166	182	182	230	230	230	258	258			
B	337	340	385	407	467	467	514	586			
B1	422	420	465	519	579	579	670	742			
L	606	609	654	676	736	736	783	855			
L1	691	689	734	788	848	848	939	1011			

**TRX97..**

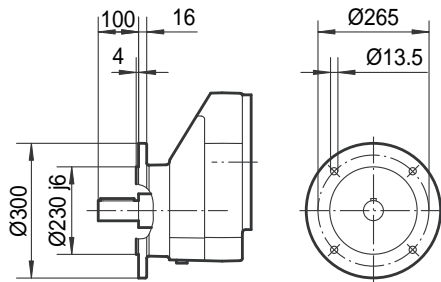


YDA	132S	132M	132ML	YDT160M	YDT160L	YDT180..	YDT200..				
AC	221	275	275	275	331	331	394				
AD	179	230	230	230	258	258	285				
AD1	182	230	230	230	258	258	285				
B	380	402	462	462	509	581	629				
B1	460	514	574	574	665	737	785				
L	696	718	778	778	825	897	945				
L1	776	830	890	890	981	1053	1101				

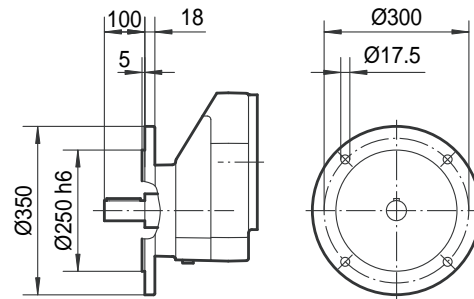
TRXF97..



**I**  
Ø300

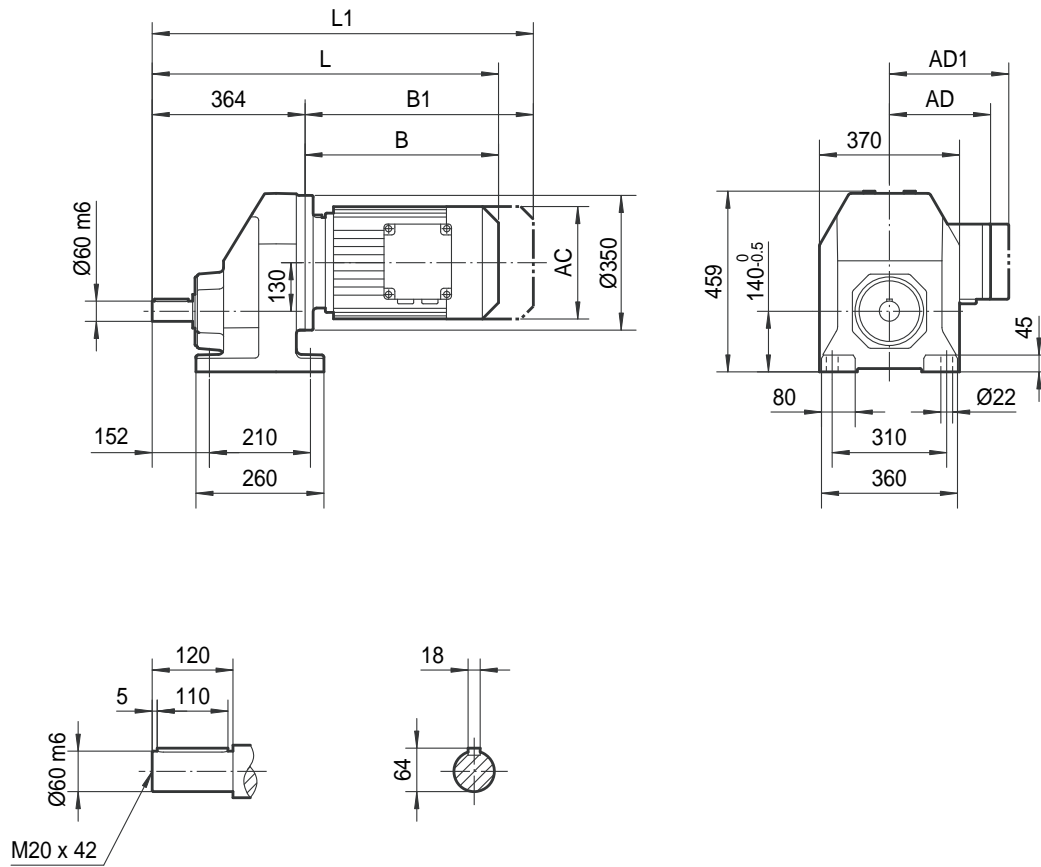


**II**  
Ø350



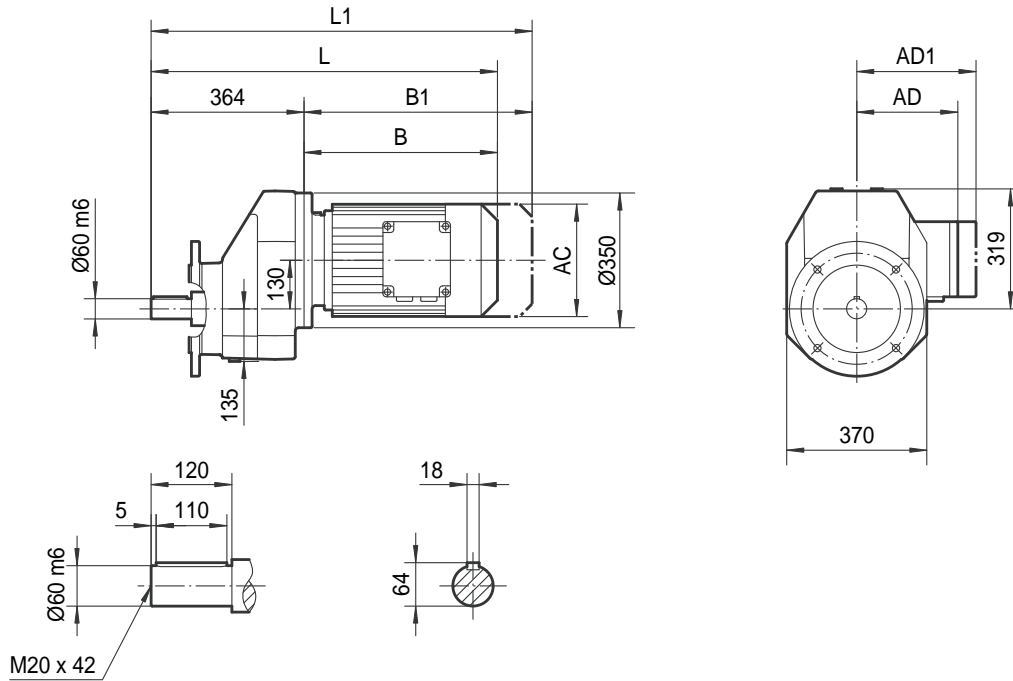
YDA	132S	132M	132ML	YDT160M	YDT160L	YDT180..	YDT200..			
AC	221	275	275	275	331	331	394			
AD	179	230	230	230	258	258	285			
AD1	182	230	230	230	258	258	285			
B	380	402	462	462	509	581	629			
B1	460	514	574	574	665	737	785			
L	696	718	778	778	825	897	945			
L1	776	830	890	890	981	1053	1101			

**TRX107..**

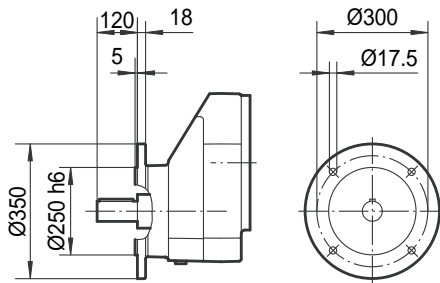


YDA	132S	132M	132ML	YDT160M	YDT160L	YDT180..	YDT200..	YDT225..			
AC	221	275	275	275	331	331	394	394			
AD	179	230	230	230	258	258	285	289			
AD1	182	230	230	230	258	258	285	289			
B	374	396	456	456	503	575	623	705			
B1	454	508	568	568	659	731	779	861			
L	738	760	820	820	867	939	987	1069			
L1	818	872	932	932	1023	1095	1143	1225			

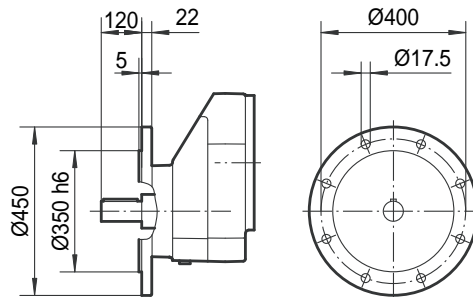
TRXF107..



**I**  
Ø350

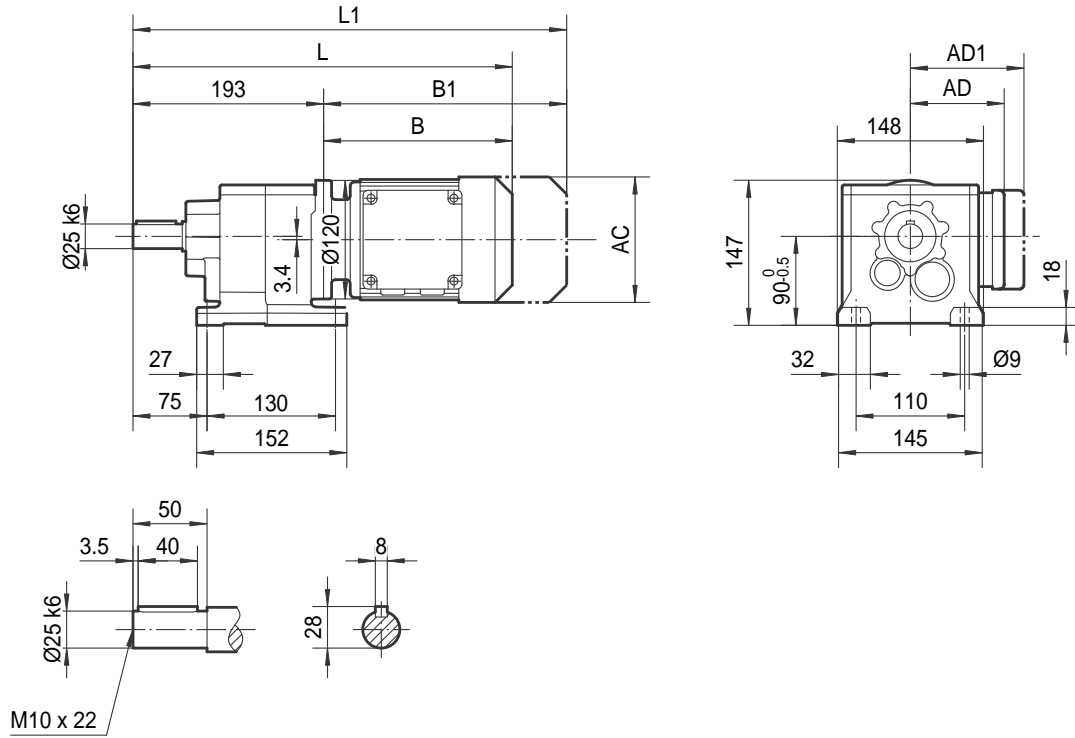


**II**  
Ø450

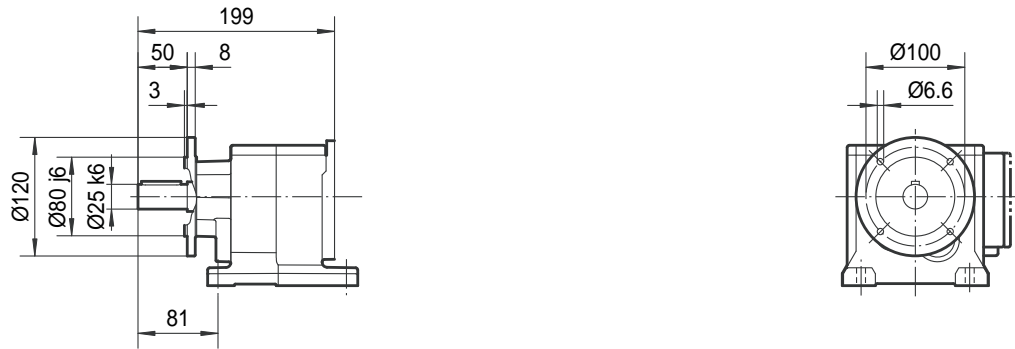


YDA	132S	132M	132ML	YDT160M	YDT160L	YDT180..	YDT200..	YDT225..			
AC	221	275	275	275	331	331	394	394			
AD	179	230	230	230	258	258	285	289			
AD1	182	230	230	230	258	258	285	289			
B	374	396	456	456	503	575	623	705			
B1	454	508	568	568	659	731	779	861			
L	738	760	820	820	867	939	987	1069			
L1	818	872	932	932	1023	1095	1143	1225			

**TR27..**

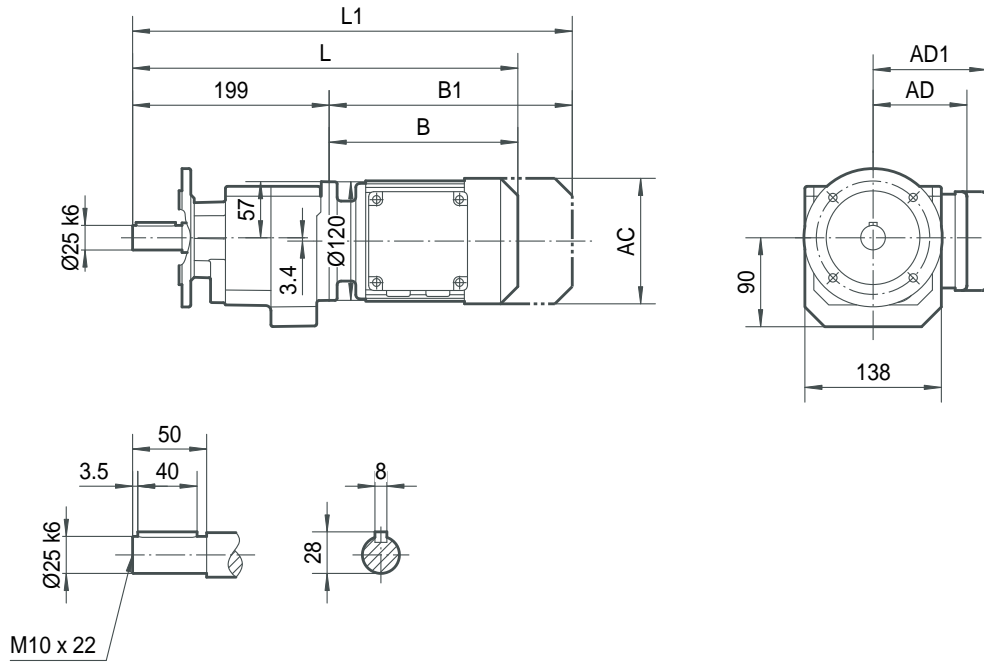


**TR27F..**

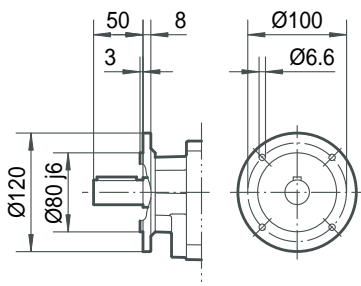


YDA	63..	71D	80..	90..	100M	100L					
AC	132	145	145	197	197	197					
AD	105	122	122	154	166	166					
AD1	105	127	127	161	166	166					
B	192	206	256	276	328	358					
B1	246	269	319	361	413	443					
L	385	399	449	469	521	551					
L1	439	462	512	554	606	636					

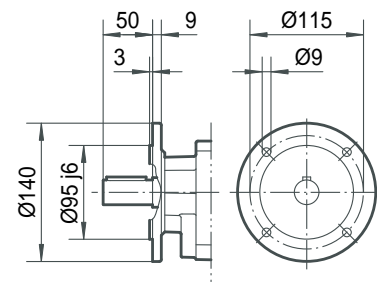
TRF27..



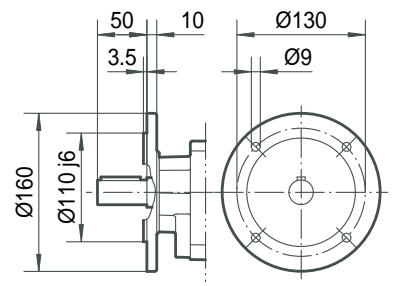
**I**  
Ø120



**II**  
Ø140



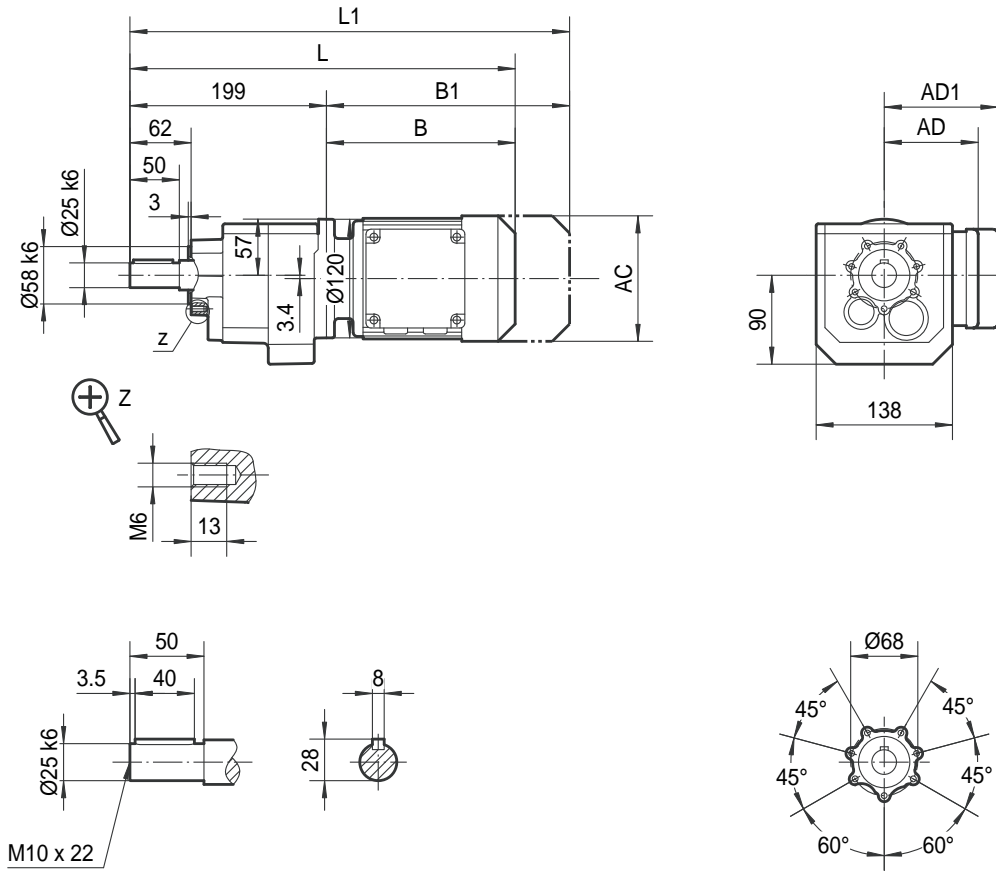
**III**  
Ø160



YDA	63..	71D	80..	90..	100M	100L				
AC	132	145	145	197	197	197				
AD	105	122	122	154	166	166				
AD1	105	127	127	161	166	166				
B	192	206	256	276	328	358				
B1	246	269	319	361	413	443				
L	391	405	455	475	527	557				
L1	445	468	518	560	612	642				

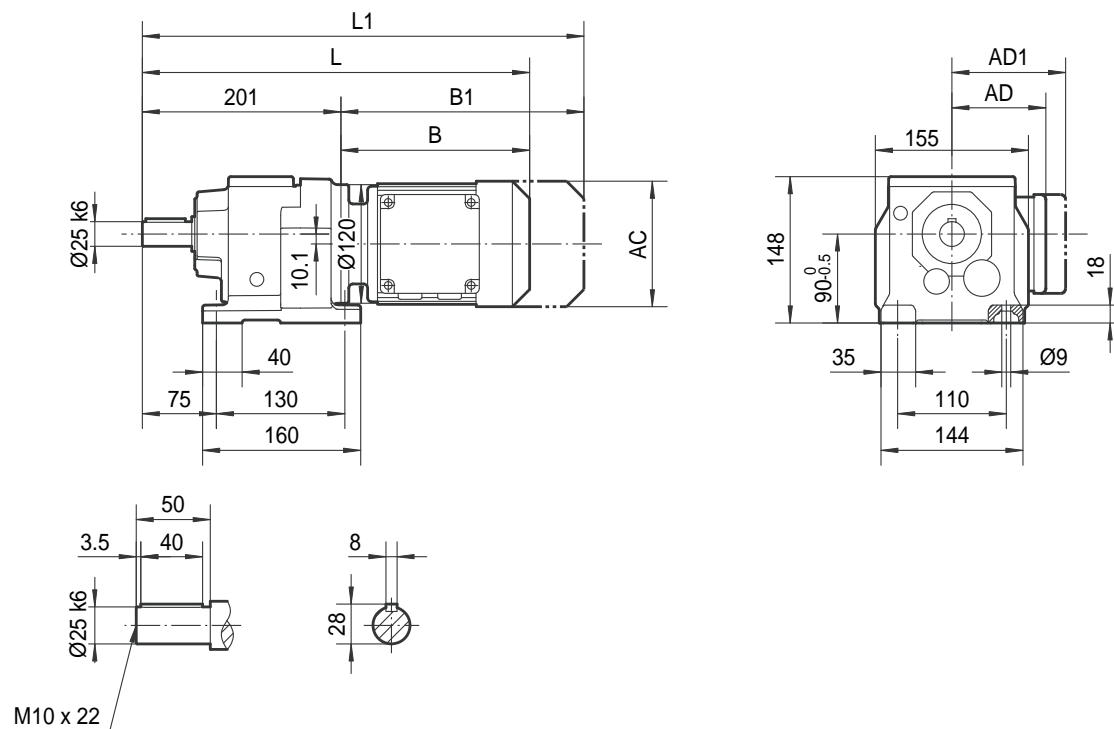


TRZ27..

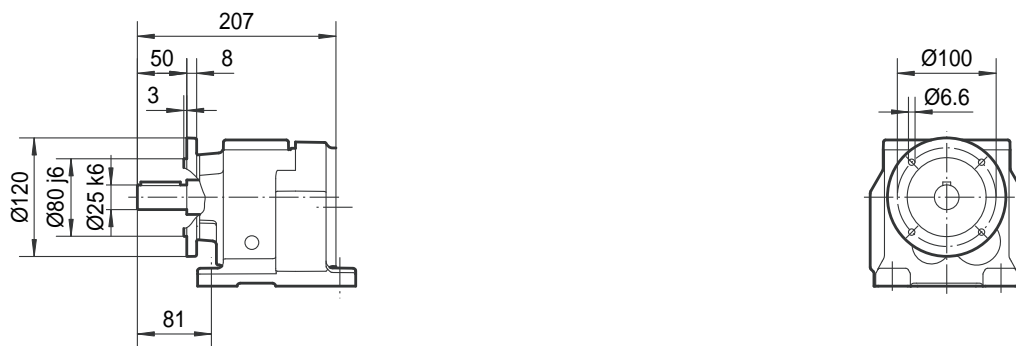


YDA	63..	71D	80..	90..	100M	100L					
AC	132	145	145	197	197	197					
AD	105	122	122	154	166	166					
AD1	105	127	127	161	166	166					
B	192	206	256	276	328	358					
B1	246	269	319	361	413	443					
L	391	405	455	475	527	557					
L1	445	468	518	560	612	642					

TR37..

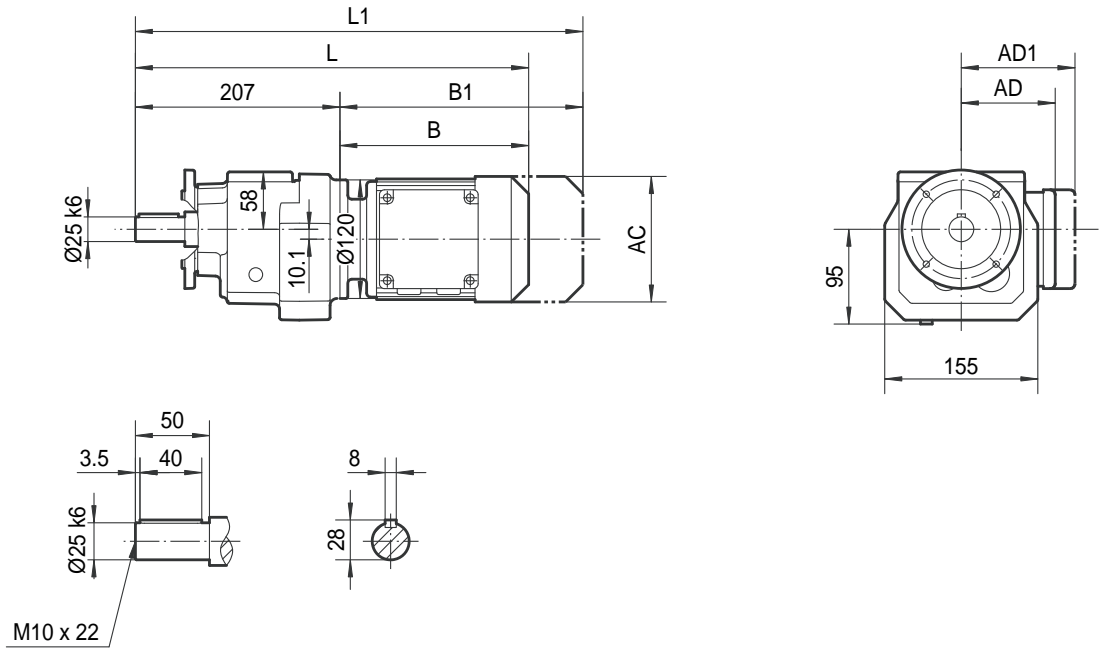


TR37F..

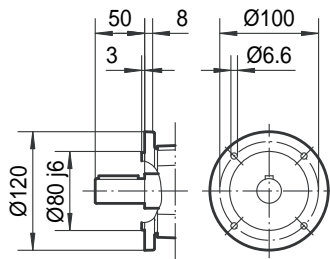


YDA	63..	71D	80..	90..	100M	100L					
AC	132	145	145	197	197	197					
AD	105	122	122	154	166	166					
AD1	105	127	127	161	166	166					
B	192	206	256	276	328	358					
B1	246	269	319	361	413	443					
L	393	407	457	477	529	559					
L1	447	470	520	562	614	644					

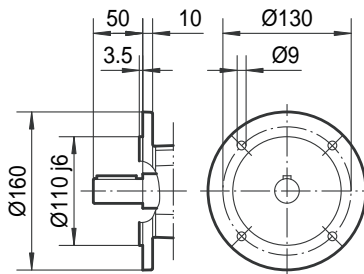
TRF37..



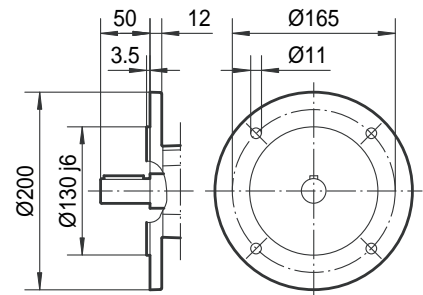
**I**  
Ø120



**II**  
Ø160

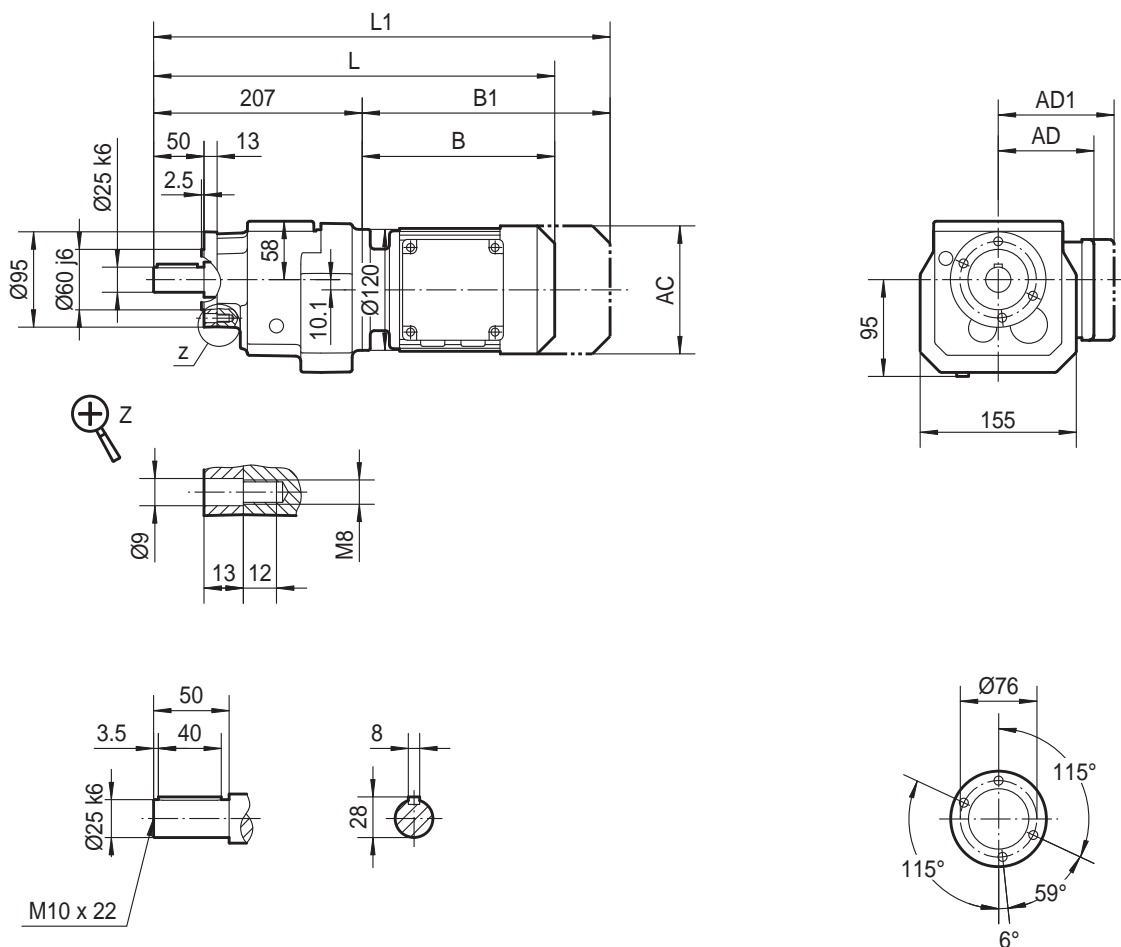


**III**  
Ø200



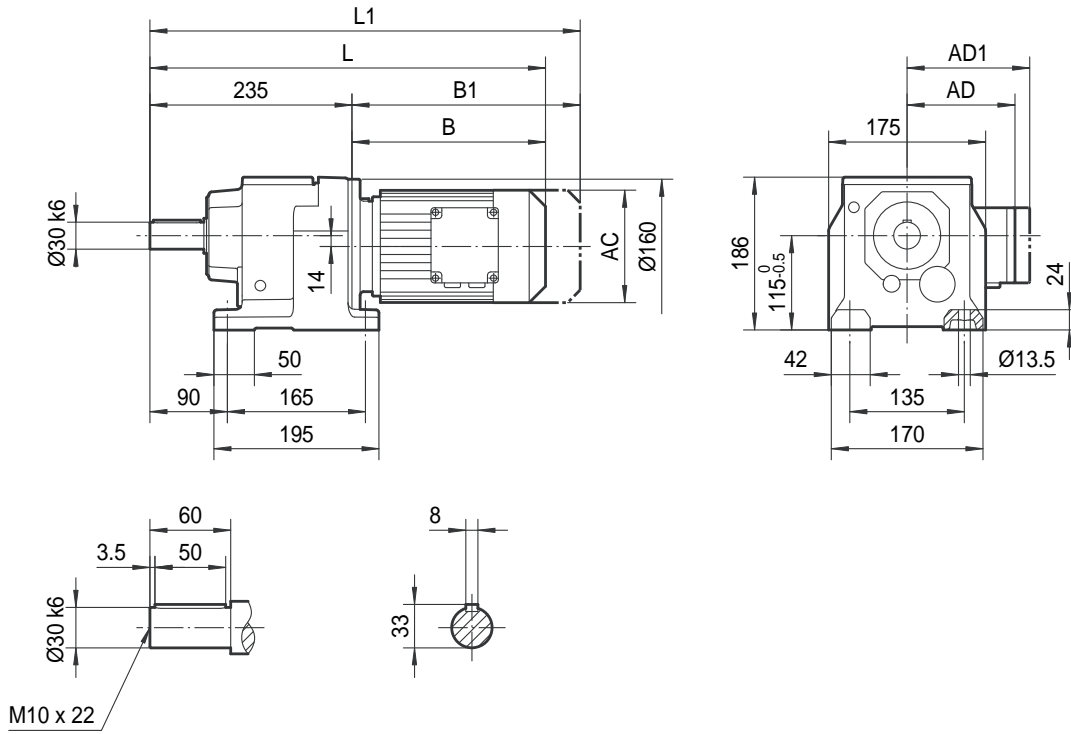
YDA	63..	71D	80..	90..	100M	100L					
AC	132	145	145	197	197	197					
AD	105	122	122	154	166	166					
AD1	105	127	127	161	166	166					
B	192	206	256	276	328	358					
B1	246	269	319	361	413	443					
L	399	413	463	483	535	565					
L1	453	476	526	568	620	650					

TRZ37..

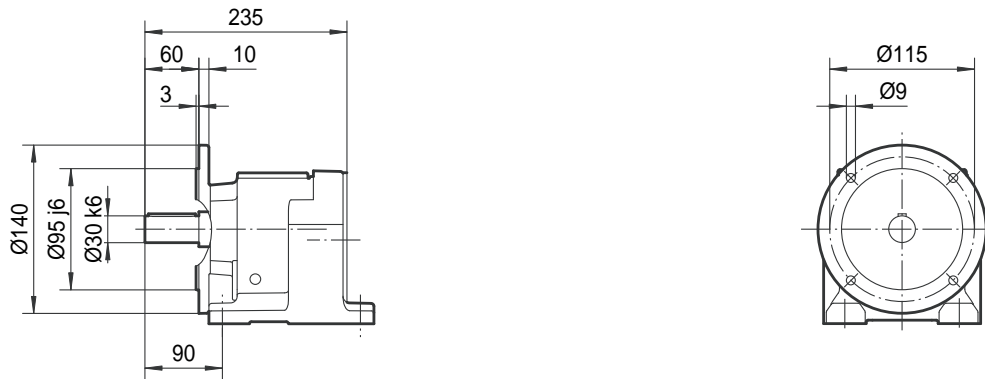


YDA	63..	71D	80..	90..	100M	100L					
AC	132	145	145	197	197	197					
AD	105	122	122	154	166	166					
AD1	105	127	127	161	166	166					
B	192	206	256	276	328	358					
B1	246	269	319	361	413	443					
L	399	413	463	483	535	565					
L1	453	476	526	568	620	650					

**TR47..**

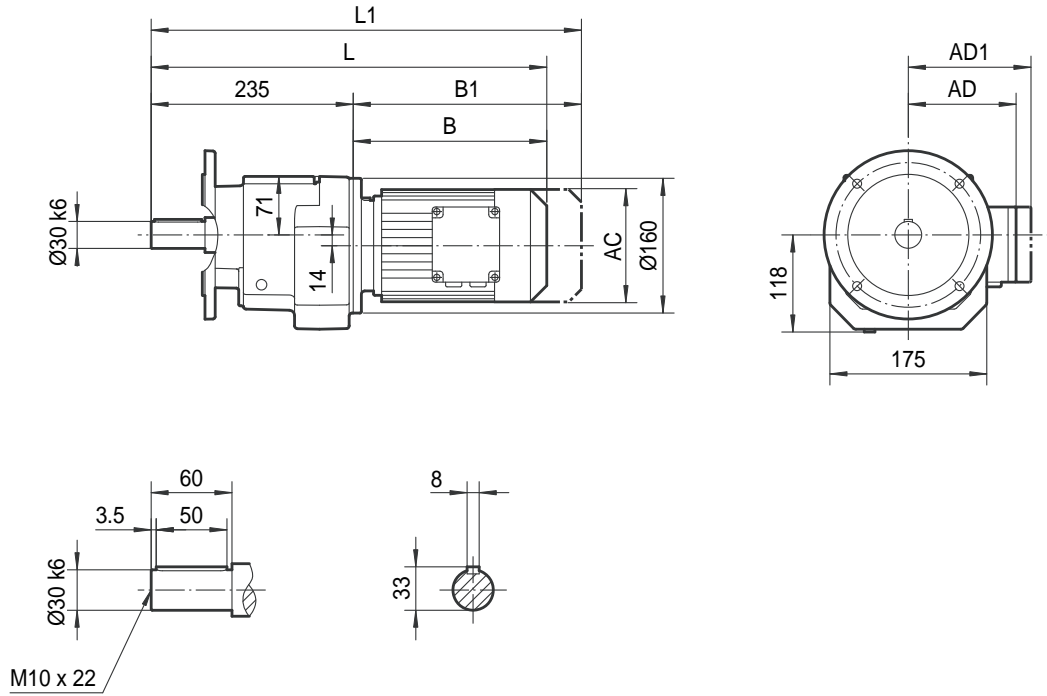


**TR47F..**

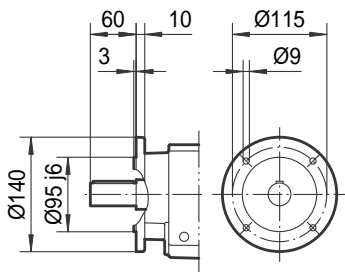


YDA	63..	71D	80..	90..	100M	100L	112M	132S			
AC	132	145	145	197	197	197	221	221			
AD	105	122	122	154	166	166	179	179			
AD1	105	127	127	161	166	166	182	182			
B	185	199	249	269	319	349	354	402			
B1	240	263	313	354	404	434	434	482			
L	420	434	484	504	554	584	589	637			
L1	475	498	548	589	639	669	669	717			

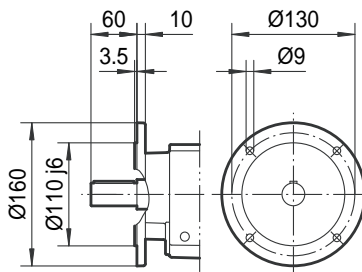
TRF47..



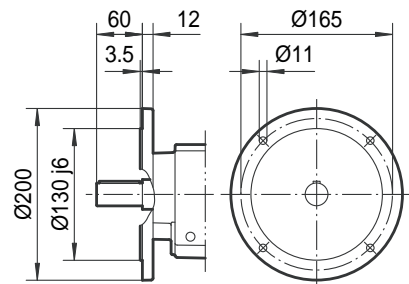
**I**  
Ø140



**II**  
Ø160

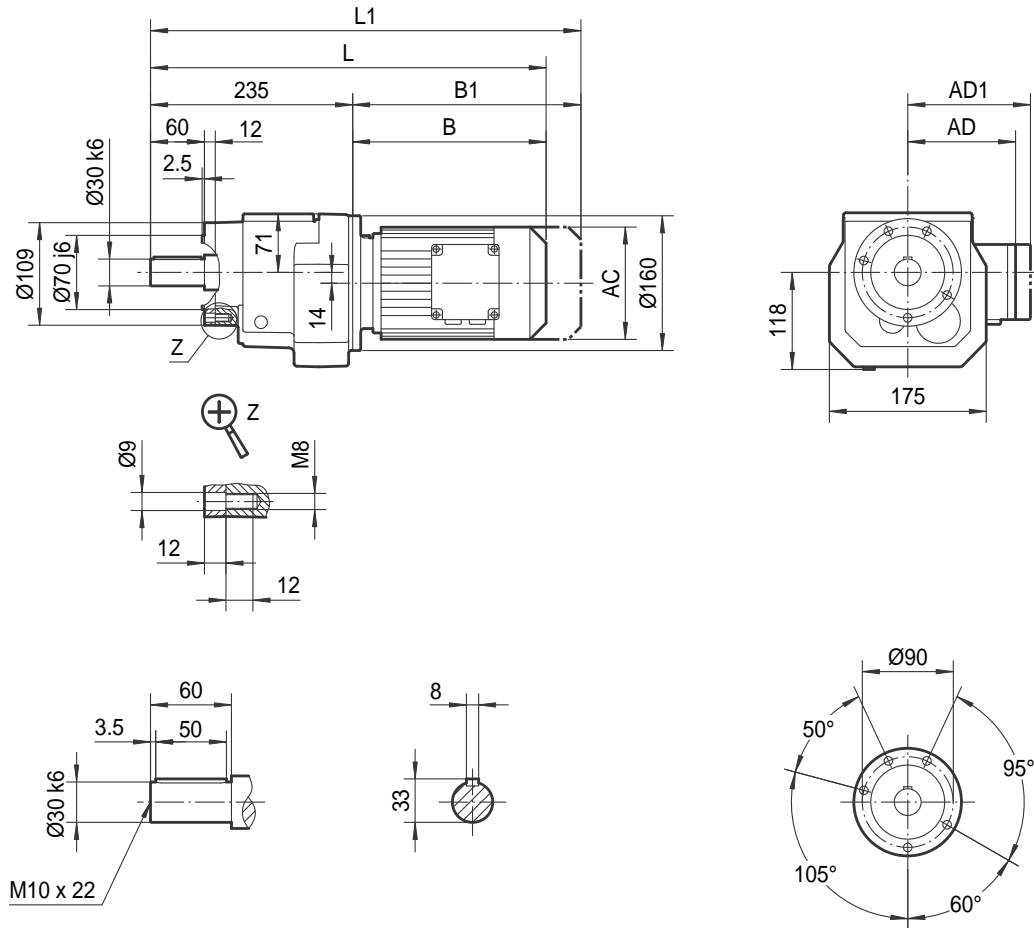


**III**  
Ø200



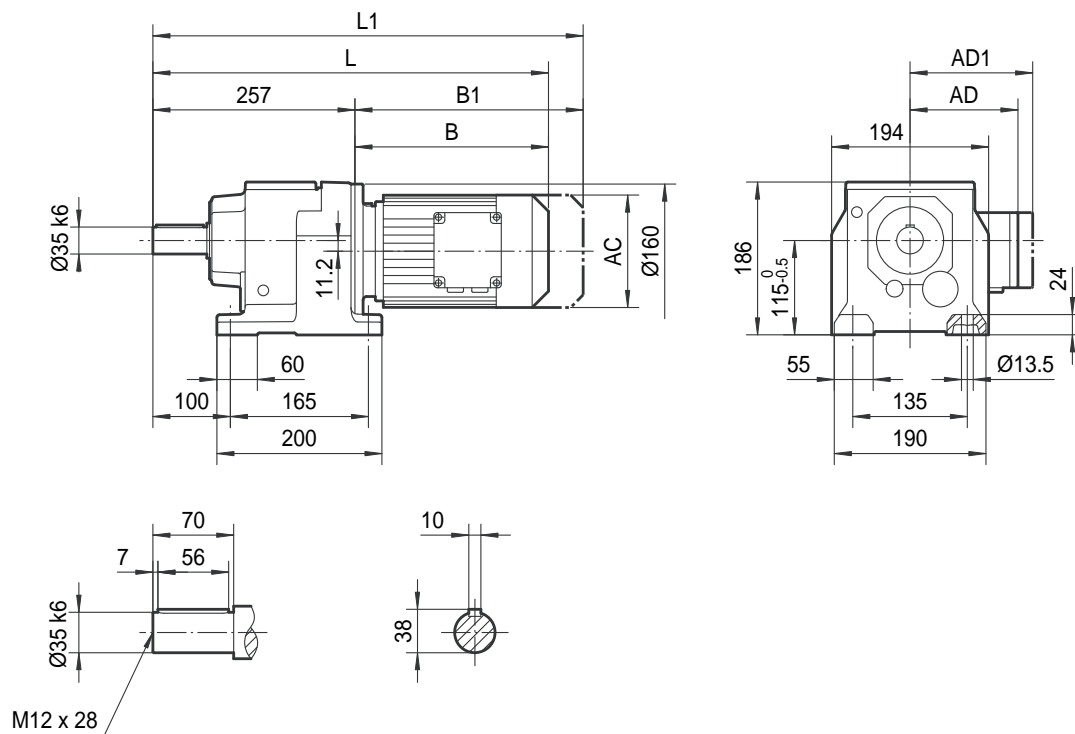
YDA	63	71D	80..	90..	100M	100L	112M	132S			
AC	132	145	145	197	197	197	221	221			
AD	105	122	122	154	166	166	179	179			
AD1	105	127	127	161	166	166	182	182			
B	185	199	249	269	319	349	354	402			
B1	240	263	313	354	404	434	434	482			
L	420	434	484	504	554	584	589	637			
L1	475	498	548	589	639	669	669	717			

**TRZ47..**

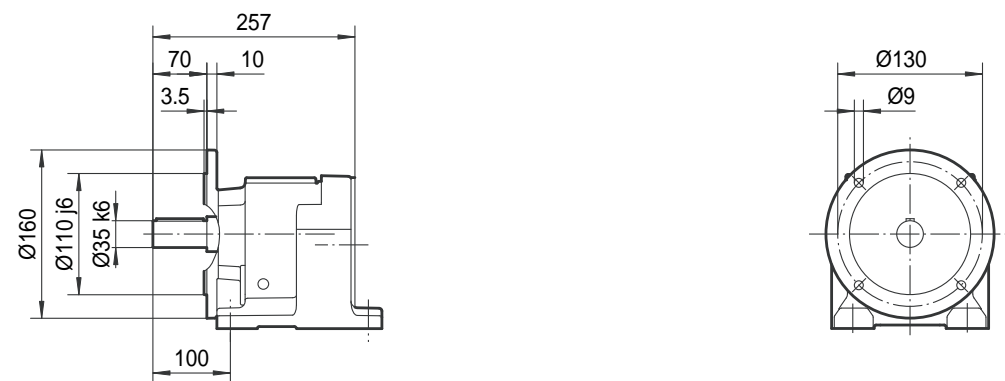


YDA	63	71D	80..	90..	100M	100L	112M	132S			
AC	132	145	145	197	197	197	221	221			
AD	105	122	122	154	166	166	179	179			
AD1	105	127	127	161	166	166	182	182			
B	185	199	249	269	319	349	354	402			
B1	240	263	313	354	404	434	434	482			
L	420	434	484	504	554	584	589	637			
L1	475	498	548	589	639	669	669	717			

TR57..



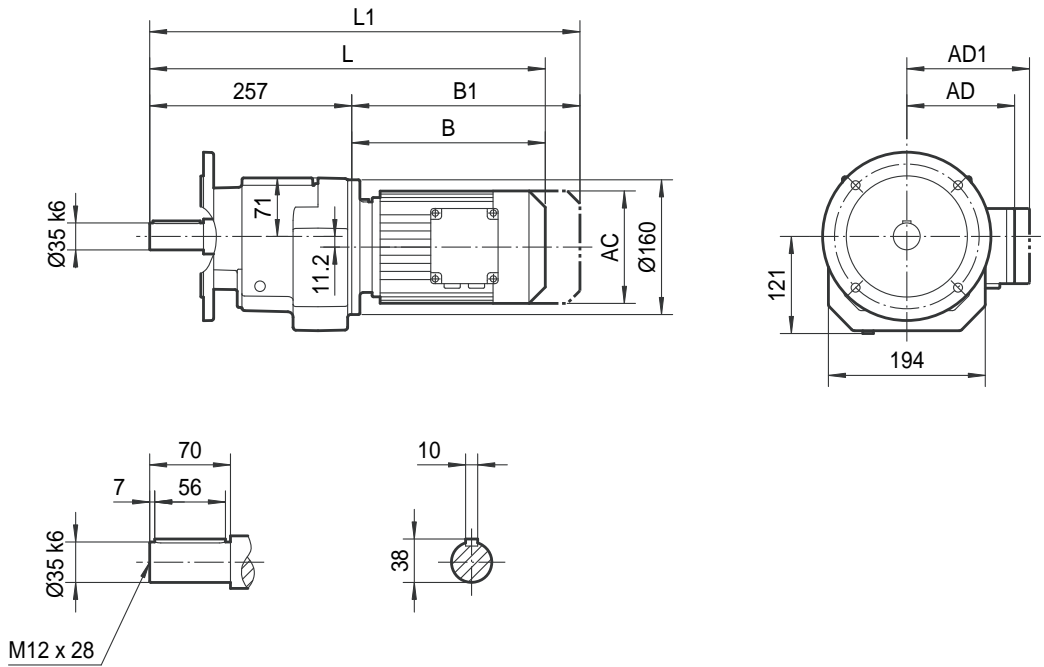
TR57F..



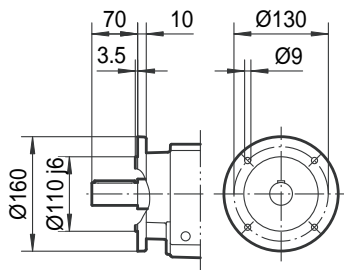
YDA	63..	71D	80..	90..	100M	100L	112M	132S	132M		
AC	132	145	145	197	197	197	221	221	275		
AD	105	122	122	154	166	166	179	179	230		
AD1	105	127	127	161	166	166	182	182	230		
B	185	199	249	269	319	349	354	402	424		
B1	240	263	313	354	404	434	434	482	536		
L	442	456	506	526	576	606	611	659	681		
L1	497	520	570	611	661	691	691	739	793		



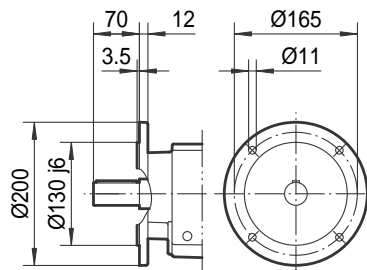
TRF57..



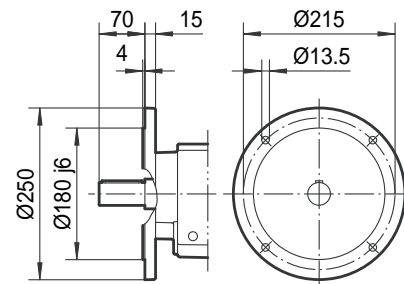
**I**  
Ø160



**II**  
Ø200

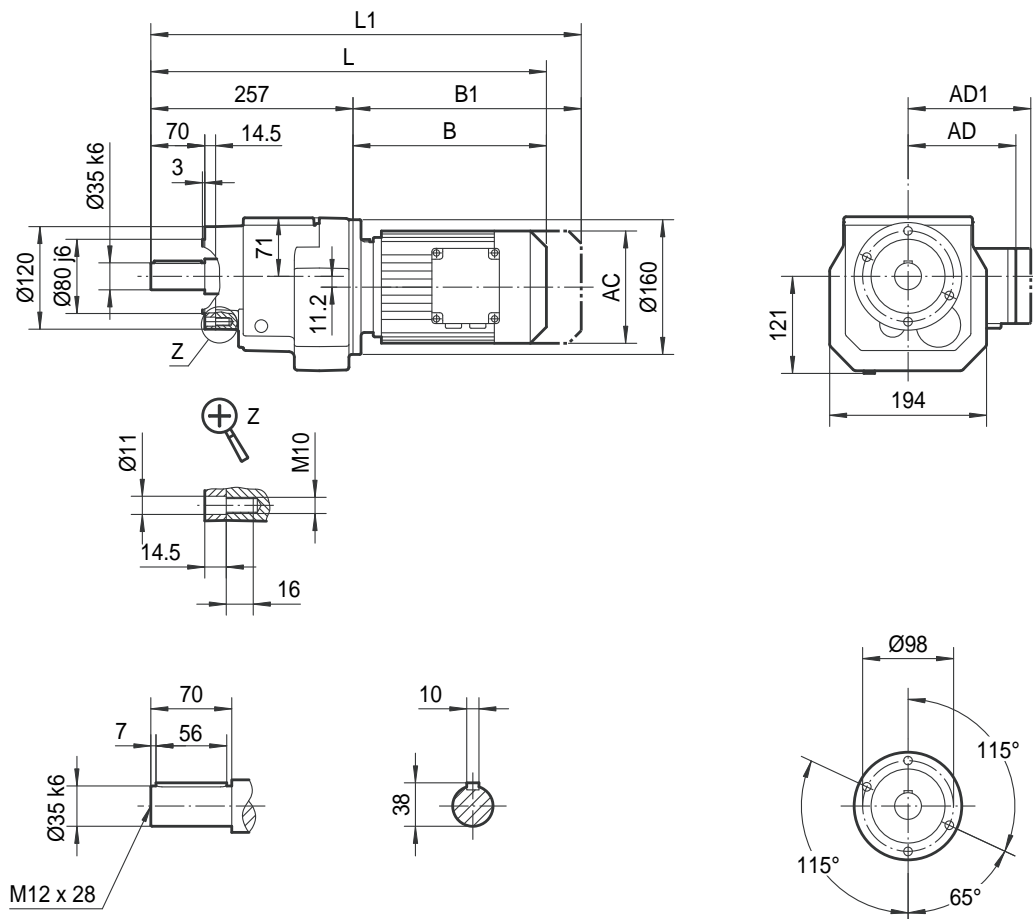


**III**  
Ø250



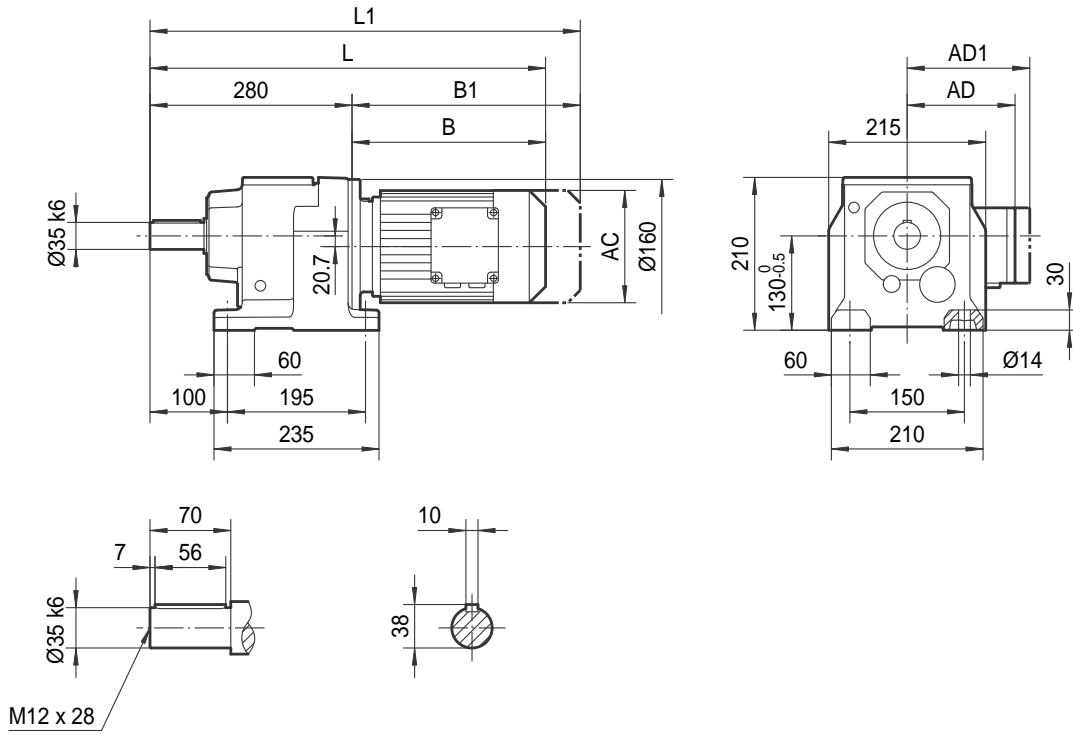
YDA	63..	71D	80..	90..	100M	100L	112M	132S	132M		
AC	132	145	145	197	197	197	221	221	275		
AD	105	122	122	154	166	166	179	179	230		
AD1	105	127	127	161	166	166	182	182	230		
B	185	199	249	269	319	349	354	402	424		
B1	240	263	313	354	404	434	434	482	536		
L	442	456	506	526	576	606	611	659	681		
L1	497	520	570	611	661	691	691	739	793		

TRZ57..

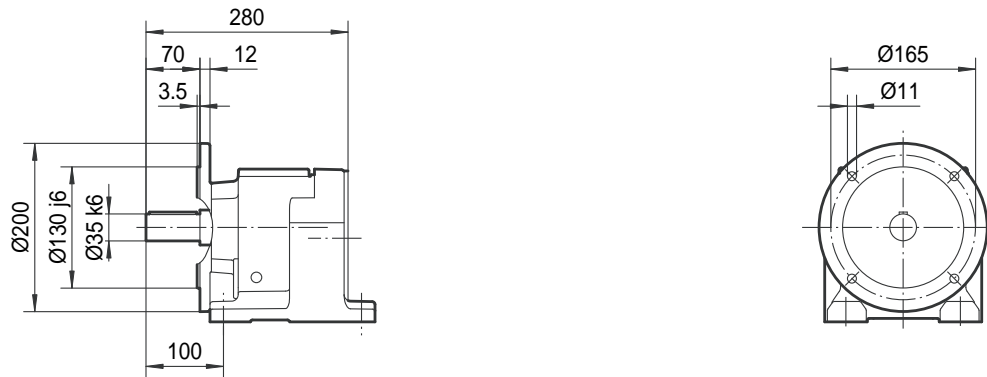


YDA	63..	71D	80..	90..	100M	100L	112M	132S	132M		
AC	132	145	145	197	197	197	221	221	275		
AD	105	122	122	154	166	166	179	179	230		
AD1	105	127	127	161	166	166	182	182	230		
B	185	199	249	269	319	349	354	402	424		
B1	240	263	313	354	404	434	434	482	536		
L	442	456	506	526	576	606	611	659	681		
L1	497	520	570	611	661	691	691	739	793		

**TR67..**

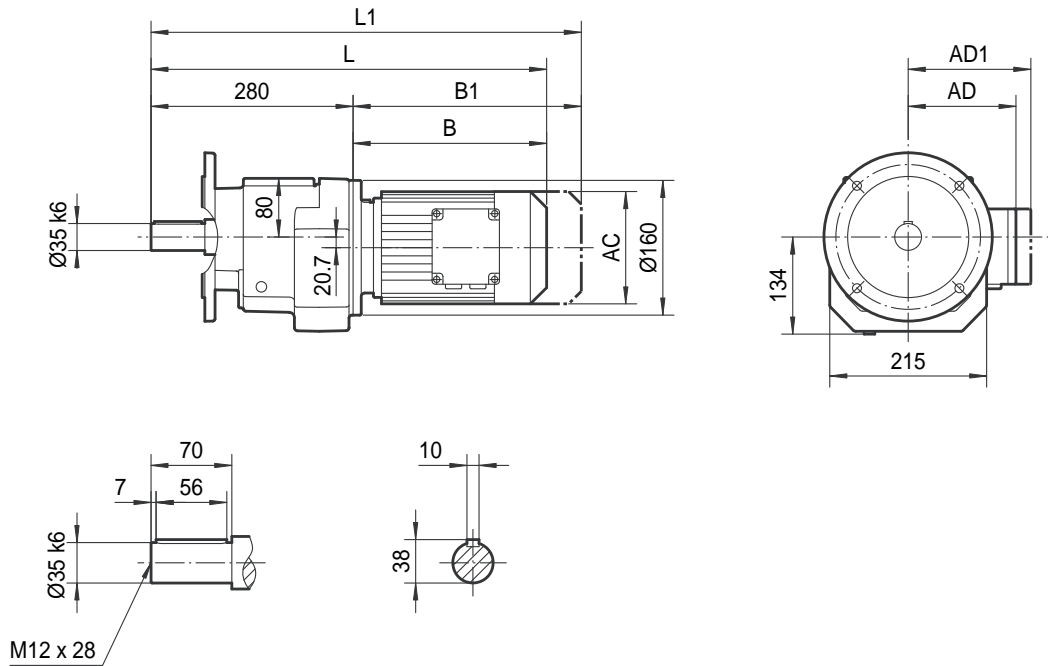


**TR67F..**

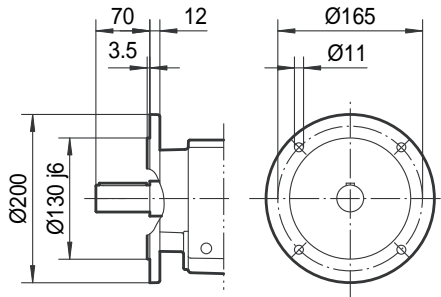


YDA	63..	71D	80..	90..	100M	100L	112M	132S	132M		
AC	132	145	145	197	197	197	221	221	275		
AD	105	122	122	154	166	166	179	179	230		
AD1	105	127	127	161	166	166	182	182	230		
B	185	199	249	269	319	349	354	402	424		
B1	240	263	313	354	404	434	434	482	536		
L	465	479	529	549	599	629	634	682	704		
L1	520	543	593	634	684	714	714	762	816		

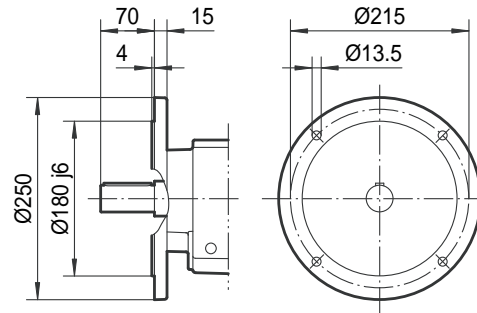
TRF67..



**I**  
Ø200

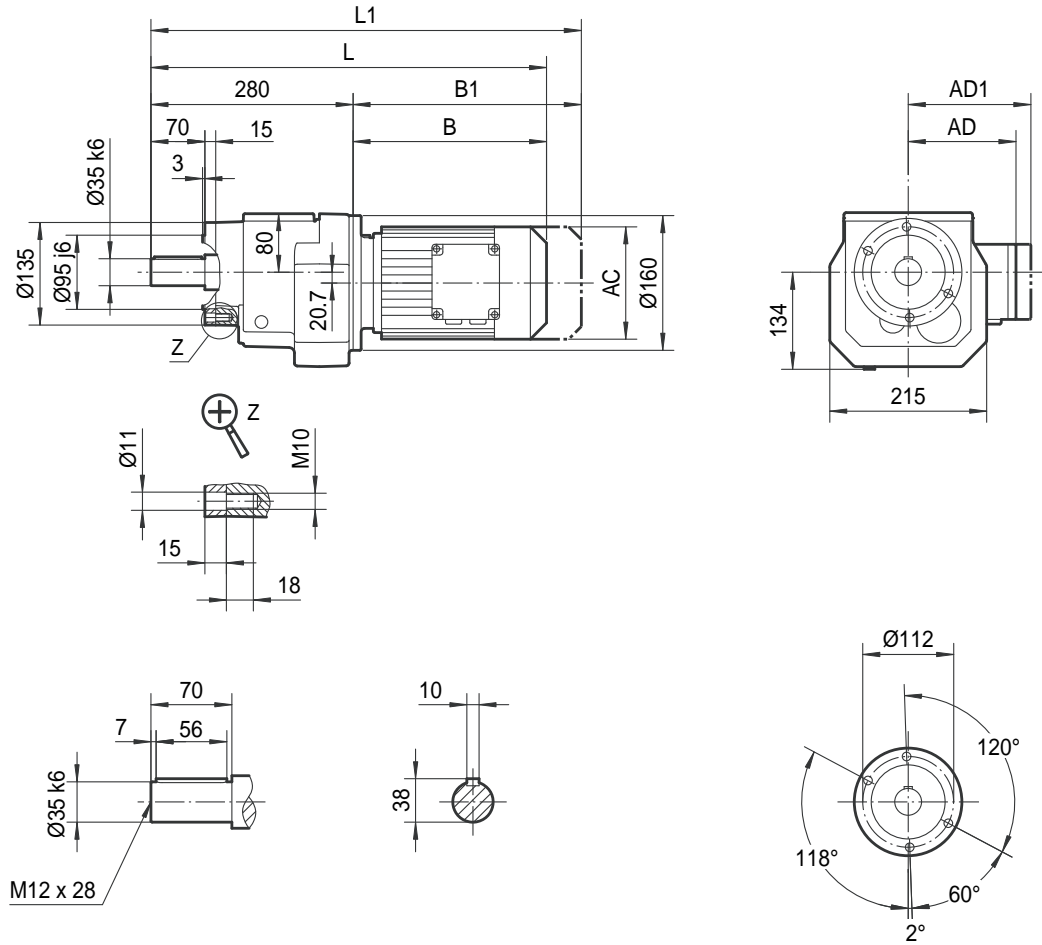


**II**  
Ø250



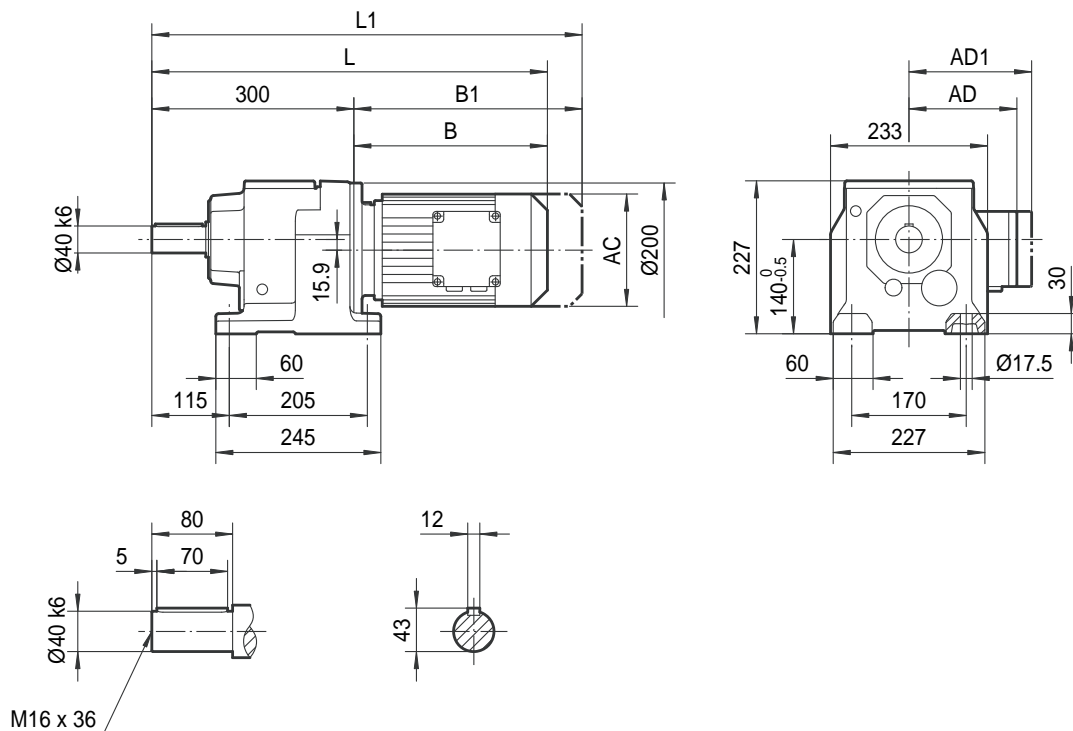
YDA	63..	71D	80..	90..	100M	100L	112M	132S	132M		
AC	132	145	145	197	197	197	221	221	275		
AD	105	122	122	154	166	166	179	179	230		
AD1	105	127	127	161	166	166	182	182	230		
B	185	199	249	269	319	349	354	402	424		
B1	240	263	313	354	404	434	434	482	536		
L	465	479	529	549	599	629	634	682	704		
L1	520	543	593	634	684	714	714	762	816		

TRZ67..

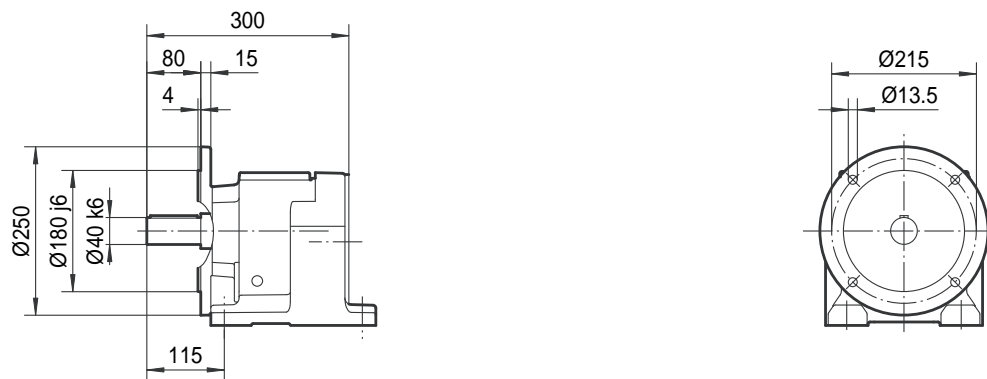


YDA	63..	71D	80..	90..	100M	100L	112M	132S	132M		
AC	132	145	145	197	197	197	221	221	275		
AD	105	122	122	154	166	166	179	179	230		
AD1	105	127	127	161	166	166	182	182	230		
B	185	199	249	269	319	349	354	402	424		
B1	240	263	313	354	404	434	434	482	536		
L	465	479	529	549	599	629	634	682	704		
L1	520	543	593	634	684	714	714	762	816		

TR77..

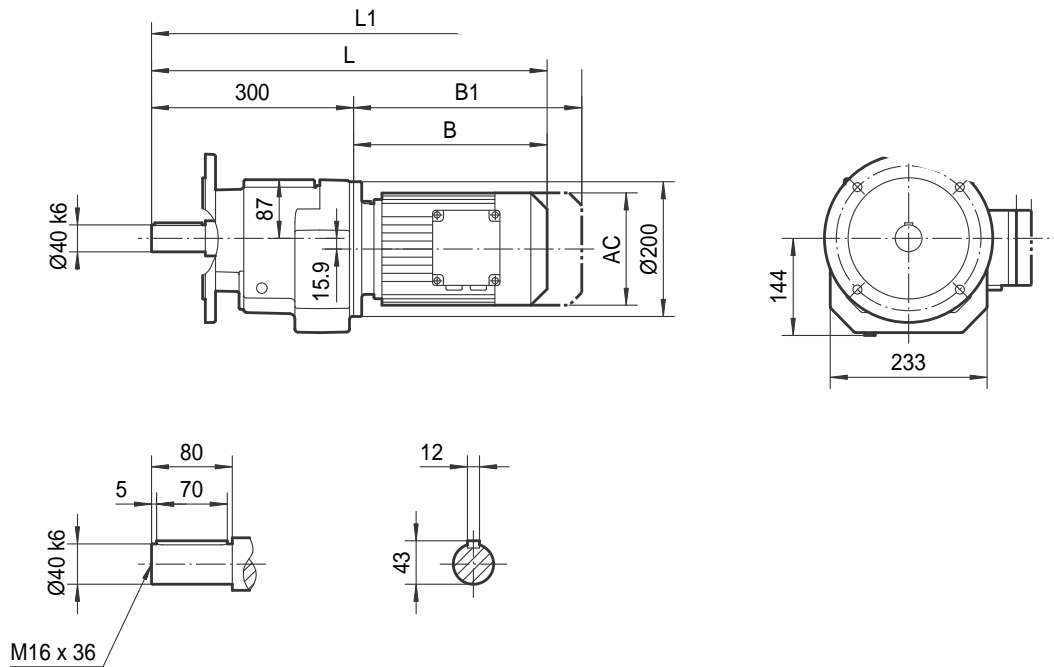


TR77F..

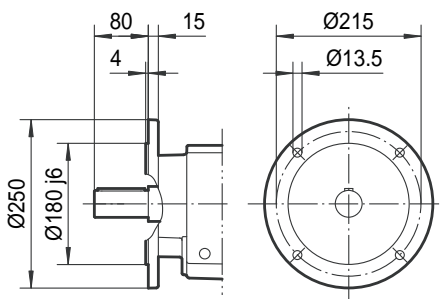


YDA	63..	71D	80..	90..	100M	100L	112M	132S	132M	132ML	YDT160M
AC	132	145	145	197	197	197	221	221	275	275	275
AD	105	122	122	154	166	166	179	179	230	230	230
AD1	105	127	127	161	166	166	182	182	230	230	230
B	179	193	243	261	311	341	345	390	412	472	472
B1	234	257	307	346	396	426	425	470	524	584	584
L	479	493	543	561	611	641	645	690	712	772	772
L1	534	557	607	646	696	726	725	770	824	884	884

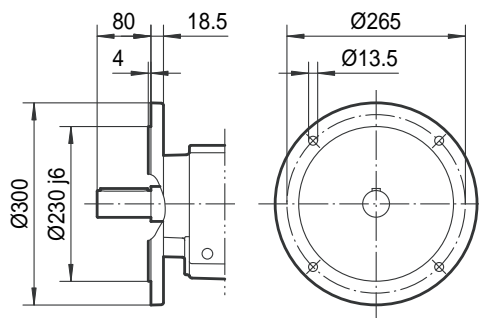
**TRF77..**



**I**  
Ø250

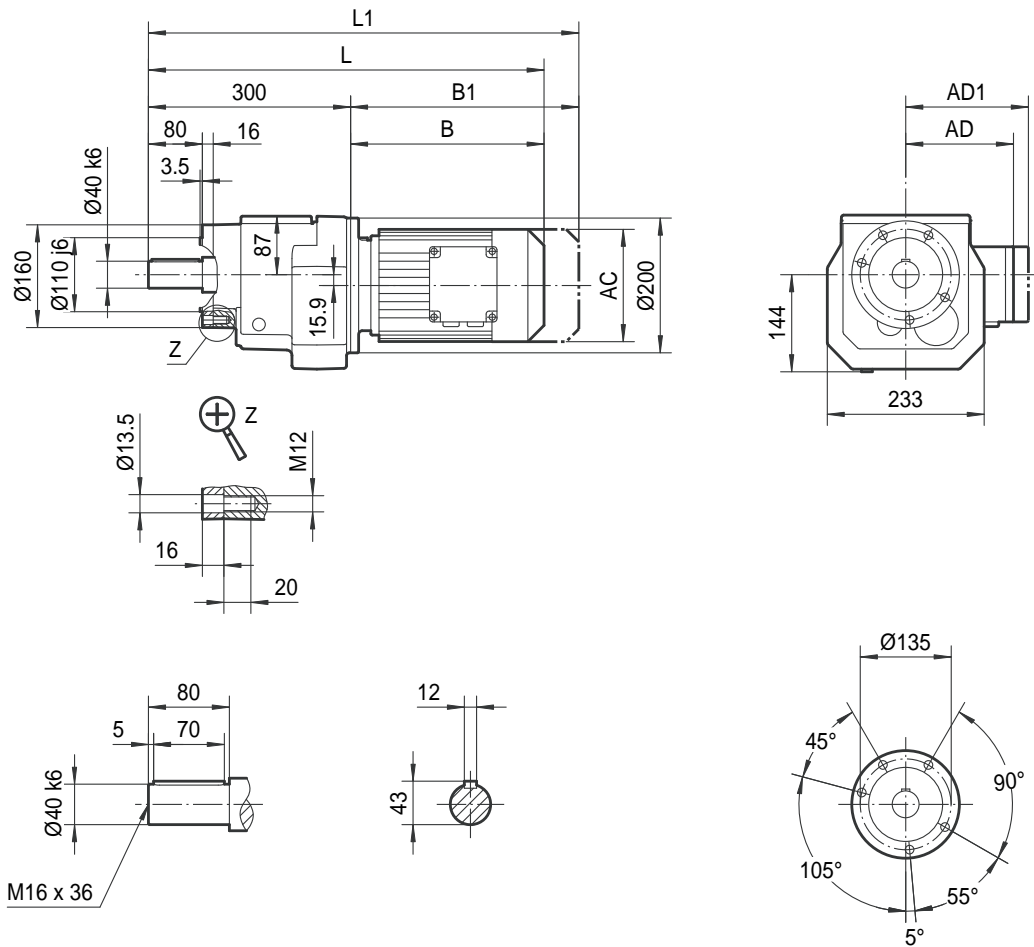


**II**  
Ø300



YDA	63..	71D	80..	90..	100M	100L	112M	132S	132M	132ML	YDT160M
AC	132	145	145	197	197	197	221	221	275	275	275
AD	105	122	122	154	166	166	179	179	230	230	230
AD1	105	127	127	161	166	166	182	182	230	230	230
B	179	193	243	261	311	341	345	390	412	472	472
B1	234	257	307	346	396	426	425	470	524	584	584
L	479	493	543	561	611	641	645	690	712	772	772
L1	534	557	607	646	696	726	725	770	824	884	884

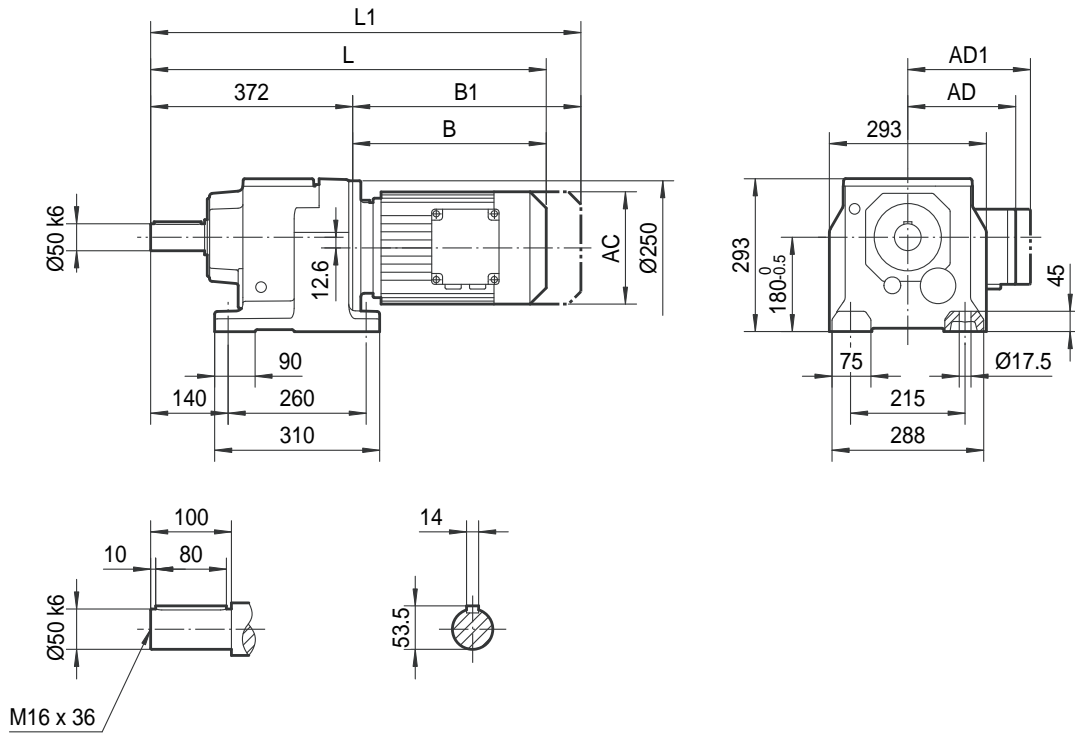
TRZ77..



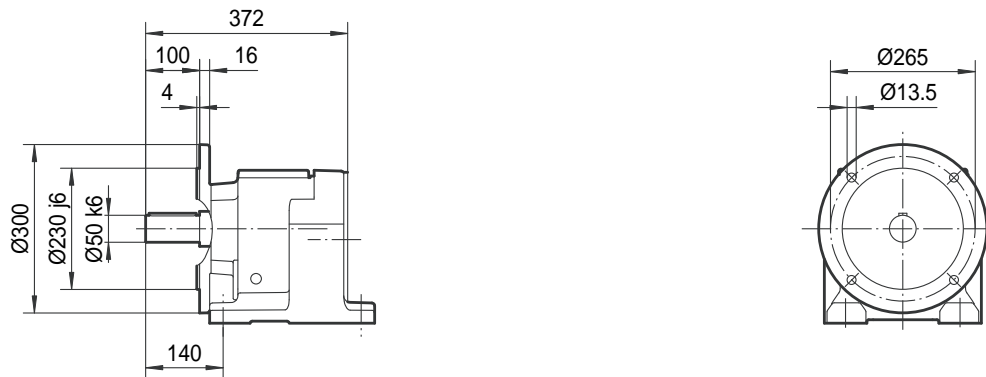
YDA	63..	71D	80..	90..	100M	100L	112M	132S	132M	132ML	YDT160M
AC	132	145	145	197	197	197	221	221	275	275	275
AD	105	122	122	154	166	166	179	179	230	230	230
AD1	105	127	127	161	166	166	182	182	230	230	230
B	179	193	243	261	311	341	345	390	412	472	472
B1	234	257	307	346	396	426	425	470	524	584	584
L	479	493	543	561	611	641	645	690	712	772	772
L1	534	557	607	646	696	726	725	770	824	884	884



**TR87..**

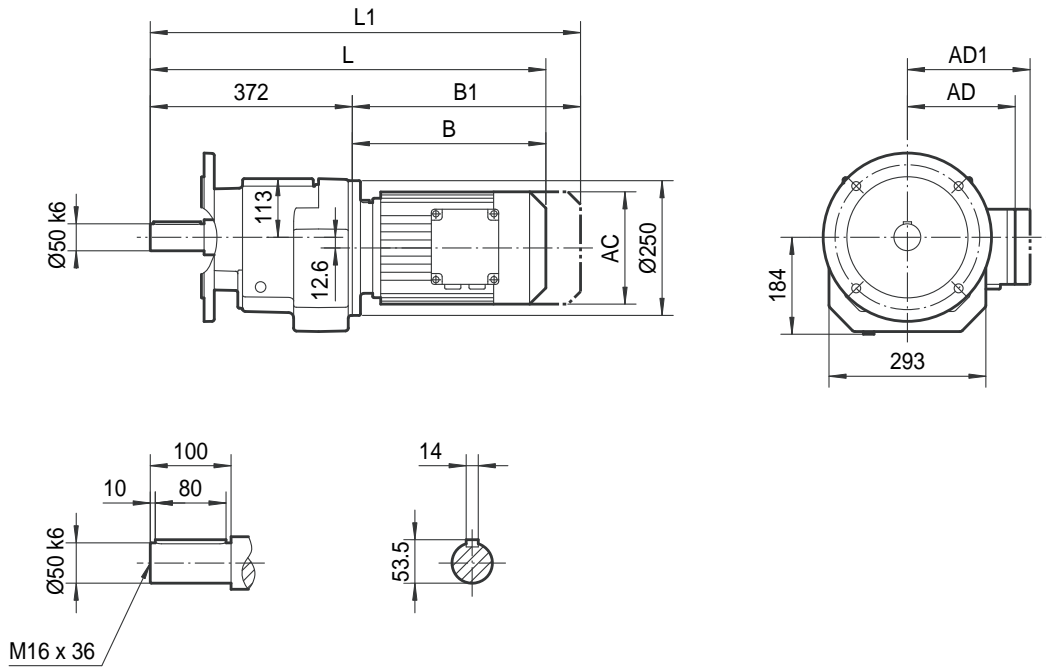


**TR87F..**

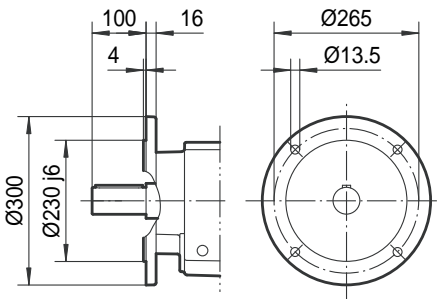


YDA	80..	90..	100M	100L	112M	132S	132M	132ML	YDT160M	YDT160L	YDT180..
AC	145	197	197	197	221	221	275	275	275	331	331
AD	122	154	166	166	179	179	230	230	230	258	258
AD1	127	161	166	166	182	182	230	230	230	258	258
B	238	257	307	337	340	385	407	467	467	514	586
B1	302	342	392	422	420	465	519	579	579	670	742
L	610	629	679	709	712	757	779	839	839	886	958
L1	674	714	764	794	792	837	891	951	951	1042	1114

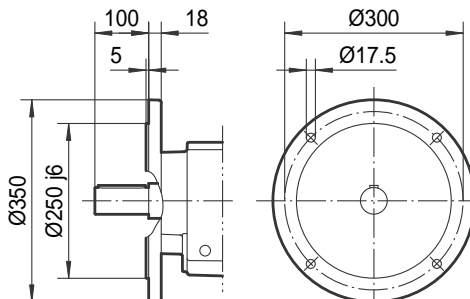
TRF87..



**I**  
Ø300

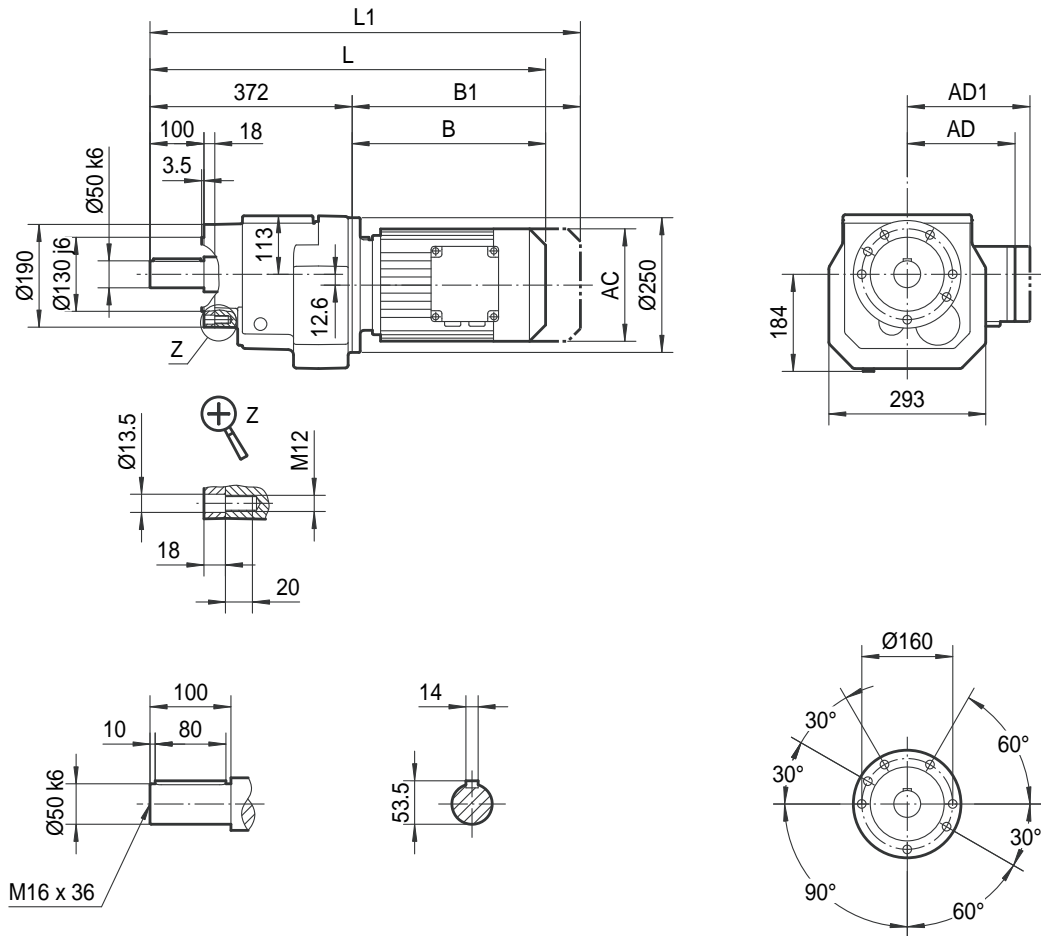


**II**  
Ø350



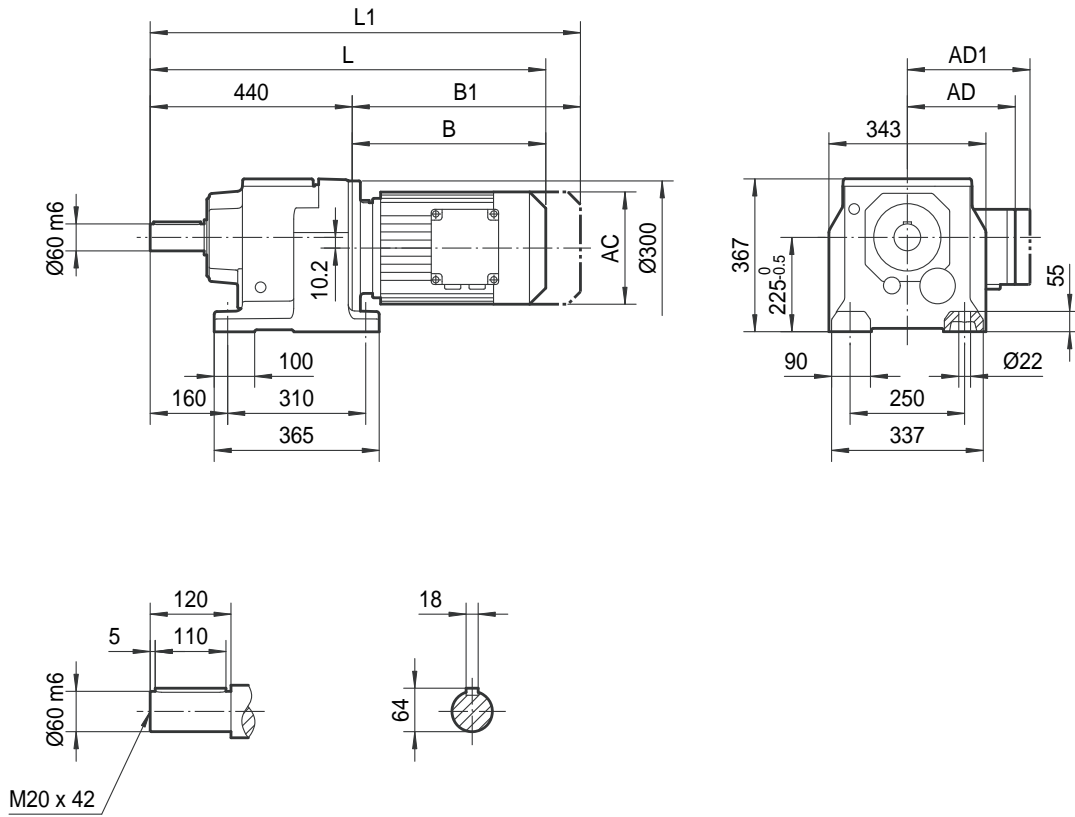
YDA	80..	90..	100M	100L	112M	132S	132M	132ML	YDT160M	YDT160L	YDT180..
AC	145	197	197	197	221	221	275	275	275	331	331
AD	122	154	166	166	179	179	230	230	230	258	258
AD1	127	161	166	166	182	182	230	230	230	258	258
B	238	257	307	337	340	385	407	467	467	514	586
B1	302	342	392	422	420	465	519	579	579	670	742
L	610	629	679	709	712	757	779	839	839	886	958
L1	674	714	764	794	792	837	891	951	951	1042	1114

**TRZ87..**



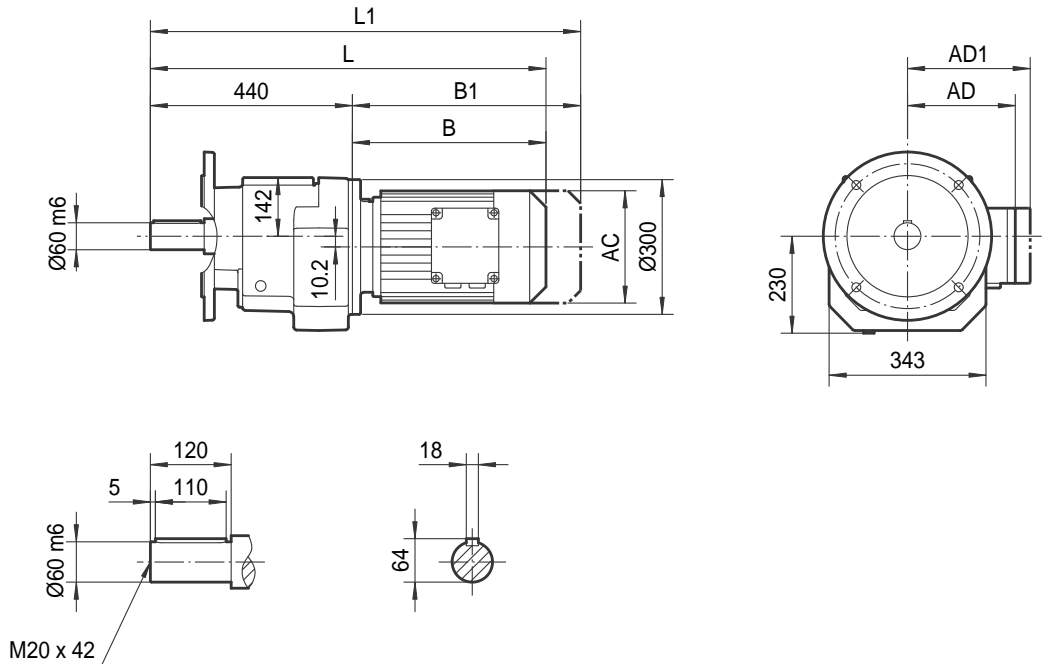
YDA	80..	90..	100M	100L	112M	132S	132M	132ML	YDT160M	YDT160L	YDT180..
AC	145	197	197	197	221	221	275	275	275	331	331
AD	122	154	166	166	179	179	230	230	230	258	258
AD1	127	161	166	166	182	182	230	230	230	258	258
B	238	257	307	337	340	385	407	467	467	514	586
B1	302	342	392	422	420	465	519	579	579	670	742
L	610	629	679	709	712	757	779	839	839	886	958
L1	674	714	764	794	792	837	891	951	951	1042	1114

TR97..

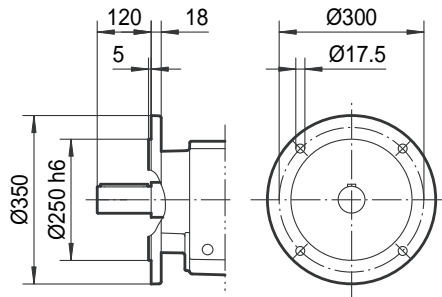


YDA	80..	90..	100M	100L	112M	132S	132M	132ML	YDT160M	YDT160L	YDT180..	YDT200..
AC	145	197	197	197	221	221	275	275	275	331	331	394
AD	122	154	166	166	179	179	230	230	230	258	258	285
AD1	127	161	166	166	182	182	230	230	230	258	258	285
B	231	251	301	331	335	380	402	462	462	509	581	629
B1	295	336	386	416	415	460	514	574	574	665	737	785
L	671	691	741	771	775	820	842	902	902	949	1021	1069
L1	735	776	826	856	855	900	954	1014	1014	1105	1177	1225

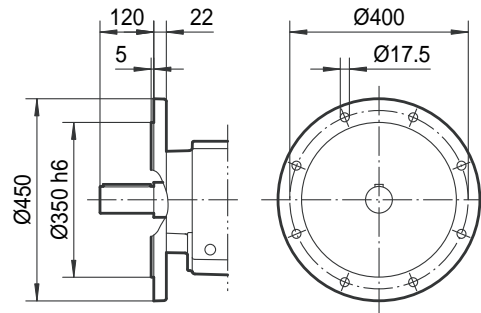
TRF97..



**I**  
Ø350

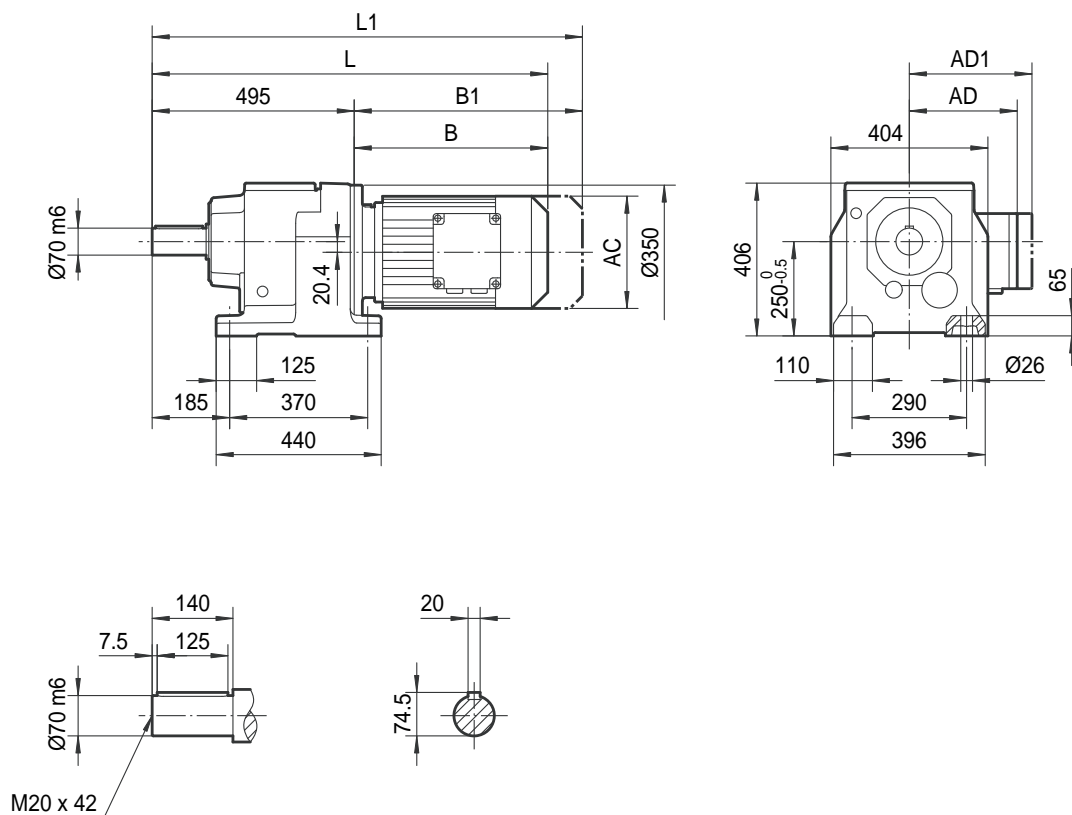


**II**  
Ø450



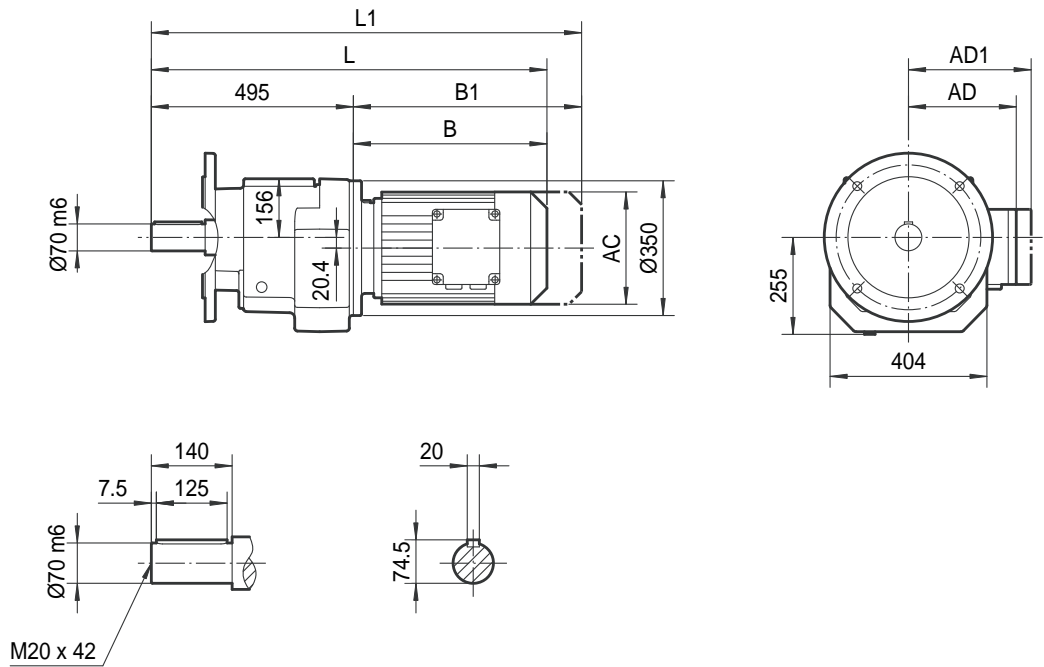
YDA	80..	90..	100M	100L	112M	132S	132M	132ML	YDT160M	YDT160L	YDT180..	YDT200..
AC	145	197	197	197	221	221	275	275	275	331	331	394
AD	122	154	166	166	179	179	230	230	230	258	258	285
AD1	127	161	166	166	182	182	230	230	230	258	258	285
B	231	251	301	331	335	380	402	462	462	509	581	629
B1	295	336	386	416	415	460	514	574	574	665	737	785
L	671	691	741	771	775	820	842	902	902	949	1021	1069
L1	735	776	826	856	855	900	954	1014	1014	1105	1177	1225

TR107..

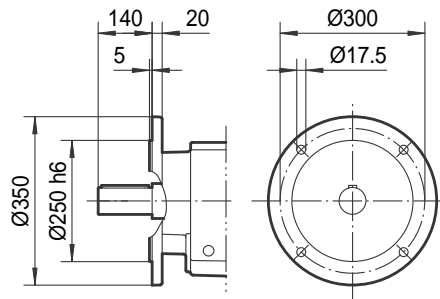


YDA	100M	100L	112M	132S	132M	132ML	YDT160M	YDT160L	YDT180..	YDT200..	YDT225..
AC	197	197	221	221	275	275	275	331	331	394	394
AD	166	166	179	179	230	230	230	258	258	285	289
AD1	166	166	182	182	230	230	230	258	258	285	289
B	295	325	329	374	396	456	456	503	575	623	705
B1	380	410	409	454	508	568	568	659	731	779	861
L	790	820	824	869	891	951	951	998	1070	1118	1200
L1	875	905	904	949	1003	1063	1063	1154	1226	1274	1356

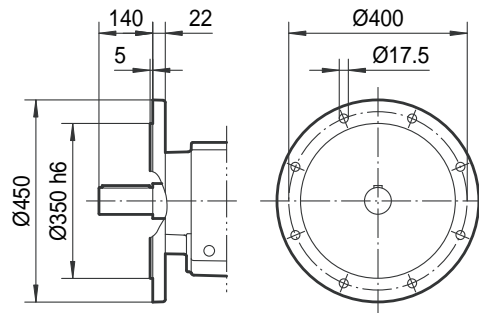
TRF107..



**I**  
Ø350

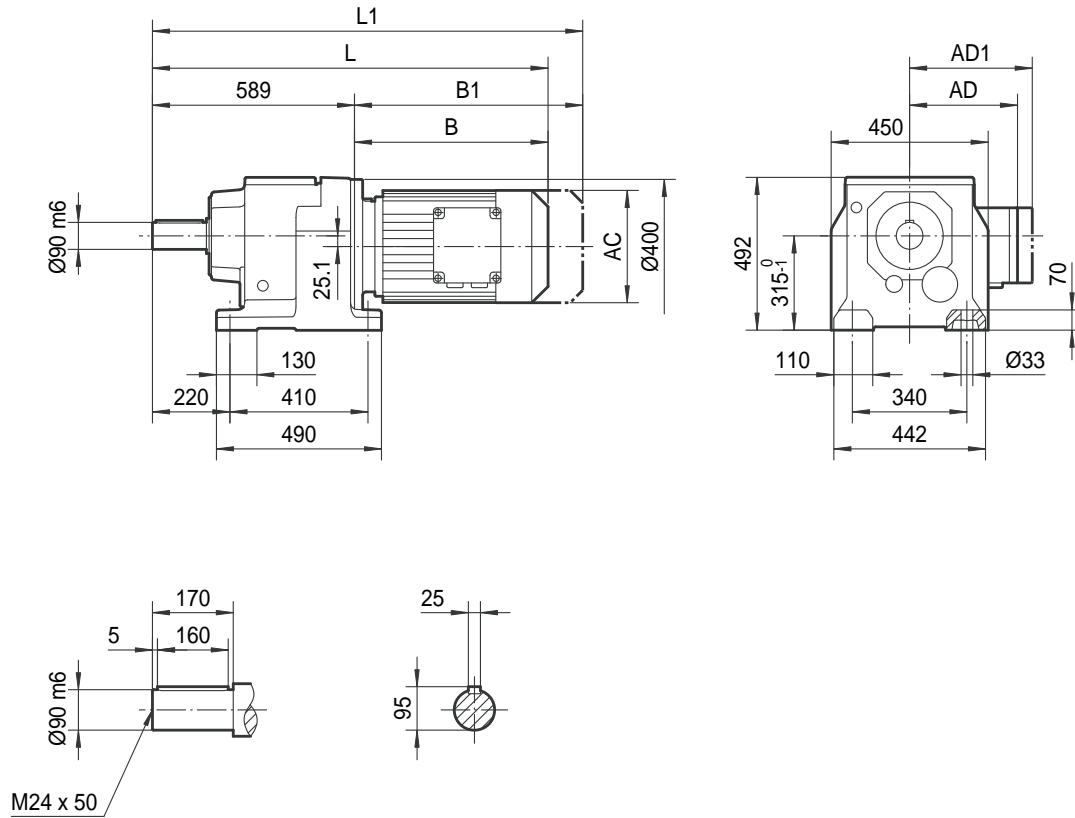


**II**  
Ø450



YDA	100M	100L	112M	132S	132M	132ML	YDT160M	YDT160L	YDT180..	YDT200..	YDT225..
AC	197	197	221	221	275	275	275	331	331	394	394
AD	166	166	179	179	230	230	230	258	258	285	289
AD1	166	166	182	182	230	230	230	258	258	285	289
B	295	325	329	374	396	456	456	503	575	623	705
B1	380	410	409	454	508	568	568	659	731	779	861
L	790	820	824	869	891	951	951	998	1070	1118	1200
L1	875	905	904	949	1003	1063	1063	1154	1226	1274	1356

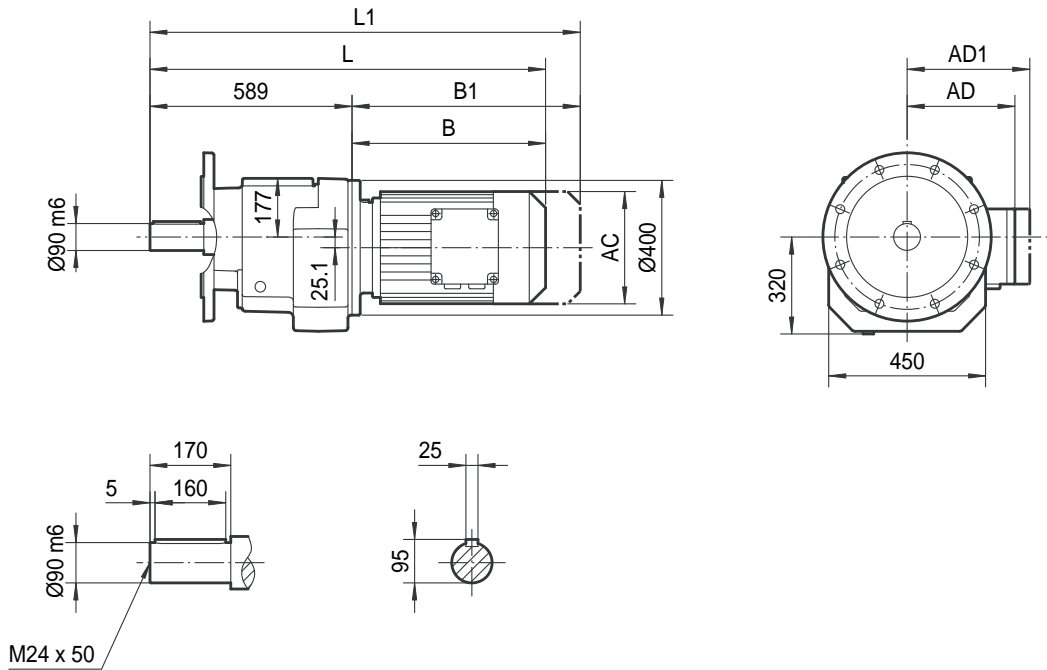
TR137..



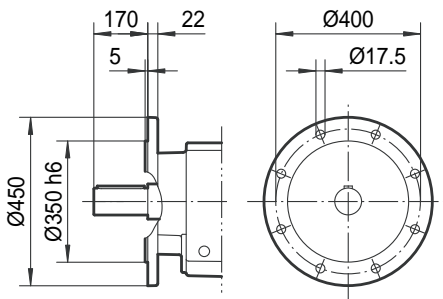
YDA	132S	132M	132ML	YDT160M	YDT160L	YDT180..	YDT200..	YDT225..	YDT250M		
AC	221	275	275	275	331	331	394	394	510		
AD	179	230	230	230	258	258	285	289	397		
AD1	182	230	230	230	258	258	285	289	397		
B	367	389	449	449	496	568	616	698	789		
B1	447	501	561	561	652	724	772	854	974		
L	956	978	1038	1038	1085	1157	1205	1287	1378		
L1	1036	1090	1150	1150	1241	1313	1361	1443	1563		



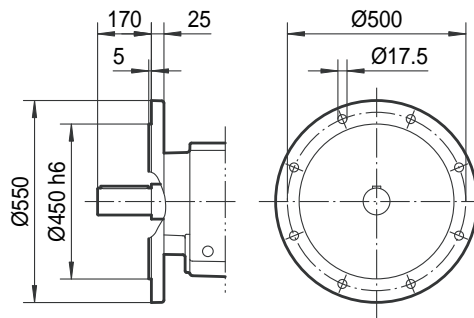
**TRF137**



**I**  
Ø450

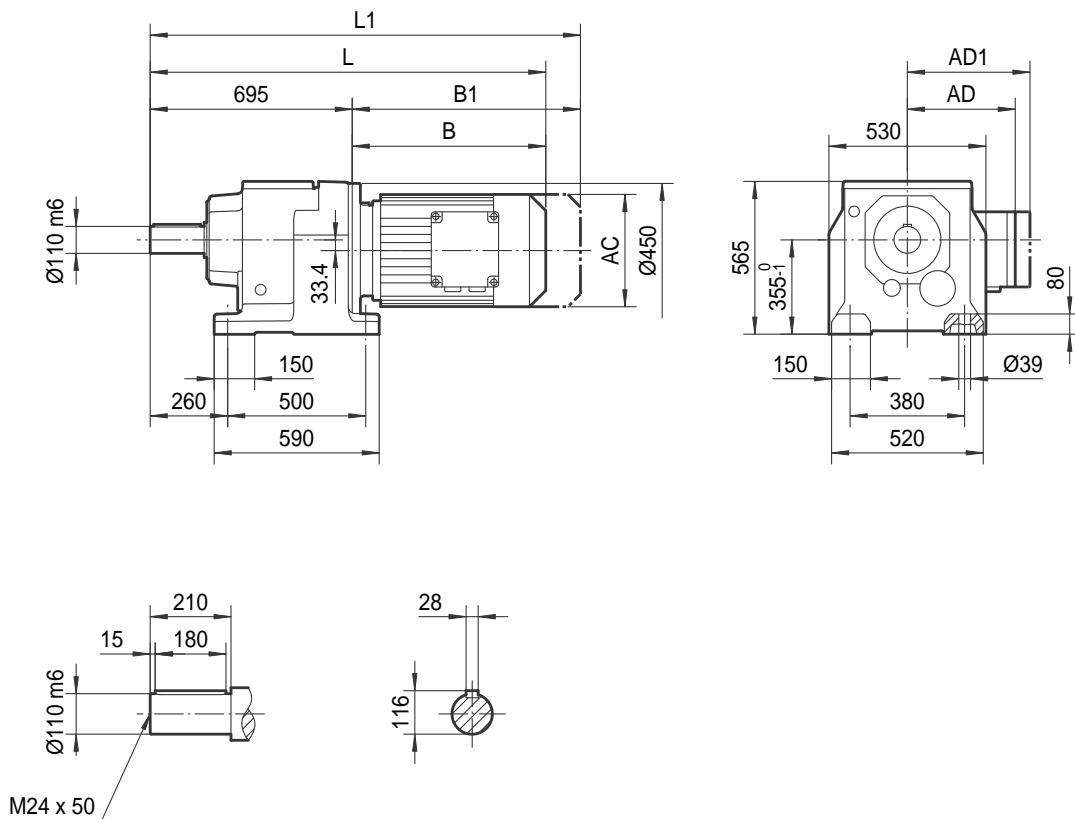


**II**  
Ø550



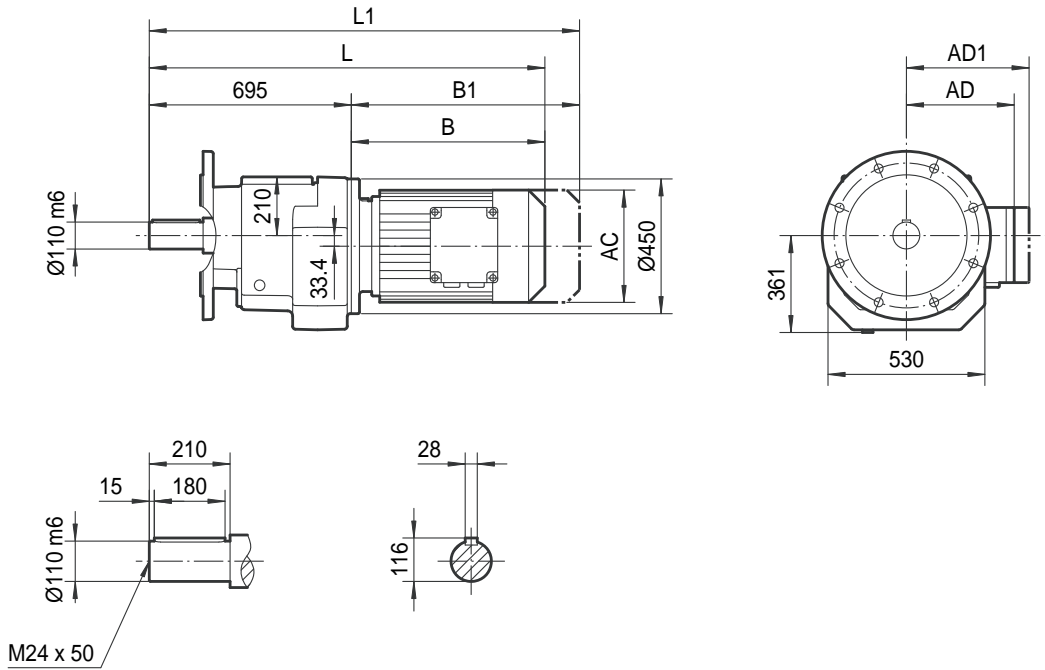
YDA	132S	132M	132ML	YDT160M	YDT160L	YDT180..	YDT200..	YDT225..	YDT250M		
AC	221	275	275	275	331	331	394	394	510		
AD	179	230	230	230	258	258	285	289	397		
AD1	182	230	230	230	258	258	285	289	397		
B	367	389	449	449	496	568	616	698	789		
B1	447	501	561	561	652	724	772	854	974		
L	956	978	1038	1038	1085	1157	1205	1287	1378		
L1	1036	1090	1150	1150	1241	1313	1361	1443	1563		

TR147..

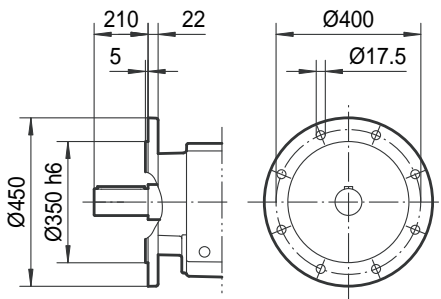


YDA	132ML	YDT160M	YDT160L	YDT180..	YDT200..	YDT225..	YDT250M	YDT280..			
AC	275	275	331	331	394	394	510	510			
AD	230	230	258	258	285	289	397	397			
AD1	230	230	258	258	285	289	397	397			
B	441	441	488	560	608	690	780	780			
B1	553	553	644	716	764	846	965	965			
L	1136	1136	1183	1255	1303	1385	1475	1475			
L1	1248	1248	1339	1411	1459	1541	1660	1660			

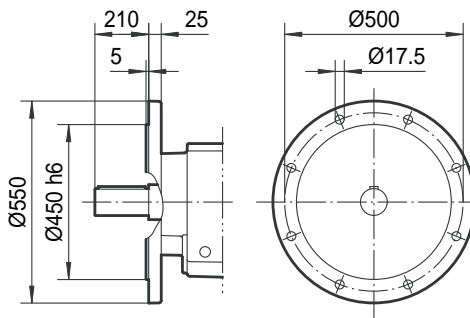
TRF147..



**I**  
Ø450

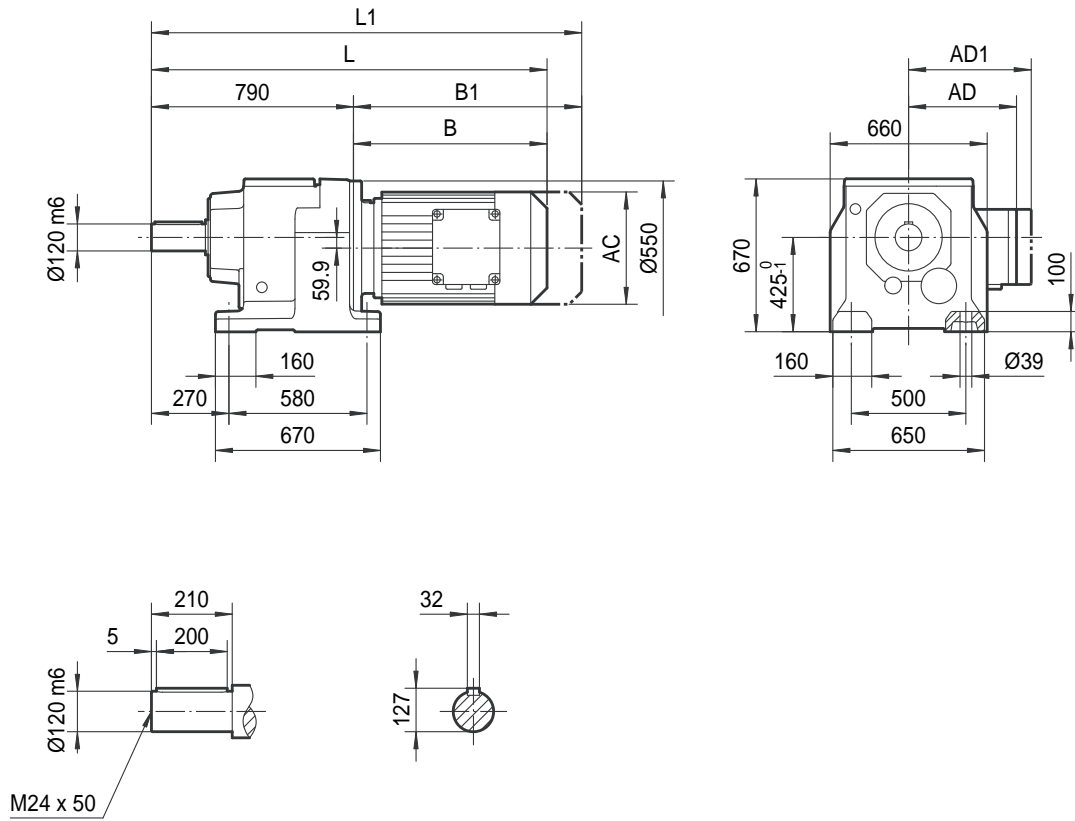


**II**  
Ø550



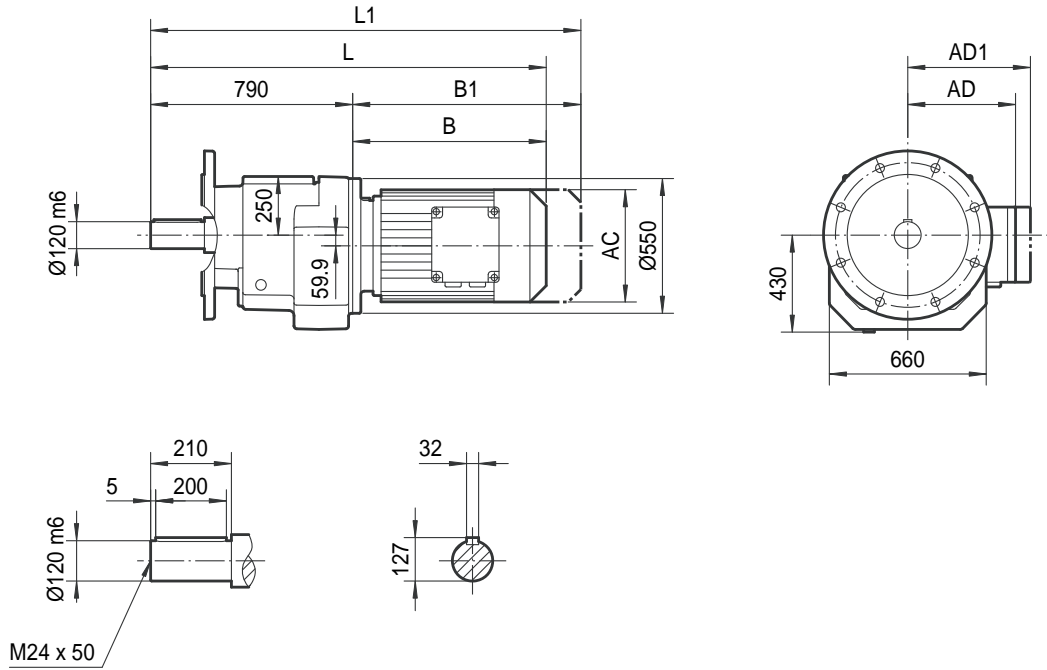
YDA	132ML	YDT160M	YDT160L	YDT180..	YDT200..	YDT225..	YDT250M	YDT280..			
AC	275	275	331	331	394	394	510	510			
AD	230	230	258	258	285	289	397	397			
AD1	230	230	258	258	285	289	397	397			
B	441	441	488	560	608	690	780	780			
B1	553	553	644	716	764	846	965	965			
L	1136	1136	1183	1255	1303	1385	1475	1475			
L1	1248	1248	1339	1411	1459	1541	1660	1660			

TR167..

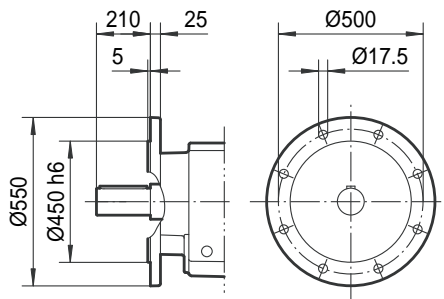


YDT	160M	160L	180..	200..	225..	250M	280..	315S	315M		
AC	275	331	331	394	394	510	510	612	612		
AD	230	258	258	285	289	397	397	430	430		
AD1	230	258	258	285	289	397	397	430	430		
B	433	480	552	600	682	771	771	999	1050		
B1	545	636	708	756	838	956	956	1210	1261		
L	1223	1270	1342	1390	1472	1561	1561	1789	1840		
L1	1335	1426	1498	1546	1628	1746	1746	2000	2051		

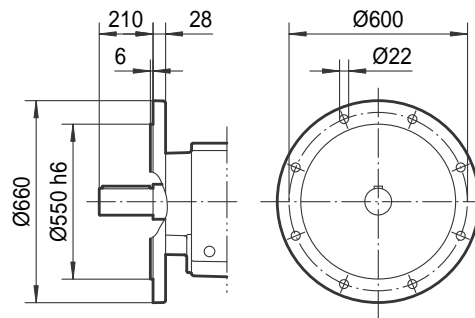
TRF167..



**I**  
Ø550

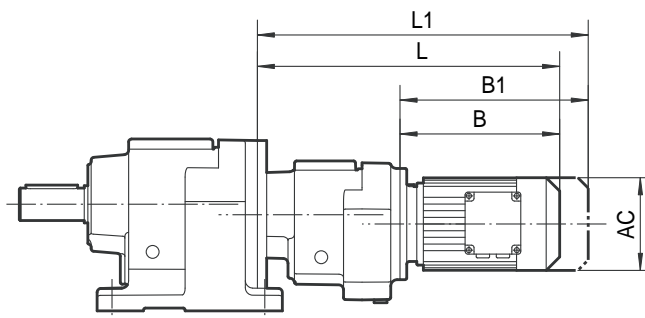


**II**  
Ø660



YDT	160M	160L	180..	200..	225..	250M	280..	315S	315M		
AC	275	331	331	394	394	510	510	612	612		
AD	230	258	258	285	289	397	397	430	430		
AD1	230	258	258	285	289	397	397	430	430		
B	433	480	552	600	682	771	771	999	1050		
B1	545	636	708	756	838	956	956	1210	1261		
L	1223	1270	1342	1390	1472	1561	1561	1789	1840		
L1	1335	1426	1498	1546	1628	1746	1746	2000	2051		

TR.. / TRF..

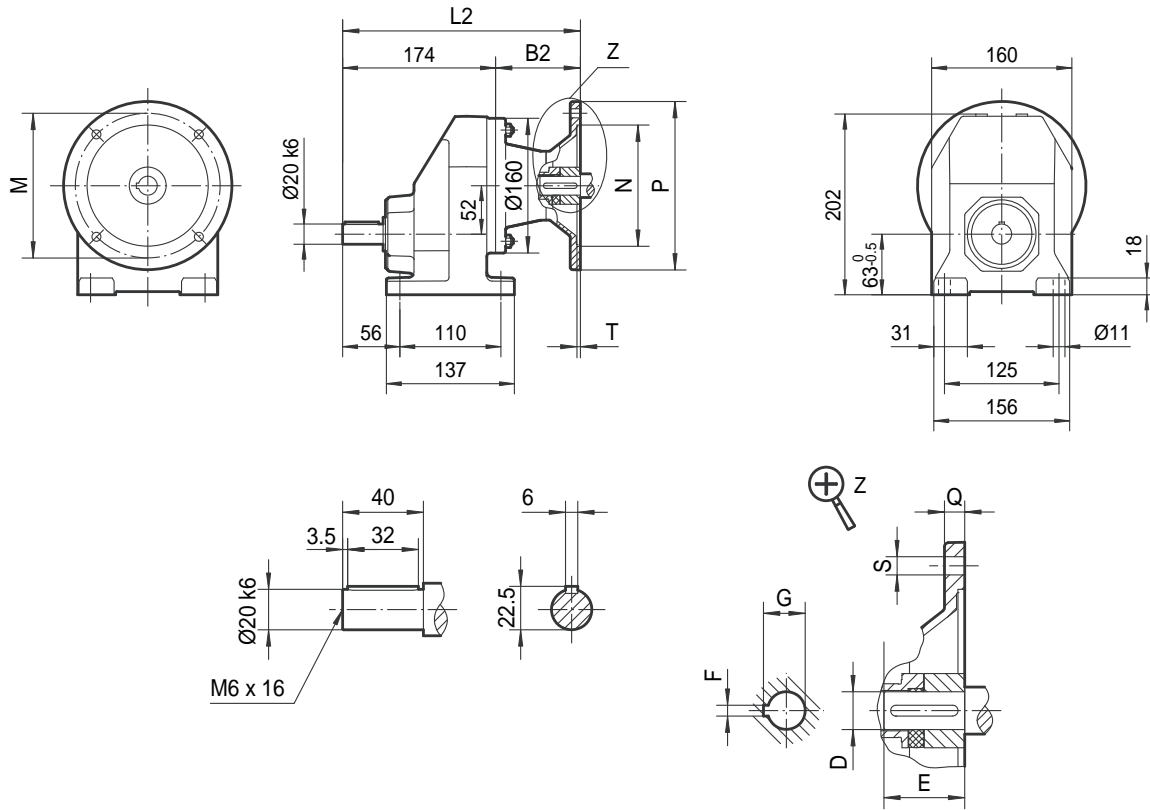


TR.. / TRF..	YDA../YDT..	AC	B	B1	L	L1
TR..47 / TRF37	63..	132	192	246	357	411
TR..57 / TRF37	71D	145	206	270	371	435
TR..67 / TRF37	80..	145	256	320	421	485
TR..77 / TRF37	63..	132	192	246	349	403
	71D	145	206	270	363	427
	80..	145	256	320	413	477
	90..	197	276	361	433	518
TR..87 / TRF57	63..	132	185	240	401	456
	71D	145	199	263	415	479
	80..	145	249	313	465	529
TR..97 / TRF57	90..	197	269	354	485	570
	63..	132	185	240	396	451
	71D	145	199	263	410	474
TR..97 / TRF57	80..	145	249	313	460	524
	90..	197	269	354	480	565
	100M	197	319	404	530	615
	100L	197	349	434	560	645
	63..	132	179	234	426	481
TR..107 / TRF77	71D	145	193	257	440	504
	80..	145	243	307	490	554
	90..	197	261	346	508	593
	100M	197	311	396	558	643
	100L	197	341	426	588	673
	112M	221	345	425	592	672
	132S	221	390	470	637	717
	132M	275	412	524	659	771
	132ML	275	472	584	719	831
	160M	275	472	584	719	831
	TR..137 / TRF77	63..	132	179	234	419
71D		145	193	257	433	497
80..		145	243	307	483	547
90..		197	261	346	501	586
100M		197	311	396	551	636
100L		197	341	426	581	666
112M		221	345	425	585	665
132S		221	390	470	630	710
132M		275	412	524	652	764
132ML		275	472	584	712	824
TR..147 / TRF77	63..	132	179	234	411	466
	71D	145	193	257	425	489

TR.. / TRF..	YDA../YDT..	AC	B	B1	L	L1	
TR..147 / TRF77	80..	145	243	307	475	539	
	90..	197	261	346	493	578	
	100M	197	311	396	543	628	
	100L	197	341	426	573	658	
	112M	221	345	425	577	657	
	132S	221	390	470	622	702	
	132M	275	412	524	644	756	
	132ML	275	472	584	704	816	
	160M	275	472	584	704	816	
	TR..147 / TRF87	90..	197	257	342	537	622
100M		197	307	392	587	672	
100L		197	337	422	617	702	
112M		221	340	420	620	700	
132S		221	385	465	665	745	
132M		275	407	519	687	799	
132ML		275	467	579	747	859	
160M		275	467	579	747	859	
160L		331	514	670	794	950	
180..		331	586	742	866	1022	
TR..167 / TRF97	80..	145	231	295	556	620	
	90..	197	251	336	576	661	
	100M	197	301	386	626	711	
	100L	197	331	416	656	741	
	112M	221	335	415	660	740	
	132S	221	380	460	705	785	
	132M	275	402	514	727	839	
	132ML	275	462	574	787	899	
	160M	275	462	574	787	899	
	160L	331	509	665	834	990	
	180..	331	581	737	906	1062	
	TR..167 / TRF107	100M	197	295	380	677	762
		100L	197	325	410	707	792
112M		221	329	409	711	791	
132S		221	374	454	756	836	
132M		275	396	508	778	890	
132ML		275	456	568	838	950	
160M		275	456	568	838	950	
160L		331	503	659	885	1041	
180..		331	575	731	957	1113	
200..		394	623	779	1005	1161	
225..		394	705	861	1087	1243	

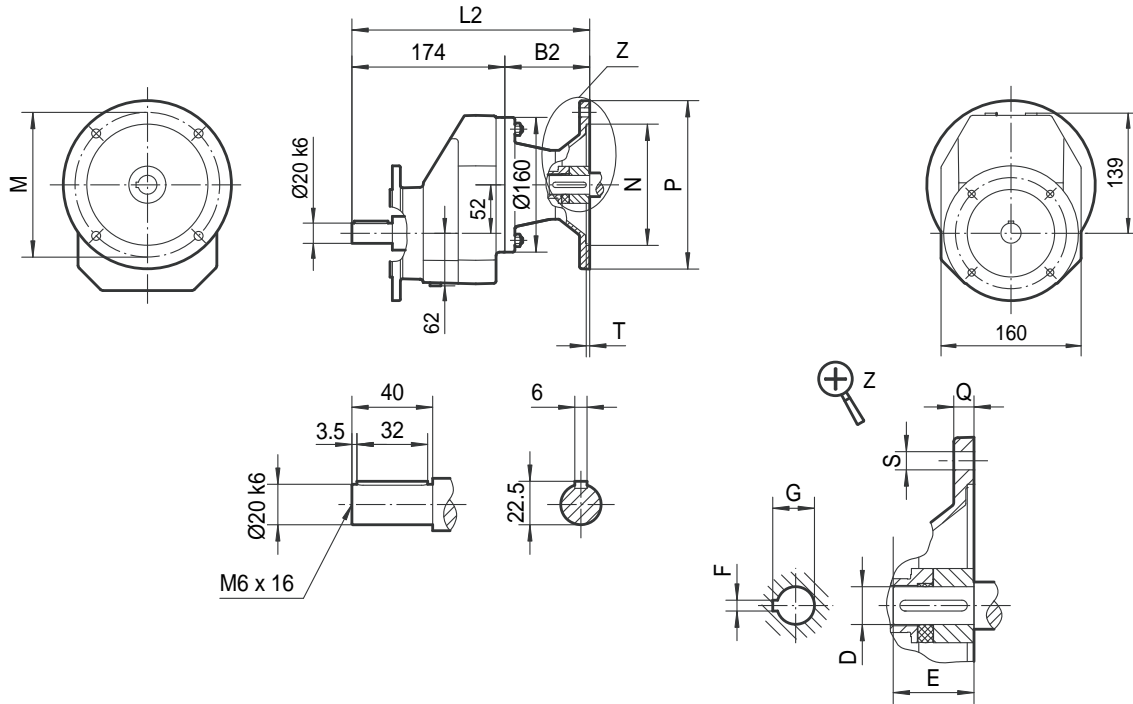
Motor type YDA ( Frame size 63 ~ 132 ), YDT ( Frame size 160 ~ 315 )

**TRX57..**

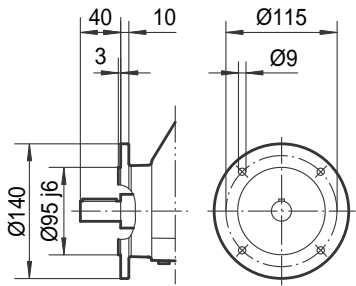


	L2	B2	D	E	F	G	M	N	P	Q	S	T
<b>AM63</b>	240	66	11	23	4	12.8	115	95	140	10	4-Ø9	3.5
<b>AM71</b>	240	66	14	30	5	16.3	130	110	160	10	4-Ø9	4
<b>AM80</b>	273	99	19	40	6	21.8	165	130	200	12	4-Ø11	4.5
<b>AM90</b>	273	99	24	50	8	27.3	165	130	200	12	4-Ø11	4.5
<b>AM100</b>	308	134	28	60	8	31.3	215	180	250	15	4-Ø13.5	5
<b>AM112</b>	308	134	28	60	8	31.3	215	180	250	15	4-Ø13.5	5
<b>AM132S/M</b>	365	191	38	80	10	41.3	265	230	300	16	4-Ø13.5	5

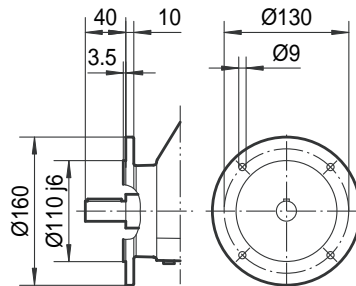
TRXF57..



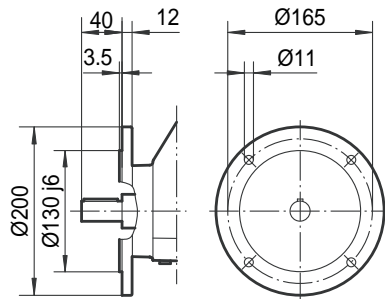
**I**  
Ø140



**II**  
Ø160



**III**  
Ø200

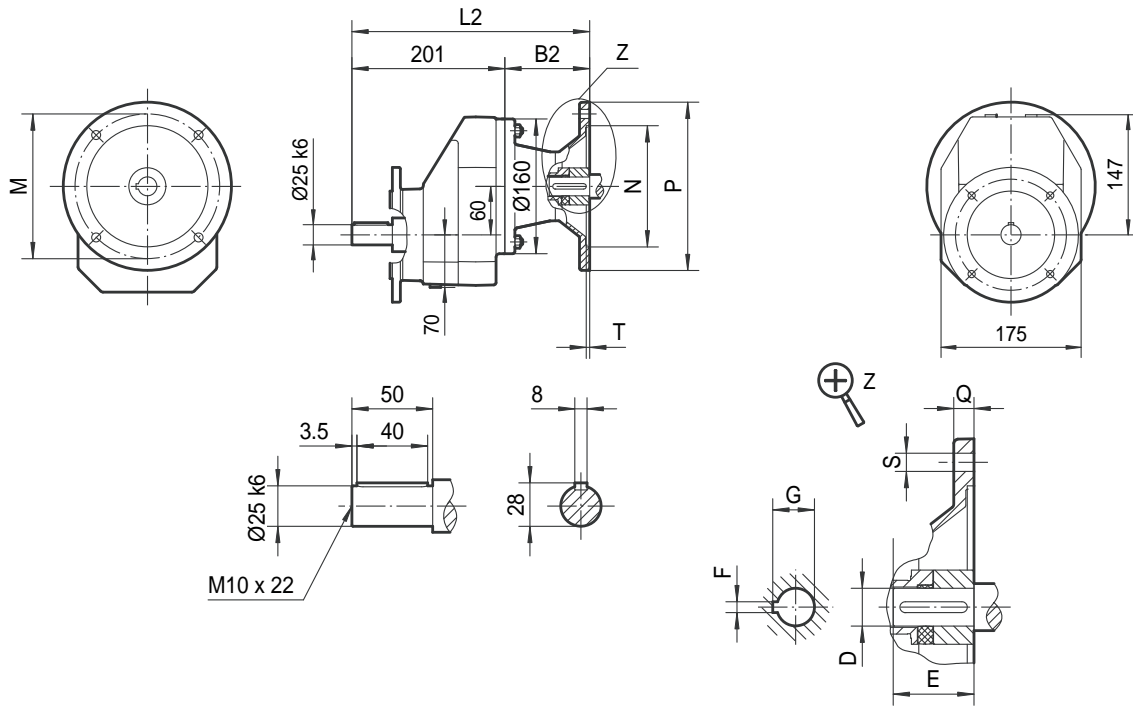


	L2	B2	D	E	F	G	M	N	P	Q	S	T
<b>AM63</b>	240	66	11	23	4	12.8	115	95	140	10	4-Ø9	3.5
<b>AM71</b>	240	66	14	30	5	16.3	130	110	160	10	4-Ø9	4
<b>AM80</b>	273	99	19	40	6	21.8	165	130	200	12	4-Ø11	4.5
<b>AM90</b>	273	99	24	50	8	27.3	165	130	200	12	4-Ø11	4.5
<b>AM100</b>	308	134	28	60	8	31.3	215	180	250	15	4-Ø13.5	5
<b>AM112</b>	308	134	28	60	8	31.3	215	180	250	15	4-Ø13.5	5
<b>AM132S/M</b>	365	191	38	80	10	41.3	265	230	300	16	4-Ø13.5	5

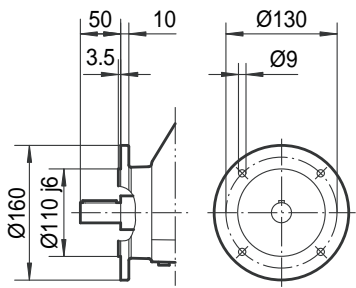




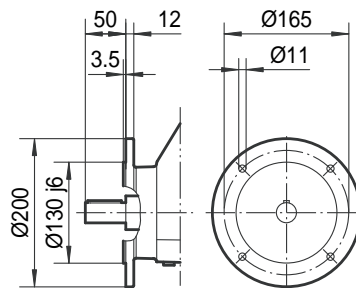
TRXF67..



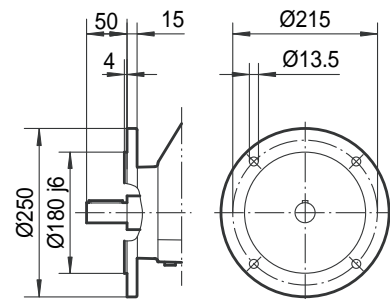
**I**  
Ø160



**II**  
Ø200

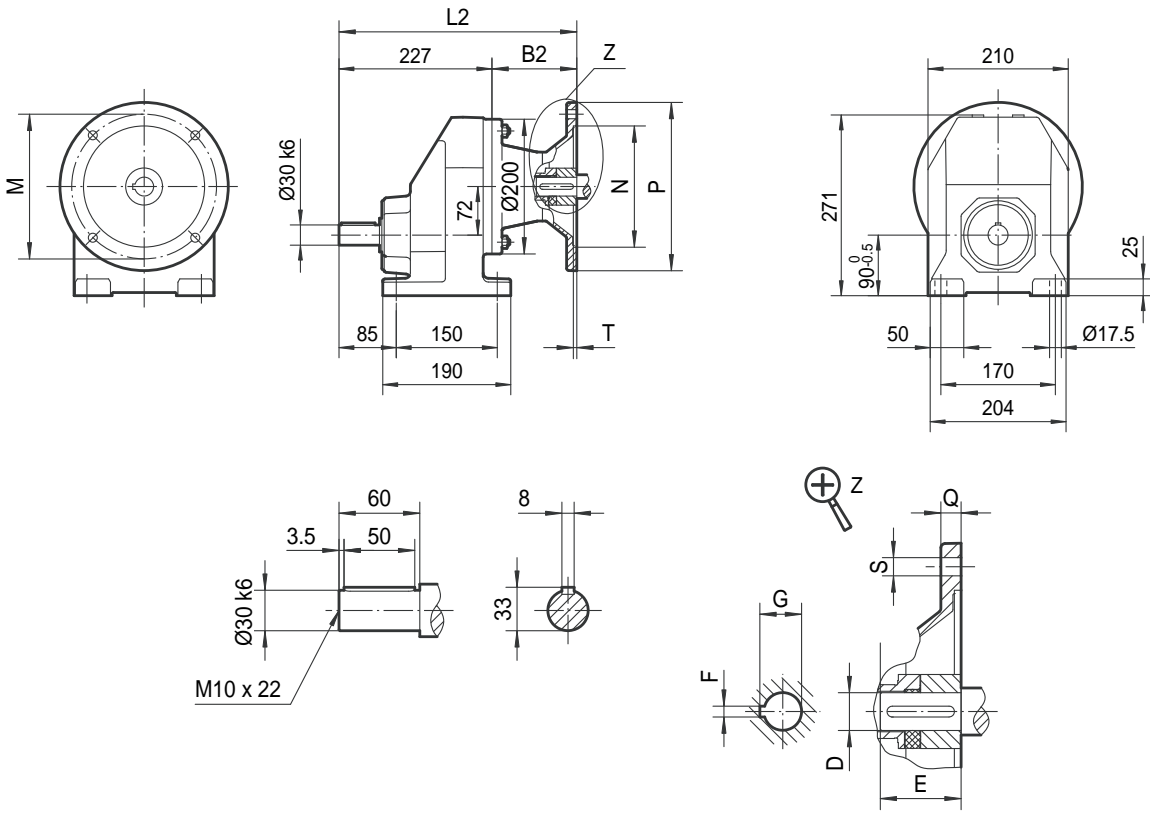


**III**  
Ø250



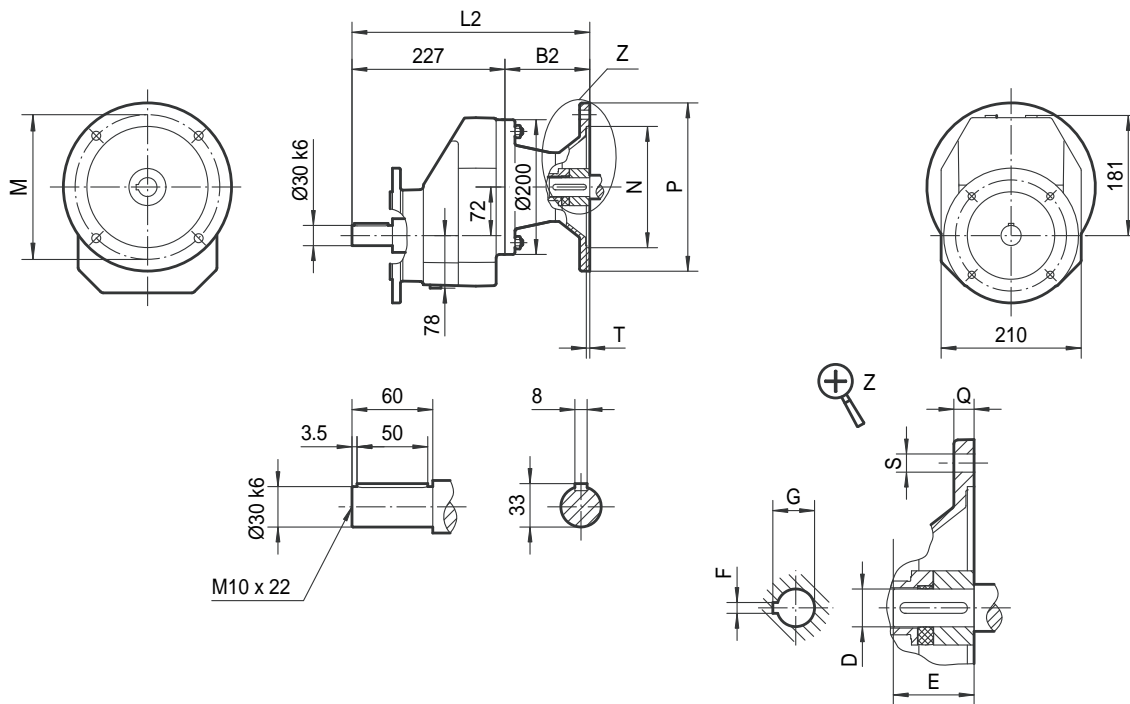
	L2	B2	D	E	F	G	M	N	P	Q	S	T
<b>AM63</b>	267	66	11	23	4	12.8	115	95	140	10	4-Ø9	3.5
<b>AM71</b>	267	66	14	30	5	16.3	130	110	160	10	4-Ø9	4
<b>AM80</b>	300	99	19	40	6	21.8	165	130	200	12	4-Ø11	4.5
<b>AM90</b>	300	99	24	50	8	27.3	165	130	200	12	4-Ø11	4.5
<b>AM100</b>	335	134	28	60	8	31.3	215	180	250	15	4-Ø13.5	5
<b>AM112</b>	335	134	28	60	8	31.3	215	180	250	15	4-Ø13.5	5
<b>AM132S/M</b>	392	191	38	80	10	41.3	265	230	300	16	4-Ø13.5	5

**TRX77..**



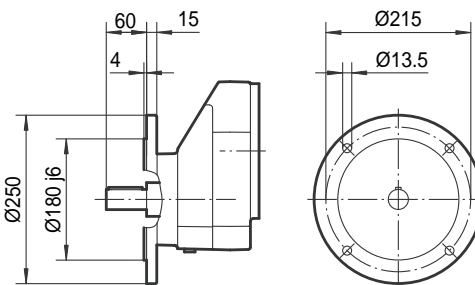
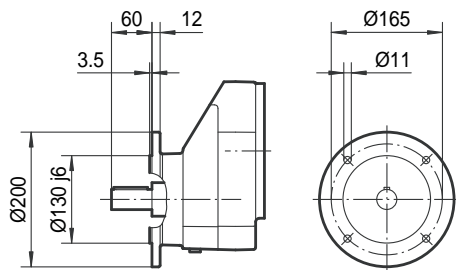
	L2	B2	D	E	F	G	M	N	P	Q	S	T
<b>AM63</b>	287	60	11	23	4	12.8	115	95	140	10	4-Ø9	3.5
<b>AM71</b>	287	60	14	30	5	16.3	130	110	160	10	4-Ø9	4
<b>AM80</b>	319	92	19	40	6	21.8	165	130	200	12	4-Ø11	4.5
<b>AM90</b>	319	92	24	50	8	27.3	165	130	200	12	4-Ø11	4.5
<b>AM100</b>	353	126	28	60	8	31.3	215	180	250	15	4-Ø13.5	5
<b>AM112</b>	353	126	28	60	8	31.3	215	180	250	15	4-Ø13.5	5
<b>AM132S/M</b>	406	179	38	80	10	41.3	265	230	300	16	4-Ø13.5	5
<b>AM132ML</b>	406	179	38	80	10	41.3	265	230	300	16	4-Ø13.5	5

TRXF77..



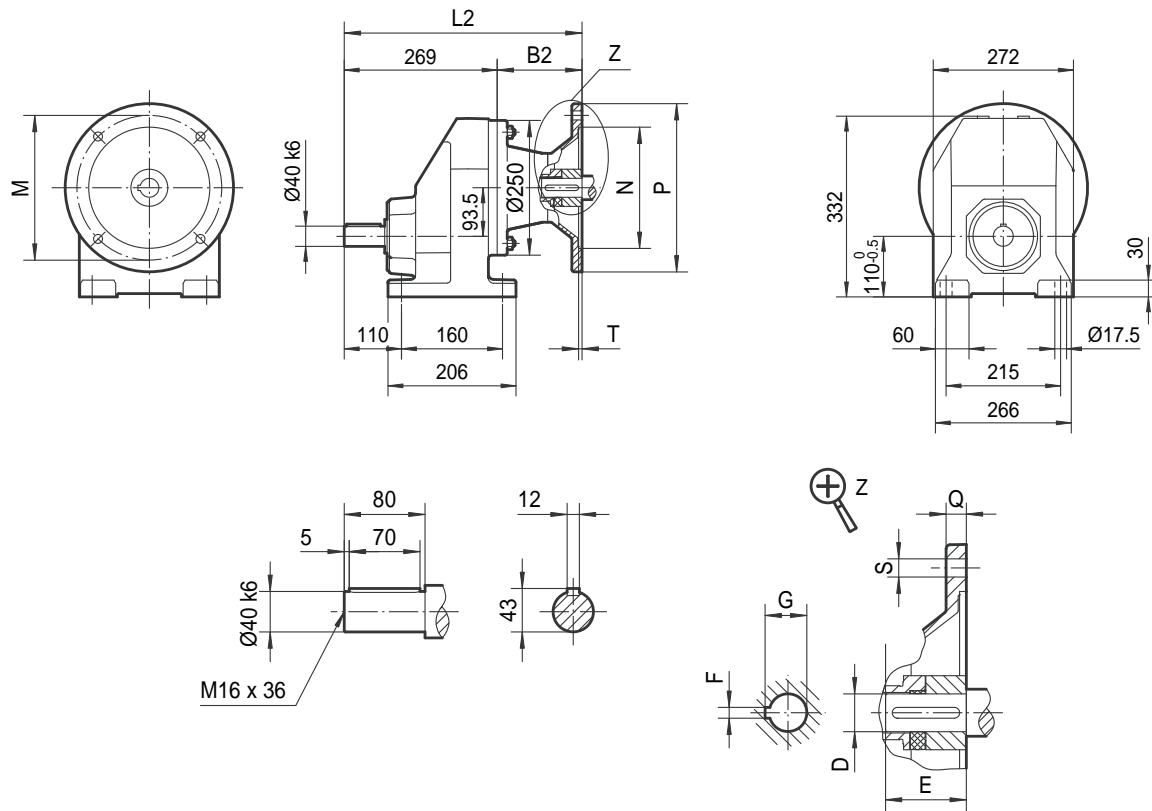
**I**  
Ø200

**II**  
Ø250



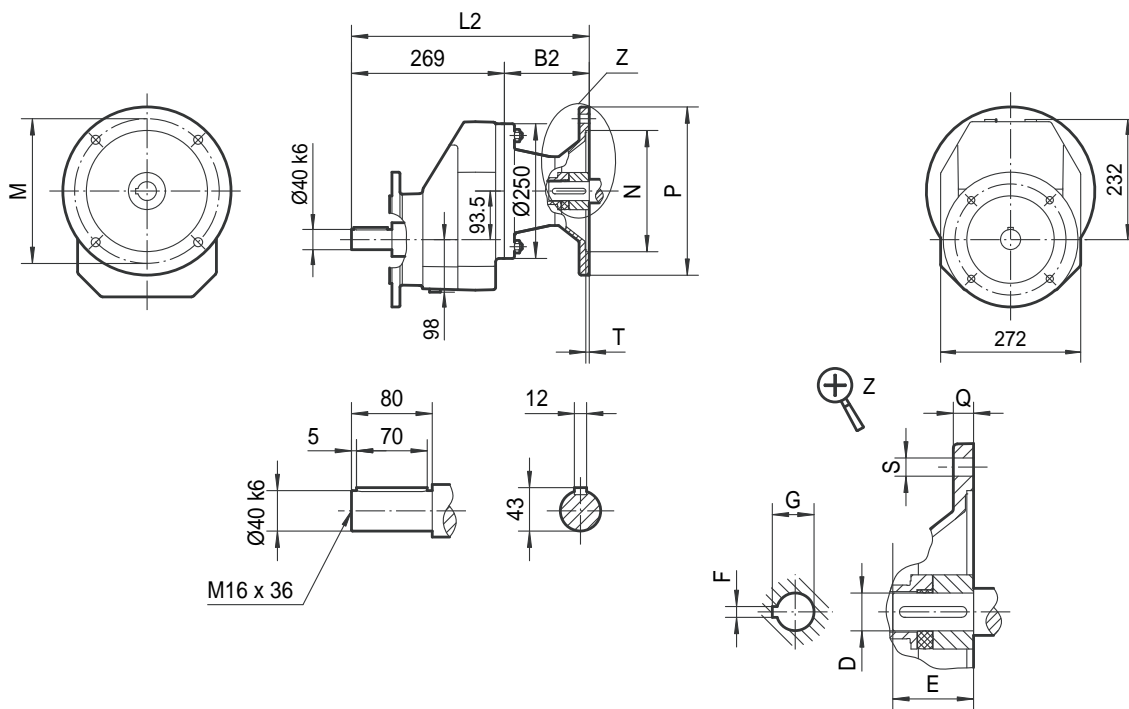
	L2	B2	D	E	F	G	M	N	P	Q	S	T
<b>AM63</b>	287	60	11	23	4	12.8	115	95	140	10	4-Ø9	3.5
<b>AM71</b>	287	60	14	30	5	16.3	130	110	160	10	4-Ø9	4
<b>AM80</b>	319	92	19	40	6	21.8	165	130	200	12	4-Ø11	4.5
<b>AM90</b>	319	92	24	50	8	27.3	165	130	200	12	4-Ø11	4.5
<b>AM100</b>	353	126	28	60	8	31.3	215	180	250	15	4-Ø13.5	5
<b>AM112</b>	353	126	28	60	8	31.3	215	180	250	15	4-Ø13.5	5
<b>AM132S/M</b>	406	179	38	80	10	41.3	265	230	300	16	4-Ø13.5	5
<b>AM132ML</b>	406	179	38	80	10	41.3	265	230	300	16	4-Ø13.5	5

**TRX87..**



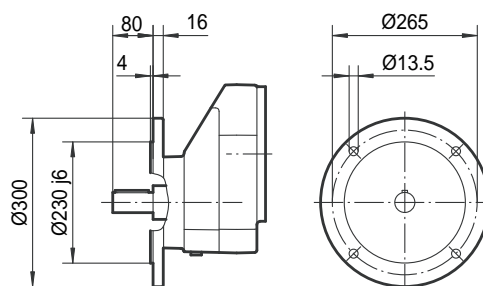
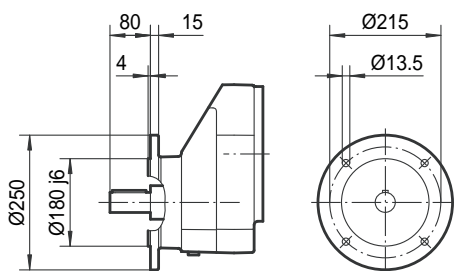
	L2	B2	D	E	F	G	M	N	P	Q	S	T
<b>AM80</b>	356	87	19	40	6	21.8	165	130	200	12	4-Ø11	4.5
<b>AM90</b>	356	87	24	50	8	27.3	165	130	200	12	4-Ø11	4.5
<b>AM100</b>	390	121	28	60	8	31.3	215	180	250	15	4-Ø13.5	5
<b>AM112</b>	390	121	28	60	8	31.3	215	180	250	15	4-Ø13.5	5
<b>AM132S/M</b>	443	174	38	80	10	41.3	265	230	300	16	4-Ø13.5	5
<b>AM132ML</b>	443	174	38	80	10	41.3	265	230	300	16	4-Ø13.5	5
<b>AM160</b>	501	232	42	110	12	45.3	300	250	350	18	4-Ø17.5	6
<b>AM180</b>	501	232	48	110	14	51.8	300	250	350	18	4-Ø17.5	6

TRXF87..



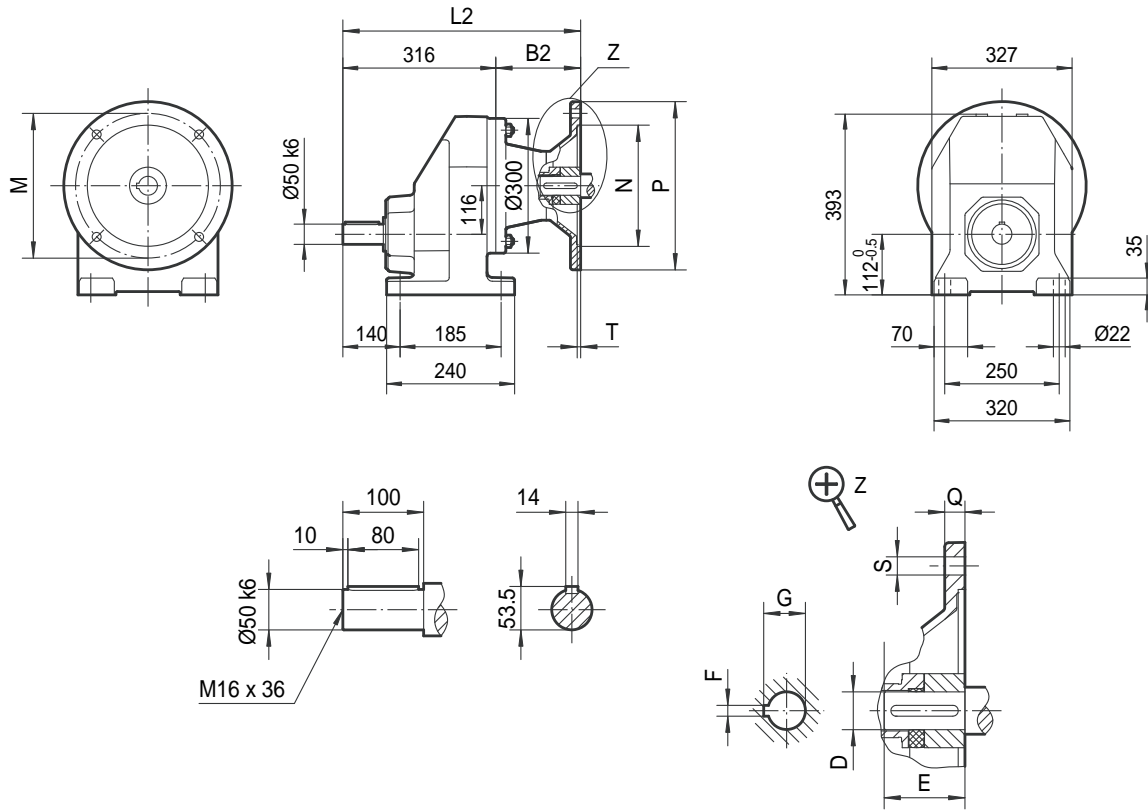
**I**  
Ø250

**II**  
Ø300



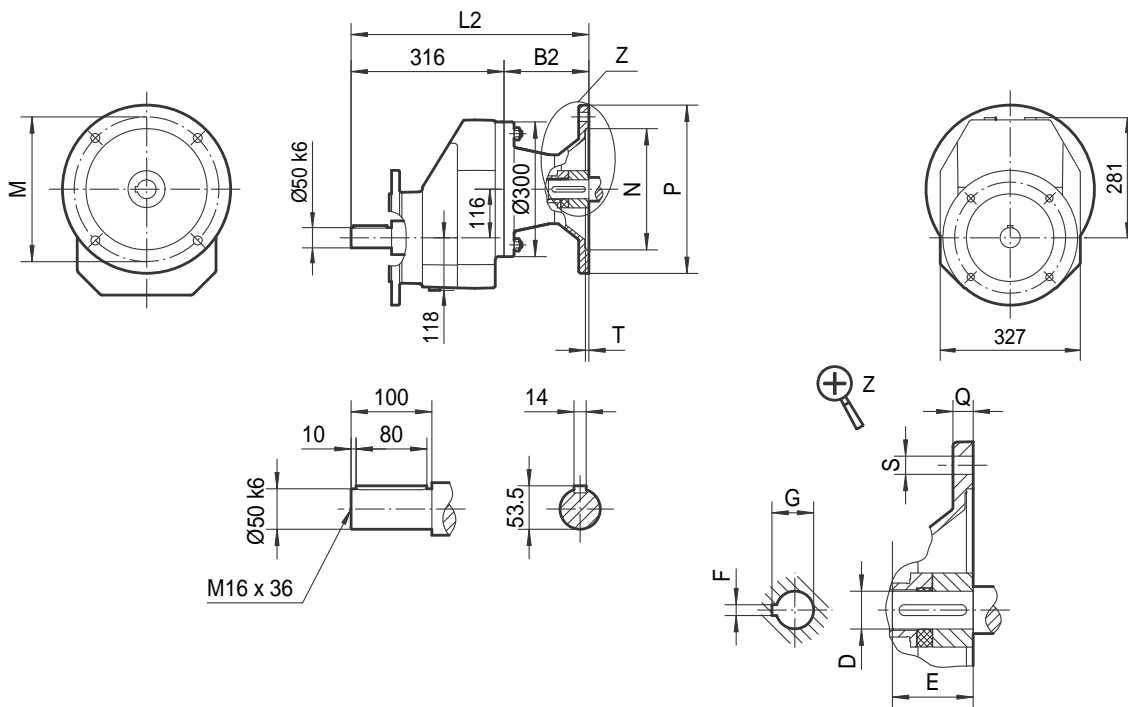
	L2	B2	D	E	F	G	M	N	P	Q	S	T
<b>AM80</b>	356	87	19	40	6	21.8	165	130	200	12	4-Ø11	4.5
<b>AM90</b>	356	87	24	50	8	27.3	165	130	200	12	4-Ø11	4.5
<b>AM100</b>	390	121	28	60	8	31.3	215	180	250	15	4-Ø13.5	5
<b>AM112</b>	390	121	28	60	8	31.3	215	180	250	15	4-Ø13.5	5
<b>AM132S/M</b>	443	174	38	80	10	41.3	265	230	300	16	4-Ø13.5	5
<b>AM132ML</b>	443	174	38	80	10	41.3	265	230	300	16	4-Ø13.5	5
<b>AM160</b>	501	232	42	110	12	45.3	300	250	350	18	4-Ø17.5	6
<b>AM180</b>	501	232	48	110	14	51.8	300	250	350	18	4-Ø17.5	6

TRX97..

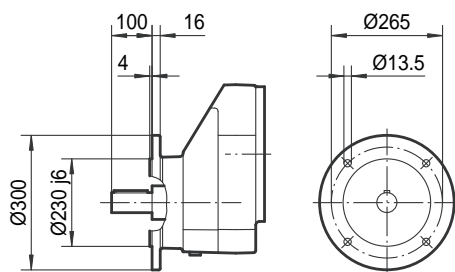


	L2	B2	D	E	F	G	M	N	P	Q	S	T
AM100	432	116	28	60	8	31.3	215	180	250	15	4-Ø13.5	5
AM112	432	116	28	60	8	31.3	215	180	250	15	4-Ø13.5	5
AM132S/M	485	169	38	80	10	41.3	265	230	300	16	4-Ø13.5	5
AM132ML	485	169	38	80	10	41.3	265	230	300	16	4-Ø13.5	5
AM160	543	227	42	110	12	45.3	300	250	350	18	4-Ø17.5	6
AM180	543	227	48	110	14	51.8	300	250	350	18	4-Ø17.5	6
AM200	584	268	55	110	16	59.3	350	300	400	20	4-Ø17.5	7

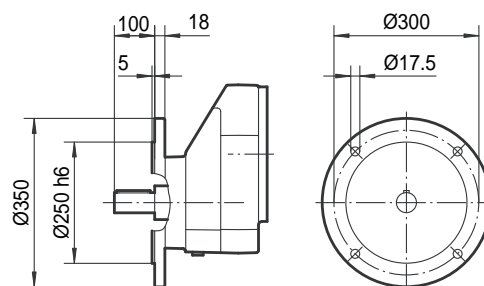
TRXF97..



**I**  
Ø300



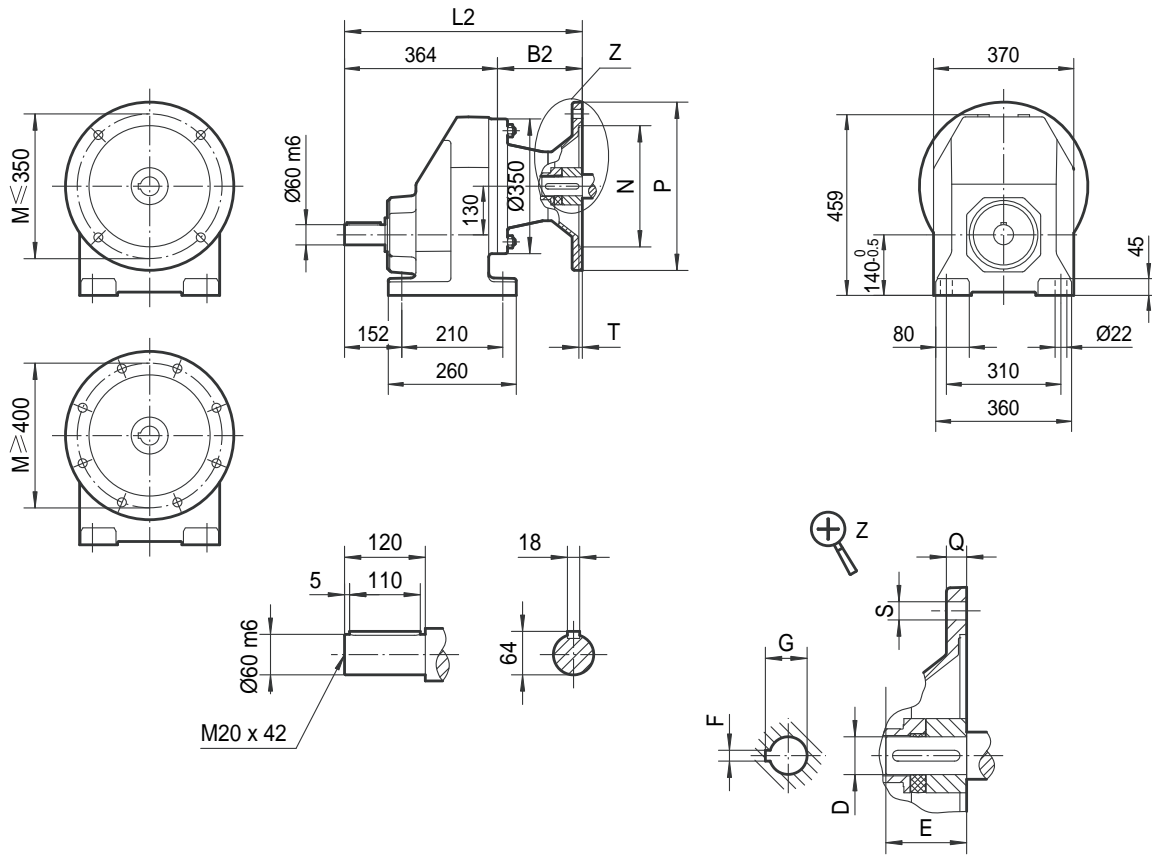
**II**  
Ø350



	L2	B2	D	E	F	G	M	N	P	Q	S	T
<b>AM100</b>	432	116	28	60	8	31.3	215	180	250	15	4-Ø13.5	5
<b>AM112</b>	432	116	28	60	8	31.3	215	180	250	15	4-Ø13.5	5
<b>AM132S/M</b>	485	169	38	80	10	41.3	265	230	300	16	4-Ø13.5	5
<b>AM132ML</b>	485	169	38	80	10	41.3	265	230	300	16	4-Ø13.5	5
<b>AM160</b>	543	227	42	110	12	45.3	300	250	350	18	4-Ø17.5	6
<b>AM180</b>	543	227	48	110	14	51.8	300	250	350	18	4-Ø17.5	6
<b>AM200</b>	584	268	55	110	16	59.3	350	300	400	20	4-Ø17.5	7

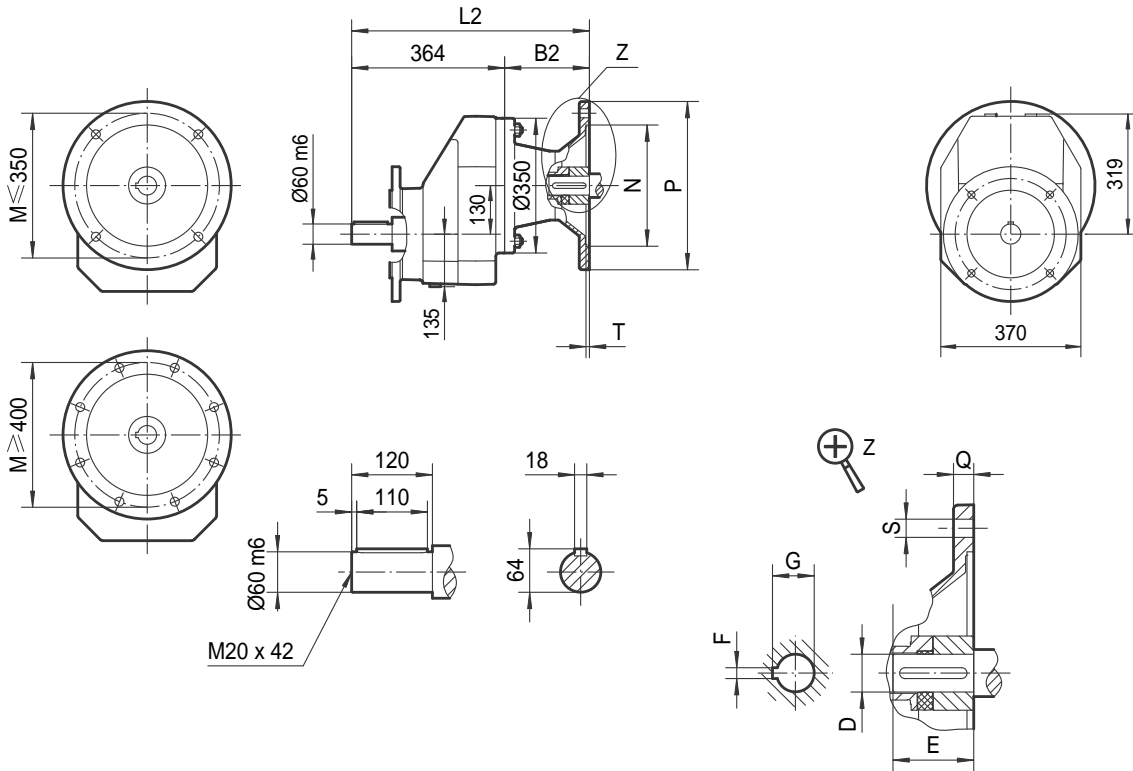


**TRX107..**



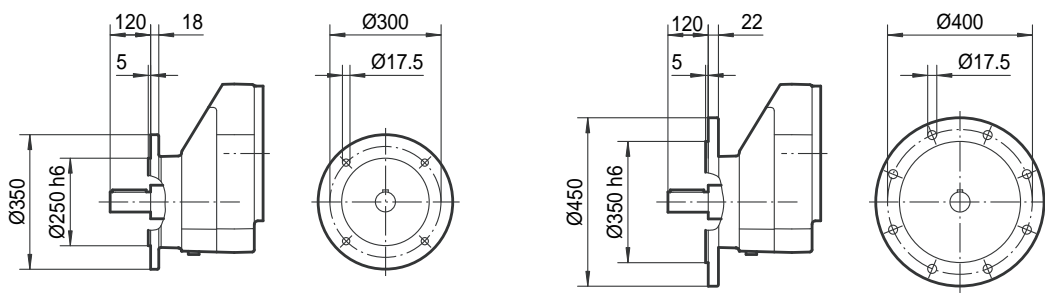
	L2	B2	D	E	F	G	M	N	P	Q	S	T
<b>AM100</b>	474	110	28	60	8	31.3	215	180	250	15	4-Ø13.5	5
<b>AM112</b>	474	110	28	60	8	31.3	215	180	250	15	4-Ø13.5	5
<b>AM132S/M</b>	527	163	38	80	10	41.3	265	230	300	16	4-Ø13.5	5
<b>AM132ML</b>	527	163	38	80	10	41.3	265	230	300	16	4-Ø13.5	5
<b>AM160</b>	585	221	42	110	12	45.3	300	250	350	18	4-Ø17.5	6
<b>AM180</b>	585	221	48	110	14	51.8	300	250	350	18	4-Ø17.5	6
<b>AM200</b>	626	262	55	110	16	59.3	350	300	400	20	4-Ø17.5	7
<b>AM225</b>	641	277	60	140	18	64.4	400	350	450	22	8-Ø13.5	7

TRXF107..



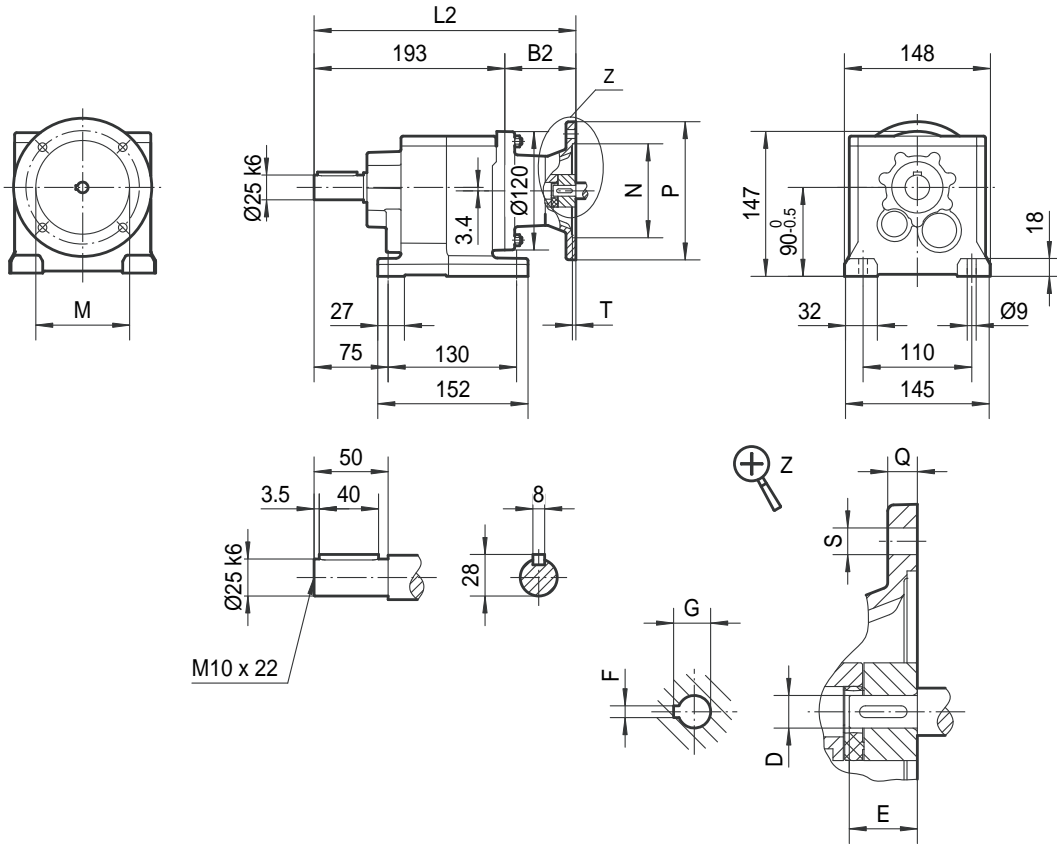
**I**  
Ø350

**II**  
Ø450

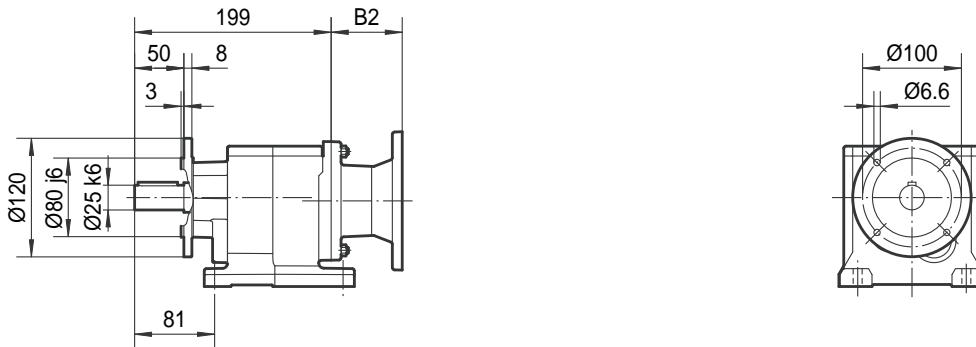


	L2	B2	D	E	F	G	M	N	P	Q	S	T
<b>AM100</b>	474	110	28	60	8	31.3	215	180	250	15	4-Ø13.5	5
<b>AM112</b>	474	110	28	60	8	31.3	215	180	250	15	4-Ø13.5	5
<b>AM132S/M</b>	527	163	38	80	10	41.3	265	230	300	16	4-Ø13.5	5
<b>AM132ML</b>	527	163	38	80	10	41.3	265	230	300	16	4-Ø13.5	5
<b>AM160</b>	585	221	42	110	12	45.3	300	250	350	18	4-Ø17.5	6
<b>AM180</b>	585	221	48	110	14	51.8	300	250	350	18	4-Ø17.5	6
<b>AM200</b>	626	262	55	110	16	59.3	350	300	400	20	4-Ø17.5	7
<b>AM225</b>	641	277	60	140	18	64.4	400	350	450	22	8-Ø13.5	7

**TR27..**



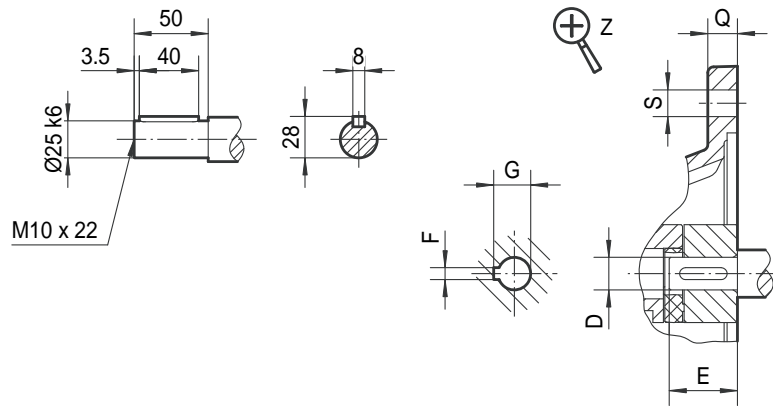
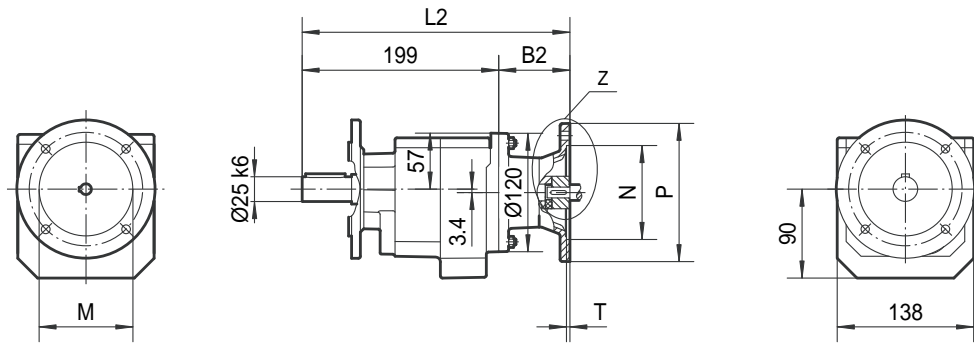
**TR27F..**



	L2	B2	D	E	F	G	M	N	P	Q	S	T
<b>AM63</b>	265	72	11	23	4	12.8	115	95	140	10	4-Ø9	3.5
<b>AM71</b> <sup>1)</sup>	265	72	14	30	5	16.3	130	110	160	10	4-Ø9	4
<b>AM80</b> <sup>1)</sup>	299	106	19	40	6	21.8	165	130	200	12	4-Ø11	4.5
<b>AM90</b> <sup>1)</sup>	299	106	24	50	8	27.3	165	130	200	12	4-Ø11	4.5

1) Dimension P/2 may protrude past foot mounting surface, please check.

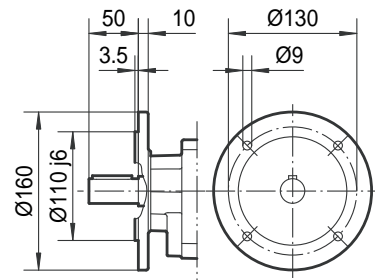
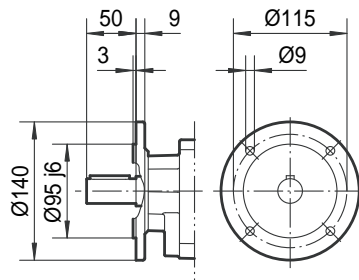
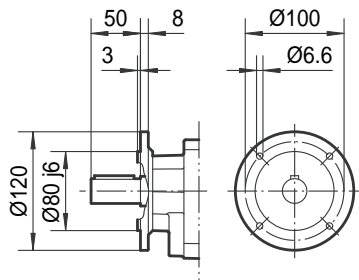
TRF27..



**I**  
Ø120

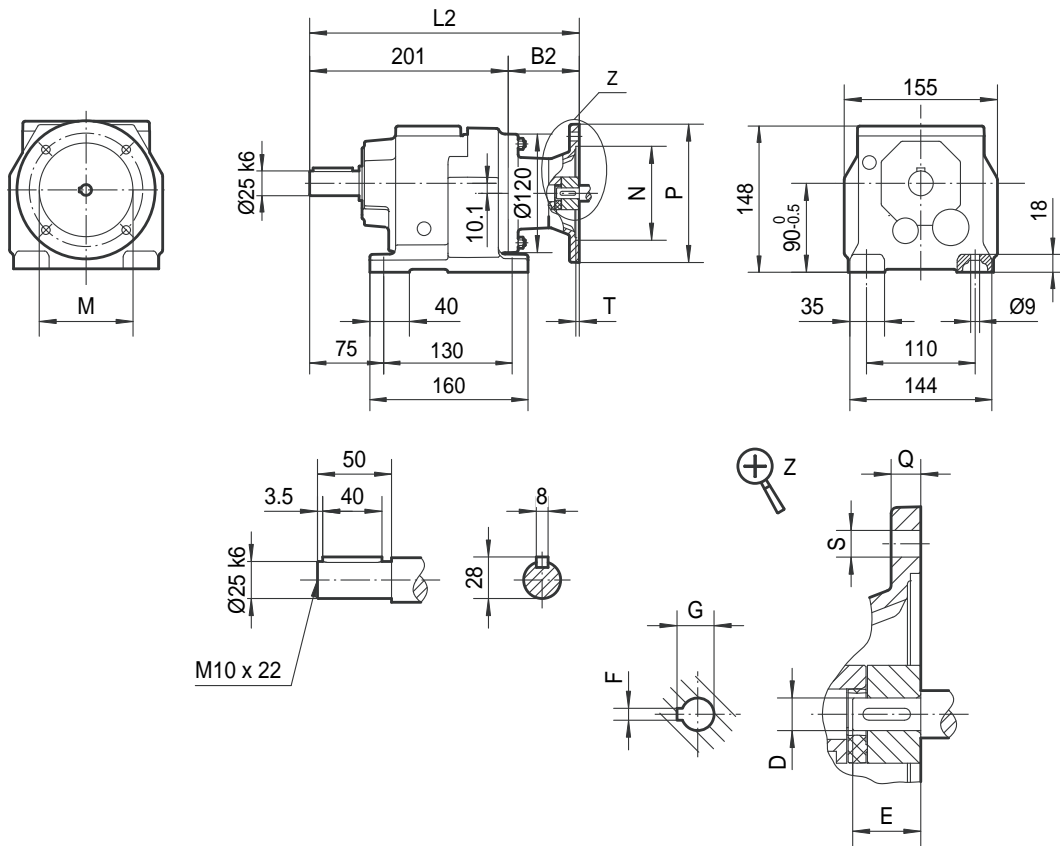
**II**  
Ø140

**III**  
Ø160

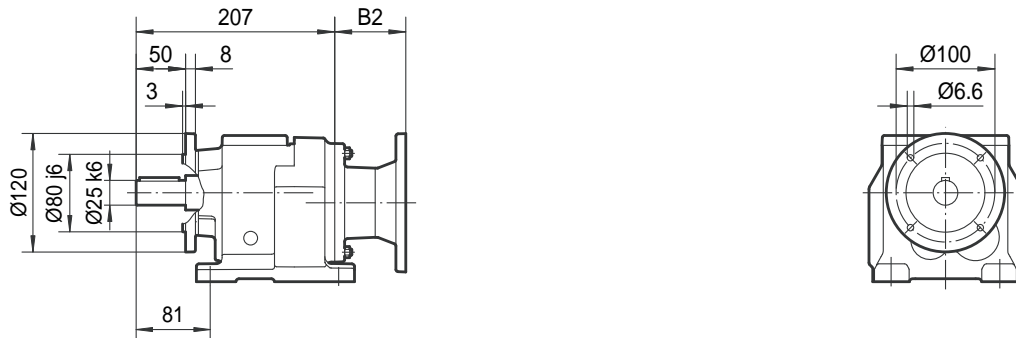


	L2	B2	D	E	F	G	M	N	P	Q	S	T
<b>AM63</b>	271	72	11	23	4	12.8	115	95	140	10	4-Ø9	3.5
<b>AM71</b>	271	72	14	30	5	16.3	130	110	160	10	4-Ø9	4
<b>AM80</b>	305	106	19	40	6	21.8	165	130	200	12	4-Ø11	4.5
<b>AM90</b>	305	106	24	50	8	27.3	165	130	200	12	4-Ø11	4.5

**TR37..**



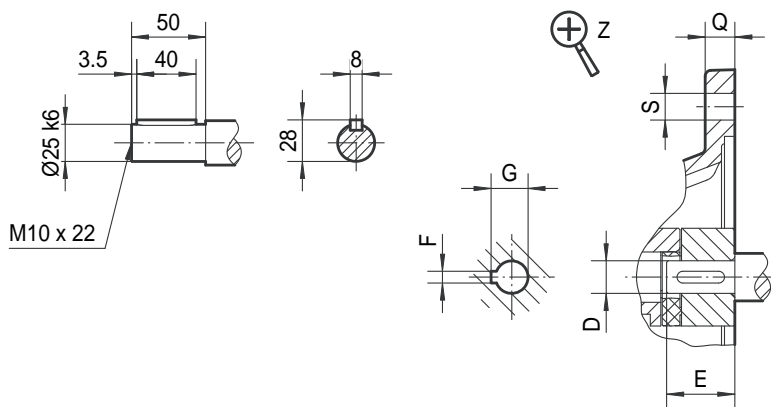
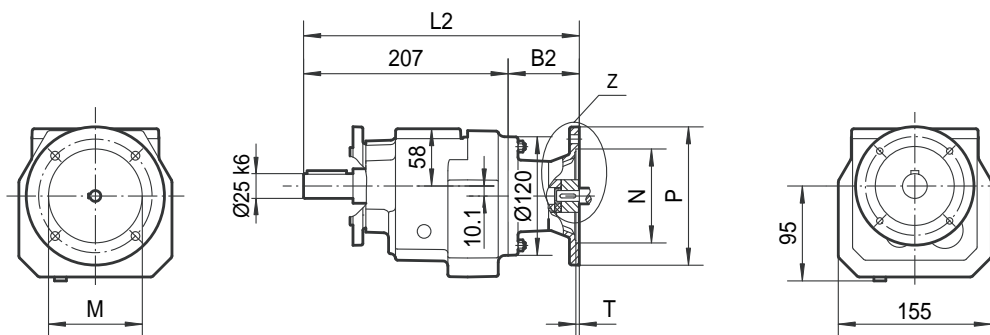
**TR37F..**



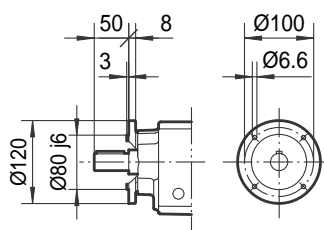
	L2	B2	D	E	F	G	M	N	P	Q	S	T
<b>AM63</b>	273	72	11	23	4	12.8	115	95	140	10	4-Ø9	3.5
<b>AM71</b> <sup>1)</sup>	273	72	14	30	5	16.3	130	110	160	10	4-Ø9	4
<b>AM80</b> <sup>1)</sup>	307	106	19	40	6	21.8	165	130	200	12	4-Ø11	4.5
<b>AM90</b> <sup>1)</sup>	307	106	24	50	8	27.3	165	130	200	12	4-Ø11	4.5

1) Dimension P/2 may protrude past foot mounting surface, please check.

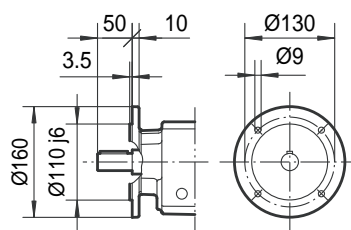
TRF37..



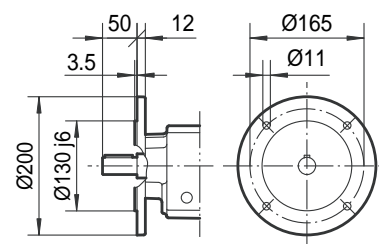
**I**  
Ø120



**II**  
Ø160

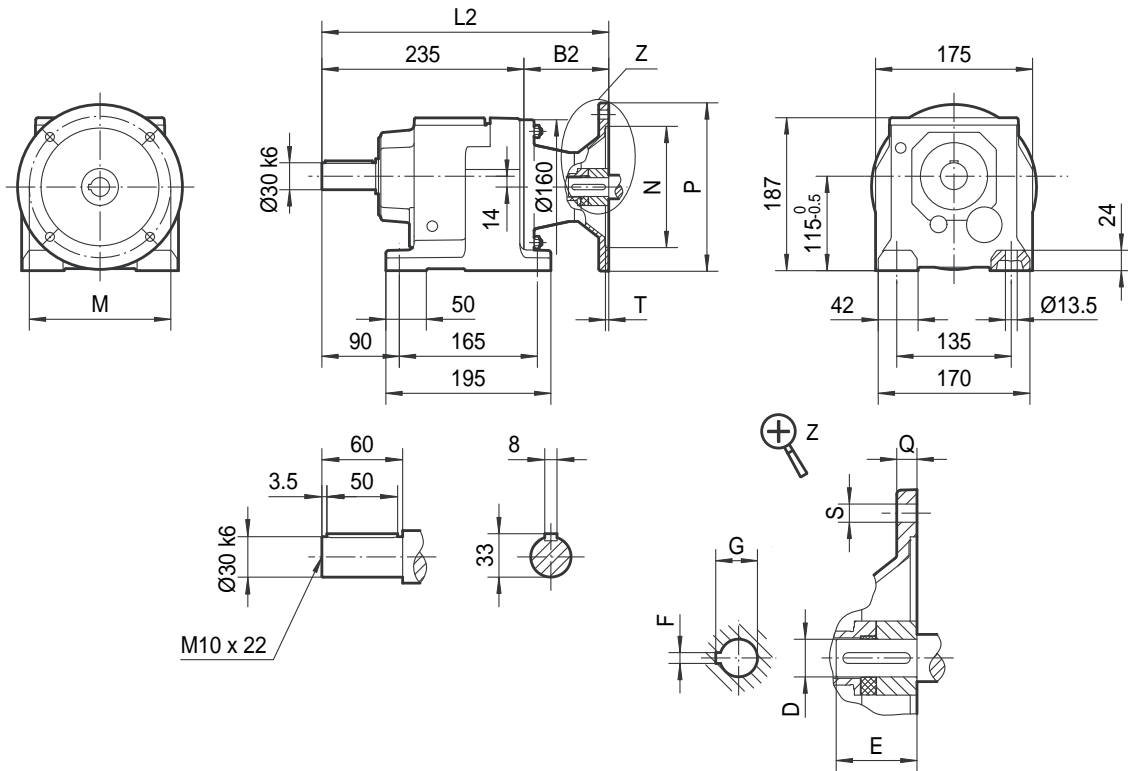


**III**  
Ø200

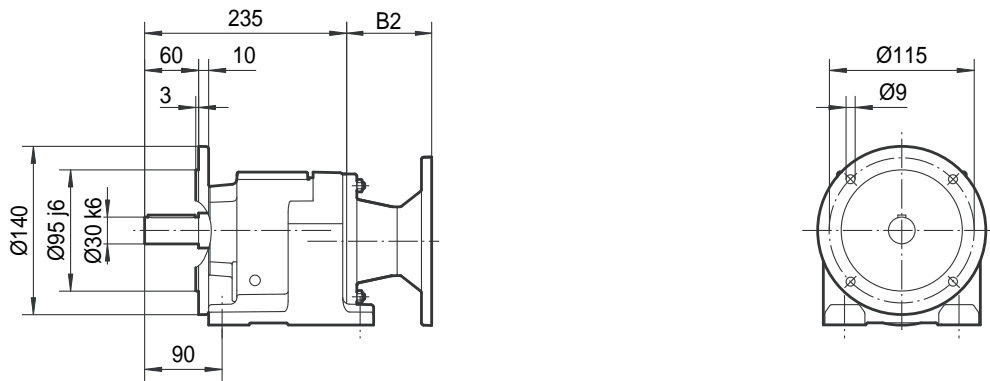


	L2	B2	D	E	F	G	M	N	P	Q	S	T
<b>AM63</b>	279	72	11	23	4	12.8	115	95	140	10	4-Ø9	3.5
<b>AM71</b>	279	72	14	30	5	16.3	130	110	160	10	4-Ø9	4
<b>AM80</b>	313	106	19	40	6	21.8	165	130	200	12	4-Ø11	4.5
<b>AM90</b>	313	106	24	50	8	27.3	165	130	200	12	4-Ø11	4.5

**TR47..**



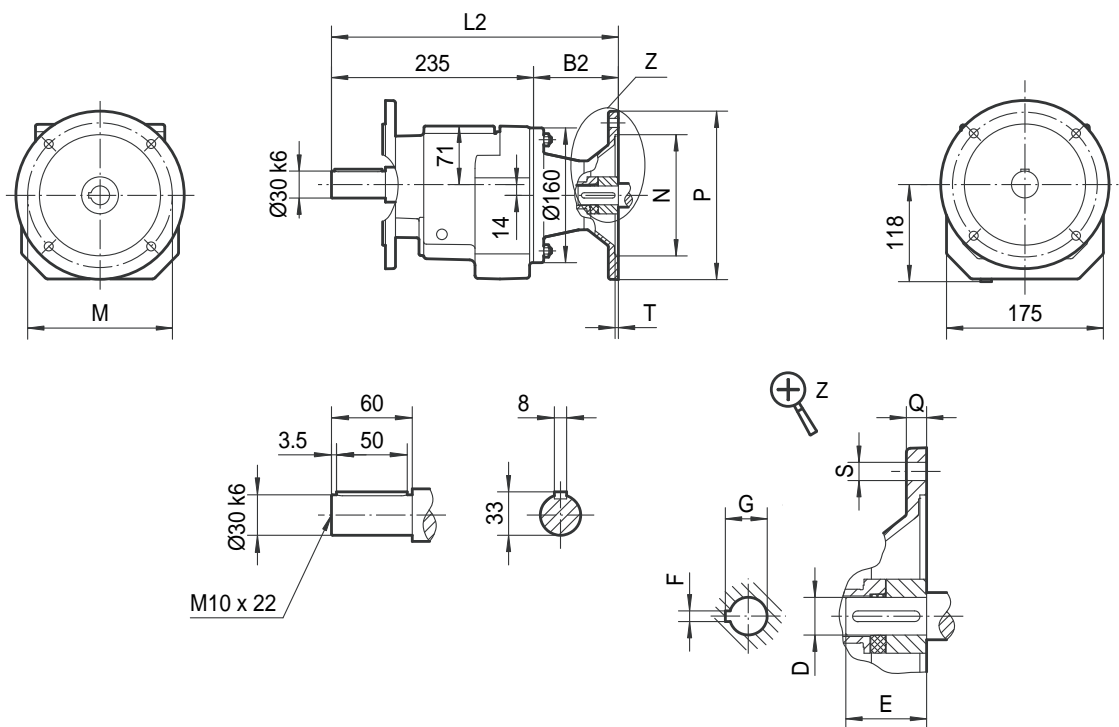
**TR47F..**



	L2	B2	D	E	F	G	M	N	P	Q	S	T
<b>AM63</b>	301	66	11	23	4	12.8	115	95	140	10	4-Ø9	3.5
<b>AM71</b>	301	66	14	30	5	16.3	130	110	160	10	4-Ø9	4
<b>AM80</b>	334	99	19	40	6	21.8	165	130	200	12	4-Ø11	4.5
<b>AM90</b>	334	99	24	50	8	27.3	165	130	200	12	4-Ø11	4.5
<b>AM100<sup>1)</sup></b>	369	134	28	60	8	31.3	215	180	250	15	4-Ø13.5	5
<b>AM112<sup>1)</sup></b>	369	134	28	60	8	31.3	215	180	250	15	4-Ø13.5	5
<b>AM132S/M<sup>1)</sup></b>	426	191	38	80	10	41.3	265	230	300	16	4-Ø13.5	5

1) Dimension P/2 may protrude past foot mounting surface, please check.

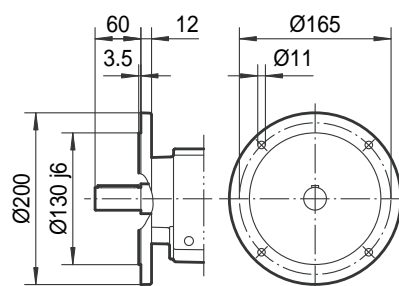
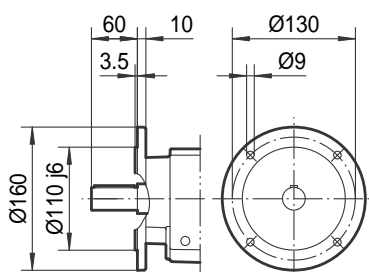
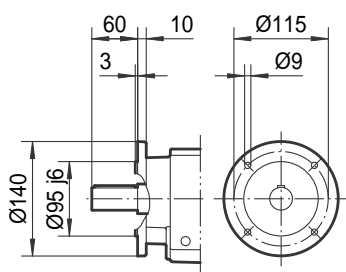
TRF47..



**I**  
Ø140

**II**  
Ø160

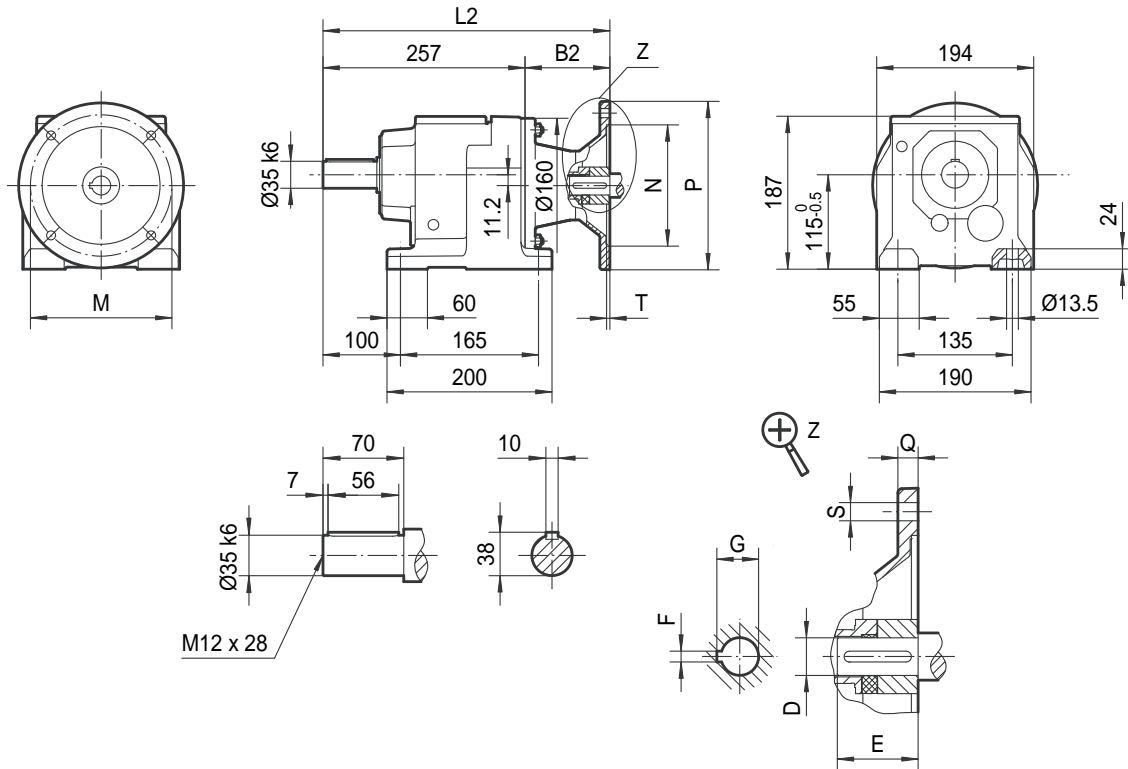
**III**  
Ø200



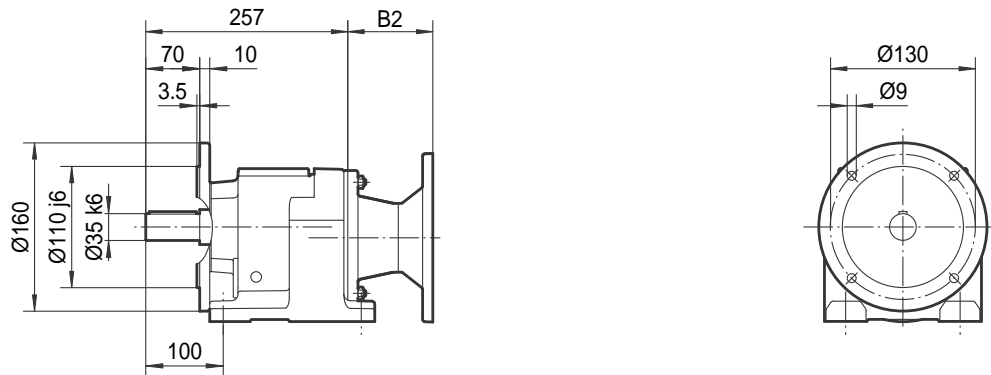
	L2	B2	D	E	F	G	M	N	P	Q	S	T
<b>AM63</b>	301	66	11	23	4	12.8	115	95	140	10	4-Ø9	3.5
<b>AM71</b>	301	66	14	30	5	16.3	130	110	160	10	4-Ø9	4
<b>AM80</b>	334	99	19	40	6	21.8	165	130	200	12	4-Ø11	4.5
<b>AM90</b>	334	99	24	50	8	27.3	165	130	200	12	4-Ø11	4.5
<b>AM100</b>	369	134	28	60	8	31.3	215	180	250	15	4-Ø13.5	5
<b>AM112</b>	369	134	28	60	8	31.3	215	180	250	15	4-Ø13.5	5
<b>AM132S/M</b>	426	191	38	80	10	41.3	265	230	300	16	4-Ø13.5	5



**TR57..**



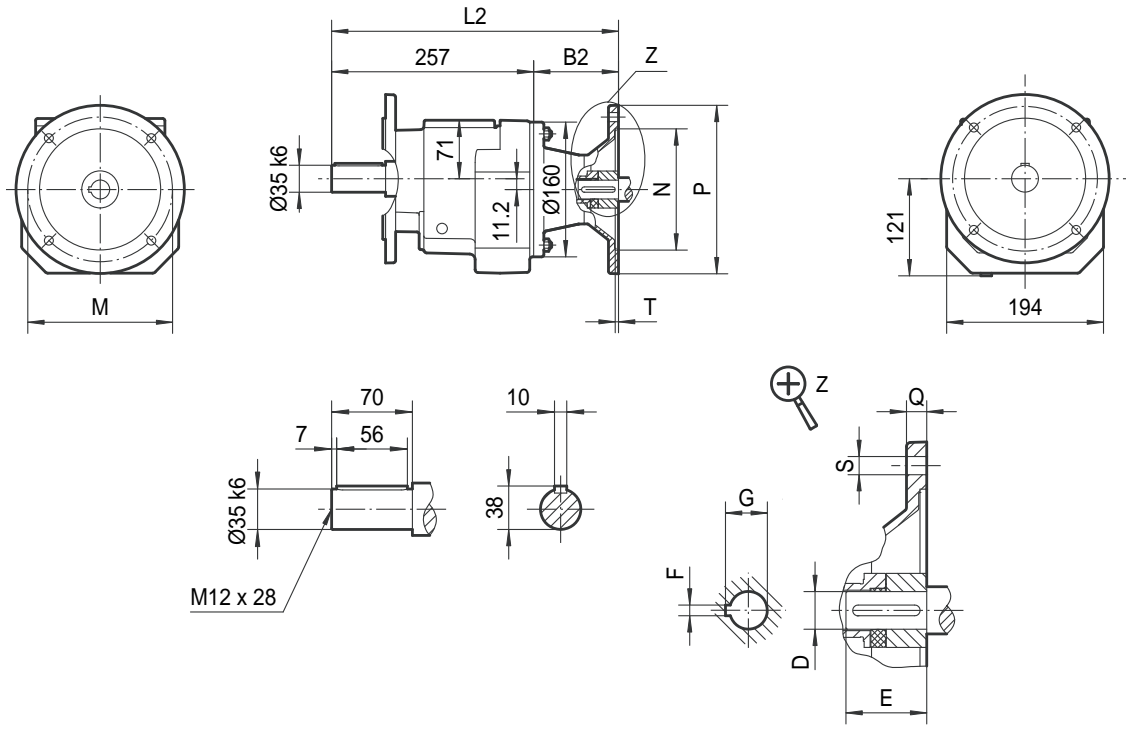
**TR57F..**



	L2	B2	D	E	F	G	M	N	P	Q	S	T
<b>AM63</b>	323	66	11	23	4	12.8	115	95	140	10	4-Ø9	3.5
<b>AM71</b>	323	66	14	30	5	16.3	130	110	160	10	4-Ø9	4
<b>AM80</b>	356	99	19	40	6	21.8	165	130	200	12	4-Ø11	4.5
<b>AM90</b>	356	99	24	50	8	27.3	165	130	200	12	4-Ø11	4.5
<b>AM100<sup>1)</sup></b>	391	134	28	60	8	31.3	215	180	250	15	4-Ø13.5	5
<b>AM112<sup>1)</sup></b>	391	134	28	60	8	31.3	215	180	250	15	4-Ø13.5	5
<b>AM132S/M<sup>1)</sup></b>	448	191	38	80	10	41.3	265	230	300	16	4-Ø13.5	5

1) Dimension P/2 may protrude past foot mounting surface, please check.

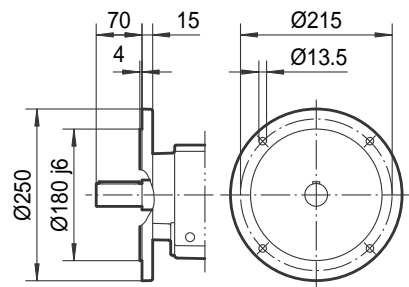
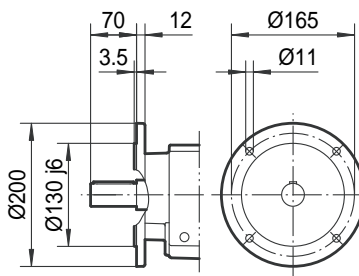
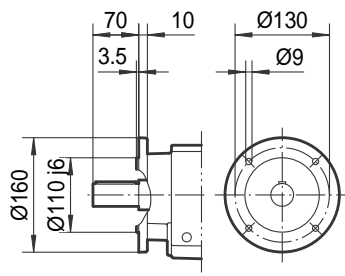
TRF57..



**I**  
Ø160

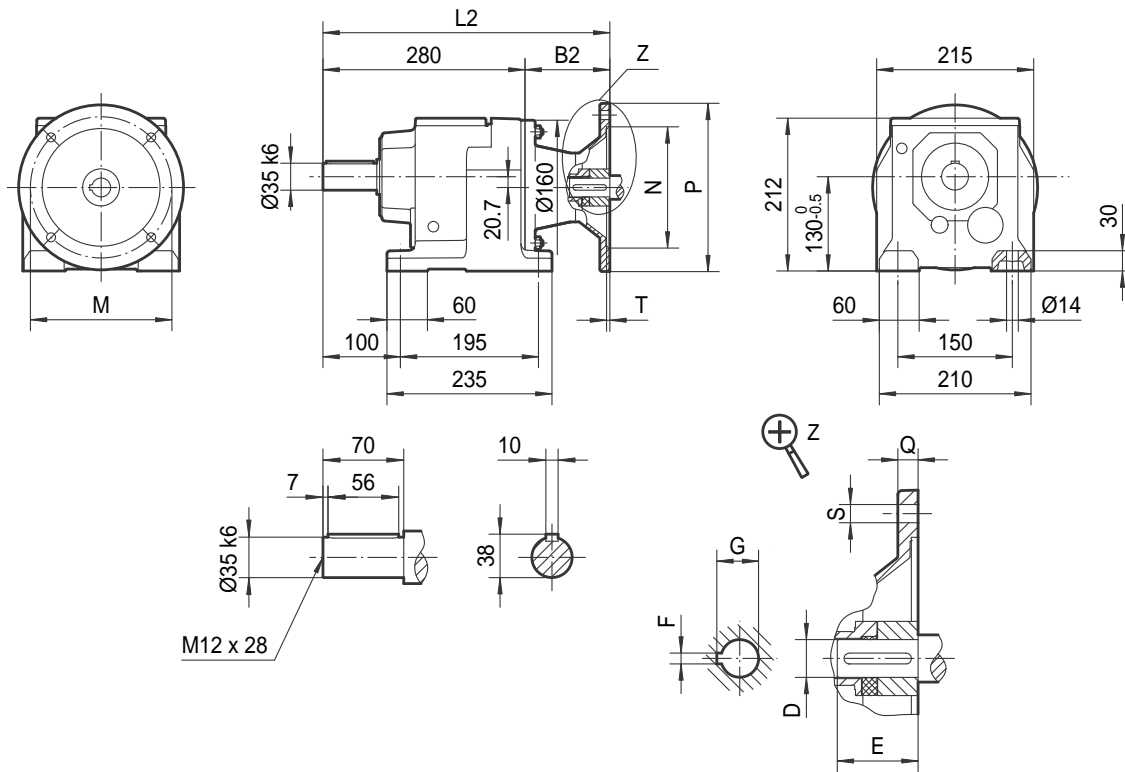
**II**  
Ø200

**III**  
Ø250

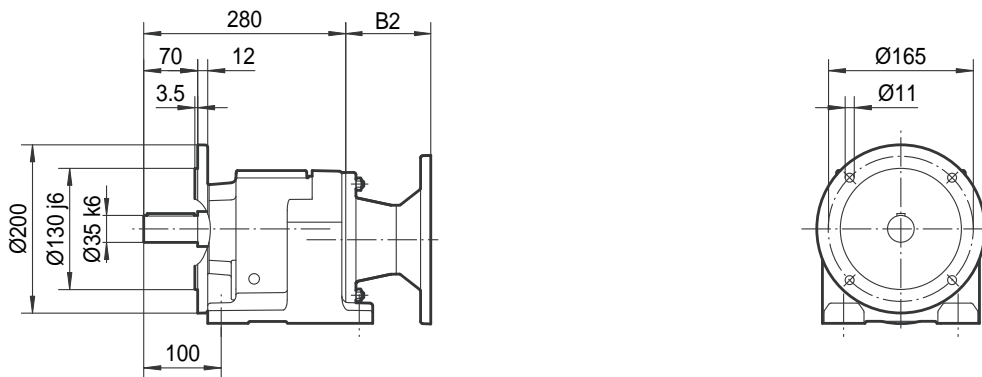


	L2	B2	D	E	F	G	M	N	P	Q	S	T
<b>AM63</b>	323	66	11	23	4	12.8	115	95	140	10	4-Ø9	3.5
<b>AM71</b>	323	66	14	30	5	16.3	130	110	160	10	4-Ø9	4
<b>AM80</b>	356	99	19	40	6	21.8	165	130	200	12	4-Ø11	4.5
<b>AM90</b>	356	99	24	50	8	27.3	165	130	200	12	4-Ø11	4.5
<b>AM100</b>	391	134	28	60	8	31.3	215	180	250	15	4-Ø13.5	5
<b>AM112</b>	391	134	28	60	8	31.3	215	180	250	15	4-Ø13.5	5
<b>AM132S/M</b>	448	191	38	80	10	41.3	265	230	300	16	4-Ø13.5	5

**TR67..**



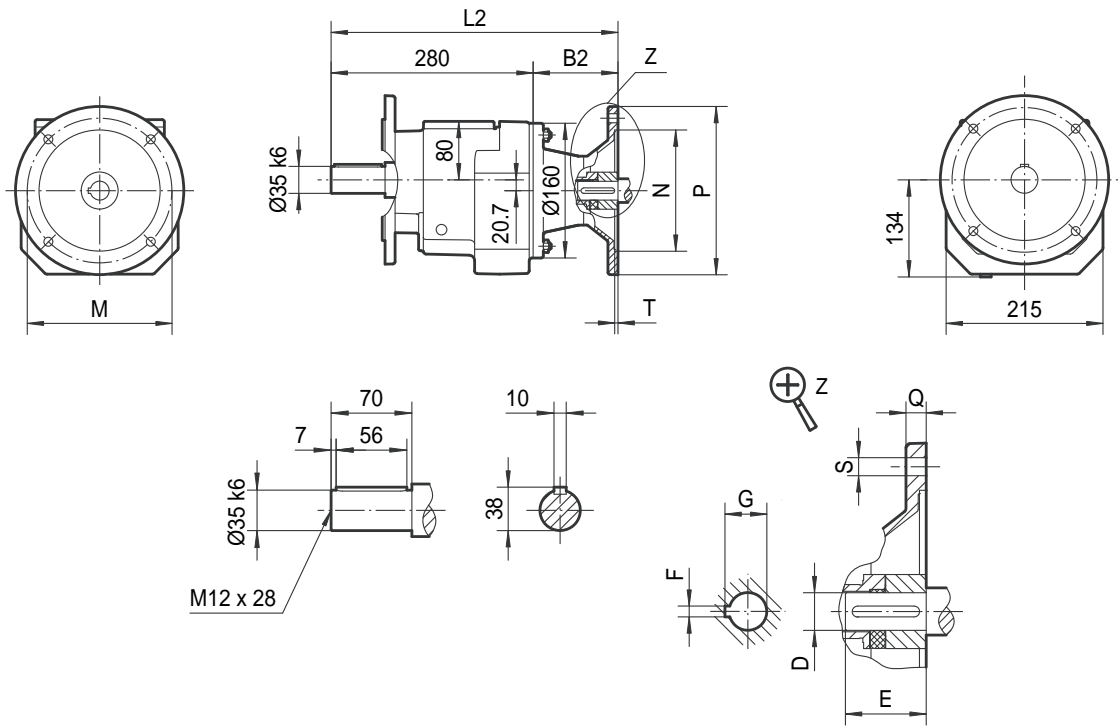
**TR67F..**



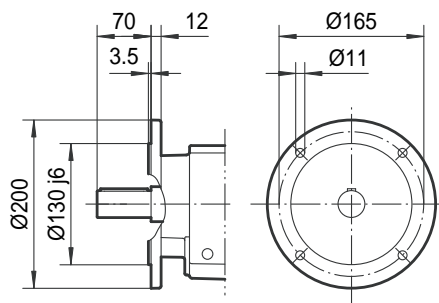
	L2	B2	D	E	F	G	M	N	P	Q	S	T
<b>AM63</b>	346	66	11	23	4	12.8	115	95	140	10	4-Ø9	3.5
<b>AM71</b>	346	66	14	30	5	16.3	130	110	160	10	4-Ø9	4
<b>AM80</b>	379	99	19	40	6	21.8	165	130	200	12	4-Ø11	4.5
<b>AM90</b>	379	99	24	50	8	27.3	165	130	200	12	4-Ø11	4.5
<b>AM100<sup>1)</sup></b>	414	134	28	60	8	31.3	215	180	250	15	4-Ø13.5	5
<b>AM112<sup>1)</sup></b>	414	134	28	60	8	31.3	215	180	250	15	4-Ø13.5	5
<b>AM132S/M<sup>1)</sup></b>	471	191	38	80	10	41.3	265	230	300	16	4-Ø13.5	5

1) Dimension P/2 may protrude past foot mounting surface, please check.

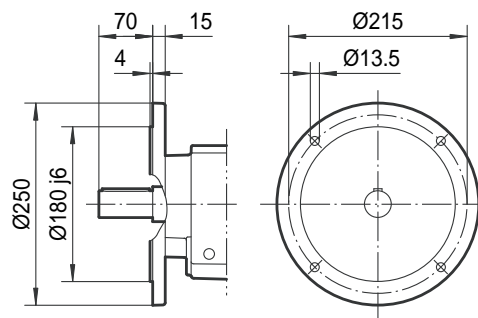
TRF67..



**I**  
Ø200

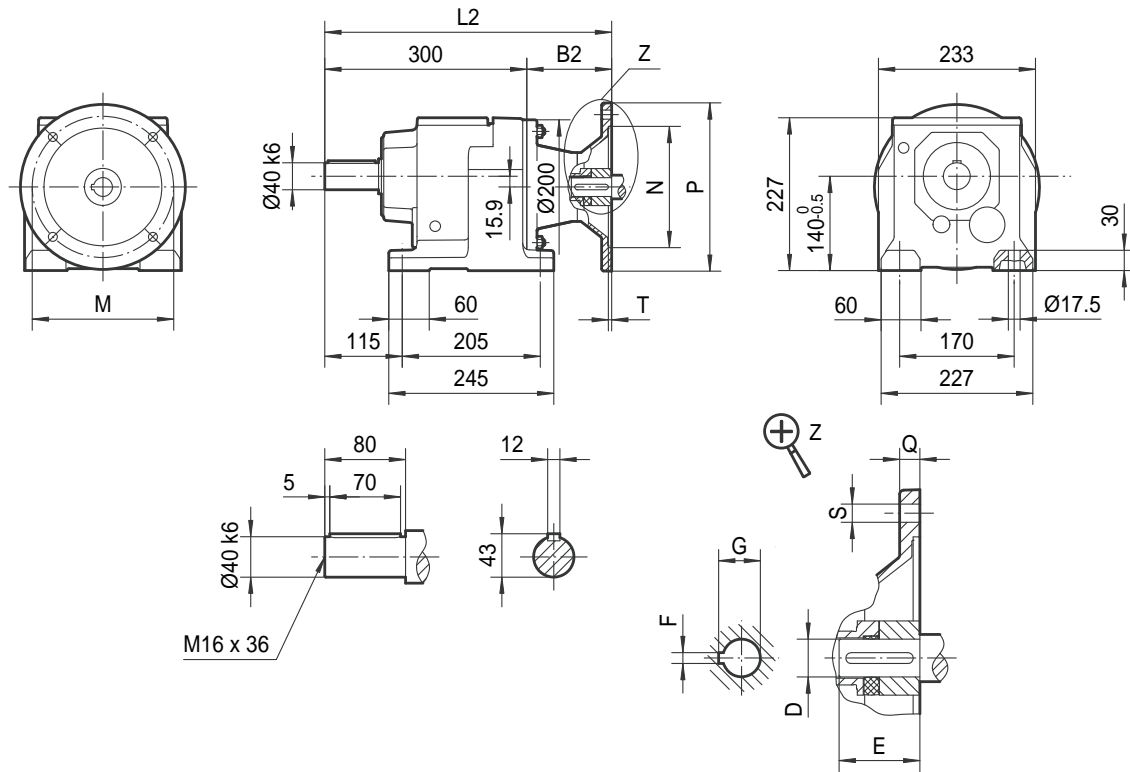


**II**  
Ø250

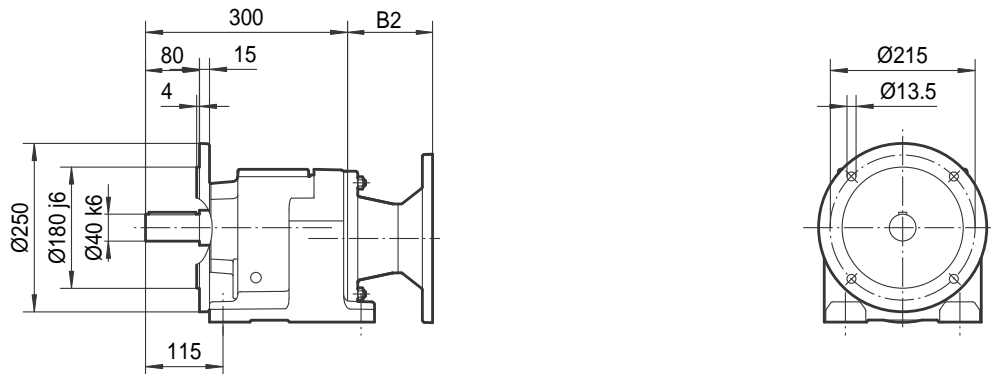


	L2	B2	D	E	F	G	M	N	P	Q	S	T
AM63	346	66	11	23	4	12.8	115	95	140	10	4-Ø9	3.5
AM71	346	66	14	30	5	16.3	130	110	160	10	4-Ø9	4
AM80	379	99	19	40	6	21.8	165	130	200	12	4-Ø11	4.5
AM90	379	99	24	50	8	27.3	165	130	200	12	4-Ø11	4.5
AM100	414	134	28	60	8	31.3	215	180	250	15	4-Ø13.5	5
AM112	414	134	28	60	8	31.3	215	180	250	15	4-Ø13.5	5
AM132S/M	471	191	38	80	10	41.3	265	230	300	16	4-Ø13.5	5

**TR77..**



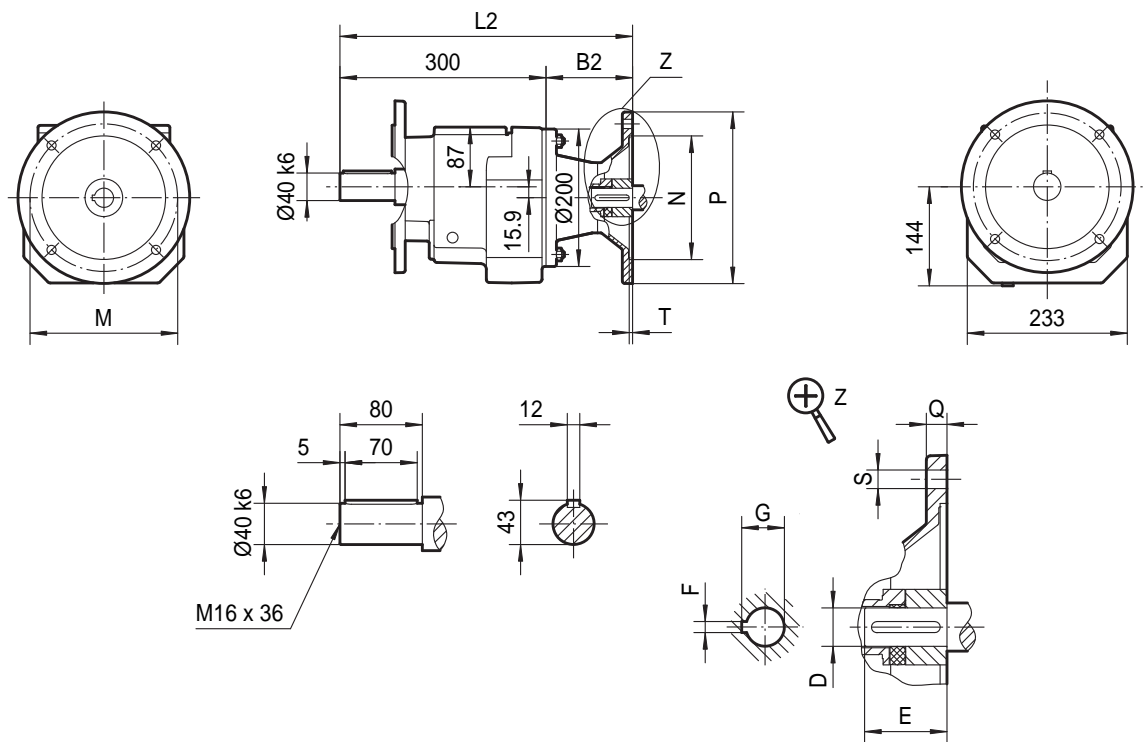
**TR77F..**



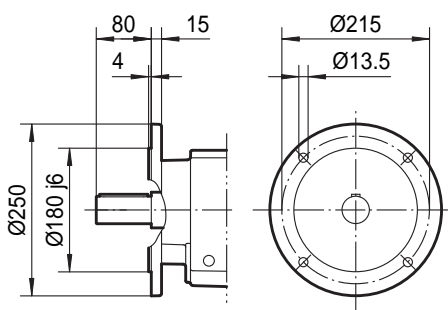
	L2	B2	D	E	F	G	M	N	P	Q	S	T
<b>AM63</b>	360	60	11	23	4	12.8	115	95	140	10	4-Ø9	3.5
<b>AM71</b>	360	60	14	30	5	16.3	130	110	160	10	4-Ø9	4
<b>AM80</b>	392	92	19	40	6	21.8	165	130	200	12	4-Ø11	4.5
<b>AM90</b>	392	92	24	50	8	27.3	165	130	200	12	4-Ø11	4.5
<b>AM100<sup>1)</sup></b>	426	126	28	60	8	31.3	215	180	250	15	4-Ø13.5	5
<b>AM112<sup>1)</sup></b>	426	126	28	60	8	31.3	215	180	250	15	4-Ø13.5	5
<b>AM132S/M<sup>1)</sup></b>	479	179	38	80	10	41.3	265	230	300	16	4-Ø13.5	5
<b>AM132ML<sup>1)</sup></b>	479	179	38	80	10	41.3	265	230	300	16	4-Ø13.5	5

1) Dimension P/2 may protrude past foot mounting surface, please check.

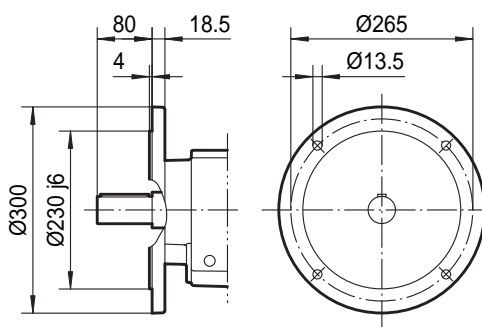
TRF77..



**I**  
Ø250

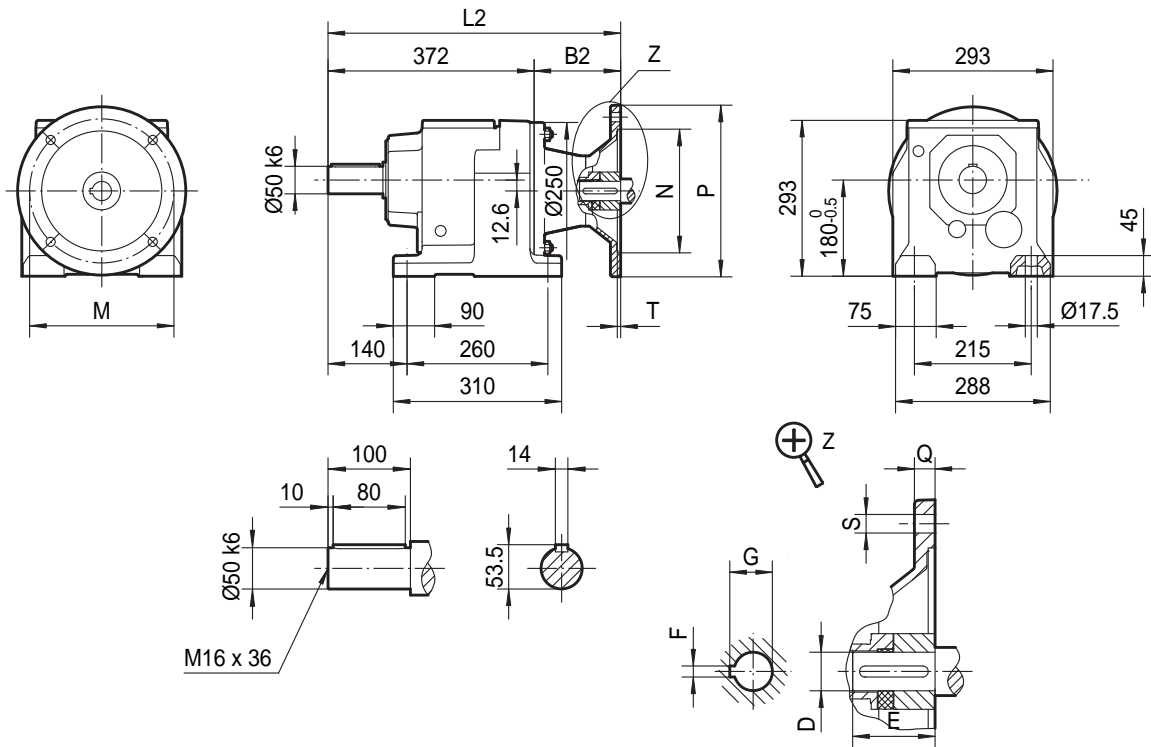


**II**  
Ø300

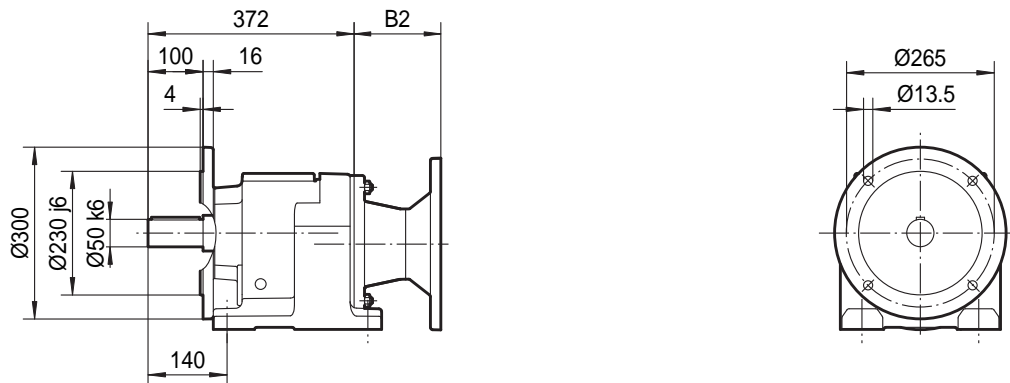


	L2	B2	D	E	F	G	M	N	P	Q	S	T
AM63	360	60	11	23	4	12.8	115	95	140	10	4-Ø9	3.5
AM71	360	60	14	30	5	16.3	130	110	160	10	4-Ø9	4
AM80	392	92	19	40	6	21.8	165	130	200	12	4-Ø11	4.5
AM90	392	92	24	50	8	27.3	165	130	200	12	4-Ø11	4.5
AM100	426	126	28	60	8	31.3	215	180	250	15	4-Ø13.5	5
AM112	426	126	28	60	8	31.3	215	180	250	15	4-Ø13.5	5
AM132S/M	479	179	38	80	10	41.3	265	230	300	16	4-Ø13.5	5
AM132ML	479	179	38	80	10	41.3	265	230	300	16	4-Ø13.5	5

**TR87..**

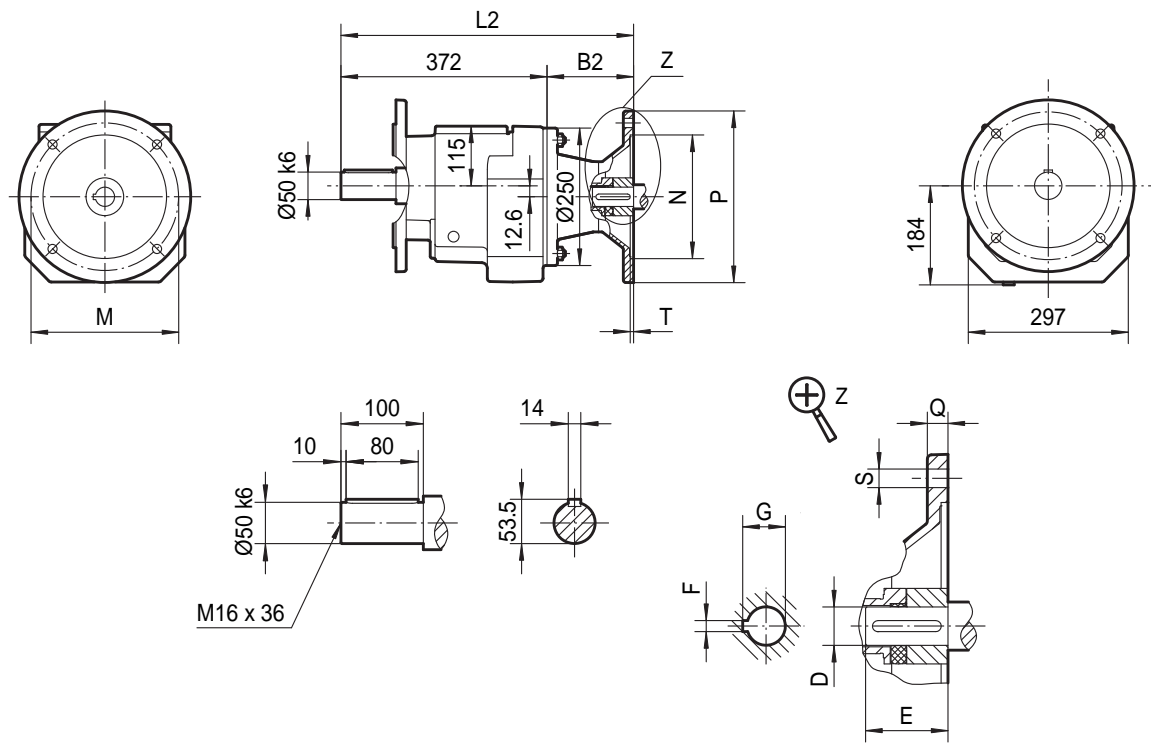


**TR87F..**

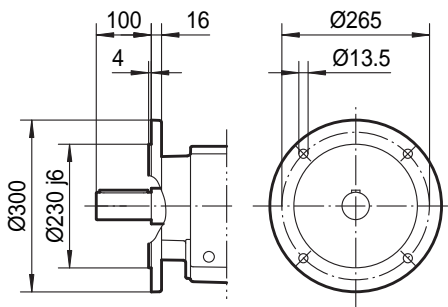


	L2	B2	D	E	F	G	M	N	P	Q	S	T
<b>AM80</b>	459	87	19	40	6	21.8	165	130	200	12	4-Ø11	4.5
<b>AM90</b>	459	87	24	50	8	27.3	165	130	200	12	4-Ø11	4.5
<b>AM100</b>	493	121	28	60	8	31.3	215	180	250	15	4-Ø13.5	5
<b>AM112</b>	493	121	28	60	8	31.3	215	180	250	15	4-Ø13.5	5
<b>AM132S/M</b>	546	174	38	80	10	41.3	265	230	300	16	4-Ø13.5	5
<b>AM132ML</b>	546	174	38	80	10	41.3	265	230	300	16	4-Ø13.5	5
<b>AM160</b> <sup>1)</sup>	604	232	42	110	12	45.3	300	250	350	18	4-Ø17.5	6
<b>AM180</b> <sup>1)</sup>	604	232	48	110	14	51.8	300	250	350	18	4-Ø17.5	6

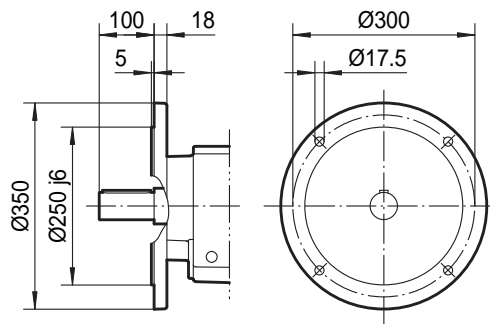
TRF87..



**I**  
Ø300



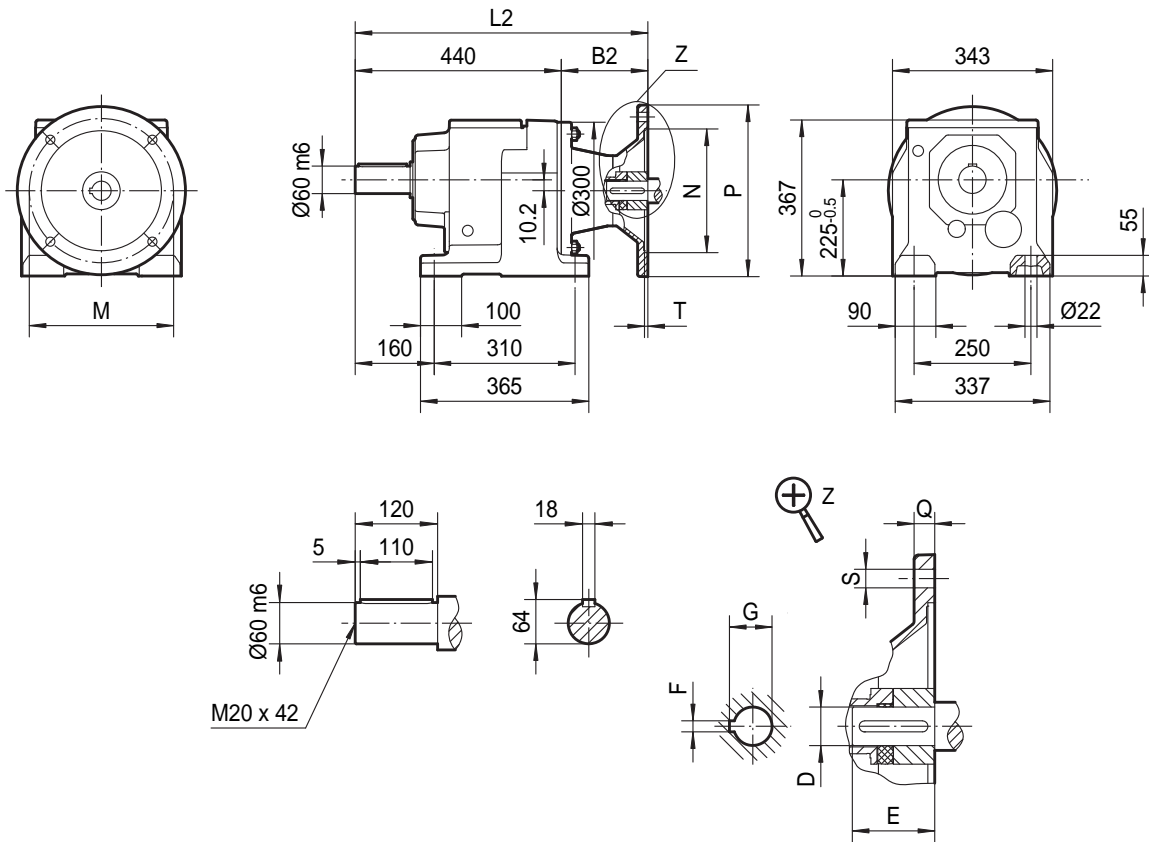
**II**  
Ø350



	L2	B2	D	E	F	G	M	N	P	Q	S	T
<b>AM80</b>	459	87	19	40	6	21.8	165	130	200	12	4-Ø11	4.5
<b>AM90</b>	459	87	24	50	8	27.3	165	130	200	12	4-Ø11	4.5
<b>AM100</b>	493	121	28	60	8	31.3	215	180	250	15	4-Ø13.5	5
<b>AM112</b>	493	121	28	60	8	31.3	215	180	250	15	4-Ø13.5	5
<b>AM132S/M</b>	546	174	38	80	10	41.3	265	230	300	16	4-Ø13.5	5
<b>AM132ML</b>	546	174	38	80	10	41.3	265	230	300	16	4-Ø13.5	5
<b>AM160</b>	604	232	42	110	12	45.3	300	250	350	18	4-Ø17.5	6
<b>AM180</b>	604	232	48	110	14	51.8	300	250	350	18	4-Ø17.5	6

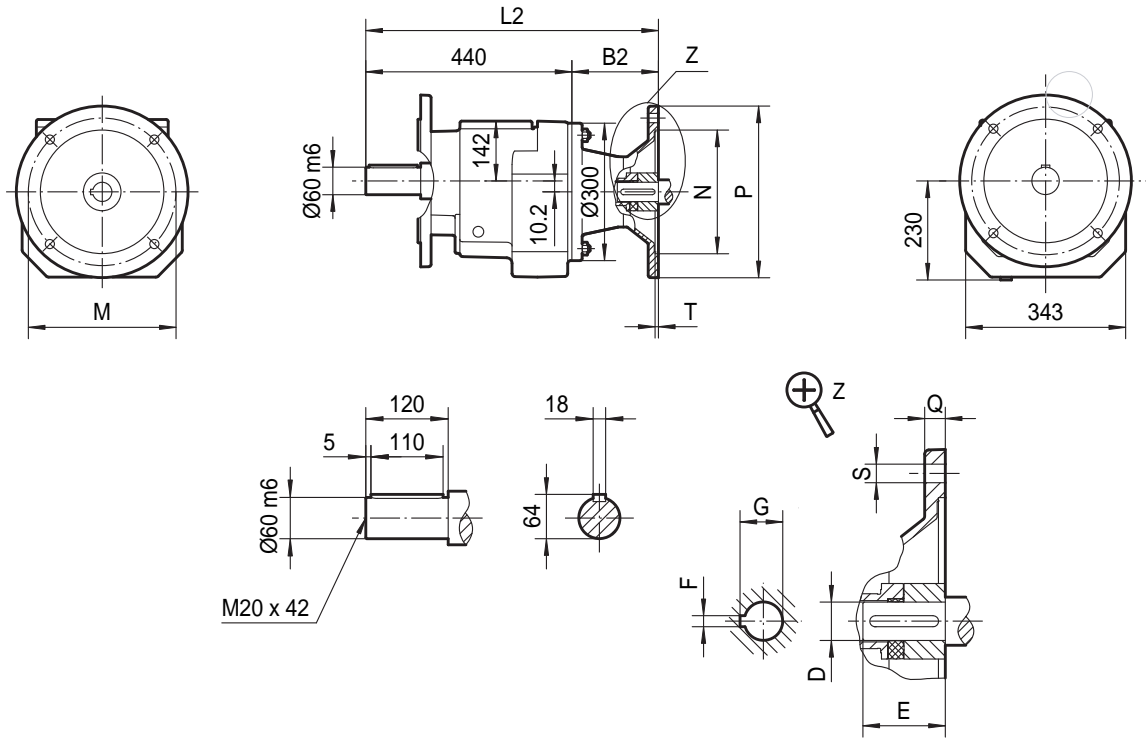


TR97..



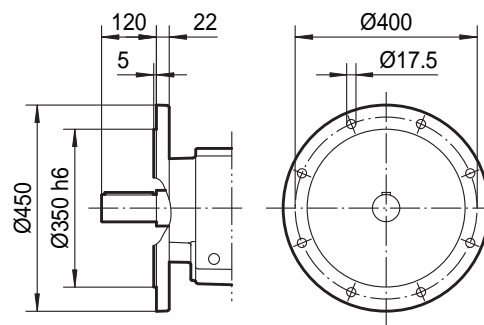
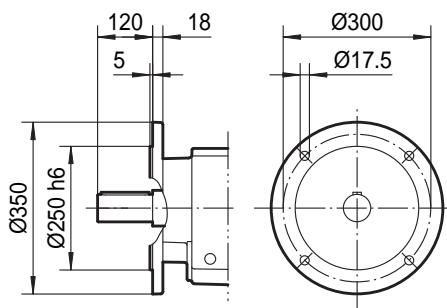
	L2	B2	D	E	F	G	M	N	P	Q	S	T
<b>AM100</b>	556	116	28	60	8	31.3	215	180	250	15	4-Ø13.5	5
<b>AM112</b>	556	116	28	60	8	31.3	215	180	250	15	4-Ø13.5	5
<b>AM132S/M</b>	609	169	38	80	10	41.3	265	230	300	16	4-Ø13.5	5
<b>AM132ML</b>	609	169	38	80	10	41.3	265	230	300	16	4-Ø13.5	5
<b>AM160</b>	667	227	42	110	12	45.3	300	250	350	18	4-Ø17.5	6
<b>AM180</b>	667	227	48	110	14	51.8	300	250	350	18	4-Ø17.5	6
<b>AM200</b>	708	268	55	110	16	59.3	350	300	400	20	4-Ø17.5	7

TRF97..



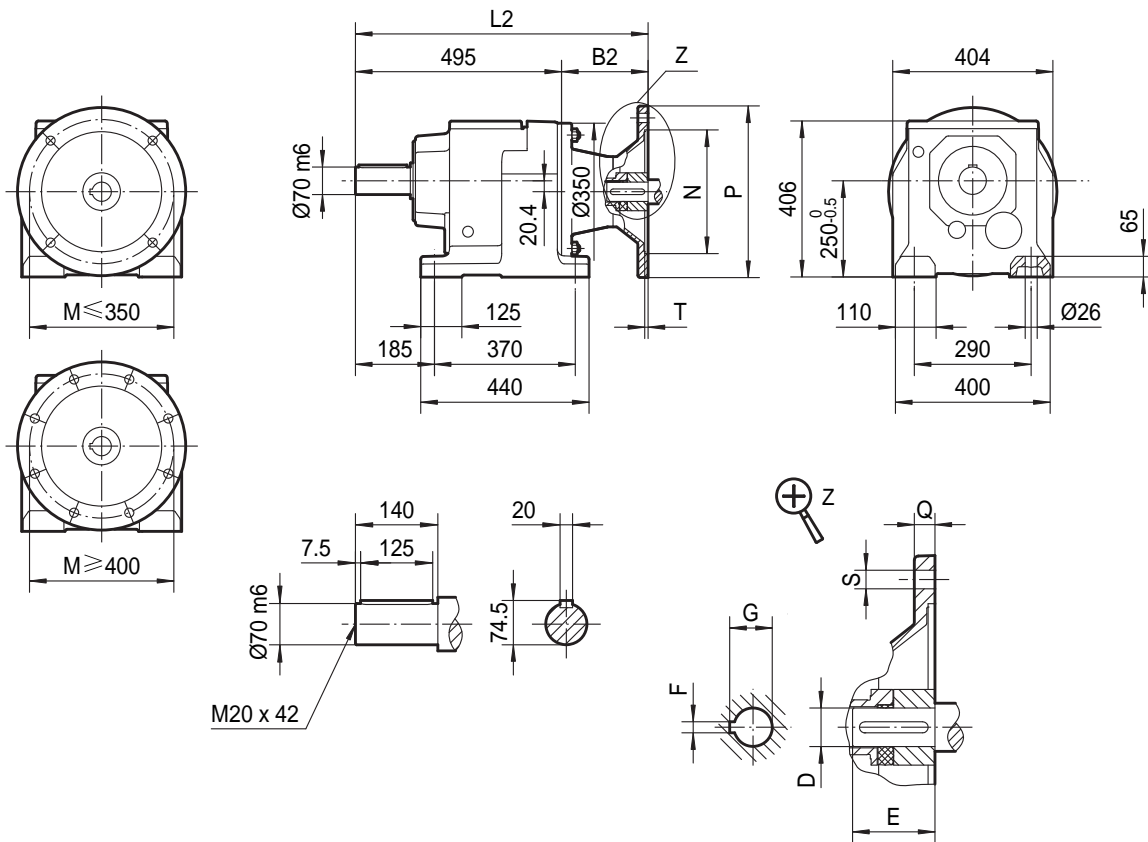
**I**  
Ø350

**II**  
Ø450



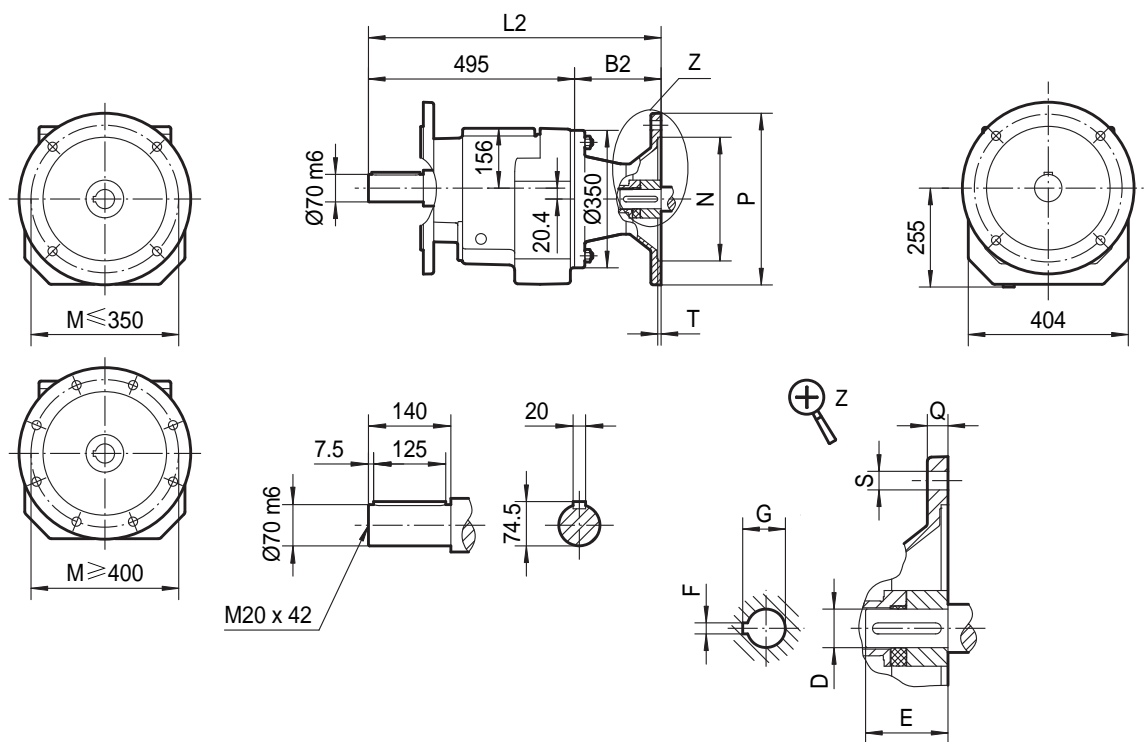
	L2	B2	D	E	F	G	M	N	P	Q	S	T
AM100	556	116	28	60	8	31.3	215	180	250	15	4-Ø13.5	5
AM112	556	116	28	60	8	31.3	215	180	250	15	4-Ø13.5	5
AM132S/M	609	169	38	80	10	41.3	265	230	300	16	4-Ø13.5	5
AM132ML	609	169	38	80	10	41.3	265	230	300	16	4-Ø13.5	5
AM160	667	227	42	110	12	45.3	300	250	350	18	4-Ø17.5	6
AM180	667	227	48	110	14	51.8	300	250	350	18	4-Ø17.5	6
AM200	708	268	55	110	16	59.3	350	300	400	20	4-Ø17.5	7

TR107..

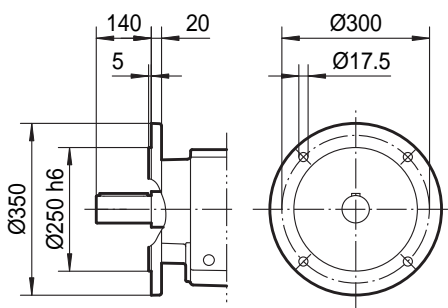


	L2	B2	D	E	F	G	M	N	P	Q	S	T
<b>AM100</b>	605	110	28	60	8	31.3	215	180	250	15	4- $\varnothing 13.5$	5
<b>AM112</b>	605	110	28	60	8	31.3	215	180	250	15	4- $\varnothing 13.5$	5
<b>AM132S/M</b>	658	163	38	80	10	41.3	265	230	300	16	4- $\varnothing 13.5$	5
<b>AM132ML</b>	658	163	38	80	10	41.3	265	230	300	16	4- $\varnothing 13.5$	5
<b>AM160</b>	716	221	42	110	12	45.3	300	250	350	18	4- $\varnothing 17.5$	6
<b>AM180</b>	716	221	48	110	14	51.8	300	250	350	18	4- $\varnothing 17.5$	6
<b>AM200</b>	757	262	55	110	16	59.3	350	300	400	20	4- $\varnothing 17.5$	7
<b>AM225</b>	772	277	60	140	18	64.4	400	350	450	22	8- $\varnothing 17.5$	7

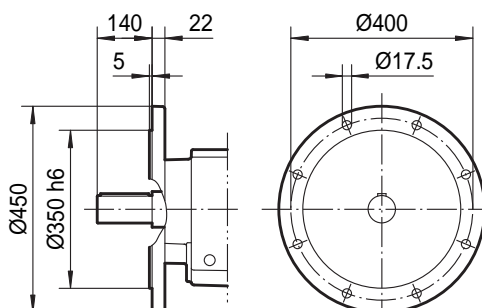
TRF107..



**I**  
Ø350

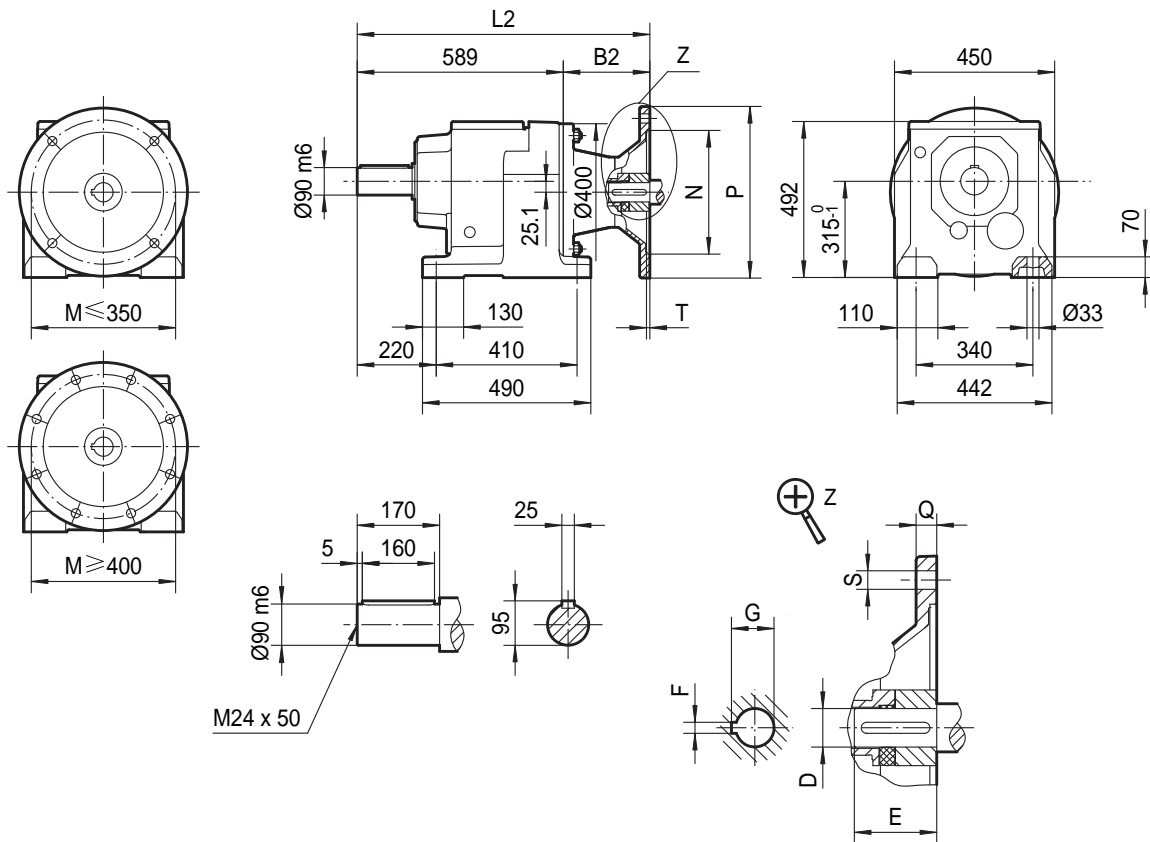


**II**  
Ø450



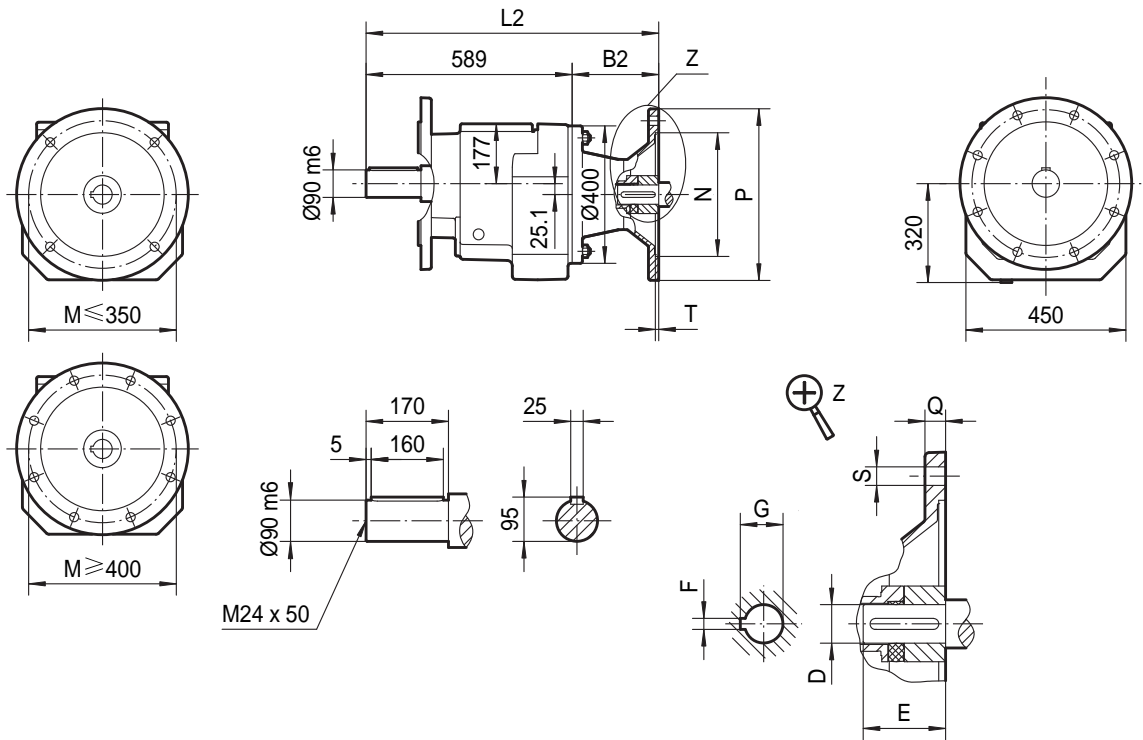
	L2	B2	D	E	F	G	M	N	P	Q	S	T
<b>AM100</b>	605	110	28	60	8	31.3	215	180	250	15	4-Ø13.5	5
<b>AM112</b>	605	110	28	60	8	31.3	215	180	250	15	4-Ø13.5	5
<b>AM132S/M</b>	658	163	38	80	10	41.3	265	230	300	16	4-Ø13.5	5
<b>AM132ML</b>	658	163	38	80	10	41.3	265	230	300	16	4-Ø13.5	5
<b>AM160</b>	716	221	42	110	12	45.3	300	250	350	18	4-Ø17.5	6
<b>AM180</b>	716	221	48	110	14	51.8	300	250	350	18	4-Ø17.5	6
<b>AM200</b>	757	262	55	110	16	59.3	350	300	400	20	4-Ø17.5	7
<b>AM225</b>	772	277	60	140	18	64.4	400	350	450	22	8-Ø17.5	7

TR137..



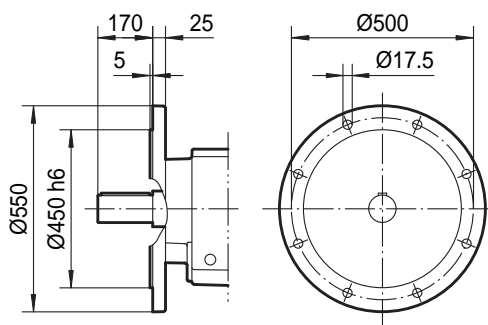
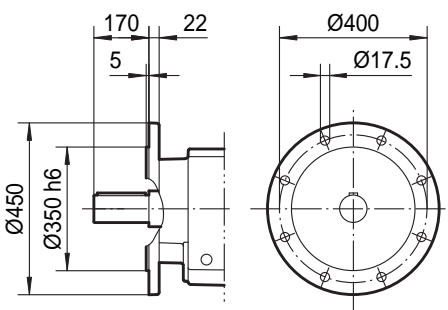
	L2	B2	D	E	F	G	M	N	P	Q	S	T
<b>AM132S/M</b>	745	156	38	80	10	41.3	265	230	300	16	4- $\varnothing 13.5$	5
<b>AM132ML</b>	745	156	38	80	10	41.3	265	230	300	16	4- $\varnothing 13.5$	5
<b>AM160</b>	803	214	42	110	12	45.3	300	250	350	18	4- $\varnothing 17.5$	6
<b>AM180</b>	803	214	48	110	14	51.8	300	250	350	18	4- $\varnothing 17.5$	6
<b>AM200</b>	844	255	55	110	16	59.3	350	300	400	20	4- $\varnothing 17.5$	7
<b>AM225</b>	859	270	60	140	18	64.4	400	350	450	22	8- $\varnothing 17.5$	7

TRF137..



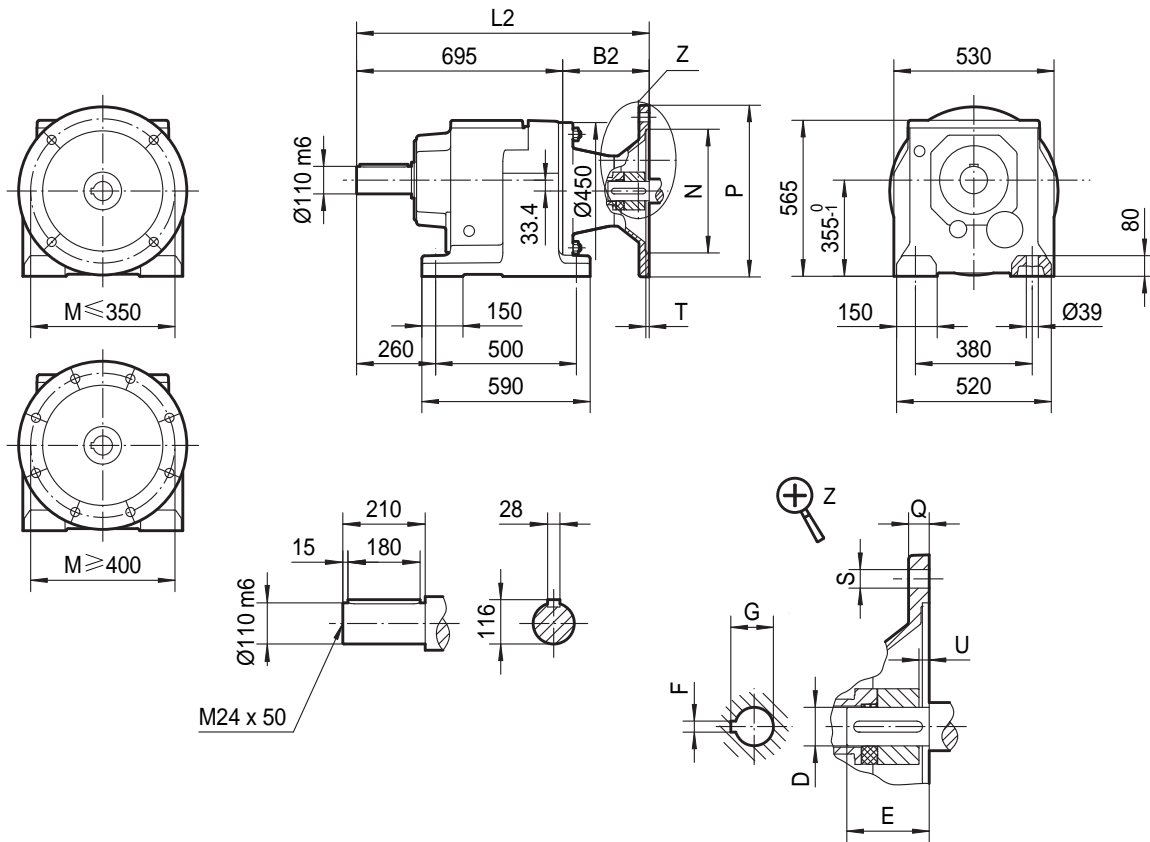
**I**  
Ø450

**II**  
Ø550



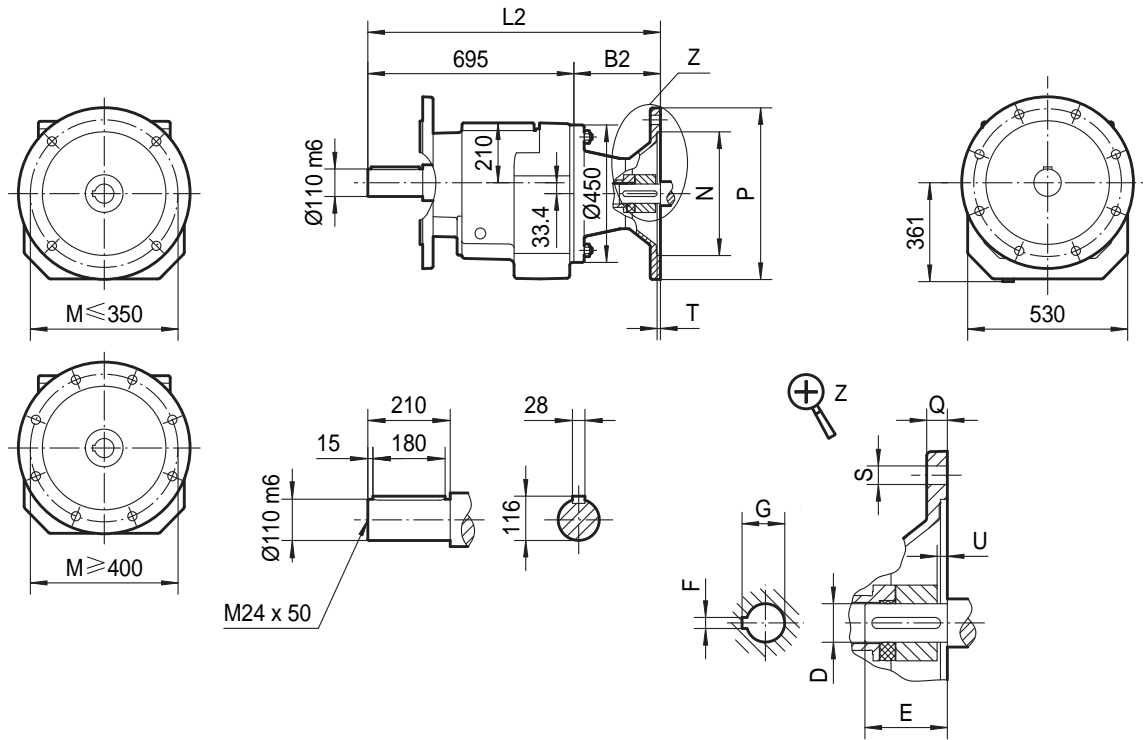
	L2	B2	D	E	F	G	M	N	P	Q	S	T
<b>AM132S/M</b>	745	156	38	80	10	41.3	265	230	300	16	4-Ø13.5	5
<b>AM132ML</b>	745	156	38	80	10	41.3	265	230	300	16	4-Ø13.5	5
<b>AM160</b>	803	214	42	110	12	45.3	300	250	350	18	4-Ø17.5	6
<b>AM180</b>	803	214	48	110	14	51.8	300	250	350	18	4-Ø17.5	6
<b>AM200</b>	844	255	55	110	16	59.3	350	300	400	20	4-Ø17.5	7
<b>AM225</b>	859	270	60	140	18	64.4	400	350	450	22	8-Ø17.5	7

TR147..

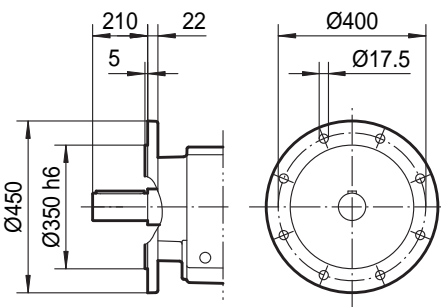


	L2	B2	D	E	F	G	M	N	P	Q	S	T	U
<b>AM132ML</b>	843	148	38	80	10	41.3	265	230	300	16	4-Ø13.5	5	0
<b>AM160</b>	901	206	42	110	12	45.3	300	250	350	18	4-Ø17.5	6	0
<b>AM180</b>	901	206	48	110	14	51.8	300	250	350	18	4-Ø17.5	6	0
<b>AM200</b>	942	247	55	110	16	59.3	350	300	400	20	4-Ø17.5	7	0
<b>AM225</b>	957	262	60	140	18	64.4	400	350	450	22	8-Ø17.5	7	0
<b>AM250</b>	1031	336	65	140	18	69.4	500	450	550	25	8-Ø17.5	7	19
<b>AM280</b>	1031	336	75	140	20	79.9	500	450	550	25	8-Ø17.5	7	19

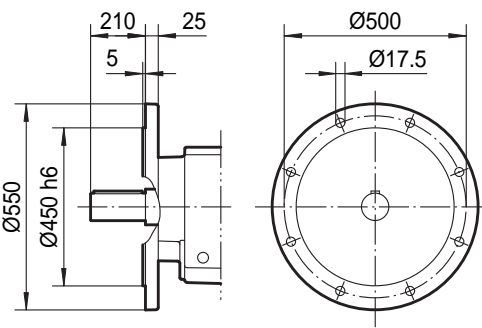
TRF147..



**I**  
Ø450



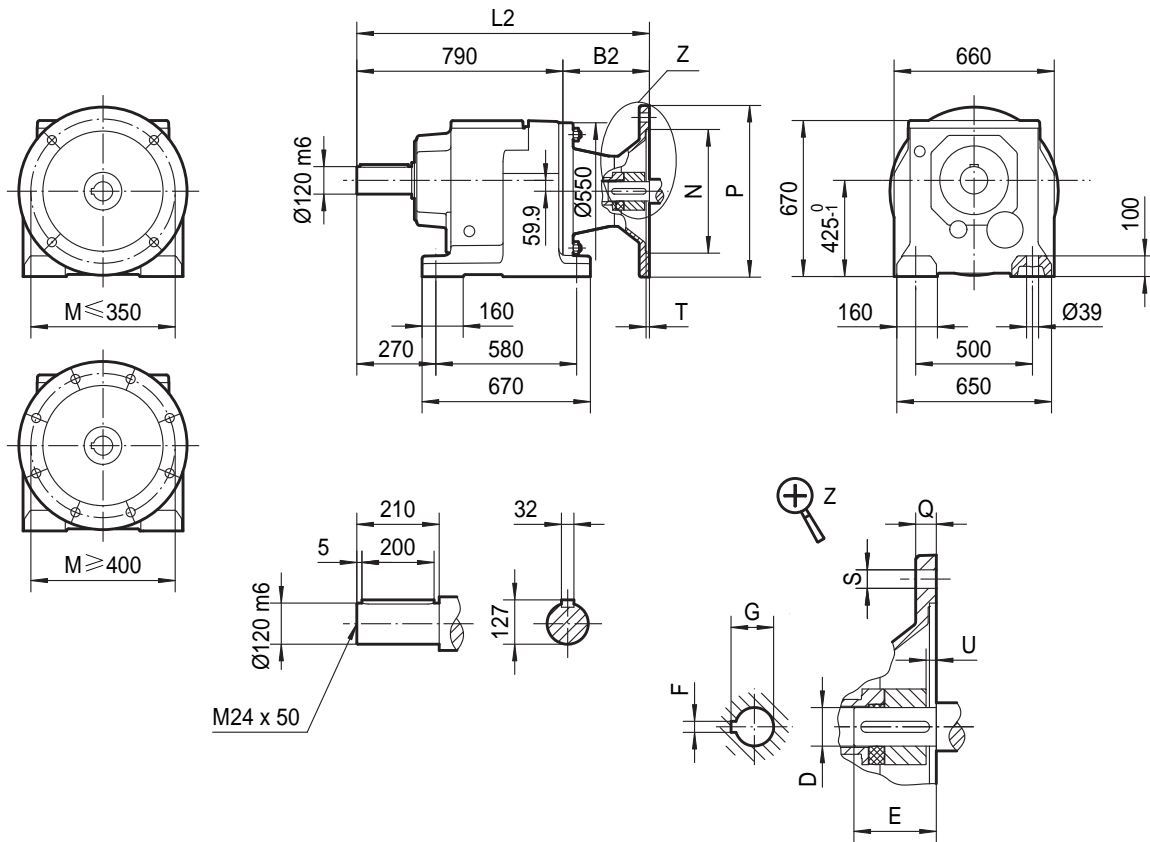
**II**  
Ø550



	L2	B2	D	E	F	G	M	N	P	Q	S	T	U
<b>AM132ML</b>	843	148	38	80	10	41.3	265	230	300	16	4-Ø13.5	5	0
<b>AM160</b>	901	206	42	110	12	45.3	300	250	350	18	4-Ø17.5	6	0
<b>AM180</b>	901	206	48	110	14	51.8	300	250	350	18	4-Ø17.5	6	0
<b>AM200</b>	942	247	55	110	16	59.3	350	300	400	20	4-Ø17.5	7	0
<b>AM225</b>	957	262	60	140	18	64.4	400	350	450	22	8-Ø17.5	7	0
<b>AM250</b>	1031	336	65	140	18	69.4	500	450	550	25	8-Ø17.5	7	19
<b>AM280</b>	1031	336	75	140	20	79.9	500	450	550	25	8-Ø17.5	7	19

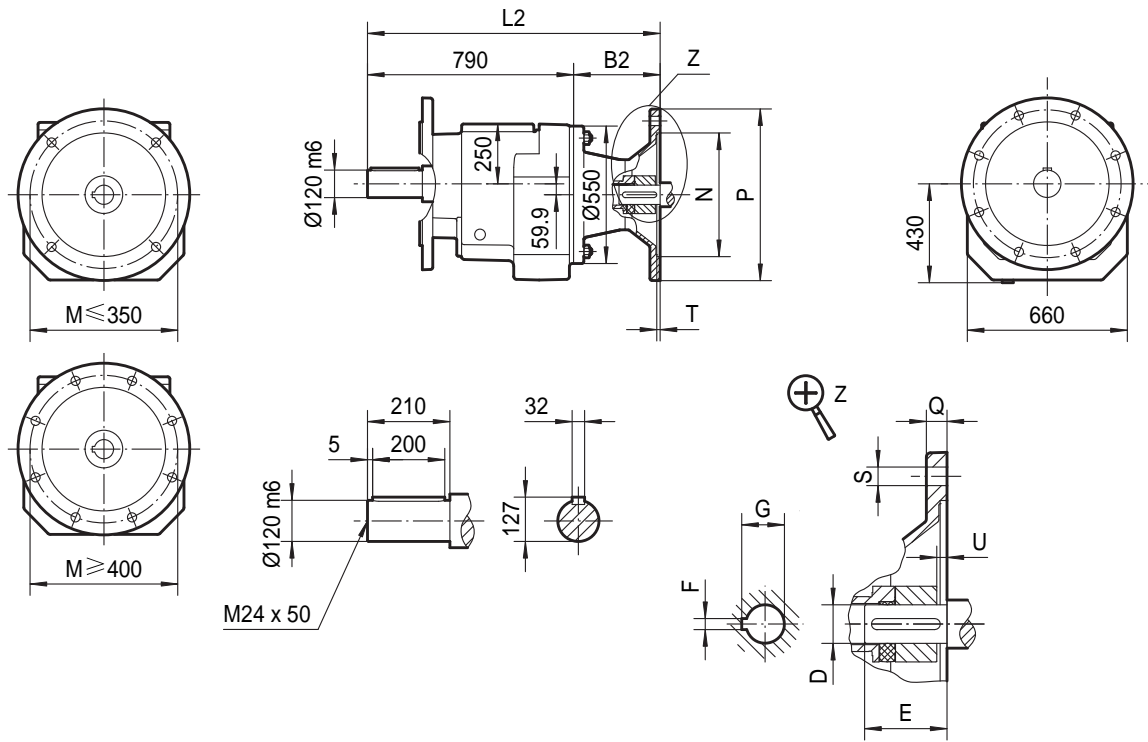


TR167..

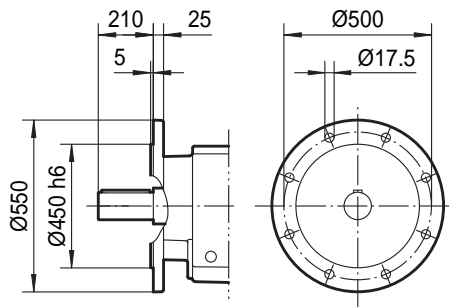


	L2	B2	D	E	F	G	M	N	P	Q	S	T	U
<b>AM160</b>	988	198	42	110	12	45.3	300	250	350	18	4-Ø17.5	6	0
<b>AM180</b>	988	198	48	110	14	51.8	300	250	350	18	4-Ø17.5	6	0
<b>AM200</b>	1029	239	55	110	16	59.3	350	300	400	20	4-Ø17.5	7	0
<b>AM225</b>	1044	254	60	140	18	64.4	400	350	450	22	8-Ø17.5	7	0
<b>AM250</b>	1118	328	65	140	18	69.4	500	450	550	25	8-Ø17.5	7	19
<b>AM280</b>	1118	328	75	140	20	79.9	500	450	550	25	8-Ø17.5	7	19

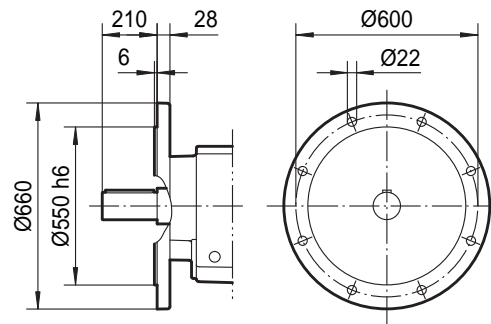
TRF167..



**I**  
Ø550



**II**  
Ø660



	L2	B2	D	E	F	G	M	N	P	Q	S	T	U
<b>AM160</b>	988	198	42	110	12	45.3	300	250	350	18	4-Ø17.5	6	0
<b>AM180</b>	988	198	48	110	14	51.8	300	250	350	18	4-Ø17.5	6	0
<b>AM200</b>	1029	239	55	110	16	59.3	350	300	400	20	4-Ø17.5	7	0
<b>AM225</b>	1044	254	60	140	18	64.4	400	350	450	22	8-Ø17.5	7	0
<b>AM250</b>	1118	328	65	140	18	69.4	500	450	550	25	8-Ø17.5	7	19
<b>AM280</b>	1118	328	75	140	20	79.9	500	450	550	25	8-Ø17.5	7	19

TR .. AM

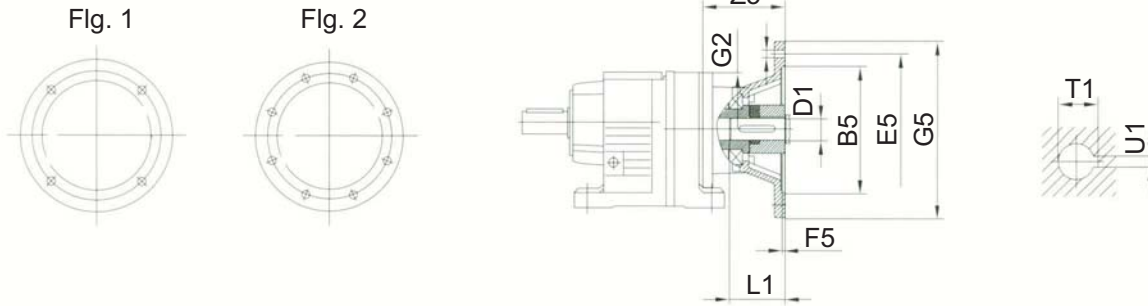


		Fig	B5	E5	F5	G2	G5	S5	Z5	D1	L1	T1	U1
TR .. 27 TR .. 37	AM63	1	95	115	3.5	120	140	M8	72	11	23	12.8	4
	AM7 <sup>(1)</sup>		110	130			14			30	16.3	5	
	AM80 <sup>(1)</sup>		130	165	4.5		200	M10	106	19	40	21.8	6
	AM90 <sup>(1)</sup>									24	50	27.3	6
TR..47 TR..57 TR..67	AM63	1	95	115	5.3	160	140	M8	66	11	23	12.8	4
	AM71		110	130			14			30	16.3	5	
	AM80		130	165	4.5		200	M10	99	19	40	21.13	6
	AM90									24	50	27.3	8
	AM100 <sup>(1)</sup>		180	215	5		250	M12	134	20	60	31.3	0
	AM112 <sup>(1)</sup>												
TR..77	AM63	1	95	115	3.5	200	140	M8	60	11	23	12.8	4
	AM71		110	130			14			30	16.3	5	
	AM80		130	165	4.5		200	M10	92	19	40	21.8	6
	AM90									24	50	27.3	8
	AM100 <sup>(1)</sup>		180	215	5		250	M12	126	28	60	31.3	8
	AM112 <sup>(1)</sup>												
	AM132S <sup>(1)</sup>		230	265	5		300	M12	179	38	80	41.3	10
	AM132M <sup>(1)</sup>												
AM132ML <sup>(1)</sup>													
TR..87	AM63	1	130	165	4.5	250	200	M10	87	19	40	21.8	6
	AM90									24	50	27.3	8
	AM100		180	215	5		250	M12	121	26	60	31.3	8
	AM112												
	AM132S		230	265	5		300	M12	174	38	80	41.3	10
	AM132M												
	AM132ML												
	AM160 <sup>(1)</sup>		250	300	6		350	M16	232	42	110	45.3	6
AM180 <sup>(1)</sup>	46	51.8				8							
TR..97	AM100	1	180	215	5	300	250	M12	116	213	60	31.3	8
	AM112												
	AM132S		230	265	5		300	M12	169	36	80	41.3	10
	AM132M												
	AM132ML												
	AM160	250	300	6	350		M16	227	42	110	45.3	12	
	AM180 <sup>(1)</sup>								48		51.8	14	
	AM200 <sup>(1)</sup>	300	350	7	400		M16	268	55	110	59.3	16	
AM225 <sup>(1)</sup>	2					350			400		450	203	60

**TR..AM**

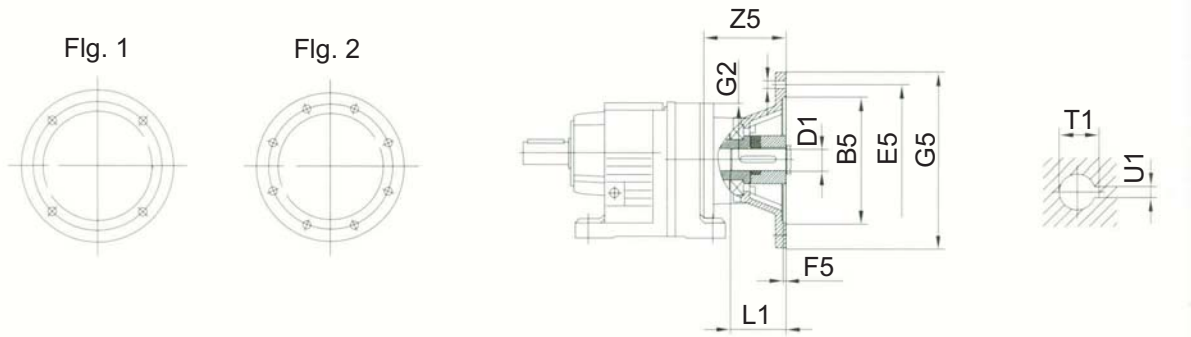


		Fig	B5	E5	F5	G2	G5	S5	Z5	D1	L1	T1	U1		
TR..107	AM100	1	180	215	5	350	250	M12	110	28	60	31.3	8		
	AM112														
	AM132S														
	AM132M		230	265	6		300	M16	221	42	110	45.3	12		
	AM132ML														
	AM160		250	300	7		400	M16	262	55	110	51.8	14		
	AM180		300	350			450							277	60
	AM200	2	350	400	7		450	M16	277	60	140	64.4	18		
AM225															
TR..137	AM132S	1	230	265	5	400	300	M12	156	38	80	41.3	10		
	AM132M														
	AM132ML														
	AM160		250	300	6		350	M16	214	42	110	45.3	12		
	AM180		300	350			400							255	55
	AM200	2	350	400	7		450	M16	270	60	140	64.4	18		
AM225															
TR.. 147	AM132S	1	230	265	5	450	300	M12	214	38	80	41.3	10		
	AM132M														
	AM132ML														
	AM160	250	300	6	350		M16	206	42	110	45.3	12			
	AM180	300	350		400								247	55	59.3
	AM200	2	350	400	7		450	M16	262	60	140	64.4	18		
	AM225		450	500			550							336	65
AM250	75		79.9	20											
AM280															
TR..167	AM160	1	250	300	6	550	350	M16	198	42	110	45.3	12		
	AM180		48	51.8			14								
	AM200		300	350	7		400							M16	239
	AM225	350	400	400			254	60	64.4	18					
	AM250	2	450	500	7		550	M16	328	65	140	69.4	18		
	AM280		75	79.9			20								

**TYPES OF LUBRICATION**

						lubrication type
<i>TR..</i>	Standard -10      +40	VG 220	Shell Omala 220	Mobilgear 630	BP Energol GR-XP 220	Mineral oil
	-20      +25	VG 150 VG 100	Shell Omala 100	Mobilgear 627	BP Energol GR-XP 100	
	-30      +10	VG 68-46 VG 32	Shell Tellus T 32	Mobil D.T.E. 13M		
	-40      -20	VG 22 VG 15	Shell Tellus T 15	Mobil D.T.E. 11M	BP Energol HLP-HM 15	
	-40      +80	VG 220	Shell Omala HD 220	Mobil SHC 630		Synthetic oil
	-40      +40	VG 150	Shell Omala HD 150	Mobil SHC 629		
-40      +10	VG 32		Mobil SHC 624			

**LUBRICANT FILL QUANTITY**

The specified fill quantities are recommended values. The precise values vary depending on the number of stages and gear ratio. When filling, it is essential to check the oil level plug since it indicates the precise oil capacity. The following tables show guide values for lubricant fill quantities in relation to the mounting position M1 ~ M6.

*TRX..*

Gear Units	Fill quantity in Liters						unit: (L)
	M1**	M2**	M3	M4	M5	M6	
TRX57	0.60	0.80	1.30	1.30	0.90	0.90	
TRX67	0.80	0.80	1.70	1.90	1.10	1.10	
TRX77	1.10	1.50	2.60	2.70	1.60	1.60	
TRX87	1.70	2.50	4.80	4.80	2.90	2.90	
TRX97	2.10	3.40	7.40	7.00	4.80	4.80	
TRX107	3.90	5.60	11.60	11.90	7.70	7.70	

*TRXF..*

Gear units	Fill quantity in liters (L)					
	M1**	M2**	M3	M4	M5	M6
TRXF57	0.50	0.80	1.10	1.10	0.70	0.70
TRXF67	0.70	0.80	1.50	1.40	1.00	1.00
TRXF77	0.90	1.30	2.40	2.00	1.60	1.60
TRXF87	1.60	1.95	4.90	3.95	2.90	2.90
TRXF97	2.10	3.70	7.10	6.30	4.80	4.80
TRXF107	3.10	5.70	11.20	9.30	7.20	7.20

*TR.. , TR..F*

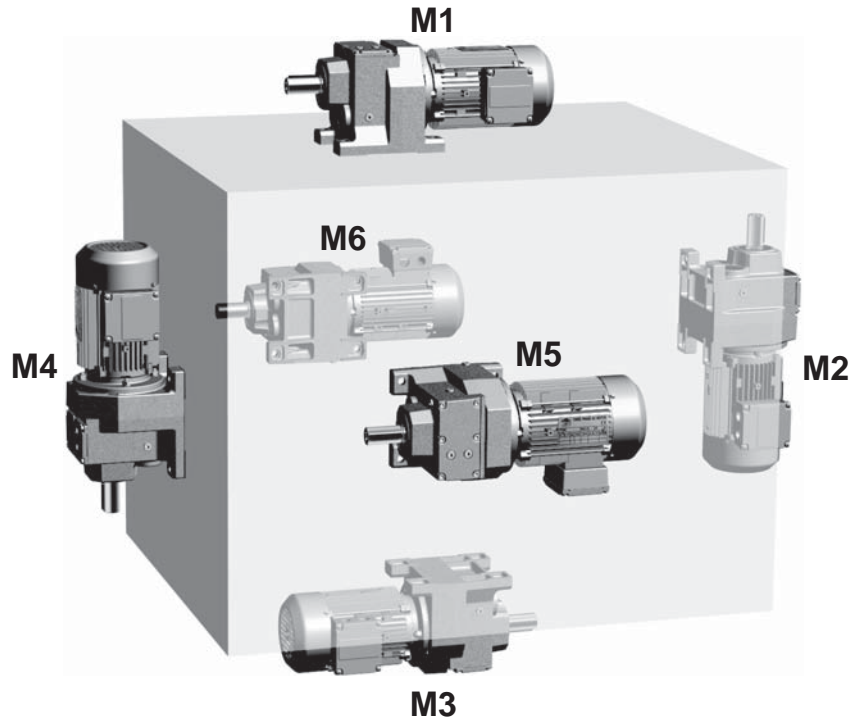
Gear units	Fill quantity in liters (L)					
	M1**	M2**	M3	M4	M5	M6
TR27 / TR27F	0.25 / 0.40	0.7	0.5	0.7	0.5	0.5
TR37 / TR37F	0.30 / 0.95	0.85	0.95	1.05	0.75	0.95
TR47 / TR47F	0.70 / 1.50	1.6	1.5	1.65	1.5	1.5
TR57 / TR57F	0.80 / 1.70	1.9	1.7	2.1	1.7	1.7
TR67/ TR67F	1.10 / 2.30	2.60 / 3.50	2.8	3.2	1.8	2
TR77 / TR77F	1.20 / 3.00	3.80 / 4.10	3.6	4.1	2.5	3.4
TR87 / TR87F	2.30 / 6.0	6.7 / 8.2	7.2	7.7	6.3	6.5
TR97	4.60 / 9.8	11.7 / 14.0	11.7	13.4	11.3	11.7
TR107	6.0 / 13.7	16.3	16.9	19.2	13.2	15.9
TR137	10.0 / 25.0	28	29.5	31.5	25	25
TR147	15.4 / 40.0	46.5	48	52	39.5	41
TR167	27.0 / 70.0	82	78	88	66	69

*TRF.. , TRZ..*

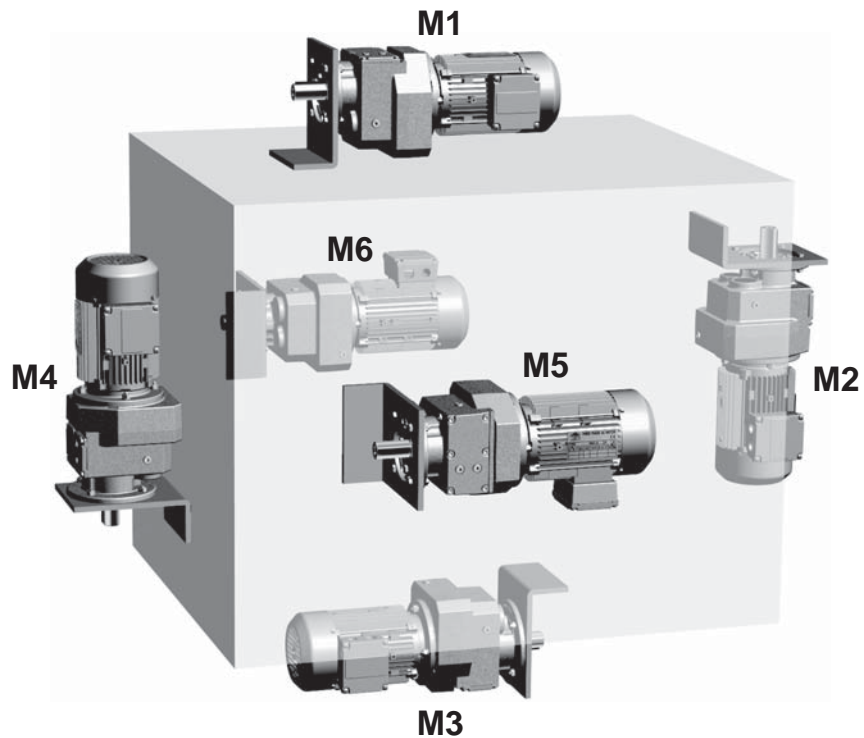
Gear units	Fill quantity in liters (L)					
	M1**	M2**	M3	M4	M5	M6
TRF/TRZ27	0.25 / 0.40	0.70	0.50	0.70	0.50	0.50
TRF/TRZ37	0.35 / 0.95	0.90	0.95	1.05	0.75	0.95
TRF/TRZ47	0.65 / 1.50	1.60	1.50	1.65	1.50	1.50
TRF/TRZ57	0.80 / 1.70	1.80	1.70	2.00	1.70	1.70
TRF/TRZ67	1.20 / 2.50	2.70 / 3.60	2.70	2.60	1.90	2.10
TRF/TRZ77	1.20 / 2.60	3.80 / 4.10	3.30	4.10	2.40	3.00
TRF/TRZ87	2.40 / 6.0	6.8 / 7.9	7.10	7.70	6.30	6.40
TRF97	5.1 / 10.2	11.9 / 14.0	11.20	14.00	11.20	11.80
TRF107	6.3 / 14.9	15.90	17.00	19.20	13.10	15.90
TRF137	9.5 / 25.0	27.00	29.00	32.50	25.00	25.00
TRF147	16.4 / 42.0	47.00	48.00	52.00	42.00	42.00
TRF167	26.0 / 70.0	82.00	78.00	88.00	65.00	71.00

\*\* The large gear unit of multi-stage gear units must be filled with the larger oil volume.




*TR.. INSTALLATION POSITIONS*

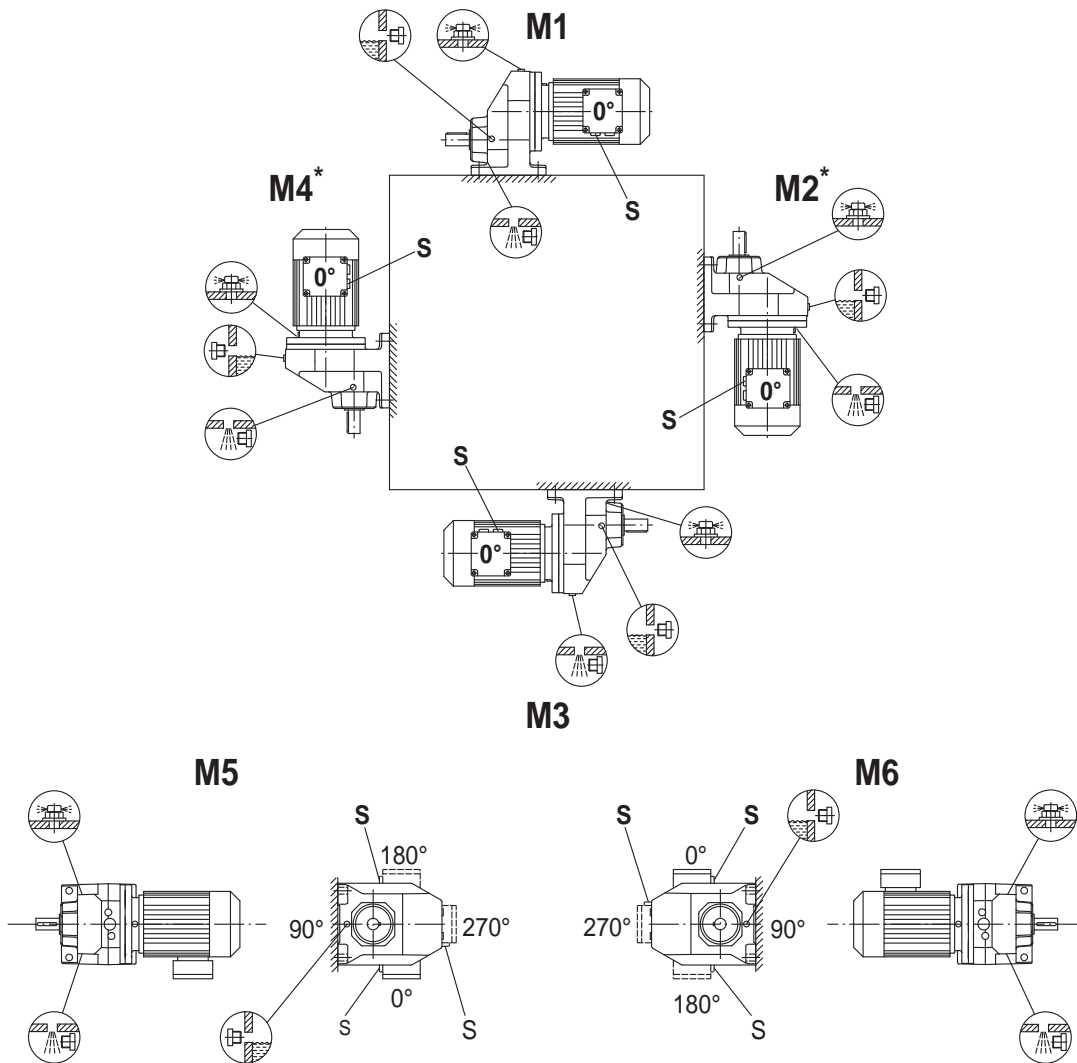
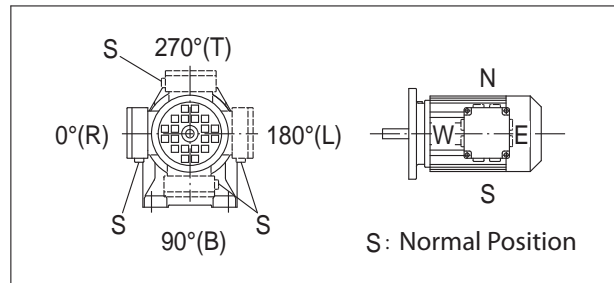


*TRF.. INSTALLATION POSITIONS*



## TRX57 - TRX107




Symbol	Meaning
	Breather Valve
	Oil Level Plug
	Oil Drain Plug

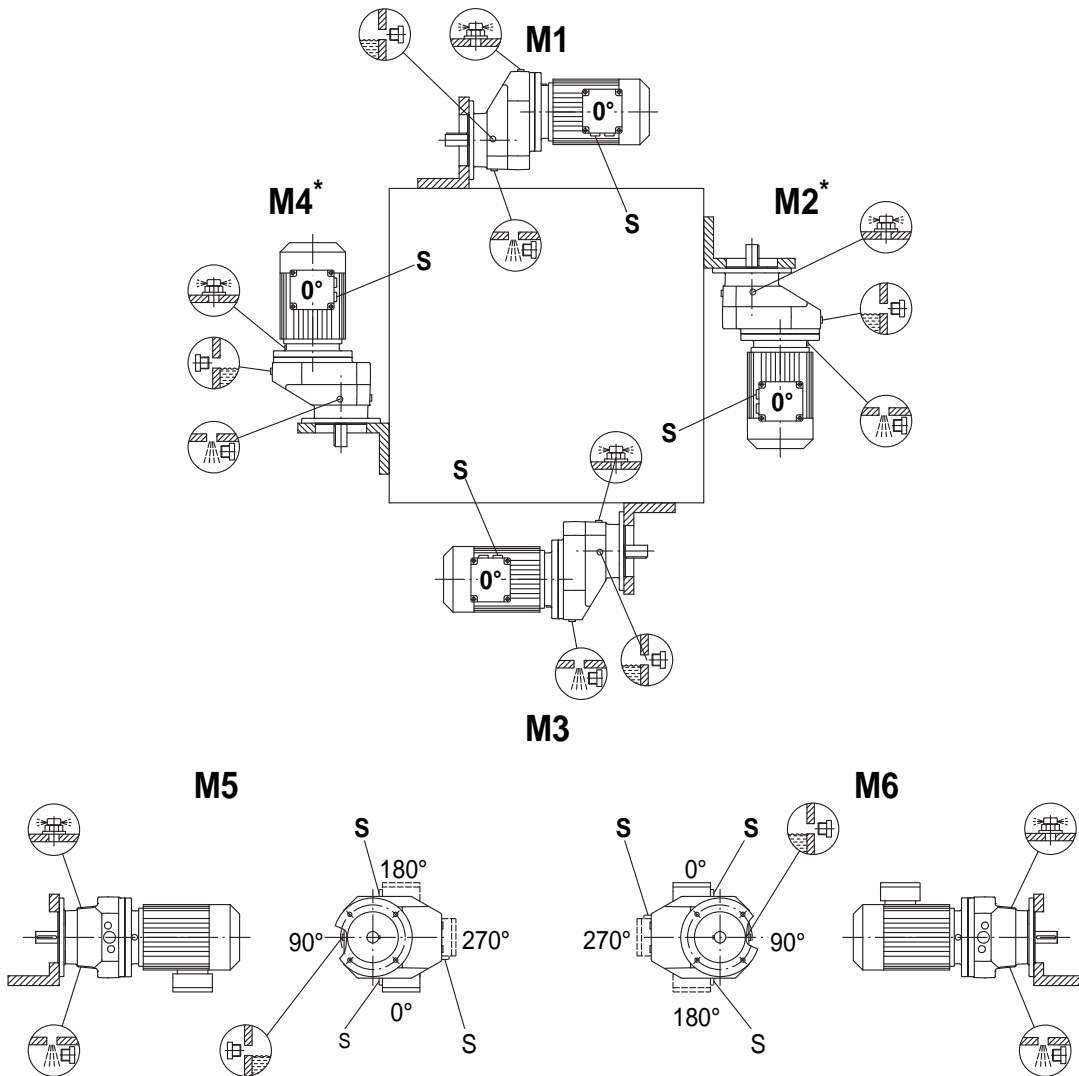
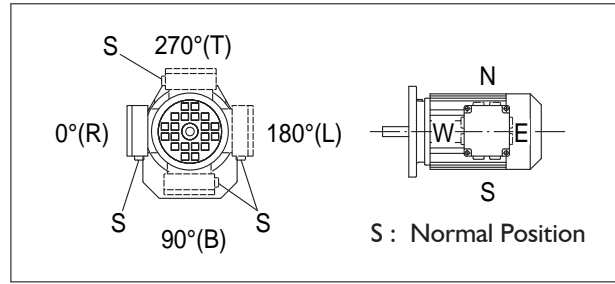


MOUNTING POSITION	GEAR UNIT SIZE	INPUT SPEED [1/min]
M2*, M4*	97...107	>2500
	>107	>1500



**TRXF57 - TRXF107**

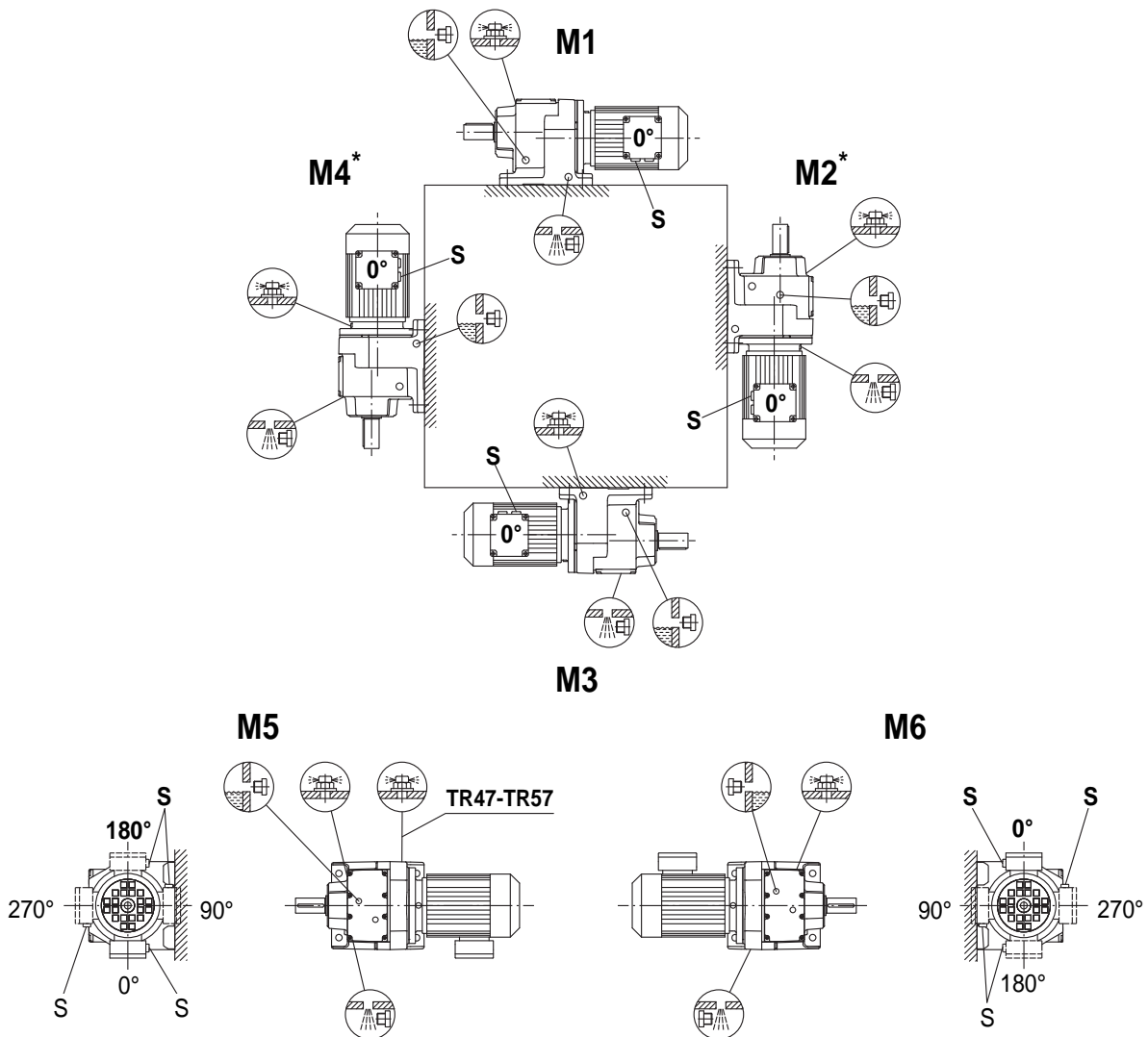
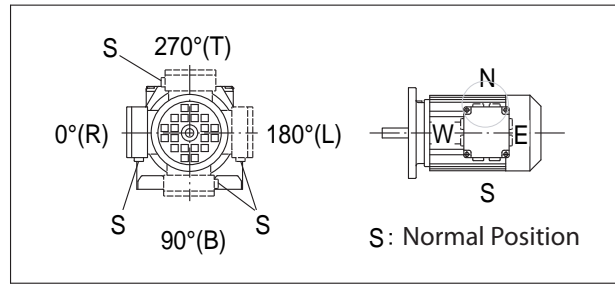
Symbol	Meaning
	Breather Valve
	Oil Level Plug
	Oil Drain Plug



MOUNTING POSITION	GEAR UNIT SIZE	INPUT SPEED [1/min]
M2* , M4*	97...107	>2500
	>107	>1500

## TR27 - TR167

Symbol	Meaning
	Breather Valve
	Oil Level Plug
	Oil Drain Plug

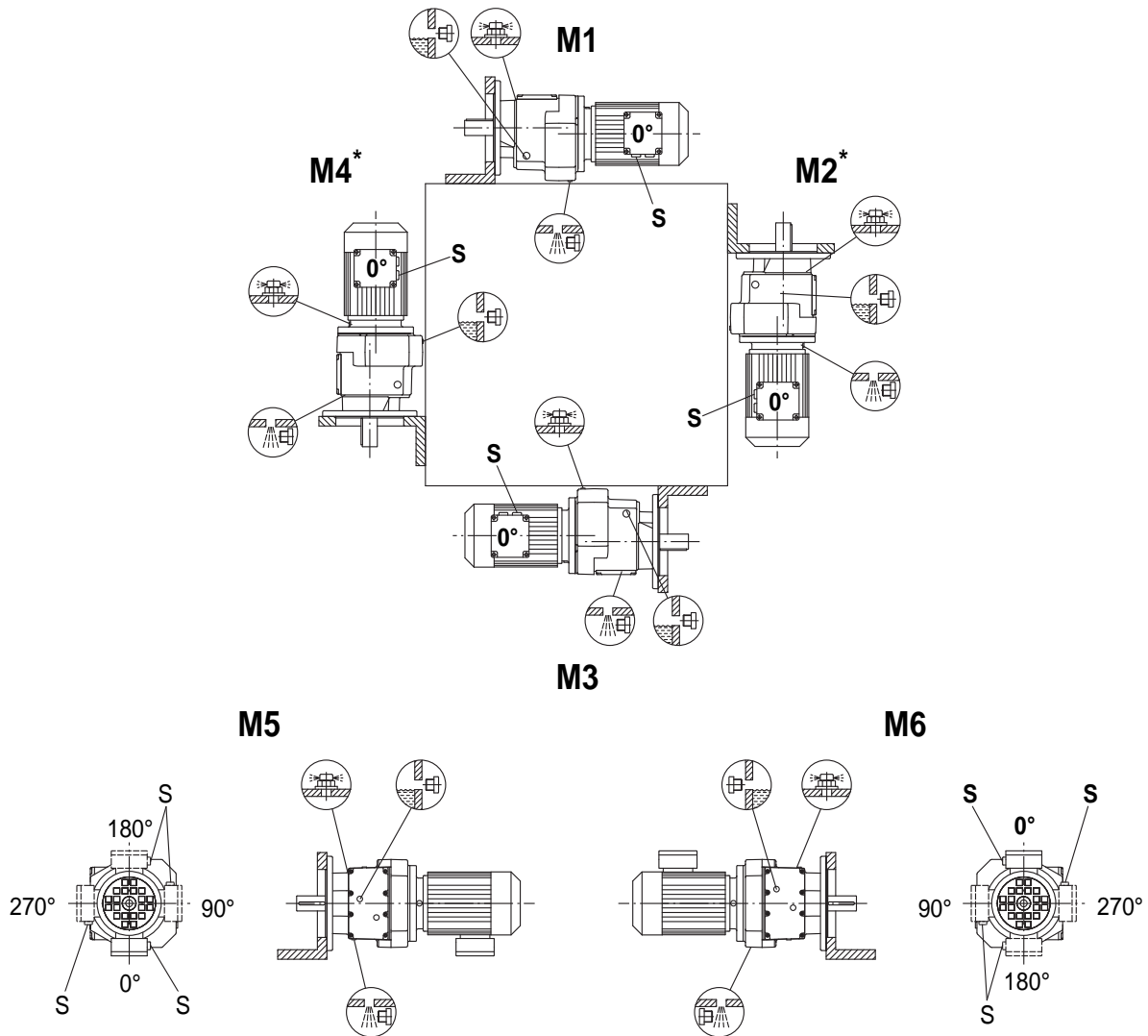
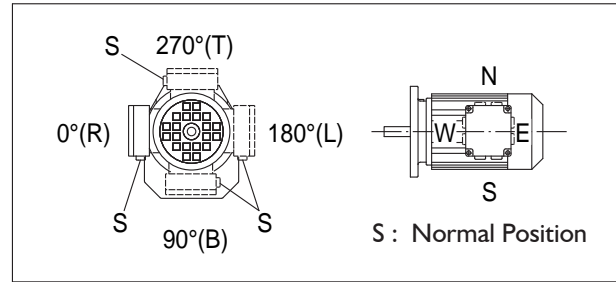


MOUNTING POSITION	GEAR UNIT SIZE	INPUT SPEED [1/min]
M2*, M4*	97...107	>2500
	>107	>1500

TR27		M1, M3, M5, M6
TR27		
TR47, TR57		M5

**TRF27 - TRF167**

Symbol	Meaning
	Breather Valve
	Oil Level Plug
	Oil Drain Plug

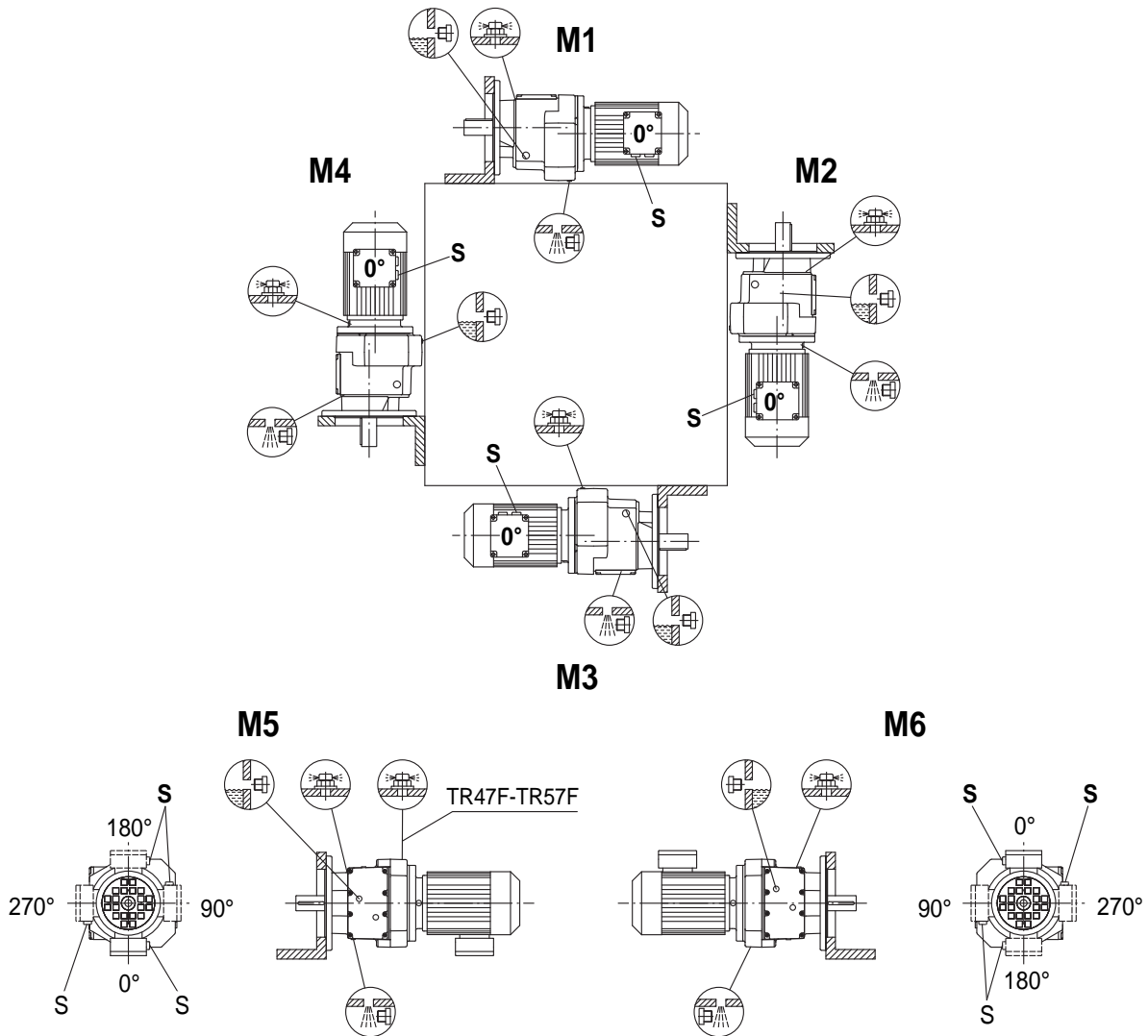
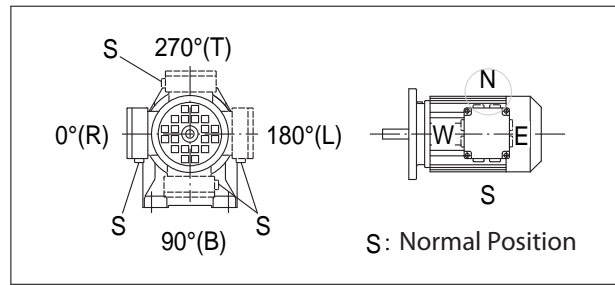


MOUNTING POSITION	GEAR UNIT SIZE	INPUT SPEED
M2*, M4*	97...107	>2500
	>107	>1500

<b>TRF27</b>		<b>M1, M3, M5, M6</b>
<b>TRF27</b>		
<b>TRF47, TRF57</b>		<b>M5</b>

## TR27F - TR87F

Symbol	Meaning
	Breather Valve
	Oil Level Plug
	Oil Drain Plug



TR27F **M1, M3, M5, M6**

TR27F

TR47F, TR57F **M5**

**INSTALLATION METHODS**

**1) Preparation before installation :**

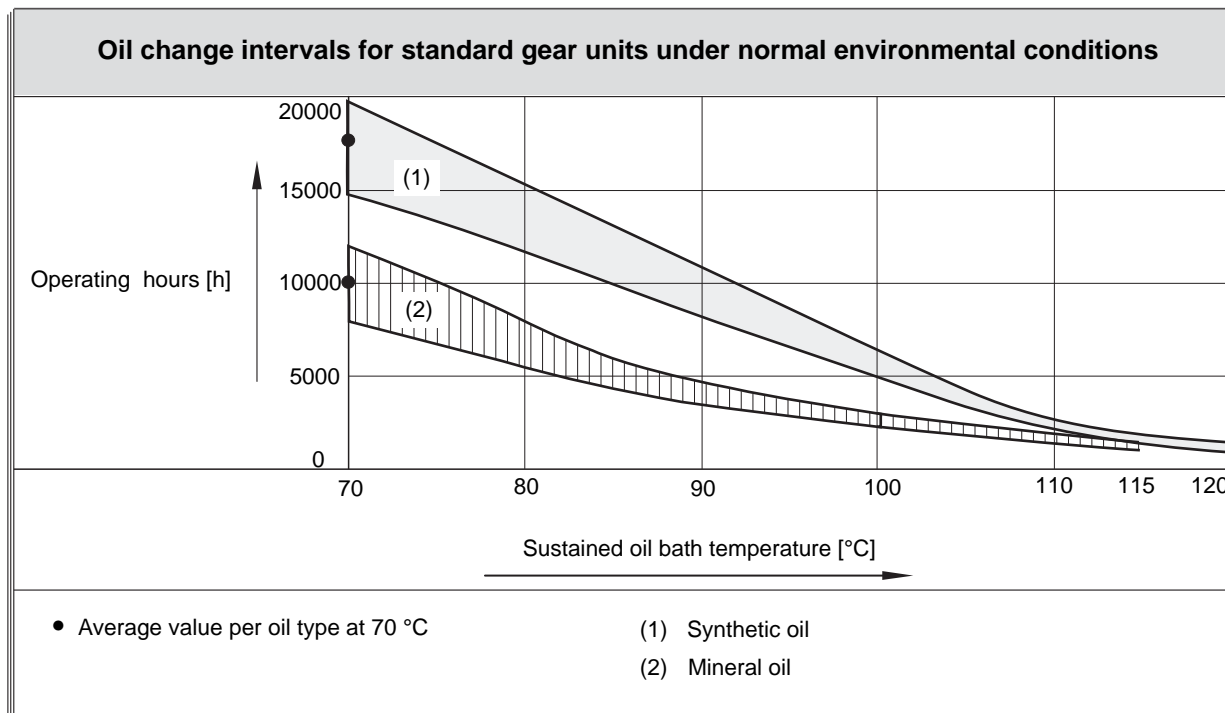
- a). Check if the data on the nameplates of the gearmotor matches the voltage supply system.
- b). Check if the drive has not been damaged during transportation and storage.
- c). For standard gear unit, the ambient temperature must be in accordance with the corresponding lubricant table.
- d). The drive must not be assembled in conditions such as oil, gas, vapors, acids, radiation and so on.
- e). Output shaft and flange surfaces must thoroughly cleaned to ensure they are free of anti-corrosion agents, contamination or similar. Use a commercially available solvent.  
Do not let the solvent come into contact with the sealing lip of the oil seals,  
or will damage the material!
- f). The supporting structure must have the following characteristics: level, vibration damping and torsionally rigid.
- g). So as to prevent the tolerance of fit of gear units from damaging, the parts assembled on the gear units must be worked as specified tolerance according to ISOH7.

**2). The installation of the gear units:**

- a). Do not tighten the housing legs and mounting flanges against one another and ensure that you comply with the permitted radial load and axial load.
- b). Never drive belt pulleys, couplings, pinions, etc. onto the shaft end by hitting them with a hammer. This will damage the bearing, housing and the shaft.
- c). When installing the IEC couplings, remove the key from the motor shaft and replace it with the supplied key. Secure key and coupling half using grub screw and tighten to the motor shaft. Seal the contact surface between the adapter and motor using a suitable sealing compound.
- d). Prior to startup, check that if the oil level is as specified for the mounting position. if the oil checking and drain screw and the breather valves are free accessible.

**MAINTENANCE**

- 1). Gear units TR27.. have lubricants for life and are therefore maintenance-free.
- 2). For other type gear units, first oil change should be after about 300 hours (run-in period). The right lotion is required to clean the gear units with care. Never mix the synthetic oil and mineral oil together.
- 3). Every 3000 working time, at least every 6 months, you have to check the oil and oil level, the seals visually for leakage. For IEC input gear units, the elastomer should be tested or replaced if necessary.
- 4). Depending on the operating conditions (see chart below), every 3 years at the latest for inspection is needed. Then change the mineral oil and replace the bearing grease.
- 5). Depending on the operating conditions, change the oil seals on output shaft.
- 6). Once the malfunctions appear, stop disassembling the parts, and firstly please contact the customer service (the information about specification, delivery date, series number, time used, name of machine, machine manufacturer, malfunction problems is required) , then take the reasonable measures.



**STORAGE**

- 1). Under roof, protected against rain and snow, no shock loads.
- 2). Underlay the block and other material between the ground and equipment.
- 3). The opened but not used gear units should be added with the anti-corrosive oil on its surface, and then return to the packing containers timely.
- 4). Two years or more given regular inspections. Check for cleanliness and mechanical damage as part of the inspection, Check corrosion protection.

**NOTICE FOR ORDER**

Please offer the following information when place the orders:

- 1). the model mark of the gear units(type, ratio, power and mounting position).
- 2). gear units are available with "blue/gray" painting optionally.Unless specified, it offers the bluepainting as standard.
- 3). quantity ordered.
- 4). other special requirements.
- 5). company, contact and telephone.



**GEAR UNIT MALFUCTIONS**

<b>Problem</b>	<b>Possible cause</b>	<b>Remedy</b>
Unusual, regular running noise	A. Meshing/grinding noise: Bearing damage. B. Knocking noise: Irregularity in the gearing	A. Check the oil, change bearings B. Contact customer service
Unusual, irregular running noise	Foreign bodies in the oil	<ul style="list-style-type: none"> <li>• Check the oil</li> <li>• Stop the drive, contact customer service</li> </ul>
Oil leaking1) <ul style="list-style-type: none"> <li>• From the gear cover plate</li> <li>• From the motor flange</li> <li>• From the motor oil seal</li> <li>• From the gear unit flange</li> <li>• From the output end oil seal</li> </ul>	A. Rubber seal on the gear cover plate leaking B. Seal defective C. Gear unit not vented	A. Tighten the bolts on the gear cover plate and observe the gear unit. Oil still leaking:Contact customer service B. Contact customer service C. Vent the gear unit (see "Mounting Positions")
Oil leaking from breaking valve	A. Too much oil B. Drive operated in incorrect mounting position C. Frequent cold starts(oil foams) and/or high oillevel	A. Correct the oil level (see Sec. "Inspection and Maintenance") B. Mount the breather valve correctly (see Sec."Mounting Positions")and correct the oil level(see"Lubricants")
Output shaft does not turn although the motor is running or the input shaft is rotated	Connection between shaft and hub in gear unit interrupted	Send in the gear unit/gearmotor for repair

1) Short-term oil/grease leakage at the oil seal is possible in the run-in phase (24 hours running time).

## IEC COUPLINGS MALFUNCTIONS

Problem	Possible cause	Remedy
Unusual, regular running noise	Meshing/grinding noise: Bearing damage	Contact our company customer service
Oil leaking	Seal defective	Contact our company customer service
Output shaft does not turn although the motor is running or the input shaft is rotated	Connection between shaft and hub in gear unit interrupted	Send the gear unit to our company for repair.
Change in running noise and / or vibrations occur	A. Annular gear wear, short-term torque transfer through metal contact B. Bolts to secure hub axially are loose.	A. Change the annular gear B. Tighten the bolts
Premature wear in annular gear	A. Contact with aggressive fluids / oil; ozone influence; too high ambient temperatures etc, which can cause a change in the physical properties of the annular gear. B. Impermissibly high ambient/contact temperature for the annular gear; maximum permitted temperature -20 °C to +80 °C. C. Overload	Contact our company customer service

*Charge Characteristic Chart (for reference)*

<b>AIR BLOWERS</b>		Hoist gear assembly	A
Air blower(axial or radial)	A	Derrick gear assembly	B
Fan of cooling tower	B	Steering gear assembly	B
Induced draught fan	B	Moving gear assembly	C
Rotary piston type fan	B	<b>LAND DREDGER</b>	
Turbo-fan	A	Drum-type conveyer	C
<b>CONSTRUCTION MACHINERY</b>		Drum-type rotation wheel	C
Concrete mixer	B	Dredger head	C
Hoist	B	Powered crab	B
Road building machinery	B	Pump	B
Boring mill	B	Pump turning gear assembly	B
<b>CHEMICAL MACHINERY</b>		Moving gear assembly (apron wheel)	C
Mixer (liquid)	A	Moving gear assembly (track)	B
Mixer (half liquid)	B	<b>FOODSTUFF PROCESSING MACHINERY</b>	
Centrifuge (heavy)	B	Placer or box filler	A
Centrifuge(light)	A	Cane crusher	A
** Cooling rolling drum	B	** Cane cutter	B
** Dry rolling drum	B	** Cane crasher	C
Mixer	B	Mixer	B
<b>COMPRESSOR</b>		Paste bucket	B
Piston type compressor	C	Packager	A
Turbo-compressor	B	Beet slicer	B
<b>TRANSMISSION FREIGHTER</b>		Beet washing machine	B
Pan conveyer	B	<b>MOTOR AND CONVERSION EQUIPMENTS</b>	
Balance lifter	B	Frequency converter	C
Trough conveyer	B	Motor	C
Ribbon conveyer (large piece)	C	Welding motor	C
Ribbon coveyer (small piece)	B	<b>WASHING MACHINE</b>	
Drum-type flour conveyer	A	Rolling drum	B
Chain conveyer	B	Washing machine	B
Ring type conveyer	B	<b>METAL ROLLER MACHINE</b>	
Lifter	B	** Steel cutter	C
Hoist	B	** Chain conveyer	B
Crank-connecting conveyer	B	** Cold mill	C
Lifter	B	Continuous casting equipments	B
Worm conveyer	B	** Cold bed	B
Steel-band conveyer	B	** Cropper	C
Chain reed-type conveyer	B	** Cross steering transmitter	B
Crab freighter	B	** Deruster	C
<b>HOIST</b>		** Heavy and medium steel mill	C
Bracket swing gear assembly	B	** Bar mill	C

BAR TRANSMISSION EQUIPMENT		PUMPS	
Bar pusher	B	Centrifugal pump (thin liquid)	A
Push bed	B	Centrifugal pump (half liquid)	B
** Shears	C	Displacement pump	C
** Lumber elevator platform	B	Plunger pump	C
ROLL ADJUSTING EQUIPMENTS	B	Force pump	C
Roller leveling machine	B	<b>PLASTIC EQUIPMENTS</b>	
** Mill rolling way (heavy)	C	** Glazing press	B
** Mill rolling way (light)	B	** Ejecting press	B
** Sheet rolling mill	C	** Spiral extruding machine	B
** Trimming shears	B	** Mixing machine	B
Pipe welder	C	<b>RUBBER EQUIPMENT</b>	
Soldering machine (belt material and wire rod)	B	** Glazing press	B
Wire drawbench	B	** Ejecting press	C
<b>METAL PROCESSING MACHINE TOOLS</b>		** Mixing stir machine	C
Power shaft	A	Kneading machine	C
** Forging machine	C	** Roller machine	B
Drop hammer	C	<b>STONE PORCELAIN CLAY PROSSEING EQP</b>	
Machine tool and necessary	A		
Machine tool and main driving equipment	B	Ball crusher	B
Metal facing machine	C	** Ejecting press and breaker	C
Plate-leveling machine tool	C	Breaker	C
Backing-out punch	C	Brick press	C
Press machine tool	C	** Beating crusher	C
Cutting machine	B	** Converter	C
Sheet bending machine tool	B	** Cylinder mill	C
<b>PETROLEUM PROCESSING MACHINERY</b>		<b>TEXTILE MACHINERY</b>	
** Pump of oil pipe line	B	Feeding machine	B
Rotary drilling equipment	C	Loom machine	B
<b>PAPERING MACHINE</b>		Dyeing machine	B
** Glazing press	C	Purified drum	B
** Multilayer paper board machine	C	Welon Machine	B
** Drying cylinder	C	<b>WASTER TREATMENT EQUIPMENT</b>	
** Glazing cylinder	C	Air blast	B
** Masher	C	Screw pump	B
** Mashing and breaking machine	C	<b>WOOD PROCESSING MACHINE TOOL</b>	
** Suction roll	C	Barker	C
** Wet paper roller machine	C	Facing machine	B
** Water absorbing roller machine	C	Saw bench	C
Welon machine	C	Wood processing machine tool	A

Note: A - Uniform load; B - Moderate shock load; C - Heavy shock load; \*\* - for 24hour system.