



TR

TR系列斜齿轮减速电机
TR SERIES HELICAL
GEARED MOTOR



TF

TF系列平行轴斜齿轮减速电机
TF SERIES PARALLEL
SHAFT-HELICAL GEARED MOTOR



TK

TK系列斜齿轮伞齿轮减速电机
TK SERIES HELICAL-BEVEL
GEARED MOTOR



TS

TS系列斜齿轮蜗轮减速电机
TS SERIES HELICAL-WORM
GEARED MOTOR

GREATWALL MACHINERY

2015

台崎机电设备（上海）有限公司

TAIQI TRANSMISSION EQUIPMENT (SHANGHAI) CO., LTD

公司简介

台崎机电设备(上海)有限公司始建于1988年，占地面积55000平方米，拥有15000平方米标准厂房。多年以来长期为客户提供专业化的传动产品定制服务。主要生产TR系列斜齿轮减速机，TR系列平行轴斜齿轮减速机，TK系列斜齿轮-锥齿轮减速机，TS系列斜齿轮-涡轮减速机，TWH系列自动扶梯曳引机机TWX登机桥行星齿轮减速机。产品采用了系列化、模板化的设计思想，具有广泛的适用性。

公司拥有各式加工中心、高精度磨齿机、齿轮检测中心、三坐标测量机和测功机等先进设备和检测仪器。公司坚持以客户为导向，以人为本，以品质求生存，以科技求发展的经营理念。我们将以优质的产品和完善的售前售后服务与各界朋友展开广泛的合作，为客户创造更大的价值。



2/
磨齿机
Gear Grinding Machine

3/
磨齿机
Gear Grinding Machine

1/
滚齿机
Gear Hobbing Machine

4/
加工中心
Machining Center

5/
加工中心
Machining Center

6/
齿轮检测中心
Gear Measuring Center

7/
三坐标
Three-Coordinate Measuring Machine

8/
测功机
Dynamometer Machine

Production Engineering
生产工艺

目录 CONTENTS

1. 产品说明	001	1.Product Description
1.1 性能特点	001	1.1 Performance Characteristics
1.2 主要材料	001	1.2 Material
1.3 减速器效率	001	1.3 Gear Unit Efficiency
1.4 使用条件	001	1.4 Working Conditions
1.5 选型表注释	002	1.5 Selection Table Explanation
1.6 润滑油	003	1.6 Lubrication
2.TR系列斜齿轮减速电机	008	2. TR series Helical Geared Motor
2.1 部件分解图	009	2.1 Spare Parts List
2.2 机型版本	010	2.2 Versions
2.3 产品标注	012	2.3 Product Code
2.4 安装方位	014	2.4 Mounting Positions
2.5 减速器组合表	022	2.5 Gear Unit Combination Table
2.6 TR..功率配置	023	2.6 TR..Power Configuration
2.7 TR..性能参数	031	2.7 TR..Performance Parameters
2.8 TR../TRF..性能参数	070	2.8 TR../TRF.. Performance Parameters
2.9 外形尺寸	076	2.9 Dimensions
3.TF系列平行轴－斜齿轮减速电机	097	3.TF Series Parallel Shaft-Helical Geared Motor
3.1 部件分解图	098	3.1 Spare Parts List
3.2 机型版本	099	3.2 Versions
3.3 产品标注	102	3.3 Product Code
3.4 安装方位	104	3.4 Mounting Positions
3.5 减速器组合表	109	3.5 Gear Unit Combination Table
3.6 TF..功率配置	110	3.6 TF..Power Configuration
3.7 TF..性能参数	116	3.7 TF..Performance Parameters
3.8 TF../TRF..性能参数	139	3.8 TF../TRF.. Performance Parameters
3.9 外形尺寸	145	3.9 Dimensions
4.TK 系列斜齿轮-伞齿轮减速电机	157	4.TK Series Helical-Bevel Geared Motor

4.1 部件分解图	158	4.1 Spare Parts List
4.2 机型版本	159	4.2 Versions
4.3 产品标注	162	4.3 Product Code
4.4 安装方位	164	4.4 Mounting Positions
4.5 减速器组合表	173	4.5 Gear Unit Combination Table
4.6 TK..功率配置	174	4.6 TK..Power Configuration
4.7 TK..性能参数	179	4.7 TK..Performance Parameters
4.8 TK../TKF..性能参数	207	4.8 TK../TKF.. Performance Parameters
4.9 外形尺寸	213	4.9 Dimensions
5. TS系列斜齿轮—蜗轮减速电机	225	5. TS Series Helical-Worm Geared Motor
5.1 部件分解图	226	5.1 Spare Parts List
5.2 机型版本	227	5.2 Versions
5.3 产品标注	230	5.3 Product Code
5.4 安装方位	232	5.4 Mounting Positions
5.5 减速器组合表	242	5.5 Gear Unit Combination Table
5.6 TS..功率配置	243	5.6 TS..Power Configuration
5.7 TS..性能参数	246	5.7 TS..Performance Parameters
5.8 TS../TRF..性能参数	258	5.8 TS../TRF.. Performance Parameters
5.9 外形尺寸	262	5.9 Dimensions
6.输入模块外形尺寸	269	6.Dimensions of Input Module
6.1 双联输入外形尺寸	269	6.1 GRF.. Dimensions
6.2 AM(IEC).. 输入外形尺寸	270	6.2 AM(IEC).. Dimensions
6.3 AD..输入外形尺寸	272	6.3 AD.. Dimensions
7.选型指南	274	7. Selection Guide
8.存放与维护	282	8. Storage and Maintenance
9.订货须知	283	9. Notice for Order
10.故障及排除	283	10.Malfunction and Remedy

1. 产品说明 / Product Description

1.1 性能特点

1. 采用了系列化、模块化的设计，传动比覆盖范围广、分级精细；
2. 传动效率高，耗能低、性能优越；
3. 齿轮经高精度磨齿机磨削加工，传动平稳、噪音低，承载能力大、寿命长；
4. 设计精巧：体积小，安装简便，用途广泛；
5. 安装方式多样，适合全方位的万能安装配置；
6. 可实现 TR、TF、TK、TS 系列与 TRF 系列双联体组合，适用于特殊低速的应用。

1.2 主要材料

1. 箱体：HT250高强度铸铁。射型内腔，有效减少零件磨损；
2. 齿轮：20CrMo优质合金钢，碳氮共渗处理（精磨后保持齿面硬度HRC60）；
3. 平键：45钢，表面硬度HRC50。

1.3 减速器效率

1. 由于采用了高精度齿轮、油封、轴承，有效降低了摩擦，齿轮传动的级间效率可达97%；
2. 在某些安装方式时，输入级齿轮完全浸在润滑油中，对于大机座号和高输入转速的情况，须考虑搅油损失。

1.4 使用条件

1. 环境温度-40 ~50 ℃（0℃以下启动时润滑油需加热到0℃以上或采用防冻润滑油）；
2. 输入转速不大于2800转/分；
3. 可用于正反转；
4. 无行业限制。

1.1 Performance Characteristics

1. Systematic and modular design;Transmission ratio with fine stage covers a wide range.
2. High efficiency; Low energy consumption; Superior performance.
3. High Precision gearwith teeth grinding;Stable transmission; Low noise; Strong bearing capacity; Long Service life.
4. Deft design: Small volume; Simple Installation; Wide usage.
5. Suitable for all kinds of mounting positions
6. TR., TF., TK., TS.. and TRF.. conjoined combination for special low speed.

1.2 Material

1. Housing: High strength cast iron HT250, die casting lumen, reduce the abrasion of parts.
2. Gears: 20CrMo, Carbonitriding, Teeth hardness: HRC 60 after grinding.
3. Flat keys: C45, Surface hardness: HRC 50.

1.3 Gear Unit Efficiency

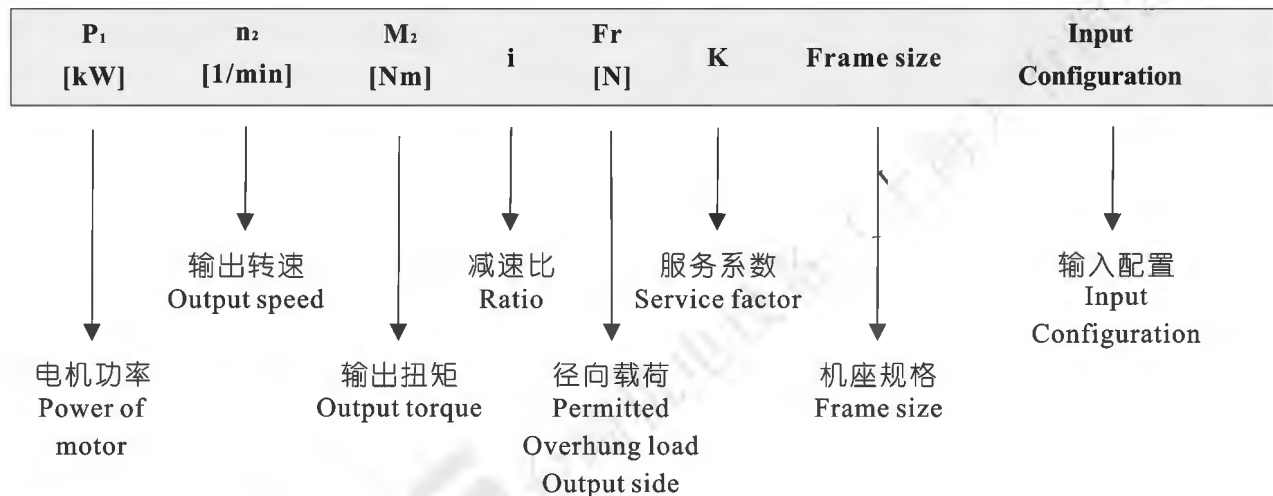
1. High precision gear; seals; bearings;Effectively reduces friction; Stage efficiency of gear drive reaches 97%.
2. For some ways of mounting, the input gear is completely immersed in the lubricant, please consider the churning loss when it comes to big frame size and high input speed .

1.4 Working Conditions

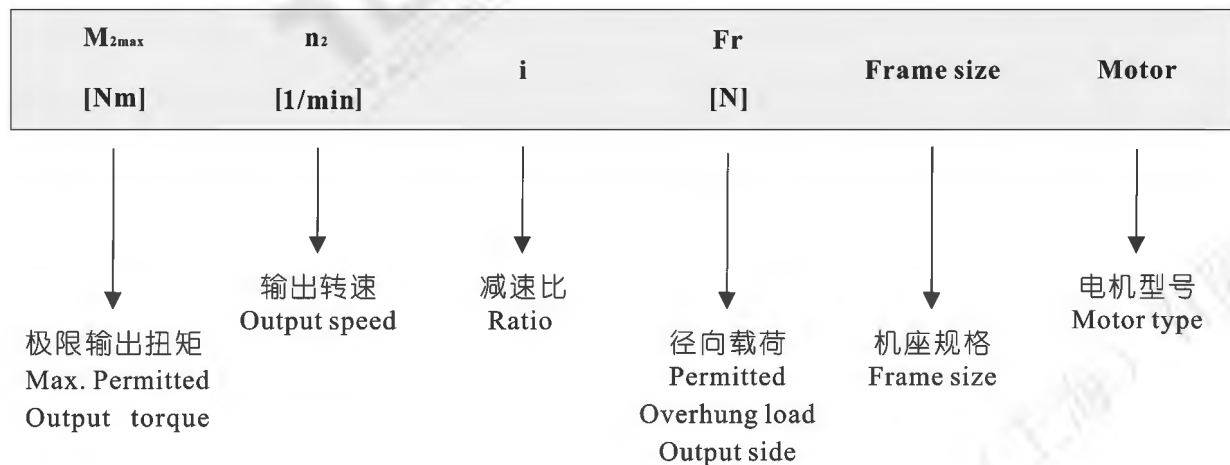
1. Ambient temperature -40~ 50℃ (if lower than 0℃, need to heat the lubrication higher than 0℃ or use anti freezing lubricant).
2. Input rotation speed ≤ 2800r/min.
3. Both Rotation Direction.
4. No industry limit.

1.5 选型表注释 / Selection Table Explanation

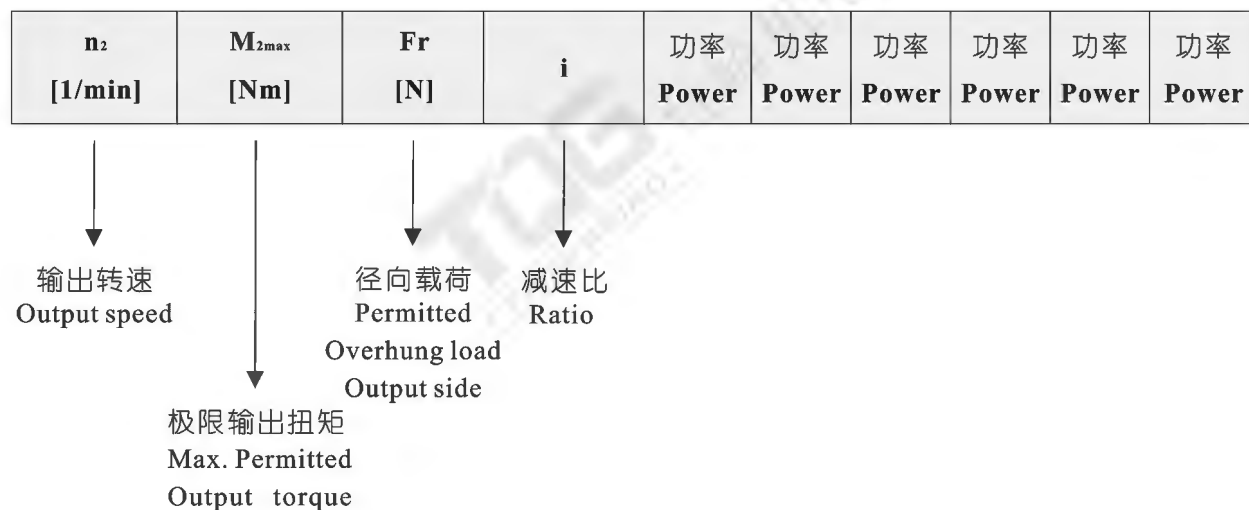
性能参数表结构说明 / Performance Parameter Table Structure



性能参数表结构说明 / Performance Parameter Table Structure



功率配置表结构说明 / Power Combination



1. 6. 润滑油 / Lubrication

1. 6. 1 润滑油类型 / Types of Lubrication

	环境温度(℃) Ambient Temperature(℃)	ISO粘度 ISO Viscosity Class	 SHELL	Mobil MOBIL	 BP	润滑油类型 Lubrication Type
TR TF TK TS	-40 ~ +10	VG 220	Shell Omala 200	Mobilgear 630	BP Energol GR-XP 220	矿物油 Mineral Oil
	-20 ~ +25	VG 150 VG 100	Shell Omala 100	Mobilgear 627	BP Energol GR-XP 100	
	-30 ~ +10	VG68-46 VG 32	Shell Tellus 32	Mobil D.T.E 13M		
	-40 ~ -20	VG 22 VG 15	Shell Tellus 32	Mobil D.T.E 11M	BP Energol HLP-HM 15	
	-40 ~ +80	VG 220	Shell Tellus 32	Mobil SHC 630		合成油 Synthetic Oil
	-40 ~ +10	VG 32		Mobil SHC 624		

1. 6. 2 润滑油量表

规定的加注量为参考值。精确值的变化与级数和传动比有关。请您在加注润滑油时一定要注意油位螺栓所指示的精确油量。后期调整安装方式时，您必须根据改变后的安装方式相应调整加注润滑剂。下表中列出了安装方式M1-M6的减速器相应的标准参考润滑油注入量值。

1. 6. 2 Lubricant Fill Quantity

The specified fill quantities are recommended values. The precise value varies 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..

减速器型号 Gear units	加注量 Fill quantity in liters 单位:升(L) 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	11.6	11.9	7.70	7.70

TRXF..

减速器型号 Gear units	加注量 Fill quantity in liters 单位:升(L) Unit: 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	11.2	9.30	7.20	7.20

TR../ TR..F

减速器型号 Gear units	加注量 Fill quantity in liters 单位:升(L) Unit: L					
	M1①	M2①	M3	M4	M5	M6
TR..07	0.12	0.20	0.20	0.20	0.20	0.20
TR..17	0.25	0.55	0.35	0.55	0.35	0.40
TR..27	0.25/0.40	0.70	0.50	0.70	0.50	0.50
TR..37	0.30/0.95	0.85	0.95	1.05	0.75	0.95
TR..47	0.70/1.50	1.60	1.50	1.65	1.50	1.50
TR..57	0.80/1.70	1.90	1.70	2.10	1.70	1.70
TR..67	1.10/2.30	2.40/3.20	2.80	2.90	1.80	2.00
TR..77	1.20/3.00	3.30/4.20	3.60	3.80	2.50	3.40
TR..87	2.30/6.00	6.40/8.10	7.20	7.20	6.30	6.50
TR..97	4.60/9.80	11.7/14.0	11.7	13.4	11.3	11.7
TR..107	6.00/13.7	16.3	16.9	19.2	13.2	15.9
TR..137	10.0/25.0	28.0	29.5	31.5	25.0	25.0
TR..147	15.4/40.0	46.5	48.0	52.0	39.5	41.0
TR..167	27.0/70.0	82.0	78.0	88.0	66.0	69.0

TRF..

减速器型号 Gear units	加注量 Fill quantity in liters 单位:升(L) Unit: L					
	M1①	M2①	M3	M4	M5	M6
TRF07	0.12	0.20	0.20	0.20	0.20	0.20
TRF17	0.25	0.55	0.35	0.55	0.35	0.40
TRF27	0.25/0.40	0.70	0.50	0.70	0.50	0.50
TRF37	0.35/0.95	0.90	0.95	1.05	0.75	0.95
TRF47	0.65/1.50	1.60	1.50	1.65	1.50	1.50
TRF57	0.80/1.70	1.80	1.70	2.00	1.70	1.70
TRF67	1.20/2.50	2.50/3.20	2.70	2.80	1.90	2.10
TRF77	1.20/2.60	3.10/4.10	3.30	3.60	2.40	3.00
TRF87	2.40/6.00	6.40/8.20	7.10	7.20	6.30	6.40
TRF97	5.10/10.2	11.9/14.0	11.2	14.0	11.2	11.8
TRF107	6.30/14.9	15.9	17.0	19.2	13.1	15.9
TRF137	9.50/25.0	27.0	29.0	32.5	25.0	25.0
TRF147	16.4/42.0	47.0	48.0	52.0	42.0	42.0
TRF167	26.0/70.0	82.0	78.0	88.0	65.0	71.0

① The larger gear unit of multi-stage gear units must be filled with the larger oil volume

TF..,TFA..B,TFH..B,TFV..B

减速器型号 Gear units	加注量 Fill quantity in liters 单位:升(L) Unit: L					
	M1	M2	M3	M4	M5	M6
TF..27	0.60	0.80	0.65	0.70	0.60	0.60
TF..37	0.95	1.25	0.70	1.25	1.00	1.10
TF..47	1.50	1.80	1.10	1.90	1.50	1.70
TF..57	2.60	3.50	2.10	3.50	2.80	2.90
TF..67	2.70	3.80	1.90	3.80	2.90	3.20
TF..77	5.90	7.30	4.30	8.00	6.00	6.30
TF..87	10.8	13.0	7.70	13.8	10.8	11.0
TF..97	18.5	22.5	12.6	25.2	18.5	20.0
TF..107	24.5	32.0	19.5	37.5	27.0	27.0
TF..127	40.5	55.0	34.0	61.0	46.3	47.0
TF..157	69.0	104	63.0	105	86.0	78.0

TFF..

减速器型号 Gear units	加注量 Fill quantity in liters 单位:升(L) Unit: L					
	M1	M2	M3	M4	M5	M6
TFF27	0.60	0.80	0.65	0.70	0.60	0.60
TFF37	1.00	1.25	0.70	1.30	1.00	1.10
TFF47	1.60	1.85	1.10	1.90	1.50	1.70
TFF57	2.80	3.50	2.10	3.70	2.90	3.00
TFF67	2.70	3.80	1.90	3.80	2.90	3.20
TFF77	5.90	7.30	4.30	8.10	6.00	6.30
TFF87	10.8	13.2	7.80	14.1	11.0	11.2
TFF97	19.0	22.5	12.6	25.5	18.9	20.5
TFF107	25.5	32.0	19.5	38.5	27.5	28.0
TFF127	41.5	55.5	34.0	63.0	46.5	49.0
TFF157	72.0	105	64.0	106	87.0	79.0

TFA..,TFH..,TFV..,TFAF..,TFHF..,TFVF..,TFAZ..,TFHZ..,TFVZ..

减速器型号 Gear units	加注量 Fill quantity in liters 单位:升(L) Unit: L					
	M1	M2	M3	M4	M5	M6
TF..27	0.60	0.80	0.65	0.70	0.60	0.60
TF..37	0.95	1.25	0.70	1.25	1.00	1.10
TF..47	1.50	1.80	1.10	1.90	1.50	1.70
TF..57	2.70	3.50	2.10	3.40	2.90	3.00
TF..67	2.70	3.80	1.90	3.80	2.90	3.20
TF..77	5.90	7.30	4.30	8.00	6.00	6.30
TF..87	10.8	13.0	7.70	13.8	10.8	11.0
TF..97	18.5	22.5	12.6	25.2	18.5	20.0
TF..107	24.5	32.0	19.5	37.5	27.0	27.0
TF..127	39.0	54.5	34.0	61.0	45.0	46.5
TF..157	68.0	103	62.0	104	85.0	79.5

TK..., TKA..B, TKH..B, TKV..B

减速器型号 Gear units	加注量 Fill quantity in liters 单位:升(L) Unit: L					
	M1	M2	M3	M4	M5	M6
TK..37	0.50	1.00	1.00	1.25	0.95	0.95
TK..47	0.80	1.30	1.50	2.00	1.60	1.60
TK..57	1.10	2.20	2.20	2.80	2.30	2.10
TK..67	1.10	2.40	2.60	3.45	2.60	2.60
TK..77	2.20	4.10	4.40	5.80	4.20	4.40
TK..87	3.70	8.00	8.70	10.9	8.00	8.00
TK..97	7.00	14.0	15.7	20.0	15.7	15.5
TK..107	10.0	21.0	25.5	33.5	24.0	24.0
TK..127	21.0	41.5	44.0	54.0	40.0	41.0
TK..157	31.0	62.0	65.0	90.0	58.0	62.0
TK..167	33.0	95.0	105.0	123.0	85.0	84.0
TK..187	53.0	152.0	167.0	200.0	143.0	143.0

TKF..

减速器型号 Gear units	加注量 Fill quantity in liters 单位:升(L) Unit: L					
	M1	M2	M3	M4	M5	M6
TKF37	0.50	1.10	1.10	1.50	1.00	1.00
TKF47	0.80	1.30	1.70	2.20	1.60	1.60
TKF57	1.20	2.20	2.40	3.15	2.50	2.30
TKF67	1.10	2.40	2.80	3.70	2.70	2.70
TKF77	2.10	4.10	4.40	5.90	4.50	4.50
TKF87	3.70	8.20	9.00	11.9	8.40	8.40
TKF97	7.00	14.7	17.3	21.5	15.7	16.5
TKF107	10.0	21.8	25.8	35.1	25.2	25.2
TKF127	21.0	41.5	46.0	55.0	41.0	41.0
TKF157	31.0	66.0	69.0	92.0	62.0	62.0

TKA..., TKH..., TKV..., TKAf..., TKHF..., TKVF..., TKAZ..., TKHZ ..., TKVZ..

减速器型号 Gear units	加注量 Fill quantity in liters 单位:升(L) Unit: L					
	M1	M2	M3	M4	M5	M6
TK..37	0.50	1.00	1.00	1.40	1.00	1.00
TK..47	0.80	1.30	1.60	2.10	1.60	1.60
TK..57	1.30	2.30	2.70	3.20	2.90	2.70
TK..67	1.10	2.40	2.70	3.60	2.60	2.60
TK..77	2.10	4.10	4.60	6.00	4.40	4.40
TK..87	3.70	8.20	8.80	11.1	8.00	8.00
TK..97	7.00	14.7	15.7	20.0	15.7	15.7
TK..107	10.0	20.5	24.0	32.0	24.0	24.0
TK..127	21.0	41.5	43.0	52.0	40.0	40.0
TK..157	31.0	66.0	67.0	87.0	62.0	62.0
TK..167	33.0	95.0	105.0	123.0	85.0	84.0
TK..187	53.0	152.0	167.0	200.0	143.0	143.0

TS..

减速器型号 Gear units	加注量 Fill quantity in liters 单位:升(L) Unit: L					
	M1	M2	M3	M4	M5	M6
TS37	0.25	0.40	0.50	0.55	0.40	0.40
TS47	0.35	0.80	0.70/0.90	1.00	0.80	0.80
TS57	0.50	1.20	1.00/1.20	1.45	1.30	1.30
TS67	1.00	2.00	2.20/3.10	3.10	2.60	2.60
TS77	1.90	4.20	3.70/5.40	5.90	4.40	4.40
TS87	3.30	8.10	6.90/10.4	11.3	8.40	8.40
TS97	6.80	15.0	13.4/18.0	21.8	17.0	17.0

TSF..

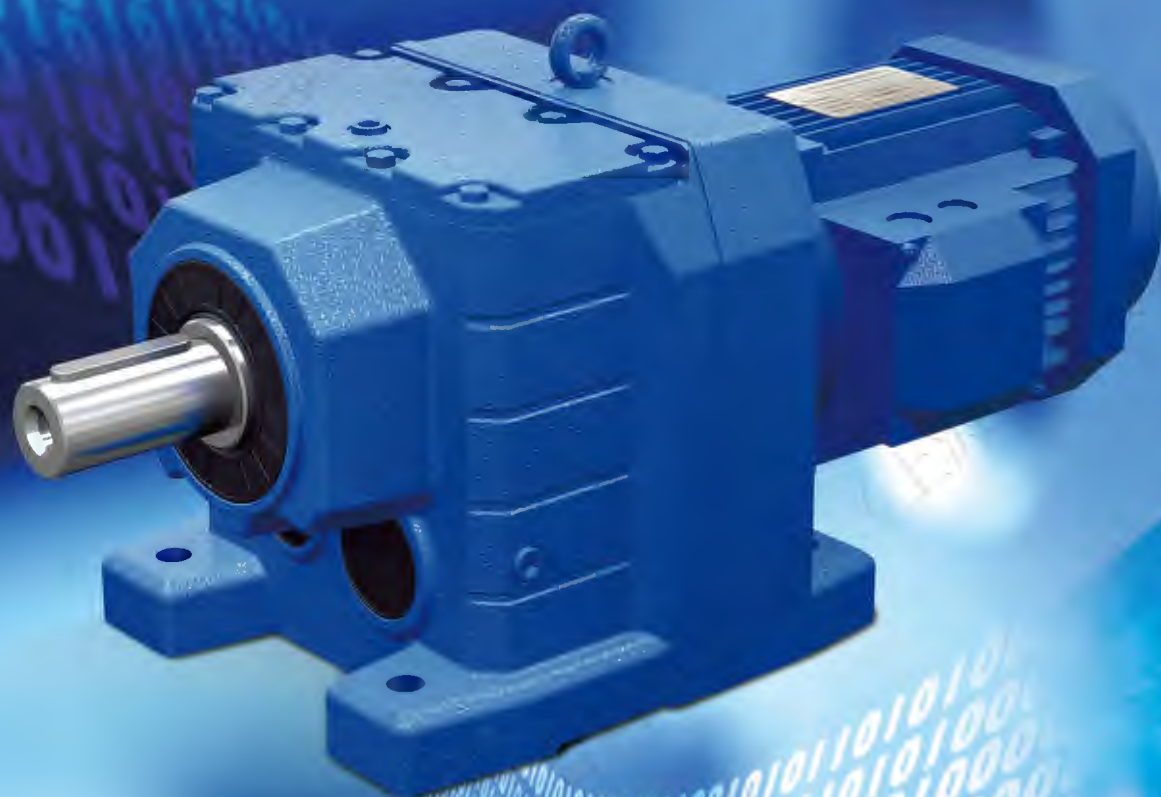
减速器型号 Gear units	加注量 Fill quantity in liters 单位:升(L) Unit: L					
	M1	M2	M3	M4	M5	M6
TSF37	0.25	0.40	0.50	0.55	0.40	0.40
TSF47	0.40	0.90	0.90/1.05	1.05	1.00	1.00
TSF57	0.50	1.20	1.00/1.50	1.55	1.40	1.40
TSF67	1.00	2.20	2.30/3.00	3.20	2.70	2.70
TSF77	1.90	4.10	3.90/5.80	6.50	4.90	4.90
TSF87	3.80	8.00	7.10/10.1	12.0	9.10	9.10
TSF97	7.40	15.0	13.8/18.8	22.6	18.0	18.0

TSA..,TSH.., TSAF..,TSHF.., TSAZ..,TSHZ..

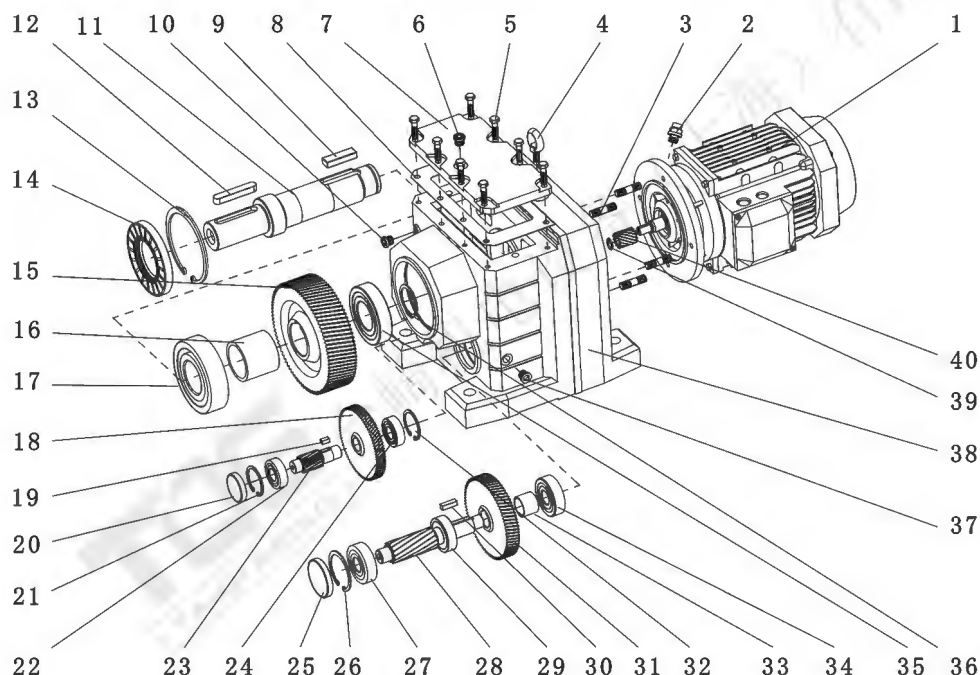
减速器型号 Gear units	加注量 Fill quantity in liters 单位:升(L) Unit: L					
	M1	M2	M3	M4	M5	M6
TS..37	0.25	0.40	0.50	0.50	0.40	0.40
TS..47	0.40	0.80	0.70/0.90	1.00	0.80	0.80
TS..57	0.50	1.10	1.00/1.50	1.50	1.20	1.20
TS..67	1.00	2.00	1.80/2.60	2.90	2.50	2.50
TS..77	1.80	3.90	3.60/5.00	5.80	4.50	4.50
TS..87	3.80	7.40	6.00/8.70	10.8	8.00	8.00
TS..97	7.00	14.0	11.4/16.0	20.5	15.7	15.7

TR系列 斜齿轮减速电机

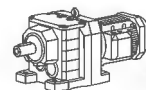
TR SERIES HELICAL GEARED MOTOR



2. 1 部件分解图 / Spare Parts List

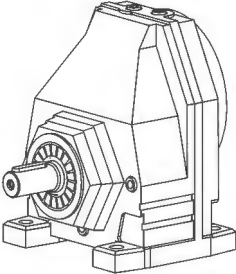
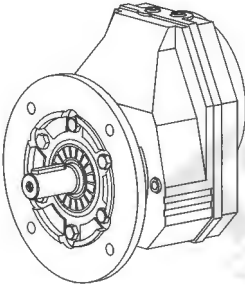
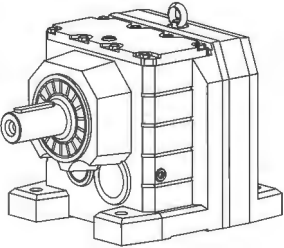
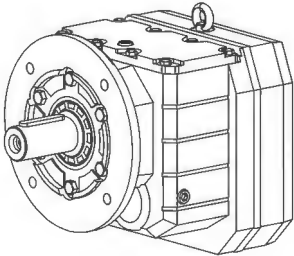
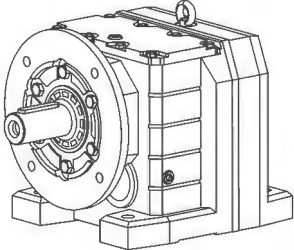


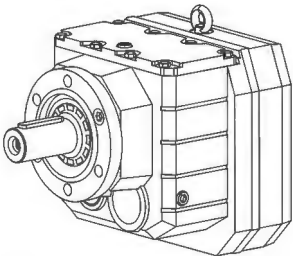
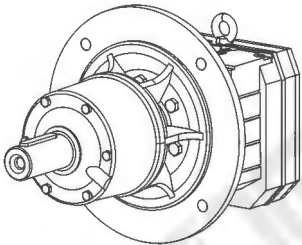
- | | |
|-----------------------------------|-----------------------------------|
| 1 电机/motor | 21 孔用挡圈/retaining rings for bores |
| 2 透气阀/breather valve | 22 轴承/bearing |
| 3 双头螺栓/stud | 23 齿轮轴/gear shaft |
| 4 吊环/lifting eye bolt | 24 轴承/bearing |
| 5 外六角螺钉/hex head screw | 25 平面油封/plane seal |
| 6 油塞/oil level plug | 26 孔用挡圈/retaining rings for bores |
| 7 盖板/cover plate | 27 轴承/bearing |
| 8 纸垫/gasket | 28 齿轮轴/gear shaft |
| 9 平键/flat key | 29 轴承/bearing |
| 10 油塞/oil level plug | 30 平键/flat key |
| 11 输出轴/output shaft | 31 齿轮/gear |
| 12 平键/flat key | 32 孔用挡圈/retaining rings for bores |
| 13 孔用挡圈/retaining rings for bores | 33 轴套/spacer tube |
| 14 骨架油封/skeleton oil seal | 34 轴承/bearing |
| 15 齿轮/gear | 35 轴承/bearing |
| 16 轴套/spacer tube | 36 孔用挡圈/retaining rings for bores |
| 17 轴承/bearing | 37 油塞/oil level plug |
| 18 齿轮/gear | 38 箱体/housing |
| 19 平键/flat key | 39 轴用挡圈/retaining rings for shaft |
| 20 平面油封/plane seal | 40 齿轮/gear |



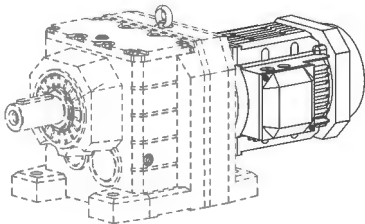
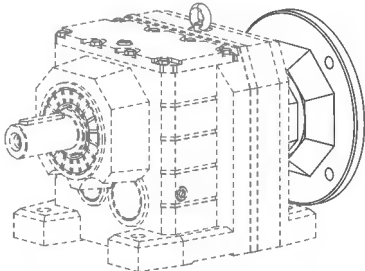
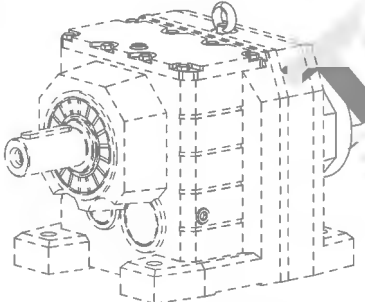
2.2 机型版本 / Versions

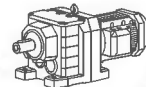
2.2.1 基本型式 / Basic Versions

	TRX.. 底脚安装单级斜齿轮减速机 Single-stage foot-mounted helical geared unit.
	TRXF.. 法兰安装单级斜齿轮减速机 Single-stage flange-mounted helical geared unit.
	TR.. 底脚安装斜齿轮减速机 Foot-mounted helical geared unit.
	TRF.. 法兰安装斜齿轮减速机 Flange-mounted helical geared unit.
	TR..F 底脚法兰安装斜齿轮减速机 Foot and Flange-mounted helical geared unit.

	TRZ.. B14法兰安装斜齿轮减速机 B14 flange-mounted helical geared unit.
	TRM.. B5 法兰带有加长轴承箱的法兰安装斜齿轮减速电机 B5 flange-mounted helical geared motor with extended bearing housing

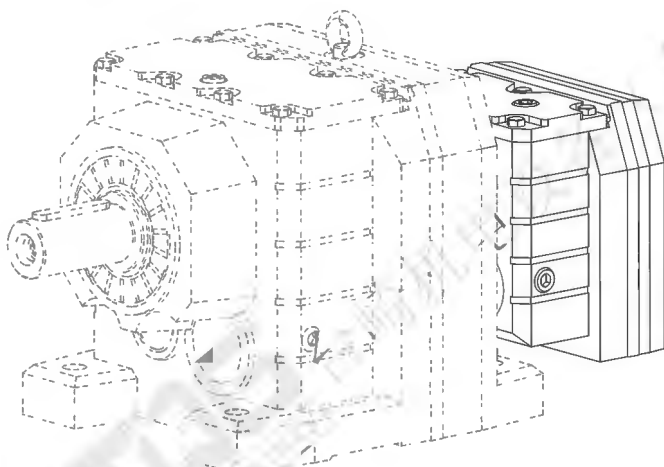
2. 2. 2 输入型式 / Input Versions

	TR.. Y.. 直联电机输入 Input with geared motors.
	TR.. AM.. AM(IEC)法兰输入 Input with AM adapters for mounting IEC motors.
	TR.. AD.. AD轴输入 Input with AD shaft assembly.

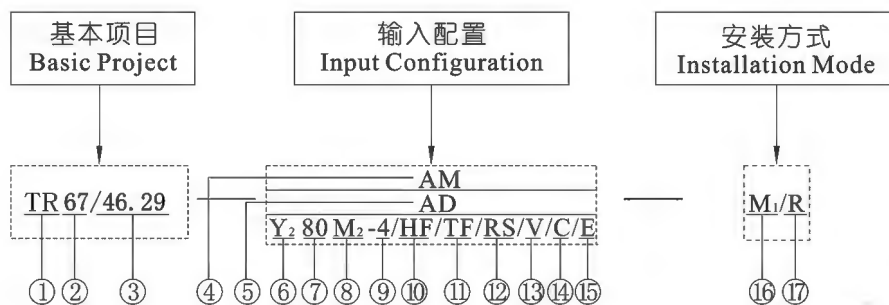


2.2.3 TR..与 TRF..组合 / TR and TRF.. Combination

当需要特别低速输出时，可选择 TRF 齿轮箱作为 TR 齿轮箱的输入。
If special low speed is needed, TRF.. gearbox can be the input of TR.. gearbox.

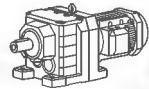


2.3 产品标注 / Product Code



	标号 NO.	含义 Meaning	说明 Explanation
基本项目 Basic Project	①	系列代号 Series Code	TR、TRF、TRX...(详见2.2.1) TR,TRF,TRX...(see 2.2.1).
	②	机座号 Frame Size	机座号: 37、47、57... Frame Size: 37, 47, 57...
	③	传动比 Transmission Ratio.	传动比 i Transmission Ratio i.
输入配置 Input Configuration	④	法兰输入代号 Flange Input Code.	AM(IEC): 63、71、80...
	⑤	轴输入代号 Shaft Input Code.	AD: 1、2、3...

	标号 NO.	含义 Meaning	说明 Explanation
输入配置 Input Configuration	⑥	电机代号 Motor Code	Y ₂ : 三相异步电动机 Y ₂ : Three Phase Asynchronous Motor. YD: 变极多速三相异步电动机 YD: Variable-pole Multi-speed Three Phase Asynchronous Motor. YS: 小功率三相异步电动机 YS: Small Power Three Phase Asynchronous Motor. YVF ₂ : 变频调速三相异步电动机 YVF ₂ : Variable Frequency Speed Control Three Phase Asynchronous Motor. Y ₂ EJ: 电磁制动三相异步电动机 Y ₂ EJ: Electromagnetic Brake Three Phase Asynchronous Motor. YB ₂ : 隔爆三相异步电动机 YB ₂ : Flame Proof Three Phase Asynchronous Motor.
	⑦	电机机座号 Motor Frame Size.	63、71、80...
	⑧	电机定子铁芯长度代号 Length Code of Stator Core.	M、M ₁ 、M ₂ 、S、S ₁ 、S ₂ 、L、L ₁ 、L ₂
	⑨	电机极数 Pole Number of Motor.	2、4、6、8
	⑩	手动释放装置 Manual Release Device.	无 代 码: 无手动释放装置 No Code: No manual release device. H F: 手动释放装置带自锁功能 H F: Manual release device with self-locking Function. H R: 手动释放装置不带自锁功能 H R: Manual release device without self-Locking function.
	⑪	电机热保护装置 Motor Heat-protection Device.	无 代 码: 无电机热保护装置 No Code: No motor heat-protection device. T F: 电机热保护装置 T F: Motor heat-protection device.
	⑫	逆止器 Backstop	无 代 码: 无逆止器 No Code: No backstop. R S: 逆止器 R S: Backstop.
	⑬	强制冷却风扇 Forced Cooling Fan.	无 代 码: 无强制冷却风扇 No Code: no forced cooling fan. V: 强制冷却风扇 V: Forced cooling fan.



	标号 NO.	含义 Meaning	说明 Explanation
输入配置 Input Configuration	⑭	防雨罩 Cover	无代码: 无风扇防护罩 No Code: No fan cover. C: 防雨罩 C: cover.
	⑮	编码器 Encoder	无代码: 无编码器 No Code: No encoder. E: 编码器 E: Encoder.
安装方式 Mounting Positions	⑯	安装方位 Mounting Position.	M1、M2、M3、M4、M5、M6
	⑰	电机接线盒方位 Position for motor terminal box.	R、B、L、T

说明:

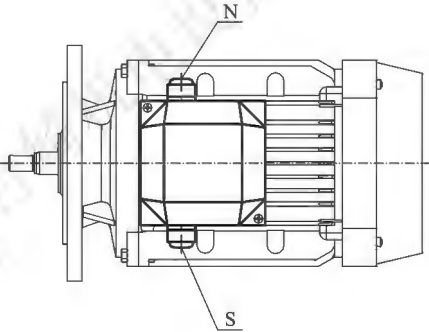
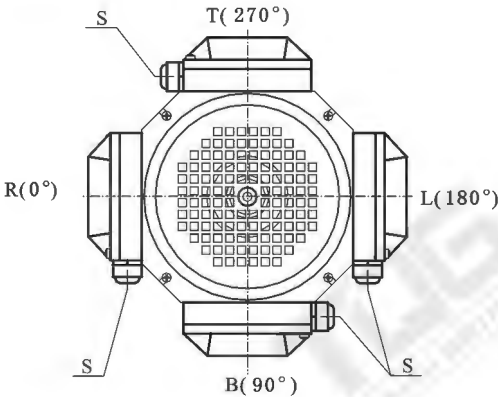
- 1. 基本项目不可省略;
- 2. 输入配置中, 只能在 AM、AD 和电机之间选择一种;
- 3. 安装方式参数若省略, 默认按 M1 安装方位, R 接线盒方位提供。

Notes:

- 1. Basic project can not be omitted.
- 2. Input configuration can only be one of AM, AD and motor.
- 3. If not mounting position, default mounting position will be M1, default position for motor terminal will be R.

2. 4 安装方位 / Mounting Positions

2. 4. 1 电机接线盒方位 / Position of Motor Terminal Box



R(0°): 默认接线盒方位
R(0°): Default Position for Motor Terminal Box
注: 图为M1安装方位。

S: 默认进线方位
S: Default Line Position

Mark :This picture is the installation position of M1

说明:

上图的视图方向为：从电机尾部的风罩向前看。

可提供 R (0°)、B (90°)、L (180°)、T (270°) 四种电机接线盒方位。其中 R (0°) 位置是默认方位，如无特别说明，将按默认方位提供。

可提供 S 和 N 两种进线方位，其中 S 位置是默认方位。如无特别说明，将按默认方位提供。

Notes:

The view direction of above figure: from the fan cover in the end of the motor to look forward.

There will be four position for motor terminal box: R(0°)、B(90°)、L(180°)、T(270°). And default position is R(0°).

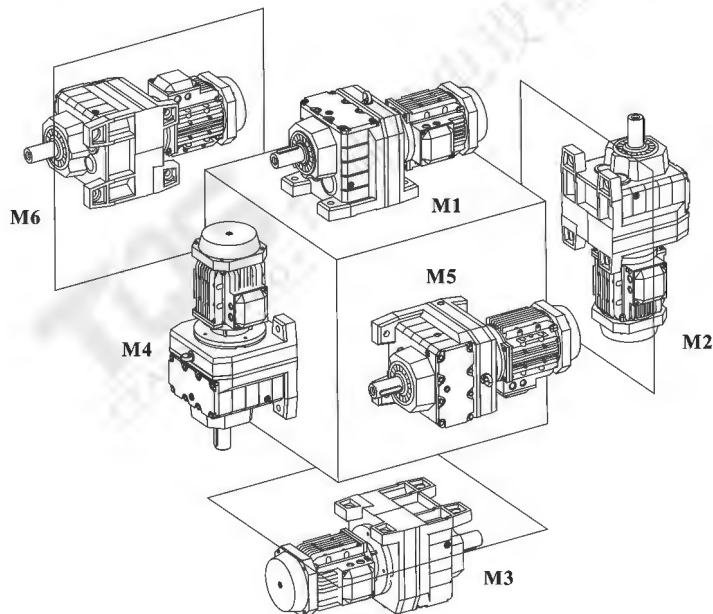
There will be two line position: S and N. Default position is S.

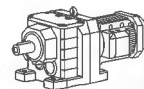
2. 4. 2 油位符号说明 / Oil Level Symbol Explanation

符号 Symbol	含义	Meaning
	通气帽	BREATHER VALVE
	油标	OIL LEVEL PLUG
	排油塞	OIL DRAIN PLUG

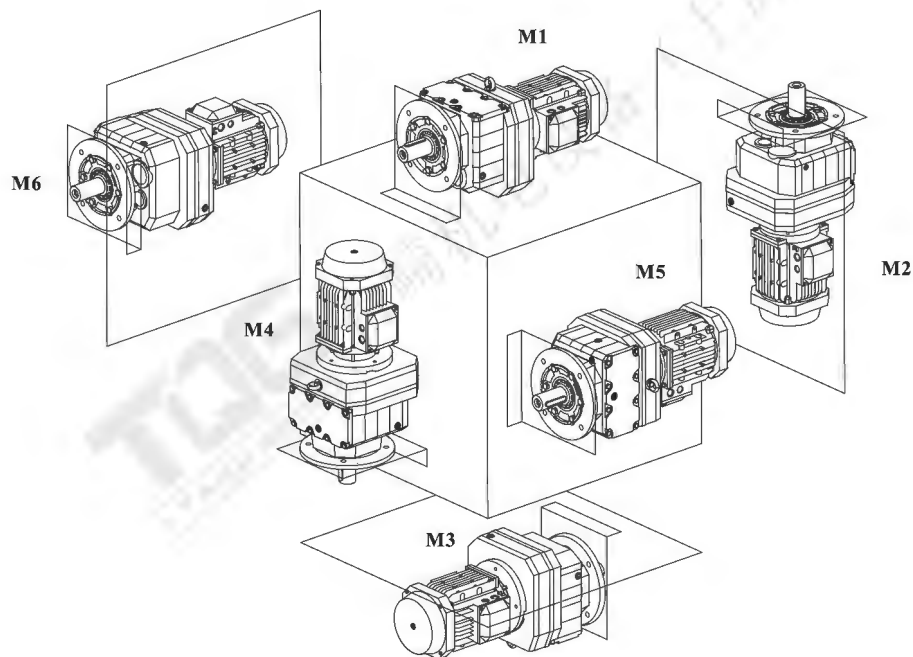
2. 4. 3 安装位置示意 / Mounting Position Designation

TR..安装位置示意图 / TR.. Mounting Position Designation





TRF..安装位置示意图 / TRF.. Mounting Position Designation



2. 4. 4 安装方位 / Mounting Positions

*→提示:

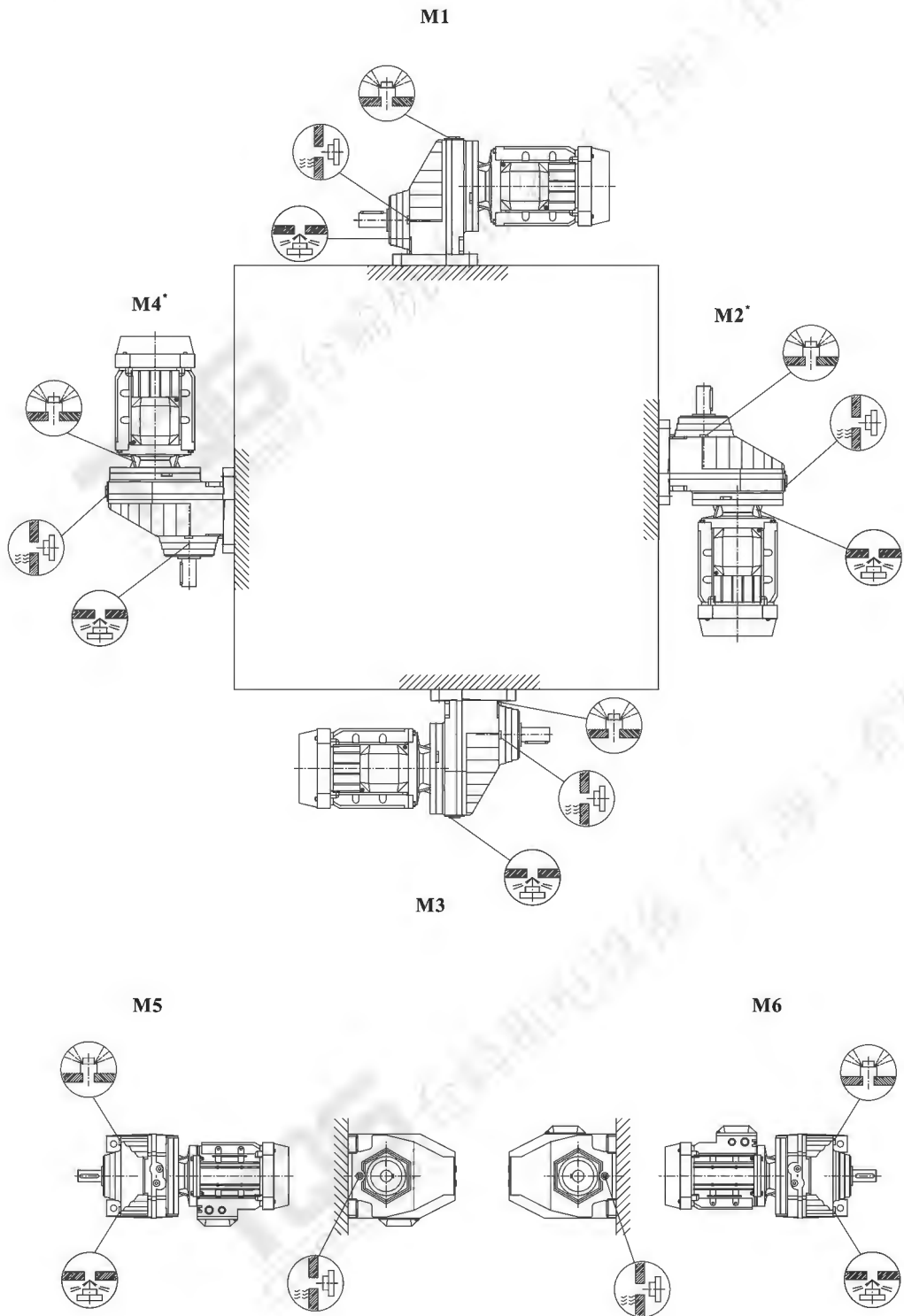
当采用下表列出的安装方式及输入转速时，齿轮箱会产生不可忽视的搅油损失。请联系本公司。

*→Reminder:

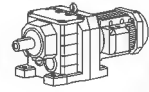
Increased churning losses may arise in the following mounting positions. Contact Greatwall Machinery.

安装方式 Mounting Position	齿轮箱规格 Gear Unit Size	输入转速 Input Speed (r/min)
M2, M4	97,107	>2500
	>107	>1500

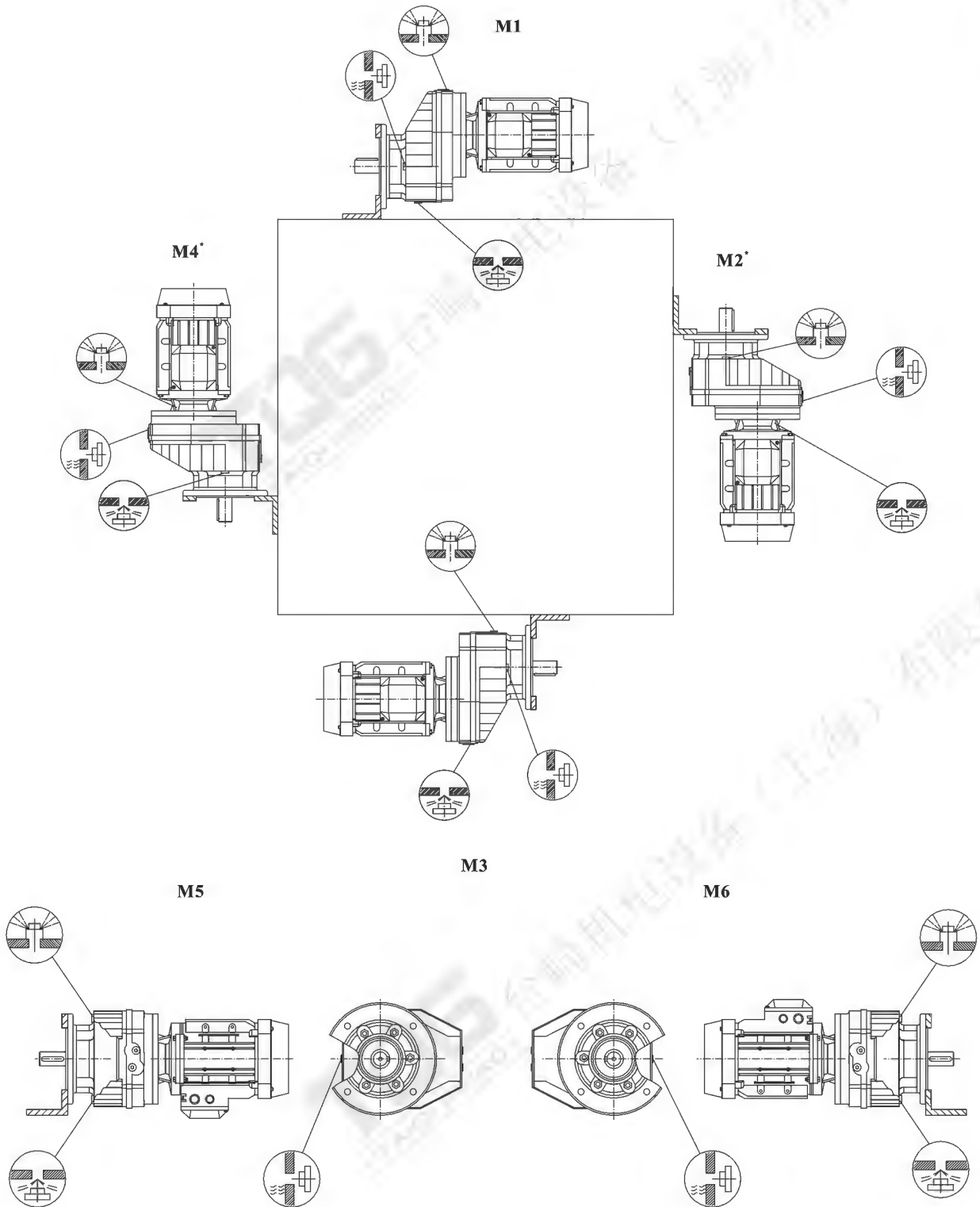
TRX57-TRX107



* → page 016

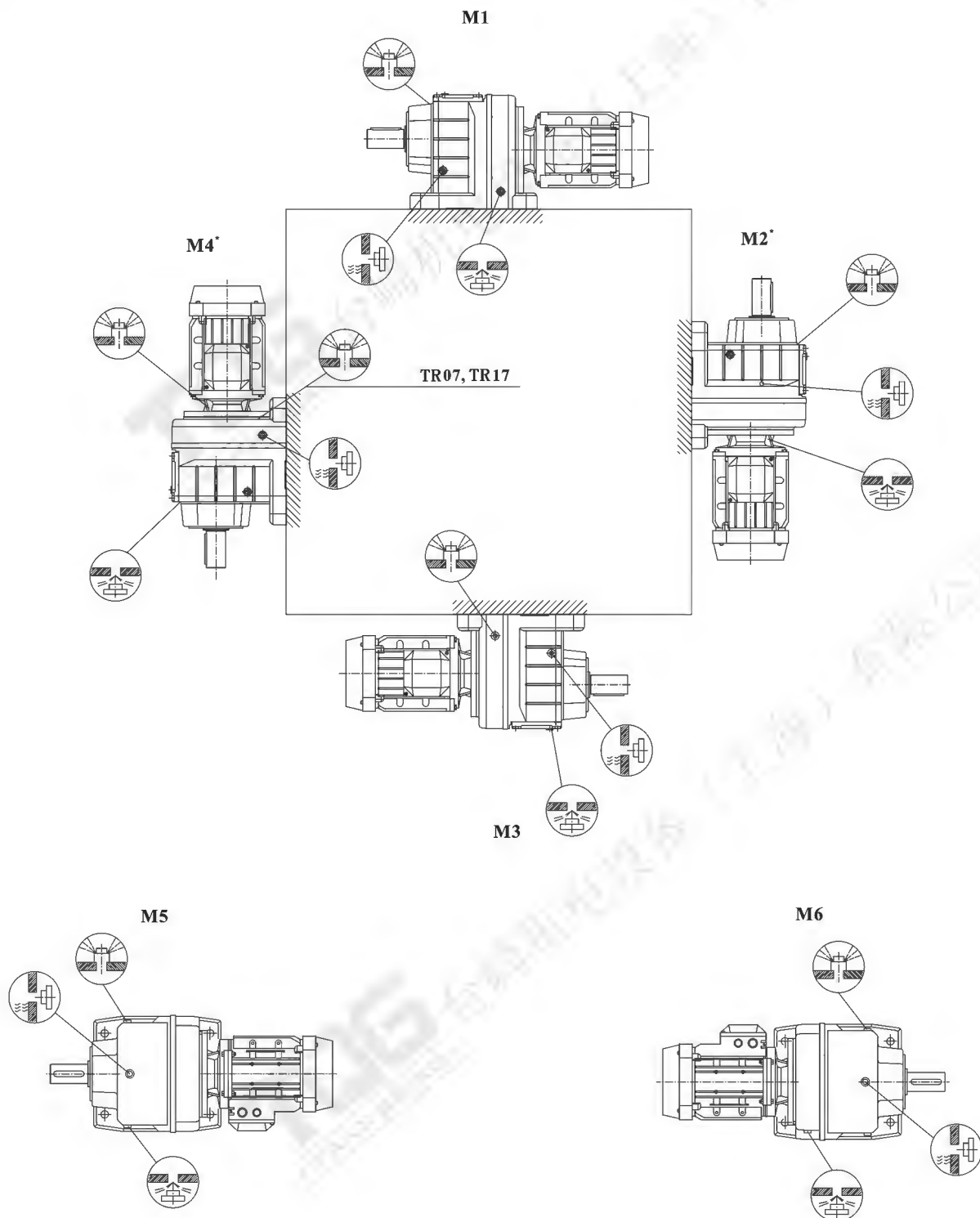


TRXF57-TRXF107

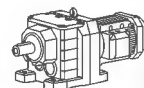


*→page 016

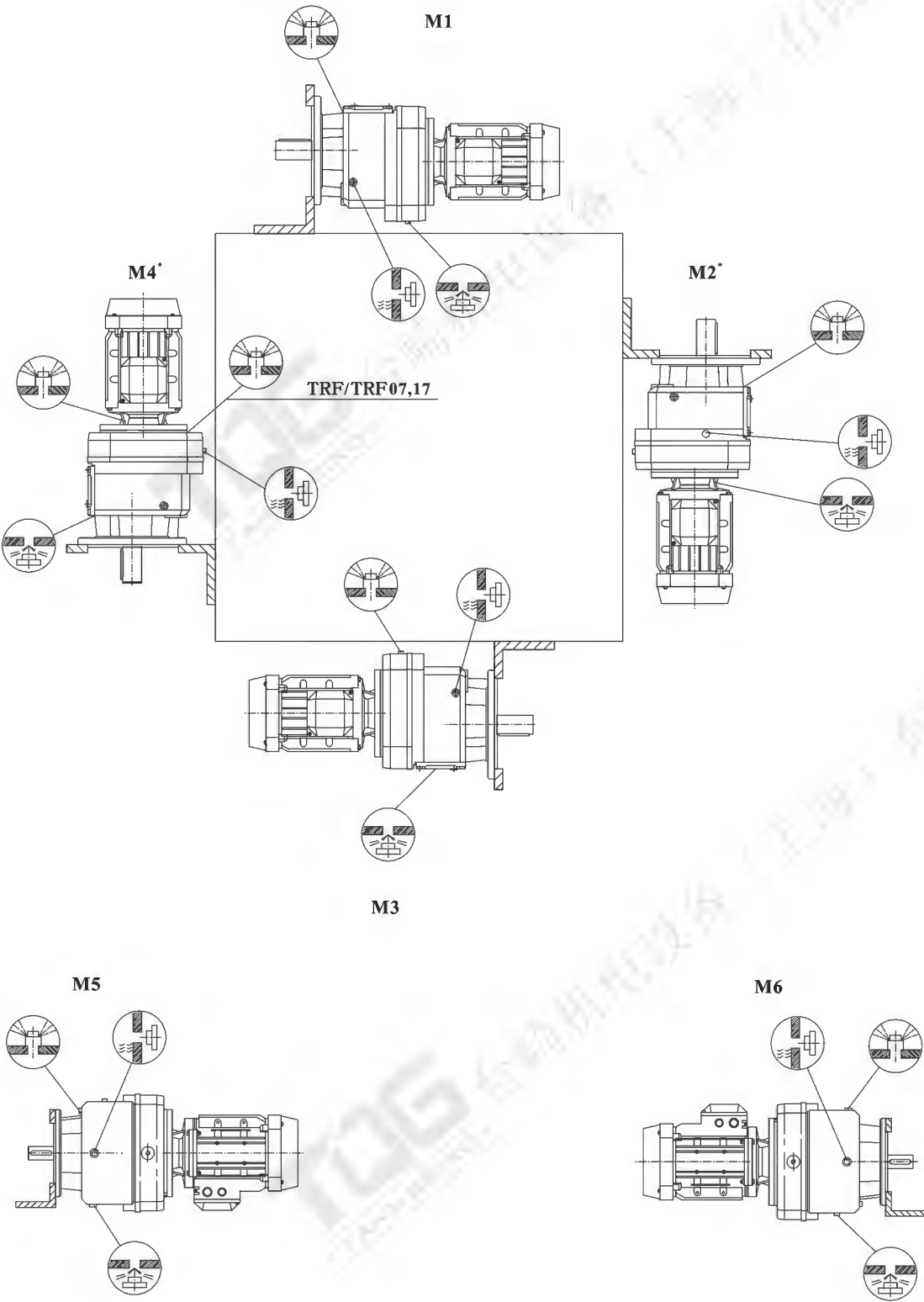
TR07- TR167



*→page 016

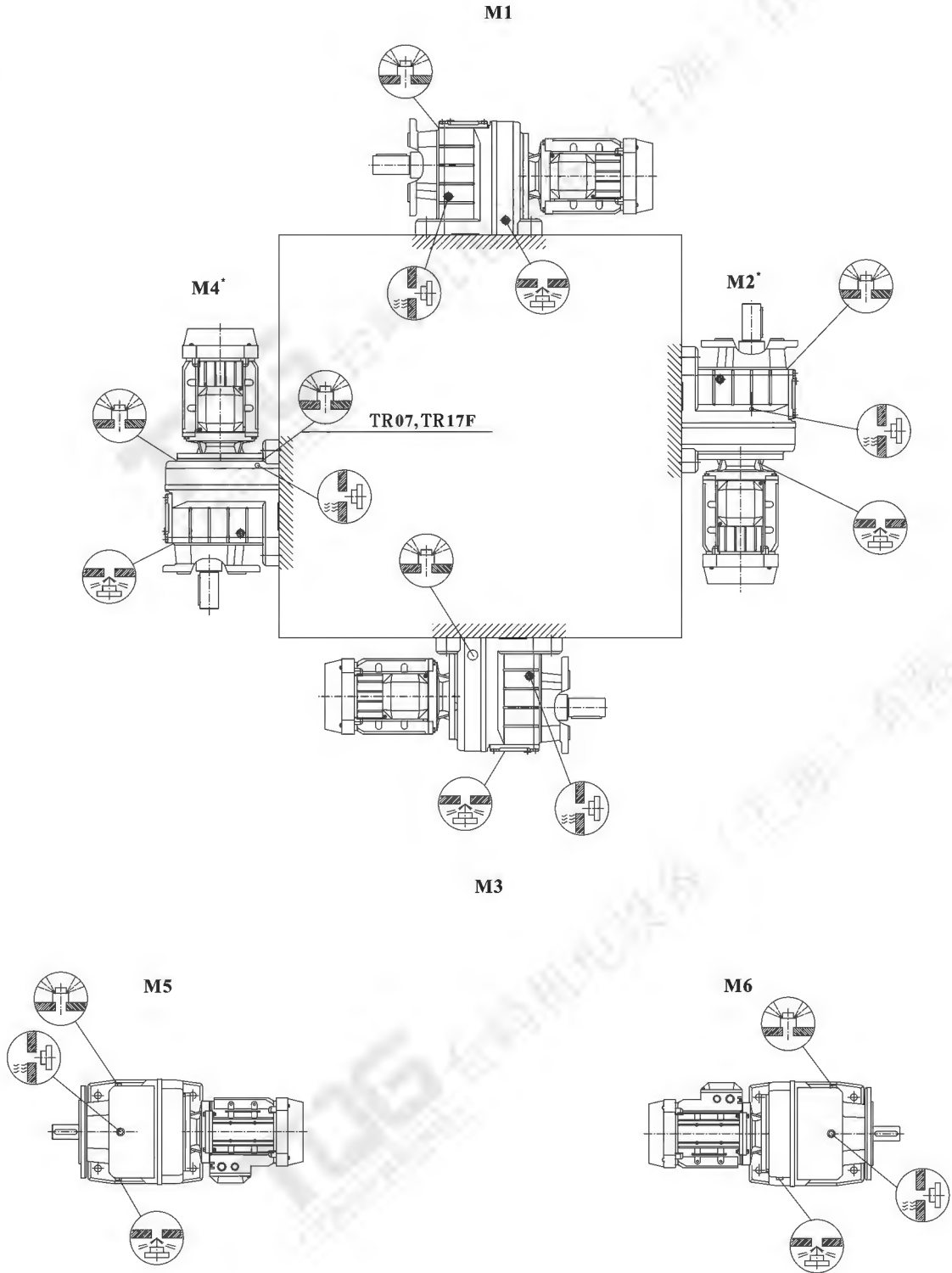


TRF07- TRF167, TRZ07- TRZ87

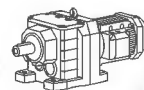


*→page 016

TR07F- TR87F



*→page 016



2. 5 减速器组合表 / Gear Unit Combination Table

为得到特别低的输出转速，可通过 TRF 齿轮箱与 TR 齿轮箱相连的方式实现。

当采用这种传动方案时，可配置电动机的功率依赖于减速机的极限输出扭矩，而不能通过电动机的额定功率和减速机的总传动比计算得出减速机的输出扭矩。

TR series of gear units and TRF series of gear units can be connected together to get special output speed.

For this transmission scheme, the power of the motor depends on the limit output torque of the gearbox, instead of the output torque calculated based on rated power of the motor and the transmission ratio of the gear unit.

TR..与 TRF..齿轮箱可能的组合 / Possible Combination of TR.. and TRF..

	TRF17	TRF27	TRF37	TRF47	TRF57	TRF67	TRF77	TRF87	TRF97	TRF107
TR..27										
TR..37										
TR..47										
TR..57										
TR..67										
TR..77										
TR..87										
TR..97										
TR..107										
TR..137										
TR..147										
TR..167										

说明：

- ☒ : 表示可能的组合。
- ☐ : 表示不允许的组合。

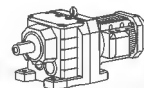
Notes:

- ☒ : Possible Combination.
- ☐ : Impossible Combination.

2.6 TR..功率配置 / TR..Power Configuration

TRX57 $n_1=1400$ 1/min 69Nm									
n_2 [1/min]	M_{2max} [Nm]	Fr [N]	i	0.12 ~0.55	0.75 1.10	1.50	2.20 3.00	4.00	5.50 7.50
255	39	3100	5.50						
276	36	3030	5.07						
322	68	2640	4.35						
369	69	2480	3.79						
394	69	2420	3.55						
446	65	2320	3.14						
481	67	2170	2.91						
530	69	1810	2.64						
591	69	1500	2.37						
686	69	1070	2.04						
729	69	880	1.92						
848	69	430	1.65						
946	68	112	1.48						
1075	63	132	1.30						
TRX67 $n_1=1400$ 1/min 134Nm									
n_2 [1/min]	M_{2max} [Nm]	Fr [N]	i	0.12 ~0.55	0.75 1.10	1.50	2.20 3.00	4.00	5.50 7.50
231	43	4000	6.07						
270	75	3580	5.18						
309	82	3350	4.53						
326	80	3300	4.30						
371	87	3090	3.77						
438	100	2800	3.20						
484	106	2640	2.89						
551	118	2000	2.54						
583	123	1530	2.40						
686	134	230	2.04						
753	126	225	1.86						
870	114	245	1.61						
1000	104	205	1.40						
TRX77 $n_1=1400$ 1/min 215Nm									
n_2 [1/min]	M_{2max} [Nm]	Fr [N]	i	1.10	1.50	2.20 3.00	4.00	5.50 7.50	11.0
175	57	6330	8.00						
187	53	6200	7.47						
218	103	5600	6.41						
249	110	5300	5.63						
262	103	5240	5.35						
296	123	4900	4.73						
347	143	4500	4.04						
378	153	4290	3.70						

TRX77 $n_1=1400$ 1/min 215Nm									
n_2 [1/min]	M_{2max} [Nm]	Fr [N]	i	1.10	1.50	2.20 3.00	4.00	5.50 7.50	11.0
431	182	3200	3.25						
455	193	2560	3.08						
519	215	1110	2.70						
576	215	510	2.43						
657	200	435	2.13						
745	187	335	1.88						
838	173	315	1.67						
986	155	315	1.42						
TRX87 $n_1=1400$ 1/min 405Nm									
n_2 [1/min]	M_{2max} [Nm]	Fr [N]	i	3.00	4.00	5.5 7.5	11.0 15.0	18.5 22.0	
162	139	7890	8.65						
183	149	7490	7.63						
194	140	7380	7.20						
217	192	6850	6.45						
252	225	6320	5.56						
276	250	5980	5.07						
311	290	5500	4.50						
370	305	5030	3.78						
402	405	2730	3.48						
453	405	1950	3.09						
507	405	1200	2.76						
565	405	470	2.48						
651	385	42	2.15						
725	355	185	1.93						
875	315	74	1.60						
1005	290	74	1.39						
TRX97 $n_1=1400$ 1/min 595Nm									
n_2 [1/min]	M_{2max} [Nm]	Fr [N]	i	5.50 7.50	11.0 15.0	18.5 22.0	30.0 ~45.0		
170	225	9560	8.23						
196	260	8950	7.16						
213	300	8500	6.56						
242	420	7630	5.79						
285	395	7220	4.91						
310	595	6180	4.52						
347	595	5380	4.04						
385	595	4530	3.64						
424	595	3730	3.30						
479	595	2810	2.92						
530	595	1980	2.64						
625	595	495	2.24						

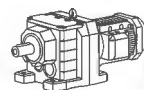


TRX97 n ₁ =1400 1/min								595Nm	
n ₂ [1/min]	M _{2max} [Nm]	Fr [N]	i	5.50 7.50	11.0 15.0	18.5 22.0	30.0 ~45.0		
714	570	19	1.96						
854	505	51	1.64						
986	455	132	1.42						
TRX107 n ₁ =1400 1/min								830Nm	
n ₂ [1/min]	M _{2max} [Nm]	Fr [N]	i	5.50 7.50	11.0 15.0	18.5 22.0	30.0 ~45.0		
211	460	9700	6.63						
250	455	9080	5.61						
270	695	7850	5.19						
301	695	7450	4.65						
333	830	6420	4.20						
367	830	5550	3.81						
414	830	4490	3.38						
456	830	3600	3.07						
530	830	2160	2.64						
609	830	900	2.30						
718	765	555	1.95						
819	705	480	1.71						
972	645	315	1.44						
TR17 n ₁ =1400 1/min								85Nm	
n ₂ [1/min]	M _{2max} [Nm]	Fr [N]	i	0.12 ~0.55	0.75				
3									
17	85	1770	81.64						
20	85	1770	70.39						
21	85	1770	65.61						
24	85	1770	57.35						
26	85	1770	53.76						
30	85	1770	47.44						
32	85	1770	44.18						
36	85	1770	38.61						
39	85	1770	36.20						
44	85	1770	31.94						
49	85	1770	28.32						
58	85	1650	24.07						
2									
55	85	1680	25.23						
60	85	1620	23.15						
71	85	1500	19.71						
82	85	1400	16.99						
88	85	1350	15.84						
101	85	1270	13.84						
108	85	1230	12.98						
122	81	1180	11.45						

TR17 n ₁ =1400 1/min								85Nm	
n ₂ [1/min]	M _{2max} [Nm]	Fr [N]	i	0.12 ~0.55	0.75				
2									
138	77	1140	10.15						
162	72	1090	8.63						
185	56	1040	7.55						
199	55	1010	7.04						
228	54	950	6.15						
243	53	930	5.76						
275	51	890	5.09						
310	48	870	4.51						
366	45	820	3.83						
TR27 n ₁ =1400 1/min								130Nm	
n ₂ [1/min]	M _{2max} [Nm]	Fr [N]	i	0.12 ~0.55	0.75 1.10	1.50	2.20 3.00		
3									
10	130	4230	135.09						
11	130	4230	123.91						
13	130	4230	105.49						
15	130	4230	90.96						
17	130	4230	84.78						
19	130	4230	74.11						
20	130	4180	69.47						
23	130	3980	61.30						
25	130	3840	55.87						
29	130	3630	48.17						
31	130	3530	44.90						
36	130	3350	39.25						
38	130	3260	36.79						
43	130	3100	32.47						
49	130	2950	28.78						
57	130	2760	24.47						
2									
49	130	2940	28.37						
54	130	2840	26.09						
63	130	2660	22.32						
72	130	2510	19.35						
77	130	2440	18.08						
90	130	2290	15.63						
105	130	2140	13.28						
118	129	1980	11.86						
138	122	1890	10.13						
149	122	900	9.41						
172	116	870	8.16						
183	112	900	7.63						
212	106	880	6.59						

TR27 $n_1=1400$ 1/min 130Nm									
n_2 [1/min]	M_{2max} [Nm]	Fr [N]	i	0.12 ~0.55	0.75 1.10	1.50	2.20 3.00		
2									
250	99	880	5.60						
280	95	860	5.00						
328	87	920	4.27						
350	85	900	4.00						
415	79	900	3.37						
TR37 $n_1=1400$ 1/min 200Nm									
n_2 [1/min]	M_{2max} [Nm]	Fr [N]	i	0.12 ~0.55	0.75 1.10	1.50	2.20 3.00		
3									
10.0	200	4940	134.82						
11.0	200	4940	123.66						
13.0	200	4940	105.28						
15.0	200	4940	90.77						
17.0	200	4940	84.61						
19.0	200	4940	73.96						
20.0	200	4940	69.33						
23.0	200	4940	61.18						
25.0	200	4940	55.76						
29.0	200	4940	48.08						
31.0	200	4940	44.81						
36.0	200	4760	39.17						
38.0	200	4540	36.72						
43.0	200	4120	32.40						
49.0	200	3740	28.73						
57.0	200	3240	24.42						
2									
49.0	200	3690	28.32						
54.0	185	3860	26.03						
63.0	200	2970	22.27						
73.0	200	2570	19.31						
78.0	200	2390	18.05						
90.0	200	2010	15.60						
106	190	1880	13.25						
118	183	1810	11.83						
138	170	1820	10.11						
148	167	1760	9.47						
176	156	1720	7.97						
210	144	1000	6.67						
247	142	760	5.67						
277	135	790	5.06						
324	126	820	4.32						
346	122	840	4.05						
411	112	900	3.41						

TR47 $n_1=1400$ 1/min 300Nm											
n_2 [1/min]	M_{2max} [Nm]	Fr [N]	i	0.12 ~0.55	0.75 1.10	1.50	2.20 3.00	4.00	5.50		
3											
7.90	300	5420	176.88								
8.60	300	5420	162.94								
10.0	300	5420	139.99								
11.0	300	5420	121.87								
12.0	300	5420	114.17								
14.0	300	5420	100.86								
15.0	300	5420	93.68								
16.0	300	5420	84.90								
18.0	300	5420	76.23								
20.0	300	5420	68.54								
22.0	300	5420	64.21								
25.0	300	5420	56.73								
27.0	300	5350	52.69								
29.0	300	5140	47.75								
33.0	300	4930	42.87								
38.0	300	4630	36.93								
40.0	300	4520	34.73								
47.0	300	4240	29.88								
52.0	300	4050	26.70								
59.0	300	3840	23.59								
2											
41.0	240	4680	33.79								
45.0	220	4610	31.12								
52.0	300	4050	26.74								
60.0	300	3820	23.28								
64.0	300	3710	21.81								
73.0	295	3530	19.27								
78.0	290	3390	17.89								
86.0	275	3350	16.22								
96.0	265	3230	14.56								
112	250	3080	12.54								
119	245	3020	11.79								
138	230	2880	10.15								
154	220	2780	9.07								
175	205	2690	8.01								
180	163	2720	7.76								
201	159	2620	6.96								
233	156	2470	6.00								
248	155	2410	5.64								
289	150	2280	4.85								
323	146	2190	4.34								
366	144	2080	3.83								

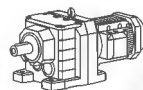


TR57 n ₁ =1400 1/min 450Nm									
n ₂ [1/min]	M _{2max} [Nm]	Fr [N]	i	0.12 ~0.55	0.75 1.10	1.50	2.20 3.00	4.00	5.50 7.50
3									
7.50	450	7100	186.89						
8.10	450	7100	172.17						
9.50	450	7100	147.92						
11.0	450	7100	128.77						
12.0	450	7100	120.63						
13.0	450	7100	106.58						
14.0	450	7100	98.99						
16.0	450	7100	89.71						
17.0	450	7100	80.55						
20.0	450	7100	69.23						
22.0	450	6980	64.85						
24.0	450	6630	57.29						
26.0	450	6430	53.22						
29.0	450	6170	48.23						
32.0	450	5900	43.30						
38.0	450	5530	37.30						
40.0	450	5390	35.07						
46.0	450	5040	30.18						
52.0	450	4800	26.97						
2									
53.0	450	4750	26.31						
56.0	450	4640	24.99						
64.0	450	4370	21.93						
75.0	450	4050	18.60						
83.0	450	3860	16.79						
95.0	435	3690	14.77						
100	430	3610	13.95						
118	405	3430	11.88						
130	390	3330	10.79						
150	370	3180	9.35						
155	375	2010	9.06						
176	355	2020	7.97						
186	350	1950	7.53						
218	335	1770	6.41						
241	320	1820	5.82						
277	305	1730	5.05						
319	280	1900	4.39						
TR67 n ₁ =1400 1/min 600Nm									
n ₂ [1/min]	M _{2max} [Nm]	Fr [N]	i	0.12 ~0.55	0.75 1.10	1.50	2.20 3.00	4.00	5.50 7.50
3									
7.00	600	7560	199.81						
7.60	600	7560	184.07						
8.90	600	7560	158.14						

TR67 n ₁ =1400 1/min 600Nm									
n ₂ [1/min]	M _{2max} [Nm]	Fr [N]	i	0.12 ~0.55	0.75 1.10	1.50	2.20 3.00	4.00	5.50 7.50
3									
10.0	600	7560	137.67						
11.0	600	7560	128.97						
12.0	600	7560	113.94						
13.0	600	7560	105.83						
15.0	600	7560	95.91						
16.0	600	7560	86.11						
19.0	600	7560	74.17						
20.0	600	7560	69.75						
23.0	600	7560	61.26						
25.0	600	7560	56.89						
27.0	600	7560	51.56						
30.0	600	7560	46.29						
35.0	580	7790	39.88						
37.0	570	7900	37.50						
43.0	540	8210	32.27						
49.0	520	8400	28.83						
2									
50.0	540	8210	28.13						
52.0	540	8210	26.72						
60.0	560	8010	23.44						
70.0	600	7560	19.89						
78.0	590	7330	17.95						
89.0	560	7130	15.79						
94.0	550	6980	14.91						
110	520	6640	12.70						
121	500	6500	11.54						
140	470	6220	10.00						
161	440	5960	8.70						
180	380	5830	7.79						
190	370	5790	7.36						
223	330	5590	6.27						
246	310	5450	5.70						
284	290	5210	4.93						
326	270	5000	4.29						
TR77 n ₁ =1400 1/min 820Nm									
n ₂ [1/min]	M _{2max} [Nm]	Fr [N]	i	0.18 ~0.55	0.75 1.10	1.50	2.20 3.00	4.00	5.50 7.50
3									
7.20	820	9920	195.24						
8.40	820	9920	166.59						
9.60	820	9920	145.67						
10.0	820	9920	138.39						
12.0	820	9920	121.42						

TR77 n ₁ =1400 1/min 820Nm									
n ₂ [1/min]	M _{2max} [Nm]	Fr [N]	i	0.18 ~0.55	0.75 1.10	1.50	2.20 3.00	4.00	5.50 7.50
3									
14.0	820	9920	102.99						
15.0	820	9920	92.97						
17.0	820	9920	81.80						
18.0	820	9920	77.24						
21.0	820	9920	65.77						
24.0	820	9920	57.68						
27.0	820	9920	52.07						
31.0	820	9920	45.81						
32.0	820	9920	43.26						
38.0	820	9920	36.83						
42.0	820	9920	33.47						
48.0	820	9920	29.00						
55.0	780	10100	25.23						
2									
60.0	820	8870	23.37						
65.0	820	8250	21.43						
74.0	780	7980	18.80						
79.0	780	7620	17.82						
90.0	740	7390	15.60						
100	720	7050	14.05						
114	690	6740	12.33						
129	660	6490	10.88						
145	630	6300	9.64						
163	630	4110	8.59						
181	610	3940	7.74						
206	580	3850	6.79						
234	540	3990	5.99						
264	510	3990	5.31						
TR77 n ₁ =1400 1/min 820Nm									
n ₂ [1/min]	M _{2max} [Nm]	Fr [N]	i	11.0					
3									
14.0	820	9920	102.99						
15.0	820	9920	92.97						
17.0	820	9920	81.80						
18.0	820	9920	77.24						
21.0	820	9920	65.77						
24.0	820	9920	57.68						
27.0	820	9920	52.07						
31.0	820	9920	45.81						
32.0	820	9920	43.26						
38.0	820	9920	36.83						
42.0	820	9920	33.47						

TR77 n ₁ =1400 1/min 820Nm									
n ₂ [1/min]	M _{2max} [Nm]	Fr [N]	i	11.0					
3									
48.0	820	9920	29.00						
55.0	780	10100	25.23						
2									
60.0	820	8870	23.37						
65.0	820	8250	21.43						
74.0	780	7980	18.80						
79.0	780	7620	17.82						
90.0	740	7390	15.60						
100	720	7050	14.05						
114	690	6740	12.33						
129	660	6490	10.88						
145	630	6300	9.64						
163	630	4110	8.59						
181	610	3940	7.74						
206	580	3850	6.79						
234	540	3990	5.99						
264	510	3990	5.31						
TR87 n ₁ =1400 1/min 1550Nm									
n ₂ [1/min]	M _{2max} [Nm]	Fr [N]	i	0.55	0.75 1.10	1.50	2.20 3.00	4.00	5.50 7.50
3									
5.70	1550	16900	246.54						
6.50	1550	16900	216.54						
6.80	1550	16900	205.71						
7.70	1550	16900	181.77						
9.00	1550	16900	155.34						
9.80	1550	16900	142.41						
11.0	1550	16900	124.97						
12.0	1550	16900	118.43						
14.0	1550	16900	103.65						
15.0	1550	16900	93.38						
17.0	1550	16900	81.92						
19.0	1550	16900	72.57						
22.0	1550	15800	63.68						
23.0	1550	15200	60.35						
27.0	1550	13500	52.82						
29.0	1550	16900	47.58						
34.0	1550	16900	41.74						
38.0	1550	16800	36.84						
43.0	1550	16000	32.66						
50.0	1500	15100	27.88						
2									
41.0	1500	9480	34.40						

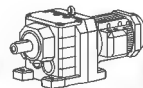


TR87 n ₁ =1400 1/min1550Nm									
n ₂ [1/min]	M _{2max} [Nm]	Fr [N]	i	0.55	0.75 1.10	1.50	2.20 3.00	4.00	5.50 7.50
2									
45.0	1550	7820	31.40						
50.0	1550	15000	27.84						
60.0	1550	13900	23.40						
65.0	1500	13600	21.51						
73.0	1440	13000	19.10						
82.0	1390	12600	17.08						
91.0	1340	12100	15.35						
105	1280	11600	13.33						
117	1230	11200	11.93						
141	1180	10400	9.90						
153	1210	10500	9.14						
170	1160	10200	8.22						
196	1070	9780	7.13						
219	1020	9450	6.39						
264	910	8980	5.30						
TR87 n ₁ =1400 1/min1550Nm									
n ₂ [1/min]	M _{2max} [Nm]	Fr [N]	i	11.0 15.0	18.5 22.0				
3									
5.70	1550	16900	246.54						
6.50	1550	16900	216.54						
6.80	1550	16900	205.71						
7.70	1550	16900	181.77						
9.00	1550	16900	155.34						
9.80	1550	16900	142.41						
11.0	1550	16900	124.97						
12.0	1550	16900	118.43						
14.0	1550	16900	103.65						
15.0	1550	16900	93.38						
17.0	1550	16900	81.92						
19.0	1550	16900	72.57						
22.0	1550	15800	63.68						
23.0	1550	15200	60.35						
27.0	1550	13500	52.82						
29.0	1550	16900	47.58						
34.0	1550	16900	41.74						
38.0	1550	16800	36.84						
43.0	1550	16000	32.66						
50.0	1550	15100	27.88						
2									
41.0	1550	9480	34.40						
45.0	1550	7820	31.40						
50.0	1550	15000	27.84						

TR87 n ₁ =1400 1/min1550Nm									
n ₂ [1/min]	M _{2max} [Nm]	Fr [N]	i	11.0 15.0	18.5 22.0				
2									
60.0	1550	13900	23.40						
65.0	1500	13600	21.51						
73.0	1440	13000	19.10						
82.0	1390	12600	17.08						
91.0	1340	12100	15.35						
105	1280	11600	13.33						
117	1230	11200	11.93						
141	1180	10400	9.90						
153	1210	10500	9.14						
170	1160	10200	8.22						
196	1070	9780	7.13						
219	1020	9450	6.39						
264	910	8980	5.30						
TR97 n ₁ =1400 1/min3000Nm									
n ₂ [1/min]	M _{2max} [Nm]	Fr [N]	i	0.55	0.75 1.10	1.50	2.20 3.00	4.00	5.50 7.50
3									
4.80	3000	19800	289.74						
5.50	3000	19800	255.71						
5.80	3000	19800	241.25						
6.50	3000	19800	216.28						
7.50	3000	19800	186.30						
8.20	3000	19800	170.02						
9.30	3000	19800	150.78						
11.0	3000	19800	126.75						
12.0	3000	19800	116.48						
14.0	3000	19800	103.44						
15.0	3000	19800	92.48						
17.0	3000	19800	83.15						
19.0	3000	18000	72.17						
21.0	3000	19800	65.21						
23.0	3000	19800	59.92						
26.0	3000	19800	53.21						
29.0	3000	19800	47.58						
33.0	3000	19800	42.78						
38.0	3000	18600	37.13						
42.0	2890	17900	33.25						
51.0	2670	16900	27.58						
2									
44.0	2560	10600	32.05						
51.0	2560	8380	27.19						
56.0	2830	15900	25.03						
63.0	2720	15300	22.37						

TR97 n ₁ =1400 1/min 3000Nm									
n ₂ [1/min]	M _{2max} [Nm]	Fr [N]	i	0.55	0.75 1.10	1.50	2.20 3.00	4.00	5.50 7.50
2									
70.0	2610	14800	20.14						
77.0	2500	14400	18.24						
87.0	2400	13800	16.17						
96.0	2300	13400	14.62						
113	2190	12700	12.39						
129	2090	12100	10.83						
151	2030	12200	9.29						
167	2030	11700	8.39						
197	2000	10900	7.12						
225	1890	10500	6.21						
269	1780	9850	5.20						
311	1630	9500	4.50						
TR97 n ₁ =1400 1/min 3000Nm									
n ₂ [1/min]	M _{2max} [Nm]	Fr [N]	i	11.0 15.0	18.5 22.0	30.0 37.0			
3									
4.80	3000	19800	289.74						
5.50	3000	19800	255.71						
5.80	3000	19800	241.25						
6.50	3000	19800	216.28						
7.50	3000	19800	186.30						
8.20	3000	19800	170.02						
9.30	3000	19800	150.78						
11.0	3000	19800	126.75						
12.0	3000	19800	116.48						
14.0	3000	19800	103.44						
15.0	3000	19800	92.48						
17.0	3000	19800	83.15						
19.0	3000	18000	72.17						
21.0	3000	19800	65.21						
23.0	3000	19800	59.92						
26.0	3000	19800	53.21						
29.0	3000	19800	47.58						
33.0	3000	19800	42.78						
38.0	3000	18600	37.13						
42.0	2890	17900	33.25						
51.0	2670	16900	27.58						
2									
44.0	2560	10600	32.05						
51.0	2560	8380	27.19						
56.0	2830	15900	25.03						

TR97 n ₁ =1400 1/min 3000Nm									
n ₂ [1/min]	M _{2max} [Nm]	Fr [N]	i	11.0 15.0	18.5 22.0	30.0 37.0			
2									
63.0	2720	15300	22.37						
70.0	2610	14800	20.14						
77.0	2500	14400	18.24						
87.0	2400	13800	16.17						
96.0	2300	13400	14.62						
113	2190	12700	12.39						
129	2090	12100	10.83						
151	2030	12200	9.29						
167	2030	11700	8.39						
197	2000	10900	7.12						
225	1890	10500	6.21						
269	1780	9850	5.20						
311	1630	9500	4.50						
TR107 n ₁ =1400 1/min 4300Nm									
n ₂ [1/min]	M _{2max} [Nm]	Fr [N]	i	1.50 ~3.00	4.00	5.50 7.50	11.0 15.0	18.5 22.0	30.0 ~45.0
3									
5.60	4300	29500	251.15						
6.10	4300	29500	229.95						
6.90	4300	29500	203.16						
8.10	4300	29500	172.34						
8.80	4300	29500	158.68						
9.90	4300	29500	141.83						
11.0	4300	29500	127.68						
12.0	4300	29500	115.63						
14.0	4300	29500	102.53						
15.0	4300	29500	92.70						
18.0	4300	29500	78.57						
19.0	4300	29500	72.88						
21.0	4300	29200	65.60						
24.0	4300	28000	59.41						
27.0	4300	26600	52.68						
29.0	4300	25500	47.63						
35.0	4300	23800	40.37						
40.0	4300	22400	35.26						
47.0	4300	20700	29.49						
2									
45.0	4300	21100	30.77						
51.0	4300	20100	27.58						
56.0	4300	19200	24.90						
62.0	4300	18300	22.62						
70.0	4300	17300	20.07						
77.0	4300	16600	18.21						
89.0	4300	15400	15.65						
102	4300	14400	13.66						
121	4300	13300	11.59						
138	4300	12400	10.13						
164	4300	11300	8.56						
178	2970	13800	7.86						



TR107 n _i =1400 1/min4300Nm									
n ₂ [1/min]	M _{2max} [Nm]	Fr [N]	i	1.50 ~3.00	4.00	5.50 7.50	11.0 15.0	18.5 22.0	30.0 ~45.0
2									
210	2970	12800	6.66						
241	2970	12100	5.82						
285	2900	11300	4.92						
TR137 n _i =1400 1/min8000Nm									
n ₂ [1/min]	M _{2max} [Nm]	Fr [N]	i	5.50 7.50	11.0 15.0	18.5 22.0	30.0 ~45.0	55.0 ~90.0	
3									
6.30	8000	53400	222.60						
7.40	8000	53400	188.45						
8.00	8000	53400	174.40						
9.00	8000	53400	156.31						
9.90	8000	53400	141.12						
11.0	8000	53400	128.18						
12.0	8000	53400	113.72						
14.0	8000	53400	103.20						
16.0	8000	53400	88.70						
17.0	8000	53400	80.91						
19.0	8000	53400	73.49						
21.0	8000	53400	65.20						
24.0	8000	53400	59.17						
28.0	8000	53400	50.86						
32.0	8000	53400	44.39						
37.0	8000	53400	37.65						
43.0	8000	53400	32.91						
50.0	7680	54100	27.83						
2									
47.0	7780	53900	29.57						
58.0	8000	49400	24.12						
64.0	8000	47100	22.00						
74.0	8000	43500	19.04						
83.0	8000	40600	16.80						
96.0	8000	37300	14.51						
109	8000	34700	12.83						
130	8000	31100	10.79						
161	7840	27600	8.71						
184	5110	39000	7.59						
219	5110	35900	6.38						
272	4600	34500	5.15						
TR147 n _i =1400 1/min13000Nm									
n ₂ [1/min]	M _{2max} [Nm]	Fr [N]	i	5.50 ~15.0	18.5 22.0	30.0 ~45.0	55.0 ~90.0		
3									
8.60	13000	62700	163.31						
9.50	13000	62700	146.91						
12.0	13000	62700	119.86						
13.0	13000	62700	109.31						
15.0	13000	62700	94.60						

TR147 n _i =1400 1/min13000Nm									
n ₂ [1/min]	M _{2max} [Nm]	Fr [N]	i	5.50 ~15.0	18.5 22.0	30.0 ~45.0	55.0 ~90.0		
3									
17.0	13000	62700	83.47						
19.0	13000	62700	72.09						
21.0	13000	62700	66.99						
23.0	13000	62700	61.09						
26.0	13000	62700	52.87						
30.0	13000	62700	46.65						
35.0	13000	62700	40.29						
39.0	13000	62700	35.64						
47.0	13000	62700	29.95						
58.0	11900	64700	24.19						
2									
68.0	12000	64600	20.44						
78.0	10500	67000	18.04						
90.0	13000	62700	15.64						
101	12600	63400	13.91						
117	13000	60400	11.99						
144	13000	54400	9.74						
169	13000	49900	8.26						
193	8670	58400	7.25						
238	8670	53200	5.89						
280	8670	49300	5.00						
TR167 n _i =1400 1/min18000Nm									
n ₂ [1/min]	M _{2max} [Nm]	Fr [N]	i	11.0 15.0	18.5 22.0	30.0 ~45.0	55.0 ~90.0	110 132	
3									
6.10	18000	120000	229.71						
7.50	18000	120000	186.93						
9.10	18000	120000	153.07						
10.0	18000	120000	139.98						
11.0	18000	120000	121.81						
13.0	18000	120000	107.49						
15.0	18000	120000	93.19						
17.0	18000	120000	82.91						
19.0	18000	120000	73.70						
21.0	18000	120000	67.40						
24.0	18000	120000	58.65						
27.0	18000	120000	51.76						
31.0	18000	120000	44.87						
35.0	18000	120000	39.92						
41.0	18000	120000	34.41						
50.0	18000	120000	27.96						
59.0	18000	116500	23.71						
2									
30.0	7000	120000	46.00						
37.0	9000	120000	37.74						
46.0	10000	120000	30.71						
57.0	14000	120000	24.57						
64.0	13000	120000	21.85						
74.0	16000	111400	19.03						
82.0	15000	108900	16.98						
97.0	18000	93800	14.48						
117	17000	88700	11.99						
137	17000	82500	10.24						

2.7 TR..性能参数 / TR.. Performance Parameters

n_2 [1/min]	M_2 [Nm]	i	F_r [N]	K	Frame size	Input Configuration
$P_i=0.12kw$						
0.06	13300	21342	62000	1.00	TR 147 TRF77 TRF 147 TRF77	Y..63M ₁₋₄ AM63 AD2
0.08	11300	18210	65700	1.15		
0.09	9920	15923	67900	1.30		
0.10	8770	14075	69400	1.50		
0.11	7640	12344	70700	1.70	TR 147 TRF77 TRF 147 TRF77	Y..63M ₁₋₄ AM63 AD2
0.12	6730	11143	71600	1.95		
0.14	6030	9743	72200	2.20		
0.16	4830	8443	73100	2.70		
0.19	4180	7307	73400	3.10		
0.21	3690	6447	73700	3.50		
0.25	3180	5568	73900	4.10		
0.11	8050	12921	53300	1.00	TR 137 TRF77 TRF 137 TRF77	Y..63M ₁₋₄ AM63 AD2
0.12	7250	11712	54900	1.10		
0.13	6390	10573	56400	1.25		
0.16	5020	8784	58400	1.60		
0.18	4090	7479	59400	1.95		
0.21	4060	6559	59400	1.95		
0.24	3190	5834	60200	2.50		
0.27	3160	5116	60200	2.50		
0.18	4410	7583	28800	0.95	TR 107 TRF77 TRF 107 TRF77	Y..63M ₁₋₄ AM63 AD2
0.20	3690	6743	32400	1.15		
0.23	3660	5914	32500	1.15		
0.27	2820	5168	35500	1.50		
0.31	2530	4435	36100	1.70		
0.35	2260	3896	36500	1.90		
0.45	1880	3039	36900	2.30		
0.35	2470	3918	36200	1.75	TR 107 TRF77 TRF 107 TRF77	Y..63M ₁₋₄ AM63 AD2
0.41	2100	3343	36700	2.00		
0.45	1910	3034	36900	2.20		
0.52	1670	2653	37100	2.60		
0.61	1430	2280	37300	3.00		
0.67	1290	2067	37400	3.30		
0.30	3050	4559	17700	1.00	TR 97 TRF57 TRF 97 TRF57	Y..63M ₁₋₄ AM63 AD2
0.34	2560	4004	23700	1.15		
0.40	2270	3481	25200	1.30		
0.29	3230	4678	4840	0.95		
0.32	2980	4309	20400	1.00	TR 97 TRF57 TRF 97 TRF57	Y..63M ₁₋₄ AM63 AD2
0.37	2560	3702	23700	1.15		
0.46	2080	3019	26100	1.45		
0.52	1800	2668	27100	1.65		
0.61	1480	2245	27700	2.00		
0.68	1300	2016	27900	2.30		
0.80	1190	1733	28000	2.50		
0.45	2120	3065	25900	1.40	TR 97 TRF57 TRF 97 TRF57	Y..63M ₁₋₄ AM63 AD2
0.51	1880	2722	26800	1.60		
0.60	1590	2311	27500	1.90		
0.66	1430	2078	27700	2.10		
0.76	1230	1823	28000	2.40		
0.87	1070	1583	28200	2.80		
0.99	900	1396	28300	3.30		
1.10	770	1228	28400	3.90		

n_2 [1/min]	M_2 [Nm]	i	F_r [N]	K	Frame size	Input Configuration
$P_i=0.12kw$						
0.48	1760	2873	15200	0.90	TR 87 TRF57 TRF 87 TRF57	Y..63M ₁₋₄ AM63 AD2
0.70	1300	1961	18500	1.20		
0.53	1780	2595	15000	0.85	TR 87 TRF57 TRF 87 TRF57	Y..63M ₁₋₄ AM63 AD2
0.65	1430	2129	17700	1.10		
0.72	1270	1930	18600	1.20		
0.80	1120	1733	19300	1.40		
0.79	1140	1737	19200	1.35	TR 87 TRF57 TRF 87 TRF57	Y..63M ₁₋₄ AM63 AD2
0.91	1000	1524	19800	1.55		
1.60	580	885	20000	2.60		
1.80	510	776	20000	3.00		
2.00	450	685	20000	3.40		
1.10	810	1303	20000	1.90	TR 87 TRF57 TRF 87 TRF57	Y..63M ₁₋₄ AM63 AD3
1.20	710	1143	20000	2.20		
2.30	360	599	20000	4.30		
1.10	930	1303	8660	0.85	TR 77 TRF37 TRF 77 TRF37	Y..63M ₁₋₄ AM63 AD1
1.20	795	1124	10100	1.05	TR 77 TRF37 TRF 77 TRF37	Y..63M ₁₋₄ AM63 AD2
1.30	740	1047	10600	1.10		
1.50	635	915	11300	1.30		
1.10	820	1218	9910	1.00	TR 77 TRF37 TRF 77 TRF37	Y..63M ₁₋₄ AM63 AD2
1.30	740	1084	10600	1.10		
1.50	660	940	11200	1.25	TR 77 TRF37 TRF 77 TRF37	Y..63M ₁₋₄ AM63 AD2
1.70	520	821	12000	1.55		
1.90	475	731	12200	1.70		
2.10	455	646	12300	1.80		
2.60	375	520	12600	2.20	TR 77 TRF37 TRF 77 TRF37	Y..63M ₁₋₄ AM63 AD2
3.10	320	451	12700	2.50		
3.30	300	422	12800	2.70		
3.80	255	365	12900	3.20		
1.60	625	891	7190	0.95	TR 67 TRF37 TRF 67 TRF37	Y..63M ₁₋₄ AM63 AD2
1.90	505	730	8530	1.20		
2.10	440	644	9060	1.35		
2.40	385	571	9430	1.55		
2.80	320	486	9790	1.85	TR 67 TRF37 TRF 67 TRF37	Y..63M ₁₋₄ AM63 AD2
1.60	590	836	7670	1.00		
1.80	490	750	8630	1.20		
2.10	440	646	9050	1.35		
2.40	400	574	9330	1.50		
2.80	345	495	9660	1.75		
3.20	285	438	9940	2.10		
1.80	550	782	4650	0.80	TR 57 TRF37 TRF 57 TRF37	Y..63M ₁₋₄ AM63 AD2
2.00	455	678	7070	1.00		
2.30	410	604	7260	1.10		
2.60	370	537	7400	1.20		

n_2 [1/min]	M_2 [Nm]	i	Fr [N]	K	Frame size	Input Configuration
$P_1=0.18kw$						
0.23	5760	5834	57400	1.40	TR 137 TRF77	Y..63M ₂ -4 AM63 AD2
0.26	5420	5116	57900	1.50	TRF 137 TRF77	
0.30	4520	4464	59000	1.75	TR 137 TRF77	Y..63M ₂ -4 AM63 AD2
0.34	3980	3928	59500	2.00	TRF 137 TRF77	
0.30	4490	4435	28400	0.95	TR 107 TRF77	Y..63M ₂ -4 AM63 AD2
0.34	3980	3896	31100	1.10	TRF 107 TRF77	
0.43	3220	3039	34200	1.35		
0.34	4210	3918	29900	1.00	TR 107 TRF77	Y..63M ₂ -4 AM63 AD2
0.39	3590	3343	32800	1.20	TRF 107 TRF77	
0.44	3260	3034	34100	1.30	TR 107 TRF77	Y..63M ₂ -4 AM63 AD2
0.50	2850	2653	35400	1.50	TRF 107 TRF77	
0.58	2450	2280	36200	1.75		
0.64	2210	2067	36500	1.95		
0.66	2100	1987	36700	2.00	TR 107 TRF77	Y..63M ₂ -4 AM63 AD3
0.72	1870	1827	36900	2.30	TRF 107 TRF77	
0.83	1590	1599	37200	2.70		
0.94	1430	1400	37300	3.00		
1.10	1220	1226	37400	3.50		
0.49	2990	2668	20000	1.00	TR 97 TRF57	Y..63M ₂ -4 AM63 AD2
0.59	2480	2245	24200	1.20	TRF 97 TRF57	
0.65	2200	2016	25500	1.35		
0.76	1960	1733	26500	1.50		
0.81	1840	1623	27000	1.65		
0.92	1610	1434	27500	1.85		
1.10	1330	1207	27900	2.20		
1.20	1180	1084	28000	2.50		
1.40	1000	934	28200	3.00	TR 97 TRF57	Y..63M ₂ -4 AM63 AD2
1.50	930	878	28300	3.20	TRF 97 TRF57	
1.80	790	755	28400	3.80		
0.49	3090	2722	15900	0.95	TR 97 TRF57	Y..63M ₂ -4 AM63 AD2
0.57	2620	2311	23400	1.15	TRF 97 TRF57	
0.64	2350	2078	24800	1.25		
0.89	1690	1489	15900	0.90	TR 87 TRF57	Y..63M ₂ -4 AM63 AD2
0.95	1580	1395	16700	1.00	TRF 87 TRF57	
1.10	1380	1232	18000	1.10		
1.20	1270	1145	18600	1.20		
1.30	1140	1037	19200	1.35		
1.40	1010	931	19800	1.50		
1.60	860	802	20000	1.80		
0.87	1680	1524	15900	0.90	TR 87 TRF57	Y..63M ₂ -4 AM63 AD2
1.00	1390	1303	17900	1.10	TRF 87 TRF57	Y..63M ₂ -4 AM63 AD3
1.20	1220	1143	18900	1.25		

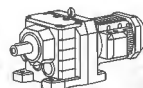
n_2 [1/min]	M_2 [Nm]	i	Fr [N]	K	Frame size	Input Configuration
$P_1=0.18kw$						
1.50	970	885	19900	1.60	TR 87 TRF57	Y..63M ₂ -4 AM63 AD2
1.70	850	776	20000	1.80	TRF 87 TRF57	
1.50	970	858	5830	0.85	TR 77 TRF37	Y..63M ₂ -4 AM63 AD2
1.70	850	757	9590	0.95	TRF 77 TRF37	
2.00	750	671	10500	1.10		
2.30	630	571	11400	1.30		
1.60	880	821	9230	0.90	TR 77 TRF37	Y..63M ₂ -4 AM63 AD2
1.80	800	731	10100	1.00	TRF 77 TRF37	
2.00	745	646	10500	1.10		
2.40	645	560	11300	1.25		
2.70	550	488	11800	1.50		
3.00	485	436	12100	1.70		
3.50	420	373	12400	1.95		
4.00	365	327	12600	2.20		
4.60	325	289	12700	2.50		
2.30	635	571	7060	0.95	TR 67 TRF37	Y..63M ₂ -4 AM63 AD2
2.70	535	486	8250	1.10	TRF 67 TRF37	
2.30	655	574	5820	0.90	TR 67 TRF37	Y..63M ₂ -4 AM63 AD2
2.70	565	495	7950	1.05	TRF 67 TRF37	
3.00	480	438	8740	1.25		
3.40	425	388	9160	1.40		
3.80	390	344	9380	1.55	TR 67 TRF37	Y..63M ₂ -4 AM63 AD2
4.50	315	294	9800	1.90	TRF 67 TRF37	
5.10	290	261	9920	2.10		
2.90	500	454	6650	0.90	TR 57 TRF37	Y..63M ₂ -4 AM63 AD2
3.20	450	410	7090	1.00	TRF 57 TRF37	
2.80	535	471	5250	0.85	TR 57 TRF37	Y..63M ₂ -4 AM63 AD2
3.70	400	357	7300	1.10	TRF 57 TRF37	
4.10	355	319	7460	1.25		
4.80	300	273	7630	1.50		
5.50	260	241	7730	1.75		
6.10	230	215	7790	1.95		
3.70	420	359	7230	1.05	TR 57 TRF37	Y..63M ₂ -4 AM63 AD2
4.10	375	324	7380	1.20	TRF 57 TRF37	
4.60	335	290	7530	1.35		
5.00	300	262	7620	1.50		
5.40	280	246	7680	1.60	TR 57 TRF37	Y..63M ₂ -4 AM63 AD2
6.00	245	220	7750	1.80	TRF 57 TRF37	
7.00	210	188	7830	2.10		
8.30	177	159	7890	2.60		
4.40	345	301	4150	0.85	TR 47 TRF37	Y..63M ₂ -4 AM63 AD2
5.20	290	255	5460	1.05	TRF 47 TRF37	
5.80	255	228	5620	1.15		
6.80	215	195	5790	1.40		
4.50	385	195.24	12500	2.10	TR 77	Y..71M ₂ -6 AM71 AD2
5.20	325	166.59	12700	2.50	TRF 77	

n _r [1/min]	M _r [Nm]	i	Fr [N]	K	Frame size		Input Configuration
P _I =0.18kw							
6.00	285	145.67	12800	2.80	TR TRF	77 77	Y..71M ₁ -6 AM71 AD2
6.30	270	138.39	12900	3.00			
7.20	235	121.42	12900	3.40			
6.80	250	195.24	12900	3.20	TR TRF	77 77	Y..63M ₂ -4 AM63 AD2
7.90	215	166.59	13000	3.80			
9.10	190	145.67	13000	4.30			
9.50	180	138.39	13000	4.60			
4.40	390	199.81	9370	1.50	TR TRF	67 67	Y..71M ₁ -6 AM71 AD2
4.70	360	184.07	9560	1.65			
5.50	310	158.14	9830	1.90			
6.30	270	137.67	10000	2.20	TR TRF	67 67	Y..71M ₁ -6 AM71 AD2
6.80	250	128.97	10100	2.40			
7.60	225	113.94	10200	2.70			
8.20	205	105.83	10200	2.90			
9.10	190	95.91	10300	3.20			
10.0	170	86.11	10300	3.50			
12.0	146	74.17	10400	4.10			
12.0	138	69.75	10400	4.40			
6.60	260	199.81	10100	2.30	TR TRF	67 67	Y..63M ₂ -4 AM63 AD2
7.20	235	184.07	10100	2.50			
8.40	205	158.14	10200	2.90			
9.60	179	137.67	10300	3.40			
10.0	168	128.97	10300	3.60			
12.0	148	113.94	10400	4.00			
12.0	138	105.83	10400	4.40			
4.70	365	186.89	7420	1.20	TR TRF	57 57	Y..71M ₁ -6 AM71 AD2
5.00	340	172.17	7510	1.30			
5.90	290	147.92	7650	1.55			
6.80	250	128.77	7740	1.75	TR TRF	57 57	Y..71M ₁ -6 AM71 AD2
7.20	235	120.63	7780	1.90			
7.10	240	186.89	7770	1.85	TR TRF	57 57	Y..63M ₂ -4 AM63 AD2
7.70	220	172.17	7810	2.00			
8.90	193	147.92	7860	2.30			
10.0	168	128.77	7900	2.70			
11.0	157	120.63	7920	2.90			
12.0	139	106.58	7940	3.20			
13.0	129	98.99	7950	3.50			
15.0	117	89.71	7970	3.80			
7.50	230	176.88	5740	1.30	TR TRF	47 47	Y..63M ₂ -4 AM63 AD2
8.10	210	162.94	5810	1.40			
9.40	182	139.99	5910	1.65			
11.0	159	121.87	5980	1.90			
12.0	149	114.17	6000	2.00			
13.0	131	100.86	6040	2.30			
14.0	122	93.68	6060	2.50			
16.0	111	84.9	6080	2.70			
17.0	99	76.23	6100	3.00			
7.00	240	123.66	3060	0.80	TR TRF	37 37	Y..71M ₁ -6 AM71 AD1
8.30	205	105.28	4840	0.95			
9.60	179	90.77	5190	1.10			

n: [1/min]	M: [Nm]	i	Fr [N]	K	Frame size		Input Configuration
P ₁ =0.18kw							
10.0	167	84.61	5310	1.20	TR TRF	37 37	Y..71M ₁ -6 AM71 AD1
9.80	176	134.82	5230	1.15	TR TRF	37 37	Y..63M ₂ -4 AM63 AD1
11.0	161	123.66	5370	1.25			
13.0	137	105.28	5580	1.45			
15.0	118	90.77	5710	1.70			
16.0	110	84.61	5760	1.80			
18.0	96	73.96	5840	2.10			
19.0	90	69.33	5870	2.20			
22.0	80	61.18	5920	2.50			
24.0	73	55.76	5940	2.80			
27.0	63	48.08	5960	3.20	TR TRF	37 37	Y..63M ₂ -4 AM63 AD2
11.0	161	123.91	4070	0.80	TR TRF	27 27	Y..63M ₂ -4 AM63 AD1
13.0	137	105.49	4200	0.95			
15.0	118	90.96	4280	1.10			
16.0	110	84.78	4320	1.20			
18.0	96	74.11	4360	1.35			
19.0	90	69.47	4380	1.45			
22.0	80	61.30	4320	1.65			
24.0	73	55.87	4210	1.80			
27.0	63	48.17	4040	2.10			
29.0	58	44.90	3960	2.20			
34.0	51	39.25	3810	2.50			
36.0	48	36.79	3740	2.70			
41.0	42	32.47	3610	3.10			
46.0	38	28.78	3480	3.50			
54.0	32	24.47	3310	4.10			
47.0	37	28.37	3460	3.50	TR TRF	27 27	Y..63M ₂ -4 AM63 AD2
51.0	34	26.09	3380	3.80			
59.0	29	22.32	3220	4.50			
68.0	25	19.35	3090	5.20			
73.0	24	18.08	3020	5.50			
84.0	20	15.63	2890	6.40			
99.0	17	13.28	2750	7.50			
16.0	106	81.64	47	0.80	TR	17	Y..63M ₂ -4 AM63
19.0	92	70.39	1330	0.95	TRF	17	-
20.0	85	65.61	1740	1.00	TR	17	Y..63M ₂ -4 AM63
23.0	75	57.35	2350	1.15	TRF	17	-
25.0	70	53.76	2500	1.20	TR TRF	17 17	Y..63M ₂ -4 AM63 -
28.0	62	47.44	2450	1.40			
30.0	58	44.18	2410	1.50			
34.0	50	38.61	2340	1.70			
36.0	47	36.20	2300	1.80			
41.0	42	31.94	2240	2.00			
47.0	37	28.32	2170	2.30			
55.0	31	24.07	2080	2.70			

n ₂ [1/min]	M ₂ [Nm]	i	Fr [N]	K	Frame size		Input Configuration
P ₁ =0.18kw							
52.0	33	25.23	2110	2.60	TR TRF	17	Y..63M ₂ -4
57.0	30	23.15	2060	2.80			AM63
67.0	26	19.71	1970	3.30			-
78.0	22	16.99	1890	3.80			
143	12	6.07	4940	3.60	TRX TRXF	67	Y..71M ₁ -6
168	10	5.18	4690	7.40			AM71
192	8.9	4.53	4490	9.20			AD2
202	8.5	4.30	4410	9.40			
218	7.9	6.07	4310	5.40	TRX TRXF	67	Y..63M ₂ -4
255	6.7	5.18	4090	11.0			AM63
292	5.9	4.53	3920	14.0			AD2
307	5.6	4.30	3850	14.0			
350	4.9	3.77	3690	18.0			
412	4.2	3.20	3500	24.0	TRX TRXF	67	Y..63M ₂ -4
457	3.8	2.89	3380	28.0			AM63
519	3.3	2.54	3240	36.0			AD3
550	3.1	2.40	3180	40.0			
646	2.7	2.04	3020	50.0			
158	11	5.50	3880	3.60	TRX TRXF	57	Y..71M ₁ -6
172	10	5.07	3780	3.60			AM71
200	8.6	4.35	3600	7.90			AD2
230	7.5	3.79	3440	9.20			
240	7.2	5.50	3400	5.40	TRX TRXF	57	Y..63M ₂ -4
261	6.6	5.07	3310	5.40			AM63 AD2
303	5.7	4.35	3150	12.0	TRX TRXF	57	Y..63M ₂ -4
348	4.9	3.79	3010	14.0			AM63
372	4.6	3.55	2940	15.0			AD2
421	4.1	3.14	2830	16.0			
453	3.8	2.91	2760	18.0			
500	3.4	2.64	2670	20.0			
557	3.1	2.37	2580	22.0	TRX TRXF	57	Y..63M ₂ -4
647	2.7	2.04	2460	26.0			AM63
688	2.5	1.92	2410	28.0			AD3
799	2.2	1.65	2290	31.0			
P ₁ =0.25kw							
0.13	15100	9743	48200	0.85	TR TRF	147 TRF77 147 TRF77	Y..71M ₁ -4
0.15	12700	8443	63100	1.00			AM71
0.18	11000	7307	66200	1.20			AD2
0.20	9740	6447	68100	1.35			
0.23	8410	5568	69800	1.55			
0.26	7590	4926	70700	1.70			
0.30	6570	4325	71700	2.00			
0.35	5790	3754	72400	2.20			
0.39	5020	3302	72900	2.60			
0.45	4370	2898	73300	3.00			
0.22	8660	5834	51100	0.90	TR TRF	137 TRF77 137 TRF77	Y..71M ₁ -4
0.25	7960	5116	53500	1.00			AM71
0.29	6740	4464	55800	1.20			AD2
0.33	5930	3928	57100	1.35			

n ₂ [1/min]	M ₂ [Nm]	i	Fr [N]	K	Frame size			Input Configuration
P ₁ =0.25kw								
0.28	7430	4709	54600	1.10	TR TRF	137 TRF77	Y..71M ₁ -4 AM71 AD2	
0.32	6340	4018	56500	1.25				
0.37	5540	3514	57700	1.45				
0.39	5260	3338	58100	1.50				
0.44	4620	2929	58900	1.75				
0.49	4180	2658	59300	1.90	TR TRF	137 TRF77	Y..71M ₁ -4 AM71 AD3	
0.54	3800	2412	59700	2.10				
0.63	3260	2073	60100	2.40	TR TRF	137 TRF77	Y..71M ₁ -4 AM71 AD3	
0.71	2810	1839	60500	2.80				
0.93	2180	1397	60800	3.70				
1.10	1880	1226	61000	4.20				
0.43	4730	3039	25600	0.90	TR TRF	107 TRF77	Y..71M ₁ -4 AM71 AD2	
0.43	4780	3034	23600	0.90				
0.65	3100	1987	34600	1.40	TR TRF	107 TRF77	Y..71M ₁ -4 AM71 AD3	
0.71	2790	1827	35600	1.55				
0.81	2400	1599	36300	1.80				
0.93	2140	1400	36600	2.00				
1.10	1840	1226	36900	2.30				
1.40	1430	939	37300	3.00				
1.60	1230	822	37400	3.50				
0.75	2840	1733	22000	1.05	TR TRF	97 TRF57	Y..71M ₁ -4 AM71 AD2	
0.80	2650	1623	23200	1.15				
0.71	2960	1823	21100	1.00	TR TRF	97 TRF57	Y..71M ₁ -4 AM71 AD2	
0.82	2570	1583	23700	1.15				
0.93	2230	1396	25400	1.35				
1.10	1940	1228	26600	1.55				
1.20	1750	1069	27300	1.70				
1.40	1520	938	27600	1.95				
2.10	990	632	28200	3.00				
1.60	1300	824	27900	2.30	TR TRF	97 TRF57	Y..71M ₁ -4 AM71 AD3	
1.80	1160	737	28100	2.60				
1.10	1850	1145	10700	0.85	TR TRF	87 TRF57	Y..71M ₁ -4 AM71 AD2	
1.20	1660	1037	16000	0.95				
1.40	1480	931	17400	1.05				
1.60	1260	802	18600	1.20				
1.10	1790	1143	14700	0.85	TR TRF	87 TRF57	Y..71M ₁ -4 AM71 AD3	
1.50	1420	885	17800	1.10				
1.70	1240	776	18700	1.25				
1.90	1100	685	19400	1.40				
2.20	920	599	20000	1.65				
2.50	810	525	20000	1.90				
2.80	715	456	20000	2.20				
4.90	415	268	20000	3.70				

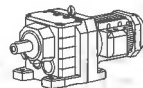


n_2 [1/min]	M_2 [Nm]	i	Fr [N]	K	Frame size		Input Configuration
$P_1=0.25kw$							
2.30	910	571	8910	0.90	TR TRF	77 TRF37 77 TRF37	Y..71M ₁ -4 AM71 AD2
2.30	920	560	8780	0.90	TR TRF	77 TRF37 77 TRF37	Y..71M ₁ -4 AM71 AD2
2.70	795	488	10100	1.05			
3.00	705	436	10900	1.15			
3.50	605	373	11500	1.35	TR TRF	77 TRF37 77 TRF37	Y..71M ₁ -4 AM71 AD2
4.00	530	327	11900	1.55	TR TRF	77 TRF37 77 TRF37	Y..71M ₁ -4 AM71 AD2
4.50	470	289	12200	1.75			
5.00	420	260	12400	1.95			
5.80	355	224	12600	2.30			
3.40	620	388	7290	0.95	TR TRF	67 TRF37 67 TRF37	Y..71M ₁ -4 AM71 AD2
3.80	565	344	7950	1.05			
4.40	465	294	8870	1.30			
5.00	420	261	9180	1.40			
5.60	380	234	9460	1.60			
6.50	320	200	9780	1.85			
7.40	275	176	9980	2.20			
8.20	250	158	10100	2.40			
3.40	640	384	6960	0.95	TR TRF	67 TRF37 67 TRF37	Y..71M ₁ -4 AM71 AD2
3.60	600	359	7550	1.00			
4.20	515	310	8430	1.15			
4.90	435	264	9100	1.40			
5.50	385	235	9420	1.55			
6.50	325	201	9750	1.85			
7.20	295	181	9900	2.00			
4.10	515	319	6050	0.85	TR TRF	57 TRF37 57 TRF37	Y..71M ₁ -4 AM71 AD2
4.80	435	273	7160	1.05			
5.40	380	241	7380	1.20			
6.00	340	215	7510	1.30			
7.00	300	187	7630	1.50			
7.90	260	164	7730	1.75			
9.20	225	142	7800	2.00			
4.00	540	324	4980	0.85	TR TRF	57 TRF37 57 TRF37	Y..71M ₁ -4 AM71 AD2
4.50	480	290	6950	0.95			
5.00	435	262	7160	1.05			
5.30	405	246	7280	1.10			
5.90	360	220	7440	1.25			
5.70	370	228	2440	0.80	TR TRF	47 TRF37 47 TRF37	Y..71M ₁ -4 AM71 AD2
6.70	315	195	5320	0.95			
7.10	295	182	5440	1.00			
8.50	245	154	5680	1.20			
4.60	520	195.24	12000	1.55	TR TRF	77 77	Y..71M ₁ -6 AM71 AD2
5.40	440	166.59	12300	1.85			
6.10	385	145.67	12500	2.10			
6.70	355	195.24	12600	2.30	TR TRF	77 77	Y..71M ₁ -4 AM71 AD2
7.80	305	166.59	12800	2.70			
8.90	265	145.67	12900	3.10			

n_2 [1/min]	M_2 [Nm]	i	Fr [N]	K	Frame size		Input Configuration
P ₁ =0.25kw							
9.40	250	138.39	12900	3.20	TR	77	Y..71M ₁ -4 AM71 AD2
11.0	220	121.42	13000	3.70	TRF	77	
4.50	530	199.81	8280	1.15	TR TRF	67 67	Y..71M ₁ -6 AM71 AD2
4.90	490	184.07	8660	1.20			
5.70	420	158.14	9190	1.40			
6.50	365	137.67	9540	1.65			
6.90	340	128.97	9670	1.75			
7.80	300	113.94	9870	1.95			
8.50	280	105.83	9960	2.10			
6.50	365	199.81	9540	1.65	TR TRF	67 67	Y..71M ₁ -4 AM71 AD2
7.10	335	184.07	9700	1.80			
8.20	290	158.14	9930	2.10			
9.40	250	137.67	10100	2.40			
10.0	235	128.97	10100	2.50			
11.0	205	113.94	10200	2.90			
12.0	194	105.83	10300	3.10			
14.0	176	95.91	10300	3.40			
15.0	158	86.11	10400	3.80			
4.80	495	186.89	6760	0.90	TR TRF	57 57	Y..71M ₁ -6 AM71 AD2
5.20	455	172.17	7060	1.00			
6.00	390	147.92	7330	1.15			
7.00	340	128.77	7500	1.30			
7.40	320	120.63	7570	1.40			
8.40	280	106.58	7670	1.60			
9.00	260	98.99	7720	1.70			
7.00	340	186.89	7500	1.30	TR TRF	57 57	Y..71M ₁ -4 AM71 AD2
7.60	315	172.17	7580	1.40			
8.80	270	147.92	7700	1.65	TR TRF	57 57	Y..71M ₁ -4 AM71 AD2
10.0	235	128.77	7780	1.90			
11.0	220	120.63	7810	2.00			
12.0	196	106.58	7860	2.30			
13.0	182	98.99	7880	2.50			
14.0	165	89.71	7910	2.70	TR TRF	57 57	Y..71M ₁ -4 AM71 AD2
16.0	148	80.55	7930	3.00			
19.0	127	69.23	7960	3.50			
7.40	320	176.88	5280	0.90	TR TRF	47 47	Y..71M ₁ -4 AM71 AD2
8.00	295	162.94	5420	1.00			
9.30	255	139.99	5630	1.15			
11.0	220	121.87	5770	1.35			
11.0	205	114.17	5820	1.45			
13.0	185	100.86	5900	1.60			
14.0	172	93.68	5940	1.75			
15.0	156	84.9	5980	1.90			
17.0	140	76.23	6020	2.10			
19.0	126	68.54	6050	2.40			
20.0	118	64.21	6070	2.50			
23.0	104	56.73	6090	2.90			
25.0	97	52.69	6100	3.10			
27.0	88	47.75	6080	3.40			

n: [1/min]	M: [Nm]	i	Fr [N]	K	Frame size		Input Configuration
P ₁ =0.25kw							
9.60	245	134.82	2630	0.80	TR TRF	37 37	Y..71M ₁ -4 AM71 AD1
11.0	225	123.66	4560	0.90			
12.0	193	105.28	5030	1.05			
14.0	167	90.77	5320	1.20			
15.0	155	84.61	5420	1.30			
18.0	136	73.96	5580	1.45			
19.0	127	69.33	5650	1.55			
21.0	112	61.18	5750	1.80			
23.0	102	55.76	5800	1.95			
27.0	88	48.08	5870	2.30	TR TRF	37 37	Y..71M ₁ -4 AM71 AD2
29.0	82	44.81	5760	2.40			
33.0	72	39.17	5540	2.80			
35.0	67	36.72	5430	3.00			
40.0	60	32.4	5230	3.40			
15.0	156	84.78	4100	0.85	TR TRF	27 27	Y..71M ₁ -4 AM71 AD1
18.0	136	74.11	4210	0.95			
19.0	128	69.47	4240	1.00			
21.0	113	61.30	4180	1.15			
23.0	103	55.87	4090	1.25			
27.0	88	48.17	3940	1.45			
29.0	82	44.90	3870	1.60			
33.0	72	39.25	3730	1.80			
35.0	68	36.79	3660	1.90			
40.0	60	32.47	3540	2.20	TR TRF	27 27	Y..71M ₁ -4 AM71 AD1
45.0	53	28.78	3420	2.50			
53.0	45	24.47	3270	2.90	TR TRF	27 27	Y..71M ₁ -4 AM71 AD1
46.0	52	28.37	3410	2.50	TR TRF	27 27	Y..71M ₁ -4 AM71 AD2
50.0	48	26.09	3330	2.70			
58.0	41	22.32	3180	3.20			
67.0	36	19.35	3050	3.70			
72.0	33	18.08	2990	3.90			
83.0	29	15.63	2860	4.50			
98.0	24	13.28	2730	5.30			
110	22	11.86	2630	5.90			
128	19	10.13	2510	6.60			
138	17	9.41	2440	7.00			
159	15	8.16	2330	7.70			
170	14	7.63	2280	8.00			
197	12	6.59	2180	8.80			
232	10	5.60	2080	9.60			
260	9.2	5.00	2000	10.0			
304	7.8	4.27	1900	11.0			
325	7.3	4.00	1870	12.0			
386	6.2	3.37	1770	13.0			
23.0	105	57.35	156	0.80	TR TRF	17 17	Y..71M ₁ -4 AM71 -
24.0	99	53.76	785	0.85			
27.0	87	47.44	1630	1.00			
29.0	81	44.18	2000	1.05			
34.0	71	38.61	2200	1.20			
36.0	66	36.20	2180	1.30			
41.0	59	31.94	2120	1.45			

n ₂ [1/min]	M ₂ [Nm]	i	Fr [N]	K	Frame size		Input Configuration
P _I =0.25kw							
46.0	52	28.32	2070	1.65	TR	17	Y..71M ₁ -4
54.0	44	24.07	2000	1.90	TRF	17	AM71
							-
52.0	46	25.23	2020	1.85	TR TRF	17 17	Y..71M ₁ -4 AM71 -
56.0	42	23.15	1980	2.00			
66.0	36	19.71	1910	2.40			
77.0	31	16.99	1840	2.70			
82.0	29	15.84	1810	2.90			
94.0	25	13.84	1740	3.40			
100	24	12.98	1720	3.60			
114	21	11.45	1660	3.90			
148	16	6.07	4860	2.60	TRX TRXF	67 67	Y..71M ₁ -6 AM71 AD2
173	14	5.18	4620	5.40			
198	12	4.53	4420	6.80			
208	12	4.30	4350	7.00			
214	11	6.07	4310	3.90	TRX TRXF	67 67	Y..71M ₁ -4 AM71 AD2
251	9.5	5.18	4100	7.90			
287	8.3	4.53	3920	9.90			
302	7.9	4.30	3860	10.0			
345	6.9	3.77	3700	13.0			
406	5.9	3.20	3500	17.0	TRX TRXF	67 67	Y..71M ₁ -4 AM71 AD3
450	5.3	2.89	3390	20.0			
511	4.7	2.54	3250	25.0			
542	4.4	2.40	3190	28.0			
636	3.8	2.04	3020	35.0			
163	15	5.50	3820	2.60	TRX TRXF	57 57	Y..71M ₁ -6 AM71 AD2
177	14	5.07	3720	2.70			
206	12	4.35	3540	5.90			
236	10	3.79	3390	6.80			
236	10	5.50	3390	3.90	TRX TRXF	57 57	Y..71M ₁ -4 AM71 AD2
257	9.3	5.07	3300	3.90			
299	8	4.35	3150	8.50			
343	7	3.79	3010	9.90			
366	6.5	3.55	2950	11.0			
414	5.8	3.14	2830	11.0			
446	5.3	2.91	2760	13.0			
492	4.8	2.64	2680	14.0			
548	4.4	2.37	2580	16.0	TRX TRXF	57 57	Y..71M ₁ -4 AM71 AD3
637	3.7	2.04	2460	19.0			
677	3.5	1.92	2410	20.0			
787	3	1.65	2300	23.0			
P _I =0.37kw							
0.19	15900	7307	37500	0.80	TR TRF	147 147	Y..71M ₁ -4 AM71 AD2
0.21	14000	6447	60400	0.90			
0.25	12100	5568	64300	1.05			
0.28	10900	4926	66400	1.20			
0.32	9470	4325	68500	1.35	TR TRF	147 147	Y..71M ₁ -4 AM71 AD2
0.37	8310	3754	70000	1.55			
0.42	7230	3302	71100	1.80			

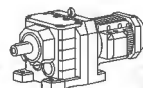


n_2 [1/min]	M_2 [Nm]	i	F_r [N]	K	Frame size	Input Configuration
$P_1=0.37\text{kw}$						
0.48	6320	2898	71900	2.10	TR 147 TRF77 TRF 147 TRF77	Y..71M ₂ -4 AM71 AD2
0.31	9730	4464	36000	0.80	TR 137 TRF77	Y..71M ₂ -4 AM71
0.35	8570	3928	51500	0.95	TRF 137 TRF77	AD2
0.34	9080	4018	48100	0.90	TR 137 TRF77 TRF 137 TRF77	Y..71M ₂ -4 AM71 AD2
0.39	7940	3514	53500	1.00		
0.41	7540	3338	54300	1.05		
0.47	6610	2929	56000	1.20		
0.56	5600	2484	57600	1.45		
0.62	5020	2242	58400	1.60		
0.52	5990	2658	57000	1.35	TR 137 TRF77 TRF 137 TRF77	Y..71M ₂ -4 AM71 AD3
0.57	5440	2412	57800	1.45		
0.67	4670	2073	58800	1.70		
0.75	4060	1839	59400	1.95		
0.99	3130	1397	60200	2.60		
1.10	2710	1226	60500	2.90	TR 107 TRF77 TRF 107 TRF77	Y..71M ₂ -4 AM71 AD2
1.30	2440	1090	60700	3.30		
1.40	2130	951	60900	3.80		
0.67	4660	2067	27300	0.90	TR 107 TRF77	Y..71M ₂ -4 AM71
0.82	3790	1693	31900	1.15	TRF 107 TRF77	AD2
0.89	3420	1550	33500	1.25	TR 107 TRF77 TRF 107 TRF77	Y..71M ₂ -4 AM71 AD2
0.98	3100	1407	34600	1.40		
1.10	2660	1209	35900	1.60		
1.30	2330	1055	36400	1.85		
0.69	4450	1987	28600	0.95	TR 107 TRF77 TRF 107 TRF77	Y..71M ₂ -4 AM71 AD3
0.76	4030	1827	30800	1.05		
0.86	3490	1599	33200	1.25		
0.99	3090	1400	34600	1.40		
1.10	2670	1226	35900	1.60		
1.50	2070	939	36700	2.10		
1.70	1790	822	37000	2.40		
1.10	2760	1207	22500	1.10	TR 97 TRF57	Y..71M ₂ -4 AM71
1.30	2460	1084	24300	1.20	TRF 97 TRF57	AD2
0.99	3170	1396	10800	0.95	TR 97 TRF57 TRF 97 TRF57	Y..71M ₂ -4 AM71 AD2
1.10	2770	1228	22500	1.10		
1.30	2470	1069	24200	1.20		
1.50	2160	938	25700	1.40	TR 97 TRF57	Y..71M ₂ -4 AM71
2.20	1420	632	27700	2.10	TRF 97 TRF57	AD2
1.70	1860	824	26900	1.60	TR 97 TRF57 TRF 97 TRF57	Y..71M ₂ -4 AM71 AD3
1.90	1660	737	27400	1.80		
3.20	980	431	28200	3.10		
3.60	850	379	28300	3.50		
4.10	765	336	28400	3.90		

n_2 [1/min]	M_2 [Nm]	i	F_r [N]	K	Frame size	Input Configuration
$P_1=0.37\text{kw}$						
1.70	1810	802	13800	0.85	TR 87 TRF57	Y..71M ₂ -4 AM71
1.80	1690	754	15800	0.90	TRF 87 TRF57	AD2
2.10	1440	649	17600	1.05	TR 87 TRF57 TRF 87 TRF57	Y..71M ₂ -4 AM71 AD2
1.80	1770	776	15100	0.85		
2.00	1560	685	16800	1.00		
2.30	1330	599	18300	1.15		
2.60	1170	525	19100	1.30		
3.00	1020	456	19700	1.50	TR 87 TRF57 TRF 87 TRF57	Y..71M ₂ -4 AM71 AD3
5.20	595	268	20000	2.60		
5.80	525	236	20000	2.90		
2.60	1260	538	18700	1.25		
2.90	1100	472	19400	1.40	TR 87 TRF57	Y..71M ₂ -4 AM71
3.40	920	400	20000	1.65	TRF 87 TRF57	AD2
3.80	830	361	20000	1.85	TR 77 TRF37 TRF 77 TRF37	Y..71M ₂ -4 AM71 AD2
3.70	860	373	9520	0.95		
4.20	755	327	10500	1.10		
4.80	670	289	11100	1.20		
5.30	600	260	11600	1.35		
6.20	505	224	12000	1.60		
7.00	445	197	12300	1.85		
8.20	385	169	12500	2.10		
9.30	340	149	12700	2.40		
4.70	665	294	4670	0.90	TR 67 TRF37 TRF 67 TRF37	Y..71M ₂ -4 AM71 AD2
5.30	600	261	7550	1.00		
5.90	535	234	8220	1.10		
6.90	455	200	8930	1.30		
3.70	960	246.54	20000	1.60	TR 87	Y..80M ₁ -6 AM80
4.20	840	216.54	20000	1.85	TRF 87	AD2
4.40	800	205.71	20000	1.95	TR 87 TRF 87	Y..80M ₁ -6 AM80 AD2
5.00	705	181.77	20000	2.20		
5.80	605	155.34	20000	2.60		
6.40	555	142.41	20000	2.80		
5.40	650	166.59	11200	1.25	TR 77 TRF 77	Y..80M ₁ -6 AM80 AD2
6.20	565	145.67	11700	1.45		
6.50	540	138.39	11900	1.50		
7.10	495	195.24	12100	1.65	TR 77 TRF 77	Y..71M ₂ -4 AM71 AD2
8.30	425	166.59	12400	1.90		
9.50	370	145.67	12600	2.20		
10.0	350	138.39	12600	2.30		
11.0	310	121.42	12800	2.60		
13.0	260	102.99	12900	3.10		
15.0	235	92.97	12900	3.40		
5.70	615	158.14	7350	0.95	TR 67 TRF 67	Y..80M ₁ -6 AM80 AD2
6.60	535	137.67	8240	1.10		
7.00	500	128.97	8550	1.20		
7.90	440	113.94	9030	1.35		

n ₂ [1/min]	M ₂ [Nm]	i	Fr [N]	K	Frame size		Input Configuration
P _i =0.37kw							
6.90	510	199.81	8480	1.15	TR TRF	67 67	Y..71M ₂ -4 AM71 AD2
7.50	470	184.07	8820	1.25			
8.70	400	158.14	9300	1.50			
10.0	350	137.67	9620	1.70			
11.0	330	128.97	9740	1.80			
12.0	290	113.94	9920	2.10			
13.0	270	105.83	10000	2.20			
14.0	245	95.91	10100	2.40	TR TRF	67 67	Y..71M ₂ -4 AM71 AD2
16.0	220	86.11	10200	2.70			
19.0	190	74.17	10300	3.20			
20.0	179	69.75	10300	3.40			
23.0	157	61.26	10400	3.80			
24.0	146	56.89	10400	4.10			
7.00	500	128.77	6610	0.90	TR TRF	57 57	Y..80M ₁ -6 AM80 AD2
7.50	470	120.63	7010	0.95			
8.50	415	106.58	7250	1.10			
9.10	385	98.99	7360	1.15			
7.40	475	186.89	6980	0.95	TR TRF	57 57	Y..71M ₂ -4 AM71 AD2
8.00	440	172.17	7140	1.00			
9.30	375	147.92	7380	1.20			
11.0	325	128.77	7540	1.35	TR TRF	57 57	Y..71M ₂ -4 AM71 AD2
11.0	305	120.63	7610	1.45			
13.0	270	106.58	7700	1.65			
14.0	250	98.99	7740	1.80	TR TRF	57 57	Y..71M ₂ -4 AM71 AD2
15.0	225	89.71	7800	1.95			
17.0	205	80.55	7840	2.20			
20.0	177	69.23	7890	2.50			
21.0	166	64.85	7910	2.70			
24.0	147	57.29	7760	3.10			
26.0	136	53.22	7600	3.30			
29.0	124	48.23	7380	3.60			
9.90	355	139.99	3490	0.85	TR TRF	47 47	Y..71M ₂ -4 AM71 AD2
11.0	310	121.87	5350	0.95			
12.0	290	114.17	5460	1.05			
14.0	255	100.86	5620	1.15			
15.0	235	93.68	5700	1.25			
16.0	215	84.9	5790	1.40			
18.0	195	76.23	5870	1.55			
20.0	176	68.54	5930	1.70			
21.0	164	64.21	5960	1.80			
24.0	145	56.73	6010	2.10			
26.0	135	52.69	5990	2.20			
29.0	122	47.75	5820	2.40			
32.0	110	42.87	5650	2.70			
37.0	94	36.93	5410	3.20			
40.0	89	34.73	5310	3.40			
41.0	86	33.79	5270	2.80	TR TRF	47 47	Y..71M ₂ -4 AM71 AD2
44.0	80	31.12	5140	2.80			
52.0	68	26.74	4920	4.40			
59.0	60	23.28	4720	5.00			

n ₂ [1/min]	M ₂ [Nm]	i	Fr [N]	K	Frame size		Input Configuration
P _i =0.37kw							
63.0	56	21.81	4620	5.40	TR TRF	47 47	Y..71M ₂ -4 AM71 AD2
15.0	230	90.77	4250	0.85	TR TRF	37 37	Y..71M ₂ -4 AM71 AD1
16.0	215	84.61	4720	0.90			
19.0	189	73.96	5070	1.05			
20.0	178	69.33	5210	1.15	TR TRF	37 37	Y..71M ₂ -4 AM71 AD1
23.0	157	61.18	5410	1.30			
25.0	143	55.76	5530	1.40	TR TRF	37 37	Y..71M ₂ -4 AM71 AD1
29.0	123	48.08	5580	1.60	TR TRF	37 37	Y..71M ₂ -4 AM71 AD2
31.0	115	44.81	5480	1.75			
35.0	100	39.17	5280	2.00	TR TRF	37 37	Y..71M ₂ -4 AM71 AD2
38.0	94	36.72	5190	2.10			
43.0	83	32.40	5010	2.40			
48.0	74	28.73	4850	2.70			
57.0	62	24.42	4620	3.20			
49.0	72	28.32	4830	2.80	TR TRF	37 37	Y..71M ₂ -4 AM71 AD2
53.0	67	26.03	4710	2.80			
62.0	57	22.27	4500	3.50			
71.0	49	19.31	4320	4.00			
76.0	46	18.05	4230	4.30			
88.0	40	15.60	4050	5.00	TR TRF	37 37	Y..71M ₂ -4 AM71 AD2
104	34	13.25	3850	5.60			
117	30	11.83	3720	6.00			
23.0	157	61.30	3870	0.85	TR TRF	27 27	Y..71M ₂ -4 AM71 AD1
25.0	143	55.87	3800	0.90			
29.0	123	48.17	3680	1.05			
31.0	115	44.90	3620	1.15			
35.0	100	39.25	3510	1.30			
38.0	94	36.79	3460	1.40			
42.0	83	32.47	3350	1.55			
48.0	74	28.78	3250	1.75			
56.0	63	24.47	3110	2.10			
49.0	73	28.37	3240	1.80	TR TRF	27 27	Y..71M ₂ -4 AM71 AD2
53.0	67	26.09	3170	1.95			
62.0	57	22.32	3040	2.30			
71.0	50	19.35	2920	2.60			
76.0	46	18.08	2860	2.80			
88.0	40	15.63	2750	3.20			
104	34	13.28	2620	3.80			
36.0	99	38.61	770	0.85	TR TRF	17 17	Y..71M ₂ -4 AM71 -
38.0	93	36.20	1260	0.90			
43.0	82	31.94	1910	1.05			
49.0	72	28.32	1880	1.15			



n_2 [1/min]	M_2 [Nm]	i	Fr [N]	K	Frame size		Input Configuration
P ₁ =0.37kw							
57.0	62	24.07	1830	1.40	TR TRF	17 17	Y..71M ₂ -4 AM71 -
55.0	65	25.23	1840	1.30	TR TRF	17 17	Y..71M ₂ -4 AM71 -
60.0	59	23.15	1820	1.45			
70.0	50	19.71	1760	1.70			
81.0	44	16.99	1710	1.95			
87.0	40	15.84	1680	2.10			
100	35	13.84	1630	2.40			
106	33	12.98	1610	2.60			
121	29	11.45	1560	2.80	TR TRF	17 17	Y..71M ₂ -4 AM71 -
136	26	10.15	1520	3.00			
160	22	8.63	1460	3.30			
183	19	7.55	1370	2.90			
196	18	7.04	1350	3.10			
224	16	6.15	1300	3.40			
239	15	5.76	1280	3.60			
271	13	5.09	1240	3.90			
306	12	4.51	1200	4.20			
360	9.8	3.83	1140	4.60	TRX TRXF	67 67	Y..80M ₁ -6 AM80 AD2
175	175	5.18	4560	3.70			
200	200	4.53	4370	4.60			
210	210	4.30	4300	4.80			
240	240	3.77	4130	5.90			
227	227	6.07	4200	2.80	TRX TRXF	67 67	Y..71M ₂ -4 AM71 AD2
267	267	5.18	3990	5.60			
305	305	4.53	3820	7.10			
321	321	4.30	3760	7.30			
366	366	3.77	3600	9.00			
431	431	3.20	3420	12.0	TRX TRXF	67 67	Y..71M ₂ -4 AM71 AD3
478	478	2.89	3310	14.0			
543	543	2.54	3170	18.0			
575	575	2.40	3110	20.0			
675	675	2.04	2950	26.0			
208	208	4.35	3490	4.00	TRX TRXF	57 57	Y..80M ₁ -6 AM80 AD2
239	239	3.79	3340	4.70			
255	255	3.55	3280	5.00			
251	251	5.50	3300	2.80	TRX TRXF	57 57	Y..71M ₂ -4 AM71 AD2
272	272	5.07	3210	2.80			
317	317	4.35	3060	6.10			
364	364	3.79	2930	7.10			
389	389	3.55	2870	7.60			
440	440	3.14	2760	8.10			
474	474	2.91	2690	8.90			
523	523	2.64	2610	10.0			
582	582	2.37	2520	11.0	TRX TRXF	57 57	Y..71M ₂ -4 AM71 AD3
676	676	2.04	2400	13.0			
719	719	1.92	2350	14.0			
835	835	1.65	2240	16.0			

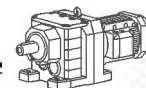
n_2 [1/min]	M_2 [Nm]	i	Fr [N]	K	Frame size			Input Configuration
P₁=0.55kw								
0.23	0.23	6077	120000	0.90	TR TRF	167 167	TRF97	Y..80M ₁ -4 AM80 AD3
0.26	0.26	5407	120000	1.05				
0.30	14700	4650	120000	1.20				
0.33	12800	4129	120000	1.40				
0.28	16600	4926	26700	0.80	TR TRF	147 147	TRF77	Y..80M ₁ -4 AM80 AD2
0.32	14400	4325	56500	0.90				
0.37	12600	3754	63300	1.05				
0.42	11000	3302	66200	1.20	TR TRF	147 147	TRF77	Y..80M ₁ -4 AM80 AD2
0.48	9670	2898	68200	1.35				
0.54	8750	2555	69400	1.50	TR TRF	147 147	TRF77	Y..80M ₁ -4 AM80 AD3
0.62	7580	2211	70800	1.70				
0.71	6680	1951	71600	1.95				
0.81	5720	1705	72400	2.30				
0.90	5120	1536	72900	2.50				
1.00	4430	1329	73300	2.90				
1.20	3850	1166	73600	3.40				
0.56	8510	2484	51800	0.95	TR TRF	137 137	TRF77	Y..80M ₁ -4 AM80 AD2
0.52	9110	2658	47600	0.90				
0.57	8260	2412	52800	0.95	TR TRF	137 137	TRF77	Y..80M ₁ -4 AM80 AD3
0.67	7100	2073	55200	1.15				
0.75	6210	1839	56700	1.30				
0.86	5330	1598	58000	1.50				
0.99	4760	1397	58700	1.70				
1.10	4150	1226	59300	1.90				
1.30	3710	1090	59800	2.20	TR TRF	137 137	TRF77	Y..80M ₁ -4 AM80 AD3
1.40	3240	951	60200	2.50				
1.70	2770	831	60500	2.90				
0.98	4750	1407	24800	0.90	TR TRF	107 107	TRF77	Y..80M ₁ -4 AM80 AD2
1.10	4080	1209	30600	1.05				
1.30	3560	1055	32900	1.20				
1.50	3110	919	34600	1.40				
1.70	2780	815	35600	1.55				
1.90	2430	717	36300	1.75				
2.20	2120	626	36600	2.00				
0.99	4730	1400	25600	0.90	TR TRF	107 107	TRF77	Y..80M ₁ -4 AM80 AD3
1.10	4110	1226	30400	1.05				
1.20	3680	1104	32400	1.15				
1.50	3170	939	34400	1.35				
1.70	2750	822	35700	1.55				
1.70	2820	824	22100	1.05	TR TRF	97 97	TRF57	Y..80M ₁ -4 AM80 AD3
1.90	2530	737	23900	1.20				
2.50	1880	560	26800	1.60				
2.80	1640	484	27400	1.85				
2.20	2160	632	25700	1.40	TR TRF	97 97	TRF57	Y..80M ₁ -4 AM80 AD2

n_2 [1/min]	M_2 [Nm]	i	Fr [N]	K	Frame size	Input Configuration
P₁=0.55kw						
3.20	1480	431	27700	2.00	TR TRF	97 TRF57 97 TRF57 Y..80M ₁ -4 AM80 AD3
3.60	1300	379	27900	2.30		
4.10	1160	336	28100	2.60		
4.70	1010	296	28200	3.00		
5.50	840	249	28400	3.60		
2.60	1780	525	15000	0.85	TR TRF	87 TRF57 87 TRF57 Y..80M ₁ -4 AM80 AD3
3.00	1550	456	16900	1.00		
3.50	1340	398	18200	1.15		
3.90	1190	352	19000	1.30		
4.50	1020	305	19700	1.50		
2.90	1660	472	16100	0.95	TR TRF	87 TRF57 87 TRF57 Y..80M ₁ -4 AM80 AD2
3.40	1400	400	17900	1.10		
3.80	1260	361	18700	1.25		
5.00	970	276	6200	0.85	TR TRF	77 TRF37 77 TRF37 Y..80M ₁ -4 AM80 AD2
5.80	820	236	9850	1.00		
6.20	770	221	10300	1.05	TR TRF	77 TRF37 77 TRF37 Y..80M ₁ -4 AM80 AD2
7.40	645	186	11300	1.25		
3.20	1660	289.74	27400	1.80	TR TRF	97 97 Y..80M ₁ -6 AM80 AD3
3.60	1460	255.71	27700	2.00		
3.80	1380	241.25	27800	2.20		
4.20	1240	216.28	28000	2.40		
4.80	1100	289.74	28100	2.70	TR TRF	97 97 Y..80M ₁ -4 AM80 AD3
5.40	970	255.71	28200	3.10		
5.70	910	241.25	28300	3.30		
6.40	820	216.28	28400	3.60		
3.70	1410	246.54	17800	1.10	TR TRF	87 87 Y..80M ₁ -6 AM80 AD2
4.20	1240	216.54	18800	1.25		
4.40	1180	205.71	19100	1.30		
5.00	1040	181.77	19700	1.50	TR TRF	87 87 Y..80M ₁ -6 AM80 AD2
5.90	890	155.34	20000	1.75		
5.60	930	246.54	20000	1.65	TR TRF	87 87 Y..80M ₁ -4 AM80 AD2
6.40	820	216.54	20000	1.90		
6.70	780	205.71	20000	2.00		
7.60	690	181.77	20000	2.20		
8.90	590	155.34	20000	2.60		
9.70	540	142.41	20000	2.90		
11.0	475	124.97	20000	3.30	TR TRF	87 87 Y..80M ₁ -4 AM80 AD2
12.0	450	118.43	20000	3.40		
13.0	390	103.65	20000	3.90		
8.30	630	166.59	11400	1.30	TR TRF	77 77 Y..80M ₁ -4 AM80 AD2
9.50	550	145.67	11800	1.50		
10.0	525	138.39	12000	1.55		
11.0	460	121.42	12200	1.75		
13.0	390	102.99	12500	2.10		
15.0	350	92.97	12600	2.30		

n_2 [1/min]	M_2 [Nm]	i	Fr [N]	K	Frame size	Input Configuration
P₁=0.55kw						
17.0	310	81.8	12800	2.60	TR TRF	77 77 Y..80M ₁ -4 AM80 AD2
18.0	290	77.24	12800	2.80		
21.0	250	65.77	12900	3.30		
8.70	600	158.14	7540	1.00	TR TRF	67 67 Y..80M ₁ -4 AM80 AD2
10.0	520	137.67	8360	1.15		
11.0	490	128.97	8660	1.20	TR TRF	67 67 Y..80M ₁ -4 AM80 AD2
12.0	430	113.94	9110	1.40		
13.0	400	105.83	9320	1.50		
14.0	365	95.91	9550	1.65		
16.0	325	86.11	9750	1.85		
19.0	280	74.17	9960	2.10		
20.0	265	69.75	10000	2.30		
23.0	230	61.26	10200	2.60		
24.0	215	56.89	10200	2.80		
11.0	455	120.63	7060	1.00	TR TRF	57 57 Y..80M ₁ -4 AM80 AD2
13.0	405	106.58	7290	1.10		
14.0	375	98.99	7390	1.20		
15.0	340	89.71	7510	1.30		
17.0	305	80.55	7610	1.45		
20.0	260	69.23	7720	1.70	TR TRF	57 57 Y..80M ₁ -4 AM80 AD2
21.0	245	64.85	7750	1.80		
24.0	215	57.29	7500	2.10		
26.0	200	53.22	7360	2.20		
29.0	184	48.23	7160	2.40		
32.0	165	43.3	6960	2.70		
37.0	142	37.30	6670	3.20		
39.0	134	35.07	6560	3.40		
52.0	100	26.31	6030	4.50	TR TRF	57 57 Y..80M ₁ -4 AM80 AD2
55.0	95	24.99	5940	4.70		
63.0	84	21.93	5720	5.40		
74.0	71	18.60	5440	6.40		
15.0	355	93.68	3610	0.85	TR TRF	47 47 Y..80M ₁ -4 AM80 AD2
16.0	320	84.9	5290	0.95		
18.0	290	76.23	5470	1.05		
20.0	260	68.54	5610	1.15		
21.0	240	64.21	5690	1.25		
24.0	215	56.73	5800	1.40		
26.0	200	52.69	5750	1.50		
29.0	182	47.75	5610	1.65	TR TRF	47 47 Y..80M ₁ -4 AM80 AD2
32.0	163	42.87	5450	1.85		
37.0	140	36.93	5240	2.10		
40.0	132	34.73	5160	2.30		
46.0	114	29.88	4950	2.60		
52.0	102	26.74	4800	3.00	TR TRF	47 47 Y..80M ₁ -4 AM80 AD2
59.0	89	23.28	4610	3.40		
63.0	83	21.81	4520	3.60		
23.0	230	61.18	4210	0.85	TR TRF	37 37 Y..80M ₁ -4 AM80 AD1
25.0	210	55.76	4780	0.95		

n_2 [1/min]	M_2 [Nm]	i	F_r [N]	K	Frame size	Input Configuration
P₁=0.75kw						
0.62	10000	2333	120000	1.80	TR 167 TRF97	Y..80M ₂ -4 AM80 AD5
0.69	8880	2085	120000	2.00	TRF 167 TRF97	
0.43	14600	3302	54100	0.90	TR 147 TRF77	Y..80M ₂ -4 AM80 AD2
0.50	12800	2898	62900	1.00	TRF 147 TRF77	
0.56	11600	2555	65300	1.10	TR 147 TRF77 TRF 147 TRF77	Y..80M ₂ -4 AM80 AD3
0.65	10000	2211	67700	1.30		
0.74	8860	1951	69300	1.45		
0.84	7610	1705	70700	1.70		
0.93	6830	1536	71500	1.90		
1.10	5910	1329	72300	2.20		
1.20	5150	1166	72800	2.50		
0.77	8370	1863	52400	0.95	TR 137 TRF77 TRF 137 TRF77	Y..80M ₂ -4 AM80 AD2
0.90	7090	1586	55200	1.15		
1.00	6320	1391	56500	1.25		
1.10	5680	1256	57500	1.40		
0.69	9410	2073	42400	0.85	TR 137 TRF77 TRF 137 TRF77	Y..80M ₂ -4 AM80 AD3
0.78	8260	1839	52800	0.95		
0.90	7110	1598	55200	1.10		
1.00	6320	1397	56500	1.25		
1.20	5520	1226	57700	1.45		
1.30	4930	1090	58500	1.60		
1.50	4300	951	59200	1.85		
1.70	3700	831	59800	2.20		
2.00	3220	730	60200	2.50		
1.40	4740	1055	25200	0.90	TR 107 TRF77	Y..80M ₂ -4 AM80 AD2
1.60	4140	919	30300	1.05	TRF 107 TRF77	
1.80	3690	815	32400	1.15		
1.50	4210	939	29900	1.00	TR 107 TRF77	Y..80M ₂ -4 AM80 AD3
1.80	3670	822	32500	1.15	TRF 107 TRF77	
3.90	1640	369	37100	2.60	TR 107 TRF77	Y..80M ₂ -4 AM80 AD4
4.40	1430	323	37300	3.00	TRF 107 TRF77	
2.30	2870	632	21800	1.05	TR 97 TRF57 TRF 97 TRF57	Y..80M ₂ -4 AM80 AD2
2.60	2510	560	24000	1.20	TR 97 TRF57 TRF 97 TRF57	Y..80M ₂ -4 AM80 AD3
3.00	2180	484	25600	1.40		
3.30	1960	431	26500	1.50		
3.80	1720	379	27300	1.75		
4.30	1530	336	27600	1.95		
4.80	1340	296	27900	2.20		
5.80	1120	249	28100	2.70		
3.60	1790	398	15000	0.85	TR 87 TRF57 TRF 87 TRF57	Y..80M ₂ -4 AM80 AD3
4.10	1580	352	16700	1.00		
4.70	1360	305	18100	1.15		
5.40	1200	268	18900	1.30		
6.10	1060	236	19600	1.45		

n_2 [1/min]	M_2 [Nm]	i	F_r [N]	K	Frame size	Input Configuration
P₁=0.75kw						
4.00	1660	361	16000	0.95	TR 87 TRF57 TRF 87 TRF57	Y..80M ₂ -4 AM80 AD2
4.80	1370	300	18000	1.10	TR 87 TRF57	Y..80M ₂ -4 AM80 AD3
5.60	1160	256	19100	1.35	TRF 87 TRF57	
3.70	1940	255.71	26600	1.55	TR 97 TRF 97	Y..90S-6 AM90 AD3
3.90	1830	241.25	27000	1.65		
4.40	1640	216.28	27400	1.80		
5.00	1440	289.74	27700	2.10	TR 97 TRF 97	Y..80M ₂ -4 AM80 AD3
5.60	1270	255.71	27900	2.40		
6.00	1200	241.25	28000	2.50		
6.60	1070	216.28	28100	2.80		
7.70	920	186.30	28300	3.20		
8.40	840	170.02	28400	3.50		
4.30	1640	216.54	16200	0.95	TR 87 TRF 87	Y..90S-6 AM90 AD2
4.60	1560	205.71	16800	1.00		
5.20	1380	181.77	18000	1.10		
6.00	1180	155.34	19000	1.30	TR 87 TRF 87	Y..90S-6 AM90 AD2
6.60	1080	142.41	19500	1.45		
5.80	1230	246.54	18800	1.25	TR 87 TRF 87	Y..80M ₂ -4 AM80 AD2
6.60	1080	216.54	19500	1.45		
7.00	1020	205.71	19700	1.50		
7.90	900	181.77	20000	1.70		
9.20	775	155.34	20000	2.00	TR 87 TRF 87	Y..80M ₂ -4 AM80 AD2
10.0	710	142.41	20000	2.20		
11.0	620	124.97	20000	2.50		
12.0	590	118.43	20000	2.60		
14.0	515	103.65	20000	3.00		
15.0	465	93.38	20000	3.30		
8.60	830	166.59	9810	1.00	TR 77 TRF 77	Y..80M ₂ -4 AM80 AD2
9.80	725	145.67	10700	1.15		
10.0	690	138.39	11000	1.20		
12.0	605	121.42	11500	1.35	TR 77 TRF 77	Y..80M ₂ -4 AM80 AD2
14.0	510	102.99	12000	1.60		
15.0	460	92.97	12200	1.75		
18.0	405	81.8	12500	2.00		
19.0	385	77.24	12500	2.10		
22.0	325	65.77	12700	2.50		
25.0	285	57.68	12800	2.80		
28.0	255	52.07	12900	3.20	TR 77 TRF 77	Y..80M ₂ -4 AM80 AD2
31.0	225	45.81	13000	3.60		
33.0	215	43.26	13000	3.80		
11.0	640	128.97	7000	0.95	TR 67 TRF 67	Y..80M ₂ -4 AM80 AD2
13.0	565	113.94	7920	1.05		
14.0	525	105.83	8320	1.15		
15.0	475	95.91	8760	1.25		
17.0	425	86.11	9140	1.40		



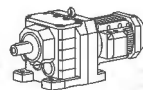
TR

n_2 [1/min]	M_2 [Nm]	i	F_r [N]	K	Frame size		Input Configuration
P ₁ =0.75kw							
19.0	370	74.17	9520	1.60	TR TRF	67 67	Y..80M ₂ -4 AM80 AD2
21.0	345	69.75	9640	1.70			
23.0	305	61.26	9860	1.95			
25.0	280	56.89	9960	2.10			
28.0	255	51.56	10100	2.30			
31.0	230	46.29	10200	2.60			
13.0	530	106.58	5490	0.85	TR TRF	57 57	Y..80M ₂ -4 AM80 AD2
14.0	490	98.99	6900	0.90			
16.0	445	89.71	7120	1.00			
18.0	400	80.55	7300	1.10			
21.0	345	69.23	7470	1.30			
22.0	320	64.85	7360	1.40			
25.0	285	57.29	7150	1.55			
27.0	265	53.22	7030	1.70	TR TRF	57 57	Y..80M ₂ -4 AM80 AD2
30.0	240	48.23	6860	1.85			
33.0	215	43.3	6670	2.10			
38.0	186	37.30	6420	2.40			
41.0	175	35.07	6320	2.60			
48.0	151	30.18	6060	3.00			
53.0	135	26.97	5880	3.30	TR TRF	57 57	Y..80M ₂ -4 AM80 AD2
55.0	131	26.31	5840	3.40			
57.0	125	24.99	5760	3.60			
65.0	109	21.93	5540	4.10			
77.0	93	18.60	5290	4.80			
21.0	340	68.54	4460	0.90	TR TRF	47 47	Y..80M ₂ -4 AM80 AD2
22.0	320	64.21	5300	0.95			
25.0	280	56.73	5510	1.05			
27.0	260	52.69	5440	1.15	TR TRF	47 47	Y..80M ₂ -4 AM80 AD2
30.0	235	47.75	5320	1.25			
33.0	210	42.87	5190	1.40			
39.0	184	36.93	5010	1.65	TR TRF	47 47	Y..80M ₂ -4 AM80 AD2
41.0	173	34.73	4930	1.75			
48.0	149	29.88	4750	2.00			
54.0	133	26.7	4610	2.20			
61.0	118	23.59	4460	2.60	TR TRF	47 47	Y..80M ₂ -4 AM80 AD2
54.0	134	26.74	4610	2.20	TR TRF	47 47	Y..80M ₂ -4 AM80 AD2
62.0	116	23.28	4450	2.60			
66.0	109	21.81	4370	2.80			
74.0	96	19.27	4220	3.10			
80.0	89	17.89	4140	3.20			
88.0	81	16.22	4020	3.40			
30.0	240	48.08	3550	0.85	TR TRF	37 37	Y..80M ₂ -4 AM80 AD2
32.0	220	44.81	4480	0.90			
37.0	196	39.17	4760	1.00			
39.0	183	36.72	4700	1.10	TR TRF	37 37	Y..80M ₂ -4 AM80 AD2
44.0	162	32.4	4570	1.25			
50.0	143	28.73	4450	1.40			
59.0	122	24.42	4280	1.65			

n_2 [1/min]	M_2 [Nm]	i	F_r [N]	K	Frame size		Input Configuration
$P_1=0.75kw$							
64.0	111	22.27	4180	1.80	TR TRF	37 37	Y..80M ₂ -4 AM80 AD2
74.0	96	19.31	4040	2.10			
80.0	90	18.05	3960	2.20			
92.0	78	15.6	3810	2.60	TR TRF	37 37	Y..80M ₂ -4 AM80 AD2
108	66	13.25	3650	2.90			
121	59	11.83	3540	3.10			
142	50	10.11	3380	3.40			
152	47	9.47	3320	3.50			
50.0	144	28.78	2860	0.90	TR TRF	27 27	Y..80M ₂ -4 AM80 AD1
59.0	122	24.47	2780	1.05			
64.0	111	22.32	2730	1.15	TR TRF	27 27	Y..80M ₂ -4 AM80 AD2
74.0	97	19.35	2650	1.35			
79.0	90	18.08	2610	1.45			
92.0	78	15.63	2520	1.65			
108	66	13.28	2430	1.95			
121	59	11.86	2360	2.20			
142	50	10.13	2270	2.40			
152	47	9.41	2190	2.60	TR TRF	27 27	Y..80M ₂ -4 AM80 AD2
176	41	8.16	2110	2.80			
188	38	7.63	2070	2.90			
218	33	6.59	1990	3.20			
256	28	5.60	1900	3.60			
287	25	5.00	1850	3.80			
73.0	98	19.71	820	0.85	TR TRF	17 17	Y..80M ₂ -4 AM80 -
84.0	85	16.99	1390	1.00			
91.0	79	15.84	1380	1.10			
104	69	13.84	1370	1.25			
111	65	12.98	1360	1.30			
125	57	11.45	1340	1.40			
141	51	10.15	1320	1.50			
166	43	8.63	1280	1.65			
190	38	7.55	1190	1.50			
204	35	7.04	1180	1.55			
233	31	6.15	1150	1.75			
249	29	5.76	1140	1.85			
282	25	5.09	1110	2.00			
318	22	4.51	1080	2.10			
374	19	3.83	1040	2.40			
252	28	11.45	1180	2.80	TR TRF	17 17	Y..80M ₁ -2 AM80 -
285	25	10.15	1150	3.10			
335	21	8.63	1110	3.40			
383	19	7.55	1040	3.00			
411	17	7.04	1020	3.20			
470	15	6.15	990	3.60			
501	14	5.76	980	3.70			
568	13	5.09	950	4.00			
641	11	4.51	920	4.30			
754	9.5	3.83	880	4.70			
208	34	4.53	4210	2.40	TRX TRXF	67 67	Y..90S-6 AM90 AD2
219	33	4.30	4140	2.40			
249	29	3.77	3980	3.00			

n ₂ [1/min]	M ₂ [Nm]	i	Fr [N]	K	Frame size		Input Configuration	
P _i =0.75kw								
294	24	3.20	3780	4.10	TRX TRXF	67 67	Y..90S-6 AM90 AD3	
277	26	5.18	3860	2.90	TRX TRXF	67 67	Y..80M ₂ -4 AM80 AD2	
317	23	4.53	3700	3.60				
334	22	4.30	3640	3.70				
380	19	3.77	3500	4.60	TRX TRXF	67 67	Y..80M ₂ -4 AM80 AD2	
448	16	3.20	3320	6.20	TRX TRXF	67 67	Y..80M ₂ -4 AM80 AD3	
497	14	2.89	3220	7.40				
565	13	2.54	3090	9.30				
598	12	2.40	3030	10.0				
702	10	2.04	2880	13.0				
773	9.3	1.86	2790	14.0				
892	8	1.61	2670	14.0				
248	29	3.79	3200	2.40	TRX TRXF	57 57	Y..90S-6 AM90 AD2	
265	27	3.55	3140	2.60				
300	24	3.14	3020	2.70				
323	22	2.91	2960	3.00	TRX TRXF	57 57	Y..90S-6 AM90 AD2	
356	20	2.64	2870	3.40				
330	22	4.35	2940	3.10	TRX TRXF	57 57	Y..80M ₂ -4 AM80 AD2	
379	19	3.79	2820	3.60				
404	18	3.55	2770	3.90				
458	16	3.14	2660	4.10				
493	14	2.91	2600	4.60				
544	13	2.64	2520	5.20				
605	12	2.37	2440	5.80	TRX TRXF	57 57	Y..80M ₂ -4 AM80 AD3	
703	10	2.04	2330	6.80				
747	9.6	1.92	2280	7.20				
869	8.2	1.65	2180	8.40				
972	7.4	1.48	2100	9.20				
1100	6.5	1.3	2020	9.70				
P _i =1.10kw								
0.53	17600	2657	120000	1.00	TR TRF	167 167	TRF97 TRF97	Y..90S-4 AM90 AD4
0.99	9540	1438	120000	1.90				
1.10	8480	1279	120000	2.10				
0.61	15300	2333	120000	1.15	TR TRF	167 167	TRF97 TRF97	Y..90S-4 AM90 AD5
0.68	13600	2085	120000	1.30				
0.76	12100	1877	120000	1.50				
0.85	10800	1670	120000	1.65				
1.30	7390	1123	120000	2.40				
0.64	15000	2211	49600	0.85	TR TRF	147 147	TRF77 TRF77	Y..90S-4 AM90 AD3
0.73	13200	1951	62100	1.00				
0.83	11400	1705	65500	1.15	TR TRF	147 147	TRF77 TRF77	Y..90S-4 AM90 AD3
0.92	10300	1536	67300	1.25				
1.10	8920	1329	69200	1.45				

n ₂ [1/min]	M ₂ [Nm]	i	Fr [N]	K	Frame size	Input Configuration
P_i=1.10kw						
1.20	7790	1166	70500	1.65	TR 147 TRF77 TRF 147 TRF77	Y..90S-4
1.40	6850	1029	71500	1.90		AM90
1.60	5940	889	72300	2.20		AD3
1.80	5220	784	72800	2.50		
2.00	4600	695	73200	2.80		
1.00	9470	1391	41400	0.85	TR 137 TRF77 TRF 137 TRF77	Y..90S-4
1.10	8530	1256	51700	0.95		AM90
1.30	7480	1105	54500	1.05		AD2
1.40	7050	1043	55300	1.15		
1.60	5980	888	57100	1.35	TR 137 TRF77 TRF 137 TRF77	Y..90S-4
1.00	9490	1397	41100	0.85		AM90
1.20	8300	1226	52700	0.95		AD3
1.30	7400	1090	54600	1.10	TR 137 TRF77 TRF 137 TRF77	Y..90S-4
1.50	6460	951	56300	1.25		AM90
1.70	5580	831	57600	1.45		AD3
2.00	4870	730	58600	1.65		
2.30	4160	629	59300	1.90		
2.90	3250	490	60200	2.50		
2.50	3770	560	59700	2.10	TR 137 TRF77 TRF 137 TRF77	Y..90S-4 AM90 AD4
2.00	4850	717	20800	0.90	TR 107 TRF77 TRF 107 TRF77	Y..90S-4 AM90 AD2
2.30	4090	614	30500	1.05	TR 107 TRF77 TRF 107 TRF77	Y..90S-4
2.60	3610	544	32700	1.20		AM90
2.90	3260	492	34000	1.30		AD4
3.40	2760	417	35600	1.55	TR 107 TRF77 TRF 107 TRF77	Y..90S-4
3.80	2470	369	36200	1.75		AM90
4.40	2160	323	36600	2.00		AD4
5.00	1900	285	36900	2.30		
5.60	1670	253	37100	2.60		
3.30	2940	431	21300	1.00	TR 97 TRF57 TRF 97 TRF57	Y..90S-4
3.70	2580	379	23600	1.15		AM90 AD3
4.20	2290	336	25100	1.30	TR 97 TRF57 TRF 97 TRF57	Y..90S-4
4.80	2010	296	26300	1.50		AM90
5.70	1680	249	27400	1.80		AD3
6.10	1570	234	27500	1.90		
6.80	1400	209	27800	2.10	TR 87 TRF57 TRF 87 TRF57	Y..90S-4
5.30	1810	268	13600	0.85		AM90
6.00	1600	236	16600	0.95		AD3
6.80	1400	209	17900	1.10	TR 87 TRF57 TRF 87 TRF57	Y..90S-4
5.60	1750	256	15300	0.90		AM90
6.10	1590	232	16600	0.95		AD3
7.30	1340	195	18200	1.15		

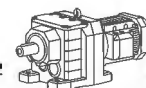


n_2 [1/min]	M_2 [Nm]	i	Fr [N]	K	Frame size		Input Configuration
P ₁ =1.10kw							
4.40	2410	216.28	24500	1.25	TR	97	Y..90L-6
5.00	2080	186.30	26100	1.45	TRF	97	AM90 AD3
5.60	1890	255.71	26800	1.60	TR TRF	97	Y..90S-4 AM90 AD3
5.90	1780	241.25	27200	1.70			
6.60	1590	216.28	27500	1.90			
7.60	1370	186.30	27800	2.20			
8.40	1250	170.02	28000	2.40			
9.40	1110	150.78	28100	2.70			
11.0	930	126.75	28300	3.20	TR	97	Y..90S-4
12.0	860	116.48	28300	3.50	TRF	97	AM90 AD3
6.60	1600	216.54	16600	0.95	TR TRF	87	Y..90S-4 AM90 AD2
6.90	1520	205.71	17100	1.00			
7.80	1340	181.77	18200	1.15			
9.10	1140	155.34	19200	1.35	TR TRF	87	Y..90S-4 AM90 AD2
10.0	1050	142.41	19600	1.45			
11.0	920	124.97	20000	1.70			
12.0	870	118.43	20000	1.75			
14.0	765	103.65	20000	2.00			
15.0	690	93.38	20000	2.20			
17.0	605	81.92	20000	2.60			
20.0	535	72.57	20000	2.90	TR TRF	87	Y..90S-4 AM90 AD2
22.0	470	63.68	20000	3.30			
24.0	445	60.35	20000	3.50			
27.0	390	52.82	20000	4.00			
12.0	890	121.42	9130	0.90	TR TRF	77	Y..90S-4 AM90 AD2
14.0	760	102.99	10400	1.10			
15.0	685	92.97	11000	1.20			
17.0	605	81.8	11500	1.35	TR TRF	77	Y..90S-4 AM90 AD2
18.0	570	77.24	11700	1.45			
22.0	485	65.77	12100	1.70			
25.0	425	57.68	12400	1.90			
27.0	385	52.07	12500	2.10			
31.0	335	45.81	12700	2.40			
33.0	320	43.26	12700	2.60			
39.0	270	36.83	12900	3.00			
42.0	245	33.47	12900	3.30			
16.0	635	86.11	7090	0.95	TR TRF	67	Y..90S-4 AM90 AD2
19.0	545	74.17	8120	1.10			
20.0	515	69.75	8440	1.15			
23.0	450	61.26	8960	1.30			
25.0	420	56.89	9200	1.45			
28.0	380	51.56	9450	1.55			
31.0	340	46.29	9670	1.75			
36.0	295	39.88	9910	1.95	TR TRF	67	Y..90S-4 AM90 AD2
38.0	275	37.5	9980	2.00			
44.0	235	32.27	10100	2.30			
49.0	210	28.83	10200	2.40			

n_2 [1/min]	M_2 [Nm]	i	Fr [N]	K	Frame size		Input Configuration
P ₁ =1.10kw							
50.0	205	28.13	10200	2.60	TR TRF	67 67	Y..90S-4 AM90 AD2
53.0	198	26.72	10100	2.70			
61.0	173	23.44	9690	3.20			
71.0	147	19.89	9230	4.10	TR TRF	67 67	Y..90S-4 AM90 AD3
21.0	510	69.23	6260	0.90	TR TRF	57 57	Y..90S-4 AM90 AD2
22.0	475	64.85	6830	0.95			
25.0	420	57.29	6690	1.05			
27.0	390	53.22	6600	1.15	TR TRF	57 57	Y..90S-4 AM90 AD2
29.0	355	48.23	6470	1.25			
33.0	320	43.30	6330	1.40			
38.0	275	37.30	6120	1.65	TR TRF	57 57	Y..90S-4 AM90 AD2
40.0	255	35.07	6040	1.75			
47.0	220	30.18	5830	2.00	TR TRF	57 57	Y..90S-4 AM90 AD2
53.0	200	26.97	5670	2.30			
54.0	195	26.31	5630	2.30	TR TRF	57 57	Y..90S-4 AM90 AD2
57.0	185	24.99	5560	2.40			
65.0	162	21.93	5380	2.80			
76.0	138	18.60	5150	3.30			
85.0	124	16.79	5000	3.60			
30.0	350	47.75	3810	0.85	TR TRF	47 47	Y..90S-4 AM90 AD2
33.0	315	42.87	4840	0.95			
38.0	270	36.93	4700	1.10			
41.0	255	34.73	4650	1.15			
48.0	220	29.88	4510	1.35			
53.0	198	26.7	4400	1.50			
60.0	174	23.59	4270	1.70			
61.0	172	23.28	4260	1.75	TR TRF	47 47	Y..90S-4 AM90 AD2
65.0	161	21.81	4190	1.85			
74.0	142	19.27	4070	2.10			
79.0	132	17.89	4000	2.20			
88.0	120	16.22	3900	2.30			
98.0	108	14.56	3790	2.50			
113	93	12.54	3640	2.70			
120	87	11.79	3580	2.80	TR TRF	47 47	Y..90S-4 AM90 AD2
140	75	10.15	3430	3.10			
157	67	9.07	3320	3.30			
44.0	235	32.40	2950	0.85	TR TRF	37 37	Y..90S-4 AM90 AD2
49.0	210	28.73	3340	0.95			
58.0	181	24.42	3750	1.10			
74.0	143	19.31	3830	1.40	TR TRF	37 37	Y..90S-4 AM90 AD2
79.0	134	18.05	3780	1.50			
91.0	115	15.60	3650	1.75			

n ₂ [1/min]	M ₂ [Nm]	i	Fr [N]	K	Frame size	Input Configuration
P ₁ =1.10kw						
107	98	13.25	3510	1.95	TR TRF 37	Y..90S-4 AM90 AD2
120	88	11.83	3410	2.10		
140	75	10.11	3280	2.30		
150	70	9.47	3220	2.40		
178	59	7.97	3080	2.60		
213	49	6.67	2910	2.90		
251	42	5.67	2780	3.40		
281	37	5.06	2690	3.60	TR TRF 37	Y..90S-4 AM90 AD2
73.0	143	19.35	2430	0.90	TR TRF 27	Y..90S-4 AM90 AD2
79.0	134	18.08	2410	0.95		
91.0	116	15.63	2350	1.10		
107	98	13.28	2280	1.30		
120	88	11.86	2230	1.45	TR TRF 27	Y..90S-4 AM90 AD2
140	75	10.13	2160	1.65		
151	70	9.41	2070	1.75		
174	60	8.16	2000	1.90		
186	56	7.63	1980	2.00		
215	49	6.59	1910	2.20		
254	41	5.60	1840	2.40		
284	37	5.00	1780	2.60		
332	32	4.27	1710	2.80		
355	30	4.00	1680	2.90		
421	25	3.37	1610	3.20		
216	49	13.28	1950	2.70	TR TRF 27	Y..80M-2 AM80 AD2
242	43	11.86	1890	3.00		
283	37	10.13	1820	3.30		
305	34	9.41	1750	3.60		
352	30	8.16	1690	3.90		
376	28	7.63	1660	4.00		
435	24	6.59	1590	4.40		
512	20	5.60	1520	4.80		
574	18	5.00	1470	5.20		
672	16	4.27	1410	5.60		
718	15	4.00	1380	5.80		
852	12	3.37	1310	6.40		
252	42	5.63	5650	2.60	TRX TRXF 77	Y..90S-4 AM90 AD2
265	40	5.35	5560	2.60		
300	35	4.73	5360	3.50	TRX TRXF 77	Y..90S-4 AM90 AD3
249	42	3.77	3900	2.10	TRX TRXF 67	Y..90L-6 AM90 AD2
314	34	4.53	3640	2.40	TRX TRXF 67	Y..90S-4 AM90 AD2
330	32	4.30	3590	2.50		

n ₂ [1/min]	M ₂ [Nm]	i	Fr [N]	K	Frame size		Input Configuration
P ₁ =1.10kw							
376	28	3.77	3450	3.10	TRX TRXF	67 67	Y..90S-4 AM90 AD2
444	24	3.20	3280	4.20	TRX TRXF	67 67	Y..90S-4 AM90 AD3
492	21	2.89	3180	5.00			
559	19	2.54	3060	6.30			
592	18	2.40	3000	6.90			
695	15	2.04	2860	8.90			
765	14	1.86	2770	9.20			
883	12	1.61	2650	9.60			
1015	10	1.40	2530	10.0			
300	35	3.14	2940	1.85	TRX TRXF	57 57	Y..90L-6 AM90 AD2
356	30	2.64	2800	2.30			
375	28	3.79	2770	2.50	TRX TRXF	57 57	Y..90S-4 AM90 AD2
400	26	3.55	2720	2.60			
453	23	3.14	2620	2.80			
487	22	2.91	2560	3.10			
538	20	2.64	2490	3.50			
599	18	2.37	2410	3.90	TRX TRXF	57 57	Y..90S-4 AM90 AD3
696	15	2.04	2300	4.60			
740	14	1.92	2260	4.90			
859	12	1.65	2160	5.70			
962	11	1.48	2080	6.20			
1090	9.6	1.30	2000	6.60			
P ₁ =1.50kw							
0.99	13000	1438	120000	1.40	TR	167 TRF	Y..90L-4
1.10	11600	1279	120000	1.55	TRF	167 TRF	AM90 AD4
0.61	21100	2333	120000	0.85	TR TRF	167 TRF	Y..90L-4 AM90 AD5
0.69	18700	2085	120000	0.95			
0.76	16700	1877	120000	1.05			
0.86	14900	1670	120000	1.20			
1.30	10100	1123	120000	1.75			
1.40	9040	999	120000	2.00			
3.40	3850	426	73600	3.40	TR	147 TRF	Y..90L-4
3.90	3330	368	73900	3.90	TRF	147 TRF	AM90 AD5
0.84	15600	1705	41200	0.85	TR	147 TRF	Y..90L-4
0.93	14100	1536	60300	0.90	TRF	147 TRF	AM90 AD3
1.10	12200	1329	64200	1.05	TR TRF	147 TRF	Y..90L-4 AM90 AD3
1.20	10600	1166	66800	1.20			
1.40	9380	1029	68600	1.40			
1.60	8130	889	70200	1.60			
1.80	7150	784	71200	1.80			
2.10	6320	695	71900	2.10			
2.30	5690	619	72400	2.30	TR	147 TRF	Y..90L-4
2.60	5120	558	72900	2.50	TRF	147 TRF	AM90 AD4

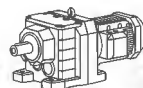


n ₂ [1/min]	M ₂ [Nm]	i	F _r [N]	K	Frame size		Input Configuration
P ₁ =1.50kw							
1.40	9620	1043	38400	0.85	TR TRF	137 TRF77 137 TRF77	Y..90L-4 AM90 AD2
1.60	8170	888	53000	1.00			
2.00	6400	699	56400	1.25			
2.40	5550	609	57700	1.45			
1.30	10000	1090	27000	0.80	TR TRF	137 TRF77 137 TRF77	Y..90L-4 AM90 AD3
1.50	8800	951	50500	0.90			
1.70	7630	831	54200	1.05			
2.00	6670	730	55900	1.20			
2.30	5710	629	57400	1.40			
2.90	4460	490	59000	1.80			
3.30	3890	428	59600	2.00			
2.60	5150	560	58200	1.55	TR TRF	137 TRF77 137 TRF77	Y..90L-4 AM90 AD4
3.80	3500	381	59900	2.30			
4.40	2970	323	60400	2.70			
2.70	4830	528	21700	0.90	TR TRF	107 TRF77 107 TRF77	Y..90L-4 AM90 AD2
2.60	4950	544	15700	0.85	TR TRF	107 TRF77 107 TRF77	Y..90L-4 AM90 AD4
2.90	4470	492	28500	0.95			
3.40	3790	417	31900	1.15			
3.90	3380	369	33600	1.25			
4.40	2960	323	35100	1.45			
3.00	4400	469	28900	1.00	TR TRF	107 TRF77 107 TRF77	Y..90L-4 AM90 AD3
4.20	3120	336	14100	0.95	TR TRF	97 TRF57 97 TRF57	Y..90L-4 AM90 AD3
4.80	2740	296	22700	1.10			
5.70	2300	249	25100	1.30			
6.10	2140	234	25800	1.40			
6.80	1920	209	26700	1.55			
3.70	3820	251.15	31800	1.10	TR TRF	107 107	Y..100L-6 AM100 AD3
4.10	3500	229.95	33200	1.25			
4.60	3090	203.16	34600	1.40			
5.40	2620	172.34	36000	1.65			
5.90	2410	158.68	36300	1.80			
6.60	2160	141.83	36600	2.00			
6.60	2160	216.28	25700	1.40	TR TRF	97 97	Y..90L-4 AM90 AD3
7.70	1860	186.30	26900	1.60			
8.40	1700	170.02	27300	1.75			
9.50	1510	150.78	27600	2.00			
11.0	1260	126.75	27900	2.40			
12.0	1160	116.48	28100	2.60			
14.0	1030	103.44	28200	2.90			
15.0	920	92.48	28300	3.20			
7.90	1820	181.77	13200	0.85			
9.20	1550	155.34	16900	1.00			
10.0	1420	142.41	17700	1.10			
11.0	1250	124.97	18700	1.25			
12.0	1180	118.43	19000	1.30			
14.0	1030	103.65	19700	1.50			

n: [1/min]	M ₂ [Nm]	i	Fr [N]	K	Frame size		Input Configuration
P ₁ =1.50kw							
15.0	930	93.38	20000	1.65	TR TRF	87 87	Y..90L-4 AM90 AD2
17.0	820	81.92	20000	1.90			
20.0	725	72.57	20000	2.10			
22.0	635	63.68	20000	2.40			
24.0	600	60.35	20000	2.60			
27.0	525	52.82	20000	2.90			
30.0	475	47.58	20000	3.20			
34.0	415	41.74	20000	3.70	TR	87	Y..90L-4
39.0	365	36.84	19500	4.20	TRF	87	AM90 AD3
15.0	930	92.97	8750	0.90	TR TRF	77 77	Y..90L-4 AM90 AD2
17.0	810	81.80	9930	1.00			
19.0	770	77.24	10300	1.05			
22.0	655	65.77	11200	1.25			
25.0	575	57.68	11700	1.40	TR TRF	77 77	Y..90L-4 AM90 AD2
27.0	520	52.07	12000	1.55			
31.0	455	45.81	12300	1.80			
33.0	430	43.26	12400	1.90			
39.0	365	36.83	12600	2.20			
43.0	335	33.47	12700	2.40	TR TRF	77 77	Y..90L-4 AM90 AD2
49.0	290	29.00	12500	2.80			
57.0	250	25.23	12000	3.10			
61.0	230	23.37	11700	3.50	TR TRF	77 77	Y..90L-4 AM90 AD3
67.0	210	21.43	11400	3.80			
76.0	188	18.80	11000	4.10			
23.0	610	61.26	7390	1.00	TR TRF	67 67	Y..90L-4 AM90 AD2
25.0	565	56.89	7900	1.05			
28.0	515	51.56	8440	1.15			
31.0	460	46.29	8880	1.30	TR TRF	67 67	Y..90L-4 AM90 AD2
36.0	395	39.88	9340	1.45			
38.0	375	37.5	9490	1.50			
44.0	320	32.27	9770	1.65			
50.0	285	28.83	9930	1.80			
51.0	280	28.13	9950	1.90	TR TRF	67 67	Y..90L-4 AM90 AD2
54.0	265	26.72	9810	2.00			
61.0	230	23.44	9460	2.40			
72.0	199	19.89	9030	3.00	TR TRF	67 67	Y..90L-4 AM90 AD3
80.0	180	17.95	8770	3.30			
27.0	530	53.22	5450	0.85	TR TRF	57 57	Y..90L-4 AM90 AD2
30.0	480	48.23	6000	0.95			
33.0	430	43.30	5900	1.05			
38.0	370	37.30	5760	1.20	TR TRF	57 57	Y..90L-4 AM90 AD2
41.0	350	35.07	5690	1.30			
47.0	300	30.18	5530	1.50			
53.0	270	26.97	5400	1.65			

n: [1/min]	M: [Nm]	i	Fr [N]	K	Frame size		Input Configuration
P ₁ =1.50kw							
54.0	260	26.31	5370	1.70	TR TRF	57 57	Y..90L-4 AM90 AD2
57.0	250	24.99	5310	1.80			
65.0	215	21.93	5160	2.00			
77.0	186	18.60	4960	2.40			
85.0	168	16.79	4840	2.70			
97.0	148	14.77	4680	2.90			
103	140	13.95	4610	3.10	TR	57	Y..90L-4
120	119	11.88	4420	3.40	TRF	57	AM90 AD3
39.0	365	36.93	2750	0.80	TR TRF	47 47	Y..90L-4 AM90 AD2
41.0	345	34.73	4130	0.85			
48.0	295	29.88	4210	1.00			
54.0	265	26.70	4130	1.10			
61.0	235	23.59	4040	1.25			
61.0	230	23.28	4030	1.30	TR TRF	47 47	Y..90L-4 AM90 AD2
66.0	215	21.81	3980	1.35			
74.0	193	19.27	3870	1.55			
80.0	179	17.89	3810	1.60			
88.0	162	16.22	3730	1.70			
98.0	146	14.56	3640	1.80			
114	126	12.54	3510	2.00			
121	118	11.79	3460	2.10			
141	102	10.15	3330	2.30	TR TRF	47 47	Y..90L-4 AM90 AD2
158	91	9.07	3230	2.40			
178	80	8.01	3120	2.60			
184	78	7.76	3050	2.10			
205	70	6.96	2970	2.30			
238	60	6	2850	2.60			
254	56	5.64	2800	2.70			
295	49	4.85	2690	3.10			
330	43	4.34	2600	3.40			
373	38	3.83	2510	3.80	TR TRF	47 47	Y..90L-4 AM90 AD3
74.0	193	19.31	2700	1.05	TR TRF	37 37	Y..90L-4 AM90 AD2
79.0	181	18.05	2880	1.10			
92.0	156	15.60	3190	1.30			
108	133	13.25	3340	1.45	TR TRF	37 37	Y..90L-4 AM90 AD2
121	118	11.83	3260	1.55			
141	101	10.11	3140	1.70			
151	95	9.47	3100	1.75			
179	80	7.97	2970	1.95			
214	67	6.67	2810	2.20			
252	57	5.67	2700	2.50	TR TRF	37 37	Y..90L-4 AM90 AD2
283	51	5.06	2620	2.70			
331	43	4.32	2510	2.90			
353	40	4.05	2460	3.00			
419	34	3.41	2350	3.30			
214	67	13.25	2840	2.80	TR TRF	37 37	Y..90S-2 AM90 AD2
239	60	11.83	2760	3.10			
280	51	10.11	2640	3.30			

n ₂ [1/min]	M ₂ [Nm]	i	Fr [N]	K	Frame size		Input Configuration
P ₁ =1.50kw							
299	48	9.47	2600	3.50	TR	37	Y..90S-2
355	40	7.97	2480	3.90	TRF	37	AM90 AD2
91.0	157	15.63	1740	0.85	TR TRF	27 27	Y..90L-4 AM90 AD2
108	133	13.28	2050	1.00			
121	119	11.86	2070	1.10			
141	101	10.13	2020	1.20			
175	82	8.16	1880	1.40			
188	76	7.63	1860	1.45			
217	66	6.59	1810	1.60			
255	56	5.60	1750	1.75	TR TRF	27 27	Y..90L-4 AM90 AD2
286	50	5.00	1700	1.90			
335	43	4.27	1640	2.00			
358	40	4.00	1620	2.10			
424	34	3.37	1550	2.30			
239	60	11.86	1820	2.20	TR TRF	27 27	Y..90S-2 AM90 AD2
279	51	10.13	1750	2.40			
347	41	8.16	1630	2.80			
371	39	7.63	1600	2.90			
429	33	6.59	1550	3.20			
505	28	5.60	1480	3.50			
566	25	5.00	1440	3.80			
663	22	4.27	1380	4.00			
708	20	4.00	1360	4.20			
840	17	3.37	1290	4.60			
254	56	5.63	5560	1.95	TRX	77	Y..90L-4
267	54	5.35	5470	1.90	TRXF	77	AM90 AD2
302	47	4.73	5270	2.60	TRX TRXF	77 77	Y..90L-4 AM90 AD3
354	40	4.04	5030	3.50			
386	37	3.7	4900	4.10			
440	33	3.25	4700	5.60	TRX TRXF	77 77	Y..90L-4 AM90 AD4
464	31	3.08	4620	6.20			
530	27	2.7	4430	8.00			
589	24	2.43	4290	8.80			
316	45	4.53	3560	1.80	TRX TRXF	67 67	Y..90L-4 AM90 AD2
333	43	4.30	3510	1.85			
379	38	3.77	3380	2.30			
447	32	3.20	3220	3.10	TRX TRXF	67 67	Y..90L-4 AM90 AD3
495	29	2.89	3120	3.70			
563	26	2.54	3010	4.60			
596	24	2.40	2950	5.10	TRX TRXF	67 67	Y..90L-4 AM90 AD3
700	20	2.04	2810	6.50			
770	19	1.86	2730	6.80			
889	16	1.61	2610	7.10			
1020	14	1.40	2500	7.40			
377	38	3.79	2690	1.80	TRX TRXF	57 57	Y..90L-4 AM90 AD2
403	36	3.55	2640	1.95			
456	31	3.14	2550	2.10			
491	29	2.91	2500	2.30			

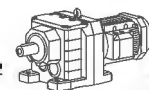


n_2 [1/min]	M_2 [Nm]	i	F_r [N]	K	Frame size	Input Configuration
P ₁ =1.50kw						
542	26	2.64	2430	2.60	TRX 57 TRXF 57	Y..90L-4 AM90 AD2
603	24	2.37	2350	2.90	TRX 57 TRXF 57	Y..90L-4 AM90 AD3
700	20	2.04	2250	3.40		
745	19	1.92	2210	3.60		
866	16	1.65	2120	4.20		
969	15	1.48	2040	4.60		
1095	13	1.30	1970	4.80		
P ₁ =2.20kw						
0.85	22300	1670	120000	0.80	TR 167 TRF97 TRF 167 TRF97	Y..100L ₁ -4 AM100 AD5
1.30	15100	1123	120000	1.20		
1.40	13400	999	120000	1.35		
1.60	11600	861	120000	1.55		
2.20	8620	656	120000	2.10		
0.99	19400	1438	120000	0.90	TR 167 TRF97 TRF 167 TRF97	Y..100L ₁ -4 AM100 AD4
1.10	17300	1279	120000	1.05		
1.90	10200	760	120000	1.75		
3.10	6120	462	72100	2.10	TR 147 TRF87 TRF 147 TRF87	Y..100L ₁ -4 AM100 AD4
2.70	7110	533	71200	1.85	TR 147 TRF87 TRF 147 TRF87	Y..100L ₁ -4 AM100 AD5
3.30	5750	426	72400	2.30		
3.90	4970	368	73000	2.60		
4.40	4390	326	73300	3.00		
1.20	15800	1166	38600	0.80	TR 147 TRF77 TRF 147 TRF77	Y..100L ₁ -4 AM100 AD3
1.40	13900	1029	60600	0.95		
1.60	12000	889	64400	1.10		
1.80	10600	784	66800	1.20		
2.00	9410	695	68600	1.40		
2.30	8450	619	69800	1.55	TR 147 TRF77 TRF 147 TRF77	Y..100L ₁ -4 AM100 AD4
2.60	7600	558	70700	1.70		
2.90	6650	489	71600	1.95		
2.00	9510	699	40600	0.85	TR 137 TRF77 TRF 137 TRF77	Y..100L ₁ -4 AM100 AD2
2.30	8260	609	52800	0.95		
2.00	9920	730	31700	0.80	TR 137 TRF77 TRF 137 TRF77	Y..100L ₁ -4 AM100 AD3
2.30	8510	629	51800	0.95		
2.90	6640	490	56000	1.20		
3.30	5790	428	57300	1.40		
2.50	7640	560	54100	1.05	TR 137 TRF77 TRF 137 TRF77	Y..100L ₁ -4 AM100 AD4
3.70	5200	381	58100	1.55		
4.40	4410	323	59100	1.80	TR 137 TRF77 TRF 137 TRF77	Y..100L ₁ -4 AM100 AD4
4.90	3970	291	59500	2.00		
5.60	3470	255	60000	2.30		
6.40	3040	223	60300	2.60		

n_2 [1/min]	M_2 [Nm]	i	F_r [N]	K	Frame size	Input Configuration
P₁=2.20kw						
4.40	4400	323	28900	1.00	TR 107 TRF77 TRF 107 TRF77	Y..100L ₁ -4 AM100 AD4
5.00	3870	285	31600	1.10		
5.60	3420	253	33400	1.25		
6.60	2900	214	35200	1.50		
4.40	4490	325	28400	0.95	TR 107 TRF77 TRF 107 TRF77	Y..100L ₁ -4 AM100 AD3
6.80	2840	209	22000	1.05	TR 97 TRF57 TRF 97 TRF57	Y..100L ₁ -4 AM100 AD3
4.70	4460	203.16	28500	0.95	TR 107 TRF77 TRF 107 TRF77	Y..112M-6 AM112 AD3
5.50	3790	172.34	32000	1.15		
6.00	3490	158.68	33200	1.25		
6.70	3120	141.83	34600	1.40		
5.70	3700	251.15	32300	1.15	TR 107 TRF77 TRF 107 TRF77	Y..100L ₁ -4 AM100 AD3
6.20	3390	229.95	33600	1.25		
7.00	2990	203.16	35000	1.45		
8.30	2540	172.34	36100	1.70		
9.00	2330	158.68	36400	1.85	TR 107 TRF77 TRF 107 TRF77	Y..100L ₁ -4 AM100 AD3
10.0	2090	141.83	36700	2.10		
11.0	1880	127.68	36900	2.30		
12.0	1700	115.63	37100	2.50		
14.0	1510	102.53	37200	2.80		
15.0	1360	92.7	37300	3.20		
6.60	3180	216.28	10200	0.95	TR 97 TRF77 TRF 97 TRF77	Y..100L ₁ -4 AM100 AD3
7.60	2740	186.30	22700	1.10		
8.40	2500	170.02	24000	1.20		
9.40	2220	150.78	25400	1.35	TR 97 TRF77 TRF 97 TRF77	Y..100L ₁ -4 AM100 AD3
11.0	1860	126.75	26900	1.60		
12.0	1710	116.48	27300	1.75		
14.0	1520	103.44	27600	1.95		
15.0	1360	92.48	27800	2.20		
17.0	1220	83.15	28000	2.40		
20.0	1060	72.17	28200	2.80		
22.0	960	65.21	27600	3.10		
24.0	880	59.92	26900	3.40		
27.0	780	53.21	26000	3.80	TR 97 TRF77 TRF 97 TRF77	Y..100L ₁ -4 AM100 AD3
30.0	700	47.58	25200	4.30	TR 97 TRF77 TRF 97 TRF77	Y..100L ₁ -4 AM100 AD4
11.0	1840	124.97	11700	0.85	TR 87 TRF77 TRF 87 TRF77	Y..100L ₁ -4 AM100 AD2
12.0	1740	118.43	15400	0.90		
14.0	1520	103.65	17100	1.00		
15.0	1370	93.38	18000	1.15		
17.0	1200	81.92	18900	1.30		
20.0	1060	72.57	19600	1.45		
22.0	930	63.68	20000	1.65		
24.0	880	60.35	20000	1.75		

n ₂ [1/min]	M ₂ [Nm]	i	Fr [N]	K	Frame size		Input Configuration
P _i =2.20kw							
27.0	775	52.82	20000	2.00	TR	87	Y..100L _{i-4}
30.0	700	47.58	20000	2.20	TRF	87	AM100 AD2
34.0	615	41.74	19800	2.50	TR	87	Y..100L _{i-4}
39.0	540	36.84	19100	2.80	TRF	87	AM100
44.0	480	32.66	18500	3.20			AD3
41.0	505	34.40	18800	3.00	TR	87	Y..100L _{i-4}
45.0	460	31.40	18300	3.40	TRF	87	AM100 AD3
51.0	410	27.84	17600	3.80	TR	87	Y..100L _{i-4}
61.0	345	23.40	16700	4.50	TRF	87	AM100
66.0	315	21.51	16300	4.70			AD4
22.0	960	65.77	6520	0.85			
25.0	850	57.68	9630	0.95			
27.0	765	52.07	10400	1.05	TR	77	Y..100L _{i-4}
31.0	675	45.81	11100	1.20	TRF	77	AM100
33.0	635	43.26	11300	1.30			AD2
39.0	540	36.83	11900	1.50			
43.0	490	33.47	12100	1.65	TR	77	Y..100L _{i-4}
49.0	425	29.00	12100	1.90	TRF	77	AM100
56.0	370	25.23	11600	2.10			AD2
61.0	340	23.37	11400	2.40			
66.0	315	21.43	11100	2.60	TR	77	Y..100L _{i-4}
76.0	275	18.80	10700	2.80	TRF	77	AM100
80.0	260	17.82	10600	3.00			AD3
91.0	225	15.60	10200	3.20			
101	205	14.05	9880	3.50			
36.0	585	39.88	7700	1.00			
38.0	550	37.50	8080	1.05	TR	67	Y..100L _{i-4}
44.0	475	32.27	8790	1.15	TRF	67	AM100
49.0	425	28.83	9170	1.20			AD2
61.0	345	23.44	9110	1.60	TR	67	Y..100L _{i-4}
					TRF	67	AM100 AD2
72.0	290	19.89	8740	2.00			
79.0	260	17.95	8510	2.20			
90.0	230	15.79	8220	2.40			
96.0	215	14.91	8090	2.50	TR	67	Y..100L _{i-4}
112	187	12.70	7740	2.80	TRF	67	AM100
123	170	11.54	7530	2.90			AD3
143	147	10.00	7230	3.20			
164	128	8.70	6940	3.40			
183	115	7.79	6730	3.30			
38.0	545	37.30	4750	0.80			
41.0	515	35.07	5100	0.85	TR	57	Y..100L _{i-4}
47.0	445	30.18	5020	1.00	TRF	57	AM100
53.0	395	26.97	4950	1.15			AD2

n ₂ [1/min]	M ₂ [Nm]	i	Fr [N]	K	Frame size		Input Configuration
P _i =2.20kw							
65.0	320	21.93	4790	1.40	TR TRF	57 57	Y..100L _{i-4} AM100 AD2
77.0	270	18.60	4650	1.65			
85.0	245	16.79	4560	1.80			
96.0	215	14.77	4440	2.00			
102	205	13.95	4380	2.10	TR TRF	57 57	Y..100L _{i-4} AM100 AD3
120	175	11.88	4220	2.30			
132	159	10.79	4130	2.40			
152	138	9.35	3980	2.70			
157	134	9.06	3970	2.80			
179	118	7.97	3840	3.00			
131	160	21.93	4130	2.80	TR TRF	57 57	Y..90L-2 AM90 AD2
155	136	18.60	3970	3.30			
172	122	16.79	3870	3.70			
195	108	14.77	3740	4.00			
206	102	13.95	3680	4.20	TR TRF	57 57	Y..90L-2 AM90 AD3
74.0	280	19.27	3550	1.05	TR TRF	47 47	Y..100L _{i-4} AM100 AD2
88.0	235	16.22	3460	1.15			
98.0	210	14.56	3390	1.25			
114	185	12.54	3300	1.35			
121	174	11.79	3260	1.40	TR TRF	47 47	Y..100L _{i-4} AM100 AD2
140	150	10.15	3160	1.55			
157	134	9.07	3080	1.65			
178	118	8.01	2990	1.75			
184	114	7.76	2900	1.45			
205	103	6.96	2830	1.55			
238	88	6.00	2730	1.75			
253	83	5.64	2690	1.85			
294	72	4.85	2590	2.10			
329	64	4.34	2520	2.30			
372	56	3.83	2440	2.60	TR TRF	47 47	Y..100L _{i-4} AM100 AD3
149	140	19.27	3110	2.10	TR TRF	47 47	Y..90L-2 AM90 AD2
178	118	16.22	2990	2.30			
198	106	14.56	2920	2.50			
230	92	12.54	2810	2.70			
244	86	11.79	2760	2.80			
284	74	10.15	2660	3.10			
318	66	9.07	2580	3.30			
359	58	8.01	2490	3.50			
91.0	230	15.60	1110	0.85	TR TRF	37 37	Y..100L _{i-4} AM100 AD2
108	195	13.25	1690	0.95			
120	174	11.83	2010	1.05			
141	149	10.11	2380	1.15	TR TRF	37 37	Y..100L _{i-4} AM100 AD2
151	140	9.47	2500	1.20			
179	118	7.97	2760	1.35			
214	98	6.67	2480	1.45			
252	84	5.67	2560	1.70			
282	75	5.06	2500	1.80			

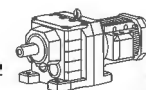


n ₂ [1/min]	M ₂ [Nm]	i	Fr [N]	K	Frame size		Input Configuration
P ₁ =2.20kw							
330	64	4.32	2400	2.00	TR TRF	37	Y..100L ₁ -4
352	60	4.05	2370	2.00			AM100
418	50	3.41	2270	2.20			AD2
185	114	15.6	2780	1.75	TR TRF	37	Y..90L-2
217	97	13.25	2680	1.95			AM90
243	86	11.83	2620	2.10			AD2
285	74	10.11	2520	2.30	TR TRF	37	Y..90L-2
304	69	9.47	2480	2.40			AM90
361	58	7.97	2380	2.70			AD2
432	49	6.67	2250	3.00	TR TRF	37	Y..90L-2 AM90 AD2
508	41	5.67	2150	3.40			
569	37	5.06	2090	3.70			
666	32	4.32	2000	4.00			
712	30	4.05	1960	4.10			
845	25	3.41	1870	4.50			
141	149	10.13	1140	0.80	TR TRF	27	Y..100L ₁ -4 AM100 AD2
216	97	6.59	1150	1.10			
254	83	5.60	1410	1.20			
285	74	5.00	1550	1.30			
334	63	4.27	1530	1.40			
356	59	4.00	1510	1.45			
423	50	3.37	1460	1.6			
217	97	13.28	1710	1.35	TR TRF	27	Y..90L-2 AM90 AD2
243	86	11.86	1680	1.50			
284	74	10.13	1630	1.65			
437	48	6.59	1450	2.20			
514	41	5.60	1400	2.40			
576	36	5.00	1370	2.60			
674	31	4.27	1320	2.80			
720	29	4.00	1300	2.90			
855	25	3.37	1240	3.20			
301	70	4.73	5160	1.75	TRX TRXF	77	Y..100L ₁ -4 AM100 AD3
353	60	4.04	4930	2.40			
385	55	3.70	4810	2.80			
438	48	3.25	4620	3.80	TRX TRXF	77	Y..100L ₁ -4 AM100 AD4
463	45	3.08	4550	4.20			
529	40	2.70	4370	5.40			
587	36	2.43	4230	6.00			
669	31	2.13	4060	6.40			
758	28	1.88	3910	6.80			
855	25	1.67	3760	7.00			
1000	21	1.42	3580	7.40			
378	56	3.77	3270	1.55	TRX TRXF	67	Y..100L ₁ -4 AM100 AD2
445	47	3.20	3120	2.10			
493	43	2.89	3040	2.50	TRX TRXF	67	Y..100L ₁ -4 AM100 AD3
561	38	2.54	2930	3.20			
594	35	2.40	2880	3.50			
697	30	2.04	2750	4.40			

n ₂ [1/min]	M ₂ [Nm]	i	Fr [N]	K	Frame size		Input Configuration
P ₁ =2.20kw							
767	27	1.86	2670	4.60	TRX TRXF	67	Y..100L ₁ -4
886	24	1.61	2560	4.80			AM100
1020	21	1.40	2450	5.00			AD3
454	46	3.14	2440	1.40	TRX TRXF	57	Y..100L ₁ -4
540	39	2.64	2340	1.75			AM100 AD2
601	35	2.37	2270	2.00	TRX TRXF	57	Y..100L ₁ -4 AM100 AD3
698	30	2.04	2180	2.30			
742	28	1.92	2140	2.40			
862	24	1.65	2060	2.80			
965	22	1.48	1990	3.10			
1090	19	1.30	1920	3.30			
P ₁ =3.00kw							
1.90	13800	760	120000	1.30	TR TRF	167 TRF97 167 TRF97	Y..100L ₂ -4 AM100 AD4
1.30	20300	1123	120000	0.90	TR TRF	167 TRF97 167 TRF97	Y..100L ₂ -4 AM100 AD5
1.50	18100	999	120000	1.00			
1.70	15600	861	120000	1.15			
2.20	11600	656	120000	1.55			
2.90	8950	503	120000	2.00			
3.20	8270	462	70000	1.55	TR TRF	147 TRF87 147 TRF87	Y..100L ₂ -4 AM100 AD4
2.70	9590	533	68300	1.35	TR TRF	147 TRF87 147 TRF87	Y..100L ₂ -4 AM100 AD5
3.40	7740	426	70600	1.70			
4.00	6680	368	71600	1.95			
4.50	5910	326	72300	2.20			
5.20	5010	280	72900	2.60			
1.60	16200	889	33100	0.80	TR TRF	147 TRF77 147 TRF77	Y..100L ₂ -4 AM100 AD3
1.90	14200	784	58800	0.90			
2.10	12600	695	63300	1.05			
2.40	11300	619	65700	1.15	TR TRF	147 TRF77 147 TRF77	Y..100L ₂ -4 AM100 AD4
2.60	10200	558	67500	1.25			
3.00	8920	490	50000	0.90	TR TRF	137 TRF77 137 TRF77	Y..100L ₂ -4 AM100 AD3
3.40	7790	428	53800	1.05			
3.80	6980	381	55400	1.15	TR TRF	137 TRF77 137 TRF77	Y..100L ₂ -4 AM100 AD4
4.50	5920	323	57200	1.35			
5.00	5330	291	58000	1.50			
5.70	4650	255	58800	1.70			
6.50	4080	223	59400	1.95			
2.80	9600	517	38800	0.85	TR TRF	137 TRF77 137 TRF77	Y..100L ₂ -4 AM100 AD3
3.20	8420	453	52200	0.95			

n ₂ [1/min]	M ₂ [Nm]	i	Fr [N]	K	Frame size	Input Configuration
P ₁ =3.00kw						
5.80	4600	253	27700	0.95	TR 107 TRF 107	Y..100L ₂ -4
6.80	3900	214	31500	1.10		AM100
7.80	3400	187	33500	1.25		AD4
5.70	4730	256	25500	0.90	TR 107 TRF 107	Y..100L ₂ -4 AM100 AD3
6.00	4760	158.68	24600	0.90	TR 107 TRF 107	Y..132S-6
6.70	4250	141.83	29700	1.00		AM132
7.50	3830	127.68	31800	1.10		AD3
6.30	4520	229.95	28200	0.95	TR 107 TRF 107	Y..100L ₂ -4
7.20	4000	203.16	31000	1.10		AM100
8.40	3390	172.34	33600	1.25		AD3
9.20	3120	158.68	34500	1.40	TR 107 TRF 107	Y..100L ₂ -4 AM100 AD3
10.0	2790	141.83	35600	1.55		
11.0	2510	127.68	36200	1.70		
13.0	2270	115.63	36500	1.90		
14.0	2010	102.53	36800	2.10		
16.0	1820	92.70	37000	2.40		
19.0	1540	78.57	35500	2.80		
20.0	1430	72.88	34800	3.00		
9.60	2960	150.78	20900	1.00	TR 97 TRF 97	Y..100L ₂ -4 AM100 AD3
11.0	2490	126.75	24100	1.20		
12.0	2290	116.48	25100	1.30		
14.0	2030	103.44	26200	1.45		
16.0	1820	92.48	27000	1.65		
18.0	1630	83.15	27400	1.85		
20.0	1420	72.17	27500	2.10		
22.0	1280	65.21	26700	2.30		
24.0	1170	59.92	26100	2.50		
27.0	1040	53.21	25300	2.90		
31.0	930	47.58	24500	3.20	TR 97 TRF 97	Y..100L ₂ -4 AM100 AD4
34.0	840	42.78	23800	3.60		
39.0	730	37.13	22800	4.10		
44.0	650	33.25	22100	4.40	TR 87 TRF 87	Y..100L ₂ -4 AM100 AD2
16.0	1830	93.38	12000	0.85		
18.0	1610	81.92	16500	0.95		
20.0	1420	72.57	17700	1.10		
23.0	1250	63.68	18700	1.25		
24.0	1180	60.35	19000	1.30	TR 87 TRF 87	Y..100L ₂ -4 AM100 AD2
28.0	1030	52.82	19700	1.50		
31.0	930	47.58	19800	1.65		
35.0	820	41.74	19200	1.90	TR 87 TRF 87	Y..100L ₂ -4 AM100 AD3
40.0	725	36.84	18500	2.10		
45.0	640	32.66	17900	2.40		
52.0	545	27.88	17200	2.70		
42.0	675	34.40	18200	2.20	TR 87 TRF 87	Y..100L ₂ -4 AM100 AD3
46.0	615	31.40	17800	2.50		

n ₂ [1/min]	M ₂ [Nm]	i	Fr [N]	K	Frame size	Input Configuration
P ₁ =3.00kw						
52.0	545	27.84	17200	2.80	TR 87 TRF 87	Y..100L ₂ -4 AM100 AD4
62.0	460	23.40	16300	3.40		
68.0	420	21.51	15900	3.50		
76.0	375	19.10	15400	3.80		
85.0	335	17.08	14900	4.10		
95.0	300	15.35	14400	4.40	TR 77 TRF 77	Y..100L ₂ -4 AM100 AD2
32.0	900	45.81	9090	0.90		
34.0	850	43.26	9620	0.95		
40.0	725	36.83	10700	1.15		
43.0	655	33.47	11200	1.25		
50.0	570	29.00	11600	1.45	TR 77 TRF 77	Y..100L ₂ -4 AM100 AD2
58.0	495	25.23	11200	1.55		
62.0	460	23.37	11000	1.80	TR 77 TRF 77	Y..100L ₂ -4 AM100 AD3
68.0	420	21.43	10700	1.95		
77.0	370	18.80	10400	2.10		
82.0	350	17.82	10200	2.20		
93.0	305	15.60	9880	2.40		
104	275	14.05	9600	2.60		
118	240	12.33	9250	2.80		
134	210	10.88	8930	3.10		
151	190	9.64	8630	3.30		
169	169	8.59	8400	3.70	TR 77 TRF 77	Y..100L ₂ -4 AM100 AD4
188	152	7.74	8150	4.00		
214	134	6.79	7830	4.30	TR 67 TRF 67	Y..100L ₂ -4 AM100 AD3
73.0	390	19.89	8350	1.55		
81.0	350	17.95	8150	1.65		
92.0	310	15.79	7900	1.80		
98.0	290	14.91	7790	1.85		
62.0	460	23.44	8660	1.20	TR 67 TRF 67	Y..100L ₂ -4 AM100 AD2
115	250	12.70	7470	2.10		
126	225	11.54	7290	2.20	TR 67 TRF 67	Y..100L ₂ -4 AM100 AD3
146	197	10.00	7010	2.40		
54.0	530	26.97	4430	0.85	TR 57 TRF 57	Y..100L ₂ -4 AM100 AD2
66.0	430	21.93	4360	1.05		
78.0	365	18.60	4280	1.25	TR 57 TRF 57	Y..100L ₂ -4 AM100 AD2
87.0	330	16.79	4220	1.35		
98.0	290	14.77	4140	1.50	TR 57 TRF 57	Y..100L ₂ -4 AM100 AD2
104	270	13.95	4100	1.55		
122	230	11.88	3980	1.75		
135	210	10.79	3900	1.85		
156	184	9.35	3790	2.00		
161	178	9.06	3780	2.10		

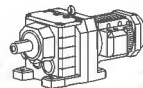


n [1/min]	M ₂ [Nm]	i	Fr [N]	K	Frame size		Input Configuration
P ₁ =3.00kw							
183	157	7.97	3670	2.30	TR TRF	57 57	Y..100L ₂₋₄ AM100 AD3
193	148	7.53	3620	2.40			
227	126	6.41	3480	2.60			
250	115	5.82	3400	2.80			
288	99	5.05	3280	3.10			
331	86	4.39	3160	3.20			
130	220	21.93	3930	2.00	TR TRF	57 57	Y..100L-2 AM100 AD2
153	187	18.60	3800	2.40			
170	169	16.79	3720	2.70			
193	148	14.77	3610	2.90	TR TRF	57 57	Y..100L-2 AM100 AD2
204	140	13.95	3560	3.10	TR TRF	57 57	Y..100L-2 AM100 AD3
240	119	11.88	3420	3.40			
264	108	10.79	3340	3.60			
90.0	315	16.22	2200	0.85	TR TRF	47 47	Y..100L ₂₋₄ AM100 AD2
100	285	14.56	2650	0.90			
116	245	12.54	3040	1.00			
123	230	11.79	3020	1.05	TR TRF	47 47	Y..100L ₂₋₄ AM100 AD2
143	200	10.15	2950	1.15			
160	178	9.07	2890	1.25			
182	158	8.01	2820	1.30			
188	153	7.76	2720	1.05			
209	137	6.96	2660	1.15	TR TRF	47 47	Y..100L ₂₋₄ AM100 AD2
243	118	6.00	2590	1.30			
258	111	5.64	2560	1.40			
300	96	4.85	2470	1.55			
336	85	4.34	2410	1.70			
380	75	3.83	2340	1.90	TR TRF	47 47	Y..100L ₂₋₄ AM100 AD3
242	119	11.79	2660	2.10	TR TRF	47 47	Y..100L-2 AM100 AD2
281	102	10.15	2570	2.20			
314	91	9.07	2500	2.40			
356	80	8.01	2420	2.60			
368	78	7.76	2360	2.10			
409	70	6.96	2300	2.30			
475	60	6.00	2210	2.60			
505	57	5.64	2180	2.70	TR TRF	47 47	Y..100L-2 AM100 AD2
587	49	4.85	2090	3.10			
657	44	4.34	2030	3.40			
744	38	3.83	1960	3.70	TR TRF	47 47	Y..100L-2 AM100 AD3
144	199	10.11	920	0.85	TR TRF	37 37	Y..100L ₂₋₄ AM100 AD2
154	186	9.47	1130	0.90			
182	157	7.97	1610	1.00			

n_2 [1/min]	M_2 [Nm]	i	F_r [N]	K	Frame size		Input Configuration
P ₁ =3.00kw							
218	131	6.67	1350	1.10	TR TRF	37 37	Y..100L ₂₋₄ AM100 AD2
257	112	5.67	1700	1.25			
288	100	5.06	1900	1.35			
337	85	4.32	2110	1.50			
360	80	4.05	2180	1.55			
427	67	3.41	2160	1.65			
282	102	10.11	2360	1.65	TR TRF	37 37	Y..100L-2 AM100 AD2
301	95	9.47	2370	1.75			
357	80	7.97	2280	1.95			
427	67	6.67	2160	2.20	TR TRF	37 37	Y..100L-2 AM100 AD2
503	57	5.67	2080	2.50			
563	51	5.06	2020	2.60			
660	43	4.32	1950	2.90			
704	41	4.05	1910	3.00			
836	34	3.41	1830	3.30			
260	110	5.60	450	0.90	TR TRF	27 27	Y..100L ₂₋₄ AM100 AD2
291	98	5.00	695	0.95			
341	84	4.27	970	1.05			
364	79	4.00	1070	1.10			
432	66	3.37	1280	1.20			
432	66	6.59	1280	1.60	TR TRF	27 27	Y..100L-2 AM100 AD2
509	56	5.60	1320	1.75			
570	50	5.00	1300	1.90			
667	43	4.27	1260	2.00	TR TRF	27 27	Y..100L-2 AM100 AD2
712	40	4.00	1240	2.10			
846	34	3.37	1190	2.30			
225	127	6.45	7050	1.50	TRX TRXF	87 87	Y..100L ₂₋₄ AM100 AD3
262	110	5.56	6760	2.00			
287	100	5.07	6580	2.50			
323	89	4.50	6350	3.30	TRX TRXF	87 87	Y..100L ₂₋₄ AM100 AD4
385	74	3.78	6040	4.10			
308	93	4.73	5000	1.30	TRX TRXF	77 77	Y..100L ₂₋₄ AM100 AD3
360	80	4.04	4780	1.80			
393	73	3.70	4670	2.10			
448	64	3.25	4500	2.80	TRX TRXF	77 77	Y..100L ₂₋₄ AM100 AD4
472	61	3.08	4430	3.20			
386	74	3.77	3120	1.50	TRX TRXF	67 67	Y..100L ₂₋₄ AM100 AD2
455	63	3.20	3000	1.60	TRX TRXF	67 67	Y..100L ₂₋₄ AM100 AD3
504	57	2.89	2920	1.85			
572	50	2.54	2820	2.40			
606	47	2.40	2780	2.60			
712	40	2.04	2660	3.30			
783	37	1.86	2590	3.40			
904	32	1.61	2480	3.60			

n ₂ [1/min]	M ₂ [Nm]	i	Fr [N]	K	Frame size		Input Configuration
P ₁ =3.00kw							
1040	28	1.40	2380	3.80	TRX TRXF	67 67	Y..100L ₂ -4 AM100 AD3
464	62	3.14	2310	1.05	TRX	57	Y..100L ₂ -4 AM100 AD2
551	52	2.64	2220	1.35	TRXF	57	
614	47	2.37	2160	1.50	TRX TRXF	57 57	Y..100L ₂ -4 AM100 AD3
713	40	2.04	2080	1.70			
758	38	1.92	2050	1.85			
881	32	1.65	1970	2.10			
986	29	1.48	1910	2.30			
1115	26	1.30	1850	2.40			
P ₁ =4.00kw							
1.90	18400	760	120000	1.00	TR TRF	167 TRF97 167 TRF97	Y..112M-4 AM112 AD4
1.70	20800	861	120000	0.85	TR TRF	167 TRF97 167 TRF97	Y..112M-4 AM112 AD5
2.20	15600	656	120000	1.15			
2.90	12000	503	120000	1.50			
3.90	8990	376	120000	2.00	TR TRF	167 TRF97 167 TRF97	Y..112M-4 AM112 AD5
4.40	8000	335	120000	2.20			
3.20	11000	462	66100	1.15	TR TRF	147 TRF87 147 TRF87	Y..112M-4 AM112 AD4
2.70	12800	533	63000	1.00	TR TRF	147 TRF87 147 TRF87	Y..112M-4 AM112 AD5
3.40	10300	426	67300	1.25			
4.00	8930	368	69200	1.45			
4.50	7890	326	70400	1.65			
5.20	6720	280	71600	1.95			
5.90	5930	247	72300	2.20			
6.80	5120	214	72900	2.50			
7.70	4530	189	73200	2.90			
9.20	3810	159	73600	3.40			
2.40	15100	619	48900	0.85	TR TRF	147 TRF77 147 TRF77	Y..112M-4 AM112 AD4
2.60	13600	558	61400	0.95			
3.00	11900	489	64700	1.10			
3.50	10100	415	67600	1.30			
3.80	9300	381	44400	0.85	TR TRF	137 TRF77 137 TRF77	Y..112M-4 AM112 AD4
4.50	7890	323	53600	1.00			
5.00	7100	291	55200	1.15			
5.70	6210	255	56700	1.30			
6.50	5440	223	57800	1.45			
3.90	9290	376	44600	0.85	TR TRF	137 TRF77 137 TRF77	Y..112M-4 AM112 AD3
4.30	8360	339	52400	0.95			
4.90	7320	297	54800	1.10			
7.80	4550	187	28000	0.95	TR TRF	107 TRF77 107 TRF77	Y..112M-4 AM112 AD4

n ₂ [1/min]	M ₂ [Nm]	i	Fr [N]	K	Frame size	Input Configuration
P ₁ =4.00kw						
7.60	4750	193	24700	0.90	TR 107 TRF77 TRF 107 TRF77	Y..112M-4 AM112 AD3
8.50	4250	172	29700	1.00	TR 107 TRF77 TRF 107 TRF77	Y..112M-4 AM112 AD4
4.30	8850	222.60	50300	0.90	TR 137 TRF 137	Y..132M ₁ -6 AM132 AD4
5.10	7490	188.45	54400	1.05		
5.50	6930	174.40	55500	1.15		
6.10	6210	156.31	56700	1.30		
6.80	5610	141.12	57600	1.40	TR 137 TRF 137	Y..132M ₁ -6 AM132 AD4
7.50	5100	128.18	58300	1.55	TR 137 TRF 137	Y..132M ₁ -6 AM132 AD4
8.40	4520	113.72	59000	1.75		
9.30	4100	103.20	59400	1.95		
11.0	3520	88.70	59900	2.30		
8.50	4500	172.34	28300	0.95	TR 107 TRF 107	Y..112M-4 AM112 AD3
9.20	4150	158.68	30200	1.05		
10.0	3710	141.83	32300	1.15		
11.0	3340	127.68	33800	1.30		
13.0	3020	115.63	34900	1.40		
14.0	2680	102.53	35900	1.60		
16.0	2420	92.70	36200	1.75		
19.0	2050	78.57	34600	2.10		
20.0	1900	72.88	34000	2.30		
22.0	1710	65.60	33000	2.50		
25.0	1550	59.41	32100	2.80	TR 107 TRF 107	Y..112M-4 AM112 AD4
28.0	1370	52.68	31000	3.10	TR 107 TRF 107	Y..112M-4 AM112 AD4
13.0	3040	116.48	17900	1.00	TR 97 TRF 97	Y..112M-4 AM112 AD3
14.0	2700	103.44	22900	1.10		
16.0	2410	92.48	24500	1.25		
18.0	2170	83.15	25700	1.40		
20.0	1880	72.17	26500	1.60		
22.0	1700	65.21	25900	1.75		
24.0	1560	59.92	25300	1.90		
27.0	1390	53.21	24600	2.20		
31.0	1240	47.58	23900	2.40	TR 97 TRF 97	Y..112M-4 AM112 AD4
34.0	1110	42.78	23200	2.70		
39.0	970	37.13	22300	3.10		
44.0	860	33.25	21600	3.30		
46.0	830	32.05	21400	3.00	TR 97 TRF 97	Y..112M-4 AM112 AD4
54.0	710	27.19	20500	3.60		

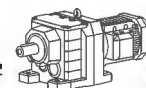


n_2 [1/min]	M_2 [Nm]	i	Fr [N]	K	Frame size		Input Configuration
P ₁ =4.00kw							
58.0	650	25.03	20000	4.30	TR TRF	97 97	Y..112M-4
65.0	585	22.37	19300	4.60			AM112
72.0	525	20.14	18700	5.00			AD5
23.0	1660	63.68	13600	0.95	TR TRF	87 87	Y..112M-4
24.0	1570	60.35	14200	1.00			AM112
28.0	1380	52.82	15500	1.10			AD2
31.0	1240	47.58	16200	1.25	TR TRF	87 87	Y..112M-4 AM112 AD2
35.0	1090	41.74	17000	1.40	TR TRF	87 87	Y..112M-4
40.0	960	36.84	17500	1.60			AM112
45.0	850	32.66	17400	1.80			AD3
52.0	725	27.88	16700	2.10	TR TRF	87 87	Y..112M-4
42.0	900	34.40	17600	1.65			AM112
46.0	820	31.40	17200	1.90			AD3
52.0	725	27.84	16700	2.10	TR TRF	87 87	Y..112M-4
62.0	610	23.40	16000	2.50			AM112
68.0	560	21.51	15600	2.70			AD4
76.0	495	19.10	15100	2.90			Y..112M-4
85.0	445	17.08	14600	3.10			AM112
95.0	400	15.35	14200	3.30			AD3
110	345	13.33	13600	3.70	TR TRF	77 77	Y..112M-4
122	310	11.93	13200	3.90			AM112
40.0	960	36.83	7040	0.85			AD2
44.0	870	33.47	9370	0.95			Y..112M-4
50.0	755	29.00	10500	1.10	TR TRF	77 77	AM112
58.0	660	25.23	10700	1.20			AD3
62.0	610	23.37	10500	1.35			Y..112M-4
68.0	560	21.43	10300	1.45			AM112
78.0	490	18.80	10000	1.60			AD3
82.0	465	17.82	9880	1.65			Y..112M-4
94.0	405	15.60	9560	1.80			AM112
104	365	14.05	9320	1.95			AD3
118	320	12.33	9010	2.10			Y..112M-4
134	280	10.88	8710	2.30			AM112
151	250	9.64	8430	2.50	TR TRF	77 77	AD4
170	220	8.59	8250	2.80			Y..112M-4
189	200	7.74	8010	3.00			AM112
215	178	6.79	7710	3.30			AD4
244	157	5.99	7430	3.40			Y..112M-4
275	139	5.31	7160	3.70	TR TRF	67 67	AM112
73.0	520	19.89	7920	1.15			AD3
81.0	465	17.95	7760	1.25			Y..112M-4
92.0	410	15.79	7560	1.35			AM112
98.0	390	14.91	7460	1.40			AD3
115	330	12.70	7200	1.55			Y..112M-4
127	300	11.54	7040	1.65			AM112
146	260	10.00	6790	1.80			AD3
168	225	8.70	6560	1.95			Y..112M-4
187	200	7.79	6390	1.85			AM112

n_2 [1/min]	M_2 [Nm]	i	Fr [N]	K	Frame size		Input Configuration
P ₁ =4.00kw							
198	193	7.36	6300	1.90	TR TRF	67 67	Y..112M-4 AM112 AD3
233	164	6.27	6030	2.00			
256	149	5.70	5870	2.10			
296	129	4.93	5640	2.20			
340	112	4.29	5420	2.40			
78.0	485	18.60	3660	0.90	TR TRF	57 57	Y..112M-4 AM112 AD2
87.0	435	16.79	3820	1.00			
99.0	385	14.77	3790	1.15			
105	365	13.95	3770	1.20	TR TRF	57 57	Y..112M-4 AM112 AD3
123	310	11.88	3700	1.30			
135	280	10.79	3650	1.40			
156	240	9.35	3570	1.50			
161	235	9.06	3570	1.60			
183	205	7.97	3490	1.70			
194	197	7.53	3450	1.80			
228	168	6.41	3330	2.00			
251	152	5.82	3260	2.10			
289	132	5.05	3160	2.30			
333	115	4.39	3050	2.40			
144	265	10.15	2060	0.85	TR TRF	47 47	Y..112M-4 AM112 AD2
161	235	9.07	2440	0.95			
182	205	8.01	2630	1.00			
210	182	6.96	2470	0.85			
243	157	6.00	2420	1.00			
259	148	5.64	2400	1.05			
301	127	4.85	2340	1.20			
337	113	4.34	2290	1.30			
381	100	3.83	2230	1.45	TR TRF	47 47	Y..112M-4 AM112 AD3
179	210	16.22	2640	1.30	TR TRF	47 47	Y..112M-2 AM112 AD2
199	192	14.56	2600	1.40			
231	165	12.54	2530	1.50			
246	155	11.79	2500	1.60			
286	134	10.15	2430	1.70			
320	119	9.07	2380	1.85			
362	106	8.01	2320	1.95			
374	102	7.76	2240	1.60			
416	92	6.96	2190	1.75			
484	79	6.00	2120	1.95			
514	74	5.64	2090	2.10			
598	64	4.85	2020	2.40			
669	57	4.34	1960	2.60			
757	50	3.83	1900	2.80	TR TRF	47 47	Y..112M-2 AM112 AD3
263	146	5.56	6580	1.55	TRX TRXF	87 87	Y..112M-4 AM112 AD3
288	133	5.07	6420	1.90			
324	118	4.50	6210	2.50	TRX TRXF	87 87	Y..112M-4 AM112 AD4
386	99	3.78	5910	3.10			

n_2 [1/min]	M_2 [Nm]	i	Fr [N]	K	Frame size		Input Configuration
P ₁ =4.00kw							
361	106	4.04	4630	1.35	TRX	77	Y..112M-4 AM112 AD3
394	97	3.70	4530	1.60	TRXF	77	
449	85	3.25	4380	2.10	TRX	77	Y..112M-4 AM112 AD4
474	81	3.08	4310	2.40			
542	70	2.70	4160	3.00			
601	64	2.43	4040	3.40			
685	56	2.13	3890	3.60			
777	49	1.88	3750	3.80			
876	44	1.67	3620	4.00			
1025	37	1.42	3450	4.20			
456	84	3.20	2860	1.20	TRX	67	Y..112M-4 AM112 AD3
505	76	2.89	2790	1.40			
574	66	2.54	2710	1.75			
608	63	2.40	2670	1.95			
714	54	2.04	2560	2.50			
786	49	1.86	2500	2.60			
908	42	1.61	2400	2.70			
1045	37	1.40	2310	2.80			
553	69	2.64	1730	1.00	TRX	57	Y..112M-4 AM112 AD2
					TRXF	57	
616	62	2.37	1840	1.10	TRX	57	Y..112M-4 AM112 AD3
715	53	2.04	1950	1.30			
760	50	1.92	1950	1.35			
884	43	1.65	1880	1.60			
989	39	1.48	1830	1.75			
1120	34	1.30	1780	1.85			
P ₁ =5.50kw							
2.20	21800	656	120000	0.85	TR	167	Y..132S-4 AM132 AD5
2.50	19000	579	120000	0.95			
2.90	16700	503	120000	1.10			
3.40	14200	432	120000	1.25			
3.90	12500	376	120000	1.45			
4.30	11100	335	120000	1.60			
4.80	9970	303	120000	1.80			
5.20	9190	279	120000	1.95			
3.20	15400	462	45000	0.85	TR	147	Y..132S-4 AM132 AD4
					TRF	147	
3.40	14300	426	58400	0.90	TR	147	Y..132S-4 AM132 AD5
4.00	12300	368	63900	1.05			
4.50	10900	326	66400	1.20			
5.20	9340	280	68700	1.40			
5.90	8240	247	70000	1.60			
6.80	7120	214	71200	1.80			
7.70	6300	189	72000	2.10			
5.90	8880	163.31	69300	1.45			
6.60	7990	146.91	70300	1.65			
8.00	6520	119.86	71800	2.00			

n_2 [1/min]	M_2 [Nm]	i	Fr [N]	K	Frame size	Input Configuration
$P_1=5.50kw$						
8.80	5940	109.31	72300	2.20	TR 147 TRF 147	Y..132M ₂ -6 AM132 AD4
10.0	5140	94.60	72800	2.50		
12.0	4540	83.47	73200	2.90		
5.50	9490	174.40	41100	0.85	TR 137 TRF 137	Y..132M ₂ -6 AM132 AD4
6.20	8500	156.31	51800	0.95		
6.80	7680	141.12	54100	1.05		
7.50	6970	128.18	55400	1.15		
8.50	6180	113.72	56700	1.30		
9.40	5610	103.20	57600	1.40	TR 137 TRF 137	Y..132M ₂ -6 AM132 AD4
6.50	8030	222.60	53300	1.00	TR 137 TRF 137	Y..132S-4 AM132 AD4
7.70	6800	188.45	55700	1.20		
8.30	6290	174.40	56600	1.25		
9.30	5640	156.31	57600	1.40		
10.0	5090	141.12	58300	1.55		
11.0	4620	128.18	58800	1.75	TR 137 TRF 137	Y..132S-4 AM132 AD4
13.0	4100	113.72	59400	1.95		
14.0	3720	103.20	59800	2.20		
16.0	3200	88.70	60200	2.50		
18.0	2920	80.91	60400	2.70		
20.0	2650	73.49	60600	3.00		
22.0	2350	65.20	60800	3.40		
25.0	2130	59.17	60900	3.80		
29.0	1830	50.86	61000	4.40		
11.0	4600	127.68	27700	0.95	TR 107 TRF 107	Y..132S-4 AM132 AD3
13.0	4170	115.63	30100	1.05		
14.0	3700	102.53	32300	1.15		
16.0	3340	92.7	33800	1.30		
19.0	2830	78.57	33400	1.50		
20.0	2630	72.88	32800	1.65	TR 107 TRF 107	Y..132S-4 AM132 AD4
22.0	2360	65.60	31900	1.80		
24.0	2140	59.41	31200	2.00		
28.0	1900	52.68	30200	2.30		
31.0	1710	47.63	29400	2.50		
36.0	1450	40.37	28100	3.00	TR 97 TRF 97	Y..132S-4 AM132 AD3
18.0	3000	83.15	19700	1.00		
20.0	2600	72.17	22000	1.15		
22.0	2350	65.21	24600	1.25		
24.0	2160	59.92	24200	1.40		
27.0	1920	53.21	23500	1.55	TR 97 TRF 97	Y..132S-4 AM132 AD4
31.0	1710	47.58	22900	1.75		
34.0	1540	42.78	22400	1.95		
39.0	1340	37.13	21600	2.20		
44.0	1200	33.25	21000	2.40	TR 97 TRF 97	Y..132S-4 AM132 AD4
53.0	990	27.58	20000	2.70		

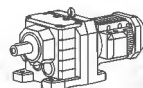


n_2 [1/min]	M_2 [Nm]	i	F_r [N]	K	Frame size		Input Configuration
$P_1=5.50kw$							
45.0	1150	32.05	20800	2.20	TR	97	Y..132S-4
54.0	980	27.19	19900	2.60	TRF	97	AM132 AD4
58.0	900	25.03	19500	3.10	TR TRF	97	Y..132S-4 AM132 AD5
65.0	800	22.37	18900	3.40			
72.0	725	20.14	18400	3.60			
80.0	655	18.24	17900	3.80			
90.0	580	16.17	17300	4.10			
31.0	1710	47.58	15700	0.90	TR TRF	87 87	Y..132S-4 AM132 AD2
35.0	1500	41.74	17200	1.05	TR TRF	87 87	Y..132S-4 AM132 AD3
40.0	1320	36.84	17100	1.15			
45.0	1170	32.66	16700	1.30			
52.0	1000	27.88	16100	1.50			
52.0	1000	27.84	16100	1.55	TR TRF	87 87	Y..132S-4 AM132 AD4
62.0	840	23.40	15400	1.85			
68.0	775	21.51	15100	1.95			
76.0	685	19.10	14600	2.10			
85.0	615	17.08	14200	2.30			
95.0	550	15.35	13800	2.40			
109	480	13.33	13300	2.70			
122	430	11.93	12900	2.90			
147	355	9.90	12200	3.30			
159	330	9.14	12100	3.70	TR TRF	87 87	Y..132S-4 AM132 AD5
177	295	8.22	11700	3.90			
204	255	7.13	11200	4.20			
77.0	675	18.80	9300	1.15	TR TRF	77 77	Y..132S-4 AM132 AD3
82.0	640	17.82	9370	1.20			
93.0	560	15.60	9120	1.30			
104	505	14.05	8920	1.40	TR TRF	77 77	Y..132S-4 AM132 AD3
118	440	12.33	8650	1.55			
134	390	10.88	8400	1.70			
151	345	9.64	8160	1.80			
169	310	8.59	8040	2.00	TR TRF	77 77	Y..132S-4 AM132 AD4
188	275	7.74	7820	2.20			
214	245	6.79	7540	2.40			
243	215	5.99	7280	2.50			
274	192	5.31	7040	2.70			
92.0	570	15.79	6700	1.00	TR TRF	67 67	Y..132S-4 AM132 AD3
98.0	535	14.91	6990	1.00			
115	455	12.70	6790	1.15			
126	415	11.54	6670	1.20			
146	360	10.00	6480	1.30			
167	310	8.70	6280	1.40			
187	280	7.79	6160	1.35			
198	265	7.36	6070	1.40			
232	225	6.27	5840	1.45			
255	205	5.70	5700	1.50			
295	178	4.93	5490	1.65			
339	155	4.29	5290	1.75			

n_2 [1/min]	M_2 [Nm]	i	F_r [N]	K	Frame size		Input Configuration
P ₁ =5.50kw							
332	158	8.70	5300	2.80	TR TRF	67 67	Y..132S _i -2 AM132 AD3
371	142	7.79	5160	2.70			
393	134	7.36	5080	2.80			
461	114	6.27	4850	2.90			
507	104	5.70	4720	3.00			
586	90	4.93	4530	3.20			
673	78	4.29	4350	3.50			
98.0	530	14.77	1840	0.80	TR TRF	57 57	Y..132S-4 AM132 AD2
104	500	13.95	2170	0.85	TR TRF	57 57	Y..132S-4 AM132 AD3
122	425	11.88	2980	0.95			
135	385	10.79	3270	1.00			
156	335	9.35	3240	1.10	TR TRF	57 57	Y..132S-4 AM132 AD3
183	285	7.97	3220	1.25			
193	270	7.53	3190	1.30			
227	230	6.41	3120	1.45			
250	210	5.82	3070	1.50			
288	182	5.05	2990	1.65			
331	158	4.39	2900	1.75			
309	170	9.35	2930	2.20	TR TRF	57 57	Y..132S _i -2 AM132 AD3
363	145	7.97	2850	2.40			
384	137	7.53	2820	2.60	TR TRF	57 57	Y..132S _i -2 AM132 AD3
451	116	6.41	2710	2.90			
496	106	5.82	2650	3.00			
573	92	5.05	2560	3.30			
658	80	4.39	2470	3.50			
300	175	4.85	1910	0.85	TR TRF	47 47	Y..132S-4 AM132 AD2
336	156	4.34	2110	0.95			
380	138	3.83	2070	1.05	TR TRF	47 47	Y..132S-4 AM132 AD3
230	225	12.54	1740	1.10	TR TRF	47 47	Y..132S _i -2 AM132 AD2
245	210	11.79	1920	1.15			
285	184	10.15	2250	1.25			
319	165	9.07	2220	1.35			
361	146	8.01	2170	1.40			
482	109	6.00	2000	1.45			
512	102	5.64	1970	1.50			
595	88	4.85	1920	1.70			
666	79	4.34	1870	1.85			
754	70	3.83	1820	2.10			
220	235	6.63	10400	1.90	TRX TRXF	107 107	Y..132S-4 AM132 AD4
259	200	5.61	9930	2.20			

n: [1/min]	M: [Nm]	i	Fr [N]	K	Frame size		Input Configuration
P ₁ =5.50kw							
280 313	187 168	5.19 4.65	9710 9410	3.70 4.10	TRX 107 TRXF 107		Y..132S-4 AM132 AD5
251 296	205 177	5.79 4.91	8340 7970	2.00 2.20	TRX 97 TRXF 97		Y..132S-4 AM132 AD4
322 360 400 441 498 551 650 744 889	163 146 131 119 106 95 81 71 59	4.52 4.04 3.64 3.30 2.92 2.64 2.24 1.96 1.64	7790 7540 7320 7110 6860 6660 6330 6080 5750	3.60 4.10 4.50 5.00 5.60 6.20 7.40 8.10 8.50	TRX 97 TRXF 97		Y..132S-4 AM132 AD5
1025	51	1.42	5500	8.90	TRX 97 TRXF 97		Y..132S-4 AM132 AD6
323 385	162 136	4.50 3.78	6010 5740	1.80 2.20	TRX 87 TRXF 87		Y..132S-4 AM132 AD4
419 471 527 586 676	126 111 100 90 78	3.48 3.09 2.76 2.48 2.15	5610 5430 5260 5110 4900	3.20 3.60 4.10 4.50 5.00	TRX 87 TRXF 87		Y..132S-4 AM132 AD5
448 472 540 599 683 774 873 1020	117 111 97 88 77 68 60 51	3.25 3.08 2.70 2.43 2.13 1.88 1.67 1.42	4200 4150 4010 3900 3770 3640 3520 3370	1.55 1.75 2.20 2.40 2.60 2.80 2.90 3.00	TRX 77 TRXF 77		Y..132S-4 AM132 AD4
572 606 712 783	92 87 74 67	2.54 2.40 2.04 1.86	2540 2520 2420 2370	1.30 1.40 1.80 1.90	TRX 67 TRXF 67		Y..132S-4 AM132 AD3
904 1040	58 50	1.61 1.40	2290 2210	1.95 2.10	TRX 67 TRXF 67		Y..132S-4 AM132 AD3
713 758 881 986 1115	74 69 60 53 47	2.04 1.92 1.65 1.48 1.30	715 800 980 1060 1190	0.95 1.00 1.15 1.30 1.35	TRX 57 TRXF 57		Y..132S-4 AM132 AD3
P ₁ =7.50kw							
2.90 3.40 3.90	22700 19300 16900	503 432 376	120000 120000 120000	0.80 0.95 1.05	TR 167 TRF97 TRF 167 TRF97		Y..132M-4 AM132 AD5

n_2 [1/min]	M_2 [Nm]	i	Fr [N]	K	Frame size	Input Configuration
$P_1=7.50\text{kw}$						
4.40	15100	335	120000	1.20	TR 167 TRF97 TRF 167 TRF97	Y..132M-4 AM132 AD5
4.90	13500	303	120000	1.35		
5.30	12500	279	120000	1.45		
4.50	14800	326	52600	0.90	TR 147 TRF87 TRF 147 TRF87	Y..132M-4 AM132 AD5
5.20	12600	280	63300	1.05		
6.00	11100	247	66000	1.15		
6.90	9660	214	68300	1.35		
7.80	8540	189	69700	1.50		
9.30	7180	159	71200	1.80		
7.80	9180	188.45	46500	0.85	TR 137 TRF 137	Y..132M-4 AM132 AD4
8.40	8490	174.40	51900	0.95		
9.40	7610	156.31	54200	1.05		
10.0	6870	141.12	55600	1.15		
11.0	6240	128.18	56700	1.30	TR 137 TRF 137	Y..132M-4 AM132 AD4
13.0	5540	113.72	57700	1.45		
14.0	5020	103.20	58400	1.60		
17.0	4320	88.70	59200	1.85		
18.0	3940	80.91	59600	2.00		
20.0	3580	73.49	59900	2.20		
23.0	3170	65.20	60200	2.50		
25.0	2880	59.17	60400	2.80		
29.0	2470	50.86	60700	3.20	TR 137 TRF 137	Y..132M-4 AM132 AD5
16.0	4510	92.70	28200	0.95	TR 107 TRF 107	Y..132M-4 AM132 AD3
19.0	3820	78.57	31600	1.10		
20.0	3550	72.88	31100	1.20		
22.0	3190	65.60	30400	1.35	TR 107 TRF 107	Y..132M-4 AM132 AD4
25.0	2890	59.41	29800	1.50		
28.0	2560	52.68	29000	1.70	TR 107 TRF 107	Y..132M-4 AM132 AD4
31.0	2320	47.63	28300	1.85		
36.0	1960	40.37	27100	2.20		
42.0	1710	35.26	26200	2.50		
50.0	1430	29.49	25000	3.00		
48.0	1490	30.77	25300	2.90	TR 107 TRF 107	Y..132M-4 AM132 AD5
53.0	1340	27.58	24600	3.20		
59.0	1210	24.90	23900	3.50		
65.0	1100	22.62	23200	3.90		
25.0	2910	59.92	21500	1.05	TR 97 TRF 97	Y..132M-4 AM132 AD3
28.0	2590	53.21	22100	1.15		
31.0	2310	47.58	21600	1.30	TR 97 TRF 97	Y..132M-4 AM132 AD4
34.0	2080	42.78	21200	1.45		
40.0	1800	37.13	20600	1.65		
44.0	1610	33.25	20100	1.80	TR 97 TRF 97	Y..132M-4 AM132 AD4
53.0	1340	27.58	19200	2.00		



n ₂ [1/min]	M ₂ [Nm]	i	Fr [N]	K	Frame size		Input Configuration			
P ₁ =7.50kw										
46.0	1560	32.05	19900	1.65	TR	97	Y..132M-4			
54.0	1320	27.19	19200	1.95	TRF	97	AM132 AD4			
59.0	1210	25.03	18800	2.30	TR TRF	97	Y..132M-4 AM132 AD5			
66.0	1090	22.37	18300	2.50						
73.0	980	20.14	17800	2.70						
81.0	880	18.24	17300	2.80						
40.0	1790	36.84	14800	0.85	TR TRF	87 87	Y..132M-4 AM132 AD3			
45.0	1590	32.66	15600	0.95						
53.0	1350	27.88	15200	1.10						
53.0	1350	27.84	15200	1.15	TR TRF	87 87	Y..132M-4 AM132 AD4			
63.0	1140	23.40	14600	1.35						
68.0	1040	21.51	14400	1.45						
77.0	930	19.10	14000	1.55						
86.0	830	17.08	13600	1.65						
96.0	745	15.35	12600	1.80						
110	645	13.33	12800	1.95						
123	580	11.93	12500	2.10						
148	480	9.90	11900	2.40	TR TRF	87 87	Y..132M-4 AM132 AD5			
161	445	9.14	11800	2.70						
179	400	8.22	11500	2.90						
206	345	7.13	11000	3.10						
230	310	6.39	10700	3.30	TR TRF	87 87	Y..132M-4 AM132 AD5			
277	255	5.30	10100	3.50						
78.0	910	18.80	5530	0.85				TR TRF	77 77	Y..132M-4 AM132 AD3
82.0	860	17.82	5920	0.90						
94.0	755	15.60	6770	0.95						
105	680	14.05	7310	1.05						
119	600	12.33	7850	1.15						
135	525	10.88	7960	1.25						
152	465	9.64	7770	1.35	TR TRF	77 77	Y..132M-4 AM132 AD4			
171	415	8.59	7690	1.50						
190	375	7.74	7540	1.60						
216	330	6.79	7290	1.75						
245	290	5.99	7060	1.85						
277	255	5.31	6840	1.95	TR TRF	67 67	Y..132M-4 AM132 AD3			
116	615	12.70	4420	0.85						
127	560	11.54	5020	0.90						
147	485	10.00	5750	0.95						
169	420	8.70	5900	1.05						
189	375	7.79	5610	1.00						
200	355	7.36	5760	1.05						
235	305	6.27	5560	1.10						
258	275	5.70	5450	1.10						
298	240	4.93	5270	1.20						
342	205	4.29	5100	1.30	TR TRF	57 57	Y..132M-4 AM132 AD3			
184	385	7.97	1130	0.90						
195	365	7.53	1420	0.95						
229	310	6.41	2130	1.05						

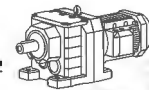
n: [1/min]	M: [Nm]	i	Fr [N]	K	Frame size		Input Configuration
P _I =7.50kw							
252	280	5.82	2470	1.15	TR TRF	57 57	Y..132M-4 AM132 AD3
291	245	5.05	2750	1.25			
335	210	4.39	2700	1.30			
197	360	14.77	2590	1.20	TR TRF	57 57	Y..132S ₂ -2 AM132 AD2
209	340	13.95	2800	1.25	TR TRF	57 57	Y..132S ₂ -2 AM132 AD3
245	290	11.88	2780	1.40			
270	265	10.79	2750	1.45			
311	230	9.35	2700	1.60			
365	196	7.97	2660	1.80			
387	185	7.53	2640	1.90			
454	158	6.41	2560	2.10	TR TRF	57 57	Y..132S ₂ -2 AM132 AD3
500	143	5.82	2520	2.20			
577	124	5.05	2440	2.50	TR TRF	57 57	Y..132S ₂ -2 AM132 AD3
663	108	4.39	2370	2.60			
222	320	6.63	10000	1.45	TRX TRXF	107 107	Y..132M-4 AM132 AD4
262	270	5.61	9620	1.65			
283	250	5.19	9420	2.80	TRX TRXF	107 107	Y..132M-4 AM132 AD5
316	225	4.65	9140	3.10			
350	200	4.20	8890	4.10			
254	280	5.79	8020	1.50	TRX TRXF	97 97	Y..132M-4 AM132 AD4
299	235	4.91	7700	1.65			
325	220	4.52	7530	2.70	TRX TRXF	97 97	Y..132M-4 AM132 AD5
364	197	4.04	7310	3.00			
404	177	3.64	7100	3.40			
446	161	3.30	6910	3.70			
503	142	2.92	6680	4.20			
327	215	4.50	5720	1.30	TRX TRXF	87 87	Y..132M-4 AM132 AD4
389	184	3.78	5500	1.65			
423	169	3.48	5380	2.40	TRX TRXF	87 87	Y..132M-4 AM132 AD5
476	150	3.09	5220	2.70			
533	134	2.76	5080	3.00			
592	121	2.48	4940	3.40			
682	105	2.15	4750	3.70			
762	94	1.93	4610	3.80			
919	78	1.60	4370	4.00			
1055	68	1.39	4200	4.30			
452	158	3.25	3890	1.15	TRX TRXF	77 77	Y..132M-4 AM132 AD4
477	150	3.08	3910	1.30			
545	131	2.70	3800	1.65			
605	118	2.43	3710	1.80			
690	104	2.13	3600	1.95			
782	92	1.88	3480	2.00			

n ₂ [1/min]	M ₂ [Nm]	i	Fr [N]	K	Frame size	Input Configuration
P_i=7.50kw						
882	81	1.67	3380	2.10	TRX 77	Y..132M-4
1035	69	1.42	3240	2.20	TRXF 77	AM132 AD4
578	124	2.54	1600	0.95	TRX 67 TRXF 67	Y..132M-4
612	117	2.40	1700	1.05		AM132
719	100	2.04	1890	1.35		AD3
792	90	1.86	2000	1.40		
914	78	1.61	2120	1.45	TRX 67	Y..132M-4
1050	68	1.40	2070	1.50	TRXF 67	AM132 AD3
P_i=11.0kw						
5.00	19100	295	120000	0.95	TR 167 TRF107	Y..160M-4
5.50	17700	270	120000	1.00	TRF 167 TRF107	AM160 AD6
6.40	15000	229	120000	1.20	TR 167 TRF107	Y..160M-4
7.40	13000	200	120000	1.40	TRF 167 TRF107	AM160 AD6
8.70	10900	169	120000	1.65		
5.10	19400	291	120000	0.90	TR 167 TRF107 TRF 167 TRF107	Y..160M-4 AM160 AD5
4.40	22200	335	120000	0.80	TR 167 TRF97 TRF 167 TRF97	Y..160M-4
4.90	19900	303	120000	0.90		AM160
5.30	18400	279	120000	1.00		AD5
6.00	16400	247	29900	0.80	TR 147 TRF87 TRF 147 TRF87	Y..160M-4
6.90	14100	214	60000	0.90		AM160
7.80	12500	189	63600	1.05		AD5
9.30	10500	159	67000	1.25		
6.40	16300	229.71	120000	1.10	TR 167	Y..160M-4
7.90	13300	186.93	120000	1.35	TRF 167	AM160 AD5
9.60	10900	153.07	120000	1.65	TR 167 TRF 167	Y..160M-4
11.0	9960	139.98	120000	1.80		AM160
12.0	8670	121.81	120000	2.10		AD5
14.0	7650	107.49	120000	2.40		
16.0	6630	93.19	120000	2.70		
18.0	5900	82.91	120000	3.00		
9.00	11600	163.31	65200	1.10	TR 147 TRF 147	Y..160M-4
10.0	10400	146.91	67100	1.25		AM160
12.0	8530	119.86	69700	1.50		AD4
13.0	7780	109.31	70500	1.65	TR 147 TRF 147	Y..160M-4
16.0	6730	94.60	71600	1.95		AM160
18.0	5940	83.47	72300	2.20		AD4
20.0	5130	72.09	72900	2.50	TR 147 TRF 147	Y..160M-4
22.0	4770	66.99	73100	2.70		AM160
24.0	4350	61.09	73300	3.00		AD5
28.0	3760	52.87	73700	3.40		

n ₂ [1/min]	M ₂ [Nm]	i	Fr [N]	K	Frame size	Input Configuration
P_i=11.0kw						
10.0	10000	141.12	28200	0.80	TR 137 TRF 137	Y..160M-4
12.0	9120	128.18	47300	0.90		AM160
13.0	8090	113.72	53200	1.00		AD4
14.0	7340	103.20	54700	1.10		
17.0	6310	88.70	56500	1.25	TR 137 TRF 137	Y..160M-4
18.0	5760	80.91	57400	1.40		AM160
20.0	5230	73.49	58100	1.55		AD4
23.0	4640	65.20	58800	1.70		
25.0	4210	59.17	59300	1.90		
29.0	3620	50.86	59900	2.20	TR 137 TRF 137	Y..160M-4
33.0	3160	44.39	60200	2.50		AM160
39.0	2680	37.65	60600	3.00		AD5
45.0	2340	32.91	60800	3.40		
22.0	4670	65.60	27300	0.90	TR 107 TRF 107	Y..160M-4
25.0	4230	59.41	27500	1.00		AM160
28.0	3750	52.68	27000	1.15		AD4
31.0	3390	47.63	26500	1.25		
37.0	2870	40.37	25600	1.50		
42.0	2510	35.26	24900	1.70		
50.0	2100	29.49	23900	2.00		
48.0	2190	30.77	24100	1.95	TR 107 TRF 107	Y..160M-4
53.0	1960	27.58	23500	2.20		AM160
59.0	1770	24.90	22900	2.40		AD5
65.0	1610	22.62	22400	2.70		
74.0	1420	20.07	21700	3.00		
81.0	1290	18.21	21100	3.30		
34.0	3040	42.78	18000	1.00	TR 97 TRF 97	Y..160M-4
40.0	2640	37.13	18900	1.15		AM160
44.0	2360	33.25	18600	1.20		AD4
53.0	1960	27.58	18000	1.35		
59.0	1780	25.03	17600	1.60	TR 97 TRF 97	Y..160M-4
66.0	1590	22.37	17200	1.70		AM160
73.0	1430	20.14	16800	1.80		AD5
81.0	1290	18.24	16500	1.90		
91.0	1150	16.17	16000	2.10	TR 97 TRF 97	Y..160M-4
101	1040	14.62	15600	2.20		AM160
119	880	12.39	15000	2.50		AD5
136	770	10.83	14500	2.70		
159	660	9.29	14200	3.10		
176	595	8.39	13800	3.40		
207	505	7.12	13100	4.00		
237	440	6.21	12600	4.30		
69.0	1530	21.51	13200	1.00	TR 87 TRF 87	Y..160M-4
77.0	1360	19.10	12900	1.05		AM160
86.0	1210	17.08	12700	1.15		AD4
96.0	1090	15.35	12500	1.25	TR 87 TRF 87	Y..160M-4
111	940	13.33	12100	1.35		AM160
124	840	11.93	11800	1.45		AD4
149	705	9.90	11300	1.65		

n ₂ [1/min]	M ₂ [Nm]	i	Fr [N]	K	Frame size	Input Configuration
P _i =15.0kw						
48.0	3000	30.77	22800	1.45	TR 107 TRF 107	Y..160L-4 AM160 AD5
53.0	2690	27.58	22300	1.60		
59.0	2430	24.90	21900	1.75		
65.0	2210	22.62	21400	1.95		
73.0	1960	20.07	20900	2.20		
80.0	1780	18.21	20400	2.40		
94.0	1530	15.65	19700	2.80		
107	1330	13.66	19000	3.20	TR 107 TRF 107	Y..160L-4 AM160 AD6
53.0	2690	27.58	16500	1.00	TR 97 TRF 97	Y..160L-4 AM160 AD4
59.0	2440	25.03	16300	1.15	TR 97 TRF 97	Y..160L-4 AM160 AD5
65.0	2180	22.37	16100	1.25		
73.0	1960	20.14	15800	1.35		
80.0	1780	18.24	15500	1.40		
91.0	1580	16.17	15200	1.50		
100	1420	14.62	14900	1.60		
118	1210	12.39	14400	1.80		
135	1050	10.83	14000	1.95		
158	900	9.29	13800	2.20		
175	820	8.39	13400	2.50	TR 97 TRF 97	Y..160L-4 AM160 AD5
206	695	7.12	12800	2.90		
236	605	6.21	12400	3.10		
86.0	1660	17.08	11600	0.85	TR 87 TRF 87	Y..160L-4 AM160 AD4
95.0	1500	15.35	11500	0.90		
110	1300	13.33	11300	1.00		
123	1160	11.93	11100	1.05		
148	960	9.90	10700	1.20	TR 87 TRF 87	Y..160L-4 AM160 AD4
160	890	9.14	11000	1.35	TR 87 TRF 87	Y..160L-4 AM160 AD5
178	800	8.22	10700	1.45		
205	695	7.13	10300	1.55		
229	620	6.39	10100	1.65		
276	515	5.30	9590	1.75		
282	505	5.19	8430	1.35	TRX 107 TRXF 107	Y..160L-4 AM160 AD5
315	450	4.65	8250	1.55		
349	410	4.20	8080	2.00		
384	370	3.81	7920	2.20		
433	330	3.38	7700	2.50	TRX 107 TRXF 107	Y..160L-4 AM160 AD5
477	300	3.07	7530	2.80	TRX 107 TRXF 107	Y..160L-4 AM160 AD6
555	255	2.64	7250	3.20		
636	225	2.30	7000	3.70		
750	191	1.95	6700	4.00		
858	167	1.71	6460	4.20		
1015	141	1.44	6160	4.60		

n ₂ [1/min]	M ₂ [Nm]	i	Fr [N]	K	Frame size		Input Configuration
P _i =15.0kw							
324	440	4.52	6660	1.35	TRX TRXF	97 97	Y..160L-4 AM160 AD5
362	395	4.04	6520	1.50			
402	355	3.64	6390	1.65			
444	320	3.30	6260	1.85			
501	285	2.92	6100	2.10			
554	255	2.64	5960	2.30			
654	215	2.24	5730	2.70			
749	191	1.96	5540	3.00	TRX	97	Y..160L-4 AM160 AD5
895	160	1.64	5290	3.20	TRXF	97	
1035	138	1.42	5080	3.30	TRX	97	Y..160L-4 AM160 AD6
					TRXF	97	
421	335	3.48	4280	1.20	TRX TRXF	87 87	Y..160L-4 AM160 AD5
475	300	3.09	4500	1.35			
531	265	2.76	4420	1.50			
590	240	2.48	4340	1.65			
680	210	2.15	4230	1.85			
760	189	1.93	4130	1.90	TRX TRXF	87 87	Y..160L-4 AM160 AD5
916	156	1.60	3960	2.00			
1055	136	1.39	3840	2.10			
P _i =18.5kw							
7.80	22500	186.93	120000	0.80	TR TRF	167 167	Y..180M-4 AM180 AD5
9.60	18400	153.07	120000	1.00			
10.0	16800	139.98	120000	1.05			
12.0	14600	121.81	120000	1.25			
14.0	12900	107.49	120000	1.40	TR TRF	167 167	Y..180M-4 AM180 AD5
16.0	11200	93.19	120000	1.60			
18.0	9990	82.91	120000	1.80			
20.0	8880	73.70	120000	2.00			
22.0	8120	67.40	120000	2.20	TR TRF	167 167	Y..180M-4 AM180 AD6
25.0	7070	58.65	120000	2.60			
12.0	14400	119.86	57000	0.90	TR TRF	147 147	Y..180M-4 AM180 AD4
13.0	13100	109.31	62300	1.00			
15.0	11400	94.60	65600	1.15			
18.0	10000	83.47	67700	1.30	TR TRF	147 147	Y..180M-4 AM180 AD4
20.0	8690	72.09	69500	1.50	TR TRF	147 147	Y..180M-4 AM180 AD5
22.0	8070	66.99	70200	1.60			
24.0	7360	61.09	71000	1.75			
28.0	6370	52.87	71900	2.00			
31.0	5620	46.65	72500	2.30			
36.0	4850	40.29	73000	2.70	TR TRF	147 147	Y..180M-4 AM180 AD6



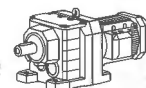
FR

n_2 [1/min]	M_2 [Nm]	i	Fr [N]	K	Frame size	Input Configuration
P₁=18.5kw						
18.0	9750	80.91	35600	0.80	TR 137 TRF 137	Y..180M-4 AM180 AD4
20.0	8860	73.49	50200	0.90		
22.0	7860	65.20	53700	1.00		
25.0	7130	59.17	55100	1.10		
29.0	6130	50.86	56800	1.30	TR 137 TRF 137	Y..180M-4 AM180 AD5
33.0	5350	44.39	58000	1.50		
39.0	4540	37.65	58900	1.75		
45.0	3960	32.91	59500	2.00		
53.0	3350	27.83	60100	2.30	TR 137 TRF 137	Y..180M-4 AM180 AD6
50.0	3560	29.57	59900	2.20		
61.0	2900	24.12	60400	2.80		
67.0	2650	22.00	60600	3.00		
77.0	2290	19.04	60800	3.50	TR 137 TRF 137	Y..180M-4 AM180 AD7
87.0	2020	16.80	60900	4.00		
36.0	4860	40.37	20200	0.90	TR 107 TRF 107	Y..180M-4 AM180 AD4
42.0	4250	35.26	22000	1.00		
50.0	3550	29.49	21500	1.20		
59.0	3000	24.90	20900	1.45	TR 107 TRF 107	Y..180M-4 AM180 AD5
65.0	2720	22.62	20600	1.60		
73.0	2410	20.07	20100	1.80		
80.0	2190	18.21	19700	1.95		
94.0	1880	15.65	19100	2.30	TR 107 TRF 107	Y..180M-4 AM180 AD6
107	1640	13.66	18500	2.60		
126	1390	11.59	17800	3.10		
145	1220	10.13	17200	3.50		
186	940	7.86	16300	3.10		
220	800	6.66	15600	3.70	TR 97 TRF 97	Y..180M-4 AM180 AD5
73.0	2420	20.14	14900	1.05		
80.0	2190	18.24	14700	1.15		
91.0	1950	16.17	14500	1.25		
100	1760	14.62	14200	1.30		
118	1490	12.39	13800	1.45		
135	1300	10.83	13500	1.60		
158	1110	9.29	13400	1.80		
175	1010	8.39	13100	2.00		
206	850	7.12	12600	2.30		
236	745	6.21	12100	2.50		
282	625	5.20	11600	2.80	TR 97 TRF 97	Y..180M-4 AM180 AD6
326	540	4.50	11100	3.00		
110	1600	13.33	10600	0.80	TR 87 TRF 87	Y..180M-4 AM180 AD4
123	1430	11.93	10400	0.85		
148	1190	9.90	10200	1.00		
160	1100	9.14	10600	1.10	TR 87 TRF 87	Y..180M-4 AM180 AD5
178	990	8.22	10300	1.15		
205	860	7.13	10000	1.25		
229	770	6.39	9770	1.30		
276	635	5.30	9350	1.40		

n_2 [1/min]	M_2 [Nm]	i	Fr [N]	K	Frame size	Input Configuration
P ₁ =18.5kw						
349	505	4.20	7710	1.65	TRX 107 TRXF 107	Y..180M-4 AM180 AD5
384	460	3.81	7580	1.80		
433	405	3.38	7400	2.00		
477	370	3.07	7250	2.20	TRX 107 TRXF 107	Y..180M-4 AM180 AD6
555	315	2.64	7000	2.60		
636	275	2.30	6780	3.00		
750	235	1.95	6510	3.20		
858	205	1.71	6290	3.40		
1015	174	1.44	6020	3.70		
402	435	3.64	6060	1.35	TRX 97 TRXF 97	Y..180M-4 AM180 AD5
444	395	3.30	5960	1.50		
501	350	2.92	5830	1.70		
554	315	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	TRX 97 TRXF 97	Y..180M-4 AM180 AD6
531	330	2.76	3040	1.20	TRX 87 TRXF 87	Y..180M-4 AM180 AD5
590	295	2.48	3340	1.35		
680	255	2.15	3630	1.50		
760	230	1.93	3820	1.55		
916	193	1.60	3770	1.65		
1055	168	1.39	3660	1.75		
P ₁ =22.0kw						
9.60	21800	153.07	120000	0.85	TR 167 TRF 167	Y..180L-4 AM180 AD5
11.0	19900	139.98	120000	0.90		
12.0	17300	121.81	120000	1.05		
14.0	15300	107.49	120000	1.20	TR 167 TRF 167	Y..180L-4 AM180 AD5
16.0	13200	93.19	120000	1.35		
18.0	11800	82.91	120000	1.50		
20.0	10400	73.70	120000	1.70		
22.0	9590	67.40	120000	1.90	TR 167 TRF 167	Y..180L-4 AM180 AD6
25.0	8350	58.65	120000	2.20		
28.0	7370	51.76	120000	2.40		
33.0	6390	44.87	120000	2.80	TR 167 TRF 167	Y..180L-4 AM180 AD7
13.0	15500	109.31	42800	0.85	TR 147 TRF 147	Y..180L-4 AM180 AD4
16.0	13400	94.60	61700	0.95		
18.0	11800	83.47	64800	1.10		
20.0	10200	72.09	67400	1.25	TR 147 TRF 147	Y..180L-4 AM180 AD5
22.0	9540	66.99	68400	1.35	TR 147 TRF 147	Y..180L-4 AM180 AD5
24.0	8700	61.09	69500	1.50		
28.0	7530	52.87	70800	1.75		
32.0	6640	46.65	71700	1.95		

n ₂ [1/min]	M ₂ [Nm]	i	Fr [N]	K	Frame size	Input Configuration
P ₁ =22.0kw						
37.0	5730	40.29	72400	2.30	TR 147 TRF 147	Y..180L-4 AM180 AD6
41.0	5070	35.64	72900	2.60	TR 147	Y..180L-4
49.0	4260	29.95	73400	3.00	TRF 147	AM180 AD7
23.0	9280	65.20	44700	0.85	TR 137	Y..180L-4
25.0	8420	59.17	52200	0.95	TRF 137	AM180 AD4
29.0	7240	50.86	54900	1.10	TR 137	Y..180L-4
33.0	6320	44.39	56500	1.25	TRF 137	AM180 AD5
39.0	5360	37.65	57900	1.50	TR 137	Y..180L-4
45.0	4680	32.91	58800	1.70	TRF 137	AM180 AD5
53.0	3960	27.83	59500	1.95		
50.0	4210	29.57	59300	1.85	TR 137	Y..180L-4
61.0	3430	24.12	60000	2.30	TRF 137	AM180 AD6
67.0	3130	22.00	60200	2.60	TR 137	Y..180L-4
77.0	2710	19.04	60500	3.00	TRF 137	AM180 AD7
88.0	2390	16.80	60700	3.30	TR 137	Y..180L-4
102	2060	14.51	60900	3.90	TRF 137	AM180 AD7
115	1820	12.83	61000	4.40		
42.0	5020	35.26	10900	0.85	TR 107	Y..180L-4
50.0	4200	29.49	20400	1.00	TRF 107	AM180 AD4
59.0	3540	24.90	20000	1.20	TR 107	Y..180L-4
65.0	3220	22.62	19700	1.35	TRF 107	AM180 AD5
74.0	2850	20.07	19300	1.50		
81.0	2590	18.21	19000	1.65	TR 107	Y..180L-4
94.0	2220	15.65	18400	1.95	TRF 107	AM180 AD5
108	1940	13.66	17900	2.20	TR 107	Y..180L-4
127	1650	11.59	17300	2.60	TRF 107	AM180 AD6
146	1440	10.13	16800	3.00		
172	1210	8.56	16100	3.50		
221	940	6.66	15300	3.10	TR 107	Y..180L-4
253	820	5.82	14800	3.60	TRF 107	AM180 AD6
73.0	2860	20.14	14000	0.90	TR 97	Y..180L-4
81.0	2590	18.24	13900	0.95	TRF 97	AM180
91.0	2300	16.17	13700	1.05		AD5
101	2080	14.62	13500	1.10		

n ₂ [1/min]	M ₂ [Nm]	i	Fr [N]	K	Frame size	Input Configuration
P ₁ =22.0kw						
119	1760	12.39	13200	1.25		
136	1540	10.83	12900	1.35		
159	1320	9.29	13100	1.55	TR 97	Y..180L-4
176	1190	8.39	12800	1.70	TRF 97	AM180 AD5
207	1010	7.12	12300	1.95		
237	880	6.21	11900	2.10		
284	740	5.20	11300	2.40	TR 97	Y..180L-4
328	640	4.50	10900	2.50	TRF 97	AM180 AD6
149	1410	9.90	9640	0.85	TR 87	Y..180L-4
					TRF 87	AM180 AD4
161	1300	9.14	10100	0.95		
179	1170	8.22	9950	1.00	TR 87	Y..180L-4
207	1010	7.13	9680	1.05	TRF 87	AM180 AD5
231	900	6.39	9470	1.10		
278	750	5.30	9100	1.20		
351	595	4.20	7330	1.40	TRX 107	Y..180L-4
387	540	3.81	7220	1.55	TRXF 107	AM180 AD5
436	480	3.38	7080	1.70		
480	435	3.07	6950	1.90	TRX 107	Y..180L-4
559	375	2.64	6750	2.20	TRXF 107	AM180 AD6
640	325	2.30	6550	2.50	TRX 107	Y..180L-4
755	275	1.95	6310	2.80	TRXF 107	AM180 AD6
863	240	1.71	6110	2.90		
1020	205	1.44	5860	3.10		
405	515	3.64	5720	1.15		
447	465	3.30	5650	1.25		
505	415	2.92	5550	1.45	TRX 97	Y..180L-4
558	375	2.64	5460	1.60	TRXF 97	AM180 AD5
658	315	2.24	5290	1.85		
754	275	1.96	5150	2.00		
901	230	1.64	4950	2.20		
1040	200	1.42	4780	2.20	TRX 97	Y..180L-4
					TRXF 97	AM180 AD6
534	390	2.76	1310	1.05	TRX 87	Y..180L-4
594	350	2.48	1750	1.15	TRXF 87	AM180 AD5
685	305	2.15	2190	1.25		
765	270	1.93	2480	1.30	TRX 87	Y..180L-4
922	225	1.60	2780	1.40	TRXF 87	AM180 AD5
1060	198	1.39	3060	1.45		
P ₁ =30.0kw						
14.0	20800	107.49	120000	0.85	TR 167	Y..200L-4
16.0	18000	93.19	120000	1.00	TRF 167	AM200
18.0	16100	82.91	120000	1.10		AD5

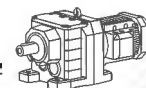


n ₂ [1/min]	M ₂ [Nm]	i	Fr [N]	K	Frame size		Input Configuration
P ₁ =30.0kw							
20.0	14300	73.70	120000	1.25	TR TRF	167 167	Y..200L-4 AM200 AD5
22.0	13000	67.40	120000	1.40	TR TRF	167 167	Y..200L-4 AM200 AD6
25.0	11300	58.65	120000	1.60			
28.0	10000	51.76	120000	1.80			
33.0	8710	44.87	120000	2.10	TR TRF	167 167	Y..200L-4 AM200 AD7
37.0	7750	39.92	120000	2.30			
43.0	6680	34.41	120000	2.70			
53.0	5430	27.96	120000	3.30	TR TRF	167 167	Y..200L-4 AM200 AD8
62.0	4600	23.71	120000	3.90			
18.0	16200	83.47	33300	0.80	TR TRF	147 147	Y..200L-4 AM200 AD4
20.0	14000	72.09	60500	0.95	TR TRF	147 147	Y..200L-4 AM200 AD5
22.0	13000	66.99	62600	1.00			
24.0	11800	61.09	64800	1.10			
28.0	10200	52.87	67400	1.25			
32.0	9060	46.65	69000	1.45			
37.0	7820	40.29	70500	1.65	TR TRF	147 147	Y..200L-4 AM200 AD6
41.0	6920	35.64	71400	1.90	TR TRF	147 147	Y..200L-4 AM200 AD7
49.0	5810	29.95	72400	2.20			
61.0	4690	24.19	73100	2.50			
72.0	3960	20.44	73600	3.00	TR TRF	147 147	Y..200L-4 AM200 AD8
82.0	3500	18.04	73800	3.00			
94.0	3030	15.64	74000	4.30			
29.0	9870	50.86	32800	0.80	TR TRF	137 137	Y..200L-4 AM200 AD5
33.0	8620	44.39	51300	0.95			
39.0	7310	37.65	54800	1.10			
45.0	6390	32.91	56400	1.25			
53.0	5400	27.83	57900	1.40	TR TRF	137 137	Y..200L-4 AM200 AD5
61.0	4680	24.12	58800	1.70	TR TRF	137 137	Y..200L-4 AM200 AD6
67.0	4270	22.00	59200	1.85	TR TRF	137 137	Y..200L-4 AM200 AD7
77.0	3690	19.04	59800	2.20			
88.0	3260	16.80	60100	2.40			
102	2810	14.51	59500	2.80	TR TRF	137 137	Y..200L-4 AM200 AD7
115	2490	12.83	58400	3.20			
137	2090	10.79	56600	3.80			
194	1470	7.59	53300	3.50			
231	1230	6.38	51200	4.10			

n ₂ [1/min]	M ₂ [Nm]	i	Fr [N]	K	Frame size		Input Configuration
P ₁ =30.0kw							
74.0	3890	20.07	17600	1.10	TR TRF	107 107	Y..200L-4 AM200 AD5
81.0	3530	18.21	17400	1.20			
94.0	3030	15.65	17100	1.40			
108	2650	13.66	16800	1.60	TR TRF	107 107	Y..200L-4 AM200 AD6
127	2250	11.59	16300	1.90			
146	1960	10.13	15900	2.20			
172	1660	8.56	15400	2.60			
188	1520	7.86	15500	1.95			
221	1290	6.66	14900	2.30			
253	1130	5.82	14400	2.60			
300	950	4.92	13700	3.00			
101	2840	14.62	12000	0.80	TR TRF	97 97	Y..200L-4 AM200 AD5
119	2400	12.39	11900	0.90			
136	2100	10.83	11800	1.00			
159	1800	9.29	12300	1.15			
176	1630	8.39	12100	1.25			
207	1380	7.12	11700	1.45	TR TRF	97 97	Y..200L-4 AM200 AD5
237	1200	6.21	11300	1.55			
284	1000	5.20	10900	1.75	TR TRF	97 97	Y..200L-4 AM200 AD6
328	870	4.50	10500	1.85			
436	655	3.38	6370	1.25	TRX TRXF	107 107	Y..200L-4 AM200 AD5
480	595	3.07	6300	1.40	TRX TRXF	107 107	Y..200L-4 AM200 AD6
559	510	2.64	6180	1.60			
640	445	2.30	6050	1.85			
755	375	1.95	5870	2.00			
863	330	1.71	5710	2.10	TRX TRXF	107 107	Y..200L-4 AM200 AD6
1020	280	1.44	5520	2.30			
505	565	2.92	3140	1.05	TRX TRXF	97 97	Y..200L-4 AM200 AD5
558	510	2.64	3580	1.15			
658	435	2.24	4070	1.35			
754	380	1.96	4460	1.50			
901	315	1.64	4570	1.60			
1040	275	1.42	4450	1.65	TRX TRXF	97 97	Y..200L-4 AM200 AD6
P ₁ =37.0kw							
16.0	22200	93.19	120000	0.80	TR TRF	167 167	Y..225S-4 AM225 AD5
18.0	19800	82.91	120000	0.90			
20.0	17600	73.70	120000	1.00			
22.0	16100	67.40	120000	1.10	TR TRF	167 167	Y..225S-4 AM225 AD6
25.0	14000	58.65	120000	1.30			
29.0	12300	51.76	120000	1.45			

n ₂ [1/min]	M ₂ [Nm]	i	Fr [N]	K	Frame size	Input Configuration
P ₁ =37.0kw						
33.0	10700	44.87	120000	1.70	TR 167	Y..225S-4
37.0	9540	39.92	120000	1.90	TRF 167	AM225
43.0	8230	34.41	120000	2.20		AD7
53.0	6680	27.96	120000	2.70	TR 167	Y..225S-4
					TRF 167	AM225
						AD8
48.0	7340	30.71	120000	1.35	TR 167	Y..225S-4
					TRF 167	AM225
						AD6
60.0	5870	24.57	120000	2.40	TR 167	Y..225S-4
68.0	5220	21.85	120000	2.50	TRF 167	AM225
78.0	4550	19.03	120000	3.50		AD8
87.0	4060	16.98	120000	3.70	TR 167	Y..225S-4
					TRF 167	AM225
						AD8
22.0	16000	66.99	36200	0.80	TR 147	Y..225S-4
24.0	14600	61.09	55000	0.90	TRF 147	AM225
28.0	12600	52.87	63400	1.05		AD5
32.0	11100	46.65	66000	1.15	TR 147	Y..225S-4
					TRF 147	AM225
						AD5
37.0	9630	40.29	68300	1.35	TR 147	Y..225S-4
					TRF 147	AM225
						AD6
41.0	8520	35.64	69700	1.50	TR 147	Y..225S-4
49.0	7160	29.95	71200	1.80	TRF 147	AM225
61.0	5780	24.19	72400	2.10		AD7
72.0	4880	20.44	73000	2.40	TR 147	Y..225S-4
82.0	4310	18.04	73400	2.40	TRF 147	AM225
94.0	3740	15.64	73700	3.50		AD8
106	3320	13.91	73900	3.80	TR 147	Y..225S-4
					TRF 147	AM225
						AD8
39.0	9000	37.65	49200	0.90	TR 137	Y..225S-4
45.0	7870	32.91	53700	1.00	TRF 137	AM225
53.0	6650	27.83	56000	1.15		AD5
61.0	5770	24.12	57400	1.40	TR 137	Y..225S-4
					TRF 137	AM225
						AD6
67.0	5260	22.00	58100	1.50	TR 137	Y..225S-4
78.0	4550	19.04	57800	1.75	TRF 137	AM225
88.0	4010	16.80	57300	2.00		AD7
102	3470	14.51	56500	2.30	TR 137	Y..225S-4
115	3070	12.83	55700	2.60	TRF 137	AM225
137	2580	10.79	54400	3.10		AD7
170	2080	8.71	52500	3.80		

n ₂ [1/min]	M ₂ [Nm]	i	Fr [N]	K	Frame size	Input Configuration
P ₁ =37.0kw						
195	1810	7.59	51800	2.80	TR 137	Y..225S-4
232	1520	6.38	50000	3.40	TRF 137	AM225
287	1230	5.15	47700	3.70		AD7
74.0	4800	20.07	16100	0.90	TR 107	Y..225S-4
81.0	4350	18.21	16100	1.00	TRF 107	AM225
94.0	3740	15.65	15900	1.15		AD5
108	3260	13.66	15700	1.30		
127	2770	11.59	15400	1.55		
146	2420	10.13	15100	1.75		
172	2040	8.56	14700	2.10	TR 107	Y..225S-4
188	1870	7.86	15000	1.60	TRF 107	AM225
222	1590	6.66	14400	1.85		AD6
254	1390	5.82	14000	2.10		
300	1170	4.92	13400	2.50		
436	800	3.38	4510	1.05	TRX 107	Y..225S-4
					TRXF 107	AM225
						AD5
481	730	3.07	4990	1.15		
559	630	2.64	5560	1.30		
641	550	2.30	5610	1.50	TRX 107	Y..225S-4
756	465	1.95	5480	1.65	TRXF 107	AM225
865	405	1.71	5370	1.70		AD6
1025	345	1.44	5220	1.85		
P ₁ =45.0kw						
20.0	21400	73.70	120000	0.85	TR 167	Y..225M-4
					TRF 167	AM225
						AD5
22.0	19500	67.40	120000	0.90	TR 167	Y..225M-4
25.0	17000	58.65	120000	1.05	TRF 167	AM225
29.0	15000	51.76	120000	1.20		AD6
33.0	13000	44.87	120000	1.40	TR 167	Y..225M-4
37.0	11600	39.92	120000	1.55	TRF 167	AM225
43.0	10000	34.41	120000	1.80		AD7
53.0	8120	27.96	120000	2.20	TR 167	Y..225M-4
62.0	6890	23.71	120000	2.60	TRF 167	AM225
						AD8
48.0	8920	30.71	120000	1.10	TR 167	Y..225M-4
					TRF 167	AM225
						AD6
60.0	7140	24.57	120000	1.95	TR 167	Y..225M-4
68.0	6350	21.85	120000	2.00	TRF 167	AM225
78.0	5530	19.03	120000	2.90		AD8
87.0	4930	16.98	120000	3.00		
28.0	15300	52.87	45500	0.85	TR 147	Y..225M-4
32.0	13500	46.65	61500	0.95	TRF 147	AM225
						AD5

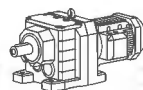


n_2 [1/min]	M_2 [Nm]	i	Fr [N]	K	Frame size	Input Configuration
P₁=45.0kw						
37.0	11700	40.29	65100	1.10	TR 147 TRF 147	Y..225M-4 AM225 AD6
41.0	10300	35.64	67300	1.25	TR 147 TRF 147	Y..225M-4
49.0	8700	29.95	69500	1.50		AM225
61.0	7030	24.19	71300	1.70		AD7
72.0	5940	20.44	72300	2.00	TR 147 TRF 147	Y..225M-4
82.0	5240	18.04	72800	2.00		AM225
95.0	4540	15.64	73200	2.90		AD8
106	4040	13.91	73500	3.10		
123	3480	11.99	73800	3.70		
204	2100	7.25	74300	4.10		
45.0	9560	32.91	39600	0.85	TR 137 TRF 137	Y..225M-4
53.0	8090	27.83	51300	0.95		AM225 AD5
61.0	7010	24.12	52400	1.15	TR 137 TRF 137	Y..225M-4 AM225 AD6
67.0	6390	22.00	52900	1.25	TR 137 TRF 137	Y..225M-4
78.0	5530	19.04	53300	1.45		AM225
88.0	4880	16.80	53400	1.65		AD7
102	4210	14.51	53200	1.90	TR 137 TRF 137	Y..225M-4
115	3730	12.83	52700	2.10		AM225
137	3130	10.79	51900	2.60		AD7
170	2530	8.71	50500	3.10		
195	2200	7.59	50200	2.30		
232	1850	6.38	48600	2.80		
287	1490	5.15	46600	3.10		
94.0	4550	15.65	14600	0.95	TR 107 TRF 107	Y..225M-4 AM225 AD5
108	970	13.66	14600	1.10	TR 107 TRF 107	Y..225M-4
128	3360	11.59	14400	1.30		AM225
146	2940	10.13	14300	1.45		AD6
173	2480	8.56	14000	1.75		
188	2280	7.86	14400	1.30		
222	1930	6.66	13900	1.55		
254	1690	5.82	13600	1.75	TR 107 TRF 107	Y..225M-4
300	1430	4.92	13100	2.00		AM225 AD6
437	980	3.38	1420	0.85	TRX 107 TRXF 107	Y..225M-4 AM225 AD5
481	890	3.07	2130	0.95	TRX 107 TRXF 107	Y..225M-4
560	765	2.64	3010	1.10		AM225
641	670	2.30	3680	1.25		AD6
756	565	1.95	4230	1.35		
865	495	1.71	4570	1.40		
1025	420	1.44	4880	1.55		

n ₂ [1/min]	M ₂ [Nm]	i	Fr [N]	K	Frame size		Input Configuration
P ₁ =55.0kw							
25.0	20800	58.65	120000	0.85	TR TRF	167 167	Y..250M-4
28.0	18400	51.76	120000	1.00			AM250 AD6
33.0	15900	44.87	120000	1.15	TR TRF	167 167	Y..250M-4
37.0	14200	39.92	120000	1.25			AM250
43.0	12200	34.41	120000	1.45			AD7
53.0	9950	27.96	120000	1.80	TR TRF	167 167	Y..250M-4
62.0	8440	23.71	120000	2.10			AM250 AD8
60.0	8740	24.57	120000	1.60	TR TRF	167 167	Y..250M-4
68.0	7770	21.85	120000	1.65			AM250
77.0	6770	19.03	120000	2.40			AD8
87.0	6040	16.98	120000	2.50	TR TRF	167 167	Y..250M-4
102	5150	14.48	120000	3.50			AM250
123	4270	11.99	120000	4.00			AD8
32.0	16600	46.65	26700	0.80	TR TRF	147 147	Y..250M-4 AM250 AD5
37.0	14300	40.29	58200	0.90	TR TRF	147 147	Y..250M-4 AM250 AD6
41.0	12600	35.64	63300	1.00	TR TRF	147 147	Y..250M-4
49.0	10600	29.95	66800	1.20			AM250
61.0	8610	24.19	69600	1.40			AD7
72.0	7270	20.44	71100	1.65	TR TRF	147 147	Y..250M-4
82.0	6420	18.04	71900	1.65			AM250
94.0	5560	15.64	72500	2.30			AD8
106	4950	13.91	73000	2.50	TR TRF	147 147	Y..250M-4 AM250 AD8
123	4260	11.99	73400	3.00	TR TRF	147 147	Y..250M-4
151	3460	9.74	73800	3.80			AM250
203	2580	7.25	74200	3.40			AD8
250	2090	5.89	72500	4.10			
77.0	6770	19.04	47800	1.20	TR TRF	137 137	Y..250M-4
88.0	5980	16.80	48500	1.35			AM250
102	5160	14.51	48900	1.55			AD7
115	4560	12.83	49000	1.75	TR TRF	137 137	Y..250M-4
137	3840	10.79	48800	2.10			AM250
169	3100	8.71	48000	2.50			AD7
194	2700	7.59	48100	1.90			
231	2270	6.38	46900	2.20			
286	1830	5.15	45200	2.50			
P ₁ =75.0kw							
33.0	21700	44.87	120000	0.85	TR TRF	167 167	Y..280S-4
37.0	19300	39.92	120000	0.95			AM280
43.0	16600	34.41	120000	1.10			AD7

n ₂ [1/min]	M ₂ [Nm]	i	Fr [N]	K	Frame size	Input Configuration
P₁=75.0kw						
53.0	13500	27.96	120000	1.35	TR 167	Y..280S-4
62.0	11400	23.71	120000	1.55	TRF 167	AM280 AD8
60.0	11800	24.57	120000	1.20	TR 167	Y..280S-4
68.0	10500	21.85	120000	1.25	TRF 167	AM280 AD8
78.0	9210	19.03	120000	1.75		
87.0	8210	16.98	120000	1.85	TR 167	Y..280S-4
102	7000	14.48	120000	2.60	TRF 167	AM280 AD8
123	5800	11.99	116600	2.90		
145	4950	10.24	112800	3.40		
49.0	14400	29.95	56500	0.90	TR 147	Y..280S-4
61.0	11700	24.19	65100	1.00	TRF 147	AM280 AD7
72.0	9890	20.44	67900	1.20	TR 147	Y..280S-4
82.0	8720	18.04	69500	1.20	TRF 147	AM280 AD8
95.0	7560	15.64	70800	1.70		
106	6730	13.91	71600	1.85		
123	5800	11.99	72400	2.20	TR 147	Y..280S-4
152	4710	9.74	73100	2.80	TRF 147	AM280 AD8
179	3990	8.26	73500	3.20		
204	3500	7.25	73100	2.50		
251	2850	5.89	70100	3.00		
296	2410	5.00	67600	3.60		
P₁=90.0kw						
37.0	23100	39.92	120000	0.80	TR 167	Y..280M-4
43.0	19900	34.41	120000	0.90	TRF 167	AM280 AD7
53.0	16200	27.96	120000	1.10	TR 167	Y..280M-4
62.0	13700	23.71	120000	1.30	TRF 167	AM280 AD8
78.0	11000	19.03	120000	1.45		
87.0	9860	16.98	120000	1.50		
102	8400	14.48	117300	2.10		
123	6960	11.99	113500	2.40		
145	5940	10.24	110100	2.90		

n ₂ [1/min]	M ₂ [Nm]	i	Fr [N]	K	Frame size	Input Configuration
P₁=90.0kw						
95.0	9080	15.64	69000	1.45	TR 147	Y..280M-4
106	8070	13.91	70200	1.55	TRF 147	AM280 AD8
123	6960	11.99	71400	1.85	TR 147	Y..280M-4
152	5650	9.74	72500	2.30	TRF 147	AM280 AD8
179	4790	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		
P₁=110kw						
53.0	19800	27.96	117100	0.90	TR 167	Y..315S-4
63.0	16700	23.71	116900	1.05	TRF 167	- AD8
78.0	13400	19.03	115500	1.20	TR 167	Y..315S-4
					TRF 167	- AD8
87.0	12000	16.98	114300	1.25	TR 167	Y..315S-4
102	10200	14.48	112200	1.75	TRF 167	- AD8
124	8490	11.99	109300	2.00		
145	7250	10.24	106500	2.30		
P₁=132kw						
63.0	20100	23.71	107900	0.90	TR 167	Y..315M-4
					TRF 167	- AD8
78.0	16100	19.03	108300	1.00	TR 167	Y..315M-4
87.0	14400	16.98	107800	1.05	TRF 167	- AD8
103	12200	14.48	106700	1.45	TR 167	Y..315M-4
124	10100	11.99	104700	1.65	TRF 167	- AD8
145	8680	10.24	102600	1.95		



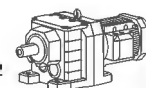
2. 8 TR../ TRF..性能参数 / TR../ TRF..Performance Parameters

n ₂ [1/min]	i	Fr [N]	Frame size		Motor
M _{2max} =130Nm					
0.16	8612	4230	TR TRF	27 TRF17 27 TRF17	Y..63M ₁₋₄ Y..63M ₁₋₄
0.19	7425	4230			
0.20	6921	4230			
0.23	6050	4230			
0.26	5217	4230			
0.30	4661	4230			
0.34	4073	4230			
0.39	3516	4230			
0.44	3160	4230			
0.50	2763	4230			
0.57	2414	4230			
0.65	2110	4230			
0.76	1822	4230	TR TRF	27 TRF17 27 TRF17	Y..63M ₁₋₄ Y..63M ₁₋₄
0.87	1580	4230			
0.94	1464	4230			
1.10	1270	4230			
1.20	1100	4230			
1.40	972	4230			
1.60	840	4230			
1.90	741	4230			
2.10	654	4230			
2.40	566	4230			
2.80	499	4230			
3.10	440	4230	TR TRF	27 TRF17 27 TRF17	Y..63M ₁₋₄ Y..63M ₁₋₄
3.60	381	4230			
4.20	329	4230			
4.80	290	4230			
5.40	256	4230			
6.10	227	4230			
6.80	203	4230			
7.40	179	4230	TR TRF	27 TRF17 27 TRF17	Y..63M ₂₋₄ Y..63M ₂₋₄
8.50	156	4230			
9.80	135	4230			
11.0	118	4230			
12.0	104	4230	TR TRF	27 TRF17 27 TRF17	Y..71M ₁₋₄ Y..71M ₁₋₄
14.0	90	4230			
M _{2max} =200Nm					
0.16	8595	4940	TR TRF	37 TRF17 37 TRF17	Y..63M ₁₋₄ Y..63M ₁₋₄
0.19	7411	4940			
0.20	6907	4940			
0.23	6038	4940			
0.27	5206	4940			
0.30	4561	4940			
0.34	4065	4940			
0.38	3658	4940			
0.44	3154	4940			
0.50	2757	4940			
0.57	2409	4940			
0.66	2106	4940			
0.76	1818	4940	TR TRF	37 TRF17 37 TRF17	Y..63M ₁₋₄ Y..63M ₁₋₄
0.88	1576	4940			

n ₂ [1/min]	i	Fr [N]	Frame size		Motor
M _{2max} =200Nm					
1.00	1359	4940	TR TRF	37 TRF17 37 TRF17	Y..63M ₁₋₄ Y..63M ₁₋₄
1.10	1267	4940			
1.30	1098	4940			
1.40	970	4940			
1.60	839	4940			
1.90	740	4940			
2.10	653	4940			
2.40	577	4940			
2.80	498	4940			
3.10	439	4940	TR TRF	37 TRF17 37 TRF17	Y..63M ₁₋₄ Y..63M ₁₋₄
3.60	378	4940			
4.20	328	4940			
4.80	289	4940			
5.00	265	4940	TR TRF	37 TRF17 37 TRF17	Y..63M ₂₋₄ Y..63M ₂₋₄
5.80	226	4940			
6.50	202	4940			
7.40	179	4940			
8.40	156	4940	TR TRF	37 TRF17 37 TRF17	Y..71M ₁₋₄ Y..71M ₁₋₄
9.70	135	4940			
10.0	127	4940			
13.0	104	4940	TR TRF	37 TRF17 37 TRF17	Y..71M ₂₋₄ Y..71M ₂₋₄
15.0	90	4940			
M _{2max} =300Nm					
0.10	13598	5420	TR TRF	47 TRF37 47 TRF37	Y..63M ₁₋₄ Y..63M ₁₋₄
0.11	12472	5420			
0.13	10619	5420			
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 TRF	47 TRF37 47 TRF37	Y..63M ₁₋₄ Y..63M ₁₋₄
0.58	2383	5420			
0.68	2029	5420			
0.79	1749	5420			
0.85	1630	5420			
0.97	1425	5420			
1.00	1336	5420			
1.20	1179	5420			
1.30	1074	5420			
1.50	927	5420			
1.60	863	5420			
1.80	755	5420			

n ₂ [1/min]	i	Fr [N]	Frame size		Motor			
M _{2max} =300Nm								
2.50	546	5420	TR TRF	47 TRF37	Y..63M ₁₋₄			
2.80	502	5420		47 TRF37	Y..63M ₁₋₄			
3.20	429	5420						
3.60	372	5420	TR TRF	47 TRF37	Y..63M ₂₋₄			
3.80	348	5420		47 TRF37	Y..63M ₂₋₄			
4.40	301	5420						
5.10	255	5420	TR TRF	47 TRF37	Y..71M ₁₋₄			
5.70	228	5420		47 TRF37	Y..71M ₁₋₄			
M _{2max} =450Nm								
0.10	14369	7100	TR TRF	57 TRF37 57 TRF37	Y..63M ₁₋₄ Y..63M ₁₋₄			
0.11	12095	7100						
0.13	10860	7100						
0.15	9445	7100						
0.16	8480	7100						
0.19	7312	7100						
0.21	6521	7100						
0.25	5585	7100						
0.28	4928	7100						
0.32	4378	7100	TR TRF	57 TRF37 57 TRF37	Y..63M ₁₋₄ Y..63M ₁₋₄			
0.36	3873	7100						
0.41	3344	7100						
0.47	2907	7100						
0.54	2567	7100						
0.61	2244	7100						
0.70	1967	7100						
0.80	1732	7100				TR TRF	57 TRF37 57 TRF37	Y..63M ₁₋₄ Y..63M ₁₋₄
0.89	1555	7100						
0.99	1399	7100						
1.20	1189	7100						
1.30	1034	7100						
1.80	782	7100						
2.00	678	7100						
2.20	604	7100	TR TRF	57 TRF37 57 TRF37	Y..63M ₂₋₄ Y..63M ₂₋₄			
2.50	537	7100						
2.80	471	7100						
3.60	357	7100	TR TRF	57 TRF37 57 TRF37	Y..71M ₁₋₄ Y..71M ₁₋₄			
4.10	319	7100						
5.10	273	7100	TR TRF	57 TRF37 57 TRF37	Y..71M ₂₋₄ Y..71M ₂₋₄			
5.70	241	7100						
M _{2max} =600Nm								
0.09	15361	7560	TR TRF	67 TRF37 67 TRF37	Y..63M ₁₋₄ Y..63M ₁₋₄			
0.11	12931	7560						
0.12	11996	7560						
0.14	10097	7560	TR TRF	67 TRF37 67 TRF37	Y..63M ₁₋₄ Y..63M ₁₋₄			
0.15	9066	7560						
0.18	7816	7560						
0.20	6732	7560						
0.23	5970	7560						
0.26	5268	7560						

n ₂ [1/min]	i	Fr [N]	Frame size		Motor
M _{2max} =600Nm					
0.29	4680	7560	TR TRF	67 TRF37 67 TRF37	Y..63M ₁₋₄ Y..63M ₁₋₄
0.33	4136	7560			
0.39	3566	7560			
0.44	3125	7560			
0.50	2745	7560			
0.57	2403	7560			
0.51	2682	7560	TR TRF	67 TRF37 67 TRF37	Y..63M ₁₋₄ Y..63M ₁₋₄
0.56	2460	7560			
0.66	2094	7560			
0.76	1805	7560			
0.85	1629	7560			
0.94	1471	7560			
1.00	1379	7560			
1.80	730	7560	TR	67 TRF37	Y..63M ₂₋₄
2.30	571	7560	TRF	67 TRF37	Y..63M ₂₋₄
2.70	486	7560	TR TRF	67 TRF37 67 TRF37	Y..71M ₁₋₄ Y..71M ₁₋₄
0.84	1652	7560	TR TRF	67 TRF37 67 TRF37	Y..63M ₁₋₄ Y..63M ₁₋₄
0.96	1432	7560			
1.10	1259	7560			
1.20	1106	7560			
1.60	836	7560	TR TRF	67 TRF37 67 TRF37	Y..63M ₂₋₄ Y..63M ₂₋₄
1.80	750	7560			
2.00	646	7560			
2.30	574	7560			
2.60	495	7560	TR TRF	67 TRF37 67 TRF37	Y..71M ₁₋₄ Y..71M ₁₋₄
3.00	438	7560			
3.40	388	7560			
4.00	344	7560	TR	67 TRF37	Y..71M ₂₋₄
4.70	294	7560	TRF	67 TRF37	Y..71M ₂₋₄
M _{2max} =820Nm					
0.08	16370	9920	TR TRF	77 TRF37 77 TRF37	Y..63M ₁₋₄ Y..63M ₁₋₄
0.09	15015	9920			
0.10	13885	9920			
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			
0.27	5184	9920			
0.31	4470	9920			
0.35	3999	9920			
0.40	3488	9920			
0.45	3053	9920			
0.52	2671	9920			
0.44	3151	9920	TR	77 TRF37	Y..63M ₁₋₄
0.48	2890	9920	TRF	77 TRF37	Y..63M ₁₋₄
0.56	2460	9920			

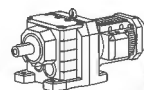


n_2 [1/min]	i	Fr [N]	Frame size		Motor
$M_{2max}=820Nm$					
0.65	2121	9920	TR TRF	77 TRF37	Y..63M ₁₋₄ Y..63M ₁₋₄
0.70	1977	9920			
0.80	1728	9920			
0.85	1620	9920			
0.97	1430	9920			
1.10	1303	9920			
1.20	1124	9920	TR TRF	77 TRF37	Y..63M ₂₋₄ Y..63M ₂₋₄
1.30	1047	9920			
1.40	915	9920			
1.50	858	9920			
1.70	757	9920			
1.90	671	9920	TR TRF	77 TRF37	Y..71M ₁₋₄ Y..71M ₁₋₄
2.30	571	9920			
2.30	560	9920	TR TRF	77 TRF37	Y..71M ₁₋₄ Y..71M ₁₋₄
2.80	488	9920			
3.20	436	9920	TR TRF	77 TRF37	Y..71M ₂₋₄ Y..71M ₂₋₄
3.70	373	9920			
4.20	327	9920	TR TRF	77 TRF37	Y..80M ₁₋₄ Y..80M ₁₋₄
4.80	289	9920			
5.30	260	9920			
$M_{2max}=1550Nm$					
0.08	17452	16900	TR TRF	87 TRF57	Y..63M ₁₋₄ Y..63M ₁₋₄
0.09	15310	16900			
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			
0.34	4020	16900	TR TRF	87 TRF57	Y..63M ₁₋₄ Y..63M ₁₋₄
0.43	3182	16900			
0.50	2770	16900			
0.53	2595	16900	TR TRF	87 TRF57	Y..63M ₂₋₄ Y..63M ₂₋₄
0.62	2129	16900			
0.68	1930	16900			
0.76	1733	16900			
0.89	1489	16900			
0.95	1395	16900			

n_2 [1/min]	i	Fr [N]	Frame size		Motor
$M_{2max}=1550Nm$					
1.00	1232	16900	TR TRF	87 TRF57	Y..71M ₁₋₄ Y..71M ₁₋₄
1.10	1145	16900			
1.20	1037	16900			
1.70	802	16900	TR TRF	87 TRF57	Y..71M ₂₋₄ Y..71M ₂₋₄
1.80	754	16900			
0.76	1737	16900	TR TRF	87 TRF57	Y..63M ₂₋₄ Y..63M ₂₋₄
0.87	1524	16900			
1.00	1303	16900	TR TRF	87 TRF57	Y..71M ₁₋₄ Y..71M ₁₋₄
1.30	1008	16900			
1.60	885	16900	TR TRF	87 TRF57	Y..71M ₂₋₄ Y..71M ₂₋₄
2.00	685	16900			
2.30	599	16900	TR TRF	87 TRF57	Y..80M ₁₋₄ Y..80M ₁₋₄
3.60	398	16900			
4.10	352	16900	TR TRF	87 TRF57	Y..80M ₂₋₄ Y..80M ₂₋₄
4.60	305	16900			
5.30	268	16900	TR TRF	87 TRF57	Y..90S-4 Y..90S-4
2.60	538	16900			
2.90	472	16900	TR TRF	87 TRF57	Y..80M ₁₋₄ Y..80M ₁₋₄
3.60	400	16900			
4.00	361	16900	TR TRF	87 TRF57	Y..80M ₂₋₄ Y..80M ₂₋₄
4.70	300	16900			
5.60	256	16900	TR TRF	87 TRF57	Y..90S-4 Y..90S-4
$M_{2max}=3000Nm$					
0.06	21769	19800	TR TRF	97 TRF57	Y..63M ₁₋₄ Y..63M ₁₋₄
0.07	19332	19800			
0.08	17230	19800			
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 TRF	97 TRF57	Y..63M ₂₋₄ Y..63M ₂₋₄
0.38	3481	19800			
0.29	4678	19800	TR TRF	97 TRF57	Y..63M ₁₋₄ Y..63M ₁₋₄
0.31	4309	19800			
0.36	3702	19800	TR TRF	97 TRF57	Y..63M ₂₋₄ Y..63M ₂₋₄
0.44	3019	19800			

n ₂ [1/min]	i	Fr [N]	Frame size		Motor
M _{2max} =3000Nm					
0.49	2668	19800	TR TRF	97 TRF57	Y..71M ₁₋₄
0.58	2245	19800		97 TRF57	Y..71M ₁₋₄
0.64	2016	19800			
0.80	1733	19800	TR TRF	97 TRF57	Y..71M ₂₋₄
0.85	1623	19800		97 TRF57	Y..71M ₂₋₄
0.96	1434	19800			
1.10	1207	19800	TR TRF	97 TRF57	Y..80M ₁₋₄
1.30	1084	19800		97 TRF57	Y..80M ₁₋₄
1.50	934	19800		97 TRF57	Y..80M ₁₋₄
1.60	878	19800			
1.90	755	19800	TR TRF	97 TRF57	Y..80M ₂₋₄
				97 TRF57	Y..80M ₂₋₄
0.76	1823	19800	TR TRF	97 TRF57	Y..71M ₂₋₄
0.87	1583	19800		97 TRF57	Y..71M ₂₋₄
0.99	1396	19800			
1.10	1228	19800	TR TRF	97 TRF57	Y..80M ₁₋₄
1.30	1069	19800		97 TRF57	Y..80M ₁₋₄
1.50	938	19800			
1.70	824	19800	TR TRF	97 TRF57	Y..80M ₂₋₄
2.00	737	19800		97 TRF57	Y..80M ₂₋₄
2.20	632	19800	TR TRF	97 TRF57	Y..90S-4
2.50	560	19800		97 TRF57	Y..90S-4
2.90	484	19800			
3.30	431	19800	TR TRF	97 TRF57	Y..90L-4
3.80	379	19800		97 TRF57	Y..90L-4
4.20	336	19800	TR TRF	97 TRF57	Y..90L-4
				97 TRF57	Y..90L-4
4.80	296	19800	TR TRF	97 TRF57	Y..100L ₁₋₄
5.70	249	19800		97 TRF57	Y..100L ₁₋₄
6.10	234	19800			
2.30	625	19800	TR TRF	97 TRF57	Y..90S-4
2.60	549	19800		97 TRF57	Y..90S-4
5.30	270	19800	TR TRF	97 TRF57	Y..100L ₁₋₄
6.30	227	19800		97 TRF57	Y..100L ₁₋₄
M _{2max} =4300Nm					
0.07	20018	29500	TR TRF	107 TRF77	Y..63M ₁₋₄
0.08	17080	29500		107 TRF77	Y..63M ₁₋₄
0.09	14936	29500			
0.11	12829	29500		107 TRF77	Y..63M ₁₋₄
0.12	11256	29500		107 TRF77	Y..63M ₁₋₄
0.14	9547	29500			
0.16	8618	29500			
0.18	7583	29500			
0.20	6743	29500	TR TRF	107 TRF77	Y..63M ₂₋₄
0.22	5914	29500		107 TRF77	Y..63M ₂₋₄
0.26	5168	29500			

n_2 [1/min]	i	Fr [N]	Frame size		Motor
M _{2max} =4300Nm					
0.30	4435	29500	TR TRF	107 TRF77 107 TRF77	Y..63M ₂₋₄ Y..63M ₂₋₄
0.33	3896	29500	TR	107 TRF77	Y..71M ₁₋₄
0.43	3039	29500	TRF	107 TRF77	Y..71M ₁₋₄
0.33	3918	29500	TR TRF	107 TRF77 107 TRF77	Y..71M ₁₋₄
0.39	3343	29500			Y..71M ₁₋₄
0.43	3034	29500			
0.52	2653	29500	TR TRF	107 TRF77 107 TRF77	Y..71M ₂₋₄
0.61	2280	29500			Y..71M ₂₋₄
0.67	2067	29500			
0.82	1693	29500	TR TRF	107 TRF77 107 TRF77	Y..80M ₁₋₄
0.89	1550	29500			Y..80M ₁₋₄
0.98	1407	29500			
1.20	1209	29500	TR TRF	107 TRF77 107 TRF77	Y..80M ₂₋₄
1.40	1055	29500			Y..80M ₂₋₄
1.50	919	29500	TR TRF	107 TRF77 107 TRF77	Y..90S-4
1.70	815	29500			Y..90S-4
2.00	717	29500			
2.30	626	29500	TR TRF	107 TRF77 107 TRF77	Y..90L-4
2.70	528	29500			Y..90L-4
0.69	1987	29500	TR TRF	107 TRF77 107 TRF77	Y..71M ₂₋₄ Y..71M ₂₋₄
0.76	1827	29500	TR TRF	107 TRF77 107 TRF77	Y..80M ₁₋₄
0.86	1599	29500			Y..80M ₁₋₄
0.99	1400	29500			
1.20	1226	29500	TR TRF	107 TRF77 107 TRF77	Y..80M ₂₋₄
1.30	1104	29500			Y..80M ₂₋₄
1.50	939	29500	TR TRF	107 TRF77 107 TRF77	Y..90S-4
1.70	822	29500			Y..90S-4
2.30	614	29500	TR TRF	107 TRF77 107 TRF77	Y..90L-4
2.60	544	29500			Y..90L-4
2.90	492	29500			
3.40	417	29500	TR TRF	107 TRF77 107 TRF77	Y..100L ₁₋₄
3.90	369	29500			Y..100L ₁₋₄
4.40	323	29500			
5.10	285	29500	TR TRF	107 TRF77 107 TRF77	Y..100L ₂₋₄
5.80	253	29500			Y..100L ₂₋₄
6.80	214	29500	TR TRF	107 TRF77 107 TRF77	Y..112M-4
7.80	187	29500			Y..112M-4
3.00	469	29500	TR TRF	107 TRF77 107 TRF77	Y..90L-4 Y..90L-4
3.40	426	29500	TR TRF	107 TRF77 107 TRF77	Y..100L ₁₋₄
3.80	377	29500			Y..100L ₁₋₄

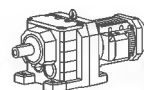


n ₂ [1/min]	i	Fr [N]	Frame size		Motor
M _{2max} =4300Nm					
4.40	325	29500	TR TRF	107 TRF77 107 TRF77	Y..100L ₁₋₄ Y..100L ₁₋₄
5.10	284	29500	TR	107 TRF77	Y..100L ₂₋₄
5.70	256	29500	TRF	107 TRF77	Y..100L ₂₋₄
6.60	220	29500	TR	107 TRF77	Y..112M-4
7.60	193	29500	TRF	107 TRF77	Y..112M-4
8.40	172	29500	TR TRF	107 TRF77 107 TRF77	Y..132S-4 Y..132S-4
M _{2max} =8000Nm					
0.06	22203	53400	TR TRF	137 TRF77 137 TRF77	Y..63M ₁₋₄ Y..63M ₁₋₄
0.07	18945	53400			
0.08	16566	53400			
0.09	14777	53400			
0.11	12921	53400			
0.11	11712	53400	TR	137 TRF77	Y..63M ₂₋₄
0.12	10573	53400	TRF	137 TRF77	Y..63M ₂₋₄
0.15	8784	53400	TR TRF	137 TRF77 137 TRF77	Y..71M ₁₋₄ Y..71M ₁₋₄
0.17	7479	53400			
0.20	6559	53400			
0.22	5834	53400			
0.27	5116	53400			
0.31	4464	53400	TR	137 TRF77	Y..71M ₂₋₄
0.35	3928	53400	TRF	137 TRF77	Y..71M ₂₋₄
0.40	3454	53400	TR	137 TRF77	Y..80M ₁₋₄
0.46	2993	53400	TRF	137 TRF77	Y..80M ₁₋₄
0.29	4709	53400	TR	137 TRF77	Y..71M ₂₋₄
0.34	4018	53400	TRF	137 TRF77	Y..71M ₂₋₄
0.39	3514	53400	TR TRF	137 TRF77 137 TRF77	Y..80M ₁₋₄ Y..80M ₁₋₄
0.41	3338	53400			
0.47	2929	53400			
0.56	2484	53400			
0.64	2242	53400			
0.77	1863	53400	TR	137 TRF77	Y..80M ₂₋₄
0.90	1586	53400	TR	137 TRF77	Y..90S-4
1.00	1391	53400	TRF	137 TRF77	Y..90S-4
1.10	1256	53400	TR TRF	137 TRF77 137 TRF77	Y..90L-4 Y..90L-4
1.30	1105	53400			
1.40	1043	53400			
1.60	888	53400			
2.00	699	53400			
2.30	609	53400	TR	137 TRF77	Y..100L ₁₋₄
2.30	609	53400	TRF	137 TRF77	Y..100L ₁₋₄
0.52	2658	53400	TR	137 TRF77	Y..80M ₁₋₄
0.57	2412	53400	TRF	137 TRF77	Y..80M ₁₋₄

n ₂ [1/min]	i	Fr [N]	Frame size		Motor
M _{2max} =8000Nm					
0.69	2073	53400	TR	137 TRF77	Y..80M ₂₋₄
0.78	1839	53400	TRF	137 TRF77	Y..80M ₂₋₄
0.89	1598	53400	TR TRF	137 TRF77 137 TRF77	Y..90S-4
1.00	1397	53400			Y..90S-4
1.20	1226	53400			
1.30	1090	53400	TR	137 TRF77	Y..90L-4
1.50	951	53400	TRF	137 TRF77	Y..90L-4
1.70	831	53400	TR TRF	137 TRF77 137 TRF77	Y..100L ₁₋₄
2.00	730	53400			Y..100L ₁₋₄
2.30	629	53400			
2.60	560	53400	TR	137 TRF77	Y..100L ₂₋₄
3.00	490	53400	TRF	137 TRF77	Y..100L ₂₋₄
3.40	428	53400	TR	137 TRF77	Y..112M-4
3.80	381	53400	TRF	137 TRF77	Y..112M-4
4.50	323	53400	TR TRF	137 TRF77 137 TRF77	Y..132S-4
5.00	291	53400			Y..132S-4
5.70	255	53400			
2.60	564	53400	TR TRF	137 TRF77 137 TRF77	Y..100L ₂₋₄
2.80	517	53400			Y..100L ₂₋₄
3.20	453	53400			
3.90	376	53400	TR	137 TRF77	Y..112M-4
4.30	339	53400	TRF	137 TRF77	Y..112M-4
4.90	297	53400	TR TRF	137 TRF77 137 TRF77	Y..132S-4 Y..132S-4
M _{2max} =13000Nm					
0.06	23401	62700	TR	147 TRF77	Y..63M ₁₋₄
0.06	21342	62700	TRF	147 TRF77	Y..63M ₁₋₄
0.07	18210	62700	TR TRF	147 TRF77 147 TRF77	Y..63M ₂₋₄
0.08	15923	62700			Y..63M ₂₋₄
0.09	14075	62700			Y..63M ₂₋₄
0.11	12344	62700			
0.12	11143	62700	TR	147 TRF77	Y..71M ₁₋₄
0.13	9743	62700	TRF	147 TRF77	Y..71M ₁₋₄
0.16	8443	62700	TR TRF	147 TRF77 147 TRF77	Y..71M ₂₋₄
0.19	7307	62700			Y..71M ₂₋₄
0.21	6447	62700			
0.25	5568	62700	TR TRF	147 TRF77 147 TRF77	Y..80M ₁₋₄
0.28	4926	62700			Y..80M ₁₋₄
0.32	4325	62700			
0.38	3754	62700	TR	147 TRF77	Y..80M ₂₋₄
0.43	3302	62700	TRF	147 TRF77	Y..80M ₂₋₄
0.49	2898	62700	TR TRF	147 TRF77 147 TRF77	Y..90S-4 Y..90S-4

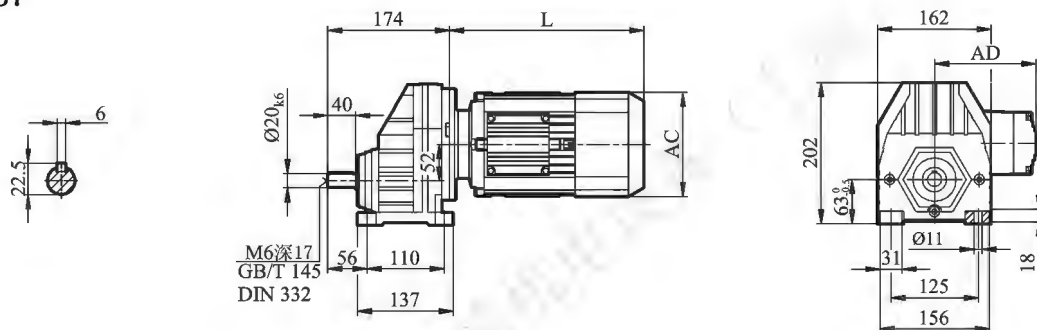
n ₂ [1/min]	i	Fr [N]	Frame size		Motor
M _{2max} =13000Nm					
0.56	2555	62700	TR TRF	147 TRF77	Y..90S-4
0.64	2211	62700		147 TRF77	Y..90S-4
0.73	1951	62700			
0.84	1705	62700	TR	147 TRF77	Y..90L-4
0.93	1536	62700	TRF	147 TRF77	Y..90L-4
1.10	1329	62700	TR TRF	147 TRF77	Y..100L-4
1.20	1166	62700		147 TRF77	Y..100L-4
1.40	1029	62700			
1.60	889	62700	TR	147 TRF77	Y..100L ₂ -4
1.90	784	62700	TRF	147 TRF77	Y..100L ₂ -4
2.10	695	62700	TR TRF	147 TRF77	Y..112M-4
2.40	619	62700		147 TRF77	Y..112M-4
2.60	558	62700			
3.00	489	62700	TR TRF	147 TRF77 147 TRF77	Y..132S-4 Y..132S-4
2.70	533	62700	TR TRF	147 TRF87	Y..132S-4
3.20	462	62700		147 TRF87	Y..132S-4
3.40	426	62700			
4.00	368	62700	TR	147 TRF87	Y..132M-4
4.50	326	62700	TRF	147 TRF87	Y..132M-4
6.90	214	62700	TR TRF	147 TRF87 147 TRF87	Y..160M-4 Y..160M-4
M _{2max} =18000Nm					
0.05	27001	120000	TR TRF	167 TRF97 167 TRF97	Y..80M ₁ -4 Y..80M ₁ -4
0.06	22482	120000			
0.07	20002	120000			
0.08	17361	120000			
0.09	15446	120000			
0.10	14051	120000			
0.12	11812	120000			
0.13	10509	120000			
0.14	9631	120000			
0.19	7749	120000	TR	167 TRF97	Y..80M ₂ -4
0.221	6894	120000	TRF	167 TRF97	Y..80M ₂ -4

n_2 [1/min]	i	Fr [N]	Frame size		Motor
M_{2max}=4300Nm					
0.23	6077	120000	TR TRF	167TRF97 167 TRF97	Y..80M₁-4 Y..80M₁-4
0.27	5407	120000	TR	167TRF97	Y..80M₂-4
0.31	4650	120000	TRF	167 TRF97	Y..80M₂-4
0.34	4129	120000	TR	167TRF97	Y..90S-4
0.38	3692	120000	TRF	167 TRF97	Y..90S-4
0.54	2657	120000			
0.61	2333	120000	TR	167TRF97	Y..90L-4
0.69	2085	120000	TRF	167 TRF97	Y..90L-4
0.76	1877	120000			
0.85	1670	120000	TR	167TRF97	Y..100L₁-4
0.99	1438	120000	TRF	167 TRF97	Y..100L₁-4
1.10	1279	120000			
1.30	1123	120000	TR	167TRF97	Y..100L₂-4
1.50	999	120000	TRF	167 TRF97	Y..100L₂-4
1.70	861	120000	TR	167TRF97	Y..112M-4
1.90	760	120000	TRF	167 TRF97	Y..112M-4
2.20	656	120000	TR	167TRF97	Y..132S-4
2.50	579	120000	TRF	167 TRF97	Y..132S-4
2.90	503	120000	TR	167TRF97	Y..132M-4
3.40	432	120000	TRF	167 TRF97	Y..132M-4
4.90	303	120000	TR	167TRF97	Y..160M-4
5.30	279	120000	TRF	167 TRF97	Y..160M-4
5.00	295	120000	TR TRF	167TRF107 167 TRF107	Y..160M-4 Y..160M-4
5.40	270	120000			
6.40	229	120000	TR	167TRF107	Y..160L-4
7.30	200	120000	TRF	167 TRF107	Y..160L-4
5.10	291	120000	TR TRF	167TRF107 167 TRF107	Y..160M-4 Y..160M-4
5.60	264	120000			
6.50	227	120000	TR	167 TRF107	Y..160L-4
7.40	198	120000	TRF	167 TRF107	Y..160L-4

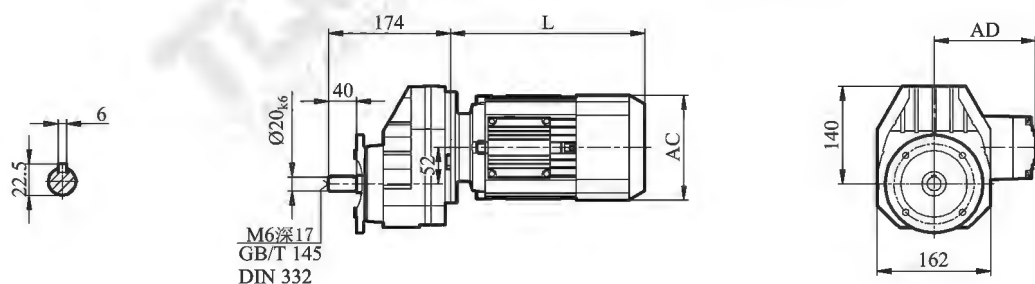


2.9 外形尺寸 / Dimensions

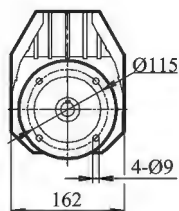
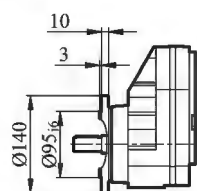
TRX57



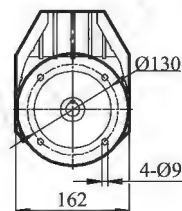
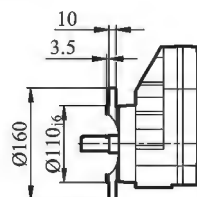
TRXF57



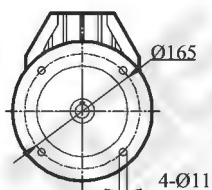
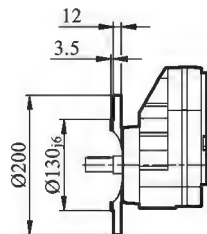
Ø140



Ø160

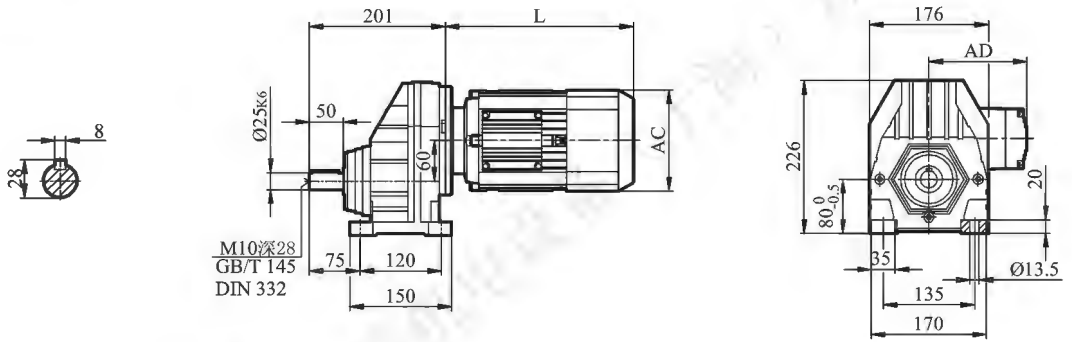


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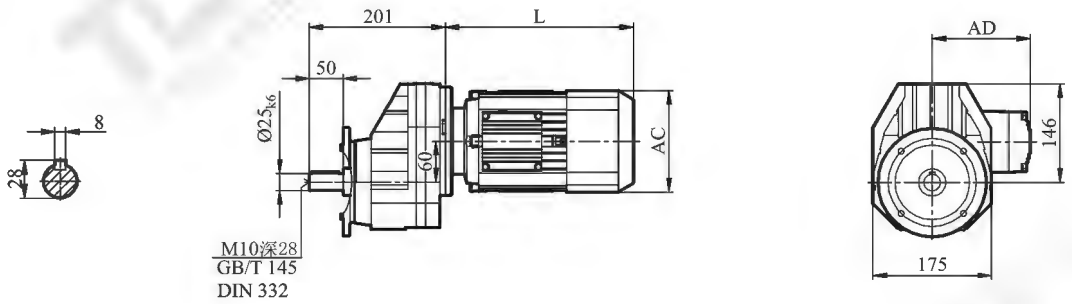


YE2电机机座号 Motor Size	63	71	80	90S	90L	100L	112M	132S
L	205	260	290	300	330	330	380	430
AC	120	145	170	190	190	195	215	260
AD	110	130	135	145	145	180	190	210

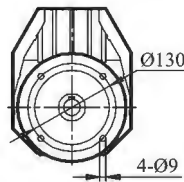
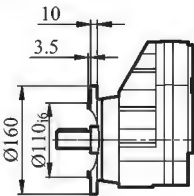
TRX67



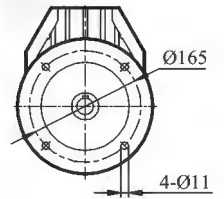
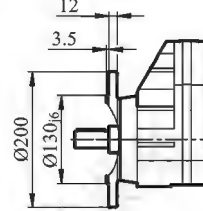
TRXF67



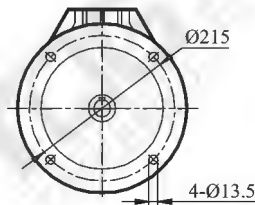
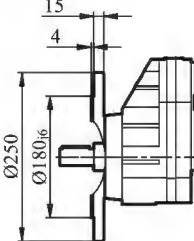
Ø160



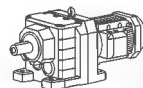
Ø200



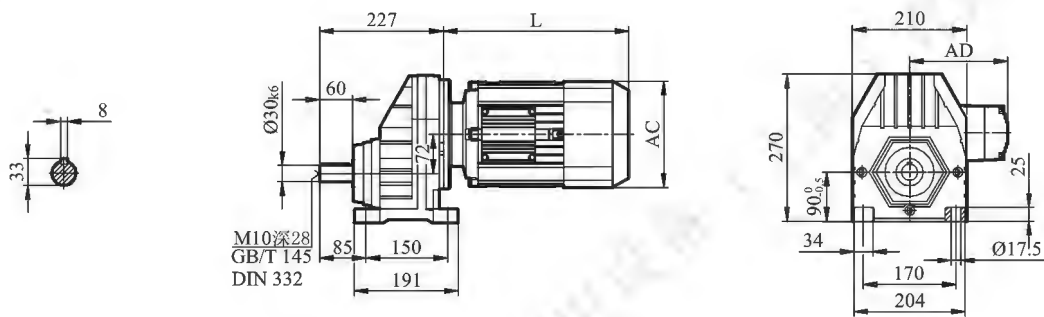
Ø250



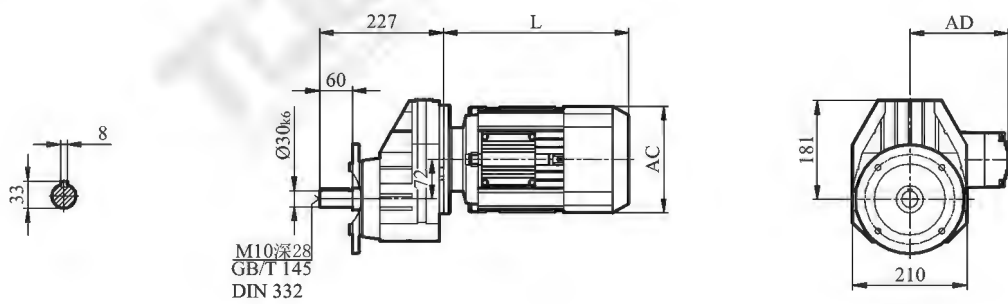
YE2电机座号 Motor Size	63	71	80	90S	90L	100	112M	132S	
L	205	260	290	300	330	330	380	430	
AC	120	145	170	190	190	210	230	280	
AD	110	130	135	145	145	160	215	215	



TRX77

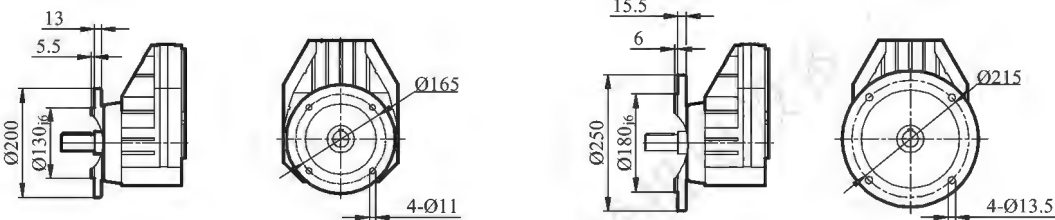


TRXF77



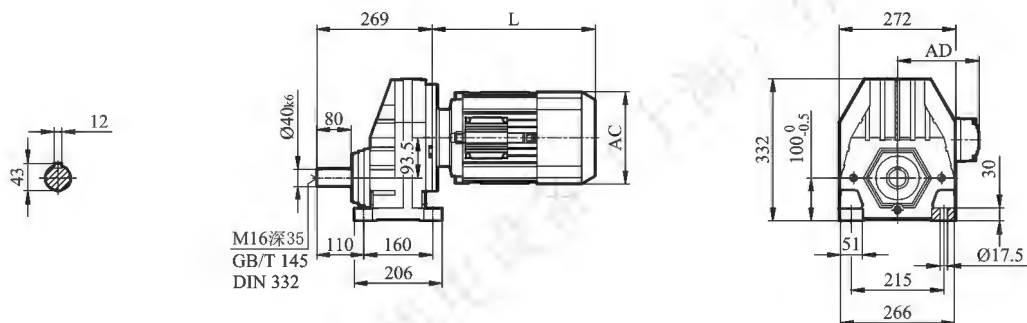
$\varnothing 200$

$\varnothing 250$

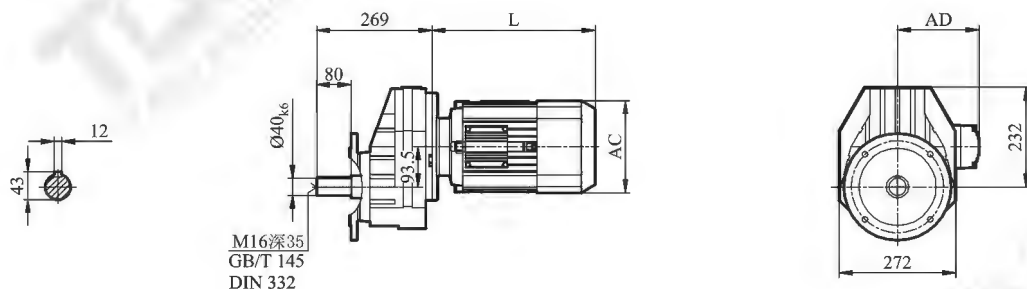


YE2电机机座号 Motor Size	71	80	90S	90L	100	112M	132S	132M	160M	
L	254	284	292	322	322	370	418	457	524	
AC	145	170	190	190	210	230	280	280	315	
AD	130	135	145	145	160	215	215	215	255	

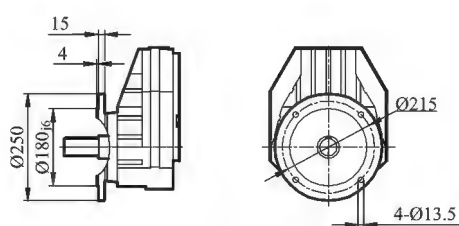
TRX87



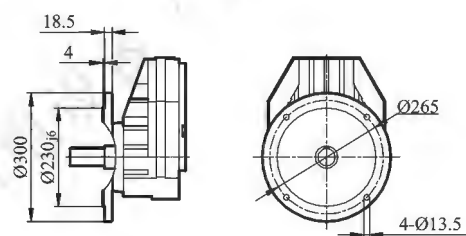
TRXF87



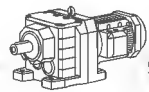
Ø250



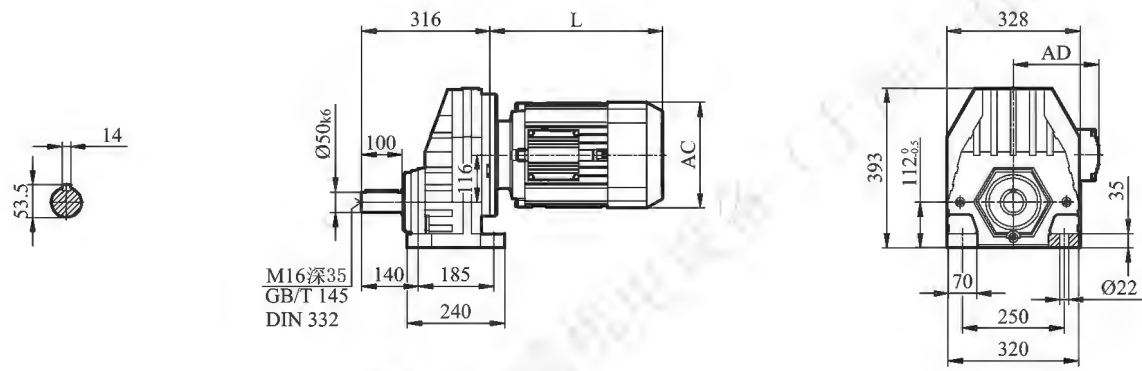
Ø300



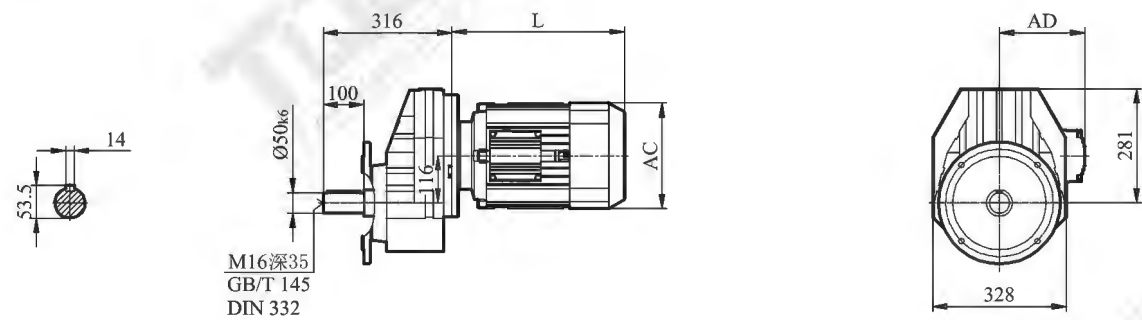
YE2电机机座号 Motor Size	80	90S	90L	100	112M	132S	132M	160M	160L	180M	180L	
L	280	288	318	318	365	413	452	524	527	583	616	
AC	170	190	190	210	230	280	280	315	315	350	350	
AD	135	145	145	160	215	215	215	255	255	280	280	



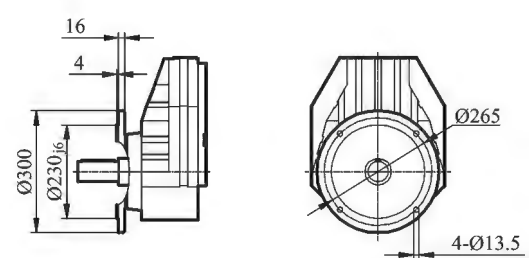
TRX97



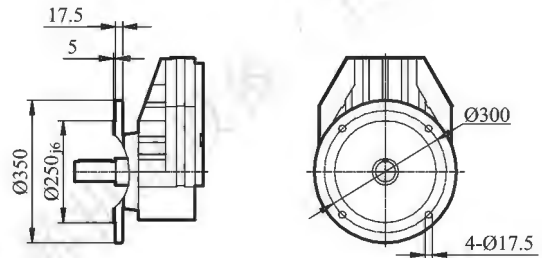
TRXF97



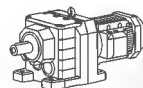
$\varnothing 300$



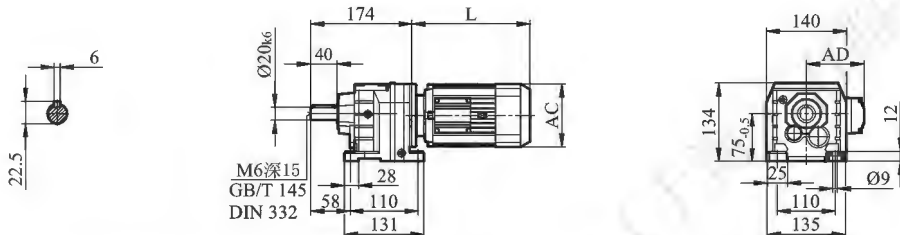
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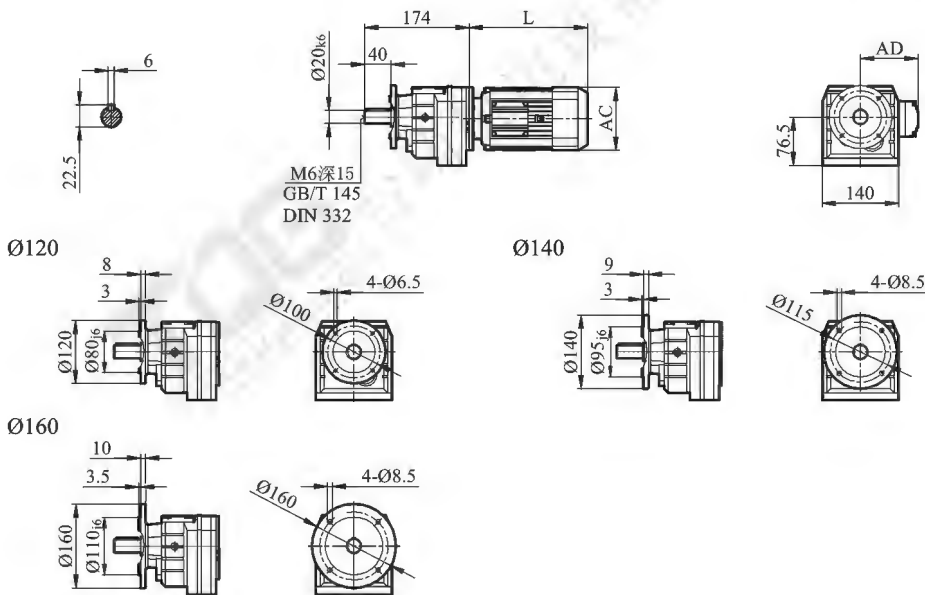
YE2电机机座号 Motor Size	90S	90L	100	112M	132S	132M	160M	160L	180M	180L	200L	
L	280	310	312	360	408	487	524	519	555	588	654	
AC	190	190	210	230	280	280	315	315	350	350	395	
AD	145	145	160	215	215	215	255	255	280	280	305	



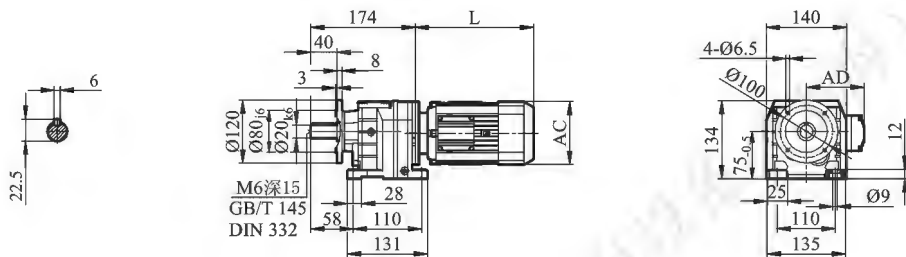
TR17



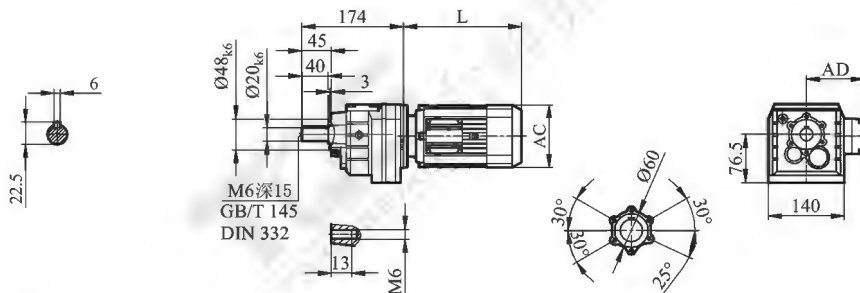
TRF17



TR17F

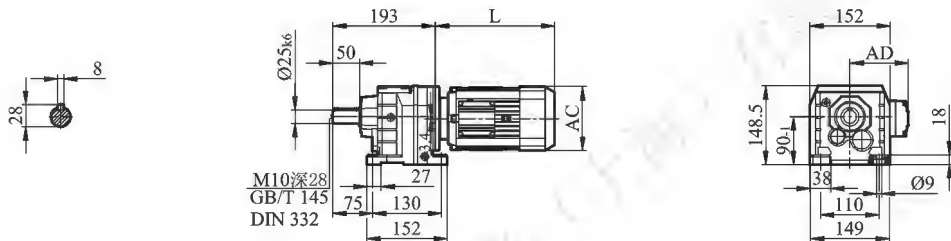


TRZ17

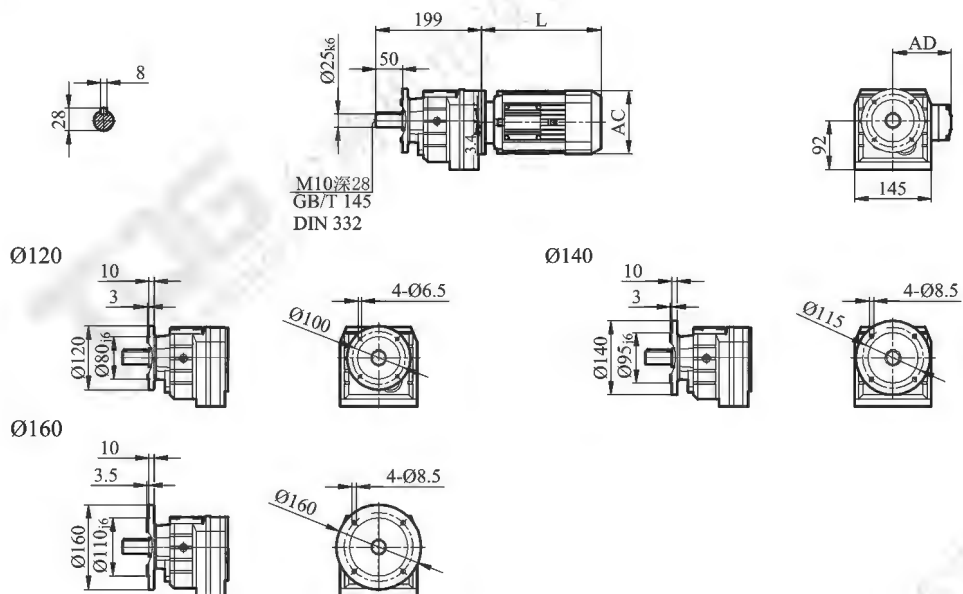


YE2电机机座号 Motor Size	63	71	80	90S	90L	100	
L	225	260	290	300	330	340	
AC	120	145	170	190	190	195	
AD	110	130	135	145	145	180	

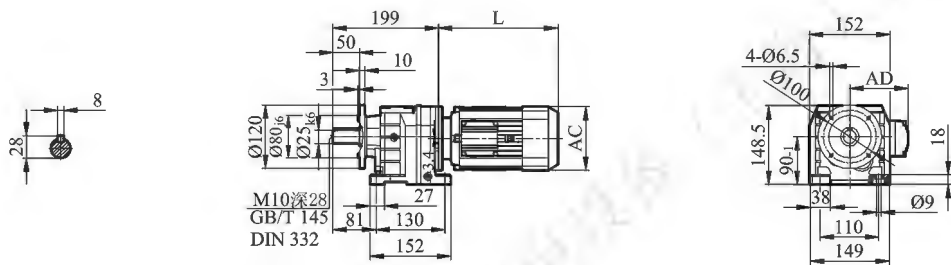
TR27



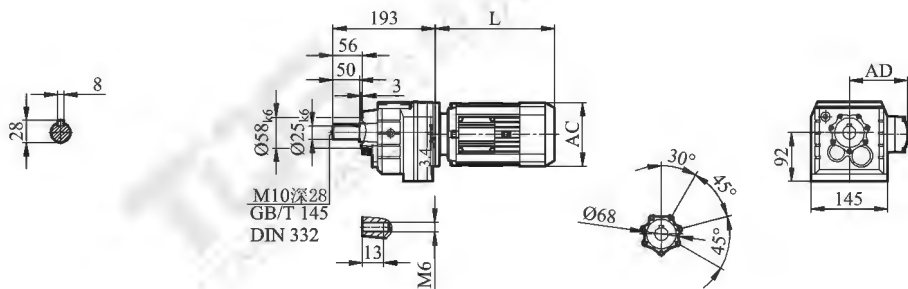
TRF27



TR27F

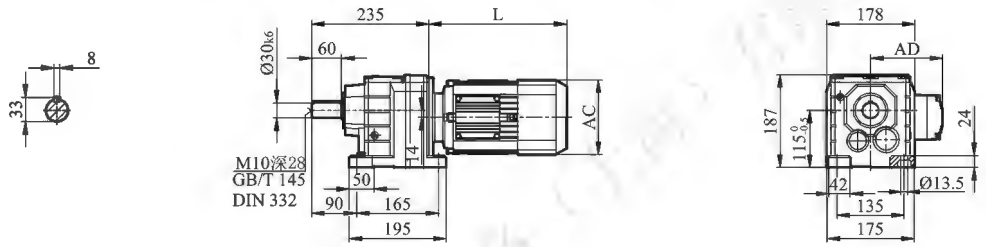


TRZ27

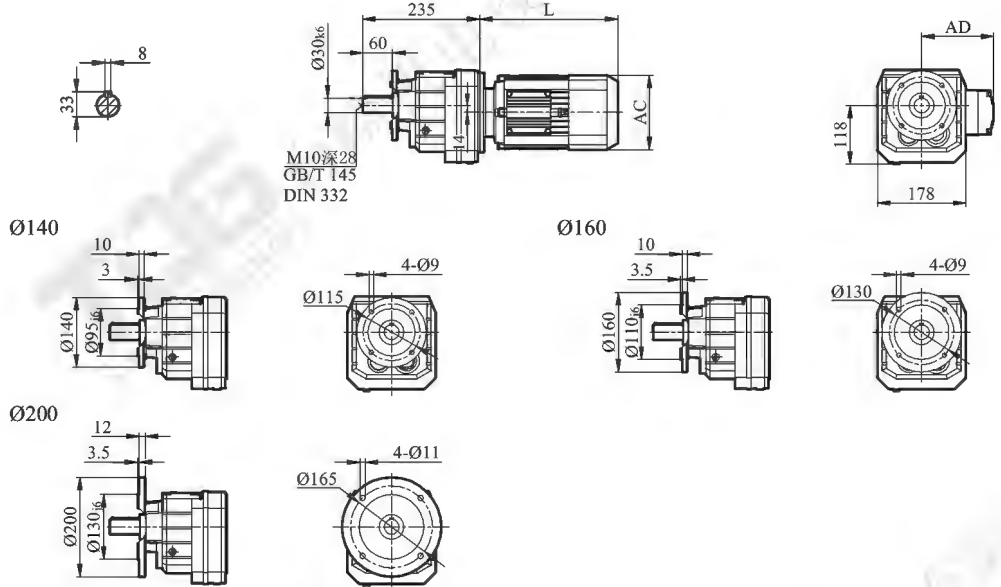


YE2电机机座号 Motor Size	63	71	80	90S	90L	100
L	225	260	290	300	330	340
AC	120	145	170	190	190	195
AD	110	130	135	145	145	180

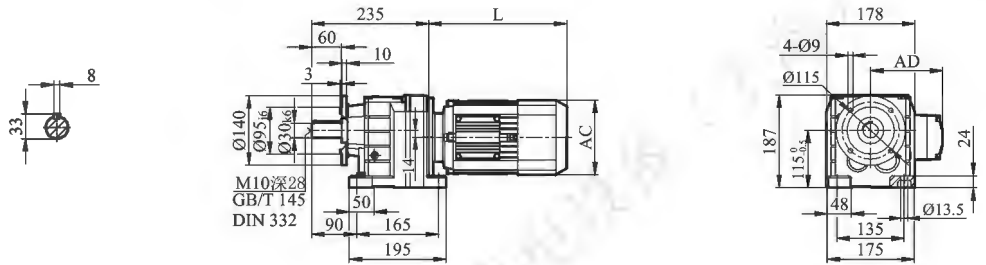
TR47



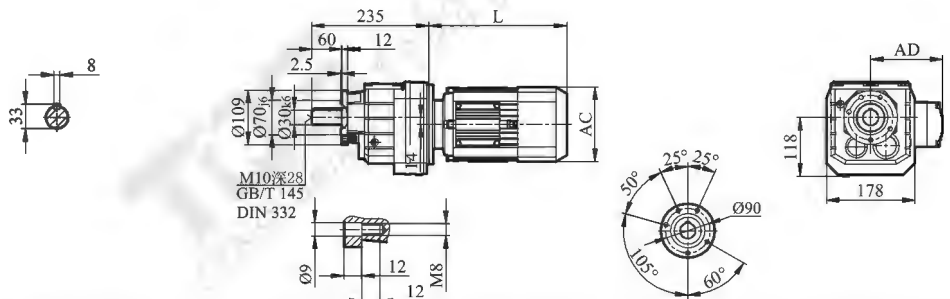
TRF47



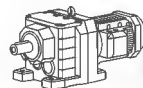
TR47F



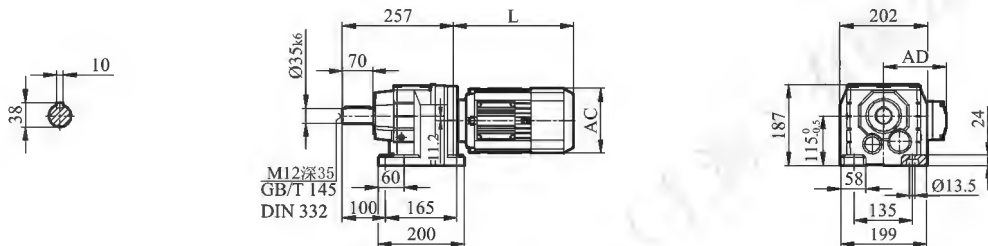
TRZ47



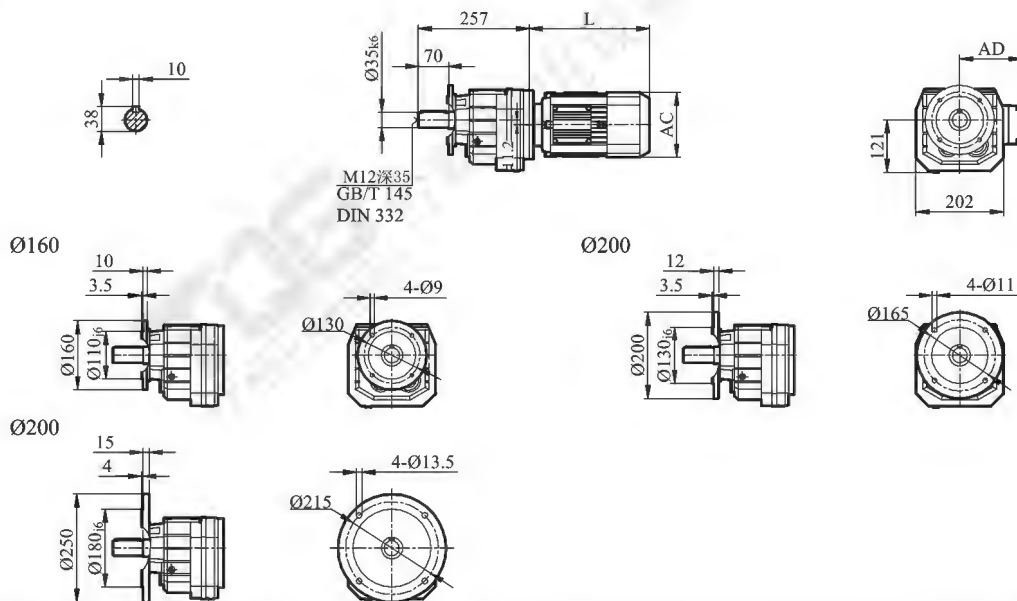
YE2电机机座号 Motor Size	63	71	80	90S	90L	100	112M	132S
L	205	260	290	300	320	330	380	430
AC	120	145	170	190	190	195	215	260
AD	110	130	135	145	145	180	190	210



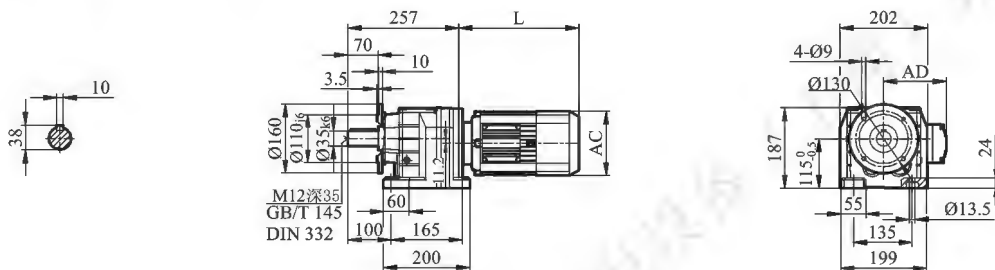
TR57



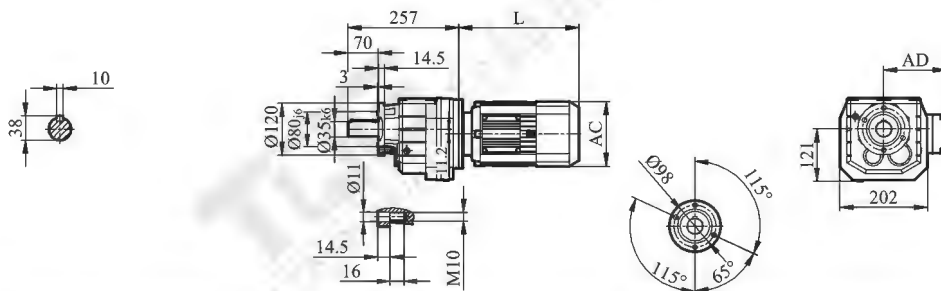
TRF57



TR57F

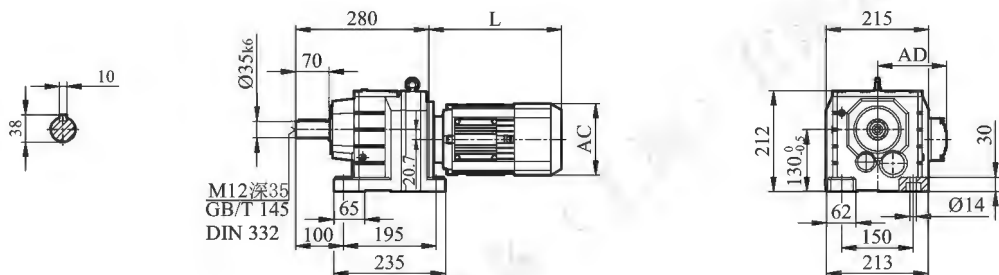


TRZ57

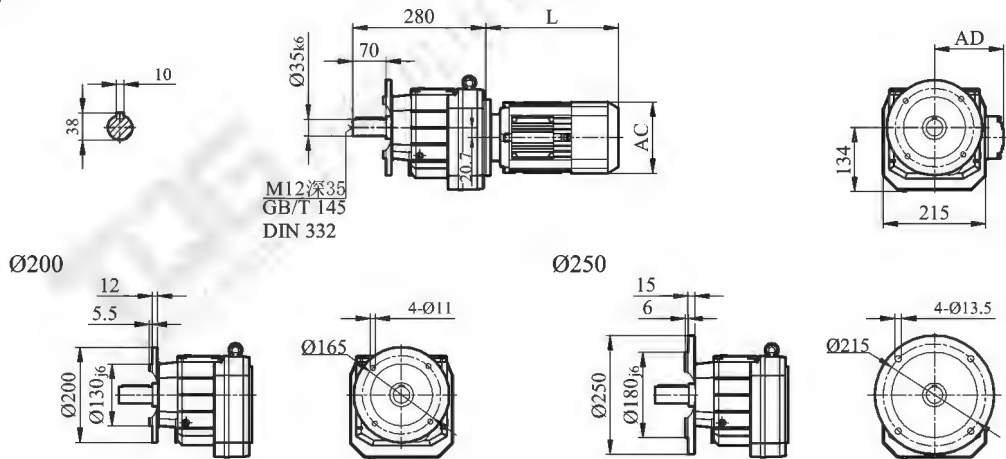


YE2电机机座号 Motor Size	63	71	80	90S	90L	100	112M
L	205	260	290	300	330	330	380
AC	120	145	170	190	190	210	230
AD	110	130	135	145	145	160	215

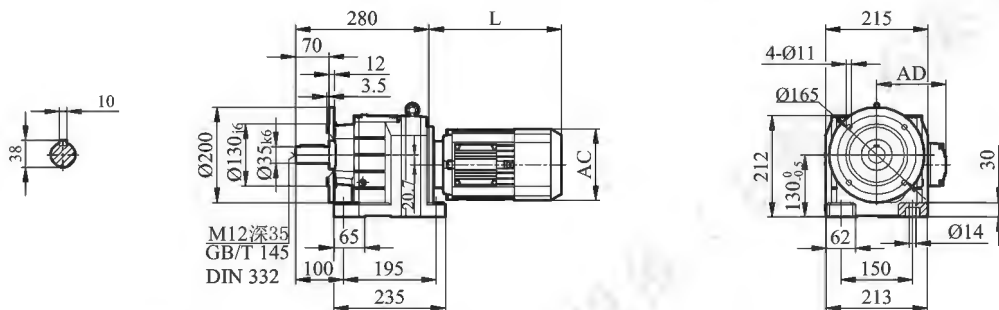
TR67



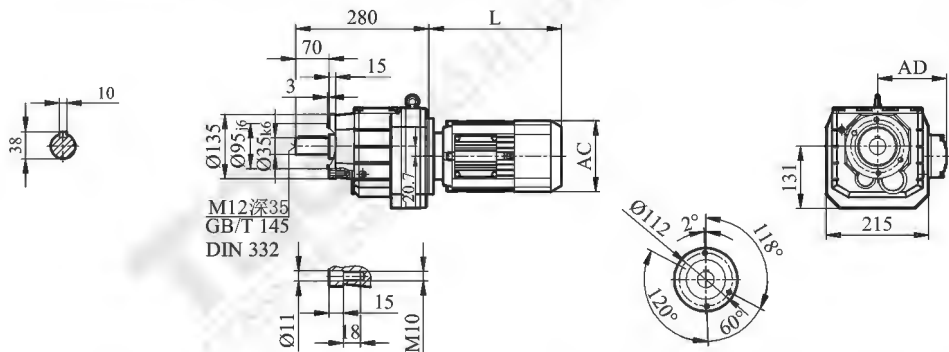
TRF67



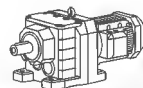
TR67F



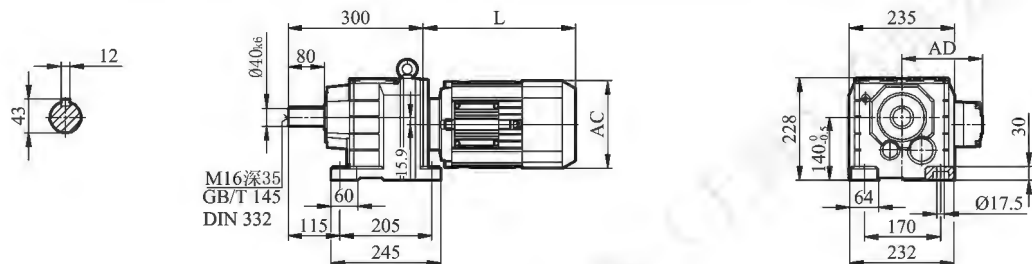
TRZ67



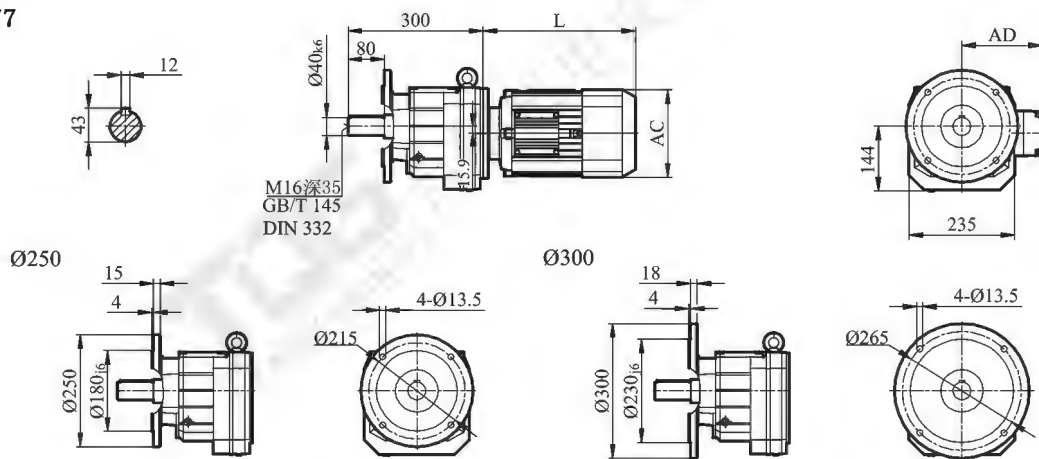
YE2电机机座号 Motor Size	63	71	80	90S	90L	100	112M	132S
L	205	260	290	300	330	330	380	430
AC	120	145	170	190	190	210	230	280
AD	110	130	135	145	145	160	215	215



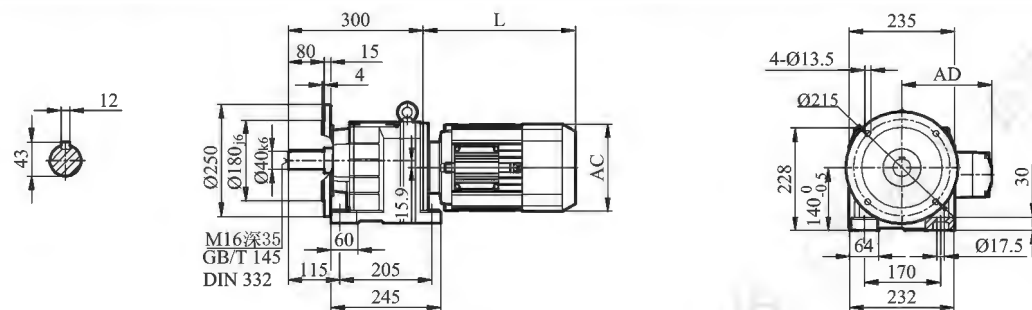
TR77



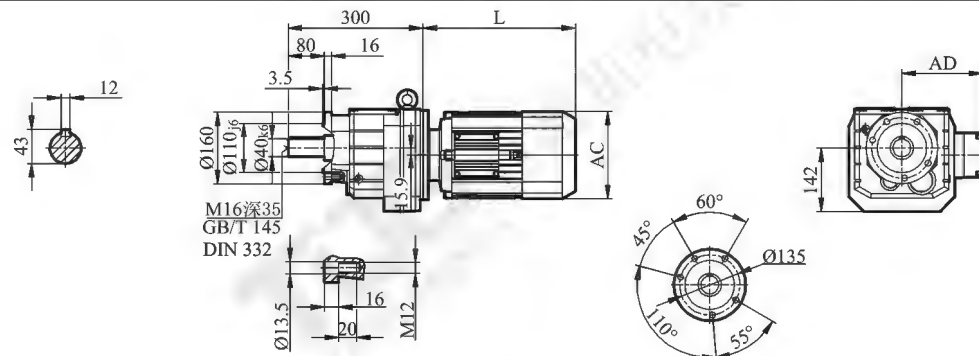
TRF77



TR77F

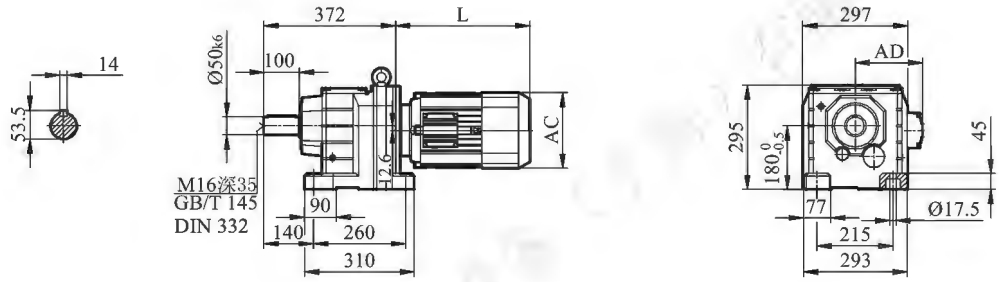


TRZ77

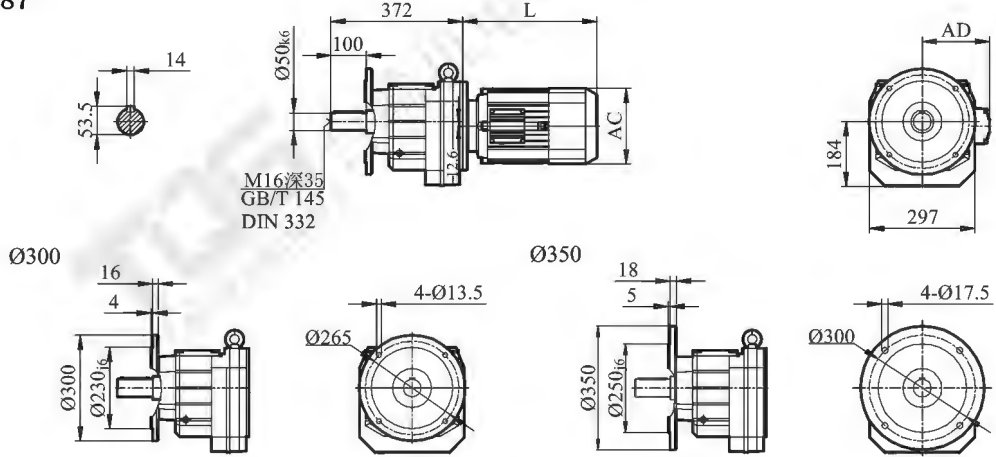


YE2电机机座号 Motor Size	71	80	90S	90L	100	112M	132S	132M	160M	
L	254	284	292	322	322	370	418	457	524	
AC	145	170	190	190	210	230	280	280	315	
AD	130	135	145	145	160	215	215	215	255	

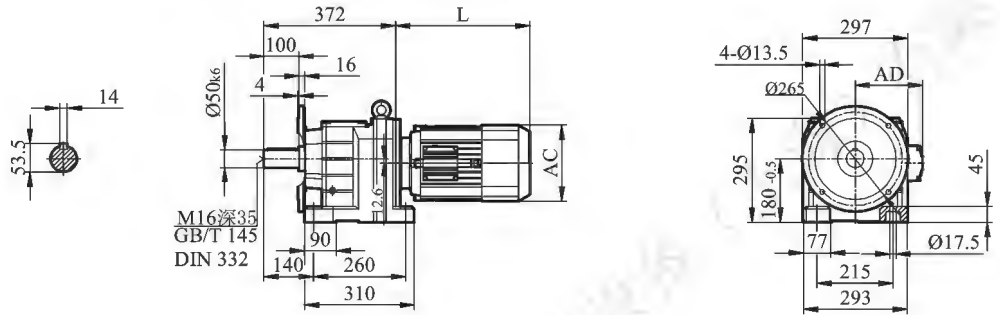
TR87



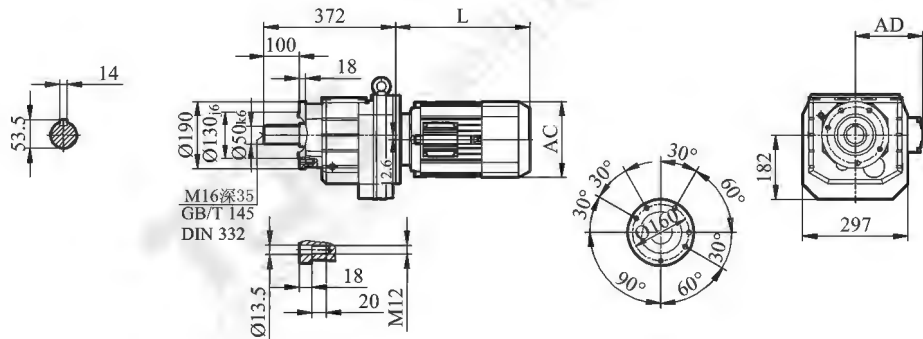
TRF87



TR87F

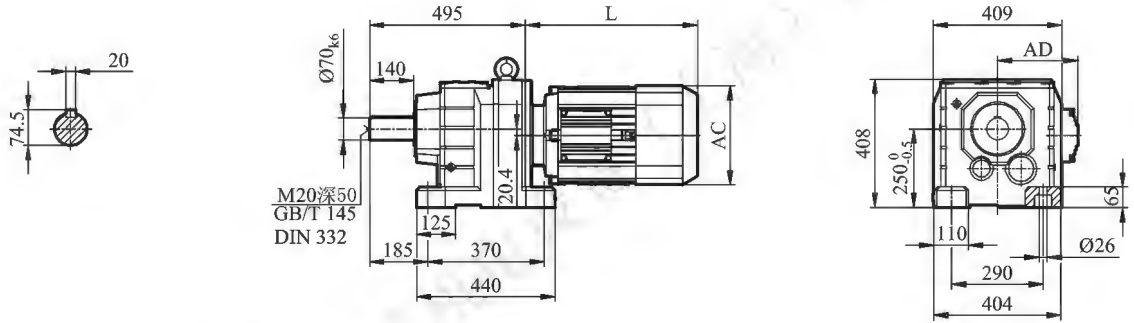


TRZ87

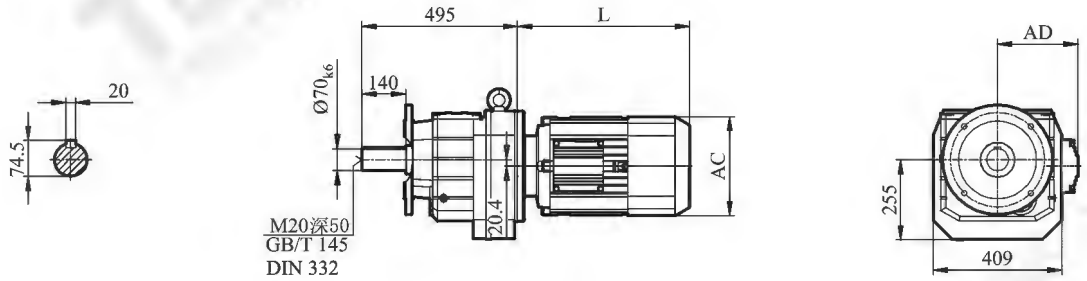


YE2电机机座号 Motor Size	80	90S	90L	100	112M	132S	132M	160M	160L	180M	180L	
L	280	288	318	318	365	413	452	524	547	583	616	
AC	170	190	190	210	230	280	280	315	315	350	350	
AD	135	145	145	160	215	215	215	255	255	280	280	

TR107

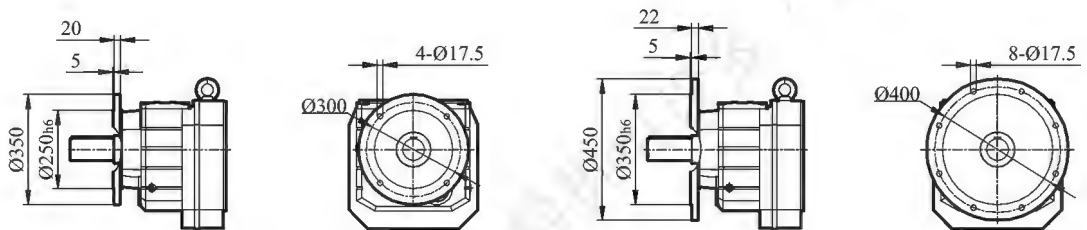


TRF107

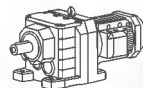


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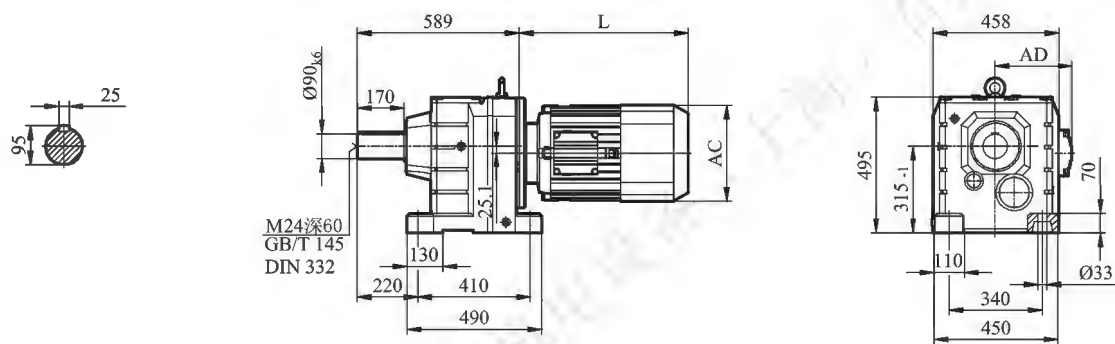
Ø450



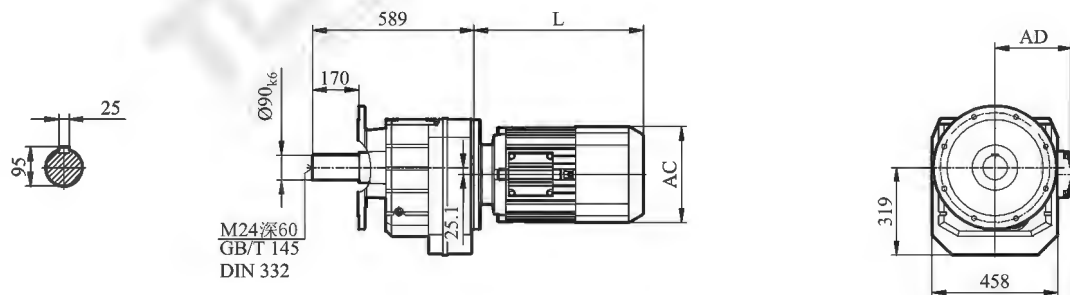
YE2电机机座号 Motor Size	100	112M	132S	132M	160M	160L	180M	180L	200L	225S	225M	
L	308	354	403	482	524	519	555	588	654	680	702	
AC	210	230	280	280	315	315	350	350	395	450	450	
AD	160	215	215	215	255	255	280	280	305	335	335	



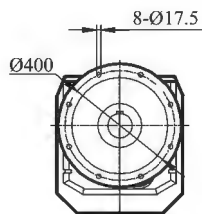
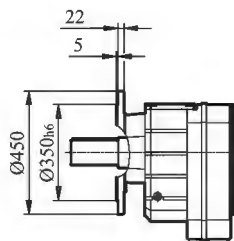
TR137



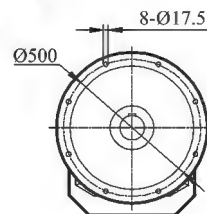
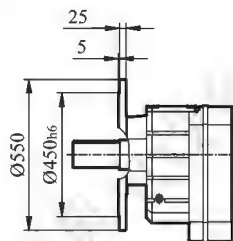
TRF137



Ø450

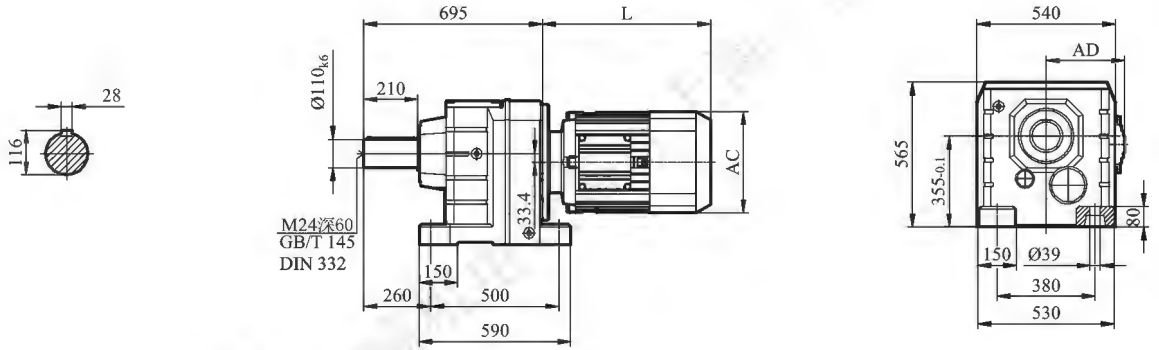


Ø550

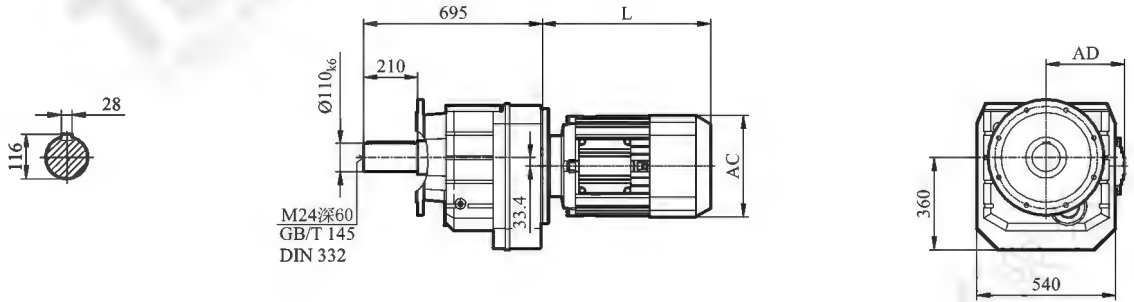


YE2电机机座号 Motor Size	132S	132M	160M	160L	180M	180L	200L	225S	225M			
L	396	475	476	519	555	588	654	680	702			
AC	280	280	315	315	350	350	395	450	450			
AD	215	215	255	255	280	280	305	335	335			

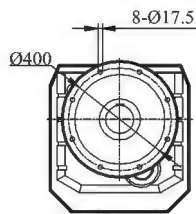
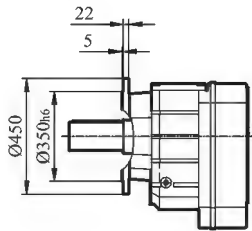
TR147



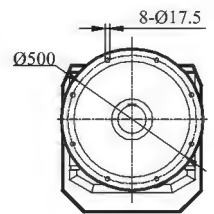
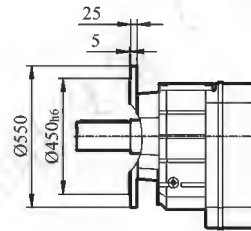
TRF147



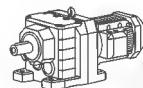
Ø450



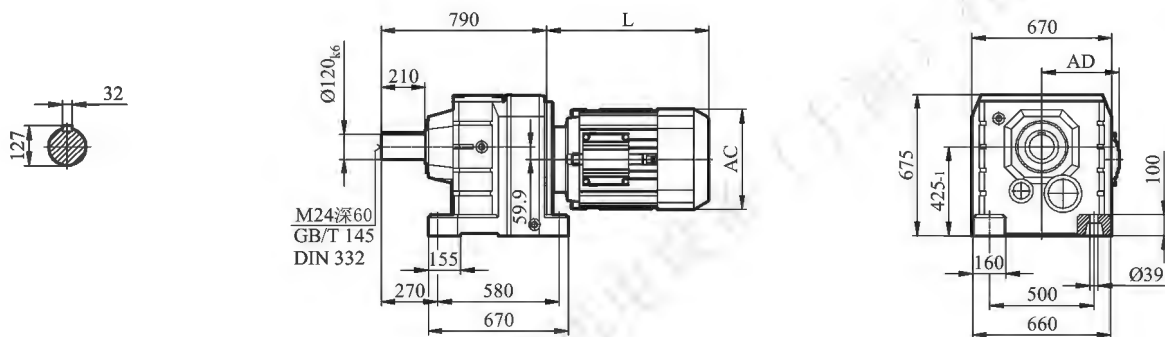
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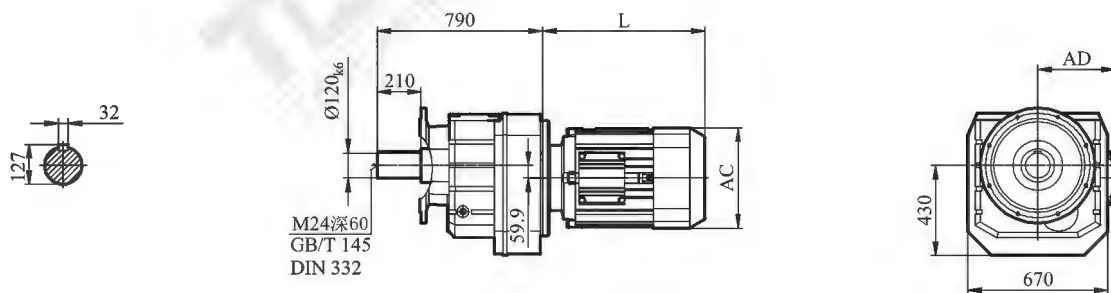
YE2电机机座号 Motor Size	160M	160L	180M	180L	200L	225S	225M	250M	280S	280M		
L	567	602	635	666	642	669	691	770	828	879		
AC	315	315	350	350	395	450	450	480	530	530		
AD	255	255	280	280	305	335	335	370	410	410		



TR167

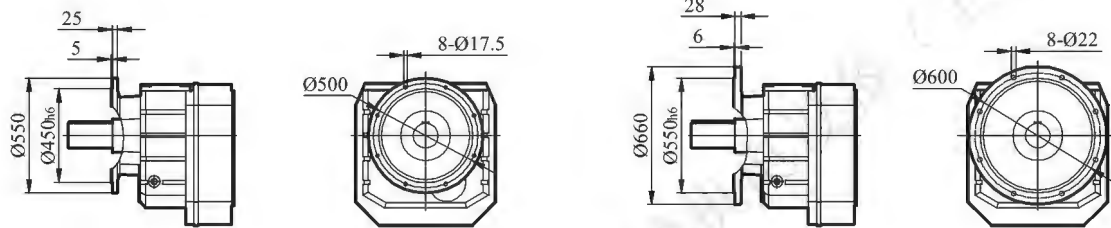


TRF167



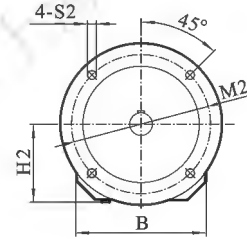
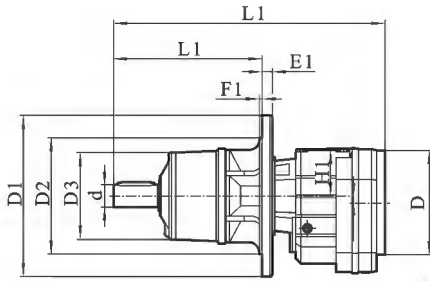
Ø550

Ø660

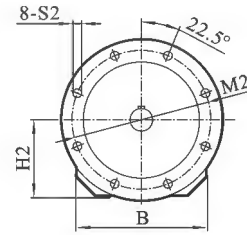
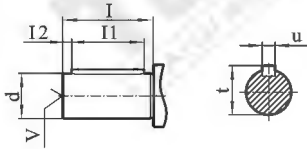


YE2电机机座号 Motor Size	160M	160L	180M	180L	200L	225S	225M	250M	280S	280M	315S	315M	315L	
L	567	602	635	666	642	669	691	770	828	879	1100	1210	1210	
AC	315	315	350	350	395	450	450	480	530	530	645	645	645	
AD	255	255	280	280	305	335	335	370	410	410	530	530	530	

TRM57-TRM167外形尺寸/TRM57-TRM167Dimensions



TRM57-TRM87

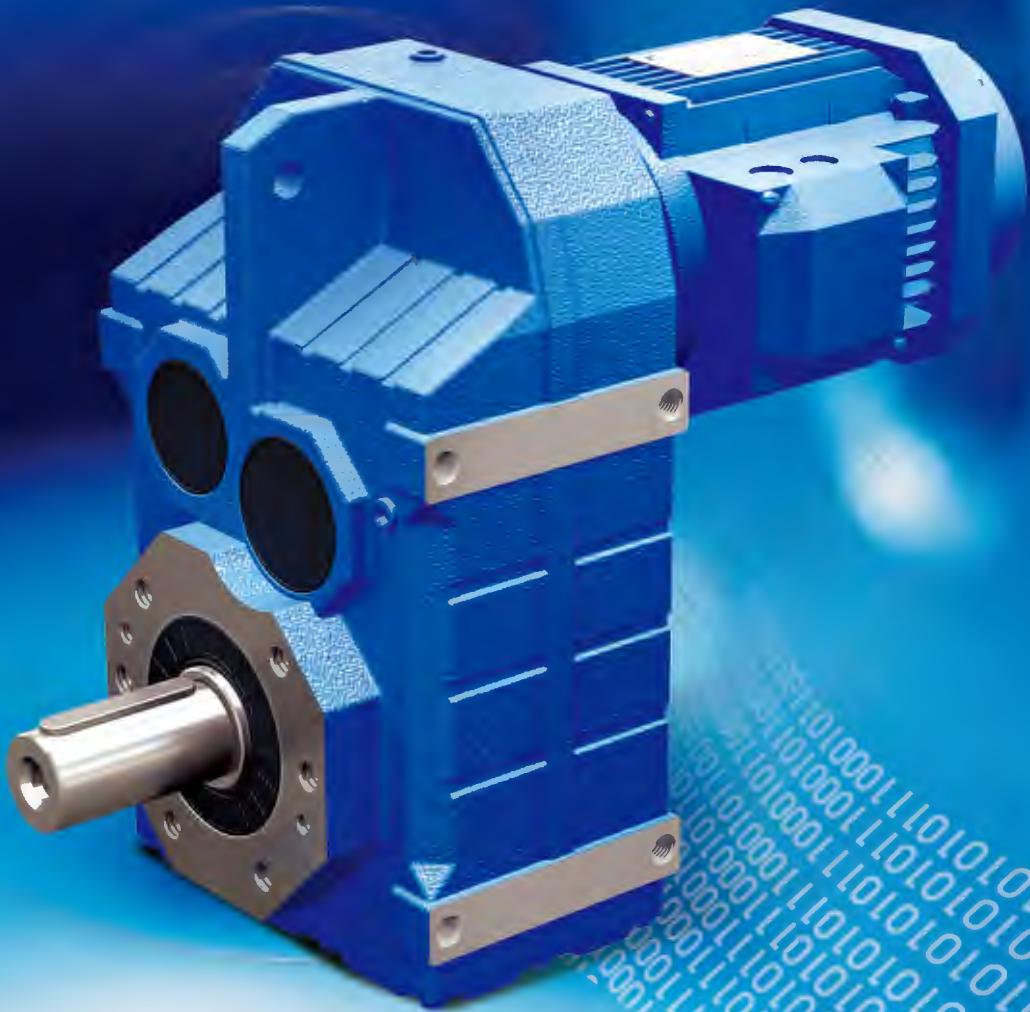


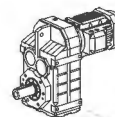
TRM97-TRM167

型号 Size	A	B	D1	D2	D3	E1 F1	H1 H2	M S2	L L1	D d	I	I1	I2	u	t	v
TRM57	11.2	202	250	180j6	135	15 4	72 121	215 13.5	420 230	160 35k6	70	60	5	10	38	M12
TRM67	20.7	215	300	230j6	144	16 4	82 134	265 13.5	459 240	160 40k6	80	70	5	12	43	M16
TRM77	15.9	235	350	250h6	170	18 5	88 144	300 17.5	527 300	200 50k6	100	80	10	14	53.5	M16
TRM87	12.6	297	350	250h6	186	18 5	88 144	300 17.5	639 360	250 50k6	120	110	5	18	64	M20
TRM97	10.2	348	450	350h6	214	22 5	144 230	400 17.5	745 420	300 70m6	140	125	7.5	20	74.5	M20
TRM107	20.4	409	550	450h6	232	25 5	158 255	500 17.5	864 500	350 80m6	170	125	20	22	85	M20
TRM137	25.1	458	550	450h6	253	25 5	180 320	500 17.5	1024 600	400 100m6	210	180	15	28	106	M24
TRM147	33.4	540	660	550h6	274	28 6	210 361	600 22	1154 660	450 110m6	210	180	15	28	116	M24
TRM167	59.9	670	660	550h6	290	28 6	250 430	600 22	1313 730	550 125m6	210	200	5	32	134	M24

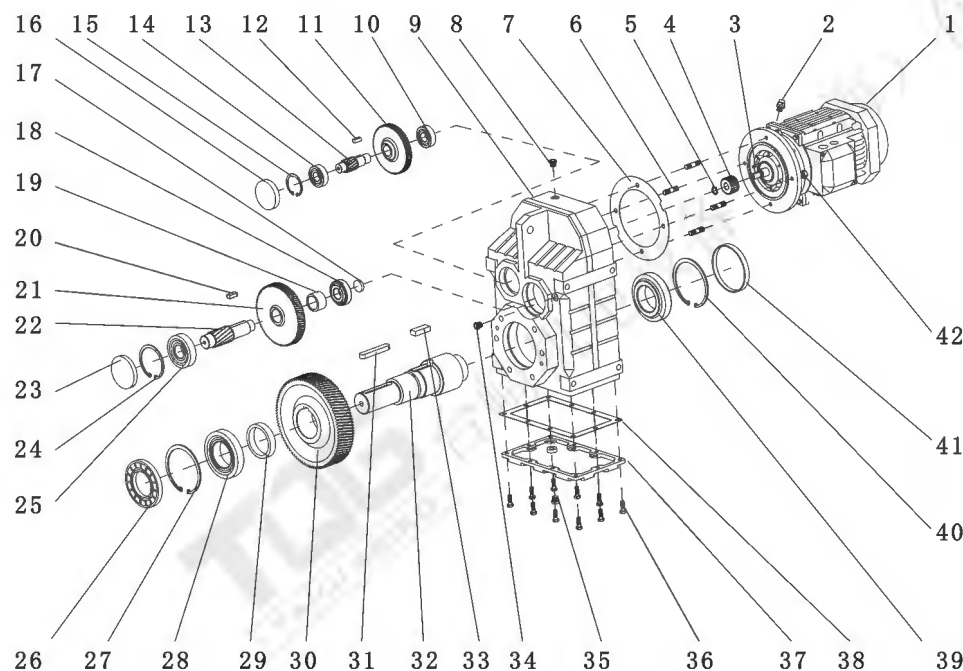
TF系列 平行轴-斜齿轮减速电机

TF SERIES PARALLEL SHAFT-HELICAL GEARED MOTOR





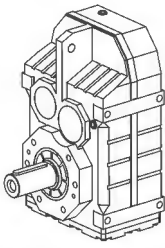
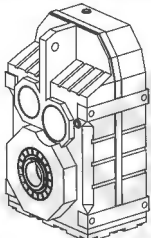
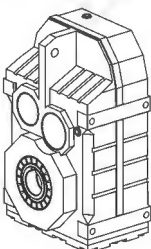
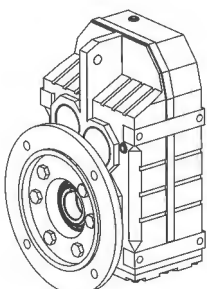
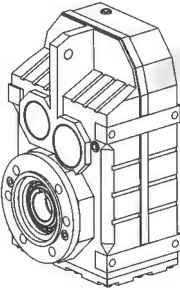
3. 1 部件分解图 / Spare Parts List

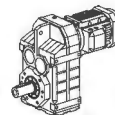


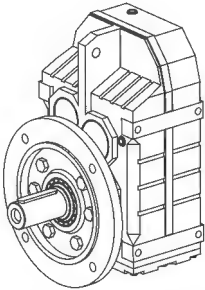
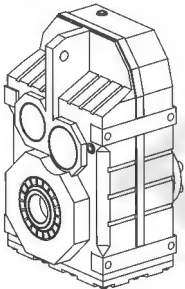
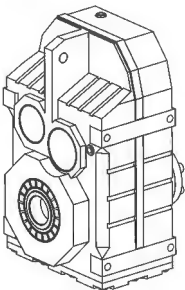
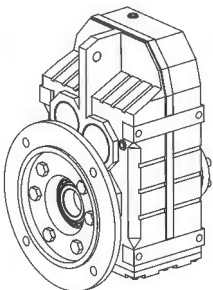
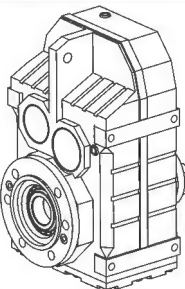
- | | |
|-----------------------------------|-----------------------------------|
| 1 电机/motor | 22 齿轮轴/gear shaft |
| 2 透气阀/breather valve | 23 平面油封/plane seal |
| 3 平键/flat key | 24 孔用挡圈/retaining rings for bores |
| 4 齿轮/gear | 25 轴承/bearing |
| 5 轴用挡圈/retaining rings for shafts | 26 骨架油封/skeleton oil seal |
| 6 双头螺栓/stud | 27 孔用挡圈/retaining rings for bores |
| 7 纸垫/gasket | 28 轴承/bearing |
| 8 油塞/oil level plug | 29 轴套/spacer tube |
| 9 箱体/housing | 30 齿轮/gear |
| 10 轴承/bearing | 31 平键/flat key |
| 11 齿轮/gear | 32 输出轴/output shaft |
| 12 平键/flat key | 33 平键/flat key |
| 13 齿轮轴/gear shaft | 34 油塞/oil level plug |
| 14 轴承/bearing | 35 油塞/oil level plug |
| 15 孔用挡圈/retaining rings for bores | 36 外六角螺钉/hex head screw |
| 16 平面油封/plane seal | 37 盖板/cover plate |
| 17 平面油封/plane seal | 38 纸垫/gasket |
| 18 轴承/bearing | 39 轴承/bearing |
| 19 轴套/spacer tube | 40 孔用挡圈/retaining rings for bores |
| 20 平键/flat key | 41 平面油封/plane seal |
| 21 齿轮/gear | 42 六角螺母/hexagon nut |

3.2 机型版本 / Versions

3.2.1 基本型式 / Basic Versions

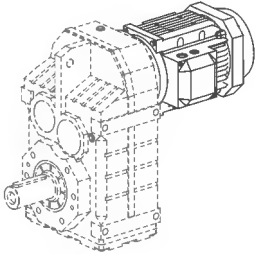
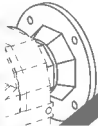
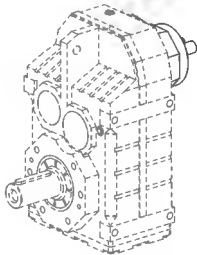
	TF.. 底脚安装平行轴 - 斜齿轮减速机 Foot-mounted parallel shaft helical geared units.
	TFA..B 底脚空心轴安装平行轴 - 斜齿轮减速机 Foot-mounted parallel shaft helical geared units. TFV..B 底脚花键空心轴 (DIN5480) 安装平行轴 - 斜齿轮减速机 Foot-mounted parallel shaft helical geared motor with splined hollow shaft to DIN5480.
	TFA.. 空心轴安装平行轴 - 斜齿轮减速机 Parallel shaft helical geared units with hollow shaft. TFV.. 花键空心轴 (DIN5480) 安装平行轴 - 斜齿轮减速机 Parallel shaft helical geared units with splined hollow shaft to DIN5480.
	TFAF.. B5法兰空心轴安装平行轴 - 斜齿轮减速机 Parallel shaft helical geared units in B5 flangemounted version with hollow shaft. TFVF.. B5法兰花键空心轴 (DIN5480) 安装平行轴 - 斜齿轮减速机 Parallel shaft helical geared units in B5 flange-mounted version with splined hollow shaft to DIN5480.
	TFAZ.. B14法兰空心轴安装平行轴 - 斜齿轮减速机 Parallel shaft helical geared units in B14 flange-mounted version with hollow shaft. TFVZ.. B14法兰花键空心轴 (DIN5480) 安装平行轴 斜齿轮减速机 Parallel shaft helical geared units in B14 flange-mounted version with splined hollow shaft to DIN5480.



	TFF.. B5法兰安装平行轴-斜齿轮减速机 Parallel shaft helical geared units in B5 flange-mounted version.
	TFH..B 底脚空心轴锁紧盘安装平行轴-斜齿轮减速机 Foot-mounted parallel shaft helical geared units with hollow shaft and shrink disk.
	TFH.. 空心轴锁紧盘安装平行轴-斜齿轮减速机 Parallel shaft helical geared units with hollow shaft and shrink disk.
	TFHF.. B5法兰空心轴锁紧盘安装平行轴-斜齿轮减速机 Parallel shaft helical geared units in B5 flange-mounted version with hollow shaft and shrink disk.
	TFHZ.. B14法兰空心轴锁紧盘安装平行轴-斜齿轮减速机 Parallel shaft helical geared units in B14 flange-mounted with hollow shaft and shrink disk.

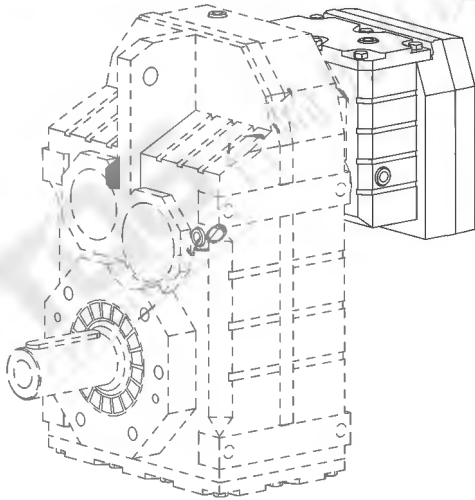
TF

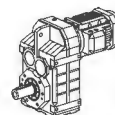
3. 2. 2 输入型式 / Input Versions

	TF.. Y.. 直联电机输入 Input with geared motors.
	TF.. AM.. AM (IEC) 法兰输入 Input with AM adapters for mounting IEC motors.
	TF.. AD.. AD 轴输入 Input with AD shaft assembly.

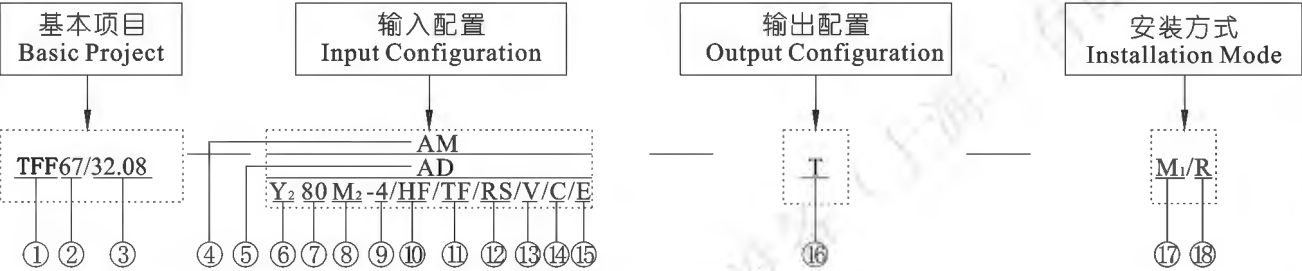
3. 2. 3 TF..与 TRF..组合 / TF.. and TRF.. Combination

当需要特别低速输出时，可选择 **TRF** 齿轮箱作为 **TF** 齿轮箱的输入。
If special low speed is needed, **TRF..** gearbox can be the input of **TF..** Gearbox.





3.3 产品标注 / Product Code



	标号 NO.	含义 Meaning	说明 Explanation
基本项目 Basic Project	①	系列代号 Series Code	TF、TFF、TFA ... (详见3.2.1) TF, TFF, TFA ... (see 3.2.1).
	②	机座号 Frame Size	机座号: 37、47、57... Frame Size: 37, 47, 57...
	③	传动比 Transmission Ratio	传动比 i Transmission Ratio I.
输入配置 Input Configuration	④	法兰输入代号 Flange Input Code	AM(IEC): 63、71、80...
	⑤	轴输入代号 Shaft Input Code	AD: 1、2、3...
	⑥	电机代号 Motor Code	Y ₂ : 三相异步电动机 Y ₂ : Three Phase Asynchronous Motor. YD: 变极多速三相异步电动机 YD: Variable-pole Multi-speed Three Phase Asynchronous Motor. YS: 小功率三相异步电动机 YS: Small Power Three Phase Asynchronous Motor. YVF ₂ : 变频调速三相异步电动机 YVF ₂ : Variable Frequency Speed Control Three Phase Asynchronous Motor. Y ₂ EJ: 电磁制动三相异步电动机 Y ₂ EJ: Electromagnetic Brake Three Phase Asynchronous Motor. YB2: 隔爆三相异步电动机 YB2: Flame Proof Three Phase Asynchronous Motor.
	⑦	电机机座号 Motor Frame Size.	63、71、80...
	⑧	电机定子铁芯长度代号 Length Code of Stator Core.	M、M ₁ 、M ₂ 、S、S ₁ 、S ₂ 、L、L ₁ 、L ₂
	⑨	电机极数 Pole Number of Motor.	2、4、6、8

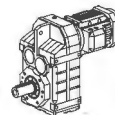
	标号 NO.	含义 Meaning	说明 Explanation
输入配置 Input Configuration	⑩	手动释放装置 Manual Release Device	无 代 码: 无手动释放装置 No Code: No manual release device. H F: 手动释放装置带自锁功能 H F: Manual release device with self-locking Fun-Ction. H R: 手动释放装置不带自锁功能 H R: Manual release device without self-Locking function.
	⑪	电机热保护装置 Motor Heat-protection Device.	无 代 码: 无电机热保护装置 No Code: No motor heat-protection device. T F: 电机热保护装置 T F: Motor heat-protection device.
	⑫	逆止器 Backstop	无 代 码: 无逆止器 No Code: No backstop. R S: 逆止器 R S: Backstop.
	⑬	强制冷却风扇 Forced Cooling Fan	无 代 码: 无强制冷却风扇 No Code: no forced cooling fan. V: 强制冷却风扇 V: Forced cooling fan.
	⑭	防雨罩 Cover	无 代 码: 无风扇防护罩 No Code: No fan cover. C: 防雨罩 C: cover.
	⑮	编码器 Encoder	无 代 码: 无编码器 No Code: No encoder. E: 编码器 E: Encoder
输出配置 Output Configuration	⑯	扭力臂 Torque Arm	无 代 码: 无扭力臂 No Code: No torque arm. T: 扭力臂 T: Torque Arm.
安装方式 Mounting Positions	⑰	安装方位 Mounting Position	M1、M2、M3、M4、M5、M6
	⑱	电机接线盒方位 Position for motor ter- minal box.	R、B、L、T

说明:

1. 基本项目不可省略;
2. 输入配置中, 只能在 AM、AD 和电机之间选择一种;
3. 安装方式参数若省略, 默认按 M1 安装方位, R 接线盒方位提供。

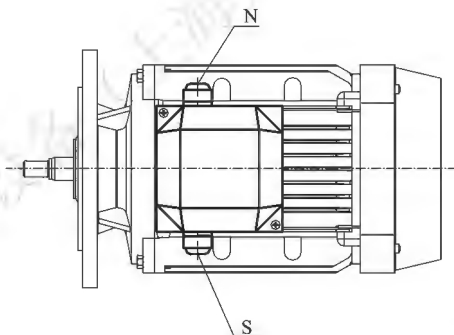
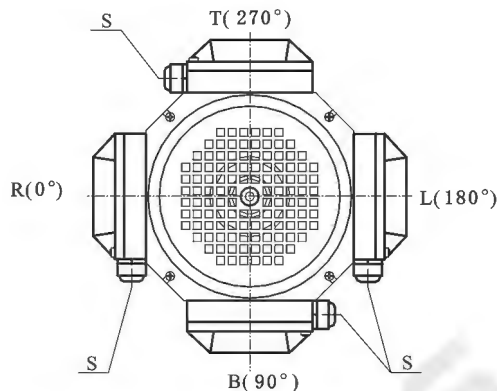
Notes:

1. Basic project can not be omitted.
2. Input configuration can only be one of AM, AD and motor.
3. If not mounting position, default mounting position will be M1, default position for motor terminal will be R.



3. 4 安装方位 / Mounting Positions

3. 4. 1 电机接线盒方位 / Position of Motor Terminal Box



R(0°): 默认接线盒方位
R(0°): Default Position for Motor Terminal Box
注：图为M1安装方位。

S: 默认进线方位
S: Default Line Position

说明:
Mark :This picture is the installation position of M1

Notes:

上图的视图方向为：从电机尾部的风罩向前看。
可提供R (0°)、 B (90°) 、 L (180°) 、 T (270°) 四种电机接线盒方位。其中 R (0°) 位置是默认方位。如无特别说明，将按默认方位提供。
可提供 S 和 N 两种进线方位，其中 S 位置是默认方位。如无特别说明，将按默认方位提供。

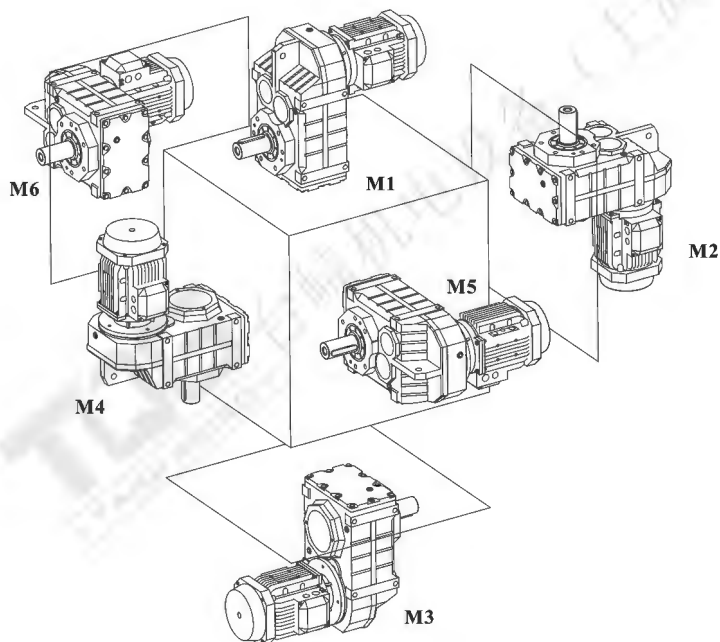
The view direction of above figure: from the fan cover in the end of the motor to look forward.
There will be four position for motor terminal box: R(0°), B(90°), L(180°), T(270°). And default position is R(0°).If no special explanation, it will be provided in default position.If no special explanation, it will be provided in default position.
There will be two line position: S and N. Default position is S.If no special explanation, it will be provided in default position.If no special explanation, it will be provided in default position.

3. 4. 2 油位符号说明 / Oil Level Symbol Explanation

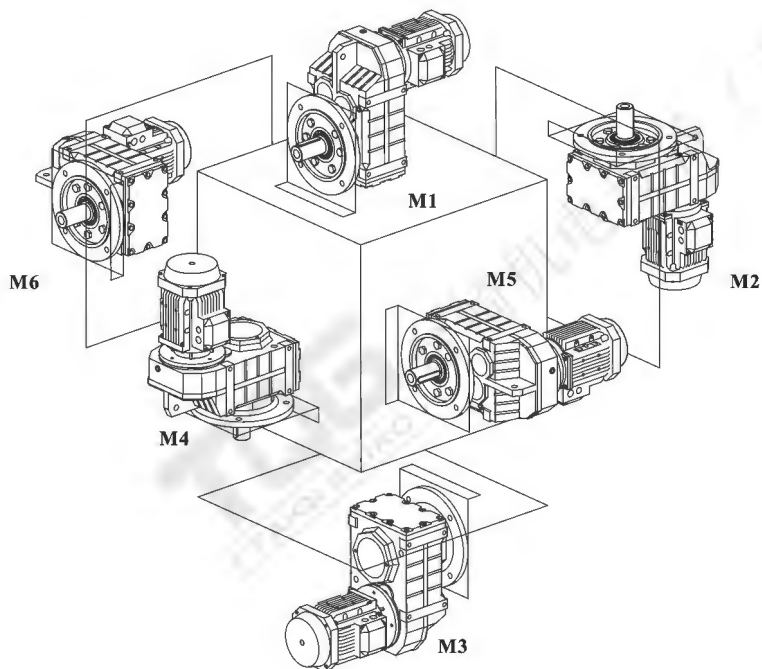
符号 Symbol	含义	Meaning
	通气帽	BREATHER VALVE
	油标	OIL LEVEL PLUG
	排油塞	OIL DRAIN PLUG

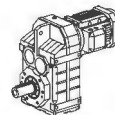
3. 4. 3 安装位置示意 / Mounting Position Designation

TF..安装位置示意图 / TF.. Mounting Position Designation



TFF..安装位置示意图 / TFF.. Mounting Position Designation





3. 4. 4 安装方位 / Mounting Positions

*→提示:

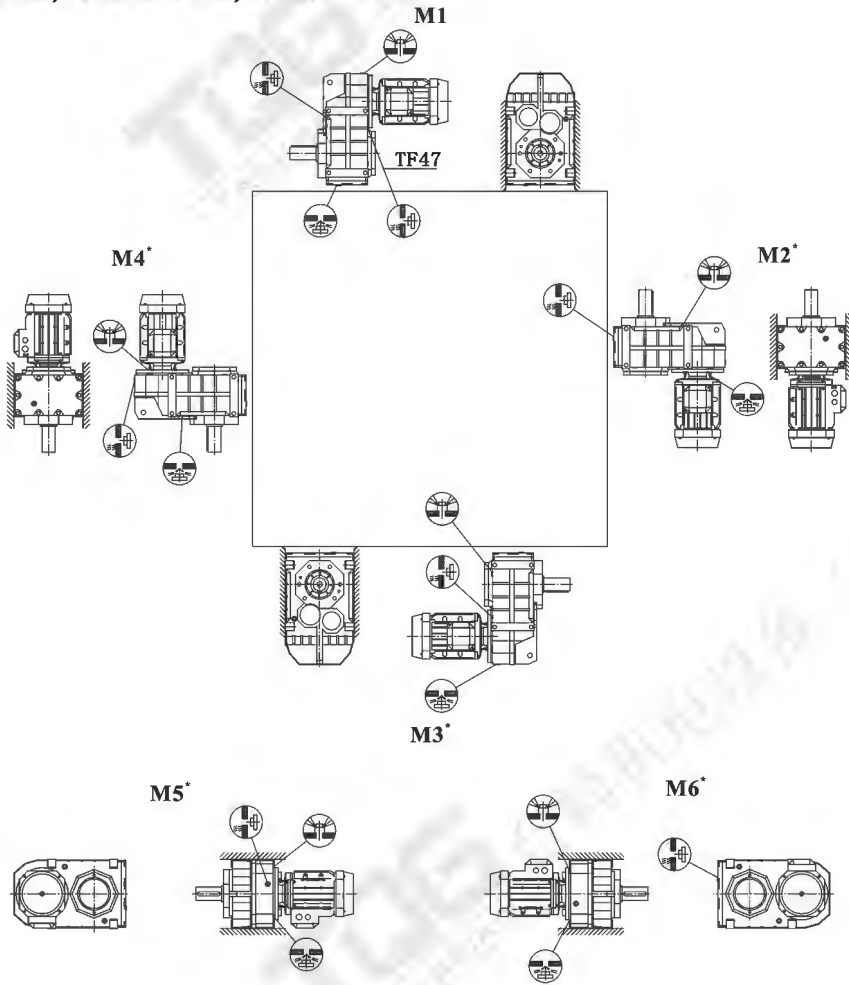
当采用下表列出的安装方式及输入转速时，
齿轮箱会产生不可忽视的搅油损失。请联系本
公司。

*→Reminder:

Increased churning losses may arise in the following
mounting positions. Contact Greatwall Machinery.

安装方式 Mounting Position	齿轮箱规格 Gear Unit Size	输入转速 Input Speed (r/min)
M2, M3, M4, M5, M6	97-107	>2500
	>107	>1500

TF, TFA27B-157B, TFH27B-157B, TFV27B-107B



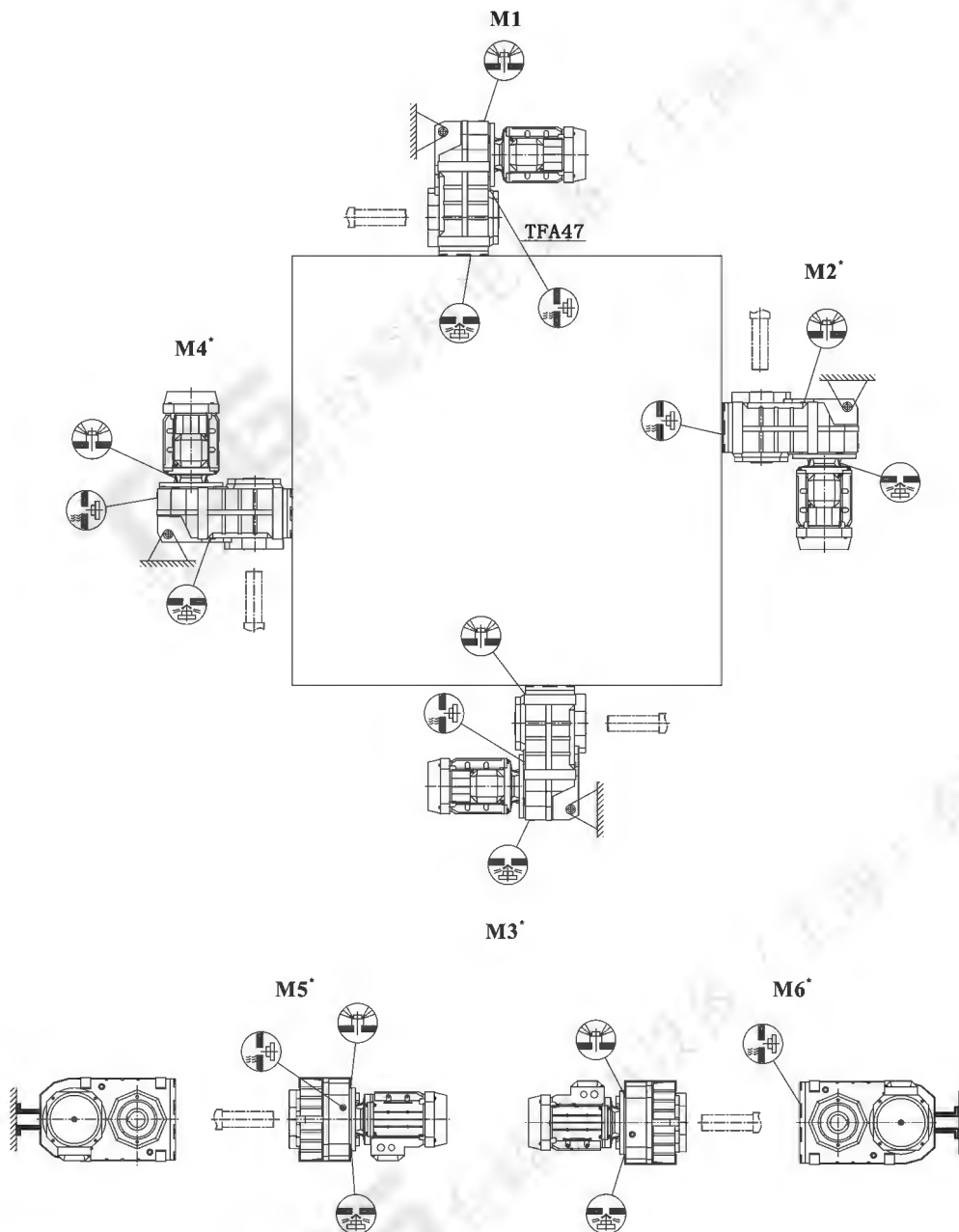
TF..27  M1,M3,M5,M6

TF..27  M1-M6

TF..27  M1,M3,M5,M6

*→page 095

TFA27-157, TFH27-157, TFV27-107

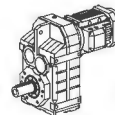


TF..27  M1,M3,M5,M6

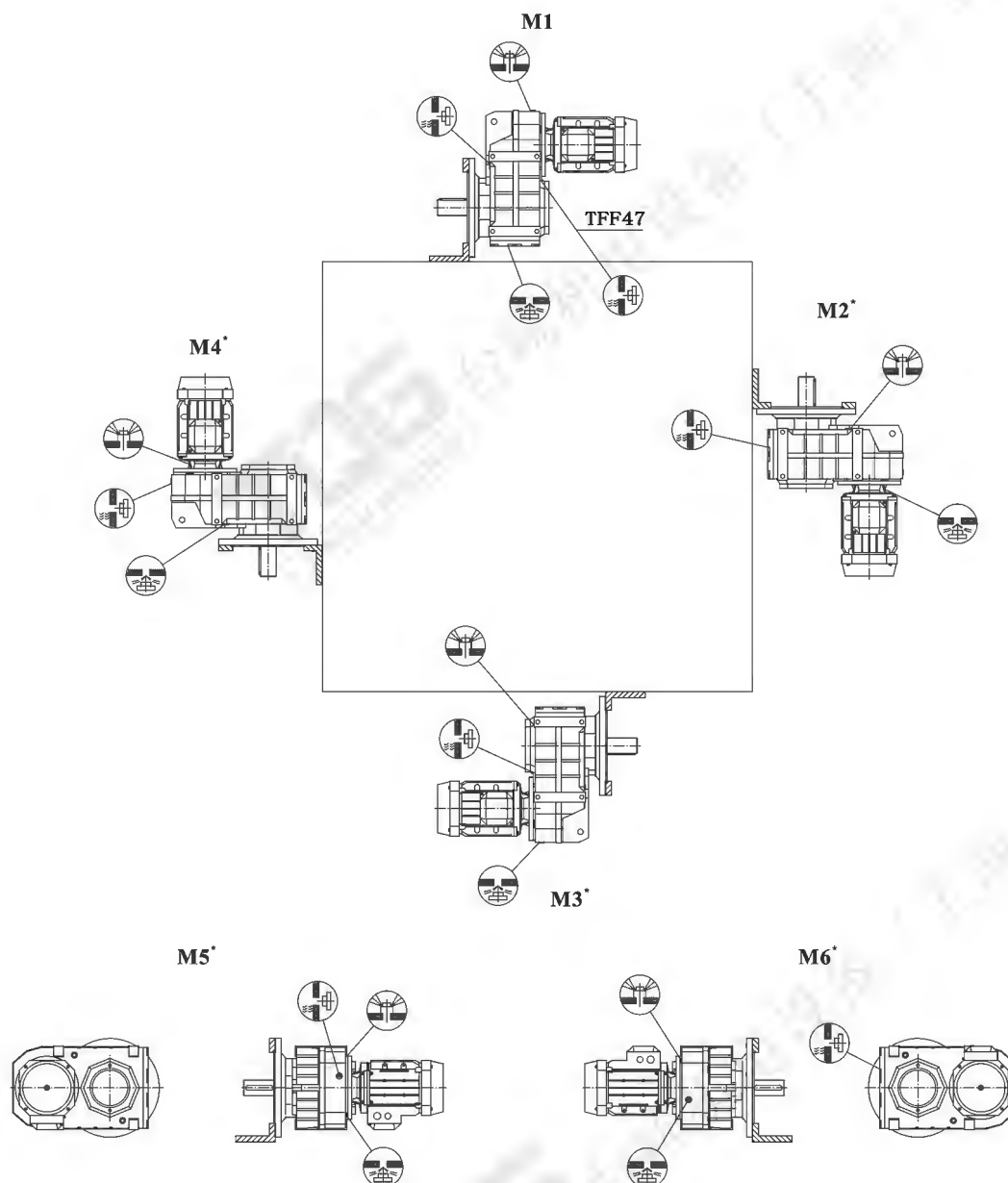
TF..27  M1-M6

TF..27  M1,M3,M5,M6

*→page 095



TFF, TFAF, TFHF, TFAZ, TFHZ27-157, TFVF27-107, TFVZ27-107



TF..27  M1,M3,M5,M6

TF..27  M1-M6

TF..27  M1,M3,M5,M6

* → page 095

3.5 减速器组合表 / Gear Unit Combination Table

为得到特别低的输出转速，可以通过**TRF**齿轮箱与**TF**齿轮箱相连的方式实现。

当采用这种传动方案时，可配置电动机的功率依赖于减速机的极限输出扭矩，而不能通过电动机的额定功率和减速机的总传动比计算出减速机的输出扭矩。

TRF series of gear units and **TF** series of gear units can be connected together to get special output speed.

For this transmission scheme, the power of the motor depends on the limit output torque of the gearbox, instead of the output torque calculated based on rated power of the motor and the transmission ratio of the gear unit.

TF..与 TRF..齿轮箱可能的组合 / Possible Combination of TF.. and TRF..

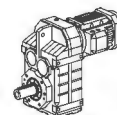
	TRF17	TRF27	TRF37	TRF47	TRF57	TRF67	TRF77	TRF87	TRF97	TRF107
TF..27										
TF..37										
TF..47										
TF..57										
TF..67										
TF..77										
TF..87										
TF..97										
TF..107										
TF..127										
TF..157										

说明：

- ☒ : 表示可能的组合。
- ☐ : 表示不允许的组合。

Notes:

- ☒ : Possible Combination.
- ☐ : Impossible Combination.



3. 6 TF..功率配置 / GF..Power Configuration

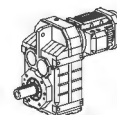
TF27 n ₁ =1400 1/min130Nm									
n ₂ [1/min]	M _{2max} [Nm]	Fr [N]	i	0.12 ~0.55	0.75 1.10	1.50	2.20		
3									
9.90	130	4500	140.74						
11.0	130	4500	129.09						
13.0	130	4500	109.90						
15.0	130	4500	94.76						
16.0	130	4500	88.32						
18.0	130	4500	77.21						
19.0	130	4500	72.37						
22.0	130	4400	63.86						
25.0	130	4180	56.62						
28.0	130	3980	50.19						
30.0	130	3860	46.78						
34.0	130	3640	40.89						
37.0	130	3530	38.33						
41.0	130	3340	33.83						
2									
47.0	130	3140	29.56						
52.0	130	3030	27.18						
60.0	130	2820	23.25						
69.0	130	2630	20.15						
74.0	130	2550	18.84						
86.0	130	2370	16.28						
101	130	2180	13.84						
113	130	2060	12.35						
133	130	1900	10.55						
142	130	1830	9.88						
149	130	1660	9.40						
172	123	1580	8.13						
203	114	1530	6.91						
227	109	1480	6.17						
266	100	1440	5.27						
284	96	1420	4.93						
337	87	1380	4.16						
TF37 n ₁ =1400 1/min200Nm									
n ₂ [1/min]	M _{2max} [Nm]	Fr [N]	i	0.12 ~0.55	0.75 1.10	1.50	2.20 3.00		
3									
11.0	200	4290	128.51						
12.0	200	4290	117.88						
14.0	200	4290	100.36						
16.0	200	4290	86.53						
17.0	200	4290	80.65						

TF37 n ₁ =1400 1/min200Nm									
n ₂ [1/min]	M _{2max} [Nm]	Fr [N]	i	0.12 ~0.55	0.75 1.10	1.50	2.20 3.00		
3									
20.0	200	4290	70.50						
21.0	200	4290	66.09						
24.0	200	4290	58.32						
26.0	200	4290	54.54						
27.0	200	4290	51.70						
30.0	200	4290	47.02						
32.0	200	4290	43.83						
37.0	200	4290	38.31						
39.0	200	4290	35.91						
44.0	200	4290	31.69						
50.0	200	4060	28.09						
59.0	200	3760	23.88						
2									
59.0	200	3740	23.63						
68.0	200	3500	20.57						
73.0	200	3390	19.27						
82.0	200	3180	17.03						
89.0	200	3070	15.81						
98.0	200	2910	14.33						
109	200	2750	12.87						
126	190	2620	11.08						
134	185	2580	10.42						
156	175	2460	8.97						
175	170	2360	8.01						
188	145	2350	7.44						
208	140	2270	6.74						
231	135	2190	6.05						
269	125	2120	5.21						
286	120	2100	4.90						
332	110	2030	4.22						
371	105	1970	3.77						
TF47 n ₁ =1400 1/min400Nm									
n ₂ [1/min]	M _{2max} [Nm]	Fr [N]	i	0.12 ~0.55	0.75 1.10	1.50	2.20 3.00		
3									
7.30	400	5920	190.76						
8.00	400	5920	175.38						
9.30	400	5920	150.06						
11.0	400	5920	130.07						
12.0	400	5920	121.57						
13.0	400	5920	105.09						

TF

TF47 $n_1=1400$ 1/min 400Nm									
n_2 [1/min]	M_{2max} [Nm]	Fr [N]	i	0.12 ~0.55	0.75 1.10	1.50	2.20 3.00		
3									
16.0	400	5920	89.29						
18.0	400	5920	79.72						
21.0	400	5920	68.09						
21.0	400	5920	65.36						
25.0	400	5920	56.49						
29.0	400	5920	48.00						
33.0	400	5920	42.86						
38.0	400	5920	36.61						
41.0	400	5920	34.29						
48.0	400	5790	28.88						
2									
45.0	400	5920	30.86						
48.0	400	5830	29.32						
54.0	400	5460	25.72						
64.0	400	5030	21.82						
71.0	400	4770	19.70						
81.0	400	4450	17.33						
86.0	400	4320	16.36						
101	400	3950	13.93						
111	400	3740	12.66						
128	400	3440	10.97						
156	330	3250	8.96						
178	380	2630	7.88						
188	380	2530	7.44						
221	350	2470	6.34						
243	340	2390	5.76						
281	320	2310	4.99						
TF57 $n_1=1400$ 1/min 600Nm									
n_2 [1/min]	M_{2max} [Nm]	Fr [N]	i	0.12 ~0.55	0.75 1.10	1.50	2.20 3.00	4.00	5.50
3									
7.00	600	9200	199.70						
7.60	600	9200	183.60						
8.90	600	9200	157.09						
10.0	600	9200	136.16						
11.0	600	9200	127.27						
13.0	600	9200	110.01						
15.0	600	9200	93.47						
17.0	600	9200	83.46						
19.0	600	9200	72.98						
21.0	600	9200	68.22						
24.0	600	9200	58.97						
28.0	600	9200	50.10						

TF57 $n_1=1400$ 1/min 600Nm											
n_2 [1/min]	M_{2max} [Nm]	Fr [N]	i	0.12 ~0.55	0.75 1.10	1.50	2.20 3.00	4.00	5.50		
3											
31.0	600	9160	44.73								
37.0	600	8510	38.21								
39.0	600	8250	35.79								
46.0	590	7650	30.15								
2											
35.0	290	10500	40.13								
41.0	500	8670	34.24								
47.0	545	7890	29.94								
49.0	535	7760	28.45								
56.0	575	7060	24.96								
66.0	600	6350	21.17								
73.0	600	6020	19.11								
83.0	600	5620	16.81								
88.0	600	5450	15.88								
104	600	4980	13.52								
114	600	4710	12.29								
132	600	4320	10.64								
150	420	4760	9.31								
171	420	4450	8.19								
181	420	4310	7.73								
213	420	3940	6.58								
234	420	3730	5.98								
270	415	3460	5.18								
TF67 $n_1=1400$ 1/min 820Nm											
n_2 [1/min]	M_{2max} [Nm]	Fr [N]	i	0.12 ~0.55	0.75 1.10	1.50	2.20 3.00	4.00	5.50		
3											
6.10	820	10300	228.99								
7.20	820	10300	195.39								
8.20	820	10300	170.85								
8.60	820	10300	162.31								
9.80	820	10300	142.40								
12.0	820	10300	120.79								
13.0	820	10300	109.04								
15.0	820	10300	95.94								
15.0	820	10300	90.59								
18.0	820	10300	79.76								
21.0	820	10300	67.65								
23.0	820	10300	61.07								
26.0	820	10300	53.73								
28.0	820	10300	50.74								
32.0	820	10300	43.20								
36.0	780	10700	39.26								
41.0	740	11000	34.01								



TF

TF67 n ₁ =1400 1/min					820Nm				
n ₂ [1/min]	M _{2max} [Nm]	Fr [N]	i	0.12 ~0.55	0.75 1.10	1.50	2.20 3.00	4.00	5.50
2									
39.0	820	10300	36.30						
44.0	820	10300	32.08						
51.0	820	10300	27.41						
56.0	820	10300	25.13						
63.0	820	10300	22.05						
67.0	820	10300	20.90						
77.0	820	10300	18.29						
85.0	820	10300	16.48						
97.0	820	10300	14.46						
110	820	10300	12.76						
124	820	10300	11.31						
145	820	10300	9.66						
154	530	11400	9.08						
163	570	10900	8.60						
186	610	10100	7.53						
206	620	9660	6.78						
235	610	9200	5.95						
267	590	8850	5.25						
300	560	8590	4.66						
353	500	8390	3.97						

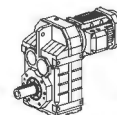
TF77 n ₁ =1400 1/min					1500Nm				
n ₂ [1/min]	M _{2max} [Nm]	Fr [N]	i	0.18 ~0.55	0.75 1.10	1.50	2.20 3.00	4.00	5.50 7.50
3									
5.00	1500	15700	281.71						
5.30	1500	15700	262.93						
6.20	1500	15700	225.79						
7.10	1500	15700	198.31						
7.40	1500	15700	188.40						
8.40	1500	15700	166.47						
9.80	1500	15700	142.27						
11.0	1500	15700	130.42						
12.0	1500	15700	114.45						
13.0	1500	15700	108.46						
15.0	1500	15700	94.93						
16.0	1500	15700	85.52						
19.0	1500	15700	75.02						
19.0	1500	15700	72.50						
21.0	1500	15700	66.46						
24.0	1500	15700	58.32						
25.0	1500	15700	55.27						
29.0	1500	15700	48.37						
32.0	1500	15700	43.58						
37.0	1500	15700	38.23						
41.0	1500	15700	33.74						
47.0	1500	15700	29.91						
55.0	1450	16100	25.54						

TF77 n ₁ =1400 1/min					1500Nm				
n ₂ [1/min]	M _{2max} [Nm]	Fr [N]	i	0.18 ~0.55	0.75 1.10	1.50	2.20 3.00	4.00	5.50 7.50
2									
38.0	1110	17900	36.58						
44.0	1380	16500	31.51						
49.0	1430	16200	28.75						
55.0	1500	15700	25.50						
65.0	1500	15700	21.43						
71.0	1500	15700	19.70						
80.0	1500	15700	17.49						
90.0	1500	15700	15.64						
100	1500	15700	14.06						
115	1500	14900	12.20						
128	1500	14200	10.93						
151	1080	13800	9.30						
169	1080	13100	8.26						
189	1080	12500	7.39						
211	1080	12000	6.64						
243	1080	11300	5.76						
271	1080	10700	5.16						
327	1010	10200	4.28						

TF77 n ₁ =1400 1/min					1500Nm				
n ₂ [1/min]	M _{2max} [Nm]	Fr [N]	i	11.0					
3									
5.00	1500	15700	281.71						
5.30	1500	15700	262.93						
6.20	1500	15700	225.79						
7.10	1500	15700	198.31						
7.40	1500	15700	188.40						
8.40	1500	15700	166.47						
9.80	1500	15700	142.27						
11.0	1500	15700	130.42						
12.0	1500	15700	114.45						
13.0	1500	15700	108.46						
15.0	1500	15700	94.93						
16.0	1500	15700	85.52						
19.0	1500	15700	75.02						
19.0	1500	15700	72.50						
21.0	1500	15700	66.46						
24.0	1500	15700	58.32						
25.0	1500	15700	55.27						
29.0	1500	15700	48.37						
32.0	1500	15700	43.58						
37.0	1500	15700	38.23						
41.0	1500	15700	33.74						
47.0	1500	15700	29.91						
55.0	1450	16100	25.54						
2									
38.0	1110	17900	36.58						
44.0	1380	16500	31.51						

TF77 $n_1=1400$ 1/min 1500Nm									
n_2 [1/min]	M_{2max} [Nm]	Fr [N]	i	11.0					
2									
49.0	1430	16200	28.75						
55.0	1500	15700	25.50						
65.0	1500	15700	21.43						
71.0	1500	15700	19.70						
80.0	1500	15700	17.49						
90.0	1500	15700	15.64						
100	1500	15700	14.06						
115	1500	14900	12.20						
128	1500	14200	10.93						
151	1080	13800	9.30						
169	1080	13100	8.26						
189	1080	12500	7.39						
211	1080	12000	6.64						
243	1080	11300	5.76						
271	1080	10700	5.16						
327	1010	10200	4.28						
TF87 $n_1=1400$ 1/min 3000Nm									
n_2 [1/min]	M_{2max} [Nm]	Fr [N]	i	0.55	0.75 1.10	1.50	2.20 3.00	4.00	5.50 7.50
3									
5.20	3000	19800	270.68						
5.50	3000	19800	255.37						
6.10	3000	19800	228.93						
7.10	3000	19800	197.20						
7.80	3000	19800	179.97						
8.80	3000	19800	159.61						
10.0	3000	19800	134.16						
11.0	3000	19800	123.29						
13.0	3000	19800	109.49						
14.0	3000	19800	97.89						
16.0	3000	19800	88.01						
20.0	3000	19600	68.40						
25.0	3000	17700	56.75						
28.0	2940	16800	50.36						
31.0	2820	16200	45.28						
36.0	2720	15400	39.30						
40.0	2610	14900	35.19						
48.0	2510	13800	29.20						
2									
41.0	2610	14600	33.92						
49.0	2450	13900	28.78						
53.0	3000	11100	26.50						
59.0	3000	10300	23.68						
66.0	3000	9520	21.32						
73.0	3000	8840	19.31						
82.0	3000	8040	17.12						
90.0	3000	7390	15.48						

TF87 $n_1=1400$ 1/min 3000Nm									
n_2 [1/min]	M_{2max} [Nm]	Fr [N]	i	0.55	0.75 1.10	1.50	2.20 3.00	4.00	5.50 7.50
2									
107	3000	6370	13.12						
122	3000	5580	11.46						
146	2880	5050	9.58						
169	1530	8890	8.29						
190	1530	8280	7.35						
211	1530	7790	6.65						
249	1530	7020	5.63						
285	1530	6430	4.92						
340	1460	5980	4.12						
TF87 $n_1=1400$ 1/min 3000Nm									
n_2 [1/min]	M_{2max} [Nm]	Fr [N]	i	11.0 15.0	18.5 22.0				
3									
5.20	3000	19800	270.68						
5.50	3000	19800	255.37						
6.10	3000	19800	228.93						
7.10	3000	19800	197.20						
7.80	3000	19800	179.97						
8.80	3000	19800	159.61						
10.0	3000	19800	134.16						
11.0	3000	19800	123.29						
13.0	3000	19800	109.49						
14.0	3000	19800	97.89						
16.0	3000	19800	88.01						
18.0	3000	19800	76.39						
20.0	3000	19600	68.40						
25.0	3000	17700	56.75						
28.0	2940	16800	50.36						
31.0	2820	16200	45.28						
36.0	2720	15400	39.30						
40.0	2610	14900	35.19						
48.0	2510	13800	29.20						
2									
41.0	2610	14600	33.92						
49.0	2450	13900	28.78						
53.0	3000	11100	26.50						
59.0	3000	10300	23.68						
66.0	3000	9520	21.32						
73.0	3000	8840	19.31						
82.0	3000	8040	17.12						
90.0	3000	7390	15.48						
107	3000	6370	13.12						
122	3000	5580	11.46						
146	2880	5050	9.58						
169	1530	8890	8.29						
190	1530	8280	7.35						
211	1530	7790	6.65						
249	1530	7020	5.63						
285	1530	6430	4.92						
340	1460	5980	4.12						



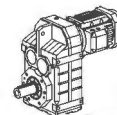
TF

TF97 n ₁ =1400 1/min										4300Nm
n ₂ [1/min]	M _{2max} [Nm]	Fr [N]	i	1.10 ~1.50	2.20 3.00	4.00	5.50 7.50	11.0 15.0	18.5 22.0	
3										
5.10	4300	29900	276.77							
5.50	4300	29900	253.41							
6.30	4300	29900	223.88							
7.40	4300	29900	189.92							
8.00	4300	29900	174.87							
9.00	4300	29900	156.30							
9.90	4300	29900	140.71							
11.0	4300	29900	127.42							
12.0	4300	29900	112.99							
14.0	4300	29900	102.16							
14.0	4300	29900	97.58							
16.0	4300	29900	89.85							
16.0	4300	29900	86.59							
17.0	4300	29900	80.31							
19.0	4300	29900	75.63							
19.0	4300	29900	72.29							
21.0	4300	29000	65.47							
24.0	4300	27200	58.06							
27.0	4300	25800	52.49							
31.0	4300	23600	44.49							
36.0	4300	21900	38.86							
43.0	4300	19800	32.50							
2										
32.0	3070	27600	43.28							
38.0	3070	25500	36.64							
41.0	4300	20300	33.91							
46.0	4300	19000	30.39							
51.0	4300	17900	27.44							
56.0	4300	16800	24.92							
63.0	4300	15600	22.11							
70.0	4300	14600	20.07							
81.0	4300	13200	17.25							
93.0	4300	11900	15.06							
110	4300	10500	12.77							
125	4100	10000	11.16							
155	2360	13400	9.06							
170	2360	12600	8.22							
198	2360	11500	7.07							
227	2250	11100	6.17							
268	2150	10400	5.23							
306	2050	9950	4.57							
362	1800	9960	3.87							
TF97 n ₁ =1400 1/min										
4300Nm										
n ₂ [1/min]	M _{2max} [Nm]	Fr [N]	i	30.0						
3										
5.10	4300	29900	276.77							
5.50	4300	29900	253.41							

TF97 n ₁ =1400 1/min										4300Nm
n ₂ [1/min]	M _{2max} [Nm]	Fr [N]	i	30.0						
3										
6.30	4300	29900	223.88							
7.40	4300	29900	189.92							
8.00	4300	29900	174.87							
9.00	4300	29900	156.30							
9.90	4300	29900	140.71							
11.0	4300	29900	127.42							
12.0	4300	29900	112.99							
14.0	4300	29900	102.16							
14.0	4300	29900	97.58							
16.0	4300	29900	89.85							
16.0	4300	29900	86.59							
17.0	4300	29900	80.31							
19.0	4300	29900	75.63							
19.0	4300	29900	72.29							
21.0	4300	29000	65.47							
24.0	4300	27200	58.06							
27.0	4300	25800	52.49							
31.0	4300	23600	44.49							
36.0	4300	21900	38.86							
43.0	4300	19800	32.50							
2										
32.0	3070	27600	43.28							
38.0	3070	25500	36.64							
41.0	4300	20300	33.91							
46.0	4300	19000	30.39							
51.0	4300	17900	27.44							
56.0	4300	16800	24.92							
63.0	4300	15600	22.11							
70.0	4300	14600	20.07							
81.0	4300	13200	17.25							
93.0	4300	11900	15.06							
110	4300	10500	12.77							
125	4100	10000	11.16							
155	2360	13400	9.06							
170	2360	12600	8.22							
198	2360	11500	7.07							
227	2250	11100	6.17							
268	2150	10400	5.23							
306	2050	9950	4.57							
362	1800	9960	3.87							
TF107 n ₁ =1400 1/min										
7840Nm										
n ₂ [1/min]	M _{2max} [Nm]	Fr [N]	i	2.20 3.00	4.00	5.50 7.50	11.0 15.0	18.5 22.0	30.0 ~45.0	
3										
5.50	7680	49800	254.40							
6.50	7680	49800	215.37							
7.00	7680	49800	199.31							
7.80	7680	49800	178.64							

TF107 $n_1=1400$ 1/min										7840Nm
n_2 [1/min]	M_{2max} [Nm]	Fr [N]	i	2.20 3.00	4.00	5.50 7.50	11.0 15.0	18.5 22.0	30.0 ~45.0	
3										
8.70	7680	49800	161.28							
9.60	7680	49800	146.49							
11.0	7680	49800	129.97							
12.0	7680	49800	117.94							
14.0	7680	49800	101.38							
15.0	7680	49800	92.47							
16.0	7680	49800	88.49							
17.0	7680	49800	83.99							
19.0	7680	49800	74.52							
21.0	7680	49800	67.62							
24.0	7680	47800	58.12							
28.0	7680	45100	50.73							
33.0	7680	42000	43.03							
37.0	7680	39500	37.61							
44.0	7680	36500	31.80							
2										
41.0	7400	38300	33.79							
51.0	7840	33300	27.57							
56.0	7840	31500	25.14							
64.0	7840	28800	21.76							
73.0	7840	26500	19.20							
84.0	7840	23900	16.58							
95.0	7680	22400	14.67							
114	7000	22600	12.33							
141	6500	21500	9.96							
144	4910	23500	9.69							
167	4800	22000	8.37							
189	4600	21300	7.40							
225	4600	19000	6.22							
278	4600	16400	5.03							
TF127 $n_1=1400$ 1/min										12000Nm
n_2 [1/min]	M_{2max} [Nm]	Fr [N]	i	7.50	11.0 15.0	18.5 22.0	30.0 ~45.0	55.0 90.0		
3										
8.20	12000	90000	170.83							
9.10	12000	90000	153.67							
11.0	12000	90000	125.37							
12.0	12000	88000	114.34							
14.0	12000	83000	98.95							
16.0	12000	79000	87.31							
19.0	12000	74300	75.41							
20.0	12000	72100	70.07							
22.0	12000	69400	63.91							
25.0	12000	65200	55.31							
29.0	12000	61300	48.80							
33.0	12000	56800	42.15							
38.0	12000	53200	37.28							
45.0	12000	48300	31.33							
55.0	12000	42400	25.30							

TF127 $n_1=1400$ 1/min										12000Nm
n_2 [1/min]	M_{2max} [Nm]	Fr [N]	i	7.50	11.0 15.0	18.5 22.0	30.0 ~45.0	55.0 90.0		
2										
52.0	8500	55300	26.86							
57.0	8500	53300	24.57							
65.0	12000	38000	21.38							
74.0	11000	38800	18.87							
86.0	11000	35400	16.36							
96.0	11000	32600	14.55							
112	10000	33300	12.54							
137	9500	30900	10.19							
158	7000	36400	8.86							
178	6000	37000	7.88							
206	7000	32200	6.80							
254	6000	31700	5.52							
299	6000	29500	4.68							
TF157 $n_1=1400$ 1/min										18000Nm
n_2 [1/min]	M_{2max} [Nm]	Fr [N]	i	11.0 15.0	18.5 22.0	30.0 ~45.0	55.0 90.0	110 132		
3										
5.20	18000	100300	267.43							
6.40	18000	100300	217.62							
7.90	18000	100300	178.20							
8.60	18000	100300	162.96							
9.90	18000	100300	141.80							
11.0	18000	100300	125.14							
13.0	18000	100300	108.49							
15.0	18000	100300	96.53							
16.0	18000	95800	85.80							
18.0	18000	92300	78.46							
21.0	18000	87000	68.28							
23.0	18000	82500	60.25							
27.0	18000	77500	52.24							
30.0	18000	73600	46.48							
35.0	18000	68900	40.06							
43.0	18000	62500	32.55							
51.0	18000	57800	27.60							
2										
26.0	8000	98400	53.55							
32.0	10000	87800	43.94							
39.0	11000	79300	35.75							
49.0	17000	60800	28.60							
55.0	15000	61500	25.43							
63.0	18000	51800	22.16							
71.0	17000	50900	19.77							
83.0	18000	44900	16.85							
100	17000	42500	13.96							
117	16000	40900	11.92							



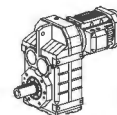
3. 7 TF..性能参数 / TF.. Performance Parameters

n_2 [1/min]	M_2 [Nm]	i	Fr [N]	K	Frame size	Input Configuration
$P_1=0.12kw$						
0.06	13900	22323	86700	0.85	TFA 127 TRF77 TFAF 127 TRF77 TF 127 TRF77 TFF 127 TRF77	Y..63M ₁₋₄ AM63 AD2
0.07	11800	19048	90000	1.00		
0.08	10300	16656	90000	1.15		
0.09	9180	14722	90000	1.30		
0.11	7990	12912	90000	1.50		
0.12	7040	11656	90000	1.70		
0.14	6310	10191	90000	1.90		
0.10	8850	14767	65000	0.90	TFA 107 TRF77 TFAF 107 TRF77 TF 107 TRF77 TFF 107 TRF77	Y..63M ₁₋₄ AM63 AD2
0.11	7550	11348	65000	1.05		
0.13	6600	10039	65000	1.20		
0.14	5890	8548	65000	1.35		
0.17	5150	7674	65000	1.55		
0.19	4490	6767	65000	1.80		
0.22	3700	5954	65000	2.20		
0.24	3210	5223	65000	2.50		
0.27	2910	4567	65000	2.70		
0.32	2670	3521	65000	3.00		
0.21	4140	6469	30400	1.05	TFA 97 TRF57 TFAF 97 TRF57 TF 97 TRF57 TFF 97 TRF57	Y..63M ₁₋₄ AM63 AD2
0.25	3820	5615	31300	1.15		
0.28	3320	4961	32500	1.30		
0.32	2900	4333	33500	1.50		
0.35	2690	3906	34000	1.60	TFA 97 TRF57 TFAF 97 TRF57 TF 97 TRF57 TFF 97 TRF57	Y..63M ₁₋₄ AM63 AD2
0.41	2320	3352	34800	1.85		
0.47	1910	2907	35500	2.20		
0.54	1750	2553	35800	2.40		
0.33	2760	4245	23800	1.10	TFA 87 TRF57 TFAF 87 TRF57 TF 87 TRF57 TFF 87 TRF57	Y..63M ₁₋₄ AM63 AD2
0.37	2210	3721	25800	1.35		
0.43	2240	3244	25700	1.35		
0.48	1990	2881	26500	1.50		
0.54	1780	2576	27100	1.70		
0.63	1510	2199	27800	2.00		
0.72	1300	1930	28300	2.30		
0.81	1170	1709	28600	2.60		
0.92	1030	1493	28900	2.90		
1.10	820	1300	29300	3.70		
1.20	745	1148	29500	4.00		
0.53	1820	2613	13000	0.80	TFA 77 TRF37 TFAF 77 TRF37 TF 77 TRF37 TFF 77 TRF37	Y..63M ₁₋₄ AM63 AD2
0.60	1570	2284	15200	0.95		
0.68	1380	2029	16400	1.10		
0.80	1180	1728	17500	1.25		
0.89	1090	1544	17900	1.40		
1.00	950	1354	18500	1.55		
1.20	840	1200	18800	1.75		
1.30	740	1053	19100	2.00		
1.50	630	910	19400	2.40		
1.70	525	810	19600	2.80		
1.90	460	710	19800	3.20		
0.97	960	1429	7070	0.85	TFA 67 TRF37 TFAF 67 TRF37 TF 67 TRF37 TFF 67 TRF37	Y..63M ₁₋₄ AM63 AD2
1.10	860	1271	9840	0.95		
1.20	725	1102	11100	1.15		
1.40	635	970	11700	1.30		

n_2 [1/min]	M_2 [Nm]	i	Fr [N]	K	Frame size	Input Configuration
$P_1=0.12kw$						
1.60	560	858	12100	1.45	TFA 67 TRF37 TFAF 67 TRF37 TF 67 TRF37 TFF 67 TRF37	Y..63M ₁₋₄ AM63 AD2
1.80	490	755	12400	1.65		
2.20	415	641	12700	1.95		
2.40	390	572	12800	2.10		
2.70	330	509	13000	2.50		
3.20	285	437	13000	2.80		
1.60	610	851	9100	1.00	TFA 57 TRF37 TFAF 57 TRF37 TF 57 TRF37 TFF 57 TRF37	Y..63M ₁₋₄ AM63 AD2
1.90	520	738	9750	1.15		
2.10	455	646	10200	1.30		
2.50	385	558	10600	1.55		
2.70	345	506	10900	1.75		
3.00	295	452	11100	2.00		
3.20	310	426	11100	1.95		
3.60	270	382	11300	2.20		
4.20	230	330	11500	2.60		
4.60	210	298	11500	2.80		
5.30	185	262	11500	3.20		
2.50	385	543	6100	1.05	TFA 47 TRF17 TFAF 47 TRF17 TF 47 TRF17 TFF 47 TRF17	Y..63M ₁₋₄ AM63 -
2.90	330	475	6740	1.20		
3.30	290	419	7150	1.40		
2.60	380	524	6190	1.05		
2.80	350	489	6530	1.15		
3.20	300	427	7020	1.30		
3.60	265	381	7310	1.50		
4.10	235	334	7550	1.70		
4.70	205	295	7740	1.95		
5.40	172	253	7910	2.30		
4.30	215	322	3990	0.90	TFA 37 TRF17 TFAF 37 TRF17 TF 37 TRF17 TFF 37 TRF17	Y..63M ₁₋₄ AM63 -
5.00	192	278	4400	1.05		
5.70	162	242	4750	1.25		
6.20	156	221	4820	1.30		
4.20	235	326	3710	0.85		
4.80	200	285	4250	1.00		
5.50	177	250	4590	1.15		
6.30	156	219	4820	1.30		
7.40	132	186	5040	1.50		
8.30	118	167	5140	1.70		
6.20	155	221	4500	0.85	TFA 27 TRF17 TFAF 27 TRF17 TF 27 TRF17 TFF 27 TRF17	Y..63M ₁₋₄ AM63 -
8.00	119	172	4500	1.10		
9.00	104	153	4500	1.25		
11.0	87	130	4500	1.50		
6.50	150	211	4500	0.85		
7.40	131	186	4500	1.00		
9.70	102	142	4500	1.25		
11.0	88	124	4500	1.45		
13.0	77	109	4500	1.70		
14.0	67	96	4500	1.95		
6.90	166	199.7	11500	3.60	TFA 57 TFAF 57 TF 57 TFF 57	Y..63M ₁₋₄ AM63 AD2
7.50	152	183.6	11500	3.90		
8.80	130	157.09	11500	4.60		
10.0	113	136.16	11500	5.30		

n_2 [1/min]	M_2 [Nm]	i	F_r [N]	K	Frame size		Input Configuration
P ₁ =0.12kw							
7.20	158	190.76	7970	2.50	TFA	47	Y..63M ₁ -4 AM63 AD1
7.90	146	175.38	8020	2.80	TFAF	47	
9.20	125	150.06	8100	3.20	TF	47	
11.0	108	130.07	8150	3.70	TFF	47	
11.0	107	128.51	5220	1.85	TFA	37	Y..63M ₁ -4 AM63 AD1
12.0	98	117.88	5270	2.00	TFAF	37	
14.0	83	100.36	5340	2.40	TF	37	
16.0	72	86.53	5400	2.80	TFF	37	
17.0	67	80.65	5410	3.00			
9.80	117	140.74	4500	1.10			Y..63M ₁ -4 AM63 AD1
11.0	107	129.09	4500	1.20			
13.0	91	109.9	4500	1.40			
15.0	79	94.76	4500	1.65			
16.0	73	88.32	4500	1.75			
18.0	64	77.21	4500	2.00	TFA	27	
19.0	60	72.37	4500	2.20	TFAF	27	
22.0	53	63.86	4500	2.40	TF	27	
24.0	47	56.62	4500	2.80	TFF	27	
28.0	42	50.19	4500	3.10			
30.0	39	46.78	4500	3.40			
34.0	34	40.89	4500	3.80			
36.0	32	38.33	4430	4.10			
41.0	28	33.83	4270	4.60			
47.0	24	29.56	4100	5.30			Y..63M ₁ -4 AM63 AD2
51.0	23	27.18	4000	5.80	TFA	27	
59.0	19	23.25	3820	6.70	TFAF	27	
68.0	17	20.15	3650	7.80	TF	27	
73.0	16	18.84	3580	8.30	TFF	27	
85.0	14	16.28	3420	9.60			
100	12	13.84	3250	11.0			
112	10	12.35	3140	13.0			Y..63M ₁ -4 AM63 AD2
131	8.8	10.55	2990	15.0			
140	8.2	9.88	2920	16.0			
147	7.8	9.4	2870	17.0	TFA	27	
170	6.7	8.13	2740	18.0	TFAF	27	
200	5.7	6.91	2600	20.0	TF	27	
224	5.1	6.17	2510	21.0	TFF	27	
262	4.4	5.27	2390	23.0			
280	4.1	4.93	2340	23.0			
332	3.5	4.16	2210	25.0			
P ₁ =0.18kw							
0.10	13600	12912	87200	0.90			Y..63M ₁ -4 AM63 AD2
0.11	12100	11656	90000	1.00	TFA	127 TRF77	
0.13	10700	10191	90000	1.10	TFAF	127 TRF77	
0.15	8940	8831	90000	1.35	TF	127 TRF77	
0.17	7740	7643	90000	1.55	TFF	127 TRF77	
0.20	7130	6715	90000	1.70			
0.15	8440	8548	47700	0.90			Y..63M ₁ -4 AM63 AD2
0.17	8130	7674	48600	0.95	TFA	107 TRF77	
0.20	7070	6767	51400	1.10	TFAF	107 TRF77	
0.22	6080	5954	53800	1.25	TF	107 TRF77	
0.25	5290	5223	55700	1.45	TFF	107 TRF77	
0.29	4850	4567	56600	1.60			

n_2 [1/min]	M_2 [Nm]	i	F_r [N]	K	Frame size	Input Configuration
$P_1=0.18\text{kw}$						
0.37	3670	3521	59100	2.10	TFA 107 TRF77 TFAF 107 TRF77 TF 107 TRF77 TFF 107 TRF77	Y..63M ₁ -4 AM63 AD2
0.43	3250	3037	59900	2.40	TFA 107 TRF77	Y..63M ₁ -4 AM63 AD3
0.48	2950	2756	60500	2.60	TFAF 107 TRF77	
0.56	2540	2369	61200	3.00	TF 107 TRF77	
0.64	2210	2068	61800	3.50	TFF 107 TRF77	
0.30	4800	4333	22800	0.90		Y..63M ₁ -4 AM63 AD2
0.34	4420	3906	29500	0.95		
0.39	3800	3352	31300	1.15	TFA 97 TRF57	
0.45	3210	2907	32800	1.35	TFAF 97 TRF57	
0.52	2890	2553	33600	1.50	TF 97 TRF57	
0.59	2540	2245	34300	1.70	TFF 97 TRF57	
0.67	2210	1970	35000	1.95		
0.77	1950	1722	35500	2.20	TFA 97 TRF57	Y..63M ₁ -4 AM63 AD2
0.86	1730	1527	35900	2.50	TFAF 97 TRF57	
0.99	1420	1327	36400	3.00	TF 97 TRF57	
1.10	1330	1171	36500	3.20	TFF 97 TRF57	
0.51	2920	2576	22300	1.00		Y..63M ₁ -4 AM63 AD2
0.60	2490	2199	24800	1.20		
0.68	2160	1930	25900	1.40	TFA 87 TRF57	
0.77	1930	1709	26600	1.55	TFAF 87 TRF57	
0.88	1690	1493	27300	1.75	TF 87 TRF57	
1.00	1390	1300	28100	2.10	TFF 87 TRF57	
1.20	1250	1148	28400	2.40		
1.30	1080	1010	28800	2.80		
1.50	970	887	29000	3.10	TFA 87 TRF57	Y..63M ₁ -4 AM63 AD3
1.70	830	780	29300	3.60	TFAF 87 TRF57	
					TF 87 TRF57	
					TFF 87 TRF57	
0.86	1770	1544	13500	0.85		Y..63M ₁ -4 AD2
0.98	1550	1354	15300	0.95		
1.10	1380	1200	16500	1.10	TFA 77 TRF37	
1.20	1210	1053	17400	1.25	TFAF 77 TRF37	
1.40	1030	910	18200	1.45	TF 77 TRF37	
1.60	880	810	18700	1.70	TFF 77 TRF37	
1.90	780	710	19000	1.90		
2.20	690	615	19300	2.20		
1.50	940	858	8660	0.85		Y..63M ₁ -4 AM63 AD2
1.80	820	755	10200	1.00		
2.10	700	641	11200	1.15	TFA 67 TRF37	
2.30	645	572	11600	1.25	TFAF 67 TRF37	
2.60	555	509	12100	1.45	TF 67 TRF37	
3.00	480	437	12500	1.70	TFF 67 TRF37	
3.40	430	384	12700	1.90		
2.60	575	500	12000	1.40		Y..63M ₁ -4 AM63 AD2
2.90	525	454	12300	1.55	TFA 67 TRF37	
3.40	450	392	12600	1.80	TFAF 67 TRF37	
4.00	380	333	12900	2.20	TF 67 TRF37	
4.40	335	297	13000	2.40	TFF 67 TRF37	
5.10	295	261	13000	2.80		

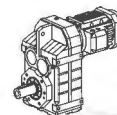


n_2 [1/min]	M_2 [Nm]	i	Fr [N]	K	Frame size	Input Configuration
$P_1=0.18kw$						
5.60	260	238	13000	3.10	TFA 67 TRF37	Y..63M ₂ -4 AM63 AD2
6.60	215	200	13000	3.70	TFAF 67 TRF37	
					TF 67 TRF37	
					TFF 67 TRF37	
2.40	635	558	7570	0.95	TFA 57 TRF37	Y..63M ₂ -4 AM63 AD2
2.60	570	506	9420	1.05		
2.90	495	452	9930	1.20		
3.40	425	386	10400	1.40		
3.90	370	338	10700	1.60		
3.10	500	426	9910	1.20		
3.50	445	382	10300	1.35		
4.00	380	330	10700	1.55		
4.40	340	298	10900	1.75		
5.00	300	262	11100	2.00		
5.80	255	226	11400	2.30		
6.60	220	200	11500	2.70		
3.60	410	370	5210	0.95	TFA 47 TRF17	Y..63M ₂ -4 AM63
4.10	375	324	6250	1.05		
4.60	325	288	6810	1.20		
5.30	275	249	7250	1.45		
4.00	385	334	6100	1.05		
4.50	335	295	6680	1.20		
5.20	285	253	7190	1.40		
6.10	250	217	7430	1.55		
7.00	220	190	7650	1.80		
7.40	205	178	7740	1.95		
7.10	215	186	4060	0.95	TFA 37 TRF17	Y..63M ₂ -4 AM63
7.90	194	167	4380	1.05	TFAF 37 TRF17	
9.10	171	145	4660	1.15	TF 37 TRF17	
10.0	151	129	4870	1.30	TFF 37 TRF17	
9.30	166	142	4500	0.80	TFA 27 TRF17	Y..63M ₂ -4 AM63
11.0	144	124	4500	0.90	TFAF 27 TRF17	
12.0	126	109	4500	1.05	TF 27 TRF17	
14.0	110	96	4500	1.20	TFF 27 TRF17	
3.10	555	281.71	19600	2.70	TFA 77	Y..71 M ₁ -6 AM71 AD2
3.30	515	262.93	19700	2.90	TFAF 77	
3.80	445	225.79	19800	3.40	TF 77	
					TFF 77	
3.80	450	228.99	12600	1.80	TFA 67	Y..71 M ₁ -6 AM71 AD2
4.40	385	195.39	12900	2.10	TFAF 67	
5.10	335	170.85	13000	2.40	TF 67	
					TFF 67	
5.80	295	228.99	13000	2.80	TFA 67	Y..63M ₂ -4 AM63 AD2
6.80	250	195.39	13000	3.20	TFAF 67	
7.70	220	170.85	13000	3.70	TF 67	
					TFF 67	
4.40	390	199.7	10600	1.50	TFA 57	Y..71 M ₁ -6 AM71 AD2
4.70	360	183.6	10800	1.65		
5.50	310	157.09	11100	1.95		
6.40	265	136.16	11300	2.20		
6.80	250	127.27	11400	2.40		
7.90	215	110.01	11500	2.80		

n_2 [1/min]	M_2 [Nm]	i	Fr [N]	K	Frame size	Input Configuration
$P_1=0.18kw$						
6.60	260	199.7	11300	2.30	TFA 57	Y..63M ₂ -4 AM63 AD2
7.20	235	183.6	11500	2.50		
8.40	200	157.09	11500	2.90		
9.70	177	136.16	11500	3.40		
10.0	166	127.27	11500	3.60		
4.60	375	190.76	6240	1.05	TFA 47	Y..71M ₁ -6 AM71 AD1
5.00	345	175.38	6600	1.15		
5.80	295	150.06	7090	1.35		
6.70	255	130.07	7410	1.55		
7.20	240	121.57	7530	1.65		
6.90	245	190.76	7470	1.60	TFA 47	Y..63M ₂ -4 AM63 AD1
7.50	225	175.38	7600	1.75		
8.80	195	150.06	7800	2.00		
10.0	169	130.07	7920	2.40		
11.0	158	121.57	7970	2.50		
7.40	230	117.88	3750	0.85	TFA 37	Y..71M ₁ -6 AM71 AD1
8.70	198	100.36	4320	1.00		
10.0	171	86.53	4660	1.15		
11.0	159	80.65	4790	1.25		
12.0	139	70.5	4970	1.45		
10.0	167	128.51	4700	1.20	TFA 37	Y..63M ₂ -4 AM63 AD1
11.0	154	117.88	4840	1.30		
13.0	131	100.36	5040	1.55		
15.0	113	86.53	5180	1.75		
16.0	105	80.65	5230	1.90		
19.0	92	70.5	5300	2.20		
20.0	86	66.09	5330	2.30		
23.0	76	58.32	5380	2.60		
12.0	143	109.9	4500	0.90		
14.0	123	94.76	4500	1.05		
15.0	115	88.32	4500	1.15	TFA 27	Y..63M ₂ -4 AM63 AD1
17.0	100	77.21	4500	1.30		
18.0	94	72.37	4500	1.40		
21.0	83	63.86	4500	1.55		
23.0	74	56.62	4500	1.75		
26.0	65	50.19	4500	2.00		
28.0	61	46.78	4500	2.10		
32.0	53	40.89	4410	2.40		
34.0	50	38.33	4340	2.60		
39.0	44	33.83	4200	3.00		
45.0	38.0	29.56	4040	3.40	TFA 27	Y..63M ₂ -4 AM63 AD2
49.0	35.0	27.18	3950	3.70		
57.0	30.0	23.25	3780	4.30		
65.0	26.0	20.15	3630	5.00		
70.0	24.0	18.84	3560	5.30		
81.0	21.0	16.28	3410	6.10		
95.0	18.0	13.84	3240	7.20		
107	16.0	12.35	3140	8.10		
125	14.0	10.55	2990	9.50		
134	13.0	9.88	2930	10.0		
140	12.0	9.40	2870	11.0		
162	11.0	8.13	2750	12.0		
191	9.00	6.91	2610	13.0		
214	8.00	6.17	2520	14.0		

n_2 [1/min]	M_2 [Nm]	i	Fr [N]	K	Frame size	Input Configuration
$P_1=0.18kw$						
251	6.90	5.27	2400	14.0	TFA 27	Y..63M ₂ -4 AM63 AD2
268	6.40	4.93	2350	15.0	TF 27	
318	5.40	4.16	2230	16.0	TF 27	
					TFF 27	
335	5.10	8.13	2190	24.0	TFA 27	Y..63 M ₁ -2 AM63 AD2
394	4.40	6.91	2080	26.0	TF 27	
441	3.90	6.17	2000	28.0	TF 27	
516	3.30	5.27	1910	30.0	TF 27	
551	3.10	4.93	1870	31.0	TFF 27	
655	2.60	4.16	1770	33.0		
$P_1=0.25kw$						
0.15	13300	8831	87900	0.90	TFA 127 TRF77	Y..71M ₁ -4 AM71 AD2
0.17	11500	7643	90000	1.05	TF 127 TRF77	
0.19	10400	6715	90000	1.15	TF 127 TRF77	
0.22	9230	5925	90000	1.30	TF 127 TRF77	
0.25	7940	5153	90000	1.50	TFF 127 TRF77	
0.29	6890	4533	90000	1.75		
0.22	9050	5954	46000	0.85	TFA 107 TRF77	Y..71M ₁ -4 AM71 AD2
0.25	7890	5223	49300	0.95	TF 107 TRF77	
0.28	7120	4567	51300	1.10	TF 107 TRF77	
0.37	5430	3521	55300	1.40	TFF 107 TRF77	
0.43	4780	3037	56800	1.60	TFA 107 TRF77	Y..71M ₁ -4 AM71 AD3
0.47	4340	2756	57700	1.75	TF 107 TRF77	
0.55	3730	2369	59000	2.10	TF 107 TRF77	
0.63	3250	2068	59900	2.40	TF 107 TRF77	
0.81	2490	1597	61300	3.10	TFF 107 TRF77	
0.93	2150	1401	61900	3.60		
0.45	4670	2907	27500	0.90	TFA 97 TRF57	Y..71M ₁ -4 AM71 AD2
0.51	4180	2553	30300	1.05	TF 97 TRF57	
0.58	3670	2245	31600	1.15	TF 97 TRF57	
0.66	3200	1970	32800	1.35	TF 97 TRF57	
0.85	2500	1527	34400	1.70	TFF 97 TRF57	
0.98	2090	1327	35200	2.00		
1.10	1910	1171	35500	2.20		
1.30	1670	1022	36000	2.60		
0.75	2820	1722	33700	1.50	TFA 97 TRF57	Y..71M ₁ -4 AM71 AD3
					TF 97 TRF57	
					TF 97 TRF57	
					TFF 97 TRF57	
0.67	3130	1930	13500	0.95	TFA 87 TRF57	Y..71M ₁ -4 AM71 AD2
0.76	2790	1709	23700	1.05	TF 87 TRF57	
0.87	2440	1493	25000	1.25	TF 87 TRF57	
1.00	2050	1300	26300	1.45	TF 87 TRF57	
1.10	1830	1148	26900	1.65	TFF 87 TRF57	
1.30	1590	1010	27600	1.90		
1.50	1410	887	28000	2.10	TFA 87 TRF57	Y..71M ₁ -4 AM71 AD3
1.70	1230	780	28500	2.40	TF 87 TRF57	
1.90	1040	674	28900	2.90	TF 87 TRF57	
					TFF 87 TRF57	

n_2 [1/min]	M_2 [Nm]	i	Fr [N]	K	Frame size	Input Configuration
$P_1=0.25kw$						
1.20	1740	1053	13900	0.85	TFA 77 TRF37	Y..71M ₁ -4 AM71 AD2
1.40	1490	910	15700	1.00	TF 77 TRF37	
1.60	1290	810	16900	1.15	TF 77 TRF37	
1.80	1130	710	17700	1.30	TFF 77 TRF37	
2.10	1000	615	18300	1.50	TFA 77 TRF37	Y..71M ₁ -4 AM71 AD2
2.40	870	538	18700	1.70	TF 77 TRF37	
2.70	775	480	19000	1.95	TF 77 TRF37	
3.20	660	413	19400	2.30	TFF 77 TRF37	
2.30	930	572	9150	0.90		Y..71M ₁ -4 AM71 AD2
2.60	810	509	10400	1.00		
3.00	700	437	11200	1.15		
2.60	830	500	10200	1.00	TFA 67 TRF37	
2.90	755	454	10800	1.10	TF 67 TRF37	
3.30	650	392	11600	1.25	TF 67 TRF37	
3.90	550	333	12200	1.50	TFF 67 TRF37	
4.40	485	297	12500	1.70		
5.00	425	261	12700	1.90		
5.50	385	238	12900	2.10		
3.40	620	386	8830	0.95		Y..71M ₁ -4 AM71 AD2
3.80	540	338	9640	1.10		
5.10	405	255	10500	1.45		
3.40	635	382	7390	0.95	TFA 57 TRF37	
3.90	550	330	9570	1.10	TF 57 TRF37	
4.40	495	298	9950	1.20	TF 57 TRF37	
5.00	435	262	10300	1.35	TFF 57 TRF37	
5.80	370	226	10700	1.60		
6.50	320	200	11000	1.85		
7.60	275	170	11300	2.20		
5.20	400	249	5880	1.00		Y..71M ₁ -4 AM71 -
6.00	355	218	6470	1.10		
6.70	315	193	6920	1.25		
7.40	285	175	7180	1.40	TFA 47 TRF17	
5.10	410	253	4980	0.95	TF 47 TRF17	
6.00	365	217	6380	1.10	TF 47 TRF17	
6.80	315	190	6900	1.25	TFF 47 TRF17	
7.30	295	178	7090	1.35		
8.70	245	149	7480	1.60		
9.90	215	131	7670	1.85		
8.90	245	145	3420	0.80	TFA 37 TRF17	Y..71M ₁ -4 AM71 -
10.0	215	129	4040	0.90	TF 37 TRF17	
11.0	198	118	4320	1.00	TF 37 TRF17	
13.0	164	98	4740	1.20	TFF 37 TRF17	
15.0	144	87	4940	1.40		
3.20	750	281.71	19100	2.00	TFA 77	Y..71 M ₂ -6 AM71 AD2
3.40	700	262.93	19300	2.10	TF 77	
4.00	600	225.79	19500	2.50	TF 77	
4.50	525	198.31	19600	2.80	TFF 77	
4.80	500	188.40	19700	3.00		
3.90	610	228.99	11800	1.35	TFA 67	Y..71 M ₂ -6 AM71 AD2
4.60	520	195.39	12300	1.55	TF 67	
5.20	455	170.85	12600	1.80	TF 67	
5.50	430	162.31	12700	1.90	TFF 67	
6.30	375	142.40	12900	2.20		



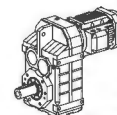
n_2 [1/min]	M_2 [Nm]	i	Fr [N]	K	Frame size	Input Configuration
P₁=0.25kw						
5.70	420	228.99	12700	1.95	TFA 67	Y..71 M ₁ -4 AM71 AD2
6.60	355	195.39	13000	2.30	TFAF 67	
7.60	310	170.85	13000	2.60	TF 67	
8.00	295	162.31	13000	2.80	TFF 67	
9.10	260	142.40	13000	3.10		
4.50	530	199.70	9700	1.15	TFA 57	Y..71 M ₂ -6 AM71 AD2
4.90	485	183.60	9990	1.25	TFAF 57	
5.70	415	157.09	10500	1.45	TF 57	
6.60	360	136.16	10800	1.65	TFF 57	
7.00	335	127.27	10900	1.75		
8.10	290	110.01	11200	2.00		
6.50	365	199.70	10800	1.65	TFA 57	Y..71M ₁ -4 AM71 AD2
7.10	335	183.60	10900	1.80	TFAF 57	
8.30	285	157.09	11200	2.10	TF 57	
9.60	250	136.16	11400	2.40	TFF 57	
10.0	230	127.27	11500	2.60		
12.0	200	110.01	11500	3.00		
6.00	400	150.06	5920	1.00	TFA 47	Y..71M ₂ -6 AM71 AD1
6.90	345	130.07	6590	1.15	TFAF 47	
7.40	320	121.57	6830	1.25	TF 47	
8.50	280	105.09	7230	1.45	TFF 47	
6.80	350	190.76	6550	1.15	TFA 47	Y..71M ₁ -4 AM71 AD1
7.40	320	175.38	6850	1.25	TFAF 47	
8.70	275	150.06	7270	1.45	TF 47	
10.0	235	130.07	7540	1.65	TFF 47	
11.0	220	121.57	7640	1.80		
12.0	193	105.09	7810	2.10		
15.0	164	89.29	7950	2.40		
10.0	235	128.51	3690	0.85	TFA 37	Y..71M ₁ -4 AM71 AD1
11.0	215	117.88	4040	0.90	TFAF 37	
13.0	184	100.36	4500	1.10	TF 37	
15.0	159	86.53	4790	1.25	TFF 37	
16.0	148	80.65	4900	1.35		
18.0	130	70.50	5060	1.55		
20.0	121	66.09	5120	1.65		
22.0	107	58.32	5210	1.85		
24.0	100	54.54	5260	2.00		
25.0	95	51.70	5280	2.10		
28.0	86	47.02	5330	2.30	TFA 37	Y..71M ₁ -4 AM71 AD2
30.0	80	43.83	5360	2.50	TFAF 37	
34.0	70	38.31	5400	2.80	TF 37	
36.0	66	35.91	5420	3.00	TFF 37	
41.0	58	31.69	5440	3.40		
17.0	142	77.21	4500	0.90	TFA 27	Y..71M ₁ -4 AM71 AD1
18.0	133	72.37	4500	1.00	TFAF 27	
20.0	117	63.86	4500	1.10	TF 27	
23.0	104	56.62	4500	1.25	TFF 27	
26.0	92	50.19	4440	1.40		
28.0	86	46.78	4370	1.50		
32.0	75	40.89	4240	1.75		
34.0	70	38.33	4180	1.85		
38.0	62	33.83	4060	2.10		

n_2 [1/min]	M_2 [Nm]	i	Fr [N]	K	Frame size	Input Configuration
P₁=0.25kw						
44.0	54	29.56	3920	2.40	TFA 27 TFAF 27 TF 27 TFF 27	Y..71M ₁ -4 AM71 AD2
48.0	50	27.18	3840	2.60		
56.0	43	23.25	3690	3.00		
64.0	37	20.15	3550	3.50		
69.0	35	18.84	3480	3.80		
80.0	30	16.28	3350	4.40		
94.0	25	13.84	3200	5.10		
105	23	12.35	3090	5.70		
123	19	10.55	2950	6.70		
132	18	9.88	2900	7.20		
138	17	9.4	2840	7.50		
160	15	8.13	2720	8.30		
188	13	6.91	2590	9.00		
211	11	6.17	2500	9.60		
247	9.7	5.27	2380	10.0		
264	9.1	4.93	2340	11.0		
313	7.6	4.16	2220	11.0		
327	7.3	8.13	2180	17.0	TFA 27 TFAF 27 TF 27 TFF 27	Y..63 M ₂ -2 AM63 AD2
385	6.2	6.91	2080	18.0		
431	5.5	6.17	2000	20.0		
505	4.7	5.27	1910	21.0		
539	4.4	4.93	1870	22.0		
640	3.7	4.16	1770	24.0		
P₁=0.37kw						
0.21	14900	6715	84600	0.80	TFA 127 TRF77 TFAF 127 TRF77 TF 127 TRF77 TFF 127 TRF77	Y..71M ₂ -4 AM71 AD2
0.23	13200	5925	88100	0.90		
0.27	11400	5153	90000	1.05		
0.30	9930	4533	90000	1.20		
0.35	8690	3926	90000	1.40		
0.40	7560	3454	90000	1.60		
0.46	6610	3031	90000	1.80		
0.45	6850	3037	52000	1.10	TFA 107 TRF77 TFAF 107 TRF77 TF 107 TRF77 TFF 107 TRF77	Y..71M ₂ -4 AM71 AD3
0.50	6210	2756	53500	1.25		
0.58	5340	2369	55500	1.45		
0.67	4660	2068	57000	1.65		
0.86	3570	1597	59300	2.20		
0.70	4540	1970	29200	0.95	TFA 97 TRF57 TFAF 97 TRF57 TF 97 TRF57 TFF 97 TRF57	Y..71M ₂ -4 AM71 AD2
0.90	3540	1527	32000	1.20		
1.00	2990	1327	33300	1.45		
1.20	2710	1171	33900	1.60		
1.40	2370	1022	34700	1.80		
1.50	2000	898	35400	2.10	TFA 97 TRF57 TFAF 97 TRF57 TF 97 TRF57 TFF 97 TRF57	Y..71M ₂ -4 AM71 AD3
0.80	3990	1722	30800	1.10		
1.10	2930	1300	22000	1.00		
1.20	2610	1148	24400	1.15		
1.40	2280	1010	25600	1.30	TFA 87 TRF57 TFAF 87 TRF57 TF 87 TRF57 TFF 87 TRF57	Y..71M ₂ -4 AM71 AD2
1.60	2010	887	26400	1.50		
1.80	1760	780	27100	1.70		
2.00	1500	674	27800	2.00		

TF

n ₂ [1/min]	M ₂ [Nm]	i	Fr [N]	K	Frame size	Input Configuration
P ₁ =0.37kw						
2.30	1370	609	28100	2.20	TFA 87 TRF57	Y..71M ₂ -4 AM71 AD3
2.70	1150	515	28600	2.60	TFAF 87 TRF57	
3.00	1020	452	28900	2.90	TF 87 TRF57	
					TFF 87 TRF57	
1.70	1840	810	11300	0.80	TFA 77 TRF37	Y..71M ₂ -4 AM71 AD2
1.90	1620	710	14900	0.95		
2.20	1420	615	16200	1.05		
2.60	1240	538	17200	1.20		
2.90	1100	480	17900	1.35		
3.40	940	413	18500	1.60		
3.80	840	367	18900	1.80		
4.30	750	323	19100	2.00		
3.60	880	384	9670	0.95	TFA 67 TRF37	Y..71M ₂ -4 AM71 AD2
4.10	785	338	10600	1.05		
4.50	700	305	11200	1.15		
5.40	590	257	11900	1.40		
6.00	520	231	12300	1.55		
5.40	580	255	9330	1.05	TFA 57 TRF37	Y..71M ₂ -4 AM71 AD2
6.90	455	201	10200	1.30		
7.60	410	181	10500	1.45		
5.30	615	262	9070	0.95		
6.10	525	226	9740	1.15		
6.90	460	200	10200	1.30		
8.10	390	170	10600	1.50		
9.00	345	152	10900	1.70		
10.0	305	134	11100	1.95		
7.90	400	175	5860	1.00		
9.40	340	147	6660	1.15	TFA 47 TRF17	Y..71M ₂ -4 AM71
11.0	300	130	7050	1.35		
3.30	1050	270.68	28900	2.80	TFA 87	Y..80M ₁ -6 AM80 AD2
3.50	990	255.37	29000	3.00	TFAF 87	
4.00	890	228.93	29200	3.40	TF 87	
					TFF 87	
4.00	880	225.79	18700	1.70	TFA 77	Y..80 M ₁ -6 AM80 AD2
4.60	770	198.31	19100	1.95	TFAF 77	
4.80	735	188.40	19200	2.00	TF 77	
5.40	645	166.47	19400	2.30	TFF 77	
6.40	555	142.27	19600	2.70		
4.90	720	281.71	19200	2.10	TFA 77	Y..71 M ₂ -4 AM71 AD2
5.20	670	262.93	19300	2.20	TFAF 77	
6.10	575	225.79	19500	2.60	TF 77	
7.00	505	198.31	19700	3.00	TFF 77	
4.60	760	195.39	10800	1.05	TFA 67	Y..80M ₁ -6 AM80 AD2
5.30	665	170.85	11500	1.25	TFAF 67	
5.60	630	162.31	11700	1.30	TF 67	
6.40	555	142.40	12100	1.45	TFF 67	
7.50	470	120.79	12500	1.75		

n ₂ [1/min]	M ₂ [Nm]	i	Fr [N]	K	Frame size	Input Configuration
P ₁ =0.37kw						
6.00	585	228.99	12000	1.40	TFA 67	Y..71M ₂ -4 AM71 AD2
7.10	500	195.39	12400	1.65		
8.10	435	170.85	12700	1.85		
8.50	415	162.31	12800	1.95		
9.70	360	142.40	12900	2.20		
11.0	305	120.79	13000	2.60	TFF 67	
5.80	610	157.09	9100	1.00	TFA 57	Y..80M ₁ -6 AM80 AD2
6.60	530	136.16	9700	1.15	TFAF 57	
7.10	495	127.27	9940	1.20	TF 57	
8.20	425	110.01	10400	1.40	TFF 57	
6.90	510	199.70	9850	1.15	TFA 57	Y..71M ₂ -4 AM71 AD2
7.50	470	183.60	10100	1.30		
8.80	400	157.09	10600	1.50		
10.0	345	136.16	10900	1.70		
11.0	325	127.27	11000	1.85		
13.0	280	110.01	11200	2.10		
15.0	235	93.47	11500	2.50		
17.0	210	83.46	11500	2.80	TFF 57	
9.20	380	150.06	6140	1.05	TFA 47	Y..71M ₂ -4 AM71 AD1
11.0	330	130.07	6740	1.20		
13.0	265	105.09	7320	1.50		
15.0	225	89.29	7600	1.75		
17.0	200	79.72	7750	1.95		
20.0	174	68.09	7900	2.30		
					TFF 47	
21.0	167	65.36	7930	2.40	TFA 47	Y..71M ₂ -4 AM71 AD2
					TFAF 47	
					TF 47	
					TFF 47	
16.0	220	86.53	3960	0.90	TFA 37	Y..71M ₂ -4 AM71 AD1
17.0	205	80.65	4200	0.95		
20.0	180	70.50	4550	1.10		
21.0	169	66.09	4680	1.20		
24.0	149	58.32	4880	1.35		
25.0	140	54.54	4970	1.45		
27.0	132	51.70	5030	1.50		
29.0	120	47.02	5120	1.65	TFA 37	Y..71M ₂ -4 AM71 AD2
31.0	112	43.83	5180	1.80		
36.0	98	38.31	5270	2.00		
38.0	92	35.91	5300	2.20		
44.0	81	31.69	5300	2.50		
49.0	72	28.09	5140	2.80		
58.0	61	23.88	4930	3.30		
24.0	145	56.62	4080	0.90	TFA 27	Y..71M ₂ -4 AM71 AD1
28.0	128	50.19	4010	1.00		
30.0	120	46.78	3970	1.10		
34.0	105	40.89	3880	1.25		
36.0	98	38.33	3840	1.35		
41.0	87	33.83	3750	1.50		
					TFF 27	
47.0	76	29.56	3650	1.70	TFA 27	Y..71M ₂ -4 AM71 AD2
51.0	70	27.18	3580	1.85		
59.0	60	23.25	3460	2.20		
68.0	52	20.15	3340	2.50		

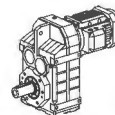


n ₂ [1/min]	M ₂ [Nm]	i	Fr [N]	K	Frame size		Input Configuration
P ₁ =0.37kw							
73.0	48	18.84	3290	2.70	TFA 27 TFAF 27 TF 27 TFF 27	Y..71M ₂ -4 AM71 AD2	
85.0	42	16.28	3170	3.10			
100	35	13.84	3040	3.70			
112	32	12.35	2950	4.10			
131	27	10.55	2820	4.80			
140	25	9.88	2770	5.10			
147	24	9.4	2710	5.40			
170	21	8.13	2600	5.90			
200	18	6.91	2490	6.40			
224	16	6.17	2410	6.90			
262	14	5.27	2300	7.40	TFA 27 TFAF 27 TF 27 TFF 27	Y..71M ₁ -2 AM71 AD2	
280	13	4.93	2250	7.60			
332	11	4.16	2140	8.20			
326	11	8.13	2150	11.0			
384	9.2	6.91	2050	12.0			
430	8.2	6.17	1980	13.0			
503	7	5.27	1890	14.0	TFA 157 TRF97 TFAF 157 TRF97 TF 157 TRF97 TFF 157 TRF97	Y..80M ₁ -4 AM80 AD3	
537	6.6	4.93	1850	15.0			
638	5.5	4.16	1750	16.0			
P ₁ =0.55kw							
0.22	20100	6295	93100	0.90	TFA 157 TRF97 TFAF 157 TRF97 TF 157 TRF97 TFF 157 TRF97	Y..80M ₁ -4 AM80 AD5	
0.26	16800	5404	103500	1.05			
0.50	8660	2780	119000	2.10			
0.57	7660	2427	120000	2.40			
0.82	5440	1674	120000	3.30	TFA 157 TRF97 TFAF 157 TRF97 TF 157 TRF97 TFF 157 TRF97	Y..80M ₁ -4 AM80 AD4	
1.10	4200	1308	120000	4.30			
1.20	3680	1169	120000	4.90			
0.35	13200	3926	88100	0.90	TFA 127 TRF77 TFAF 127 TRF77 TF 127 TRF77 TFF 127 TRF77	Y..80M ₁ -4 AM80 AD2	
0.40	11500	3454	90000	1.05			
0.46	10100	3031	90000	1.20			
0.58	8120	2369	48600	0.95	TFA 107 TRF77 TFAF 107 TRF77 TF 107 TRF77 TFF 107 TRF77	Y..80M ₁ -4 AM80 AD3	
0.67	7090	2068	51400	1.10			
0.76	6090	1826	53800	1.25			
0.86	5450	1597	55300	1.40			
0.98	4750	1401	56900	1.60			
1.10	4140	1243	58100	1.85			
1.30	3710	1087	59000	2.10			
1.40	3170	950	60100	2.40			
1.70	2750	834	60800	2.80			

n ₂ [1/min]	M ₂ [Nm]	i	Fr [N]	K	Frame size	Input Configuration
P ₁ =0.55kw						
2.20	2140	640	61900	3.60	TFA 107 TRF77 TFAF 107 TRF77 TF 107 TRF77 TFF 107 TRF77	Y..80M ₁ -4 AM80 AD4
1.00	4550	1327	29100	0.95	TFA 97 TRF57 TFAF 97 TRF57 TF 97 TRF57 TFF 97 TRF57	Y..80M ₁ -4 AM80 AD2
1.20	4080	1171	30500	1.05	TFA 97 TRF57 TFAF 97 TRF57 TF 97 TRF57 TFF 97 TRF57	Y..80M ₁ -4 AM80 AD3
1.40	3570	1022	31900	1.20		
1.50	3050	898	33200	1.40		
1.80	2700	784	34000	1.60		
2.00	2340	690	34700	1.85		
2.30	2070	605	35300	2.10		
2.60	1790	529	35800	2.40		
3.00	1580	467	36100	2.70		
3.40	1360	406	36500	3.20	TFA 87 TRF57 TFAF 87 TRF57 TF 87 TRF57 TFF 87 TRF57	Y..80M ₁ -4 AM80 AD3
3.80	1220	363	36700	3.50		
1.60	3050	887	17400	1.00	TFA 77 TRF37 TFAF 77 TRF37 TF 77 TRF37 TFF 77 TRF37	Y..80M ₁ -4 AM80 AD2
1.80	2670	780	24200	1.10		
2.00	2290	674	25500	1.30		
2.30	2080	609	26200	1.45		
2.70	1760	515	27100	1.70		
3.00	1550	452	27700	1.95		
4.00	1160	345	28600	2.60		
2.90	1660	480	14500	0.90	TFA 77 TRF37 TFAF 77 TRF37 TF 77 TRF37 TFF 77 TRF37	Y..80M ₁ -4 AM80 AD2
3.40	1420	413	16200	1.05		
3.80	1270	367	17100	1.20		
4.30	1120	323	17800	1.35		
5.40	890	257	9610	0.90	TFA 67 TRF37 TFAF 67 TRF37 TF 67 TRF37 TFF 67 TRF37	Y..80M ₁ -4 AM80 AD2
6.00	790	231	10500	1.05		
6.70	705	205	11200	1.15		
7.90	600	175	11900	1.35		
3.40	1550	270.68	27700	1.95	TFA 87 TFAF 87 TF 87 TFF 87	Y..80M ₂ -6 AM80 AD2
3.60	1460	255.37	27900	2.00		
4.00	1310	228.93	28300	2.30		
4.60	1130	197.20	28700	2.60		
5.10	1030	179.97	28900	2.90	TFA 77 TFAF 77 TF 77 TFF 77	Y..80M ₂ -6 AM80 AD2
4.00	1290	225.79	17000	1.15		
4.60	1130	198.31	17700	1.30		
4.90	1080	188.40	18000	1.40		
5.50	950	166.47	18500	1.55	TFA 77 TFAF 77 TF 77 TFF 77	Y..80M ₂ -6 AM80 AD2
6.40	810	142.27	18900	1.85		
7.00	745	130.42	19100	2.00		
6.10	850	225.79	18800	1.75	TFA 77 TFAF 77 TF 77 TFF 77	Y..80M ₁ -4 AM80 AD2
7.00	750	198.31	19100	2.00		
7.30	715	188.4	19200	2.10		
8.30	630	166.47	19400	2.40		
9.70	540	142.27	19600	2.80		
11.00	495	130.42	19700	3.00		
12.00	435	114.45	19800	3.40		
13.00	410	108.46	19800	3.60		
15.00	360	94.93	19900	4.20	TFA 67 TFAF 67 TF 67 TFF 67	Y..80M ₁ -4 AM80 AD2
7.10	740	195.39	10900	1.10		
8.10	650	170.85	11600	1.25		
8.50	615	162.31	11800	1.35		
9.70	540	142.4	12200	1.50		
11.0	455	120.79	12600	1.80		
13.0	415	109.04	12800	2.00		

n ₂ [1/min]	M ₂ [Nm]	i	Fr [N]	K	Frame size	Input Configuration
P ₁ =0.55kw						
14.0	365	95.94	12900	2.20	TFA 67	Y..80M ₁ -4 AM80 AD2
15.0	340	90.59	13000	2.40	TF 67	
17.0	300	79.76	13000	2.70	TFF 67	
17.0	300	79.76	13000	2.70	TFF 67	
8.80	595	157.09	9220	1.00	TFA 57 TF 57 TFF 57	Y..80M ₁ -4 AM80 AD2
10.0	515	136.16	9800	1.15		
11.0	480	127.27	10000	1.25		
13.0	415	110.01	10500	1.45		
15.0	355	93.47	10800	1.70		
17.0	315	83.46	11000	1.90		
19.0	275	72.98	11300	2.20		
20.0	255	68.22	11400	2.30		
23.0	220	58.97	11500	2.70		
13.0	395	105.09	5920	1.00	TFA 47	Y..80M ₁ -4 AM80 AD1
15.0	335	89.29	6670	1.20	TF 47	
17.0	300	79.72	7030	1.30	TFF 47	
20.0	255	68.09	7390	1.55	TFF 47	
21.0	245	65.36	7470	1.60	TFA 47	Y..80M ₁ -4 AM80 AD2
24.0	215	56.49	7690	1.85	TF 47	
29.0	183	48.00*	7860	2.20	TFF 47	
32.0	163	42.86	7950	2.40	TFF 47	
24.0	220	58.32	3950	0.90	TFA 37	Y..80M ₁ -4 AM80 AD1
25.0	205	54.54	4180	0.95	TF 37	
27.0	197	51.70	4340	1.00	TFF 37	
27.0	197	51.70	4340	1.00	TFF 37	
29.0	179	47.02	4570	1.10	TFA 37 TF 37 TFF 37	Y..80M ₁ -4 AM80 AD2
31.0	167	43.83	4710	1.20		
36.0	146	38.31	4920	1.35		
38.0	137	35.91	5000	1.45		
44.0	121	31.69	4980	1.65		
49.0	107	28.09	4860	1.85		
58.0	91	23.88	4680	2.20		
58.0	90	23.63	4670	2.20		
67.0	78	20.57	4520	2.60	TFA 37	Y..80M ₁ -4 AM80 AD2
72.0	73	19.27	4450	2.70	TF 37	
81.0	65	17.03	4320	3.10	TFF 37	
96.0	54	14.33	4130	3.70	TFF 37	
36.0	144	77.21	3410	0.90	TFA 27	Y..71M ₁ -2 AM71 AD1
39.0	135	72.37	3390	0.95	TF 27	
44.0	119	63.86	3350	1.10	TFF 27	
50.0	106	56.62	3290	1.25	TFF 27	
56.0	94	50.19	3230	1.40	TFF 27	
59.0	88	23.25	3200	1.45	TFA 27 TF 27 TFF 27	Y..80M ₁ -4 AM80 AD2
68.0	77	20.15	3120	1.70		
73.0	72	18.84	3080	1.80		
85.0	62	16.28	2990	2.10		
100	53	13.84	2890	2.50		
112	47	12.35	2810	2.80		
131	40	10.55	2710	3.20		
140	38	9.88	2660	3.50		
147	36	9.40	2600	3.60		
170	31	8.13	2500	4.00		

n ₂ [1/min]	M ₂ [Nm]	i	Fr [N]	K	Frame size		Input Configuration
P ₁ =0.55kw							
200	26	6.91	2400	4.30	TFA	27	Y..80M ₁ -4 AM80 AD2
224	24	6.17	2330	4.60	TFAF	27	
262	20	5.27	2230	5.00	TF	27	
280	19	4.93	2190	5.10	TFF	27	
332	16	4.16	2090	5.50			
346	15	8.13	2070	8.10			Y..71M ₁ -2 AM71 AD2
407	13	6.91	1970	8.80	TFA	27	
456	12	6.17	1910	9.50	TFAF	27	
533	9.8	5.27	1820	10.0	TF	27	
570	9.2	4.93	1790	10.0	TFF	27	
676	7.8	4.16	1700	11.0			
P ₁ =0.75kw							
0.52	11700	2780	114600	1.55	TFA	157 TRF97	Y..80M ₁ -4 AM80 AD3
					TFAF	157 TRF97	
					TF	157 TRF97	
					TFF	157 TRF97	
0.86	7310	1674	120000	2.50	TFA	157 TRF97	Y..80M ₁ -4 AM80 AD4
					TFAF	157 TRF97	
					TF	157 TRF97	
					TFF	157 TRF97	
0.59	10300	2427	116800	1.75	TFA	157 TRF97	Y..80M ₁ -4 AM80 AD5
1.10	5640	1308	120000	3.20	TFAF	157 TRF97	
1.20	4980	1169	120000	3.60	TF	157 TRF97	
					TFF	157 TRF97	
0.47	13400	3031	87600	0.90	TFA	127 TRF77	Y..80M ₁ -4 AM80 AD2
					TFAF	127 TRF77	
					TF	127 TRF77	
					TFF	127 TRF77	
0.54	12100	2672	90000	1.00	TFA	127 TRF77	Y..80M ₁ -4 AM80 AD3
0.61	10600	2357	90000	1.15	TFAF	127 TRF77	
0.70	9150	2038	90000	1.30	TF	127 TRF77	
0.80	7960	1784	90000	1.50	TFF	127 TRF77	
0.89	7150	1606	90000	1.70			
0.79	8120	1826	48600	0.95			Y..80M ₁ -4 AM80 AD3
0.90	7220	1597	51000	1.05	TFA	107 TRF77	
1.00	6310	1401	53300	1.20	TFAF	107 TRF77	
1.20	5530	1243	55100	1.40	TF	107 TRF77	
1.30	4920	1087	56500	1.55	TFF	107 TRF77	
1.50	4220	950	58000	1.80			
1.70	3680	834	59100	2.10			
2.20	2860	640	60600	2.70	TFA	107 TRF77	Y..80M ₁ -4 AM80 AD4
3.30	1940	436	62300	3.90	TFAF	107 TRF77	
					TF	107 TRF77	
					TFF	107 TRF77	
1.40	4710	1022	26300	0.90	TFA	97 TRF57	Y..80M ₁ -4 AM80 AD2
					TFAF	97 TRF57	
					TF	97 TRF57	
					TFF	97 TRF57	

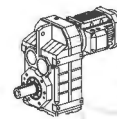


n_2 [1/min]	M_2 [Nm]	i	F_r [N]	K	Frame size	Input Configuration
$P_1=0.75kw$						
1.60	4050	898	30600	1.05	TFA 97 TRF57 TFAF 97 TRF57 TF 97 TRF57 TFF 97 TRF57	Y..80M ₂ -4 AM80 AD3
1.80	3580	784	31900	1.20		
2.10	3110	690	33000	1.40		
2.40	2740	605	33900	1.55		
2.70	2380	529	34600	1.80		
3.10	2100	467	35200	2.00		
3.50	1810	406	35700	2.40	TFA 87 TRF57 TFAF 87 TRF57 TF 87 TRF57 TFF 87 TRF57	Y..80M ₂ -4 AM80 AD3
4.00	1620	363	36100	2.60		
2.10	3040	674	18000	1.00		
2.40	2760	609	23800	1.10		
2.80	2330	515	25400	1.30		
3.20	2050	452	26300	1.45		
4.20	1540	345	27700	1.95	TFA 77 TRF37 TFAF 77 TRF37 TF 77 TRF37 TFF 77 TRF37	Y..80M ₂ -4 AM80 AD2
3.90	1680	367	14400	0.90		
4.40	1480	323	15800	1.00		
5.10	1280	280	17000	1.15		
3.40	2100	276.77	35200	2.00		
3.70	1930	253.41	35500	2.20	TFA 97 TFAF 97 TF 97 TFF 97	Y..90S-6 AM90 AD3
4.20	1700	223.88	35900	2.50		
3.50	2060	270.68	26200	1.45		
3.70	1940	255.37	26600	1.55		
4.10	1740	228.93	27200	1.70		
4.80	1500	197.20	27800	2.00		
5.20	1370	179.97	28100	2.20	TFA 87 TFAF 87 TF 87 TFF 87	Y..90S-6 AM90 AD2
5.90	1210	159.61	28500	2.50		
5.30	1350	270.68	28200	2.20		
5.60	1270	255.37	28400	2.40		
6.30	1140	228.93	28700	2.60		
4.70	1510	198.31	15700	1.00	TFA 77 TFAF 77 TF 77 TFF 77	Y..90S-6 AM90 AD2
5.00	1430	188.40	16100	1.05		
5.60	1260	166.47	17100	1.20		
6.60	1080	142.27	18000	1.40		
7.20	990	130.42	18300	1.50		
6.40	1120	225.79	17800	1.35	TFA 77 TFAF 77 TF 77 TFF 77	Y..80M ₂ -4 AM80 AD2
7.20	980	198.31	18300	1.50		
7.60	940	188.40	18500	1.60		
8.60	830	166.47	18900	1.80		
10.0	710	142.27	19200	2.10		
11.0	650	130.42	19400	2.30	TFA 67 TFAF 67 TF 67 TFF 67	Y..80M ₂ -4 AM80 AD2
13.0	570	114.45	19600	2.60		
13.0	540	108.46	19600	2.80		
8.40	850	170.85	10000	0.95		
8.80	810	162.31	10400	1.00		
10.0	710	142.40	11200	1.15		
12.0	600	120.79	11900	1.35	TFA 67 TFAF 67 TF 67 TFF 67	Y..80M ₂ -4 AM80 AD2
13.0	540	109.04	12200	1.50		
15.0	475	95.94	12500	1.70		
16.0	450	90.59	12600	1.80		
18.0	395	79.76	12800	2.10		

n_2 [1/min]	M_2 [Nm]	i	F_r [N]	K	Frame size	Input Configuration
P₁=0.75kw						
21.0	335	67.65	13000	2.40	TFA 67	Y..80M ₂ -4 AM80 AD2
24.0	300	61.07	13000	2.70	TFAF 67	
					TF 67	
					TFF 67	
11.0	635	127.27	7770	0.95	TFA 57 TFAF 57 TF 57 TFF 57	Y..80M ₂ -4 AM80 AD2
13.0	545	110.01	9580	1.10		
15.0	465	93.47	10100	1.30		
17.0	415	83.46	10500	1.45		
20.0	360	72.98	10800	1.65		
21.0	340	68.22	10900	1.75		
24.0	290	58.97	11200	2.00		
29.0	250	50.10	11400	2.40		
32.0	220	44.73	11300	2.70		
18.0	395	79.72	5950	1.00	TFA 47	Y..80M ₂ -4 AM80 AD1
21.0	335	68.09	6670	1.20	TFAF 47	
					TF 47	
					TFF 47	
22.0	325	65.36	6810	1.25	TFA 47 TFAF 47 TF 47 TFF 47	Y..80M ₂ -4 AM80 AD2
25.0	280	56.49	7220	1.40		
30.0	235	48.00	7530	1.65		
33.0	210	42.86	7690	1.85		
39.0	183	36.61	7860	2.20		
42.0	171	34.29	7780	2.30		
50.0	144	28.88	7460	2.80		
31.0	230	47.02	3720	0.85	TFA 37 TFAF 37 TF 37 TFF 37	Y..80M ₂ -4 AM80 AD2
33.0	215	43.83	4000	0.90		
37.0	191	38.31	4420	1.05		
40.0	179	35.91	4570	1.10		
45.0	158	31.69	4590	1.25		
51.0	140	28.09	4510	1.45		
61.0	118	23.63	4370	1.70		
70.0	103	20.57	4260	1.95		
74.0	96	19.27	4200	2.10		
84.0	85	17.03	4090	2.40		
100	72	14.33	3930	2.80		
112	64	12.87	3840	3.10		
62.0	116	23.25	2910	1.10	TFA 27 TFAF 27 TF 27 TFF 27	Y..80M ₂ -4 AM80 AD2
71.0	101	20.15	2860	1.30		
76.0	94	18.84	2840	1.40		
88.0	81	16.28	2770	1.60		
104	69	13.84	2700	1.90		
116	62	12.35	2640	2.10		
136	53	10.55	2560	2.50		
145	49	9.88	2520	2.60		
153	47	9.40	2450	2.80	TFA 27 TFAF 27 TF 27 TFF 27	Y..80M ₂ -4 AM80 AD2
177	41	8.13	2370	3.00		
208	34	6.91	2290	3.30		
233	31	6.17	2230	3.50		
272	26	5.27	2140	3.80		
291	25	4.93	2100	3.90		
345	21	4.16	2010	4.20		

n ₂ [1/min]	M ₂ [Nm]	i	Fr [N]	K	Frame size		Input Configuration
P ₁ =0.75kw							
356	20	8.13	2000	6.10			
418	17	6.91	1910	6.70	TFA	27	Y..80M ₁ -2 AM80 AD2
469	15	6.17	1850	7.10	TFAF	27	
549	13	5.27	1770	7.60	TF	27	
586	12	4.93	1740	7.90	TFF	27	
695	10	4.16	1650	8.40			
P ₁ =1.10kw							
0.51	17900	2780	100500	1.00	TFA	157 TRF97	Y..90S-4 AM90 AD3
					TFAF	157 TRF97	
					TF	157 TRF97	
					TFF	157 TRF97	
0.58	15800	2427	106100	1.15			Y..90S-4 AM90 AD5
0.65	14100	2185	110000	1.25			
0.73	12500	1944	113100	1.45			
0.85	11100	1674	115600	1.60	TFA	157 TRF97	
1.10	8610	1308	119100	2.10	TFAF	157 TRF97	
1.20	7630	1169	120000	2.40	TF	157 TRF97	
1.50	6100	953	120000	3.00	TFF	157 TRF97	
1.70	5330	845	120000	3.40			
3.20	2810	446	120000	6.40			
4.70	1900	302	120000	9.40			
0.70	13700	2038	87000	0.85			Y..90S-4 AM90 AD3
0.80	12000	1784	90000	1.00	TFA	127 TRF77	
0.88	10700	1606	90000	1.10	TFAF	127 TRF77	
1.00	9330	1390	90000	1.30	TF	127 TRF77	
1.20	8150	1220	90000	1.45	TFF	127 TRF77	
1.30	7250	1077	90000	1.65			
1.10	8350	1243	48000	0.90	TFA	107 TRF77	Y..90S-4 AM90 AD3
1.30	7380	1087	50600	1.05	TFAF	107 TRF77	
1.50	6380	950	53100	1.20	TF	107 TRF77	
1.70	5570	834	55000	1.40	TFF	107 TRF77	
1.90	4890	736	56500	1.55			
2.20	4310	6405	7800	1.80	TFA	107 TRF77	Y..90S-4 AM90 AD4
					TFAF	107 TRF77	
					TF	107 TRF77	
					TFF	107 TRF77	
2.10	4670	690	27400	0.90			Y..90S-4 AM90 AD3
2.40	4110	605	30400	1.05	TFA	97 TRF57	
2.70	3580	529	31900	1.20	TFAF	97 TRF57	
3.00	3160	467	32900	1.35	TF	97 TRF57	
3.50	2730	406	33900	1.55	TFF	97 TRF57	
3.90	2450	363	34500	1.75			
3.10	3080	452	16400	0.95	TFA	87 TRF57	Y..90S-4 AM90 AD3
4.10	2320	345	25400	1.30	TFAF	87 TRF57	
4.70	2010	300	26400	1.50	TF	87 TRF57	
5.70	1670	249	27400	1.80	TFF	87 TRF57	
3.40	3090	276.77	33100	1.40			Y..90L-6 AM90 AD3
3.70	2830	253.41	33700	1.50	TFA	97	
4.20	2500	223.88	34400	1.70	TFAF	97	
5.00	2120	189.92	35200	2.00	TF	97	
5.40	1950	174.87	35500	2.20	TFF	97	

n ₂ [1/min]	M ₂ [Nm]	i	Fr [N]	K	Frame size	Input Configuration
P₁=1.10kw						
5.10	2040	276.77	35300	2.10	TFA 97	Y..90S-4 AM90 AD3
5.60	1870	253.41	35600	2.30	TFAF 97	
6.30	1650	223.88	36000	2.60	TF 97	
					TFF 97	
4.10	2550	228.93	24600	1.15	TFA 87	Y..90L-6 AM90 AD2
4.80	2200	197.20	25800	1.35	TFAF 87	
5.20	2010	179.97	26400	1.50	TF 87	
5.90	1780	159.61	27100	1.70	TFF 87	
5.20	2000	270.68	26400	1.50	TFA 87	Y..90S-4 AM90 AD2
5.60	1880	255.37	26800	1.60	TFAF 87	
6.20	1690	228.93	27300	1.75	TF 87	
7.20	1450	197.20	27900	2.10	TFF 87	
7.90	1330	179.97	28200	2.20	TFA 87	Y..90S-4 AM90 AD2
8.90	1180	159.61	28600	2.50	TFAF 87	
11.0	990	134.16	29000	3.00	TF 87	
12.0	910	123.29	29200	3.30	TFF 87	
7.20	1460	198.31	15900	1.00		Y..90S-4 AM90 AD2
7.50	1390	188.4	16400	1.10		
8.50	1230	166.47	17300	1.20		
10.0	1050	142.27	18100	1.45	TFA 77	
11.0	960	130.42	18400	1.55	TFAF 77	
12.0	840	114.45	18800	1.75	TF 77	
13.0	800	108.46*	19000	1.85	TFF 77	
15.0	700	94.93	19300	2.10		
17.0	630	85.52	19400	2.40		
19.0	555	75.02	19600	2.70		
12.0	890	120.79	9600	0.90		Y..90S-4 AM90 AD2
13.0	800	109.04	10400	1.00		
15.0	705	95.94	11200	1.15		
16.0	670	90.59	11500	1.20		
18.0	590	79.76	12000	1.40	TFA 67	
21.0	500	67.65	12400	1.65	TFAF 67	
23.0	450	61.07	12600	1.80	TF 67	
26.0	395	53.73	12800	2.10	TFF 67	
28.0	375	50.74	12900	2.20		
33.0	315	43.20	13000	2.60		
36.0	290	39.26	13000	2.70		
42.0	250	34.01	13000	2.90		
17.0	615	83.46	9070	0.95		Y..90S-4 AM90 AD2
19.0	535	72.98	9640	1.10		
21.0	500	68.22	9890	1.20	TFA 57	
24.0	435	58.97	10300	1.40	TFAF 57	
28.0	370	50.10	10700	1.60	TF 57	
32.0	330	44.73	10700	1.80	TFF 57	
37.0	280	38.21	10300	2.10		
40.0	260	35.79	10200	2.30		
47.0	220	30.15	9780	2.60		
25.0	415	56.49	4570	0.95		Y..90S-4 AM90 AD2
30.0	355	48.00*	6500	1.15	TFA 47	
33.0	315	42.86	6900	1.25	TFAF 47	
39.0	270	36.61	7300	1.50	TF 47	
41.0	250	34.29	7240	1.60	TFF 47	
49.0	210	28.88	7020	1.85		



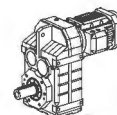
n_2 [1/min]	M_2 [Nm]	i	Fr [N]	K	Frame size		Input Configuration
P _i =1.10kw							
46.0	225	30.86	7110	1.75	TFA	47	Y..90S-4 AM90 AD2
48.0	215	29.32	7040	1.85	TFAF	47	
55.0	190	25.72	6860	2.10	TF	47	
65.0	161	21.82	6620	2.50	TFF	47	
72.0	146	19.70	6470	2.80	TFA TFAF TF TFF	37 37 37 37	Y..90S-4 AM90 AD2
45.0	230	31.69	3720	0.85			
51.0	205	28.09	3970	0.95			
59.0	177	23.88	3930	1.15			
69.0	152	20.57	3870	1.30			
74.0	143	19.27	3840	1.40			
83.0	126	17.03	3770	1.60			
99.0	106	14.33	3670	1.90			
110	95	12.87	3600	2.10			
128	82	11.08	3490	2.30			
136	77	10.42	3450	2.40			
158	66	8.97	3340	2.60			
70.0	149	20.15	2440	0.85	TFA TFAF TF TFF	27 27 27 27	Y..90S-4 AM90 AD2
75.0	139	18.84	2440	0.95			
87.0	120	16.28	2440	1.10			
103	102	13.84	2410	1.25			
115	91	12.35	2390	1.40			
135	78	10.55	2340	1.65			
144	73	9.88	2320	1.80			
151	70	9.40	2240	1.85			
175	60	8.13	2190	2.00			
206	51	6.91	2130	2.20			
230	46	6.17	2090	2.40			
270	39	5.27	2020	2.60			
288	36	4.93	2000	2.60			
342	31	4.16	1920	2.80			
353	30	8.13	1910	4.10	TFA TFAF TF TFF	27 27 27 27	Y..80M-2 AM80 AD2
416	25	6.91	1840	4.50			
465	23	6.17	1780	4.80			
545	19	5.27	1720	5.20			
582	18	4.93	1680	5.30			
691	15	4.16	1610	5.70			
P _i =1.50kw							
0.85	15200	1674	107600	1.20	TFA	157 TRF97	Y..90L-4 AM90 AD4
					TFAF	157 TRF97	
					TF	157 TRF97	
					TFF	157 TRF97	
0.59	21800	2427	86800	0.80	TFA TFAF TF TFF	157 TRF97 157 TRF97 157 TRF97 157 TRF97	Y..90L-4 AM90 AD5
0.65	19500	2185	95400	0.90			
0.74	17300	1944	102100	1.05			
1.10	11800	1308	114400	1.50			
1.20	10500	1169	116500	1.70			
1.50	8450	953	119300	2.10			
1.70	7410	845	120000	2.40			
3.20	3910	446	120000	4.60			
4.70	2650	302	120000	6.80			

n_2 [1/min]	M_2 [Nm]	i	Fr [N]	K	Frame size	Input Configuration
P_i=1.50kw						
0.89	14700	1606	85100	0.80	TFA 127 TRF77 TFAF 127 TRF77 TF 127 TRF77 TFF 127 TRF77	Y..90L-4 AM90 AD3
1.00	12700	1390	89000	0.95		
1.20	11100	1220	90000	1.05		
1.30	9910	1077	90000	1.20		
1.50	8500	930	90000	1.40		
1.70	7480	820	90000	1.60		
2.00	6610	727	90000	1.80		
2.20	5960	648	90000	2.00	TFA 127 TRF77 TFAF 127 TRF77 TF 127 TRF77 TFF 127 TRF77	Y..90L-4 AM90 AD4
1.50	8720	950	46900	0.90	TFA 107 TRF77 TFAF 107 TRF77 TF 107 TRF77 TFF 107 TRF77	Y..90L-4 AM90 AD3
1.70	7630	834	49900	1.00		
1.90	6710	736	52300	1.15		
2.20	5890	640	54300	1.30		
2.60	5090	560	56100	1.50		
2.90	4440	489	57500	1.75		
3.30	4010	436	58400	1.90	TFA 107 TRF77 TFAF 107 TRF77 TF 107 TRF77 TFF 107 TRF77	Y..90L-4 AM90 AD4
3.90	3400	370	59600	2.30		
2.70	4880	529	19300	0.90	TFA 97 TRF57 TFAF 97 TRF57 TF 97 TRF57 TFF 97 TRF57	Y..90L-4 AM90 AD3
3.10	4320	467	29800	1.00		
3.50	3730	406	31500	1.15		
3.90	3340	363	32500	1.30		
4.80	2760	300	23900	1.10	TFA 87 TRF57 TFAF 87 TRF57 TF 87 TRF57 TFF 87 TRF57	Y..90L-4 AM90 AD3
5.70	2290	249	25500	1.30		
3.70	3870	254.40	58700	2.00	TFA 107 TFAF 107 TF 107 TFF 107	Y..100L-6 AM100 AD3
4.40	3280	215.37	59800	2.30		
4.70	3030	199.31	60300	2.50		
5.30	2720	178.64	60900	2.80		
3.40	4210	276.77	30100	1.00	TFA 97 TFAF 97 TF 97 TFF 97	Y..100L-6 AM100 AD3
3.70	3860	253.41	31100	1.10		
4.20	3410	223.88	32300	1.25		
5.00	2890	189.92	33600	1.50		
5.40	2660	174.87	34100	1.60		
5.20	2770	276.77	33800	1.55	TFA 97 TFAF 97 TF 97 TFF 97	Y..90L-4 AM90 AD3
5.60	2530	253.41	34300	1.70		
6.40	2240	223.88	34900	1.90		
7.50	1900	189.92	35600	2.30		
8.20	1750	174.87	35800	2.40		
5.30	2710	270.68	24000	1.10	TFA 87 TFAF 87 TF 87 TFF 87	Y..90L-4 AM90 AD2
5.60	2550	255.37	24600	1.15		
6.20	2290	228.93	25500	1.30		
7.20	1970	197.20	26500	1.50		

TF

n ₂ [1/min]	M ₂ [Nm]	i	Fr [N]	K	Frame size	Input Configuration
P₁=1.50kw						
8.00	1800	179.97	27000	1.65	TFA 87	Y..90L-4 AM90 AD2
9.00	1590	159.61	27600	1.90	TFAF 87	
11.00	1340	134.16	28200	2.20	TF 87	
13.00	1090	109.49	28800	2.70	TFF 87	
15.00	980	97.89	29000	3.10		
8.60	1660	166.47	14500	0.90		Y..90L-4 AM90 AD2
10.0	1420	142.27	16200	1.05		
11.0	1300	130.42	16900	1.15	TFA 77	
12.0	1140	114.45	17700	1.30	TFAF 77	
13.0	1080	108.46	18000	1.40	TF 77	
15.0	950	94.93	18500	1.60	TFF 77	
17.0	850	85.52	18800	1.75		
19.0	750	75.02	19100	2.00		
20.0	725	72.50	19200	2.10	TFA 77	Y..90L-4 AM90 AD2
22.0	665	66.46	19300	2.20	TFAF 77	
25.0	580	58.32	19500	2.60	TF 77	
26.0	550	55.27	19600	2.70	TFF 77	
30.0	480	48.37	19700	3.10		
33.0	435	43.58	19800	3.40	TFA 77	Y..90L-4 AM90 AD3
37.0	380	38.23	19900	3.90	TFAF 77	
39.0	365	36.58	19900	3.00	TF 77	
45.0	315	31.51	20000	4.40	TFF 77	
16.0	900	90.59	9450	0.90		Y..90L-4 AM90 AD2
18.0	795	79.76	10500	1.05		
21.0	675	67.65	11400	1.20	TFA 67	
23.0	610	61.07	11800	1.35	TFAF 67	
27.0	535	53.73	12200	1.50	TF 67	
28.0	505	50.74	12400	1.60	TFF 67	
33.0	430	43.20	12700	1.90		
36.0	390	39.26	12800	2.00		
39.0	360	36.30	12900	2.30		
45.0	320	32.08	13000	2.60	TFA 67	Y..90L-4 AM90 AD3
52.0	270	27.41	13000	3.00	TFAF 67	
57.0	250	25.13	13000	3.30	TF 67	
					TFF 67	
24.0	590	58.97	9270	1.00		Y..90L-4 AM90 AD2
29.0	500	50.10	9910	1.20	TFA 57	
32.0	445	44.73	9970	1.35	TFAF 57	
37.0	380	38.21	9710	1.55	TF 57	
40.0	355	35.79	9600	1.65	TFF 57	
47.0	300	30.15	9280	1.95		
39.0	365	36.61	6360	1.10	TFA 47	Y..90L-4 AM90 AD2
42.0	340	34.29	6610	1.15	TFAF 47	
50.0	285	28.88	6480	1.40	TF 47	
46.0	305	30.86	6540	1.30	TFF 47	
49.0	290	29.32	6500	1.35		Y..90L-4 AM90 AD2
56.0	255	25.72	6380	1.55	TFA 47	
66.0	215	21.82	6210	1.85	TFAF 47	
73.0	197	19.70	6100	2.00	TF 47	
83.0	174	17.33	5950	2.30	TFF 47	
87.0	164	16.36	5880	2.40		
103	140	13.93	5680	2.90		

n ₂ [1/min]	M ₂ [Nm]	i	Fr [N]	K	Frame size		Input Configuration
P ₁ =1.50kw							
70.0	205	20.57	3410	0.95	TFA 37 TFAF 37 TF 37 TFF 37	Y..90L-4 AM90 AD2	
74.0	193	19.27	3410	1.05			
84.0	170	17.03	3390	1.15			
100	144	14.33	3350	1.40			
111	129	12.87	3310	1.55			
129	111	11.08	3240	1.70			
137	104	10.42	3210	1.75			
159	90	8.97	3130	1.95			
178	80	8.01	3070	2.10			
103	139	13.84	2080	0.95	TFA 27 TFAF 27 TF 27 TFF 27	Y..90L-4 AM90 AD2	
116	124	12.35	2090	1.05			
136	106	10.55	2090	1.25			
145	99	9.88	2080	1.30			
152	94	9.40	1990	1.40			
176	81	8.13	1970	1.50			
207	69	6.91	1950	1.65			
232	62	6.17	1920	1.75			
271	53	5.27	1880	1.90			
290	49	4.93	1860	1.95			
344	42	4.16	1810	2.10			
348	41	8.13	1810	3.00	TFA 27 TFAF 27 TF 27 TFF 27	Y..90S-2 AM90 AD2	
410	35	6.91	1750	3.30			
459	31	6.17	1710	3.50			
537	27	5.27	1650	3.80			
574	25	4.93	1630	3.80			
681	21	4.16	1560	4.10			
P ₁ =2.20kw							
0.99	18500	1441	98700	0.95	TFA 157 TRF97 TFAF 157 TRF97 TF 157 TRF97 TFF 157 TRF97	Y..100L ₁ -4 AM100 AD4	
1.10	17600	1308	101300	1.00	TFA 157 TRF97 TFAF 157 TRF97 TF 157 TRF97 TFF 157 TRF97	Y..100L ₁ -4 AM100 AD5	
1.20	15700	1169	106400	1.15			
1.50	12600	953	112900	1.40			
1.70	11100	845	115500	1.60			
1.90	10000	764	117200	1.80			
2.10	8930	680	118700	2.00			
2.50	7490	576	120000	2.40			
3.20	5900	446	120000	3.00			
4.70	3990	302	120000	4.50			
5.20	3590	273	120000	5.00			
6.20	3010	232	120000	6.00			
7.30	2550	197	120000	7.00			
1.30	14700	1077	85200	0.80	TFA 127 TRF77 TFAF 127 TRF77 TF 127 TRF77 TFF 127 TRF77	Y..100L ₁ -4 AM100 AD3	
1.50	12600	930	89200	0.95			
1.70	11100	820	90000	1.10			
2.00	9840	727	90000	1.20			
2.20	8840	648	90000	1.35	TFA 127 TRF77 TFAF 127 TRF77 TF 127 TRF77 TFF 127 TRF77	Y..100L ₁ -4 AM100 AD4	
2.60	7490	549	90000	1.60			
2.90	6740	495	90000	1.80			
3.30	5830	428	90000	2.10			

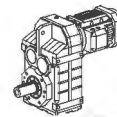


n ₂ [1/min]	M ₂ [Nm]	i	Fr [N]	K	Frame size	Input Configuration
P ₁ =2.20kw						
2.50	7590	560	50000	1.00	TFA 107 TRF77	Y..100L ₁ -4 AM100 AD3
2.90	6620	489	52500	1.15	TFAF 107 TRF77	
					TF 107 TRF77	
					TFF 107 TRF77	
2.20	8730	640	46900	0.90	TFA 107 TRF77	Y..100L ₁ -4 AM100 AD4
3.30	5950	436	54100	1.30	TFAF 107 TRF77	
3.80	5040	370	56200	1.50	TF 107 TRF77	
4.30	4540	333	57300	1.70	TFF 107 TRF77	
5.00	3900	285	31000	1.10	TFA 97 TRF57	Y..100L ₁ -4 AM100 AD3
5.80	3350	245	32500	1.30	TFAF 97 TRF57	
					TF 97 TRF57	
					TFF 97 TRF57	
3.80	5590	254.40	55000	1.35	TFA 107	Y..112M-6 AM112 AD3
4.40	4730	215.37	56900	1.60	TFAF 107	
4.80	4380	199.31	57600	1.75	TF 107	
5.40	3920	178.64	58600	1.95	TFF 107	
5.60	3750	254.40	58900	2.00	TFA 107	Y..100L ₁ -4 AM100 AD3
6.60	3170	215.37	60100	2.40	TFAF 107	
7.20	2930	199.31	60500	2.60	TF 107	
8.00	2630	178.64	61100	2.90	TFF 107	
4.30	4920	223.88	17400	0.85	TFA 97	Y..112M-6 AM112 AD3
5.00	4170	189.92	30300	1.05	TFAF 97	
5.50	3840	174.87	31200	1.10	TF 97	
6.10	3430	156.30	32300	1.25	TFF 97	
5.20	4080	276.77	30500	1.05	TFA 97 TFAF 97 TF 97 TFF 97	Y..100L ₁ -4 AM100 AD3
5.60	3730	253.41	31500	1.15		
6.40	3300	223.88	32600	1.30		
7.50	2790	189.92	33800	1.55		
8.20	2570	174.87	34200	1.65		
9.10	2300	156.30	34800	1.85		
10.0	2070	140.71	35300	2.10		
11.0	1870	127.42	35600	2.30		
7.20	2900	197.20	23000	1.05	TFA 87 TFAF 87 TF 87 TFF 87	Y..100L ₁ -4 AM100 AD2
7.90	2650	179.97	24300	1.15		
8.90	2350	159.61	25300	1.25		
11.0	1970	134.16	26500	1.50		
12.0	1810	123.29	27000	1.65		
13.0	1610	109.49	27500	1.85		
15.0	1440	97.89	28000	2.10		
16.0	1290	88.01	28300	2.30		
19.0	1120	76.39	27800	2.70		
21.0	1000	68.40	27100	3.00	TFA 87	Y..100L ₁ -4 AM100 AD3
25.0	830	56.75	25900	3.60	TFAF 87	
28.0	740	50.36	25100	4.00	TF 87	
31.0	665	45.28	24400	4.20	TFF 87	
12.0	1680	114.45	14300	0.90	TFA 77 TFAF 77 TF 77 TFF 77	Y..100L ₁ -4 AM100 AD2
13.0	1590	108.46	15000	0.95		
15.0	1390	94.93	16400	1.05		
17.0	1260	85.52	17100	1.20		
19.0	1100	75.02	17900	1.35		
21.0	970	66.46	18400	1.55		

n ₂ [1/min]	M ₂ [Nm]	i	Fr [N]	K	Frame size	Input Configuration
P ₁ =2.20kw						
24.0	850	58.32	18800	1.75	TFA 77	Y..100L ₁ -4 AM100 AD2
26.0	810	55.27	18900	1.85	TFAF 77	
29.0	710	48.37	19200	2.10	TF 77	
					TFF 77	
33.0	640	43.58	19400	2.30	TFA 77	Y..100L ₁ -4 AM100 AD3
39.0	535	36.58	19600	2.10	TFAF 77	
45.0	460	31.51	19800	3.00	TF 77	
50.0	420	28.75	19800	3.40	TFF 77	
56.0	375	25.50	19900	4.00	TFA 77	Y..100L ₁ -4 AM100 AD4
					TFAF 77	
					TF 77	
					TFF 77	
23.0	900	61.07	9520	0.90	TFA 67 TFAF 67 TF 67 TFF 67	Y..100L ₁ -4 AM100 AD2
27.0	790	53.73	10600	1.05		
28.0	745	50.74	10900	1.10		
33.0	635	43.20	11700	1.30		
36.0	575	39.26	12000	1.35		
42.0	500	34.01	12400	1.50		
44.0	470	32.08	12500	1.75	TFA 67 TFAF 67 TF 67 TFF 67	Y..100L ₁ -4 AM100 AD3
52.0	400	27.41	12800	2.00		
57.0	370	25.13	12900	2.20		
65.0	325	22.05	13000	2.50		
68.0	305	20.90*	13000	2.70		
78.0	265	18.29	13000	3.00		
32.0	655	44.73	5420	0.90	TFA 57 TFAF 57 TF 57 TFF 57	Y..100L ₁ -4 AM100 AD2
37.0	560	38.21	8660	1.05		
40.0	525	35.79	8610	1.15		
47.0	440	30.15	8450	1.35		
57.0	365	24.96	8230	1.55		
67.0	310	21.17	8000	1.90		
75.0	280	19.11	7850	2.10	TFA 57 TFAF 57 TF 57 TFF 57	Y..100L ₁ -4 AM100 AD3
85.0	245	16.81	7650	2.40		
90.0	230	15.88	7560	2.60		
55.0	375	25.72	5560	1.05	TFA 47 TFAF 47 TF 47 TFF 47	Y..100L ₁ -4 AM100 AD2
65.0	320	21.82	5520	1.25		
72.0	290	19.70	5470	1.40		
82.0	255	17.33	5400	1.55		
87.0	240	16.36	5360	1.65		
102	205	13.93	5240	1.95		
113	187	12.66	5160	2.10		
130	162	10.97	5030	2.50		
159	132	8.96	4730	2.50		
99.0	210	14.33	2800	0.95	TFA 37 TFAF 37 TF 37 TFF 37	Y..100L ₁ -4 AM100 AD2
111	190	12.87	2810	1.05		
129	163	11.08	2820	1.15		
137	154	10.42	2810	1.20		
159	132	8.97	2790	1.30		
178	118	8.01	2760	1.45		
211	99	6.74	2620	1.40		
236	89	6.05	2590	1.50		
273	77	5.21	2540	1.65		
291	72	4.90	2510	1.65		

n: [1/min]	M: [Nm]	i	Fr [N]	K	Frame size	Input Configuration
P _i =2.20kw						
338	62	4.22	2450	1.75	TFA 37	Y..100L ₁ -4 AM100 AD2
378	56	3.77	2400	1.90	TFAF 37	
					TF 37	
					TFF 37	
177	119	16.28	1720	1.10	TFA 27 TFAF 27 TF 27 TFF 27	Y..100L ₁ -4 AM100 AD2
208	101	13.84	1730	1.30		
233	90	12.35	1730	1.45		
273	77	10.55	1720	1.70		
291	72	9.88	1710	1.80		
354	59	8.13	1610	2.10		
417	50	6.91	1590	2.30		
467	45	6.17	1560	2.40		
547	38	5.27	1520	2.60		
584	36	4.93	1510	2.70		
693	30	4.16	1460	2.90		
P _i =3.00kw						
1.20	21100	1169	89500	0.85	TFA 157 TRF97 TFAF 157 TRF97 TF 157 TRF97 TFF 157 TRF97	Y..100L ₂ -4 AM100 AD5
1.50	17100	953	102800	1.05		
1.70	15100	845	107900	1.20		
1.90	13500	764	111100	1.30		
2.10	12000	680	114000	1.50		
2.50	10100	576	117000	1.75		
3.30	7980	446	119800	2.20		
4.80	5400	302	120000	3.30		
5.30	4860	273	120000	3.70	TFA 127 TRF77 TFAF 127 TRF77 TF 127 TRF77 TFF 127 TRF77	Y..100L ₂ -4 AM100 AD3
6.30	4080	232	120000	4.40		
7.40	3460	197	120000	5.20		
2.00	13200	727	88100	0.90		
2.20	11800	648	90000	1.00	TFA 127 TRF77 TFAF 127 TRF77 TF 127 TRF77 TFF 127 TRF77	Y..100L ₂ -4 AM100 AD4
2.60	10000	549	90000	1.20		
2.90	9040	495	90000	1.35		
3.30	7970	436	49000	0.95		
3.90	6760	370	52200	1.15	TFA 107 TRF77 TFAF 107 TRF77 TF 107 TRF77 TFF 107 TRF77	Y..100L ₂ -4 AM100 AD4
4.40	6090	333	53800	1.25		
5.00	5320	291	55600	1.45		
3.80	7630	254.40*	49900	1.00		
4.40	6460	215.37	52900	1.20	TFA 107 TFAF 107 TF 107 TFF 107	Y..132S-6 AM132 AD3
4.80	5970	199.31	54100	1.30		
5.40	5350	178.64	55500	1.45		
5.70	5000	254.40*	56300	1.55		
6.80	4240	215.37	57900	1.80	TFA 107 TFAF 107 TF 107 TFF 107	Y..100L ₂ -4 AM100 AD3
7.30	3920	199.31	58600	1.95		
8.10	3510	178.64	59400	2.20		
9.00	3170	161.28*	60100	2.40		
6.50	4400	223.88	29600	1.00		
7.70	3730	189.92	31500	1.15	TFA 97 TFAF 97 TF 97 TFF 97	Y..100L ₂ -4 AM100 AD3
8.30	3440	174.87	32200	1.25		

n ₂ [1/min]	M ₂ [Nm]	i	Fr [N]	K	Frame size	Input Configuration
P _i =3.00kw						
9.30	3070	156.30	33100	1.40	TFA 97	Y..100L ₂ -4 AM100 AD3
10.0	2770	140.71	33800	1.55		
11.0	2500	127.42	34400	1.70		
13.0	2220	112.99	35000	1.95		
14.0	2010	102.16	35400	2.10		
16.0	1760	89.85	35800	2.40		
11.0	2640	134.16	24300	1.15	TFA 87	Y..100L ₂ -4 AM100 AD2
12.0	2420	123.29	25100	1.25		
13.0	2150	109.49	26000	1.40		
15.0	1920	97.89	26700	1.55		
17.0	1730	88.01	26700	1.75		
19.0	1500	76.39	26100	2.00		
21.0	1340	68.40	25500	2.20	TFA 87	Y..100L ₂ -4 AM100 AD3
26.0	1110	56.75	24600	2.70		
29.0	990	50.36	23900	3.00		
17.0	1680	85.52	14400	0.90	TFA 77	Y..100L ₂ -4 AM100 AD2
19.0	1470	75.02	15900	1.00		
22.0	1300	66.46	16900	1.15		
25.0	1140	58.32	17700	1.30		
26.0	1080	55.27	18000	1.40		
30.0	950	48.37	18500	1.55		
33.0	850	43.58	18800	1.75	TFA 77	Y..100L ₂ -4 AM100 AD3
38.0	750	38.23	19100	2.00		
40.0	720	36.58	19200	1.55		
46.0	620	31.51	19500	2.20		
51.0	565	28.75	19600	2.50	TFA 77	Y..100L ₂ -4 AM100 AD4
57.0	500	25.50*	19700	3.00		
68.0	420	21.43	19800	3.60		
34.0	850	43.20	10000	0.95	TFA 67	Y..100L ₂ -4 AM100 AD2
37.0	770	39.26	10700	1.00		
43.0	665	34.01	11500	1.10		
45.0	630	32.08	11700	1.30	TFA 67	Y..100L ₂ -4 AM100 AD3
53.0	535	27.41	12200	1.50		
58.0	490	25.13	12400	1.65		
66.0	430	22.05	12700	1.90		
70.0	410	20.90*	12800	2.00		
80.0	360	18.29	12900	2.30		
88.0	320	16.48	13000	2.50		
101	280	14.46	13000	2.90		
58.0	490	24.96	7420	1.15		
69.0	415	21.17	7310	1.45	TFA 57	Y..100L ₂ -4 AM100 AD3
76.0	375	19.11	7220	1.60		
87.0	330	16.81	7100	1.80		



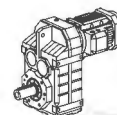
TF

n_2 [1/min]	M_2 [Nm]	i	F_r [N]	K	Frame size	Input Configuration
P₁=3.00kw						
92.0	310	15.88	7040	1.90	TFA 57	Y..100L ₂ -4 AM100 AD3
108	265	13.52	6850	2.20	TFAF 57	
118	240	12.29	6730	2.50	TF 57	
137	205	10.64	6540	2.90	TFF 57	
74.0	385	19.70	4760	1.05	TFA 47 TFAF 47 TF 47 TFF 47	Y..100L ₂ -4 AM100 AD2
84.0	340	17.33	4760	1.15		
89.0	320	16.36	4760	1.25		
104	270	13.93	4720	1.45		
115	245	12.66	4690	1.60		
133	215	10.97	4620	1.85		
162	176	8.96	4350	1.85		
131	215	11.08	2340	0.85	TFA 37 TFAF 37 TF 37 TFF 37	Y..100L ₂ -4 AM100 AD2
140	205	10.42	2360	0.90		
162	177	8.97	2400	1.00		
182	158	8.01	2410	1.10		
216	133	6.74	2290	1.05		
240	119	6.05	2290	1.15		
279	103	5.21	2280	1.20		
297	96	4.90	2270	1.25		
345	83	4.22	2240	1.35		
386	74	3.77	2210	1.40		
P₁=4.00kw						
1.70	20200	845	92900	0.90	TFA 157 TRF97 TFAF 157 TRF97 TF 157 TRF97 TFF 157 TRF97	Y..112M-4 AM112 AD5
1.90	18200	764	99500	1.00		
2.20	16200	680	105100	1.10		
2.50	13600	576	111000	1.30		
3.30	10700	446	116200	1.70		
4.80	7240	302	120000	2.50		
5.30	6520	273	120000	2.80		
6.30	5500	232	120000	3.30		
7.40	4660	197	120000	3.90		
2.70	13300	549	87800	0.90	TFA 127 TRF77 TFAF 127 TRF77 TF 127 TRF77 TFF 127 TRF77	Y..112M-4 AM112 AD4
3.00	12000	495	90000	1.00		
3.40	10400	428	90000	1.15		
3.90	9140	376	90000	1.30		
4.40	8120	333	48600	0.95	TFA 107 TRF77 TFAF 107 TRF77 TF 107 TRF77 TFF 107 TRF77	Y..112M-4 AM112 AD4
5.00	7090	291	51300	1.10		
5.70	6210	255	53500	1.25		
5.70	6650	254.40	52400	1.15	TFA 107 TFAF 107 TF 107 TFF 107	Y..112M-4 AM112 AD3
6.80	5630	215.37	54900	1.35		
7.30	5210	199.31	55800	1.45		
8.20	4670	178.64	57000	1.65		
9.00	4210	161.28	58000	1.80		
10.0	3830	146.49	58800	2.00		
11.0	3400	129.97	59600	2.30		
12.0	3080	117.94	60200	2.50		
14.0	2650	101.38	61000	2.90	TFA 107 TFAF 107 TF 107 TFF 107	Y..112M-4 AM112 AD4

n_2 [1/min]	M_2 [Nm]	i	F_r [N]	K	Frame size	Input Configuration
P₁=4.00kw						
8.40	4570	174.87	29100	0.95	TFA 97 TFAF 97 TF 97 TFF 97	Y..112M-4 AM112 AD3
9.30	4080	156.30	30500	1.05		
10.0	3680	140.71	31600	1.15		
11.0	3330	127.42	32500	1.30		
13.0	2950	112.99	33400	1.45		
14.0	2670	102.16	34000	1.60		
15.0	2550	97.58	34300	1.70		
16.0	2350	89.85	34700	1.85		
18.0	2100	80.31	35200	2.00		
20.0	1890	72.29	35600	2.30		
22.0	1710	65.47	35900	2.50	TFA 97 TFAF 97 TF 97 TFF 97	Y..112M-4 AM112 AD4
13.0	2860	109.49	23500	1.05	TFA 87 TFAF 87 TF 87 TFF 87	Y..112M-4 AM112 AD2
15.0	2560	97.89	24600	1.15		
17.0	2300	88.01	24500	1.30		
19.0	1990	76.39	24100	1.50		
21.0	1780	68.40	23800	1.70	TFA 87 TFAF 87 TF 87 TFF 87	Y..112M-4 AM112 AD3
26.0	1480	56.75	23100	2.00		
29.0	1310	50.36	22600	2.20		
32.0	1180	45.28	22200	2.40		
22.0	1730	66.46	13900	0.85	TFA 77 TFAF 77 TF 77 TFF 77	Y..112M-4 AM112 AD2
25.0	1520	58.32	15600	1.00		
26.0	1440	55.27	16100	1.05		
30.0	1260	48.37	17100	1.20		
34.0	1140	43.58	17700	1.30	TFA 77 TFAF 77 TF 77 TFF 77	Y..112M-4 AM112 AD3
38.0	1000	38.23	18300	1.50		
43.0	880	33.74	18700	1.70		
49.0	780	29.91	19000	1.90		
57.0	665	25.54	19300	2.20		
46.0	820	31.51	18900	1.65		
51.0	750	28.75	19100	1.90		
57.0	665	25.50	19300	2.20	TFA 77 TFAF 77 TF 77 TFF 77	Y..112M-4 AM112 AD4
68.0	560	21.43	19600	2.70		
74.0	515	19.70	19700	2.90		
53.0	715	27.41	11100	1.15	TFA 67 TFAF 67 TF 67 TFF 67	Y..112M-4 AM112 AD3
58.0	655	25.13	11600	1.25		
66.0	575	22.05	12000	1.40		
70.0	545	20.90	12200	1.50		
80.0	475	18.29	12500	1.70		
89.0	430	16.48	12700	1.90		
101	375	14.46	12900	2.20	TFA 67 TFAF 67 TF 67 TFF 67	Y..112M-4 AM112 AD3
114	330	12.76	13000	2.50		
129	295	11.31	13000	2.80		
151	250	9.66	13000	3.20		
161	235	9.08	12900	2.20		
170	225	8.60	12700	2.50		
194	197	7.53	12300	3.10		
215	178	6.78	12000	3.50		
245	156	5.95	11700	3.90		

n_2 [1/min]	M_2 [Nm]	i	Fr [N]	K	Frame size		Input Configuration	
P ₁ =4.00kw								
278	137	5.25	11300	4.30	TFA	67	Y..112M-4 AM112 AD3	
314	122	4.66	11000	4.60	TFAF	67		
367	104	3.97	10500	4.80	TF	67		
					TFF	67		
69.0	550	21.17	6490	1.10	TFA TFAF TF TFF	57 57 57 57	Y..112M-4 AM112 AD3	
76.0	500	19.11	6480	1.20				
87.0	435	16.81	6440	1.35				
92.0	415	15.88	6420	1.45				
108	350	13.52	6320	1.70				
119	320	12.29	6250	1.85				
137	275	10.64	6120	2.20				
157	240	9.31	5820	1.70				
178	210	8.19	5710	1.95				
189	200	7.73	5650	2.10				
222	172	6.58	5480	2.40				
244	157	5.98	5380	2.70				
282	136	5.18	5220	3.10				
P ₁ =5.50kw								
2.50	19000	576	96900	0.95	TFA TFAF TF TFF	157 157 157 157	TRF97 TRF97 TRF97 TRF97	Y..132S-4 AM132 AD5
2.90	16500	503	104200	1.10				
3.30	14800	446	108400	1.20				
4.10	11600	353	114800	1.55				
4.80	10000	302	117200	1.80				
5.30	9080	273	118500	2.00				
6.30	7660	232	120000	2.40				
7.20	6660	202	120000	2.70				
7.40	6500	197	120000	2.80				
3.50	13900	418	86600	0.85	TFA TFAF TF TFF	127 127 127 127	TRF87 TRF87 TRF87 TRF87	Y..132S-4 AM132 AD4
3.90	12500	374	89500	0.95				
4.70	10400	312	90000	1.15				
5.00	9770	293	90000	1.25				
5.60	8620	259	90000	1.40	TFA TFAF TF TFF	127 127 127 127	TRF87 TRF87 TRF87 TRF87	Y..132S-4 AM132 AD5
6.50	7450	223	90000	1.60				
3.40	14400	428	85700	0.85	TFA TFAF TF TFF	127 127 127 127	TRF77 TRF77 TRF77 TRF77	Y..132S-4 AM132 AD4
3.90	12600	376	89200	0.95				
6.80	7770	215.37	49600	1.00				
7.30	7190	199.31	51100	1.05				
8.10	6440	178.64	53000	1.20	TFA TFAF TF TFF	107 107 107 107	AD3	Y..132S-4 AM132 AD3
9.00	5820	161.28	54400	1.30				
9.90	5280	146.49	55700	1.45	TFA TFAF TF TFF	107 107 107 107	AD3	Y..132S-4 AM132 AD3
11.0	4690	129.97	57000	1.65				
12.0	4250	117.94	57900	1.80				
14.0	3650	101.38	59100	2.10	TFA TFAF TF TFF	107 107 107 107	AD4	Y..132S-4 AM132 AD4
16.0	3330	92.47	59700	2.30				
16.0	3190	88.49	60000	2.40				
17.0	3030	83.99	60300	2.50				

n_2 [1/min]	M_2 [Nm]	i	Fr [N]	K	Frame size	Input Configuration
$P_1=5.50\text{kw}$						
11.0	4590	127.42	29000	0.95	TFA 97	Y..132S-4 AM132 AD3
13.0	4070	112.99	30500	1.05	TFAF 97	
14.0	3680	102.16	31600	1.15	TF 97	
					TFF 97	
15.0	3520	97.58	32000	1.20		Y..132S-4 AM132 AD3
16.0	3240	89.85	32700	1.35	TFA 97	
17.0	3120	86.59	33000	1.40	TFAF 97	
18.0	2890	80.31	33500	1.50	TF 97	
19.0	2730	75.63	33900	1.60	TFF 97	
20.0	2600	72.29	34200	1.65		
22.0	2360	65.47	34700	1.80	TFA 97	Y..132S-4 AM132 AD4
25.0	2090	58.06	34400	2.00	TFAF 97	
28.0	1890	52.49	33800	2.30	TF 97	
					TFF 97	
17.0	3170	88.01	11000	0.95	TFA 87	Y..132S-4 AM132 AD2
19.0	2750	76.39	21200	1.10	TFAF 87	
					TF 87	
					TFF 87	
21.0	2460	68.40	21200	1.20	TFA 87	Y..132S-4 AM132 AD3
26.0	2040	56.75	21000	1.45	TFAF 87	
29.0	1810	50.36	20700	1.60	TF 87	
32.0	1630	45.28	20500	1.75	TFF 87	
37.0	1410	39.30	20100	1.90		
41.0	1270	35.19	19700	2.00	TFA 87	Y..132S-4 AM132 AD4
50.0	1050	29.20	19100	2.40	TFAF 87	
43.0	1220	33.92	19600	2.10	TF 87	
51.0	1030	28.78	19000	2.40	TFF 87	
55.0	950	26.50	18700	3.10	TFA 87	Y..132S-4 AM132 AD5
61.0	850	23.68	18300	3.50	TFAF 87	
					TF 87	
					TFF 87	
30.0	1740	48.37	13800	0.85	TFA 77	Y..132S-4 AM132 AD2
					TFAF 77	
					TF 77	
					TFF 77	
33.0	1570	43.58	15200	0.95	TFA 77	Y..132S-4 AM132 AD3
38.0	1380	38.23	16500	1.10	TFAF 77	
43.0	1210	33.74	17400	1.25	TF 77	
49.0	1070	29.91	18000	1.40	TFF 77	
57.0	920	25.54	18600	1.55		
57.0	920	25.50	18600	1.65		Y..132S-4 AM132 AD4
68.0	770	21.43	19100	1.95	TFA 77	
74.0	710	19.70	19200	2.10	TFAF 77	
83.0	630	17.49	19400	2.40	TF 77	
93.0	560	15.64	19600	2.70	TFF 77	
103	505	14.06	19200	3.00		
119	440	12.20	18600	3.40		

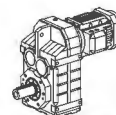


n: [1/min]	M ₂ [Nm]	i	Fr [N]	K	Frame size		Input Configuration
P ₁ =5.50kw							
66.0	795	22.05	10500	1.05	TFA 67 TFAF 67 TF 67 TFF 67	Y..132S-4 AM132 AD3	
70.0	750	20.90	10900	1.10			
80.0	660	18.29	11500	1.25			
88.0	590	16.48	11900	1.40			
101	520	14.46	12300	1.55			
114	460	12.76	12600	1.80			
129	405	11.31	12800	2.00			
151	345	9.66	12900	2.40			
160	325	9.08	12400	1.60			
169	310	8.60	12200	1.85			
193	270	7.53	11900	2.20			
214	240	6.78	11700	2.50			
245	210	5.95	11300	2.80			
277	190	5.25	11000	3.10			
313	168	4.66	10700	3.30			
366	144	3.97	10300	3.50			
87.0	605	16.81	5460	1.00	TFA 57 TFAF 57 TF 57 TFF 57	Y..132S-4 AM132 AD3	
92.0	570	15.88	5490	1.05			
108	485	13.52	5530	1.25			
118	440	12.29	5530	1.35			
137	380	10.64	5500	1.55			
178	295	8.19	5180	1.40	TFA 57 TFAF 57 TF 57 TFF 57	Y..132S-4 AM132 AD3	
188	275	7.73	5150	1.50			
221	235	6.58	5060	1.75			
243	215	5.98	5000	1.95			
281	187	5.18	4890	2.20			
P ₁ =7.50kw							
4.70	14100	312	86300	0.85	TFA 127 TRF87 TFAF 127 TRF87 TF 127 TRF87 TFF 127 TRF87	Y..132M-4 AM132 AD5	
5.00	13200	293	88000	0.90			
5.70	11700	259	90000	1.05			
6.60	10100	223	90000	1.20			
7.40	8930	198	90000	1.35			
8.60	8320	170.83	90000	1.45	TFA 127 TFAF 127 TF 127 TFF 127	Y..132M-4 AM132 AD4	
9.60	7480	153.67	90000	1.60			
12.0	6100	125.37	90000	1.95			
8.20	8700	178.64	47000	0.90			
9.10	7850	161.28	49300	1.00	TFA 107 TFAF 107 TF 107 TFF 107	Y..132M-4 AM132 AD3	
10.0	7130	146.49	51200	1.10			
11.0	6330	129.97	53200	1.20			
12.0	5740	117.94	54600	1.35			
14.0	4930	101.38	56400	1.55			
16.0	4500	92.47	57400	1.70	TFA 107 TFAF 107 TF 107 TFF 107	Y..132M-4 AM132 AD4	
17.0	4310	88.49	57800	1.80			
18.0	4090	83.99	58200	1.90			
20.0	3630	74.52	59200	2.10			
22.0	3290	67.62	59800	2.30			
15.0	4750	97.58	24800	0.90			
16.0	4370	89.85	29700	1.00	TFA 97 TFAF 97 TF 97 TFF 97	Y..132M-4 AM132 AD3	
17.0	4210	86.59	30100	1.00			
18.0	3910	80.31	31000	1.10			
19.0	3680	75.63	31600	1.15			

n_2 [1/min]	M_2 [Nm]	i	F_r [N]	K	Frame size	Input Configuration
P ₁ =7.50kw						
20.0	3520	72.29	32000	1.20	TFA 97	Y..132M-4 AM132 AD3
					TFAF 97	
					TF 97	
					TFF 97	
22.0	3180	65.47	32200	1.35	TFA 97 TFAF 97 TF 97 TFF 97	Y..132M-4 AM132 AD4
25.0	2820	58.06	31700	1.50		
28.0	2550	52.49	31300	1.70		
33.0	2160	44.49	30500	2.00		
38.0	1890	38.86	29800	2.30		
45.0	1580	32.50	28800	2.70		
34.0	2100	43.28	30400	1.45	TFA 97 TFAF 97 TF 97 TFF 97	Y..132M-4 AM132 AD5
40.0	1780	36.64	29400	1.70		
43.0	1650	33.91	29000	2.60	TFA 97 TFAF 97 TF 97 TFF 97	Y..132M-4 AM132 AD5
48.0	1480	30.39	28400	2.90		
26.0	2760	56.75	18100	1.10	TFA 87 TFAF 87 TF 87 TFF 87	Y..132M-4 AM132 AD3
29.0	2450	50.36	18200	1.20		
32.0	2200	45.28	18200	1.30		
37.0	1910	39.30	18100	1.40		
42.0	1710	35.19	17900	1.50	TFA 87 TFAF 87 TF 87 TFF 87	Y..132M-4 AM132 AD4
50.0	1420	29.20	17600	1.75		
51.0	1400	28.78	17500	1.75		
55.0	1290	26.50	17300	2.30		
62.0	1150	23.68	17100	2.60	TFA 87 TFAF 87 TF 87 TFF 87	Y..132M-4 AM132 AD5
69.0	1030	21.32	16800	2.90		
76.0	940	19.31	16500	3.20		
86.0	830	17.12	16100	3.60		
95.0	750	15.48	15800	4.00	TFA 77 TFAF 77 TF 77 TFF 77	Y..132M-4 AM132 AD3
44.0	1640	33.74	14700	0.90		
49.0	1450	29.91	16000	1.05		
58.0	1240	25.54	17200	1.15		
58.0	1240	25.50	17200	1.20		
69.0	1040	21.43	18100	1.45		
75.0	950	19.70	18500	1.55	TFA 77 TFAF 77 TF 77 TFF 77	Y..132M-4 AM132 AD4
84.0	850	17.49	18800	1.75		
94.0	760	15.64	18900	1.95		
105	685	14.06	18500	2.20		
120	590	12.20	17900	2.50		
135	530	10.93	17500	2.80		
158	450	9.30	16400	2.40		
178	400	8.26	16000	2.70		
199	355	7.39	15600	3.00		
221	320	6.64	15200	3.30		
255	280	5.76	14700	3.80	TFA 77 TFAF 77 TF 77 TFF 77	Y..132M-4 AM132 AD4
285	250	5.16	14400	4.30		
343	205	4.28	13700	4.80		

n_2 [1/min]	M_2 [Nm]	i	Fr [N]	K	Frame size	Input Configuration
$P_1=11.0kw$						
4.90	20000	302	93600	0.90	TFA 157 TRF97 TFAF 157 TRF97 TF 157 TRF97 TFF 157 TRF97	Y..160M-4
5.40	18100	273	99900	1.00		AM160
6.40	15300	232	107400	1.15		AD5
7.30	13300	202	111600	1.35		
7.50	12900	197	112300	1.40		
6.60	14800	223	84900	0.80	TFA 127 TRF87 TFAF 127 TRF87 TF 127 TRF87 TFF 127 TRF87	Y..160M-4
7.50	13100	198	88300	0.90		AM160
8.90	11000	166	90000	1.10		AD5
5.50	19000	267.43	97000	0.95	TFA 157 TFAF 157 TF 157 TFF 157	Y..160M-4
6.80	15400	217.62	106900	1.15		AM160
8.30	12600	178.20	112900	1.40		AD5
9.00	11600	162.96	114800	1.55		
10.0	10000	141.80	117100	1.80		
12.0	8910	125.14	118700	2.00		
14.0	7720	108.49	120000	2.30		
15.0	6870	96.53	120000	2.60		
17.0	6110	85.80	117400	3.00		
19.0	5580	78.46	115000	3.20		
22.0	4860	68.28	111300	3.70		
8.60	12100	170.83	90000	1.00	TFA 127 TFAF 127 TF 127 TFF 127	Y..160M-4
9.60	10900	153.67	90000	1.10		AM160
12.0	8920	125.37	90000	1.35		AD4
13.0	8140	114.34	90000	1.45		
15.0	7040	98.95	90000	1.70		
17.0	6210	87.31	90000	1.95		
20.0	5370	75.41	88200	2.20		
13.0	8390	117.94	47900	0.90	TFA 107 TFAF 107 TF 107 TFF 107	Y..160M-4 AM160 AD3
15.0	7210	101.38	51000	1.05	TFA 107 TFAF 107 TF 107 TFF 107	Y..160M-4
16.0	6580	92.47	52600	1.15		AM160
18.0	5980	83.99	54100	1.30		AD4
20.0	5300	74.52	55600	1.45		
22.0	4810	67.62	56700	1.60		
25.0	4130	58.12	56200	1.85		
29.0	3610	50.73	54900	2.10		
34.0	3060	43.03	53300	2.50	TFA 107 TFAF 107 TF 107 TFF 107	Y..160M-4 AM160 AD5
44.0	2400	33.79	50700	3.10	TFA 107 TFAF 107 TF 107 TFF 107	Y..160M-4
54.0	1960	27.57	48500	4.00		AM160
59.0	1790	25.14	47500	4.40		AD6
23.0	4660	65.47	26900	0.90	TFA 97 TFAF 97 TF 97 TFF 97	Y..160M-4
25.0	4130	58.06	27100	1.05		AM160
28.0	3730	52.49	27100	1.15		AD4
33.0	3160	44.49	26900	1.35		
38.0	2760	38.86	26700	1.55		
45.0	2310	32.50	26200	1.85		

n_2 [1/min]	M_2 [Nm]	i	Fr [N]	K	Frame size	Input Configuration
P ₁ =11.0kw						
44.0	2410	33.91	26300	1.80	TFA 97 TFAF 97 TF 97 TFF 97	Y..160M-4 AM160 AD5
49.0	2160	30.39	25900	2.00	TFA 97	Y..160M-4 AM160 AD5
54.0	1950	27.44	25500	2.20	TFAF 97	
59.0	1770	24.92	25100	2.40	TF 97	
67.0	1570	22.11	24600	2.70	TFF 97	
38.0	2790	39.30	14600	0.95	TFA 87 TFAF 87 TF 87 TFF 87	Y..160M-4 AM160 AD3
42.0	2500	35.19	14800	1.05	TFA 87 TFAF 87	Y..160M-4 AM160 AD4
51.0	2070	29.20	15000	1.20	TF 87 TFF 87	
56.0	1880	26.50	15000	1.60	TFA 87 TFAF 87 TF 87 TFF 87	Y..160M-4 AM160 AD5
62.0	1680	23.68	15000	1.80		
69.0	1510	21.32	14900	2.00		
76.0	1370	19.31	14800	2.20		
86.0	1210	17.12	14600	2.50		
95.0	1100	15.48	14400	2.70		
112	930	13.12	14000	3.20		
75.0	1400	19.70	16300	1.05	TFA 77 TFAF 77 TF 77 TFF 77	Y..160M-4 AM160 AD4
84.0	1240	17.49	17200	1.20		
94.0	1110	15.64	17600	1.35		
105	1000	14.06	17300	1.50		
121	860	12.20	16900	1.75		
135	775	10.93	16600	1.95		
159	660	9.30	15400	1.65		
179	585	8.26	15100	1.85	TFA 77 TFAF 77 TF 77 TFF 77	Y..160M-4 AM160 AD4
200	525	7.39	14800	2.00		
222	470	6.64	14500	2.30		
256	410	5.76	14100	2.60		
286	365	5.16	13800	2.90		
345	300	4.28	13300	3.30		
P ₁ =15.0kw						
6.30	21100	232	89700	0.85	TFA 157 TRF97	Y..160L-4 AM160 AD5
7.20	18400	202	99000	1.00	TFAF 157 TRF97	
7.50	17900	197	100500	1.00	TF 157 TRF97	
					TFF 157 TRF97	
6.70	21200	217.62	89000	0.85	TFA 157 TFAF 157 TF 157 TFF 157	Y..160L-4 AM160 AD5
8.20	17400	178.20	101900	1.05		
9.00	15900	162.96	105900	1.15		
10.0	13800	141.80	110600	1.30		
12.0	12200	125.14	113700	1.45		
14.0	10600	108.49	116400	1.70		
15.0	9430	96.53	115700	1.90		
17.0	8380	85.80	113200	2.20		
19.0	7670	78.46	111100	2.40		
21.0	6670	68.28	108000	2.70		

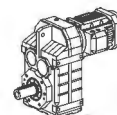


n ₁ [1/min]	M ₂ [Nm]	i	Fr [N]	K	Frame size	Input Configuration
P ₁ =15.0kw						
24.0	5890	60.25	105100	3.10	TFA 157 TFAF 157 TF 157 TFF 157	Y..160L-4 AM160 AD5
12.0	12200	125.37	89000	1.00	TFA 127 TFAF 127 TF 127 TFF 127	Y..160L-4 AM160 AD4
13.0	11100	114.34	88300	1.05		
15.0	9670	98.95	87000	1.25		
17.0	8530	87.31	85600	1.40		
19.0	7370	75.41	83800	1.65		
21.0	6850	70.07	82800	1.75	TFA 127 TFAF 127 TF 127 TFF 127	Y..160L-4 AM160 AD5
16.0	9040	92.47	46000	0.85	TFA 107 TFAF 107 TF 107 TFF 107	Y..160L-4 AM160 AD4
17.0	8650	88.49	47100	0.90		
17.0	8210	83.99	48400	0.95		
20.0	7280	74.52	50800	1.05		
22.0	6610	67.62	52600	1.15		
25.0	5680	58.12	52200	1.35	TFA 107 TFAF 107 TF 107 TFF 107	Y..160L-4 AM160 AD4
29.0	4960	50.73	51500	1.55		
34.0	4200	43.03	50300	1.85	TFA 107 TFAF 107 TF 107 TFF 107	Y..160L-4 AM160 AD5
39.0	3670	37.61	49300	2.10		
46.0	3100	31.80	47900	2.50		
43.0	3300	33.79	48400	2.20	TFA 107 TFAF 107 TF 107 TFF 107	Y..160L-4 AM160 AD6
53.0	2690	27.57	46700	2.90		
58.0	2450	25.14	45800	3.20		
67.0	2120	21.76	44500	3.70		
33.0	4340	44.49	22900	1.00	TFA 97 TFAF 97 TF 97 TFF 97	Y..160L-4 AM160 AD4
38.0	3790	38.86	23100	1.15		
45.0	3170	32.50	23200	1.35		
43.0	3310	33.91	23200	1.30	TFA 97 TFAF 97 TF 97 TFF 97	Y..160L-4 AM160 AD5
48.0	2970	30.39	23200	1.45		
53.0	2680	27.44	23100	1.60		
59.0	2430	24.92	22900	1.75		
66.0	2160	22.11	22600	2.00		
73.0	1960	20.07	22400	2.20		
85.0	1680	17.25	21900	2.60		
97.0	1470	15.06	21400	2.90		
115	1240	12.77	20800	3.40	TFA 97 TFAF 97 TF 97 TFF 97	Y..160L-4 AM160 AD6
131	1090	11.16	20200	3.80		
55.0	2590	26.50	12400	1.15	TFA 87 TFAF 87 TF 87 TFF 87	Y..160L-4 AM160 AD5
62.0	2310	23.68	12600	1.30		
69.0	2080	21.32	12700	1.45		
76.0	1880	19.31	12800	1.60		

n ₁ [1/min]	M ₂ [Nm]	i	Fr [N]	K	Frame size	Input Configuration
P ₁ =15.0kw						
86.0	1670	17.12	12900	1.80	TFA 87 TFAF 87 TF 87 TFF 87	Y..160L-4 AM160 AD5
95.0	1510	15.48	12800	2.00		
112	1280	13.12*	12700	2.30		
128	1120	11.46	12600	2.70		
153	930	9.58	12300	3.10		
177	810	8.29	11700	1.90		
199	715	7.35	11500	2.10		
220	645	6.65	11300	2.40		
260	550	5.63	11000	2.80		
298	480	4.92	10700	3.20		
356	400	4.12	10300	3.60		
P ₁ =18.5kw						
7.20	22700	202	70200	0.80	TFA 157 TRF97 TFAF 157 TRF97 TF 157 TRF97 TFF 157 TRF97	Y..180M-4 AM180 AD5
7.50	22100	197	83800	0.80		
8.20	21400	178.20	88200	0.85	TFA 157 TFAF 157 TF 157 TFF 157	Y..180M-4 AM180 AD5
9.00	19600	162.96	95000	0.90		
10.0	17000	141.80	102800	1.05		
12.0	15000	125.14	107900	1.20		
14.0	13000	108.49	112100	1.40		
15.0	11600	96.53	111300	1.55		
17.0	10300	85.80	109300	1.75		
19.0	9460	78.46	107600	1.90		
21.0	8230	68.28	104900	2.20		
24.0	7260	60.25	102300	2.50		
28.0	6290	52.24	99400	2.90	TFA 157 TFAF 157 TF 157 TFF 157	Y..180M-4 AM180 AD6
13.0	13700	114.34	82200	0.85	TFA 127 TFAF 127 TF 127 TFF 127	Y..180M-4 AM180 AD4
15.0	11900	98.95	81700	1.00		
17.0	10500	87.31	80900	1.15		
19.0	9090	75.41	79700	1.30		
21.0	8450	70.07	79000	1.40	TFA 127 TFAF 127 TF 127 TFF 127	Y..180M-4 AM180 AD5
23.0	7700	63.91	78100	1.55		
26.0	6660	55.31	76400	1.80		
30.0	5880	48.80	74900	2.00		
20.0	8980	74.52	46200	0.85	TFA 107 TFAF 107 TF 107 TFF 107	Y..180M-4 AM180 AD4
22.0	8150	67.62	48500	0.95		
25.0	7000	58.12	48700	1.10		
29.0	6110	50.73	48400	1.25		
34.0	5180	43.03	47700	1.50	TFA 107 TFAF 107 TF 107 TFF 107	Y..180M-4 AM180 AD5
39.0	4530	37.61	47000	1.70		
46.0	3830	31.80	46000	2.00		
43.0	4070	33.79	46400	1.80	TFA 107 TFAF 107 TF 107 TFF 107	Y..180M-4 AM180 AD6
53.0	3320	27.57	45000	2.40		
58.0	3030	25.14	44300	2.60		
67.0	2620	21.76	43200	3.00		

n_2 [1/min]	M_2 [Nm]	i	F_r [N]	K	Frame size	Input Configuration
$P_i=18.5kw$						
38.0	4680	38.86	20000	0.90	TFA 97 TFAF 97 TF 97 TFF 97	Y..180M-4 AM180 AD4
45.0	3910	32.50	20600	1.10		
53.0	3300	27.44	20900	1.30		
59.0	3000	24.92	20900	1.45	TFA 97	Y..180M-4
66.0	2660	22.11	20900	1.60	TFAF 97	AM180
73.0	2410	20.07	20800	1.80	TF 97	AD5
85.0	2070	17.25	20500	2.10	TFF 97	
97.0	1810	15.06	20200	2.40		
115	1530	12.77	19800	2.80	TFA 97	Y..180M-4
131	1340	11.16	19300	3.00	TFAF 97	AM180
					TF 97	AD6
					TFF 97	
69.0	2570	21.32	10900	1.15		
76.0	2320	19.31	11100	1.30		
86.0	2060	17.12	11400	1.45		
95.0	1860	15.48	11500	1.60		
112	1580	13.12	11600	1.90		
128	1380	11.46	11600	2.20	TFA 87	Y..180M-4
153	1150	9.58	11500	2.50	TFAF 87	AM180
177	990	8.29	10900	1.55	TF 87	AD5
199	880	7.35	10800	1.75	TFF 87	
220	800	6.65	10700	1.90		
260	675	5.63	10400	2.20		
298	590	4.92	10200	2.60		
356	495	4.12	9900	2.90		
$P_i=22.0kw$						
10.0	20100	141.80	93100	0.90		
12.0	17800	125.14	100800	1.00		
14.0	15400	108.49	107000	1.15	TFA 157	Y..180L-4
15.0	13700	96.53	106900	1.30	TFAF 157	AM180
17.0	12200	85.80	105200	1.45	TF 157	AD5
19.0	11100	78.46	103900	1.60	TFF 157	
22.0	9720	68.28	101600	1.85		
24.0	8580	60.25	99500	2.10		
28.0	7440	52.24	96800	2.40	TFA 157	Y..180L-4
					TFAF 157	AM180
					TF 157	AD6
					TFF 157	
32.0	6610	46.48	94600	2.70	TFA 157	Y..180L-4
37.0	5700	40.06	91800	3.20	TFAF 157	AM180
45.0	4630	32.55	87700	3.90	TF 157	AD7
					TFF 157	
15.0	14000	98.95	76300	0.85	TFA 127	Y..180L-4
17.0	12400	87.31	76300	0.95	TFAF 127	AM180
20.0	10700	75.41	75700	1.10	TF 127	AD4
					TFF 127	
21.0	9980	70.07	75300	1.20	TFA 127	Y..180L-4
23.0	9100	63.91	74600	1.30	TFAF 127	AM180
27.0	7870	55.31	73400	1.50	TF 127	AD5
					TFF 127	

n_2 [1/min]	M_2 [Nm]	i	F_r [N]	K	Frame size	Input Configuration
$P_i=22.0kw$						
30.0	6950	48.80	72200	1.75	TFA 127	Y..180L-4
35.0	6000	42.15	70600	2.00	TFAF 127	AM180
					TF 127	AD5
					TFF 127	
25.0	8270	58.12	45200	0.95	TFA 107	Y..180L-4
29.0	7220	50.73	45300	1.05	TFAF 107	AM180
					TF 107	AD4
					TFF 107	
34.0	6120	43.03	45100	1.25	TFA 107	Y..180L-4
39.0	5350	37.61	44700	1.45	TFAF 107	AM180
46.0	4520	31.80	44000	1.70	TF 107	AD5
					TFF 107	
44.0	4810	33.79	44300	1.55	TFA 107	Y..180L-4
54.0	3920	27.57	43300	2.00	TFAF 107	AM180
59.0	3580	25.14	42700	2.20	TF 107	AD6
68.0	3090	21.76	41800	2.50	TFF 107	
77.0	2730	19.20	40900	2.90		
54.0	3900	27.44	18700	1.10		
59.0	3540	24.92	18900	1.20	TFA 97	Y..180L-4
67.0	3140	22.11	19100	1.35	TFAF 97	AM180
74.0	2850	20.07	19200	1.50	TF 97	AD5
86.0	2450	17.25	19100	1.75	TFF 97	
98.0	2140	15.06	19000	2.00		
116	1810	12.77	18700	2.40	TFA 97	Y..180L-4
132	1580	11.16	18400	2.60	TFAF 97	AM180
					TF 97	AD6
					TFF 97	
69.0	3030	21.32	9020	1.00		
76.0	2740	19.31	9450	1.10		
86.0	2430	17.12	9870	1.25		
95.0	2200	15.48	10100	1.35		
112	1860	13.12	10400	1.60	TFA 87	Y..180L-4
129	1630	11.46	10600	1.85	TFAF 87	AM180
154	1360	9.58	10600	2.10	TF 87	AD5
178	1180	8.29	10100	1.30	TFF 87	
201	1040	7.35	10100	1.45		
222	940	6.65	10000	1.60		
262	800	5.63	9890	1.90		
300	700	4.92	9740	2.20		
358	585	4.12	9490	2.50		
$P_i=30.0kw$						
14.0	21000	108.49	89800	0.85		
15.0	18700	96.53	96900	0.95	TFA 157	Y..200L-4
17.0	16600	85.80	96400	1.10	TFAF 157	AM200
19.0	15200	78.46	95800	1.20	TF 157	AD5
22.0	13200	68.28	94600	1.35	TFF 157	
24.0	11700	60.25	93200	1.55		
28.0	10100	52.24	91400	1.75	TFA 157	Y..200L-4
					TFAF 157	AM200
					TF 157	AD6
					TFF 157	



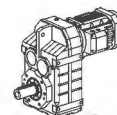
n_2 [1/min]	M_2 [Nm]	i	Fr [N]	K	Frame size	Input Configuration
P ₁ =30.0kw						
32.0	9020	46.48	89800	2.00	TFA 157 TFAF 157 TF 157 TFF 157	Y..200L-4 AM200 AD7
37.0	7780	40.06	87600	2.30		
20.0	14600	75.41	64500	0.80	TFA 127 TFAF 127 TF 127 TFF 127	Y..200L-4 AM200 AD4
21.0	13600	70.07	65700	0.90	TFA 127 TFAF 127 TF 127 TFF 127	Y..200L-4 AM200 AD5
23.0	12400	63.91	66800	0.95		
27.0	10700	55.31	66700	1.10		
30.0	9470	48.80	66300	1.25		
35.0	8180	42.15	65500	1.45		
40.0	7240	37.28	64700	1.65	TFA 127 TFAF 127 TF 127 TFF 127	Y..200L-4 AM200 AD6
55.0	5210	26.86	61800	1.65		
60.0	4770	24.57	60800	1.80		
47.0	6080	31.33	63200	1.95	TFA 127 TFAF 127 TF 127 TFF 127	Y..200L-4 AM200 AD7
58.0	4910	25.30	61100	2.40		
69.0	4150	21.38	59300	2.90	TFA 127 TFAF 127 TF 127 TFF 127	Y..200L-4 AM200 AD8
78.0	3660	18.87	57900	3.00		
34.0	8350	43.03	39200	0.90	TFA 107 TFAF 107 TF 107 TFF 107	Y..200L-4 AM200 AD5
39.0	7300	37.61	39600	1.05		
46.0	6170	31.80	39700	1.25		
54.0	5350	27.57	39500	1.45	TFA 107 TFAF 107 TF 107 TFF 107	Y..200L-4 AM200 AD6
59.0	4880	25.14	39300	1.60		
68.0	4220	21.76	38800	1.85		
77.0	3720	19.20	38300	2.10		
89.0	3220	16.58	37600	2.40		
101	2840	14.67	36900	2.70		
120	2390	12.33	35800	2.90		
148	1930	9.96	34400	3.40		
67.0	4290	22.11	15100	1.00	TFA 97 TFAF 97 TF 97 TFF 97	Y..200L-4 AM200 AD5
74.0	3890	20.07	15500	1.10		
86.0	3350	17.25	16000	1.30		
98.0	2920	15.06	16300	1.45		
116	2480	12.77	16400	1.75	TFA 97 TFAF 97 TF 97 TFF 97	Y..200L-4 AM200 AD6
132	2160	11.16	16400	1.90		
163	1760	9.06	15400	1.35		
179	1590	8.22	15300	1.50		
209	1370	7.07	15100	1.70		
239	1190	6.17	14900	1.90		
282	1010	5.23	14600	2.10		
322	880	4.57	14300	2.30		

n_2 [1/min]	M_2 [Nm]	i	Fr [N]	K	Frame size	Input Configuration
P ₁ =37.0kw						
17.0	20500	85.80	88600	0.90	TFA 157	Y..225S-4 AM225 AD5
19.0	18700	78.46	88700	0.95	TFAF 157	
22.0	16300	68.28	88400	1.10	TF 157	
25.0	14400	60.25	87800	1.25	TFF 157	
28.0	12400	52.24	86700	1.45	TFA 157 TFAF 157 TF 157 TFF 157	Y..225S-4 AM225 AD6
32.0	11100	46.48	85600	1.60	TFA 157	Y..225S-4 AM225 AD7
37.0	9580	40.06	84000	1.90	TFAF 157	
45.0	7780	32.55	81300	2.30	TF 157	
					TFF 157	
54.0	6600	27.60	79000	2.70	TFA 157 TFAF 157 TF 157 TFF 157	Y..225S-4 AM225 AD8
27.0	13200	55.31	59200	0.90	TFA 127	Y..225S-4 AM225 AD5
30.0	11600	48.80	60800	1.05	TFAF 127	
35.0	10000	42.15	61100	1.20	TF 127	
					TFF 127	
40.0	8910	37.28	60700	1.35	TFA 127	Y..225S-4 AM225 AD6
55.0	6420	26.86	58900	1.30	TFAF 127	
60.0	5870	24.57	58200	1.45	TF 127	
					TFF 127	
47.0	7490	31.33	59900	1.60	TFA 127	Y..225S-4 AM225 AD7
58.0	6050	25.30	58500	2.00	TFAF 127	
					TF 127	
					TFF 127	
69.0	5110	21.38	57100	2.40	TFA 127 TFAF 127 TF 127 TFF 127	Y..225S-4 AM225 AD8
78.0	4510	18.87	55900	2.40		
90.0	3910	16.36	54500	2.80		
102	3480	14.55	53400	3.20		
118	3000	12.54	51800	3.30		
145	2430	10.19	49600	3.90		
167	2110	8.86	47700	3.30		
187	1880	7.88	46400	3.20		
54.0	6590	27.57	36200	1.20	TFA 107 TFAF 107 TF 107 TFF 107	Y..225S-4 AM225 AD6
59.0	6010	25.14	36300	1.30		
68.0	5200	21.76	36200	1.50		
77.0	4590	19.20	36000	1.70		
89.0	3960	16.58	35600	2.00		
101	3500	14.67	35100	2.20		
120	2940	12.33	34300	2.40		
148	2380	9.96	33200	2.70		
152	2310	9.69	32400	2.10		
176	2000	8.37	31700	2.40		
199	1770	7.40	31000	2.60		
237	1480	6.22	30000	3.10		

TF

n_2 [1/min]	M_2 [Nm]	i	F_r [N]	K	Frame size	Input Configuration
P₁=45.0kw						
22.0	19800	68.28	81400	0.90	TFA 157 TFAF 157	Y..225M-4 AM225
25.0	17500	60.25	81600	1.05	TF 157 TFF 157	AD5
28.0	15100	52.24	81300	1.20	TFA 157 TFAF 157 TF 157 TFF 157	Y..225M-4 AM225 AD6
32.0	13500	46.48	80800	1.35	TFA 157 TFAF 157	Y..225M-4 AM225
37.0	11600	40.06	79800	1.55	TF 157 TFF 157	AD7
45.0	9460	32.55	78000	1.90	TFA 157 TFAF 157 TF 157 TFF 157	Y..225M-4 AM225 AD8
54.0	8020	27.60	76200	2.20	TFA 157 TFAF 157 TF 157 TFF 157	Y..225M-4 AM225 AD8
30.0	14100	48.80	51600	0.85	TFA 127 TFAF 127	Y..225M-4 AM225
35.0	12200	42.15	54300	1.00	TF 127 TFF 127	AD5
40.0	10800	37.28	55800	1.10	TFA 127 TFAF 127	Y..225M-4 AM225
55.0	7810	26.86	55700	1.10	TF 127 TFF 127	AD6
60.0	7140	24.57	55300	1.20	TFA 127 TFAF 127 TF 127 TFF 127	Y..225M-4 AM225 AD6
47.0	9100	31.33	56100	1.30	TFA 127 TFAF 127	Y..225M-4 AM225
58.0	7350	25.30	55400	1.65	TF 127 TFF 127	AD7
69.0	6210	21.38	54500	1.95	TFA 127 TFAF 127	Y..225M-4 AM225
78.0	5480	18.87	53600	2.00	TF 127 TFF 127	AD8
90.0	4750	16.36	52600	2.30	TFA 127 TFAF 127	Y..225M-4 AM225
102	4230	14.55	51600	2.60	TF 127 TFF 127	AD8
118	3640	12.54	50300	2.70	TFA 127 TFAF 127	Y..225M-4 AM225
145	2960	10.19	48300	3.20	TF 127 TFF 127	AD8
167	2570	8.86	46500	2.70	TFA 127 TFAF 127	Y..225M-4 AM225
187	2290	7.88	45400	2.60	TF 127 TFF 127	AD8
218	1970	6.80	44000	3.50	TFA 127 TFAF 127	Y..225M-4 AM225
268	1600	5.52	42000	3.70	TF 127 TFF 127	AD8
54.0	8010	27.57	31500	1.00	TFA 107 TFAF 107	Y..225M-4 AM225
59.0	7310	25.14	32600	1.05	TF 107 TFF 107	AD6
68.0	6320	21.76	33200	1.25	TFA 107 TFAF 107	Y..225M-4 AM225
77.0	5580	19.20	33300	1.40	TF 107 TFF 107	AD6
89.0	4820	16.58	33300	1.65	TFA 107 TFAF 107	Y..225M-4 AM225
101	4260	14.67	33100	1.80	TF 107 TFF 107	AD6
120	3580	12.33	32600	1.95	TFA 107 TFAF 107	Y..225M-4 AM225
148	2890	9.96	31900	2.20	TF 107 TFF 107	AD6
152	2810	9.69	30900	1.75	TFA 107 TFAF 107	Y..225M-4 AM225
177	2430	8.37	30400	1.95	TF 107 TFF 107	AD6
200	2150	7.40	29900	2.10	TFA 107 TFAF 107	Y..225M-4 AM225
238	1800	6.22	29000	2.50	TF 107 TFF 107	AD6

n_2 [1/min]	M_2 [Nm]	i	F_r [N]	K	Frame size	Input Configuration
P₁=55.0kw						
24.0	21400	60.25	73800	0.85	TFA 157 TFAF 157	Y..250M-4 AM250
					TF 157 TFF 157	AD5
28.0	18600	52.24	74600	0.95	TFA 157 TFAF 157 TF 157 TFF 157	Y..250M-4 AM250 AD6
32.0	16500	46.48	74800	1.10	TFA 157 TFAF 157	Y..250M-4 AM250
37.0	14200	40.06	74700	1.25	TF 157 TFF 157	AD7
45.0	11500	32.55	73800	1.55	TFA 157 TFAF 157 TF 157 TFF 157	Y..250M-4 AM250 AD7
53.0	9820	27.60	72600	1.85	TFA 157 TFAF 157	Y..250M-4 AM250
52.0	10100	28.60	72900	1.65	TF 157 TFF 157	AD8
58.0	9050	25.43	71900	1.65	TFA 157 TFAF 157	Y..250M-4 AM250
67.0	7890	22.16	70600	2.30	TF 157 TFF 157	AD8
75.0	7030	19.77	69400	2.40	TFA 157 TFAF 157	Y..250M-4 AM250
88.0	6000	16.85	67600	3.00	TF 157 TFF 157	AD8
40.0	13200	37.28	46900	0.90	TFA 127 TFAF 127	Y..250M-4 AM250
					TF 127 TFF 127	AD6
47.0	11100	31.33	49900	1.10	TFA 127 TFAF 127	Y..250M-4 AM250
58.0	9010	25.30	51600	1.35	TF 127 TFF 127	AD7
69.0	7610	21.38	51300	1.60	TFA 127 TFAF 127	Y..250M-4 AM250
78.0	6710	18.87	50800	1.65	TF 127 TFF 127	AD8
90.0	5820	16.36	50100	1.90	TFA 127 TFAF 127	Y..250M-4 AM250
101	5180	14.55	49400	2.10	TF 127 TFF 127	AD8
118	4460	12.54	48400	2.20	TFA 127 TFAF 127	Y..250M-4 AM250
145	3620	10.19	46800	2.60	TF 127 TFF 127	AD8
166	3150	8.86	45100	2.20	TFA 127 TFAF 127	Y..250M-4 AM250
187	2800	7.88	44200	2.10	TF 127 TFF 127	AD8
217	2410	6.80	42900	2.90	TFA 127 TFAF 127	Y..250M-4 AM250
315	1660	4.68	39600	3.60	TF 127 TFF 127	AD8
P₁=75.0kw						
32.0	22400	46.48	62900	0.80	TFA 157 TFAF 157	Y..280S-4 AM280
37.0	19300	40.06	64400	0.95	TF 157 TFF 157	AD7
45.0	15700	32.55	65400	1.15	TFA 157 TFAF 157	Y..280S-4 AM280
54.0	13300	27.60	65500	1.35	TF 157 TFF 157	AD8
52.0	13800	28.60	65500	1.25	TFA 157 TFAF 157	Y..280S-4 AM280
58.0	12300	25.43	65400	1.20	TF 157 TFF 157	AD8
67.0	10700	22.16	64900	1.70	TFA 157 TFAF 157	Y..280S-4 AM280
75.0	9560	19.77	64300	1.80	TF 157 TFF 157	AD8
88.0	8150	16.85	63200	2.20	TFA 157 TFAF 157	Y..280S-4 AM280
106	6750	13.96	61600	2.50	TF 157 TFF 157	AD8
124	5760	11.92	60100	2.80	TFA 157 TFAF 157	Y..280S-4 AM280



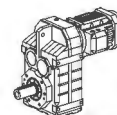
n_2 [1/min]	M_2 [Nm]	i	F_r [N]	K	Frame size	Input Configuration
P ₁ =75.0kw						
58.0	12200	25.30	40000	1.00	TFA 127 TFAF 127 TF 127 TFF 127	Y..280S-4 AM280 AD7
69.0	10300	21.38	43000	1.15	TFA 127 TFAF 127 TF 127 TFF 127	Y..280S-4 AM280 AD8
78.0	9120	18.87	44400	1.20		
90.0	7910	16.36	45200	1.40		
102	7040	14.55	45000	1.55		
118	6060	12.54	44600	1.65		
145	4930	10.19	43700	1.95		
167	4280	8.86	42200	1.65		
188	3810	7.88	41600	1.55		
218	3280	6.80	40700	2.10		
268	2670	5.52	39300	2.20		
316	2260	4.68	38100	2.60		
P ₁ =90.0kw						
45.0	18900	32.55	59100	0.95	TFA 157 TFAF 157 TF 157 TFF 157	Y..280M-4 AM280 AD7
54.0	16000	27.60	60200	1.10	TFA 157 TFAF 157 TF 157 TFF 157	Y..280M-4 AM280 AD8
67.0	12800	22.16	60600	1.40		
75.0	11400	19.77	60500	1.50		
88.0	9780	16.85	59900	1.85		
106	8100	13.96	58900	2.10		
124	6920	11.92	57800	2.30		

n ₂ [1/min]	M ₂ [Nm]	i	Fr [N]	K	Frame size	Input Configuration
P ₁ =90.0kw						
58.0	14600	25.30	29600	0.80	TFA 127 TFAF 127 TF 127 TFF 127	Y..280M-4 AM280 AD7
90.0	9490	16.36	39900	1.15	TFA 127 TFAF 127 TF 127 TFF 127	Y..280M-4 AM280 AD8
102	8450	14.55	41100	1.30		
118	7280	12.54	41800	1.35		
145	5910	10.19	41400	1.60		
167	5140	8.86	40100	1.35		
188	4570	7.88	39700	1.30		
218	3940	6.80	39000	1.75		
268	3200	5.52	37900	1.85		
316	2710	4.68	36900	2.20		
P ₁ =110kw						
54.0	19500	27.60	53100	0.90	TFA 157 TFAF 157 TF 157 TFF 157	Y..315S-4 - AD8
67.0	15600	22.16	54900	1.15		
75.0	14000	19.77	55400	1.20		
88.0	11900	16.85	55600	1.50		
106	9890	13.96	55300	1.70		
124	8440	11.92	54700	1.90		
P ₁ =132kw						
67.0	18800	22.16	48700	0.95	TFA 157 TFAF 157 TF 157 TFF 157	Y..315M-4 - AD8
75.0	16700	19.77	49800	1.00		
88.0	14300	16.85	50900	1.25		
106	11800	13.96	51400	1.45		
125	10100	11.92	51400	1.60		

3. 8 TF../TRF..性能参数 / TF../TRF.. Performance Parameters

n_2 [1/min]	i	Fr [N]	Frame size		Motor
$M_{2max}=130Nm$					
0.15	8972	4500			
0.18	7736	4500			
0.19	7211	4500			
0.22	6303	4500			
0.25	5435	4500	TFA	27 TRF17	Y..63M ₁₋₄
0.28	4855	4500	TFAF	27 TRF17	Y..63M ₁₋₄
0.33	4243	4500	TF	27 TRF17	Y..63M ₁₋₄
0.37	3715	4500	TFF	27 TRF17	Y..63M ₁₋₄
0.43	3247	4500			
0.48	2878	4500			
0.55	2515	4500			
0.62	2217	4500			
0.73	1898	4500			
0.84	1645	4500			
0.90	1525	4500			
1.00	1322	4500			
1.20	1146	4500	TFA	27 TRF17	Y..63M ₁₋₄
1.40	1013	4500	TFAF	27 TRF17	Y..63M ₁₋₄
1.60	890	4500	TF	27 TRF17	Y..63M ₁₋₄
1.80	778	4500	TFF	27 TRF17	Y..63M ₁₋₄
2.00	682	4500			
2.30	602	4500			
2.60	520	4500			
3.00	458	4500			
3.50	397	4500			
4.00	342	4500	TFA	27 TRF17	Y..63M ₁₋₄
4.60	302	4500	TFAF	27 TRF17	Y..63M ₁₋₄
5.20	266	4500	TF	27 TRF17	Y..63M ₁₋₄
5.80	236	4500	TFF	27 TRF17	Y..63M ₁₋₄
6.50	211	4500			
7.40	186	4500			
9.30	142	4500	TFA	27 TRF17	Y..63M ₂₋₄
11.0	124	4500	TFAF	27 TRF17	Y..63M ₂₋₄
			TF	27 TRF17	Y..63M ₂₋₄
			TFF	27 TRF17	Y..63M ₂₋₄
12.0	109	4500	TFA	27 TRF17	Y..71M ₁₋₄
14.0	96	4500	TFAF	27 TRF17	Y..71M ₁₋₄
			TF	27 TRF17	Y..71M ₁₋₄
			TFF	27 TRF17	Y..71M ₁₋₄
$M_{2max}=200Nm$					
0.17	8193	4290			
0.20	7064	4290			
0.21	6585	4290			
0.24	5756	4290			
0.28	4963	4290	TFA	37 TRF17	Y..63M ₁₋₄
0.31	4434	4290	TFAF	37 TRF17	Y..63M ₁₋₄
0.36	3875	4290	TF	37 TRF17	Y..63M ₁₋₄
0.41	3392	4290	TFF	37 TRF17	Y..63M ₁₋₄
0.47	2965	4290			
0.53	2587	4290			
0.60	2284	4290			
0.69	1997	4290			

n_2 [1/min]	i	Fr [N]	Frame size		Motor
M _{2max} =200Nm					
0.72	1929	4290			
0.82	1679	4290			
0.89	1550	4290			
1.00	1356	4290			
1.20	1180	4290			
1.30	1044	4290	TFA	37 TRF17	Y..63M ₁₋₄
1.50	914	4290	TFAF	37 TRF17	Y..63M ₁₋₄
1.70	808	4290	TF	37 TRF17	Y..63M ₁₋₄
2.00	698	4290	TFF	37 TRF17	Y..63M ₁₋₄
2.20	616	4290			
2.50	544	4290			
3.00	466	4290			
3.40	411	4290			
3.80	364	4290			
			TFA	37 TRF17	Y..63M ₁₋₄
4.20	326	4290	TFAF	37 TRF17	Y..63M ₁₋₄
4.80	285	4290	TF	37 TRF17	Y..63M ₁₋₄
			TFF	37 TRF17	Y..63M ₁₋₄
			TFA	37 TRF17	Y..63M ₂₋₄
5.30	250	4290	TFAF	37 TRF17	Y..63M ₂₋₄
6.00	219	4290	TF	37 TRF17	Y..63M ₂₋₄
7.10	186	4290	TFF	37 TRF17	Y..63M ₂₋₄
			TFA	37 TRF17	Y..71M ₁₋₄
7.80	167	4290	TFAF	37 TRF17	Y..71M ₁₋₄
8.90	145	4290	TF	37 TRF17	Y..71M ₁₋₄
10.0	129	4290	TFF	37 TRF17	Y..71M ₁₋₄
M _{2max} =400Nm					
0.11	12251	5920			
0.13	10619	5920			
0.14	9846	5920			
0.16	8534	5920			
0.19	7460	5920			
0.21	6536	5920	TFA	47 TRF17	Y..63M ₁₋₄
0.24	5746	5920	TFAF	47 TRF17	Y..63M ₁₋₄
0.27	5022	5920	TF	47 TRF17	Y..63M ₁₋₄
0.31	4401	5920	TFF	47 TRF17	Y..63M ₁₋₄
0.36	3883	5920			
0.40	3443	5920			
0.46	2976	5920			
0.52	2629	5920			
0.55	2519	5920			
0.58	2394	5920			
0.64	2172	5920			
0.68	2025	5920			
0.78	1770	5920	TFA	47 TRF17	Y..63M ₁₋₄
0.88	1576	5920	TFAF	47 TRF17	Y..63M ₁₋₄
1.00	1363	5920	TF	47 TRF17	Y..63M ₁₋₄
1.20	1192	5920	TFF	47 TRF17	Y..63M ₁₋₄
1.30	1061	5920			
1.50	931	5920			
1.70	822	5920			
2.00	706	5920			

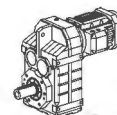


n_2 [1/min]	i	Fr [N]	Frame size		Motor
$M_{2max}=400Nm$					
2.20	619	5920	TFA	47 TRF17	Y..63M ₁₋₄
			TFAF	47 TRF17	Y..63M ₁₋₄
			TF	47 TRF17	Y..63M ₁₋₄
			TFF	47 TRF17	Y..63M ₁₋₄
2.50	524	5920	TFA	47 TRF17	Y..63M ₂₋₄
2.70	489	5920	TFAF	47 TRF17	Y..63M ₂₋₄
3.10	427	5920	TF	47 TRF17	Y..63M ₂₋₄
3.50	381	5920	TFF	47 TRF17	Y..63M ₂₋₄
3.90	334	5920	TFA	47 TRF17	Y..71M ₁₋₄
4.40	295	5920	TFAF	47 TRF17	Y..71M ₁₋₄
5.10	253	5920	TF	47 TRF17	Y..71M ₁₋₄
			TFF	47 TRF17	Y..71M ₁₋₄
6.40	217	5920	TFA	47 TRF17	Y..71M ₂₋₄
7.30	190	5920	TFAF	47 TRF17	Y..71M ₂₋₄
7.80	178	5920	TF	47 TRF17	Y..71M ₂₋₄
			TFF	47 TRF17	Y..71M ₂₋₄
9.20	149	5920	TFA	47 TRF17	Y..80M ₁₋₄
11.0	131	5920	TFAF	47 TRF17	Y..80M ₁₋₄
			TF	47 TRF17	Y..80M ₁₋₄
			TFF	47 TRF17	Y..80M ₁₋₄
$M_{2max}=600Nm$					
0.09	14832	9200	TFA TFAF TF TFF	57 TRF37	Y..63M ₁₋₄
0.10	13604	9200			
0.11	12602	9200			
0.12	11252	9200			
0.14	9986	9200			
0.16	8787	9200			
0.17	7908	9200			
0.20	6913	9200			
0.23	6030	9200			
0.26	5289	9200			
0.30	4654	9200			
0.34	4060	9200			
0.39	3564	9200			
0.44	3161	9200			
0.48	2854	9200			
0.54	2576	9200			
0.61	2266	9200			
0.69	2012	9200			
0.77	1791	9200			
0.85	1617	9200			
0.97	1422	9200			
1.10	1243	9200			
1.30	1066	9200			
1.40	949	9200			
1.60	856	9200			
1.80	749	9200	TFA	57 TRF37	Y..63M ₂₋₄
2.00	658	9200	TFAF	57 TRF37	Y..63M ₂₋₄
2.40	549	9200	TF	57 TRF37	Y..63M ₂₋₄
			TFF	57 TRF37	Y..63M ₂₋₄

n_2 [1/min]	i	Fr [N]	Frame size		Motor
$M_{2max}=600Nm$					
2.70	483	9200	TFA	57 TRF37	Y..71M ₁₋₄
			TF	57 TRF37	Y..71M ₁₋₄
			TF	57 TRF37	Y..71M ₁₋₄
			TFF	57 TRF37	Y..71M ₁₋₄
3.00	426	9200	TFA	57 TRF37	Y..71M ₁₋₄
			TF	57 TRF37	Y..71M ₁₋₄
			TF	57 TRF37	Y..71M ₁₋₄
			TFF	57 TRF37	Y..71M ₁₋₄
3.40	382	9200	TFA	57 TRF37	Y..71M ₁₋₄
			TF	57 TRF37	Y..71M ₁₋₄
			TF	57 TRF37	Y..71M ₁₋₄
			TFF	57 TRF37	Y..71M ₁₋₄
4.20	330	9200	TFA	57 TRF37	Y..71M ₂₋₄
			TF	57 TRF37	Y..71M ₂₋₄
			TF	57 TRF37	Y..71M ₂₋₄
			TFF	57 TRF37	Y..71M ₂₋₄
4.60	298	9200	TFA	57 TRF37	Y..71M ₂₋₄
			TF	57 TRF37	Y..71M ₂₋₄
			TF	57 TRF37	Y..71M ₂₋₄
			TFF	57 TRF37	Y..71M ₂₋₄
5.30	262	9200	TFA	57 TRF37	Y..71M ₂₋₄
			TF	57 TRF37	Y..71M ₂₋₄
			TF	57 TRF37	Y..71M ₂₋₄
			TFF	57 TRF37	Y..71M ₂₋₄
6.10	226	9200	TFA	57 TRF37	Y..80M ₁₋₄
			TF	57 TRF37	Y..80M ₁₋₄
			TF	57 TRF37	Y..80M ₁₋₄
			TFF	57 TRF37	Y..80M ₁₋₄
6.90	200	9200	TFA	57 TRF37	Y..80M ₁₋₄
			TF	57 TRF37	Y..80M ₁₋₄
			TF	57 TRF37	Y..80M ₁₋₄
			TFF	57 TRF37	Y..80M ₁₋₄
8.40	170	9200	TFA	57 TRF37	Y..80M ₂₋₄
			TF	57 TRF37	Y..80M ₂₋₄
			TF	57 TRF37	Y..80M ₂₋₄
			TFF	57 TRF37	Y..80M ₂₋₄
9.40	152	9200	TFA	57 TRF37	Y..80M ₂₋₄
			TF	57 TRF37	Y..80M ₂₋₄
			TF	57 TRF37	Y..80M ₂₋₄
			TFF	57 TRF37	Y..80M ₂₋₄
11.0	134	9200	TFA	57 TRF37	Y..80M ₂₋₄
			TF	57 TRF37	Y..80M ₂₋₄
			TF	57 TRF37	Y..80M ₂₋₄
			TFF	57 TRF37	Y..80M ₂₋₄
$M_{2max}=820Nm$					
0.07	19199	10300	TFA TF TF TFF	67 TRF37	Y..63M ₁₋₄
0.08	17610	10300			
0.09	14992	10300			
0.11	12926	10300			
0.12	11480	10300			
0.14	10220	10300			
0.15	8933	10300			
0.17	7940	10300			
0.19	7096	10300			
0.23	6080	10300			
0.26	5341	10300			
0.29	4690	10300			
0.34	4091	10300			
0.39	3574	10300			
0.44	3133	10300			
0.50	2756	10300			
0.57	2439	10300			
0.41	3377	10300	TFA TF TF TFF	67 TRF37	Y..63M ₁₋₄
0.47	2912	10300			
0.51	2714	10300			
0.58	2372	10300			
0.65	2126	10300			
0.85	1631	10300			
0.96	1437	10300			
1.10	1256	10300			
1.20	1126	10300			
1.30	984	10300			
1.50	864	10300			
1.20	1126	10300	TFA	67 TRF37	Y..63M ₂₋₄
1.30	984	10300	TF	67 TRF37	Y..63M ₂₋₄
1.50	864	10300	TF	67 TRF37	Y..63M ₂₋₄
			TFF	67 TRF37	Y..63M ₂₋₄

n_2 [1/min]	i	Fr [N]	Frame size		Motor
$M_{2max}=820Nm$					
1.80	722	10300	TFA	67 TRF37	Y..71M ₁₋₄
2.00	634	10300	TFAF	67 TRF37	Y..71M ₁₋₄
2.40	539	10300	TF	67 TRF37	Y..71M ₁₋₄
			TFF	67 TRF37	Y..71M ₁₋₄
0.73	1884	10300	TFA	67 TRF37	Y..63M ₁₋₄
			TFAF	67 TRF37	Y..63M ₁₋₄
			TF	67 TRF37	Y..63M ₁₋₄
			TFF	67 TRF37	Y..63M ₁₋₄
2.60	500	10300	TFA	67 TRF37	Y..71M ₁₋₄
			TFAF	67 TRF37	Y..71M ₁₋₄
			TF	67 TRF37	Y..71M ₁₋₄
			TFF	67 TRF37	Y..71M ₁₋₄
3.00	454	10300	TFA	67 TRF37	Y..71M ₂₋₄
			TFAF	67 TRF37	Y..71M ₂₋₄
			TF	67 TRF37	Y..71M ₂₋₄
			TFF	67 TRF37	Y..71M ₂₋₄
3.50	392	10300	TFA	67 TRF37	Y..71M ₂₋₄
			TFAF	67 TRF37	Y..71M ₂₋₄
			TF	67 TRF37	Y..71M ₂₋₄
			TFF	67 TRF37	Y..71M ₂₋₄
4.10	333	10300	TFA	67 TRF37	Y..80M ₁₋₄
4.60	297	10300	TFAF	67 TRF37	Y..80M ₁₋₄
5.30	261	10300	TF	67 TRF37	Y..80M ₁₋₄
5.80	238	10300	TFF	67 TRF37	Y..80M ₁₋₄
7.20	200	10300	TFA	67 TRF37	Y..80M ₂₋₄
			TFAF	67 TRF37	Y..80M ₂₋₄
			TF	67 TRF37	Y..80M ₂₋₄
			TFF	67 TRF37	Y..80M ₂₋₄
$M_{2max}=1500Nm$					
0.07	19180	15700			
0.08	17593	15700			
0.09	16128	15700			
0.09	14978	15700			
0.10	13731	15700			
0.11	12049	15700	TFA	77 TRF37	Y..63M ₁₋₄
0.13	11035	15700	TFAF	77 TRF37	Y..63M ₁₋₄
0.14	9683	15700	TF	77 TRF37	Y..63M ₁₋₄
0.16	8464	15700	TFF	77 TRF37	Y..63M ₁₋₄
0.18	7520	15700			
0.21	6580	15700			
0.24	5808	15700			
0.27	5026	15700			
0.31	4435	15700			
0.36	3832	15700	TFA	77 TRF37	Y..63M ₁₋₄
0.46	2978	15700	TFAF	77 TRF37	Y..63M ₁₋₄
0.53	2613	15700	TF	77 TRF37	Y..63M ₁₋₄
0.60	2284	15700	TFF	77 TRF37	Y..63M ₁₋₄
0.65	2029	15700	TFA	77 TRF37	Y..63M ₂₋₄
0.76	1728	15700	TFAF	77 TRF37	Y..63M ₂₋₄
0.86	1544	15700	TF	77 TRF37	Y..63M ₂₋₄
0.98	1354	15700	TFF	77 TRF37	Y..63M ₂₋₄
1.10	1200	15700	TFA	77 TRF37	Y..71M ₁₋₄
			TFAF	77 TRF37	Y..71M ₁₋₄
			TF	77 TRF37	Y..71M ₁₋₄
			TFF	77 TRF37	Y..71M ₁₋₄
1.20	1053	15700			

n_2 [1/min]	i	Fr [N]	Frame size		Motor
M _{2max} =1500Nm					
1.50	910	15700	TFA	77 TRF37	Y..71M ₂₋₄
1.70	810	15700	TFAF	77 TRF37	Y..71M ₂₋₄
1.90	710	15700	TF	77 TRF37	Y..71M ₂₋₄
			TFF	77 TRF37	Y..71M ₂₋₄
2.20	615	15700	TFA	77 TRF37	Y..80M ₁₋₄
2.60	538	15700	TFAF	77 TRF37	Y..80M ₁₋₄
2.90	480	15700	TF	77 TRF37	Y..80M ₁₋₄
			TFF	77 TRF37	Y..80M ₁₋₄
3.50	413	15700	TFA	77 TRF37	Y..80M ₂₋₄
3.90	367	15700	TFAF	77 TRF37	Y..80M ₂₋₄
			TF	77 TRF37	Y..80M ₂₋₄
			TFF	77 TRF37	Y..80M ₂₋₄
4.40	323	15700	TFA	77 TRF37	Y..90S-4
			TFAF	77 TRF37	Y..90S-4
			TF	77 TRF37	Y..90S-4
			TFF	77 TRF37	Y..90S-4
M _{2max} =3000Nm					
0.06	23042	19800			
0.07	20462	19800			
0.08	18238	19800			
0.09	15877	19800			
0.10	14099	19800			
0.11	12205	19800	TFA	87 TRF57	Y..63M ₁₋₄
0.13	10433	19800	TFAF	87 TRF57	Y..63M ₁₋₄
0.15	9381	19800	TF	87 TRF57	Y..63M ₁₋₄
0.17	8142	19800	TFF	87 TRF57	Y..63M ₁₋₄
0.19	7100	19800			
0.22	6273	19800			
0.25	5510	19800			
0.28	4954	19800			
0.31	4245	19800	TFA	87 TRF57	Y..63M ₂₋₄
0.35	3721	19800	TFAF	87 TRF57	Y..63M ₂₋₄
0.41	3244	19800	TF	87 TRF57	Y..63M ₂₋₄
0.46	2881	19800	TFF	87 TRF57	Y..63M ₂₋₄
0.50	2576	19800	TFA	87 TRF57	Y..71M ₁₋₄
0.59	2199	19800	TFAF	87 TRF57	Y..71M ₁₋₄
0.67	1930	19800	TF	87 TRF57	Y..71M ₁₋₄
			TFF	87 TRF57	Y..71M ₁₋₄
0.81	1709	19800	TFA	87 TRF57	Y..71M ₂₋₄
0.92	1493	19800	TFAF	87 TRF57	Y..71M ₂₋₄
			TF	87 TRF57	Y..71M ₂₋₄
			TFF	87 TRF57	Y..71M ₂₋₄
1.10	1300	19800	TFA	87 TRF57	Y..80M ₁₋₄
1.20	1148	19800	TFAF	87 TRF57	Y..80M ₁₋₄
1.40	1010	19800	TF	87 TRF57	Y..80M ₁₋₄
1.60	887	19800	TFF	87 TRF57	Y..80M ₁₋₄
1.80	780	19800	TFA	87 TRF57	Y..80M ₂₋₄
2.10	674	19800	TFAF	87 TRF57	Y..80M ₂₋₄
			TF	87 TRF57	Y..80M ₂₋₄
			TFF	87 TRF57	Y..80M ₂₋₄

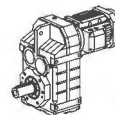


n ₂ [1/min]	i	Fr [N]	Frame size		Motor
M _{2max} =3000Nm					
2.30	609	19800	TFA	87 TRF57	Y..90S-4
2.80	515	19800	TF	87 TRF57	Y..90S-4
3.10	452	19800	TF	87 TRF57	Y..90S-4
			TF	87 TRF57	Y..90S-4
4.10	345	19800	TFA	87 TRF57	Y..90L-4
			TF	87 TRF57	Y..90L-4
			TF	87 TRF57	Y..90L-4
			TF	87 TRF57	Y..90L-4
M _{2max} =4300Nm					
0.07	20183	29900	TFA	97 TRF57	Y..63M ₁ -4
0.08	18119	29900			
0.09	15472	29900			
0.10	14022	29900			
0.11	12324	29900			
0.13	10838	29900			
0.14	9576	29900			
0.17	8318	29900			
0.19	7328	29900			
0.20	6469	29900	TF	97 TRF57	Y..63M ₂ -4
			TF	97 TRF57	Y..63M ₂ -4
			TF	97 TRF57	Y..63M ₂ -4
			TF	97 TRF57	Y..63M ₂ -4
			TF	97 TRF57	Y..63M ₂ -4
0.39	3352	29900	TF	97 TRF57	Y..71M ₁ -4
			TF	97 TRF57	Y..71M ₁ -4
			TF	97 TRF57	Y..71M ₁ -4
0.54	2553	29900	TF	97 TRF57	Y..71M ₂ -4
			TF	97 TRF57	Y..71M ₂ -4
			TF	97 TRF57	Y..71M ₂ -4
0.80	1722	29900	TF	97 TRF57	Y..80M ₁ -4
			TF	97 TRF57	Y..80M ₁ -4
			TF	97 TRF57	Y..80M ₁ -4
1.20	1171	29900	TF	97 TRF57	Y..80M ₂ -4
			TF	97 TRF57	Y..80M ₂ -4
			TF	97 TRF57	Y..80M ₂ -4
1.60	898	29900	TF	97 TRF57	Y..90S-4
			TF	97 TRF57	Y..90S-4
			TF	97 TRF57	Y..90S-4
2.40	605	29900	TF	97 TRF57	Y..90L-4
			TF	97 TRF57	Y..90L-4
			TF	97 TRF57	Y..90L-4

n_2 [1/min]	i	Fr [N]	Frame size		Motor
M_{2max}=600Nm					
3.50	406	29900	TFA	97 TRF57	Y..100L ₁ -4
3.90	363	29900	TF	97 TRF57	Y..100L ₁ -4
			TF	97 TRF57	Y..100L ₁ -4
			TFF	97 TRF57	Y..100L ₁ -4
5.10	285	29900	TFA	97 TRF57	Y..100L ₂ -4
6.00	245	29900	TF	97 TRF57	Y..100L ₂ -4
			TF	97 TRF57	Y..100L ₂ -4
			TFF	97 TRF57	Y..100L ₂ -4
M_{2max}=7680Nm					
0.05	25375	49800			
0.06	21652	49800	TFA	107 TRF77	Y..63M ₁ -4
0.07	18933	49800	TF	107 TRF77	Y..63M ₁ -4
0.08	16888	49800	TF	107 TRF77	Y..63M ₁ -4
0.09	14767	49800	TFF	107 TRF77	Y..63M ₁ -4
0.12	11348	49800	TFA	107 TRF77	Y..63M ₂ -4
0.13	10039	49800	TF	107 TRF77	Y..63M ₂ -4
0.15	8548	49800	TF	107 TRF77	Y..63M ₂ -4
0.17	7674	49800	TFF	107 TRF77	Y..63M ₂ -4
0.19	6767	9800	TFA	107 TRF77	Y..71M ₁ -4
0.22	5954	49800	TF	107 TRF77	Y..71M ₁ -4
0.25	5223	49800	TF	107 TRF77	Y..71M ₁ -4
			TFF	107 TRF77	Y..71M ₁ -4
0.30	4567	49800	TFA	107 TRF77	Y..71M ₂ -4
0.39	3521	49800	TF	107 TRF77	Y..71M ₂ -4
			TF	107 TRF77	Y..71M ₂ -4
			TFF	107 TRF77	Y..71M ₂ -4
0.45	3037	49800	TFA	107 TRF77	Y..80M ₁ -4
0.50	2756	49800	TF	107 TRF77	Y..80M ₁ -4
0.58	2369	49800	TF	107 TRF77	Y..80M ₁ -4
			TFF	107 TRF77	Y..80M ₁ -4
0.69	2068	49800	TFA	107 TRF77	Y..80M ₂ -4
0.79	1826	49800	TF	107 TRF77	Y..80M ₂ -4
			TF	107 TRF77	Y..80M ₂ -4
			TFF	107 TRF77	Y..80M ₂ -4
0.89	1597	49800	TFA	107 TRF77	Y..90S-4
1.00	1401	49800	TF	107 TRF77	Y..90S-4
1.10	1243	49800	TF	107 TRF77	Y..90S-4
			TFF	107 TRF77	Y..90S-4
1.30	1087	49800	TFA	107 TRF77	Y..90L-4
1.50	950	49800	TF	107 TRF77	Y..90L-4
			TF	107 TRF77	Y..90L-4
			TFF	107 TRF77	Y..90L-4
1.70	834	49800	TFA	107 TRF77	Y..100L ₁ -4
1.90	736	49800	TF	107 TRF77	Y..100L ₁ -4
2.20	640	49800	TF	107 TRF77	Y..100L ₁ -4
			TFF	107 TRF77	Y..100L ₁ -4

n_2 [1/min]	i	Fr [N]	Frame size	Motor
$M_{2max}=7680Nm$				
2.60	560	49800	TFA 107 TRF77	Y..100L ₂₋₄
3.00	489	49800	TFAF 107 TRF77	Y..100L ₂₋₄
3.30	436	49800	TF 107 TRF77	Y..100L ₂₋₄
			TFF 107 TRF77	Y..100L ₂₋₄
4.00	370	49800	TFA 107 TRF77	Y..112M-4
4.40	333	49800	TFAF 107 TRF77	Y..112M-4
			TF 107 TRF77	Y..112M-4
			TFF 107 TRF77	Y..112M-4
$M_{2max}=12000Nm$				
0.06	24478	90000	TFA 127 TRF77	Y..63M ₁₋₄
0.06	22323	90000	TFAF 127 TRF77	Y..63M ₁₋₄
			TF 127 TRF77	Y..63M ₁₋₄
			TFF 127 TRF77	Y..63M ₁₋₄
0.07	19048	90000	TFA 127 TRF77	Y..63M ₂₋₄
0.08	16656	90000	TFAF 127 TRF77	Y..63M ₂₋₄
0.09	14722	90000	TF 127 TRF77	Y..63M ₂₋₄
0.10	12912	90000	TFF 127 TRF77	Y..63M ₂₋₄
0.11	11656	90000		
0.13	10191	90000	TFA 127 TRF77	Y..71M ₁₋₄
0.15	8831	90000	TFAF 127 TRF77	Y..71M ₁₋₄
			TF 127 TRF77	Y..71M ₁₋₄
			TFF 127 TRF77	Y..71M ₁₋₄
0.18	7643	90000	TFA 127 TRF77	Y..71M ₂₋₄
0.21	6715	90000	TFAF 127 TRF77	Y..71M ₂₋₄
0.23	5925	90000	TF 127 TRF77	Y..71M ₂₋₄
			TFF 127 TRF77	Y..71M ₂₋₄
0.27	5153	90000	TFA 127 TRF77	Y..80M ₁₋₄
0.30	4533	90000	TFAF 127 TRF77	Y..80M ₁₋₄
0.35	3926	90000	TF 127 TRF77	Y..80M ₁₋₄
			TFF 127 TRF77	Y..80M ₁₋₄
0.42	3454	90000	TFA 127 TRF77	Y..80M ₂₋₄
0.47	3031	90000	TFAF 127 TRF77	Y..80M ₂₋₄
0.54	2672	90000	TF 127 TRF77	Y..80M ₂₋₄
			TFF 127 TRF77	Y..80M ₂₋₄
0.60	2357	90000	TFA 127 TRF77	Y..90S-4
0.70	2038	90000	TFAF 127 TRF77	Y..90S-4
0.80	1784	90000	TF 127 TRF77	Y..90S-4
			TFF 127 TRF77	Y..90S-4
0.89	1606	90000	TFA 127 TRF77	Y..90L-4
1.00	1390	90000	TFAF 127 TRF77	Y..90L-4
			TF 127 TRF77	Y..90L-4
			TFF 127 TRF77	Y..90L-4
1.20	1220	90000	TFA 127 TRF77	Y..100L ₁₋₄
1.30	1077	90000	TFAF 127 TRF77	Y..100L ₁₋₄
1.50	930	90000	TF 127 TRF77	Y..100L ₁₋₄
			TFF 127 TRF77	Y..100L ₁₋₄

n_2 [1/min]	i	Fr [N]	Frame size	Motor
$M_{2max}=12000Nm$				
1.80	820	90000	TFA 127 TRF77	Y..100L ₂₋₄
2.00	727	90000	TFAF 127 TRF77	Y..100L ₂₋₄
			TF 127 TRF77	Y..100L ₂₋₄
			TFF 127 TRF77	Y..100L ₂₋₄
2.20	648	90000	TFA 127 TRF77	Y..112M-4
2.70	549	90000	TFAF 127 TRF77	Y..112M-4
3.00	495	90000	TF 127 TRF77	Y..112M-4
			TFF 127 TRF77	Y..112M-4
3.40	428	90000	TFA 127 TRF77	Y..132S-4
3.90	376	90000	TFAF 127 TRF77	Y..132S-4
			TF 127 TRF77	Y..132S-4
			TFF 127 TRF77	Y..132S-4
3.00	483	90000	TFA 127 TRF77	Y..132S-4
3.50	418	90000	TFAF 127 TRF77	Y..132S-4
3.90	374	90000	TF 127 TRF77	Y..132S-4
			TFF 127 TRF77	Y..132S-4
4.70	312	90000	TFA 127 TRF77	Y..132M-4
5.00	293	90000	TFAF 127 TRF77	Y..132M-4
			TF 127 TRF77	Y..132M-4
			TFF 127 TRF77	Y..132M-4
7.50	198	90000	TFA 127 TRF77	Y..160M-4
			TFAF 127 TRF77	Y..160M-4
			TF 127 TRF77	Y..160M-4
			TFF 127 TRF77	Y..160M-4
$M_{2max}=18000Nm$				
0.04	31434	100300		
0.05	26173	100300		
0.06	23464	100300	TFA 157 TRF97	Y..80M ₁₋₄
0.07	20212	100300	TFAF 157 TRF97	Y..80M ₁₋₄
0.08	17984	100300	TF 157 TRF97	Y..80M ₁₋₄
0.08	16358	100300	TFF 157 TRF97	Y..80M ₁₋₄
0.10	13751	100300		
0.11	12235	100300		
0.14	10033	100300	TFA 157 TRF97	Y..80M ₂₋₄
0.16	9021	100300	TFAF 157 TRF97	Y..80M ₂₋₄
0.18	8026	100300	TF 157 TRF97	Y..80M ₂₋₄
			TFF 157 TRF97	Y..80M ₂₋₄
0.20	7075	100300	TFA 157 TRF97	Y..80M ₁₋₄
0.22	6295	100300	TFAF 157 TRF97	Y..80M ₁₋₄
			TF 157 TRF97	Y..80M ₁₋₄
			TFF 157 TRF97	Y..80M ₁₋₄
0.27	5404	100300	TFA 157 TRF97	Y..80M ₂₋₄
0.30	4831	100300	TFAF 157 TRF97	Y..80M ₂₋₄
			TF 157 TRF97	Y..80M ₂₋₄
			TFF 157 TRF97	Y..80M ₂₋₄
0.34	4130	100300	TFA 157 TRF97	Y..90S-4
			TFAF 157 TRF97	Y..90S-4
			TF 157 TRF97	Y..90S-4
			TFF 157 TRF97	Y..90S-4

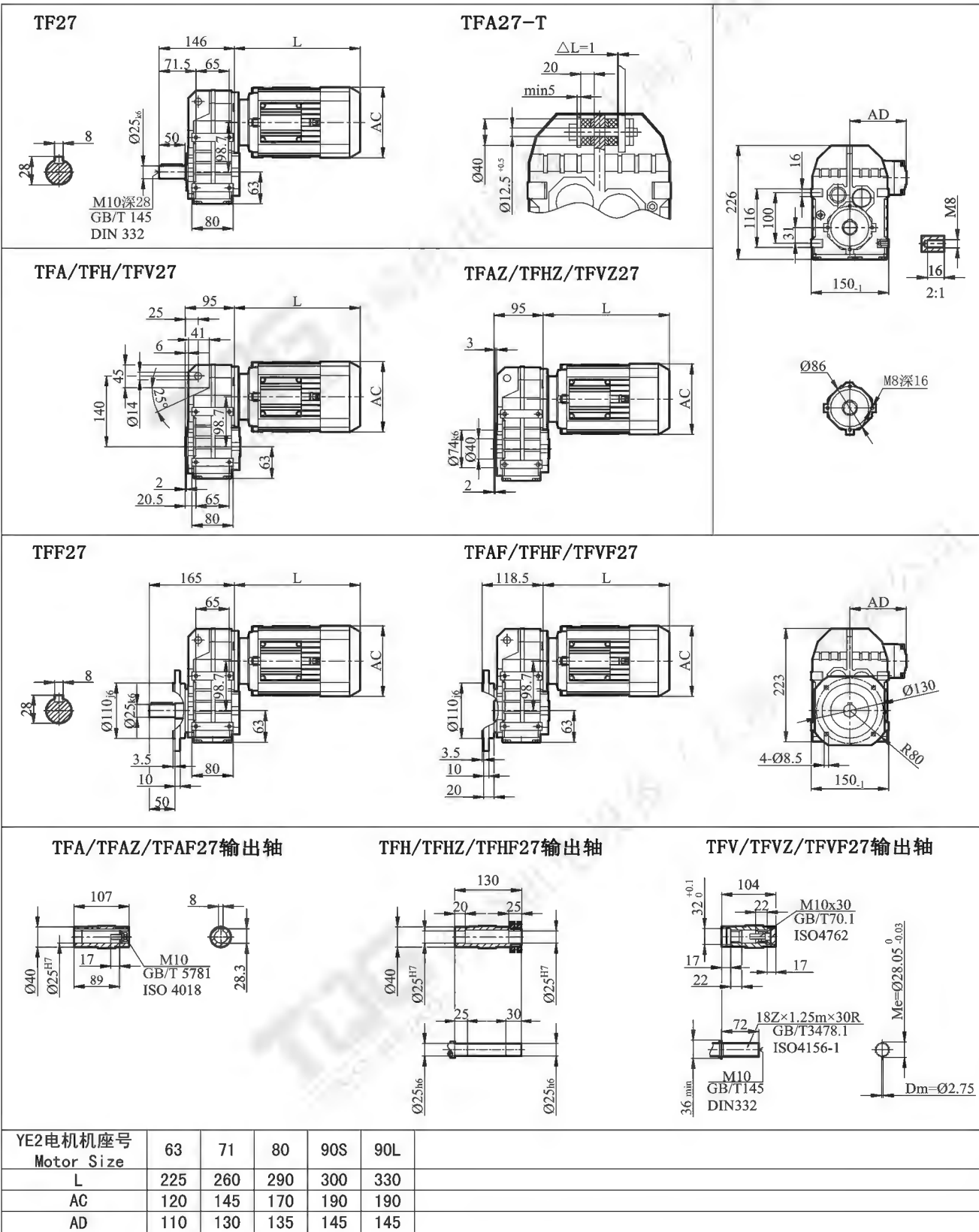


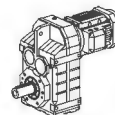
n_2 [1/min]	i	Fr [N]	Frame size	Motor
$M_{2max}=18000Nm$				
0.40	3607	100300	TFA 157 TRF97	Y..100L ₁ -4
0.44	3210	100300	TF 157 TRF97	Y..100L ₁ -4
			TFF 157 TRF97	Y..100L ₁ -4
0.51	2780	100300	TFA 157 TRF97	Y..90L-4
			TF 157 TRF97	Y..90L-4
			TFF 157 TRF97	Y..90L-4
0.99	1441	100300	TFA 157 TRF97	Y..100L ₁ -4
			TF 157 TRF97	Y..100L ₁ -4
			TFF 157 TRF97	Y..100L ₁ -4
0.59	2427	100300	TFA 157 TRF97	Y..90L-4
0.65	2185	100300	TF 157 TRF97	Y..90L-4
			TFF 157 TRF97	Y..90L-4
0.73	1944	100300	TFA 157 TRF97	Y..100L ₁ -4
0.85	1674	100300	TF 157 TRF97	Y..100L ₁ -4
			TFF 157 TRF97	Y..100L ₁ -4
1.10	1308	100300	TFA 157 TRF97	Y..100L ₂ -4
1.20	1169	100300	TF 157 TRF97	Y..100L ₂ -4
			TFF 157 TRF97	Y..100L ₂ -4

n_2 [1/min]	i	Fr [N]	Frame size	Motor
$M_{2max}=18000Nm$				
1.50	953	100300	TFA 157 TRF97	Y..112M-4
1.70	845	100300	TF 157 TRF97	Y..112M-4
1.90	764	100300	TFF 157 TRF97	Y..112M-4
2.10	680	100300	TFA 157 TRF97	Y..132S-4
2.50	576	100300	TF 157 TRF97	Y..132S-4
			TFF 157 TRF97	Y..132S-4
2.90	503	100300	TFA 157 TRF97	Y..132M-4
3.30	446	100300	TF 157 TRF97	Y..132M-4
			TFF 157 TRF97	Y..132M-4
4.90	302	100300	TFA 157 TRF97	Y..160M-4
5.40	273	100300	TF 157 TRF97	Y..160M-4
			TFF 157 TRF97	Y..160M-4
6.30	232	100300	TFA 157 TRF97	Y..160L-4
7.20	202	100300	TF 157 TRF97	Y..160L-4
			TFF 157 TRF97	Y..160L-4
7.50	197	100300	TFA 157 TRF97	Y..180M-4
			TF 157 TRF97	Y..180M-4
			TFF 157 TRF97	Y..180M-4

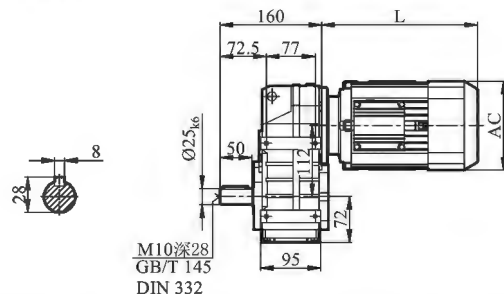
TF

3.9 外形尺寸 / Dimensions

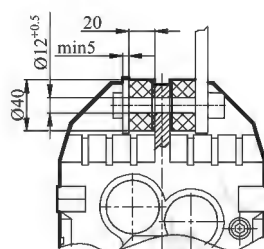




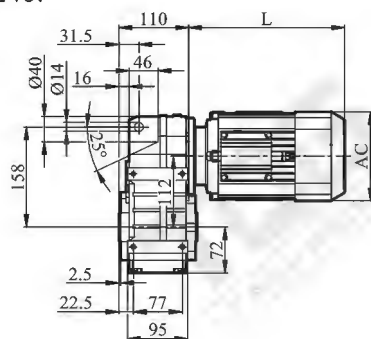
TF37



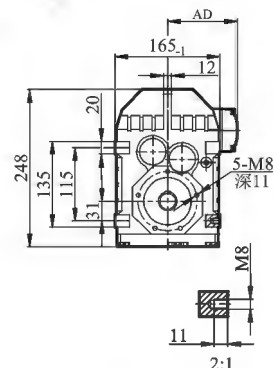
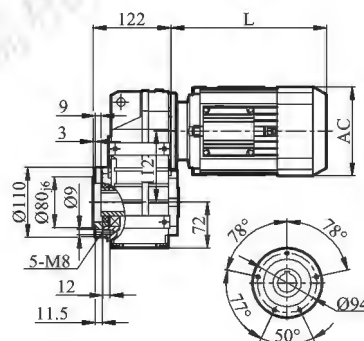
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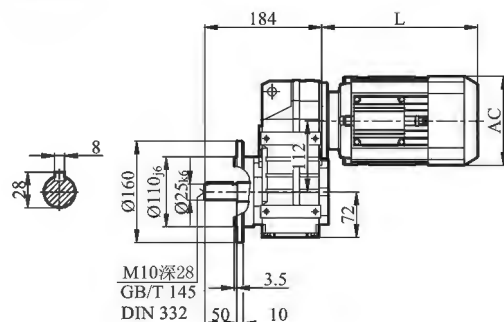
TFA/TFH/TFV37



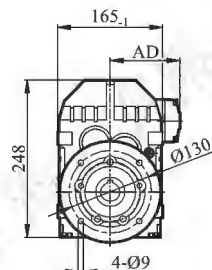
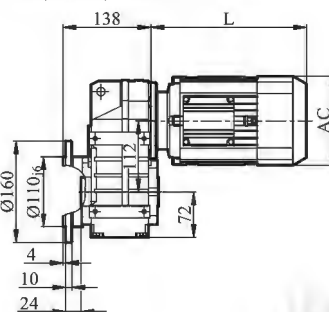
TFAZ/TFHZ/TFVZ37



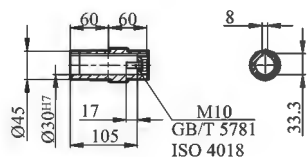
TFF37



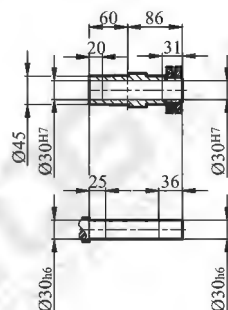
TFAF/TFHF/TFVF37



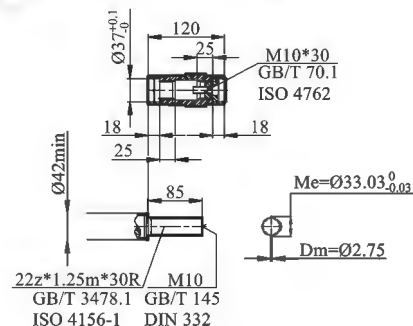
TFA/TFAZ/TFAF37输出轴



TFH/TFHZ/TFHF37输出轴



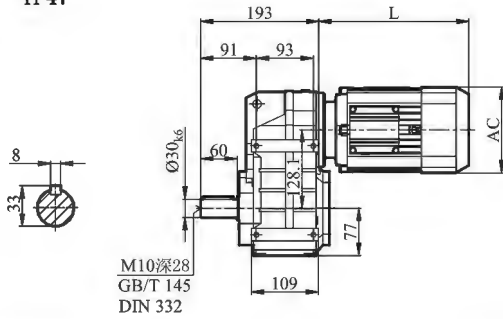
TFV/TFVZ/TFVF37输出轴



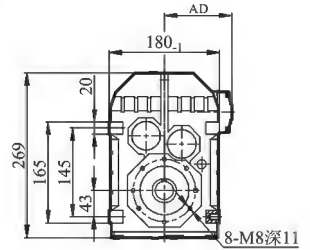
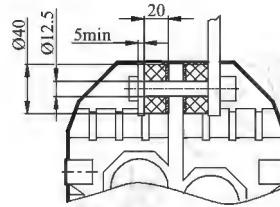
YE2电机机座号
Motor Size

	63	71	80	90S	90L	100
L	225	260	290	300	330	340
AC	120	145	170	190	190	195
AD	110	130	135	145	145	180

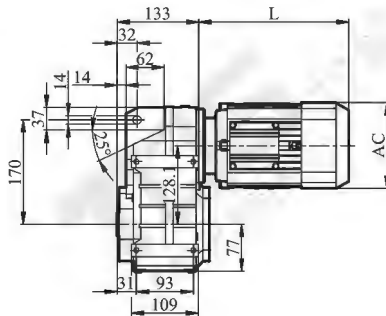
TF47



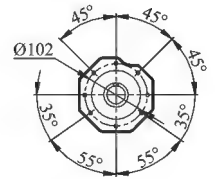
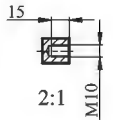
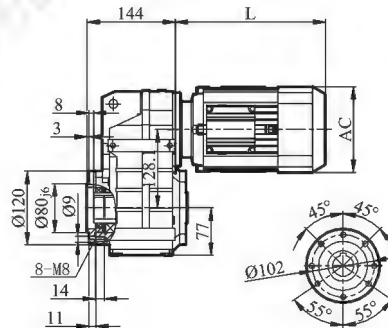
TFA47-T



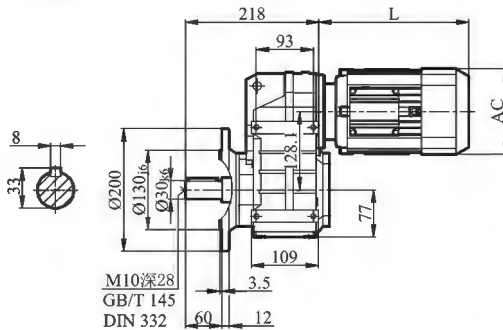
TFA/TFH/TFV47



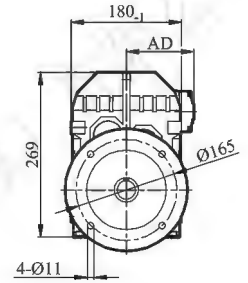
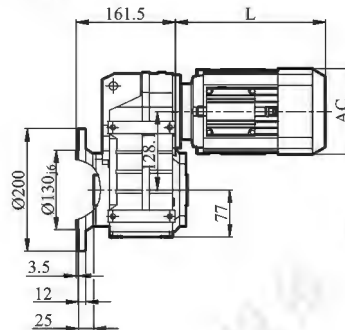
TF4Z/TFHZ/TFVZ47



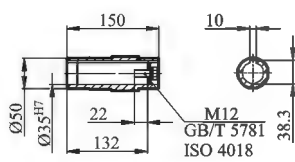
TFF47



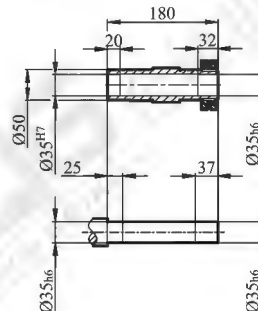
TFAF/TFHF/TFVF47



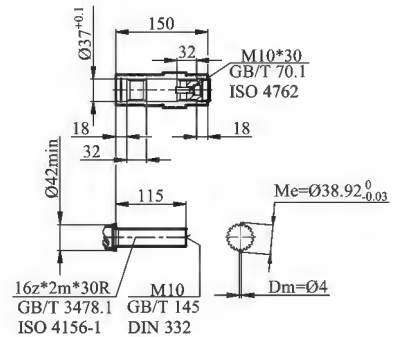
TFA/TF4Z/TF4F47输出轴



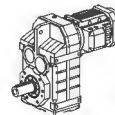
TFH/TFHZ/TFHF47输出轴



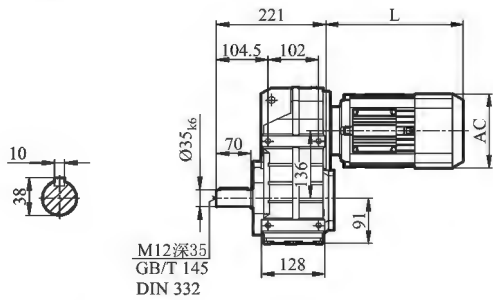
TFV/TFVZ/TFVF47输出轴



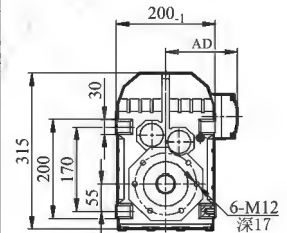
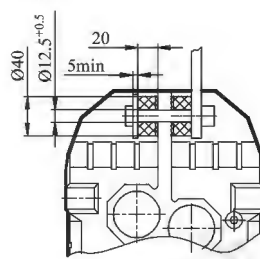
YE2电机机座号 Motor Size	63	71	80	90S	90L	100
L	225	260	290	300	330	340
AC	120	145	170	190	190	195
AD	110	130	135	145	145	180



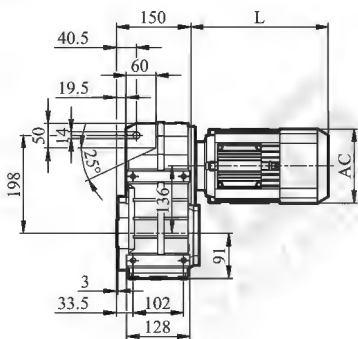
TF57



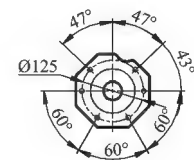
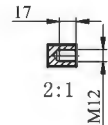
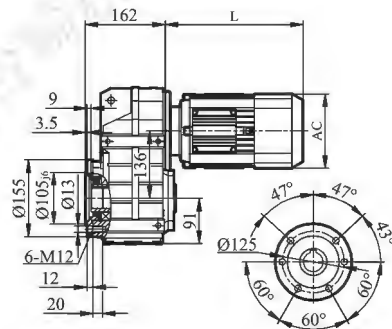
TFA57-T



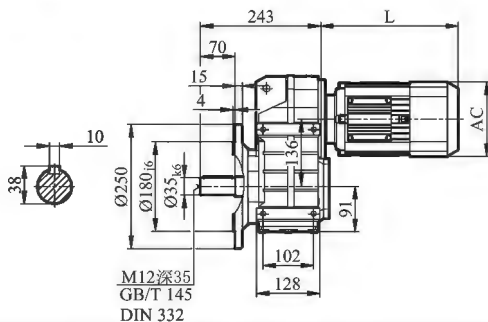
TFA/TFH/TFV57



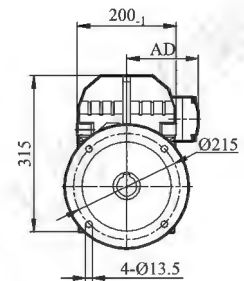
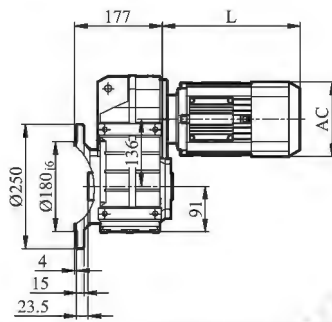
TFAZ/TFHZ/TFVZ57



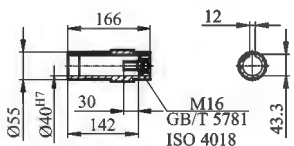
TFF57



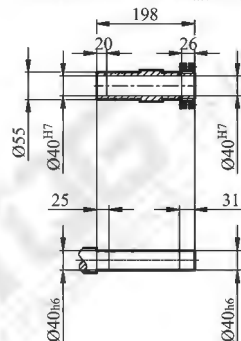
TFAF/TFHF/TFVF57



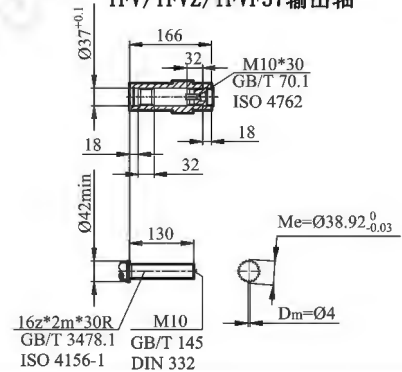
TFA/TFAZ/TFAF57输出轴



TFH/TFHZ/TFHF57输出轴

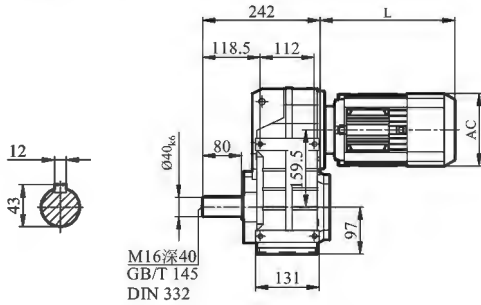


TFV/TFVZ/TFVF57输出轴

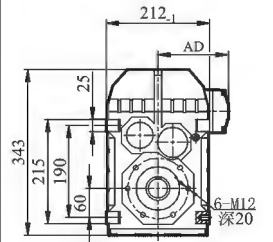
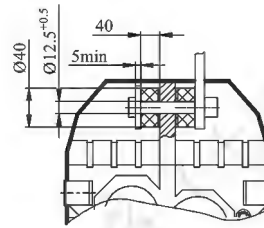


YE2电机机座号 Motor Size	63	71	80	90S	90L	100	112M	132S
L	205	260	290	300	330	340	380	430
AC	120	145	170	190	190	195	230	260
AD	110	130	135	145	145	180	215	210

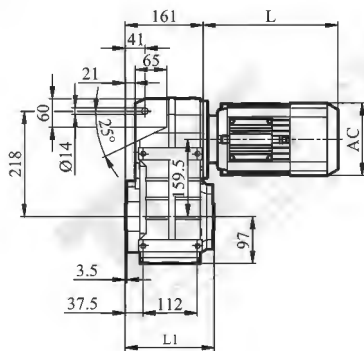
TF67



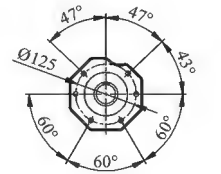
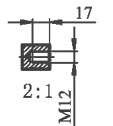
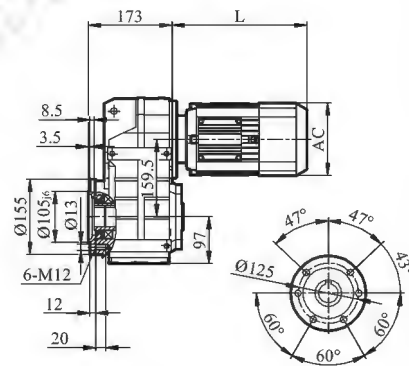
TFA67-T



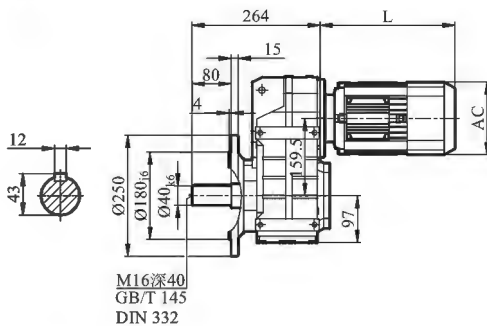
TFA/TFH/TFV67



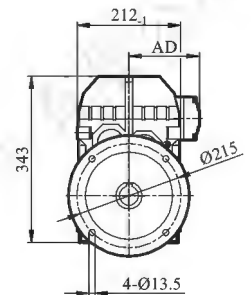
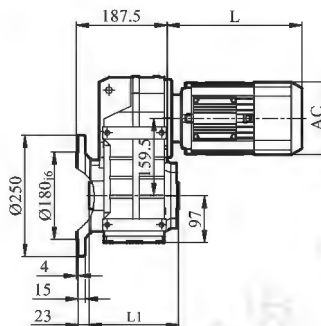
TFAZ/TFHZ/TFVZ67



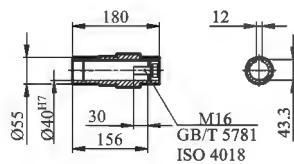
TFF67



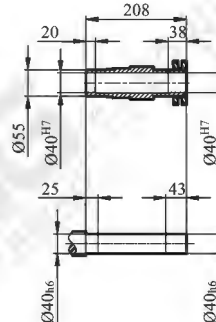
TFAF/TFHF/TFVF67



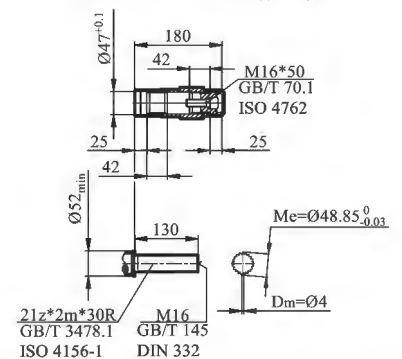
TFA/TFAZ/TFAZ67输出轴



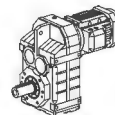
TFH/TFHZ/TFHF67输出轴



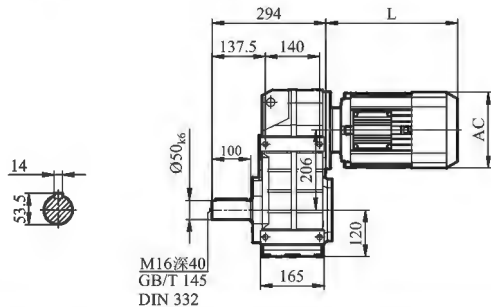
TFV/TFVZ/TFVF67输出轴



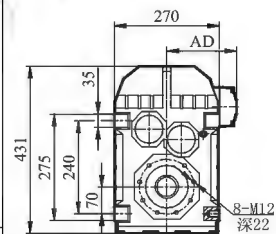
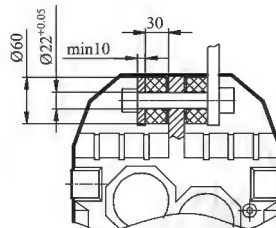
YE2电机机座号 Motor Size	63	71	80	90S	90L	100	112M	132S
L	205	260	290	300	330	330	380	430
AC	120	145	170	190	190	210	230	280
AD	110	130	135	145	145	160	215	215



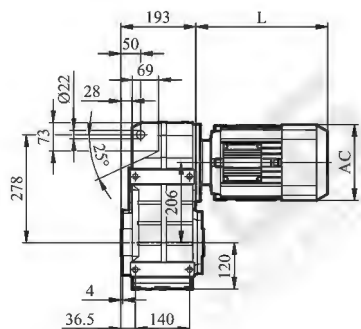
TF77



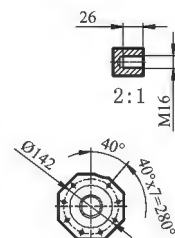
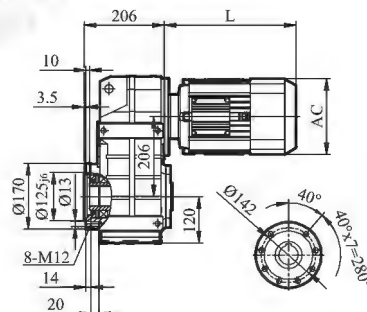
TFA77-T



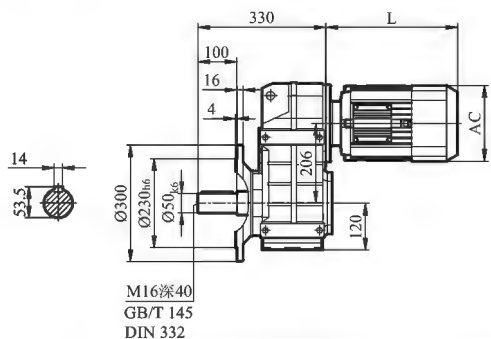
TFA/TFH/TFV77



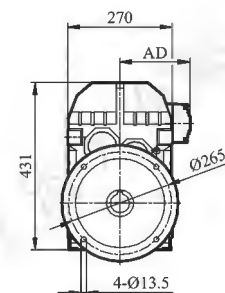
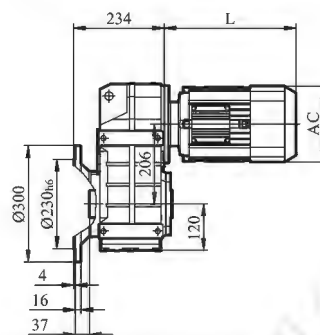
TFAZ/TFHZ/TFVZ77



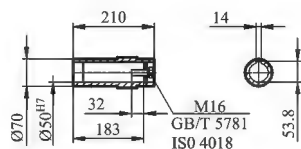
TFF77



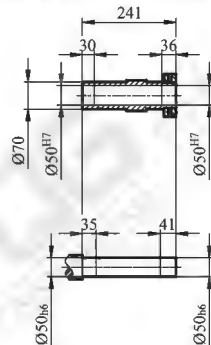
TFAF/TFHF/TFVF77



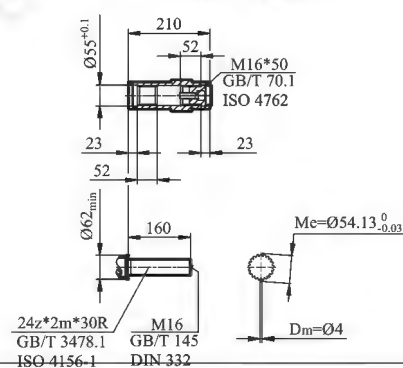
TFA/TFAZ/TFAF77输出轴



TFH/TFHZ/TFHF77输出轴

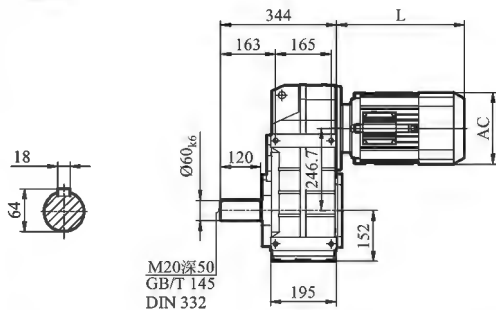


TFV/TFVZ/TFVF77输出轴

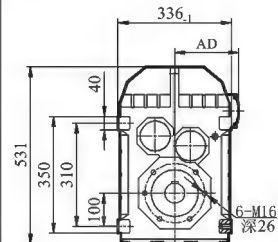
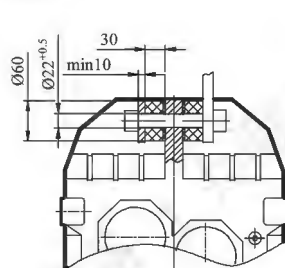


YE2电机机座号 Motor Size	71	80	90S	90L	100	112M	132S	132M	160M
L	254	284	292	322	322	370	418	457	524
AC	145	170	190	190	210	230	280	280	315
AD	130	135	145	145	160	215	215	215	255

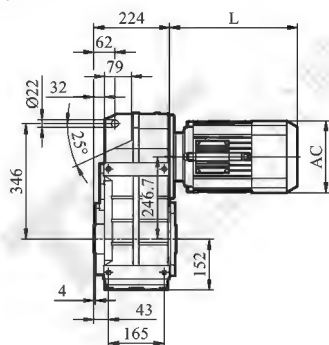
TF87



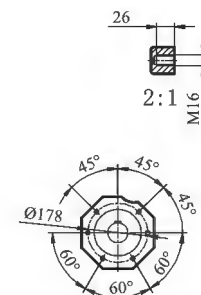
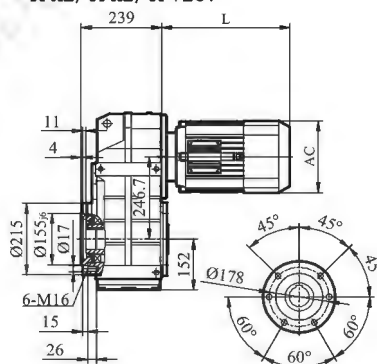
TFA87-T



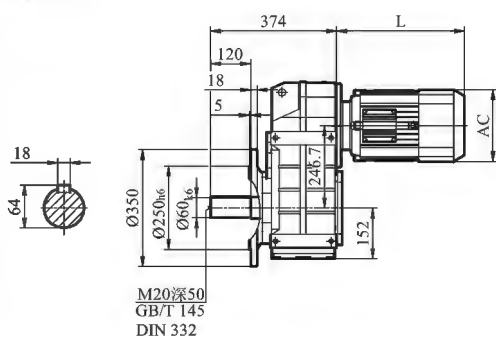
TFA/TFH/TFV87



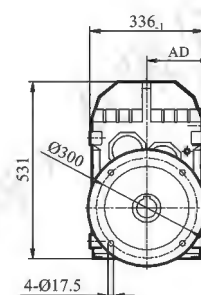
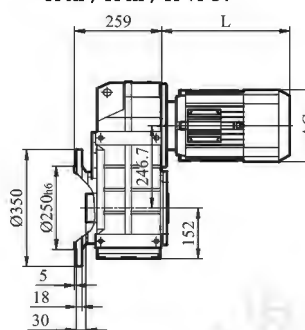
TFAZ/TFHZ/TFVZ87



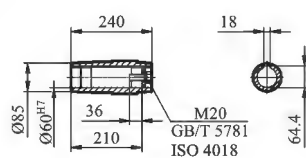
TFF87



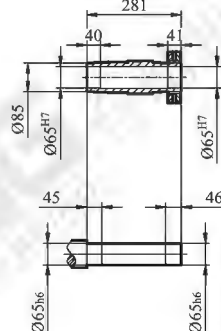
TFAF/TFHF/TFVF87



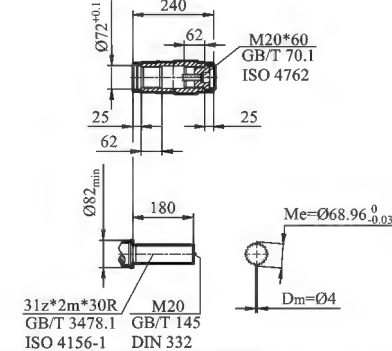
TFA/TFAZ/TFAF87输出轴



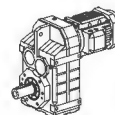
TFH/TFHZ/TFHF87输出轴



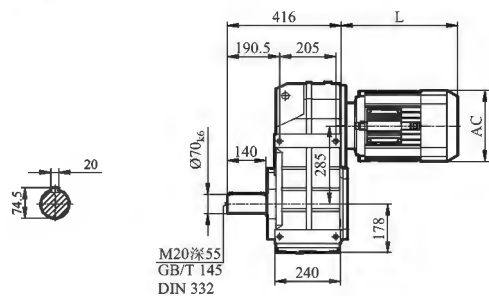
TFV/TFVZ/TFVF87输出轴



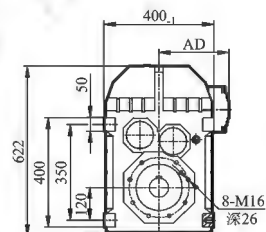
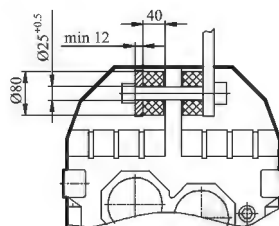
YE2电机机座号 Motor Size	80	90S	90L	100	112M	132S	132M	160M	160L	180M	180L
L	280	288	318	318	365	413	452	524	547	583	616
AC	170	190	190	210	230	280	280	315	315	350	350
AD	135	145	145	160	215	215	215	255	255	280	280



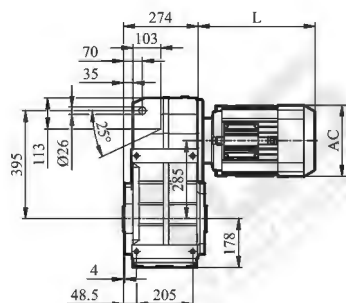
TF97



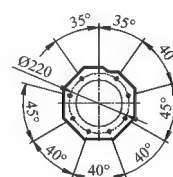
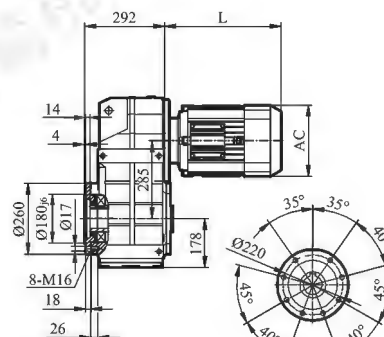
TFA97-T



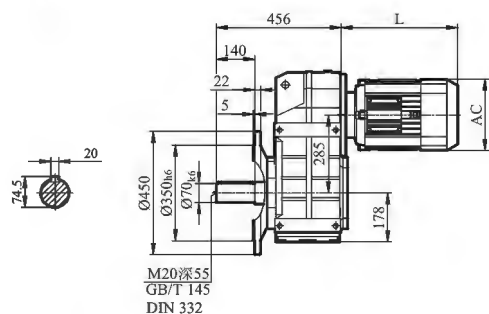
TFA/TFH/TFV97



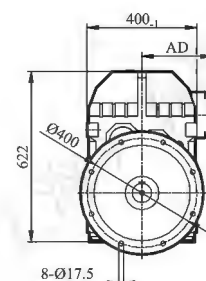
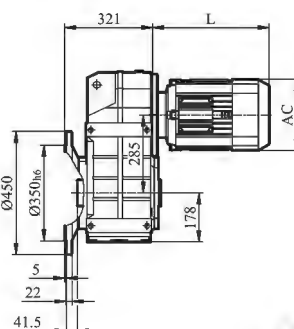
TFAZ/TFHZ/TFVZ97



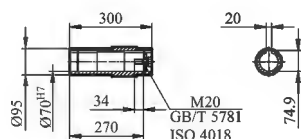
TFF97



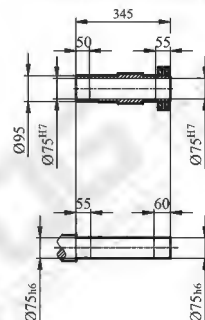
TFAF/TFHF/TFVF97



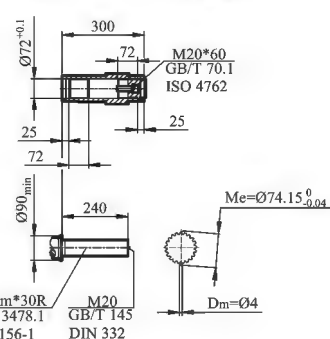
TFA/TFAZ/TFAF97输出轴



TFH/TFHZ/TFHF97输出轴



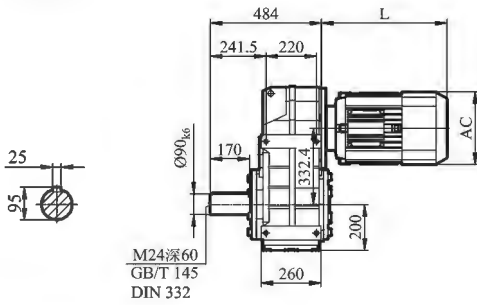
TFV/TFVZ/TFVF97输出轴



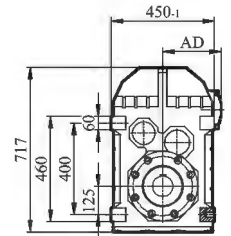
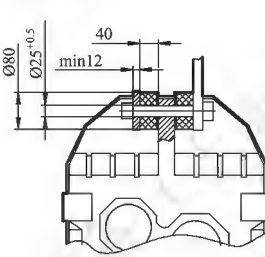
YE2电机机座号
Motor Size

	90S	90L	100	112M	132S	132M	160M	160L	180M	180L	200L
L	280	310	312	360	408	487	524	519	555	588	654
AC	190	190	210	230	280	280	315	315	350	350	395
AD	145	145	160	215	215	215	255	255	280	280	305

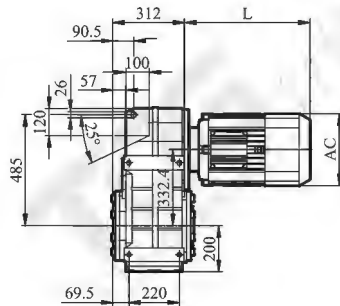
TF107



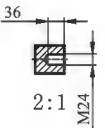
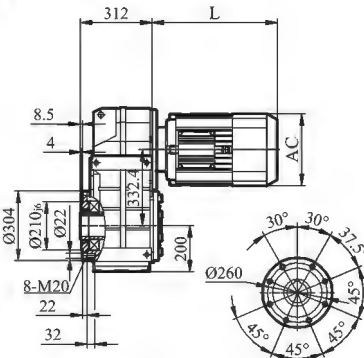
TFA107-T



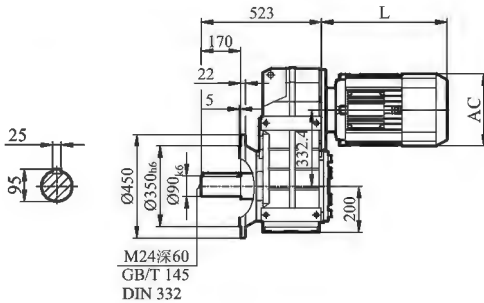
TFA/TFH/TFV107



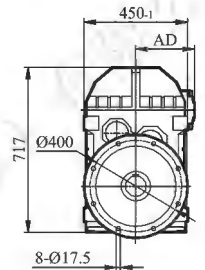
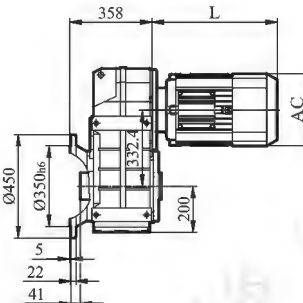
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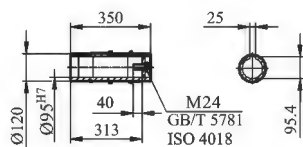
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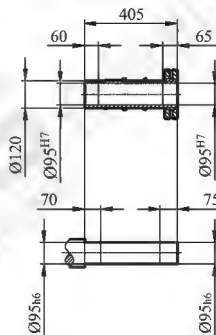
TFAF/TFHF/TFVF107



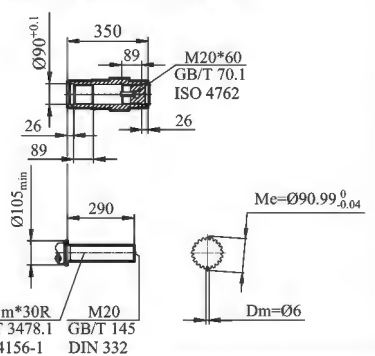
TFA/TFAZ/TFAF107输出轴



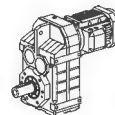
TFH/TFHZ/TFHF107输出轴



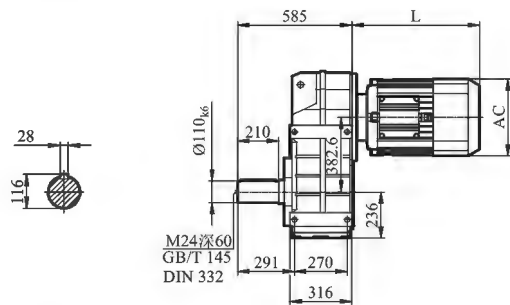
TFV/TFVZ/TFVF107输出轴



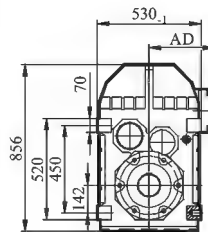
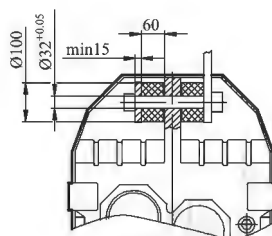
YE2电机机座号 Motor Size	100	112M	132S	132M	160M	160L	180M	180L	200L	225S	225M	
L	308	354	403	482	524	519	555	588	654	680	702	
AC	210	230	280	280	315	315	350	350	395	450	450	
AD	160	215	215	215	255	255	280	280	305	335	335	



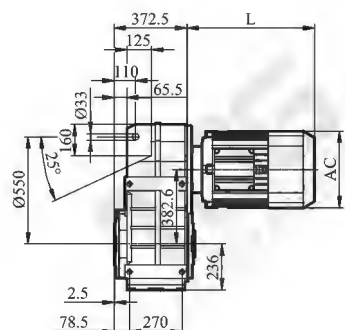
TF127



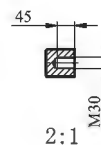
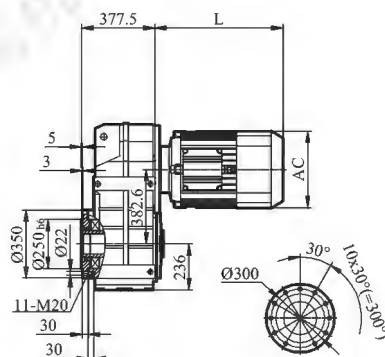
TFA127-T



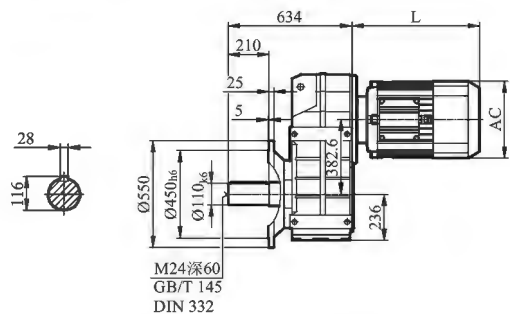
TFA/TFH127



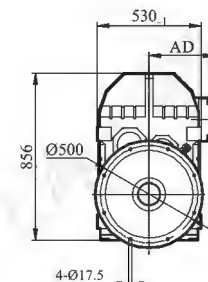
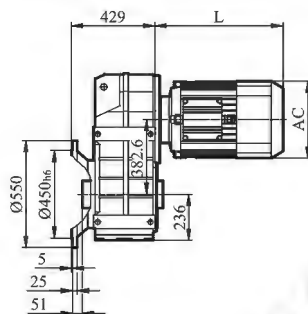
TFAZ/TFHZ127



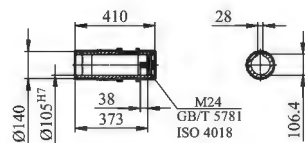
TFF127



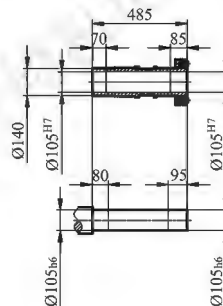
TFAF/TFHF127



TFA/TFAZ/TFAF127输出轴

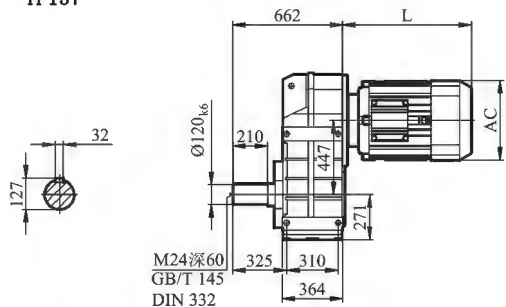


TFH/TFHZ/TFAF127输出轴

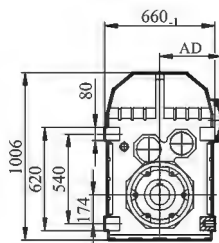
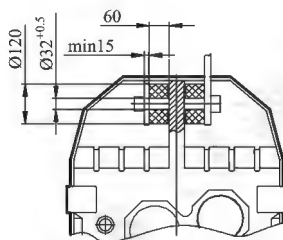


YE2电机机座号 Motor Size	132M	160M	160L	180M	180L	200L	225S	225M	250M	280S	280M	
L	520	567	602	635	666	642	669	691	770	828	879	
AC	260	315	315	350	350	395	450	450	480	530	530	
AD	210	255	255	280	280	305	335	335	370	410	410	

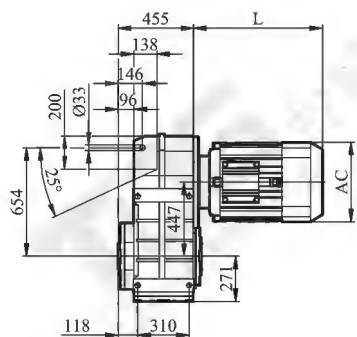
TF157



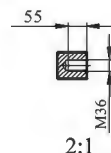
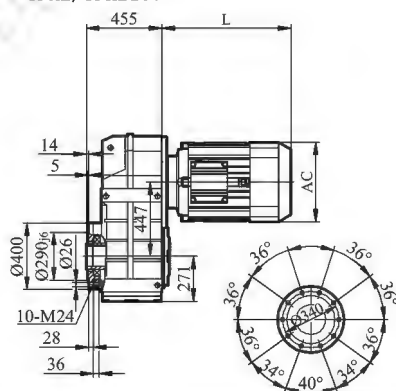
TFA157-T



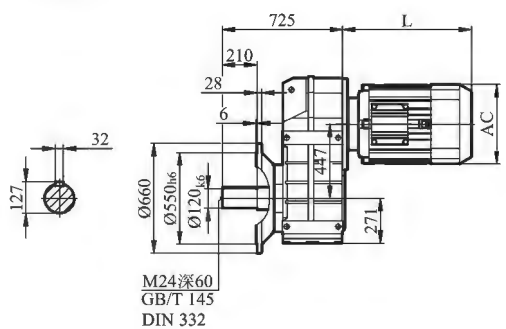
TFA/TFH157



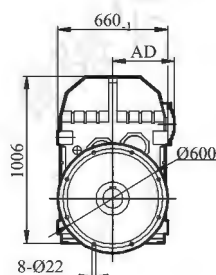
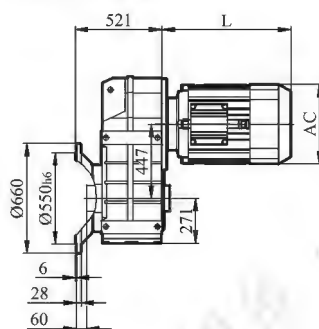
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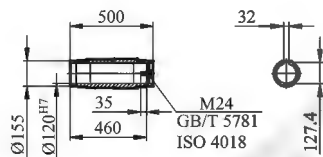
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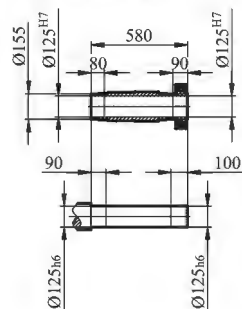
TFAF/TFHF157



TFA/TFAZ/TFAF157输出轴



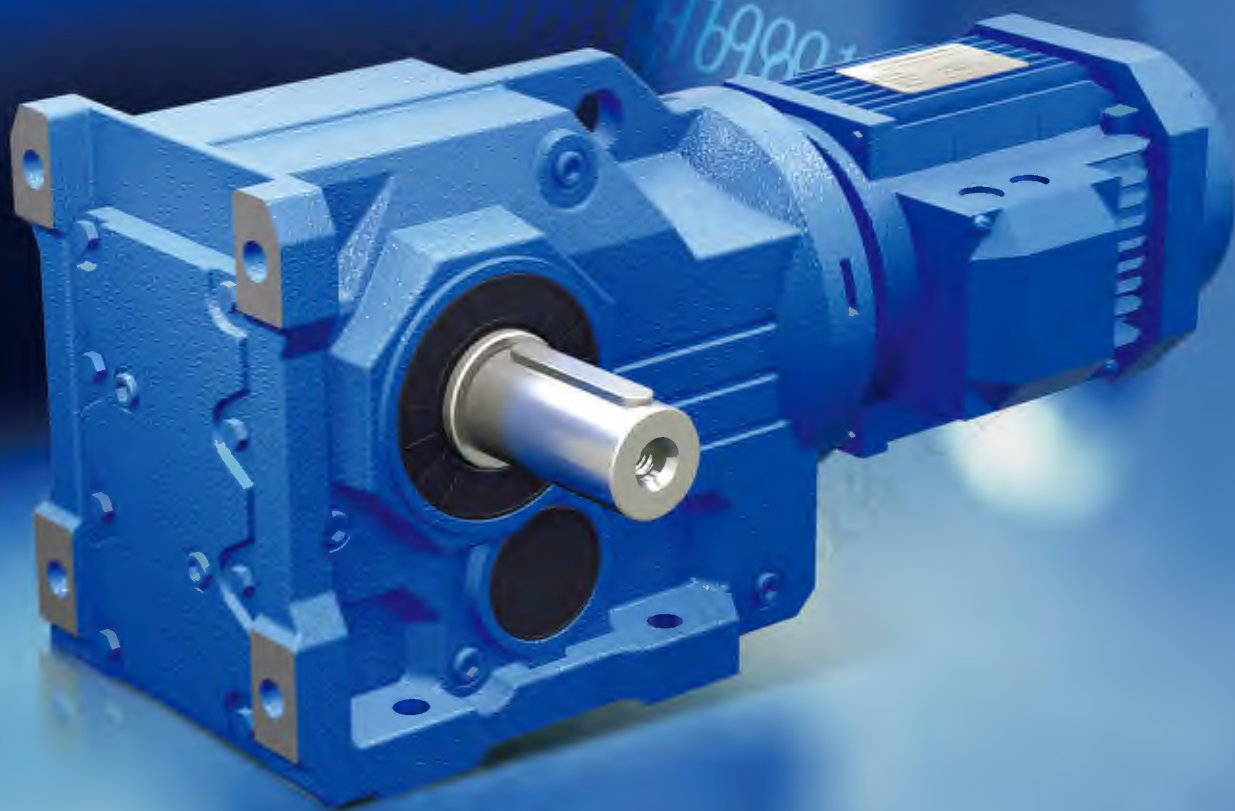
TFH/TFHZ/TFHF157输出轴

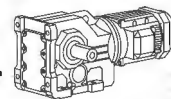


YE2电机机座号 Motor Size	160M	160L	180M	180L	200L	225S	225M	250M	280S	280M	315S	315M	315L	
L	567	602	635	666	642	669	691	770	828	879	1100	1210	1210	
AC	315	315	350	350	395	450	450	480	530	530	645	645	645	
AD	255	255	280	280	305	335	335	370	410	410	530	530	530	

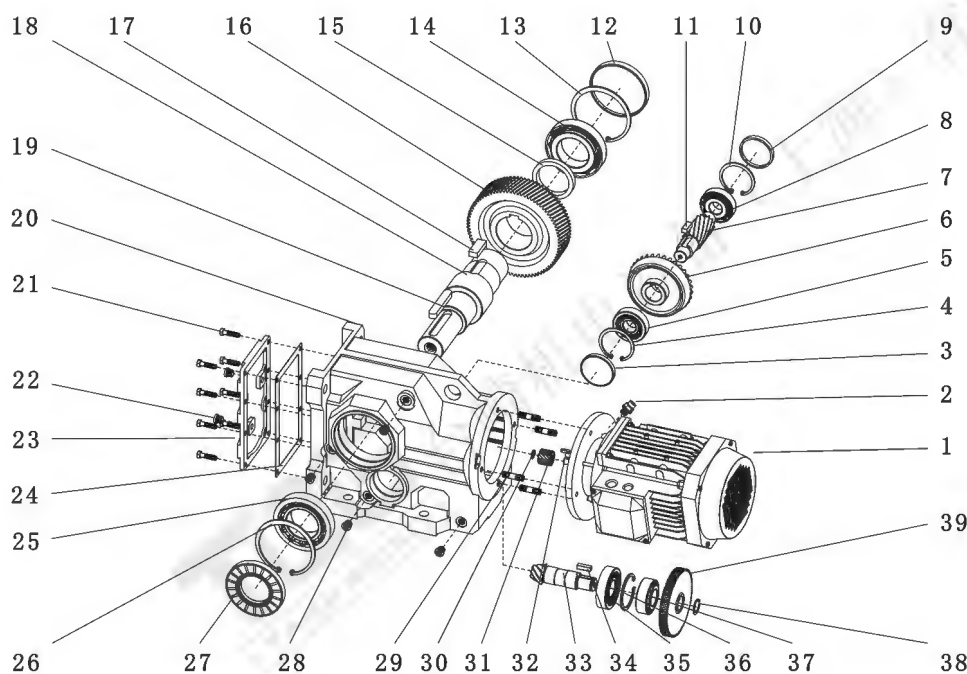
TK系列 斜齿轮-伞齿轮减速电机

TK SERIES HELICAL-BEVEL GEARED MOTOR





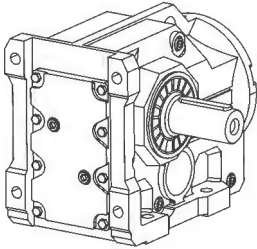
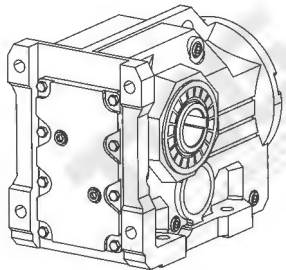
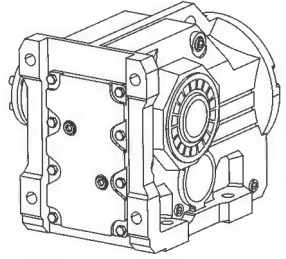
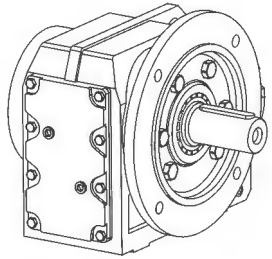
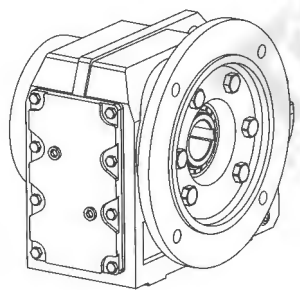
4. 1 部件分解图 / Spare Parts List



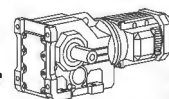
- | | |
|-----------------------------------|------------------------------------|
| 1 电机/motor | 21 外六角螺钉/hex head screw |
| 2 透气阀/breather valve | 22 油塞/oil level plug |
| 3 平面油封/plane seal | 23 盖板/cover plate |
| 4 孔用挡圈/retaining rings for bores | 24 纸垫/gasket |
| 5 轴承/bearing | 25 轴承/bearing |
| 6 伞齿轮/bevel gear | 26 孔用挡圈/retaining rings for bores |
| 7 齿轮轴/gear shaft | 27 骨架油封/skeleton oil seal |
| 8 轴承/bearing | 28 油塞/oil level plug |
| 9 平面油封/plane seal | 29 双头螺栓/stud |
| 10 孔用挡圈/retaining rings for bores | 30 轴用挡圈/retaining rings for shafts |
| 11 平键/flat key | 31 齿轮/gear |
| 12 平面油封/plane seal | 32 平键/flat key |
| 13 孔用挡圈/retaining rings for bores | 33 伞齿轮/bevel gear shaft |
| 14 轴承/bearing | 34 平键/flat key |
| 15 垫片/spacer tube | 35 轴承/bearing |
| 16 齿轮/gear | 36 孔用挡圈/retaining rings for bores |
| 17 平键/flat key | 37 轴承/bearing |
| 18 输出轴/output shaft | 38 轴用挡圈/retaining rings for shafts |
| 19 平键/flat key | 39 齿轮/gear |
| 20 箱体/housing | |

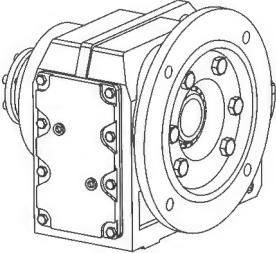
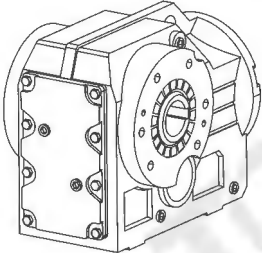
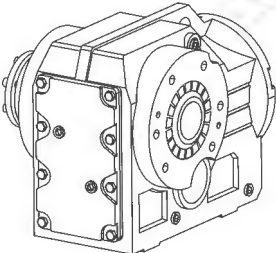
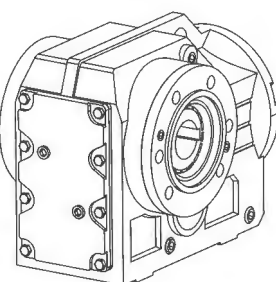
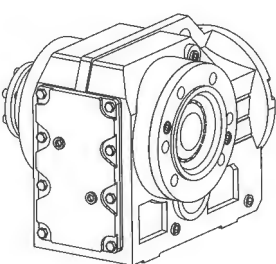
4.2 机型版本 /Versions

4.2.1 基本型式 /Basic Versions

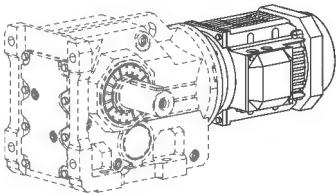
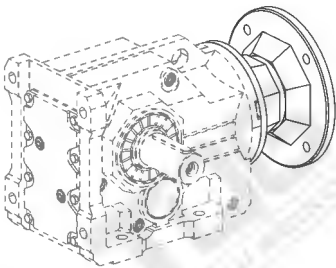
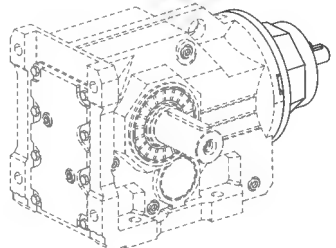
	TK.. 底脚安装斜齿-平齿减速机 Foot-mounted helical-bevel gear unit.
	TKA..B 底脚空心轴安装斜齿-平齿减速机 Foot-mounted helical-bevel gear unit with hollow shaft. TKV..B 底脚花键空心轴 (DIN 5480) 安装斜齿-平齿减速机 Foot-mounted helical-bevel gear unit with hollow shaft and splined hollow shaft to DIN 5480.
	TKH..B 底脚空心轴锁紧盘安装斜齿-平齿减速机 Foot-mounted helical-bevel gear unit with hollow shaft and shrink disc.
	TKF.. B5 法兰安装斜齿-平齿减速机 Helical-bevel gear unit in B5 flange-mounted version.
	TKAF.. B5 法兰空心轴安装斜齿-平齿减速机 Helical-bevel gear unit in B5 flange-mounted version with hollow shaft. TKVF.. B5 法兰花键空心轴 (DIN 5480) 安装斜齿-平齿减速机 Helical-bevel gear unit in B5 flange-mounted version with hollow shaft and splined hollow shaft to DIN 5480.

TK



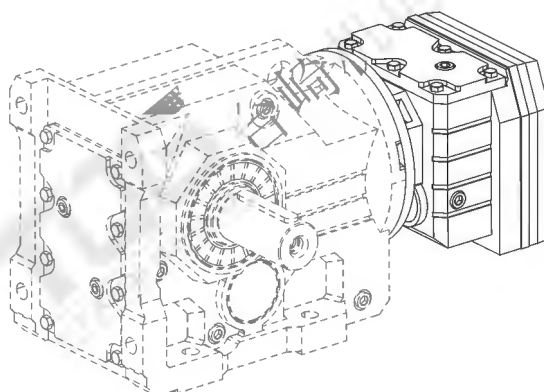
	TKHF.. B5 法兰空心轴锁紧盘安装斜齿-伞齿减速机 Helical-bevel gear unit in B5 flange-mounted version with hollow shaft and shrink disc.
	TKA.. 空心轴安装斜齿-伞齿减速机 Helical-bevel gear unit with hollow shaft. TKV.. 花键空心轴 (DIN 5480) 安装斜齿-伞齿减速机 Helical-bevel gear unit with hollow shaft and splined hollow shaft to DIN 5480.
	TKH.. 空心轴锁紧盘安装斜齿-伞齿减速机 Helical-bevel gear unit with hollow shaft and shrink disc. TKT.. 空心轴扭力臂安装斜齿-伞齿减速机 Helical-bevel gear unit with hollow shaft and torque arm.
	TKAZ.. B14 法兰空心轴安装斜齿-伞齿减速机 Helical-bevel gear unit in B14 flange-mounted version with hollow shaft. TKVZ.. B14 法兰花键空心轴 (DIN 5480) 安装斜齿-伞齿减速机 Helical-bevel gear unit in B14 flange-mounted version with hollow shaft and splined hollow shaft to DIN 5480.
	TKHZ.. B14 法兰空心轴锁紧盘安装斜齿-伞齿减速机 Helical-bevel gear unit in B14 flange-mounted version with hollow shaft and shrink disc.

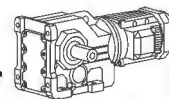
4.2.2 输入型式 / Input Versions

	TK..Y.. 直联电机输入 Input with geared motors.
	TK..AM.. AM (IEC) 法兰输入 Input with AM adapters for mounting IEC motors.
	TK..AD.. AD 轴输入 Input with AD shaft assembly.

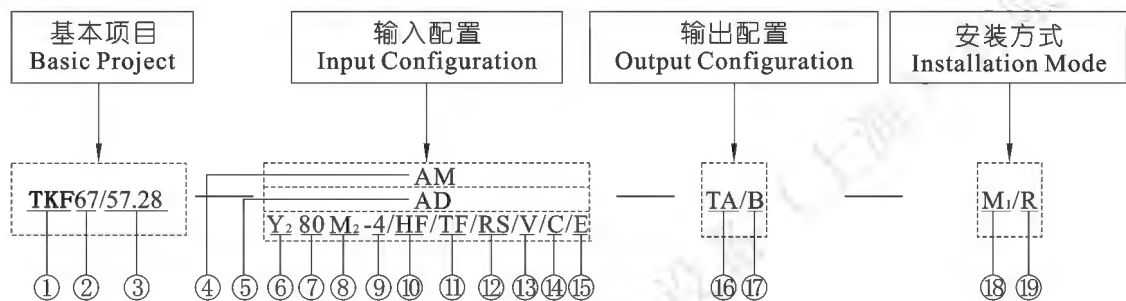
4.2.3 TK..与 TRF..组合 / TK.. and TRF.. Combination

当需要特别低速输出时，可选择 **TRF** 齿轮箱作为 **TK** 齿轮箱的输入。
If special low speed is needed, **TRF..** gearbox can be the input of **TK..** Gearbox.



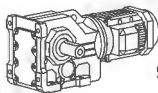


4. 3 产品标注 / Product Code



	标号 NO.	含义 Meaning	说明 Explanation
基本项目 Basic Project	①	系列代号 Series Code	TK、TKF、TKA... (详见4. 2. 1) TK, TKF, TKA... (see 4. 2. 1).
	②	机座号 Frame Size	机座号: 37、47、57... Frame Size: 37, 47, 57...
	③	传动比 Transmission Ratio	传动比 i Transmission Ratio I.
输入配置 Input Configuration	④	法兰输入代号 Flange Input Code	AM(IEC): 63、71、80...
	⑤	轴输入代号 Shaft Input Code	AD: 1、2、3...
	⑥	电机代号 Motor Code	Y ₂ : 三相异步电动机 Y ₂ : Three Phase Asynchronous Motor. YD: 变极多速三相异步电动机 YD: Variable-pole Multi-speed Three Phase Asynchronous Motor. YS: 小功率三相异步电动机 YS: Small Power Three Phase Asynchronous Motor. YVF ₂ : 变频调速三相异步电动机 YVF ₂ : Variable Frequency Speed Control Three Phase Asynchronous Motor. Y ₂ EJ: 电磁制动三相异步电动机 Y ₂ EJ: Electromagnetic Brake Three Phase Asynchronous Motor. YB2: 隔爆三相异步电动机 YB2: Flame Proof Three Phase Asynchronous Motor.
	⑦	电机机座号 Motor Frame Size.	63、71、80...
	⑧	电机定子铁芯长度代号 Length Code of Stator Core.	M、M ₁ 、M ₂ 、S、S ₁ 、S ₂ 、L、L ₁ 、L ₂
	⑨	电机极数 Pole Number of Motor.	2、4、6、8

	标号 NO.	含义 Meaning	说明 Explanation
输入配置 Input Configuration	⑩	手动释放装置 Manual Release Device	无 代 码: 无手动释放装置 No Code: No manual release device. H F: 手动释放装置带自锁功能 H F: Manual release device with self-locking Function. H R: 手动释放装置不带自锁功能 H R: Manual release device without self-Locking function.
	⑪	电机热保护装置 Motor Heat-protection Device.	无 代 码: 无电机热保护装置 No Code: No motor heat-protection device. T F: 电机热保护装置 T F: Motor heat-protection device.
	⑫	逆止器 Backstop	无 代 码: 无逆止器 No Code: No backstop. R S: 逆止器 R S: Backstop.
	⑬	强制冷却风扇 Forced Cooling Fan	无 代 码: 无强制冷却风扇 No Code: no forced cooling fan. V: 强制冷却风扇 V: Forced cooling fan.
	⑭	防雨罩 Cover	无 代 码: 无风扇防护罩 No Code: No fan cover. C: 防雨罩 C: cover.
	⑮	编码器 Encoder	无 代 码: 无编码器 No Code: No encoder. E: 编码器 E: Encoder
输出配置 Output Configuration	⑯	扭力臂 Torque Arm	无 代 码: 无扭力臂 No Code: No torque arm. T A: 扭力臂指向 A T A: Torque arm pointing to A. T B: 扭力臂指向 B T B: Torque arm pointing to B.
	⑰	法兰或轴指向 Flange or Shaft Pointing direction.	A: 法兰或轴指向 A A: Flange or shaft pointing to A. B: 法兰或轴指向 B B: Flange or shaft pointing to B. A+B: 双出轴或双法兰 A+B: Double flange or shaft.
安装方式 Mounting Positions	⑱	安装方位 Mounting Position	M1、M2、M3、M4、M5、M6
	⑲	电机接线盒方位 Position for motor terminal box.	R、B、L、T



说明:

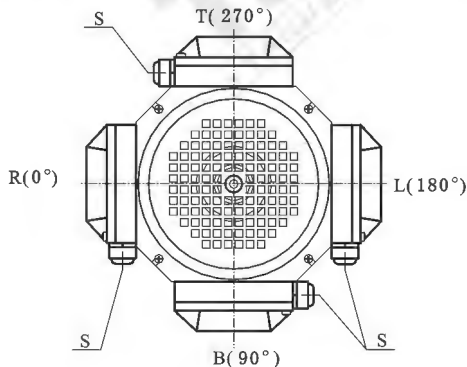
1. 基本项目不可省略;
2. 输入配置中, 只能在 AM、AD 和电机之间选择一种;
3. 输出配置参数若省略, 默认按A方向提供;
4. 安装方式参数若省略, 默认按 M1 安装方位, R 接线盒方位提供。

Notes:

1. Basic project can not be omitted.
2. Input configuration can only be one of AM, AD and motor.
3. If no output configuration, default pointing direction will be B.
4. If not mounting position, default mounting position will be M1, default position for motor terminal will be R.

4.4 安装方位 / Mounting Positions

4.4.1 电机接线盒方位 / Position of Motor Terminal Box

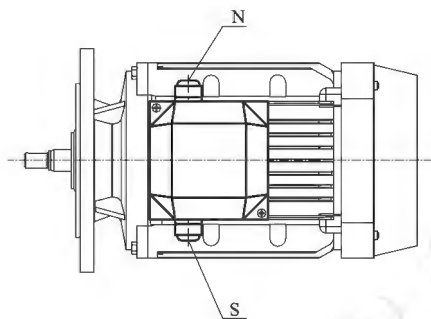


R(0°): 默认接线盒方位

R(0°): Default Position for Motor Terminal Box

注: 图为M1安装方位。

Mark :This picture is the installation position of M1



S: 默认进线方位

S: Default Line Position

说明:

上图的视图方向为: 从电机尾部的风罩向前看。

可提供 R (0°)、B (90°)、L (180°)、T (270°) 四种电机接线盒方位。其中 R (0°) 位置是默认方位。如无特别说明, 将按默认方位提供。

可提供 S 和 N 两种进线方位, 其中 S 位置是默认方位。如无特别说明, 将按默认方位提供。

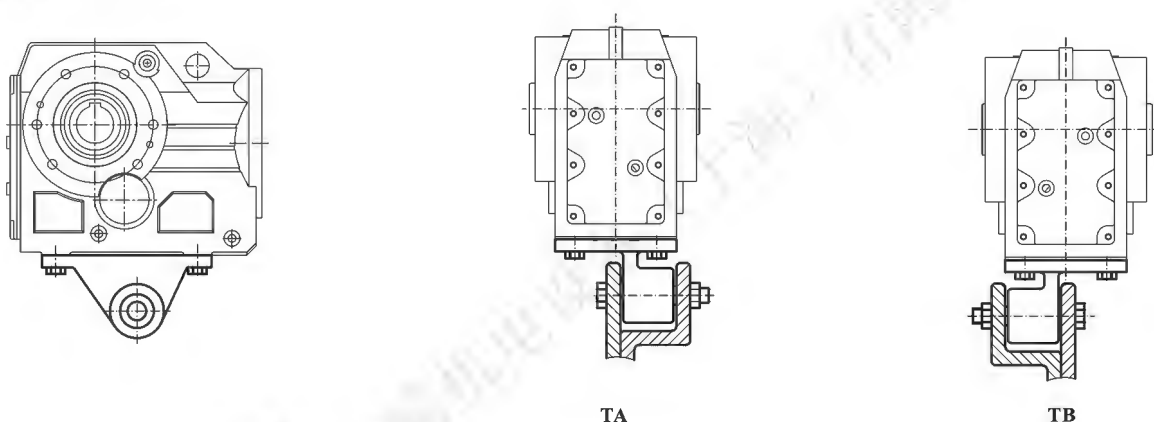
Notes:

The view direction of above figure: from the fan cover in the end of the motor to look forward.

There will be four position for motor terminal box: R(0°)、B(90°)、L(180°)、T(270°). And default position is R(0°). If no special explanation, it will be provided in default position. If no special explanation, it will be provided in default position.

There will be two line position: S and N. Default position is S. If no special explanation, it will be provided in default position. If no special explanation, it will be provided in default position.

4. 4. 2 扭力臂方位 / Position of Torque Arm



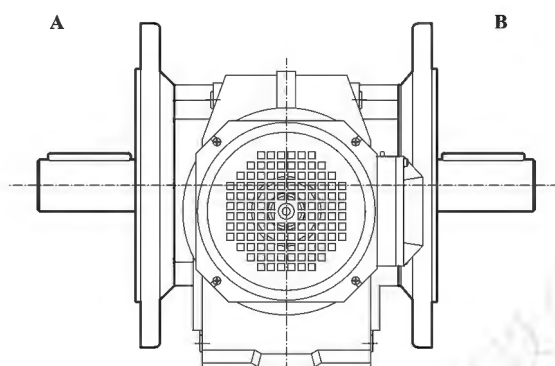
说明:

扭力臂方位 TA 与 TB 是对称的。

Notes:

TA and TB are symmetrical.

4. 4. 3 法兰或轴指向 / Position of The Output Shaft and Flange



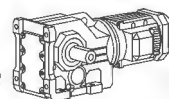
说明:

上图的视图方向为：从电机尾部的风罩向前看。

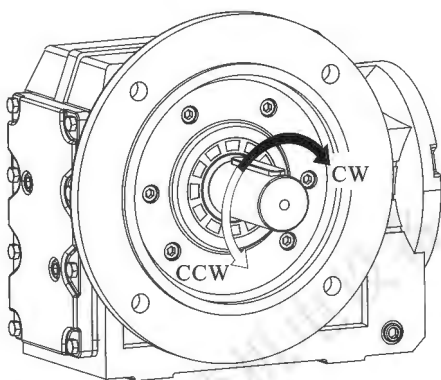
可提供 A、B 或 A+B 三种输出法兰或输出轴的方位。

Notes:

The view direction of above figure is from the fan cover in the end of the motor to look forward.
There are three positions: A or B or A+B.



4. 4. 4 输出轴旋转方向 / Direction of Rotation of Output Shaft



说明:

当减速电机带逆止器时，需规定输出轴的旋转方向。

上图中，从输出轴观看，顺时针旋转规定为 CW；逆时针旋转规定为 CCW。

当减速电机采用 A+B 方式输出时（见4. 3），需指出给定的旋转方向是从 A 端观看还是从 B 端观看。

Notes:

It is necessary to stipulate the direction of rotation of the output shaft if the drive has a back stop.

For above figure, the following definition applies:

Looking onto the output shaft.

CW = Rotating Clockwise

CCW = Rotation Counter-clockwise

If the position of the output shaft or flange is A+B, it is necessary to stipulate for certain direction of rotation, it was looked on the A or B.

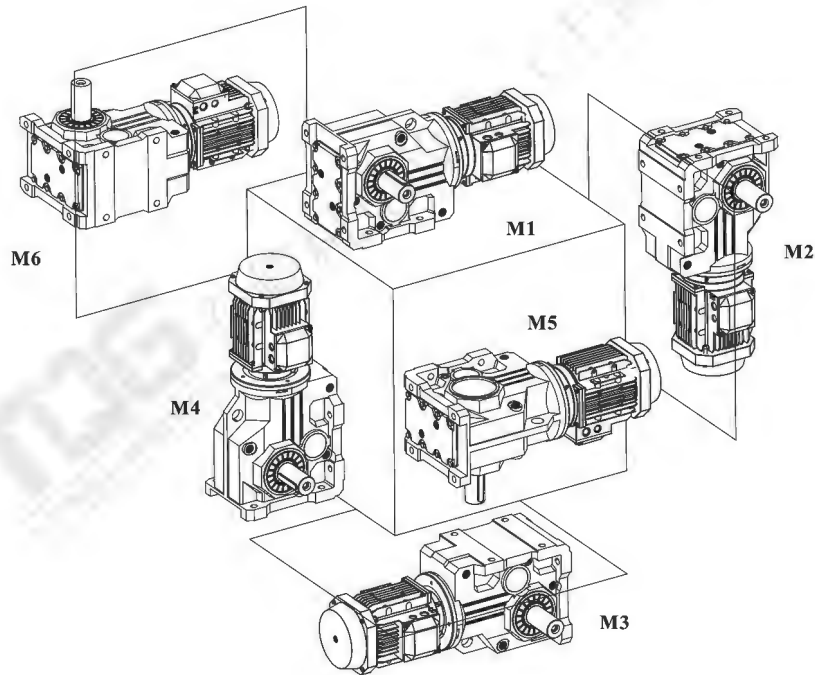
TK

4. 4. 5 油位符号说明 / Oil Level Symbol Explanation

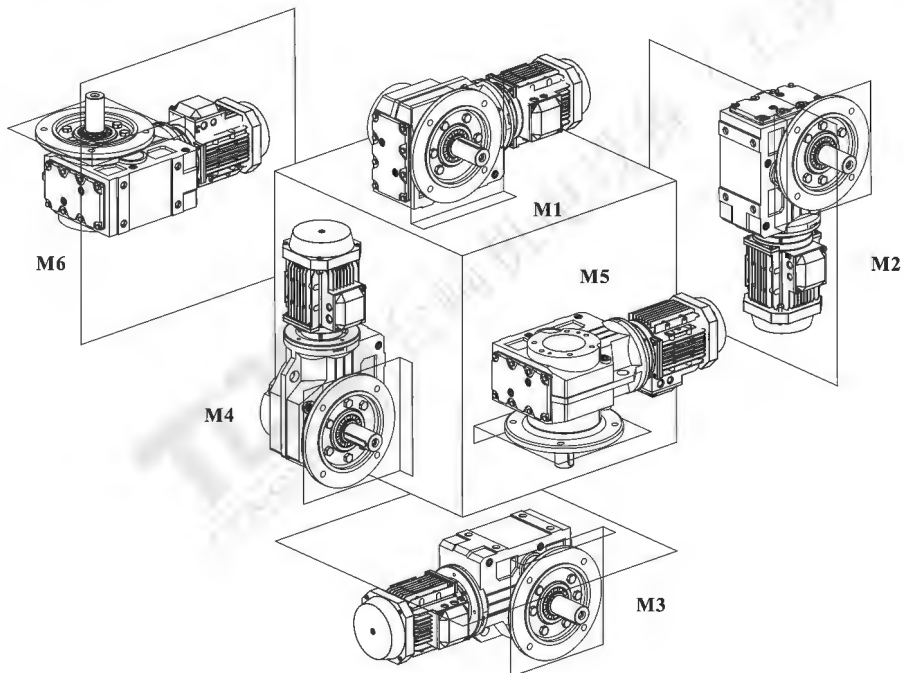
符号 Symbol	含义	Meaning
	通气帽	BREATHER VALVE
	油标	OIL LEVEL PLUG
	排油塞	OIL DRAIN PLUG

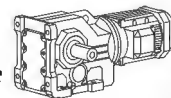
4. 4. 6 安装位置示意 / Mounting Position Designation

TK..安装位置示意图 / TK.. Mounting Position Designation



TKF..安装位置示意图 / TKF.. Mounting Position Designation





4. 4. 7 安装方位 / Mounting Positions

*→提示:

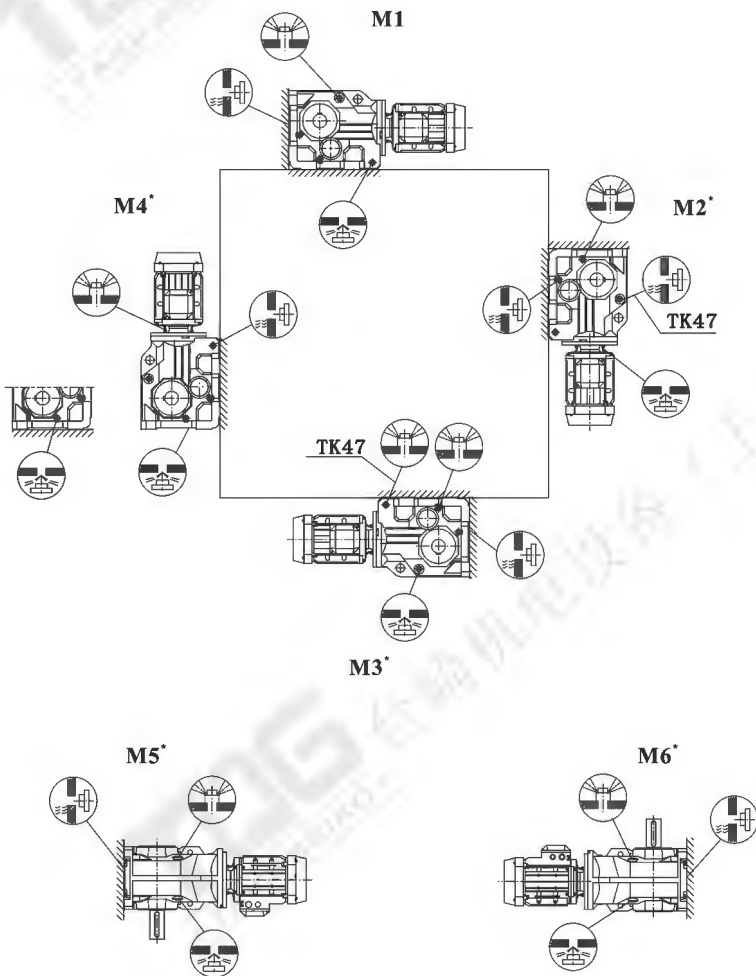
当采用下表列出的安装方式及输入转速时，
齿轮箱会产生不可忽视的搅油损失。请联系本
公司。

*→Reminder:

Increased churning losses may arise in the following
mounting positions. Contact Greatwall Machinery.

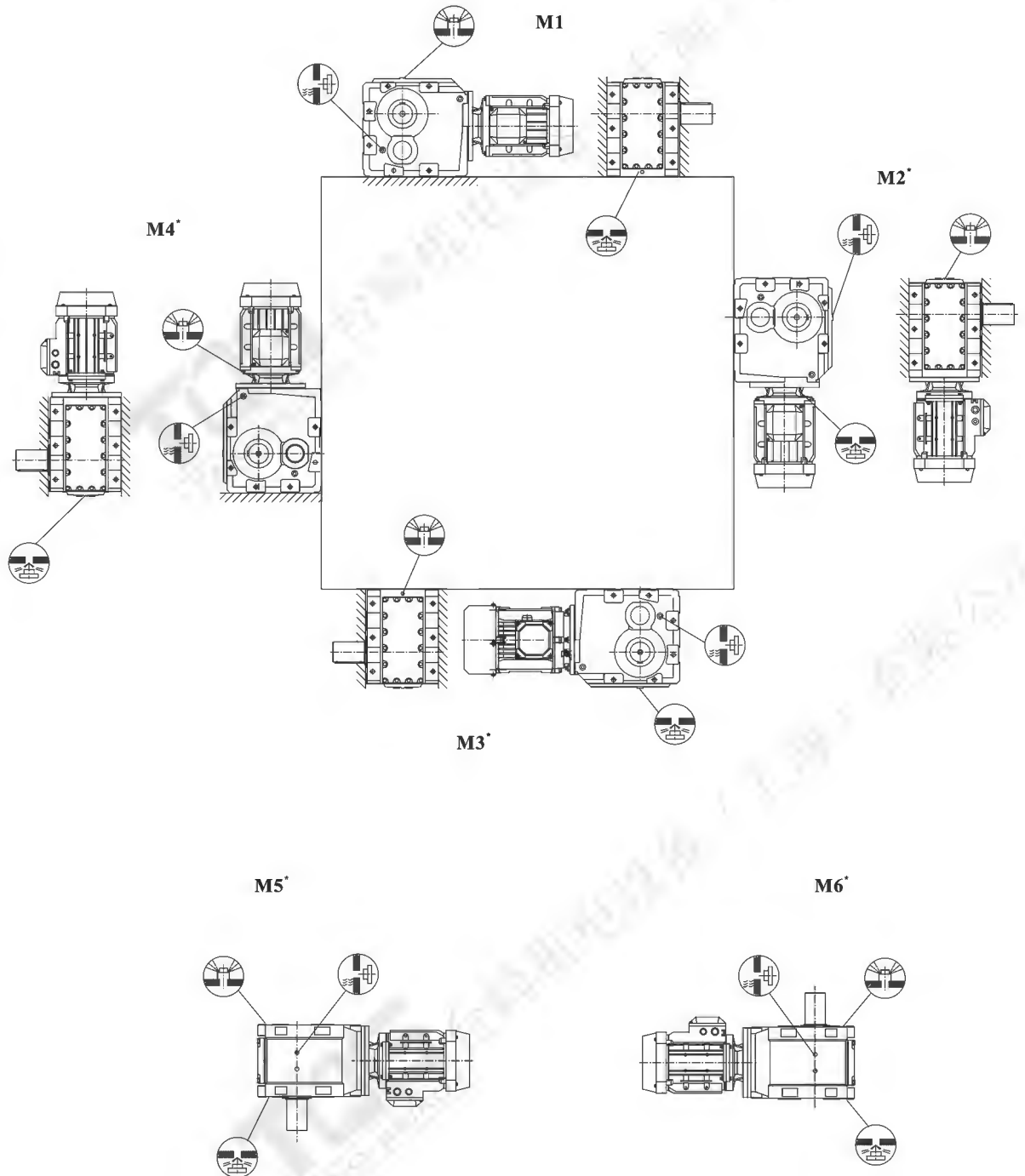
安装方式 Mounting Position	齿轮箱规格 Gear Unit Size	输入转速 Input Speed (r/min)
M2, M3, M4, M5, M6	77,87,97,107	>2500
	>107	>1500

TK/TKA B/TKH47B-157B, TKV37B-107B

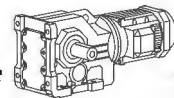


*→page 157

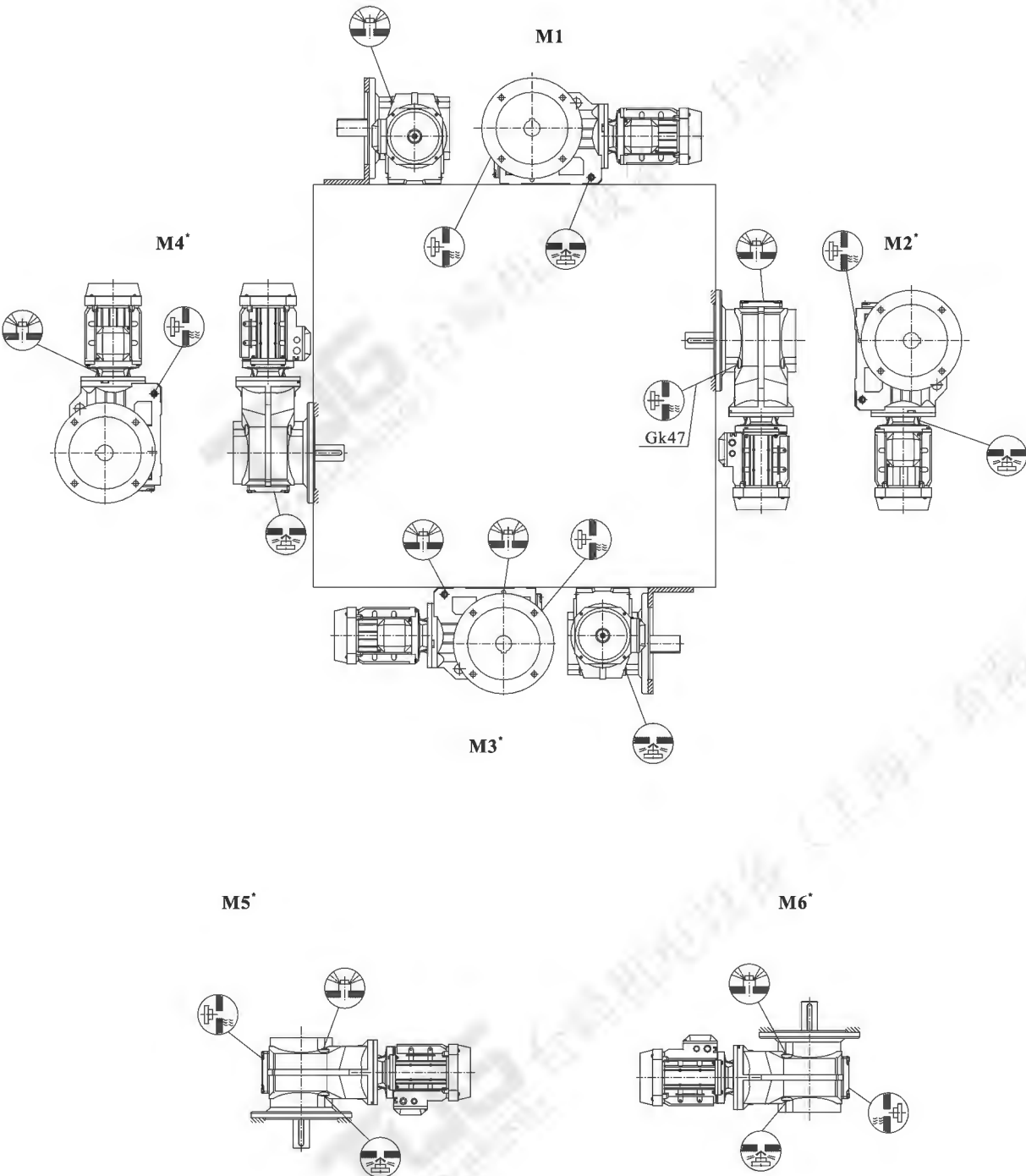
TK167-187, TKH167B-187B



*→page 157

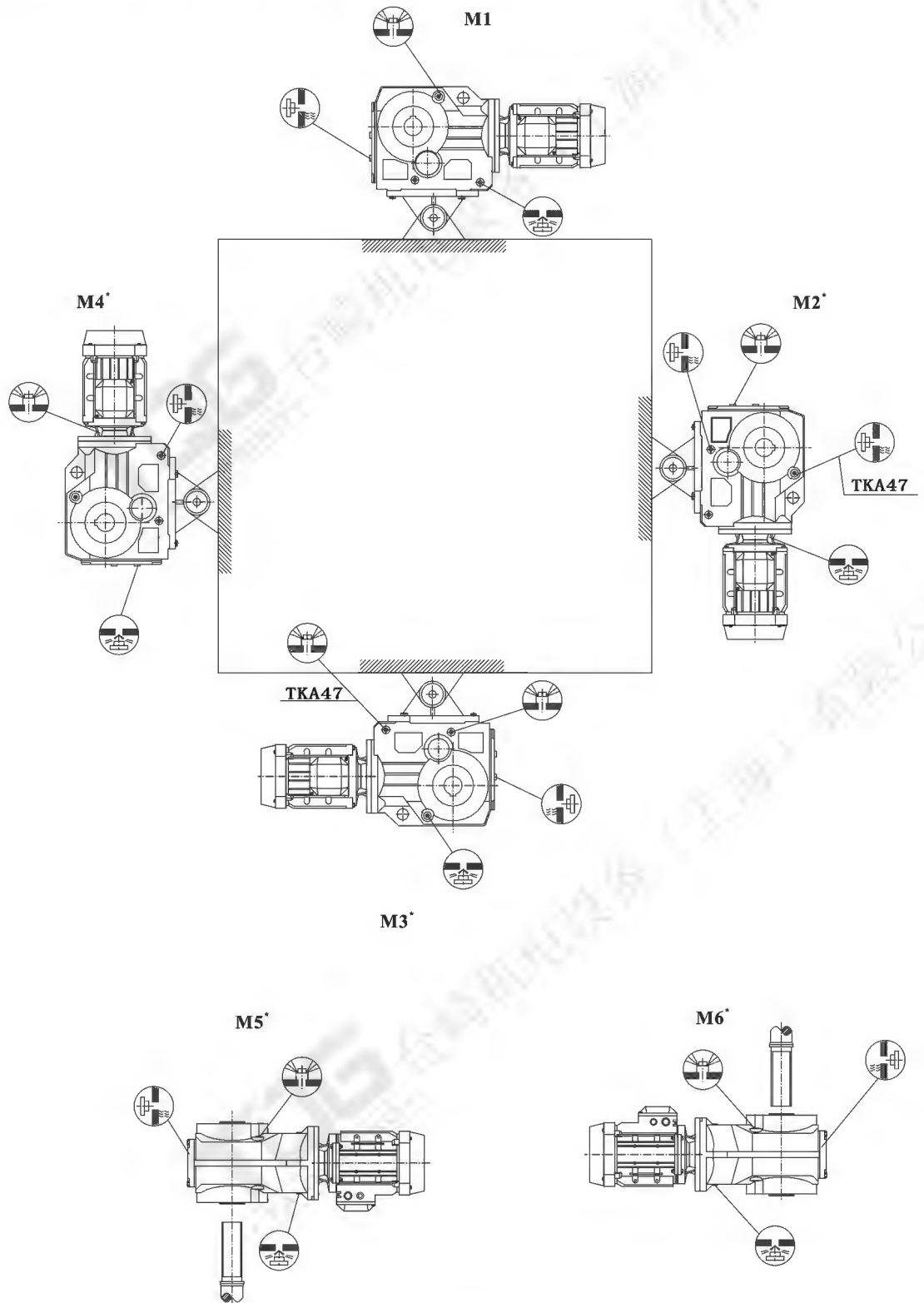


TKF/TKAF/TKHF/TKAZ/TKHZ37-157, TKVF/TKVZ37-107

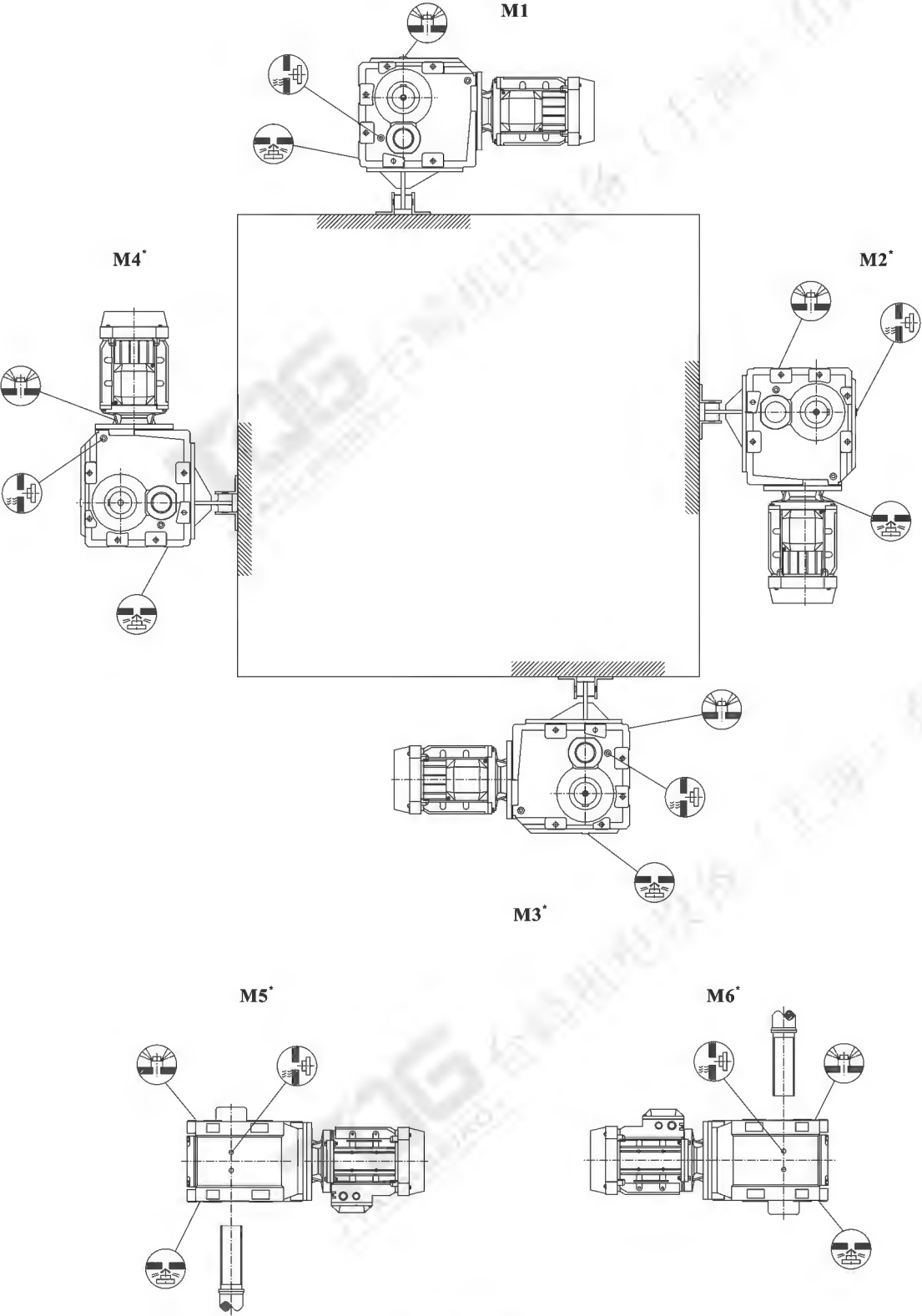
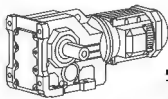


*→page 157

TKA/TKH37-157, TKV37-107, TKT37-97



* → page 157



* → page 157

4.5 减速器组合表 / Gear Unit Combination Table

为得到特别低的输出转速，可以通过**TRF**齿轮箱与 **TK** 齿轮箱相连的方式实现。

当采用这种传动方案时，可配置电动机的功率依赖于减速机的极限输出扭矩，而不能通过电动机的额定功率和减速机的总传动比计算得出减速机的输出扭矩。

TRF series of gear units and **TK** series of gear units can be connected together to get special output speed.

For this transmission scheme, the power of the motor depends on the limit output torque of the gearbox, instead of the output torque calculated based on rated power of the motor and the transmission ratio of the gear unit.

TK..与 TRF..齿轮箱可能的组合 / Possible Combination of TK.. and TRF..

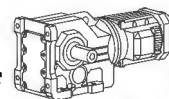
	TRF17	TRF27	TRF37	TRF47	TRF57	TRF67	TRF77	TRF87	TRF97	TRF107
TK..37										
TK..47										
TK..57										
TK..67										
TK..77										
TK..87										
TK..97										
TK..107										
TK..127										
TK..157										
TK..167										
TK..187										

说明：

- ☒ : 表示可能的组合。
- ☐ : 表示不允许的组合。

Notes:

- ☒ : Possible Combination.
- ☐ : Impossible Combination.



4. 6 TK..功率配置 / TK..Power Configuration

TK37 n ₁ =1400 1/min200Nm									
n ₂ [1/min]	M _{2max} [Nm]	Fr [N]	i	0.12 ~0.55	0.75 1.10	1.50	2.20		
13.0	200	5640	106.38						
14.0	200	5640	97.81						
17.0	200	5640	83.69						
19.0	200	5520	72.54						
21.0	200	5360	67.80						
24.0	200	5020	58.60						
28.0	200	4660	49.79						
31.0	200	4420	44.46						
37.0	200	4100	37.97						
39.0	200	3970	35.57						
47.0	200	3650	29.96						
49.0	200	3580	28.83						
56.0	200	3330	24.99						
60.0	195	3260	23.36						
69.0	185	3110	20.19						
82.0	180	2900	17.15						
91.0	175	2780	15.31						
107	165	2650	13.08						
115	160	2600	12.14						
133	160	2410	10.49						
157	160	2200	8.91						
176	155	2110	7.96						
206	150	1980	6.80						
220	145	1950	6.37						
261	140	1810	5.36						
352	125	1660	3.98						
TK47 n ₁ =1400 1/min400Nm									
n ₂ [1/min]	M _{2max} [Nm]	Fr [N]	i	0.12 ~0.55	0.75 1.10	1.50	2.20 3.00		
11.0	400	5920	131.87						
12.0	400	5920	121.48						
13.0	400	5920	104.37						
15.0	400	5920	90.86						
16.0	400	5920	85.12						
19.0	400	5920	75.20						
20.0	400	5920	69.84						
22.0	400	5920	63.30						
25.0	400	5920	56.83						
29.0	400	5920	48.95						
30.0	400	5920	46.03						
35.0	400	5920	39.61						
40.0	400	5920	35.39						

TK47 n ₁ =1400 1/min400Nm									
n ₂ [1/min]	M _{2max} [Nm]	Fr [N]	i	0.12 ~0.55	0.75 1.10	1.50	2.20 3.30		
45.0	400	5700	31.30						
48.0	400	5520	29.32						
54.0	400	5170	25.91						
58.0	400	4970	24.06						
64.0	400	4710	21.81						
72.0	400	4440	19.58						
83.0	380	4220	16.86						
88.0	380	4080	15.86						
103	360	3890	13.65						
115	350	3720	12.19						
119	280	4060	11.77						
133	280	3830	10.56						
154	280	3540	9.10						
164	270	3500	8.56						
190	250	3380	7.36						
213	240	3270	6.58						
241	230	3140	5.81						
302	205	2980	4.64						
TK57 n ₁ =1400 1/min600Nm									
n ₂ [1/min]	M _{2max} [Nm]	Fr [N]	i	0.12 ~0.55	0.75 1.10	1.50	2.20 3.30	4.00	
9.60	600	7630	145.14						
11.0	600	7630	123.85						
13.0	600	7630	108.29						
14.0	600	7630	102.88						
16.0	600	7630	90.26						
18.0	600	7630	76.56						
20.0	600	7630	69.12						
23.0	600	7630	60.81						
24.0	600	7630	57.42						
29.0	600	7630	48.89						
32.0	600	7630	44.43						
36.0	600	7630	38.49						
39.0	600	7630	35.70						
46.0	600	7300	30.28						
51.0	600	6930	27.34						
58.0	600	6480	24.05						
62.0	600	6280	22.71						
72.0	575	5910	19.34						
80.0	555	5740	17.57						
92.0	535	5430	15.22						
106	510	5190	13.25						



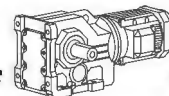
TK57 $n_1=1400$ 1/min 600Nm									
n_2 [1/min]	M_{2max} [Nm]	Fr [N]	i	0.12 ~0.55	0.75 1.10	1.50	2.20 3.30	4.00	
117	415	5150	11.92						
124	415	4990	11.26						
146	405	4650	9.59						
161	390	4520	8.71						
185	365	4360	7.55						
213	345	4180	6.57						
299	300	3800	4.69						

TK67 $n_1=1400$ 1/min 820Nm									
n_2 [1/min]	M_{2max} [Nm]	Fr [N]	i	0.18 ~0.55	0.75 1.10	1.50	2.20 3.30	4.00	5.50
9.70	820	10300	144.79						
11.0	820	10300	123.54						
13.0	820	10300	108.03						
14.0	820	10300	102.62						
16.0	820	10300	90.04						
18.0	820	10300	76.37						
20.0	820	10300	68.95						
23.0	820	10300	60.66						
24.0	820	10300	57.28						
29.0	820	10300	48.77						
32.0	820	10300	44.32						
36.0	820	10500	38.39						
39.0	820	10300	35.62						
46.0	820	10300	30.22						
51.0	820	10300	27.28						
58.0	800	10500	24.00						
62.0	780	10700	22.66						
73.0	760	10800	19.30						
80.0	740	11000	17.54						
92.0	700	11300	15.19						
106	670	11500	13.22						
112	530	12300	12.48						
132	500	11800	10.63						
145	480	11500	9.66						
167	440	11100	8.37						
192	420	10700	7.28						
269	350	9860	5.20						

TK77 $n_1=1400$ 1/min 1550Nm									
n_2 [1/min]	M_{2max} [Nm]	Fr [N]	i	0.37 0.55	0.75 1.10	1.50	2.20 3.30	4.00	5.50 7.50
7.30	1450	16100	192.18						
7.80	1450	16100	179.37						
9.10	1550	15400	154.02						

TK77 $n_1=1400$ 1/min 1550Nm									
n_2 [1/min]	M_{2max} [Nm]	Fr [N]	i	0.37 0.55	0.75 1.10	1.50	2.20 3.30	4.00	5.50 7.50
10.0	1550	15400	135.28						
11.0	1550	15400	128.52						
12.0	1550	15400	113.56						
14.0	1550	15400	97.05						
16.0	1550	15400	88.97						
18.0	1550	15400	78.07						
19.0	1550	15400	73.99						
22.0	1550	15400	64.75						
24.0	1550	15400	58.34						
27.0	1550	15400	51.18						
31.0	1550	15400	45.16						
35.0	1550	15400	40.04						
36.0	1550	15700	38.39						
40.0	1550	15400	35.20						
45.0	1550	15400	30.89						
48.0	1550	15400	29.27						
55.0	1550	15400	25.62						
61.0	1550	15400	23.08						
69.0	1500	15700	20.25						
78.0	1450	16100	17.87						
88.0	1400	15500	15.84						
104	1340	14800	13.52						
113	1000	15100	12.36						
129	990	14400	10.84						
146	940	13900	9.56						
165	890	13500	8.48						
193	820	13100	7.24						

TK77 $n_1=1400$ 1/min 1550Nm									
n_2 [1/min]	M_{2max} [Nm]	Fr [N]	i	11.0					
7.30	1450	16100	192.18						
7.80	1450	16100	179.37						
9.10	1550	15400	154.02						
10.0	1550	15400	135.28						
11.0	1550	15400	128.52						
12.0	1550	15400	113.56						
14.0	1550	15400	97.05						
16.0	1550	15400	88.97						
18.0	1550	15400	78.07						
19.0	1550	15400	73.99						
22.0	1550	15400	64.75						
24.0	1550	15400	58.34						
27.0	1550	15400	51.18						
31.0	1550	15400	45.16						



TK

TK77 $n_1=1400$ 1/min					1550Nm				
n_2 [1/min]	M_{2max} [Nm]	Fr [N]	i	11.0					
35.0	1550	15400	40.04						
36.0	1550	15700	38.39						
40.0	1550	15400	35.20						
45.0	1550	15400	30.89						
48.0	1550	15400	29.27						
55.0	1550	15400	25.62						
61.0	1550	15400	23.08						
69.0	1500	15700	20.25						
78.0	1450	16100	17.87						
88.0	1400	15500	15.84						
104	1340	14800	13.52						
113	1000	15100	12.36						
129	990	14400	10.84						
146	940	13900	9.56						
165	890	13500	8.48						
193	820	13100	7.24						

TK87 $n_1=1400$ 1/min					2700Nm				
n_2 [1/min]	M_{2max} [Nm]	Fr [N]	i	7.5 11.0	1.50	2.20 3.00	4.00	5.50 7.50	11.0 15.0
7.10	2700	27300	197.37						
8.00	2700	27300	174.19						
8.50	2700	27300	164.34						
9.50	2700	27300	147.32						
11.0	2700	27300	126.91						
12.0	2700	27300	115.82						
14.0	2700	27300	102.71						
16.0	2700	27300	86.34						
18.0	2700	27300	79.34						
20.0	2700	27300	70.46						
22.0	2700	26200	63.00						
25.0	2700	25000	56.64						
28.0	2700	23500	49.16						
32.0	2600	22800	44.02						
38.0	2500	21400	36.52						
45.0	2700	19200	31.39						
50.0	2600	18500	27.88						
56.0	2500	18000	24.92						
62.0	2300	17900	22.41						
72.0	2300	16800	19.45						
80.0	2200	16300	17.42						
88.0	1800	16000	16.00						
97.0	2100	15300	14.45						
111	2000	14800	12.56						
125	1500	14900	11.17						
140	1500	14200	10.00						
169	1400	13500	8.29						
194	1300	13200	7.21						

TK87 $n_1=1400$ 1/min					2700Nm				
n_2 [1/min]	M_{2max} [Nm]	Fr [N]	i	7.5 11.0	1.50	2.20 3.00	4.00	5.50 7.50	11.0 15.0
140	1500	14200	10.00						
169	1400	13500	8.29						
194	1300	13200	7.21						

TK87 $n_1=1400$ 1/min					2700Nm				
n_2 [1/min]	M_{2max} [Nm]	Fr [N]	i	18.5 22.0					
7.10	2700	27300	197.37						
8.00	2700	27300	174.19						
8.50	2700	27300	164.34						
9.50	2700	27300	147.32						
11.0	2700	27300	126.91						
12.0	2700	27300	115.82						
14.0	2700	27300	102.71						
16.0	2700	27300	86.34						
18.0	2700	27300	79.34						
20.0	2700	27300	70.46						
22.0	2700	26200	63.00						
25.0	2700	25000	56.64						
28.0	2700	23500	49.16						
32.0	2600	22800	44.02						
38.0	2500	21400	36.52						
45.0	2700	19200	31.39						
50.0	2600	18500	27.88						
56.0	2500	18000	24.92						
62.0	2300	17900	22.41						
72.0	2300	16800	19.45						
80.0	2200	16300	17.42						
88.0	1800	16000	16.00						
97.0	2100	15300	14.45						
111	2000	14800	12.56						
125	1500	14900	11.17						
140	1500	14200	10.00						
169	1400	13500	8.29						
194	1300	13200	7.21						

TK97 $n_1=1400$ 1/min					4300Nm				
n_2 [1/min]	M_{2max} [Nm]	Fr [N]	i	1.10	1.50	2.20 3.00	4.00	5.50 7.50	11.0 15.0
8.00	4300	40000	176.05						
9.10	4300	40000	153.21						
10.0	4300	40000	140.28						
11.0	4300	40000	123.93						
13.0	4300	40000	105.13						
14.0	4300	40000	96.80						

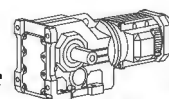
TK97 $n_1=1400$ 1/min										4300Nm
n_2 [1/min]	M_{2max} [Nm]	Fr [N]	i	1.10	1.50	2.20 3.00	4.00	5.50 7.50	11.0 15.0	
16.0	4300	38800	86.52							
18.0	4300	37100	77.89							
20.0	4300	35600	70.54							
22.0	4300	33800	62.55							
25.0	4300	32300	56.55							
29.0	4300	30000	47.93							
33.0	4300	28300	41.87							
37.0	4300	27100	38.30							
41.0	4300	25700	34.23							
45.0	4300	24500	30.82							
50.0	4300	23300	27.91							
57.0	4300	22000	24.75							
63.0	4300	20900	22.37							
74.0	4300	19100	18.96							
85.0	4300	17800	16.56							
101	4300	16100	13.85							
117	3890	16200	11.99							
134	2870	16400	10.41							
161	2660	15800	8.71							
186	2400	15700	7.54							

TK97 $n_1=1400$ 1/min										4300Nm
n_2 [1/min]	M_{2max} [Nm]	Fr [N]	i	18.5 22.0	30.0					
8.00	4300	40000	176.05							
9.10	4300	40000	153.21							
10.0	4300	40000	140.28							
11.0	4300	40000	123.93							
13.0	4300	40000	105.13							
14.0	4300	40000	96.80							
16.0	4300	38800	86.52							
18.0	4300	37100	77.89							
20.0	4300	35600	70.54							
22.0	4300	33800	62.55							
25.0	4300	32300	56.55							
29.0	4300	30000	47.93							
33.0	4300	28300	41.87							
37.0	4300	27100	38.30							
41.0	4300	25700	34.23							
45.0	4300	24500	30.82							
50.0	4300	23300	27.91							
57.0	4300	22000	24.75							
63.0	4300	20900	22.37							
74.0	4300	19100	18.96							
85.0	4300	17800	16.56							

TK97 $n_1=1400$ 1/min										4300Nm
n_2 [1/min]	M_{2max} [Nm]	Fr [N]	i	18.5 22.0	30.0					
101	4300	16100	13.85							
117	3890	16200	11.99							
134	2870	16400	10.41							
161	2660	15800	8.71							
186	2400	15700	7.54							

TK107 $n_1=1400$ 1/min										8000Nm
n_2 [1/min]	M_{2max} [Nm]	Fr [N]	i	3.00	4.00	5.50 7.50	11.0 15.0	18.5 22.0	30.0 ~45.0	
9.80	8000	65000	143.47							
12.0	8000	61500	121.46							
12.0	8000	59300	112.41							
14.0	8000	56200	100.75							
15.0	8000	53500	90.96							
17.0	8000	50900	82.61							
19.0	8000	47900	73.30							
21.0	8000	45400	66.52							
24.0	8000	41700	57.17							
28.0	7840	39300	49.90							
33.0	7360	37900	42.33							
38.0	7200	35800	37.00							
43.0	7200	33200	32.69							
45.0	6800	34200	31.28							
48.0	7200	30700	29.00							
53.0	7200	28800	26.32							
62.0	7200	25800	22.62							
71.0	7200	23200	19.74							
84.0	7050	21000	16.75							
96.0	6890	19500	14.64							
104	4300	29200	13.43							
119	4300	27500	11.73							
141	4190	25800	9.94							
161	4070	24600	8.69							
190	3600	24400	7.35							

TK127 $n_1=1400$ 1/min										13000Nm
n_2 [1/min]	M_{2max} [Nm]	Fr [N]	i	7.50	11.0 15.0	18.5 22.0	30.0 ~45.0	55.0 ~90.0		
9.60	13000	79200	146.07							
10.0	13000	79200	136.14							
11.0	13000	79200	122.48							
13.0	13000	79200	110.18							
16.0	13000	75100	89.89							
17.0	13000	72100	81.98							
20.0	13000	67700	70.95							



TK127 $n_1=1400$ 1/min 13000Nm									
n_2 [1/min]	M_{2max} [Nm]	Fr [N]	i	7.50	11.0 15.0	18.5 22.0	30.0 ~45.0	55.0 ~90.0	
22.0	13000	64000	62.60						
26.0	13000	59800	54.07						
29.0	13000	56500	47.82						
35.0	13000	52000	40.19						
39.0	13000	49400	36.25						
45.0	13000	45900	31.37						
51.0	13000	43000	27.68						
59.0	13000	39800	23.91						
66.0	13000	37200	21.15						
79.0	13000	32600	17.77						
98.0	12100	31000	14.35						
109	8530	35400	12.79						
130	8000	33900	10.74						
161	7230	32500	8.68						

TK157 $n_1=1400$ 1/min 18000Nm									
n_2 [1/min]	M_{2max} [Nm]	Fr [N]	i	11.0 15.0	18.5 22.0	30.0 ~45.0	55.0 ~90.0	110 132	160
9.30	18000	112200	150.41						
11.0	18000	106500	122.39						
14.0	18000	98000	100.22						
15.0	18000	94400	91.65						
18.0	18000	88900	79.75						
20.0	18000	84200	70.38						
23.0	18000	79000	61.02						
26.0	18000	74900	54.29						
30.0	18000	70000	46.79						
37.0	18000	63400	38.02						
45.0	18000	57500	31.30						
51.0	18000	54000	27.62						
58.0	18000	50000	23.95						
66.0	18000	47000	21.31						
76.0	18000	43200	18.37						
94.0	18000	38200	14.92						
111	17000	36700	12.65						

TK167 $n_1=1400$ 1/min 32000Nm									
n_2 [1/min]	M_{2max} [Nm]	Fr [N]	i	11.0 15.0	18.5 22.0	30.0 ~45.0	55.0 ~90.0	110 132	160
8.50	32000	150000	164.50						
10.0	32000	150000	134.99						
13.0	32000	150000	109.83						
16.0	32000	147200	87.86						
18.0	32000	140100	78.14						
21.0	32000	132000	68.07						

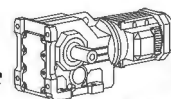
TK167 $n_1=1400$ 1/min 32000Nm									
n_2 [1/min]	M_{2max} [Nm]	Fr [N]	i	11.0 15.0	18.5 22.0	30.0 ~45.0	55.0 ~90.0	110 132	160
23.0	32000	125600	60.74						
27.0	32000	117000	51.77						
33.0	32000	107400	42.89						
38.0	32000	99700	36.61						
43.0	32000	93700	32.25						
49.0	32000	88600	28.77						
57.0	32000	81700	24.52						
69.0	32000	74000	20.32						
81.0	32000	67900	17.34						

TK187 $n_1=1400$ 1/min 50000Nm									
n_2 [1/min]	M_{2max} [Nm]	Fr [N]	i	18.5 22.0	30.0 ~45.0	55.0 ~90.0	110 132	160	
7.80	50000	190000	179.86						
8.50	50000	190000	165.21						
9.70	50000	190000	144.59						
11.0	50000	188200	129.69						
12.0	50000	177200	112.60						
14.0	50000	169900	102.16						
16.0	50000	159000	88.00						
19.0	50000	147000	73.96						
22.0	50000	137600	64.04						
26.0	50000	126100	53.36						
31.0	50000	116600	45.50						
33.0	50000	112700	42.51						
36.0	50000	107200	38.57						
42.0	50000	99100	33.23						
50.0	50000	90200	27.92						
58.0	47600	86800	24.18						
69.0	43900	84000	20.15						
81.0	41400	80800	17.18						

4. 7 TK..性能参数 / TK.. Performance Parameters

n_2 [1/min]	M_2 [Nm]	i	F_r [N]	K	Frame size	Input Configuration
$P_1=0.12kw$						
0.08	10800	17550	80300	1.20	TK 127 TRF77 TKF 127 TRF77 TKA 127 TRF77 TKAF127 TRF77	Y..63M ₁₋₄ AM63 AD2
0.09	9890	16006	80700	1.30		
0.09	9260	14975	81000	1.40		
0.11	7690	12440	81600	1.70		
0.13	6750	10915	81900	1.95		
0.14	6070	9819	82000	2.10		
0.16	5180	8443	82300	2.50		
0.18	4620	7482	82400	2.80		
0.10	8850	14311	65000	0.90	TK 107 TRF77 TKF 107 TRF77 TKA 107 TRF77 TKAF107 TRF77	Y..63M ₁₋₄ AM63 AD2
0.11	7550	12211	65000	1.05		
0.13	6600	10677	65000	1.20		
0.14	5890	9524	65000	1.35		
0.17	5150	8328	65000	1.55		
0.19	4490	7270	65000	1.80		
0.22	3700	6184	65000	2.20		
0.24	3210	5662	65000	2.50		
0.27	2910	5138	65000	2.70		
0.32	2670	4359	65000	3.00		
0.17	5460	8054	39400	0.80	TK 97 TRF57 TKF 97 TRF57 TKA 97 TRF57 TKAF 97 TRF57	Y..63M ₁₋₄ AM63 AD2
0.20	4420	6970	40000	0.95		
0.23	4000	6027	40000	1.05		
0.26	3650	5391	40000	1.20		
0.30	3020	4669	40000	1.40		
0.34	2730	4082	40000	1.55		
0.39	2370	3583	40000	1.80		
0.44	2090	3108	40000	2.00		
0.50	1770	2757	40000	2.40		
0.57	1650	2419	40000	2.60		
0.65	1420	2123	40000	3.00		
0.74	1270	1856	40000	3.40		
0.85	1040	1625	40000	4.10		
0.96	890	1430	40000	4.80		
1.10	860	1261	40000	5.00	TK 97 TRF57 TKF 97 TRF57 TKA 97 TRF57 TKAF 97 TRF57	Y..63M ₁₋₄ AM63 AD2
1.20	755	1102	40000	5.70		
0.26	3470	5240	26200	0.80	TK 87 TRF57 TKF 87 TRF57 TKA 87 TRF57 TKAF 87 TRF57	Y..63M ₁₋₄ AM63 AD2
0.30	2890	4562	27000	0.95		
0.34	2680	4037	27300	1.00		
0.38	2390	3609	27600	1.15		
0.44	2060	3107	28000	1.30		
0.51	1730	2728	28300	1.55		
0.58	1530	2371	28400	1.75		
0.66	1430	2088	28500	1.90		
0.74	1270	1854	28600	2.10		
0.83	1130	1657	28700	2.40		
0.97	960	1415	28800	2.80		
1.10	830	1229	28900	3.20		
1.30	720	1078	28900	3.70		
1.40	610	951	29000	4.40		
1.60	520	837	29000	5.20		
1.90	450	726	29000	5.90		

n_2 [1/min]	M_2 [Nm]	i	F_r [N]	K	Frame size	Input Configuration
$P_1=0.12kw$						
0.51	1840	2717	11500	0.85	TK 77 TRF37 TKF 77 TRF37 TKA 77 TRF37 TKAF 77 TRF37	Y..63M ₁₋₄ AM63 AD2
0.58	1530	2370	15500	1.00		
0.67	1430	2050	16100	1.10		
0.78	1220	1772	17300	1.25		
0.91	1040	1514	18100	1.50		
0.99	960	1388	18500	1.60		
1.10	840	1218	18900	1.85		
1.30	735	1053	19200	2.10		
1.50	645	924	19400	2.40		
1.70	570	815	19600	2.70		
2.00	445	709	19800	3.50		
2.20	390	622	19900	3.90		
1.00	960	1351	6940	0.85	TK 67 TRF37 TKF 67 TRF37 TKA 67 TRF37 TKAF 67 TRF37	Y..63M ₁₋₄ AM63 AD2
1.20	820	1171	10300	1.00		
1.30	720	1034	11100	1.15		
1.50	600	903	11900	1.35		
1.70	570	793	12100	1.45		
2.00	455	697	12600	1.80		
2.20	400	613	12800	2.00		
2.60	350	542	13000	2.30	TK 67 TRF37 TKF 67 TRF37 TKA 67 TRF37 TKAF 67 TRF37	Y..63M ₁₋₄ AM63 AD2
2.90	325	471	13000	2.50		
3.30	270	420	13000	3.00		
3.80	245	361	13000	3.30		
4.30	215	323	13000	3.80		
5.00	181	279	13000	4.50		
5.60	159	246	13000	5.20		
6.40	139	217	13000	5.90		
1.50	605	906	7580	1.00	TK 57 TRF37 TKF 57 TRF37 TKA 57 TRF37 TKAF 57 TRF37	Y..63M ₁₋₄ AM63 AD2
1.70	545	806	8060	1.10		
2.00	455	699	8620	1.30		
2.20	400	615	8870	1.50		
2.50	350	544	9080	1.70		
2.90	320	473	9190	1.85		
3.30	270	421	9390	2.20		
3.80	245	362	9470	2.40		
4.30	215	319	9570	2.80	TK 47 TRF37 TKF 47 TRF37 TKA 47 TRF37 TKAF 47 TRF37	Y..63M ₁₋₄ AM63 AD2
4.90	181	280	9690	3.30		
5.60	160	246	9760	3.80		
6.40	141	215	9810	4.30		
7.20	126	192	9850	4.80		
2.50	380	552	6170	1.05		
2.80	320	495	6840	1.25		
3.20	285	426	7160	1.40		
3.70	240	375	7510	1.65		
4.20	225	327	7620	1.75		
4.80	198	289	7780	2.00		
4.00	240	346	3540	0.80	TK 37 TRF17 TKF 37 TRF17 TKA 37 TRF17 TKAF 37 TRF17	Y..63M ₁₋₄ AM63 -
4.50	205	304	5570	0.95		
5.20	189	267	5760	1.05		
5.90	163	234	6010	1.20		
6.70	142	205	6180	1.40		
7.60	124	181	6300	1.60		
8.60	109	160	6400	1.85		



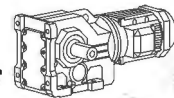
n_2 [1/min]	M_2 [Nm]	i	Fr [N]	K	Frame size	Input Configuration
$P_1=0.12kw$						
10.0	91	136	6490	2.20	TK 37 TRF17 TKF 37 TRF17 TKA 37 TRF17 TKAF 37 TRF17	Y..63M ₁ -4 AM63 -
9.50	120	145.14	9870	5.00	TK 57 TKF 57 TKA 57 TKAF 57	Y..63M ₁ -4 AM63 AD2
11.0	103	123.85	9920	5.80		
13.0	90	108.29	9950	6.70		
13.0	85	102.88	9960	7.00		
15.0	75	90.26	9990	8.00		
10.0	110	131.87	8140	3.60	TK 47 TKF 47 TKA 47 TKAF 47	Y..63M ₁ -4 AM63 AD2
11.0	101	121.48	8170	4.00		
13.0	88	106.38	6500	2.30	TK 37 TKF 37 TKA 37 TKAF 37	Y..63M ₁ -4 AM63 AD1
14.0	81	97.81	6530	2.50		
16.0	70	83.69	6570	2.90		
19.0	60	72.54	6600	3.30		
20.0	56	67.8	6610	3.60		
24.0	49	58.6	6430	4.10		
28.0	41	49.79	6130	4.80		
31.0	37	44.46	5930	5.40		
36.0	32	37.97	5660	6.40		
39.0	30	35.57	5550	6.80		
46.0	25	29.96	5270	8.00	TK 37 TKF 37 TKA 37 TKAF 37	Y..63M ₁ -4 AM63 AD2
48.0	24	28.83	5200	8.40		
55.0	21	24.99	4980	9.60		
59.0	19	23.36	4880	10.0		
68.0	17	20.19	4660	11.0		
80.0	14	17.15	4430	13.0		
90.0	13	15.31	4280	14.0		
105	11	13.08	4070	15.0		
114	10	12.14	3970	16.0		
$P_1=0.18kw$						
0.09	15700	14975	74400	0.80	TK 127 TRF77 TKF 127 TRF77 TKA 127 TRF77 TKAF 127 TRF77	Y..63M ₂ -4 AM63 AD2
0.11	13100	12440	79100	1.00		
0.12	11500	10915	80000	1.15		
0.13	10300	9819	80500	1.25		
0.16	8870	8443	81100	1.45		
0.18	7880	7482	81500	1.65		
0.20	6910	6565	81800	1.90		
0.23	5880	5804	82100	2.20		
0.26	5210	5027	82300	2.50		
0.30	4480	4423	82400	2.90		
0.34	3900	3889	82500	3.30		
0.40	3240	3311	82600	4.00		
0.16	8770	8328	65000	0.90	TK 107 TRF77 TKF 107 TRF77 TKA 107 TRF77 TKAF 107 TRF77	Y..63M ₂ -4 AM63 AD2
0.18	7660	7270	65000	1.05		
0.21	6410	6184	65000	1.25		
0.23	5690	5662	65000	1.40		
0.26	5160	5138	65000	1.55		
0.30	4580	4359	65000	1.75		

n_2 [1/min]	M_2 [Nm]	i	Fr [N]	K	Frame size	Input Configuration
$P_1=0.18kw$						
0.35	4000	3810	65000	2.00	TK 107 TRF77 TKF 107 TRF77 TKA 107 TRF77 TKAF 107 TRF77	Y..63M ₂ -4 AM63 AD2
0.39	3400	3358	65000	2.40		
0.44	3080	2977	65000	2.60		
0.51	2690	2599	65000	3.00		
0.58	2310	2286	65000	3.40		
0.28	5050	4669	39800	0.85	TK 97 TRF57 TKF 97 TRF57 TKA 97 TRF57 TKAF 97 TRF57	Y..63M ₂ -4 AM63 AD2
0.32	4530	4082	40000	0.95		
0.37	3940	3583	40000	1.10		
0.42	3450	3108	40000	1.25		
0.48	2980	2757	40000	1.45		
0.55	2720	2419	40000	1.60		
0.62	2360	2123	40000	1.80		
0.71	2090	1856	40000	2.10		
0.81	1760	1625	40000	2.40		
0.92	1520	1430	40000	2.80		
1.00	1420	1261	40000	3.00		
1.20	1240	1102	40000	3.50		
1.40	1080	957	40000	4.00		
1.50	970	855	40000	4.40		
1.80	770	743	40000	5.60	TK 97 TRF57 TKF 97 TRF57 TKA 97 TRF57 TKAF 97 TRF57	Y..63M ₂ -4 AM63 AD3
2.00	690	652	40000	6.20		
0.42	3430	3107	26200	0.80	TK 87 TRF57 TKF 87 TRF57 TKA 87 TRF57 TKAF 87 TRF57	Y..63M ₂ -4 AM63 AD2
0.48	2920	2728	27000	0.90		
0.56	2560	2371	27400	1.05		
0.63	2350	2088	27700	1.15		
0.71	2080	1854	28000	1.30		
0.80	1860	1657	28200	1.45	TK 87 TRF57 TKF 87 TRF57 TKA 87 TRF57 TKAF 87 TRF57	Y..63M ₂ -4 AM63 AD2
0.93	1590	1415	28400	1.70		
1.10	1380	1229	28600	1.95		
1.20	1200	1078	28700	2.20		
1.40	1030	951	28800	2.60		
1.60	890	837	28800	3.00		
1.80	775	726	28900	3.50		
0.87	1710	1514	14100	0.90	TK 77 TRF37 TKF 77 TRF37 TKA 77 TRF37 TKAF 77 TRF37	Y..63M ₂ -4 AM63 AD2
0.95	1570	1388	15200	1.00		
1.10	1380	1218	16500	1.10		
1.20	1200	1053	17400	1.30		
1.40	1050	924	18100	1.45	TK 77 TRF37 TKF 77 TRF37 TKA 77 TRF37 TKAF 77 TRF37	Y..63M ₂ -4 AM63 AD2
1.60	930	815	18600	1.65		
1.90	760	709	19100	2.00		
2.10	665	622	19300	2.30		
2.40	600	552	19500	2.60		
2.70	525	485	19600	2.90		
3.10	465	428	19800	3.30		
3.60	410	367	19800	3.80		
1.70	920	793	9240	0.90	TK 67 TRF37 TKF 67 TRF37 TKA 67 TRF37 TKAF 67 TRF37	Y..63M ₂ -4 AM63 AD2
1.90	760	697	10800	1.05		
2.20	670	613	11500	1.20		
2.40	590	542	12000	1.40		
2.80	535	471	12200	1.50		
3.20	455	420	12600	1.80		

TK

n_2 [1/min]	M_2 [Nm]	i	Fr [N]	K	Frame size		Input Configuration
P ₁ =0.18kw							
3.60	405	361	12800	2.00	TK	67 TRF37	Y..63M ₂ -4 AM63 AD2
4.10	360	323	12900	2.30	TKF	67 TRF37	
4.70	300	279	13000	2.70	TKA	67 TRF37	
					TKAF	67 TRF37	
2.40	590	544	7690	1.00	TK TKF TKA TKAF	57 TRF37 57 TRF37 57 TRF37 57 TRF37	Y..63M ₂ -4 AM63 AD2
2.80	535	473	8150	1.10			
3.10	455	421	8620	1.30			
3.60	405	362	8840	1.45			
4.10	360	319	9050	1.65			
4.70	300	280	9270	1.95			
5.40	265	246	9400	2.20			
6.10	235	215	9510	2.50	TK	57 TRF37	Y..63M ₂ -4 AM63 AD2
6.90	210	192	9600	2.80	TKF	57 TRF37	
7.90	182	166	9690	3.30	TKA	57 TRF37	
					TKAF	57 TRF37	
3.50	405	375	5600	1.00	TK TKF TKA TKAF	47 TRF37 47 TRF37 47 TRF37 47 TRF37	Y..63M ₂ -4 AM63 AD2
4.00	365	327	6320	1.10			
4.60	325	289	6800	1.20			
5.20	275	256	7240	1.45			
5.90	250	225	7450	1.60			
6.70	215	198	7680	1.85			
7.70	188	171	7840	2.10			
8.60	168	153	7930	2.40			
10.0	147	131	8020	2.70			
6.40	230	205	4860	0.85	TK	37 TRF17	Y..63M ₂ -4 AM63 -
7.30	200	181	5590	1.00	TKF	37 TRF17	
8.20	180	160	5860	1.10	TKA	37 TRF17	
9.70	151	136	6110	1.35	TKAF	37 TRF17	
10.0	145	127	6160	1.40			
6.00	285	144.79	13000	2.90	TK	67	Y..71M ₁ -6 AM71 AD2
7.00	240	123.54	13000	3.40	TKF	67	
8.00	210	108.03	13000	3.80	TKA	67	
8.50	200	102.62	13000	4.00	TKAF	67	
9.10	188	144.79	13000	4.40	TK	67	Y..63M ₂ -4 AM63 AD2
11.0	161	123.54	13000	5.10	TKF	67	
12.0	141	108.03	13000	5.80	TKA	67	
					TKAF	67	
6.00	285	145.14	9340	2.10	TK	57	Y..71M ₁ -6 AM71 AD2
7.00	240	123.85	9480	2.40	TKF	57	
8.00	210	108.29	9590	2.80	TKA	57	
8.50	200	102.88	9620	3.00	TKAF	57	
9.60	178	90.26	9700	3.40			
9.10	189	145.14	9670	3.20	TK	57	Y..63M ₂ -4 AM63 AD2
11.0	161	123.85	9750	3.70	TKF	57	
12.0	141	108.29	9810	4.30	TKA	57	
13.0	134	102.88	9830	4.50	TKAF	57	
15.0	118	90.26	9880	5.10	TK	57	Y..63M ₂ -4 AM63 AD2
17.0	100	76.56	9920	6.00	TKF	57	
					TKA	57	
					TKAF	57	

n_2 [1/min]	M_2 [Nm]	i	Fr [N]	K	Frame size		Input Configuration
$P_1=0.18kw$							
6.60	260	131.87	7380	1.55	TK TKF TKA TKAF	47	Y..71M ₁ -6 AM71 AD2
7.20	240	121.48	7530	1.65			
8.30	205	104.37	7740	1.95			
9.60	180	90.86	7880	2.20			
10.0	168	85.12	7930	2.40			
10.0	172	131.87	7910	2.30	TK TKF TKA TKAF	47	Y..63M ₂ -4 AM63 AD2
11.0	158	121.48	7970	2.50			
13.0	136	104.37	8060	2.90			
15.0	118	90.86	8120	3.40	TK TKF TKA TKAF	47	Y..63M ₂ -4 AM63 AD2
16.0	111	85.12	8140	3.60			
8.20	210	106.38	5520	0.95	TK TKF TKA TKAF	37	Y..71M ₁ -6 AM71 AD1
8.90	193	97.81	5710	1.05			
10.0	165	83.69	5990	1.20			
12.0	143	72.54	6170	1.40			
12.0	138	106.38	6210	1.45	TK TKF TKA TKAF	37	Y..63M ₂ -4 AM63 AD1
14.0	127	97.81	6280	1.55			
16.0	109	83.69	6400	1.85			
18.0	94	72.54	6470	2.10			
19.0	88	67.8	6500	2.30			
23.0	76	58.6	6280	2.60			
27.0	65	49.79	6010	3.10			
30.0	58	44.46	5830	3.40			
35.0	49	37.97	5580	4.00			
37.0	46	35.57	5480	4.30			
44.0	39	29.96	5220	5.10			
46.0	38	28.83	5160	5.30			
53.0	32	24.99	4950	6.20			
57.0	30	23.36	4850	6.40			
65.0	26	20.19	4650	7.00			
77.0	22	17.15	4430	8.10			
86.0	20	15.31	4280	8.80			
101	17	13.08	4080	9.70	TK TKF TKA TKAF	37	Y..63M ₂ -4 AM63 AD2
109	16	12.14	3980	10.0			
126	14	10.49	3810	12.0			
148	12	8.91	3620	14.0			
166	10	7.96	3490	15.0			
$P_1=0.25kw$							
0.13	15100	9819	75600	0.85	TK TKF TKA TKAF	127 TRF77	Y..71M ₁ -4 AM71 AD2
0.15	13000	8443	79200	1.00			
0.17	11500	7482	79900	1.10			
0.20	10100	6565	80600	1.30			
0.22	8750	5804	81200	1.50			
0.26	7690	5027	81600	1.70			
0.29	6660	4423	81900	1.95			
0.33	5820	3889	82100	2.20	TK TKF TKA TKAF	127 TRF77	Y..71M ₁ -4 AM71 AD2
0.39	4870	3311	82300	2.70			



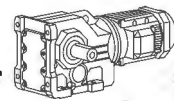
n ₂ [1/min]	M ₂ [Nm]	i	Fr [N]	K	Frame size	Input Configuration
P ₁ =0.25kw						
0.21	9460	6184	65000	0.85	TK 107 TRF77	Y..71M ₁ -4 AM71 AD2
0.23	8480	5662	65000	0.95	TKF 107 TRF77	
0.25	7690	5138	65000	1.05	TKA 107 TRF77	
0.30	6730	4359	65000	1.20	TKAF107 TRF77	
0.34	5880	3810	65000	1.35	TK 107 TRF77	Y..71M ₁ -4 AM71 AD2
0.39	5060	3358	65000	1.60	TKF 107 TRF77	
0.44	4550	2977	65000	1.75	TKA 107 TRF77	
					TKAF107 TRF77	
0.50	3970	2599	65000	2.00	TK 107 TRF77	Y..71M ₁ -4 AM71 AD2
0.57	3440	2286	65000	2.30	TKF 107 TRF77	
0.67	2920	1939	65000	2.70	TKA 107 TRF77	
					TKAF107 TRF77	
0.76	2670	1713	65000	3.00	TK 107 TRF77	Y..71M ₁ -4 AM71 AD3
0.84	2430	1554	65000	3.30	TKF 107 TRF77	
0.97	2080	1336	65000	3.80	TKA 107 TRF77	
					TKAF107 TRF77	
0.42	4980	3108	39900	0.85	TK 97 TRF57	Y..71M ₁ -4 AM71 AD2
0.47	4350	2757	40000	1.00	TKF 97 TRF57	
0.54	3920	2419	40000	1.10	TKA 97 TRF57	
0.61	3420	2123	40000	1.25	TKAF 97 TRF57	
0.70	3010	1856	40000	1.40		
0.80	2570	1625	40000	1.65	TK 97 TRF57	Y..71M ₁ -4 AM71 AD2
0.91	2240	1430	40000	1.90	TKF 97 TRF57	
					TKA 97 TRF57	
					TKAF 97 TRF57	
1.00	2050	1261	40000	2.10	TK 97 TRF57	Y..71M ₁ -4 AM71 AD2
1.20	1790	1102	40000	2.40	TKF 97 TRF57	
1.40	1560	957	40000	2.70	TKA 97 TRF57	
1.50	1400	855	40000	3.10	TKAF 97 TRF57	
0.62	3390	2088	26300	0.80		Y..71M ₁ -4 AM71 AD2
0.70	3010	1854	26900	0.90	TK 87 TRF57	
0.78	2690	1657	27300	1.00	TKF 87 TRF57	
0.92	2290	1415	27800	1.15	TKA 87 TRF57	
1.10	1990	1229	28100	1.35	TKAF 87 TRF57	
1.20	1730	1078	28300	1.55		
1.40	1500	951	28500	1.80		
1.60	1310	837	28600	2.10		
1.80	1130	726	28700	2.40		
2.00	1010	638	28800	2.70	TK 87 TRF57	
					TKF 87 TRF57	
					TKA 87 TRF57	
					TKAF 87 TRF57	
1.20	1720	1053	14000	0.90		Y..71M ₁ -4 AM71 AD2
1.40	1510	924	15600	1.00		
1.60	1330	815	16700	1.15	TK 77 TRF37	
1.80	1110	709	17800	1.40	TKF 77 TRF37	
2.10	970	622	18400	1.60	TKA 77 TRF37	
2.40	870	552	18700	1.75	TKAF 77 TRF37	
2.70	765	485	19100	2.00		
3.00	675	428	19300	2.30		

n ₂ [1/min]	M ₂ [Nm]	i	Fr [N]	K	Frame size	Input Configuration
P ₁ =0.25kw						
3.50	590	367	19500	2.60		TK 77 TRF37 TKF 77 TRF37 TKA 77 TRF37 TKAF 77 TRF37
4.00	525	328	19600	2.90		
4.50	465	290	19700	3.30		
5.20	400	252	19900	3.80		
5.90	350	221	19900	4.40		
6.70	310	195	20000	5.00		
7.40	270	175	20000	5.60		
2.10	970	613	5680	0.85		TK 67 TRF37 TKF 67 TRF37 TKA 67 TRF37 TKAF 67 TRF37
2.40	860	542	9920	0.95		
2.80	775	471	10700	1.05		
3.10	665	420	11500	1.25		
3.60	590	361	11900	1.4		
4.00	520	323	12300	1.55		
4.70	440	279	12600	1.85		
5.30	390	246	12800	2.10		
6.00	345	217	13000	2.40		
3.10	665	421	4200	0.90		TK 57 TRF37 TKF 57 TRF37 TKA 57 TRF37 TKAF 57 TRF37
3.60	590	362	7690	1.00		
4.10	520	319	8260	1.15		
4.60	440	280	8680	1.35		
5.30	390	246	8920	1.55		
6.00	345	215	9110	1.75		
6.80	305	192	9260	1.95		
7.80	265	166	9410	2.30		
9.00	230	145	9530	2.60		
10.0	210	129	9600	2.80		
12.0	178	111	9700	3.40		
13.0	156	97	9770	3.80		
4.70	510	192.18	19700	2.80	TK 77	Y..71M ₂ -6 AM71 AD2
5.00	475	179.37	19700	3.00	TKF 77	
5.80	410	154.02	19800	3.80	TKA 77	
6.60	360	135.28	19900	4.30	TKAF 77	
6.20	385	144.79	12900	2.10	TK 67	Y..71M ₂ -6 AM71 AD2
7.20	325	123.54	13000	2.50	TKF 67	
8.30	285	108.03	13000	2.80	TKA 67	
8.70	270	102.62	13000	3.00	TKAF 67	
9.00	265	144.79	13000	3.10	TK 67	Y..71M ₁ -4 AM71 AD2
11.0	225	123.54	13000	3.60	TKF 67	
12.0	198	108.03	13000	4.10	TKA 67	
13.0	188	102.62	13000	4.40	TKAF 67	
6.20	385	145.14	8940	1.55		TK 57 TKF 57 TKA 57 TKAF 57
7.20	330	123.85	9170	1.80		
8.30	285	108.29	9330	2.10		
8.70	270	102.88	9380	2.20		
9.90	240	90.26	9500	2.50		
12.0	200	76.56	9620	2.90		
9.00	265	145.14	9410	2.20		TK 57 TKF 57 TKA 57 TKAF 57
10.0	225	123.85	9540	2.60		
12.0	199	108.29	9640	3.00		
13.0	189	102.88	9670	3.20		
14.0	166	90.26	9740	3.60		
17.0	141	76.56	9810	4.30		

TK

n ₂ [1/min]	M ₂ [Nm]	i	Fr [N]	K	Frame size		Input Configuration
P _I =0.25kw							
6.80	350	131.87	6540	1.15	TK 47 TKF 47 TKA 47 TKAF 47	Y..71M ₂ -6 AM71 AD2	
7.40	320	121.48	6830	1.25			
8.60	275	104.37	7240	1.45			
9.80	240	90.86	7510	1.65			
11.0	225	85.12	7610	1.75			
9.90	240	131.87	7510	1.65	TK 47 TKF 47 TKA 47 TKAF 47	Y..71M ₁ -4 AM71 AD2	
11.0	220	121.48	7640	1.80			
12.0	192	104.37	7820	2.10			
14.0	167	90.86	7930	2.40			
15.0	156	85.12	7980	2.60			
11.0	220	83.69	5350	0.90	TK 37 TKF 37 TKA 37 TKAF 37	Y..71M ₂ -6 AM71 AD1	
12.0	194	72.54	5710	1.05			
13.0	181	67.8	5840	1.10			
15.0	156	58.6	6070	1.30			
18.0	133	49.79	6250	1.50			
12.0	195	106.38	5690	1.00	TK 37 TKF 37 TKA 37 TKAF 37	Y..71M ₁ -4 AM71 AD1	
13.0	180	97.81	5860	1.10			
16.0	154	83.69	6090	1.30			
18.0	133	72.54	6240	1.50			
19.0	124	67.8	6220	1.60			
22.0	108	58.6	6030	1.85			
26.0	91	49.79	5810	2.20			
29.0	82	44.46	5650	2.40			
34.0	70	37.97	5430	2.90	TK 37 TKF 37 TKA 37 TKAF 37	Y..71M ₁ -4 AM71 AD1	
37.0	65	35.57	5340	3.10			
43.0	55	29.96	5100	3.60	TK 37 TKF 37 TKA 37 TKAF 37	Y..71M ₁ -4 AM71 AD2	
45.0	53	28.83	5050	3.80			
52.0	46	24.99	4860	4.40			
56.0	43	23.36	4770	4.60			
64.0	37	20.19	4580	5.00			
76.0	32	17.15	4370	5.70			
85.0	28	15.31	4220	6.20			
99.0	24	13.08	4030	6.90			
107	22	12.14	3940	7.20			
124	19	10.49	3780	8.30			
146	16	8.91	3590	9.80			
163	15	7.96	3470	11.0			
191	12	6.8	3300	12.0	TK 37 TKF 37 TKA 37 TKAF 37	Y..71M ₁ -4 AM71 AD2	
204	12	6.37	3240	12.0			
P _I =0.37kw							
0.18	16500	7482	72700	0.80	TK 127 TRF77 TKF 127 TRF77 TKA 127 TRF77 TKAF127 TRF77	Y..71M ₂ -4 AM71 AD2	
0.21	14500	6565	76900	0.90			
0.24	12600	5804	79400	1.05			
0.27	11000	5027	80200	1.20			
0.31	9610	4423	80800	1.35			
0.35	8410	3889	81300	1.55			
0.42	7080	3311	81800	1.85			

n ₂ [1/min]	M ₂ [Nm]	i	Fr [N]	K	Frame size	Input Configuration
P ₁ =0.37kw						
0.72	4280	1926	82400	3.00	TK 127 TRF77	Y..71M ₂ -4 AM71 AD3
0.79	3900	1757	82500	3.30	TKF 127 TRF77	
0.90	3390	1541	82600	3.80	TKA 127 TRF77	
					TKAF127 TRF77	
0.36	8420	3810	65000	0.95		Y..71M ₂ -4 AM71 AD2
0.41	7290	3358	65000	1.10	TK 107 TRF77	
0.46	6530	2977	65000	1.20	TKF 107 TRF77	
0.53	5700	2599	65000	1.40	TKA 107 TRF77	
0.60	4960	2286	65000	1.60	TKAF107 TRF77	
0.71	4210	1939	65000	1.90		
0.81	3830	1713	65000	2.10	TK 107 TRF77	Y..71M ₂ -4 AM71 AD3
0.89	3470	1554	65000	2.30	TKF 107 TRF77	
1.00	2990	1336	65000	2.70	TKA 107 TRF77	
1.20	2600	1166	65000	3.10	TKAF107 TRF77	
0.65	4850	2123	40000	0.90		Y..71M ₂ -4 AM71 AD2
0.74	4270	1856	40000	1.00		
0.85	3670	1625	40000	1.15	TK 97 TRF57	
0.96	3200	1430	40000	1.35	TKF 97 TRF57	
1.10	2900	1261	40000	1.50	TKA 97 TRF57	
1.20	2530	1102	40000	1.70	TKAF 97 TRF57	
1.40	2220	957	40000	1.95		
1.60	1980	855	40000	2.20		
2.40	1310	573	40000	3.30		
1.90	1640	743	40000	2.60	TK 97 TRF57	Y..71M ₂ -4 AM71 AD3
2.10	1450	652	40000	3.00	TKF 97 TRF57	
					TKA 97 TRF57	
					TKAF 97 TRF57	
1.90	1640	743	40000	2.60	TK 97 TRF57	Y..71M ₂ -4 AM71 AD3
2.10	1450	652	40000	3.00	TKF 97 TRF57	
					TKA 97 TRF57	
					TKAF 97 TRF57	
0.97	3250	1415	26500	0.85		Y..71M ₂ -4 AM71 AD2
1.10	2820	1229	27100	0.95	TK 87 TRF57	
1.30	2460	1078	27600	1.10	TKF 87 TRF57	
1.40	2140	951	27900	1.25	TKA 87 TRF57	
1.60	1870	837	28200	1.45	TKAF 87 TRF57	
1.90	1620	726	28400	1.65		
2.20	1440	638	28500	1.85		Y..71M ₂ -4 AM71 AD3
2.50	1250	562	28600	2.20	TK 87 TRF57	
2.90	1050	474	28800	2.60	TKF 87 TRF57	
3.20	950	426	28800	2.80	TKA 87 TRF57	
3.70	830	373	28900	3.20	TKAF 87 TRF57	
1.70	1880	815	7450	0.80		Y..71M ₂ -4 AM71 AD2
2.00	1590	709	15100	0.95		
2.20	1390	622	16400	1.10		
2.50	1250	552	17200	1.25	TK 77 TRF37	
2.80	1090	485	17900	1.40	TKF 77 TRF37	
3.20	960	428	18400	1.60	TKA 77 TRF37	
3.80	840	367	18900	1.85	TKAF 77 TRF37	
4.20	745	328	19100	2.10		
4.80	665	290	19400	2.30		
5.50	570	252	19600	2.70		

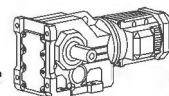


n_2 [1/min]	M_2 [Nm]	i	Fr [N]	K	Frame size	Input Configuration
$P_1=0.37kw$						
6.20	500	221	19700	3.10	TK 77 TRF37	Y..71M ₂ -4 AM71 AD2
7.10	440	195	19800	3.50	TKF 77 TRF37	
7.90	390	175	19900	4.00	TKA 77 TRF37	
9.00	345	154	19900	4.50	TKAF 77 TRF37	
3.30	940	420	8130	0.85	TK 67 TRF37 TKF 67 TRF37 TKA 67 TRF37 TKAF 67 TRF37	Y..71M ₂ -4 AM71 AD2
3.80	830	361	10200	1.00		
4.30	740	323	10900	1.10		
5.00	630	279	11700	1.30		
5.60	555	246	12100	1.50		
7.20	430	191	12700	1.90		
8.30	370	166	12900	2.20		
9.60	325	144	13000	2.50		
11.0	275	122	13000	2.90		
4.90	630	280	7350	0.95	TK 57 TRF37 TKF 57 TRF37 TKA 57 TRF37 TKAF 57 TRF37	Y..71M ₂ -4 AM71 AD2
5.60	555	246	7980	1.10		
6.40	490	215	8460	1.20		
7.20	435	192	8720	1.40		
8.30	375	166	8980	1.60		
11.0	295	129	9290	2.00		
12.0	250	111	9460	2.40		
14.0	220	97	9560	2.70		
4.60	770	197.37	28900	3.50	TK 87 TKF 87 TKA 87 TKAF 87	Y..80M ₁ -6 AM80 AD2
5.20	680	174.19	28900	4.00		
5.90	600	154.02	19500	2.60		Y..80M ₁ -6 AM80 AD2
6.70	525	135.28	19600	2.90		
7.00	500	128.52	19700	3.10		
8.00	440	113.56	19800	3.50		
7.20	490	192.18	19700	3.00	TK 77 TKF 77 TKA 77 TKAF 77	Y..71M ₂ -4 AM71 AD2
7.70	455	179.37	19800	3.20		
9.00	390	154.02	19900	3.90		
7.30	480	123.54	12500	1.70		Y..80M ₁ -6 AM80 AD2
8.40	420	108.03	12700	1.95		
8.80	400	102.62	12800	2.00		
10.0	350	90.04	13000	2.30		
9.50	370	144.79	12900	2.20	TK 67 TKF 67 TKA 67 TKAF 67	Y..71M ₂ -4 AM71 AD2
11.0	315	123.54	13000	2.60		
13.0	275	108.03	13000	3.00		
15.0	230	90.04	13000	3.60		
18.0	196	76.37	13000	4.20		
7.30	480	123.85	8500	1.25	TK 57 TKF 57 TKA 57 TKAF 57	Y..80M ₁ -6 AM80 AD2
8.40	420	108.29	8780	1.40		
8.80	400	102.88	8880	1.50		
10.0	350	90.26	9080	1.70		
12.0	295	76.56	9290	2.00		
13.0	265	69.12	9400	2.20		

n_2 [1/min]	M_2 [Nm]	i	Fr [N]	K	Frame size		Input Configuration
P ₁ =0.37kw							
9.50	370	145.14	9000	1.60	TK TKF TKA TKAF	57	Y..71M ₂ -4 AM71 AD2
11.0	315	123.85	9220	1.90			
13.0	275	108.29	9370	2.20			
13.0	260	102.88	9420	2.30			
18.0	196	76.56	9640	3.10			
20.0	177	69.12	9700	3.40			
8.70	405	104.37	5720	1.00	TK	47	Y..80M ₁ -6 AM80 AD2
10.0	350	90.86	6500	1.15	TKF	47	
11.0	330	85.12	6750	1.20	TKA	47	
12.0	290	75.20	7120	1.35	TKAF	47	
10.0	335	131.87	6690	1.20	TK TKF TKA TKAF	47	Y..71M ₂ -4 AM71 AD2
11.0	310	121.48	6960	1.30			
13.0	265	104.37	7330	1.50			
15.0	230	90.86	7580	1.70			
16.0	215	85.12	7670	1.85			
18.0	192	75.20	7810	2.10			
20.0	179	69.84	7880	2.20			
22.0	162	63.30	7960	2.50			
14.0	250	97.81	2520	0.80	TK TKF TKA TKAF	37	Y..71M ₂ -4 AM71 AD1
16.0	210	83.69	5470	0.95			
19.0	186	72.54	5690	1.10			
20.0	174	67.8	5630	1.15			
24.0	150	58.6	5500	1.35			
28.0	128	49.79	5350	1.55			
31.0	114	44.46	5230	1.75			
36.0	97	37.97	5060	2.10			
39.0	91	35.57	4990	2.20			
46.0	77	29.96	4800	2.60	TK TKF TKA TKAF	37	Y..71M ₂ -4 AM71 AD2
48.0	74	28.83	4750	2.70			
55.0	64	24.99	4590	3.10			
59.0	60	23.36	4510	3.30			
68.0	52	20.19	4350	3.60			
80.0	44	17.15	4160	4.10			
90.0	39	15.31	4040	4.50			
105	34	13.08	3860	4.90			
114	31	12.14	3780	5.10			
132	27	10.49	3630	6.00			
155	23	8.91	3460	7.00			
173	20	7.96	3350	7.60			
203	17	6.8	3190	8.60			
217	16	6.37	3130	8.90	TK	37	Y..71M ₂ -4 AM71 AD2
257	14	5.36	2970	10.0	TKF	37	
					TKA	37	
					TKAF	37	
P ₁ =0.55kw							
0.08	54100	16978	190000	0.90	TK TKH	187 TRF97 187 TRF97	Y..80M ₁ -4 AM80 AD3
0.10	45400	14272	190000	1.10			
0.11	41300	13116	190000	1.20			
0.12	36000	11647	190000	1.40			
0.19	23300	7343	190000	2.10			

n ₂ [1/min]	M ₂ [Nm]	i	Fr [N]	K	Frame size	Input Configuration
P ₁ =0.55kw						
0.12	36900	11573	150000	0.85	TK 167 TRF97 TKH 167 TRF97	Y..80M ₁ -4 AM80 AD3
0.13	32700	10264	150000	1.00		
0.16	27400	8628	150000	1.15		
0.21	20800	6562	150000	1.55		
0.26	16500	5355	150000	1.95		
0.34	12800	4079	150000	2.50		
0.20	21900	6881	110000	0.80	TK 157 TRF97 TKF 157 TRF97 TKA 157 TRF97 TKAF157 TRF97	Y..80M ₁ -4 AM80 AD3
0.23	18800	5931	111700	0.95		
0.35	12600	3979	114500	1.40		
0.45	9710	3051	115400	1.85		
0.31	14600	4423	76600	0.90	TK 127 TRF77 TKF 127 TRF77 TKA 127 TRF77 TKAF127 TRF77	Y..80M ₁ -4 AM80 AD2
0.35	12800	3889	79200	1.00		
0.42	10800	3311	80300	1.20		
0.46	9840	3009	80700	1.30		
0.53	8450	2607	81300	1.55		
0.72	6520	1926	81900	2.00	TK 127 TRF77 TKF 127 TRF77 TKA 127 TRF77 TKAF127 TRF77	Y..80M ₁ -4 AM80 AD3
0.79	5940	1757	82100	2.20		
0.90	5180	1541	82300	2.50		
1.00	4540	1342	82400	2.90		
1.20	3950	1177	82500	3.30		
1.40	3460	1025	82600	3.80		
0.46	9950	2977	65000	0.80	TK 107 TRF77 TKF 107 TRF77 TKA 107 TRF77 TKAF107 TRF77	Y..80M ₁ -4 AM80 AD2
0.53	8690	2599	65000	0.90		
0.60	7590	2286	65000	1.05		
0.71	6440	1939	65000	1.25		
0.81	5820	1713	65000	1.35	TK 107 TRF77 TKF 107 TRF77 TKA 107 TRF77 TKAF107 TRF77	Y..80M ₁ -4 AM80 AD3
0.89	5280	1554	65000	1.50		
1.00	4540	1336	65000	1.75		
1.20	3960	1166	65000	2.00		
1.30	3400	1030	65000	2.40		
1.50	2960	904	65000	2.70		
1.70	2680	793	65000	3.00		
2.00	2330	696	65000	3.40		
2.20	2010	615	65000	4.00		
0.96	4860	1430	40000	0.90	TK 97 TRF57 TKF 97 TRF57 TKA 97 TRF57 TKAF 97 TRF57	Y..80M ₁ -4 AM80 AD2
1.10	4360	1261	40000	1.00		
1.20	3810	1102	40000	1.15		
1.40	3340	957	40000	1.30		
1.60	2990	855	40000	1.45		
2.40	1980	573	40000	2.20		
1.90	2500	743	40000	1.70	TK 97 TRF57 TKF 97 TRF57 TKA 97 TRF57 TKAF 97 TRF57	Y..80M ₁ -4 AM80 AD3
2.10	2210	652	40000	1.95		
2.70	1690	504	40000	2.50		
3.20	1450	437	40000	3.00		
3.60	1300	382	40000	3.30		
4.50	1040	305	40000	4.10		
1.40	3250	951	26500	0.85	TK 87 TRF57 TKF 87 TRF57 TKA 87 TRF57 TKAF 87 TRF57	Y..80M ₁ -4 AM80 AD2
1.60	2840	837	27100	0.95		
1.90	2470	726	27600	1.10		

n ₂ [1/min]	M ₂ [Nm]	i	Fr [N]	K	Frame size	Input Configuration
P ₁ =0.55kw						
2.20	2180	638	27900	1.25	TK 87 TRF57 TKF 87 TRF57 TKA 87 TRF57 TKAF 87 TRF57	Y..80M ₁ -4 AM80 AD3
2.50	1910	562	28100	1.40		
2.90	1610	474	28400	1.70		
3.20	1440	426	28500	1.85		
3.70	1270	373	28600	2.10		
4.20	1100	330	28700	2.40		
4.70	990	294	28800	2.70		
5.50	860	250	28900	3.10		
5.80	810	236	28900	3.30		
6.90	685	201	28900	3.90		
2.80	1660	485	14600	0.95	TK 77 TRF37 TKF 77 TRF37 TKA 77 TRF37 TKAF 77 TRF37	Y..80M ₁ -4 AM80 AD2
3.20	1460	428	16000	1.05		
3.80	1260	367	17100	1.20		
4.20	1120	328	17800	1.35		
4.80	1000	290	18300	1.55	TK 77 TRF37 TKF 77 TRF37 TKA 77 TRF37 TKAF 77 TRF37	Y..80M ₁ -4 AM80 AD2
5.50	860	252	18800	1.80		
6.20	755	221	19100	2.00		
7.10	665	195	19300	2.30		
7.90	595	175	19500	2.60		
9.00	525	154	19600	3.00		
5.00	950	279	7650	0.85	TK 67 TRF37 TKF 67 TRF37 TKA 67 TRF37 TKAF 67 TRF37	Y..80M ₁ -4 AM80 AD2
5.60	840	246	10100	0.95		
6.40	745	217	10900	1.10		
7.20	655	191	11600	1.25		
7.20	655	192	5460	0.90	TK 57 TRF37 TKF 57 TRF37 TKA 57 TRF37 TKAF 57 TRF37	Y..80M ₁ -4 AM80 AD2
8.30	570	166	7870	1.05		
9.60	500	145	8420	1.20		
11.0	445	129	8660	1.35		
12.0	380	111	8960	1.55		
14.0	335	97	9140	1.80		
4.60	1130	197.37	28700	2.40	TK 87 TKF 87 TKA 87 TKAF 87	Y..80M ₁ -6 AM80 AD2
5.20	990	174.19	28800	2.70		
5.60	940	164.34	28800	2.90		
6.20	840	147.32	28900	3.20		
5.90	880	154.02	18700	1.75	TK 77 TKF 77 TKA 77 TKAF 77	Y..80M ₁ -6 AM80 AD2
6.80	775	135.28	19100	2.00		
7.10	735	128.52	19200	2.10		
8.10	650	113.56	19400	2.40		
9.00	585	154.02	19500	2.60	TK 77 TKF 77 TKA 77 TKAF 77	Y..80M ₁ -4 AM80 AD2
10.0	510	135.28	19700	3.00		
11.0	485	128.52	19700	3.20		
12.0	430	113.56	19800	3.60		
14.0	365	97.05	19900	4.20		
7.40	705	123.54	11200	1.15	TK 67 TKF 67 TKA 67 TKAF 67	Y..80M ₁ -6 AM80 AD2
8.50	620	108.03	11800	1.30		
8.90	585	102.62	12000	1.40		
10.0	515	90.04	12300	1.60		
12.0	435	76.37	12700	1.85		



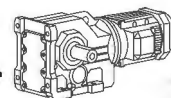
n_2 [1/min]	M_2 [Nm]	i	Fr [N]	K	Frame size	Input Configuration
$P_1=0.55kw$						
11.0	470	123.54	12500	1.75	TK 67	Y..80M ₁ -4 AM80 AD2
13.0	410	108.03	12800	2.00	TKF 67	
15.0	340	90.04	13000	2.40	TKA 67	
18.0	290	76.37	13000	2.80	TKAF 67	
8.40	620	108.29	7450	0.95	TK 57 TKF 57 TKA 57 TKAF 57	Y..80M ₂ -6 AM80 AD2
8.90	590	102.88	7710	1.00		
10.0	515	90.26	8280	1.15		
12.0	435	76.56	8710	1.35		
13.0	395	69.12	8900	1.50		
15.0	345	60.81	9100	1.70		
16.0	325	57.42	9170	1.80		
11.0	470	123.85	8560	1.25	TK 57 TKF 57 TKA 57 TKAF 57	Y..80M ₁ -4 AM80 AD2
13.0	410	108.29	8830	1.45		
13.0	390	102.88	8920	1.55		
15.0	340	90.26	9120	1.75		
18.0	290	76.56	9320	2.10		
20.0	260	69.12	9420	2.30		
23.0	230	60.81	9530	2.60		
24.0	215	57.42	9570	2.80		
13.0	395	104.37	5960	1.00	TK 47 TKF 47 TKA 47 TKAF 47	Y..80M ₁ -4 AM80 AD2
15.0	345	90.86	6600	1.15		
16.0	320	85.12	6830	1.25		
18.0	285	75.20	7180	1.40		
20.0	265	69.84	7340	1.50		
22.0	240	63.30	7520	1.65		
24.0	215	56.83	7680	1.85		
28.0	186	48.95	7840	2.20		
30.0	175	46.03	7900	2.30		
24.0	220	58.6	4840	0.90	TK 37 TKF 37 TKA 37 TKAF 37	Y..80M ₁ -4 AM80 AD1
28.0	190	49.79	4780	1.05		
31.0	169	44.46	4730	1.20		
36.0	144	37.97	4630	1.40		
39.0	135	35.57	4580	1.50		
46.0	114	29.96	4460	1.75	TK 37 TKF 37 TKA 37 TKAF 37	Y..80M ₁ -4 AM80 AD2
48.0	110	28.83	4420	1.80		
55.0	95	24.99	4310	2.10		
59.0	89	23.36	4250	2.20		
68.0	77	20.19	4120	2.40		
80.0	65	17.15	3970	2.80		
90.0	58	15.31	3860	3.00	TK 37 TKF 37 TKA 37 TKAF 37	Y..80M ₁ -4 AM80 AD2
105	50	13.08	3720	3.30		
114	46	12.14	3650	3.50		
132	40	10.49	3510	4.00		
155	34	8.91	3360	4.70		
173	30	7.96	3260	5.10		
203	26	6.8	3120	5.80		
217	24	6.37	3060	6.00	TK 37 TKF 37 TKA 37 TKAF 37	Y..80M ₁ -4 AM80 AD2
257	20	5.36	2910	6.90		
347	15	3.98	2670	8.30		

n_2 [1/min]	M_2 [Nm]	i	Fr [N]	K	Frame size	Input Configuration
$P_1=0.75kw$						
0.11	55500	13116	190000	0.90	TK 187 TRF97 TKH 187 TRF97	Y..80M ₂ -4 AM80 AD3
0.12	48600	11647	190000	1.05		
0.20	31300	7343	190000	1.60		
0.21	28500	6747	190000	1.75		
0.24	25000	5991	190000	2.00		
0.17	36800	8628	150000	0.85	TK 167 TRF97 TKH 167 TRF97	Y..80M ₂ -4 AM80 AD3
0.22	28000	6562	150000	1.15		
0.27	22300	5355	150000	1.45		
0.35	17200	4079	150000	1.85		
0.43	14400	3376	150000	2.20		
0.36	16900	3979	112700	1.05	TK 157 TRF97 TKF 157 TRF97 TKA 157 TRF97 TKAF157 TRF97	Y..80M ₂ -4 AM80 AD3
0.47	13000	3051	114300	1.40		
0.87	7160	1659	116000	2.50	TK 157 TRF97 TKF 157 TRF97 TKA 157 TRF97 TKAF157 TRF97	Y..80M ₂ -4 AM80 AD4
1.00	5770	1365	116200	3.10	TK 157 TRF97 TKF 157 TRF97 TKA 157 TRF97 TKAF157 TRF97	Y..80M ₂ -4 AM80 AD5
0.43	14500	3311	77000	0.90	TK 127 TRF77 TKF 127 TRF77 TKA 127 TRF77 TKAF127 TRF77	Y..80M ₁ -4 AM80 AD2
0.48	13100	3009	79100	1.00		
0.55	11200	2607	80100	1.15		
0.74	8650	1926	81200	1.50	TK 127 TRF77 TKF 127 TRF77 TKA 127 TRF77 TKAF127 TRF77	Y..80M ₁ -4 AM80 AD3
0.82	7880	1757	81500	1.65		
0.93	6880	1541	81800	1.90		
1.10	6020	1342	82100	2.20		
1.20	5250	1177	82200	2.50	TK 127 TRF77 TKF 127 TRF77 TKA 127 TRF77 TKAF127 TRF77	Y..80M ₁ -4 AM80 AD3
1.40	4600	1025	82400	2.80		
1.60	4010	899	82500	3.20		
0.84	7710	1713	65000	1.05	TK 107 TRF77 TKF 107 TRF77 TKA 107 TRF77 TKAF107 TRF77	Y..80M ₂ -4 AM80 AD3
0.92	7000	1554	65000	1.15		
1.10	6020	1336	65000	1.35		
1.20	5250	1166	65000	1.50		
1.40	4540	1030	65000	1.75		
1.60	3960	904	65000	2.00		
1.80	3560	793	65000	2.20		
2.10	3100	696	65000	2.60		
2.30	2690	615	65000	3.00		
1.30	5030	1102	39900	0.85	TK 97 TRF57 TKF 97 TRF57 TKA 97 TRF57 TKAF 97 TRF57	Y..80M ₂ -4 AM80 AD2
1.50	4410	957	40000	0.95		
1.70	3940	855	40000	1.10		
2.50	2620	573	40000	1.65		
1.90	3320	743	40000	1.30	TK 97 TRF57 TKF 97 TRF57 TKA 97 TRF57 TKAF 97 TRF57	Y..80M ₂ -4 AM80 AD3
2.20	2930	652	40000	1.45		
2.80	2250	504	40000	1.90		
3.30	1940	437	40000	2.20		
3.80	1720	382	40000	2.50		
4.70	1390	305	40000	3.10		

TK

n ₁ [1/min]	M ₁ [Nm]	i	Fr [N]	K	Frame size	Input Configuration
P₁=0.75kw						
5.60	1170	258	40000	3.70	TK 97 TRF57	Y..80M ₁ -4 AM80 AD3
6.20	1050	232	40000	4.10	TKF 97 TRF57	
7.20	890	199	40000	4.80	TKA 97 TRF57	
					TKAF 97 TRF57	
2.00	3270	726	26500	0.80	TK 87 TRF57	Y..80M ₁ -4 AM80 AD2
					TKF 87 TRF57	
					TKA 87 TRF57	
					TKAF 87 TRF57	
2.20	2890	638	27000	0.95	TK 87 TRF57	Y..80M ₁ -4 AM80 AD3
2.60	2530	562	27500	1.05		
3.00	2130	474	27900	1.25		
3.40	1910	426	28100	1.40		
3.80	1680	373	28300	1.60		
4.40	1470	330	28500	1.85	TKAF 87 TRF57	
4.90	1310	294	28600	2.0	TK 87 TRF57	Y..80M ₁ -4 AM80 AD3
5.70	1130	250	28700	2.4	TKF 87 TRF57	
6.10	1070	236	28700	2.5	TKA 87 TRF57	
7.10	910	201	28800	3.0	TKAF 87 TRF57	
3.90	1670	367	14400	0.95	TK 77 TRF37	Y..80M ₁ -4 AM80 AD2
4.40	1490	328	15800	1.05		
5.00	1320	290	16800	1.15		
5.70	1140	252	17700	1.35		
6.50	1000	221	18300	1.55	TKAF 77 TRF37	
5.40	1320	174.19	28600	2.00	TK 87	Y..90S-6 AM90 AD2
5.70	1250	164.34	28600	2.20	TKF 87	
6.40	1120	147.32	28700	2.40	TKA 87	
7.40	960	126.91	28800	2.80	TKAF 87	
7.30	980	197.37	28800	2.70	TK 87	Y..80M ₁ -4 AM80 AD2
8.20	860	174.19	28800	3.10	TKF 87	
8.70	820	164.34	28900	3.30	TKA 87	
9.70	735	147.32	28900	3.70	TKAF 87	
7.00	1030	135.28	18200	1.50	TK 77	Y..90S-6 AM90 AD2
7.30	970	128.52	18400	1.60		
8.30	860	113.56	18800	1.80		
9.70	735	97.05	19200	2.10		
11.0	675	88.97	19300	2.30	TKAF 77	
9.30	765	154.02	19100	2.00	TK 77	Y..80M ₁ -4 AM80 AD2
11.0	675	135.28	19300	2.30		
11.0	640	128.52	19400	2.40		
13.0	565	113.56	19600	2.70		
15.0	480	97.05	19700	3.20	TKAF 77	
12.0	615	123.54	11800	1.35	TK 67	Y..80M ₁ -4 AM80 AD2
13.0	535	108.03	12200	1.50		
16.0	445	90.04	12600	1.80		
19.0	380	76.37	12900	2.20		
21.0	340	68.95	13000	2.40		
24.0	300	60.66	13000	2.70		
25.0	285	57.28	13000	2.90	TKAF 67	

n ₁ [1/min]	M ₁ [Nm]	i	Fr [N]	K	Frame size	Input Configuration
P _I =0.75kw						
12.0	615	123.85	7480	0.95	TK 57 TKF 57 TKA 57 TKAF 57	Y..80M ₂ -4 AM80 AD2
13.0	540	108.29	8110	1.10		
14.0	510	102.88	8320	1.15		
16.0	450	90.26	8660	1.35		
19.0	380	76.56	8960	1.55		
21.0	345	69.12	9110	1.75		
24.0	300	60.81	9270	2.00		
25.0	285	57.42	9340	2.10		
29.0	240	48.89	9490	2.50		
32.0	220	44.43	9560	2.70		
19.0	375	75.20	6260	1.05	TK 47 TKF 47 TKA 47 TKAF 47	Y..80M ₂ -4 AM80 AD2
21.0	345	69.84	6570	1.15		
23.0	315	63.30	6910	1.25		
25.0	280	56.83	7200	1.40		
29.0	240	48.95	7500	1.65		
31.0	225	46.03	7600	1.75		
36.0	198	39.61	7780	2.00		
41.0	177	35.39	7700	2.30		
46.0	156	31.3	7490	2.60		
32.0	220	44.46	4170	0.90	TK 37 TKF 37 TKA 37 TKAF 37	Y..80M ₂ -4 AM80 AD1
38.0	190	37.97	4140	1.05		
40.0	178	35.57	4130	1.15		
48.0	150	29.96	4060	1.35	TK 37 TKF 37 TKA 37 TKAF 37	Y..80M ₂ -4 AM80 AD2
50.0	144	28.83	4040	1.40		
57.0	125	24.99	3970	1.60		
61.0	117	23.36	3930	1.65		
71.0	101	20.19	3840	1.85		
84.0	86	17.15	3720	2.10		
94.0	76	15.31	3640	2.30		
110	65	13.08	3520	2.50		
118	61	12.14	3460	2.60		
137	52	10.49	3350	3.00		
161	44	8.91	3220	3.60		
180	40	7.96	3130	3.90		
211	34	6.8	3000	4.40	TK 37 TKF 37 TKA 37 TKAF 37	Y..80M ₂ -4 AM80 AD2
225	32	6.37	2950	4.60		
268	27	5.36	2810	5.20		
361	20	3.98	2590	6.30		
P _I =1.1kw						
0.15	58700	9363	190000	0.85	TK 187 TRF97 TKH 187 TRF97	Y..90S-4 AM90 AD3
0.17	50200	8126	190000	1.00		
0.19	47600	7343	190000	1.05		
0.21	43500	6747	190000	1.15		
0.24	38300	5991	190000	1.30	TK 187 TRF97 TKH 187 TRF97	Y..90S-4 AM90 AD4
0.27	33900	5358	190000	1.45		
0.29	30200	4817	190000	1.65		
0.32	27400	4370	190000	1.80		
0.27	34200	5355	150000	0.95	TK 167 TRF97 TKH 167 TRF97	Y..90S-4 AM90 AD3
0.30	30300	4788	150000	1.05		
0.35	26300	4079	150000	1.20		
0.42	21900	3376	150000	1.45		



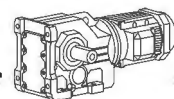
n_2 [1/min]	M_2 [Nm]	i	Fr [N]	K	Frame size	Input Configuration
$P_1=1.1kw$						
0.52	17600	2755	150000	1.80	TK 167 TRF97 TKH 167 TRF97	Y..90S-4 AM90 AD3
0.65	14300	2182	150000	2.20	TK 167 TRF97	Y..90S-4
1.00	9240	1408	150000	3.50	TKH 167 TRF97	AM90 AD4
0.83	11100	1704	150000	2.90	TK 167 TRF97	Y..90S-4
1.10	8460	1296	150000	3.80	TKH 167 TRF97	AM90 AD5
0.40	22200	3516	109700	0.80	TK 157 TRF97 TKF 157 TRF97	Y..90S-4
0.47	19800	3051	111200	0.90	TKA 157 TRF97 TKAF157 TRF97	AM90 AD3
0.54	16300	2610	113000	1.10	TK 157 TRF97	Y..90S-4
0.61	14500	2322	113700	1.25	TKF 157 TRF97	AM90
0.86	10800	1659	115000	1.65	TKA 157 TRF97 TKAF157 TRF97	AD4
1.00	8840	1365	115600	2.00	TK 157 TRF97	Y..90S-4
1.20	7880	1229	115800	2.30	TKF 157 TRF97	AM90
1.30	7010	1093	116000	2.60	TKA 157 TRF97	AD5
1.50	6040	942	116200	3.00	TKAF157 TRF97	
1.70	5420	854	116300	3.30		
0.74	12900	1926	79200	1.00		Y..90S-4
0.81	11800	1757	79800	1.10	TK 127 TRF77	AM90
0.92	10300	1541	80500	1.25	TKF 127 TRF77	AD3
1.10	9030	1342	81100	1.45	TKA 127 TRF77	
1.20	7900	1177	81500	1.65	TKAF127 TRF77	
1.40	6900	1025	81800	1.90		
1.60	6030	899	82000	2.20		
1.80	5190	790	82300	2.50		
2.00	4700	704	82400	2.80	TK 127 TRF77	Y..90S-4
2.30	4040	610	82500	3.20	TKF 127 TRF77	AM90
2.60	3650	549	82600	3.60	TKA 127 TRF77	AD4
3.00	3140	477	82600	4.10	TKAF127 TRF77	
1.20	7870	1166	65000	1.00		Y..90S-4
1.40	6860	1030	65000	1.15	TK 107 TRF77	AM90
1.60	5990	904	65000	1.35	TKF 107 TRF77	AD3
1.80	5340	793	65000	1.50	TKA 107 TRF77	
2.00	4670	696	65000	1.70	TKAF107 TRF77	
2.30	4080	615	65000	1.95		
2.70	3460	522	65000	2.30		
3.10	3040	461	65000	2.60		
3.50	2680	408	65000	3.00		
3.90	2420	364	65000	3.30	TK 107 TRF77	Y..90S-4
4.50	2120	318	65000	3.80	TKF 107 TRF77	AM90
					TKA 107 TRF77	AD4
					TKAF107 TRF77	
2.50	3920	573	40000	1.10	TK 97 TRF57	Y..90S-4
					TKF 97 TRF57	AM90
					TKA 97 TRF57	AD2
					TKAF 97 TRF57	

n_2 [1/min]	M_2 [Nm]	i	Fr [N]	K	Frame size	Input Configuration
$P_1=1.1kw$						
1.90	4990	743	39900	0.85	TK 97 TRF57	Y..90S-4
2.20	4390	652	40000	1.00	TKF 97 TRF57	AM90
2.80	3380	504	40000	1.25	TKA 97 TRF57	AD3
3.20	2920	437	40000	1.45	TKAF 97 TRF57	
3.70	2580	382	40000	1.65	TK 97 TRF57	Y..90S-4
4.20	2280	342	40000	1.90	TKF 97 TRF57	AM90
					TKA 97 TRF57	AD3
					TKAF 97 TRF57	
3.00	3200	474	26600	0.85	TK 87 TRF57	Y..90S-4
3.30	2870	426	27100	0.95	TKF 87 TRF57	AM90
3.80	2530	373	27500	1.05	TKA 87 TRF57	AD3
4.30	2210	330	27800	1.20	TKAF 87 TRF57	
4.80	1980	294	28100	1.35	TK 87 TRF57	Y..90S-4
5.70	1700	250	28300	1.60	TKF 87 TRF57	AM90
6.00	1610	236	28400	1.70	TKA 87 TRF57	AD3
7.10	1360	201	28600	1.95	TKAF 87 TRF57	
5.30	1960	176.05	40000	2.20	TK 97	Y..90L-6
6.10	1710	153.21	40000	2.50	TKF 97	AM90
6.70	1560	140.28	40000	2.70	TKA 97	AD3
7.60	1380	123.93	40000	3.10	TKAF 97	
8.10	1300	176.05	40000	3.30	TK 97	Y..90S-4
9.30	1130	153.21	40000	3.80	TKF 97	AM90
10.0	1030	140.28	40000	4.10	TKA 97	AD3
					TKAF 97	
6.40	1640	147.32	28400	1.65	TK 87	Y..90L-6
7.40	1410	126.91	28500	1.90	TKF 87	AM90
					TKA 87	AD2
					TKAF 87	
8.20	1280	174.19	28600	2.10	TK 87	Y..90S-4
8.60	1210	164.34	28700	2.20	TKF 87	AM90
9.60	1080	147.32	28700	2.50	TKA 87	AD2
11.0	930	126.91	28800	2.90	TKAF 87	
12.0	850	115.82	28900	3.20		
8.30	1260	113.56	17100	1.20	TK 77	Y..90L-6
9.70	1080	97.05	18000	1.45	TKF 77	AM90
					TKA 77	AD2
					TKAF 77	
10.0	1000	135.28	18300	1.55		Y..90S-4
11.0	950	128.52	18500	1.65	TK 77	AM90
12.0	840	113.56	18900	1.85	TKF 77	AD2
15.0	715	97.05	19200	2.20	TKA 77	
16.0	655	88.97	19400	2.40	TKAF 77	
18.0	575	78.07	19500	2.70		
19.0	545	73.99	19600	2.80		
13.0	795	108.03	10500	1.05	TK 67	Y..90S-4
14.0	755	102.62	10800	1.10	TKF 67	AM90
16.0	665	90.04	11500	1.25	TKA 67	AD2
19.0	560	76.37	12100	1.45	TKAF 67	
21.0	510	68.95	12400	1.60		

TK

n_2 [1/min]	M_2 [Nm]	i	Fr [N]	K	Frame size	Input Configuration
P₁=1.1kw						
23.0	445	60.66	12600	1.85	TK 67	Y..90S-4 AM90 AD2
25.0	420	57.28	12700	1.95	TKF 67	
29.0	360	48.77	12900	2.30	TKA 67	
32.0	325	44.32	13000	2.50	TKAF 67	
37.0	280	38.39	13000	2.80		
16.0	665	90.26	4300	0.90		Y..90S-4 AM90 AD2
19.0	565	76.56	7900	1.05		
21.0	510	69.12	8330	1.15		
23.0	445	60.81	8660	1.35		
25.0	420	57.42	8770	1.40		
29.0	360	48.89	9040	1.65	TK 57	
32.0	325	44.43	9180	1.85	TKF 57	
37.0	280	38.49	9340	2.10	TKA 57	
40.0	260	35.7	9420	2.30	TKAF 57	
47.0	220	30.28	9550	2.70		
52.0	200	27.34	9480	3.00		
59.0	178	24.05	9190	3.40		
63.0	168	22.71	9060	3.60		
73.0	143	19.34	8690	4.00		
81.0	130	17.57	8470	4.30		
93.0	113	15.22	8150	4.80		Y..90S-4 AM90 AD3
107	98	13.25	7850	5.20	TK 57	
119	88	11.92	7540	4.70	TKF 57	
126	83	11.26	7420	5.00	TKA 57	
148	71	9.59	7090	5.70	TKAF 57	
163	64	8.71	6900	6.10		
188	56	7.55	6620	6.50		
216	49	6.57	6360	7.10		
303	35	4.69	5750	8.60		
25.0	420	56.83	4240	0.95		Y..90S-4 AM90 AD2
29.0	360	48.95	6420	1.10		
31.0	340	46.03	6660	1.15		
36.0	290	39.61	7120	1.35	TK 47	
40.0	260	35.39	7080	1.55	TKF 47	
45.0	230	31.3	6940	1.75	TKA 47	
48.0	215	29.32	6870	1.85	TKAF 47	
55.0	192	25.91	6720	2.10		
65.0	161	21.81	6490	2.50		
73.0	145	19.58	6340	2.80		
47.0	220	29.96	3430	0.90		Y..90S-4 AM90 AD2
57.0	185	24.99	3440	1.10	TK 37	
61.0	173	23.36	3440	1.15	TKF 37	
70.0	149	20.19	3410	1.25	TKA 37	
83.0	127	17.15	3360	1.40	TKAF 37	
93.0	113	15.31	3320	1.55		
109	97	13.08	3250	1.70		
117	90	12.14	3210	1.80		Y..90S-4 AM90 AD2
135	78	10.49	3130	2.10	TK 37	
159	66	8.91	3040	2.40	TKF 37	
178	59	7.96	2960	2.60	TKA 37	
209	50	6.8	2860	3.00	TKAF 37	
223	47	6.37	2820	3.10		
265	40	5.36	2710	3.50		
357	29	3.98	2510	4.20		

n_2 [1/min]	M_2 [Nm]	i	Fr [N]	K	Frame size	Input Configuration
P₁=1.5kw						
0.21	59800	6747	190000	0.85	TK 187 TRF97	Y..90L-4 AM90 AD3
0.24	52800	5991	190000	0.95	TKH 187 TRF97	
0.27	46900	5358	190000	1.05		Y..90L-4 AM90 AD4
0.30	41800	4817	190000	1.20	TK 187 TRF97	
0.33	37900	4370	190000	1.30	TKH 187 TRF97	
0.40	32500	3609	190000	1.55		
0.47	27500	3062	190000	1.80		
0.57	22400	2519	190000	2.20	TK 187 TRF97	Y..90L-4 AM90 AD5
0.63	20000	2268	190000	2.50	TKH 187 TRF97	
0.35	36100	4079	150000	0.90		Y..90L-4 AM90 AD3
0.42	30000	3376	150000	1.05	TK 167 TRF97	
0.52	24200	2755	150000	1.30	TKH 167 TRF97	
0.66	19600	2182	150000	1.60	TK 167 TRF97	Y..90L-4 AM90 AD4
1.00	12600	1408	150000	2.50	TKH 167 TRF97	
0.84	15300	1704	150000	2.10	TK 167 TRF97	Y..90L-4 AM90 AD5
1.10	11600	1296	150000	2.80	TKH 167 TRF97	
0.62	20100	2322	111000	0.90	TK 157 TRF97	Y..90L-4 AM90 AD4
0.86	14900	1659	113600	1.20	TKF 157 TRF97	
					TKA 157 TRF97	
					TKAF 157 TRF97	
1.00	12100	1365	114600	1.50		Y..90L-4 AM90 AD5
1.20	10800	1229	115000	1.65	TK 157 TRF97	
1.30	9680	1093	115400	1.85	TKF 157 TRF97	
1.50	8350	942	115700	2.20	TKA 157 TRF97	
1.70	7500	854	115900	2.40	TKAF 157 TRF97	
2.50	4930	567	116300	3.60		
2.80	4380	504	116400	4.10		
2.70	4750	536	82400	2.70	TK 127 TRF87	Y..90L-4 AM90 AD4
3.40	3740	418	82500	3.50	TKF 127 TRF87	
					TKA 127 TRF87	
					TKAF 127 TRF87	
3.90	3290	367	82600	3.90	TK 127 TRF87	Y..90L-4 AM90 AD5
					TKF 127 TRF87	
					TKAF 127 TRF87	
0.81	16100	1757	73600	0.80		Y..90L-4 AM90 AD3
0.93	14100	1541	77700	0.90	TK 127 TRF77	
1.10	12300	1342	79600	1.05	TKF 127 TRF77	
1.20	10700	1177	80300	1.20	TKA 127 TRF77	
1.40	9410	1025	80900	1.40	TKAF 127 TRF77	
1.60	8230	899	81400	1.60		
1.80	7130	790	81700	1.80		
2.00	6420	704	81900	2.00		
2.30	5540	610	82200	2.40	TK 127 TRF77	Y..90L-4 AM90 AD4
2.60	5000	549	82300	2.60	TKF 127 TRF77	
3.00	4300	477	82400	3.00	TKA 127 TRF77	
3.40	3810	418	82500	3.40	TKAF 127 TRF77	



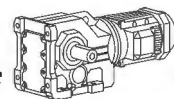
TK

n_2 [1/min]	M_2 [Nm]	i	Fr [N]	K	Frame size	Input Configuration
$P_1=1.5kw$						
1.40	9380	1030	65000	0.85	TK 107 TRF77 TKF 107 TRF77 TKA 107 TRF77 TKAF 107 TRF77	Y..90L-4 AM90 AD3
1.60	8200	904	65000	1.00		
1.80	7280	793	65000	1.10		
2.10	6370	696	65000	1.25		
2.30	5580	615	65000	1.45		
2.70	4730	522	65000	1.70		
3.10	4160	461	65000	1.90	TK 107 TRF77 TKF 107 TRF77 TKA 107 TRF77 TKAF 107 TRF77	Y..90L-4 AM90 AD4
3.50	3680	408	65000	2.20		
3.90	3310	364	65000	2.40		
4.50	2900	318	65000	2.80	TK 97 TRF57 TKF 97 TRF57 TKA 97 TRF57 TKAF 97 TRF57	Y..90L-4 AM90 AD2
2.50	5340	573	39500	0.80		
2.80	4610	504	40000	0.95		
3.30	3980	437	40000	1.10		
3.70	3510	382	40000	1.20		
4.20	3110	342	40000	1.40		
4.70	2830	305	40000	1.50	TK 97 TRF57 TKF 97 TRF57 TKA 97 TRF57 TKAF 97 TRF57	Y..90L-4 AM90 AD3
5.60	2390	258	40000	1.80		
6.20	2150	232	40000	2.00		
7.20	1840	199	40000	2.30		
4.30	3020	330	26900	0.90	TK 87 TRF57 TKF 87 TRF57 TKA 87 TRF57 TKAF 87 TRF57	Y..90L-4 AM90 AD3
4.90	2700	294	27300	1.00		
5.70	2320	250	27700	1.15		
6.00	2190	236	27900	1.25		
7.10	1860	201	28200	1.45		
7.80	1690	183	28300	1.60	TK 97 TKF 97 TKA 97 TKAF 97	Y..100L-6 AM100 AD3
5.30	2680	176.05	40000	1.60		
6.10	2330	153.21	40000	1.85		
6.70	2130	140.28	40000	2.00		
7.60	1880	123.93	40000	2.30	TK 97 TKF 97 TKA 97 TKAF 97	Y..90L-4 AM90 AD3
8.10	1760	176.05	40000	2.40		
9.30	1530	153.21	40000	2.80		
10.0	1400	140.28	40000	3.10		
12.0	1240	123.93	40000	3.50		
6.40	2240	147.32	27800	1.20	TK 87 TKF 87 TKA 87 TKAF 87	Y..100L-6 AM100 AD2
7.40	1930	126.91	28100	1.40		
8.10	1760	115.82	28300	1.55		
9.20	1560	102.71	28400	1.75		
8.20	1740	174.19	28300	1.55	TK 87 TKF 87 TKA 87 TKAF 87	Y..90L-4 AM90 AD2
8.70	1640	164.34	28400	1.65		
9.70	1470	147.32	28500	1.85		
11.0	1270	126.91	28600	2.10		
12.0	1160	115.82	28700	2.30		
14.0	1020	102.71	28800	2.60		
17.0	860	86.34	28900	3.10		

n_2 [1/min]	M_2 [Nm]	i	Fr [N]	K	Frame size	Input Configuration
$P_1=1.5kw$						
8.30	1730	113.56	14000	0.90	TK 77	Y..100L-6 AM100 AD2
9.70	1470	97.05	15900	1.05	TKF 77	
11.0	1350	88.97	16600	1.15	TKA 77	
12.0	1180	78.07	17500	1.30	TKAF 77	
11.0	1350	135.28	16600	1.15	TK 77 TKF 77 TKA 77 TKAF 77	Y..90L-4 AM90 AD2
11.0	1280	128.52	17000	1.20		
13.0	1130	113.56	17700	1.35		
15.0	970	97.05	18400	1.60		
16.0	890	88.97	18700	1.75		
18.0	780	78.07	19000	2.00		
19.0	740	73.99	19200	2.10		
22.0	645	64.75	19400	2.40		
25.0	580	58.34	19500	2.60		
28.0	510	51.18	19700	3.00		
32.0	450	45.16	19800	3.40	TK 77 TKF 77 TKA 77 TKAF 77	Y..90L-4 AM90 AD3
36.0	400	40.04	19900	3.90		
16.0	900	90.04	9500	0.90	TK 67 TKF 67 TKA 67 TKAF 67	Y..90L-4 AM90 AD2
19.0	765	76.37	10800	1.05		
21.0	690	68.95	11300	1.20		
24.0	605	60.66	11900	1.35		
25.0	570	57.28	12000	1.45		
29.0	485	48.77	12500	1.70		
32.0	440	44.32	12600	1.85		
37.0	380	38.39	12900	2.10		
40.0	355	35.62	13000	2.30	TK 67 TKF 67 TKA 67 TKAF 67	Y..90L-4 AM90 AD3
47.0	300	30.22	13000	2.70		
52.0	270	27.28	13000	3.00		
60.0	240	24	13000	3.30		
24.0	605	60.81	7560	1.00	TK 57 TKF 57 TKA 57 TKAF 57	Y..90L-4 AM90 AD2
25.0	575	57.42	7830	1.05		
29.0	485	48.89	8470	1.25		
32.0	445	44.43	8680	1.35		
37.0	385	38.49	8940	1.55		
40.0	355	35.7	9060	1.70		
47.0	300	30.28	9170	2.00		
52.0	270	27.34	8990	2.20		
59.0	240	24.05	8750	2.50		
63.0	225	22.71	8640	2.60		
74.0	194	19.34	8340	3.00		
36.0	395	39.61	5970	1.00	TK 47 TKF 47 TKA 47 TKAF 47	Y..90L-4 AM90 AD2
40.0	350	35.39	6350	1.15		
46.0	310	31.3	6300	1.30		
49.0	290	29.32	6260	1.35		
55.0	255	25.91	6180	1.55		
66.0	215	21.81	6040	1.85		
73.0	196	19.58	5940	2.00		

n_2 [1/min]	M_2 [Nm]	i	Fr [N]	K	Frame size		Input Configuration
P ₁ =1.5kw							
85.0	169	16.86	5780	2.20	TK 47 TKF 47 TKA 47 TKAF 47	Y..90L-4 AM90 AD2	
90.0	159	15.86	5720	2.40			
105	137	13.65	5550	2.60			
117	122	12.19	5420	2.90			
122	118	11.77	5320	2.40			
61.0	230	23.36	2870	0.85	TK 37 TKF 37 TKA 37 TKAF 37	Y..90L-4 AM90 AD2	
71.0	200	20.19	2920	0.90			
83.0	172	17.15	2940	1.05			
93.0	153	15.31	2940	1.15			
109	131	13.08	2930	1.25			
118	122	12.14	2920	1.30			
136	105	10.49	2880	1.50			
160	89	8.91	2820	1.80			
180	80	7.96	2770	1.95			
210	68	6.8	2700	2.20			
225	64	6.37	2660	2.30			
267	54	5.36	2570	2.60			
359	40	3.98	2410	3.10			
P ₁ =2.2kw							
0.33	57000	4370	190000	0.90	TK 187 TRF97 TKH 187 TRF97	Y..100L ₁ -4 AM100 AD4	
0.51	35900	2818	190000	1.40			
0.39	48400	3609	190000	1.05			
0.47	41100	3062	190000	1.20			
0.57	33500	2519	190000	1.50	TK 187 TRF97 TKH 187 TRF97	Y..100L ₁ -4 AM100 AD5	
0.63	30100	2268	190000	1.65			
0.69	27100	2054	190000	1.85			
0.78	23800	1821	190000	2.10			
0.89	21200	1605	190000	2.40			
0.52	36200	2755	150000	0.90	TK 167 TRF97 TKH 167 TRF97	Y..100L ₁ -4 AM100 AD3	
0.63	29100	2263	150000	1.10	TK 167 TRF97 TKH 167 TRF97	Y..100L ₁ -4 AM100 AD4	
0.65	29300	2182	150000	1.10			
1.00	18800	1408	150000	1.70			
0.84	22800	1704	150000	1.40	TK 167 TRF97 TKH 167 TRF97	Y..100L ₁ -4 AM100 AD5	
1.10	17300	1296	150000	1.85			
1.30	14400	1101	150000	2.20			
1.50	12400	944	150000	2.60	TK 167 TRF97 TKH 167 TRF97	Y..100L ₁ -4 AM100 AD5	
0.86	22200	1659	109700	0.80	TK 157 TRF97 TKF 157 TRF97 TKA 157 TRF97 TKAF157 TRF97	Y..100L ₁ -4 AM100 AD4	
1.00	18200	1365	112100	1.00	TK 157 TRF97 TKF 157 TRF97 TKA 157 TRF97 TKAF157 TRF97	Y..100L ₁ -4 AM100 AD5	
1.20	16300	1229	113000	1.10			
1.30	14500	1093	113800	1.25			
1.50	12500	942	114500	1.45			
1.70	11200	854	114900	1.60			
1.90	9760	756	115400	1.85			

n_2 [1/min]	M_2 [Nm]	i	Fr [N]	K	Frame size	Input Configuration
P₁=2.2kw						
2.70	7110	536	81700	1.85	TK 127 TRF87 TKF 127 TRF87 TKA 127 TRF87 TKAF127 TRF87	Y..100L ₁ -4 AM100 AD4
3.00	6220	473	82000	2.10		
3.40	5610	418	82200	2.30		
3.90	4910	367	82300	2.60		
4.30	4400	330	82400	3.00	TK 127 TRF87 TKF 127 TRF87 TKA 127 TRF87 TKAF127 TRF87	Y..100L ₁ -4 AM100 AD5
1.40	13900	1025	78100	0.95	TK 127 TRF77 TKF 127 TRF77 TKA 127 TRF77 TKAF127 TRF77	Y..100L ₁ -4 AM100 AD3
1.60	12200	899	79600	1.05		
1.80	10600	790	80400	1.20		
2.00	9530	704	80900	1.35		
2.30	8230	610	81400	1.60	TK 127 TRF77 TKF 127 TRF77 TKA 127 TRF77 TKAF127 TRF77	Y..100L ₁ -4 AM100 AD4
2.60	7420	549	81600	1.75		
3.00	6410	477	81900	2.00		
3.40	5650	418	82100	2.30		
2.30	8300	615	65000	0.95	TK 107 TRF77 TKF 107 TRF77 TKA 107 TRF77 TKAF107 TRF77	Y..100L ₁ -4 AM100 AD3
2.70	7040	522	65000	1.15		
3.10	6190	461	65000	1.30		
3.50	5480	408	65000	1.45		
3.90	4920	364	65000	1.60	TK 107 TRF77 TKF 107 TRF77 TKA 107 TRF77 TKAF107 TRF77	Y..100L ₁ -4 AM100 AD4
4.50	4300	318	65000	1.85		
5.00	3870	286	65000	2.10		
5.70	3390	251	65000	2.40		
3.70	5200	382	39700	0.85	TK 97 TRF57 TKF 97 TRF57 TKA 97 TRF57 TKAF 97 TRF57	Y..100L ₁ -4 AM100 AD3
4.20	4620	342	40000	0.95		
4.70	4190	305	40000	1.00		
5.50	3540	258	40000	1.20		
6.10	3180	232	40000	1.35		
7.20	2730	199	40000	1.55		
6.20	3370	153.21	40000	1.30	TK 97 TKF 97 TKA 97 TKAF 97	Y..112M-6 AM112 AD3
6.80	3080	140.28	40000	1.40		
7.70	2720	123.93	40000	1.60		
9.10	2310	105.13	40000	1.85		
8.10	2590	176.05	40000	1.65	TK 97 TKF 97 TKA 97 TKAF 97	Y..100L ₁ -4 AM100 AD3
9.30	2250	153.21	40000	1.90		
10.0	2060	140.28	40000	2.10		
12.0	1820	123.93	40000	2.40		
14.0	1540	105.13	40000	2.80		
15.0	1420	96.8	40000	3.00		
9.70	2170	147.32	27900	1.25	TK 87 TKF 87 TKA 87 TKAF 87	Y..100L ₁ -4 AM100 AD2
11.0	1870	126.91	28200	1.45		
12.0	1700	115.82	28300	1.60		
14.0	1510	102.71	28500	1.80		
16.0	1270	86.34	28600	2.10	TK 87 TKF 87 TKA 87 TKAF 87	Y..100L ₁ -4 AM100 AD2



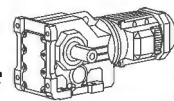
TK

n_2 [1/min]	M_2 [Nm]	i	Fr [N]	K	Frame size	Input Configuration
P₁=2.2kw						
18.0	1160	79.34	28700	2.30	TK 87	Y..100L ₁ -4 AM100 AD3
20.0	1030	70.46	28800	2.60	TKF 87	
23.0	920	63.00	28800	2.90	TKA 87	
					TKAF 87	
13.0	1670	113.56	14400	0.95	TK 77 TKF 77 TKA 77 TKAF 77	Y..100L ₁ -4 AM100 AD2
15.0	1430	97.05	16200	1.10		
16.0	1310	88.97	16900	1.20		
18.0	1150	78.07	17700	1.35		
19.0	1090	73.99	17900	1.40		
22.0	950	64.75	18500	1.60		
24.0	860	58.34	18800	1.80	TK 77 TKF 77 TKA 77 TKAF 77	Y..100L ₁ -4 AM100 AD2
28.0	750	51.18	19100	2.00		
32.0	665	45.16	19300	2.30		
13.0	1670	113.56	14400	0.95	TK 77 TKF 77 TKA 77 TKAF 77	Y..100L ₁ -4 AM100 AD2
15.0	1430	97.05	16200	1.10		
16.0	1310	88.97	16900	1.20		
18.0	1150	78.07	17700	1.35		
19.0	1090	73.99	17900	1.40		
22.0	950	64.75	18500	1.60		
24.0	860	58.34	18800	1.80		
28.0	750	51.18	19100	2.00		
32.0	665	45.16	19300	2.30	TK 77 TKF 77 TKA 77 TKAF 77	Y..100L ₁ -4 AM100 AD3
36.0	590	40.04	19500	2.60		
40.0	515	35.2	19700	3.00		
46.0	455	30.89	19800	3.40		
49.0	430	29.27	19800	3.60	TK 77 TKF 77 TKA 77 TKAF 77	Y..100L ₁ -4 AM100 AD4
56.0	375	25.62	19900	4.10		
23.0	890	60.66	9590	0.90	TK 67 TKF 67 TKA 67 TKAF 67	Y..100L ₁ -4 AM100 AD2
25.0	840	57.28	10100	0.95		
29.0	715	48.77	11100	1.15		
32.0	650	44.32	11600	1.25		
37.0	565	38.39	12100	1.40		
40.0	525	35.62	12300	1.55	TK 67 TKF 67 TKA 67 TKAF 67	Y..100L ₁ -4 AM100 AD3
47.0	445	30.22	12600	1.85		
52.0	400	27.28	12800	2.00		
59.0	350	24	13000	2.30		
63.0	330	22.66	13000	2.30		
74.0	280	19.3	13000	2.70		
81.0	255	17.54	13000	2.90		
94.0	220	15.19	13000	3.10		
108	195	13.22	13000	3.40	TK 67 TKF 67 TKA 67 TKAF 67	Y..100L ₁ -4 AM100 AD3
114	184	12.48	13000	2.90		
134	157	10.63	13000	3.20		
148	142	9.66	13000	3.40	TK 67 TKF 67 TKA 67 TKAF 67	Y..100L ₁ -4 AM100 AD3

n ₂ [1/min]	M ₂ [Nm]	i	Fr [N]	K	Frame size		Input Configuration	
P ₁ =2.2kw								
170	123	8.37	13000	3.60	TK	67	Y..100L ₁ -4 AM100 AD3	
					TKF	67		
					TKA	67		
					TKAF	67		
196 274	107 77	7.28 5.2	12700 11600	3.90 4.60	TK	67	Y..100L ₁ -4 AM100 AD3	
					TKF	67		
					TKA	67		
					TKAF	67		
32.0	655	44.43	5920	0.90	TK TKF TKA TKAF	57 57 57 57	Y..100L ₁ -4 AM100 AD2	
37.0	565	38.49	7900	1.05				
40.0	525	35.7	8220	1.15				
47.0	445	30.28	8240	1.35				
52.0	400	27.34	8150	1.50				
59.0	350	24.05	8020	1.70				
63.0	330	22.71	7950	1.80				
74.0	285	19.34	7750	2.00				
81.0	255	17.57	7620	2.10				
94.0	220	15.22	7410	2.40	TK	57	Y..100L ₁ -4 AM100 AD3	
108	195	13.25	7200	2.60	TKF	57		
120	176	11.92	6880	2.40	TKA	57		
127	166	11.26	6800	2.50	TKAF	57		
55.0	380	25.91	5260	1.05	TK TKF TKA TKAF	47 47 47 47	Y..100L ₁ -4 AM100 AD2	
65.0	320	21.81	5260	1.25				
73.0	285	19.58	5240	1.40				
84.0	245	16.86	5180	1.55				
90.0	230	15.86	5150	1.65				
104	200	13.65	5060	1.80				
117	180	12.19	4980	1.95				
121	174	11.77	4880	1.60				
135	156	10.56	4800	1.80				
157	134	9.1	4680	2.10				
109	193	13.08	2370	0.85	TK TKF TKA TKAF	37 37 37 37	Y..100L ₁ -4 AM100 AD2	
136	155	10.49	2430	1.05				
160	131	8.91	2440	1.20				
179	117	7.96	2430	1.30				
210	100	6.8	2410	1.50				
224	94	6.37	2390	1.55				
266	79	5.36	2350	1.75				
358	59	3.98	2240	2.10				
P ₁ =3.0kw								
0.52	48700	2818	190000	1.05	TK	187	TRF97	Y..100L ₂ -4 AM100 AD4
0.48	55200	3062	190000	0.90	TKH	187	TRF97	
0.58	45200	2519	190000	1.10	TK TKH	187	TRF97 TRF97	Y..100L ₂ -4 AM100 AD5
0.64	40500	2268	190000	1.25				
0.71	36600	2054	190000	1.35				
0.80	32200	1821	190000	1.55				
0.91	28600	1605	190000	1.75	TK TKH	187	TRF97 TRF97	Y..100L ₂ -4 AM100 AD5
1.00	24400	1395	190000	2.00				
1.20	21200	1196	190000	2.40				

n_2 [1/min]	M_2 [Nm]	i	F_r [N]	K	Frame size	Input Configuration
$P_1=3.0\text{kw}$						
1.00	25300	1408	150000	1.25	TK 167 TRF97 TKH 167 TRF97	Y..100L ₂ -4 AM100 AD4
0.85	30600	1704	150000	1.05	TK 167 TRF97 TKH 167 TRF97	Y..100L ₂ -4 AM100 AD5
1.10	23300	1296	150000	1.35		
1.30	19500	1101	150000	1.65		
1.50	16800	944	150000	1.90		
1.70	14700	843	150000	2.20		
1.90	13300	757	150000	2.40		
1.20	21900	1229	109900	0.80	TK 157 TRF97 TKF 157 TRF97 TKA 157 TRF97 TKAF157 TRF97	Y..100L ₂ -4 AM100 AD5
1.30	19500	1093	111400	0.90		
1.50	16800	942	112700	1.05		
1.70	15200	854	113500	1.20		
1.90	13200	756	114300	1.35		
2.60	10000	567	115300	1.80		
2.90	8930	504	115600	2.00		
2.70	9580	536	80900	1.35	TK 127 TRF87 TKF 127 TRF87 TKA 127 TRF87 TKAF127 TRF87	Y..100L ₂ -4 AM100 AD4
3.10	8410	473	81300	1.55		
3.50	7560	418	81600	1.70		
4.00	6610	367	81900	1.95	TK 127 TRF87 TKF 127 TRF87 TKA 127 TRF87 TKAF127 TRF87	Y..100L ₂ -4 AM100 AD5
4.40	5930	330	82100	2.20		
5.10	5090	287	82300	2.60		
1.80	14200	790	77400	0.90	TK 127 TRF77 TKF 127 TRF77 TKA 127 TRF77 TKAF127 TRF77	Y..100L ₂ -4 AM100 AD3
2.10	12700	704	79300	1.00	TK 127 TRF77 TKF 127 TRF77 TKA 127 TRF77 TKAF127 TRF77	Y..100L ₂ -4 AM100 AD4
2.40	11000	610	80200	1.20		
2.60	9960	549	80700	1.30		
3.00	8620	477	81200	1.50		
3.50	7590	418	81600	1.70		
3.20	8320	461	65000	0.95	TK 107 TRF77 TKF 107 TRF77 TKA 107 TRF77 TKAF107 TRF77	Y..100L ₂ -4 AM100 AD3
3.60	7360	408	65000	1.10		
4.00	6600	364	65000	1.20	TK 107 TRF77 TKF 107 TRF77 TKA 107 TRF77 TKAF107 TRF77	Y..100L ₂ -4 AM100 AD4
4.60	5770	318	65000	1.40		
5.10	5190	286	65000	1.55		
5.80	4550	251	65000	1.75		
6.60	4000	222	65000	2.00		
7.40	3540	196	65000	2.20		
8.40	3170	174	65000	2.30		
9.40	2800	154	65000	2.60		
10.0	2540	140	65000	2.80		
5.60	4740	258	40000	0.90		
6.30	4270	232	40000	1.00		
7.30	3660	199	40000	1.15		

n_2 [1/min]	M_2 [Nm]	i	F_r [N]	K	Frame size	Input Configuration
$P_1=3.0\text{kw}$						
6.70	4300	143.47	65000	1.85	TK 107	Y..132S-6 AM132 AD4
7.90	3640	121.46	65000	2.20	TKF 107	
8.50	3370	112.41	65000	2.40	TKA 107	
9.50	3020	100.75	65000	2.60	TKAF107	
10.0	2820	143.47	65000	2.80	TK 107	Y..100L ₂ -4 AM100 AD4
12.0	2390	121.46	65000	3.40	TKF 107	
					TKA 107	
					TKAF107	
7.70	3710	123.93	40000	1.15	TK 97	Y..132S-6 AM132 AD3
9.10	3150	105.13	40000	1.35	TKF 97	
9.90	2900	96.8	40000	1.50	TKA 97	
11.0	2590	86.52	40000	1.65	TKAF 97	
8.30	3460	176.05	40000	1.25	TK 97 TKF 97 TKA 97 TKAF 97	Y..100L ₂ -4 AM100 AD3
9.50	3010	153.21	40000	1.45		
10.0	2760	140.28	40000	1.55		
12.0	2440	123.93	40000	1.75		
14.0	2070	105.13	40000	2.10		
15.0	1900	96.8	40000	2.30		
17.0	1700	86.52	40000	2.50		
19.0	1530	77.89	40000	2.80		
21.0	1380	70.54	40000	3.10		
23.0	1230	62.55	40000	3.50	TK 97	Y..100L ₂ -4 AM100 AD4
26.0	1110	56.55	40000	3.90	TKF 97	
					TKA 97	
					TKAF 97	
9.90	2900	147.32	27000	0.95	TK 87	Y..100L ₂ -4 AM100 AD2
11.0	2490	126.91	27500	1.10	TKF 87	
13.0	2280	115.82	27800	1.20	TKA 87	
14.0	2020	102.71	28000	1.35	TKAF 87	
17.0	1690	86.34	28300	1.60	TKAF 87	
18.0	1560	79.34	28400	1.75	TK 87 TKF 87 TKA 87 TKAF 87	Y..100L ₂ -4 AM100 AD3
21.0	1380	70.46	28600	1.95		
23.0	1240	63.00	28600	2.20		
26.0	1110	56.64	28700	2.40		
30.0	960	49.16	28800	2.80		
33.0	860	44.02	28800	3.00		
40.0	715	36.52	28200	3.50		
16.0	1750	88.97	13800	0.90	TK 77 TKF 77 TKA 77 TKAF 77	Y..100L ₂ -4 AM100 AD2
19.0	1530	78.07	15500	1.00		
20.0	1450	73.99	16000	1.05		
22.0	1270	64.75	17100	1.20		
25.0	1140	58.34	17700	1.35		
28.0	1000	51.18	18300	1.55		
32.0	880	45.16	18700	1.75		
36.0	785	40.04	19000	1.95	TK 77	Y..100L ₂ -4 AM100 AD3
41.0	690	35.2	19300	2.20	TKF 77	
47.0	605	30.89	19500	2.60	TKA 77	
					TKAF 77	



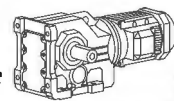
TK

n_2 [1/min]	M_2 [Nm]	i	F_r [N]	K	Frame size	Input Configuration
$P_1=3.0\text{kw}$						
33.0	870	44.32	9810	0.95	TK 67	Y..100L ₂ -4 AM100 AD2
38.0	755	38.39	10800	1.05	TKF 67	
41.0	700	35.62	11300	1.15	TKA 67	
					TKAF 67	
48.0	590	30.22	11900	1.40	TK 67 TKF 67 TKA 67 TKAF 67	Y..100L ₂ -4 AM100 AD3
53.0	535	27.28	12200	1.55		
61.0	470	24	12500	1.70		
64.0	445	22.66	12600	1.75		
75.0	375	19.3	12900	2.00		
83.0	345	17.54	13000	2.10		
96.0	295	15.19	13000	2.30		
110	260	13.22	13000	2.60		
117	245	12.48	13000	2.20		
137	205	10.63	13000	2.40		
151	190	9.66	13000	2.50		
48.0	595	30.28	7190	1.00	TK 57 TKF 57 TKA 57 TKAF 57	Y..100L ₂ -4 AM100 AD2
53.0	535	27.34	7190	1.10		
60.0	470	24.05	7170	1.25		
64.0	445	22.71	7150	1.35		
75.0	380	19.34	7060	1.50		
83.0	345	17.57	6980	1.60		
96.0	295	15.22	6860	1.80	TK 57 TKF 57 TKA 57 TKAF 57	Y..100L ₂ -4 AM100 AD3
110	260	13.25	6710	1.95		
122	230	11.92	6380	1.75		
129	220	11.26	6330	1.85		
152	189	9.59	6160	2.20		
167	172	8.71	6050	2.30		
193	149	7.55	5870	2.50	TK 57 TKF 57 TKA 57 TKAF 57	Y..100L ₂ -4 AM100 AD3
222	129	6.57	5700	2.70		
310	92	4.69	5270	3.20		
74.0	385	19.58	4450	1.05	TK 47 TKF 47 TKA 47 TKAF 47	Y..100L ₂ -4 AM100 AD2
86.0	330	16.86	4500	1.15		
92.0	310	15.86	4510	1.2		
107	265	13.65	4500	1.35		
119	240	12.19	4480	1.45		
124	230	11.77	4360	1.20		
138	205	10.56	4340	1.35		
160	179	9.1	4280	1.55		
170	168	8.56	4250	1.60	TK 47 TKF 47 TKA 47 TKAF 47	Y..100L ₂ -4 AM100 AD3
198	145	7.36	4160	1.70		
221	130	6.58	4090	1.85		
250	114	5.81	4000	2.00		
314	91	4.64	3830	2.20		
163	176	8.91	2020	0.90	TK 37 TKF 37 TKA 37 TKAF 37	Y..100L ₂ -4 AM100 AD2
183	157	7.96	2050	1.00		
214	134	6.8	2080	1.10		
229	125	6.37	2090	1.15		
271	106	5.36	2090	1.35		
366	78	3.98	2040	1.60		

n_2 [1/min]	M_2 [Nm]	i	F_r [N]	K	Frame size	Input Configuration
$P_1=4.0\text{kw}$						
1.80	19500	835	190000	2.60	TK 187 TRF 07	Y..112M-4 AM112 AD5
2.80	12200	520	190000	4.10	TKH 187 TRF 07	
0.58	60400	2519	190000	0.85	TK 187 TRF97 TKH 187 TRF97	Y..112M-4 AM112 AD5
0.64	54200	2268	190000	0.90		
0.71	49000	2054	190000	1.00		
0.80	43300	1821	190000	1.15		
0.91	38300	1605	190000	1.30		
1.00	32800	1395	190000	1.50		
1.20	28400	1196	190000	1.75		
1.40	24800	1046	190000	2.00		
1.50	22400	945	190000	2.20		
1.00	33900	1408	150000	0.95	TK 167 TRF97 TKH 167 TRF97	Y..112M-4 AM112 AD4
1.10	31100	1296	150000	1.05	TK 167 TRF97 TKH 167 TRF97	Y..112M-4 AM112 AD5
1.30	26100	1101	150000	1.20		
1.60	22500	944	150000	1.40		
1.70	19800	843	150000	1.60		
1.90	17900	757	150000	1.80		
2.30	15000	632	150000	2.10		
1.70	20300	854	110900	0.90	TK 157 TRF97 TKF 157 TRF97 TKA 157 TRF97 TKAF 157 TRF97	Y..112M-4 AM112 AD5
1.90	17800	756	112300	1.00		
2.60	13400	567	114200	1.35		
2.90	11900	504	114700	1.50		
3.40	10200	434	115200	1.75		
2.70	12800	536	79300	1.00	TK 127 TRF87 TKF 127 TRF87 TKA 127 TRF87 TKAF 127 TRF87	Y..112M-4 AM112 AD4
3.10	11200	473	80100	1.15		
3.50	10100	418	80600	1.30		
4.00	8830	367	81200	1.45	TK 127 TRF87 TKF 127 TRF87 TKA 127 TRF87 TKAF 127 TRF87	Y..112M-4 AM112 AD5
4.40	7930	330	81500	1.65		
5.10	6820	287	81800	1.90		
5.80	6030	253	82100	2.20		
2.40	14700	610	76500	0.90	TK 127 TRF77 TKF 127 TRF77 TKA 127 TRF77 TKAF 127 TRF77	Y..112M-4 AM112 AD4
2.70	13200	549	79000	1.00		
3.10	11500	477	80000	1.15		
3.50	10100	418	80600	1.30		
4.00	8800	364	65000	0.90	TK 107 TRF77 TKF 107 TRF77 TKA 107 TRF77 TKAF 107 TRF77	Y..112M-4 AM112 AD4
4.60	7690	318	65000	1.05		
5.10	6920	286	65000	1.15		
5.80	6060	251	65000	1.30		
6.60	5340	222	65000	1.50		
7.40	4730	196	65000	1.70		
8.40	4230	174	65000	1.70		
9.50	3740	154	65000	1.90		
10.0	3400	140	65000	2.10		
7.30	4880	199	40000	0.90	TK 97 TRF57 TKF 97 TRF57 TKA 97 TRF57 TKAF 97 TRF57	Y..112M-4 AM112 AD3

n_2 [1/min]	M_2 [Nm]	i	Fr [N]	K	Frame size	Input Configuration
P₁=4.0kw						
6.60	5810	146.07	82100	2.20	TK 127	Y..132M ₁ -6 AM132 AD4
7.00	5410	136.14	82200	2.40	TKF 127	
7.80	4870	122.48	82300	2.70	TKA 127	
8.70	4380	110.18	82400	3.00	TKAF127	
6.70	5700	143.47	65000	1.40	TK 107	Y..132M ₁ -6 AM132 AD4
7.90	4830	121.46	65000	1.65	TKF 107	
8.50	4470	112.41	65000	1.80	TKA 107	
9.50	4000	100.75	65000	2.00	TKAF107	
11.0	3610	90.96	65000	2.20		
10.0	3750	143.47	65000	2.10	TK 107 TKF 107 TKA 107 TKAF107	Y..112M-4 AM112 AD4
12.0	3170	121.46	65000	2.50		
13.0	2940	112.41	65000	2.70		
14.0	2630	100.75	65000	3.00		
16.0	2370	90.96	65000	3.40		
18.0	2160	82.61	65000	3.70		
20.0	1910	73.3	65000	4.20		
9.50	4000	153.21	40000	1.05	TK 97 TKF 97 TKA 97 TKAF 97	Y..112M-4 AM112 AD3
10.0	3670	140.28	40000	1.15		
12.0	3240	123.93	40000	1.35		
14.0	2750	105.13	40000	1.55		
15.0	2530	96.8	40000	1.70		
17.0	2260	86.52	40000	1.90		
19.0	2030	77.89	40000	2.10		
21.0	1840	70.54	40000	2.30		
13.0	3030	115.82	26800	0.90	TK 87	Y..112M-4 AM112 AD2
14.0	2680	102.71	27300	1.00	TKF 87	
17.0	2250	86.34	27800	1.20	TKA 87	
					TKAF 87	
18.0	2070	79.34	28000	1.30	TK 87 TKF 87 TKA 87 TKAF 87	Y..112M-4 AM112 AD3
21.0	1840	70.46	28200	1.45		
23.0	1640	63.00	28400	1.65		
26.0	1480	56.64	28500	1.80		
30.0	1280	49.16	28600	2.10		
33.0	1150	44.02	28200	2.30		
40.0	950	36.52	27200	2.60		
23.0	1690	64.75	14300	0.90	TK 77	Y..112M-4 AM112 AD2
25.0	1520	58.34	15500	1.00	TKF 77	
29.0	1330	51.18	16700	1.15	TKA 77	
32.0	1180	45.16	17500	1.30	TKAF 77	
36.0	1040	40.04	18100	1.50	TK 77	Y..112M-4 AM112 AD3
38.0	1000	38.39	18300	1.50	TKF 77	
41.0	920	35.2	18600	1.70	TKA 77	
47.0	800	30.89	19000	1.90	TKAF 77	
50.0	765	29.27	19100	2.00	TK 77	Y..112M-4 AM112 AD4
57.0	670	25.62	19300	2.30	TKF 77	
63.0	600	23.08	19500	2.60	TKA 77	
72.0	525	20.25	19600	2.80	TKAF 77	

n_2 [1/min]	M_2 [Nm]	i	Fr [N]	K	Frame size	Input Configuration
P ₁ =4.0kw						
48.0	790	30.22	10600	1.05	TK 67 TKF 67 TKA 67 TKAF 67	Y..112M-4 AM112 AD3
54.0	710	27.28	11200	1.15		
61.0	625	24	11700	1.25		
64.0	590	22.66	11900	1.30		
76.0	500	19.3	12400	1.50		
83.0	455	17.54	12600	1.60		
96.0	395	15.19	12800	1.75		
110	345	13.22	13000	1.95		
117	325	12.48	13000	1.60		
137	275	10.63	13000	1.80		
151	250	9.66	12800	1.90		
175	215	8.37	12400	2.00		
201	190	7.28	12100	2.20		
281	136	5.2	11100	2.60		
61.0	625	24.05	6140	0.95	TK 57	Y..112M-4 AM112 AD2
64.0	590	22.71	6170	1.00	TKF 57	
76.0	505	19.34	6230	1.15	TKA 57	
83.0	455	17.57	6230	1.20	TKAF 57	
96.0	395	15.22	6200	1.35	TK 57 TKF 57 TKA 57 TKAF 57	Y..112M-4 AM112 AD3
110	345	13.25	6140	1.45		
122	310	11.92	5800	1.35		
130	290	11.26	5780	1.40		
152	250	9.59	5690	1.60		
168	225	8.71	5620	1.70		
193	197	7.55	5500	1.85		
222	172	6.57	5380	2.00		
311	123	4.69	5040	2.40		
P ₁ =5.5kw						
0.80	60200	1821	190000	0.85	TK 187 TRF97 TKH 187 TRF97	Y..132S-4 AM132 AD5
0.91	53200	1605	190000	0.95		
1.00	45800	1395	190000	1.10		
1.20	39500	1196	190000	1.25		
1.40	34500	1046	190000	1.45	TK 187 TRF97 TKH 187 TRF97	Y..132S-4 AM132 AD5
1.50	31100	945	190000	1.60		
2.00	24300	738	190000	2.00		
2.30	20400	621	190000	2.40		
1.30	36300	1101	150000	0.90	TK 167 TRF97 TKH 167 TRF97	Y..132S-4 AM132 AD5
1.50	31200	944	150000	1.00		
1.70	27700	843	150000	1.15		
1.90	24900	757	150000	1.30		
2.30	20800	632	150000	1.55		
2.60	18300	561	150000	1.75		
3.00	15800	481	150000	2.00		
3.40	13800	423	150000	2.30		
2.20	21500	661	110200	0.85	TK 157 TRF97 TKF 157 TRF97 TKA 157 TRF97 TKAF157 TRF97	Y..132S-4 AM132 AD5
2.60	18700	567	111800	0.95		
2.90	16600	504	112800	1.10		
3.40	14200	434	113900	1.25		
3.80	12300	379	114600	1.45		
4.40	10900	333	115000	1.65		



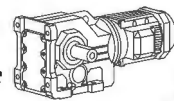
TK

n_2 [1/min]	M_2 [Nm]	i	Fr [N]	K	Frame size	Input Configuration
$P_1=5.5kw$						
3.50	14000	418	77900	0.95	TK 127 TRF87 TKF 127 TRF87 TKA 127 TRF87 TKAF 127 TRF87	Y..132S-4 AM132 AD4
4.00	12200	367	79600	1.05	TK 127 TRF87 TKF 127 TRF87 TKA 127 TRF87 TKAF 127 TRF87	Y..132S-4 AM132 AD5
4.40	10900	330	80200	1.20		
5.10	9480	287	80900	1.35		
5.70	8380	253	81300	1.55		
6.80	7040	213	81800	1.85		
7.30	6710	200	81900	1.80		
8.80	5550	166	82200	2.20	TK 107 TRF77 TKF 107 TRF77 TKA 107 TRF77 TKAF 107 TRF77	Y..132S-4 AM132 AD4
9.90	4900	147	82300	2.40		
6.60	7400	222	65000	1.10		
7.40	6550	196	65000	1.20		
8.40	5860	174	65000	1.25	TK 127 TKF 127 TKA 127 TKAF 127	Y..132M ₂ -6 AM132 AD4
9.40	5190	154	65000	1.40		
10.0	4710	140	65000	1.55		
7.10	7400	136.14	81700	1.75	TK 127 TKF 127 TKA 127 TKAF 127	Y..132M ₂ -6 AM132 AD4
7.90	6660	122.48	81900	1.95		
8.80	5990	110.18	82100	2.20		
11.0	4890	89.89	82300	2.70	TK 127 TKF 127 TKA 127 TKAF 127	Y..132M ₂ -6 AM132 AD5
8.60	6110	112.41	65000	1.30	TK 107 TKF 107 TKA 107 TKAF 107	Y..132M ₂ -6 AM132 AD4
9.60	5480	100.75	65000	1.45		
11.0	4950	90.96	65000	1.60		
12.0	4490	82.61	65000	1.80		
10.0	5170	143.47	65000	1.55	TK 107 TKF 107 TKA 107 TKAF 107	Y..132S-4 AM132 AD4
12.0	4380	121.46	65000	1.80		
13.0	4050	112.41	65000	1.95		
14.0	3630	100.75	65000	2.20		
16.0	3280	90.96	65000	2.40		
18.0	2980	82.61	65000	2.70		
12.0	4470	123.93	40000	0.95	TK 97 TKF 97 TKA 97 TKAF 97	Y..132S-4 AM132 AD3
14.0	3790	105.13	40000	1.15		
15.0	3490	96.8	40000	1.25		
17.0	3120	86.52	40000	1.40		
19.0	2810	77.89	40000	1.55		
21.0	2540	70.54	40000	1.70		
23.0	2250	62.55	40000	1.90	TK 97 TKF 97 TKA 97 TKAF 97	Y..132S-4 AM132 AD4
26.0	2040	56.55	39600	2.10		
30.0	1730	47.93	38400	2.50		
17.0	3110	86.34	26700	0.85	TK 87 TKF 87 TKA 87 TKAF 87	Y..132S-4 AM132 AD2

n_2 [1/min]	M_2 [Nm]	i	Fr [N]	K	Frame size		Input Configuration	
P ₁ =5.5kw								
18.0	2860	79.34	27100	0.95	TK TKF TKA TKAF	87 87 87 87	Y..132S-4 AM132 AD3	
21.0	2540	70.46	27500	1.05				
23.0	2270	63.00	27400	1.20				
26.0	2040	56.64	27200	1.30				
30.0	1770	49.16	26800	1.50				
					TK TKF TKA TKAF	87 87 87 87	Y..132S-4 AM132 AD3	
33.0	1580	44.02	26500	1.65				
40.0	1310	36.52	25800	1.90				
					TK TKF TKA TKAF	87 87 87 87	Y..132S-4 AM132 AD4	
46.0	1130	31.39	25100	2.40				
52.0	1000	27.88	24600	2.60				
					TK TKF TKA TKAF	77 77 77 77	Y..132S-4 AM132 AD2	
32.0	1630	45.16	14800	0.95				
					TK TKF TKA TKAF	77 77 77 77	Y..132S-4 AM132 AD3	
36.0	1440	40.04	16100	1.05				
47.0	1110	30.89	17800	1.40				
					TK TKF TKA TKAF	77 77 77 77	Y..132S-4 AM132 AD3	
50.0	1050	29.27	18100	1.45				
57.0	920	25.62	18600	1.70				
63.0	830	23.08	18900	1.85	TK TKF TKA TKAF	77 77 77 77	Y..132S-4 AM132 AD4	
72.0	730	20.25	19200	2.00				
81.0	640	17.87	19400	2.20				
92.0	570	15.84	19100	2.40				
108	485	13.52	18500	2.80				
					TK TKF TKA TKAF	67 67 67 67	Y..132S-4 AM132 AD3	
61.0	860	24	9880	0.90				
64.0	810	22.66	10300	0.95				
75.0	695	19.3	11300	1.10				
83.0	630	17.54	11700	1.15				
96.0	545	15.19	12200	1.30				
110	475	13.22	12500	1.40				
117	450	12.48	12600	1.20				
					TK TKF TKA TKAF	67 67 67 67	Y..132S-4 AM132 AD3	
137	380	10.63	12400	1.30				
151	345	9.66	12200	1.40				
174	300	8.37	11900	1.45				
200	260	7.28	11600	1.60				
280	188	5.2	10800	1.85				
P ₁ =7.5kw								
1.80	37100	835	190000	1.35	TK TKH	187 187	TRF107 TRF107	Y..132M-4 AM132 AD5
					TK TKH	187 187	TRF107 TRF107	Y..132M-4 AM132 AD6
2.00	32200	729	190000	1.55				
2.40	27400	622	190000	1.80				

n ₁ [1/min]	M ₁ [Nm]	i	Fr [N]	K	Frame size	Input Configuration
P ₁ =7.5kw						
1.20	53600	1196	190000	0.95	TK 187 TRF97 TKH 187 TRF97	Y..132M-4 AM132 AD5
1.40	46800	1046	190000	1.05		
1.60	42300	945	190000	1.20		
2.00	33000	738	190000	1.50		
2.40	27700	621	190000	1.80		
2.80	23400	527	190000	2.10		
1.70	37600	843	150000	0.85	TK 167 TRF97 TKH 167 TRF97	Y..132M-4 AM132 AD5
1.90	33800	757	150000	0.95		
2.30	28300	632	150000	1.15		
2.60	24900	561	150000	1.30		
3.10	21500	481	150000	1.50		
3.50	18800	423	150000	1.70		
4.00	16400	369	150000	1.95	TK 167 TRF97 TKH 167 TRF97	Y..132M-4 AM132 AD5
3.40	19300	434	111500	0.95	TK 157 TRF97 TKF 157 TRF97 TKA 157 TRF97 TKAF157 TRF97	Y..132M-4 AM132 AD5
3.90	16800	379	112700	1.05		
4.40	14800	333	113600	1.20		
5.00	12900	291	114400	1.40		
4.40	14800	330	76200	0.85	TK 127 TRF87 TKF 127 TRF87 TKA 127 TRF87 TKAF127 TRF87	Y..132M-4 AM132 AD5
5.10	12800	287	79300	1.00		
5.80	11300	253	80000	1.15		
6.90	9550	213	80900	1.35		
7.30	9100	200	81100	1.30		
8.80	7530	166	81600	1.60		
10.0	6640	147	81900	1.80		
10.0	7110	146.07	81700	1.85	TK 127 TKF 127 TKA 127 TKAF127	Y..132M-4 AM132 AD4
11.0	6630	136.14	81900	1.95		
12.0	5960	122.48	82100	2.20		
13.0	5360	110.18	82200	2.40		
16.0	4370	89.89	82400	3.00	TK 127 TKF 127 TKA 127 TKAF127	Y..132M-4 AM132 AD5
18.0	3990	81.98	82500	3.20		
21.0	3450	70.95	82600	3.80		
10.0	6990	143.47	65000	1.15	TK 107 TKF 107 TKA 107 TKAF107	Y..132M-4 AM132 AD4
12.0	5910	121.46	65000	1.35		
13.0	5470	112.41	65000	1.45		
15.0	4900	100.75	64900	1.65		
16.0	4430	90.96	63900	1.80		
18.0	4020	82.61	62900	2.00		
20.0	3570	73.3	61600	2.20		
22.0	3240	66.52	60500	2.50		
26.0	2780	57.17	58800	2.90		
29.0	2430	49.9	57100	3.20		
35.0	2060	42.33	55100	3.60		
40.0	1800	37.00	53500	4.00	TK 107 TKF 107 TKA 107 TKAF107	Y..132M-4 AM132 AD5

n ₁ [1/min]	M ₁ [Nm]	i	Fr [N]	K	Frame size		Input Configuration
P ₁ =7.5kw							
15.0	4710	96.8	38300	0.90	TK 97 TKF 97 TKA 97 TKAF 97	Y..132M-4 AM132 AD3	
17.0	4210	86.52	38300	1.00			
19.0	3790	77.89	38100	1.15			
21.0	3430	70.54	37800	1.25			
15.0	4710	96.8	38300	0.90			
17.0	4210	86.52	38300	1.00			
19.0	3790	77.89	38100	1.15			
21.0	3430	70.54	37800	1.25			
24.0	3040	62.55	37400	1.40	TK 97	Y..132M-4 AM132 AD4	
26.0	2750	56.55	37000	1.55	TKF 97		
31.0	2330	47.93	36200	1.85	TKA 97		
35.0	2030	41.87	35500	2.10	TKAF 97		
38.0	1860	38.3	35000	2.30	TK 97	Y..132M-4 AM132 AD5	
43.0	1660	34.23	34300	2.60	TKF 97		
					TKA 97		
					TKAF 97		
23.0	3060	63.00	24100	0.90	TK 87	Y..132M-4 AM132 AD3	
26.0	2750	56.64	24200	1.00	TKF 87		
30.0	2390	49.16	24200	1.15	TKA 87		
33.0	2140	44.02	24100	1.20	TKAF 87		
40.0	1770	36.52	23800	1.40			
47.0	1520	31.39	23400	1.75	TK 87 TKF 87 TKA 87 TKAF 87	Y..132M-4 AM132 AD4	
53.0	1350	27.88	23100	1.90			
59.0	1210	24.92	22700	2.10			
66.0	1090	22.41	22400	2.10			
76.0	940	19.45	21800	2.40			
84.0	840	17.42	21400	2.60			
92.0	775	16	20500	2.30			
102	700	14.45	20600	3.00			
48.0	1500	30.89	15700	1.05	TK 77 TKF 77 TKA 77 TKAF 77	Y..132M-4 AM132 AD3	
50.0	1420	29.27	16200	1.10	TK 77 TKF 77 TKA 77 TKAF 77	Y..132M-4 AM132 AD4	
57.0	1240	25.62	17200	1.25			
64.0	1120	23.08	17800	1.40			
73.0	980	20.25	18400	1.50			
82.0	870	17.87	18500	1.65			
93.0	770	15.84	18100	1.80			
109	655	13.52	17700	2.00			
119	600	12.36	17000	1.65			
136	525	10.84	16600	1.90			
154	465	9.56	16200	2.00			
173	410	8.48	15800	2.20			
203	350	7.24	15300	2.30			
P ₁ =11.0kw							
1.80	54600	835	190000	0.90	TK 187 TRF107	Y..160M-4 AM160 AD5	
2.80	34300	520	190000	1.45	TKH 187 TRF107		
2.00	47500	729	190000	1.05	TK 187 TRF107	Y..160M-4 AM160 AD6	
2.40	40500	622	190000	1.25	TKH 187 TRF107		



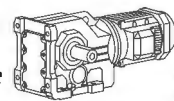
TK

n_2 [1/min]	M_2 [Nm]	i	Fr [N]	K	Frame size	Input Configuration
$P_1=11.0kw$						
3.20	29900	454	190000	1.65	TK 187 TRF107	Y..160M-4 AM160 AD6
4.20	23100	355	190000	2.20	TKH 187 TRF107	
2.00	48500	738	190000	1.05	TK 187 TRF97	Y..160M-4 AM160 AD5
2.40	40800	621	190000	1.20	TKH 187 TRF97	
2.80	34500	527	190000	1.45		
4.60	21000	318	150000	1.50	TK 167 TRF107 TKH 167 TRF107	Y..160M-4 AM160 AD5
5.30	18200	278	150000	1.75	TK 167 TRF107 TKH 167 TRF107	Y..160M-4 AM160 AD6
6.00	15800	244	150000	2.00		
6.90	13800	213	150000	2.30		
7.20	13400	206	150000	2.40		
2.60	36600	561	150000	0.85	TK 167 TRF97 TKH 167 TRF97	Y..160M-4 AM160 AD5
3.10	31600	481	150000	1.00		
3.50	27700	423	150000	1.15		
4.00	24100	369	150000	1.30		
4.40	21800	333	110000	0.80	TK 157 TRF97	Y..160M-4 AM160 AD5
5.10	19000	291	111600	0.95	TKF 157 TRF97	
					TKA 157 TRF97	
					TKAF157 TRF97	
6.90	14000	213	77900	0.95	TK 127 TRF87	Y..160M-4 AM160 AD5
7.40	13300	200	79000	0.90	TKF 127 TRF87	
8.90	11000	166	80200	1.10	TKA 127 TRF87	
10.0	9760	147	80800	1.25	TKAF127 TRF87	
9.00	11700	164.5	150000	2.70	TK 167 TKF 167 TKA 167 TKAF167	Y..160M-4 AM160 AD5
11.0	9610	134.99	150000	3.30	TK 167 TKF 167 TKA 167 TKAF167	Y..160M-4 AM160 AD6
9.80	10700	150.41	115100	1.70	TK 157	Y..160M-4 AM160 AD5
12.0	8710	122.39	115600	2.10	TKF 157	
15.0	7130	100.22	116000	2.50	TKA 157	
16.0	6520	91.65	116100	2.80	TKAF157	
11.0	9690	136.14	80800	1.35	TK 127	Y..160M-4 AM160 AD4
12.0	8720	122.48	81200	1.50	TKF 127	
13.0	7840	110.18	81500	1.65	TKA 127	
					TKAF127	
16.0	6400	89.89	82000	2.00	TK 127	Y..160M-4 AM160 AD5
18.0	5830	81.98	82100	2.20	TKF 127	
21.0	5050	70.95	82300	2.60	TKA 127	
					TKAF127	
13.0	8000	112.41	57800	1.00	TK 107	Y..160M-4 AM160 AD4
15.0	7170	100.75	58200	1.10	TKF 107	
16.0	6470	90.96	57900	1.25	TKA 107	
18.0	5880	82.61	57400	1.35	TKAF107	

n_2 [1/min]	M_2 [Nm]	i	Fr [N]	K	Frame size	Input Configuration
$P_1=11.0kw$						
20.0	5210	73.3	56700	1.55	TK 107	Y..160M-4 AM160 AD4
22.0	4730	66.52	56100	1.70	TKF 107	
26.0	4070	57.17	54900	1.95	TKA 107	
30.0	3550	49.9	53800	2.20	TKAF107	
35.0	3010	42.33	52300	2.40	TK 107	Y..160M-4 AM160 AD5
40.0	2630	37.00	51000	2.70	TKF 107	
					TKA 107	
					TKAF107	
21.0	5020	70.54	32300	0.85	TK 97 TKF 97 TKA 97 TKAF 97	Y..160M-4 AM160 AD3
24.0	4450	62.55	32500	0.95	TK 97	Y..160M-4 AM160 AD4
26.0	4020	56.55	32500	1.05	TKF 97	
31.0	3410	47.93	32400	1.25	TKA 97	
35.0	2980	41.87	32200	1.45	TKAF 97	
39.0	2720	38.3	31900	1.60	TK 97 TKF 97 TKA 97 TKAF 97	Y..160M-4 AM160 AD5
43.0	2430	34.23	31600	1.75		
48.0	2190	30.82	31200	1.95		
53.0	1980	27.91	30700	2.20		
60.0	1760	24.75	30200	2.40		
66.0	1590	22.37	29700	2.70		
34.0	3130	44.02	20100	0.85	TK 87	Y..160M-4 AM160 AD3
40.0	2600	36.52	20500	0.95	TKF 87	
					TKA 87	
					TKAF 87	
47.0	2230	31.39	20600	1.20	TK 87 TKF 87 TKA 87 TKAF 87	Y..160M-4 AM160 AD4
53.0	1980	27.88	20500	1.30		
59.0	1770	24.92	20400	1.40		
66.0	1590	22.41	20300	1.45		
76.0	1380	19.45	20000	1.65		
85.0	1230	17.42	19800	1.75		
92.0	1130	16	18800	1.60		
102.0	1020	14.45	19300	2.00		
117.0	890	12.56	18900	2.20		
132.0	790	11.17	17900	1.90		
148	710	10	17600	2.10	TK 87	Y..160M-4 AM160 AD5
178	590	8.29	17000	2.40	TKF 87	
205	510	7.21	16600	2.50	TKA 87	
					TKAF 87	
64.0	1640	23.08	14700	0.95	TK 77 TKF 77 TKA 77 TKAF 77	Y..160M-4 AM160 AD4
73.0	1440	20.25	16100	1.05		
83.0	1270	17.87	16600	1.15		
93.0	1120	15.84	16500	1.25		
109	960	13.52	16200	1.40		
119	870	12.36	15500	1.15		
136	770	10.84	15300	1.30		
154	680	9.56	15000	1.40		
174	600	8.48	14800	1.45		
204	515	7.24	14400	1.60		

n_2 [1/min]	M_2 [Nm]	i	Fr [N]	K	Frame size	Input Configuration
$P_i=15.0kw$						
2.80	47400	520	190000	1.05	TK 187 TRF107 TKH 187 TRF107	Y..160L-4 AM160 AD5
2.40	55900	622	190000	0.90	TK 187 TRF107 TKH 187 TRF107	Y..160L-4 AM160 AD6
3.20	41200	454	190000	1.20		
4.10	31900	355	190000	1.55		
5.60	23700	261	190000	2.10		
4.60	28900	318	150000	1.10	TK 167 TRF107 TKH 167 TRF107	Y..160L-4 AM160 AD5
5.30	25200	278	150000	1.25	TK 167 TRF107 TKH 167 TRF107	Y..160L-4 AM160 AD6
6.00	21800	244	150000	1.45		
6.90	19000	213	150000	1.70		
7.10	18600	206	150000	1.70		
8.10	16000	180	150000	2.00		
9.20	14500	160	150000	2.20		
6.40	20500	230	110800	0.90	TK 157 TRF107 TKF 157 TRF107 TKA 157 TRF107 TKAF157 TRF107	Y..160L-4 AM160 AD6
6.90	19300	213	111500	0.95		
7.80	16600	187	112800	1.10		
9.30	14100	157	113900	1.25		
12.0	11000	122	115000	1.60		
14.0	9670	107	115400	1.85		
8.90	16000	164.5	150000	2.00	TK 167 TKH 167	Y..160L-4 AM160 AD5
11.0	13100	134.99	150000	2.40	TK 167 TKH 167	Y..160L-4 AM160 AD6
9.70	14700	150.41	113700	1.20	TK 157 TKF 157 TKA 157 TKAF157	Y..160L-4 AM160 AD5
12.0	11900	122.39	114700	1.50		
15.0	9790	100.22	114100	1.85		
16.0	8960	91.65	112400	2.00		
18.0	7790	79.75	109500	2.30		
11.0	13300	136.14	79000	1.00	TK 127 TKF 127 TKA 127 TKAF127	Y..160L-4 AM160 AD4
12.0	11900	122.48	79700	1.10		
13.0	10700	110.18	80300	1.20		
16.0	8780	89.89	81200	1.50	TK 127 TKF 127 TKA 127 TKAF127	Y..160L-4 AM160 AD5
18.0	8010	81.98	81500	1.60		
21.0	6930	70.95	81500	1.85		
23.0	6120	62.6	79900	2.10		
27.0	5280	54.07	77900	2.50		
31.0	4670	47.82	76200	2.80		
16.0	8890	90.96	48200	0.90	TK 107 TKF 107 TKA 107 TKAF107	Y..160L-4 AM160 AD4
18.0	8070	82.61	49400	1.00		
20.0	7160	73.3	50500	1.10		
22.0	6500	66.52	51000	1.25		
26.0	5590	57.17	50600	1.45		
29.0	4870	49.9	50000	1.60		

n_2 [1/min]	M_2 [Nm]	i	Fr [N]	K	Frame size	Input Configuration
$P_i=15.0kw$						
35.0	4130	42.33	49100	1.80	TK 107	Y..160L-4 AM160 AD5
40.0	3610	37.00	48200	2.00	TKF 107	
45.0	3190	32.69	47300	2.20	TKA 107	
47.0	3050	31.28	46900	2.20	TKAF107	
51.0	2830	29	46300	2.50	TK 107 TKF 107 TKA 107 TKAF107	Y..160L-4 AM160 AD6
31.0	4680	47.93	28100	0.90	TK 97	Y..160L-4 AM160 AD4
35.0	4090	41.87	28400	1.05	TKF 97 TKA 97 TKAF 97	
38.0	3740	38.3	28500	1.15	TK 97	Y..160L-4 AM160 AD5
43.0	3340	34.23	28500	1.30	TKF 97	
48.0	3010	30.82	28400	1.45	TKA 97	
53.0	2720	27.91	28200	1.60	TKAF 97	
59.0	2410	24.75	28000	1.80	TK 97	Y..160L-4 AM160 AD5
65.0	2180	22.37	27700	1.95	TKF 97	
77.0	1850	18.96	27200	2.30	TKA 97	
88.0	1610	16.56	26600	2.70	TKAF 97	
47.0	3060	31.39	17300	0.90	TK 87 TKF 87 TKA 87 TKAF 87	Y..160L-4 AM160 AD4
53.0	2720	27.88	17600	0.95		
59.0	2430	24.92	17800	1.05		
65.0	2190	22.41	18000	1.05		
75.0	1900	19.45	18000	1.20		
84.0	1700	17.42	18000	1.30		
92.0	1560	16	16800	1.15		
101	1410	14.45	17800	1.50		
117	1220	12.56	17600	1.65		
131	1090	11.17	16600	1.35		
147	970	10	16400	1.55	TK 87	Y..160L-4 AM160 AD5
177	810	8.29	16000	1.75	TKF 87	
203	705	7.21	15700	1.85	TKA 87 TKAF 87	
$P_i=18.5kw$						
2.80	58500	520	190000	0.85	TK 187 TRF107 TKH 187 TRF107	Y..180M-4 AM180 AD5
3.20	51000	454	190000	1.00	TK 187 TRF107 TKH 187 TRF107	Y..180M-4 AM180 AD6
4.10	39400	355	190000	1.25		
5.60	29300	261	190000	1.70		
6.60	24800	221	190000	2.00		
4.60	35800	318	150000	0.90	TK 167 TRF107 TKH 167 TRF107	Y..180M-4 AM180 AD5
5.30	31200	278	150000	1.00	TK 167 TRF107 TKH 167 TRF107	Y..180M-4 AM180 AD6
6.00	27000	244	150000	1.20		
6.90	23600	213	150000	1.35		
7.10	23000	206	150000	1.40		



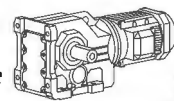
TK

n ₂ [1/min]	M ₂ [Nm]	i	Fr [N]	K	Frame size	Input Configuration
P ₁ =18.5kw						
8.10	19900	180	150000	1.60	TK 167 TRF107	Y..180M-4 AM180 AD6
9.20	17900	160	150000	1.80	TKH 167 TRF107	
11.0	15100	135	150000	2.10	TK 167 TRF107	Y..180M-4 AM180 AD6
12.0	13200	118	150000	2.40	TKH 167 TRF107	
7.80	20600	187	110700	0.85	TK 157 TRF107	Y..180M-4 AM180 AD6
9.30	17500	157	112400	1.05	TKF 157 TRF107	
12.0	13700	122	113900	1.30	TKA 157 TRF107	
14.0	11900	107	112000	1.50	TKAF157 TRF107	
8.20	21600	179.86	190000	2.30	TK 187	Y..180M-4 AM180 AD6
8.90	19900	165.21	190000	2.50	TKH 187	
10.0	17400	144.59	190000	2.90		
11.0	15600	129.69	190000	3.20	TK 187 TKH 187	Y..180M-4 AM180 AD7
11.0	16200	134.99	150000	1.95	TK 167	Y..180M-4 AM180 AD6
13.0	13200	109.83	150000	2.40	TKH 167	
17.0	10500	87.86	150000	3.00	TK 167 TKH 167	Y..180M-4 AM180 AD7
12.0	14700	122.39	111600	1.20	TK 157	Y..180M-4 AM180 AD5
15.0	12000	100.22	109100	1.50	TKF 157	
16.0	11000	91.65	107800	1.65	TKA 157	
18.0	9610	79.75	105600	1.85	TKAF157	
21.0	8480	70.38	103400	2.10		
24.0	7350	61.02	100700	2.40		
27.0	6540	54.29	98500	2.80	TK 157 TKF 157 TKA 157 TKAF157	Y..180M-4 AM180 AD6
31.0	5640	46.79	95500	3.20	TK 157	Y..180M-4 AM180 AD7
39.0	4580	38.02	91300	3.90	TKF 157 TKA 157 TKAF157	
13.0	13200	110.18	79000	1.00	TK 127 TKF 127 TKA 127 TKAF127	Y..180M-4 AM180 AD4
16.0	10800	89.89	79000	1.20	TK 127	Y..180M-4 AM180 AD5
18.0	9880	81.98	78500	1.30	TKF 127	
21.0	8550	70.95	77500	1.50	TKA 127	
23.0	7540	62.6	76400	1.70	TKAF127	

n ₂ [1/min]	M ₂ [Nm]	i	Fr [N]	K	Frame size	Input Configuration
P ₁ =18.5kw						
27.0	6510	54.07	74800	2.00	TK 127 TKF 127 TKA 127 TKAF127	Y..180M-4 AM180 AD5
31.0	5760	47.82	73400	2.20		
36.0	4840	40.19	71300	2.70	TK 127 TKF 127 TKA 127 TKAF127	Y..180M-4 AM180 AD6
40.0	4370	36.25	69900	3.00	TK 127 TKF 127 TKA 127 TKAF127	Y..180M-4 AM180 AD7
47.0	3780	31.37	68000	3.40		
53.0	3330	27.68	66200	3.90		
20.0	8830	73.3	42700	0.90	TK 107 TKF 107 TKA 107 TKAF107	Y..180M-4 AM180 AD4
22.0	8020	66.52	44200	1.00		
26.0	6890	57.17	45800	1.15		
29.0	6010	49.9	46600	1.30		
35.0	5100	42.33	46300	1.45	TK 107 TKF 107 TKA 107 TKAF107	Y..180M-4 AM180 AD5
40.0	4460	37.00	45700	1.60		
45.0	3940	32.69	45100	1.85		
47.0	3770	31.28	44800	1.80		
51.0	3490	29	44400	2.10	TK 107 TKF 107 TKA 107 TKAF107	Y..180M-4 AM180 AD6
56.0	3170	26.32	43800	2.30		
65.0	2720	22.62	42700	2.60		
74.0	2380	19.74	41700	3.00		
88.0	2010	16.75	40400	3.50		
35.0	5040	41.87	25100	0.85	TK 97 TKF 97 TKA 97 TKAF 97	Y..180M-4 AM180 AD4
48.0	3710	30.82	26000	1.15	TK 97 TKF 97 TKA 97 TKAF 97	Y..180M-4 AM180 AD5
53.0	3360	27.91	26000	1.30		
59.0	2980	24.75	26000	1.45		
65.0	2690	22.37	25900	1.60		
77.0	2280	18.96	25700	1.90	TK 97 TKF 97 TKA 97 TKAF 97	Y..180M-4 AM180 AD5
88.0	1990	16.56	25300	2.20		
106	1670	13.85	24800	2.60	TK 97 TKF 97 TKA 97 TKAF 97	Y..180M-4 AM180 AD6
59.0	3000	24.92	15600	0.85	TK 87 TKF 87 TKA 87 TKAF 87	Y..180M-4 AM180 AD4
65.0	2700	22.41	15900	0.85		
75.0	2340	19.45	16200	1.00		
84.0	2090	17.42	16400	1.05		
101	1740	14.45	16500	1.20		
117	1510	12.56	16400	1.30		
131	1340	11.17	15400	1.10		

n: [1/min]	M: [Nm]	i	Fr [N]	K	Frame size	Input Configuration
P ₁ =18.5kw						
147	1200	10	15300	1.25	TK 87	Y..180M-4 AM180 AD5
177	1000	8.29	15100	1.40	TKF 87	
203	860	7.21	14900	1.50	TKA 87	
					TKAF 87	
P ₁ =22kw						
3.20	60400	454	190000	0.85	TK 187 TRF107 TKH 187 TRF107	Y..180L-4 AM180 AD6
4.20	46700	355	190000	1.05		
5.60	34700	261	190000	1.45		
6.70	29400	221	190000	1.70		
7.60	25600	193	190000	1.95		
9.00	21600	163	190000	2.30		
5.30	36900	278	150000	0.85	TK 167 TRF107 TKH 167 TRF107	Y..180L-4 AM180 AD6
6.00	32000	244	150000	1.00		
6.90	27900	213	150000	1.15		
7.20	27200	206	150000	1.15		
8.20	23500	180	150000	1.35		
9.20	21200	160	150000	1.50		
11.0	17900	135	150000	1.80		
12.0	15600	118	150000	2.00		
9.40	20700	157	109400	0.85	TK 157 TRF107 TKF 157 TRF107 TKA 157 TRF107 TKAF157 TRF107	Y..180L-4 AM180 AD6
12.0	16200	122	108100	1.10		
14.0	14100	107	106900	1.25		
8.20	25600	179.86	190000	1.95	TK 187 TKH 187	Y..180L-4 AM180 AD6
8.90	23500	165.21	190000	2.10		
10.0	20500	144.59	190000	2.40		
11.0	18400	129.69	190000	2.70	TK 187 TKH 187	Y..180L-4 AM180 AD7
11.0	19200	134.99	150000	1.65	TK 167 TKH 167	Y..180L-4 AM180 AD6
13.0	15600	109.83	150000	2.00		
17.0	12500	87.86	150000	2.60	TK 167 TKH 167	Y..180L-4 AM180 AD7
19.0	11100	78.14	150000	2.90		
12.0	17400	122.39	105500	1.05	TK 157 TKF 157 TKA 157 TKAF157	Y..180L-4 AM180 AD5
15.0	14200	100.22	104000	1.25		
16.0	13000	91.65	103200	1.40		
18.0	11300	79.75	101500	1.60		
21.0	10000	70.38	99700	1.80		
24.0	8690	61.02	97600	2.10		
27.0	7730	54.29	95700	2.30	TK 157 TKF 157 TKA 157 TKAF157	Y..180L-4 AM180 AD6
32.0	6660	46.79	93100	2.70	TK 157 TKF 157 TKA 157 TKAF157	Y..180L-4 AM180 AD7
39.0	5410	38.02	89300	3.30		

n ₂ [1/min]	M ₂ [Nm]	i	Fr [N]	K	Frame size	Input Configuration
P₁=22kw						
16.0	12800	89.89	73900	1.00	TK 127 TKF 127 TKA 127 TKAF127	Y..180L-4 AM180 AD5
18.0	11600	81.98	73800	1.10		
21.0	10100	70.95	73400	1.30		
24.0	8910	62.6	72700	1.45		
27.0	7700	54.07	71700	1.70		
31.0	6810	47.82	70600	1.90		
37.0	5720	40.19	68900	2.30	TK 127 TKF 127 TKA 127 TKAF127	Y..180L-4 AM180 AD6
41.0	5160	36.25	67800	2.50	TK 127 TKF 127 TKA 127 TKAF127	Y..180L-4 AM180 AD7
47.0	4460	31.37	66100	2.90		
53.0	3940	27.68	64500	3.30		
62.0	3400	23.91	62700	3.80		
70.0	3010	21.15	61100	4.30	TK 127 TKF 127 TKA 127 TKAF127	Y..180L-4 AM180 AD8
26.0	8140	57.17	39800	1.00	TK 107 TKF 107 TKA 107 TKAF107	Y..180L-4 AM180 AD4
30.0	7100	49.9	41600	1.10		
35.0	6020	42.33	42900	1.20	TK 107 TKF 107 TKA 107 TKAF107	Y..180L-4 AM180 AD5
40.0	5260	37.00	43200	1.35		
45.0	4650	32.69	42900	1.55		
47.0	4450	31.28	42700	1.55		
51.0	4120	29	42400	1.75	TK 107 TKF 107 TKA 107 TKAF107	Y..180L-4 AM180 AD6
56.0	3740	26.32	42000	1.90		
65.0	3220	22.62	41200	2.20		
75.0	2810	19.74	40400	2.60		
88.0	2380	16.75	39300	3.00	TK 107 TKF 107 TKA 107 TKAF107	Y..180L-4 AM180 AD6
101	2080	14.64	38300	3.30		
110	1910	13.43	36700	2.20		
126	1660	11.73	35800	2.60		
148	1410	9.94	34700	3.00		
48.0	4380	30.82	23500	1.00	TK 97 TKF 97 TKA 97 TKAF 97	Y..180L-4 AM180 AD5
53.0	3970	27.91	23800	1.10		
60.0	3520	24.75	24100	1.20		
66.0	3180	22.37	24200	1.35		
78.0	2700	18.96	24100	1.60		
89.0	2350	16.56	24000	1.80		
106	1970	13.85	23700	2.20	TK 97 TKF 97 TKA 97 TKAF 97	Y..180L-4 AM180 AD6
123	1700	11.99	23300	2.30		



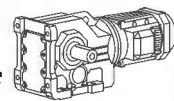
TK

n_2 [1/min]	M_2 [Nm]	i	F_r [N]	K	Frame size	Input Configuration
P ₁ =22kw						
142	1480	10.41	21800	1.95	TK 97	Y..180L-4 AM180 AD5
					TKF 97	
					TKA 97	
					TKAF 97	
169	1240	8.71	21300	2.20	TK 97	Y..180L-4 AM180 AD6
					TKF 97	
					TKA 97	
					TKAF 97	
76.0	2760	19.45	14500	0.85	TK 87 TKF 87 TKA 87 TKAF 87	Y..180L-4 AM180 AD4
85.0	2470	17.42	14800	0.90		
102	2050	14.45	15200	1.00		
117	1780	12.56	15300	1.10		
132	1580	11.17	14200	0.95		
148	1420	10	14200	1.05	TK 87 TKF 87 TKA 87 TKAF 87	Y..180L-4 AM180 AD5
178	1180	8.29	14300	1.20		
205	1020	7.21	14200	1.25		
P ₁ =30kw						
5.60	47400	261	190000	1.05	TK 187 TRF107 TKH 187 TRF107	Y..200L-4 AM200 AD6
6.70	40200	221	190000	1.25		
7.60	35100	193	190000	1.40		
9.00	29600	163	190000	1.70		
6.90	38200	213	150000	0.85	TK 167 TRF107 TKH 167 TRF107	Y..200L-4 AM200 AD6
7.20	37300	206	150000	0.85		
8.20	32300	180	150000	1.00		
9.20	29000	160	150000	1.10		
11.0	24500	135	150000	1.30		
12.0	21400	118	150000	1.50		
8.20	34900	179.86	190000	1.45	TK 187 TKF 187 TKA 187 TKAF187	Y..200L-4 AM200 AD6
8.90	32000	165.21	190000	1.55		
10.0	28000	144.59	190000	1.80		
11.0	25100	129.69	190000	2.00	TK 187 TKF 187 TKA 187 TKAF187	Y..200L-4 AM200 AD7
13.0	21800	112.6	190000	2.30		
14.0	19800	102.16	190000	2.50		
17.0	17000	88	190000	2.90	TK 187 TKF 187 TKA 187 TKAF187	Y..200L-4 AM200 AD8
13.0	21300	109.83	150000	1.50	TK 167 TKF 167 TKA 167 TKAF167	Y..200L-4 AM200 AD6
17.0	17000	87.86	150000	1.90	TK 167 TKF 167 TKA 167 TKAF167	Y..200L-4 AM200 AD7
19.0	15100	78.14	150000	2.10		
22.0	13200	68.07	150000	2.40		
24.0	11700	60.74	150000	2.70		

n_2 [1/min]	M_2 [Nm]	i	F_r [N]	K	Frame size	Input Configuration
P ₁ =30kw						
15.0	19400	100.22	92700	0.90	TK 157 TKF 157 TKA 157 TKAF157	Y..200L-4 AM200 AD5
16.0	17800	91.65	92800	1.00		
18.0	15400	79.75	92400	1.15		
21.0	13600	70.38	91800	1.30		
24.0	11800	61.02	90700	1.50		
27.0	10500	54.29	89500	1.70	TK 157 TKF 157 TKA 157 TKAF157	Y..200L-4 AM200 AD6
32.0	9080	46.79	87800	2.00	TK 157 TKF 157 TKA 157 TKAF157	Y..200L-4 AM200 AD7
39.0	7380	38.02	85000	2.40		
47.0	6070	31.3	82100	3.00	TK 157 TKF 157 TKA 157 TKAF157	Y..200L-4 AM200 AD8
21.0	13700	70.95	64200	0.95	TK 127 TKF 127 TKA 127 TKAF127	Y..200L-4 AM200 AD5
24.0	12100	62.6	64600	1.05		
27.0	10500	54.07	64700	1.25		
31.0	9280	47.82	64400	1.40		
37.0	7800	40.19	63700	1.65	TK 127 TKF 127 TKA 127 TKAF127	Y..200L-4 AM200 AD6
41.0	7030	36.25	63100	1.85	TK 127 TKF 127 TKA 127 TKAF127	Y..200L-4 AM200 AD7
47.0	6090	31.37	62000	2.10		
53.0	5370	27.68	61000	2.40		
62.0	4640	23.91	59600	2.80		
35.0	8220	42.33	32500	0.90	TK 107 TKF 107 TKA 107 TKAF107	Y..200L-4 AM200 AD5
40.0	7180	37.00	34700	1.00		
47.0	6070	31.28	36600	1.10		
51.0	5630	29	37200	1.30	TK 107 TKF 107 TKA 107 TKAF107	Y..200L-4 AM200 AD6
56.0	5100	26.32	37700	1.40		
65.0	4390	22.62	37700	1.65		
75.0	3830	19.74	37400	1.90		
88.0	3250	16.75	36700	2.20		
101	2840	14.64	36100	2.40		
110	2600	13.43	34400	1.65		
126	2270	11.73	33800	1.90		
148	1930	9.94	32900	2.20		
170	1680	8.69	32200	2.40		
60.0	4800	24.75	19600	0.90	TK 97 TKF 97 TKA 97 TKAF 97	Y..200L-4 AM200 AD5
66.0	4340	22.37	20100	1.00		
78.0	3680	18.96	20700	1.15		
89.0	3210	16.56	21000	1.35		

n_2 [1/min]	M_2 [Nm]	i	F_r [N]	K	Frame size	Input Configuration
P₁=30kw						
106	2690	13.85	21200	1.60	TK 97	Y..200L-4
123	2320	11.99	21100	1.65	TKF 97	AM200
					TKA 97	AD6
					TKAF 97	
142	2020	10.41	19500	1.40	TK 97	Y..200L-4
					TKF 97	AM200
					TKA 97	AD5
					TKAF 97	
169	1690	8.71	19400	1.55	TK 97	Y..200L-4
					TKF 97	AM200
					TKA 97	AD6
					TKAF 97	
P₁=37kw						
5.70	58500	261	190000	0.85	TK 187 TRF107 TKH 187 TRF107	Y..225S-4
6.70	49600	221	190000	1.00		AM225
7.60	43300	193	190000	1.15		AD6
9.00	36500	163	190000	1.35		
8.20	39800	180	150000	0.80	TK 167 TRF107 TKH 167 TRF107	Y..225S-4
9.20	35800	160	150000	0.90		AM225
11.0	30300	135	150000	1.05		AD6
12.0	26400	118	150000	1.20		
8.20	43000	179.86	190000	1.15	TK 187 TKH 187	Y..225S-4
8.90	39500	165.21	190000	1.25		AM225
10.0	34500	144.59	190000	1.45		AD6
11.0	31000	129.69	190000	1.60	TK 187 TKH 187	Y..225S-4
13.0	26900	112.6	190000	1.85		AM225
14.0	24400	102.16	190000	2.00		AD7
17.0	21000	88	190000	2.40	TK 187 TKH 187	Y..225S-4 AM225 AD8
13.0	26200	109.83	150000	1.20	TK 167 TKH 167	Y..225S-4 AM225 AD6
17.0	21000	87.86	150000	1.50	TK 167 TKH 167	Y..225S-4
19.0	18600	78.14	150000	1.70		AM225
22.0	16200	68.07	150000	1.95		AD7
24.0	14500	60.74	150000	2.20		
29.0	12300	51.77	150000	2.60	TK 167 TKH 167	Y..225S-4 AM225 AD8
16.0	21900	91.65	83700	0.80	TK 157 TKF 157 TKA 157 TKAF157	Y..225S-4
19.0	19000	79.75	84500	0.95		AM225
21.0	16800	70.38	84800	1.05		AD5
24.0	14500	61.02	84600	1.25		

n_2 [1/min]	M_2 [Nm]	i	F_r [N]	K	Frame size	Input Configuration
P ₁ =37kw						
27.0	12900	54.29	84100	1.40	TK 157 TKF 157 TKA 157 TKAF157	Y..225S-4 AM225 AD6
32.0 39.0	11100 9090	46.79 38.02	83100 81200	1.60 2.00	TK 157 TKF 157 TKA 157 TKAF157	Y..225S-4 AM225 AD7
47.0	7480	31.3	79000	2.40	TK 157 TKF 157 TKA 157 TKAF157	Y..225S-4 AM225 AD8
24.0 27.0 31.0	14900 12900 11400	62.6 54.07 47.82	57500 58500 59000	0.85 1.00 1.15	TK 127 TKF 127 TKA 127 TKAF127	Y..225S-4 AM225 AD5
37.0	9610	40.19	59100	1.35	TK 127 TKF 127 TKA 127 TKAF127	Y..225S-4 AM225 AD6
41.0 47.0 53.0 62.0	8660 7500 6620 5710	36.25 31.37 27.68 23.91	58900 58400 57800 56900	1.50 1.75 1.95 2.30	TK 127 TKF 127 TKA 127 TKAF127	Y..225S-4 AM225 AD7
70.0 83.0 103 116 137 170	5050 4250 3430 3050 2560 2070	21.15 17.77 14.35 12.79 10.74 8.68	55900 54500 52500 50200 48600 46500	2.60 3.10 3.50 2.80 3.10 3.50	TK 127 TKF 127 TKA 127 TKAF127	Y..225S-4 AM225 AD8
40.0 47.0	8850 7480	37.00 31.28	25900 29700	0.80 0.90	TK 107 TKF 107 TKA 107 TKAF107	Y..225S-4 AM225 AD5
51.0 56.0 65.0 75.0 88.0 101 110 126 149 170	6930 6290 5400 4720 4000 3500 3210 2800 2370 2070	29 26.32 22.62 19.74 16.75 14.64 13.43 11.73 9.94 8.69	31000 32300 33700 34400 34500 34100 32300 31900 31400 30900	1.05 1.15 1.35 1.50 1.75 1.95 1.35 1.55 1.75 1.95	TK 107 TKF 107 TKA 107 TKAF107	Y..225S-4 AM225 AD6
P ₁ =45kw						
6.70 7.60 9.00	60300 52700 44500	221 193 163	190000 190000 190000	0.85 0.95 1.10	TK 187 TRF107 TKH 187 TRF107	Y..225M-4 AM225 AD6



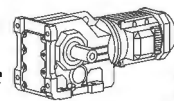
TK

n ₂ [1/min]	M ₂ [Nm]	i	Fr [N]	K	Frame size	Input Configuration
P_i=45kw						
11.0	36900	135	150000	0.85	TK 167 TRF107	Y..225M-4 AM225
12.0	32200	118	150000	1.00	TKH 167 TRF107	AD6
8.20	52200	179.86	190000	0.95	TK 187	Y..225M-4 AM225
9.00	48000	165.21	190000	1.05	TKH 187	AD6
10.0	42000	144.59	190000	1.20		
11.0	37700	129.69	190000	1.35	TK 187	Y..225M-4 AM225
13.0	32700	112.6	190000	1.55	TKH 187	AD7
14.0	29700	102.16	190000	1.70		
17.0	25500	88	190000	1.95	TK 187	Y..225M-4 AM225
20.0	21500	73.96	187500	2.30	TKH 187	AD8
13.0	31900	109.83	150000	1.00	TK 167 TKH 167	Y..225M-4 AM225 AD6
17.0	25500	87.86	150000	1.25	TK 167	Y..225M-4 AM225
19.0	22700	78.14	150000	1.40	TKH 167	AD7
22.0	19700	68.07	150000	1.60		
24.0	17600	60.74	148900	1.80		
29.0	15000	51.77	145200	2.10	TK 167	Y..225M-4 AM225
34.0	12400	42.89	140500	2.60	TKH 167	AD8
21.0	20400	70.38	76800	0.90	TK 157 TKF 157 TKA 157 TKAF157	Y..225M-4 AM225 AD5
24.0	17700	61.02	77700	1.00		
27.0	15700	54.29	77900	1.15	TK 157 TKF 157 TKA 157 TKAF157	Y..225M-4 AM225 AD6
32.0	13600	46.79	77800	1.30	TK 157 TKF 157 TKA 157 TKAF157	Y..225M-4 AM225 AD7
39.0	11000	38.02	76900	1.65		
47.0	9100	31.3	75500	2.00	TK 157	Y..225M-4 AM225
54.0	8030	27.62	74300	2.20	TKF 157	AD8
62.0	6960	23.95	72800	2.60	TKA 157	
69.0	6190	21.31	71400	2.90	TKAF157	
80.0	5330	18.37	69600	3.40		
31.0	13900	47.82	52800	0.95	TK 127 TKF 127 TKA 127 TKAF127	Y..225M-4 AM225 AD5
37.0	11600	40.19	53900	1.10	TK 127 TKF 127 TKA 127 TKAF127	Y..225M-4 AM225 AD6

n ₂ [1/min]	M ₂ [Nm]	i	Fr [N]	K	Frame size	Input Configuration
P_i=45kw						
41.0	10500	36.25	54200	1.25	TK 127	Y..225M-4 AM225
47.0	9110	31.37	54400	1.45	TKF 127	AD7
53.0	8040	27.68	54200	1.60	TKA 127	
62.0	6940	23.91	53800	1.85	TKAF127	
70.0	6140	21.15	53200	2.10	TK 127	Y..225M-4 AM225
83.0	5160	17.77	52200	2.50	TKF 127	AD8
103	4170	14.35	50600	2.90	TKA 127	
116	3710	12.79	48300	2.30	TKAF127	
138	3120	10.74	47000	2.60		
170	2520	8.68	45200	2.90		
51.0	8420	29	22900	0.85	TK 107	Y..225M-4 AM225
56.0	7640	26.32	25300	0.95	TKF 107	AD6
65.0	6570	22.62	28100	1.10	TKA 107	
75.0	5730	19.74	29800	1.25	TKAF107	
88.0	4860	16.75	31100	1.45		
101	4250	14.64	31700	1.60		
110	3900	13.43	29900	1.10		
126	3400	11.73	29900	1.25		
149	2890	9.94	29600	1.45		
170	2520	8.69	29300	1.60		
P_i=55kw						
10.0	51400	144.59	190000	0.95	TK 187 TKH 187	Y..250M-4 AM250 AD6
11.0	46100	129.69	190000	1.10	TK 187	Y..250M-4 AM250
13.0	40000	112.6	188600	1.25	TKH 187	AD7
14.0	36300	102.16	187100	1.35		
17.0	31300	88	184200	1.60	TK 187	Y..250M-4 AM250
20.0	26300	73.96	180200	1.90	TKH 187	AD8
23.0	22800	64.04	176300	2.20		
17.0	31200	87.86	145300	1.00	TK 167	Y..250M-4 AM250
19.0	27800	78.14	144600	1.15	TKH 167	AD7
22.0	24200	68.07	143300	1.30		
24.0	21600	60.74	141700	1.50		
28.0	18400	51.77	139100	1.75	TK 167	Y..250M-4 AM250
34.0	15200	42.89	135400	2.10	TKH 167	AD8
40.0	13000	36.61	131900	2.40		
24.0	21700	61.02	69000	0.85	TK 157 TKF 157 TKA 157 TKAF157	Y..250M-4 AM250 AD5
27.0	19300	54.29	70200	0.95	TK 157 TKF 157 TKA 157 TKAF157	Y..250M-4 AM250 AD6
32.0	16600	46.79	71200	1.10	TK 157 TKF 157 TKA 157 TKAF157	Y..250M-4 AM250 AD7
39.0	13500	38.02	71500	1.35		

n ₁ [1/min]	M ₁ [Nm]	i	Fr [N]	K	Frame size	Input Configuration
P ₁ =55kw						
47.0	11100	31.3	71000	1.60	TK 157 TKF 157 TKA 157 TKAF 157	Y..250M-4 AM250 AD8
53.0	9830	27.62	70400	1.85		
62.0	8520	23.95	69400	2.10		
69.0	7580	21.31	68400	2.40		
80.0	6530	18.37	67000	2.80		
99.0	5310	14.92	64800	3.40		
117	4500	12.65	62900	3.80		
37.0	14300	40.19	47400	0.90	TK 127 TKF 127 TKA 127 TKAF 127	Y..250M-4 AM250 AD6
47.0	11100	31.37	49300	1.15	TK 127 TKF 127 TKA 127 TKAF 127	Y..250M-4 AM250 AD7
53.0	9850	27.68	49700	1.30	TK 127 TKF 127 TKA 127 TKAF 127	Y..250M-4 AM250 AD8
62.0	8510	23.91	49900	1.55		
70.0	7520	21.15	49800	1.75		
83.0	6320	17.77	49300	2.00		
103	5100	14.35	48300	2.40		
115	4550	12.79	45900	1.85		
137	3820	10.74	45000	2.10		
170	3080	8.68	43600	2.30		
P ₁ =75kw						
11.0	62700	129.69	164100	0.80	TK 187 TKH 187	Y..280S-4 AM280 AD7
13.0	54400	112.6	166100	0.90	TK 187 TKH 187	Y..280S-4 AM280 AD8
14.0	49400	102.16	166600	1.00		
17.0	42500	88	166600	1.15		
20.0	35700	73.96	165300	1.40		
23.0	30900	64.04	163400	1.60		
28.0	25800	53.36	160100	1.95	TK 167 TKH 167	Y..280S-4 AM280 AD7
33.0	22000	45.5	156700	2.30		
19.0	37800	78.14	126200	0.85		
22.0	32900	68.07	127200	0.95		
24.0	29300	60.74	127300	1.10		
29.0	25000	51.77	126800	1.30	TK 167 TKH 167	Y..280S-4 AM280 AD8
34.0	20700	42.89	125200	1.55		
40.0	17700	36.61	123200	1.80		
46.0	15600	32.25	121300	2.00		
51.0	13900	28.77	119300	2.30		
60.0	11800	24.52	116300	2.70	TK 157 TKF 157 TKA 157 TKAF 157	Y..280S-4 AM280 AD7
39.0	18300	38.02	60800	1.00		
47.0	15100	31.3	62200	1.20		
54.0	13300	27.62	62600	1.35		
62.0	11500	23.95	62600	1.55		
69.0	10300	21.31	62400	1.75	TK 157 TKF 157 TKA 157 TKAF 157	Y..280S-4 AM280 AD8
81.0	8880	18.37	61800	2.00		
99.0	7220	14.92	60500	2.50		
117	6120	12.65	59300	2.80		

n ₁ [1/min]	M ₁ [Nm]	i	Fr [N]	K	Frame size	Input Configuration
P ₁ =75kw						
47.0	15100	31.37	37900	0.85	TK 127 TKF 127 TKA 127 TKAF 127	Y..280S-4 AM280 AD7
53.0	13300	27.68	40800	0.95		
62.0	11500	23.91	42200	1.10		
70.0	10200	21.15	42900	1.25	TK 127 TKF 127 TKA 127 TKAF 127	Y..280S-4 AM280 AD8
83.0	8590	17.77	43600	1.50		
103	6940	14.35	43700	1.75		
116	6180	12.79	41100	1.40		
138	5190	10.74	41000	1.55		
171	4190	8.68	40400	1.70		
P ₁ =90kw						
14.0	59300	102.16	151300	0.85	TK 187 TKH 187	Y..280M-4 AM280 AD7
17.0	51100	88	153400	1.00	TK 187 TKH 187	Y..280M-4 AM280 AD8
20.0	42900	73.96	154200	1.15		
23.0	37100	64.04	153800	1.35		
28.0	30900	53.36	152200	1.60		
33.0	26400	45.50	149900	1.90		
35.0	24600	42.51	148700	2.00		
38.0	22300	38.57	146900	2.20		
22.0	39500	68.07	115100	0.80	TK 167 TKH 167	Y..280M-4 AM280 AD7
24.0	35200	60.74	116600	0.90		
29.0	30000	51.77	117600	1.05	TK 167 TKH 167	Y..280M-4 AM280 AD8
34.0	24900	42.89	117600	1.30		
40.0	21200	36.61	116700	1.50		
46.0	18700	32.25	115500	1.70		
51.0	16700	28.77	114200	1.90		
60.0	14200	24.52	111900	2.20		
73.0	11700	20.32	108800	2.70		
85.0	10000	17.34	106000	3.20		
39.0	22000	38.02	52700	0.80	TK 157 TKF 157 TKA 157 TKAF 157	Y..280M-4 AM280 AD7
62.0	13900	23.95	57500	1.30	TK 157 TKF 157 TKA 157 TKAF 157	Y..280M-4 AM280 AD8
69.0	12300	21.31	57900	1.45		
81.0	10600	18.37	57900	1.70		
99.0	8660	14.92	57400	2.10		
117	6120	12.65	59300	2.80		
62.0	13800	23.91	35400	0.95	TK 127 TKF 127 TKA 127 TKAF 127	Y..280M-4 AM280 AD7
70.0	12200	21.15	37800	1.05	TK 127 TKF 127 TKA 127 TKAF 127	Y..280M-4 AM280 AD8
83.0	10300	17.77	39200	1.25		
103	8330	14.35	40200	1.45		
116	7420	12.79	37600	1.15		
138	6230	10.74	38000	1.30		
171	5030	8.68	38000	1.45		



TK

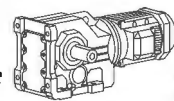
n: [1/min]	M ₂ [Nm]	i	Fr [N]	K	Frame size	Input Configuration
P _i =110kw						
17.0	62300	88	135900	0.80	TK 187 TKH 187	Y..315S-4 - AD8
20.0	52300	73.96	139500	0.95		
23.0	45300	64.04	141000	1.10		
28.0	37700	53.36	141500	1.30		
33.0	32200	45.50	140800	1.55		
35.0	30100	42.51	140200	1.65		
38.0	27300	38.57	139100	1.85		
45.0	23500	33.23	137100	2.10		
53.0	19700	27.92	134100	2.50		
29.0	36600	51.77	105400	0.85	TK 167 TKH 167	Y..315S-4 - AD8
35.0	30300	42.89	107500	1.05		
41.0	25900	36.61	108100	1.25		
46.0	22800	32.25	107900	1.40		
52.0	20300	28.77	107400	1.55		
60.0	17300	24.52	106100	1.85		
73.0	14300	20.32	104000	2.20		
86.0	12200	17.34	101800	2.60		
62.0	16900	23.95	50800	1.05	TK 157 TKF 157 TKA 157 TKAF157	Y..315S-4 - AD8
70.0	15000	21.31	51800	1.20		
81.0	13000	18.37	52700	1.40		
99.0	10500	14.92	53100	1.70		
117	8960	12.65	53000	1.90		
P _i =132kw						
20.0	62700	73.96	123300	0.80	TK 187 TKH 187	Y..315M-4 - AD8
23.0	54300	64.04	127000	0.90		
28.0	45200	53.36	129800	1.10		
33.0	38600	45.5	130800	1.30	TK 187 TKH 187	Y..315M-4 - AD8
35.0	36000	42.51	130900	1.40		
38.0	32700	38.57	130700	1.55		
45.0	28200	33.23	129800	1.75		
53.0	23700	27.92	127900	2.10		
61.0	20500	24.18	125900	2.30		
74.0	17100	20.15	122800	2.60		
86.0	14500	17.18	119700	2.80		
35.0	36400	42.89	96400	0.90	TK 167 TKH 167	Y..315M-4 - AD8
41.0	31000	36.61	98600	1.05		
46.0	27300	32.25	99600	1.15		
52.0	24400	28.77	99900	1.30		
61.0	20800	24.52	99800	1.55		
73.0	17200	20.32	98700	1.85		
86.0	14700	17.34	97300	2.20		

n ₂ [1/min]	M ₂ [Nm]	i	Fr [N]	K	Frame size	Input Configuration
P _i =132kw						
62.0	20300	23.95	43400	0.90	TK 157 TKF 157 TKA 157 TKAF157	Y..315M-4 - AD8
70.0	18000	21.31	45300	1.00		
81.0	15500	18.37	47000	1.15		
100	12600	14.92	48500	1.40		
117	10700	12.65	49100	1.60		
P _i =160kw						
28.0	54900	53.36	114900	0.90	TK 187 TKH 187	Y..315L _i -4 - AD8
33.0	46800	45.50	118100	1.05		
45.0	34200	33.23	120500	1.45	TK 187 TKH 187	Y..315L _i -4 - AD8
53.0	28700	27.92	120100	1.75		
61.0	24800	24.18	119100	1.90		
74.0	20700	20.15	117200	2.10		
86.0	17600	17.18	114900	2.30		
41.0	37600	36.61	86500	0.85	TK 167 TKH 167	Y..315L _i -4 - AD8
61.0	25200	24.52	91700	1.25		
73.0	20900	20.32	92000	1.55		
86.0	17800	17.34	91600	1.80		
81.0	18900	18.37	39800	0.95	TK 157 TKF 157 TKA 157 TKAF157	Y..315M-4 - AD8
99.0	15300	14.92	42600	1.15		
117	13000	12.65	44100	1.30		
P _i =200kw						
33.0	58600	45.50	100000	0.85	TK 187 TKH 187	Y..315L ₂ -4 - AD8
45.0	42800	33.23	107300	1.15		
53.0	35900	27.92	109000	1.40		
61.0	31100	24.18	109500	1.55		
74.0	25900	20.15	109200	1.70		
86.0	22100	17.18	108100	1.85		
60.0	31600	24.52	80100	1.00	TK 167 TKH 167	Y..315L ₂ -4 - AD8
73.0	26100	20.32	82400	1.20		
85.0	22300	17.34	83400	1.45		
99.0	19200	14.92	34200	0.95	TK 157 TKF 157 TKA 157 TKAF157	Y..315L ₂ -4 - AD8
117	16300	12.65	36900	1.05		

4. 8 TK../TRF..性能参数 /TK../TRF.. Performance Parameters

n_2 [1/min]	i	Fr [N]	Frame size	Motor
M_{2max}=200Nm				
0.20	6832	5640		
0.23	5922	5640		
0.25	5491	5640		
0.29	4759	5640		
0.33	4160	5640		
0.38	3645	5640		
0.43	3205	5640		
0.49	2801	5640		
0.56	2454	5640		
0.64	2166	5640		
0.73	1891	5640		
0.83	1660	5640	TK 37 TRF17	Y..63M ₁₋₄
0.94	1466	5640	TKF 37 TRF17	Y..63M ₁₋₄
1.10	1288	5640	TKA 37 TRF17	Y..63M ₁₋₄
1.20	1136	5640	TKAF 37 TRF17	Y..63M ₁₋₄
1.40	996	5640		
1.60	876	5640		
1.80	761	5640		
2.10	671	5640		
2.40	585	5640		
2.70	512	5640		
3.10	451	5640		
3.50	396	5640		
4.00	346	5640		
4.50	304	5640		
4.90	267	5640	TK 37 TRF17	Y..63M ₂₋₄
5.60	234	5640	TKF 37 TRF17	Y..63M ₂₋₄
6.40	205	5640	TKA 37 TRF17	Y..63M ₂₋₄
7.30	181	5640	TKAF 37 TRF17	Y..63M ₂₋₄
8.10	160	5640	TK 37 TRF17	Y..71M ₁₋₄
9.50	136	5640	TKF 37 TRF17	Y..71M ₁₋₄
10.0	127	5640	TKA 37 TRF17	Y..71M ₁₋₄
			TKAF 37 TRF17	Y..71M ₁₋₄
12.0	110	5640	TK 37 TRF17	Y..71M ₂₋₄
14.0	96	5640	TKF 37 TRF17	Y..71M ₂₋₄
			TKA 37 TRF17	Y..71M ₂₋₄
			TKAF 37 TRF17	Y..71M ₂₋₄
M_{2max}=400Nm				
0.14	10138	5920		
0.16	8534	5920		
0.18	7662	5920		
0.20	6826	5920		
0.23	5983	5920		
0.27	5159	5920	TK 47 TRF37	Y..63M ₁₋₄
0.30	4601	5920	TKF 47 TRF37	Y..63M ₁₋₄
0.35	3940	5920	TKA 47 TRF37	Y..63M ₁₋₄
0.40	3477	5920	TKAF 47 TRF37	Y..63M ₁₋₄
0.45	3043	5920		
0.51	2733	5920		
0.59	2354	5920		
0.67	2063	5920		
0.76	1819	5920		

n_2 [1/min]	i	Fr [N]	Frame size	Motor
M_{2max}=400Nm				
0.87	1586	5920		
0.99	1388	5920		
1.10	1222	5920	TK 47 TRF37	Y..63M ₁₋₄
1.30	1097	5920	TKF 47 TRF37	Y..63M ₁₋₄
1.50	945	5920	TKA 47 TRF37	Y..63M ₁₋₄
1.70	831	5920	TKAF 47 TRF37	Y..63M ₁₋₄
1.90	718	5920		
2.20	639	5920		
2.40	552	5920	TK 47 TRF37	Y..63M ₂₋₄
2.70	495	5920	TKF 47 TRF37	Y..63M ₂₋₄
3.10	426	5920	TKA 47 TRF37	Y..63M ₂₋₄
3.50	375	5920	TKAF 47 TRF37	Y..63M ₂₋₄
4.00	327	5920	TK 47 TRF37	Y..71M ₁₋₄
4.50	289	5920	TKF 47 TRF37	Y..71M ₁₋₄
5.10	256	5920	TKA 47 TRF37	Y..71M ₁₋₄
			TKAF 47 TRF37	Y..71M ₁₋₄
6.20	225	5920	TK 47 TRF37	Y..71M ₂₋₄
7.00	198	5920	TKF 47 TRF37	Y..71M ₂₋₄
			TKA 47 TRF37	Y..71M ₂₋₄
			TKAF 47 TRF37	Y..71M ₂₋₄
8.10	171	5920	TK 47 TRF37	Y..80M ₁₋₄
9.00	153	5920	TKF 47 TRF37	Y..80M ₁₋₄
11.00	131	5920	TKA 47 TRF37	Y..80M ₁₋₄
			TKAF 47 TRF37	Y..80M ₁₋₄
M_{2max}=600Nm				
0.11	12169	7630		
0.12	11162	7630		
0.15	9503	7630		
0.16	8547	7630		
0.19	7277	7630		
0.21	6478	7630		
0.24	5662	7630		
0.27	5033	7630		
0.32	4340	7630		
0.36	3854	7630	TK 57 TRF37	Y..63M ₁₋₄
0.41	3390	7630	TKF 57 TRF37	Y..63M ₁₋₄
0.47	2924	7630	TKA 57 TRF37	Y..63M ₁₋₄
0.53	2593	7630	TKAF 57 TRF37	Y..63M ₁₋₄
0.61	2249	7630		
0.70	1986	7630		
0.79	1743	7630		
0.90	1539	7630		
1.00	1354	7630		
1.20	1174	7630		
1.30	1036	7630		
1.50	906	7630		
1.60	806	7630	TK 57 TRF37	Y..63M ₂₋₄
1.90	699	7630	TKF 57 TRF37	Y..63M ₂₋₄
2.20	615	7630	TKA 57 TRF37	Y..63M ₂₋₄
			TKAF 57 TRF37	Y..63M ₂₋₄



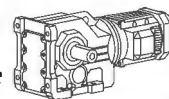
TK

n_2 [1/min]	i	Fr [N]	Frame size	Motor
$M_{2max}=600Nm$				
2.40	544	7630	TK 57 TRF37	Y..71M ₁₋₄
2.80	473	7630	TKF 57 TRF37	Y..71M ₁₋₄
3.10	421	7630	TKA 57 TRF37	Y..71M ₁₋₄
			TKAF 57 TRF37	Y..71M ₁₋₄
3.80	362	7630	TK 57 TRF37	Y..71M ₂₋₄
4.30	319	7630	TKF 57 TRF37	Y..71M ₂₋₄
4.90	280	7630	TKA 57 TRF37	Y..71M ₂₋₄
			TKAF 57 TRF37	Y..71M ₂₋₄
5.60	246	7630	TK 57 TRF37	Y..80M ₁₋₄
6.40	215	7630	TKF 57 TRF37	Y..80M ₁₋₄
7.20	192	7630	TKA 57 TRF37	Y..80M ₁₋₄
			TKAF 57 TRF37	Y..80M ₁₋₄
8.60	166	7630	TK 57 TRF37	Y..80M ₂₋₄
9.90	145	7630	TKF 57 TRF37	Y..80M ₂₋₄
			TKA 57 TRF37	Y..80M ₂₋₄
			TKAF 57 TRF37	Y..80M ₂₋₄
11.0	129	7630	TK 57 TRF37	Y..90S-4
13.0	111	7630	TKF 57 TRF37	Y..90S-4
15.0	97	7630	TKA 57 TRF37	Y..90S-4
			TKAF 57 TRF37	Y..90S-4
$M_{2max}=820Nm$				
0.11	12139	10300		
0.12	11134	10300		
0.15	9479	10300		
0.17	8173	10300		
0.19	7259	10300		
0.21	6462	10300		
0.24	5648	10300	TK 67 TRF37	Y..63M ₁₋₄
0.28	4846	10300	TKF 67 TRF37	Y..63M ₁₋₄
0.32	4329	10300	TKA 67 TRF37	Y..63M ₁₋₄
0.37	3750	10300	TKAF 67 TRF37	Y..63M ₁₋₄
0.42	3315	10300		
0.47	2917	10300		
0.55	2532	10300		
0.62	2244	10300		
0.70	1981	10300		
0.79	1739	10300	TK 67 TRF37	Y..63M ₁₋₄
0.90	1535	10300	TKF 67 TRF37	Y..63M ₁₋₄
1.00	1351	10300	TKA 67 TRF37	Y..63M ₁₋₄
1.20	1171	10300	TKAF 67 TRF37	Y..63M ₁₋₄
1.30	1034	10300	TK 67 TRF37	Y..63M ₂₋₄
1.50	903	10300	TKF 67 TRF37	Y..63M ₂₋₄
1.70	793	10300	TKA 67 TRF37	Y..63M ₂₋₄
			TKAF 67 TRF37	Y..63M ₂₋₄
1.90	697	10300	TK 67 TRF37	Y..71M ₁₋₄
2.10	613	10300	TKF 67 TRF37	Y..71M ₁₋₄
2.40	542	10300	TKA 67 TRF37	Y..71M ₁₋₄
			TKAF 67 TRF37	Y..71M ₁₋₄

n_2 [1/min]	i	Fr [N]	Frame size	Motor
$M_{2max}=820Nm$				
2.90	471	10300	TK 67 TRF37	Y..71M ₂₋₄
3.30	420	10300	TKF 67 TRF37	Y..71M ₂₋₄
3.80	361	10300	TKA 67 TRF37	Y..71M ₂₋₄
			TKAF 67 TRF37	Y..71M ₂₋₄
4.30	323	10300	TK 67 TRF37	Y..80M ₁₋₄
5.00	279	10300	TKF 67 TRF37	Y..80M ₁₋₄
5.60	246	10300	TKA 67 TRF37	Y..80M ₁₋₄
			TKAF 67 TRF37	Y..80M ₁₋₄
6.60	217	10300	TK 67 TRF37	Y..80M ₂₋₄
7.50	191	10300	TKF 67 TRF37	Y..80M ₂₋₄
			TKA 67 TRF37	Y..80M ₂₋₄
			TKAF 67 TRF37	Y..80M ₂₋₄
$M_{2max}=1550Nm$				
0.09	15310	15400		
0.10	14043	15400		
0.12	11955	15400		
0.14	10217	15400	TK 77 TRF37	Y..63M ₁₋₄
0.16	8809	15400	TKF 77 TRF37	Y..63M ₁₋₄
0.18	7528	15400	TKA 77 TRF37	Y..63M ₁₋₄
0.21	6606	15400	TKAF 77 TRF37	Y..63M ₁₋₄
0.24	5774	15400		
0.27	5089	15400		
0.31	4489	15400		
0.35	3961	15400	TK 77 TRF37	Y..63M ₁₋₄
0.40	3485	15400	TKF 77 TRF37	Y..63M ₁₋₄
0.48	2901	15400	TKA 77 TRF37	Y..63M ₁₋₄
0.51	2717	15400	TKAF 77 TRF37	Y..63M ₁₋₄
0.56	2370	15400		
0.64	2050	15400	TK 77 TRF37	Y..63M ₂₋₄
0.75	1772	15400	TKF 77 TRF37	Y..63M ₂₋₄
0.87	1514	15400	TKA 77 TRF37	Y..63M ₂₋₄
0.95	1388	15400	TKAF 77 TRF37	Y..63M ₂₋₄
1.10	1218	15400	TK 77 TRF37	Y..71M ₁₋₄
1.20	1053	15400	TKF 77 TRF37	Y..71M ₁₋₄
			TKA 77 TRF37	Y..71M ₁₋₄
			TKAF 77 TRF37	Y..71M ₁₋₄
1.50	924	15400	TK 77 TRF37	Y..71M ₂₋₄
1.70	815	15400	TKF 77 TRF37	Y..71M ₂₋₄
2.00	709	15400	TKA 77 TRF37	Y..71M ₂₋₄
			TKAF 77 TRF37	Y..71M ₂₋₄
2.20	622	15400	TK 77 TRF37	Y..80M ₁₋₄
2.50	552	15400	TKF 77 TRF37	Y..80M ₁₋₄
2.80	485	15400	TKA 77 TRF37	Y..80M ₁₋₄
			TKAF 77 TRF37	Y..80M ₁₋₄
3.40	428	15400	TK 77 TRF37	Y..80M ₂₋₄
3.90	367	15400	TKF 77 TRF37	Y..80M ₂₋₄
			TKA 77 TRF37	Y..80M ₂₋₄
			TKAF 77 TRF37	Y..80M ₂₋₄

n_2 [1/min]	i	Fr [N]	Frame size	Motor
M_{2max}=2700Nm				
4.30	328	15400	TK 77 TRF37	Y..90S-4
4.90	290	15400	TKF 77 TRF37	Y..90S-4
5.60	252	15400	TKA 77 TRF37	Y..90S-4
			TKAF 77 TRF37	Y..90S-4
0.09	14829	27300		
0.10	13168	27300		
0.12	11737	27300		
0.14	10217	27300	TK 87 TRF57	Y..63M ₁ -4
0.15	9073	27300	TKF 87 TRF57	Y..63M ₁ -4
0.18	7854	27300	TKA 87 TRF57	Y..63M ₁ -4
0.20	6832	27300	TKAF 87 TRF57	Y..63M ₁ -4
0.23	5930	27300		
0.26	5240	27300		
0.30	4562	27300		
0.33	4037	27300	TK 87 TRF57	Y..63M ₂ -4
0.37	3609	27300	TKF 87 TRF57	Y..63M ₂ -4
0.42	3107	27300	TKA 87 TRF57	Y..63M ₂ -4
0.48	2728	27300	TKAF 87 TRF57	Y..63M ₂ -4
0.55	2371	27300	TK 87 TRF57	Y..71M ₁ -4
0.62	2088	27300	TKF 87 TRF57	Y..71M ₁ -4
0.70	1854	27300	TKA 87 TRF57	Y..71M ₁ -4
			TKAF 87 TRF57	Y..71M ₁ -4
0.83	1657	27300	TK 87 TRF57	Y..71M ₂ -4
0.97	1415	27300	TKF 87 TRF57	Y..71M ₂ -4
1.10	1229	27300	TKA 87 TRF57	Y..71M ₂ -4
			TKAF 87 TRF57	Y..71M ₂ -4
1.30	1078	27300	TK 87 TRF57	Y..80M ₁ -4
1.40	951	27300	TKF 87 TRF57	Y..80M ₁ -4
1.60	837	27300	TKA 87 TRF57	Y..80M ₁ -4
			TKAF 87 TRF57	Y..80M ₁ -4
2.00	726	27300	TK 87 TRF57	Y..80M ₂ -4
			TKF 87 TRF57	Y..80M ₂ -4
2.20	638	27300	TKA 87 TRF57	Y..80M ₂ -4
			TKAF 87 TRF57	Y..80M ₂ -4
2.50	562	27300	TK 87 TRF57	Y..90S-4
3.00	474	27300	TKF 87 TRF57	Y..90S-4
3.30	426	27300	TKA 87 TRF57	Y..90S-4
			TKAF 87 TRF57	Y..90S-4
3.80	373	27300	TK 87 TRF57	Y..90L-4
4.30	330	27300	TKF 87 TRF57	Y..90L-4
4.90	294	27300	TKA 87 TRF57	Y..90L-4
			TKAF 87 TRF57	Y..90L-4
5.70	250	27300	TK 87 TRF57	Y..100L ₁ -4
6.00	236	27300	TKF 87 TRF57	Y..100L ₁ -4
7.10	201	27300	TKA 87 TRF57	Y..100L ₁ -4
			TKAF 87 TRF57	Y..100L ₁ -4

n_2 [1/min]	i	Fr [N]	Frame size	Motor
M_{2max}=4300Nm				
0.08	18091	40000		
0.08	16666	40000	TK 97 TRF57	Y..63M ₁ -4
0.09	14897	40000	TKF 97 TRF57	Y..63M ₁ -4
0.10	13182	40000	TKA 97 TRF57	Y..63M ₁ -4
0.12	11677	40000	TKAF 97 TRF57	Y..63M ₁ -4
0.13	10317	40000	TK 97 TRF57	Y..63M ₁ -4
0.15	9083	40000	TKF 97 TRF57	Y..63M ₁ -4
0.17	8054	40000	TKA 97 TRF57	Y..63M ₁ -4
0.20	6970	40000	TKAF 97 TRF57	Y..63M ₁ -4
0.22	6027	40000	TK 97 TRF57	Y..63M ₂ -4
0.24	5391	40000	TKF 97 TRF57	Y..63M ₂ -4
0.28	4669	40000	TKA 97 TRF57	Y..63M ₂ -4
0.32	4082	40000	TKAF 97 TRF57	Y..63M ₂ -4
0.36	3583	40000	TK 97 TRF57	Y..71M ₁ -4
0.42	3108	40000	TKF 97 TRF57	Y..71M ₁ -4
0.47	2757	40000	TKA 97 TRF57	Y..71M ₁ -4
			TKAF 97 TRF57	Y..71M ₁ -4
0.57	2419	40000	TK 97 TRF57	Y..71M ₂ -4
0.65	2123	40000	TKF 97 TRF57	Y..71M ₂ -4
			TKA 97 TRF57	Y..71M ₂ -4
			TKAF 97 TRF57	Y..71M ₂ -4
0.74	1856	40000	TK 97 TRF57	Y..80M ₁ -4
0.85	1625	40000	TKF 97 TRF57	Y..80M ₁ -4
0.96	1430	40000	TKA 97 TRF57	Y..80M ₁ -4
1.10	1261	40000	TKAF 97 TRF57	Y..80M ₁ -4
1.30	1102	40000	TK 97 TRF57	Y..80M ₂ -4
1.50	957	40000	TKF 97 TRF57	Y..80M ₂ -4
			TKA 97 TRF57	Y..80M ₂ -4
			TKAF 97 TRF57	Y..80M ₂ -4
1.70	855	40000	TK 97 TRF57	Y..90S-4
1.90	743	40000	TKF 97 TRF57	Y..90S-4
2.20	652	40000	TKA 97 TRF57	Y..90S-4
			TKAF 97 TRF57	Y..90S-4
2.50	573	40000	TK 97 TRF57	Y..90L-4
2.80	504	40000	TKF 97 TRF57	Y..90L-4
			TKA 97 TRF57	Y..90L-4
			TKAF 97 TRF57	Y..90L-4
3.30	437	40000	TK 97 TRF57	Y..100L ₁ -4
3.70	382	40000	TKF 97 TRF57	Y..100L ₁ -4
4.20	342	40000	TKA 97 TRF57	Y..100L ₁ -4
			TKAF 97 TRF57	Y..100L ₁ -4
4.80	305	40000	TK 97 TRF57	Y..100L ₂ -4
5.60	258	40000	TKF 97 TRF57	Y..100L ₂ -4
			TKA 97 TRF57	Y..100L ₂ -4
			TKAF 97 TRF57	Y..100L ₂ -4
6.30	232	40000	TK 97 TRF57	Y..112M-4
7.30	199	40000	TKF 97 TRF57	Y..112M-4
			TKA 97 TRF57	Y..112M-4
			TKAF 97 TRF57	Y..112M-4



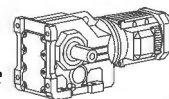
TK

n_2 [1/min]	i	Fr [N]	Frame size	Motor
$M_{2max}=8000Nm$				
0.10	14311	65000	TK 107 TRF77	Y..63M ₁₋₄
			TKF 107 TRF77	Y..63M ₁₋₄
			TKA 107 TRF77	Y..63M ₁₋₄
			TKAF 107 TRF77	Y..63M ₁₋₄
0.11	12211	65000	TK 107 TRF77	Y..63M ₂₋₄
0.12	10677	65000	TKF 107 TRF77	Y..63M ₂₋₄
0.14	9524	65000	TKA 107 TRF77	Y..63M ₂₋₄
0.16	8328	65000	TKAF 107 TRF77	Y..63M ₂₋₄
0.18	7270	65000	TK 107 TRF77	Y..71M ₁₋₄
			TKF 107 TRF77	Y..71M ₁₋₄
			TKA 107 TRF77	Y..71M ₁₋₄
			TKAF 107 TRF77	Y..71M ₁₋₄
0.21	6184	65000	TK 107 TRF77	Y..71M ₂₋₄
			TKF 107 TRF77	Y..71M ₂₋₄
			TKA 107 TRF77	Y..71M ₂₋₄
			TKAF 107 TRF77	Y..71M ₂₋₄
0.23	5662	65000	TK 107 TRF77	Y..71M ₂₋₄
			TKF 107 TRF77	Y..71M ₂₋₄
			TKA 107 TRF77	Y..71M ₂₋₄
			TKAF 107 TRF77	Y..71M ₂₋₄
0.27	5138	65000	TK 107 TRF77	Y..80M ₁₋₄
			TKF 107 TRF77	Y..80M ₁₋₄
			TKA 107 TRF77	Y..80M ₁₋₄
			TKAF 107 TRF77	Y..80M ₁₋₄
0.32	4359	65000	TK 107 TRF77	Y..80M ₂₋₄
			TKF 107 TRF77	Y..80M ₂₋₄
			TKA 107 TRF77	Y..80M ₂₋₄
			TKAF 107 TRF77	Y..80M ₂₋₄
0.36	3810	65000	TK 107 TRF77	Y..80M ₂₋₄
			TKF 107 TRF77	Y..80M ₂₋₄
			TKA 107 TRF77	Y..80M ₂₋₄
			TKAF 107 TRF77	Y..80M ₂₋₄
0.41	3358	65000	TK 107 TRF77	Y..90S-4
			TKF 107 TRF77	Y..90S-4
			TKA 107 TRF77	Y..90S-4
			TKAF 107 TRF77	Y..90S-4
0.46	2977	65000	TK 107 TRF77	Y..90S-4
			TKF 107 TRF77	Y..90S-4
			TKA 107 TRF77	Y..90S-4
			TKAF 107 TRF77	Y..90S-4
0.53	2599	65000	TK 107 TRF77	Y..90S-4
			TKF 107 TRF77	Y..90S-4
			TKA 107 TRF77	Y..90S-4
			TKAF 107 TRF77	Y..90S-4
0.63	2286	65000	TK 107 TRF77	Y..90L-4
			TKF 107 TRF77	Y..90L-4
			TKA 107 TRF77	Y..90L-4
			TKAF 107 TRF77	Y..90L-4
0.74	1939	65000	TK 107 TRF77	Y..90L-4
			TKF 107 TRF77	Y..90L-4
			TKA 107 TRF77	Y..90L-4
			TKAF 107 TRF77	Y..90L-4
0.83	1713	65000	TK 107 TRF77	Y..100L ₁₋₄
			TKF 107 TRF77	Y..100L ₁₋₄
			TKA 107 TRF77	Y..100L ₁₋₄
			TKAF 107 TRF77	Y..100L ₁₋₄
0.91	1554	65000	TK 107 TRF77	Y..100L ₂₋₄
			TKF 107 TRF77	Y..100L ₂₋₄
			TKA 107 TRF77	Y..100L ₂₋₄
			TKAF 107 TRF77	Y..100L ₂₋₄
1.10	1336	65000	TK 107 TRF77	Y..112M-4
			TKF 107 TRF77	Y..112M-4
			TKA 107 TRF77	Y..112M-4
			TKAF 107 TRF77	Y..112M-4
1.20	1166	65000	TK 107 TRF77	Y..132S-4
			TKF 107 TRF77	Y..132S-4
			TKA 107 TRF77	Y..132S-4
			TKAF 107 TRF77	Y..132S-4
1.40	1030	65000	TK 107 TRF77	Y..132S-4
			TKF 107 TRF77	Y..132S-4
			TKA 107 TRF77	Y..132S-4
			TKAF 107 TRF77	Y..132S-4
1.60	904	65000	TK 107 TRF77	Y..132S-4
			TKF 107 TRF77	Y..132S-4
			TKA 107 TRF77	Y..132S-4
			TKAF 107 TRF77	Y..132S-4
1.80	793	65000	TK 107 TRF77	Y..132S-4
			TKF 107 TRF77	Y..132S-4
			TKA 107 TRF77	Y..132S-4
			TKAF 107 TRF77	Y..132S-4
2.00	696	65000	TK 107 TRF77	Y..132S-4
			TKF 107 TRF77	Y..132S-4
			TKA 107 TRF77	Y..132S-4
			TKAF 107 TRF77	Y..132S-4
2.30	615	65000	TK 107 TRF77	Y..132S-4
			TKF 107 TRF77	Y..132S-4
			TKA 107 TRF77	Y..132S-4
			TKAF 107 TRF77	Y..132S-4
2.80	522	65000	TK 107 TRF77	Y..132S-4
			TKF 107 TRF77	Y..132S-4
			TKA 107 TRF77	Y..132S-4
			TKAF 107 TRF77	Y..132S-4
3.20	461	65000	TK 107 TRF77	Y..132S-4
			TKF 107 TRF77	Y..132S-4
			TKA 107 TRF77	Y..132S-4
			TKAF 107 TRF77	Y..132S-4
3.60	408	65000	TK 107 TRF77	Y..132S-4
			TKF 107 TRF77	Y..132S-4
			TKA 107 TRF77	Y..132S-4
			TKAF 107 TRF77	Y..132S-4
4.00	364	65000	TK 107 TRF77	Y..132S-4
			TKF 107 TRF77	Y..132S-4
			TKA 107 TRF77	Y..132S-4
			TKAF 107 TRF77	Y..132S-4
4.60	318	65000	TK 107 TRF77	Y..132S-4
			TKF 107 TRF77	Y..132S-4
			TKA 107 TRF77	Y..132S-4
			TKAF 107 TRF77	Y..132S-4
5.10	286	65000	TK 107 TRF77	Y..132S-4
			TKF 107 TRF77	Y..132S-4
			TKA 107 TRF77	Y..132S-4
			TKAF 107 TRF77	Y..132S-4
5.80	251	65000	TK 107 TRF77	Y..132S-4
			TKF 107 TRF77	Y..132S-4
			TKA 107 TRF77	Y..132S-4
			TKAF 107 TRF77	Y..132S-4

n ₂ [1/min]	i	Fr [N]	Frame size			Motor
M _{2max} =13000Nm						
0.08	17550	79200	TK	127	TRF77	Y..63M ₁₋₄
0.08	16006	79200	TKF	127	TRF77	Y..63M ₁₋₄
0.09	14975	79200	TKA	127	TRF77	Y..63M ₁₋₄
0.11	12440	79200	TKAF	127	TRF77	Y..63M ₁₋₄
0.12	10915	79200	TK	127	TRF77	Y..71M ₁₋₄
	9819	79200	TKF	127	TRF77	Y..71M ₁₋₄
		79200	TKA	127	TRF77	Y..71M ₁₋₄
		79200	TKAF	127	TRF77	Y..71M ₁₋₄
0.18	7482	79200	TK	127	TRF77	Y..71M ₂₋₄
			TKF	127	TRF77	Y..71M ₂₋₄
			TKA	127	TRF77	Y..71M ₂₋₄
			TKAF	127	TRF77	Y..71M ₂₋₄
0.24	5804	79200	TK	127	TRF77	Y..80M ₁₋₄
			TKF	127	TRF77	Y..80M ₁₋₄
			TKA	127	TRF77	Y..80M ₁₋₄
			TKAF	127	TRF77	Y..80M ₁₋₄
0.37	3889	79200	TK	127	TRF77	Y..80M ₂₋₄
			TKF	127	TRF77	Y..80M ₂₋₄
			TKA	127	TRF77	Y..80M ₂₋₄
			TKAF	127	TRF77	Y..80M ₂₋₄
0.54	2607	79200	TK	127	TRF77	Y..90S-4
			TKF	127	TRF77	Y..90S-4
			TKA	127	TRF77	Y..90S-4
			TKAF	127	TRF77	Y..90S-4
0.74	1926	79200	TK	127	TRF77	Y..90L-4
			TKF	127	TRF77	Y..90L-4
			TKA	127	TRF77	Y..90L-4
			TKAF	127	TRF77	Y..90L-4
1.10	1342	79200	TK	127	TRF77	Y..100L ₁₋₄
			TKF	127	TRF77	Y..100L ₁₋₄
			TKA	127	TRF77	Y..100L ₁₋₄
			TKAF	127	TRF77	Y..100L ₁₋₄
1.60	899	79200	TK	127	TRF77	Y..100L ₂₋₄
			TKF	127	TRF77	Y..100L ₂₋₄
			TKA	127	TRF77	Y..100L ₂₋₄
			TKAF	127	TRF77	Y..100L ₂₋₄
2.10	704	79200	TK	127	TRF77	Y..112M-4
			TKF	127	TRF77	Y..112M-4
			TKA	127	TRF77	Y..112M-4
			TKAF	127	TRF77	Y..112M-4
3.00	477	79200	TK	127	TRF77	Y..132S-4
			TKF	127	TRF77	Y..132S-4
			TKA	127	TRF77	Y..132S-4
			TKAF	127	TRF77	Y..132S-4
2.70	536	79200	TK	127	TRF77	Y..132S-4
			TKF	127	TRF77	Y..132S-4
			TKA	127	TRF77	Y..132S-4
			TKAF	127	TRF77	Y..132S-4

n_2 [1/min]	i	Fr [N]	Frame size	Motor
M_{2max}=13000Nm				
4.00	367	79200	TK 127 TRF87	Y..132M-4
4.40	330	79200	TKF 127 TRF87	Y..132M-4
			TKA 127 TRF87	Y..132M-4
			TKAF127 TRF87	Y..132M-4
M_{2max}=18000Nm				
0.08	17679	112200		
0.09	15729	112200		
0.09	14721	112200	TK 157 TRF97	Y..80M ₁ -4
0.11	13097	112200	TKF 157 TRF97	Y..80M ₁ -4
0.12	11368	112200	TKA 157 TRF97	Y..80M ₁ -4
0.14	10114	112200	TKAF157 TRF97	Y..80M ₁ -4
0.16	8718	112200		
0.18	7734	112200		
0.28	5074	112200	TK 157 TRF97	Y..80M ₂ -4
0.32	4514	112200	TKF 157 TRF97	Y..80M ₂ -4
			TKA 157 TRF97	Y..80M ₂ -4
			TKAF157 TRF97	Y..80M ₂ -4
0.36	3979	112200	TK 157 TRF97	Y..90S-4
0.40	3516	112200	TKF 157 TRF97	Y..90S-4
0.47	3051	112200	TKA 157 TRF97	Y..90S-4
			TKAF157 TRF97	Y..90S-4
0.55	2610	112200	TK 157 TRF97	Y..90L-4
0.62	2322	112200	TKF 157 TRF97	Y..90L-4
			TKA 157 TRF97	Y..90L-4
			TKAF157 TRF97	Y..90L-4
0.72	2029	112200	TK 157 TRF97	Y..100L ₁ -4
0.79	1805	112200	TKF 157 TRF97	Y..100L ₁ -4
0.86	1659	112200	TKA 157 TRF97	Y..100L ₁ -4
1.00	1365	112200	TKAF157 TRF97	Y..100L ₁ -4
1.20	1229	112200	TK 157 TRF97	Y..100L ₂ -4
1.30	1093	112200	TKF 157 TRF97	Y..100L ₂ -4
			TKA 157 TRF97	Y..100L ₂ -4
			TKAF157 TRF97	Y..100L ₂ -4
1.60	942	112200	TK 157 TRF97	Y..112M-4
1.70	854	112200	TKF 157 TRF97	Y..112M-4
			TKA 157 TRF97	Y..112M-4
			TKAF157 TRF97	Y..112M-4
1.90	756	112200	TK 157 TRF97	Y..132S-4
2.20	661	112200	TKF 157 TRF97	Y..132S-4
2.60	567	112200	TKA 157 TRF97	Y..132S-4
			TKAF157 TRF97	Y..132S-4
2.90	504	112200	TK 157 TRF97	Y..132M-4
3.40	434	112200	TKF 157 TRF97	Y..132M-4
			TKA 157 TRF97	Y..132M-4
			TKAF157 TRF97	Y..132M-4
5.10	291	112200	TK 157 TRF97	Y..160M-4
4.50	325	112200	TKF 157 TRF97	Y..160M-4
4.90	299	112200	TKA 157 TRF97	Y..160M-4
			TKAF157 TRF97	Y..160M-4

n_2 [1/min]	i	Fr [N]	Frame size	Motor
M_{2max}=18000Nm				
5.80	253	112200	TK 157 TRF97	Y..160L-4
6.40	230	112200	TKF 157 TRF97	Y..160L-4
6.90	213	112200	TKA 157 TRF97	Y..160L-4
			TKAF157 TRF97	Y..160L-4
M_{2max}=32000Nm				
0.07	19723	150000		
0.08	17406	150000		Y..80M ₁ -4
0.09	15000	150000	TK 167 TRF97	Y..80M ₁ -4
0.10	13238	150000	TKH 167 TRF97	Y..80M ₁ -4
0.12	11573	150000		Y..80M ₁ -4
0.13	10264	150000		
0.17	8628	150000	TK 167 TRF97	Y..80M ₂ -4
			TKH 167 TRF97	Y..80M ₂ -4
0.22	6562	150000	TK 167 TRF97	Y..90S-4
0.27	5355	150000	TKH 167 TRF97	Y..90S-4
0.30	4788	150000	TK 167 TRF97	Y..90L-4
0.35	4079	150000	TKH 167 TRF97	Y..90L-4
0.42	3376	150000	TK 167 TRF97	Y..100L ₁ -4
0.52	2755	150000	TKH 167 TRF97	Y..100L ₁ -4
0.64	2263	15000	TK 167 TRF97	Y..100L ₂ -4
0.67	2182	15000	TKH 167 TRF97	Y..100L ₂ -4
0.86	1704	15000	TK 167 TRF97	Y..112M-4
1.00	1408	15000	TKH 167 TRF97	Y..112M-4
1.10	1296	15000	TK 167 TRF97	Y..132S-4
1.30	1101	15000	TKH 167 TRF97	Y..132S-4
1.60	944	15000	TK 167 TRF97	Y..132M-4
1.70	843	15000	TKH 167 TRF97	Y..132M-4
1.90	757	15000		
2.60	561	15000	TK 167 TRF97	Y..160M-4
			TKH 167 TRF97	Y..160M-4
3.00	481	15000	TK 167 TRF97	Y..160L-4
3.50	423	15000	TKH 167 TRF97	Y..160L-4
4.00	369	15000		
4.60	318	15000	TK 167 TRF107	Y..180M-4
			TKH 167 TRF107	Y..180M-4
5.30	278	15000	TK 167 TRF107	Y..180L-4
6.00	244	15000	TKH 167 TRF107	Y..180L-4
6.90	213	15000	TK 167 TRF107	Y..200L-4
7.20	206	15000	TKH 167 TRF107	Y..200L-4
8.20	180	15000		

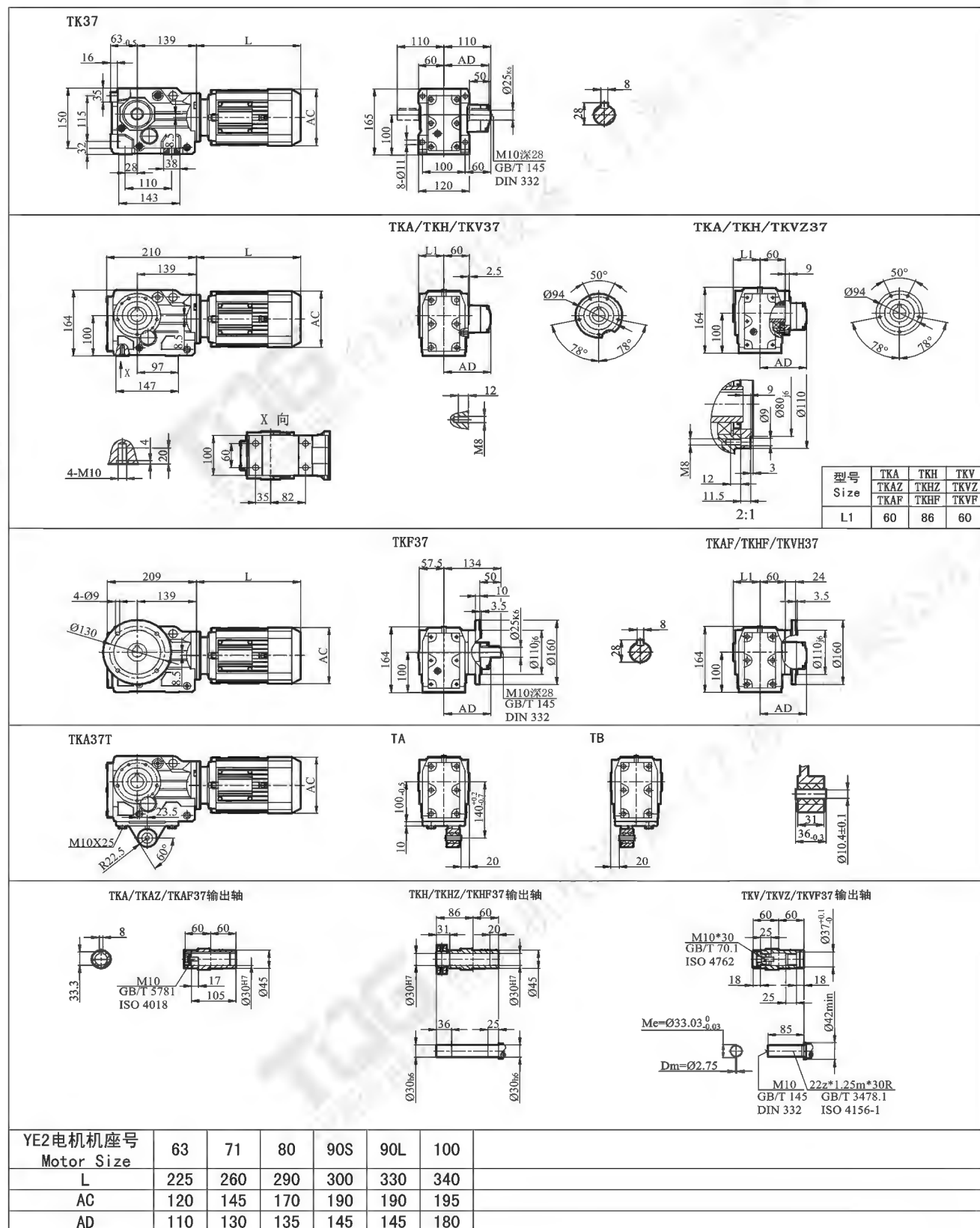


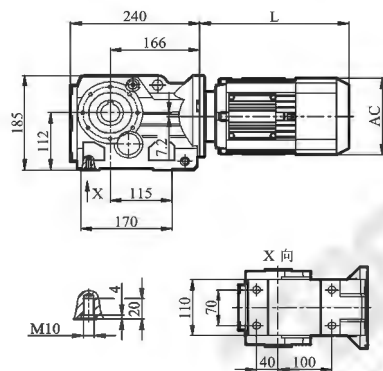
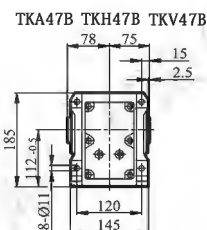
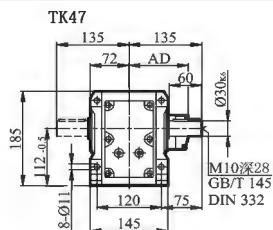
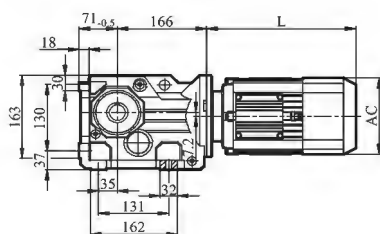
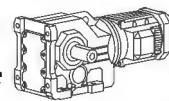
TK

n ₂ [1/min]	i	Fr [N]	Frame size			Motor
M _{2max} =32000Nm						
9.20	160	15000	TK TKH	167 167	TRF107 TRF107	Y..225S-4 Y..225S-4
11.0	135	15000	TK	167	TRF107	Y..250M-4
12.0	118	15000	TKH	167	TRF107	Y..250M-4
M _{2max} =50000Nm						
0.04	32625	19000	TK TKH	187 187	TRF97 TRF97	Y..80M ₁ -4 Y..80M ₁ -4
0.05	27165	19000				
0.06	24353	19000				
0.07	19144	19000				
0.08	16978	19000				
0.10	14272	19000	TK	187	TRF97	Y..80M ₂ -4
0.11	13116	19000	TKH	187	TRF97	Y..80M ₂ -4
0.12	11647	19000	TK TKH	187 187	TRF97 TRF97	Y..90S-4 Y..90S-4
0.14	10413	19000				
0.15	9363	19000				
0.17	8126	19000				
0.19	7343	19000	TK	187	TRF97	Y..90L-4
0.21	6747	19000	TKH	187	TRF97	Y..90L-4
0.24	5991	19000				
0.27	5358	19000	TK	187	TRF97	Y..100L ₁ -4
0.30	4817	19000	TKH	187	TRF97	Y..100L ₁ -4
0.33	4370	19000				
0.40	3609	19000	TK	187	TRF97	Y..100L ₂ -4
0.48	3062	19000	TKH	187	TRF97	Y..100L ₂ -4

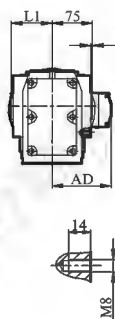
n_2 [1/min]	i	Fr [N]	Frame size			Motor
$M_{2max}=50000Nm$						
0.58 0.64	2519 2268	19000 19000	TK TKH	187 187	TRF97 TRF97	Y..112M-4 Y..112M-4
0.71 0.80 0.91	2054 1821 1605	19000 19000 19000	TK TKH	187 187	TRF97 TRF97	Y..132S-4 Y..132S-4
1.00 1.20	1395 1196	19000 19000	TK TKH	187 187	TRF97 TRF97	Y..132M-4 Y..132M-4
2.00 2.40	738 621	19000 19000	TK TKH	187 187	TRF97 TRF97	Y..160L-4 Y..160L-4
2.80	527	19000	TK TKH	187 187	TRF97 TRF97	Y..180M-4 Y..180M-4
1.80	835	19000	TK TKH	187 187	TRF107 TRF107	Y..160M-4 Y..160M-4
2.00 2.40	729 622	19000 19000	TK TKH	187 187	TRF97 TRF97	Y..160L-4 Y..160L-4
2.80 3.20	520 454	19000 19000	TK TKH	187 187	TRF97 TRF97	Y..180M-4 Y..180M-4
4.20	355	19000	TK TKH	187 187	TRF97 TRF97	Y..200L-4 Y..200L-4
5.70	261	19000	TK TKH	187 187	TRF97 TRF97	Y..225S-4 Y..225S-4
6.70 7.60	221 193	19000 19000	TK TKH	187 187	TRF97 TRF97	Y..225M-4 Y..225M-4

4.9 外形尺寸 / Dimensions

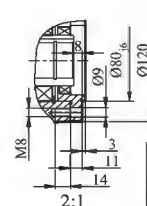
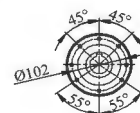
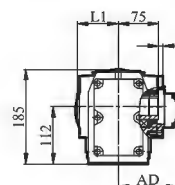




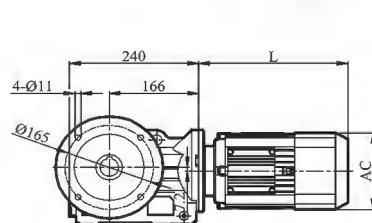
TKA/TKH/TKV47



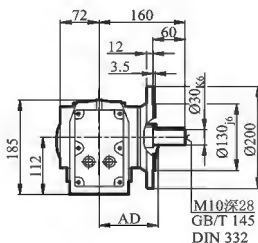
TKAZ/TKHZ/TKVZ47



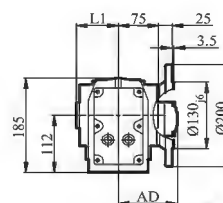
型号	TKA	TKH	TKV
Size	TKAZ TKAF	TKHZ TKHF	TKVZ TKVF
L1	75	105	75



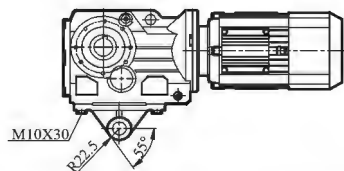
TKF47



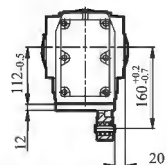
TKAF/TKHF/TKVF47



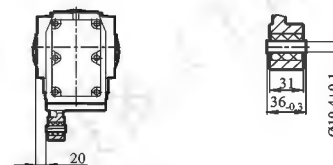
TKA47T



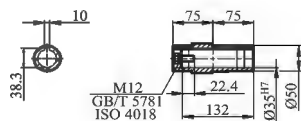
TA



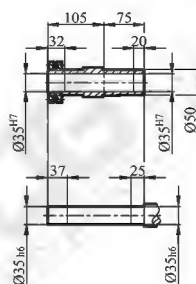
TB



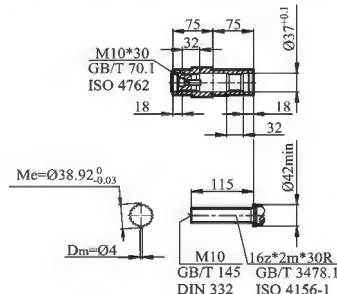
TKA/TKAZ/TKAF47输出轴



TKH/TKHZ/TKHF47输出轴

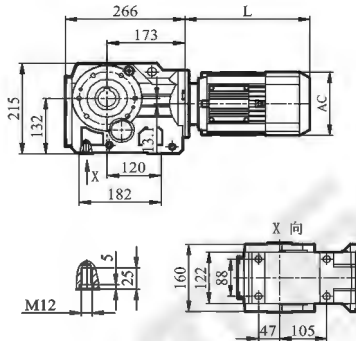
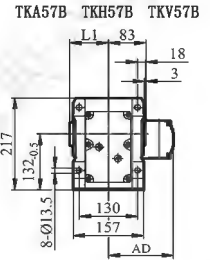
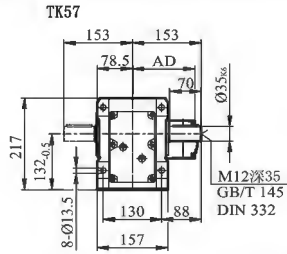
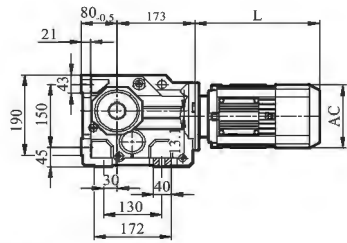


TKV/TKVZ/TKVF47输出轴

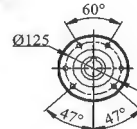
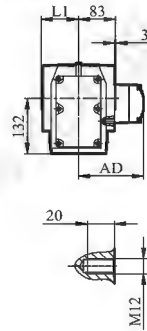


YE2电机机座号
Motor Size

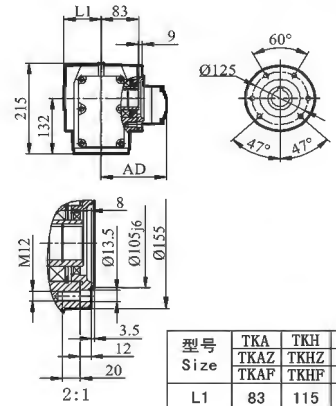
	63	71	80	90S	90L	100
L	205	260	290	300	320	330
AC	120	145	170	190	190	195
AD	110	130	135	145	145	180



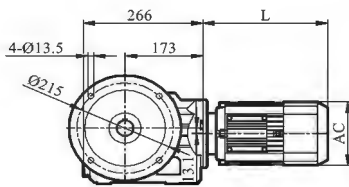
TKA/TKH/TKV57



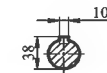
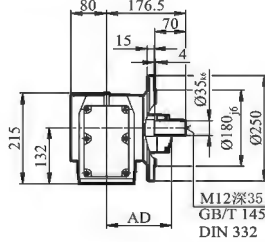
TKA57/TKH57/TKV57



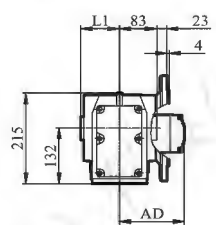
型号	TKA	TKH	TKV
Size	TKAZ	TKHZ	TKVZ
	TKAF	TKHF	TKVF
L1	83	115	83



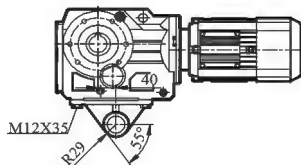
TKF57



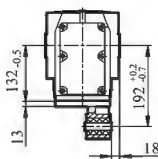
TKAF/TKHF/TKVF57



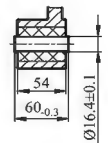
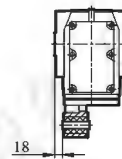
TKA57T



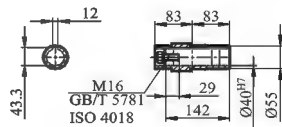
TA



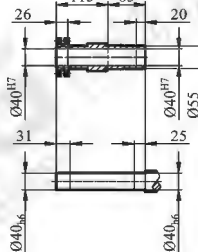
TB



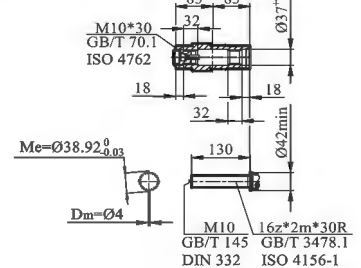
TKA/TKAZ/TKAF57 输出轴



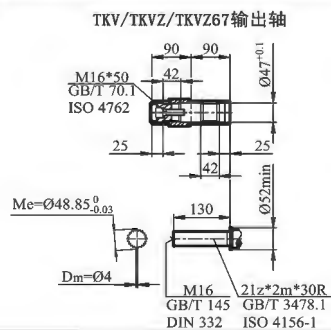
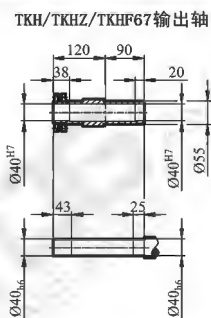
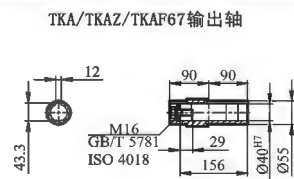
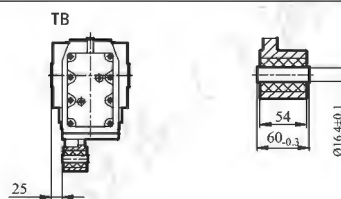
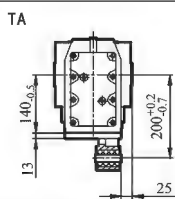
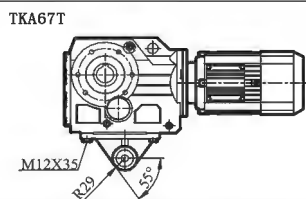
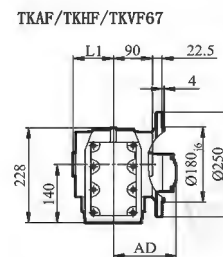
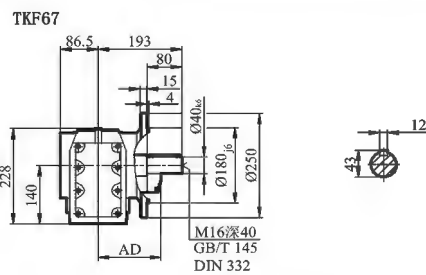
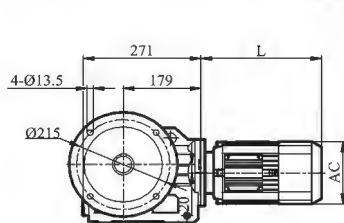
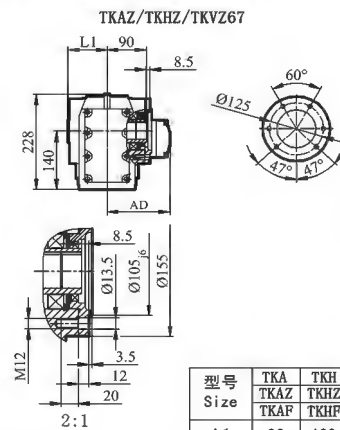
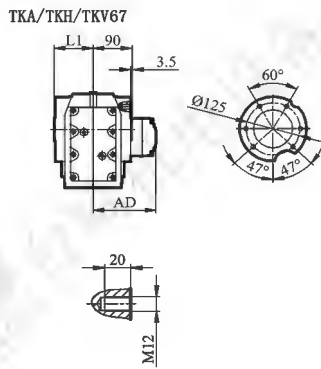
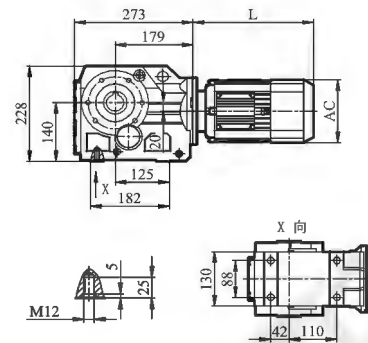
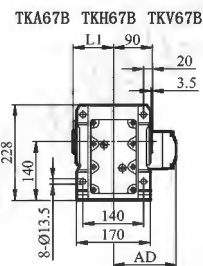
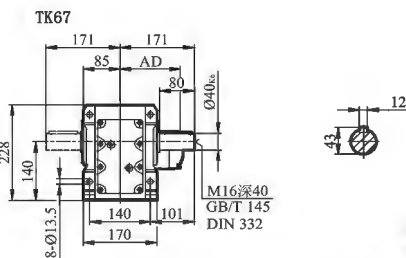
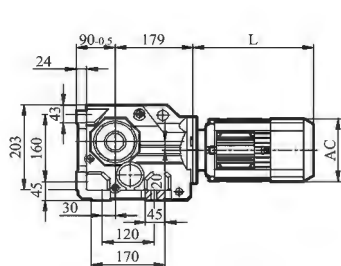
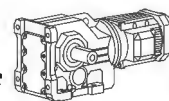
TKH/TKHZ/TKHF57 输出轴



TKV/TKVZ/TKVF57 输出轴

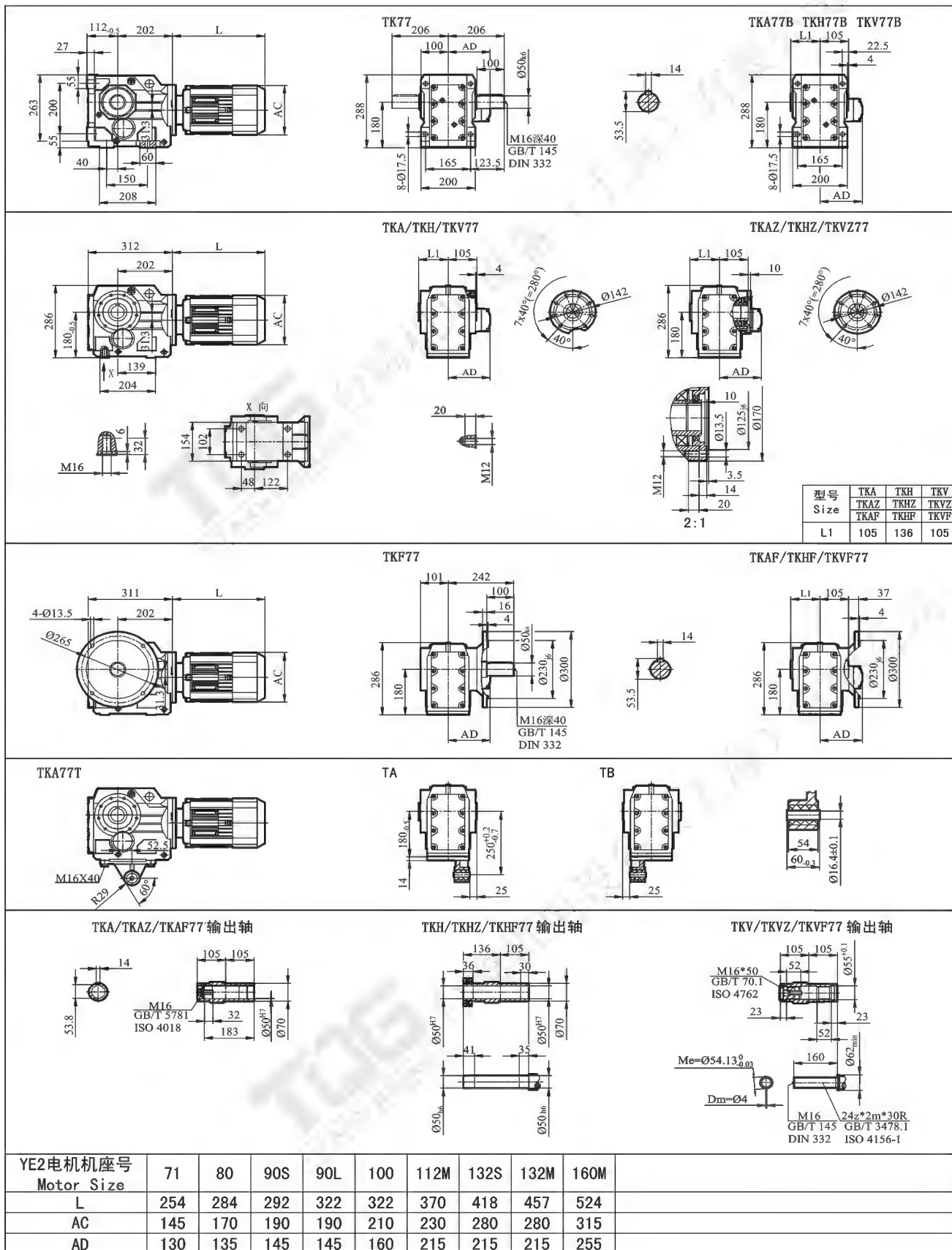


YE2电机机座号 Motor Size	63	71	80	90S	90L	100	112M
L	205	260	290	300	330	330	380
AC	120	145	170	190	190	195	230
AD	110	130	135	145	145	180	215

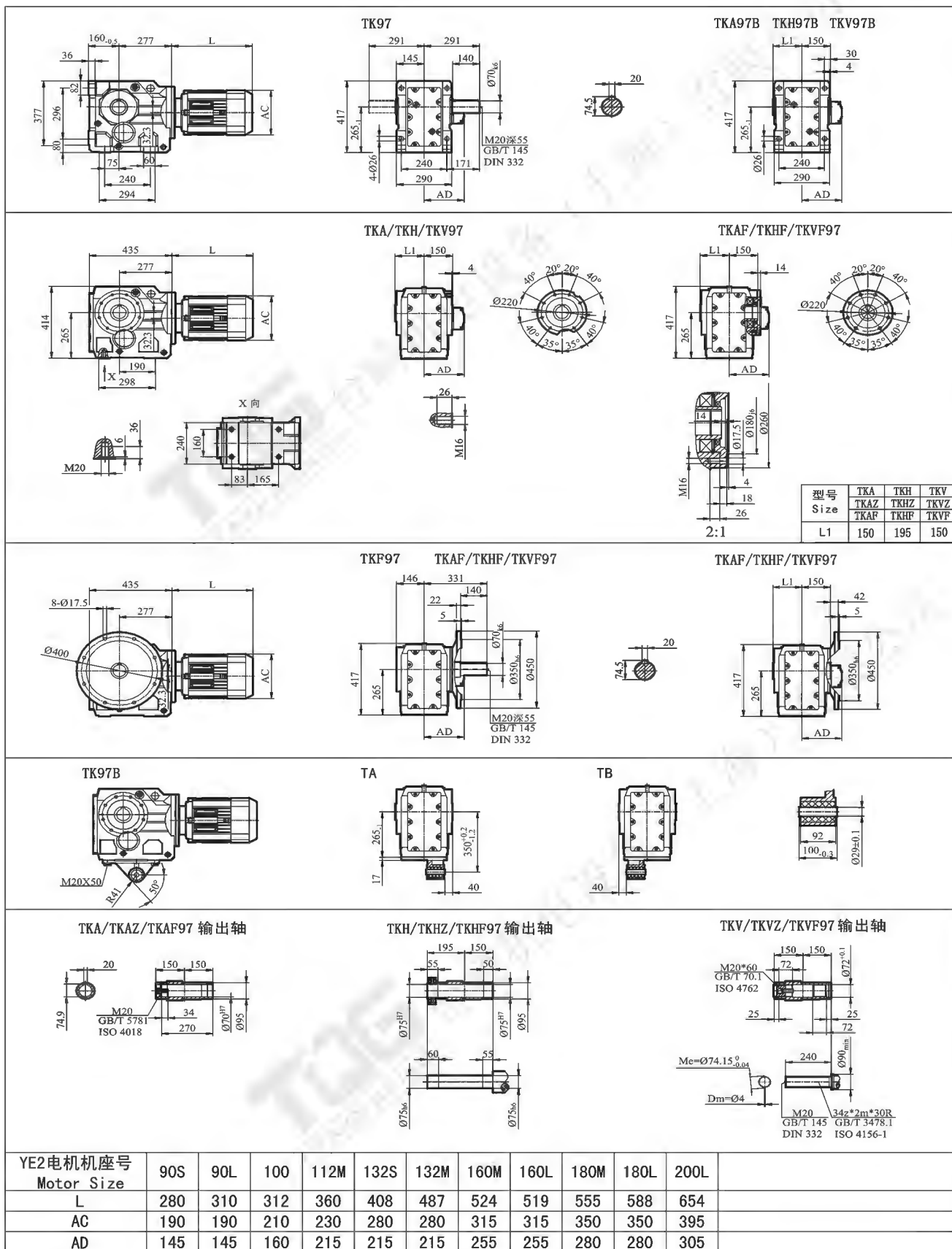


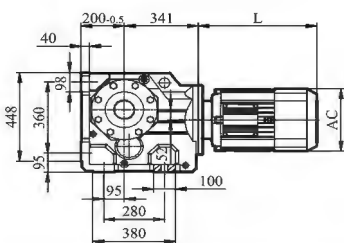
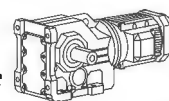
YE2电机机座号 Motor Size	63	71	80	90S	90L	100	112M	132S
L	205	260	290	300	330	330	380	430
AC	120	145	170	190	190	210	230	280
AD	110	130	135	145	145	160	215	215



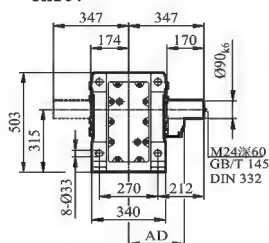




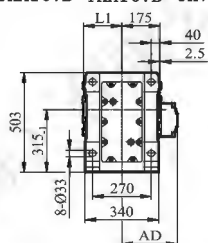




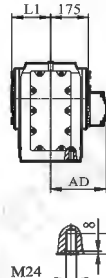
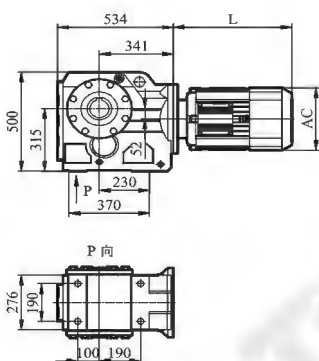
TK107



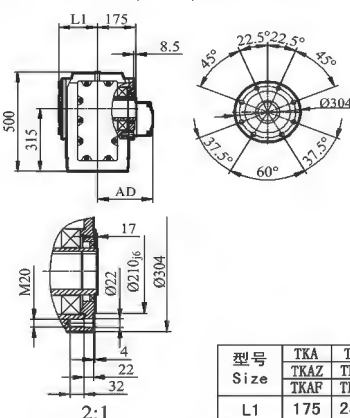
TKA107B TKH107B TKV107B



TKA/TKH/TKV107

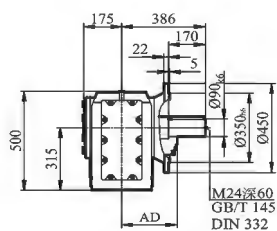
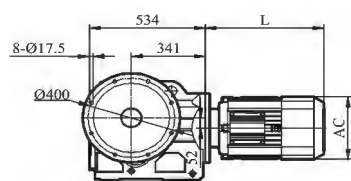


TKAZ/TKHZ/TKVZ107

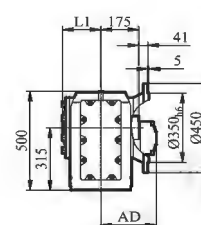


型号	TKA	TKH	TKV
Size	TKAZ	TKHZ	TKVZ
	TKAF	TKHF	TKVF
L1	175	230	175

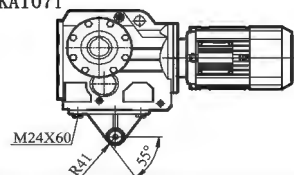
TKF107



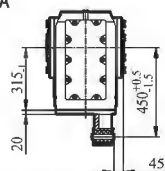
TKAF/TKHF/TKVF107



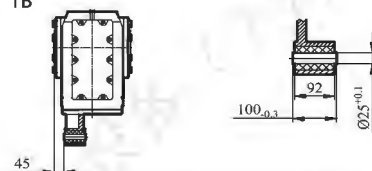
TKA107T



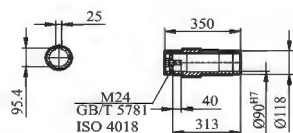
TA



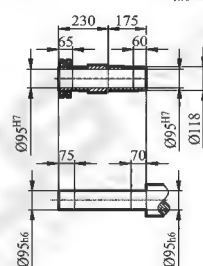
TB



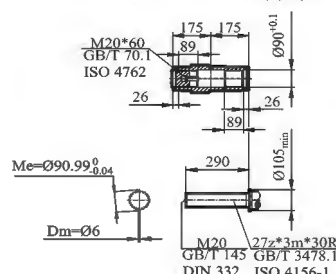
TKA/TKAZ/TKAF107输出轴



TKH/TKHZ/TKHF107输出轴

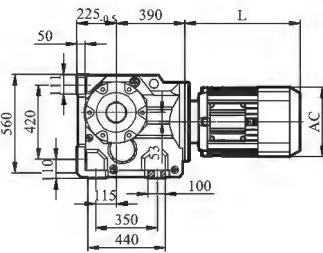


TKV/TKVZ/TKVF107输出轴

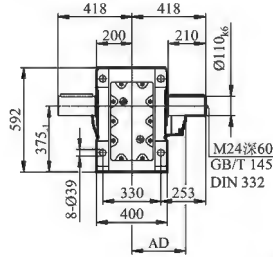


YE2电机机座号
Motor Size

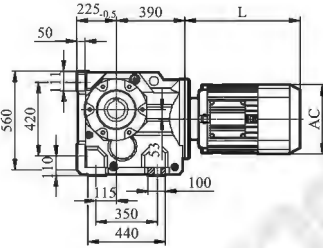
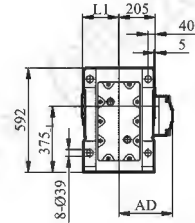
YE2电机机座号 Motor Size	100	112M	132S	132M	160M	160L	180M	180L	200L	225S	225M
L	308	354	403	482	524	519	555	588	654	680	702
AC	210	230	280	280	315	315	350	350	395	450	450
AD	160	215	215	215	255	255	280	280	305	335	335



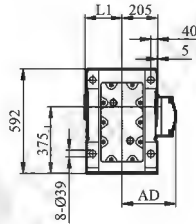
TK127



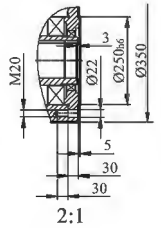
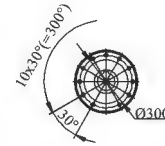
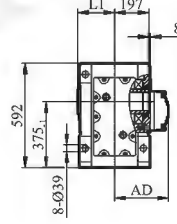
TKA127B TKH127B



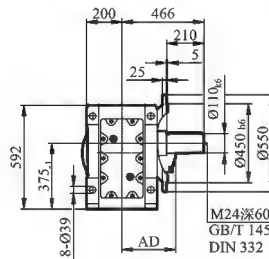
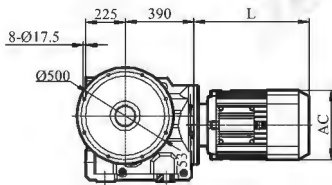
TKA/TKH127



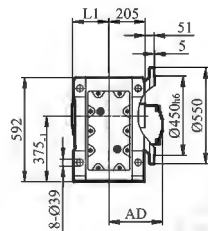
TKAZ/TKHZ127



TKF127

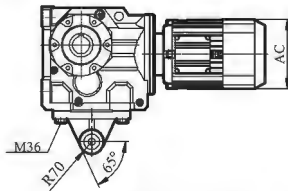


TKA/TKG127

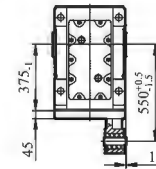


型号 Size	TKA TKAZ TKAF	TKH TKHZ TKHF
L1	205	280

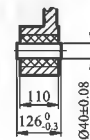
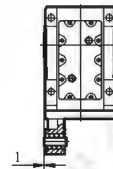
TKA127T



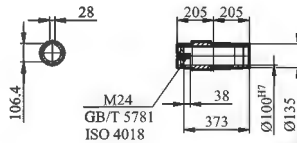
TA



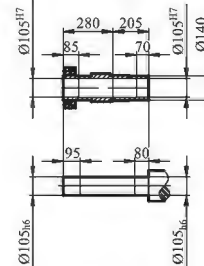
TB



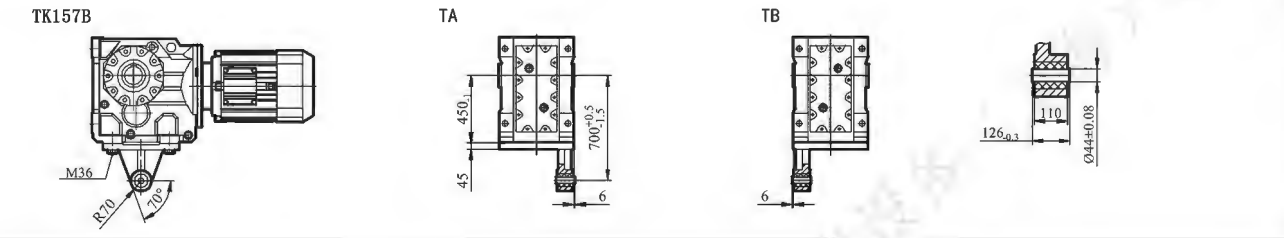
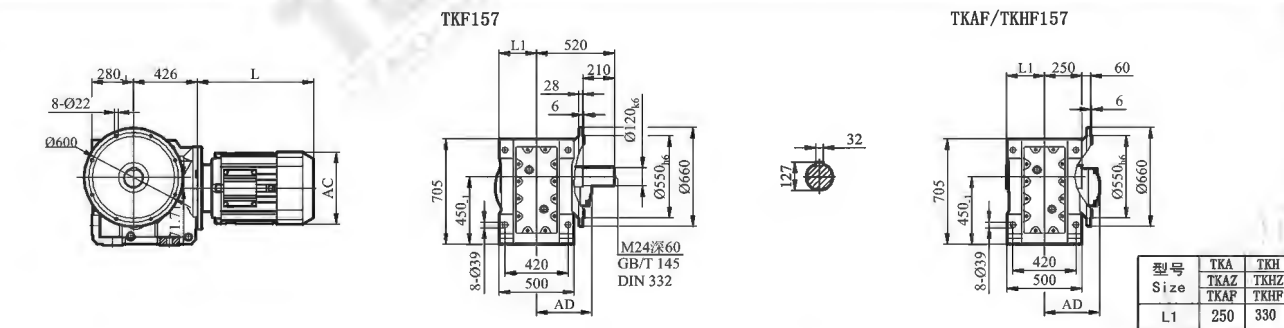
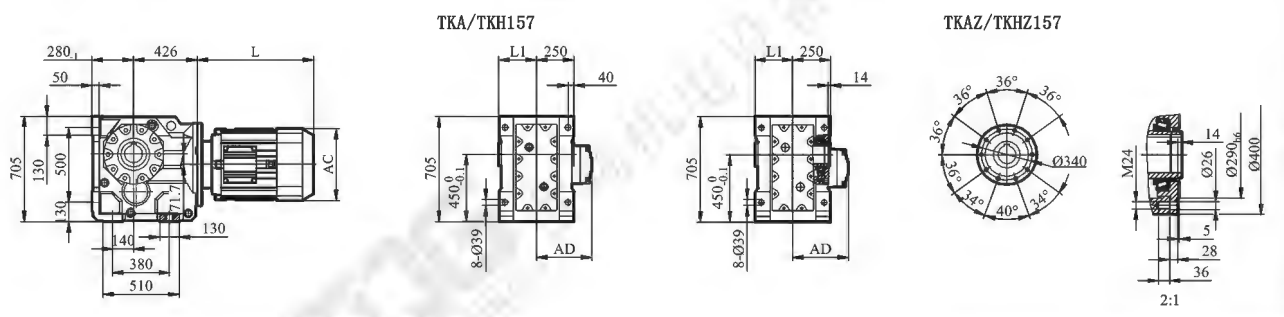
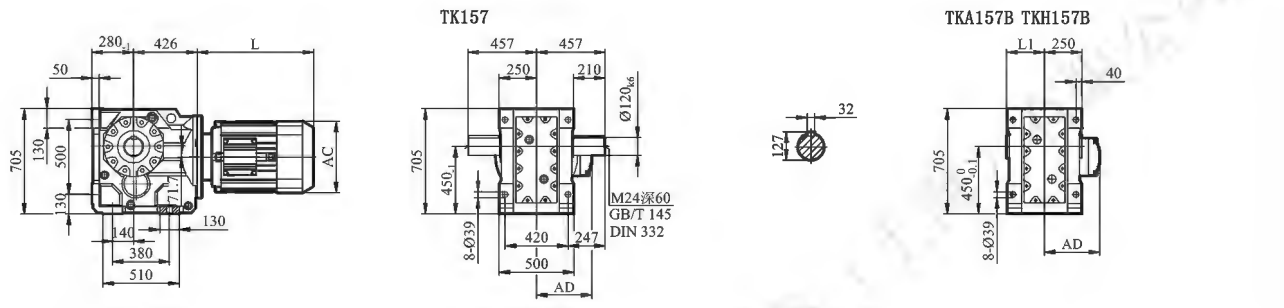
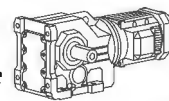
TKA/TKAZ/TKAF127 输出轴



TKH/TKHZ/TKHF127 输出轴

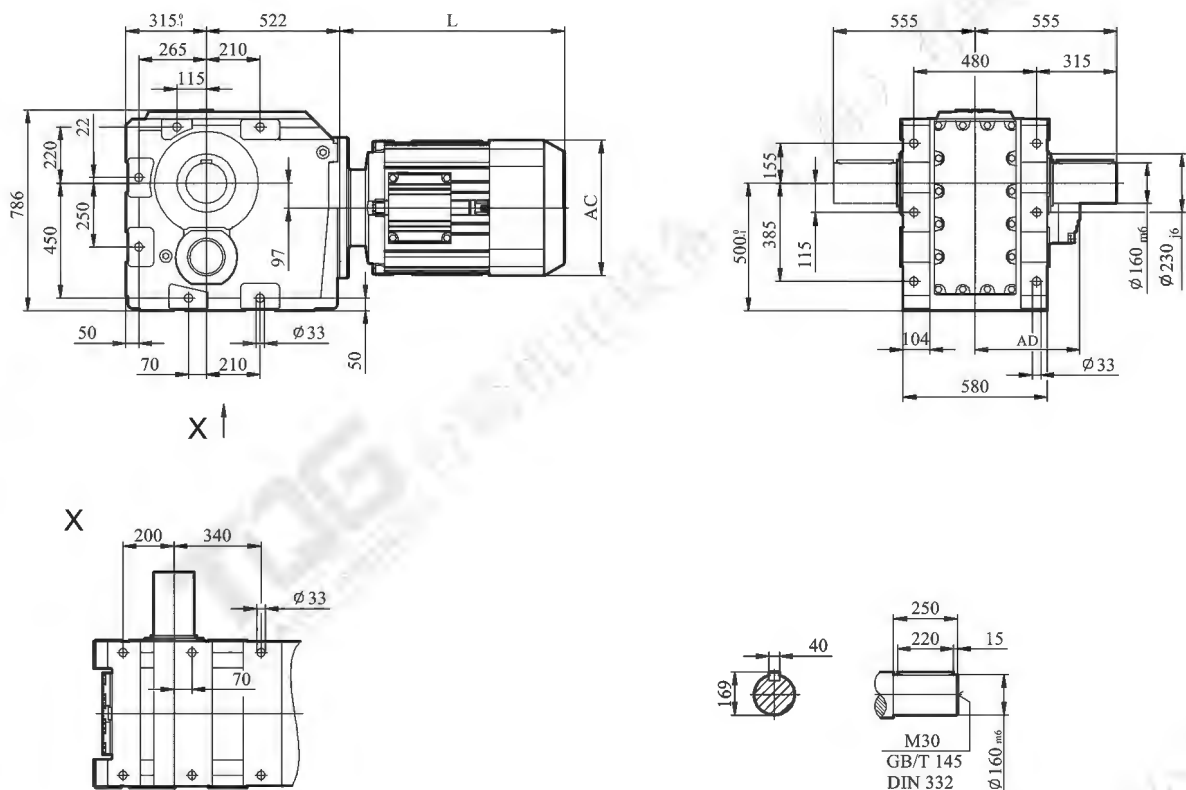


YE2电机机座号 Motor Size	160M	160L	180M	180L	200L	225S	225M	250M	280S	280M	
L	567	602	635	666	642	669	691	770	828	879	
AC	315	315	350	350	395	450	450	480	530	530	
AD	255	255	280	280	305	335	335	370	410	410	



YE2电机机座号 Motor Size	160M	160L	180M	180L	200L	225S	225M	250M	280S	280M	315S	315M	315L	
L	567	602	635	666	642	669	691	770	828	879	1100	1210	1210	
AC	315	315	350	350	395	450	450	480	530	530	645	645	645	
AD	255	255	280	280	305	335	335	370	410	410	530	530	530	

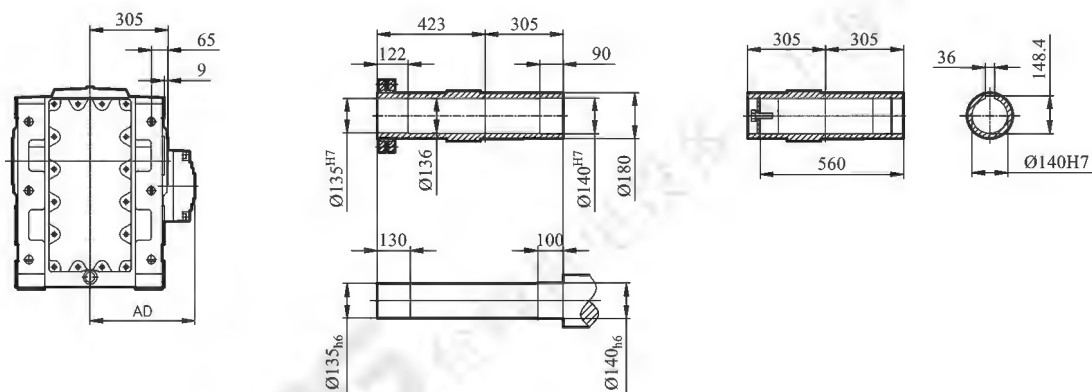
TK167



TKA/TKH167

TKH167 输出轴

TKA167 输出轴

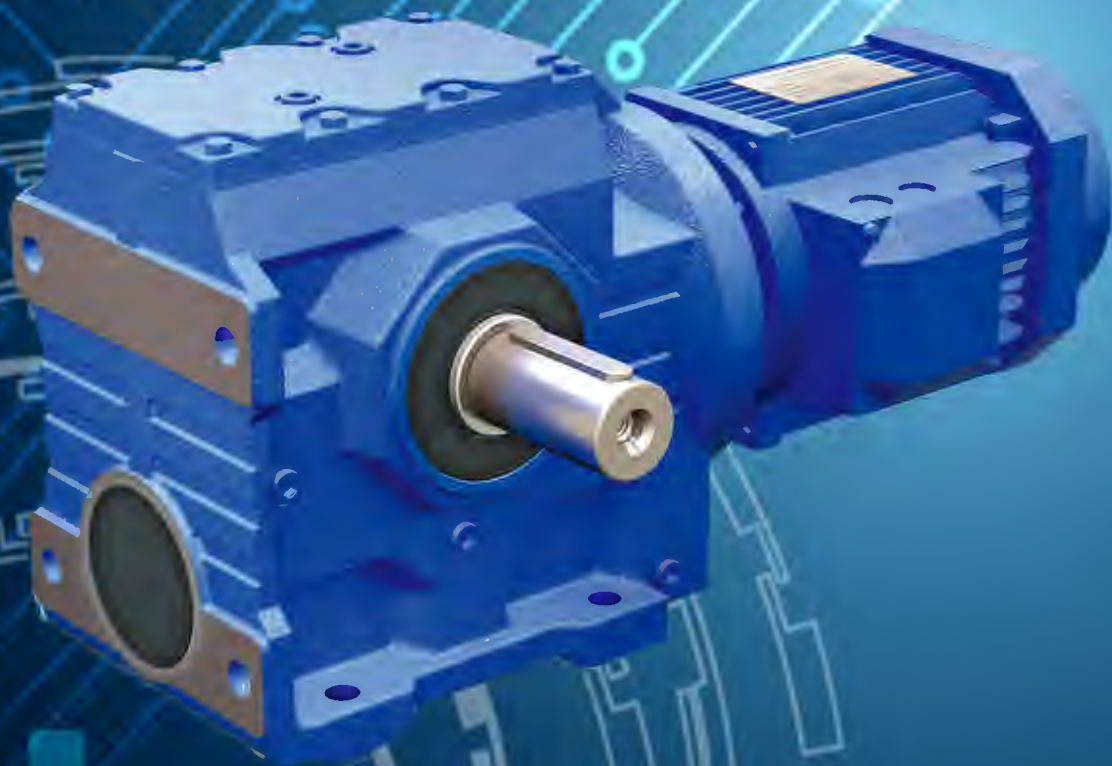


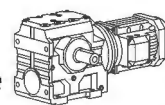
YE2电机机座号 Motor Size	160M	160L	180M	180L	200L	225S	225M	250M	280S	280M	315S	315M	315L	
L	567	602	635	666	642	669	691	770	828	879	1100	1210	1210	
AC	315	315	350	350	395	450	450	480	530	530	645	645	645	
AD	255	255	280	280	305	335	335	370	410	410	530	530	530	

TS系列

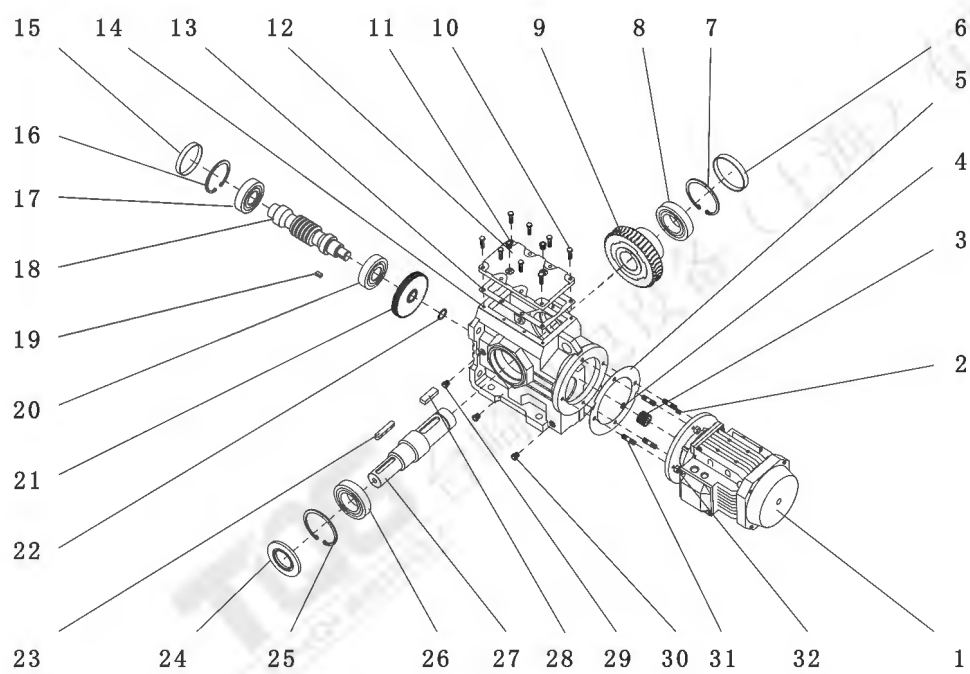
斜齿轮-涡轮减速电机

TS SERIES HELICAL-WORM GEARED MOTOR





5. 1 部件分解图 / Spare Parts List

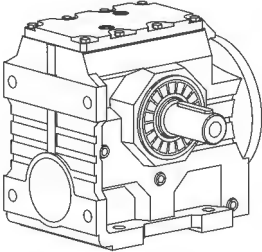
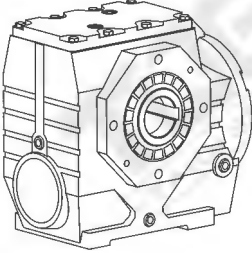
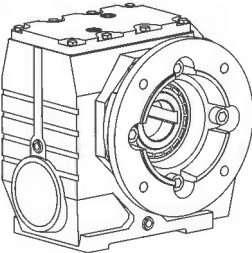
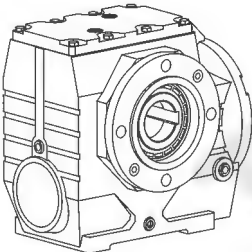


- | | |
|-----------------------------------|-----------------------------------|
| 1 电机/motor | 17 轴承/bearing |
| 2 平键/flat key | 18 蜗杆/worm |
| 3 齿轮/gear | 19 平键/flat key |
| 4 轴用挡圈/retaining rings for shaft | 20 轴承/bearing |
| 5 纸垫/gasket | 21 齿轮/gear |
| 6 平面油封/plan seal | 22 轴用挡圈/retaining rings for shaft |
| 7 孔用挡圈/retaining rings for bores | 23 平键/flat key |
| 8 轴承/bearing | 24 骨架油封/skeleton oil seal |
| 9 蜗轮/worm gear | 25 孔用挡圈/retaining rings for bores |
| 10 外六角螺钉/hex head screw | 26 轴承/bearing |
| 11 油塞/oil level plug | 27 输出轴/output shaft |
| 12 盖板/cover plate | 28 平键/flat key |
| 13 纸垫/gasket | 29 油塞/oil level plug |
| 14 箱体/housing | 30 油塞/oil level plug |
| 15 平面油封/plan seal | 31 双头螺柱/stud |
| 16 孔用挡圈/retaining rings for bores | 32 六角螺母/hexagon nut |

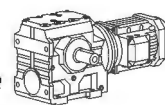
TS

5. 2 机型版本 / Versions

5. 2. 1 基本型式 / Basic Versions

	TS .. 底脚安装斜齿轮-蜗轮蜗杆减速机 Foot-mounted helical worm geared units.
	TSA .. 空心轴安装斜齿轮-蜗轮蜗杆减速机 Helical-worm geared units with hollow shaft.
	TSAF .. B5法兰空心轴安装斜齿轮-蜗轮蜗杆减速机 Helical-worm geared units in B5 flange mounted version with hollow shaft.
	TSAZ .. B14法兰空心轴安装斜齿轮-蜗轮蜗杆减速机 Helical-worm geared units in B14 flange mounted version with hollow shaft.

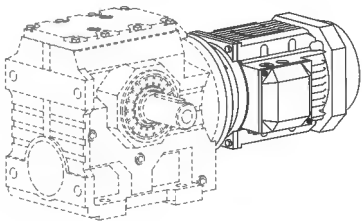
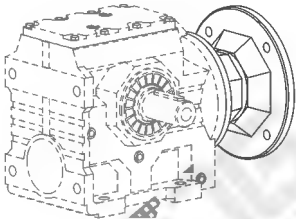
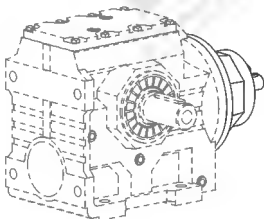
TS



	TSF'.. B5法兰安装斜齿轮-蜗轮蜗杆减速机 Helical-worm geared units in B5 flange mounted version.
	TSH .. 空心轴锁紧盘安装斜齿轮-蜗轮蜗杆减速机 Helical-wrom geared units with hollow shaft and shrink disk.
	TSHF'.. B5法兰空心轴锁紧盘安装斜齿轮-蜗轮蜗杆减速机 Helical-worm geared units in B5 flange-mounted version with hollow shaft and shrink disk.
	TSHF .. B14法兰空心轴锁紧盘安装斜齿轮-蜗轮蜗杆减速机 Helical-worm geared units in B14 flange-mounted version with hollow shaft and shrink disk.

TS

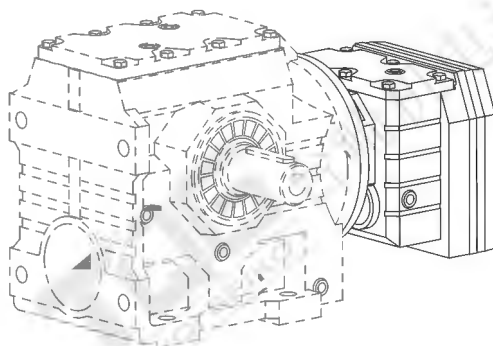
5.2.2 输入型式 / Input Versions

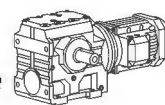
	TS..Y.. 直联电机输入 Input with geared motors.
	TS..AM.. AM (IEC) 法兰输入 Input with AM adapters for mounting IEC motors.
	TS..AD.. AD 轴输入 Input with AD shaft assembly.

5.2.3 TS..与 TRF..组合 / TS.. and TRF.. Combination

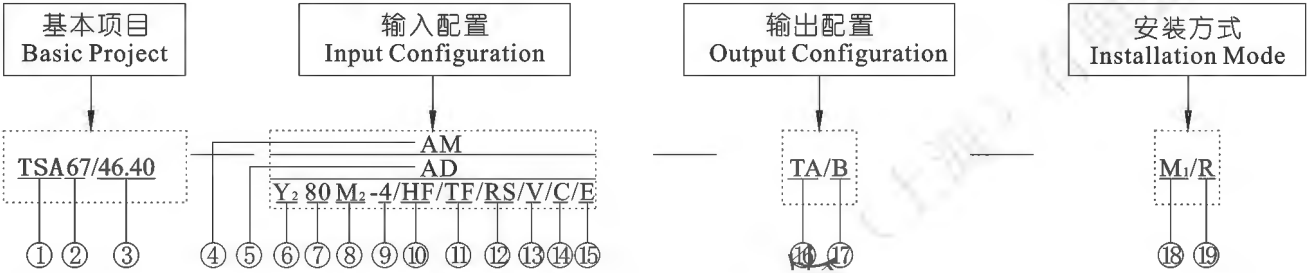
当需要特别低速输出时，可选择 TRF 齿轮箱作为 TS 齿轮箱的输入。

If special low speed is needed, TRF.. gearbox can be the input of TS.. Gearbox.





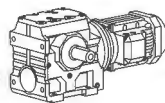
5. 3 产品标注 / Product Code



	标号 NO.	含义 Meaning	说明 Explanation
基本项目 Basic Project	①	系列代号 Series Code	TS、TSF、TSA...(详见5. 2. 1) TS,TSF, TSA...(see 5. 2. 1).
	②	机座号 Frame Size	机座号: 37、47、57... Frame Size: 37, 47, 57...
	③	传动比 Transmission Ratio	传动比 i Transmission Ratio I.
输入配置 Input Configuration	④	法兰输入代号 Flange Input Code	AM(IEC): 63、71、80...
	⑤	轴输入代号 Shaft Input Code	AD: 1、2、3...
	⑥	电机代号 Motor Code	Y2: 三相异步电动机 Y2: Three Phase Asynchronous Motor. YD: 变极多速三相异步电动机 YD: Variable-pole Multi-speed Three Phase Asynchronous Motor. YS: 小功率三相异步电动机 YS: Small Power Three Phase Asynchronous Motor. YVF2: 变频调速三相异步电动机 YVF2: Variable Frequency Speed Control Three Phase Asynchronous Motor. Y2EJ: 电磁制动三相异步电动机 Y2EJ: Electromagnetic Brake Three PhaseAsynchronous Motor. YB2: 隔爆三相异步电动机 YB2: Flame Proof Three Phase Asynchronous Motor.
	⑦	电机机座号 Motor Frame Size.	63、71、80...
	⑧	电机定子铁芯长度代号 Length Code of Stator Core.	M、M1、M2、S、S1、S2、L、L1、L2
	⑨	电机极数 Pole Number of Motor.	2、4、6、8



	标号 NO.	含义 Meaning	说明 Explanation
输入配置 Input Configuration	⑩	手动释放装置 Manual Release Device	无代码: 无手动释放装置 No Code: No manual release device. HF: 手动释放装置带自锁功能 HF: Manual release device with self-locking Function. HR: 手动释放装置不带自锁功能 HR: Manual release device without self-Locking function.
	⑪	电机热保护装置 Motor Heat-protection Device.	无代码: 无电机热保护装置 No Code: No motor heat-protection device. TF: 电机热保护装置 TF: Motor heat-protection device.
	⑫	逆止器 Backstop	无代码: 无逆止器 No Code: No backstop. RS: 逆止器 RS: Backstop.
	⑬	强制冷却风扇 Forced Cooling Fan	无代码: 无强制冷却风扇 No Code: no forced cooling fan. V: 强制冷却风扇 V: Forced cooling fan.
	⑭	防雨罩 Cover	无代码: 无风扇防护罩 No Code: No fan cover. C: 防雨罩 C: cover.
	⑮	编码器 Encoder	无代码: 无编码器 No Code: No encoder. E: 编码器 E: Encoder
输出配置 Output Configuration	⑯	扭力臂 Torque Arm	无代码: 无扭力臂 No Code: No torque arm. TA: 扭力臂指向A TA: Torque arm pointing to A. TB: 扭力臂指向B TB: Torque arm pointing to B.
	⑰	法兰或轴指向 Flange or Shaft Pointing direction.	A: 法兰或轴指向A A: Flange or shaft pointing to A. B: 法兰或轴指向B B: Flange or shaft pointing to B. A+B: 双出轴或双法兰 A+B: Double flange or shaft.
安装方式 Mounting Positions	⑱	安装方位 Mounting Position	M1、M2、M3、M4、M5、M6
	⑲	电机接线盒方位 Position for motor terminal box.	R、B、L、T



说明:

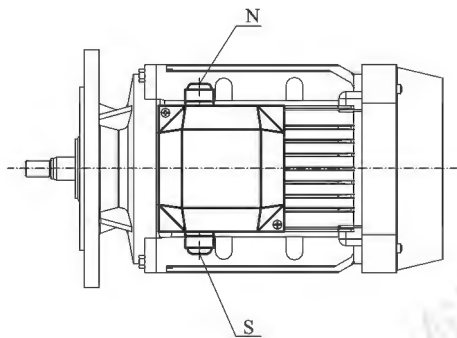
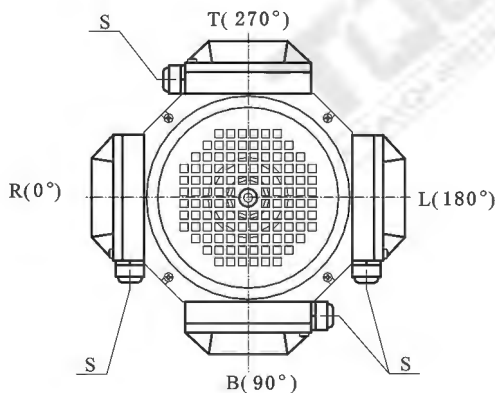
1. 基本项目不可省略;
2. 输入配置中, 只能在 AM、AD 和电机之间选择一种;
3. 输出配置参数若省略, 默认按A方向提供;
4. 安装方式参数若省略, 默认按 M1 安装方位, R 接线盒方位提供。

Notes:

1. Basic project can not be omitted.
2. Input configuration can only be one of AM, AD and motor.
3. If no output configuration, default pointing direction will be A.
4. If not mounting position, default mounting position will be M1, default position for motor terminal will be R.

5. 4 安装方位 / Mounting Positions

5. 4. 1 电机接线盒方位 / Position of Motor Terminal Box



R(0°): 默认接线盒方位

R(0°): Default Position for Motor Terminal Box

注: 图为M1安装方位。

Mark :This picture is the installation position of M1

S: 默认进线方位

S: Default Line Position

说明:

上图的视图方向为: 从电机尾部的风罩向前看。

可提供 R (0°)、B (90°)、L (180°)、T (270°) 四种电机接线盒方位。其中 R (0°) 位置是默认方位。如无特别说明, 将按默认方位提供。

可提供 S 和 N 两种进线方位, 其中 S 位置是默认方位。如无特别说明, 将按默认方位提供。

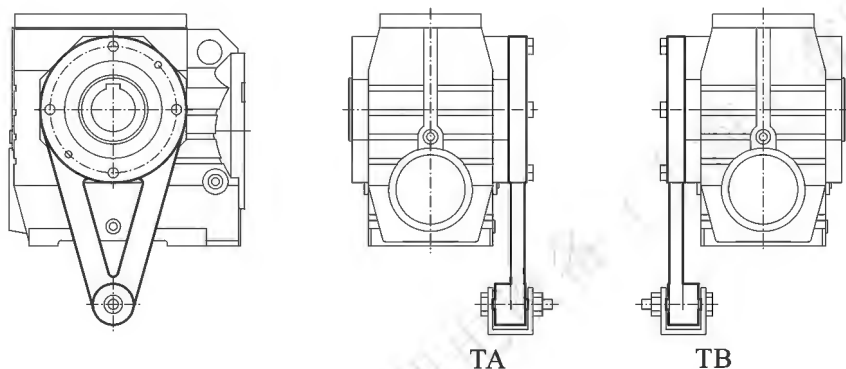
Notes:

The view direction of above figure: from the fan cover in the end of the motor to look forward.

There will be four position for motor terminal box: R(0°)、B(90°)、L(180°)、T(270°). And default position is R(0°). If no special explanation, it will be provided in default position. If no special explanation, it will be provided in default position.

There will be two line position: S and N. Default position is S. If no special explanation, it will be provided in default position. If no special explanation, it will be provided in default position.

5. 4. 2 扭力臂方位 / Position of Torque Arm



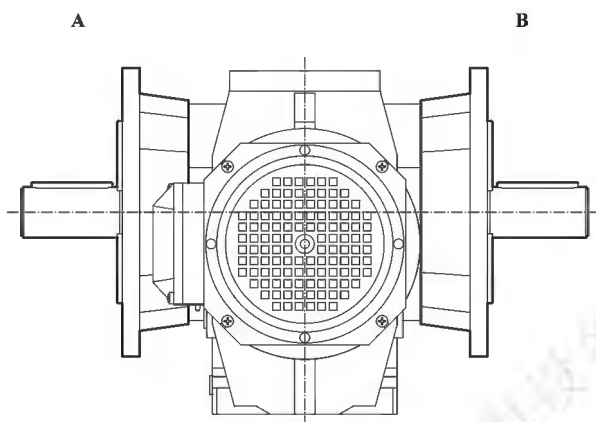
说明:

扭力臂方位 TA 与 TB 是对称的。

Notes:

TA and TB are symmetrical.

5. 4. 3 法兰或轴指向 / Position of The Output Shaft and Flange



说明:

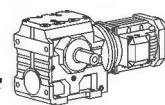
上图的视图方向为：从电机尾部的风罩向前看。

可提供 A、B 或 A+B 三种输出法兰或输出轴的方位。

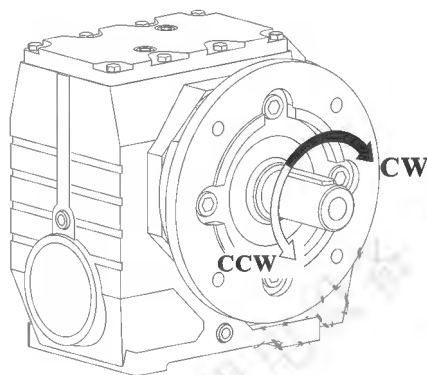
Notes:

The view direction of above figure is from the fan cover in the end of the motor to look forward.

There are three positions: A or B or A+B.



5. 4. 4 输出轴旋转方向 / Direction of Rotation of Output Shaft.



说明:

当减速电机带逆止器时, 需规定输出轴的旋转方向。

上图中, 从输出轴观看, 顺时针旋转规定为 CW; 逆时针旋转规定为 CCW。

当减速电机采用 A+B 方式输出时 (见 5. 4. 3), 需指出给定的旋转方向是从 A 端观看还是从 B 端观看。

Notes:

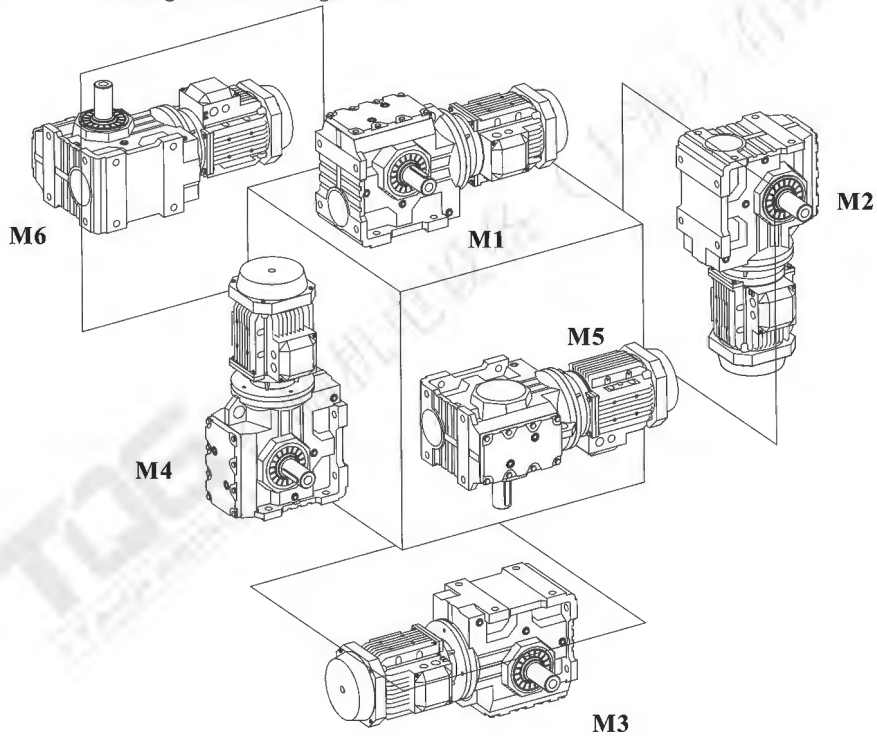
It is necessary to stipulate the direction of rotation of the output shaft if the drive has a back stop.
For above figure, the following definition applies:
Looking onto the output shaft.
CW = Rotating Clockwise
CCW = Rotation Counter-clockwise
If the position of the output shaft or flange is A+B, it is necessary to stipulate for certain direction of rotation, it was looked on the A or B.

5. 4. 5 油位符号说明 / Oil Level Symbol Explanation

符号 Symbol	含义	Meaning
	通气帽	BREATHER VALVE
	油标	OIL LEVEL PLUG
	排油塞	OIL DRAIN PLUG

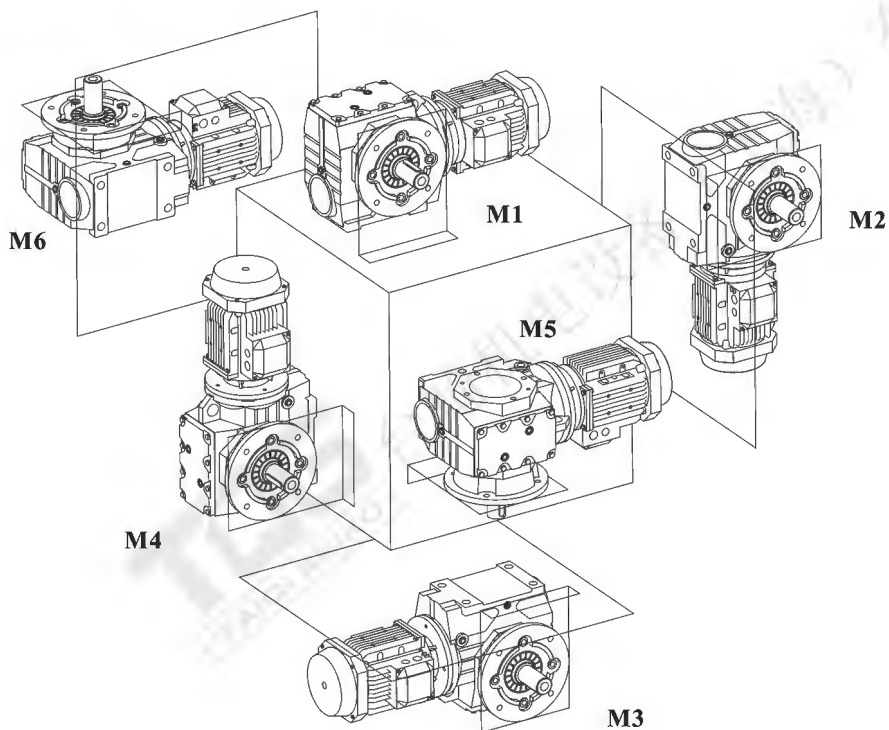
5. 4. 6 安装位置示意 / Mounting Position Designation

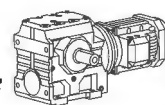
TS..安装位置示意图 / TS.. Mounting Position Designation



TS

TSF..安装位置示意图 / TSF.. Mounting Position Designation





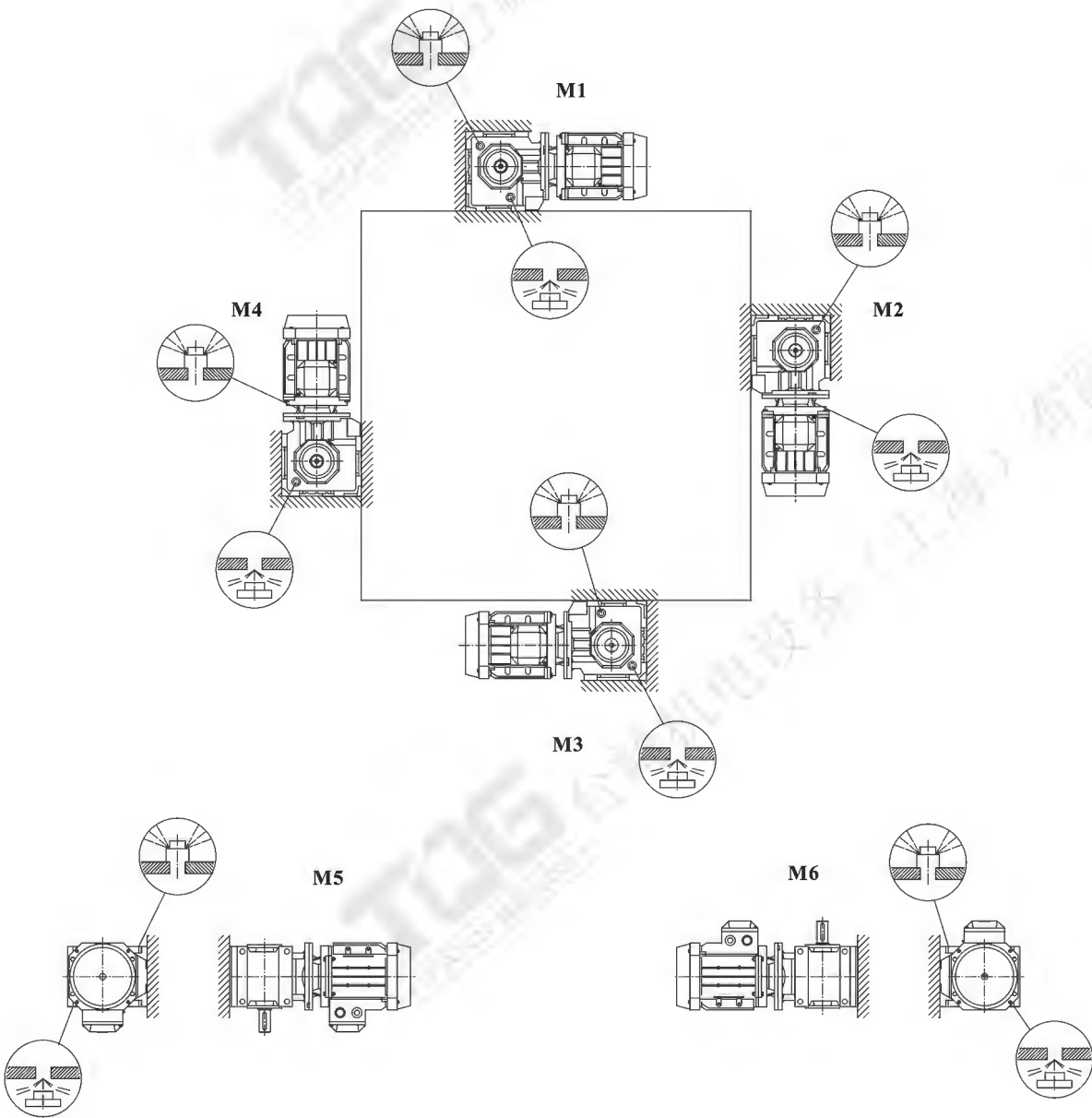
5. 4. 7 安装方位 / Mounting Positions

***→提示:**
当采用下表列出的安装方式及输入转速时，
齿轮箱会产生不可忽视的搅油损失。请联系本
公司。

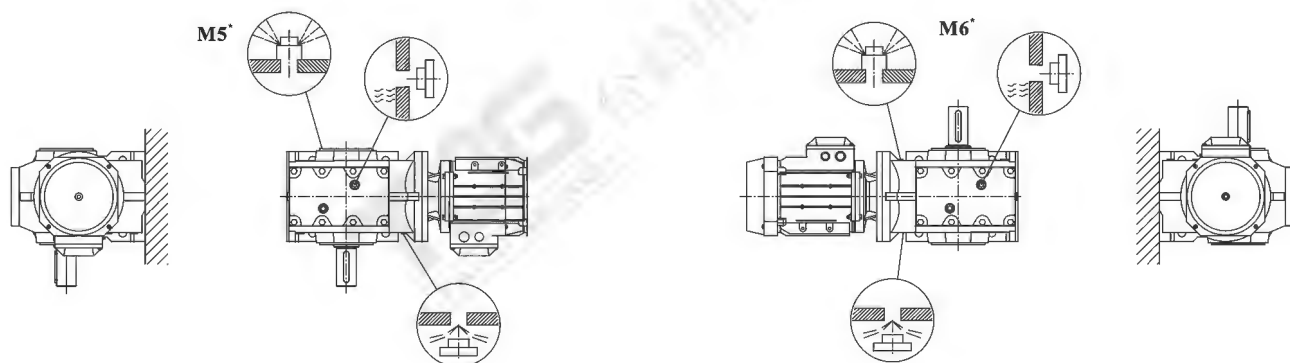
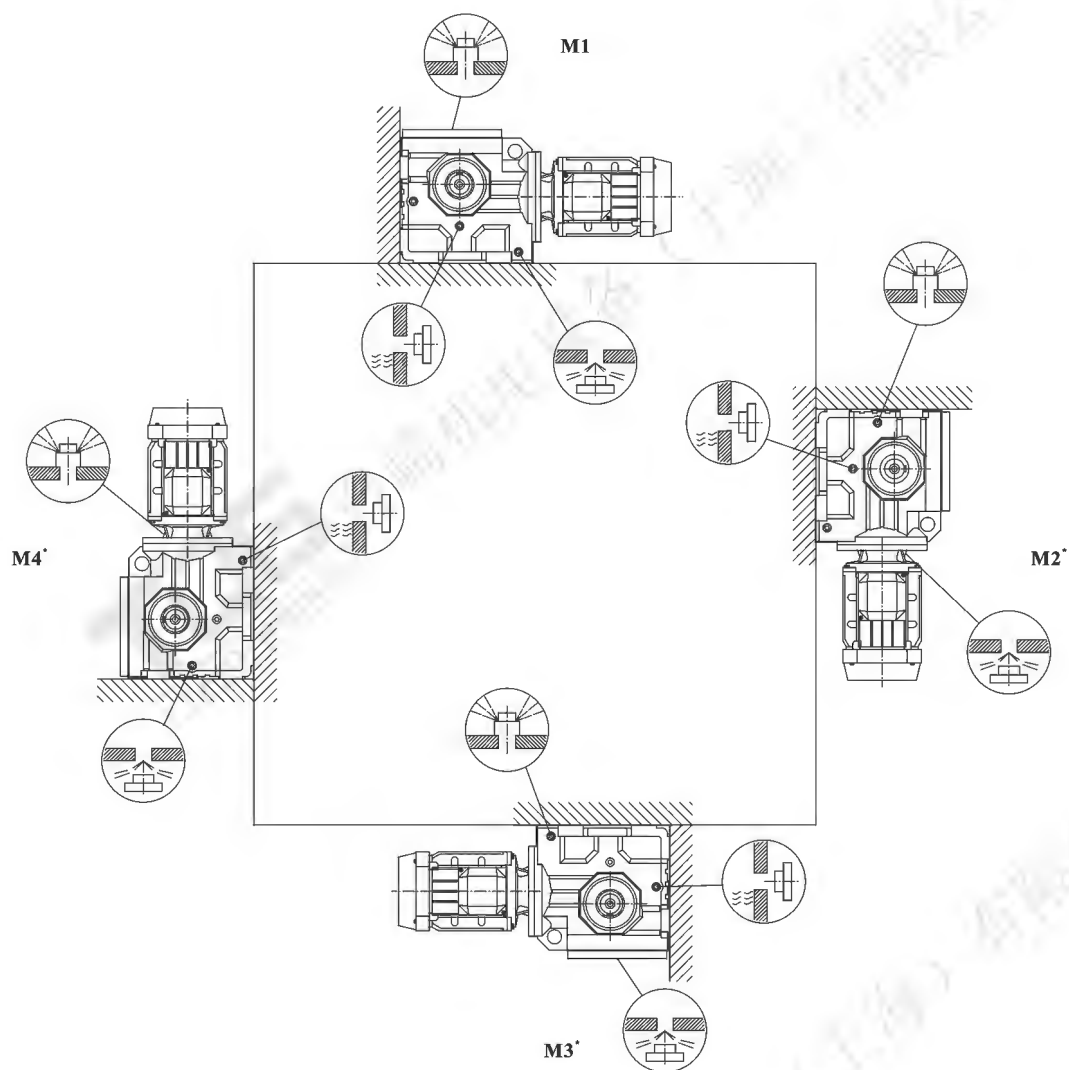
***→Reminder:**
Increased churning losses may arise in the following
mounting positions. Contact Greatwall Machinery.

安装方式 Mounting Position	齿轮箱规格 Gear Unit Size	输入转速 Input Speed (r/min)
M2, M3, M4, M5, M6	77-97	>2500

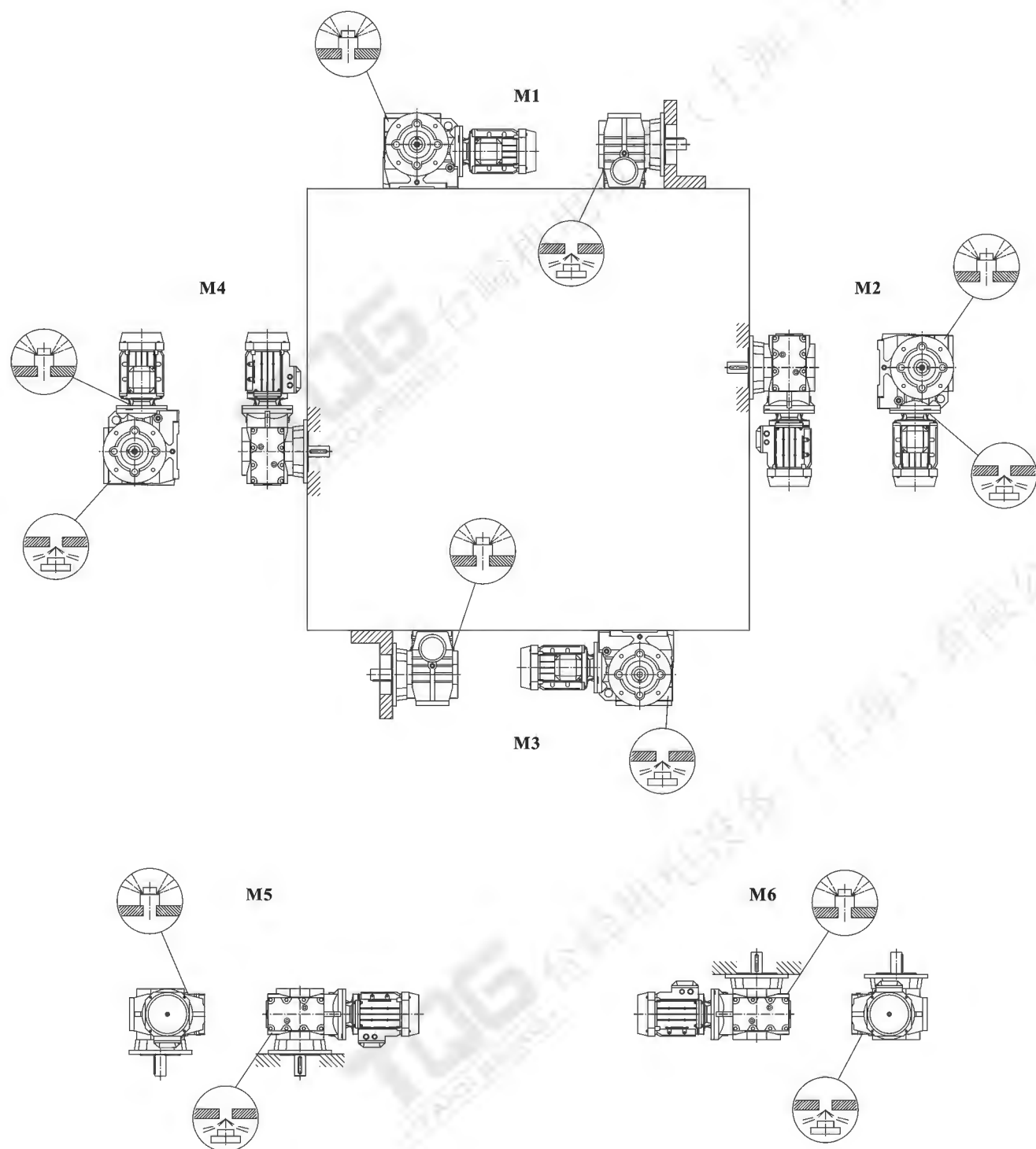
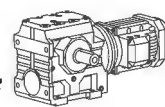
TS37



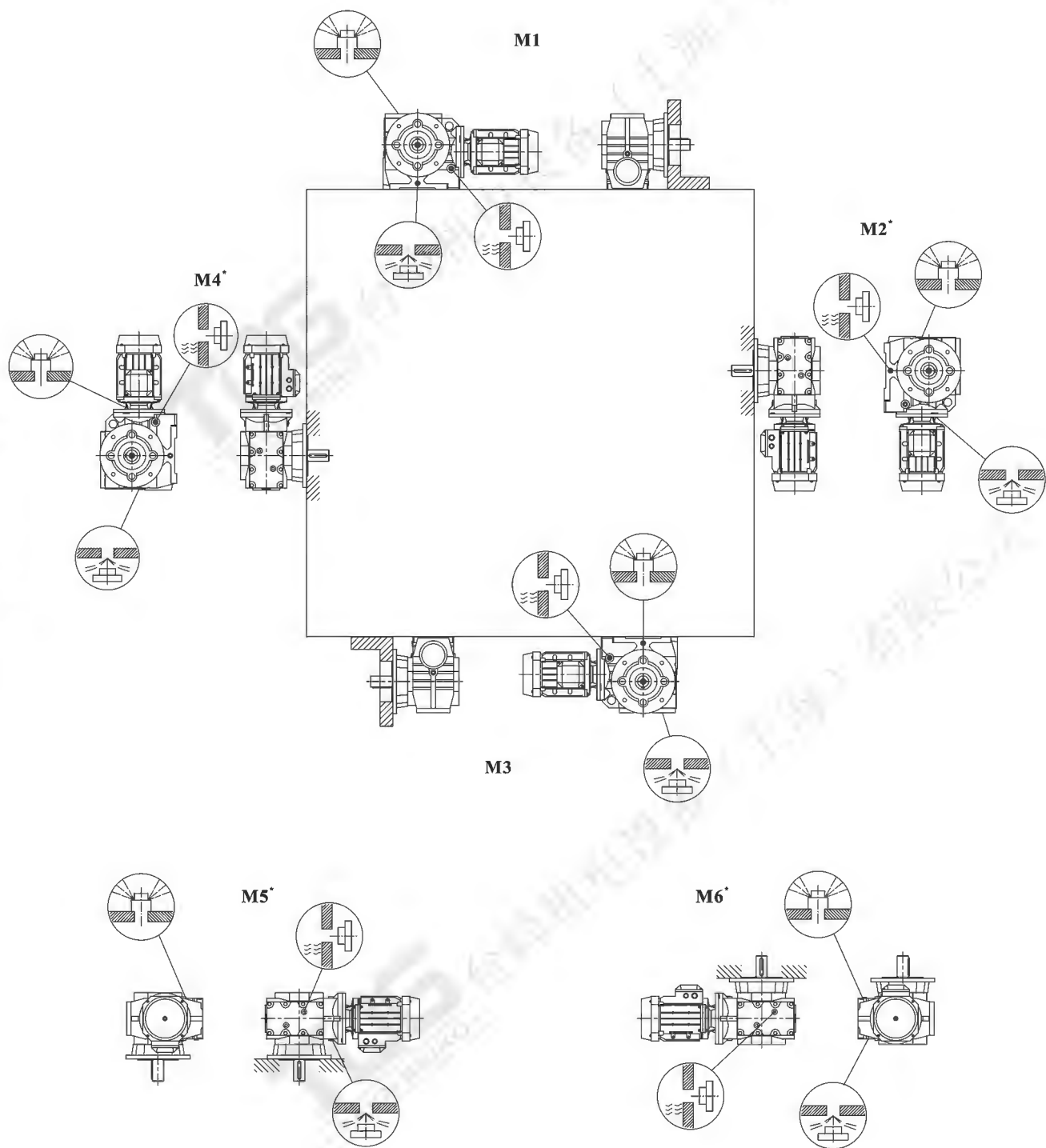
TS47~97



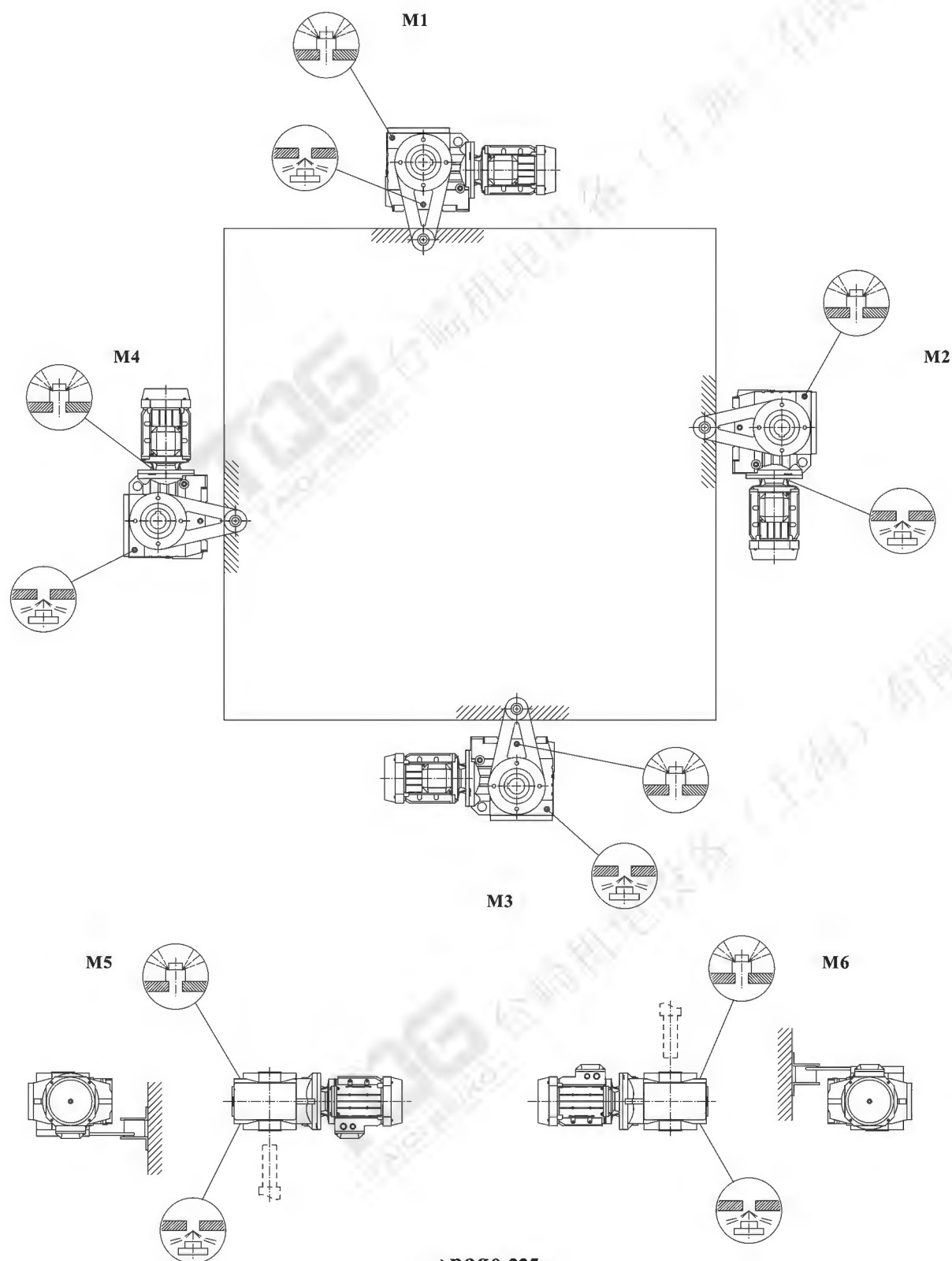
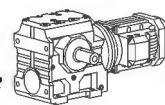
* → page 225



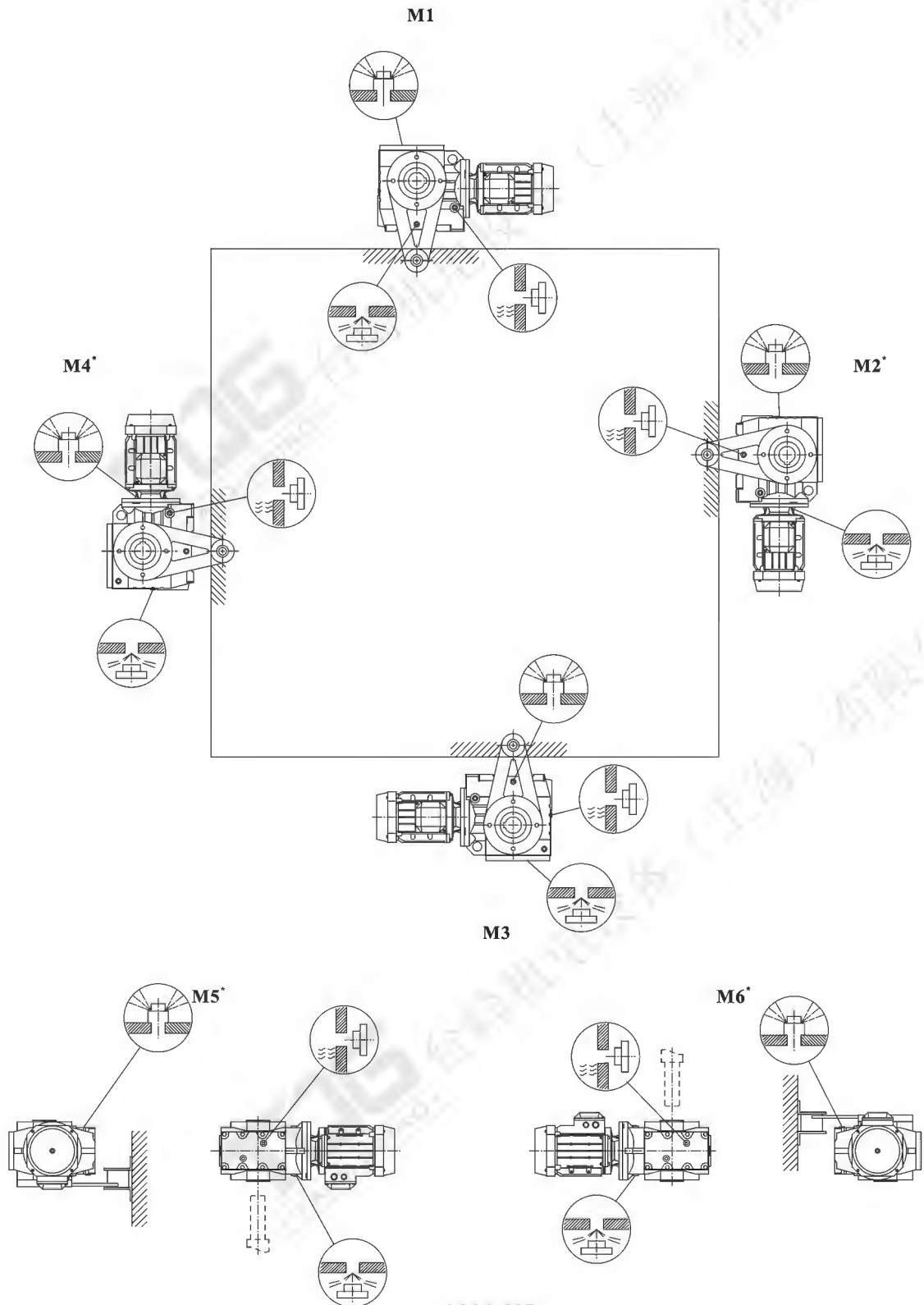
TSF/TSAF/TSHF/TSAZ47~97



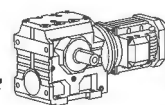
* → page 225



TSA/TSH47~97/T



* → page 225



5.5 减速器组合表 / Gear Unit Combination Table

为得到特别低的输出转速，可以通过TRF齿轮箱与 TS 齿轮箱相连的方式实现。

当采用这种传动方案时，可配置电动机的功率依赖于减速机的极限输出扭矩，而不能通过电动机的额定功率和减速机的总传动比计算得出减速机的输出扭矩。

TRF series of gear units and TS series of gear units can be connected together to get special output speed.

For this transmission scheme, the power of the motor depends on the limit output torque of the gear-box, instead of the output torque calculated based on rated power of the motor and the transmission ratio of the gear unit.

TS..与 TRF..齿轮箱可能的组合 / Possible Combination of TS.. and TRF..

	TRF17	TRF27	TRF37	TRF47	TRF57
TS..37					
TS..47					
TS..57					
TS..67					
TS..77					
TS..87					
TS..97					

说明：

- ☐ : 表示可能的组合。
- ☐ : 表示不允许的组合。

Notes:

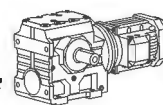
- ☐ : Possible Combination.
- ☐ : Impossible Combination.



5.6 TS..功率配置 / TS..Power Configuration

TS37 $n_1=1400$ 1/min 92Nm									
n_2 [1/min]	M_{2max} [Nm]	Fr [N]	i	0.12 ~0.55	0.75 1.10				
8.90	92	3000	157.43						
9.70	92	3000	144.40						
11.0	91	3000	122.94						
13.0	88	3000	106.00						
14.0	87	3000	98.80						
16.0	86	3000	86.36						
17.0	85	3000	80.96						
20.0	84	3000	71.44						
22.0	82	3000	63.33						
25.0	81	3000	55.93						
26.0	80	3000	53.83						
27.0	81	3000	51.30						
32.0	81	3000	43.68						
37.0	79	3000	37.66						
40.0	78	3000	35.10						
46.0	76	2860	30.68						
49.0	75	2800	28.76						
55.0	74	2660	25.38						
62.0	73	2530	22.50						
70.0	52	2470	19.89						
73.0	71	2380	19.13						
77.0	52	2380	18.24						
90.0	50	2240	15.53						
105	49	2110	13.39						
112	48	2060	12.48						
128	48	1940	10.91						
137	47	1900	10.23						
155	46	1810	9.02						
175	45	1730	8.00						
206	43	1630	6.80						
221	35	1670	6.33						
260	34	1570	5.38						
288	33	1520	4.86						
353	32	1400	3.97						
TS47 $n_1=1400$ 1/min 170Nm									
n_2 [1/min]	M_{2max} [Nm]	Fr [N]	i	0.12 ~0.55	0.75 1.10	1.50			
7.00	170	5340	201.00						
7.60	170	5340	184.80						
8.90	170	5340	158.12						
10.0	168	5350	137.05						
11.0	168	5350	128.10						

TS47 $n_1=1400$ 1/min 170Nm									
n_2 [1/min]	M_{2max} [Nm]	Fr [N]	i	0.12 ~0.55	0.75 1.10	1.50			
13.0	168	5350	110.73						
15.0	168	5350	94.08						
17.0	167	5360	84.00						
20.0	167	5360	71.75						
20.0	155	5370	69.39						
21.0	167	5360	67.20						
22.0	155	5370	63.80						
25.0	165	5320	56.61						
26.0	155	5150	54.59						
30.0	155	4850	47.32						
32.0	155	4710	44.22						
37.0	155	4420	38.23						
43.0	155	4120	32.48						
48.0	155	3920	29.00						
57.0	155	3650	24.77						
60.0	152	3570	23.20						
69.0	110	3370	20.33						
72.0	144	3370	19.54						
79.0	110	3160	17.62						
85.0	110	3060	16.47						
98.0	110	2850	14.24						
116	109	2650	12.10						
130	109	2500	10.80						
152	109	2310	9.23						
162	109	2230	8.64						
192	103	2110	7.28						
205	78	2300	6.83						
TS57 $n_1=1400$ 1/min 295Nm									
n_2 [1/min]	M_{2max} [Nm]	Fr [N]	i	0.12 ~0.55	0.75 1.10	1.50	2.20 3.00		
7.00	295	7130	201.00						
7.60	295	7130	184.80						
8.90	295	7130	158.12						
10.0	295	7130	137.05						
11.0	295	7130	128.10						
13.0	295	7130	110.73						
15.0	295	7130	94.08						
17.0	295	7130	84.00						
20.0	290	7170	71.75						
20.0	245	7520	69.39						
21.0	285	7220	67.20						
22.0	245	7520	63.80						



TS57 n₁=1400 1/min

295Nm

n ₂ [1/min]	M _{2max} [Nm]	Fr [N]	i	0.12 ~0.55	0.75 1.10	1.50	2.20 3.00		
25.0	265	7370	56.61						
26.0	245	7520	54.59						
30.0	245	7520	47.32						
32.0	245	7520	44.22						
37.0	245	7320	38.23						
43.0	245	6840	32.48						
48.0	245	6520	29.00						
57.0	245	6100	24.77						
60.0	245	5930	23.20						
69.0	168	5690	20.33						
72.0	215	5720	19.54						
79.0	168	5350	17.62						
85.0	168	5200	16.47						
98.0	169	4860	14.24						
116	169	4520	12.10						
130	169	4290	10.80						
152	169	3990	9.23						
162	166	3900	8.64						
192	146	3790	7.28						
205	100	4100	6.83						
219	98	4010	6.40						
260	95	3760	5.39						
294	93	3590	4.76						
350	88	3380	4.00						

TS67 n₁=1400 1/min

520Nm

n ₂ [1/min]	M _{2max} [Nm]	Fr [N]	i	0.25 ~0.55	0.75 1.10	1.50	2.20 3.00	4.00	5.50
6.40	520	8680	217.41						
7.40	520	8680	190.11						
7.80	520	8680	180.60						
8.80	520	8680	158.45						
10.0	520	8680	134.40						
12.0	520	8680	121.33						
13.0	520	8680	106.75						
14.0	520	8680	100.80						
16.0	520	8680	85.83						
18.0	520	8680	78.00						
19.0	480	9020	75.06						
21.0	520	8680	67.57						
21.0	480	9020	65.63						
22.0	480	9020	62.35						
24.0	500	8850	58.80						
26.0	480	8670	54.70						
30.0	480	8060	46.40						

TS67 n₁=1400 1/min

520Nm

n ₂ [1/min]	M _{2max} [Nm]	Fr [N]	i	0.25 ~0.55	0.75 1.10	1.50	2.20 3.00	4.00	5.50
33.0	480	7690	41.89						
38.0	480	7250	36.85						
40.0	480	7060	34.80						
47.0	480	6540	29.63						
52.0	480	6240	26.93						
57.0	340	6040	24.44						
60.0	480	5810	23.33						
60.0	340	5890	23.22						
69.0	340	5520	20.37						
69.0	425	5760	20.30						
81.0	340	5080	17.28						
90.0	340	4820	15.60						
102	340	4510	13.73						
108	340	4310	12.96						
127	340	3660	11.03						
140	340	3290	10.03						
161	335	2860	8.69						
185	295	3220	7.56						

TS77 n₁=1400 1/min

1270Nm

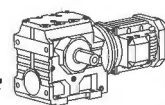
n ₂ [1/min]	M _{2max} [Nm]	Fr [N]	i	0.55	0.75 1.10	1.50	2.20 3.00	4.00	5.50 7.50
5.50	1270	11700	256.47						
6.20	1270	11700	225.26						
6.50	1270	11700	214.00						
7.40	1270	11700	189.09						
8.70	1260	11800	161.60						
9.40	1240	12000	148.15						
11.0	1210	12200	130.00						
11.0	1200	12300	123.20						
13.0	1170	12600	107.83						
14.0	1140	12800	97.14						
16.0	1100	13100	85.22						
19.0	1070	12800	75.20						
19.0	1100	11900	75.09						
20.0	1100	11600	71.33						
21.0	1040	12300	66.67						
22.0	1100	10900	63.03						
25.0	990	11600	56.92						
26.0	1100	10100	53.87						
28.0	1100	9650	49.38						
32.0	1100	9010	43.33						
34.0	1100	8750	41.07						
39.0	1100	8140	35.94						
43.0	1090	7720	32.38						

TS

TS77 $n_1=1400$ 1/min										1270Nm
n_2 [1/min]	M_{2max} [Nm]	Fr [N]	i	0.55	0.75 1.10	1.50	2.20 3.00	4.00	5.50 7.50	
49.0	1050	7370	28.41							
56.0	1020	7010	25.07							
61.0	705	5960	22.89							
63.0	980	6740	22.22							
67.0	705	5380	20.99							
74.0	930	6390	18.97							
76.0	705	4550	18.42							
80.0	710	4120	17.45							
92.0	710	3320	15.28							
102	710	2710	13.76							
116	720	1800	12.07							
131	720	1130	10.65							
148	725	415	9.44							
174	680	440	8.06							
TS87 $n_1=1400$ 1/min										2280Nm
n_2 [1/min]	M_{2max} [Nm]	Fr [N]	i	0.75 1.10	1.50	2.20 3.00	4.00	5.50 7.50	11.0 15.0	
4.90	2280	27900	288.00							
5.40	2280	27900	258.18							
6.30	2280	27900	222.40							
6.90	2260	28000	202.96							
7.80	2210	28100	180.00							
9.30	2150	28200	151.30							
10.0	2100	28300	139.05							
11.0	2060	28300	123.48							
13.0	2000	28400	110.40							
14.0	1960	29100	99.26							
15.0	1510	28600	91.20							
16.0	1880	29000	86.15							
17.0	1600	28700	81.76							
18.0	1820	29000	77.14							
20.0	1600	29000	70.43							
22.0	1600	28900	64.27							
22.0	1700	28900	64.00							
25.0	1600	29000	57.00							
29.0	1600	29000	47.91							
32.0	1600	29000	44.03							
36.0	1600	28200	39.10							
40.0	1600	27100	34.96							
45.0	1600	26000	31.43							
51.0	1600	24700	27.28							
55.0	1240	23400	25.50							
57.0	1600	23700	24.43							
65.0	1240	21800	21.43							

TS87 $n_1=1400$ 1/min										2280Nm
n_2 [1/min]	M_{2max} [Nm]	Fr [N]	i	0.75 1.10	1.50	2.20 3.00	4.00	5.50 7.50	11.0 15.0	
69.0	1600	22100	20.27							
71.0	1240	21100	19.70							
80.0	1240	20200	17.49							
90.0	1240	19300	15.64							
100	1240	18500	14.06							
115	1240	17400	12.21							
128	1240	16400	10.93							
154	1140	15900	9.07							
178	1010	15700	7.88							
TS97 $n_1=1400$ 1/min										4000Nm
n_2 [1/min]	M_{2max} [Nm]	Fr [N]	i	1.50	2.20 3.00	4.00	5.50 7.50	11.0 15.0	18.5 22.0	
4.90	4000	33200	286.40							
5.30	4000	33200	262.22							
6.00	4000	33200	231.67							
7.10	4000	33200	196.52							
7.70	3920	33400	180.95							
8.70	3840	33500	161.74							
9.60	3730	33700	145.60							
11.0	3650	33900	131.85							
12.0	3510	34100	116.92							
13.0	3440	34300	105.71							
16.0	3240	34600	89.60							
17.0	3230	34600	80.85							
18.0	3080	34800	78.26							
20.0	3300	34500	71.43							
21.0	2900	35100	65.45							
23.0	3300	34500	60.59							
25.0	3300	34500	55.79							
28.0	3300	34500	49.87							
31.0	3300	34100	44.89							
34.0	3300	32800	40.65							
39.0	3300	31300	36.05							
43.0	3200	30400	32.60							
51.0	3010	29000	27.63							
53.0	2600	26100	26.39							
58.0	2870	28000	24.13							
59.0	2600	24500	23.59							
66.0	2600	22800	21.23							
73.0	2600	21200	19.23							
82.0	2570	19700	17.05							
91.0	2470	19400	15.42							
107	2330	18800	13.07							
123	2210	18400	11.41							
147	2040	18200	9.55							
169	1770	18800	8.26							

TS



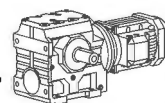
5. 7 TS..性能参数 / TS.. Performance Parameters

n ₁ [1/min]	M ₂ [Nm]	i	Fr [N]	K	Frame size		Input Configuration
P ₁ =0.12kw							
0.12	4740	11267	25100	0.90	TS	97 TRF57	Y..63M ₁ -4 AM63 AD2
0.14	4330	10078	32500	0.95	TSF	97 TRF57	
0.16	3590	8608	34000	1.15	TSA	97 TRF57	
0.18	3180	7554	34700	1.30	TSAF	97 TRF57	
0.21	2690	6706	27100	0.95	TS	87 TRF57	Y..63M ₁ -4 AM63 AD2
0.23	2400	5875	27700	1.05	TSF	87 TRF57	
0.27	1980	5187	28500	1.25	TSA	87 TRF57	
0.30	1760	4606	28800	1.40	TSAF	87 TRF57	
0.36	1460	3872	29200	1.70			
0.39	1370	3540	7240	0.90	TS TSF TSA TSAF	77 TRF37	Y..63M ₁ -4 AM63 AD2
0.45	1200	3098	12300	1.05		77 TRF37	
0.58	1320	2374	10600	0.95		77 TRF37	
0.66	1160	2083	12600	1.05		77 TRF37	
0.76	980	1813	13900	1.25		77 TRF37	
0.79	930	1745	14200	1.30		77 TRF37	
0.86	860	1600	14600	1.45			
0.98	755	1404	15100	1.65			
1.10	660	1245	15500	1.90			
1.20	585	1194	7990	0.95	TS TSF TSA TSAF	67 TRF37	Y..63M ₁ -4 AM63 AD2
1.30	530	1045	8560	1.05		67 TRF37	
1.50	455	914	9180	1.25		67 TRF37	
1.70	415	809	9460	1.35		67 TRF37	
1.90	365	712	9780	1.55		67 TRF37	
2.20	305	615	10100	1.85		67 TRF37	
2.50	275	543	10200	2.10			
2.90	225	469	10400	2.50			
3.30	200	424	10500	2.80			
3.80	187	365	10500	3.00			
2.10	325	655	6800	0.90	TS TSF TSA TSAF	57 TRF17	Y..63M ₁ -4 AM63 -
2.40	285	574	7200	1.05		57 TRF17	
2.70	250	506	7480	1.20		57 TRF17	
3.20	215	438	7700	1.40		57 TRF17	
3.60	189	388	7850	1.60		57 TRF17	
4.10	169	336	7950	1.80		57 TRF17	
4.70	145	294	8050	2.10			
5.10	139	269	8070	2.20			
3.20	215	438	5010	0.85	TS TSF TSA TSAF	47 TRF17	Y..63M ₁ -4 AM63 -
3.60	189	388	5170	1.00		47 TRF17	
4.10	168	336	5290	1.10		47 TRF17	
4.70	143	294	5420	1.30		47 TRF17	
5.40	98	257	5660	1.90		47 TRF17	
6.00	118	229	5550	1.55		47 TRF17	
6.90	102	200	5610	1.80			
7.40	96	187	5640	1.95			
6.80	103	202	3000	0.90	TS TSF TSA TSAF	37 TRF17	Y..63M ₁ -4 AM63 -
7.70	91	179	3000	1.00		37 TRF17	
8.70	82	158	3000	1.15		37 TRF17	
9.60	75	144	3000	1.20		37 TRF17	
12.0	61	118	3000	1.50		37 TRF17	
13.0	57	110	3000	1.60		37 TRF17	

n ₁ [1/min]	M ₂ [Nm]	i	Fr [N]	K	Frame size		Input Configuration
P ₁ =0.12kw							
6.90	95	201.00	5680	1.80	TS TSF TSA TSAF	47 47 47 47	Y..63M ₁ -4 AM63 AD1
7.50	89	184.80	5700	1.90			
8.70	77	158.12	5740	2.20			
10.0	68	137.05	5780	2.50			
11.0	64	128.10	5790	2.60			
12.0	57	110.73	5810	3.00			
8.80	74	157.43	3000	1.25	TS TSF TSA TSAF	37 37 37 37	Y..63M ₁ -4 AM63 AD1
9.60	68	144.40	3000	1.35			
11.0	60	122.94	3000	1.55			
13.0	52	106.00	3000	1.70			
14.0	49	98.80	3000	1.75			
16.0	44	86.36	3000	1.95			
17.0	41	80.96	3000	2.10			
19.0	37	71.44	3000	2.30	TS TSF TSA TSAF	37 37 37 37	Y..63M ₁ -4 AM63 AD1
22.0	33	63.33	3000	2.50			
25.0	35	55.93	3000	2.30			
27.0	33	51.30	3000	2.50	TS TSF TSA TSAF	37 37 37 37	Y..63M ₁ -4 AM63 AD1
32.0	28	43.68	3000	2.90			
37.0	24	37.66	3000	3.20			
39.0	23	35.10	3000	3.40			
45.0	20	30.68	3000	3.70			
48.0	19	28.76	3000	3.90			
54.0	17	25.38	3000	4.40			
61.0	15	22.50	3000	4.80			
69.0	14	19.89	3000	3.60			
76.0	13	18.24	3000	3.90			
89.0	11	15.53	2870	4.40			
P ₁ =0.18kw							
0.29	3010	4606	19200	0.85	TS TSF TSA TSAF	87 TRF57 87 TRF57 87 TRF57 87 TRF57	Y..63M ₁ -4 AM63 AD2
0.34	2510	3872	27500	1.00			
0.38	2420	3475	27700	1.05			
0.45	2030	2905	28400	1.25			
0.51	1760	2586	28800	1.40			
0.57	1570	2335	29100	1.60			
0.64	1360	2054	29300	1.85			
0.72	1200	1824	29500	2.10			
0.81	1080	1631	29600	2.30	TS TSF TSA TSAF	87 TRF57 87 TRF57 87 TRF57 87 TRF57	Y..63M ₁ -4 AM63 AD3
0.94	1240	1404	11900	1.00	TS TSF TSA TSAF	77 TRF37 77 TRF37 77 TRF37 77 TRF37	Y..63M ₁ -4 AM63 AD2
1.10	1090	1245	13200	1.15			

n_2 [1/min]	M_2 [Nm]	i	Fr [N]	K	Frame size	Input Configuration
$P_i=0.18kw$						
1.20	1020	1100	13700	1.20	TS 77 TRF 37 TSF 77 TRF 37 TSA 77 TRF 37 TSAF 77 TRF 37	Y..63M ₂ -4 AM63 AD2
1.40	870	954	14500	1.40		
1.60	770	837	15000	1.60		
1.80	640	714	15600	1.95		
2.10	565	637	15800	2.20		
2.30	515	574	16000	2.40		
1.90	600	712	7860	0.95	TS 67 TRF 37 TSF 67 TRF 37 TSA 67 TRF 37 TSAF 67 TRF 37	Y..63M ₂ -4 AM63 AD2
2.20	505	615	8800	1.15		
2.40	450	543	9230	1.25		
2.80	375	469	9720	1.50		
3.10	340	424	9930	1.65		
3.60	305	365	10100	1.85		
3.00	355	438	6520	0.85	TS 57 TRF 17 TSF 57 TRF 17 TSA 57 TRF 17 TSAF 57 TRF 17	Y..63M ₂ -4 AM63 -
3.40	310	388	6970	0.95		
3.90	275	336	7290	1.10		
4.50	235	294	7560	1.25		
4.90	225	269	7650	1.35		
5.80	193	229	7830	1.55		
6.50	174	204	7920	1.75		
7.00	159	187	7990	1.90		
4.50	235	294	4480	0.80	TS 47 TRF 17 TSF 47 TRF 17 TSA 47 TRF 17 TSAF 47 TRF 17	Y..63M ₂ -4 AM63 -
5.10	162	257	5380	1.15		
5.80	190	229	5170	0.95		
6.60	167	200	5300	1.10		
7.00	156	187	5360	1.20		
8.00	138	165	5450	1.35		
9.00	124	148	5520	1.50		
10.0	110	131	5580	1.70		
4.00	250	217.41	10300	2.20	TS 67 TSF 67 TSA 67 TSAF 67	Y..71M ₁ -6 AM71 AD2
4.60	220	190.11	10400	2.50		
4.80	210	180.60	10400	2.60		
4.30	220	201.00	7670	1.35	TS 57 TSF 57 TSA 57 TSAF 57	Y..71M ₁ -6 AM71 AD1
4.70	205	184.80	7760	1.45		
5.50	180	158.12	7900	1.65		
6.40	158	137.05	7990	1.85		
6.60	154	201.00	8010	1.90	TS 57 TSF 57 TSA 57 TSAF 57	Y..63M ₂ -4 AM63 AD1
7.10	143	184.80	8050	2.10		
8.40	125	158.12	8120	2.40		
9.60	110	137.05	8160	2.70		
4.30	210	201.00	5090	0.85	TS 47 TSF 47 TSA 47 TSAF 47	Y..71M ₁ -6 AM71 AD1
4.70	199	184.80	5180	0.90		
5.50	173	158.12	5320	1.00		
6.40	153	137.05	5420	1.10		
6.80	144	128.10	5460	1.20		
6.60	149	201.00	5440	1.15	TS 47 TSF 47 TSA 47 TSAF 47	Y..63M ₂ -4 AM63 AD1
7.10	138	184.80	5490	1.25		
8.40	121	158.12	5570	1.40		
9.60	106	137.05	5630	1.60		
10.0	100	128.10	5660	1.65		
12.0	88	110.73	5700	1.90		

n_2 [1/min]	M_2 [Nm]	i	Fr [N]	K	Frame size		Input Configuration
P ₁ =0.18kw							
14.0	77	94.08	5750	2.20	TS	47	Y..63M ₂ -4 AM63 AD1
16.0	69	84.00	5770	2.40	TSF	47	
18.0	60	71.75	5800	2.80	TSA	47	
19.0	69	69.39	5750	2.20	TSAF	47	
8.40	115	157.43	3000	0.80	TS TSF TSA TSAF	37	Y..63M ₂ -4 AM63 AD1
9.10	107	144.40	3000	0.85			
11.0	93	122.94	3000	1.00			
12.0	82	106.00	3000	1.10			
13.0	77	98.80	3000	1.15			
15.0	68	86.36	3000	1.25			
16.0	64	80.96	3000	1.30			
18.0	58	71.44	3000	1.45	TS TSF TSA TSAF	37	Y..63M ₂ -4 AM63 AD1
21.0	52	63.33	3000	1.60			
24.0	55	55.93	3000	1.45			
26.0	51	51.30	3000	1.60			
30.0	44	43.68	3000	1.85			
35.0	38	37.66	3000	2.10			
38.0	36	35.10	3000	2.20			
43.0	32	30.68	3000	2.40			
46.0	30	28.76	3000	2.50			
52.0	26	25.38	3000	2.80			
59.0	24	22.50	3000	3.10			
66.0	22	19.89	3000	2.30			
72.0	21	18.24	2940	2.50			
85.0	18	15.53	2810	2.80			
99.0	15	13.39	2700	3.20	TS	37	Y..63M ₂ -4 AM63 AD2
106	14	12.48	2650	3.40	TSF	37	
121	13	10.91	2550	3.80	TSA	37	
129	12	10.23	2500	4.00	TSAF	37	
P ₁ =0.25kw							
0.45	2930	2905	22200	0.85	TS	87 TRF 57	Y..71M ₁ -4 AM71 AD2
0.50	2560	2586	27400	1.00	TSF	87 TRF 57	
0.56	2290	2335	27900	1.10	TSA	87 TRF 57	
0.63	1990	2054	28400	1.25	TSAF	87 TRF 57	
0.71	1770	1824	28800	1.40			
0.80	1580	1631	29100	1.60	TS	87 TRF 57	Y..71M ₁ -4 AM71 AD3
1.40	930	930	29700	2.70	TSF	87 TRF 57	
					TSA	87 TRF 57	
					TSAF	87 TRF 57	
1.40	1250	954	11800	1.00	TS TSF TSA TSAF	77 TRF 37	Y..71M ₁ -4 AM71 AD2
1.60	1100	837	13100	1.10			
1.80	920	714	14200	1.35			
2.00	820	637	14800	1.50			
2.30	745	574	15200	1.65			
2.60	635	499	15600	1.95			
2.40	650	543	6280	0.85	TS TSF TSA TSAF	67 TRF 37	Y..71M ₁ -4 AM71 AD2
2.80	550	469	8390	1.05			
3.10	495	424	8880	1.15			
3.60	440	365	9320	1.30			
4.10	380	319	9700	1.50			
4.60	335	281	9960	1.70			



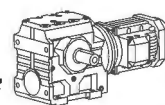
TS

n_2 [1/min]	M_2 [Nm]	i	Fr [N]	K	Frame size	Input Configuration
$P_1=0.25kw$						
4.40	340	340	6640	0.85	TS 57 TRF17 TSF 57 TRF17 TSA 57 TRF17 TSAF 57 TRF17	Y..71M ₁ -4 AM71 AD1
4.80	320	320	6870	0.95		
5.70	275	275	7280	1.10		
6.40	245	245	7490	1.20		
6.90	225	187	7630	1.30		
7.90	200	165	7780	1.50		
9.90	162	131	7980	1.85		
4.10	340	217.41	9920	1.65	TS 67 TSF 67 TSA 67 TSAF 67	Y..71M ₂ -6 AM71 AD2
4.70	300	190.11	10100	1.85		
5.00	290	180.60	10200	1.90		
5.60	255	158.45	10300	2.10		
6.00	245	217.41	10300	2.10	TS 67 TSF 67 TSA 67 TSAF 67	Y..71M ₁ -4 AM71 AD2
6.80	215	190.11	10400	2.40		
7.20	205	180.60	10500	2.50		
8.20	187	158.45	10500	2.80		
9.70	161	134.40	10600	3.20		
11.0	147	121.33	10600	3.50		
12.0	131	106.75	10700	4.00		
4.40	300	201.00	7080	1.00	TS 57 TSF 57 TSA 57 TSAF 57	Y..71M ₂ -6 AM71 AD1
4.80	275	184.80	7270	1.10		
5.70	240	158.12	7530	1.20		
6.50	210	137.05	7710	1.35		
7.00	200	128.10	7780	1.45		
6.50	215	201.00	7700	1.35	TS 57 TSF 57 TSA 57 TSAF 57	Y..71M ₁ -4 AM71 AD1
7.00	200	184.80	7790	1.45		
8.20	176	158.12	7920	1.70		
9.50	155	137.05	8010	1.90		
10.0	146	128.10	8040	2.00		
12.0	128	110.73	8110	2.30		
14.0	111	94.08	8160	2.60		
15.0	100	84.00	8190	2.90		
6.50	205	201.00	5120	0.80	TS 47 TSF 47 TSA 47 TSAF 47	Y..71M ₁ -4 AM71 AD1
7.00	194	184.80	5210	0.85		
8.20	170	158.12	5340	1.00		
9.50	150	137.05	5440	1.10		
10.0	141	128.10	5480	1.20		
12.0	124	110.73	5560	1.35		
14.0	108	94.08	5630	1.55		
15.0	98	84.00	5670	1.70		
18.0	85	71.75	5720	1.95		
19.0	97	69.39	5640	1.60		
19.0	80	67.20	5740	2.10		
20.0	90	63.80	5670	1.70		
24.0	78	54.59	5720	2.00		
27.0	68	47.32	5760	2.30		
13.0	108	98.80	3000	0.80	TS 37 TSF 37 TSA 37 TSAF 37	Y..71M ₁ -4 AM71 AD1
15.0	96	86.36	3000	0.90		
16.0	91	80.96	3000	0.95		
18.0	81	71.44	3000	1.05		
21.0	73	63.33	3000	1.10		
23.0	78	55.93	3000	1.05		
25.0	72	51.30	3000	1.15		
30.0	62	43.68	3000	1.30		

n_2 [1/min]	M_2 [Nm]	i	Fr [N]	K	Frame size		Input Configuration
P ₁ =0.25kw							
35.0	54	37.66	3000	1.45	TS	37	Y..71M ₁ -4 AM71 AD1
37.0	51	35.10	3000	1.55	TSF	37	
					TSA	37	
					TSAF	37	
42.0	45	30.68	3000	1.70	TS TSF TSA TSAF	37 37 37 37	Y..71M ₁ -4 AM71 AD1
45.0	42	28.76	3000	1.80			
51.0	37	25.38	3000	2.00			
58.0	33	22.50	3000	2.20			
65.0	32	19.89	2870	1.65			
71.0	29	18.24	2820	1.80			
84.0	25	15.53	2710	2.00			
97.0	22	13.39	2620	2.30	TS TSF TSA TSAF	37 37 37 37	Y..71M ₁ -4 AM71 AD2
104	20	12.48	2570	2.40			
119	18	10.91	2480	2.70			
127	17	10.23	2440	2.80			
144	15	9.02	2360	3.10			
162	13	8.00	2280	3.40			
191	191	6.80	2180	3.80			
205	205	6.33	2130	3.30			
241	241	5.38	2030	3.80			
267	267	4.86	1980	4.10			
328	328	3.97	1860	4.80			
92.0	21	28.76	2740	3.00	TS TSF TSA TSAF	37 37 37 37	Y..63M ₂ -2 AM63 AD1
105	19	25.38	2650	3.30			
118	17	22.50	2560	3.40			
134	16	19.89	2410	2.80			
146	15	18.24	2350	3.00			
171	12	15.53	2250	3.40			
199	11	13.39	2160	3.80	TS TSF TSA TSAF	37 37 37 37	Y..63M ₂ -2 AM63 AD2
213	10	12.48	2120	4.00			
P ₁ =0.37kw							
0.67	2850	2054	24500	0.90	TS TSF TSA TSAF	87 TRF57 87 TRF57 87 TRF57 87 TRF57	Y..71M ₂ -4 AM71 AD2
0.76	2530	1824	27400	1.00			
0.85	2260	1631	28000	1.10			
1.50	1340	930	29400	1.85			
1.70	1210	831	29500	2.10	TS TSF TSA TSAF	87 TRF57 87 TRF57 87 TRF57 87 TRF57	Y..71M ₂ -4 AM71 AD3
1.90	1310	714	11300	0.95			
2.20	1160	637	12600	1.05			
2.40	1050	574	13400	1.15			
2.80	900	499	14300	1.35			
3.20	795	438	14900	1.55			
3.60	705	389	15300	1.75	TS TSF TSA TSAF	77 TRF37 77 TRF37 77 TRF37 77 TRF37	Y..71M ₂ -4 AM71 AD2
3.80	620	365	7560	0.90			
4.30	540	319	8450	1.05			
4.90	475	281	9030	1.20			
5.60	430	246	9380	1.30			

n_2 [1/min]	M_2 [Nm]	i	Fr [N]	K	Frame size	Input Configuration
$P_i=0.37kw$						
3.50	635	256.47	15600	2.00	TS 77	Y..80M ₁ -6 AM80 AD2
4.00	565	225.26	15800	2.20	TSF 77	
4.20	540	214.00	15900	2.30	TSA 77	
					TSAF 77	
4.20	500	217.41	8830	1.10	TS 67	Y..80M ₁ -6 AM80 AD2
4.80	445	190.11	9280	1.25	TSF 67	
5.00	425	180.60	9410	1.30	TSA 67	
5.70	380	158.45	9710	1.45	TSAF 67	
6.40	345	217.41	9900	1.50		Y..71M ₂ -4 AM71 AD2
7.30	305	190.11	10100	1.70	TS 67	
7.60	290	180.60	10200	1.75	TSF 67	
8.70	260	158.45	10300	2.00	TSA 67	
10.0	225	134.40	10400	2.30	TSAF 67	
11.0	205	121.33	10500	2.50		
5.70	355	158.12	6510	0.85		Y..80M ₁ -6 AM80 AD1
6.60	310	137.05	6950	0.95	TS 57	
7.10	295	128.10	7110	1.00	TSF 57	
8.20	260	110.73	7400	1.15	TSA 57	
9.60	225	94.08	7640	1.30	TSAF 57	
11.0	205	84.00	7770	1.45		
6.90	300	201.00	7050	0.95		Y..71M ₂ -4 AM71 AD1
7.50	280	184.80	7230	1.05		
8.70	245	158.12	7510	1.20	TS 57	
10.0	215	137.05	7690	1.35	TSF 57	
11.0	205	128.10	7770	1.45	TSA 57	
12.0	180	110.73	7900	1.65	TSAF 57	
15.0	156	94.08	8000	1.90		
16.0	141	84.00	8060	2.10		
19.0	122	71.75	8130	2.40	TS 57	Y..71M ₂ -4 AM71 AD2
20.0	139	69.39	8070	1.75	TSF 57	
21.0	115	67.20	8150	2.50	TSA 57	
22.0	128	63.80	8110	1.90	TSAF 57	
10.0	210	137.05	5110	0.80		Y..71M ₂ -4 AM71 AD1
11.0	198	128.10	5180	0.85		
12.0	175	110.73	5320	0.95		
15.0	151	94.08	5430	1.10		
16.0	137	84.00	5500	1.20	TS 47	
19.0	119	71.75	5580	1.40	TSF 47	
20.0	136	69.39	5460	1.15	TSA 47	
21.0	112	67.20	5610	1.50	TSAF 47	
22.0	126	63.80	5510	1.25		
25.0	109	54.59	5590	1.40		
29.0	96	47.32	5410	1.60		
31.0	90	44.22	5330	1.75		
36.0	78	38.23	5140	2.00		
42.0	67	32.48	4930	2.30		Y..71M ₂ -4 AM71 AD2
48.0	60	29.00	4790	2.60	TS 47	
56.0	52	24.77	4590	3.00	TSF 47	
59.0	49	23.20	4510	3.10	TSA 47	
68.0	46	20.33	4180	2.40	TSAF 47	
78.0	40	17.62	4030	2.80		
84.0	37	16.47	3960	3.00		

n_2 [1/min]	M_2 [Nm]	i	Fr [N]	K	Frame size		Input Configuration
$P_i=0.37kw$							
22.0	103	63.33	3000	0.80	TS TSF TSA TSAF	37 37 37 37	Y..71M ₂ -4 AM71 AD1
27.0	101	51.30	3000	0.80			
32.0	87	43.68	3000	0.95			
37.0	76	37.66	3000	1.05			
39.0	71	35.10	3000	1.10			
45.0	62	30.68	3000	1.20			
48.0	59	28.76	3000	1.30			
54.0	52	25.38	2940	1.40			
61.0	47	22.50	2870	1.55			
69.0	44	19.89	2610	1.20			
76.0	41	18.24	2570	1.30			
89.0	35	15.53	2500	1.45			
103	30	13.39	2420	1.60			
111	28	12.48	2390	1.70	TS TSF TSA TSAF	37 37 37 37	Y..71M ₂ -4 AM71 AD2
126	25	10.91	2320	1.95			
135	23	10.23	2280	2.00			
153	21	9.02	2220	2.20			
172	18	8.00	2150	2.40			
203	16	6.80	2070	2.70			
218	15	6.33	2020	2.40			
256	12	5.38	1930	2.70			
284	11	4.86	1880	2.90			
348	9.3	3.97	1780	3.40			
104	28	25.38	2540	2.20			
118	25	22.50	2460	2.30			
133	24	19.89	2290	1.85			
145	22	18.24	2240	2.00			
171	19	15.53	2160	2.30			
198	16	13.39	2080	2.60	TS TSF TSA TSAF	37 37 37 37	Y..71M ₂ -2 AM71 AD2
212	15	12.48	2040	2.70			
243	13	10.91	1970	3.00			
259	12	10.23	1940	3.10			
294	11	9.02	1870	3.30			
$P_i=0.55kw$							
1.00	2800	1332	25400	0.90	TS TSF TSA TSAF	87 TRF57 87 TRF57 87 TRF57 87 TRF57	Y..80M ₁ -4 AM80 AD3
1.20	2530	1191	27400	1.00			
1.30	2200	1032	28100	1.15			
1.50	2030	930	28400	1.25			
1.70	1840	831	28700	1.35			
1.90	1600	719	29000	1.55			
2.20	1390	624	29300	1.80			
2.50	1260	558	29400	2.00			
3.20	1010	435	29700	2.40			
3.20	1200	438	12300	1.05	TS TSF TSA TSAF	77 TRF37 77 TRF37 77 TRF37 77 TRF37	Y..80M ₁ -4 AM80 AD2
3.60	1070	389	13300	1.15			
4.20	900	327	14400	1.35			
4.80	810	289	14800	1.50			
5.50	705	250	15300	1.75			
5.60	645	246	6520	0.90	TS TSF TSA TSAF	67 TRF37 67 TRF37 67 TRF37 67 TRF37	Y..80M ₁ -4 AM80 AD2
6.20	580	221	8080	1.00			
7.00	525	198	8590	1.10			
8.20	450	168	9220	1.25			



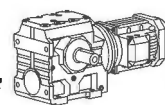
TS

n_2 [1/min]	M_2 [Nm]	i	Fr [N]	K	Frame size	Input Configuration
P₁=0.55kw						
3.20	1110	288.00	29600	2.20	TS 87	Y..80M ₁ -6 AM80 AD2
3.50	1000	258.18	29700	2.40	TSF 87	
4.10	880	222.40	29800	2.70	TSA 87	
4.50	810	202.96	29800	2.90	TSAF 87	
3.60	940	256.47	14200	1.35	TS 77	Y..80M ₁ -6 AM80 AD2
4.10	830	225.26	14700	1.50	TSF 77	
4.30	800	214.00	14900	1.60	TSA 77	
4.80	715	189.09	15300	1.75	TSAF 77	
5.70	620	161.60	15600	2.00		
5.40	650	256.47	15500	1.95	TS 77	Y..80M ₁ -4 AM80 AD2
6.10	580	225.26	15800	2.20	TSF 77	
6.40	550	214.00	15900	2.30	TSA 77	
7.30	495	189.09	16000	2.60	TSAF 77	
6.40	515	217.41	8720	1.00		Y..80M ₁ -4 AM80 AD2
7.30	455	190.11	9190	1.15		
7.60	435	180.60	9340	1.20		
8.70	385	158.45	9650	1.35	TS 67	
10.0	335	134.40	9950	1.55	TSF 67	
11.0	305	121.33	10100	1.70	TSA 67	
13.0	270	106.75	10200	1.90	TSAF 67	
14.0	255	100.80	10300	2.00		
16.0	220	85.83	10400	2.30		
18.0	225	75.06	10400	2.10		
21.0	200	65.63	10500	2.40		
9.70	330	94.08	6760	0.90	TS 57	Y..80M ₁ -6 AM80 AD1
11.0	300	84.00	7070	1.00	TSF 57	
					TSA 57	
					TSAF 57	
13.0	260	71.75	7390	1.10	TS 57	Y..80M ₁ -6 AM80 AD2
14.0	245	67.20	7500	1.20	TSF 57	
17.0	240	54.59	7540	1.10	TSA 57	
19.0	210	47.32	7730	1.30	TSAF 57	
21.0	199	44.22	7800	1.35		
24.0	173	38.23	7930	1.55		
8.70	365	158.12	6390	0.80	TS 57	Y..80M ₁ -4 AM80 AD1
10.0	320	137.05	6860	0.90	TSF 57	
11.0	300	128.10	7040	0.95	TSA 57	
12.0	265	110.73	7350	1.10	TSAF 57	
15.0	230	94.08	7600	1.25		
16.0	205	84.00	7740	1.40		
19.0	182	71.75	7890	1.60	TS 57	Y..80M ₁ -4 AM80 AD2
21.0	172	67.20	7940	1.65	TSF 57	
25.0	165	54.59	7970	1.50	TSA 57	
29.0	144	47.32	8050	1.70	TSAF 57	
31.0	135	44.22	8080	1.80		
36.0	118	38.23	8140	2.10		
42.0	101	32.48	7940	2.40		
48.0	91	29.00	7690	2.70		
56.0	78	24.77	7360	3.10		
59.0	74	23.20	7220	3.30		
68.0	68	20.33	6740	2.50		

n_2 [1/min]	M_2 [Nm]	i	Fr [N]	K	Frame size		Input Configuration			
P ₁ =0.55kw										
16.0	200	84.00	5160	0.80	TS TSF TSA TSAF	47 47 47 47	Y..80M ₁ -4 AM80 AD1			
19.0	177	71.75	5310	0.95						
21.0	167	67.20	5360	1.00						
25.0	162	54.59	5120	0.95						
29.0	142	47.32	5000	1.10						
31.0	133	44.22	4940	1.15						
36.0	116	38.23	4800	1.35	TS TSF TSA TSAF	47 47 47 47	Y..80M ₁ -4 AM80 AD2			
42.0	100	32.48	4640	1.55						
48.0	90	29.00	4530	1.75						
56.0	77	24.77	4360	2.00						
59.0	73	23.20	4300	2.10						
68.0	68	20.33	3910	1.60						
78.0	59	17.62	3790	1.85						
84.0	56	16.47	3740	2.00						
97.0	48	14.24	3620	2.30						
114	41	12.10	3480	2.60						
128	37	10.80	3390	3.00						
150	32	9.23	3260	3.40						
45.0	93	30.68	2680	0.80	TS TSF TSA TSAF	37 37 37 37	Y..80M ₁ -4 AM80 AD1			
48.0	87	28.76	2660	0.85						
54.0	78	25.38	2630	0.95						
61.0	69	22.50	2590	1.05						
89.0	52	15.53	2230	0.95						
103	45	13.39	2190	1.10						
72.0	60	19.13	2530	1.20	TS TSF TSA TSAF	37 37 37 37	Y..80M ₁ -4 AM80 AD2			
111	42	12.48	2170	1.15						
126	37	10.91	2130	1.30						
135	35	10.23	2110	1.35						
153	31	9.02	2060	1.50						
172	27	8.00	2010	1.65						
203	23	6.80	1950	1.85						
218	22	6.33	1900	1.60						
256	19	5.38	1830	1.85						
284	17	4.86	1790	1.95						
348	14	3.97	1700	2.30						
98.0	45	28.76	2400	1.45				TS TSF TSA TSAF	37 37 37 37	Y..71M ₁ -2 AM71 AD1
111	40	25.38	2340	1.55						
125	35	22.50	2290	1.60						
141	33	19.89	2090	1.35						
154	30	18.24	2060	1.45						
181	26	15.53	2000	1.60						
210	23	13.39	1930	1.80						
225	21	12.48	1900	1.90						
258	18	10.91	1850	2.10						
275	17	10.23	1820	2.20						
311	15	9.02	1770	2.30						
351	14	8.00	1710	2.60						
413	12	6.80	1640	2.50						
P ₁ =0.75kw										
1.20	4710	1223	23400	0.90	TS	97 TRF57	Y..80M ₁ -4 AM80 AD2			
1.30	4130	1070	32200	1.00	TSF	97 TRF57				
1.60	3550	928	34000	1.20	TSA	97 TRF57				
1.70	3140	824	34700	1.35	TSAF	97 TRF57				

n ₂ [1/min]	M ₂ [Nm]	i	Fr [N]	K	Frame size	Input Configuration
P _i =0.75kw						
2.00	2240	714	35900	1.85	TS 97 TRF57	Y..80M ₂ -4 AM80 AD3
2.30	2380	626	35800	1.75	TSF 97 TRF57	
2.70	2040	538	36100	2.00	TSA 97 TRF57	
3.00	1850	484	36300	2.30	TSAF 97 TRF57	
1.40	2940	1032	21700	0.85	TS 87 TRF57 TSF 87 TRF57 TSA 87 TRF57 TSAF 87 TRF57	Y..80M ₂ -4 AM80 AD3
1.50	2710	930	27000	0.90		
1.70	2450	831	27600	1.00		
2.00	2130	719	28200	1.15		
2.30	1860	624	28700	1.35		
2.60	1680	558	28900	1.50		
3.30	1340	435	29300	1.80	TS 77 TRF37 TSF 77 TRF37 TSA 77 TRF37 TSAF 77 TRF37	Y..80M ₂ -4 AM80 AD2
4.40	1030	323	29700	2.30		
4.40	1200	327	12300	1.05		
5.00	1080	289	13200	1.15		
5.70	930	250	14200	1.30	TS 87 TSF 87 TSA 87 TSAF 87	Y..90S-6 AM90 AD2
6.60	820	219	14800	1.50		
3.30	1480	288.00	29200	1.65		
3.60	1340	258.18	29400	1.80		
4.20	1170	222.40	29500	2.00	TS 87 TSF 87 TSA 87 TSAF 87	Y..80M ₂ -4 AM80 AD2
4.60	1080	202.96	29600	2.20		
5.00	1010	288.00	29700	2.20		
5.60	910	258.18	29800	2.50		
6.40	800	222.40	29800	2.80	TS 77 TSF 77 TSA 77 TSAF 77	Y..90S-6 AM90 AD2
7.10	735	202.96	29900	3.10		
4.20	1110	225.26	13000	1.15		
4.40	1060	214.00	13400	1.20		
5.00	950	189.09	14100	1.35	TS 77 TSF 77 TSA 77 TSAF 77	Y..80M ₂ -4 AM80 AD2
5.80	820	161.60	14800	1.55		
5.60	850	256.47	14600	1.50		
6.40	760	225.26	15100	1.65		
6.70	730	214.00	15200	1.75		
7.60	650	189.09	15500	1.95		
8.90	565	161.60	15800	2.20		
9.70	520	148.15	16000	2.40		
11.0	460	130.00	16000	2.60		
12.0	440	123.20	16000	2.70		
13.0	390	107.83	16000	3.00		
7.60	600	190.11	7820	0.85	TS 67 TSF 67 TSA 67 TSAF 67	Y..80M ₂ -4 AM80 AD2
8.00	575	180.60	8120	0.90		
9.10	510	158.45	8740	1.00		
11.0	440	134.40	9300	1.15		
12.0	400	121.33	9560	1.30		
13.0	360	106.75	9820	1.45		
14.0	340	100.80	9920	1.50		
17.0	295	85.83	10100	1.75		
19.0	300	75.06	10100	1.60		
22.0	260	65.63	10300	1.80		
23.0	250	62.35	10300	1.90		
26.0	220	54.70	10200	2.20		
31.0	191	46.40	9740	2.50		

n ₂ [1/min]	M ₂ [Nm]	i	Fr [N]	K	Frame size	Input Configuration
P _i =0.75kw						
13.0	345	71.75	6590	0.85	TS 57 TSF 57 TSA 57 TSAF 57	Y..90S-6 AM90 AD2
14.0	330	67.20	6800	0.90		
17.0	280	56.61	7230	1.05		
20.0	280	47.32	7250	0.95		
21.0	260	44.22	7380	1.00		
13.0	350	110.73	6550	0.85	TS 57 TSF 57 TSA 57 TSAF 57	Y..80M ₂ -4 AM80 AD1
15.0	305	94.08	7040	0.95		
17.0	275	84.00	7290	1.05		
20.0	235	71.75	7560	1.20		
21.0	225	67.20	7640	1.25	TS 57 TSF 57 TSA 57 TSAF 57	Y..80M ₂ -4 AM80 AD2
26.0	215	54.59	7700	1.15		
30.0	190	47.32	7850	1.30		
32.0	178	44.22	7910	1.40		
38.0	155	38.23	7910	1.60		
44.0	133	32.48	7590	1.85		
49.0	119	29.00	7380	2.00		
58.0	103	24.77	7080	2.40		
62.0	96	23.20	6950	2.50		
71.0	90	20.33	6420	1.90		
81.0	78	17.62	6200	2.20		
87.0	73	16.47	6100	2.30		
101	64	14.24	5870	2.70		
30.0	187	47.32	4510	0.85	TS 47 TSF 47 TSA 47 TSAF 47	Y..80M ₂ -4 AM80 AD1
32.0	175	44.22	4480	0.90		
38.0	153	38.23	4400	1.00	TS 47 TSF 47 TSA 47 TSAF 47	Y..80M ₂ -4 AM80 AD2
44.0	131	32.48	4290	1.20		
49.0	118	29.00	4200	1.30		
58.0	102	24.77	4080	1.55		
62.0	96	23.20	4030	1.60		
71.0	89	20.33	3590	1.25		
81.0	78	17.62	3510	1.40		
87.0	73	16.47	3470	1.50		
101	63	14.24	3380	1.75		
119	54	12.10	3280	2.00		
133	48	10.80	3200	2.20		
156	42	9.23	3090	2.60	TS 47 TSF 47 TSA 47 TSAF 47	Y..80M ₂ -4 AM80 AD2
166	39	8.64	3040	2.80		
197	33	7.28	2920	3.10		
224	29	6.40	2810	2.60		
266	25	5.39	2690	3.00		
301	22	4.76	2610	3.30	TS 37 TSF 37 TSA 37 TSAF 37	Y..80M ₂ -4 AM80 AD2
359	18	4.00	2490	3.30		
75.0	78	19.13	2260	0.90		
115	55	12.48	1930	0.85		
132	48	10.91	1910	1.00		
140	46	10.23	1900	1.05		
159	40	9.02	1880	1.15		
179	36	8.00	1850	1.25	TS 37 TSF 37 TSA 37 TSAF 37	Y..80M ₂ -4 AM80 AD2
211	31	6.80	1800	1.40		
227	29	6.33	1760	1.20		



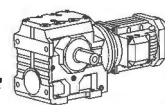
n ₁ [1/min]	M ₂ [Nm]	i	Fr [N]	K	Frame size		Input Configuration	
P ₁ =0.75kw								
267	24	5.38	1710	1.40	TS	37	Y..80M ₃ -4 AM80 AD2	
295	22	4.86	1680	1.50	TSF	37		
362	18	3.97	1610	1.75	TSA	37		
					TSAF	37		
151	40	19.13	2060	1.10	TS TSF TSA TSAF	37 37 37 37	Y..80M ₁ -2 AM80 AD2	
216	30	13.39	1800	1.35				
232	28	12.48	1780	1.45				
265	24	10.91	1730	1.60				
283	23	10.23	1710	1.65				
320	20	9.02	1670	1.75				
361	18	8.00	1630	1.95				
425	16	6.80	1570	1.85				
186	35	15.53	1840	1.20	TS TSF TSA TSAF	37 37 37 37	Y..80M ₁ -2 AM80 AD1	
P ₁ =1.10kw								
1.70	4700	824	23500	0.90	TS TSF TSA TSAF	97 97 97 97	TRF57 TRF57 TRF57 TRF57	Y..90S-4 AM90 AD2
2.00	3360	714	34400	1.25	TS TSF TSA TSAF	97 97 97 97	TRF57 TRF57 TRF57 TRF57	Y..90S-4 AM90 AD3
2.30	3570	626	34000	1.15				
2.60	3070	538	34800	1.35				
2.90	2780	484	35300	1.50				
3.40	2410	420	35700	1.75				
2.30	2800	624	25500	0.90	TS TSF TSA TSAF	87 87 87 87	TRF57 TRF57 TRF57 TRF57	Y..90S-4 AM90 AD3
2.60	2530	558	27400	1.00				
2.90	2230	485	28000	1.10				
3.30	2030	435	28400	1.20				
3.80	1780	378	28800	1.35				
4.40	1550	323	29100	1.55				
5.00	1360	281	29300	1.75				
5.60	1450	255	29200	1.35				
6.40	1270	222	29400	1.55				
6.90	1190	205	29500	1.65				
6.50	1230	219	12000	1.00	TS TSF TSA TSAF	77 77 77 77	TRF37 TRF37 TRF37 TRF37	Y..90S-4 AM90 AD2
3.30	2260	286.40	35900	1.85	TS TSF TSA TSAF	97 97 97 97	Y..90L-6 AM90 AD3	
3.60	2080	262.22	36100	2.00				
4.10	1860	231.67	36300	2.20				
3.60	1970	258.18	28500	1.25	TS TSF TSA TSAF	87 87 87 87	Y..90L-6 AM90 AD2	
4.20	1720	222.40	28900	1.40				
4.60	1580	202.96	29100	1.50				

n ₁ [1/min]	M ₂ [Nm]	i	Fr [N]	K	Frame size	Input Configuration
P₁=1.10kw						
4.90	1490	288.00	29200	1.50	TS 87 TSF 87 TSA 87 TSAF 87	Y..90S-4 AM90 AD2
5.50	1350	258.18	29300	1.70		
6.40	1180	222.40	29500	1.90		
7.00	1080	202.96	29600	2.10		
7.90	970	180.00	29700	2.30		
9.40	830	151.30	29800	2.60		
6.30	1130	225.26	12900	1.10	TS 77 TSF 77 TSA 77 TSAF 77	Y..90S-4 AM90 AD2
6.60	1080	214.00	13300	1.15		
7.50	960	189.09	14000	1.30		
8.80	830	161.60	14700	1.50		
9.60	775	148.15	15000	1.60		
11.0	685	130.00	15400	1.75		
12.0	655	123.20	15500	1.85		
13.0	575	107.83	15800	2.00		
15.0	525	97.14	15900	2.20		
17.0	465	85.22	16000	2.40		
12.0	595	121.33	7880	0.85	TS 67 TSF 67 TSA 67 TSAF 67	Y..90S-4 AM90 AD2
13.0	530	106.75	8550	0.95		
14.0	505	100.80	8800	1.05		
17.0	435	85.83	9340	1.20		
18.0	400	78.00	9580	1.30		
22.0	390	65.63	9640	1.20		
23.0	370	62.35	9750	1.30		
26.0	330	54.70	9540	1.45		
31.0	280	46.40	9210	1.70		
34.0	255	41.89	9010	1.85		
39.0	225	36.85	8750	2.10	TS 57 TSF 57 TSA 57 TSAF 57	Y..90S-4 AM90 AD2
41.0	215	34.80	8630	2.20		
48.0	185	29.63	8300	2.60		
20.0	350	71.75	6530	0.80		
21.0	330	67.20	6750	0.85		
25.0	285	56.61	7210	0.95		
30.0	280	47.32	7250	0.85	TS 57 TSF 57 TSA 57 TSAF 57	Y..90S-4 AM90 AD2
32.0	260	44.22	7390	0.95		
37.0	225	38.23	7390	1.05		
44.0	197	32.48	7150	1.25		
49.0	177	29.00	6980	1.40		
57.0	152	24.77	6740	1.60		
61.0	143	23.20	6640	1.70		
73.0	121	19.54	6370	1.75		
81.0	116	17.62	5850	1.45		
86.0	108	16.47	5770	1.55		
100	94	14.24	5590	1.80	TS 47 TSF 47 TSA 47 TSAF 47	Y..90S-4 AM90 AD2
117	80	12.10	5380	2.10		
131	72	10.80	5240	2.40		
154	62	9.23	5040	2.70		
49.0	175	29.00	3720	0.90		
57.0	151	24.77	3660	1.05		
61.0	142	23.20	3640	1.05	TS 47 TSF 47 TSA 47 TSAF 47	Y..90S-4 AM90 AD2
73.0	120	19.54	3560	1.20		
81.0	115	17.62	3070	0.95		
86.0	108	16.47	3060	1.00		
100	94	14.24	3030	1.15		
117	80	12.10	2980	1.35		

TS

n_2 [1/min]	M_2 [Nm]	i	Fr [N]	K	Frame size		Input Configuration	
P _I =1.10kw								
131	72	10.80	2930	1.50	TS TSF TSA TSAF	47	Y..90S-4 AM90 AD2	
154	62	9.23	2860	1.75				
164	58	8.64	2830	1.90				
195	49	7.28	2740	2.10				
222	44	6.40	2650	1.75				
263	37	5.39	2560	2.00				
298	32	4.76	2490	2.20				
355	27	4.00	2390	2.20				
178	53	8.00	1580	0.85	TS TSF TSA TSAF	37	Y..90S-4 AM90 AD2	
209	45	6.80	1580	0.95				
224	42	6.33	1540	0.80				
264	36	5.38	1520	0.95				
292	33	4.86	1510	1.00				
358	27	3.97	1470	1.20				
214	44	13.39	1580	0.95	TS TSF TSA TSAF	37	Y..80M ₂ -2 AM80 AD2	
230	41	12.48	1570	0.95				
263	36	10.91	1560	1.10				
281	34	10.23	1550	1.10				
318	30	9.02	1520	1.20				
359	27	8.00	1500	1.30				
422	23	6.80	1460	1.25				
P _I =1.50kw								
2.00	4580	714	29300	0.90	TS TSF TSA TSAF	97	TRF57	Y..90L-4 AM90 AD3
2.30	4870	626	19700	0.85				
2.70	4200	538	31300	1.00				
3.00	3790	484	33600	1.10				
3.40	3300	420	34500	1.25				
3.80	2980	376	35000	1.40				
4.40	2610	327	35500	1.60				
3.00	3050	485	17700	0.80	TS TSF TSA TSAF	87	TRF57	Y..90L-4 AM90 AD3
3.30	2770	435	26100	0.90				
3.80	2440	378	27600	1.00				
4.40	2120	323	28200	1.15				
5.10	1860	281	28700	1.30				
5.60	1990	255	28400	1.00				
6.40	1740	222	28800	1.15				
7.00	1620	205	29000	1.20				
3.30	3080	286.40	34800	1.35	TS TSF TSA TSAF	97		Y..100L-6 AM100 AD3
3.60	2840	262.22	35200	1.45				
4.10	2540	231.67	35600	1.65				
4.80	2190	196.52	36000	1.90				
5.00	2100	286.40	36100	1.90	TS TSF TSA TSAF	97		Y..90L-4 AM90 AD3
5.40	1940	262.22	36200	2.10				
6.20	1730	231.67	36400	2.30				
7.30	1480	196.52	36600	2.70				
3.60	2680	258.18	27100	0.90	TS TSF TSA TSAF	87		Y..100L-6 AM100 AD2
4.20	2340	222.40	27800	1.00				
4.60	2160	202.96	28200	1.10				
5.20	1930	180.00	28500	1.20				

n_2 [1/min]	M_2 [Nm]	i	Fr [N]	K	Frame size	Input Configuration
$P_i=1.50kw$						
5.00	2030	288.00	28400	1.10	TS 87 TSF 87 TSA 87 TSAF 87	Y..90L-4 AM90 AD2
5.50	1830	258.18	28700	1.25		
6.40	1600	222.40	29000	1.40		
7.00	1470	202.96	29200	1.55		
7.90	1320	180.00	29400	1.65		
9.40	1120	151.30	29600	1.90		
10.0	1040	139.05	29700	2.00	TS 77 TSF 77 TSA 77 TSAF 77	Y..90L-4 AM90 AD2
12.0	930	123.48	29700	2.20		
13.0	840	110.40	29800	2.40		
14.0	760	99.26	29900	2.60		
7.60	1310	189.09	11300	0.95		
8.80	1130	161.60	12800	1.10	TS 67 TSF 67 TSA 67 TSAF 67	Y..90L-4 AM90 AD2
9.60	1050	148.15	13500	1.20		
11.0	930	130.00	14200	1.30		
12.0	880	123.20	14500	1.35		
13.0	785	107.83	15000	1.50		
15.0	710	97.14	15300	1.60		
17.0	630	85.22	15400	1.75	TS 67 TSF 67 TSA 67 TSAF 67	Y..90L-4 AM90 AD2
19.0	635	75.09	14100	1.70		
20.0	605	71.33	14000	1.80		
21.0	500	66.67	14500	2.10		
23.0	540	63.03	13600	2.00		
25.0	430	56.92	14000	2.30		
27.0	465	53.87	13200	2.40	TS 67 TSF 67 TSA 67 TSAF 67	Y..90L-4 AM90 AD2
29.0	425	49.38	12900	2.60		
33.0	375	43.33	12500	2.90		
17.0	590	85.83	7940	0.90		
18.0	540	78.00	8460	0.95	TS 67 TSF 67 TSA 67 TSAF 67	Y..90L-4 AM90 AD2
22.0	530	65.63	8570	0.90		
23.0	505	62.35	8800	0.95		
26.0	445	54.70	8790	1.05		
31.0	380	46.40	8570	1.25		
34.0	345	41.89	8420	1.40		
39.0	305	36.85	8230	1.55	TS 57 TSF 57 TSA 57 TSAF 57	Y..90L-4 AM90 AD2
41.0	290	34.80	8140	1.65		
48.0	250	29.63	7880	1.90		
53.0	225	26.93	7720	2.10		
59.0	215	24.44	6990	1.55		
62.0	205	23.22	6930	1.65		
70.0	184	20.37	6770	1.85	TS 57 TSF 57 TSA 57 TSAF 57	Y..90L-4 AM90 AD2
83.0	157	17.28	6560	2.20		
92.0	142	15.60	6420	2.40		
104	125	13.73	6240	2.70		
44.0	265	32.48	6620	0.90		
49.0	235	29.00	6500	1.00	TS 57 TSF 57 TSA 57 TSAF 57	Y..90L-4 AM90 AD2
58.0	205	24.77	6330	1.20		
62.0	194	23.20	6250	1.25		
73.0	164	19.54	6040	1.30		
81.0	157	17.62	5420	1.05		
87.0	147	16.47	5360	1.15		
100	128	14.24	5240	1.35	TS 57 TSF 57 TSA 57 TSAF 57	Y..90L-4 AM90 AD2
118	109	12.10	5080	1.55		
132	98	10.80	4970	1.75		
155	84	9.23	4800	2.00		



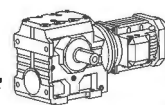
n_2 [1/min]	M_2 [Nm]	i	Fr [N]	K	Frame size		Input Configuration
P _I =1.50kw							
100	127	14.24	2620	0.85	TS TSF TSA TSAF	47 47 47 47	Y..90L-4 AM90 AD2
118	108	12.10	2620	1.00			
132	97	10.80	2620	1.10			
155	83	9.23	2590	1.30			
166	78	8.64	2580	1.40			
196	66	7.28	2530	1.55	TS TSF TSA TSAF	47 47 47 47	Y..90L-4 AM90 AD2
223	59	6.40	2450	1.30			
265	50	5.39	2390	1.50			
300	44	4.76	2340	1.65			
358	37	4.00	2260	1.65			
314	42	9.02	1350	0.85	TS TSF TSA TSAF	47 47 47 47	Y..90S-2 AM90 AD2
354	37	8.00	1350	0.95			
416	32	6.80	1330	0.90			
P _I =2.20kw							
3.40	4890	420	19000	0.85	TS TSF TSA TSAF	97 TRF57 97 TRF57 97 TRF57 97 TRF57	Y..100L ₁ -4 AM100 AD3
3.80	4410	376	28300	0.95			
4.40	3870	327	33400	1.10			
5.00	3420	287	34300	1.25			
5.70	2990	252	35000	1.40			
3.30	4460	286.40	31100	0.95	TS TSF TSA TSAF	97 97 97 97	Y..112M-6 AM112 AD3
3.60	4110	262.22	32900	1.00			
4.10	3670	231.67	33800	1.15			
4.90	3160	196.52	34700	1.35			
5.00	3090	286.40	34800	1.30	TS TSF TSA TSAF	97 97 97 97	Y..100L ₁ -4 AM100 AD3
5.40	2850	262.22	35200	1.40			
6.20	2540	231.67	35600	1.55			
7.20	2180	196.52	36000	1.85			
7.90	2020	180.95	36100	1.95			
8.80	1820	161.74	36300	2.10			
9.80	1650	145.60	36500	2.20			
11.0	1500	131.85	36600	2.40			
12.0	1340	116.92	36700	2.60			
13.0	1220	105.71	36800	2.80			
16.0	1040	89.60	36900	3.10			
5.50	2700	258.18	27000	0.85	TS TSF TSA TSAF	87 87 87 87	Y..100L ₁ -4 AM100 AD2
6.40	2360	222.40	27800	0.95			
7.00	2170	202.96	28100	1.05			
7.90	1940	180.00	28500	1.15			
9.40	1650	151.30	29000	1.30			
10.0	1530	139.05	29100	1.35	TS TSF TSA TSAF	87 87 87 87	Y..100L ₁ -4 AM100 AD2
12.0	1370	123.48	29300	1.50			
13.0	1230	110.40	29500	1.60			
14.0	1120	99.26	29600	1.75			
17.0	980	86.15	29700	1.90			
17.0	1050	81.76	29600	1.50			
18.0	880	77.14	29800	2.10			
20.0	910	70.43	29800	1.75			
22.0	830	64.27	29800	1.90			
25.0	740	57.00	29900	2.20			

n_2 [1/min]	M_2 [Nm]	i	Fr [N]	K	Frame size		Input Configuration
P ₁ =2.20kw							
11.0	1370	130.00	7440	0.90	TS TSF TSA TSAF	77 77 77 77	Y..100L ₁ -4 AM100 AD2
12.0	1300	123.20	11300	0.90			
13.0	1150	107.83	12700	1.00			
15.0	1040	97.14	13500	1.10			
17.0	920	85.22	14100	1.20			
19.0	820	75.20	13800	1.30			
21.0	735	66.67	13500	1.40			
23.0	795	63.03	12400	1.40			
25.0	635	56.92	13100	1.55			
26.0	685	53.87	12100	1.60			
29.0	630	49.38	11900	1.75			
33.0	555	43.33	11700	2.00			
35.0	525	41.07	11500	2.10			
40.0	460	35.94	11300	2.40	TS TSF TSA TSAF	77 77 77 77	Y..100L ₁ -4 AM100 AD3
44.0	420	32.38	11000	2.60			
50.0	370	28.41	10700	2.80			
57.0	325	25.07	10400	3.10			
62.0	305	22.89	9470	2.30			
68.0	280	20.99	9320	2.50			
31.0	560	46.40	7470	0.85	TS TSF TSA TSAF	67 67 67 67	Y..100L ₁ -4 AM100 AD2
34.0	510	41.89	7430	0.95			
39.0	450	36.85	7350	1.05			
41.0	425	34.80	7310	1.10			
48.0	365	29.63	7170	1.30			
53.0	335	26.93	7070	1.45	TS TSF TSA TSAF	67 67 67 67	Y..100L ₁ -4 AM100 AD2
61.0	290	23.33	6910	1.65			
70.0	270	20.37	6060	1.25			
82.0	230	17.28	5950	1.50			
91.0	205	15.60	5870	1.65			
104	184	13.73	5760	1.85			
110	174	12.96	5700	1.95			
129	149	11.03	5540	2.30	TS TSF TSA TSAF	67 67 67 67	Y..100L ₁ -4 AM100 AD3
142	136	10.03	5440	2.50			
164	118	8.69	5280	2.80			
100	188	14.24	4640	0.90	TS TSF TSA TSAF	57 57 57 57	Y..100L ₁ -4 AM100 AD2
118	160	12.10	4570	1.05			
132	144	10.80	4520	1.20			
154	123	9.23	4420	1.35			
165	116	8.64	4370	1.45			
196	98	7.28	4240	1.50			
223	87	6.40	4090	1.15			
264	73	5.39	3960	1.30			
299	65	4.76	3850	1.45			
356	55	4.00	3710	1.60			
P ₁ =3.00kw							
5.10	4580	287	25700	0.90	TS TSF TSA TSAF	97 TRF57 97 TRF57 97 TRF57 97 TRF57	Y..100L ₁ -4 AM100 AD3
5.80	4020	252	33100	1.05			
6.60	3510	219	34100	1.20			
7.10	3300	205	34500	1.25			

TS

n_2 [1/min]	M_2 [Nm]	i	Fr [N]	K	Frame size	Input Configuration
P_i=3.00kw						
5.10	4140	286.40	32900	0.95	TS 97 TSF 97 TSA 97 TSAF 97	Y..100L ₂ -4 AM100 AD3
5.60	3820	262.22	33600	1.05		
6.30	3410	231.67	34300	1.15		
7.40	2920	196.52	35100	1.35		
8.00	2710	180.95	35400	1.45		
9.00	2440	161.74	35700	1.55		
10.0	2210	145.60	36000	1.70		
11.0	2010	131.85	36200	1.80	TS 97 TSF 97 TSA 97 TSAF 97	Y..100L ₂ -4 AM100 AD3
12.0	1800	116.92	36300	1.95		
14.0	1630	105.71	36500	2.10		
16.0	1390	89.60	36700	2.30		
18.0	1410	80.85	36600	2.30		
8.10	2600	180.00	27300	0.85	TS 87 TSF 87 TSA 87 TSAF 87	Y..100L ₂ -4 AM100 AD2
9.60	2210	151.30	28100	0.95		
10.0	2050	139.05	28400	1.00		
12.0	1830	123.48	28700	1.10		
13.0	1650	110.40	29000	1.20		
15.0	1490	99.26	29200	1.30		
17.0	1310	86.15	29400	1.45		
18.0	1400	81.76	29300	1.15		
19.0	1180	77.14	29500	1.55		
21.0	1210	70.43	29500	1.30		
23.0	1110	64.27	29600	1.45		
26.0	990	57.00	29700	1.60		
30.0	830	47.91	29800	1.90	TS 87 TSF 87 TSA 87 TSAF 87	Y..100L ₂ -4 AM100 AD3
33.0	770	44.03	29900	2.10		
37.0	685	39.10	29900	2.30		
42.0	615	34.96	29900	2.60		
17.0	1240	85.22	11900	0.90	TS 77 TSF 77 TSA 77 TSAF 77	Y..100L ₂ -4 AM100 AD2
19.0	1100	75.20	12500	0.95		
22.0	980	66.67	12300	1.05		
23.0	1060	63.03	10900	1.05		
26.0	850	56.92	12000	1.15		
27.0	910	53.87	10800	1.20		
29.0	840	49.38	10800	1.30		
34.0	740	43.33	10600	1.50		
35.0	705	41.07	10600	1.55		
40.0	620	35.94	10400	1.75	TS 77 TSF 77 TSA 77 TSAF 77	Y..100L ₂ -4 AM100 AD3
45.0	560	32.38	10200	1.95		
51.0	490	28.41	10000	2.10		
58.0	435	25.07	9770	2.30		
64.0	410	22.89	8640	1.70		
69.0	375	20.99	8550	1.85		
79.0	330	18.42	8400	2.10		
83.0	315	17.45	8340	2.20		
95.0	275	15.28	8160	2.60		
106	250	13.76	8010	2.80		
121	220	12.07	7810	3.30		
137	195	10.65	7610	3.70		
42.0	570	34.80	6350	0.85	TS 67 TSF 67 TSA 67 TSAF 67	Y..100L ₂ -4 AM100 AD2
49.0	490	29.63	6340	1.00		
54.0	445	26.93	6320	1.05		
62.0	390	23.33	6250	1.25		

n_2 [1/min]	M_2 [Nm]	i	Fr [N]	K	Frame size		Input Configuration			
P _i =3.00kw										
71.0	360	20.37	5240	0.95	TS TSF TSA TSAF	67 67 67 67	Y..100L ₂ -4 AM100 AD2			
84.0	305	17.28	5250	1.10						
93.0	275	15.60	5230	1.20						
106	245	13.73	5190	1.40						
112	230	12.96	5170	1.45						
132	199	11.03	5080	1.70	TS TSF TSA TSAF	67 67 67 67	Y..100L ₂ -4 AM100 AD3			
145	181	10.03	5020	1.90						
167	157	8.69	4910	2.10						
192	137	7.56	4800	2.20						
135	192	10.80	3990	0.90	TS TSF TSA TSAF	57 57 57 57	Y..100L ₂ -4 AM100 AD2			
158	164	9.23	3960	1.05						
168	154	8.64	3950	1.10						
200	130	7.28	3880	1.10						
227	116	6.40	3760	0.85						
270	98	5.39	3670	0.95						
306	87	4.76	3600	1.05						
364	73	4.00	3480	1.20						
P _i =4.00kw										
6.70	4690	219	24100	0.90	TS TSF TSA TSAF	97 TRF57 97 TRF57 97 TRF57 97 TRF57	Y..112M-4 AM112 AD3			
7.10	4410	205	28500	0.95						
6.30	4530	231.67	30200	0.90				TS TSF TSA TSAF	97 97 97 97	Y..112M-4 AM112 AD3
7.40	3890	196.52	33400	1.05						
8.10	3600	180.95	34000	1.10						
9.00	3240	161.74	34600	1.20						
10.0	2940	145.60	35000	1.25						
11.0	2680	131.85	35400	1.35						
12.0	2390	116.92	35800	1.45						
14.0	2170	105.71	36000	1.60						
16.0	1850	89.60	36300	1.75						
18.0	1880	80.85	36300	1.70						
20.0	1670	71.43	36400	1.95	TS TSF TSA TSAF	97 97 97 97	Y..112M-4 AM112 AD4			
24.0	1420	60.59	36600	2.30						
26.0	1310	55.79	36700	2.50						
12.0	2440	123.48	27600	0.85	TS TSF TSA TSAF	87 87 87 87	Y..112M-4 AM112 AD2			
13.0	2200	110.40	28100	0.90						
15.0	1990	99.26	28500	1.00						
17.0	1740	86.15	28800	1.10						
19.0	1570	77.14	29100	1.15						
21.0	1610	70.43	29000	1.00						
23.0	1480	64.27	29200	1.10						
26.0	1310	57.00	29400	1.20						
30.0	1110	47.91	29600	1.45	TS TSF TSA TSAF	87 87 87 87	Y..112M-4 AM112 AD3			
33.0	1020	44.03	29700	1.55						
37.0	910	39.10	29700	1.75						
42.0	820	34.96	29700	1.95						
46.0	740	31.43	28900	2.20						
54.0	645	27.28	28000	2.50						



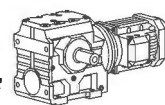
n_2 [1/min]	M_2 [Nm]	i	Fr [N]	K	Frame size		Input Configuration
P _I =4.00kw							
57.0	615	25.50	26400	2.00	TS	87	Y..112M-4 AM112 AD4
					TSF	87	
					TSA	87	
					TSAF	87	
26.0	1130	56.92	10800	0.85	TS	77	Y..112M-4 AM112 AD2
27.0	1210	53.87	9280	0.90			
30.0	1120	49.38	9330	1.00			
34.0	980	43.33	9370	1.10			
36.0	930	41.07	9370	1.15	TSAF	77	
41.0	820	35.94	9330	1.35	TS	77	Y..112M-4 AM112 AD3
45.0	745	32.38	9270	1.45			
51.0	655	28.41	9160	1.60			
58.0	580	25.07	9040	1.75			
64.0	545	22.89	7650	1.30			
70.0	500	20.99	7640	1.40			
79.0	440	18.42	7600	1.60			
84.0	420	17.45	7580	1.70			
96.0	365	15.28	7490	1.90			
106	330	13.76	7400	2.10			
121	290	12.07	7280	2.40			
137	255	10.65	7140	2.80	TS	77	Y..112M-4 AM112 AD4
155	230	9.44	6990	3.20	TSF	77	
181	197	8.06	6790	3.40	TSA	77	
					TSAF	77	
84.0	405	17.28	3910	0.85	TS	67	Y..112M-4 AM112 AD2
94.0	370	15.60	4270	0.90	TSF	67	
106	325	13.73	4510	1.05	TSA	67	
113	305	12.96	4520	1.10	TSAF	67	
132	260	11.03	4530	1.30	TS	67	Y..112M-4 AM112 AD3
146	240	10.03	4520	1.40	TSF	67	
168	205	8.69	4480	1.60	TSA	67	
193	182	7.56	4420	1.60	TSAF	67	
P _I =5.50kw							
9.00	4470	161.74	31000	0.85	TS	97	Y..132S-4 AM132 AD3
10.0	4050	145.60	33100	0.90			
11.0	3690	131.85	33800	1.00			
12.0	3300	116.92	34500	1.05			
14.0	3000	105.71	35000	1.15			
16.0	2560	89.60	35500	1.25			
19.0	2250	78.26	35900	1.35			
22.0	1900	65.45	36300	1.55			
20.0	2300	71.43	35800	1.45	TS	97	Y..132S-4 AM132 AD4
24.0	1960	60.59	36200	1.70			
26.0	1810	55.79	36300	1.80			
29.0	1620	49.87	36500	2.00			
32.0	1470	44.89	36600	2.20			
36.0	1330	40.65	36700	2.50			
19.0	2160	77.14	28200	0.85	TS	87	Y..132S-4 AM132 AD2
26.0	1810	57.00	28700	0.90			
30.0	1530	47.91	29100	1.05			

n ₂ [1/min]	M ₂ [Nm]	i	Fr [N]	K	Frame size		Input Configuration
P ₁ =5.50kw							
23.0	1810	64.00	28700	0.95	TS TSF TSA TSAF	87 87 87 87	Y..132S-4 AM132 AD3
33.0	1410	44.03	29200	1.15			
37.0	1260	39.10	29100	1.25			
42.0	1130	34.96	28500	1.40			
46.0	1020	31.43	27900	1.55			
53.0	890	27.28	27100	1.80			
57.0	850	25.50	25200	1.45	TS TSF TSA TSAF	87 87 87 87	Y..132S-4 AM132 AD4
68.0	715	21.43	24400	1.70			
74.0	660	19.70	24000	1.85			
83.0	585	17.49	23400	2.10			
93.0	525	15.64	22900	2.40			
103	475	14.06	22400	2.60			
119	410	12.21	21700	3.00			
133	370	10.93	21100	3.30			
35.0	1290	41.07	7590	0.85	TS TSF TSA TSAF	77 77 77 77	Y..132S-4 AM132 AD2
40.0	1130	35.94	7770	0.95	TS TSF TSA TSAF	77 77 77 77	Y..132S-4 AM132 AD3
45.0	1020	32.38	7860	1.05			
51.0	900	28.41	7920	1.15			
58.0	800	25.07	7940	1.25			
65.0	710	22.22	7920	1.35			
79.0	610	18.42	6000	1.15			
83.0	580	17.45	6240	1.20			
95.0	505	15.28	6500	1.40			
106	460	13.76	6510	1.55			
121	400	12.07	6490	1.80			
137	355	10.65	6440	2.00			
154	315	9.44	6380	2.30			
180	270	8.06	6260	2.50			
132	360	11.03	2990	0.95	TS TSF TSA TSAF	67 67 67 67	Y..132S-4 AM132 AD3
145	330	10.03	3310	1.00			
167	285	8.69	3720	1.15			
192	250	7.56	3850	1.15			
P ₁ =7.50kw							
14.0	4050	105.71	33100	0.85	TS TSF TSA TSAF	97 97 97 97	Y..132M-4 AM132 AD3
16.0	3460	89.60	34200	0.95			
19.0	3040	78.26	34900	1.00			
22.0	2560	65.45	35500	1.15			
21.0	3110	71.43	34800	1.05	TS TSF TSA TSAF	97 97 97 97	Y..132M-4 AM132 AD4
24.0	2650	60.59	35400	1.25			
26.0	2450	55.79	35700	1.35			
29.0	2190	49.87	36000	1.50			
33.0	1980	44.89	36200	1.65			
36.0	1800	40.65	36300	1.85			
41.0	1600	36.05	36000	2.10			
45.0	1450	32.60	35300	2.20			
56.0	1200	26.39	31900	2.20			
62.0	1080	23.59	31200	2.40	TS TSF TSA TSAF	97 97 97 97	Y..132M-4 AM132 AD5
69.0	970	21.23	30600	2.70			
76.0	880	19.23	30000	2.90			



n: [1/min]	M: [Nm]	i	Fr [N]	K	Frame size		Input Configuration
P _i =7.50kw							
33.0	1910	44.03	27700	0.85	TS TSF TSA TSAF	87 87 87 87	Y..132M-4 AM132 AD3
38.0	1700	39.10	27300	0.95			
42.0	1520	34.96	26900	1.05			
47.0	1370	31.43	26400	1.15			
54.0	1200	27.28	25800	1.35			
58.0	1150	25.50	23400	1.10	TS TSF TSA TSAF	87 87 87 87	Y..132M-4 AM132 AD4
69.0	970	21.43	22900	1.30			
75.0	890	19.70	22600	1.40			
84.0	795	17.49	22200	1.55			
94.0	710	15.64	21800	1.75			
105	640	14.06	21400	1.95			
120	555	12.21	20800	2.20			
135	500	10.93	20400	2.50			
162	415	9.07	19600	2.70			
186	360	7.88	19000	2.80			
52.0	1220	28.41	6290	0.85	TS TSF TSA TSAF	77 77 77 77	Y..132M-4 AM132 AD3
59.0	1080	25.07	6490	0.95			
66.0	960	22.22	6620	1.00			
80.0	820	18.42	2080	0.85			
84.0	780	17.45	2500	0.90			
96.0	685	15.28	3420	1.05			
107	620	13.76	4040	1.15			
122	545	12.07	4690	1.30			
138	480	10.65	5210	1.50	TS TSF TSA TSAF	77 77 77 77	Y..132M-4 AM132 AD4
156	425	9.44	5560	1.70			
182	365	8.06	5560	1.85			
P _i =11.0kw							
26.0	3580	55.79	34000	0.90	TS TSF TSA TSAF	97 97 97 97	Y..160M-4 AM160 AD4
30.0	3210	49.87	34600	1.05			
33.0	2900	44.89	34700	1.15			
36.0	2630	40.65	34200	1.25			
41.0	2340	36.05	33700	1.40			
45.0	2120	32.60	33100	1.50			
56.0	1760	26.39	29300	1.45	TS TSF TSA TSAF	97 97 97 97	Y..160M-4 AM160 AD5
63.0	1580	23.59	28900	1.65			
69.0	1420	21.23	28500	1.80			
77.0	1290	19.23	28100	2.00			
86.0	1140	17.05	27500	2.20			
96.0	1040	15.42	27100	2.40			
113	880	13.07	26200	2.60			
129	770	11.41	25500	2.90			
54.0	1750	27.28	23600	0.90	TS TSF TSA TSAF	87 87 87 87	Y..160M-4 AM160 AD3
60.0	1570	24.43	23300	1.00	TS TSF TSA TSAF	87 87 87 87	Y..160M-4 AM160 AD4
73.0	1310	20.27	22700	1.20			
75.0	1300	19.70	20300	0.95			
84.0	1160	17.49	20200	1.05			
94.0	1040	15.64	20000	1.20			
105	930	14.06	19700	1.30			

n ₂ [1/min]	M ₂ [Nm]	i	Fr [N]	K	Frame size		Input Configuration		
P _i =11.0kw									
121	810	12.21	19400	1.50	TS	87	Y..160M-4 AM160 AD4		
135	730	10.93	19100	1.70	TSF	87			
163	605	9.07	18500	1.85	TSA	87			
187	530	7.88	18000	1.90	TSAF	87			
P _i =15.0kw									
33.0	3980	44.89	31400	0.85	TS TSF TSA TSAF	97 97 97 97	Y..160L-4 AM160 AD4		
36.0	3610	40.65	31300	0.90					
41.0	3210	36.05	31000	1.05					
45.0	2910	32.60	30700	1.10					
56.0	2420	26.39	26400	1.05					
62.0	2170	23.59	26300	1.20	TS TSF TSA TSAF	97 97 97 97	Y..160L-4 AM160 AD5		
69.0	1950	21.23	26200	1.35					
76.0	1770	19.23	26000	1.45					
86.0	1570	17.05	25700	1.65					
95.0	1420	15.42	25400	1.75					
112	1210	13.07	24800	1.90					
128	1060	11.41	24300	2.10					
153	880	9.55	23600	2.30					
177	770	8.26	22900	2.30					
94.0	1430	15.64	16800	0.85	TS TSF TSA TSAF	87 87 87 87	Y..160L-4 AM160 AD4		
104	1280	14.06	17900	0.95					
120	1120	12.21	17800	1.10					
134	1000	10.93	17600	1.25					
162	830	9.07	17300	1.35					
186	725	7.88	17000	1.40					
P _i =18.5kw									
41.0	3960	36.05	28700	0.85	TS TSF TSA TSAF	97 97 97 97	Y..180M-4 AM180 AD4		
45.0	3590	32.60	28600	0.90					
53.0	3050	27.63	28400	1.00	TS TSF TSA TSAF	97 97 97 97	Y..180M-4 AM180 AD5		
61.0	2670	24.13	28100	1.05					
69.0	2410	21.23	24100	1.10					
76.0	2190	19.23	24100	1.20					
86.0	1940	17.05	24000	1.30					
95.0	1760	15.42	23900	1.40					
112	1490	13.07	23500	1.55					
128	1300	11.41	23200	1.70					
153	1090	9.55	22600	1.85					
177	950	8.26	22100	1.85					
P _i =22.0kw									
53.0	3610	27.63	26600	0.85	TS TSF TSA TSAF	97 97 97 97	Y..180L-4 AM180 AD5		
61.0	3160	24.13	26500	0.90					
69.0	2850	21.23	18600	0.90					
77.0	2580	19.23	20500	1.00					
86.0	2290	17.05	22300	1.10					
96.0	2080	15.42	22400	1.20					
113	1760	13.07	22300	1.30					
129	1540	11.41	22100	1.45					
155	1290	9.55	21700	1.60					
178	1120	8.26	21300	1.60					



5. 8 TS../ TRF..性能参数 / TS../ TRF.. Performance Parameters

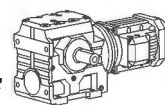
n ₂ [1/min]	i	Fr [N]	Frame size		Motor
M _{2max} =92Nm					
0.14	10037	3000			
0.16	8654	3000			
0.17	8066	3000			
0.20	7051	3000			
0.23	6079	3000			
0.25	5431	3000			
0.29	4747	3000			
0.33	4155	3000			
0.38	3632	3000	TS	37 TRF17	Y..63M ₁₋₄
0.48	2866	3000	TSF	37 TRF17	Y..63M ₁₋₄
0.56	2471	3000	TSA	37 TRF17	Y..63M ₁₋₄
0.64	2160	3000	TSAF	37 TRF17	Y..63M ₁₋₄
0.73	1887	3000			
0.83	1665	3000			
0.95	1456	3000			
1.10	1271	3000			
1.20	1121	3000			
1.40	994	3000			
1.60	869	3000			
1.80	774	3000			
2.10	666	3000			
2.30	596	3000			
2.60	521	3000			
3.00	456	3000	TS	37 TRF17	Y..63M ₁₋₄
3.50	398	3000	TSF	37 TRF17	Y..63M ₁₋₄
3.90	351	3000	TSA	37 TRF17	Y..63M ₁₋₄
4.60	303	3000	TSAF	37 TRF17	Y..63M ₁₋₄
5.20	265	3000			
6.00	232	3000			
6.80	202	3000			
7.40	179	3000	TS	37 TRF17	Y..63M ₁₋₄
8.30	158	3000	TSF	37 TRF17	Y..63M ₁₋₄
9.10	144	3000	TSA	37 TRF17	Y..63M ₁₋₄
11.0	118	3000	TSAF	37 TRF17	Y..63M ₁₋₄
12.0	110	3000			
M _{2max} =185Nm					
0.11	12909	5250			
0.12	11189	5250			
0.13	10374	5250			
0.15	8992	5250			
0.18	7860	5250			
0.20	6887	5250			
0.23	6055	5250			
0.26	5292	5250	TS	47 TRF17	Y..63M ₁₋₄
0.30	4637	5250	TSF	47 TRF17	Y..63M ₁₋₄
0.34	4092	5250	TSA	47 TRF17	Y..63M ₁₋₄
0.39	3582	5200	TSAF	47 TRF17	Y..63M ₁₋₄
0.44	3131	5200			
0.51	2714	5200			
0.57	2412	5200			
0.65	2131	5200			
0.74	1863	5200			
0.83	1663	5200			
0.96	1435	5200			

n ₂ [1/min]	i	Fr [N]	Frame size		Motor
M _{2max} =185Nm					
1.10	1254	5200			
1.20	1120	5200			
1.30	1083	5200			
1.40	965	5200			
1.60	865	5200	TS	47 TRF17	Y..63M ₁₋₄
1.80	750	5200	TSF	47 TRF17	Y..63M ₁₋₄
2.10	655	5200	TSA	47 TRF17	Y..63M ₁₋₄
2.40	574	5200	TSAF	47 TRF17	Y..63M ₁₋₄
2.70	506	5200			
3.20	438	5200			
3.60	388	5200			
3.90	336	5200	TS	47 TRF17	Y..63M ₁₋₄
4.50	294	5200	TSF	47 TRF17	Y..63M ₁₋₄
5.80	229	5200	TSA	47 TRF17	Y..63M ₁₋₄
			TSAF	47 TRF17	Y..63M ₁₋₄
5.00	257	5260	TS	47 TRF17	Y..71M ₁₋₄
6.50	200	5200	TSF	47 TRF17	Y..71M ₁₋₄
6.90	187	5200	TSA	47 TRF17	Y..71M ₁₋₄
7.90	165	5200	TSAF	47 TRF17	Y..71M ₁₋₄
9.40	148	5200	TS	47 TRF17	Y..71M ₁₋₄
11.0	131	5200	TSF	47 TRF17	Y..71M ₁₋₄
			TSA	47 TRF17	Y..71M ₁₋₄
			TSAF	47 TRF17	Y..71M ₁₋₄
M _{2max} =330Nm					
0.11	12909	6800			
0.12	11189	6800			
0.13	10374	6800			
0.15	8992	6800			
0.18	7860	6800	TS	57 TRF17	Y..63M ₁₋₄
0.20	6887	6800	TSF	57 TRF17	Y..63M ₁₋₄
0.23	6055	6800	TSA	57 TRF17	Y..63M ₁₋₄
0.26	5292	6800	TSAF	57 TRF17	Y..63M ₁₋₄
0.30	4637	6800			
0.34	4092	6800			
0.38	3628	6800			
M _{2max} =300Nm					
0.44	3131	7080			
0.51	2714	7080			
0.57	2412	7080			
0.65	2131	7080			
0.74	1863	7080			
0.83	1663	7080	TS	57 TRF17	Y..63M ₁₋₄
0.96	1435	7080	TSF	57 TRF17	Y..63M ₁₋₄
1.10	1254	7080	TSA	57 TRF17	Y..63M ₁₋₄
1.30	1083	7080	TSAF	57 TRF17	Y..63M ₁₋₄
1.40	965	7080			
1.60	865	7080			
1.80	750	7080			
2.10	655	7080			

TS

n_2 [1/min]	i	Fr [N]	Frame size		Motor
M _{2max} =300Nm					
2.30	574	7080	TS	57 TRF17	Y..63M ₂₋₄
2.60	506	7080	TSF	57 TRF17	Y..63M ₂₋₄
3.00	438	7080	TSA	57 TRF17	Y..63M ₂₋₄
3.40	388	7080	TSAF	57 TRF17	Y..63M ₂₋₄
			TS	57 TRF17	Y..71M ₁₋₄
3.90	336	7080	TSF	57 TRF17	Y..71M ₁₋₄
4.40	294	7080	TSA	57 TRF17	Y..71M ₁₋₄
4.80	269	7080	TSAF	57 TRF17	Y..71M ₁₋₄
			TS	57 TRF17	Y..71M ₂₋₄
6.00	229	7080	TSF	57 TRF17	Y..71M ₂₋₄
6.80	204	7080	TSA	57 TRF17	Y..71M ₂₋₄
7.40	187	7080	TSAF	57 TRF17	Y..71M ₂₋₄
			TS	57 TRF17	Y..80M ₁₋₄
8.40	165	7080	TSF	57 TRF17	Y..80M ₁₋₄
11.0	131	7080	TSA	57 TRF17	Y..80M ₁₋₄
			TSAF	57 TRF17	Y..80M ₁₋₄
M _{2max} =570Nm					
0.06	21362	8190			
0.07	19594	8190			
0.08	18120	8190			
0.08	16682	8190			
0.10	14383	8190			
0.11	12774	8190			
0.13	11013	8190			
0.14	9694	8190			
0.16	8529	8190			
0.19	7455	8190			
0.21	6531	8190	TS	67 TRF37	Y..63M ₁₋₄
0.24	5759	8190	TSF	67 TRF37	Y..63M ₁₋₄
0.28	4965	8190	TSA	67 TRF37	Y..63M ₁₋₄
0.31	4410	8190	TSAF	67 TRF37	Y..63M ₁₋₄
0.36	3880	8190			
0.40	3432	8190			
0.47	2944	8190			
0.52	2630	8190			
0.61	2279	8190			
0.69	2014	8190			
0.78	1772	8190			
0.88	1559	8190			
1.00	1363	8190			
1.20	1194	8190			
1.30	1045	8190	TS	67 TRF37	Y..63M ₂₋₄
1.40	914	8190	TSF	67 TRF37	Y..63M ₂₋₄
1.60	809	8190	TSA	67 TRF37	Y..63M ₂₋₄
1.90	712	8190	TSAF	67 TRF37	Y..63M ₂₋₄
			TS	67 TRF37	Y..71M ₁₋₄
2.10	615	8190	TSF	67 TRF37	Y..71M ₁₋₄
2.40	543	8190	TSA	67 TRF37	Y..71M ₁₋₄
			TSAF	67 TRF37	Y..71M ₁₋₄

n_2 [1/min]	i	Fr [N]	Frame size		Motor
M _{2max} =570Nm					
2.90	469	8190	TS	67 TRF37	Y..71M ₂₋₄
3.30	424	8190	TSF	67 TRF37	Y..71M ₂₋₄
3.80	365	8190	TSA	67 TRF37	Y..71M ₂₋₄
			TSAF	67 TRF37	Y..71M ₂₋₄
4.30	319	8190	TS	67 TRF37	Y..80M ₁₋₄
4.90	281	8190	TSF	67 TRF37	Y..80M ₁₋₄
5.60	246	8190	TSA	67 TRF37	Y..80M ₁₋₄
6.20	221	8190	TSAF	67 TRF37	Y..80M ₁₋₄
7.30	198	8190	TS	67 TRF37	Y..80M ₂₋₄
			TSF	67 TRF37	Y..80M ₂₋₄
			TSA	67 TRF37	Y..80M ₂₋₄
			TSAF	67 TRF37	Y..80M ₂₋₄
M _{2max} =1270Nm					
0.05	25493	11700			
0.06	21787	11700			
0.07	19907	11700			
0.08	17013	11700			
0.09	14668	11700			
0.11	13110	11700			
0.12	11569	11700	TS	77 TRF37	Y..63M ₁₋₄
0.14	9887	11700	TSF	77 TRF37	Y..63M ₁₋₄
0.16	8817	11700	TSA	77 TRF37	Y..63M ₁₋₄
0.18	7735	11700	TSAF	77 TRF37	Y..63M ₁₋₄
0.20	6735	11700			
0.23	5943	11700			
0.26	5214	11700			
0.30	4618	11700			
0.35	3992	11700			
0.39	3540	11700			
0.43	3098	11700	TS	77 TRF37	Y..63M ₂₋₄
			TSF	77 TRF37	Y..63M ₂₋₄
			TSA	77 TRF37	Y..63M ₂₋₄
			TSAF	77 TRF37	Y..63M ₂₋₄
M _{2max} =1240Nm					
0.50	2753	12000	TS	77 TRF37	Y..63M ₁₋₄
0.58	2374	12000	TSF	77 TRF37	Y..63M ₁₋₄
			TSA	77 TRF37	Y..63M ₁₋₄
			TSAF	77 TRF37	Y..63M ₁₋₄
0.63	2083	12000			
0.73	1813	12000	TS	77 TRF37	Y..63M ₂₋₄
0.76	1745	12000	TSF	77 TRF37	Y..63M ₂₋₄
0.82	1600	12000	TSA	77 TRF37	Y..63M ₂₋₄
0.94	1404	12000	TSAF	77 TRF37	Y..63M ₂₋₄
1.00	1245	12000	TS	77 TRF37	Y..71M ₁₋₄
1.20	1100	12000	TSF	77 TRF37	Y..71M ₁₋₄
1.40	954	12000	TSA	77 TRF37	Y..71M ₁₋₄
			TSAF	77 TRF37	Y..71M ₁₋₄



n ₂ [1/min]	i	Fr [N]	Frame size		Motor
M _{2max} =1240Nm					
1.60	837	12000	TS	77 TRF37	Y..71M ₂ -4
1.90	714	12000	TSF	77 TRF37	Y..71M ₂ -4
			TSA	77 TRF37	Y..71M ₂ -4
			TSAF	77 TRF37	Y..71M ₂ -4
2.20	637	12000	TS	77 TRF37	Y..80M ₁ -4
2.40	574	12000	TSF	77 TRF37	Y..80M ₁ -4
2.80	499	12000	TSA	77 TRF37	Y..80M ₁ -4
			TSAF	77 TRF37	Y..80M ₁ -4
3.30	438	12000	TS	77 TRF37	Y..80M ₂ -4
3.70	389	12000	TSF	77 TRF37	Y..80M ₂ -4
			TSA	77 TRF37	Y..80M ₂ -4
			TSAF	77 TRF37	Y..80M ₂ -4
4.30	327	12000	TS	77 TRF37	Y..90S-4
4.90	289	12000	TSF	77 TRF37	Y..90S-4
5.70	250	12000	TSA	77 TRF37	Y..90S-4
			TSAF	77 TRF37	Y..90S-4
6.50	219	12000	TS	77 TRF37	Y..90L-4
			TSF	77 TRF37	Y..90L-4
			TSA	77 TRF37	Y..90L-4
			TSAF	77 TRF37	Y..90L-4
M _{2max} =2500Nm					
0.05	25987	27500			
0.06	23940	27500			
0.07	20568	27500			
0.08	18265	27500			
0.08	16774	27500	TS	87 TRF57	Y..63M ₁ -4
0.09	14820	27500	TSF	87 TRF57	Y..63M ₁ -4
0.10	13160	27500	TSA	87 TRF57	Y..63M ₁ -4
0.12	11200	27500	TSAF	87 TRF57	Y..63M ₁ -4
0.14	9904	27500			
0.16	8549	27500			
0.18	7643	27500			
0.21	6706	27500			
0.22	5875	27500	TS	87 TRF57	Y..63M ₂ -4
0.25	5187	27500	TSF	87 TRF57	Y..63M ₂ -4
0.29	4606	27500	TSA	87 TRF57	Y..63M ₂ -4
0.34	3872	27500	TSAF	87 TRF57	Y..63M ₂ -4
0.37	3475	27500	TS	87 TRF57	Y..71M ₁ -4
0.45	2905	27500	TSF	87 TRF57	Y..71M ₁ -4
0.50	2586	27500	TSA	87 TRF57	Y..71M ₁ -4
			TSAF	87 TRF57	Y..71M ₁ -4
0.59	2335	27500	TS	87 TRF57	Y..71M ₂ -4
0.67	2054	27500	TSF	87 TRF57	Y..71M ₂ -4
0.76	1824	27500	TSA	87 TRF57	Y..71M ₂ -4
			TSAF	87 TRF57	Y..71M ₂ -4
0.85	1631	27500	TS	87 TRF57	Y..80M ₁ -4
1.00	1332	27500	TSF	87 TRF57	Y..80M ₁ -4
1.20	1191	27500	TSA	87 TRF57	Y..80M ₁ -4
			TSAF	87 TRF57	Y..80M ₁ -4

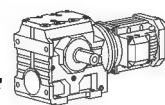
n_2 [1/min]	i	Fr [N]	Frame size		Motor
M _{2max} =2500Nm					
1.40	1032	27500	TS	87 TRF57	Y..80M ₂ -4
1.50	930	27500	TSF	87 TRF57	Y..80M ₂ -4
			TSA	87 TRF57	Y..80M ₂ -4
			TSAF	87 TRF57	Y..80M ₂ -4
1.70	831	27500	TS	87 TRF57	Y..90S-4
2.00	719	27500	TSF	87 TRF57	Y..90S-4
2.30	624	27500	TSA	87 TRF57	Y..90S-4
2.60	558	27500	TSAF	87 TRF57	Y..90S-4
3.00	485	27500	TS	87 TRF57	Y..90L-4
			TSF	87 TRF57	Y..90L-4
			TSA	87 TRF57	Y..90L-4
			TSAF	87 TRF57	Y..90L-4
M _{2max} =2450Nm					
3.30	435	27600	TS	87 TRF57	Y..90L-4
			TSF	87 TRF57	Y..90L-4
			TSA	87 TRF57	Y..90L-4
			TSAF	87 TRF57	Y..90L-4
3.80	378	27600	TS	87 TRF57	Y..100L ₁ -4
			TSF	87 TRF57	Y..100L ₁ -4
			TSA	87 TRF57	Y..100L ₁ -4
			TSAF	87 TRF57	Y..100L ₁ -4
M _{2max} =2400Nm					
4.40	323	27700	TS	87 TRF57	Y..100L ₁ -4
5.10	281	27700	TSF	87 TRF57	Y..100L ₁ -4
			TSA	87 TRF57	Y..100L ₁ -4
			TSAF	87 TRF57	Y..100L ₁ -4
M _{2max} =4200Nm					
0.04	33818	32800			
0.04	31154	32800	TS	97 TRF57	Y..63M ₁ -4
0.05	27847	32800	TSF	97 TRF57	Y..63M ₁ -4
0.06	24641	32800	TSA	97 TRF57	Y..63M ₁ -4
0.06	21537	32800	TSAF	97 TRF57	Y..63M ₁ -4
0.07	18749	32800			
0.09	16233	32800	TS	97 TRF57	Y..63M ₁ -4
0.09	14576	32800	TSF	97 TRF57	Y..63M ₁ -4
0.11	12752	32800	TSA	97 TRF57	Y..63M ₁ -4
0.12	11267	32800	TSAF	97 TRF57	Y..63M ₁ -4
0.14	10078	32800			
0.15	8608	32800	TS	97 TRF57	Y..63M ₂ -4
0.17	7554	32800	TSF	97 TRF57	Y..63M ₂ -4
0.20	6640	31300	TSA	97 TRF57	Y..63M ₂ -4
0.23	5780	31300	TSAF	97 TRF57	Y..63M ₂ -4
0.27	4937	31300			
0.29	4444	31300	TS	97 TRF57	Y..71M ₁ -4
0.32	4017	31300	TSF	97 TRF57	Y..71M ₁ -4
0.38	3453	31300	TSA	97 TRF57	Y..71M ₁ -4
0.42	3108	31300	TSAF	97 TRF57	Y..71M ₁ -4

TS

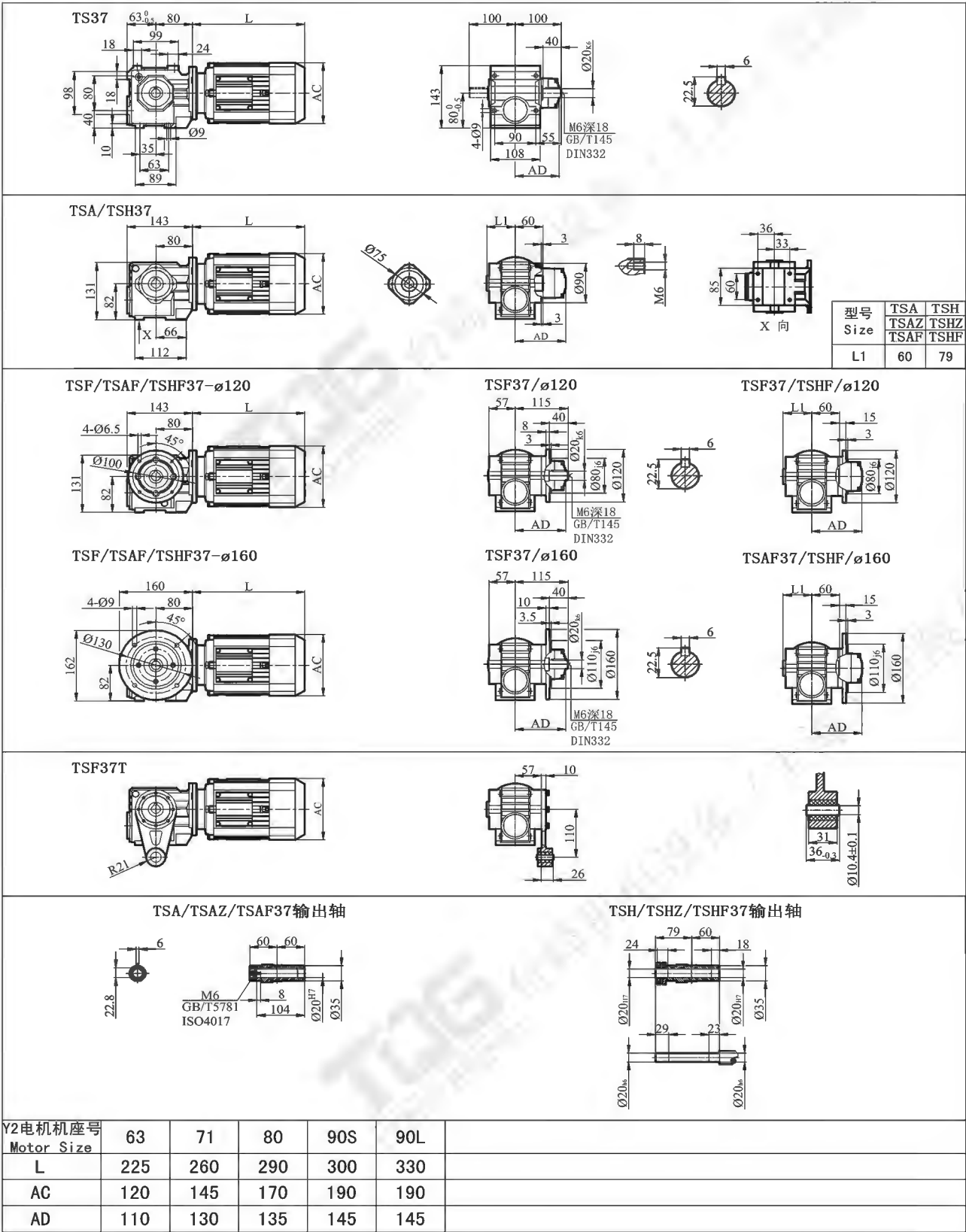
n_2 [1/min]	i	Fr [N]	Frame size		Motor
$M_{2max}=4200Nm$					
0.52	2654	31300	TS	97 TRF57	Y..71M ₁ -4
			TSF	97 TRF57	Y..71M ₁ -4
			TSA	97 TRF57	Y..71M ₁ -4
			TSAF	97 TRF57	Y..71M ₁ -4
0.66	2081	31300	TS	97 TRF57	Y..80M ₁ -4
			TSF	97 TRF57	Y..80M ₁ -4
			TSA	97 TRF57	Y..80M ₁ -4
			TSAF	97 TRF57	Y..80M ₁ -4
0.74	1860	31300	TS	97 TRF57	Y..80M ₁ -4
			TSF	97 TRF57	Y..80M ₁ -4
			TSA	97 TRF57	Y..80M ₁ -4
			TSAF	97 TRF57	Y..80M ₁ -4
0.88	1574	31300	TS	97 TRF57	Y..80M ₁ -4
			TSF	97 TRF57	Y..80M ₁ -4
			TSA	97 TRF57	Y..80M ₁ -4
			TSAF	97 TRF57	Y..80M ₁ -4
1.00	1394	31300	TS	97 TRF57	Y..80M ₁ -4
			TSF	97 TRF57	Y..80M ₁ -4
			TSA	97 TRF57	Y..80M ₁ -4
			TSAF	97 TRF57	Y..80M ₁ -4
1.20	1223	31300	TS	97 TRF57	Y..80M ₁ -4
			TSF	97 TRF57	Y..80M ₁ -4
			TSA	97 TRF57	Y..80M ₁ -4
			TSAF	97 TRF57	Y..80M ₁ -4
1.30	1070	31300	TS	97 TRF57	Y..90S-4
			TSF	97 TRF57	Y..90S-4
			TSA	97 TRF57	Y..90S-4
			TSAF	97 TRF57	Y..90S-4
1.50	928	31300	TS	97 TRF57	Y..90S-4
			TSF	97 TRF57	Y..90S-4
			TSA	97 TRF57	Y..90S-4
			TSAF	97 TRF57	Y..90S-4
1.70	824	31300	TS	97 TRF57	Y..90S-4
			TSF	97 TRF57	Y..90S-4
			TSA	97 TRF57	Y..90S-4
			TSAF	97 TRF57	Y..90S-4

n_2 [1/min]	i	Fr [N]	Frame size		Motor
M _{2,max} =4200Nm					
2.00	714	32800	TS	97 TRF57	Y..90L-4
2.30	626	31300	TSF	97 TRF57	Y..90L-4
2.70	538	31300	TSA	97 TRF57	Y..90L-4
			TSAF	97 TRF57	Y..90L-4
2.90	484	31400	TS	97 TRF57	Y..100L ₁ -4
3.40	420	31400	TSF	97 TRF57	Y..100L ₁ -4
3.80	376	31400	TSA	97 TRF57	Y..100L ₁ -4
			TSAF	97 TRF57	Y..100L ₁ -4
4.40	327	31500	TS	97 TRF57	Y..100L ₂ -4
			TSF	97 TRF57	Y..100L ₂ -4
5.10	287	31500	TSA	97 TRF57	Y..100L ₂ -4
			TSAF	97 TRF57	Y..100L ₂ -4
5.80	252	31500	TS	97 TRF57	Y..112M-4
			TSF	97 TRF57	Y..112M-4
6.70	219	31600	TSA	97 TRF57	Y..112M-4
			TSAF	97 TRF57	Y..112M-4

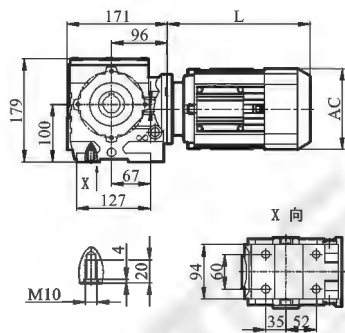
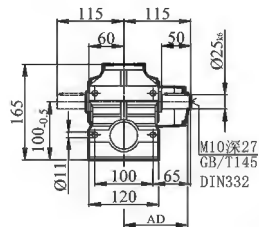
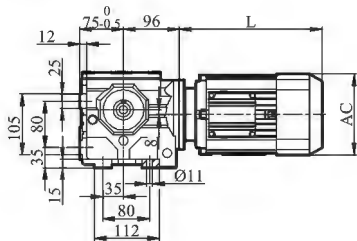
TS



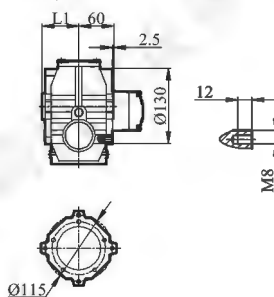
5. 9 外形尺寸 / Dimensions



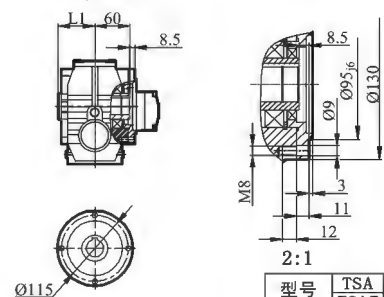
TS47



TSA/TSH47

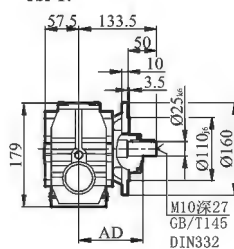
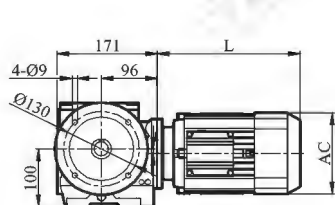


TS4Z/TSHZ47

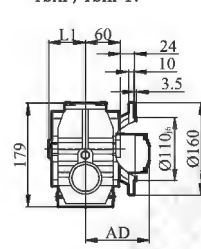


型号 Size	TSA TS4Z TSAF	TSH TSHZ TSHF
L1	60	86

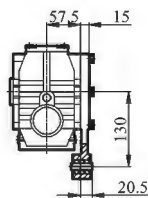
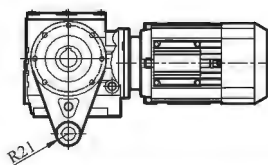
TSP47



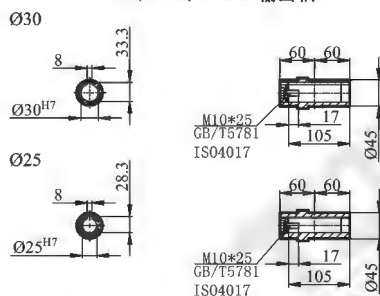
TS4F/TSHF47



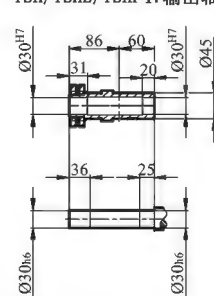
TSA47T



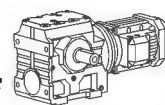
TSA/TS4Z/TS4F47输出轴



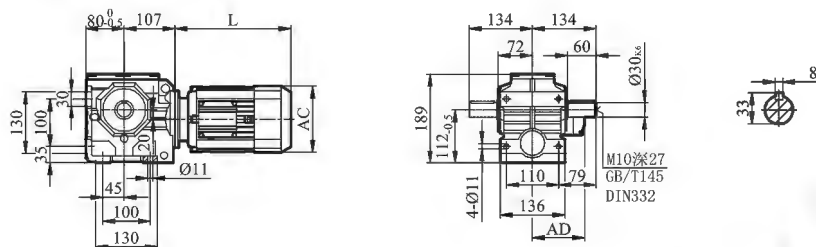
TSH/TSHZ/TSHF47输出轴



Y2电机座号 Motor Size	63	71	80	90S	90L	100
L	205	260	290	300	330	340
AC	120	145	170	190	190	195
AD	110	130	135	145	145	180

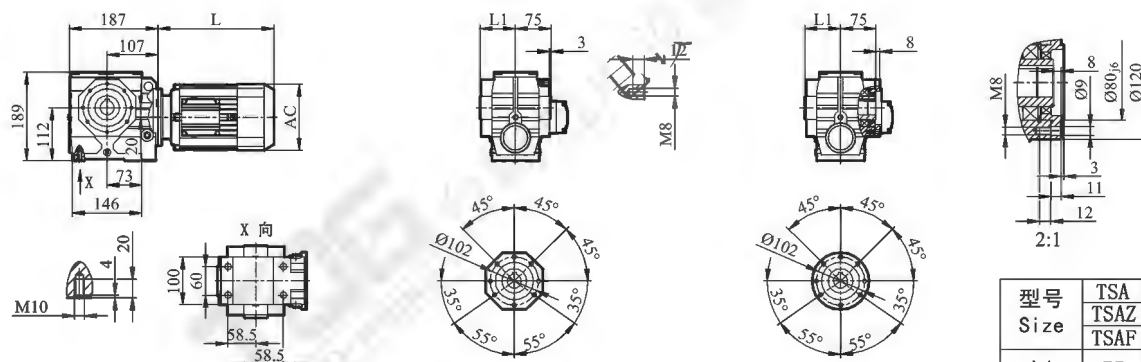


TS57



TSA/TSH57

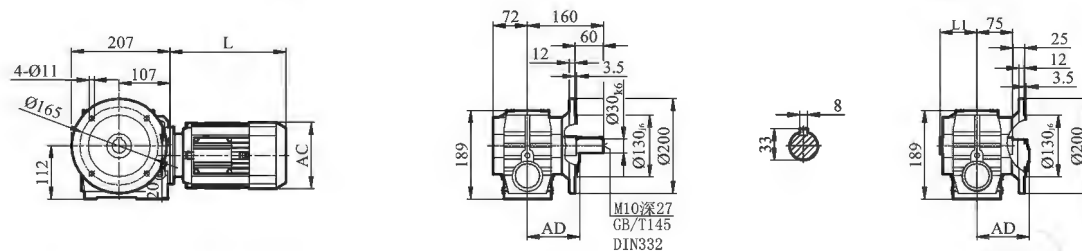
TSAZ/TSHZ57



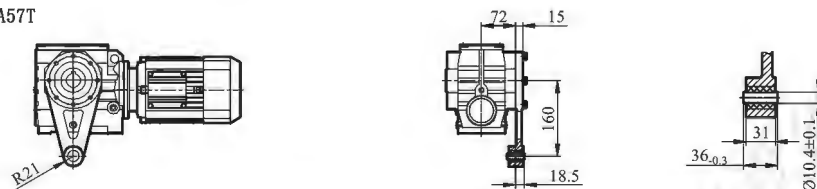
型号 Size	TSA TSAZ TSAF	TKS TSHZ TSHF
L1	75	105

TSF57

TSAF/TSHF57

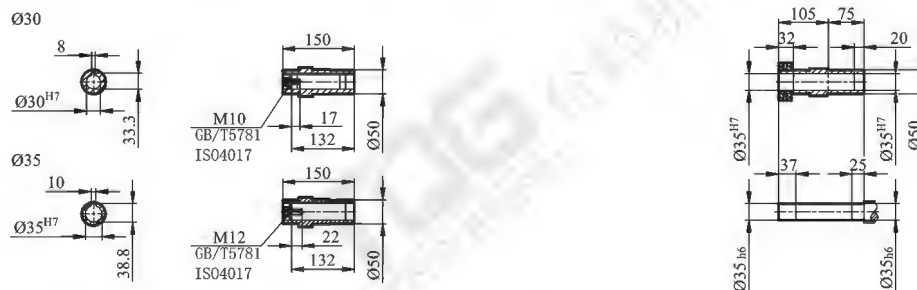


TSA57T



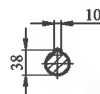
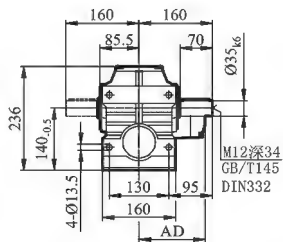
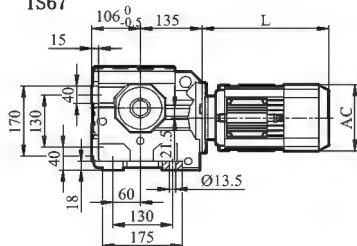
TSA/TSAZ/TSAF57输出轴

TSH/TSHZ/TSHF57输出轴

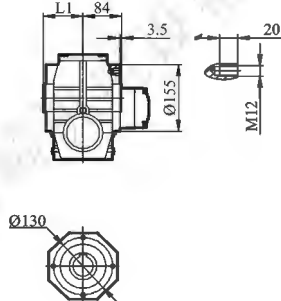
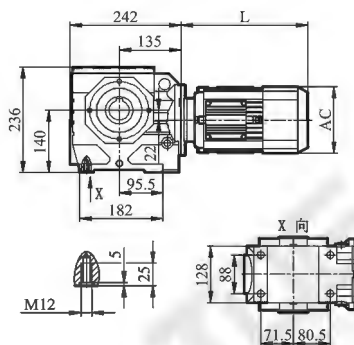


Y2电机座号 M0t0r Size	63	71	80	90S	90L	100	
L	205	260	290	300	330	330	
AC	120	145	170	190	190	210	
AD	110	130	135	145	145	160	

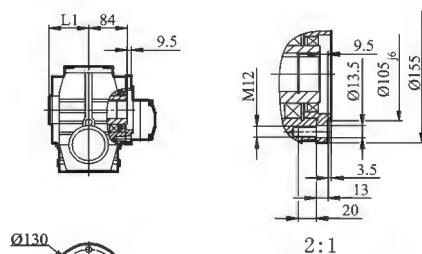
TS67



TSA/TSH67

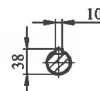
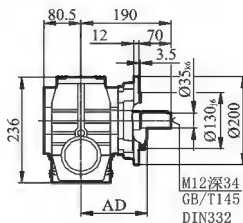
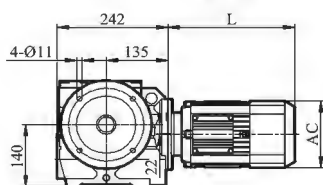


TSAZ/TSHZ67

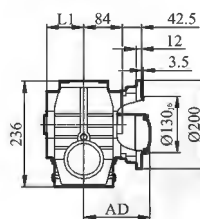


型号	TSA	TSH
Size	TSAZ	TSHZ
	TSAF	TSHF
L1	84	120

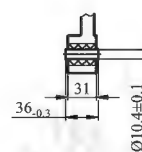
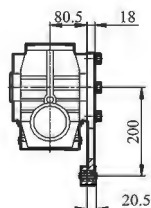
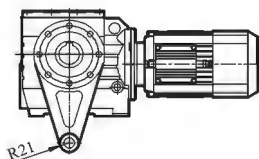
TSF67



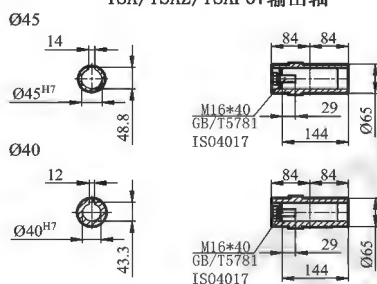
TSAF/TSHF67



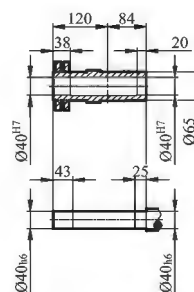
TSA67T



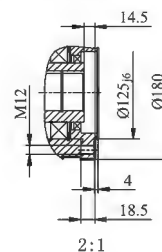
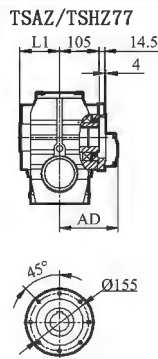
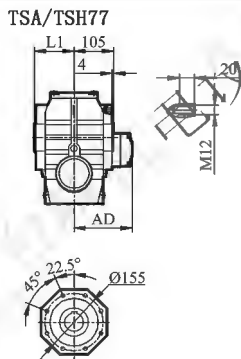
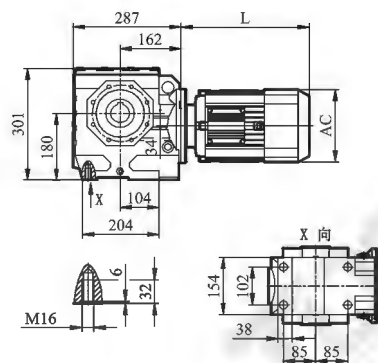
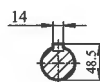
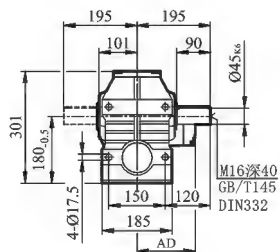
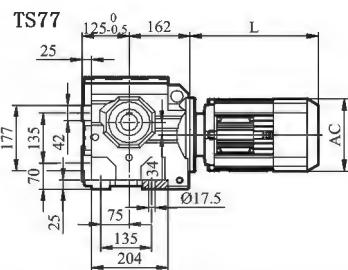
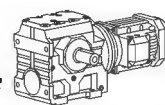
TSA/TSAZ/TSF67输出轴



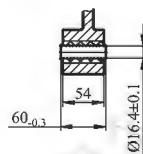
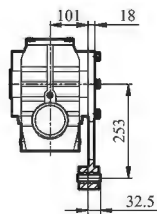
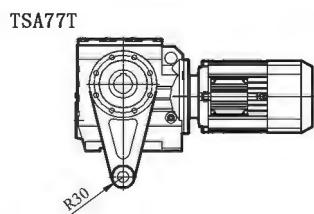
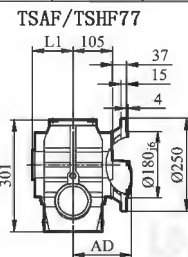
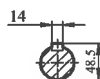
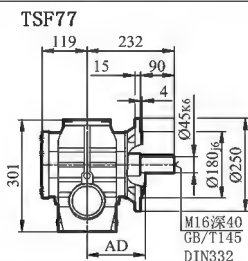
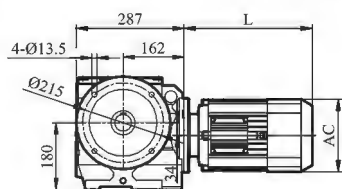
TSH/TSHZ/TSHF67输出轴



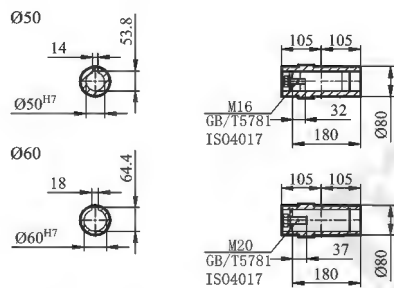
Y2电机机座号 Motor Size	63	71	80	90S	90L	100	112M	132S	
L	205	260	290	300	330	330	380	430	
AC	120	145	170	190	190	210	230	280	
AD	110	130	135	145	145	160	215	215	



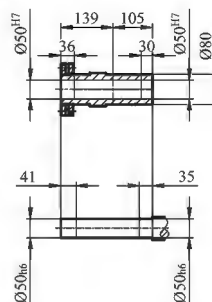
型号	TSA	TSH
Size	TSAZ	TSHZ
	TSAF	TSHF
L1	105	139



TSA/TAZ/TSF77T输出轴

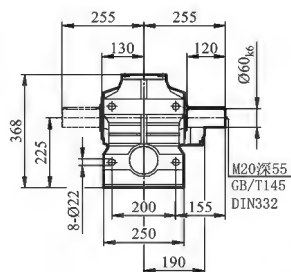
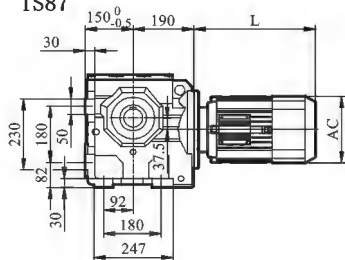


TSH/TSHZ/TSHF77输出轴

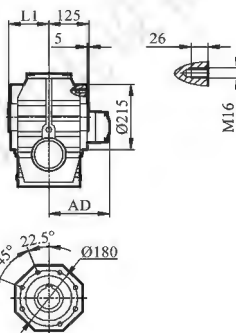
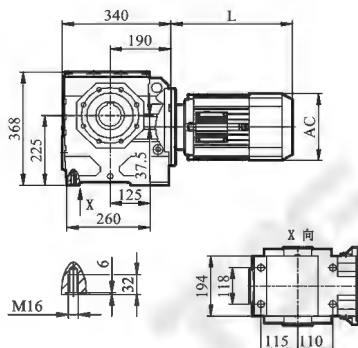


Y2电机机座号 Motor Size	80	90S	90L	100	112M	132S	132M	160M
L	284	292	322	322	370	418	457	524
AC	170	190	190	210	230	280	280	315
AD	135	145	145	160	215	215	215	255

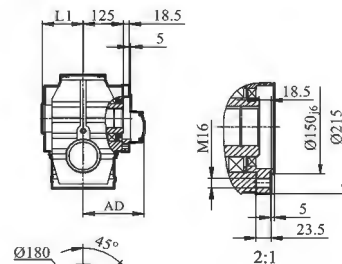
TS87



TSA/TSH87

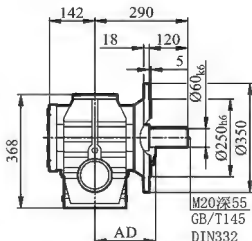
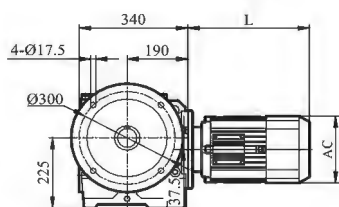


TSAZ/TSHZ87

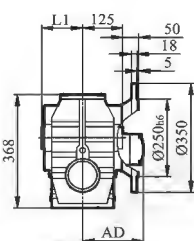


型号	TSA	TSH
Size	TSAZ	TSHZ
	TSAF	TSHF
L1	125	165

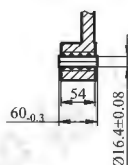
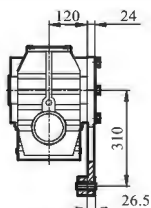
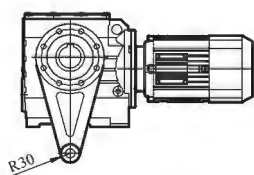
TSF87



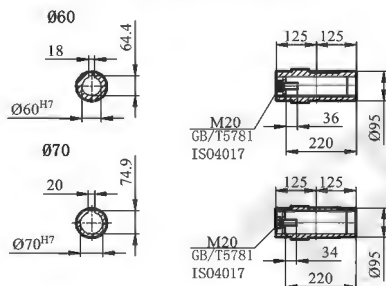
TSAF/TSHF87



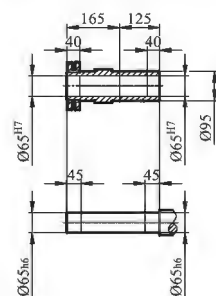
TSA87T



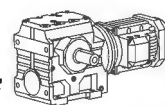
TSA/TAZ/TSF87输出轴



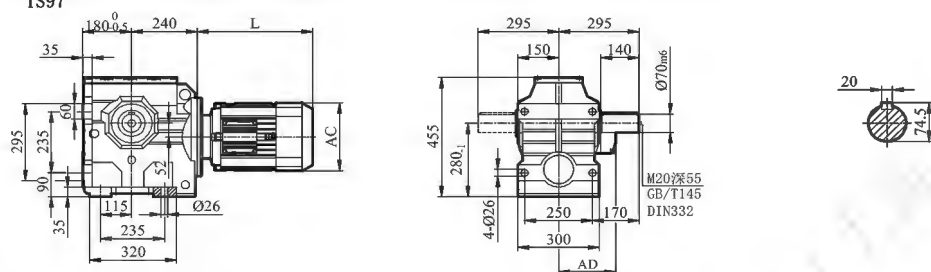
TSH/TSHZ/TSHF87输出轴



Y2电机座号	80	90S	90L	100	112M	132S	132M	160M	160L	
M0tOr Size										
L	280	288	318	318	365	413	452	524	547	
AC	170	190	190	210	230	280	280	315	315	
AD	135	145	145	160	215	215	215	255	255	

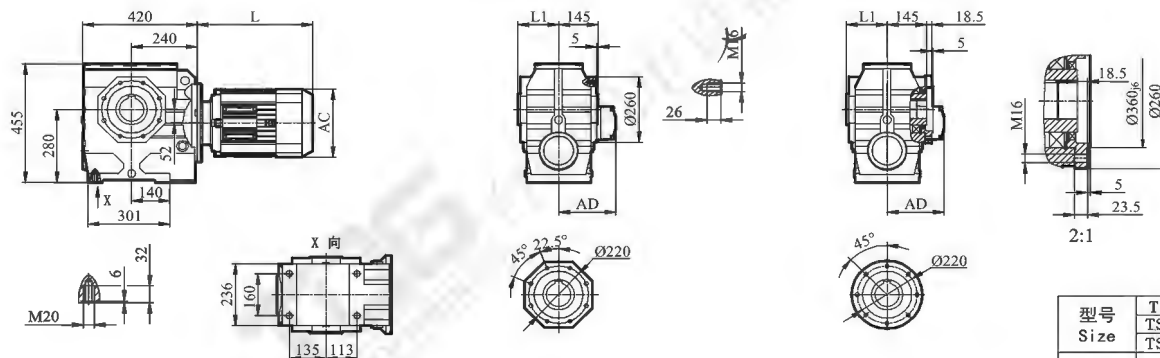


TS97



TSA/TSH97

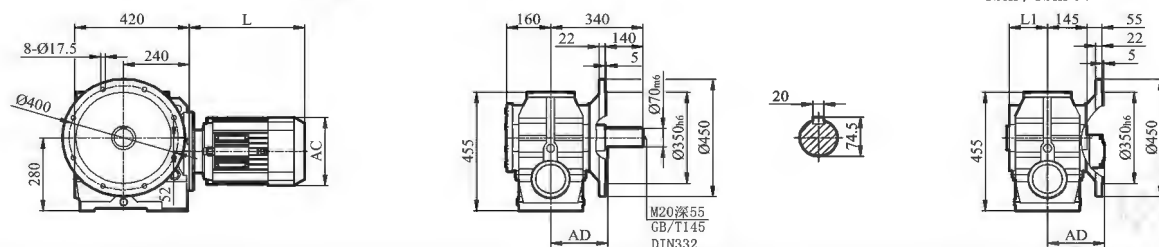
TSAZ/TSHZ97



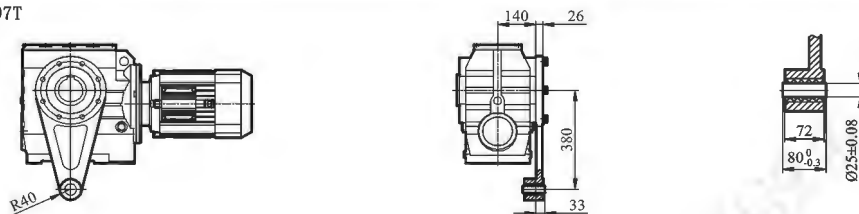
型号 Size	TSA TSAZ TSAF	TSH TSHZ TSHF
L1	145	200

TSF97

TSAF/TSHF97

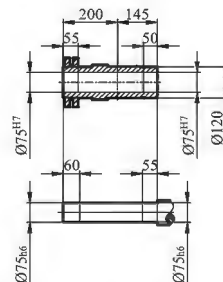
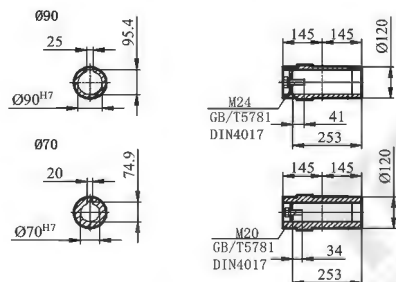


TSA97T



TSA/TSAZ/TSF97输出轴

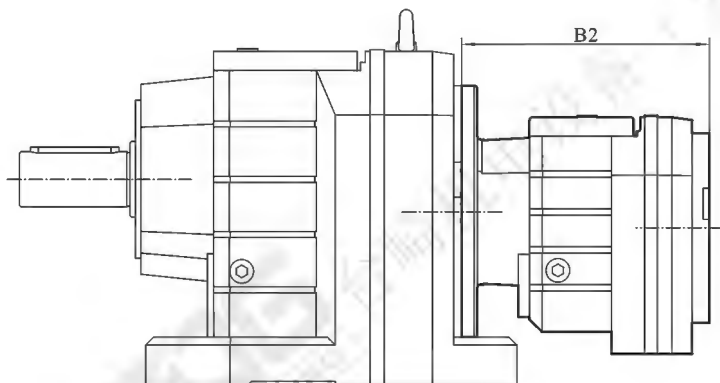
TSH/TSHZ/TSHF97输出轴



Y2电机座号 M0t0r Size	90S	90L	100	112M	132S	132M	160M	160L	180M	180L	
L	280	310	312	360	408	487	524	519	555	588	
AC	190	190	210	230	280	280	315	315	350	350	
AD	145	145	160	215	215	215	255	255	280	280	

6. 输入模块外形尺寸/ Dimensions of Input Module

6. 1 TRF..外形尺寸/ TRF.. Dimensions



机座号/Frame size	B2
TR..27 TRF 17	139
TR..37 TRF 17	139
TR..47 TRF 37	157
TR..57 TRF 37	157
TR..67 TRF 37	157
TR..77 TRF 37	157
TR..87 TRF 57	187
TR..97 TRF 57	187
TR..107 TRF 77	220
TR..137 TRF 77	220
TR..147 TRF 77	220
TR..147 TRF 87	272
TR..167 TRF 97	320
TR..167 TRF 107	355

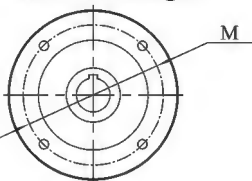
机座号/Frame size	B2
TF..27 TRF 17	139
TF..37 TRF 17	139
TF..47 TRF 17	139
TF..57 TRF 37	157
TF..67 TRF 37	157
TF..77 TRF 37	157
TF..87 TRF 57	187
TF..97 TRF 57	187
TF..107 TRF 77	220
TF..127 TRF 77	220
TF..127 TRF 87	272
TF..157 TRF 97	320

机座号/Frame size	B2
TK..37 TRF 17	139
TK..47 TRF 37	157
TK..57 TRF 37	157
TK..67 TRF 37	157
TK..77 TRF 37	157
TK..87 TRF 57	187
TK..97 TRF 57	187
TK..107 TRF 77	220
TK..127 TRF 77	220
TK..127 TRF 87	272
TK..157 TRF 97	320
TK..157 TRF 107	355
TK..167 TRF 97	320
TK..167 TRF 107	355
TK..187 TRF 97	320
TK..187 TRF 107	355

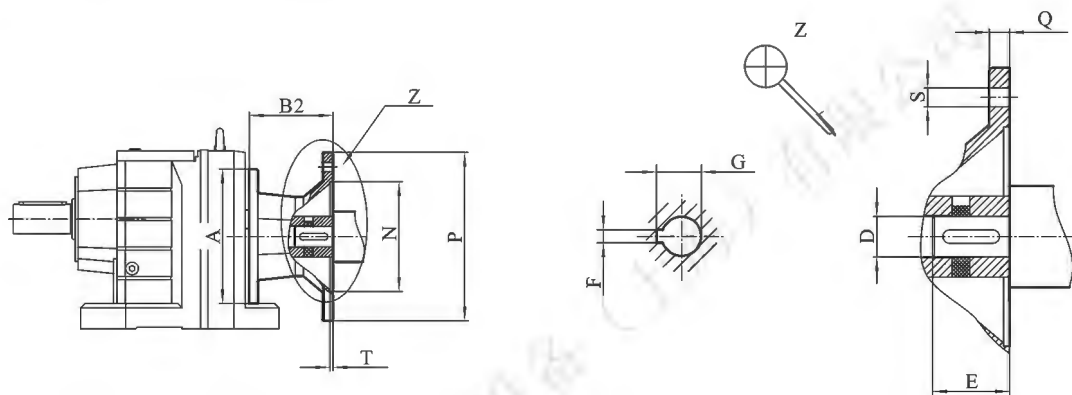
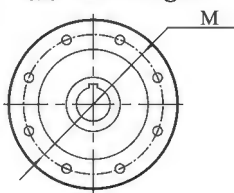
机座号/Frame size	B2
TS..37 TRF 17	139
TS..47 TRF 17	139
TS..57 TRF 17	139
TS..67 TRF 37	157
TS..77 TRF 37	157
TS..87 TRF 57	187
TS..97 TRF 57	187

6. 2 AM(IEC)..外形尺寸/AM (IEC) .. Dimensions

法兰1/Flange.1



法兰2/Flange.2

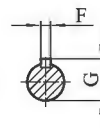
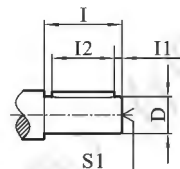
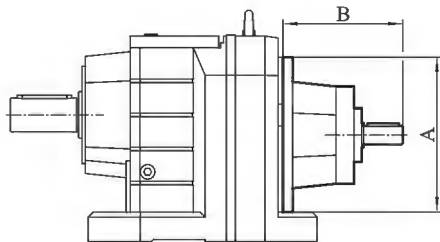
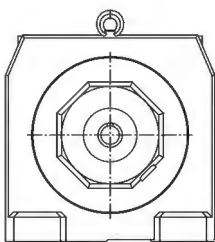


型号 Frame size	AM	Flange	A	B2	D	E	F	G	M	N	P	Q	S	T
TR..27/37 TF..27/37/47 TS..37/47/57 TK..37	AM63	1	120	70	11	23	4	12.8	115	95	140	10	4-Φ9	3.5
	AM71				14	30	5	16.3	130	110	160			
	AM80			90	19	40	6	21.8	165	130	200	12	4-Φ11	4.5
	AM90				24	50	8	27.3						
	AM100			110	28	60	8	31.3	215	180	250	15	4-Φ13.5	5
TR..47/57/67 TF..57/67 TS..67 TK..47/57/67	AM63	1	160	70	11	23	4	12.8	115	95	140	10	4-Φ9	3.5
	AM71				14	30	5	16.3	130	110	160			
	AM80			90	19	40	6	21.8	165	130	200	12	4-Φ11	4.5
	AM90				24	50	8	27.3						
	AM100			110	28	60	8	31.3	215	180	250	15	4-Φ13.5	5
	AM112				38	80	10	41.3	265	230	300	16		
	AM132S/M				140	38	80	10	41.3	265	230	300	16	
TR..77 TF..77 TS..77 TK..77	AM63	1	200	70	11	23	4	12.8	115	95	140	10	4-Φ9	3.5
	AM71				14	30	5	16.3	130	110	160			
	AM80			90	19	40	6	21.8	165	130	200	12	4-Φ11	4.5
	AM90				24	50	8	27.3						
	AM100			110	28	60	8	31.3	215	180	250	15	4-Φ13.5	5
	AM112				38	80	10	41.3	265	230	300	16		
	AM132S/M				140	38	80	10	41.3	265	230	300	16	
	AM132ML			180	42	110	12	45.3	300	250	350	18	4-Φ17.5	6
	AM160				42	110	12	45.3	300	250	350	18		
TR..87 TF..87 TS..87 TK..87	AM80	1	250	90	19	40	6	21.8	165	130	200	12	4-Φ11	4.5
	AM90				24	50	8	27.3						
	AM100			110	28	60	8	31.3	215	180	250	15	4-Φ13.5	5
	AM112				38	80	10	41.3	265	230	300	16		
	AM132S/M			140	38	80	10	41.3	265	230	300	16	4-Φ13.5	5
	AM132ML				42	110	12	45.3	300	250	350	18		
	AM160				42	110	12	45.3	300	250	350	18		
	AM180			180	48	110	14	51.8	300	250	350	18	4-Φ17.5	6

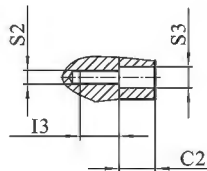
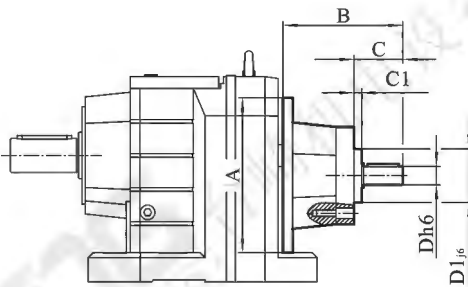
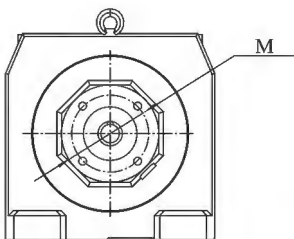
型号 Frame size	AM	Flange	A	B2	D	E	F	G	M	N	P	Q	S	T									
TR..97 TF..97 TS..97 TK..97	AM90	1	300	90	24	50	8	27.3	165	130	200	12	4-Φ11	4.5									
	AM100			110	28	60	8	31.3	215	180	250	15	4-Φ13.5	5									
	AM112																						
	AM132S/M			140	38	80	10	41.3	265	230	300	16	4-Φ17.5	6									
	AM132ML																						
	AM160			180	42	110	12	45.3	300	250	350	18	7										
	AM180													48	14	51.8	16	59.3	350	300	400	20	
	AM200			210	55	16	59.3	350	300	400	20												
TR..107 TF..107 TK..107	AM100	1	350	110	28	60	8	31.3	215	180	250	15	4-Φ13.5	5									
	AM112			140	38	80	10	41.3	265	230	300	16	4-Φ17.5	6									
	AM132S/M																						
	AM132ML			180	42	110	12	45.3	300	250	350	18	7										
	AM160													48	14	51.8	16	59.3	350	300	400	20	
	AM180			210	55	16	59.3	350	300	400	20												
	AM200			250	60	140	18	64.4	400	350	450	22	8-Φ17.5										
	AM225													2									
TR..137	AM132S/M	1	400	140	38	80	10	41.3	265	230	300	16	4-Φ13.5	5									
	AM132ML			180	42	110	12	45.3	300	250	350	18	4-Φ17.5	6									
	AM160														48	14	51.8	16	59.3	350	300	400	20
	AM180			210	55	18	64.4	400	350	450	22	8-Φ17.5											
	AM200												250	60	140	18	69.4	500	450	550	25	8-Φ17.5	
	AM225			2																			
	AM250			320	65	140	18	69.4	500	450	550	25	8-Φ17.5										
	TR..147 TF..127 TK..127			AM132S/M	1	450	140	38	80	10	41.3	265	230	300	16	4-Φ13.5	5						
AM132ML		180	42	110			12	45.3	300	250	350	18	4-Φ17.5	6									
AM160															48	14	51.8	16	59.3	350	300	400	20
AM180		210	55	18			64.4	400	350	450	22	8-Φ17.5											
AM200													250	60	140	18	69.4	500	450	550	25	8-Φ17.5	
AM225		2																					
AM250		320	65	140			18	79.9	500	450	550	25	8-Φ17.5										
AM280														75	20	79.9							
TR..167 TF..157 TK..157 TK..167 TK..187	AM160	1	550	180	42	110	12	45.3	300	250	350	18	4-Φ17.5	6									
	AM180			210	48		14	51.8															
	AM200														16	59.3	350	300	400	20			
	AM225	2		250	60	140	18	64.4	400	350	450	22	8-Φ17.5	7									
	AM250			320	65			140							18	69.4	500	450	550	25			
	TK..167																				75	20	79.9
	AM280																						

6.3 AD..外形尺寸/AD.. Dimensions

AD..



AD../ZR



型号 Frame size	AD..	A	B	C	C1	C2	D	D1	F	G	I	I1	I2	I3	M	S1	S2	S3
TR..27	AD1	120	100	-	-	-	16	-	5	18	40	4	32	-	-	M5*12.5	-	-
TF..27	AD2, AD2/ZR		114	50	8	13.5	19	55	6	21.5	40	4	32	12	78	M6*16	M8	9
TR/TF..37	AD1		100	-	-	-	16	-	5	18	40	4	32	-	-	M5*12.5	-	-
TK/TS..37	AD2, AD2/ZR		114	50	8	13.5	19	55	6	21.5	40	4	32	12	78	M6*16	M8	9
TF..47	AD1		100	-	-	-	16	-	5	18	40	4	32	-	-	M5*12.5	-	-
TS..47	AD2, AD2/ZR		114	50	8	13.5	19	55	6	21.5	40	4	32	12	78	M6*16	M8	9
TS..57	AD1	120	100	-	-	-	16	-	5	18	40	4	32	-	-	M5*12.5	-	-
	AD2, AD2/ZR		114	50	8	13.5	19	55	6	21.5	40	4	32	12	78	M6*16	M8	9
TR..47	AD2, AD2/ZR	160	114	50	8	13.5	19	55	6	21.5	40	4	32	12	78	M6*16	M8	9
TK..47	AD3, AD3/ZR		130	60	8	15.5	24	70	8	27	50	5	40	16	98	M8*19	M10	11
TR/TF..57	AD2, AD2/ZR		114	50	8	13.5	19	55	6	21.5	40	4	32	12	78	M6*16	M8	9
TK..57	AD3, AD3/ZR		130	60	8	15.5	24	70	8	27	50	5	40	16	98	M8*19	M10	11
TR/TF..67	AD2, AD2/ZR	200	114	50	8	13.5	19	55	6	21.5	40	4	32	12	78	M6*16	M8	9
TK/TS..67	AD3, AD3/ZR		130	60	8	15.5	24	70	8	27	50	5	40	16	98	M8*19	M10	11
TR/TF..77	AD2, AD2/ZR		114	50	8	13.5	19	55	6	21.5	40	4	32	12	78	M6*16	M8	9
	AD3, AD3/ZR		130	60	8	15.5	24	70	8	27	50	5	40	16	98	M8*19	M10	11
	AD4, AD4/ZR		186	95.5	13	16	38	92	10	41	80	5	70	20	120	M12*28	M12	13.5
TR/TF..87	AD2, AD2/ZR	250	114	50	8	13.5	19	55	6	21.5	40	4	32	12	78	M6*16	M8	9
	AD3, AD3/ZR		130	70	8	15.5	28	70	8	31	60	5	50	16	98	M8*19	M10	11
	AD4, AD4/ZR		186	95.5	13	16	38	92	10	41	80	5	70	20	120	M12*28	M12	13.5
	AD5, AD5/ZR		240	126	11	24	42	120	12	45	110	10	70	20	160	M16*36	M12	13.5

型号 Frame size	AD..	A	B	C	C1	C2	D	D1	F	G	I	I1	I2	I3	M	S1	S2	S3
TF/TF..97 TK/TS..97	AD3, AD3/ZR	300	130	70	8	15.5	28	70	8	31	60	5	50	16	98	M8*19	M10	11
	AD4, AD4/ZR		186	95.5	13	16	38	92	10	41	80	5	70	20	120	M12*28	M12	13.5
	AD5, AD5/ZR		240	126	11	24	42	120	12	45	110	10	70	20	160	M16*36	M12	13.5
	AD6, AD6/ZR		271.5	130.5	11	22.5	48	130	14	51.5	110	10	80	26	193	M16*36	M16	17.5
TR..107 TF..107 TK..107	AD3, AD3/ZR	350	130	70	8	15.5	28	70	8	31	60	5	50	16	98	M8*19	M10	11
	AD4, AD4/ZR		186	95.5	13	16	38	92	10	41	80	5	70	20	120	M12*28	M12	13.5
	AD5, AD5/ZR		240	126	11	24	42	120	12	45	110	10	70	20	160	M16*36	M12	13.5
	AD6, AD6/ZR		271.5	130.5	11	22.5	48	130	14	51.5	110	10	80	26	193	M16*36	M16	17.5
TF..127 TK..127	AD4, AD4/ZR	450	186	95.5	13	16	38	92	10	41	80	5	70	20	120	M12*28	M12	13.5
	AD5, AD5/ZR		240	126	11	24	42	120	12	45	110	10	70	20	160	M12*28	M12	13.5
	AD6, AD6/ZR		271.5	130.5	11	22.5	48	130	14	51.5	110	10	80	26	193	M16*36	M16	17.5
	AD7, AD7/ZR		282.5	133	13	19	55	125	16	59	110	10	90	30	190	M20*42	M20	22
	AD8, AD8/ZR		374	155	15	22.5	70	120	20	74.5	140	15	110	19.5	210	M20*12	M12	13.5
TR..137	AD4, AD4/ZR	400	186	95.5	13	16	38	92	10	41	80	5	70	20	120	M12*28	M12	13.5
	AD5, AD5/ZR		240	126	11	24	42	120	12	45	110	10	70	20	160	M16*36	M12	13.5
	AD6, AD6/ZR		271.5	130.5	11	22.5	48	130	14	51.5	110	10	80	26	193	M16*36	M16	17.5
	AD7, AD7/ZR		282.5	133	13	19	55	125	16	59	110	10	90	30	190	M20*42	M20	22
TR147	AD4, AD4/ZR	450	186	95.5	13	16	38	92	10	41	80	5	70	20	120	M12*28	M12	13.5
	AD5, AD5/ZR		240	126	11	24	42	120	12	45	110	10	70	20	160	M12*28	M12	13.5
	AD6, AD6/ZR		271.5	130.5	11	22.5	48	130	14	51.5	110	10	80	26	193	M16*36	M16	17.5
	AD7, AD7/ZR		282.5	133	13	19	55	125	16	59	110	10	90	30	190	M20*42	M20	22
	AD8, AD8/ZR		374	155	15	22.5	70	120	20	74.5	140	15	110	19.5	210	M20*12	M12	13.5
TF..157 TK..157	AD5, AD5/ZR	550	240	126	11	24	42	120	12	45	110	10	70	20	160	M12*28	M12	13.5
	AD6, AD6/ZR		271.5	130.5	11	22.5	48	130	14	51.5	110	10	80	26	193	M16*36	M16	17.5
	AD7, AD7/ZR		282.5	133	13	19	55	125	16	59	110	10	90	30	190	M20*42	M20	22
	AD8, AD8/ZR		374	155	15	22.5	70	120	20	74.5	140	15	110	19.5	210	M20*12	M12	13.5
TR..167 TK..167	AD5, AD5/ZR	550	240	126	11	24	42	120	12	45	110	10	70	20	160	M16*36	M12	13.5
	AD6, AD6/ZR		271.5	130.5	11	22.5	48	130	14	51.5	110	10	80	26	193	M16*36	M16	17.5
	AD7, AD7/ZR		282.5	133	13	19	55	125	16	59	110	10	90	30	190	M20*42	M20	22
	AD8, AD8/ZR		374	155	15	22.5	70	120	20	74.5	140	15	110	19.5	210	M20*42	M12	13.5
TK..187	AD5, AD5/ZR	550	240	126	11	24	42	120	12	45	110	10	70	20	160	M16*36	M12	13.5
	AD6, AD6/ZR		271.5	130.5	11	22.5	48	130	14	51.5	110	10	80	26	193	M16*36	M16	17.5
	AD7, AD7/ZR		282.5	133	13	19	55	125	16	59	110	10	90	30	190	M20*42	M20	22
	AD8, AD8/ZR		374	155	15	22.5	70	120	20	74.5	140	15	110	19.5	210	M20*42	M12	13.5

7. 选型指南 / Selection Guide

减速机通常是根椐恒转矩、起停不频繁及常温的情况设计。在按选型参数表选择减速器机型号前，先根据负载要求确定需要的输出扭矩，然后根据工况确定使用系数及减速机型号。

The gear units are designed under the condition as follows: constant torque, low start up frequency, normal atmospheric temperature. Before choosing a gear unit in the performance parameter table, first determine the output torque according to the load type, then determine the service factor and gear unit type according to the working condition.

7.1 选型相关参数 / Relevant Parameter

参数名称 Parameter	符号 Code	计算公式 Calculation formula	说明 Note
功率 Power	P	$P_1 = P_2 / \eta$ [Nm] $P_{1n} \geq P_1 \times K$ [Nm]	P_1 -输入功率 - Input power P_2 -输出功率 - Out Power P_{1n} -电机额定功率 - Rated power of driving motor η -传动效率 - Transmission efficiency K-使用系数 - Service factor
传动比 Ratio	I	$I = n_1 / n_2$	n_1 -输入转速 - Input speed n_2 -输出转速 - Output speed
扭矩 Torque	M	$M_2 = 9550 \times P_1 \times \eta / n_2$ [Nm] $M_{2n} \geq M_2 \times K$ [Nm]	M_2 -输出扭矩 - Output torque M_{2n} -选用输出扭矩 - Selected output torque

说明:

1. TR, TF, TK 减速器的传动效率 η 为94%；
2. 为了优化工作条件和提高使用寿命，建议使用1400 r/min或更低转速；
3. 传动比通常为小数，在选型表中保留两位小数。

Notes:

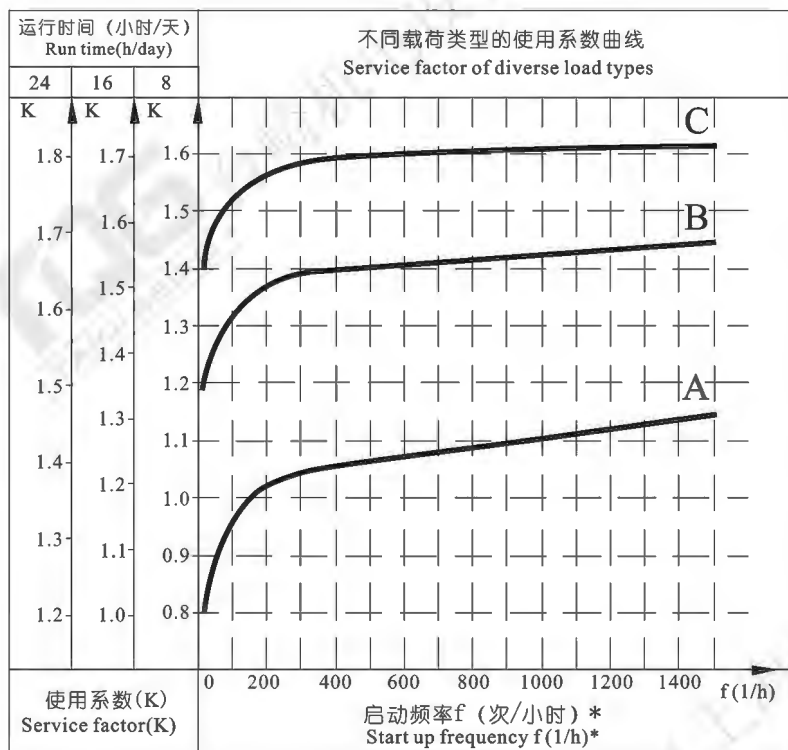
1. TR, TF, TK gear units' transmission efficiency $\eta = 94\%$.
2. To optimize the working conditions and prolong the service life, 1400 r/min or lower rotation speed is suggested.
3. Usually transmission ratio is decimal fraction with 2 radix point tagged in selection table.

7.2 使用系数(K) / Service Factor (K)

减速机的运行与载荷类型、运行时间、启动频次及环境温度等因素有关。为了正确选择减速机的型号，我们将这些影响因素综合为一个使用系数K。

The running of gear unit is related to load type, daily operation time, start up frequency and ambient temperature. Service factory, K, is determined by these factors.

(1) 使用系数(K)选择图 / Service Factor Selection Figure



说明:

- 图中的A、B、C为载荷类型
-A: 均匀载荷;
-B: 中等冲击载荷;
-C: 重冲击载荷。
- * 启动频率 f , 包括每小时所有启动、制动的次数, 及变速电机高低速切换时的次数。
- 环境温度对使用系数的影响:
-环境温度30/40℃ : $K*(1.15-1.35)$
-环境温度40/50℃ : $K*(1.35-1.65)$
-环境温度50/60℃ : $K*(1.65-1.85)$

Notes:

- A, B, C in above figure is load type.
-A: Uniform Load.
-B: Moderate Load.
-C: Heavy Load.
- * Start up frequency, including all the starts, brakes and speed switching when using variable speed motor.
- Effect of ambient temperature on service factor:
-Ambient Temperature30/40℃: $K*(1.15-1.35)$.
-Ambient Temperature40/50℃: $K*(1.35-1.65)$.
-Ambient Temperature50/60℃: $K*(1.65-1.85)$.

(2) 载荷类型表 / Load Type Table

用途 Application		载荷 类型 Load type	用途 Application		载荷 类型 Load type	用途 Application		载荷 类型 Load type
钢铁工业 Iron and steel industry	链式输送机 Chain conveyer	B	运输 Transmission	皮带式输送机 (散状物) Ribbon conveyer (bulk)	B	食品工业 Food industry	粉碎机 Kibbler	C
	绕线机(带材或线材) Winding machine (strip or wire)	B		皮带式输送机 (块状物) Ribbon conveyer (nubby)	C		甘蔗切碎机 Cane chopper	B
	拉丝机 Draw bench machine	B		斗式提升机 Bucket lifter	B		甜菜切碎机 Beet chopper	B
	辊道(重的) Roller table (heavy)	C		链式提升机 Chain lifter	C		甜菜清洗机 Beet washer	B
	辊道(轻的) Roller table (light)	B		螺旋输送机 Worm conveyer	B		搅拌机(液状物) Mixer(liquid)	A
	横向移动设备 Horizontal mobile device	B		运货升降机 Lifter	B		搅拌机(半液状物) Mixer(semi-liquid)	B
	连续铸造设备 Continuous casting equipment	C		回旋输送机 Whirl conveyer	C	木工及建筑工业 Carpentry & construction industry	剥皮机 Barker	C
	铸锭装卸机械 Ingot handling equipment	C		冷却或干燥滚筒 Cooling or dryness rolling drum	B		刨床 Planer	B
	滚轮调整传动装置 Roller adjust device	B		搅拌机(块状物) Mixer(nubby)	B		木工机床 Wood processing machine	A
	辊式拉伸矫直机 Tension roller straightening	B		离心机 Centrifuge	B		筑路机械 Road building machine	B
运输 Transmission	板式输送机 Plate conveyer	B		压延或挤压机 Calender/extruder	B		混凝土搅拌机 Concrete mixer	B
	压载升降机 Ballast lifter	B		搅拌机 Mixer	C			
	斗式输送机 Bucket conveyer	B		滚轧机 Roller machine	C			

7. 3 径向载荷 / Radial Loads

当减速机输出轴承受径向载荷时，须根据下面的公式对减速机输出轴的受力进行计算，并将此计算结果 F_{ra} 与性能参数表中的许可径向力 F_r 进行比较。

减速机输出轴的实际径向力 F_{ra} 不允许大于性能参数表中的数值 F_r 。

The radial load on the output bearing is calculated as follow: compare the calculation result F_{ra} with the permitted radial loads given in theselection table.

F_{ra} has to be smaller than or equal to F_r .

$$F_{ra}=2000*M*f_z/d_0 \text{ [N]}$$

F_{ra} : 作用在输出轴中点的径向力[N]

M : 作用在输出轴上的扭矩[Nm]

f_z : 传动附加系数（见下表）

d_0 : 输出轴上传动件平均直径[mm]

F_{ra} : Radial force application in the centre of the output shaft.

M : Torque on the output shaft.

f_z : Transmission element factor (following table)

d_0 : Average diameter of the mounted transmission element .

传动件 Transmission element	传动附加系数 f_z Transmission element factor f_z	注释 comments
齿轮 Gears	1.00	=17齿 teeth
	1.15	<17齿 teeth
链轮 Chain sprockets	1.00	=20齿 teeth
	1.25	<20 齿 teeth
	1.4	<13 齿 teeth
V带轮 Narrow V-belt pulleys	1.75	有预紧力作用 Influence of the tensile force
平带轮 Flat-belt pulleys	2.5	有预紧力作用 Influence of the tensile force
齿带轮 Toothed belt pulleys	2.5	有预紧力作用 Influence of the tensile force

当径向载荷作用点不在输出轴的中点时，必须根据下面的公式重新计算减速机允许的最大径向力 F_r' 。

F_{xL} 是基于轴承使用寿命的；

F_{xw} 是基于输出轴强度的。

将 F_{xL} 和 F_{xw} 中的较小者作为减速机允许的最大径向力 F_r' 。

The radial loads must calculated using the following formula in the event of force application not in the centre of the shaft end.

The smaller of the two values F_{xL} (according to the bearing service lift) and F_{xw} (according to the shaft strength) is the permitted value for the radial load F_r' .

$$F_{xL}=F_r*a/(b+x) [N]$$

$$F_{xw}=c/(f+x) [N]$$

F_r : 性能参数表中列出的许可径向力[N]

x : 轴肩到实际作用点的距离[mm]

a,b,f : 减速机径向转换常数[mm] (见下表)

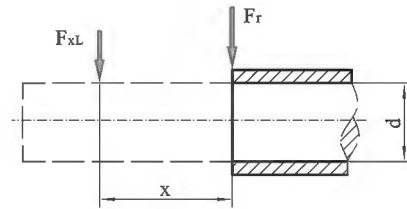
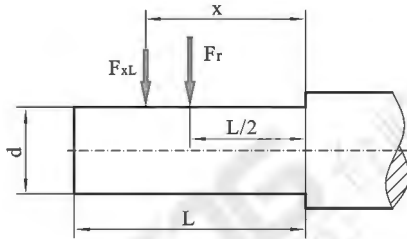
c : 减速机径向转换常数[N.mm] (见下表)

F_r : Permitted overhung load according to the selection table[N]

x : Distance from the shaft shoulder to the force application point[mm]

a,b,f : Gear unit constant for overhung load conversion[mm](see below table)

c : Gear unit constant for overhung load conversion[N.mm]



减速机型号 Gear unit type	a [mm]	b [mm]	c [mm]	f [mm]	d [mm]	L [mm]
TRX57	43.5	23.5	1.51x10 ⁵	34.2	20	40
TRX67	52.5	27.5	2.42x10 ⁵	39.7	25	50
TRX77	60.5	30.5	1.95x10 ⁵	0	30	60
TRX87	73.5	33.5	7.69x10 ⁵	48.9	40	80
TRX97	86.5	36.5	1.43x10 ⁶	53.9	50	100
TRX107	102.5	42.5	2.47x10 ⁶	62.3	60	120
TR07	72.0	52.0	4.67x10 ⁴	11	20	40
TR17	88.5	68.5	6.527x10 ⁴	17	20	40
TR27	106.5	81.5	1.56x10 ⁵	11.8	25	50
TR37	118	93	1.24x10 ⁵	0	25	50
TR47	137	107	2.44x10 ⁵	15	30	60
TR57	147.5	112.5	3.77x10 ⁵	18	35	70
TR67	168.5	133.5	2.51x10 ⁵	0	35	70
TR77	173.7	133.7	3.97x10 ⁵	0	40	80
TR87	216.7	166.7	8.47x10 ⁵	0	50	100
TR97	255.5	195.5	1.19x10 ⁶	0	60	120
TR107	285.5	215.5	2.06x10 ⁶	0	70	140
TR137	343.5	285.5	6.14x10 ⁶	30	90	170
TR147	402	297	8.65x10 ⁶	33	110	210
TR167	450	345	1.26x10 ⁷	0	120	210
TF..27	109.5	84.50	1.13x10 ⁵	0	25	50
TF..37	123.5	98.50	1.07x10 ⁵	0	25	50
TF..47	153.5	123.5	1.40x10 ⁵	0	30	60
TF..57	170.7	135.7	2.70x10 ⁵	0	35	70
TF..67	181.3	141.3	4.12x10 ⁵	0	40	80

减速机型号 Gear unit type	a [mm]	b [mm]	c [mm]	f [mm]	d [mm]	L [mm]
TF..77	215.8	165.8	7.87x10 ⁵	0	50	100
TF..87	263.0	203.0	1.06x10 ⁶	0	60	120
TF..97	350.0	280.0	2.09x10 ⁶	0	70	140
TF..107	373.5	288.5	4.23x10 ⁶	0	90	170
TF..127	442.5	337.5	9.45x10 ⁶	0	110	210
TF..157	512.0	407.0	1.05x10 ⁷	0	120	210
TK..37	123.5	98.50	1.41x10 ⁵	0	25	50
TK..47	153.5	123.5	1.78x10 ⁵	0	30	60
TK..57	169.7	134.7	6.8x10 ⁵	32	35	70
TK..67	181.3	141.3	4.12x10 ⁵	0	40	80
TK..77	215.8	165.8	7.69x10 ⁵	0	50	100
TK..87	252.0	192.0	1.64x10 ⁶	0	60	120
TK..97	319.0	249.0	2.8x10 ⁶	0	70	140
TK..107	373.5	288.5	5.53x10 ⁶	0	90	170
TK..127	443.5	338.5	8.31x10 ⁶	0	110	210
TK..157	509.0	404.0	1.18x10 ⁷	0	120	210
TK..167	621.5	496.5	1.88x10 ⁷	0	160	250
TK..187	720.5	560.5	3.04x10 ⁷	0	190	320
TS..37	118.5	98.50	6.00x10 ⁴	0	20	40
TS..47	130.0	105.0	1.33x10 ⁵	0	25	50
TS..57	150.0	120.0	2.14x10 ⁵	0	30	60
TS..67	184.0	149.0	3.04x10 ⁵	0	35	70
TS..77	224.0	179.0	5.26x10 ⁵	0	45	90
TS..87	281.5	221.5	1.68x10 ⁶	0	60	120
TS..97	326.3	256.3	2.54x10 ⁶	0	70	140

7. 4. 2 许用径向和轴向载荷 / Permitted overhung and axial loads

根据不同的服务系数f_B和不同的标称轴承使用寿命L_{H10}提供下述的许用径向载荷F_{RA}和轴向载荷F_{AA}

The permitted overhung loads F_{RA} and axial loads F_{AA} are specified for various service factors f_B and nominal bearing service life L_{H10}

f_A=1.5/L_{10h}=10000h

		na[rpm]							
		<16	16-25	26-40	41-60	61-100	101-160	161-250	251-400
TRM 57	F _{RA} [N]	400	400	400	400	400	405	410	415
	F _{AA} [N]	18800	15000	11500	9700	7100	5650	4450	3800
TRM 67	F _{RA} [N]	575	575	575	580	575	585	590	600
	F _{AA} [N]	19000	18900	15300	11900	9210	7470	5870	5050
TRM 77	F _{RA} [N]	1200	1200	1200	1200	1200	1210	1210	1220
	F _{AA} [N]	22000	22000	19400	15100	11400	9220	7200	6710
TRM 87	F _{RA} [N]	1970	1970	1970	1970	1980	1990	2000	2010
	F _{AA} [N]	30000	30000	23600	18000	14300	11000	8940	8030
TRM 97	F _{RA} [N]	2980	2980	2990	3010	3050	3060	3060	3080
	F _{AA} [N]	40000	36100	27300	20300	15900	12600	9640	7810
TRM 107	F _{RA} [N]	4230	4230	4230	4230	4230	4230	3580	3580
	F _{AA} [N]	48000	41000	30300	23000	18000	13100	9550	9030
TRM 137	F _{RA} [N]	8710	8710	8710	8710	7220	5060	3980	6750
	F _{AA} [N]	70000	70000	70000	57600	46900	44000	35600	32400
TRM 147	F _{RA} [N]	11100	11100	11100	11100	10600	10600	8640	10800
	F _{AA} [N]	70000	70000	69700	58400	45600	38000	32800	30800
TRM 167	F _{RA} [N]	14600	14600	14600	14600	14600	14700	—	—
	F _{AA} [N]	70000	70000	70000	60300	45300	36900	—	—

f_A=2.0/L_{10h}=25000h

		na[rpm]							
		<16	16-25	26-40	41-60	61-100	101-160	161-250	251-400
TRM 57	F _{RA} [N]	410	410	410	410	410	415	415	420
	F _{AA} [N]	12100	9600	7350	6050	4300	3350	2600	2200
TRM 67	F _{RA} [N]	590	590	590	595	590	595	600	605
	F _{AA} [N]	15800	12000	9580	7330	5580	4460	3460	2930
TRM 77	F _{RA} [N]	1210	1210	1210	1210	1210	1220	1220	1220
	F _{AA} [N]	20000	15400	11900	9070	6670	5280	4010	3700
TRM 87	F _{RA} [N]	2000	2000	2000	2000	2000	1720	1690	1710
	F _{AA} [N]	24600	19200	14300	10600	8190	6100	5490	4860
TRM 97	F _{RA} [N]	3040	3040	3040	3050	3070	3080	2540	2430
	F _{AA} [N]	28400	22000	16200	11600	8850	6840	5830	4760
TRM 107	F _{RA} [N]	4330	4330	4330	4330	4330	4230	3580	3580
	F _{AA} [N]	32300	24800	17800	13000	9780	8170	5950	5620
TRM 137	F _{RA} [N]	8850	8850	8850	8830	5660	4020	3200	5240

		na[rpm]							
		<16	16-25	26-40	41-60	61-100	101-160	161-250	251-400
	F _{Aa} [N]	70000	59900	48000	37900	33800	31700	25600	23300
TRM 147	F _{RA} [N]	11400	11400	11400	11400	11400	8320	6850	8440
	F _{Aa} [N]	70000	60600	45900	39900	33500	27900	24100	22600
TRM 167	F _{RA} [N]	15100	15100	15100	15100	15100	13100	—	—
	F _{Aa} [N]	70000	63500	51600	37800	26800	23600	—	—

7.4.3 转换系数和齿轮箱常数 / Conversion factors and gear unit constants

计算TRM齿轮减速电机额定径向载荷FXL(X≠1000mm)的转换系数

The following conversion factors and gear unit constants apply to calculating the approved overhung load FXL at point x≠1000 mm for TRM geared motors:

齿轮箱型号 Gear unit type	a	b	C _F (F _B =1.5)	C _F (F _B =2.0)	F _F
TRM 57	1047	47	1220600	1260400	277
TRM 67	1047	47	2047600	2100000	297.5
TRM 77	1050	50	2512800	2574700	340.5
TRM 87	1056.5	56.5	4917800	5029000	414
TRM 97	1061	61	10911600	11124100	481
TRM 107	1069	69	15367000	15652000	554.5
TRM 137	1088	88	25291700	25993600	650
TRM 147	1091	91	30038700	31173900	756
TRM 167	1089.5	89.5	42096100	43654300	869

TRM减速箱的增加重量 / Additional Weights of TRM gear units

型号 Type	用 TRF系列最小的法兰所增加的重量表 Additional weight in addition to TF, related to the smallest TRF flange	△m[kg]
TRM 57	12.0	
TRM 67	15.8	
TRM 77	25.0	
TRM 87	29.7	
TRM 97	51.3	
TRM 107	88.0	
TRM 137	111.1	
TRM 147	167.4	
TRM 167	195.4	

8. 存放与维护 / Storage And Maintenance

8.1 存放 / Storage

- (1) 减速机应存放在防雨雪、无震动、温度和湿度无骤然变化、无污染和粉尘、无腐蚀性蒸汽的环境中。
- (2) 减速机与地面之间应放置合适的间隔材料。
- (3) 开箱后暂不使用的减速机，应在各加工面上涂防锈油，并及时放回包装箱内。

1. Under roof, protected against rain and snow, no shock loads, Temperature and humidity without sudden change, no pollution and dust, no corrosive vapor environment.
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.

8.2 维护 / Maintenance

注意：在对减速机进行检查或维护前，请务必切断减速机驱动电机的电源，防止触电！等待减速机冷却！

Attention: Before inspection or maintenance, please be sure to cut off the reducer drive motor power, prevent electric shock! And wait until the reducer cooled down.

- (1) 首次换油应在减速机工作300小时后进行。换油时须用合适的清洁剂冲洗齿轮箱，不得将合成油与矿物油混合。
- (2) 每隔6个月或工作3000小时后，检查润滑油及油位。当采用 AM 输入时，还应检查弹性体，必要时进行更换。
- (3) 如果减速机加注了矿物润滑油，应根据油池稳态温度的不同，最长三年检查一次润滑油的品质是否改变。
- (4) 如果减速机加注了合成润滑油，应根据油池稳态温度的不同，最长五年检查一次润滑油的品质是否改变。
- (5) 根据减速机工作环境的不同，更换输出轴上的油封。
- (6) 产品出现故障时，不要拆卸部件，与本公司售后服务部门联系（需提供减速机规格，铭牌编号，已使用时间，和故障类型）后再采取合理的措施。

1. For 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.
2. Every 3000 working time or six months, you have to check the oil and oil level. For AM input gear units, the elastomer should be tested or replaced if necessary.
3. For mineral oil, at least every 3 years inspection is needed. Then change the mineral oil and replace the bearing grease.
4. For Synthetic oil, at least every 5 years inspection is needed. Then change the synthetic oil and replace the bearing grease.
5. Depending on the operating conditions, change the Oil seal on output shaft.
6. Once the malfunctions appear, stop disassembling The parts, and firstly please contact the customer service (the information about specification, series number, timed used and malfunction problem), then take the reasonable measures.

9. 订货需知 / Notice For Order

订购减速机时请提供以下信息：

- (1) 减速机型号（传动比、输入配置、输出配置、功率和安装方式）。
- (2) 订购数量。
- (3) 其他特殊要求。
- (4) 单位名称、联系人、联系电话。

Please provide the following information when place the orders:

1. The model mark of the gear ung positionnit(type, Ratio,power and mounti).
2. Quantity.
3. Other special requirements.
4. company, contact and telephone.

10. 故障及排除 / Malfunction and Remedy

故障	可能的原因	解决办法
异常、均匀的运转噪声。	1. 滚动/碾压噪声：轴承损坏。 2. 冲击型噪声：齿轮啮合不均匀。	1. 检查润滑油，更换轴承。 2. 请向客户服务部咨询。
异常、不均匀的运转噪声。	润滑油中有异物。	1. 停机向客户服务部咨询。 2. 检查润滑油。
机油泄漏 * 1. 在减速机盖板上。 2. 在电机法兰上。 3. 在电机轴密封圈上。 4. 在减速器法兰上。 5. 在输出轴密封圈上。	1. 减速机密封垫发生泄漏。 2. 轴上的油封损坏。 3. 减速机没有排气。	1. 在密封垫上涂密封胶并拧紧螺栓。 2. 更换油封。 3. 给减速机排气（参见“安装方式”）。
机油从排气阀旁渗出	1. 机油太多。 2. 传动装置安装方式错误。 3. 频繁冷起动（润滑油起泡沫）。	1. 修正油量（参见“润滑油”）。 2. 正确安装排气阀并且矫正油位（参见“安装方式”）。
减速机输入端驱动正常，但是输出轴不转动。	减速机中的轴与轮毂联接失效。	请向客户服务部咨询。
AM (IEC) 连接器弹性体过早磨损或失效	1. 接触腐蚀性物质（液体或气体）。 2. 过高的环境温度。最大的环境温度允许-20℃到+80℃。 3. 过大的负载。	请向客户服务部咨询。

*：在磨合试运转阶段（24小时的运转时间内），轴密封圈有可能出现短暂、少量的渗油现象。

Problem	Possible Cause	Remedy
Unusual, regular running noise.	1. Meshing/grinding noise; Bearing damage. 2. Knocking noise; Irregularity in the gearings.	1. Check the oil, change bearings. 2. Contact customer service.
Unusual, irregular running noise.	Foreign bodies in the oil.	1. Check the oil. 2. Stop the drive and contact customer service.
Oil leaking: 1. from the gear cover plate. 2. from the motor flange. 3. from the motor oil seal. 4. from the gear unit flange. 5. from the output end oil seal.	1. Rubber seal on the gear cover leaking . 2. Seal defective. 3. Gear unit not vented.	1. Tighten the bolts on the gear cover plate and observe the gear unit. 2. Change the seals. 3. Vent the gear unit (see “ Mounting Positions”). 4. Contact customer service.
Oil leaking from breathing valve.	1. Too much oil. 2. Drive operated in incorrect mounting position. 3. Frequent cold starts(oil foams) and/or high oil level.	1. Correct the oil level (see sec. “inspection and maintenance”) 2. Mount the breather valve correctly (see sec. “Mounting Positions”) and correct the oil level (s “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.	Contact customer service.
Premature wear or failure in AM(IEC) coupling elastomer.	1. Contacted with aggressive fluids/oil; 2. Impermissibly high ambient/contact temperature. Maximum permitted temperature-20°C to +80°C.	Contact customer service.

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



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