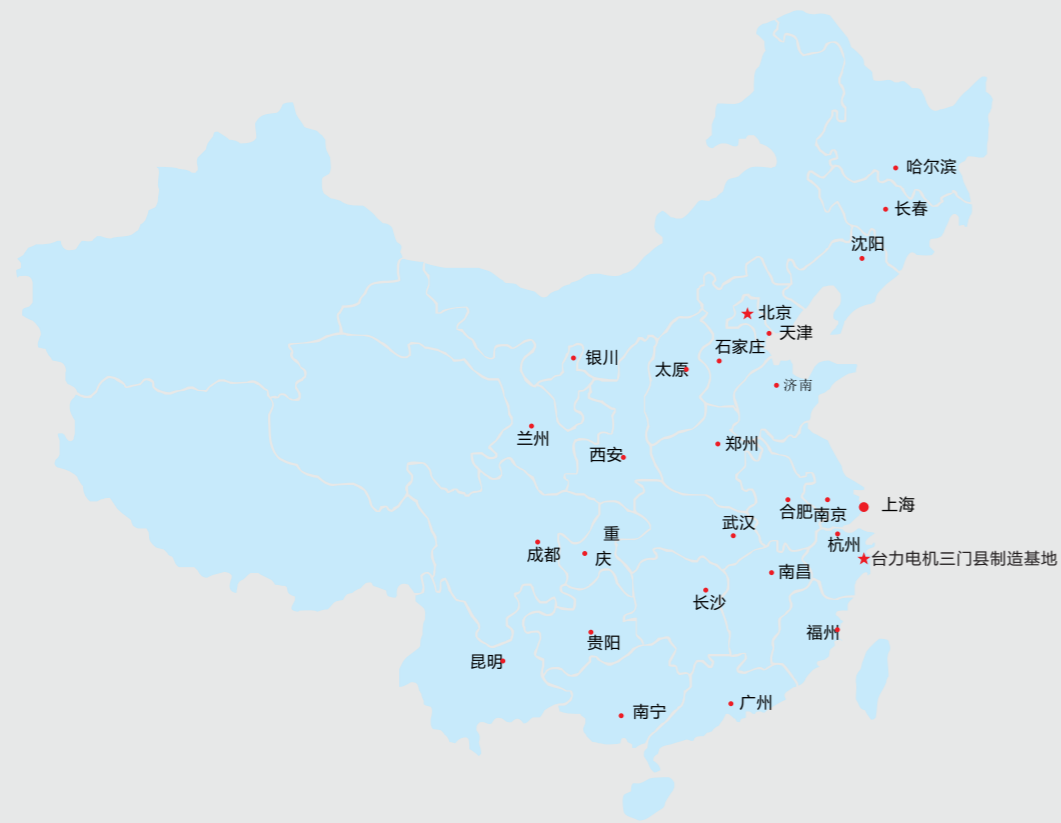


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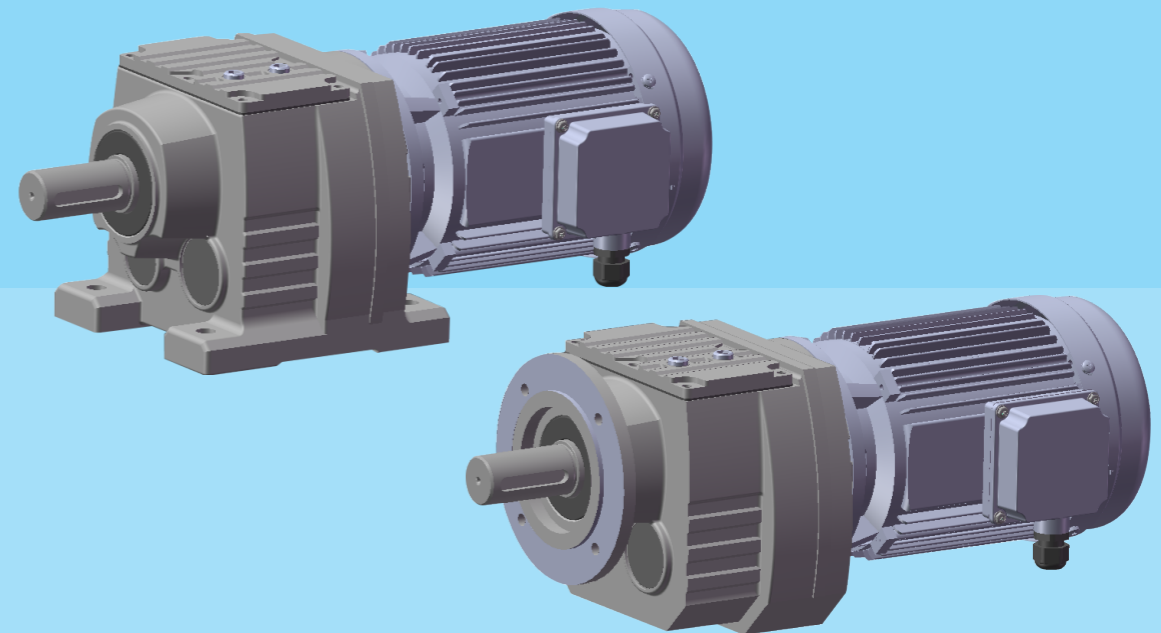


2022版

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公司简介

三门台力电机有限公司成立于2005年，主要专注于自动化行业及智能装备领域的齿轮传动解决方案。公司产品线丰富，能满足客户个性化、定制化需求，多项产品技术指标达到国际标准。市场占有率处于行业领先地位，是国内首家集齿轮减速电机与变频器研发、制造、服务为一体的高新技术企业。

台力电机生产基地坐落于美丽的三门湾畔，健跳收费站（G1523甬莞高速出口）一公里处，风景怡人，环境优越，员工600多人，占地面积130多亩。另设广州、东莞、路桥、上海、临沂、沈阳、武汉、郑州等仓储中心，能就近为客户提供便捷的售前售后服务。公司主要生产R系列斜齿轮减速电机，K系列斜齿轮—伞齿轮减速电机，F系列平行轴斜齿轮减速电机，S系列斜齿轮—蜗杆减速电机，微型、小型交流齿轮减速电机，永磁有刷直流电机、步进电机、伺服电机、高精度行星减速器、准双曲面、变频器等；可以根据客户需求产品可进行自主组合搭配，多元化解决方案。产品广泛应用于钢铁、矿山、水泥、起重运输、立体车库、石油开采、船舶工业，化工搅拌设备、舞台装备、各种工业流水线、智能装备、畜牧机械、印刷机械、纺织机械、仪器仪表、食品机械、输变电设备、道闸门机、医疗设备、物流设备、安检设施、金融设备、新能源、工业机器人等行业。

来自客户的需求推动了台力电机的高速发展，快速反应源自于公司拥有一批技术一流的专业人才以及公司对产品研发的重视与投入。公司采用先进的生产工艺及精益化生产管理流程，汇聚行业内高级工程师、齿轮工程师多名及一大批具有大学本、专科学历的技术精英，并每年投入一定资金，进行产品研发。公司拥有国内一流的滚齿、磨齿设备；卧式加工中心及各类数控加工机床400多套，变频器事业部拥有自主化SMT、DIP加工，全自动涂覆机，全自动PCBA ATE测试平台，全自动整机测试平台。并建立了行业领先水平的生产设备及检测设备，基准测量室、长度测量室、力学试验室、金相试验室、电机综合试验室等一系列完善的计量检测体系等各类数控机床及高精度测量设备，公司已通过ISO9001国际质量管理体系认证和CQC认证及CE认证。

公司产品以高效率、低噪音、长寿命、重量轻、免保养等卓越品质、合理的价格、完善的售后服务，深受广大新老用户的青睐。台力电机按行业应用的销售模式打破传统的区域营销，真正做到为客户精准服务理念。

满足客户要求是企业的唯一宗旨，满足客户期望是企业的永恒追求。

COMPANY PROFILE

Sanmen Taili Motor Co.,Ltd. was established in 2005, mainly focusing on gear transmission solutions in the automation industry and intelligent equipment field. The company has a rich product line, which can meet personalized and customized needs of customers, and a number of product technical indicators have reached international standards. The market share is in the leading position in the industry, and it is China's first high-tech enterprise integrating R&D, manufacturing and service of geared motors and frequency converters.

Taili Motor's production base is located in the beautiful Sanmen Bay, 1 kilometer from Jiantiao toll station (G1523 Ningbo-Dongguan expressway exit), with pleasant scenery and superior environment. It has more than 600 employees and covers an area of more than 130 mu. There are also warehouse centers in Guangzhou, Dongguan, Luqiao, Shanghai, Linyi, Shenyang, Wuhan, Zhengzhou, which can nearby provide customers with convenient pre-sales and after-sales services. The company mainly produces R series helical gear motors, K series helical-bevel gear motors, F series parallel shaft helical gear motors, S series helical-worm gear motors, micro and small AC gear motors, permanent magnet brush DC motors, stepper motors, servo motors, high precision planetary reducers, hypoid reducers and frequency converters. According to customer needs, products can be independently combined and matched to provide diversified solutions. The products are widely used in steel, mining, cement, lifting and transportation, stereo garage, oil exploration, shipbuilding industry, chemical mixing equipment, stage equipment, various industrial assembly lines, intelligent equipment, animal husbandry machinery, printing machinery, textile machinery, instrumentation, food machinery, power transmission and transformation equipment, gate machine, medical equipment, logistics equipment, security inspection facilities, financial equipment, new energy, industrial robots and other industry.

The demands from customers has promoted the rapid development of Taili Motor, and the fast response is derived from the company has a team of first-class professionals and company's attention and investment in product R&D. The company adopts advanced manufacturing technology and lean production management process, gathering together senior engineers, gear engineers in the industry and a large number of technical elites with university and college degrees, and invest a certain amount of money every year for product R&D. The company has domestic first-class gear hobbing and grinding equipment, more than 400 sets of horizontal machining centers and various types of machine tools. The frequency converter division has independent SMT, DIP processing, fully automatic coating machine, fully automatic PCBA ATE test platform and fully automatic whole machine test platform. Meanwhile, the company has established industry-leading testing equipment, reference measurement room, length measurement room, mechanics laboratory, metallographic laboratory, motor comprehensive laboratory and etc. The company has passed ISO9001 international quality management system certification, CQC certification and CE certification.

The company's products are favored by the majority of new and old users by excellent quality of high efficiency, low noise, long life, light weight, maintenance free, reasonable price and perfect after-sales service. Taili Motor breaks the traditional regional marketing, according to the sales model of industry application, truly achieve the concept of accurate service for customers.

Meet customer demand is the only purpose of the company, meet customer expectation is the eternal pursuit of the company.

经营理念：精益求精、追求完美。

服务宗旨：客户至上、信誉第一。

**BUSINESS PHILOSOPHY: KEEP IMPROVING, IN PURSUIT OF PERFECTION.
SERVICE TENET: CUSTOMER FIRST, REPUTATION FIRST**

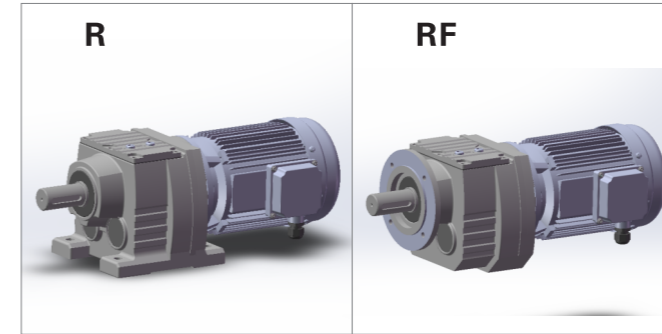


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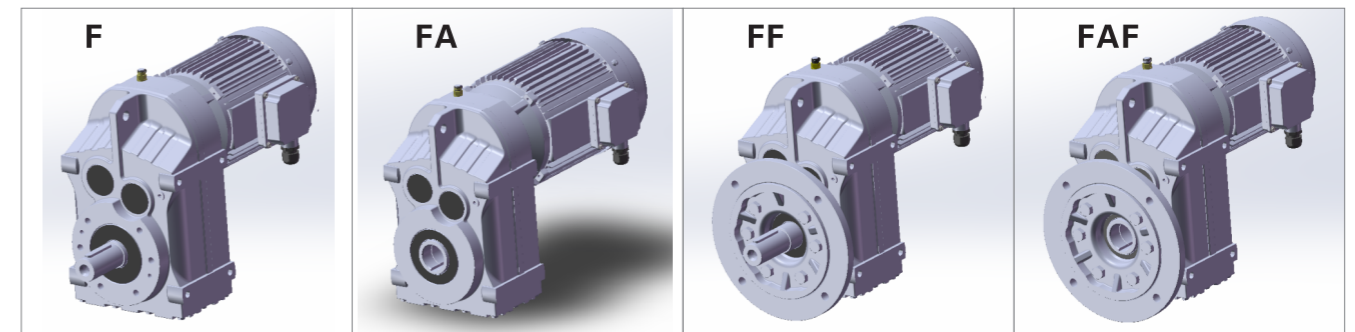


1. 产品图片 Product pictures

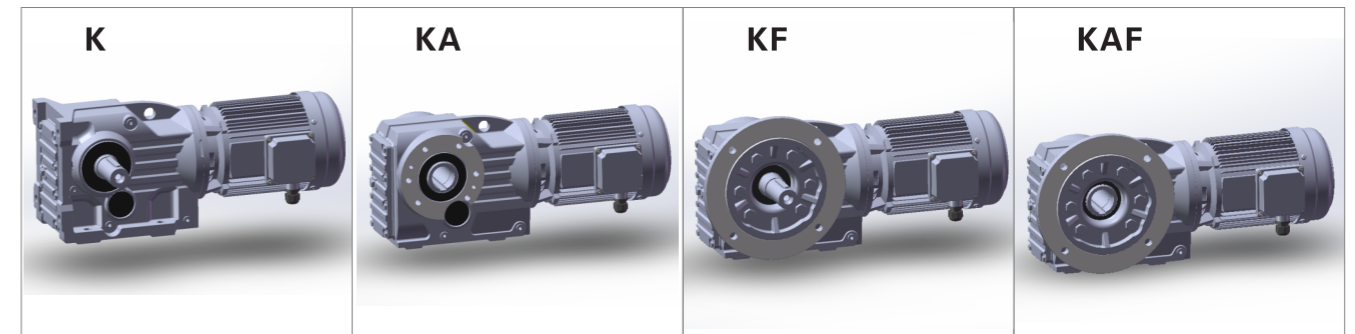
R 斜齿轮减速电机 R Helical Geared Motor



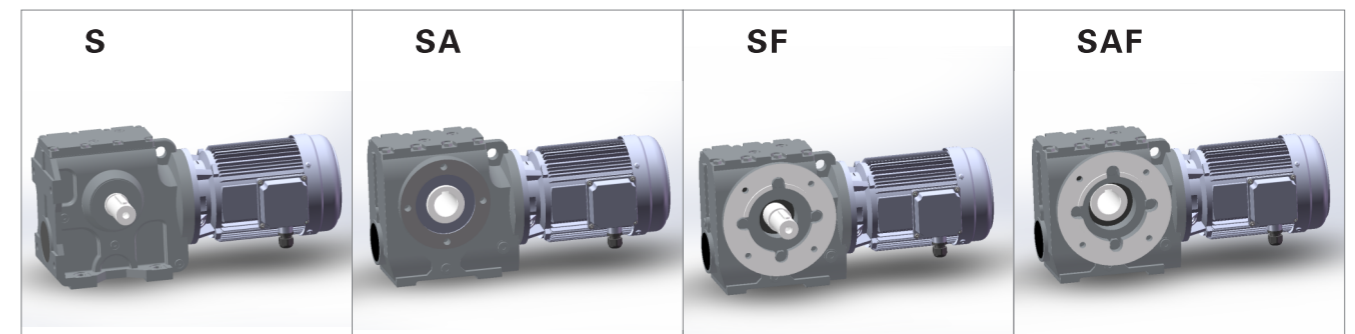
F 平行轴-斜齿轮减速电机 F Parallel Shaft-Helical Geared Motor



K 斜齿轮-伞齿轮减速电机 K Helical-Bevel Geared Motor

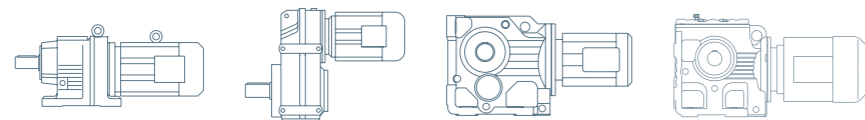


S 斜齿轮-蜗轮蜗杆减速电机 S Helical-Worm Geared Motor



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R
F
K
S

2. 产品说明 Product introduction

..系列硬齿面齿轮减速电机是具有国际先进水平的传动产品，包括 R系列斜齿轮减速电机、F系列平行轴--斜齿轮减速电机、K系列斜齿轮--伞齿轮减速电机、S系列斜齿轮--蜗轮蜗杆减速电机。

..系列产品遵循模块化、最优化设计理念，运用有限元分析技术，采用独特的低噪音齿轮齿形设计，确保设计的先进性；传动比分级精细，具备数百万种不同的组合，可满足用户各种不同需求；从选料到制造单元加工，实现产品的高精度、免维护。

我公司还备有双联型减速电机（输入端加装一个斜齿轮减速器）、锁紧盘、花键空心轴、B14法兰等多种组合方式供客户选择，详情请向我公司咨询。

.. Series gear motor is the drive products with international advanced level, including R series Helical geared motor, F series Parallel shaft-Helical geared motor, K series Helical-Bevel geared motor, S series Helical-Worm.

.. series products follow Motor the philosophy of modularization and optimization, adopt finite element analysis method and unique lower noise technology in designing gear, to insure advanced design. The classification of ratio is so accurate that.

Our corporation also provides other product options such as combined geared motor, shrink disk, spline hollow shaft, B14 flange, please consult our company for further information.

3. 型号说明 Model notes

3.1 减速电机符号说明

3.1 Reducer Model Introduction

R	F	67	II	D	80	N	4	/	BMG	HF	TF	128.97	M1	180°
1	2	3	4	5	6	7	8	9	10	11	12	13	14	
1 产品代码 R-斜齿轮减速电机 F-平行轴-斜齿轮减速电机 K-斜齿轮-伞齿轮减速电机 S-斜齿轮-蜗轮蜗杆减速电机	2 装配型式 无代码--底脚安装 F--法兰安装 .F--底脚法兰安装 M--法兰安装带加长轴承箱	3 减速机规格号 67--减速机规格号为67	4 法兰盘大小 无代码--无法兰，或只有一种法兰，或一种以上法兰中的最小法兰 II--两种法兰中的最大法兰，三种法兰中的中法兰 III--三种法兰中的最大法兰	5 电动机 D--三相异步电动机 (IP54)	6 电动机规格代号 80--电机中心高为80mm	7 电动机定子铁芯长度代号 D、K、N、S、M、ML、L	8 电动机极数 4--电动机极数为4	9 制动器 无代码--无制动器 BMG--制动器	10 手动释放装置 无代码--无手动释放装置 HF--手动释放 锁在制动释放位置 HR--手动释放 自动返回制动位置	11 电机热保护 无代码--无电机热保护装置 F--电机热保护装置	12 减速机传动比 128.97--减速机传动比为128.97	13 安装位置 M1--安装型式图中M1位置	14 接线盒位置 无代码--安装型式图中0°位置 180°--安装型式图中180°位置	

R	F	67	II	D	80	N	4	/	BMG	HF	TF	128.97	M1	180°
1	2	3	4	5	6	7	8	9	10	11	12	13	14	
1 Product Code R--Helical Geared Motor F--Parallel Shaft-Helical Geared Motor K--Helical-Bevel Geared Motor S--Helical-Worm Geared Motor	2 Installation type No Code--Feet mounted F--Flange mounted .F--Feet and Flange mounted M--Flange mounted with extended bearing housing	3 Gear Unit Size 67--Gear Unit Size 67	4 Flange Size I--No Code--No flange or only one flange or the smallest flange II--Second bigger flange III--Biggest flange	5 Elec Romotor D--Three-phase Asynchronous Motor (IP54)	6 Frame Size 80--Height of motor center is 80mm	7 Stator Length D、K、N、S、M、ML、L	8 Number of Poles 4--4 Poles	9 Brake No Code--No Brakes BMG--Brakes	10 Brake Release No Code--No Brake Release HF--Manual release (lock in the brake release position) Brake Release HR--Manual release (automatic braking position)	11 Thermistor No Code--No Thermistor F--Thermistor Sensor	12 Ratio 128.97--Ratio 128.97	13 Mounting Position M1--Mounting Position M1	14 Terminal Box Position No Code--Terminal Box Position is 0° 180°--Terminal Box Position is 180°	

F A 67 / G D 80 N 4 / BMG HF TF 109.04 M1 180°

1 产品代码 R-斜齿轮减速机 F-平行轴-斜齿轮减速机 K-斜齿轮-伞齿轮减速机 S-斜齿轮-蜗轮蜗杆减速机	2 装配型式 无代码--脚安装 F--法兰安装 A--空心轴安装 AF--法兰空心轴安装	3 减速机规格号 67--减速机规格号为67	4 扭矩臂 无代码--无扭矩臂 G--扭矩臂	5 电动机 D--三相异步电动机 (IP54)
6 电动机规格代号 80--电机中心高为80mm	7 电动机定子铁芯长度代号 D、K、N、S、M、ML、L	8 电动机极数 4--电动机极数为4	9 制动器 无代码--无制动器 BMG--制动器	10 手动释放装置 无代码--无手动释放装置 HF--手动释放锁在制动释放位置 HR--手动释放自动返回制动位置
11 电机热保护 无代码--无电机热保护装置 F--电机热保护装置	12 减速机传动比 109.04--减速机传动比为109.04	13 安装位置 M1--安装型式图中M1位置	14 接线盒位置 无代码--安装型式图中0°位置 180°--安装型式图中180°位置	

K A 67 / T D 80 N 4 / BMG / HF / TF / 108.03 / B / M1 / 180°

1 产品代码 R-斜齿轮减速机 F-平行轴-斜齿轮减速机 K-斜齿轮-伞齿轮减速机 S-斜齿轮-蜗轮蜗杆减速机	2 装配型式 无代码--脚安装 F--法兰安装 A--空心轴安装 AF--法兰空心轴安装	3 减速机规格号 67--减速机规格号为67	4 扭矩臂 无代码--无扭矩臂 T--扭矩臂	5 电动机 D--三相异步电动机 (IP54)
6 电动机规格代号 80--电机中心高为80mm	7 电动机定子铁芯长度代号 D、K、N、S、M、ML、L	8 电动机极数 4--电动机极数为4	9 制动器 无代码--无制动器 BMG--制动器	10 手动释放装置 无代码--无手动释放装置 HF--手动释放锁在制动释放位置 HR--手动释放自动返回制动位置
11 电机热保护 无代码--无电机热保护装置 F--电机热保护装置	12 减速机传动比 108.03--减速机传动比为108.03	13 轴指向 A--轴指向为A B--轴指向为B AB--双输出轴	14 安装位置 M1--安装型式图中M1位置	15 接线盒位置 无代码--安装型式图中0°位置 180°--安装型式图中180°位置

F A 67 / G D 80 N 4 / BMG HF TF 109.04 M1 180°

1 Product Code R--Helical Geared Motor F--Parallel Shaft-Helical Geared Motor K--Helical-Bevel Geared Motor S--Helical-Worm Geared Motor	2 Unit Model No Code--Feet mounted F--Flange mounted A--Hollow Shaft mounted AF--Flange mounted with Hollow Shaft	3 Gear Unit Size 67--Gear Unit Size 67	4 Torque Arm No Code--No Torque Arm G--Torque Arm	5 Elec Romotor D--Three-phase Asynchronous Motor (IP54)
6 Frame Size 80--Height of motor center is 80mm	7 Stator Length D、K、N、S、M、ML、L	8 Number of Poles 4--4 Poles	9 Brake No Code--No Brakes BMG--Brakes	10 Brake Release No Code--No Brake Release HF--Manual release (lock in the brake release position) Brake Release HR--Manual release (automatic braking position)
11 Thermistor No Code--No Thermistor F--Thermistor Sensor	12 Ratio 109.04--Ratio 109.04	13 Mounting Position M1--Mounting Position M1	14 Terminal Box Position No Code--Terminal Box Position is 0° 180°--Terminal Box Position is 180°	

K A 67 / T D 80 N 4 / BMG / HF / TF / 108.03 / B / M1 / 180°

1 Product Code R--Helical Geared Motor F--Parallel Shaft-Helical Geared Motor K--Helical-Bevel Geared Motor S--Helical-Worm Geared Motor	2 Unit Model No Code--Feet mounted F--Flange mounted A--Hollow Shaft mounted AF--Flange mounted with Hollow Shaft	3 Gear Unit Size 67--Gear Unit Size 67	4 Torque Arm No Code--No Torque Arm G--Torque Arm	5 ElecYHRomotor D--Three-phase Asynchronous Motor (IP54)
6 Frame Size 80--Height of motor center is 80mm	7 Stator Length D、K、N、S、M、ML、L	8 Number of Poles 4--4 Poles	9 Brake No Code--No Brakes BMG--Brakes	10 Brake Release No Code--No Brake Release HF--Manual release (lock in the brake release position) Brake Release HR--Manual release (automatic braking position)
11 Thermistor No Code--No Thermistor F--Thermistor Sensor	12 Ratio 108.03--Ratio 108.03	13 Position of the Output Shaft A--Shaft with A B--Shaft with B AB--Shaft with A+B	14 Mounting Position M1--Mounting Position M1	15 Terminal Box Position No Code--Terminal Box Position is 0° 180°--Terminal Box Position is 180°

S A 67 / T D 80 N 4 / BMG / HF / TF / 106.75 / d45 / B / M1 / 180°

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
产品代码 R--斜齿轮减速机 F--平行轴-斜齿轮减速机 K--斜齿轮-伞齿轮减速机 S--斜齿轮-蜗轮蜗杆减速机	装配型式 无代码--底脚安装 F--法兰安装 A--空心轴安装 AF--法兰空心轴安装	减速机规格号 67--减速机规格号为67	扭矩臂 无代码--无扭矩臂 T--扭矩臂	电动机 D--三相异步电动机 (IP54)	电动机规格代号 80--电机中心高为80mm	电动机定子铁芯长度代号 D、K、N、S、M、ML、L	电动机极数 4--电动机极数为4	制动器 无代码--无制动器 BMG--制动器	手动释放装置 无代码--无手动释放装置 HF--手动释放 锁在制动释放位置 HR--手动释放 自动返回制动位置	电机热保护 无代码--无电机热保护装置 F--电机热保护装置	减速机传动比 106.75--减速机传动比为106.75	空心轴孔径 d45--空心轴孔径为45H7 (尺寸表中两种孔径选择一种)	轴指向 A--轴指向为A B--轴指向为B AB--双输出轴	安装位置 M1--安装型式图中M1位置	接线盒位置 无代码--安装型式图中0°位置 180°--安装型式图中180°位置

S A 67 / T D 80 N 4 / BMG / HF / TF / 106.75 / d45 / B / M1 / 180°

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Product Code R--Helical Geared Motor F--Parallel Shaft-Helical Geared Motor K--Helical-Bevel Geared Motor S--Helical-Worm Geared Motor	Unit Model No Code--Feet mounted F--Flange mounted A--Hollow Shaft mounted AF--Flange mounted with Hollow Shaft	Gear Unit Size 67--Gear Unit Size 67	Torque Arm No Code--No Torque Arm T--Torque Arm	ElecYHRomotor D--Three-phase Asynchronous Motor (IP54)	Frame Size 80--Height of motor center is 80mm	Stator Length D、K、N、S、M、ML、L	Number of Poles 4--4 Poles	Brake No Code--No Brakes BMG--Brakes	Brake Release No Code--No Brake Release HF--Manual release (lock in the brake release position) Brake Release HR--Manual release (automatic braking position)	Thermistor No Code--No Thermistor F--Thermistor Sensor	Ratio 106.75--Ratio 106.75	Hollow shaft diameter d45--Hollow shaft diameter is 45	Position of the Output Shaft A--Shaft with A B--Shaft with B AB--Shaft with A+B	Mounting Position M1--Mounting Position M1	Terminal Box Position No Code--Terminal Box Position is 0° 180°--Terminal Box Position is 180°

3.2 减速电机和减速制动电机供货型号
3.2 Type of gear motor and gear motor with brake

R、F、K、S
减速电机 Gear motor

下表列出了可提供的斜齿轮 (R)、平行轴 (F)、斜齿轮-伞齿轮 (K) 和斜齿轮-蜗轮蜗杆 (S) 减速电机型号。
There are the types of Helical (R), Parallel shaft-Helical (F), Helical-Bevel (K) and Helical-Worm (S) geared motors. we supplied in the table.

型号 Model	减速电机 Gear motor			
	斜齿轮 (R) Helical	平行轴 (F) Parallel shaft	斜齿轮-伞齿轮 (K) Helical bevel	斜齿轮-蜗轮蜗杆 (S) Helical worm
底脚安装 Foot mounted	•	•	•	•
B5法兰安装 B5 flange mounted	•	•	•	•
底脚/B5法兰安装 Foot/B5 flange mounted	• ²⁾	•	• ³⁾	-
带键空心轴安装 Hollow shaft mounted	-	•	• ¹⁾	• ¹⁾
带锁紧盘空心轴安装 Hollow shaft with shrink disk	-	•	• ¹⁾	• ¹⁾
带花键空心轴安装 Splined hollow shaft mounted	-	•	• ¹⁾	-
带锁紧盘空心轴安装+底脚安装 Hollow shaft with shrink disk+foot mounted	-	•	•	-
带键空心轴安装+底脚安装 Hollow shaft with Key+foot mounted	-	•	•	-
带花键空心轴安装+底脚安装 Splined hollow shaft mounted+foot mouted	-	•	•	-
带键空心轴安装+B5法兰安装 Hollow shaft with Key+B5 flange mounted	-	•	•	•
带锁紧盘空心轴安装+B5法兰安装 Hollow shaft with shrink disk+B5 flange mounted	-	•	•	•
带花键空心轴安装+B5法兰安装 Splined hollow shaft mounted+B5 flange mounted	-	•	•	-
带键空心轴安装+B14法兰安装 Hollow shaft with Key+B14 flange mounted	-	•	•	•
带锁紧盘空心轴安装+B14法兰安装 Hollow shaft with shrink disk+B14 flange mounted	-	•	•	•
带花键空心轴安装+B14法兰安装 Splined hollow shaft mounted+B14 flange mounted	-	•	•	-

- 适用于标准型号
- 不可用
- 1) 也可带力矩臂
- 2) 仅用于 R37-R87
- 3) 仅用于 K127-K157
- The normal type
- Can't use
- 1) You can use torque arm
- 2) Only used for R37-R87
- 3) Only used for K127-K157

多级减速电机
Multi-stage geared motor

通过多级减速器或多减速电机, 可获得特别低的输出转速。就是在输入端安装一个斜齿轮减速机或减速电机作为第二级齿轮箱。此时, 要注意根据减速机最大许用的输出扭矩, 限制电机功率。

You can achieve the particularly low output speed by using multi-stage geared motor. The method is mounting a helical gear unit as a second gear units on the input end. Notice that restrict the motor power according the maximum permitted output torque.

搅拌专用减速电机
RM geared motor

RM减速电机作为斜齿轮减速电机的特殊规格, 它带有一个加长的轴承箱, 专为搅拌应用场合设计的, 它可应用于承受大的径向力和轴向力甚至弯矩的场合, 其它数据和斜齿轮减速机相一致。

RM geared motors are a special type of helical geared motor with an expanded output bearing hub. They are specially designed for agitating applications and can be used in applications subject to high overhung and axial loads as well as flexural torque. The remaining data correspond with to the standard helical geared motors.

制动电机

Brake motors

根据需要可把机械制动与电机及减速电机合成一体提供。制动器是由带直流线圈的电磁盘式制动器，通过电磁力打开，弹簧力制动。它的制动原理意味着断电制动。满足了基本安全需要。制动器如果安装手动释放，可实现机械式释放。手动释放有手柄或平头螺丝两种形式，手柄可自动弹回，平头螺丝可锁在释放位置。制动器通过装在电机接线盒或电气柜的制动控制系统来驱动。

On request, Motors and geared motors can be supplied with an integrated mechanical brake. The brake is an electromagnetic disk brake with a DC coil which is released electrically and braked using spring force. The design principle means the brake is applied if the power fails. This means it complies with fundamental safety requirements. The brake can also be released mechanically if fitted with manual brake release. For this purpose, either a hand lever or a setscrew is supplied with the brake. The hand lever springs back automatically and the setscrew can be locked. The brake is activated by a brake control system which is in the wiring switch cabinet.

3.3 减速器及附件的名称

3.3 Unit designations for gear units and options

斜齿轮减速器

Helical gear units

R..	底脚安装 Foot-mounted
RF..	法兰安装 Flange-mounted
R..F	底脚-法兰安装 Foot and flange-mounted
RM..	带加长轴承箱，法兰安装 Flange-mounted with the extended bearing housing

平行轴减速器

Parallel shaft helical gear units

F..	底脚安装 Foot mounted
FA..B	底脚安装，空心轴 Flange mounted with hollow shaft
FH..B	底脚安装，带锁紧盘空心轴 Foot mounted with hollow shaft and shrink disk
FV..B	底脚安装，带花键空心轴 Foot mounted with hollow shaft and splined hollow shaft
FF..	B5法兰安装 B5 flange mounted
FAF..	B5法兰安装，空心轴 B5 flange mounted with hollow shaft
FHF..	B5法兰安装，带锁紧盘空心轴 B5 flange mounted with hollow shaft and shrink disk
FVF..	B5法兰安装，带花键空心轴 B5 flange mounted with spined hollow shaft disk
FA..	空心轴安装 Hollow shaft mounted
FH..	带锁紧盘空心轴安装 Hollow shaft with shrink disk

FV..

带花键空心轴安装
Splined hollow shaft mounted

FAZ..

B14法兰安装，空心轴
B14 flange mounted with hollow shaft

FHZ..

B14法兰安装，带锁紧盘空心轴
B14 flange mounted with hollow shaft disk

FVZ..

B14法兰安装，带花键空心轴
B14 flange mounted with splined hollow shaft

斜齿轮-伞齿轮减速器

Helical-Bevel gear units

K..

底脚安装
Foot mounted

KA..B

底脚安装，空心轴
Foot mounted with hollow shaft

KH..B

底脚安装，带锁紧盘空心轴
Foot mounted with hollow shaft and shrink disk

KV..B

底脚安装，带花键空心轴
Foot mounted with hollow shaft and splined hollow shaft

KF..

B5法兰安装
B5 flange mounted

KAF..

B5法兰安装，空心轴
B5 flange mounted with hollow shaft

KHF..

B5法兰安装，带锁紧盘空心轴
B5 flange mounted with hollow shaft and shrink disk

KVF..

B5法兰安装，带花键空心轴
B5 flange mounted with spined hollow shaft disk

KA..

空心轴安装
Hollow shaft mounted

KH..

带锁紧盘空心轴安装
Hollow shaft with shrink disk

KV..

带花键空心轴安装
Splined hollow shaft mounted

KAZ..

B14法兰安装，空心轴
B14 flange mounted with hollow shaft

KHZ..

B14法兰安装，带锁紧盘空心轴
B14 flange mounted with hollow shaft disk

KVZ..

B14法兰安装，带花键空心轴
B14 flange mounted with spined hollow shaft

斜齿轮-蜗轮蜗杆减速器

Helical-Worm gear units

S..

底脚安装
Foot mounted

SF..

B5法兰安装
B5 flange mounted

SAF..

B5法兰安装，空心轴
B5 flange mounted with hollow shaft

SHF..

B5法兰安装，带锁紧盘空心轴
B5 flange mounted with hollow shaft and shrink disk

SA..

空心轴安装
Hollow shaft mounted

SH..

带锁紧盘空心轴安装
Hollow shaft with shrink disk

SAZ..

B14法兰安装，空心轴
B14 flange mounted with hollow shaft

SHZ..

B14法兰安装，带锁紧盘空心轴
B14 flange mounted with hollow shaft disk

3.4 交流电机及附件名称

3.4 The name of AC motors and its accessories

双速交流电机型号

Pole-Changing AC motors with soft start

SD... 双速电机底脚安装
Pole-changing foot mounted

电机选型

Motor options

BMG 制动器
Brake
../HF 手动释放 (锁在制动释放位置)
..with lock manual brake release
../HR 手动释放 (自动返回制动位置)
..with automatic manual brake disengaging
/RE 逆止器
Backstop
/TF 热敏电阻保护装置 (PTC热敏电阻)
Thermistor sensor(PTC resistance)
/TH 恒温器保护装置 (双金属片开关)
Thermostat (bimetallic switch)
/U 机身冷却 (无通风)
Non-ventilated
/V 强制冷却风扇3×380-415V_{AC}, 50HZ
Forced cooling fan.3×380-415V_{AC}, 50HZ
/VS 强制冷却风扇1×220-266V_{AC}, 50HZ
Forced cooling fan.1×220-266V_{AC}, 50HZ
/VR 强制冷却风扇1×24V_{DC}
Forced cooling fan.1×24V_{DC}
/Z 高惯量飞轮风扇
Additional flywheel mass
/C 风扇保护罩
Protection cowl for the fan guard
-SRD 辊道电机
Roller motor

编码器附件

Encoder on AC motor options

/AV1Y 绝对值编码器, MSI和sin/cos信号, 24V_{DC}电源
Absolute encoder with solid shaft. MSI and sin/cos signals and 24V_{DC} supply
/ES..T 扩展轴编码器, TTL (RS-422) 信号, 5V_{DC}电源
Encoder with spread shaft. TTL(RS-422)Signals and 5V_{DC} supply
/ES..S 扩展轴编码器, sin/cos信号, 24V_{DC}电源
Encoder with spread shaft. Sin/cos signals and 24V_{DC} supply
/ES..R 扩展轴编码器, TTL (RS-422) 信号, 24V_{DC}电源
Encoder with spread shaft,TTL(RS-422)signals and 24_{DC}supply
/ES..C 扩展轴编码器, HTL
Encoder with spread shaft, HTL
/EV1T 实心轴编码器, TTL (RS-422) 信号, 5V_{DC}电源
Encoder with spread shaft. TTL(RS-422)signals and 5V_{DC} supply
/EV1S 实心轴编码器, sin/cos信号, 24V_{DC}电源
Encoder with spread shaft. signals and 24V_{DC} supply
/EV1R 实心轴编码器, TTL (RS-422) 信号, 24V_{DC}电源
Encoder with spread shaft. TTL(RS-422)signals and 24V_{DC} supply
/EV1C 实心轴编码器, HTL
Encoder with spread shaft, HTL
/NV1.. 接近开关, 带A通道, 24V_{DC}电源
Proximity sensor with A track and 24V_{DC} supply
/NV2.. 接近开关, 带A、B通道, 24V_{DC}电源
Proximity sensor with A/B track and 24V_{DC} supply

4. 减速器选型 Selection of gear reducer

4.1 传动装置选型数据

4.1 Drive selection data

准确地确定所需传动装置, 下表所列的数据是必需的:

Certain data are essential to specify the components for your drive. These are.

传动装置选型数据 Drive selection data			
n_{amin}	最小输出转速 Minimum output speed	[rpm]	
n_{amax}	最大输出转速 Maximum output speed	[rpm]	
P_a at n_{amin}	最低输出转速下的输出功率 Output power at minimum output speed	[kW]	
p_a at n_{amax}	最高输出转速下的输出功率 Output power at maximum output speed	[kW]	
M_a at n_{amin}	最低输出转速下的输出扭矩 Output torque at minimum output speed	[Nm]	
M_a at n_{amax}	最高输出转速下的输出扭矩 Output torque at maximum output speed	[Nm]	
F_R	输出轴径向力。假设载荷作用在轴伸的中点, 如果不一致, 请确定径向力准确的作用点、作用角度和轴的旋转方向以便进行校核计算。 Overhung load on output shaft.Assumes force application is in the center of shaft end. If not, please specify the exact application point indicating the application angle and direction of rotation of the shaft for a check calculation	[N]	
F_A	输出轴轴向负载 (拉力和压力) Axial load(tension and compression)on output shaft	[N]	
J_{load}	被驱动件的转动惯量 Mass moment of inertia to be driven	[10 ⁻⁴ kgm ²]	
R/F/K/S M1-M6	所需减速机类型和安装位置 Required gear unit type and mounting position(→sec. Mounting positions, churning losses)	-	
IP..	外壳防护等级 Required protect rank	-	
ϑ_{env}	环境温度 Ambient temperature	[°C]	
H	海拔高度 Altitude	[M above sea level]	
S...,%cdf	工作制和负载持续率cdf; 也可给出精确的负载周期图 Operating mode and intermittency factor cdf; alternatively,exact load cycle can be specified.	-	
Z	启停频率; 也可给出精确的负载周期图 Starting frequency;alternatively,exact load cycle can be specified	[No.per h]	
f_{mains}	电源频率 Supply frequency	[Hz]	
V_{mot} V_{brake}	电机工作电压和制动器电压 Operating voltage of motor and brake	[V]	
M_B	所需制动力矩 Required braking torque	[Nm]	
对于变频器运行: 控制模式和设置范围 For inverter operation: Required control mode and setting range			

4.2 选型流程图

4.2 Project planning sequence

例 Example 带有位置要求驱动方案的流程图示意图，所涉及的减速电机由变频器控制
The following flowchart displays a schematic view of the procedure for planning a project incorporating a positioning drive. The drive comprises a geared motor which is powered by an inverter



图：选型应用流程图 Figure: Project planning process

4.3 减速机的效率

4.3 Efficiency of gear units

减速机的效率主要由齿轮啮合和轴承摩擦损失所决定的。减速机运行初期的效率总是比正常运行时要低，尤其是斜齿轮蜗轮蜗杆和螺旋平面减速机更为明显。

The efficiency of the gear units is mainly determined by the gearing, mesh and bearing friction. Please note that the starting efficiency of a gear unit is always less than its efficiency at operating speed. This fact is especially obvious in helical-worm and right-angle geared motors.

R. F. K减速机 R. F. K gear units

斜齿轮、平行轴、斜齿轮-锥齿轮减速机的效率是根据减速级数确定，在94%(3级)~98%(1级)之间。

The efficiency of helical, parallel shaft and helical-bevel gear units varies according to the unnumber of gear stages, between 94%(3-stage) and 98%(1-stage).

S减速机 S gear units

斜齿轮蜗轮蜗杆减速机由于产生高损失的滑动摩擦，所以它们比 R、F、K减速机损失大、效率低，主要是由以下因素决定：

- 斜齿轮蜗杆级的传动比
- 输入转速
- 齿轮箱温度

普通设计的斜齿轮蜗轮蜗杆减速机比单级的蜗轮蜗杆减速机的效率有明显的提高，对于很大速比的斜齿轮蜗轮蜗杆才有可能其效率 $\eta < 0.5$ 。

The gearing in helical-worm and gear units produces a high proportion of sliding friction. As a result, these gear units may have higher gearing losses than R、F or K gear units, and thus be less efficient. The cause of factors are:

- Gear ratio of the helical-worm
- Input speed
- Gear unit temperature

蜗轮蜗杆减速机是设计为斜齿蜗轮蜗杆，这使得它们比标准蜗轮蜗杆减速机效率高得多。如果蜗轮蜗杆减速机的速比非常大，其效率可能达到 $\eta < 0.5$ 。

自锁条件 Self-locking condition

在斜齿轮-蜗轮蜗杆上加反向力矩会产生一个反向效率 $\eta' = 2 - 1/\eta$ ，其值明显小于正向效率 η ，如果正向效率 $\eta \leq 0.5$ ，那么斜齿轮蜗轮蜗杆减速机就会自锁。仅有少量大速比的斜齿轮蜗轮蜗杆减速机静态自锁。如果想利用自锁的制动效果特点请向我公司咨询。

Retrodriving torques on helical-worm gear units produce an efficiency of $\eta' = 2 - 1/\eta$, which is significantly less favorable than the forwards efficiency η . The helical-worm or Spiroplan gear unit is self-locking if the forwards efficiency $\eta \leq 0.5$. A few helical-worm gear units with the largest gear ratio are statically self-locking. Please contact our company if you wish to make technical use of the braking effect of self-locking characteristics.

运行初始阶段 Running-inphase

由于新的斜齿轮蜗轮蜗杆减速机齿面不够光滑、摩擦角较大，所以效率较正常运行时要小，这种影响在大传动比时变得更加明显。

The tooth flanks of new helical-worm and gear units are not yet completely smooth. For the friction angle is greater, the efficiency will be less than operation. This effect becomes more apparent in the greater ratio.

在运初试阶段，所给定的效率值应减去表中数值：
In The first beginning, the given efficiency number should minus as follows

	Helical-worm	速比i的范围 i range
1start (单头蜗杆)	approx.12%	approx.50-280
2start (双头蜗杆)	approx.6%	approx.20-75
3start (三头蜗杆)	approx.3%	approx.20-90
4start (四头蜗杆)	-	-
5start (五头蜗杆)	approx.3%	approx.6-25
6start (六头蜗杆)	approx.2%	approx.7-25

经过连续24小时运行，斜齿轮蜗轮蜗杆满足以下条件可以达到给出的额定效率：

- 减速机经过充分的试运行
- 减速机达到正常运行温度值
- 加入推荐的润滑剂

减速机的额定的负载范围内工作

The running-in phase normally lasts 24 hours. Helical-worm gear units achieve their listed rated efficiency values when:

- The gear unit has been run is completely
 - The gear unit has reached normal operation temperature
 - The recommended lubricant has been filled in
- The gear unit is working within the rated load range

搅动损失 Churning losses

在某些安装位置，第一级小齿轮完全浸在油中，对于大机座号减速机和有较高输入转速的减速机，搅动损失会急剧上升，不能忽视，因此，当遇到此类情况请向我公司咨询。

如果可能，对于 R、K和 S系列减速机尽量使用M1安装位置以确保较小的搅动损失。

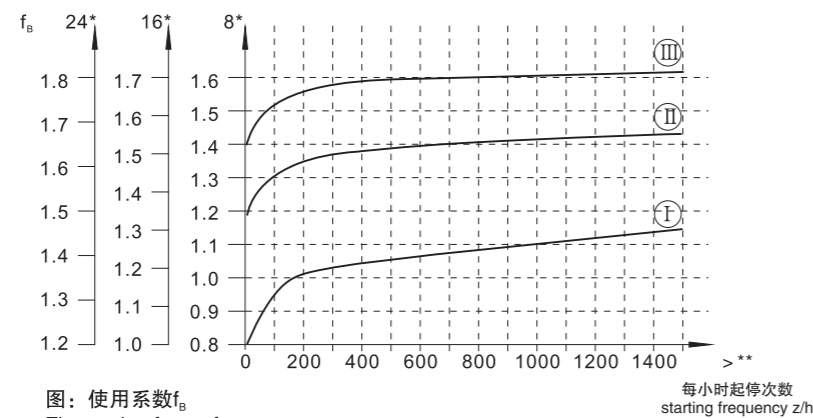
In certain gear unit mounting positions the first reduction stage is completely immersed in the lubricant. For large gear unit sizes and high circumferential velocities of the input stage, this gives rise to churning losses constituting a factor which cannot be ignored. Please contact company if you wish to use gear units of this type. If possible, use the mounting position M1 for R, K and S gear units in order to keep the churning losses in low.

4.4 使用系数 4.4 Service factor

决定使用系数的因素 Determining of the service factor

选用减速箱要考虑一定的使用系数用 f_b 表示，使用系数 f_b 由每天的运行时间和起停频率所决定，根据惯量加速系数确定的三种负载类型也要考虑，可以从图3中读取驱动方案的使用系数，从图中确定的使用系数一定要小于或等于从选型表中所给定的使用系数。

Gear unit selection needs to consider a certain factor which we use f_b to express. This service factor is determined by the daily operating time and the starting frequency. Three load classifications are also considered to depend on the mass acceleration factor. You can read the different service factor from the figure as follows. The service factor determined using this diagram must be small than or equal to the service factor as given in the selection tables.



图：使用系数 f_b
Fig:service factor f_b

*运行小时/天

**起停次数，包括所在的起停和制动过程，所括从低到高，从高到低变换过程。

Daily operating time in hours/day

Starting frequency Z: The cycles include all starting and and braking procedures as well as changes from low to high and high to low speed.

负载类型

Load classification

三种负载类型：

- I、均匀载荷，允用的惯性加速系数 ≤ 0.2
- II、中等冲击载荷，允许的惯性加速系数 ≤ 0.3
- III、强冲击载荷，允许的惯性加速系数 ≤ 10

Three load classifications are differentiated:

- I. Uniform, approved mass acceleration factor ≤ 0.2
- II. Moderate shock load, approved mass acceleration factor ≤ 3
- III. Severe shock load, approved mass acceleration factor ≤ 10

惯性加速系数

Mass acceleration factor

惯性加速系数的计算方式：

The mass acceleration factor is calculated as follows:

$$\text{惯性加速系数} = \frac{\text{所有的外部转动惯量}}{\text{电动机的转动}}$$

$$\text{Mass acceleration factor} = \frac{\text{All external mass moments of inertia}}{\text{Mass moment of inertia on the motor end}}$$

所有的外部转动惯量是指被驱动装置加上减速机相对于电机转速的转动惯量，

折算公式如下： $J_x = j \cdot \left(\frac{n}{n_m}\right)^2$

"All external mass moments of inertia" are the mass moments of inertia of the driven machine and the gear unit, scaled down to the motor speed. The calculation for scaling down to the motor speed performed using

the following formula: $J_x = j \cdot \left(\frac{n}{n_m}\right)^2$

J_x =相对于电机轴的外部转动惯量

J_x =Reduced mass moment of inertia on the motor shaft

J =相对于减速机输出轴的外部转动惯量

J =Mass moment of inertia referenced to the output speed of the gear unit

N =减速机的输出转速

N =Output speed of the gear unit

N_m =电机转速

N_m =Motor speed

电机的转动惯量是指电机转动惯量，若配有制动器和高惯量飞轮（Z风扇）则要相应增加所配部件的转动惯量。

惯性加速系数大于10，要求传动部件高平稳性及大的径向负载时使用系数 f_b 就大于1.8，此类情况请向我公司咨询。

"Mass moment of inertia on the motor" if it equips the brake and the flywheel fan (Z fan), the components' mass moment of inertia or large overhung loads. Please contact company in this case.

使用系数 f_b

确定最大持续运行扭矩 M_{amax} 和由此推导出的使用系统 $f_b = M_{amax} / M_a$ 是不标准的，并且不同的制造商之间有很大不同。

使用系数 $f_b=1$ 是，驱动设备在疲劳强度范围内能提供相当高的工作安全性和可靠性（除斜齿轮蜗轮蜗杆减速机的蜗轮之外）。在一定条件下，使用系数不必和其它减速机制造商所给出的进行比较。如有疑问，请和我公司联系索取针对特殊驱动设备详细资料。

Service factor: f_b

The method for determining the maximum approved continuous torque M_{max} and then deriving the service factor $f_b = M_{max} / M_n$ is not defined in a standard and varies greatly from manufacturer to manufacturer. With their service factor $f_b = 1$, drives afford an extremely high level of safety and reliability in the fatigue strength range (exception: wearing of the worm wheel in helical-worm gear units). Under a certain circumstances, the service factor may not be comparable to the information given details for your specific drive. If there is any questions, please contact company to get the special drive equipments' document in detail.

举例

Example

惯性加速系数2.5(II类载荷), 运行时间14小时/天 (按16小时/天查图)和300次起停/小时, 使用系数在图中为 $f_b = 1.51$, 根据选型表所选择的减速机 f_b 值要 ≥ 1.51 。

Mass acceleration factor 2.5(load classification II), 14 hours/day operating time(check the figure at 16h/d) and 300 cycles/hour produce a service factor $f_b = 1.51$ as shown in Fig.2. According to the selection table, the selected motor must have a f_b Value of 1.15 or greater.

斜齿轮蜗杆减速机

Helical-worm gear units

在斜齿轮蜗杆减速机中, 除了已有图3中的使用系数 f_b 外还有两个使用系数 f_{B1} 、 f_{B2} 要考虑

- f_{B1} = 环境温度使用系统
- f_{B2} = 负载持续系数

Two further service factors have to be taken into account with helical-worm gear units in addition to the selection factor f_b shown in Fig.2. These are:

- f_{B1} = Service factor from the ambient temperature
- f_{B2} = Service factor from the cyclic duration factor

附加的使用系数 f_{B1} 、 f_{B2} 可通过图4确定, 确定 f_{B1} 时用和确定 f_b 同样的方法考虑负载类型。

Additional service factors f_{B1} and f_{B2} can be determined by diagrams is Fig.4. For the f_{B1} factor, we can define it Just in the same way as f_b .

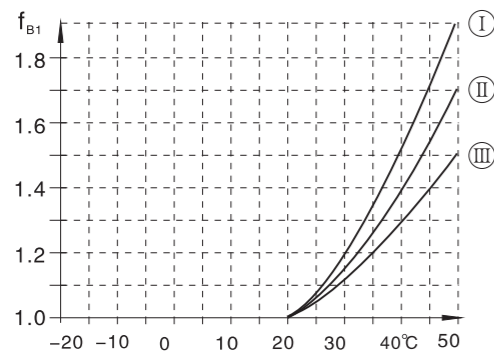
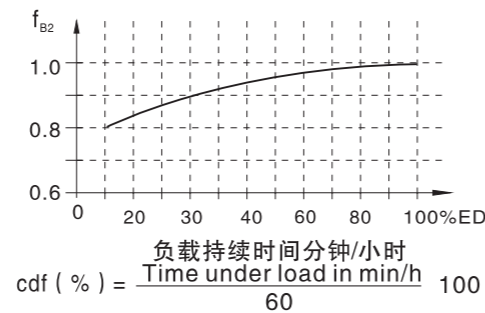


图: 附加使用系数 f_{B1} 和 f_{B2}
Additional service factors f_{B1} and f_{B2}



$cdf(\%) = \frac{\text{Time under load in min/h}}{60} \cdot 100$

确定 f_{B1} 时, 环境温度低于 -20°C 请向我公司咨询。

Please contact company case of temperatures below -20°C ($\rightarrow f_{B1}$).

斜齿轮蜗杆减速机总的的使用系数 f_{Btot} 按下式计算

The total service factor for helical-worm gear units is calculated as follows: $F_{Btot} = f_b \cdot f_{B1} \cdot f_{B2}$

举例

Example

若前一个例子使用系统 $f_b = 1.51$ 的减速机是斜齿轮蜗杆减速机,

If the geared motor with the service factor $f_b = 1.51$ in the convenient example is a helical-worm geared motor.

环境温度 $40^\circ\text{C} \rightarrow f_{B1} = 1.38$ (负载类型 II)

Ambient temperature $t = 40^\circ\text{C} \rightarrow f_{B1} = 1.38$ (read off at load classification II)

负载工作时间 40 分钟/小时 $cdf = 66.7\%$ $f_{B2} = 0.95$

Time under load = 40 min/h $\rightarrow cdf = 66.7\% \rightarrow f_{B2} = 0.95$

The total service factor is $F_{Btot} = 1.51 \cdot 1.38 \cdot 0.95 = 1.98$

根据选型表, 所选的斜齿轮蜗杆减速机的 f_b 则应 ≥ 1.98 。

According to the selection tables, the selected helical-worm geared motor must have a f_b value of 1.98 or greater.

4.5 径向和轴向负载

4.5 Overhung and axial loads

径向负载

Determining overhung load

确定径向负载时, 要考虑安装在轴端传动部件的影响, 传动部件系数 f_z 列于下表:

When determining the overhung load, the type of transmission element mounted on the shaft end must be considered. The transmission element factors f_z are listed as follows:

传动部件 Transmission element	传动部件系数 f_z Transmission element factor f_z	备注 Comments
齿轮 Gears	1.15	< 17齿 < 17teeth
链轮 Chain sprockets	1.40	< 13齿 < 13teeth
链轮 Chain sprockets	1.25	< 20齿 < 20teeth
窄V型带 Narrow V-belt pulleys	1.75	预应力影响 Pre-tensioning influence
宽平皮带 Flat belt pulleys	2.50	预应力影响 Pre-tensioning influence
齿型皮带 Toothed belt pulleys	2.5	预应力影响 Pre-tensioning influence

作用在电机或减速机轴伸上的径向力按下式计算:

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

$$F_R = \frac{M_d \cdot 2000}{d_o} \cdot f_z$$

F_R 径向载荷(N)

M_d 力矩(N·m)

d_o 节圆直径(mm)

f_z 传动部件系数

F_R Overhung load in N

M_d Torque in N·m

d_o Mean diameter of the mounted transmission element in mm

f_z Transmission element factor

许用的径向载荷

Permitted overhung load

根据耐磨轴承额定寿命 L_{H10} 来确定许用径向载荷。

对于特殊的运行条件, 许用径向载荷根据所要求的修正寿命 L_{na} 来确定。

对于地脚安装实心轴输出的减速机许用径向载荷列于减速电机的选型表中。对于其他安装形式可向我公司联系。

According the rate service life L_{H10} of the anti-friction bearings to define the permitted overhung loads. For the special operating conditions, the permitted overhung loads can be determined by the modified service life L_{na} .

The permitted overhung loads F_{Ra} for the output shafts of foot-mounted gear units with a sold shaft are listed in the selection tables for geared motors. Please contact company in case of other types.

选型表中的径向力数值按照力作用于轴伸的中点(斜齿轮-伞齿轮减速机按照A端输出轴考虑)。径向力作用角度 α 和旋转方向已经按最不利的条件给予考虑。

The data refer to the radial force acting midway on the shaft end (with right-angle gear units on the A-side output). Worst case conditions have been assumed for the force application angle α and the direction of rotation.

对于K和S系列减速机, M1安装位置前面与安装固定面连接时, 许用径向载荷只是选型表中 F_{Ra} 数值的50%。

对于K167和K187减速机 在安装位置M1-M4时; 若安装与其安装位置示例有所区别情况下, 其许用径向载荷最大只为选型表中 F_{Ra} 的50%。

地脚/法兰安装斜齿轮减速机 (R..F): 当通过法兰安装传递力 矩时, 许用径向载荷最大为选 型表中 F_{Ra} 的50%。

Only 50% of the F_{Ra} Value specified in the selection tables permitted in mounting position M1 with wall attachment on the front face for K and S gear units.

Helical-bevel geared motors K167 and K187 in mounting positions M1 to M4: If the mounting position is different the position we offered (M1-M4), the overhung load F_{Ra} lasted in the selection tables.

Foot and flange-mounted helical geared motors(R..F): A maximum of 50% of the overhung load F_{Ra} specified in the selection tables in the case of torque transmission via the flange mounting. when the torque transmission via the flange mounting the overhung load F_{Ra} will only be 50% compared with the F_{Ra} lasted the selection tables.

更高的许用径向载荷 Higher approved overhung loads

对于R、F和K系列减速机, 安装重载轴承可提高许用径向载荷。另外, 精确考虑旋转方向和力作用角 α , 也可提高许用径向载荷, 在此情况下, 请和我公司联系。

It possible to achieve a higher overhung load by exactly considering the force application angle α and the direction of rotation. In addition, higger output shaft loads are permitted if heavy duty bearings are installed, especially with R、F and K gear units. Please contact company in this case.

所受力的定义 Definition of force application

所受力根据下图来定义
Force application is defined according to the following diagram:

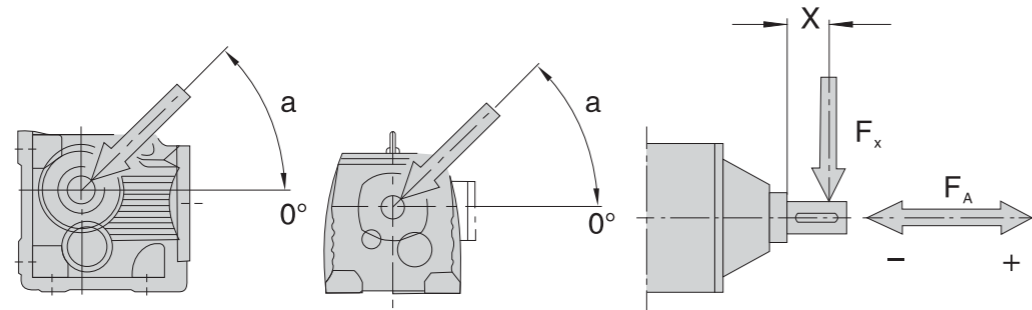


图: 受力定义
Fig: Defined of force application

F_x =在X点的许用径向载荷 (N)

F_A =许用轴向载荷 (N)

F_x =Approved overhung load at point X[N]

F_A =Approved axial load [N]

许用轴向载荷 Approved axial loads

如果没有径向载荷, 那么轴向载荷 FA (+表示拉力, -表示压紧力) 依据表中径向负荷的50%给定是允许的, 这适用于: If there is no overhung load, then an axial load FA (tension or compression) amount to 50% of the overhung load given in the selection tables is approved. This applies to the following geared motors:

- 斜齿轮减速机(R..137到167 除外)
- 平行轴斜齿轮减速机与斜齿轮-伞齿轮(实心轴)减速机(F97.. 除外)
- 实心轴斜齿轮蜗轮蜗杆减速机
- Helical geared motors except for R..to R..167..
- Parallel shaft and helical-bevel geared motors with solid shaft except for F97..
- Helical-worm geared motors with solid shaft

对于其它类型的减速机请与公司咨询, 以防过大的轴向载荷或轴向及径向的合成力。 Please contact company for all other types of gear units and in the event of significantly greater axial loads or combinations of overhung load and axial load.

偏离中心点的径向力 Overhung load conversion for off-center force application

对于受力点不在轴端中点的允许径向载荷要根据下面的公式计算。 F_{xL} 和 F_{xw} 中的较小值是在X点允许数值, 所计算的数值应用于 M_{amax}

The approved overhung loads given in the selection tables must be calculated using the following form-ulae in the event of force application not in the center of the shaft e-nd. The smaller of the two value F_{xL} (according to bearing service life) and F_{xw} (according to shaft strength) is the approved value for the overhung load at pointx. Note that the calculation apply to M_{amax}

根据轴承寿命 F_{xL}
 F_{xL} acc.to bearing service life

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

根据输出轴强度 F_{xw}
 F_{xw} from the shaft strength

$$F_{xw} = \frac{c}{f+X} \text{ [N]}$$

- F_{Ra} =对于底脚安装齿轮箱的允许径向载荷(选型表中所列值)单位: N
Approved overhung load(x=1/2)for foot-mounted gear units according to the selection tables in [N]
- X =从轴肩到受力点的距离
Distance from the shaft shoulder to the force application point in[mm]
- a,b,f =对于径向负荷转化的齿轮箱常量
Gear unit constants for overhung load conversion[mm]
- c =对于径向负荷转化的齿轮箱常量
Gear unit constant for overhung load conversion[Nmm]

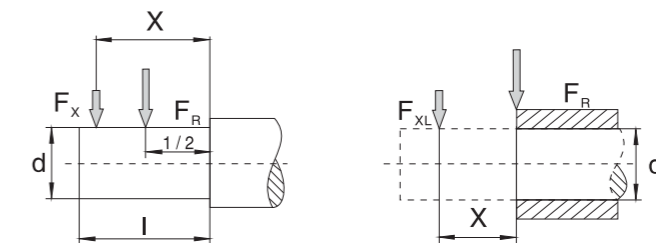


图: 偏离中心点的径向力 F_x
Fig: Overhung load Fx for off-center force application

据径向负载/转化所得的/减速机常量
Gear unit constants for overhung load conversion

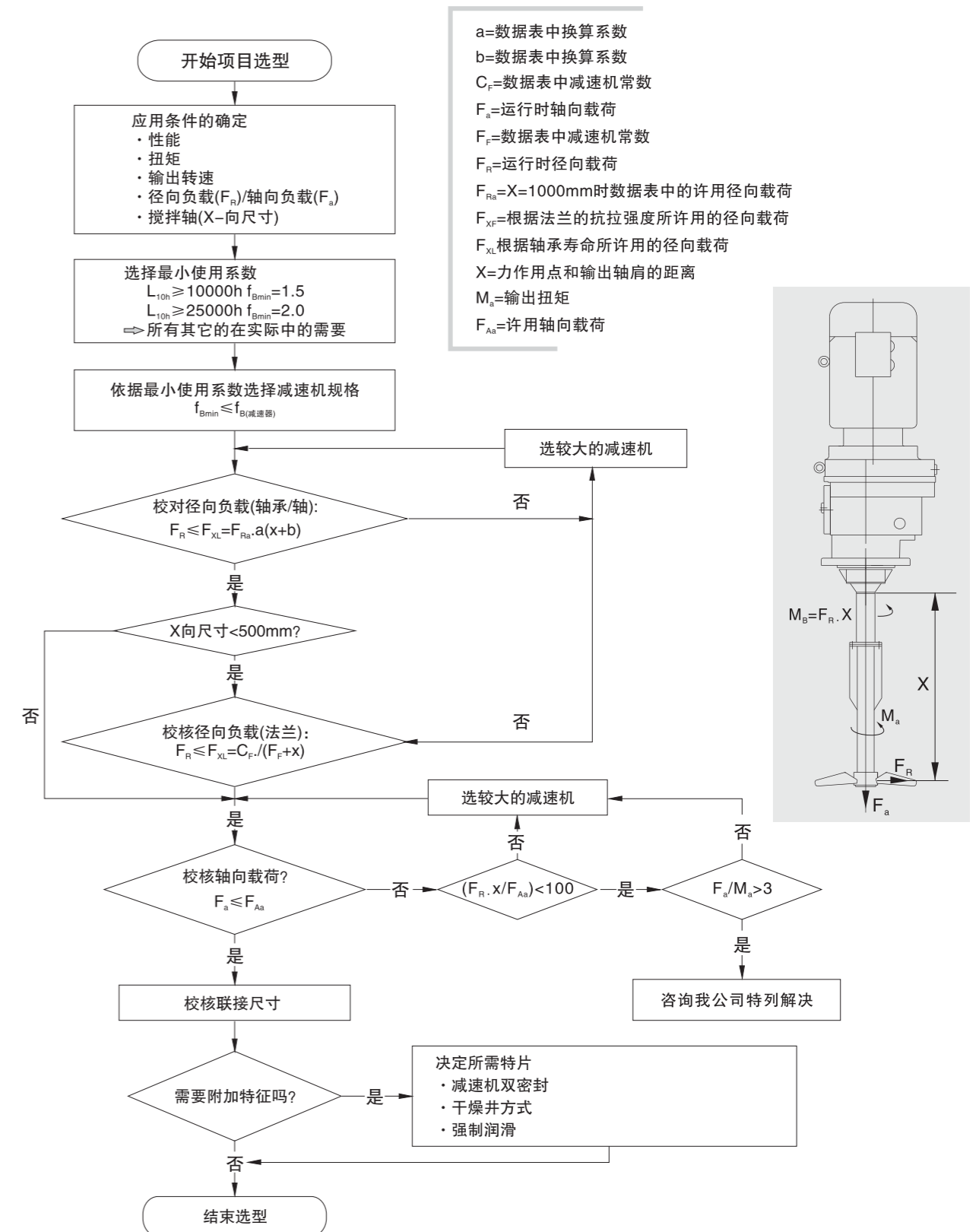
减速机常量 Gear unit type	a [mm]	b [mm]	c [Nmm]	f [mm]	d [mm]	l [mm]
R37	118	93	1.24×10^5	0	25	50
R47	137	107	2.44×10^5	15	20	60
R57	147.5	112.5	3.77×10^5	18	35	70
R67	168.5	133.5	2.51×10^5	0	35	70
R77	173.7	133.7	3.97×10^5	0	40	80
R87	216.7	166.7	8.47×10^5	0	50	100
R97	255.5	195.5	1.19×10^6	0	60	120
R107	285.5	215.5	2.06×10^6	0	70	140
R137	343.5	258.5	6.14×10^6	30	90	170
R147	402	297	8.65×10^6	33	110	210
R167	450	345	1.26×10^7	0	120	210
F37	123.5	98.5	1.07×10^5	0	25	50
F47	153.5	123.5	1.78×10^5	0	30	60
F57	170.7	135.7	5.49×10^5	32	35	70
F67	181.3	141.3	4.12×10^5	0	40	80
F77	215.8	165.8	7.87×10^5	0	50	100
F87	263	203	1.19×10^6	0	60	120
F97	350	280	2.09×10^6	0	70	140
F107	373.5	288.5	4.23×10^6	0	90	170
F127	442.5	337.5	9.49×10^6	0	110	210
F157	512	407	1.05×10^7	0	120	210
K37	123.5	98.5	1.41×10^5	0	25	50
K47	153.5	123.5	1.78×10^5	0	30	60
K57	168.7	134.7	6.8×10^5	31	35	70
K67	181.3	141.3	4.12×10^5	0	40	80
K77	215.8	165.8	7.69×10^5	0	50	100
K87	252	192	1.64×10^6	0	60	120
K97	319	249	2.8×10^6	0	70	140
K107	373.5	288.5	5.53×10^6	0	90	170
K127	443.5	338.5	8.31×10^6	0	110	210
K157	509	404	1.18×10^7	0	120	210
K167	621.5	496.5	1.88×10^7	0	160	250
K187	720.5	560.5	3.04×10^7	0	190	320
S37	118.5	98.5	6.0×10^4	0	20	40
S47	130	105	1.33×10^5	0	25	50
S57	150	120	2.14×10^5	0	30	60
S67	184	149	3.04×10^5	0	35	70
S77	224	179	5.26×10^5	0	45	90
S87	281.5	221.5	1.68×10^6	0	60	120
S97	326.3	256.3	2.54×10^6	0	70	140

对于没有列出的类型的值据需要给定。
Values for types not listed are available on request.

4.6 RM减速机

选型

当选用带加长轴承箱的RM系列减速电机时，要考虑较高的径向和轴向负载，请按照下列步骤计算选型

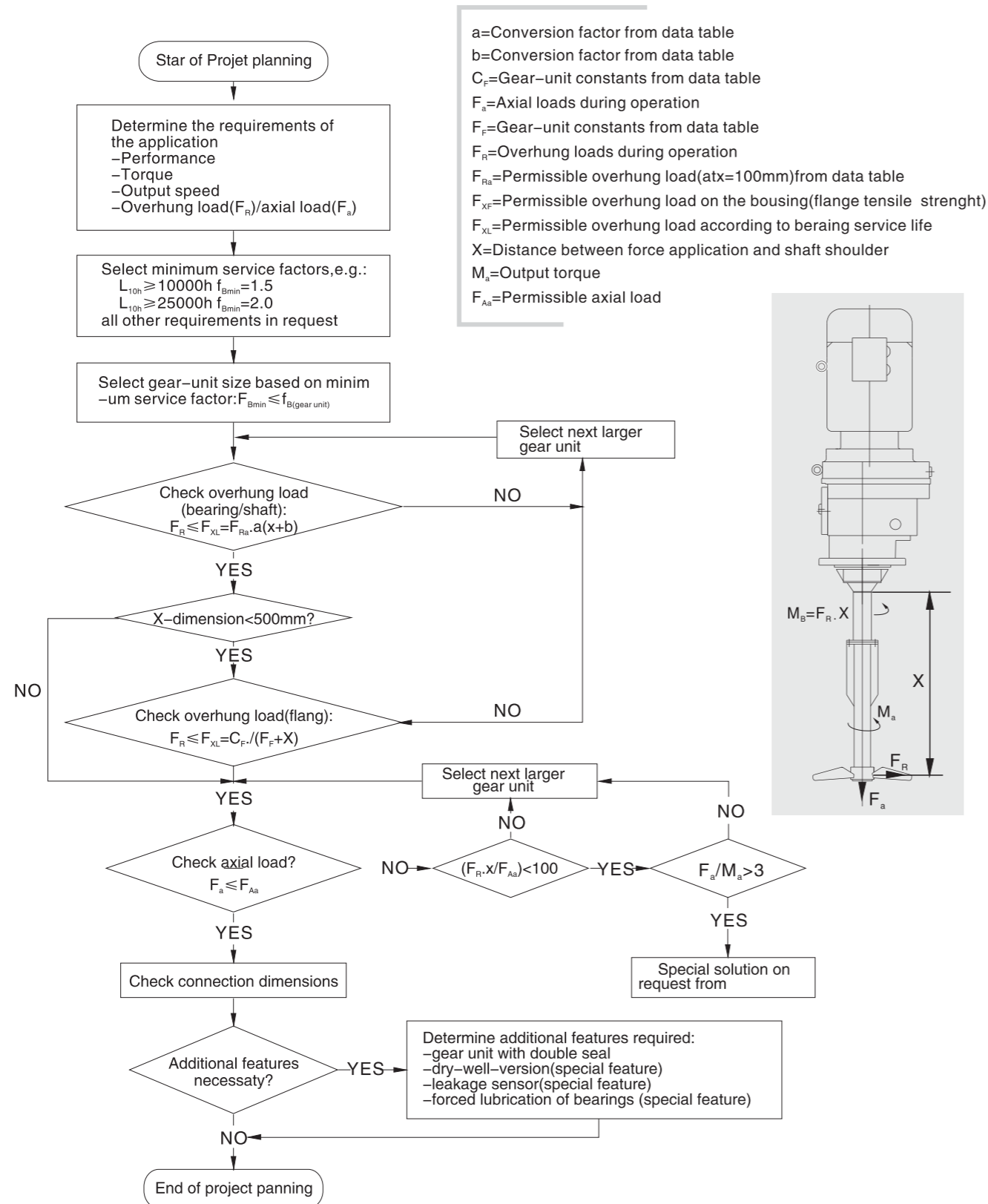


图：RM选型流程图

4.6 RM gear reducer

Project planning

You must take account of the higher overhung and axial loads when planning projects with RM helical geared motors with extended bearing housing. Please adhere to the following project planning procedure:



RM Project planning for RM gear units

允许径向和轴向负载

Permitted overhung loads and axial forces

根据不同的使用系数 f_B 和正常轴承寿命 L_{H10} 所确定的许用径向负载 F_{Ra} 和轴向负载 F_{Aa}
 The permitted overhung loads F_{Ra} and axial loads F_{Aa} are specified for various service factors f_B and normal bearing service life L_{H10}

$f_{Bmin}=1.5$
 $L_{10h}=10000h$

减速机型号 Gear unit size	Na[rpm]	<16	16-25	26-40	41-60	61-100	101-250	161-250	251-400
RM57	F_{Ra} [N]	400	400	400	400	400	405	410	415
	F_{Ra} [N]	18800	1500	11500	9700	7100	5650	4450	3800
RM67	F_{Ra} [N]	575	575	575	580	575	585	590	600
	F_{Ra} [N]	19000	18900	15300	11900	9210	7470	5870	5050
RM77	F_{Ra} [N]	1200	1200	1200	1200	1200	1210	1210	1220
	F_{Ra} [N]	22000	22000	19400	15100	11400	9220	7200	6710
RM87	F_{Ra} [N]	1970	1970	1970	1970	1980	1990	2000	2010
	F_{Ra} [N]	30000	30000	23600	18000	14300	11000	8940	8030
RM97	F_{Ra} [N]	2980	2980	2980	2990	3010	3050	3060	3080
	F_{Ra} [N]	40000	36100	27300	20300	15900	12600	9640	7810
RM107	F_{Ra} [N]	4230	4230	4230	4230	4230	4230	3580	3830
	F_{Ra} [N]	48000	41000	30300	23000	18000	13100	9550	9030
RM137	F_{Ra} [N]	8710	8710	8710	8710	7220	5060	3980	6750
	F_{Ra} [N]	70000	70000	70000	57600	46900	44000	35600	32400
RM147	F_{Ra} [N]	11100	11100	11100	11100	11100	10600	8640	10800
	F_{Ra} [N]	70000	70000	69700	58400	45600	38000	32800	30800
RM167	F_{Ra} [N]	14600	14600	14600	14600	14600	14700	-	-
	F_{Ra} [N]	70000	70000	70000	60300	45300	36900	-	-

$f_{Bmin}=2.0$
 $L_{10h}=25000h$

减速机型号 Gear unit size	Na[rpm]	<16	16-25	26-40	41-60	61-100	101-250	161-250	251-400
RM57	F_{Ra} [N]	410	410	410	410	410	415	415	420
	F_{Ra} [N]	12100	9600	7350	6050	4300	3350	2600	2200
RM67	F_{Ra} [N]	590	590	590	595	590	595	600	605
	F_{Ra} [N]	15800	12000	9580	7330	5580	4460	3460	2930
RM77	F_{Ra} [N]	1210	1210	1210	1210	1210	1220	1220	1220
	F_{Ra} [N]	20000	15400	11900	9070	6670	5280	4010	3700
RM87	F_{Ra} [N]	2000	2000	2000	2000	2000	1720	1690	1710
	F_{Ra} [N]	24600	19200	14300	10600	8190	6100	5490	4860
RM97	F_{Ra} [N]	3040	3040	3040	3050	3070	3080	2540	2430
	F_{Ra} [N]	28400	22000	16200	11600	8850	6840	5830	4760
RM107	F_{Ra} [N]	4330	4330	4330	4330	4330	3350	2810	2990
	F_{Ra} [N]	32300	24800	17800	13000	9780	8170	5950	5620
RM137	F_{Ra} [N]	8850	8850	8850	8830	5660	4020	3200	5240
	F_{Ra} [N]	70000	59900	48000	37900	33800	31700	25600	23300
RM147	F_{Ra} [N]	11400	11400	11400	11400	11400	8320	6850	8440
	F_{Ra} [N]	70000	60600	45900	39900	33500	27900	24100	22600
RM167	F_{Ra} [N]	15100	15100	15100	15100	15100	13100	-	-
	F_{Ra} [N]	70000	63500	51600	37800	26800	23600	-	-

换算系数和减速器常数
Conversion factors and gear unit constants

下表是针对 RM 减速电机在力作用点 $X \neq 1000\text{mm}$ 时计算径向载荷 F_{xL} 所需的换算系数和减速器常数
The following conversion factors and gear unit constants apply to calculating the permitted overhung load F_{xL} at point $X \neq 1000\text{mm}$ for RM gear motor s.

减速机型号 Gear unit size	a	b	$c_f(f_B=1.5)$	$C_f(f_B=2.0)$	F_F
RM57	1047	47	1220600	1260400	277
RM67	1047	47	2047600	2100000	297.5
RM77	1050	50	2512800	2574700	340.5
RM87	1056.5	56.5	4917800	5029000	414
RM97	1061	61	10911600	11124100	481
RM107	1069	69	15367000	15652000	554.5
RM137	1088	88	25291700	25993600	650
RM147	1091	91	30038700	31173900	756
RM167	1089.5	89.5	42096100	43654300	869

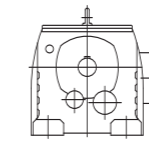
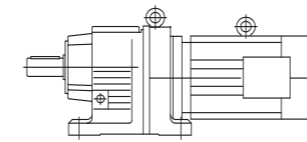
RM 减速机的附加重量
Additional weights of RM gear units

减速机型号 Gear unit size	在带有最小法兰尺寸 RF 减速机重量基础上的附加重量 Additional weight in addition to RF, related to the smallest RF flange $\Delta m[\text{kg}]$
RM57	12.0
RM67	15.8
RM77	25.0
RM87	29.7
RM97	51.3
RM107	88.0
RM137	111.1
RM147	167.4
RM167	195.4

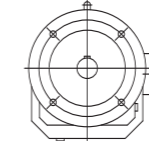
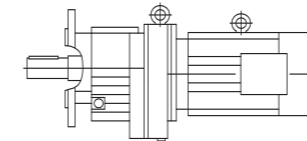
5. R 斜齿轮减速电机
R Helical Geared motors

5.1 设计方案
5.1 Versions of geared motors

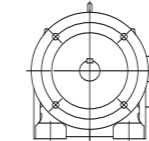
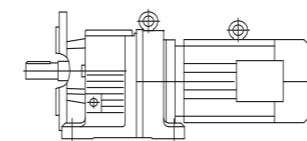
斜齿轮减速电机有以下设计方案：
The following types of helical-bevel motor can be supplied:



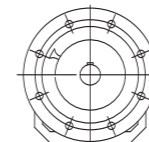
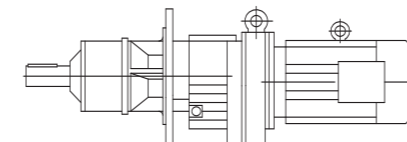
R..D..
底脚安装斜齿轮减速电机
Foot-mounted helical geared motor



RF..D..
法兰安装斜齿轮减速电机
Flange-mounted helical geared motor



R..F D..
底脚法兰安装斜齿轮减速电机(仅限于 R17-R87)
Foot and flange-mounted helical geared motor



RM..D..
法兰安装带长轴承箱的斜齿轮减速电机
Flange-mounted helical geared motor with extended bearing housing

5.2 可行的组合方式 5.2 Type of Combination

以下是斜齿轮减速机与交流（带制动）电机的组合列表。表中给出了每种组合的速比范围：
The following types of helical-bevel motor can be supplied:

减速机型号 Gear unit size	级 Stages	D63/D71	D80	D90	D100	D112	D132S	D132M
R/RF37	2	3.41-28.32	3.41-22.27	3.41-19.31	3.41-15.60			
R/RF37	3	24.42-134.82	24.42-105.28	24.42-48.08 61.18-90.77	24.42-32.40 39.17 61.18 73.96			
R/RF47	2	4.85-7.76 10.15-33.79	3.83-26.74	3.83-23.26	3.83-16.22 19.27	3.83-16.22	3.83-6.00 8.01-12.54	3.83-6.00 8.01-12.54
R/RF47	3	29.88-176.88	23.59-139.99	23.59-121.87	23.59-47.75 56.73 76.23-84.90 100.86	23.59-47.75		23.59-36.93
R/RF57	2	6.41-9.06 11.88-26.31	5.05-26.31	4.39-26.31	4.39-21.93	4.39-18.60	4.39-7.97 9.35-14.77	4.39-7.97 9.35-14.77
R/RF57	3	30.18-186.89	26.97-147.92	26.97-128.77	26.97-48.23 57.29 80.55-89.71 106.58	26.97-48.23 80.55-89.71	26.97-37.30	26.97-37.30
R/RF67	2	6.27-7.79 12.70-28.13	4.93-7.79 10.00-28.13	4.93-28.13	4.29-23.44	4.29-19.89	4.29-15.79	4.29-15.79
R/RF67	3	32.27-199.81	28.83-158-14	28.83-137.67	28.83-51.56 61.26-95.91 113.94	28.83-51.56 69.75-95.91	28.83-39.88 69.75-74.17	28.83-39.88 69.75-74.17
R/RF77	2	8.59 15.60-23.37	6.79-8.59 12.33-23.37	5.31-23.37	5.31-23.37	5.31-23.37	5.31-18.80	5.31-18.80
R/RF77	3	36.83-195.24	29.00-166.59	25.23-145-67	25.23-121.42	25.23-102.99	25.23-45.81 65.77-81.80	25.23-45.81 65.77-81.80
R/RF87	2		19.10-34.40	7.13-9.14 13.33-34.40	5.30-34.40	5.30-34.40	5.30-27.84	5.30-27.84
R/RF87	3		41.74-246.54	27.88-216.54	27.88-181.77	27.88-155.34	27.88-63.68 81.92-124.97	27.88-63.68 81.92-124.97
R/RF97	2		22.37-32.05	9.29 16.17-32.05	7.12-9.26 12.39-32.05	7.12-9.29 12.39-32.05	4.50-32.05	4.50-32.05
R/RF97	3		53.21-65.21 103.44-289.74	37.13-255.71	27.58-216.28	27.58-150.78	27.58-150.78	27.58-150.78
R/RF107	2				15.65-30.77	5.82-7.86 10.13-30.77	5.82-7.86 10.13-30.77	5.82-7.86 10.13-30.77
R/RF107	3					40.37-251.15	29.49-203.16	29.49-203.16
R/RF137	2				40.137-251.15		7.59 12.83-29.57	7.59 12.83-29.57
R/RF137	3						32.91-222.60	32.91-222.60

续表 Continued

减速机型号 Gear unit size	级 Stages	D132ML	D160M	D160L	D180	D200	D225	D250M
R/RF77	2	5.31-7.74 9.64-14.05	5.31-7.74 9.64-14.05					
R/RF77	3	25.23-33.47	25.23-33.47					
R/RF87	2	5.30-21.51	5.30-21.51	5.30-21.51	5.30-17.08			
R/RF87	3	27.88-47.58 81.92-93.38	27.88-47.58 81.92-93.38	27.88-47.58 81.92-93.38	27.88-36.84			
R/RF97	2	4.50-25.03	4.50-25.03	4.50-25.03	4.50-20.14	4.50-16.17		
R/RF97	3	27.58-59.92 72.17-116.48	27.58-59.92 72.17-116.48	27.58-59.92 72.17-116.48	27.58-47.58 72.17-92.48	27.58-37.13 72.17		
R/RF107	2	4.92-30.77	4.92-30.77	4.92-30.77	4.92-24.90	4.92-20.07	4.92-20.07	
R/RF107	3	29.49-158.68	29.49-158.68	29.49-158.68	29.49-65.60 78.57-127.68	29.49-52.68 78.57-102.53	29.49-52.68 78.57-102.53	
R/RF137	2	6.38-7.59 10.79-.29.57	6.38-7.59 10.79-.29.57	6.38-7.59 10.79-.29.57	5.15-29.57	5.15-24.12	5.15-24.12	5.15-19.04
R/RF137	3	27.83-174.40	27.83-174.40	27.83-174.40	27.83-141.12	27.83-65.20 88.70-113.72	27.83-65.20 88.70-113.72	27.83-50.86 88.70
R/RF147	2	7.25 11.99-20.44	7.25 11.99-20.44	7.25 11.99-20.44	5.89-7.25 9.74-20.44	5.00-20.44	5.00-20.44	5.00-20.44
R/RF147	3	29.95-163.31	29.95-163.31	29.95-163.31	24.19-146.91	24.19-119.86	24.19-119.86	24.19-52.87 72.09-94.60
R/RF167	2		14.48-46.00	14.48-46.00	11.99-37.74	10.24-30.71	10.24-30.71	10.24-24.57
R/RF167	3		34.41-229.71	34.41-229.71	27.96-186.93	23.71-153.07	23.71-153.07	23.71-58.65 82.91-121.81

减速机型号 Gear unit size	级 Stages	D280	D315	D315M-A/B			
R/RF147	2	5.00-20.44					
R/RF147	3	24.19-52.87 72.09-94.60					
R/RF167	2	10.24-24.57	10.24-19.03	10.24-14.48			
R/RF167	3	23.71-58.65 82.91-121.81	23.71-44.87 82.91-93.19	23.71-34.41			

5.3 速比与最大扭矩
5.3 Ratio and max torque

R37-57 $n_e=1400$ 1/min

R37		200Nm					
i	n_a [1/min]	M_{amax} [Nm]	F_{Ra} [N]	AD			
3-stage							
134.82	10	200	4950	AD ₁			
123.66	11	200	4950				
105.28	13	200	4950				
90.77	15	200	4950				
84.61	17	200	4950				
73.96	19	200	4950				
69.33	20	200	4950				
61.18	23	200	4950				
55.76	25	200	4950				
48.08	29	200	4950	AD ₂			
44.81	31	200	4950				
39.17	36	200	4760				
36.72	38	200	4540				
32.40	43	200	4120				
28.73	49	200	3740				
24.43	57	200	3240				
2-stage							
28.32	49	200	3690			AD ₂	
26.03	54	185	3860				
22.27	63	200	2970				
19.31	73	200	2570				
18.05	78	200	2390				
15.60	90	200	2010				
13.25	106	190	1880				
11.83	118	183	1810				
10.11	138	170	1820				
9.47	148	167	1760				
7.97	176	156	1720				
6.67	210	144	1000				
5.67	247	142	761				
5.06	277	135	790				
4.32	324	126	820				
4.05	346	122	850				
3.41	411	112	900				

R47		300Nm					
i	n_a [1/min]	M_{amax} [Nm]	F_{Ra} [N]	AD			
3-stage							
176.88	7.9	300	5420	AD ₂			
162.94	8.6	300	5420				
139.99	10	300	5420				
121.87	11	300	5420				
114.17	12	300	5420				
100.86	14	300	5420				
93.68	15	300	5420				
84.90	16	300	5420				
76.23	18	300	5420				
68.54	20	300	5420				
64.21	22	300	5420				
56.73	25	300	5420				
52.69	27	300	5420				
47.75	29	300	5150				
42.87	33	300	4930				
36.93	38	300	4630	AD ₂			
34.73	40	300	4520				
29.88	47	300	4240				
26.70	52	300	4050				
23.59	59	300	3840				
2-stage							
33.79	41	240	4690			AD ₂	
31.13	45	220	4610				
26.74	52	300	4050				
23.28	60	300	3820				
21.81	64	300	3710				
19.27	73	295	3530				
17.89	78	290	3390				
16.22	86	275	3350				
14.56	96	265	3230				
12.54	112	250	3080				
11.79	119	245	3020				
10.15	138	230	2890				
9.07	154	220	2780				
8.01	175	205	2690				
7.76	180	163	2720				
6.96	201	159	2620				
6.00	233	156	2740				
5.64	248	155	2410				
4.85	289	150	2280				
4.34	323	146	2190				
3.83	366	144	2090	AD ₃			

R57		450Nm					
i	n_a [1/min]	M_{amax} [Nm]	F_{Ra} [N]	AD			
3-stage							
186.89	7.5	450	7110	AD ₂			
172.17	8.1	450	7110				
147.92	9.5	450	7110				
128.77	11	450	7110				
120.63	12	450	7110				
106.58	13	450	7110				
98.99	14	450	7110				
89.71	16	450	7110				
80.55	17	450	7110				
69.23	20	450	7110				
64.85	22	450	6980				
57.29	24	450	6630				
53.22	26	450	6430				
48.23	29	450	6170				
43.30	32	450	5900				
37.30	38	450	5530	AD ₂			
35.07	40	450	5390				
30.18	46	450	5050				
26.97	52	450	4800				
2-stage							
26.31	53	450	4750			AD ₂	
24.99	56	450	4640				
21.93	64	450	4370				
18.60	75	450	4050				
16.79	83	450	3860				
14.77	95	435	3690				
13.95	100	430	3610	AD ₃			
11.88	118	405	3430				
10.79	130	390	3330				
9.35	150	370	3180				
9.06	155	375	2010				
7.97	176	355	2020				
7.53	186	350	1950				
6.41	218	335	1770				
5.82	241	320	1820				
5.05	277	305	1730				
4.39	319	280	1900				

R67-87 $n_e=1400$ 1/min

R67		600Nm							
i	n_a [1/min]	M_{amax} [Nm]	F_{Ra} [N]	AD					
3-stage									
199.81	7.0	600	7170	AD ₂					
184.07	7.6	600	7170						
158.14	8.9	600	7170						
138.67	10	600	7170						
128.97	11	600	7170						
113.94	12	600	7170						
105.83	13	600	7170						
95.91	15	600	7170						
86.11	16	600	7170						
74.17	19	600	7170						
69.75	20	600	7170						
61.26	23	600	7170						
56.89	25	600	7170						
51.56	27	600	7170						
46.29	30	600	7170						
39.88	35	580	7410	AD ₂					
37.50	37	570	7530						
32.27	43	540	7850						
28.83	49	520	8050						
2-stage									
28.13	50	540	7850			AD ₂			
26.72	52	540	7850						
23.44	60	560	7640						
19.89	70	600	7170					AD ₃	
17.95	78	590	7290						
15.79	89	560	7130						
14.91	94	550	6980						
12.70	110	520	6650						
11.54	121	500	6500						
10.00	140	470	6220						
8.70	161	440	5960						
7.79	180	380	5830						
7.36	190	370	5790						
6.27	223	330	5590	AD ₃					
5.70	246	310	5450						
4.93	284	290	5210						
4.29	326	270	5000						

R77		820Nm					
i	n_a [1/min]	M_{amax} [Nm]	F_{Ra} [N]	AD			
3-stage							
195.24	7.2	820	9920	AD ₂			
166.59	8.4	820	9920				
145.67	9.6	820	9920				
138.39	10	820	9920				
121.42	12	820	9920				
102.99	14	820	9920				
92.97	15	820	9920				
81.80	17	820	9920				
77.24	18	820	9920				
65.77	21	820	9920				
57.68	24	820	9920				
52.07	27	820	9920				
45.81	31	820	9920				
43.26	32	820	9920				
36.83	38	820	9920				
33.47	42	820	9920	AD ₂			
29.00	48	820	9920				
25.23	55	780	10100				
2-stage							
23.37	60	820	8870			AD ₃	
21.43	65	820	8250				
18.80	74	780	7980				
17.82	79	780	7620				
15.60	90	740	7390				
14.05	100	720	7050				
12.33	114	690	6740				
10.88	129	660	6490				
9.64	145	630	6300				
8.59	163	630	4100	AD ₄			
7.74	181	610	3940				
6.79	206	580	3850				
5.99	234	540	3990				
5.31	264	510	3990				

R87		1550Nm							
i	n_a [1/min]	M_{amax} [Nm]	F_{Ra} [N]	AD					
3-stage									
246.54	5.7	1550	16900	AD ₂					
216.54	6.5	1550	16900						
205.71	6.8	1550	16900						
181.77	7.7	1550	16900						
155.34	9.0	1550	16900						
142.41	9.8	1550	16900						
124.97	11	1550	16900						
118.43	12	1550	16900						
103.65	14	1550	16900						
93.38	15	1550	16900						
81.92	17	1550	16900						
72.57	19	1550	16900						
63.68	22	1550	15800						
60.35	23	1550	15200						
52.82	27	1550	13500						
47.58	29	1550	16900	AD ₃					
41.74	34	1550	16900						
36.84	38	1550	16800						
32.66	43	1550	16000						
27.88	50	1550	15100						
2-stage									
34.40	41	1550	9480			AD ₃			
31.40	45	1550	7820						
27.80	50	1550	15000					AD ₄	
23.40	60	1550	13900						
21.51	65	1550	13600						
19.10	73	1440	13000						
17.08	82	1390	12600						
15.35	91	1340	12100						
13.33	105	1280	11600						
11.93	117	1230	11200						
9.90	141	1180	10400						
9.14	153	1210	10500	AD ₅					
8.22	170	1160	10200						
7.13	196	1070	9780						
6.39	218	1020	9450						
5.30	254	910	8980						

R97-137 $n_e=1400$ 1/min

R97		3000Nm			
i	n_a [1/min]	M_{amax} [Nm]	F_{Ra} [N]	AD	
3-stage					
289.74	4.8	3000	19800		
255.71	5.5	3000	19800		
241.25	5.8	3000	19800		
216.28	6.5	3000	19800		
186.30	7.5	3000	19800		
170.02	8.2	3000	19800		
150.78	9.3	3000	19800		
126.75	11	3000	19800		AD ₃
116.48	12	3000	19800		
103.44	14	3000	19800		
92.48	15	3000	19800		
83.15	17	3000	19800		
72.17	19	3000	19800		
65.21	21	3000	19800		
59.92	23	3000	19800		
53.21	26	3000	19800		
47.58	29	3000	19800		
42.78	33	3000	19800		
37.13	38	3000	18600		AD ₄
33.25	42	2890	17900		
27.58	51	2670	16900		
2-stage					
32.05	44	2560	10600		AD ₄
27.19	51	2560	8380		
25.03	56	2830	15900		
22.37	63	2720	15300		
20.14	70	2610	14800		
18.24	77	2500	14400		
16.17	87	2400	13800		
14.62	96	2300	13400		
12.39	113	2190	12700		AD ₅
10.83	129	2090	12100		
9.29	151	2030	12200		
8.39	167	2030	11700		
7.12	197	2000	10900		
6.21	225	1890	10500		
5.20	269	1780	9850		AD ₆
4.50	311	1630	9500		

R107		4300Nm			
i	n_a [1/min]	M_{amax} [Nm]	F_{Ra} [N]	AD	
3-stage					
251.15	5.6	4300	29500		
229.95	6.1	4300	29500		
203.16	6.9	4300	29500		
172.34	8.1	4300	29500		
158.68	8.8	4300	29500		
141.83	9.9	4300	29500		
127.68	10	4300	29500		AD ₃
115.63	12	4300	29500		
102.53	14	4300	29500		
92.70	15	4300	29500		
78.57	18	4300	29500		
72.88	19	4300	29500		
65.60	21	4300	29200		
59.41	24	4300	28000		
52.68	27	4300	26600		
47.63	29	4300	25500		AD ₄
40.37	35	4300	23800		
35.26	40	4300	22400		
29.49	47	4300	20700		
2-stage					
30.77	45	4300	21100		
27.58	51	4300	20100		
24.90	56	4300	19200		
22.62	62	4300	18300		AD ₄
20.07	70	4300	17300		
18.21	77	4300	16600		
15.65	89	4300	15400		
13.66	102	4300	14400		
11.59	121	4300	13300		
10.13	138	4300	12400		
8.56	164	4300	11300		AD ₆
7.86	178	2970	13800		
6.66	210	2970	12800		
5.82	241	2970	12100		
4.92	285	2900	11300		

R137		8000Nm			
i	n_a [1/min]	M_{amax} [Nm]	F_{Ra} [N]	AD	
3-stage					
222.60	6.3	8000	53400		
188.45	7.4	8000	53400		
174.40	8.0	8000	53400		
156.31	9.0	8000	53400		
141.12	9.9	8000	53400		
128.18	11	8000	53400		
113.72	12	8000	53400		AD ₄
103.20	14	8000	53400		
88.70	16	8000	53400		
80.91	17	8000	53400		
73.49	19	8000	53400		
65.20	21	8000	53400		
59.17	24	8000	53400		
50.86	28	8000	53400		
44.39	32	8000	53400		
37.65	37	8000	53400		AD ₅
32.91	43	8000	53400		
27.83	50	7680	54100		
2-stage					
29.57	47	7780	53900		AD ₆
24.12	58	8000	49400		
22.00	64	8000	47100		
19.04	74	8000	43500		
16.80	83	8000	40600		
14.51	96	8000	37300		
12.83	109	8000	34700		AD ₇
10.79	130	8000	31100		
8.71	161	7840	27600		
7.59	184	5110	39000		
6.38	219	5110	35900		
5.15	272	4600	34500		

R147-167 $n_e=1400$ 1/min

R147		13000Nm			
i	n_a [1/min]	M_{amax} [Nm]	F_{Ra} [N]	AD	
3-stage					
163.31	8.6	13000	62700		
146.91	9.5	13000	62700		
119.86	12	13000	62700		AD ₄
109.31	13	13000	62700		
94.60	15	13000	62700		
83.47	17	13000	62700		
72.09	19	13000	62700		
66.99	21	13000	62700		
61.09	23	13000	62700		AD ₅
52.87	26	13000	62700		
46.65	30	13000	62700		
40.29	35	13000	62700		AD ₆
35.64	39	13000	62700		
29.95	47	13000	62700		AD ₇
24.19	58	11900	64700		
2-stage					
20.44	68	12000	64600		
18.04	78	10500	67000		
15.65	90	13000	62700		
13.91	101	12600	63400		
11.99	117	13000	60400		AD ₈
9.74	144	13000	54400		
8.26	169	13000	49900		
7.25	193	8670	58400		
5.89	238	8670	53200		
5.00	280	8670	49300		

R167		18000Nm			
i	n_a [1/min]	M_{amax} [Nm]	F_{Ra} [N]	AD	
3-stage					
229.71	6.1	18000	120000		
186.93	7.5	18000	120000		
153.07	9.1	18000	120000		
139.98	10	18000	120000		
121.81	11	18000	120000		AD ₃
107.49	13	18000	120000		
93.19	15	18000	120000		
82.91	17	18000	120000		
73.70	19	18000	120000		
67.40	21	18000	120000		
58.65	24	18000	120000		AD ₄
51.76	27	18000	120000		
44.87	31	18000	120000		
39.92	35	18000	120000		AD ₇
34.41	41	18000	120000		
27.96	50	18000	120000		
23.71	59	18000	116500		AD ₈
2-stage					
46.00	30	7000	120000		AD ₅
37.74	37	9000	120000		AD ₆
30.71	46	10000	120000		
24.57	57	14000	120000		
21.85	64	13000	120000		
19.03	74	16000	111400		
16.98	82	15000	108900		AD ₃
14.48	97	18000	93800		
11.99	117	17000	88700		
10.24	137	17000	82500		

R47/57/67R37 $n_e=1400$ 1/min

R47R37		300Nm	
i	n_a [1/min]	M_{amax} [Nm]	F_{Ra} [N]
13598	0.10	300	5420
12472	0.11	300	5420
10619	0.13	300	5420
9155	0.15	300	5420
8534	0.16	300	5420
7460	0.19	300	5420
6993	0.20	300	5420
6171	0.23	300	5420
5624	0.25	300	5420
4849	0.29	300	5420
4520	0.31	300	5420
3951	0.35	300	5420
3704	0.38	300	5420
3268	0.43	300	5420
2898	0.48	300	5420
2856	0.49	300	5420
2625	0.53	300	5420
2598	0.54	300	5420
2463	0.57	300	5420
2383	0.59	300	5420
2246	0.62	300	5420
2029	0.69	300	5420
1948	0.72	300	5420
1821	0.77	300	5420
1749	0.80	300	5420
1630	0.86	300	5420
1573	0.89	300	5420
1425	0.98	300	5420
1336	1.0	300	5420
1193	1.2	300	5420
1179	1.2	300	5420
1074	1.3	300	5420
1020	1.4	300	5420
955	1.5	300	5420
927	1.5	300	5420
963	1.6	300	5420
904	1.7	300	5420
755	1.9	300	5420
708	2.0	300	5420
673	2.1	300	5420
624	2.2	300	5420
572	2.4	300	5420
554	2.5	300	5420
546	2.6	300	5420
510	2.7	300	5420
502	2.8	300	5420
471	3.0	300	5420
436	3.2	300	5420
429	3.3	300	5420
408	3.4	300	5420
372	3.8	300	5420
348	4.0	300	5420
344	4.1	300	5420
301	4.7	300	5420
255	5.5	300	5420
228	6.1	300	5420
195	7.2	300	5420
182	7.7	300	5420
154	9.1	300	5420
129	11	300	5420
109	13	300	5420
98	14	300	5420

R57R37		450 Nm	
i	n_a [1/min]	M_{amax} [Nm]	F_{Ra} [N]
14369	0.10	450	7110
12095	0.12	450	7110
10860	0.13	450	7110
9446	0.15	450	7110
8480	0.17	450	7110
7312	0.19	450	7110
6521	0.21	450	7110
5585	0.25	450	7110
4928	0.28	450	7110
4378	0.32	450	7110
3873	0.36	450	7110
3344	0.42	450	7110
2957	0.47	450	7110
2907	0.48	450	7110
2567	0.55	450	7110
2508	0.56	450	7110
2309	0.61	450	7110
2244	0.62	450	7110
1991	0.70	450	7110
1967	0.71	450	7110
1768	0.79	450	7110
1732	0.81	450	7110
1555	0.90	450	7110
1520	0.92	450	7110
1399	1.0	450	7110
1342	1.0	450	7110
1189	1.2	450	7110
1164	1.2	450	7110
1034	1.4	450	7110
1027	1.4	450	7110
894	1.6	450	7110
805	1.7	450	7110
782	1.8	450	7110
683	2.0	450	7110
678	2.1	450	7110
604	2.3	450	7110
603	2.3	450	7110
537	2.6	450	7110
534	2.6	450	7110
471	3.0	450	7110
454	3.1	450	7110
410	3.4	450	7110
359	3.9	450	7110
357	3.9	450	7110
324	4.3	450	7110
319	4.4	450	7110
290	4.8	450	7110
273	5.1	450	7110
262	5.3	450	7110
246	5.7	450	7110
241	5.8	450	7110
220	6.4	450	7110
215	6.5	450	7110
188	7.4	450	7110
187	7.5	450	7110
164	8.5	450	7110
159	8.8	450	7110
146	9.6	450	7110
142	9.9	450	7110
134	10	450	7110

R67R37		600 Nm	
i	n_a [1/min]	M_{amax} [Nm]	F_{Ra} [N]
15361	0.09	600	7170
12931	0.11	600	7170
11996	0.12	600	7170
10097	0.14	600	7170
9066	0.15	600	7170
7816	0.18	600	7170
6732	0.21	600	7170
5970	0.23	600	7170
5268	0.27	600	7170
4680	0.30	600	7170
4136	0.34	600	7170
3566	0.39	600	7170
3125	0.45	600	7170
2745	0.51	600	7170
2682	0.52	600	7170
2460	0.57	600	7170
2403	0.58	600	7170
2136	0.66	600	7170
2094	0.67	600	7170
1852	0.76	600	7170
1805	0.78	600	7170
1652	0.85	600	7170
1629	0.86	600	7170
1471	0.95	600	7170
1432	0.98	600	7170
1379	1.0	600	7170
1259	1.1	600	7170
1109	1.3	600	7170
1106	1.3	600	7170
956	1.5	600	7170
891	1.6	600	7170
836	1.7	600	7170
750	1.9	600	7170
730	1.9	600	7170
646	2.2	600	7170
644	2.2	600	7170
574	2.4	600	7170
571	2.5	600	7170
495	2.8	600	7170
486	2.9	600	7170
443	3.2	600	7170
438	3.2	600	7170
388	3.6	600	7170
384	3.6	600	7170
359	3.9	600	7170
344	4.1	600	7170
310	4.5	600	7170
294	4.8	600	7170
264	5.3	600	7170
261	5.4	600	7170
235	6.0	600	7170
234	6.0	600	7170
201	7.0	600	7170
200	7.0	600	7170
181	7.7	600	7170
176	8.0	600	7170
189	8.8	600	7170
158	8.9	600	7170

R77R37,R87/97R57 $n_e=1400$ 1/min

R77R37		820 Nm	
i	n_a [1/min]	M_{amax} [Nm]	F_{Ra} [N]
16370	0.09	820	9920
15015	0.09	820	9920
13885	0.10	820	9920
12783	0.11	820	9920
11021	0.13	820	9920
9788	0.14	820	9920
8714	0.16	820	9920
7617	0.18	820	9920
6770	0.21	820	9920
5838	0.24	820	9920
5184	0.27	820	9920
4470	0.31	820	9920
3999	0.35	820	9920
3488	0.40	820	9920
3151	0.44	820	9920
3053	0.46	820	9920
2890	0.48	820	9920
2671	0.52	820	9920
2460	0.57	820	9920
2345	0.60	820	9920
2121	0.66	820	9920
2070	0.68	820	9920
1977	0.71	820	9920
1822	0.77	820	9920
1728	0.81	820	9920
1620	0.86	820	9920
1580	0.89	820	9920
1430	0.98	820	9920
1394	1.0	820	9920
1303	1.1	820	9920
1218	1.1	820	9920
1124	1.2	820	9920
1084	1.3	820	9920
1047	1.3	820	9920
940	1.5	820	9920
915	1.5	820	9920
858	1.6	820	9920
821	1.7	820	9920
757	1.8	820	9920
731	1.9	820	9920
671	2.1	820	9920
646	2.2	820	9920
571	2.5	820	9920
560	2.5	820	9920
520	2.7	820	9920
488	2.9	820	9920
451	3.1	820	9920
436	3.2	820	9920
522	3.3	820	9920
373	3.8	820	9920
365	3.8	820	9920
327	4.3	820	9920
310	4.5	820	9920
289	4.8	820	9920
276	5.1	820	9920
260	5.4	820	9920
236	5.9	820	9920
224	6.2	820	9920
221	6.3	820	9920
197	7.1	820	9920
186	7.5	820	9920
169	8.3	820	9920
149	9.4	820	9920

R87R57		1550 Nm	
i	n_a [1/min]	M_{amax} [Nm]	F_{Ra} [N]
17452	0.08	1550	16900
15310	0.09	1550	16900
13813	0.10	1550	16900
12025	0.12	1550	16900
10549	0.13	1550	16900
9244	0.15	1550	16900
8109	0.17	1550	16900
7038	0.20	1550	16900
6174	0.23	1550	16900
5449	0.26	1550	16900
4831	0.29	1550	16900
4206	0.33	1550	16900
4020	0.35	1550	16900
3744	0.37	1550	16900
3703	0.38	1550	16900
3233	0.43	1550	16900
3182	0.44	1550	16900
2873	0.49	1550	16900
2770	0.51	1550	16900
2595	0.54	1550	16900
2518	0.56	1550	16900
2209	0.63	1550	16900
2129	0.66	1550	16900
1961	0.71	1550	16900
1930	0.73	1550	16900
1737	0.81	1550	16900
1733	0.81	1550	16900
1524	0.92	1550	16900
1489	0.94	1550	16900
1395	1.0	1550	16900
1303	1.1	1550	16900
1232	1.1	1550	16900
1145	1.2	1550	16900
1143	1.2	1550	16900
1037	1.4	1550	16900
1008	1.4	1550	16900
994	1.4	1550	16900
931	1.5	1550	16900
885	1.6	1550	16900
881	1.6	1550	16900
802	1.7	1550	16900
776	1.8	1550	16900
754	1.9	1550	16900
685	2.0	1550	16900
649	2.2	1550	16900
599	2.3	1550	16

R107/137/147R77 $n_e=1400$ 1/min

R107R77		4300Nm	
i	n_a [1/min]	M_{amax} [Nm]	F_{Ra} [N]
20018	0.07	4300	29500
17080	0.08	4300	29500
14936	0.09	4300	29500
12829	0.11	4300	29500
11256	0.12	4300	29500
9547	0.15	4300	29500
8618	0.16	4300	29500
7583	0.18	4300	29500
6743	0.21	4300	29500
5914	0.24	4300	29500
5168	0.27	4300	29500
4435	0.32	4300	29500
3918	0.36	4300	29500
3896	0.36	4300	29500
3432	0.41	4300	29500
3343	0.42	4300	29500
3039	0.46	4300	29500
3034	0.46	4300	29500
2688	0.52	4300	29500
2653	0.53	4300	29500
2339	0.60	4300	29500
2280	0.61	4300	29500
2067	0.69	4300	29500
1987	0.70	4300	29500
1827	0.77	4300	29500
1693	0.83	4300	29500
1599	0.88	4300	29500
1550	0.90	4300	29500
1407	1.0	4300	29500
1400	1.0	4300	29500
1226	1.1	4300	29500
1209	1.2	4300	29500
1104	1.3	4300	29500
1055	1.3	4300	29500
939	1.5	4300	29500
919	1.5	4300	29500
822	1.7	4300	29500
815	1.7	4300	29500
717	2.0	4300	29500
626	2.2	4300	29500
614	2.3	4300	29500
544	2.6	4300	29500
528	2.7	4300	29500
492	2.8	4300	29500
469	3.0	4300	29500
426	3.3	4300	29500
417	3.4	4300	29500
377	3.7	4300	29500
369	3.8	4300	29500
325	4.3	4300	29500
323	4.3	4300	29500
285	4.9	4300	29500
284	4.9	4300	29500
256	5.5	4300	29500
253	5.5	4300	29500
220	6.4	4300	29500
214	6.5	4300	29500
193	7.3	4300	29500
187	7.5	4300	29500
172	8.1	4300	29500

R137R77		8000Nm	
i	n_a [1/min]	M_{amax} [Nm]	F_{Ra} [N]
22203	0.06	8000	53400
18945	0.07	8000	53400
16566	0.08	8000	53400
14777	0.09	8000	53400
12921	0.11	8000	53400
11712	0.12	8000	53400
10573	0.13	8000	53400
8784	0.16	8000	53400
7479	0.19	8000	53400
6559	0.21	8000	53400
5834	0.24	8000	53400
5116	0.27	8000	53400
4709	0.30	8000	53400
4464	0.31	8000	53400
4017	0.35	8000	53400
3928	0.36	8000	53400
3514	0.40	8000	53400
3454	0.41	8000	53400
3338	0.42	8000	53400
2993	0.47	8000	53400
2929	0.48	8000	53400
2658	0.53	8000	53400
2484	0.56	8000	53400
2412	0.58	8000	53400
2242	0.62	8000	53400
2073	0.68	8000	53400
1863	0.75	8000	53400
1839	0.76	8000	53400
1598	0.88	8000	53400
1586	0.88	8000	53400
1397	1.0	8000	53400
1391	1.0	8000	53400
1256	1.1	8000	53400
1226	1.1	8000	53400
1105	1.3	8000	53400
1090	1.3	8000	53400
1043	1.3	8000	53400
951	1.5	8000	53400
888	1.6	8000	53400
831	1.7	8000	53400
730	1.9	8000	53400
699	2.0	8000	53400
629	2.2	8000	53400
609	2.3	8000	53400
564	2.5	8000	53400
560	2.5	8000	53400
517	2.7	8000	53400
490	2.9	8000	53400
453	3.1	8000	53400
428	3.3	8000	53400
381	3.7	8000	53400
376	3.7	8000	53400
339	4.1	8000	53400
323	4.3	8000	53400
297	4.7	8000	53400
291	4.8	8000	53400
255	5.5	8000	53400
223	6.3	8000	53400
197	7.1	8000	53400
175	8.0	8000	53400

R147R77		13000Nm	
i	n_a [1/min]	M_{amax} [Nm]	F_{Ra} [N]
23401	0.06	13000	62700
21342	0.07	13000	62700
18210	0.08	13000	62700
15923	0.09	13000	62700
14075	0.10	13000	62700
12344	0.11	13000	62700
11143	0.13	13000	62700
9743	0.14	13000	62700
8443	0.17	13000	62700
7307	0.19	13000	62700
6447	0.22	13000	62700
5568	0.25	13000	62700
4926	0.28	13000	62700
4325	0.32	13000	62700
3754	0.37	13000	62700
3302	0.42	13000	62700
2898	0.48	13000	62700
2555	0.55	13000	62700
2211	0.63	13000	62700
1951	0.72	13000	62700
1705	0.82	13000	62700
1536	0.91	13000	62700
1329	1.1	13000	62700
1166	1.2	13000	62700
1029	1.4	13000	62700
889	1.6	13000	62700
784	1.8	13000	62700
695	2.0	13000	62700
619	2.3	13000	62700
558	2.5	13000	62700
489	2.9	13000	62700
415	3.4	13000	62700

R147R87, R167/R97, R167R107 $n_e=1400$ 1/min

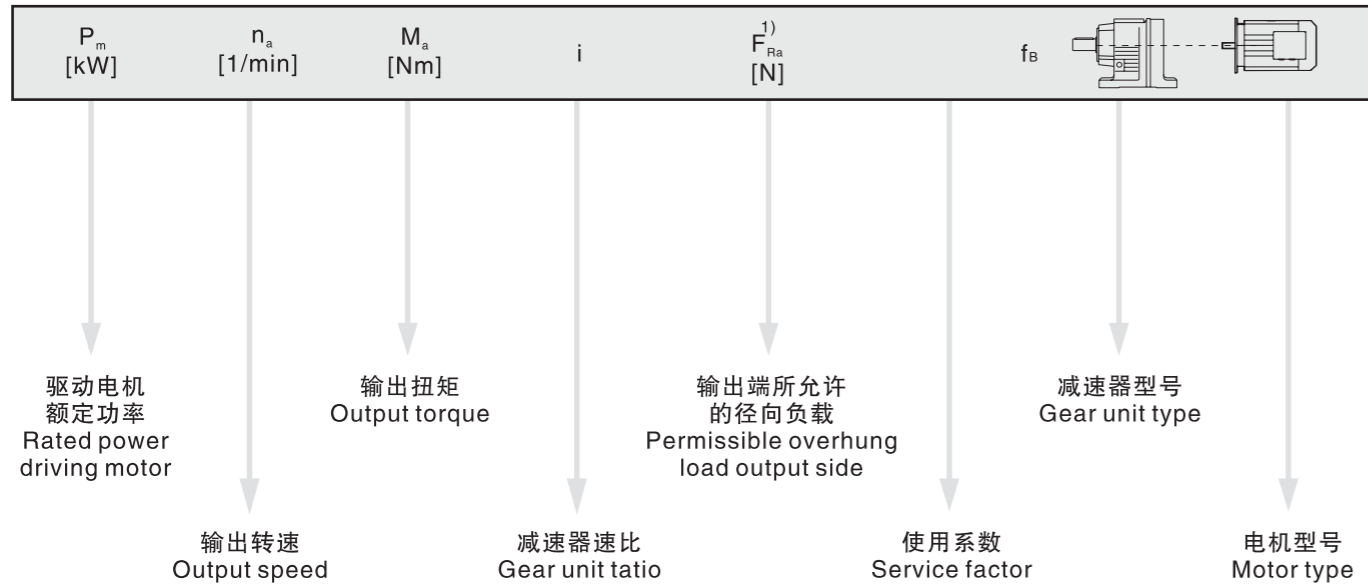
R147R87		13000Nm	
i	n_a [1/min]	M_{amax} [Nm]	F_{Ra} [N]
533	2.6	13000	62700
462	3.0	13000	62700
426	3.3	13000	62700
368	3.8	13000	62700
326	4.3	13000	62700
280	5.0	13000	62700
247	5.7	13000	62700
214	6.5	13000	62700
189	7.4	13000	62700
159	8.8	13000	62700

R167R97		18000Nm	
i	n_a [1/min]	M_{amax} [Nm]	F_{Ra} [N]
27001	0.05	18000	120000
22482	0.06	18000	120000
20002	0.07	18000	120000
17361	0.08	18000	120000
15446	0.09	18000	120000
14051	0.10	18000	120000
11812	0.12	18000	120000
10509	0.13	18000	120000
9631	0.15	18000	120000
7749	0.18	18000	120000
6894	0.20	18000	120000
6077	0.23	18000	120000
5407	0.26	18000	120000
4650	0.30	18000	120000
4129	0.34	18000	120000
3692	0.38	18000	120000
3099	0.45	18000	120000
2657	0.53	18000	120000
2333	0.60	18000	120000
2085	0.67	18000	120000
1877	0.75	18000	120000
1670	0.84	18000	120000
1438	0.97	18000	120000
1279	1.1	18000	120000
1123	1.2	18000	120000
999	1.4	18000	120000
861	1.6	18000	120000
760	1.8	18000	120000
656	2.1	18000	120000
579	2.4	18000	120000
503	2.8	18000	120000
432	3.2	18000	120000
376	3.7	18000	120000
335	4.2	18000	120000
303	4.6	18000	120000
279	5.0	18000	120000

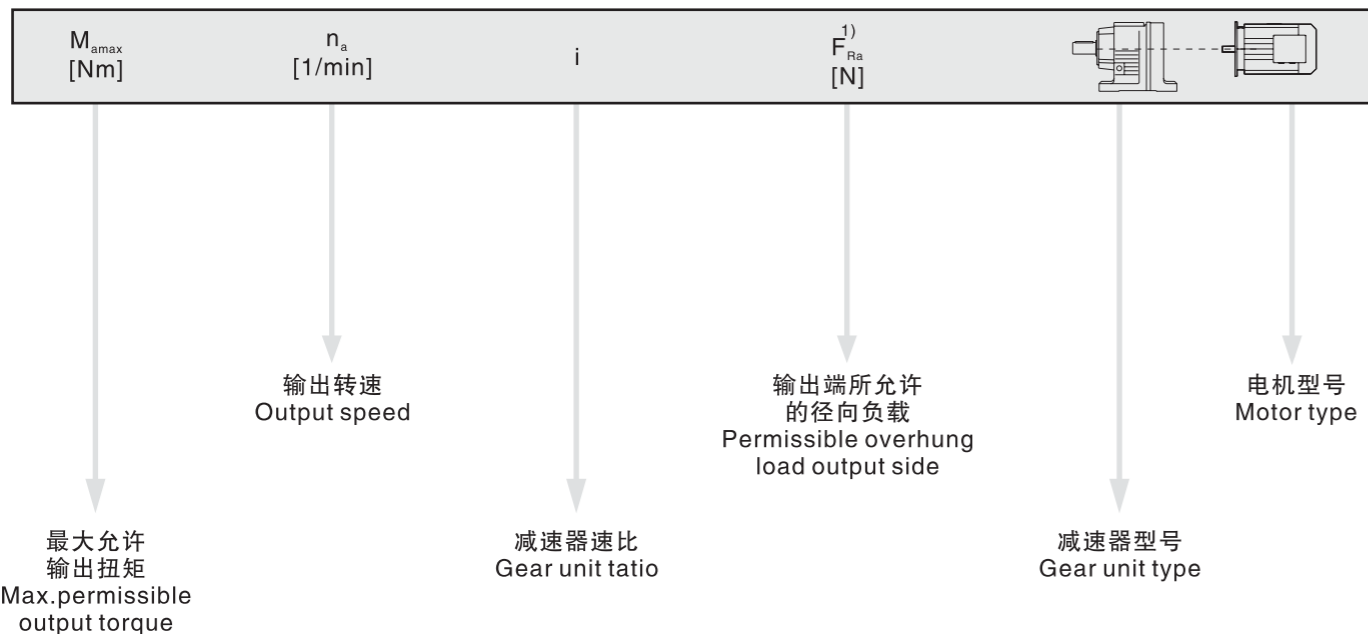
R167R107		18000Nm	
i	n_a [1/min]	M_{amax} [Nm]	F_{Ra} [N]
3637	0.38	18000	120000
3330	0.42	18000	120000
2757	0.51	18000	120000
2436	0.57	18000	120000
2298	0.61	18000	120000
2066	0.68	18000	120000
1849	0.76	18000	120000
1674	0.84	18000	120000
1485	0.94	18000	120000
1342	1.0	18000	120000
1229	1.1	18000	120000
1111	1.3	18000	120000
950	1.5	18000	120000
860	1.6	18000	120000
763	1.8	18000	120000
690	2.0	18000	120000
585	2.4	18000	120000
511	2.7	18000	120000
446	3.1	18000	120000
399	3.5	18000	120000
361	3.9	18000	120000
349	4.0	18000	120000
328	4.3	18000	120000
295	4.7	18000	120000
291	4.8	18000	120000
270	5.2	18000	120000
264	5.3	18000	120000
229	6.1	18000	120000
227	6.2	18000	120000
200	7.0	18000	120000
198	7.1	18000	120000
169	8.3	18000	120000
168	8.3	18000	120000

5.4 选型表注释 5.4 Selection table

选型表的结构
Selection table for geared motors



对于特殊低输出转速
For particularly low output speeds



图例 Cuttine
※ 也可用于EEXe 电机。 ※EEXE motor is optional.
1) 实心轴底脚安装减速机的径向负荷
1) Overhung load specified for foot-mounted gear unit with solid shaft

注意: Notice:
对于特殊低输出转速驱动(多级减速电机), 电机功率必须与减速机的最大允许输出地扭矩相对应。
In drives for particularly low output speeds (multi-stage geared motor), the motor power must belimited according to maximum permitted output torque of the gear unit.

输出转速 Output speed n_a [1/min]	输出转矩 Output torque M_a [N·m]	传动比 Ratio i	径向负荷 Permitted overhung load $F_{Ra}^{1)}$ [N]	使用系数 Service factor f_b	型号 Model	
0.12kW						
0.06	14300	21342	58600	0.90	R 147 R77 D63S4 RF 147 R77 D63S4	
0.08	12000	18210	64500	1.10		
0.09	10300	15923	67300	1.25		
0.10	9440	14075	68600	1.40		
0.11	7630	12344	70700	1.70	R 147 R77 D63S4 RF 147 R77 D63S4	
0.12	6780	11143	71500	1.90		
0.14	6020	9743	72200	2.2		
0.16	4960	8443	73000	2.6		
0.19	4290	7307	73400	3.0		
0.21	3780	6447	73700	3.4		
0.25	3270	5568	73900	4.0		
0.11	8390	12921	52300	0.95		R 137 R77 D63S4 RF 137 R77 D63S4
0.12	7240	11712	54900	1.10		
0.13	6430	10573	56400	1.25		
0.16	5160	8784	58200	1.55		
0.18	4270	7479	59200	1.85		
0.21	4060	6559	59500	1.95		
0.24	3330	5834	60100	2.4		
0.27	3160	5116	60200	2.5		
0.18	4500	7583	28300	0.95	R 107 R77 D63S4 RF 107 R77 D63S4	
0.20	3850	6743	31700	1.10		
0.23	3660	5914	32500	1.20		
0.27	2950	5168	35100	1.45		
0.31	2600	4435	36000	1.65		
0.35	2310	3896	36400	1.85		
0.45	1880	3039	36900	2.3		
0.35	2670	3918	35900	1.60		R 107 R77 D63S4 RF 107 R77 D63S4
0.41	2240	3343	36500	1.90		
0.45	2030	3034	36700	2.1		
0.52	1750	2653	37000	2.5		
0.61	1500	2280	37200	2.9		
0.67	1300	2067	37400	3.3		
0.30	2950	4559	21300	1.00	R 97 R57 D63S4 RF 97 R57 D63S4	
0.34	2500	4004	24100	1.20		
0.40	2200	3481	25500	1.35		
0.29	3240	4678	3970	0.90		R 97 R57 D63S4 RF 97 R57 D63S4
0.32	2970	4309	21000	1.00		
0.37	2510	3702	24000	1.20		
0.46	2010	3019	26400	1.50		
0.52	1750	2668	27300	1.70		
0.61	1440	2245	27700	2.1		
0.68	1280	2016	27900	2.3		
0.80	1160	1733	28100	2.6		
0.45	2020	3065	26300	1.50	R 97 R57 D63S4 RF 97 R57 D63S4	
0.51	1790	2722	27100	1.65		
0.60	1510	2311	27600	2.0		
0.66	1360	2078	27800	2.2		
0.76	1170	1823	28100	2.6		
0.87	1020	1583	28200	3.0		
0.99	860	1396	28300	3.5		
1.1	740	1228	28400	4.1		
0.48	1740	2873	15500	0.90		R 87 R57 D63S4 RF 87 R57 D63S4
0.70	1260	1961	18700	1.25		
0.50	1850	2770	10700	0.85	R 87 R57 D63S4 RF 87 R57 D63S4	
0.53	1730	2595	15600	0.90		
0.65	1390	2129	18000	1.10		
0.72	1240	1930	18800	1.25		
0.80	1100	1733	19400	1.40		
0.79	1090	1737	19500	1.40		R 87 R57 D63S4 RF 87 R57 D63S4
0.91	960	1524	20000	1.60		
1.1	775	1303	20000	2.0		
1.2	680	1143	20000	2.3		
1.6	555	885	20000	2.8		
1.8	485	776	20000	3.2		
2.0	430	685	20000	3.6		
2.3	345	599	20000	4.5		

输出转速 Output speed n_a [1/min]	输出转矩 Output torque M_a [N·m]	传动比 Ratio i	径向负荷 Permitted overhung load $F_{Ra}^{1)}$ [N]	使用系数 Service factor f_b	型号 Model	
0.12kW						
0.97	950	1430	8220	0.85	R 77 R37 D63S4 RF 77 R37 D63S4	
1.1	900	1303	9080	0.90		
1.2	770	1124	10400	1.05		
1.3	715	1047	10800	1.15		
1.5	615	915	11500	1.35		
0.99	940	1394	8660	0.85	R 77 R37 D63S4 RF 77 R37 D63S4	
1.1	785	1218	10200	1.05		
1.3	710	1084	10800	1.15		
1.5	635	940	11400	1.30		
1.7	505	821	12000	1.60		
1.9	460	731	12300	1.80		
2.1	440	646	12300	1.85		
2.7	365	520	12600	2.3	R 77 R37 D63S4 RF 77 R37 D63S4	
3.1	310	451	12800	2.6		
3.3	290	422	12800	2.8		
3.8	245	365	12900	3.3		
1.4	655	956	5950	0.90	R 67 R37 D63S4 RF 67 R37 D63S4	
1.5	605	891	7480	1.00		
1.9	490	730	8670	1.25		
2.1	425	644	9150	1.40		
2.4	375	571	9490	1.60		
2.8	315	486	9820	1.90		
1.6	565	836	7980	1.05	R 67 R37 D63S4 RF 67 R37 D63S4	
1.8	475	750	8790	1.25		
2.1	420	646	9190	1.40		
2.4	380	574	9450	1.55		
2.8	330	495	9740	1.80		
3.2	275	438	9990	2.2		
1.8	525	782	5710	0.85		R 57 R37 D63S4 RF 57 R37 D63S4
2.0	440	678	7160	1.05		
2.3	395	604	7330	1.15		
2.6	360	537	7460	1.25		
2.9	315	471	7590	1.45		
3.9	235	357	7790	1.95		
4.3	205	319	7840	2.2		
3.8	245	359	7760	1.80	R 57 R37 D63S4 RF 57 R37 D63S4	
4.3	225	324	7810	2.0		
4.8	196	290	7860	2.3		
5.3	177	262	7890	2.5		
5.6	164	246	7910	2.8		
6.3	144	220	7940	3.1		
2.4	375	572	2500	0.80	R 47 R37 D63S4 RF 47 R37 D63S4	
2.7	330	510	5140	0.90		
3.2	275	436	5540	1.10		
3.4	255	408	5630	1.15		
4.0	210	344	5810	1.40		
2.8	355	502	3780	0.85	R 47 R37 D63S4 RF 47 R37 D63S4	
3.2	300	429	5430	1.00		
3.7	255	372	5640	1.15		
4.0	240	348	5710	1.25		
4.6	205	301	5840	1.50		
5.4	169	255	5950	1.75		
6.1	150	228	6000	2.0		
7.1	125	195	6050	2.4		

输出转速 Output speed n_2 [1/min]	输出转矩 Output torque M_2 [N·m]	传动比 Ratio i	径向负荷 Permitted overhung load $F_{Ra}^{(1)}$ [N]	使用系数 Service factor f_B	型号 Model	
4.6	250	195.24	12900	3.3	R 77	D63M6
5.4	210	166.59	13000	3.9	RF 77	D63M6
6.2	186	145.67	13000	4.4		
4.5	255	199.81	10100	2.4		
4.9	235	184.07	10100	2.6		
5.7	200	158.14	10300	3.0	R 67	D63M6
6.5	175	137.67	10300	3.4	RF 67	D63M6
7.0	164	128.97	10400	3.7		
7.9	145	113.94	10400	4.1		
6.9	166	199.81	10300	3.6	R 67	D63S4
7.5	153	184.07	10400	3.9	RF 67	D63S4
4.8	240	186.89	7780	1.90		
5.2	220	172.17	7820	2.0		
6.1	188	147.92	7870	2.4		
7.0	164	128.77	7910	2.7	R 57	D63M6
7.5	154	120.63	7920	2.9	RF 57	D63M6
8.4	136	106.58	7950	3.3		
9.1	126	98.99	7960	3.6		
7.4	155	186.89	7920	2.9		
8.0	143	172.17	7940	3.2	R 57	D63S4
9.3	123	147.92	7960	3.7	RF 57	D63S4
11	107	128.77	7980	4.2		
5.1	225	176.88	5760	1.35		
5.5	210	162.94	5830	1.45	R 47	D63M6
6.4	178	139.99	5920	1.70	RF 47	D63M6
7.4	155	121.87	5980	1.95		
7.8	147	176.88	6000	2.0		
8.5	135	162.94	6030	2.2		
9.9	116	139.99	6070	2.6		
11	101	121.87	6100	3.0	R 47	D63S4
12	95	114.17	6110	3.2	RF 47	D63S4
14	84	100.86	6120	3.6		
15	78	93.68	6130	3.9		
6.7	172	134.82	5270	1.15		
7.3	157	123.66	5410	1.25		
8.6	134	105.28	5600	1.50	R 37	D63M6
9.9	116	90.77	5730	1.75	RF 37	D63M6
11	108	84.61	5770	1.85		
12	94	73.96	5850	2.1		
10	112	134.82	5750	1.80		
11	103	123.66	5800	1.95		
13	87	105.28	5880	2.3	R 37	D63S4
15	75	90.77	5930	2.7	RF 37	D63S4
16	70	84.61	5950	2.8		
19	61	73.96	5980	3.3		
0.18kW						
0.09	15500	14075	43800	0.85		
0.11	12900	12344	62800	1.00	R 147R77	D63M4
0.12	11600	11143	65300	1.10	RF 147R77	D63M4
0.14	10200	9743	67500	1.25		

输出转速 Output speed n_2 [1/min]	输出转矩 Output torque M_2 [N·m]	传动比 Ratio i	径向负荷 Permitted overhung load $F_{Ra}^{(1)}$ [N]	使用系数 Service factor f_B	型号 Model	
0.18kW						
0.16	8590	8443	69600	1.50		
0.18	7430	7307	70900	1.75		
0.20	6560	6447	71700	2.0		
0.24	5660	5568	72500	2.3	R 147 R77	D63M4
0.27	5120	4926	72900	2.5	RF 147 R77	D63M4
0.31	4430	4325	73300	2.9		
0.35	3900	3754	73600	3.3		
0.40	3380	3302	73800	3.8		
0.15	8930	8784	49900	0.90	R 137 R77	D63M4
0.18	7490	7479	54400	1.05	RF 137 R77	D63M4
0.20	6880	6559	55600	1.15		
0.23	5840	5834	57300	1.35		
0.26	5370	5116	57900	1.50	R 137 R77	D63M4
0.30	4540	4464	58900	1.75	RF 137 R77	D63M4
0.34	4000	3928	59500	2.0		
0.28	5260	4709	58100	1.50		
0.33	4450	4018	59000	1.80	R 137 R77	D63M4
0.38	3850	3514	59600	2.1	RF 137 R77	D63M4
0.40	3640	3338	59800	2.2		
0.45	3160	2929	60200	2.5		
0.30	4510	4435	28300	0.95	R 107 R77	D63M4
0.34	3990	3896	31100	1.10	RF 107 R77	D63M4
0.43	3190	3039	34300	1.35		
0.34	4380	3918	29000	1.00		
0.39	3700	3343	32400	1.15		
0.44	3360	3034	33700	1.30	R 107 R77	D63M4
0.50	2910	2653	35200	1.50	RF 107 R77	D63M4
0.58	2500	2280	36200	1.70		
0.64	2200	2067	36500	1.95		
0.66	2050	1987	36700	2.1		
0.72	1840	1827	36900	2.3	R 107 R77	D63M4
0.83	1580	1599	37200	2.7	RF 107 R77	D63M4
0.94	1410	1400	37300	3.1		
1.1	1210	1226	37400	3.6		
0.49	2920	2668	21500	1.05		
0.59	2420	2245	24500	1.25		
0.65	2160	2016	25700	1.40		
0.76	1920	1733	26700	1.55		
0.81	1790	1623	27200	1.70	R 97 R57	D63M4
0.92	1570	1434	27600	1.90	RF 97 R57	D63M4
1.1	1300	1207	27900	2.3		
1.2	1160	1084	28100	2.6		
1.4	990	934	28200	3.0		
1.5	920	878	28300	3.2		
1.8	785	755	28400	3.8		
0.49	2980	2722	20400	1.00	R 97 R57	D63M4
0.57	2520	2311	24000	1.20	RF 97 R57	D63M4
0.64	2270	2078	25200	1.30		
0.76	1850	1733	10800	0.85		
0.89	1650	1489	16200	0.95		
0.95	1540	1395	17000	1.00		
1.1	1350	1232	18200	1.15	R 87 R57	D63M4
1.1	1250	1145	18700	1.25	RF 87 R57	D63M4
1.3	1120	1037	19300	1.40		
1.4	1000	931	19800	1.55		
1.6	850	802	20000	1.85		
0.76	1850	1737	11200	0.85		
0.87	1620	1524	16400	0.95		
1.0	1350	1303	18200	1.15	R 87 R57	D63M4
1.2	1180	1143	19100	1.30	RF 87 R57	D63M4
1.5	940	885	20000	1.65		
1.7	830	776	20000	1.90		
1.5	950	858	8100	0.85		
1.7	830	757	9800	1.00	R 77 R37	D63M4
2.0	735	671	10700	1.10	RF 77 R37	D63M4
2.3	620	571	11400	1.35		

输出转速 Output speed n_2 [1/min]	输出转矩 Output torque M_2 [N·m]	传动比 Ratio i	径向负荷 Permitted overhung load $F_{Ra}^{(1)}$ [N]	使用系数 Service factor f_B	型号 Model	
0.18kW						
1.6	870	821	9480	0.95		
1.8	780	731	10300	1.05		
2.0	720	646	10800	1.15		
2.4	625	560	11400	1.30	R 77 R37	D63M4
2.7	530	488	11900	1.55	RF 77 R37	D63M4
3.0	470	436	12200	1.75		
3.5	405	373	12500	2.0		
4.0	355	327	12600	2.3		
4.6	320	289	12800	2.6		
2.3	625	571	7260	0.95	R 67 R37	D63M4
2.7	525	486	8350	1.15	RF 67 R37	D63M4
2.3	635	574	7140	0.95		
2.7	545	495	8160	1.10		
3.0	465	438	8860	1.30	R 67 R37	D63M4
3.4	415	388	9250	1.45	RF 67 R37	D63M4
3.8	380	344	9470	1.60		
4.5	310	294	9840	1.95		
5.1	280	261	9960	2.1		
2.9	490	454	6910	0.90	R 57 R37	D63M4
3.2	445	410	7130	1.00	RF 57 R37	D63M4
2.8	520	471	6000	0.85		
3.7	390	357	7350	1.15		
4.1	345	319	7500	1.30	R 57 R37	D63M4
4.8	290	273	7650	1.55	RF 57 R37	D63M4
5.5	255	241	7750	1.75		
6.1	225	215	7800	2.0		
3.7	405	359	7280	1.10		
4.1	365	324	7430	1.25		
4.6	325	290	7560	1.40		
5.0	295	262	7650	1.55	R 57 R37	D63M4
5.3	275	246	7700	1.65	RF 57 R37	D63M4
6.0	240	220	7770	1.85		
7.0	205	188	7840	2.2		
8.3	172	159	7900	2.6		
4.4	335	301	4780	0.90		
5.2	285	255	5510	1.05	R 47 R37	D63M4
5.8	250	228	5660	1.20	RF 47 R37	D63M4
6.8	210	195	5810	1.40		
4.5	385	195.24	12500	2.1	R 77	D63L6
5.2	330	166.59	12700	2.5	RF 77	D63L6
6.0	290	145.67	12800	2.8	R 77	D63L6
6.3	275	138.39	12900	3.0	RF 77	D63L6
7.2	240	121.42	12900	3.4		
6.8	255	195.24	12900	3.2		
7.9	215	166.59	13000	3.8	R 77	D63M4
9.1	190	145.67	13000	4.3	RF 77	D63M4
9.5	180	138.39	13000	4.6		
0.18kW						
4.3	395	199.81	9370	1.50		
4.7	365	184.07	9560	1.65		
5.5	310	158.14	9830	1.90		
6.3	270	137.67	10000	2.2		
6.8	255	128.97	10100	2.3	R 67	D63L6
7.6	225	113.94	10200	2.7	RF 67	D63L6
8.2	210	105.83	10200	2.9		
9.1	190	95.91	10300	3.2		
10	170	86.11	10300	3.5		
12	147	74.17	10400	4.1		
12	138	69.75	10400	4.3		

输出转速 Output speed n_2 [1/min]	输出转矩 Output torque M_2 [N·m]	传动比 Ratio i	径向负荷 Permitted overhung load $F_{Ra}^{(1)}$ [N]	使用系数 Service factor f_B	型号 Model	
6.6	260	119.81	10100	2.3		
7.2	240	184.07	10100	2.5		
8.4	205	158.14	10200	2.9	R 67	D63M4
9.6	179	137.67	10300	3.3	RF 67	D63M4
10	168	128.97	10300			

输出转速 Output speed n ₂ [1/min]	输出转矩 Output torque M ₂ [N·m]	传动比 Ratio i	径向负荷 Permitted overhung load F _{Ra} ⁽¹⁾ [N]	使用系数 Service factor f _s	型号 Model	
0.28	7600	4709	54200	1.05	R 137 R77 D63L4 RF 137 R77 D63L4	
0.32	6440	4018	56300	1.25		
0.37	5590	3514	57600	1.45		
0.39	5290	3338	58000	1.50		
0.44	4610	2929	58900	1.75		
0.49	4090	2658	59400	1.95	R 137 R77 D63L4 RF 137 R77 D63L4	
0.54	3710	2412	59800	2.2		
0.63	3190	2073	60200	2.5		
0.71	2760	1839	60500	2.9		
0.93	2130	1397	60900	3.8		
1.1	1850	1226	61000	4.3		
0.43	4670	3039	27300	0.90	R 107 R77 D63L4 RF 107 R77 D63L4	
0.43	4860	3034	20600	0.90	R 107 R77 D63L4 RF 107 R77 D63L4	
0.65	3030	1987	34800	1.40	R 107 R77 D63L4 RF 107 R77 D63L4	
0.71	2740	1827	35700	1.55		
0.81	2370	1599	36300	1.80		
0.93	2100	1400	36700	2.0		
1.1	1810	1226	37000	2.4		
1.4	1410	939	37300	3.0		
1.6	1220	822	37400	3.5		
0.64	3160	2016	12400	0.95	R 97 R57 D63L4 RF 97 R57 D63L4	
0.75	2780	1733	22500	1.10		
0.80	2590	1623	23600	1.15		
0.25kW						
0.71	2870	1823	21800	1.05	R 97 R57 D63L4 RF 97 R57 D63L4	
0.82	2490	1583	24100	1.20		
0.93	2160	1396	25700	1.40		
1.1	1880	1228	26800	1.60		
1.2	1700	1069	27400	1.75		
1.4	1480	938	27700	2.0		
1.6	1260	824	27900	2.4		
1.8	1130	737	28100	2.7		
2.1	970	632	28300	3.1		
1.1	1810	1145	13800	0.85		R 87 R57 D63L4 RF 87 R57 D63L4
1.2	1630	1037	16300	0.95		
1.4	1460	931	17500	1.05		
1.6	1250	802	18700	1.25		
1.1	1750	1143	15400	0.90	R 87 R57 D63L4 RF 87 R57 D63L4	
1.5	1380	885	18000	1.10		
1.7	1210	776	18900	1.30		
1.9	1070	685	19600	1.45		
2.2	900	599	20000	1.70		
2.5	795	525	20000	1.95		
2.8	695	456	20000	2.2		
4.9	405	268	20000	3.8		
2.3	900	571	9110	0.90		R 77 R37 D63L4 RF 77 R37 D63L4
2.3	900	560	9110	0.90		R 77 R37 D63L4 RF 77 R37 D63L4
2.7	775	488	10300	1.05		
3.0	690	436	11000	1.20		
3.5	590	373	11600	1.40		
4.0	520	327	12000	1.60		
4.5	460	289	12300	1.80		
5.0	410	260	12400	2.0		
5.8	345	224	12700	2.4		
3.3	605	388	7490	1.00	R 67 R37 D63L4 RF 67 R37 D63L4	
3.8	550	344	8120	1.10		
4.4	455	294	8950	1.30		
5.0	410	261	9260	1.45		
5.6	370	234	9520	1.60		
6.5	315	200	9820	1.90		
7.4	270	176	10000	2.2		
8.2	245	158	10100	2.5		
6.5	365	199.81	9540	1.65		R 67 R37 D63L4 RF 67 R37 D63L4
7.1	340	184.07	9700	1.80		
8.2	290	158.14	9930	2.1		
9.4	255	137.67	10100	2.4		
10	235	128.94	10100	2.5		
11	210	113.94	10200	2.9		
12	194	105.83	10300	3.1		
14	176	95.91	10300	3.4		
15	158	86.11	10400	3.8		

输出转速 Output speed n ₂ [1/min]	输出转矩 Output torque M ₂ [N·m]	传动比 Ratio i	径向负荷 Permitted overhung load F _{Ra} ⁽¹⁾ [N]	使用系数 Service factor f _s	型号 Model	
3.4	630	384	7220	0.95	R 67 R37 D63L4 RF 67 R37 D63L4	
3.6	585	359	7730	1.05		
4.2	505	310	8560	1.20		
4.9	425	264	9180	1.40		
5.5	375	235	9480	1.60		
6.5	320	201	9790	1.90		
7.2	290	181	9940	2.1		
4.1	505	319	6590	0.90		R 57 R37 D63L4 RF 57 R37 D63L4
4.8	425	273	7200	1.05		
5.4	375	241	7410	1.20		
6.1	335	215	7540	1.35		
6.9	295	187	7650	1.55		
7.9	255	164	7740	1.75		
9.2	220	142	7810	2.0		
4.0	530	324	5580	0.85	R 57 R37 D63L4 RF 57 R37 D63L4	
4.5	470	290	7010	0.95		
5.0	425	262	7210	1.05		
5.3	395	246	7320	1.15		
5.9	355	220	7470	1.30		
5.7	365	228	3070	0.80	R 47 R37 D63L4 RF 47 R37 D63L4	
6.7	310	195	5370	0.95		
7.1	290	182	5480	1.05		
8.5	240	154	5700	1.25		
2.3	1020	289.74	28200	3.0		R 97 RF 97
2.7	900	255.71	28300	3.3		
2.8	850	241.25	28400	3.5		
3.1	760	216.28	28400	4.0		
2.8	870	246.54	20000	1.80	R 87 RF 87	
3.1	760	216.54	20000	2.0		
3.3	720	205.71	20000	2.2		
3.7	640	181.77	20000	2.4		
4.1	585	166.59	11600	1.40		R 77 RF 77
4.7	510	145.67	12000	1.60		
4.9	485	138.39	12100	1.70		
5.6	425	121.42	12400	1.90		
4.5	530	195.24	11900	1.55	R 77 RF 77	
5.3	450	166.59	12300	1.80		
6.0	395	145.67	12500	2.1		
6.7	360	195.24	12600	2.3		R 77 RF 77
7.8	305	166.59	12800	2.7		
8.9	270	145.67	12900	3.1		
9.4	255	138.39	12900	3.2		
11	225	121.42	13000	3.7		
4.3	555	158.14	8060	1.10	R 67 RF 67	
4.9	485	137.67	8730	1.25		
5.3	455	128.97	8970	1.35		
6.0	400	113.94	9340	1.50		
4.4	540	199.81	8190	1.10	R 67 RF 67	
4.8	500	184.07	8590	1.20		
5.6	430	158.14	9140	1.40		
6.4	375	137.67	9500	1.60		
6.8	350	128.97	9630	1.70		
7.7	310	113.94	9840	1.95		
8.3	285	105.83	9940	2.1		
6.5	365	199.81	9540	1.65		R 67 RF 67
7.1	340	184.07	9700	1.80		
8.2	290	158.14	9930	2.1		
9.4	255	137.67	10100	2.4		
10	235	128.94	10100	2.5		
11	210	113.94	10200	2.9		
12	194	105.83	10300	3.1		
14	176	95.91	10300	3.4		
15	158	86.11	10400	3.8		

输出转速 Output speed n ₂ [1/min]	输出转矩 Output torque M ₂ [N·m]	传动比 Ratio i	径向负荷 Permitted overhung load F _{Ra} ⁽¹⁾ [N]	使用系数 Service factor f _s	型号 Model	
4.7	505	186.89	6450	0.90	R 57 RF 57	
5.1	465	172.17	7030	0.95		
5.9	400	147.92	7300	1.10		
6.8	350	128.77	7480	1.30		
7.3	325	120.63	7550	1.35		
8.3	290	106.58	7660	1.55		
8.9	270	98.99	7710	1.70		
7.0	345	186.89	7500	1.30		R 57 RF 57
7.6	315	172.17	7590	1.40		
8.8	270	147.92	7700	1.65		
10	235	128.77	7780	1.90		
11	220	120.63	7810	2.0		
12	196	106.58	7860	2.3		
13	182	98.99	7880	2.5		
14	165	89.71	7910	2.7		
16	148	80.55	7930	3.0		
19	127	69.23	7960	3.5		
0.25kW						
7.3	325	176.88	5280	0.90	R 47 RF 47	
8.0	300	162.94	5420	1.00		
9.3	255	139.99	5630	1.15		
11	225	121.87	5770	1.35		
11	210	114.17	5820	1.45		
13	185	100.86	5900	1.60		
14	172	93.68	5940	1.75		
15	156	84.90	5980	1.90		
17	140	76.23	6020	2.1		
19	126	68.54	6050	2.4		
20	118	64.21	6070	2.5		
23	104	56.73	6090	2.9		
25	97	52.69	6100	3.1		
27	88	47.75	6080	3.4		
9.6	250	134.82	2630	0.80		R 37 RF 37
11	225	123.66	4560	0.90		
12	193	105.28	5030	1.05		
14	167	90.77	5320	1.20		
15	155	84.61	5420	1.30		
18	136	73.96	5590	1.45		
19	127	69.33	5650	1.55		
21	112	61.18	5750	1.80		
23	102	55.76	5800	1.95		
27	88	48.08	5870	2.3		
29	82	44.81	5760	2.4		
33	72	39.17	5540	2.8		
35	67	36.72	5430	3.0		
40	60	32.40	5230	3.4		
0.37kW						
0.19	15800	7307	39000	0.80	R 147 R77 D71D4 RF 147 R77 D71D4	
0.21	14000	6447	60600	0.95		
0.25	12100	5568	64400	1.10		
0.28	10800	4926	66600	1.20		
0.32	9400	4325	68600	1.40		
0.37	8210	3754	70100	1.60		
0.42	7180	3302	71200	1.80		
0.48	6280	2898	72000	2.1		
0.31	9670	4464	40700	0.85		R 137 R77 D71D4 RF 137 R77 D71D4
0.35	8510	3928	51800	0.95		
0.34	9140	4018	48900	0.90	R 137 R77 D71D4 RF 137 R77 D71D4	
0.39	7950	3514	53500	1.00		
0.41	7540	3338	54300	1.05		
0.47	6580	2929	56100	1.20		
0.56	5540	2484	57700	1.45		
0.62	4980	2242	58400	1.60		

输出转速 Output speed n ₂ [1/min]	输出转矩 Output torque M ₂ [N·m]	传动比 Ratio i	径向负荷 Permitted overhung load F _{Ra} ⁽¹⁾ [N]	使用系数 Service factor f _s	型号 Model
0.37kW					
0.52	5880	2658	57200	1.35	R 137 R77 D71D4 RF 137 R77 D71D4
0.57	5330	2412	58000	1.50	
0.67	4580	2073	58900	1.75	
0.75	3990	1839	59500	2.0	
0.99	3070	1397	60300	2.6	
1.1	2670	1226	60600	3.0	
1.3	2400	1090	60700	3.3	
1.5	2090	951	60900</		

输出转速 Output speed n_2 [1/min]	输出转矩 Output torque M_2 [N·m]	传动比 Ratio i	径向负荷 Permitted overhung load $F_{Ra}^{(1)}$ [N]	使用系数 Service factor f_B	型号 Model	
0.37kW						
3.1	1140	289.74	28100	2.6	R 97 D80K6 RF 97 D80K6	
3.5	1000	255.71	28200	3.0		
3.7	950	241.25	28300	3.2		
4.2	850	216.28	28400	3.5		
3.1	1130	216.54	19300	1.40	R 87 D90S8 RF 87 D90S8	
3.3	1070	205.71	19600	1.45		
3.7	940	181.77	20000	1.65		
3.7	970	246.54	20000	1.60	R 87 D80K6 RF 87 D80K6	
4.2	850	216.54	20000	1.80		
4.4	810	205.71	20000	1.90		
4.9	715	181.77	20000	2.2		
5.8	610	155.34	20000	2.5		
6.3	560	142.41	20000	2.8		
4.7	755	145.67	10500	1.10		R 77 D90S8 RF 77 D90S8
4.9	720	138.39	10800	1.15		
5.6	630	121.42	11400	1.30		
5.4	655	166.59	11200	1.25	R 77 D80K6 RF 77 D80K6	
6.2	570	145.67	11700	1.45		
6.5	545	138.39	11900	1.50		
7.1	500	195.24	12100	1.65	R 77 D71D4 RF 77 D71D4	
8.3	425	166.59	12400	1.90		
9.5	375	145.67	12600	2.2		
10	355	138.39	12600	2.3		
11	310	121.42	12800	2.6		
13	265	102.99	12900	3.1		
15	240	92.97	12900	3.5		
5.7	620	158.14	7300	0.95		R 67 D80K6 RF 67 D80K6
6.5	540	137.67	8210	1.10		
7.0	505	128.97	8530	1.20		
7.9	445	113.94	9010	1.35		
6.9	510	199.81	8480	1.15	R 67 D71D4 RF 67 D71D4	
7.5	470	184.07	8820	1.25		
8.7	405	158.14	9310	1.50		
10	355	137.67	9620	1.70		
11	330	128.97	9740	1.80		
12	290	113.94	9920	2.1		
13	270	105.83	10000	2.2		
14	245	95.91	10100	2.4		
16	220	86.11	10200	2.7		
19	190	74.17	10300	3.2		
20	179	69.75	10300	3.4		
23	157	61.26	10400	3.8		
24	146	56.89	10400	4.1		
7.0	505	128.77	6510	0.90		R 57 D80K6 RF 57 D80K6
7.5	475	120.63	7000	0.95		
8.4	420	106.58	7240	1.10		
9.1	390	98.99	7350	1.15		
7.4	480	186.89	6980	0.95	R 57 D71D4 RF 57 D71D4	
8.0	440	172.17	7140	1.00		
9.3	380	147.92	7390	1.20		
11	330	128.77	7550	1.35		
11	310	120.63	7610	1.45		
13	275	106.58	7700	1.65		
14	255	98.99	7750	1.80		
15	230	89.71	7800	1.95		
17	205	80.55	7840	2.2		
20	177	69.23	7890	2.5		
21	166	64.85	7910	2.7		
24	147	57.29	7760	3.1		
26	136	53.22	7600	3.3		
29	124	48.23	7380	3.6		

输出转速 Output speed n_2 [1/min]	输出转矩 Output torque M_2 [N·m]	传动比 Ratio i	径向负荷 Permitted overhung load $F_{Ra}^{(1)}$ [N]	使用系数 Service factor f_B	型号 Model	
0.37kW						
9.9	360	139.99	3490	0.85	R 47 D71D4 RF 47 D71D4	
11	310	121.87	5350	0.95		
12	290	114.17	5460	1.05		
14	260	100.86	5630	1.15		
15	240	93.68	5700	1.25		
16	215	84.90	5790	1.40		
18	195	76.23	5870	1.55		
20	176	68.54	5930	1.70		
21	164	64.21	5960	1.80		
24	145	56.73	6010	2.1		
26	135	52.69	5990	2.2		
29	122	47.75	5820	2.5		
32	110	42.87	5650	2.7		
37	95	36.93	5410	3.2		
40	89	34.73	5310	3.4		
41	87	33.79	5270	2.8		R 47 D71D4 RF 47 D71D4
44	80	31.12	5150	2.8		
52	69	26.74	4920	4.4		
59	60	23.28	4720	5.0		
63	56	21.81	4620	5.4		
15	230	90.77	4250	0.85	R 47 D71D4 RF 47 D71D4	
16	215	84.61	4720	0.90		
19	189	73.96	5070	1.05		
20	178	69.33	5210	1.15		R 37 D71D4 RF 37 D71D4
23	157	61.18	5410	1.30		
25	143	55.76	5530	1.40		
29	123	48.08	5590	1.60		
31	115	44.81	5480	1.75		
35	100	39.17	5290	2.0		
38	94	36.72	5190	2.1		
43	83	32.40	5010	2.4		
48	74	28.73	4850	2.7		
57	63	24.42	4620	3.2		
49	73	27.32	4830	2.8	R 37 D71D4 RF 37 D71D4	
53	67	26.03	4710	2.8		
62	57	22.27	4500	3.5		
71	49	19.31	4320	4.1		
76	46	18.05	4230	4.3		
88	40	15.60	4050	5.0		
104	34	13.25	3850	5.6	R 37 D71D4 RF 37 D71D4	
117	30	11.83	3720	6.0		
0.55kW						
0.22	19800	6077	120000	0.90	R 167 R97 D80K4 RF 167 R97 D80K4	
0.25	17600	5407	120000	1.00		
0.29	15100	4650	120000	1.20		
0.33	13300	4129	120000	1.35		
0.28	16600	4926	26300	0.80	R 147 R77 D80K4 RF 147 R77 D80K4	
0.31	14500	4325	55900	0.90		
0.36	12700	3754	63300	1.05		
0.41	11100	3302	66100	1.15		
0.47	9720	2898	68200	1.35		

输出转速 Output speed n_2 [1/min]	输出转矩 Output torque M_2 [N·m]	传动比 Ratio i	径向负荷 Permitted overhung load $F_{Ra}^{(1)}$ [N]	使用系数 Service factor f_B	型号 Model	
0.55kW						
0.53	8730	2555	69500	1.50	R 147 R77 D80K4 RF 147 R77 D80K4	
0.62	7560	2211	70800	1.70		
0.70	6670	1951	71600	1.95		
0.80	5730	1705	72400	2.3		
0.89	5140	1536	72900	2.5		
1.0	4450	1329	73300	2.9		
1.2	3880	1166	73600	3.3		
0.55	8540	2484	51700	0.95		R 137 R77 D80K4 RF 137 R77 D80K4
0.51	9080	2658	49200	0.90		
0.56	8240	2412	52900	0.95		
0.66	7090	2073	55200	1.15		
0.74	6210	1839	56700	1.30		
0.85	5350	1598	58000	1.50		
0.97	4760	1397	58700	1.70	R 137 R77 D80K4 RF 137 R77 D80K4	
1.1	4150	1226	59400	1.95		
1.2	3710	1090	59800	2.2		
1.4	3240	951	60200	2.5		
1.6	2780	831	60500	2.9		
0.97	4790	1407	23400	0.90		R 107 R77 D80K4 RF 107 R77 D80K4
1.1	4120	1209	30400	1.05		
1.3	3590	1055	32800	1.20		
1.5	3140	919	34500	1.35		
1.7	2790	815	35600	1.55		
1.9	2450	717	36200	1.75		
2.2	2140	626	36600	2.0		
0.97	4730	1400	25600	0.90	R 107 R77 D80K4 RF 107 R77 D80K4	
1.1	4120	1226	30400	1.05		
1.2	3690	1104	32400	1.15		
1.5	3170	939	34400	1.35		
1.7	2760	822	35700	1.55		
1.5	3240	938	4620	0.95		R 97 R57 D80K4 RF 97 R57 D80K4
1.6	2810	824	22200	1.05		
1.8	2520	737	24000	1.20		
2.2	2160	632	25700	1.40		
2.4	1880	560	26800	1.60		
2.8	1640	484	27400	1.85		
3.2	1480	431	27700	2.0		
3.6	1290	379	27900	2.3		
4.0	1150	336	28100	2.6		
4.6	1010	296	28200	3.0		
5.5	840	249	28400	3.6		
2.6	1780	525	15100	0.85	R 87 R57 D80K4 RF 87 R57 D80K4	
3.0	1550	456	16900	1.00		
3.4	1340	398	18200	1.15		
3.9	1190	352	19000	1.30		
4.4	1030	305	19700	1.50		
2.9	1650	472	16200	0.95	R 87 R57 D80K4 RF 87 R57 D80K4	
3.4	1400	400	17900	1.10		
3.8	1260	361	18700	1.25		
4.9	970	276	6420	0.85	R 77 R37 D80K4 RF 77 R37 D80K4	
5.8	830	236	9860	1.00		
6.2	775	221	10300	1.05		
7.3	650	186	11300	1.25		
2.7	1980	255.71	26500	1.50	R 97 D90L8 RF 97 D90L8	
2.8	1860	241.25	26900	1.60		
3.1	1670	216.28	27400	1.80		
3.1	1690	289.74	27400	1.75	R 97 D80N6 RF 97 D80N6	
3.5	1490	255.71	27700	2.0		
3.7	1410	241.25	27800	2.1		
4.2	1260	216.28	28000	2.4		
4.7	1120	289.74	28100	2.7		
5.3	990	255.71	28200	3.0		
5.6	930	241.25	28300	3.2	R 97 D80K4 RF 97 D80K4	
6.3	840	216.28	28400	3.6		

输出转速 Output speed n_2 [1/min]	输出转矩 Output torque M_2 [N·m]	传动比 Ratio i	径向负荷 Permitted overhung load $F_{Ra}^{(1)}$ [N]	使用系数 Service factor f_B	型号 Model
0.55kW					
3.7	1440	246.54	17700	1.10	R 87 D80N6 RF 87 D80N6
4.2	1260	216.54	18700	1.25	
4.4	1200	205.71	19000	1.30	
4.9	1060	181.77	19600	1.45	
5.8	910	155.34	20000	1.70	
5.5	950	246.54	20000	1.65	
6.3	840	216.54	20000	1.85	
6.6	795	205.71	20000	1.95	
7.5	700	181.77	20000	2.2	
8.8	600	155.34	20000	2.6	
9.6	550	142.41	20000	2.8	
11	485	124.97	20000	3.2	
11	455	118.43	20000	3.4	
13	400	103.65	20000	3.9	
8.2	645	166.59	11300	1.25	R 77 D80K4 RF 77 D80K4
9.3	565	145.67	11800	1.45	
9.8	535	138.39	11900	1.55	
11	470	121.42	12200	1.75	
13	400	102.99	12500	2.1	
15	360	92.97	12600	2.3	
17	315	81.80	12800	2.6	
18	300	77.24	12800	2.8	
21	255	65.77	12900	3.2	
8.6	610	158.14	7430	1.00	

输出转速 Output speed n_2 [1/min]	输出转矩 Output torque M_2 [N·m]	传动比 Ratio i	径向负荷 Permitted overhung load $F_{Ra}^{(1)}$ [N]	使用系数 Service factor f_b	型号 Model
0.55kW					
22	235	61.18	3910	0.85	
24	215	55.76	4740	0.95	
28	186	48.08	5120	1.10	
30	173	44.81	5230	1.15	R 37 D80K4
35	151	39.17	5070	1.30	RF 37 D80K4
37	142	36.72	4990	1.40	
42	125	32.40	4840	1.60	
47	111	28.73	4700	1.80	
56	94	24.42	4500	2.1	
61	86	22.27	4390	2.3	
70	75	19.31	4220	2.7	
75	70	18.05	4140	2.9	R 37 D80K4
87	60	15.60	3970	3.3	RF 37 D80K4
103	51	13.25	3790	3.7	
115	46	11.83	3670	4.0	
174	30	5.18	4510	2.5	
199	26	4.53	4320	3.1	RX 67 D80N6
209	25	4.30	4260	3.2	RXF 67 D80N6
239	22	3.77	4090	4.0	
0.75kW					
0.30	20700	4650	120000	0.85	R 167 R97 D80N4
0.33	18300	4129	120000	1.00	RF 167 R97 D80N4
0.52	12000	2657	120000	1.50	
0.59	10400	2333	120000	1.75	R 167 R97 D80N4
0.66	9230	2085	120000	1.95	RF 167 R97 D80N4
0.96	6510	1438	120000	2.8	
0.42	15100	3302	49000	0.85	R 147 R77 D80N4
0.48	13200	2898	62200	1.00	RF 147 R77 D80N4
0.54	11900	2555	64800	1.10	
0.62	10300	2211	67400	1.25	
0.71	9070	1951	69000	1.45	R 147 R77 D80N4
0.81	7830	1705	70500	1.65	RF 147 R77 D80N4
0.90	7030	1536	71300	1.85	
1.0	6080	1329	72100	2.1	
1.2	5310	1166	72700	2.5	
0.74	8640	1863	51200	0.95	
0.87	7330	1586	54700	1.10	R 137 R77 D80N4
0.99	6500	1391	56200	1.25	RF 137 R77 D80N4
1.1	5850	1256	57300	1.35	
0.67	9640	2073	41400	0.85	
0.75	8480	1839	51900	0.95	
0.86	7310	1598	54800	1.10	
0.99	6480	1397	56300	1.25	
1.1	5660	1226	57500	1.40	R 137 R77 D80N4
1.3	5050	1090	58300	1.60	RF 137 R77 D80N4
1.5	4410	951	59100	1.80	
1.7	3810	831	59700	2.1	
1.9	3320	730	60100	2.4	
1.3	4890	1055	19000	0.90	R 107 R77 D80N4
1.5	4270	919	29600	1.00	RF 107 R77 D80N4
1.7	3800	815	31900	1.15	
1.2	5050	1104	7700	0.85	
1.5	4330	939	29300	1.00	R 107 R77 D80N4
1.7	3770	822	32000	1.15	RF 107 R77 D80N4
3.7	1690	369	37100	2.5	
4.3	1470	323	37300	2.9	

输出转速 Output speed n_2 [1/min]	输出转矩 Output torque M_2 [N·m]	传动比 Ratio i	径向负荷 Permitted overhung load $F_{Ra}^{(1)}$ [N]	使用系数 Service factor f_b	型号 Model
0.75kW					
2.2	2940	632	21400	1.00	
2.5	2570	560	23700	1.15	
2.8	2230	484	25400	1.35	
3.2	2010	431	26400	1.50	R 97 R57 D80N4
3.6	1760	379	27200	1.70	RF 97 R57 D80N4
4.1	1570	336	27600	1.90	
4.7	1370	296	27800	2.2	
5.5	1150	249	28100	2.6	
3.5	1830	398	12400	0.85	
3.9	1630	352	16400	0.95	
4.5	1400	305	17900	1.10	R 87 R57 D80N4*
5.2	1240	268	18800	1.25	RF 87 R57 D80N4*
5.8	1090	236	19500	1.40	
3.8	1710	361	15700	0.90	
4.6	1410	300	17800	1.10	R 87 R57 D80N4
5.4	1200	256	19000	1.30	RF 87 R57 D80N4
2.8	2610	251.15	36000	1.65	
3.0	2390	229.95	36300	1.80	R 107 D100M8
3.4	2110	203.16	36700	2.0	RF 107 D100M8
3.2	2240	216.28	25300	1.35	
3.7	1930	186.30	26600	1.55	R 97 D100M8
4.1	1760	170.02	27200	1.75	RF 97 D100M8
3.5	2030	255.71	26200	1.45	
3.7	1920	241.25	26700	1.55	R 97 D90S6
4.2	1720	216.28	27300	1.75	RF 97 D90S6
4.8	1500	289.74	27600	2.0	
5.4	1330	255.71	27900	2.3	
5.7	1250	241.25	28000	2.4	R 97 D80N4
6.4	1120	216.28	28100	2.7	RF 97 D80N4
7.4	970	186.30	28300	3.1	
8.1	880	170.02	28300	3.4	
4.2	1720	216.54	15600	0.90	
4.4	1640	205.71	16300	0.95	R 87 D90S6
4.9	1450	181.77	17600	1.05	RF 87 D90S6
5.8	1240	155.34	18800	1.25	
6.3	1130	142.41	19300	1.35	R 87 D90S6
5.6	1280	246.54	18600	1.20	
6.4	1120	216.54	19300	1.40	
6.7	1070	205.71	19600	1.45	
7.6	940	181.77	20000	1.65	
8.9	810	155.34	20000	1.90	R 87 D80N4
9.7	740	142.41	20000	2.1	RF 87 D80N4
11	650	124.97	20000	2.4	
12	615	118.43	20000	2.5	
13	540	103.65	20000	2.9	
15	480	93.38	20000	3.2	
8.3	860	166.59	9490	0.95	
9.5	755	145.67	10500	1.10	R 77 D80N4
10	720	138.39	10800	1.15	RF 77 D80N4
11	630	121.42	11400	1.30	
13	535	102.99	11900	1.55	
15	485	92.97	12200	1.70	
17	425	81.80	12400	1.95	
18	400	77.24	12500	2.0	
21	340	65.77	12700	2.4	R 77 D80N4
24	300	57.68	12800	2.7	RF 77 D80N4
27	270	52.07	12900	3.0	
30	240	45.81	12900	3.5	
32	225	43.26	13000	3.7	

输出转速 Output speed n_2 [1/min]	输出转矩 Output torque M_2 [N·m]	传动比 Ratio i	径向负荷 Permitted overhung load $F_{Ra}^{(1)}$ [N]	使用系数 Service factor f_b	型号 Model
0.75kW					
11	670	128.97	4040	0.90	
12	590	113.94	7660	1.00	
13	550	105.83	8120	1.10	
14	500	95.91	8600	1.20	
16	445	86.11	9010	1.35	
19	385	74.17	9430	1.55	R 67 D80N4
20	360	69.75	9570	1.65	RF 67 D80N4
23	320	61.26	9800	1.90	
24	295	56.89	9910	2.0	
27	270	51.56	10000	2.2	
30	240	46.29	10100	2.5	
13	555	106.58	4610	0.80	
14	515	98.99	6200	0.90	
15	465	89.71	7040	0.95	
17	420	80.55	7240	1.10	R 57 D80N4
20	360	69.23	7450	1.25	RF 57 D80N4
21	335	64.85	7430	1.35	
24	295	57.29	7220	1.50	
26	275	53.22	7090	1.65	
29	250	48.23	6930	1.80	
32	225	43.30	6740	2.0	
37	194	37.30	6490	2.3	R 57 D80N4
39	182	35.07	6380	2.5	RF 57 D80N4
46	157	30.18	6130	2.9	
51	140	26.97	5940	3.2	
52	137	26.31	5900	3.3	
55	130	24.99	5820	3.5	R 57 D80N4
63	114	21.93	5610	4.0	RF 57 D80N4
74	97	18.60	5350	4.7	
20	355	68.54	3660	0.85	
21	335	64.21	4950	0.90	R 47 D80N4
24	295	56.73	5450	1.00	RF 47 D80N4
26	275	52.69	5480	1.10	
29	250	47.75	5370	1.20	
32	225	42.87	5240	1.35	
37	192	36.93	5060	1.55	R 47 D80N4
40	180	34.73	4980	1.65	RF 47 D80N4
46	155	29.88	4800	1.95	
52	139	26.70	4660	2.2	
58	122	23.59	4510	2.5	
52	139	26.74	4660	2.2	
59	121	23.28	4490	2.5	
63	113	21.81	4420	2.7	R 47 D80N4
72	100	19.27	4270	3.0	RF 47 D80N4
77	93	17.89	4180	3.1	
85	84	16.22	4070	3.3	
29	250	48.08	2330	0.80	
31	235	44.81	4230	0.85	R 37 D80N4
35	205	39.17	4720	1.00	RF 37 D80N4
38	191	36.72	4740	1.05	
43	168	32.40	4610	1.20	R 37 D80N4
48	149	28.73	4490	1.35	RF 37 D80N4
57	127	24.42	4320	1.60	
62	116	22.27	4230	1.75	
71	100	19.31	4080	2.0	
76	94	18.05	4010	2.1	
88	81	15.60	3850	2.5	R 37 D80N4
104	69	13.25	3690	2.8	RF 37 D80N4
117	61	11.83	3570	3.0	
137	53	10.11	3420	3.2	
146	49	9.47	3360	3.4	

输出转速 Output speed n_2 [1/min]	输出转矩 Output torque M_2 [N·m]	传动比 Ratio i	径向负荷 Permitted overhung load $F_{Ra}^{(1)}$ [N]	使用系数 Service factor f_b	型号 Model
1.1kW					
0.53	17700	2657	120000	1.00	
0.60	15400	2333	120000	1.15	
0.67	13700	2085	120000	1.30	
0.75	12300	1877	120000	1.45	R 167 R97 D90S4
0.84	10900	1670	120000	1.65	RF 167 R97 D90S4
0.97	9600	1438	120000	1.90	
1.1	8540	1279	120000	2.1	
1.2	7420	1123	120000	2.4	
0.63	15000	2211	50100	0.85	
0.72	13300	1951	62100	1.00	R 147 R77 D90S4
0.82	11500	1705	65500	1.15	RF 147 R77 D90S4
0.91	10300	1536	67300	1.25	
1.0	8940	1329	69200	1.45	
1.2	7810	1166	70500	1.65	
1.4	6870	1029	71500	1.90	R 147 R77 D90S4
1.6	5950	889	72200	2.2	RF 147 R77 D90S4
1.8	5240	784	72800	2.5	
2.0	4630	695	73200	2.8	
1.0	9480	1391	44400	0.85	
1.1	8550	1256	51600	0.95	
1.3	7500	1105	54400	1.05	R 137 R77 D90S4
1.3	7080	1043	55200	1.15	RF 137 R77 D90S4
1.6	6010	888	57000	1.35	
1.0	9470	1397	44600	0.85	
1.1	82				

输出转速 Output speed n _s [1/min]	输出转矩 Output torque M _s [N·m]	传动比 Ratio i	径向负荷 Permitted overhung load F _{Ra} ⁽¹⁾ [N]	使用系数 Service factor f _s	型号 Model		
1.1kW							
2.7	3880	251.15	31600	1.10			
3.0	3550	229.95	33000	1.20	R	107	D100L8
3.3	3140	203.16	34500	1.35	RF	107	D100L8
4.0	2660	172.34	35900	1.60			
3.6	2920	255.71	21500	1.05			
3.8	2750	241.25	22600	1.10	R	97	D90L6
4.2	2470	216.28	24200	1.20	RF	97	D90L6
4.9	2130	186.30	25900	1.40			
5.5	1920	255.71	26700	1.55			
5.8	1810	241.25	27100	1.65			
6.5	1620	216.28	27500	1.85			
7.5	1400	186.30	27800	2.2	R	97	D90S4
8.2	1280	170.02	27900	2.3	RF	97	D90S4
9.3	1130	150.78	28100	2.7			
11	950	126.75	28300	3.2			
12	870	116.48	28300	3.4			
6.5	1620	216.54	16400	0.95	R	87	D90S4
6.8	1540	205.71	17000	1.00	RF	87	D90S4
7.7	1360	181.77	18100	1.15			
9.0	1170	155.34	19100	1.35			
9.8	1070	142.41	19600	1.45			
11	940	124.97	20000	1.65			
12	890	118.43	20000	1.75			
14	780	103.65	20000	2.0	R	87	D90S4
15	700	93.38	20000	2.2	RF	87	D90S4
17	615	81.92	20000	2.5			
19	545	72.57	20000	2.8			
22	480	63.68	20000	3.2			
23	455	60.35	20000	3.4			
27	395	52.82	20000	3.9			
12	910	121.42	8990	0.90	R	77	D90S4
14	775	102.99	10300	1.05	RF	77	D90S4
15	700	92.97	10900	1.20			
17	615	81.80	11500	1.35			
18	580	77.24	11700	1.40			
21	495	65.77	12100	1.65			
24	435	57.68	12400	1.90	R	77	D90S4
27	390	52.07	12500	2.1	RF	77	D90S4
31	345	45.81	12700	2.4			
32	325	43.26	12700	2.5			
38	275	36.83	12900	3.0			
42	250	33.47	12900	3.3			
16	645	86.11	6820	0.95			
19	555	74.17	8040	1.10			
20	525	69.75	8370	1.15			
23	460	61.26	8920	1.30			
25	425	56.89	9160	1.40	R	67	D90S4
27	385	51.56	9420	1.55	RF	67	D90S4
30	345	46.29	9650	1.75			
35	300	39.88	9890	1.95			
37	280	37.50	9970	2.0			
43	240	32.27	10100	2.2			
49	215	28.83	10200	2.4			
50	210	28.13	10200	2.6	R	67	D90S4
52	200	26.72	10100	2.7	RF	67	D90S4
60	176	23.44	9730	3.2			
70	149	19.89	9270	4.0			
20	520	69.23	5990	0.85	R	57	D90S4
22	485	64.85	6850	0.90	RF	57	D90S4
24	430	57.29	6700	1.05			
26	400	53.22	6610	1.15			
29	360	48.30	6490	1.25			
32	325	43.30	6350	1.40	R	57	D90S4
38	280	37.30	6140	1.60	RF	57	D90S4
40	265	35.07	6060	1.70			
46	225	30.18	5850	2.0			
52	200	26.97	5690	2.2			

输出转速 Output speed n _s [1/min]	输出转矩 Output torque M _s [N·m]	传动比 Ratio i	径向负荷 Permitted overhung load F _{Ra} ⁽¹⁾ [N]	使用系数 Service factor f _s	型号 Model		
1.1kW							
53	197	26.31	5650	2.3			
56	188	24.99	5580	2.4			
64	165	21.93	5400	2.7	R	57	D90S4
75	140	18.60	5170	3.2	RF	57	D90S4
83	126	16.79	5030	3.6			
29	360	47.75	3500	0.85			
33	320	42.87	4850	0.95			
38	275	36.93	4720	1.10	R	47	D90S4
40	260	34.73	4660	1.15	RF	47	D90S4
47	225	29.88	4520	1.35			
52	200	26.70	4410	1.50			
59	177	23.59	4290	1.70			
60	175	23.28	4270	1.70			
64	164	21.81	4210	1.85			
73	145	19.27	4080	2.0			
78	134	17.89	4010	2.2			
86	122	16.22	3910	2.3	R	47	D90S4
96	109	14.56	3800	2.4	RF	47	D90S4
112	94	12.54	3650	2.7			
119	89	11.79	3590	2.8			
138	76	10.15	3450	3.0			
154	68	9.07	3340	3.2			
43	245	32.40	2900	0.80	R	37	D90S4
49	215	28.73	3300	0.95	RF	37	D90S4
57	183	24.42	3720	1.10			
73	145	19.31	3840	1.40	R	37	D90S4
78	135	18.05	3790	1.50	RF	37	D90S4
90	117	15.60	3660	1.70			
106	99	13.25	3520	1.90			
118	89	11.83	3430	2.1			
139	76	10.11	3290	2.2	R	37	D90S4
148	71	9.47	3230	2.3	RF	37	D90S4
176	60	7.97	3090	2.6			
210	50	6.67	2920	2.9			
247	43	5.67	2790	3.3			
277	38	5.06	2700	3.5			
1.5kW							
0.60	21200	2333	120000	0.85			
0.68	18800	2085	120000	0.95			
0.75	16900	1877	120000	1.05			
0.84	15000	1670	120000	1.20	R	167R97	D90L4
0.98	13100	1438	120000	1.35	RF	167R97	D90L4
1.1	11700	1279	120000	1.55			
1.3	10200	1123	120000	1.75			
1.4	9060	999	120000	2.0			
3.3	3870	426	73600	3.4	R	147R87	D90L4
3.8	3340	368	73900	3.9	RF	147R87	D90L4
0.83	15700	1705	41200	0.85			
0.92	14100	1536	60300	0.90			
1.1	12200	1329	64200	1.05			
1.2	10700	1166	66800	1.20			
1.4	9410	1029	68600	1.40	R	147R77	D90L4
1.6	8140	889	70100	1.60	RF	147R77	D90L4
1.8	7170	784	71200	1.80			
2.0	6340	695	71900	2.0			
2.3	5700	619	72400	2.3			
2.5	5130	558	72900	2.5			
1.5kW							
1.4	9650	1043	41200	0.85			
1.6	8200	888	52900	1.00	R	137 R77	D90L4
2.0	6440	699	56300	1.25	RF	137 R77	D90L4
2.3	5590	609	57600	1.45			

输出转速 Output speed n _s [1/min]	输出转矩 Output torque M _s [N·m]	传动比 Ratio i	径向负荷 Permitted overhung load F _{Ra} ⁽¹⁾ [N]	使用系数 Service factor f _s	型号 Model		
1.3	10100	1090	32300	0.80			
1.5	8790	951	50600	0.90			
1.7	7640	831	54100	1.05			
1.9	6680	730	55900	1.20			
2.2	5740	629	57400	1.40	R	137 R77	D90L4
2.5	5150	560	58200	1.55	RF	137 R77	D90L4
2.9	4470	490	59000	1.80			
3.3	3910	428	59600	2.0			
3.7	3510	381	59900	2.3			
4.4	2980	323	60400	2.7			
2.7	4860	528	20600	0.90	R	107 R77	D90L4
					RF	107 R77	D90L4
2.6	4970	544	14800	0.85			
2.9	4490	492	28400	0.95	R	107 R77	D90L4
3.4	3810	417	31900	1.15	RF	107 R77	D90L4
3.8	3390	369	33600	1.25			
4.4	2960	323	35100	1.45			
3.0	4410	469	28900	1.00	R	107 R77	D90L4
					RF	107 R77	D90L4
4.2	3120	336	14600	0.95			
4.8	2740	296	22700	1.10	R	97 R57	D90L4
5.7	2300	249	25100	1.30	RF	97 R57	D90L4
6.0	2150	234	25800	1.40			
6.8	1920	209	26700	1.55			
3.0	4710	229.95	26500	0.90			
3.5	4160	203.16	30200	1.05	R	107	D112M8
4.1	3530	172.34	33100	1.20	RF	107	D112M8
4.4	3250	158.68	34100	1.30			
3.7	3910	251.15	31400	1.10			
4.0	3580	229.95	32900	1.20			
4.5	3610	203.16	34400	1.35	R	107	D100M6
5.3	2680	172.34	35900	1.60	RF	107	D100M6
5.8	2470	158.68	36200	1.75			
6.5	2210	141.83	36500	1.95			
5.5	2600	255.71	23500	1.15			
5.8	2450	241.25	24300	1.20			
6.5	2200	216.28	25600	1.35			
7.6	1890	186.30	26800	1.60			
8.3	1730	170.02	27300	1.75	R	97	D90L4
9.4	1530	150.78	27600	1.95	RF	97	D90L4
11	1290	126.75	27900	2.3			
12	1180	116.48	28000	2.5			
14	1050	103.44	28200	2.8			
15	940	92.48	28300	3.2			
7.8	1850	181.77	11400	0.85			

输出转速 Output speed n ₂ [1/min]	输出转矩 Output torque M ₂ [N·m]	传动比 Ratio i	径向负荷 Permitted overhung load F _{Ra} ⁽¹⁾ [N]	使用系数 Service factor f _s	型号 Model
106	135	13.25	3350	1.40	
119	120	11.83	3270	1.50	
140	103	10.11	3160	1.65	
149	96	9.47	3110	1.75	
177	81	7.97	2980	1.95	
211	68	6.67	2820	2.1	R 37 D90L4
249	58	5.67	2710	2.5	RF 37 D90L4
279	51	5.06	2630	2.6	
326	44	4.32	2520	2.9	
348	41	4.05	2470	3.0	
414	35	3.41	2360	3.2	
204	70	13.25	2880	2.7	
228	63	11.83	2790	2.9	
267	54	10.11	2680	3.2	R 37 D90S
285	50	9.47	2630	3.3	RF 37 D90S2
339	42	7.97	2510	3.7	
2.2kW					
0.84	22400	1670	120000	0.80	
0.98	19500	1438	120000	0.95	
1.1	17300	1279	120000	1.05	
1.3	15100	1123	120000	1.20	R 167R97 D100M4
1.4	13500	999	120000	1.35	RF 167R97 D100M4
1.6	11600	861	120000	1.55	
1.9	10300	760	120000	1.75	
2.2	8710	656	120000	2.1	
2.6	7130	533	71200	1.80	
3.0	6150	462	72100	2.1	
3.3	5740	426	72400	2.3	R 147R87 D100M4
3.8	4960	368	73000	2.6	RF 147R87 D100M4
4.3	4390	326	73300	3.0	
1.2	15800	1166	39400	0.80	
1.4	13900	1029	60700	0.95	
1.6	12000	889	64500	1.10	
1.8	10600	784	66900	1.20	R 147R77 D100M4
2.0	9400	695	68600	1.40	RF 147R77 D100M4
2.3	8420	619	69800	1.55	
2.5	7580	558	70800	1.70	
2.9	6640	489	71700	1.95	
2.0	9510	699	43900	0.85	R 137R77 D100M4
2.3	8270	609	52800	0.95	RF 137R77 D100M4
1.9	9890	730	36300	0.80	
2.2	8500	629	51800	0.95	
2.5	7620	560	54200	1.05	
2.9	6630	490	56000	1.20	
3.3	5790	428	57400	1.40	R 137R77 D100M4
3.7	5190	381	58200	1.55	RF 137R77 D100M4
4.4	4400	323	59100	1.80	
4.8	3960	291	59500	2.0	
5.5	3460	255	60000	2.3	
6.3	3030	223	60300	2.6	
3.8	5010	369	12100	0.85	
4.4	4390	323	29000	1.00	R 107R77 D100M4
4.9	3860	285	31600	1.10	RF 107R77 D100M4
5.6	3420	253	33500	1.25	
6.6	2900	214	35300	1.50	
4.3	4480	325	28400	0.95	R 107R77 D100M4
					RF 107R77 D100M4
6.0	3170	234	11300	0.95	R 97 R57 D100M4
6.8	2840	209	22100	1.05	RF 97 R57 D100M4
3.1	6680	222.60	55900	1.20	
3.7	5660	188.45	57500	1.40	
4.0	5230	174.40	58100	1.55	R 137 D132S8
4.5	4690	156.31	58800	1.70	RF 137 D132S8
5.0	4240	141.12	59300	1.90	
5.5	3850	128.18	59600	2.1	R 137 D132S8
6.2	3410	113.72	60000	2.3	RF 137 D132S8
6.8	3100	103.20	60300	2.6	
4.6	4540	203.16	28100	0.95	
5.4	3850	172.34	31700	1.10	R 107 D112M6
5.9	3550	158.68	33000	1.20	RF 107 D112M6
6.6	3170	141.83	34400	1.35	

输出转速 Output speed n ₂ [1/min]	输出转矩 Output torque M ₂ [N·m]	传动比 Ratio i	径向负荷 Permitted overhung load F _{Ra} ⁽¹⁾ [N]	使用系数 Service factor f _s	型号 Model
2.2kW					
5.6	3740	251.15	32200	1.15	R 107 D100M4
6.1	3430	229.95	33500	1.25	RF 107 D100M4
6.9	3030	203.16	34900	1.40	
8.2	2570	172.34	36100	1.65	
8.9	2360	158.68	36300	1.80	
9.9	2110	141.83	36600	2.0	R 107 D100M4
11	1900	127.68	36900	2.3	RF 107 D100M4
12	1720	115.63	37000	2.5	
14	1530	102.53	37200	2.8	
15	1380	92.70	37300	3.1	
6.5	3220	216.28	7030	0.95	R 97 D100M4
7.6	2780	186.30	22500	1.10	RF 97 D100M4
8.3	2530	170.02	23900	1.20	
9.4	2250	150.78	25300	1.35	
11	1890	126.75	26800	1.60	
12	1740	116.48	27300	1.75	
14	1540	103.44	27600	1.95	
15	1380	92.48	27800	2.2	R 97 D100M4
17	1240	83.15	28000	2.4	RF 97 D100M4
20	1080	72.17	28200	2.8	
22	970	65.21	27700	3.1	
24	890	59.92	27000	3.4	
27	795	53.21	26100	3.8	
30	710	47.58	25300	4.2	
11	1860	124.97	10100	0.85	
12	1760	118.43	15200	0.90	R 87 D100M4
14	1540	103.65	17000	1.00	RF 87 D100M4
15	1390	93.38	17900	1.10	
17	1220	81.92	18900	1.25	
19	1080	72.57	19500	1.45	
22	950	63.68	20000	1.65	
23	900	60.35	20000	1.70	
27	785	52.82	20000	1.95	R 87 D100M4
30	710	47.58	20000	2.2	RF 87 D100M4
34	620	41.74	19900	2.5	
38	550	36.84	19200	2.8	
43	485	32.66	18500	3.2	
41	515	34.40	18800	2.9	
45	470	31.40	18300	3.3	R 87 D100M4
51	415	27.84	17700	3.7	RF 87 D100M4
60	350	23.40	16800	4.4	
66	320	21.51	16400	4.7	
21	980	65.77	5470	0.85	
24	860	57.68	9540	0.95	R 77 D100M4
27	775	52.07	10300	1.05	RF 77 D100M4
31	685	45.81	11000	1.20	
33	645	43.26	11300	1.25	
38	550	36.83	11800	1.50	
42	500	33.47	12100	1.65	R 77 D100M4
49	430	29.00	12100	1.90	RF 77 D100M4
56	375	25.23	11700	2.1	
60	350	23.37	11400	2.3	
66	320	21.43	11200	2.6	
75	280	18.80	10800	2.8	R 77 D100M4
79	265	17.82	10600	2.9	RF 77 D100M4
90	230	15.60	10200	3.2	
100	210	14.05	9910	3.4	
35	595	39.88	7630	1.00	
38	560	37.50	8020	1.00	R 67 D100M4
44	480	32.27	8750	1.10	RF 67 D100M4
49	430	28.83	9140	1.20	

输出转速 Output speed n ₂ [1/min]	输出转矩 Output torque M ₂ [N·m]	传动比 Ratio i	径向负荷 Permitted overhung load F _{Ra} ⁽¹⁾ [N]	使用系数 Service factor f _s	型号 Model
2.2kW					
60	350	23.44	9140	1.60	
71	295	19.89	8760	2.0	
79	270	17.95	8530	2.2	
89	235	15.79	8240	2.4	
95	220	14.91	8110	2.5	R 67 D100M4
111	189	12.70	7760	2.8	RF 67 D100M4
122	172	11.54	7560	2.9	
141	149	10.00	7250	3.2	
162	130	8.70	6960	3.4	
181	116	7.79	6760	3.3	
38	555	37.30	4490	0.80	
40	525	35.07	5110	0.85	R 57 D100M4
47	450	30.18	5030	1.00	RF 57 D100M4
52	400	26.97	4960	1.10	
64	325	21.93	4800	1.40	
76	275	18.16	4660	1.60	
84	250	16.79	4570	1.80	
95	220	14.77	4450	2.0	
101	210	13.95	4390	2.1	R 57 D100M4
119	177	11.88	4230	2.3	RF 57 D100M4
131	161	10.79	4140	2.4	
151	139	9.35	4000	2.7	
156	135	9.06	3980	2.8	
177	119	7.97	3850	3.0	
104	205	26.31	4370	2.2	
109	192	24.99	4320	2.3	
124	169	21.93	4190	2.7	
147	143	18.60	4020	3.1	R 57 D90L2
163	129	16.79	3920	3.5	RF 57 D90L2
185	114	14.77	3790	3.8	
196	107	13.95	3740	4.0	
73	285	19.27	3550	1.05	
87	240	16.22	3460	1.15	
97	215	14.56	3400	1.20	
112	187	12.54	3310	1.35	
120	176	11.79	3270	1.40	
139	151	10.15	3160	1.50	
155	135	9.07	3090	1.65	R 47 D100M4
176	119	8.01	3000	1.70	RF 47 D100M4
182	116	7.76	2910	1.40	
203	104	6.96	2840	1.55	
235	89	6.00	2740	1.75	
250	84	5.64	2700	1.85	
291	72	4.85	2600	2.1	
325	65	4.34	2530	2.3	
368	57	3.83	2440	2.5	
117	179	23.28	3280	1.70	
125	168	21.81	3230	1.80	
142	148	19.27	3150	2.0	
153	138	17.89	3100	2.1	
168	125	16.22	3030	2.2	
187	112	14.56	2950	2.4	R 47 D90L2
218	97	12.54	2850	2.6	RF 47 D90L2
231	91	11.97	2800	2.7	
269	78	10.15	2700	2.9	
301	70	9.07	2620	3.2	
341	62	8.01	2530	3.3	
90	230	15.60	1070	0.85	R 37 D100M4
106	198	13.25	1660	0.95	RF 37 D100M4
119	176	11.83	1990	1.05	

输出转速 Output speed n ₂ [1/min]	输出转矩 Output torque M ₂ [N·m]	传动比 Ratio i	径向负荷 Permitted overhung load F _{Ra} ⁽¹⁾ [N]	使用系数 Service factor f _s	型号 Model
2.2kW					
140	151	10.11	2360	1.15	
149	141	9.47	2480	1.20	
177	119	7.97	2750	1.30	
211	99	6.67	2470	1.45	R 37 D100M4
249	84	5.67	2570	1.70	RF 37 D100M4
279	75	5.06	2500	1.80	
326	64	4.32	2410	1.95	
348	60	4.05	2370	2.0	
414	51	3.41	2270	2.2	
141	149	19.31	2380	1.35	
151	139	18.05	2510	1.45	R 37 D90L2
175	120	15.60	2740	1.65	RF 37 D90L2
206	102	1			

输出转速 Output speed n_2 [1/min]	输出转矩 Output torque M_2 [N·m]	传动比 Ratio i	径向负荷 Permitted overhung load $F_{Ra}^{(1)}$ [N]	使用系数 Service factor f_s	型号 Model
4.2	6780	222.60	55800	1.20	
5.0	5740	188.45	57400	1.40	R 137
5.4	5320	174.40	58000	1.50	RF 137
6.0	4760	156.31	58700	1.70	
6.7	4300	141.12	59200	1.85	
7.3	3910	128.18	59600	2.0	R 137
8.3	3470	113.72	60000	2.3	RF 137
9.1	3150	103.20	60200	2.5	
5.9	4840	158.68	21600	0.90	R 107
6.6	4320	141.83	29300	1.00	RF 107
7.4	3890	127.68	31500	1.10	
3.0kW					
6.1	4710	229.95	26500	0.90	
6.9	4160	203.16	30200	1.05	
8.1	3530	172.34	33100	1.20	
8.8	3250	158.68	34100	1.30	
9.9	2900	141.83	35300	1.50	R 107
11	2610	127.68	36000	1.65	RF 107
12	2370	115.63	36300	1.80	
14	2100	102.53	36700	2.0	
15	1900	92.70	36900	2.3	
18	1610	78.57	35900	2.7	
19	1490	72.88	35200	2.9	
9.3	3090	150.78	16200	0.95	
11	2590	126.75	23600	1.15	
12	2380	116.48	24700	1.25	
14	2120	103.44	25900	1.40	
15	1890	92.48	26800	1.60	
17	1700	83.15	27300	1.75	
19	1480	72.17	27700	2.0	R 97
21	1330	65.21	27000	2.2	RF 97
23	1230	59.92	26400	2.5	
26	1090	53.21	25600	2.8	
29	970	47.58	24800	3.1	
33	880	42.78	24000	3.4	
38	760	37.13	23100	4.0	
42	680	33.25	22400	4.2	
15	1910	93.38	3630	0.80	R 87
17	1680	81.92	16000	0.90	RF 87
19	1490	72.57	17400	1.05	
22	1300	63.68	18400	1.20	
23	1230	60.35	18800	1.25	
27	1080	52.82	19500	1.45	
29	970	47.58	19900	1.60	
34	850	41.74	19400	1.80	R 87
38	755	36.84	18700	2.1	RF 87
43	670	32.66	18100	2.3	
50	570	27.88	17400	2.6	
41	705	34.40	18400	2.1	
45	640	31.40	17900	2.4	
50	570	27.84	17400	2.7	
60	480	23.40	16500	3.2	R 87
65	440	21.51	16100	3.4	RF 87
73	390	19.10	15600	3.7	
82	350	17.08	15100	4.0	
91	315	15.35	14600	4.3	
31	940	45.81	8670	0.85	R 77
32	890	43.26	9270	0.95	RF 77
38	755	36.83	10500	1.10	
42	685	33.47	11000	1.20	
48	595	29.00	11600	1.40	R 77
55	515	25.23	11300	1.50	RF 77

输出转速 Output speed n_2 [1/min]	输出转矩 Output torque M_2 [N·m]	传动比 Ratio i	径向负荷 Permitted overhung load $F_{Ra}^{(1)}$ [N]	使用系数 Service factor f_s	型号 Model
60	480	23.37	11100	1.70	
65	440	21.43	10800	1.85	
74	385	18.80	10500	2.0	
79	365	17.82	10300	2.1	
90	320	15.60	9980	2.3	
100	290	14.05	9700	2.5	R 77
114	250	12.33	9350	2.7	RF 77
129	225	10.88	9030	3.0	
145	197	9.64	8720	3.2	
163	176	8.59	8500	3.6	
181	158	7.74	8240	3.8	
206	139	6.79	7920	4.2	
3.0kW					
60	480	23.44	8730	1.15	
70	405	19.89	8420	1.45	
78	365	17.95	8230	1.60	
89	325	15.79	7980	1.75	R 67
94	305	14.91	7860	1.80	RF 67
110	260	12.70	7550	2.0	
121	235	11.54	7360	2.1	
140	205	10.00	7090	2.3	
52	550	26.97	4330	0.80	R 57
					RF 57
64	450	21.93	4380	1.00	R 57
75	380	18.60	4300	1.20	RF 57
83	345	16.79	4250	1.30	
95	300	14.77	4160	1.45	
100	285	13.95	4130	1.50	
118	245	11.88	4010	1.65	
130	220	10.79	3940	1.75	
150	191	9.35	3820	1.95	
155	185	9.06	3810	2.0	R 57
176	163	7.97	3700	2.2	RF 57
186	154	7.53	3650	2.3	
218	131	6.41	3520	2.6	
240	119	5.82	3430	2.7	
277	103	5.05	3310	3.0	
319	90	4.39	3190	3.1	
128	225	21.93	3950	2.0	
151	190	18.60	3820	2.4	
167	172	16.79	3730	2.6	R 57
190	151	14.77	3620	2.9	RF 57
201	143	13.95	3570	3.0	
236	122	11.88	3440	3.3	
259	110	10.79	3360	3.5	
86	330	16.22	2030	0.85	R 47
96	300	14.56	2500	0.90	RF 47
112	255	12.54	3040	0.95	
119	240	11.79	3040	1.00	
138	210	10.15	2970	1.10	
154	186	9.07	2910	1.20	
175	164	8.01	2840	1.25	
181	159	7.76	2740	1.05	R 47
201	143	6.96	2680	1.10	RF 47
233	123	6.00	2610	1.25	
248	115	5.64	2580	1.35	
288	99	4.85	2490	1.50	
323	89	4.34	2430	1.65	
365	78	3.83	2360	1.85	
237	121	11.79	2670	2.0	
270	104	10.15	2580	2.2	
309	93	9.07	2510	2.4	
349	82	8.01	2430	2.5	
361	79	7.76	2370	2.1	R 47
402	71	6.96	2310	2.2	RF 47
467	61	6.00	2220	2.5	
496	58	5.64	2190	2.7	
577	50	4.85	2100	3.0	
646	44	4.34	2040	3.3	
731	39	3.83	1970	3.7	

输出转速 Output speed n_2 [1/min]	输出转矩 Output torque M_2 [N·m]	传动比 Ratio i	径向负荷 Permitted overhung load $F_{Ra}^{(1)}$ [N]	使用系数 Service factor f_s	型号 Model
139	205	10.11	780	0.80	R 37
148	194	9.47	1010	0.85	RF 37
176	163	7.97	1510	0.95	
210	137	6.67	1250	1.05	
247	116	5.67	1630	1.25	
277	104	5.06	1830	1.30	R 37
324	88	4.32	2070	1.45	RF 37
346	83	4.05	2140	1.45	
411	70	3.41	2180	1.60	
3.0kW					
277	103	10.11	2340	1.65	
296	97	9.47	2380	1.70	
351	82	7.97	2290	1.90	
420	68	6.67	2170	2.1	R 37
494	58	5.67	2090	2.5	RF 37
553	52	5.06	2030	2.6	
648	44	4.32	1950	2.8	
692	41	4.05	1920	3.0	
821	35	3.41	1840	3.2	
4.0kW					
1.6	21200	861	120000	0.85	
1.9	18700	760	120000	0.95	
2.2	16000	656	120000	1.10	R 167
2.8	12300	503	120000	1.45	RF 167
3.8	9190	376	120000	1.95	
4.2	8180	335	120000	2.2	
2.7	13100	533	62500	1.00	
3.1	11300	462	65800	1.15	
3.3	10500	426	67100	1.25	
3.8	9060	368	69100	1.45	
4.4	8010	326	70300	1.60	R 147
5.1	6850	280	71500	1.90	RF 147
5.7	6050	247	72200	2.2	
6.7	5220	214	72800	2.5	
7.5	4620	189	73200	2.8	
8.9	3880	159	73600	3.3	
4.0kW					
2.3	15300	619	46300	0.85	
2.5	13800	558	61000	0.95	R 147
2.9	12100	489	64400	1.10	RF 147
3.4	10200	415	67400	1.25	
3.7	9430	381	45400	0.85	
4.4	8000	323	53400	1.00	R 137
4.9	7200	291	55000	1.10	RF 137
5.6	6290	255	56600	1.25	
6.3	5520	223	57700	1.45	
3.8	9440	376	45200	0.85	R 137
4.2	8500	339	51800	0.95	RF 137
4.8	7450	297	54500	1.05	
7.6	4620	187	27600	0.95	R 107
					RF 107
7.3	4840	193	21400	0.90	R 107
8.2	4330	172	29300	1.00	RF 107
4.4	8660	163.31	69500	1.50	
4.9	7790	146.91	70500	1.65	R 147
6.0	6360	119.86	71900	2.0	RF 147
6.6	5800	109.31	72400	2.2	
4.1	9250	174.40	48400	0.85	
4.6	8290	156.31	52700	0.95	
5.1	7490	141.12	54400	1.05	R 137
5.6	6800	128.18	55700	1.20	RF 137
6.3	6030	113.72	57000	1.35	
7.0	5470	103.20	57800	1.45	

输出转速 Output speed n_2 [1/min]	输出转矩 Output torque M_2 [N·m]	传动比 Ratio i	径向负荷 Permitted overhung load $F_{Ra}^{(1)}$ [N]	使用系数 Service factor f_s	型号 Model
4.3	8860	222.60	50300	0.90	
5.1	7500	188.45	54400	1.05	
5.5	6940	174.40	55500	1.15	R 137
6.1	6220	156.31	56700	1.30	RF 137
6.8	5620	141.12	57600	1.40	
7.5	5100	128.18	58300	1.55	
8.4	4520	113.72	59000	1.75	R 137
9.3	4110	103.20	59400	1.95	RF 137
11	3530	88.70	59900	2.3	
8.2	4640	172.34	27500	0.95	
8.9	4270	158.68	29600	1.05	
10	3820	141.83	31900	1.15	
11	3430	127.68	33400	1.25	
12	3110	115.63	34600	1.40	
14	2760	102.53	35700	1.55	R 107
15	2490	92.70	36200	1.70	RF 107
18	2110	78.57	34900	2.0	
19	1960	72.88	34200	2.2	
22	1760	65.60	33200	2.4	
24	1600	59.41	32300	2.7	
27	1420	52.68	31300		

输出转速 Output speed n _a [1/min]	输出转矩 Output torque M _a [N·m]	传动比 Ratio i	径向负荷 Permitted overhung load F _{Ra} ⁽¹⁾ [N]	使用系数 Service factor f _B	型号 Model	
61	630	23.37	10600	1.30	R 77 D112M4 RF 77 D112M4	
66	575	21.43	10400	1.40		
76	505	18.80	10100	1.55		
80	480	17.82	9950	1.65		
91	420	15.60	9630	1.75		
101	380	14.05	9380	1.90		
115	330	12.33	9070	2.1		
131	295	10.88	8780	2.3		
147	260	9.64	8500	2.4		
165	230	8.59	8320	2.7		
183	210	7.74	8070	2.9		
209	183	6.79	7770	3.2		
237	161	5.99	7490	3.3		
267	143	5.31	7230	3.6		
71	535	19.89	7960	1.10		R 67 D112M4 RF 67 D112M4
79	485	17.95	7800	1.20		
90	425	15.79	7600	1.30		
95	400	14.91	7510	1.35		
112	340	12.70	7240	1.50		
123	310	11.54	7080	1.60		
142	270	10.00	6840	1.75		
163	235	8.70	6600	1.90		
182	210	7.79	6440	1.80		
193	198	7.36	6340	1.85		
227	169	6.27	6070	1.95		
249	153	5.70	5920	2.0		
288	133	4.93	5680	2.2		
331	116	4.29	5460	2.3		
76	500	18.60	3520	0.90	R 57 D112M4 RF 57 D112M4	
85	450	16.79	3830	1.00		
96	395	14.77	3800	1.10		
102	375	13.95	3780	1.15	R 57 D112M4 RF 57 D112M4	
120	320	11.88	3710	1.25		
132	290	10.79	3660	1.35		
152	250	9.35	3580	1.45		
157	245	9.06	3590	1.55		
178	215	7.97	3500	1.65		
189	205	7.53	3470	1.75		
222	172	6.41	3350	1.95		
244	157	5.82	3280	2.0		
284	136	5.05	3180	2.2		
323	118	4.39	3070	2.4		
4.0kW						
140	275	10.15	1960	0.85		R 47 D112M4 RF 47 D112M4
157	245	9.07	2350	0.90		
177	215	8.01	2640	0.95		
204	187	6.96	2480	0.85		
237	161	6.00	2430	0.95		
252	152	5.64	2410	1.00		
293	131	4.85	2350	1.15		
327	117	4.34	2300	1.25		
371	103	3.83	2250	1.40		
176	215	16.22	2640	1.25	R 47 D112M2 RF 47 D112M2	
196	195	14.56	2600	1.35		
228	168	12.54	2540	1.50		
242	158	11.79	2510	1.55		
282	136	10.15	2440	1.70		
315	121	9.07	2390	1.80		
357	107	8.01	2320	1.90		
369	104	7.76	2250	1.55		
411	93	6.96	2200	1.70		
477	80	6.00	2130	1.95		
507	75	5.64	2100	2.1		
589	65	4.85	2020	2.3		
660	58	4.34	1970	2.5		
746	51	3.83	1910	2.8		

输出转速 Output speed n _a [1/min]	输出转矩 Output torque M _a [N·m]	传动比 Ratio i	径向负荷 Permitted overhung load F _{Ra} ⁽¹⁾ [N]	使用系数 Service factor f _B	型号 Model		
5.5kW							
2.2	22000	656	120000	0.80	R 167 R97 D132S4 RF 167 R97 D132S4		
2.5	19300	579	120000	0.95			
2.8	16900	503	120000	1.05			
3.3	14400	432	120000	1.25			
3.8	12600	376	120000	1.45			
4.3	11200	335	120000	1.60			
4.7	10100	303	120000	1.80			
5.1	9310	279	120000	1.95			
3.1	15500	462	43700	0.85		R 147 R87 D132S4 RF 147 R87 D132S4	
3.3	14400	426	57800	0.90			
3.9	12400	368	63800	1.05			
4.4	11000	326	66300	1.20			
5.1	9410	280	68600	1.40			
5.8	8300	247	70000	1.55			
6.7	7170	214	71200	1.80			
7.6	6340	189	71900	2.0			
5.5kW							
3.1	17000	229.71	120000	1.05	R 167 D160M8 RF 167 D160M8		
3.8	13800	186.93	120000	1.30			
4.6	11300	153.07	120000	1.60			
5.1	10400	139.98	120000	1.75			
5.8	9010	121.81	120000	2.0			
4.3	12100	163.31	64400	1.10		R 147 D160M8 RF 147 D160M8	
4.8	10900	146.91	66500	1.20			
5.9	8870	119.86	69300	1.45			
6.5	8090	109.31	70200	1.60			
5.9	8930	163.31	69200	1.45	R 147 D132ML6 RF 147 D132ML6		
6.5	8040	146.91	70300	1.60			
8.0	6560	119.86	71700	2.0			
8.8	5980	109.31	72200	2.2		R 147 D132ML6 RF 147 D132ML6	
10	5180	94.60	72800	2.5			
12	4570	83.47	73200	2.8			
5.5	9480	128.18	44400	0.85	R 137 D160M8 RF 137 D160M8		
6.2	8410	113.72	52200	0.95			
6.9	7630	103.20	54200	1.05			
8.0	6560	88.70	56100	1.20			
4.3	12100	163.31	64400	1.10		R 147 D160M8 RF 147 D160M8	
4.8	10900	146.91	66500	1.20			
5.9	8870	119.86	69300	1.45			
6.5	8090	109.31	70200	1.60			
5.9	8930	163.31	69200	1.45	R 147 D132ML6 RF 147 D132ML6		
6.5	8040	146.91	70300	1.60			
8.0	6560	119.86	71700	2.0			
8.8	5980	109.31	72200	2.2		R 147 D132ML6 RF 147 D132ML6	
10	5180	94.60	72800	2.5			
12	4570	83.47	73200	2.8			
5.5	9480	128.18	44400	0.85	R 137 D160M8 RF 137 D160M8		
6.2	8410	113.72	52200	0.95			
6.9	7630	103.20	54200	1.05			
8.0	6560	88.70	56100	1.20			
5.5	9540	174.40	43300	0.85		R 137 D132ML6 RF 137 D132ML6	
6.1	8550	156.31	51600	0.95			
6.8	7720	141.12	54000	1.05			
7.5	7010	128.18	55300	1.15			
8.4	6220	113.72	56700	1.30			
9.3	5650	103.20	57600	1.40			
6.4	8180	222.60	53000	1.00	R 137 D132S4 RF 137 D132S4		
7.6	6920	188.45	55500	1.15			
8.2	6410	174.40	56400	1.25			
9.1	5740	156.31	57400	1.40			
10	5180	141.12	58200	1.55			
11	4710	128.18	58800	1.70		R 107 D132S4 RF 107 D132S4	
13	4180	113.72	59300	1.90			
14	3790	103.20	59700	2.1			
16	3260	88.70	60200	2.5			
18	2970	80.91	60400	2.7			
19	2700	73.49	60500	3.0			
22	2390	65.20	60700	3.3			
24	2170	59.17	60900	3.7			
28	1870	50.86	61000	4.3			
11	4710	128.18	58800	1.70	R 137 D132S4 RF 137 D132S4		
13	4180	113.72	59300	1.90			
14	3790	103.20	59700	2.1			
16	3260	88.70	60200	2.5			
18	2970	80.91	60400	2.7			
19	2700	73.49	60500	3.0			
22	2390	65.20	60700	3.3			
24	2170	59.17	60900	3.7			
28	1870	50.86	61000	4.3			
11	4690	127.68	27100	0.90	R 107 D132S4 RF 107 D132S4		
12	4250	115.63	29800	1.00			
14	3770	102.53	32100	1.15			
15	3400	92.70	33500	1.25			
18	2980	78.57	33500	1.50			
20	2680	72.88	32900	1.60			
22	2410	65.60	32100	1.80			
24	2180	59.41	31300	1.95			
27	1930	52.68	30300	2.2			
30	1750	47.63	29500	2.5			
35	1480	40.37	28200	2.9			
30	1750	47.63	29500	2.5		R 87 D132S4 RF 87 D132S4	
34	1530	41.74	17000	1.00			
39	1350	36.84	17200	1.15			
44	1200	32.66	16700	1.30			
51	1020	27.88	16100	1.45			
51	1020	27.84	16100	1.50			R 87 D132S4 RF 87 D132S4
61	860	23.40	15500	1.80			
66	790	21.51	15200	1.90			
75	700	19.10	14700	2.0			
84	625	17.08	14300	2.2			
93	565	15.35	13900	2.4			
107	490	13.33	13400	2.6			
120	440	11.93	13000	2.8			
144	365	9.90	12300	3.2			
156	335	9.14	12200	3.6			
174	300	8.22	11800	3.8			
200	260	7.13	11300	4.1			

输出转速 Output speed n _a [1/min]	输出转矩 Output torque M _a [N·m]	传动比 Ratio i	径向负荷 Permitted overhung load F _{Ra} ⁽¹⁾ [N]	使用系数 Service factor f _B	型号 Model	
5.5kW						
3.1	17000	229.71	120000	1.05	R 167 D160M8 RF 167 D160M8	
3.8	13800	186.93	120000	1.30		
4.6	11300	153.07	120000	1.60		
5.1	10400	139.98	120000	1.75		
5.8	9010	121.81	120000	2.0		
4.3	12100	163.31	64400	1.10		R 147 D160M8 RF 147 D160M8
4.8	10900	146.91	66500	1.20		
5.9	8870	119.86	69300	1.45		
6.5	8090	109.31	70200	1.60		
5.9	8930	163.31	69200	1.45	R 147 D132ML6 RF 147 D132ML6	
6.5	8040	146.91	70300	1.60		
8.0	6560	119.86	71700	2.0		
8.8	5980	109.31	72200	2.2		R 147 D132ML6 RF 147 D132ML6
10	5180	94.60	72800	2.5		
12	4570	83.47	73200	2.8		
5.5	9480	128.18	44400	0.85	R 137 D160M8 RF 137 D160M8	
6.2	8410	113.72	52200	0.95		
6.9	7630	103.20	54200	1.05		
8.0	6560	88.70	56100	1.20		
5.5	9540	174.40	43300	0.85		R 137 D132ML6 RF 137 D132ML6
6.1	8550	156.31	51600	0.95		
6.8	7720	141.12	54000	1.05		
7.5	7010	128.18	55300	1.15		
8.4	6220	113.72	56700	1.30		
9.3	5650	103.20	57600	1.40		
6.4	8180	222.60	53000	1.00	R 137 D132S4 RF 137 D132S4	
7.6	6920	188.45	55500	1.15		
8.2	6410	174.40	56400	1.25		
9.1	5740	156.31	57400	1.40		
10	5180	141.12	58200	1.55		
11	4710	128.18	58800	1.70		R 107 D132S4 RF 107 D132S4
13	4180	113.72	59300	1.90		
14	3790	103.20	59700	2.1		
16	3260	88.70	60200	2.5		
18	2970	80.91	60400	2.7		
19	2700	73.49	60500	3.0		
22	2390	65.20	60700	3.3		
24	2170	59.17	60900	3.7		
28	1870	50.86	61000	4.3		
11	4690	127.68	27100	0.90	R 107 D132S4 RF 107 D132S4	
12	4250	115.63	29800	1.00		
14	37					

输出转速 Output speed n_2 [1/min]	输出转矩 Output torque M_2 [N·m]	传动比 Ratio i	径向负荷 Permitted overhung load $F_{Ra}^{(1)}$ [N]	使用系数 Service factor f_s	型号 Model	
700	75	2.04	665	0.90	R 57 RF 57 D132S4	
745	71	1.92	755	1.00		
866	61	1.65	940	1.15		
969	54	1.48	1020	1.25		
1095	48	1.30	1160	1.30		
7.5kW						
2.8	23100	503	120000	0.80	R 167 R97 D132M4 RF 167 R97 D132M4	
3.3	19800	432	120000	0.90		
3.8	17300	376	120000	1.05		
4.3	15400	335	120000	1.15		
4.7	13900	303	120000	1.30		
5.1	12800	279	120000	1.40		
4.4	15000	326	50100	0.85	R 147 R87 D132M4 RF 147 R87 D132M4	
5.1	12900	280	62900	1.00		
5.8	11400	247	65700	1.15		
6.7	9810	214	68000	1.30		
7.6	8680	189	69500	1.50		
9.0	7290	159	71000	1.80		
7.5kW						
3.1	22900	229.71	120000	0.80	R 167 RF 167 D160L8	
3.8	18600	186.93	120000	0.95		
4.7	15200	153.07	120000	1.20		
5.1	13900	139.98	120000	1.30		
5.9	12100	121.81	120000	1.50		
4.2	17100	229.71	120000	1.05	R 167 RF 167 D160M6	
5.1	13900	186.93	120000	1.30		
6.3	11400	153.07	120000	1.60	R 167 RF 167 D160M6	
6.9	10400	139.98	120000	1.70		
7.9	9090	121.81	120000	2.0		
8.9	8020	107.49	120000	2.2		
10	6950	93.19	120000	2.6		
12	6190	82.91	120000	2.9		
13	5500	73.70	120000	3.3		
14	5030	67.40	120000	3.6		
4.4	16200	163.31	32800	0.80		R 147 RF 147 D160L8
4.9	14600	146.91	55100	0.90		
6.0	11900	119.86	64700	1.10		
6.6	10900	109.31	66500	1.20		
5.9	12200	163.31	64200	1.05	R 147 RF 147 D160M6	
6.5	11000	146.91	66300	1.20		
8.0	8940	119.86	69200	1.45		
8.8	8150	109.31	70100	1.60		R 147 RF 147 D160M6
10	700	94.60	71300	1.85		
12	6230	83.47	72000	2.1		
7.6	9440	188.45	45300	0.85	R 137 RF 137 D132M4	
8.2	8730	174.40	50800	0.90		
9.1	7830	156.31	53700	1.00		
10	7070	141.12	55200	1.15		
11	6420	128.18	56400	1.25		R 137 RF 137 D132M4
13	5700	113.72	57500	1.40		
14	5170	103.20	58200	1.55		
16	4440	88.70	59100	1.80		
18	4050	80.91	59500	1.95		
19	3680	73.49	59800	2.2		
22	3270	65.20	60100	2.5		
24	2960	59.17	60400	2.7		
28	2550	50.86	60600	3.1		

输出转速 Output speed n_2 [1/min]	输出转矩 Output torque M_2 [N·m]	传动比 Ratio i	径向负荷 Permitted overhung load $F_{Ra}^{(1)}$ [N]	使用系数 Service factor f_s	型号 Model	
15	4640	92.70	27500	0.95	R 107 RF 107 D132M4	
18	3940	78.57	31300	1.10		
20	3650	72.88	31300	1.20		
22	3290	65.60	30600	1.30		
24	2980	59.41	30000	1.45		
27	2640	52.68	29200	1.65		
30	2390	47.63	28500	1.80		
35	2020	40.37	27300	2.1		
41	1770	35.26	26400	2.4		
48	1480	29.49	25200	2.9		
46	1540	30.77	25500	2.8		R 107 RF 107 D132M4
52	1380	27.58	24700	3.1		
57	1250	24.90	24100	3.5		
63	1130	22.62	23400	3.8		
24	3000	59.92	19700	1.00		R 97 RF 97 D132M4
27	2670	53.21	22200	1.15		
30	2380	47.58	21800	1.25		
33	2140	42.78	21300	1.40		
39	1860	37.13	20700	1.60		
43	1670	33.25	20200	1.75	R 97 RF 97 D132M4	
52	1380	27.58	19400	1.95		
7.5kW						
45	1610	32.05	20000	1.60	R 97 RF 97 D132M4	
53	1360	27.19	19300	1.90		
57	1250	25.03	18900	2.3		
64	1120	22.37	18400	2.4		
71	1010	20.14	17900	2.6		
78	910	18.24	17500	2.7		
39	1840	36.84	11500	0.85		R 87 RF 87 D132M4
44	1640	32.66	15700	0.95		
51	1400	27.88	15200	1.05		
51	1390	27.84	15200	1.10	R 87 RF 87 D132M4	
61	1170	23.40	14700	1.30		
66	1080	21.51	14500	1.40		
75	960	19.10	14100	1.50		
84	860	17.08	13700	1.65		
93	770	15.35	12500	1.75		
107	670	13.33	12900	1.90		
120	600	11.93	12600	2.1		
144	495	9.90	12000	2.4		
156	460	9.14	11900	2.6		
174	410	8.22	11600	2.8		
200	355	7.13	11100	3.0		
224	320	6.39	10800	3.2		
270	265	5.30	10200	3.4		
76	940	18.80	5310	0.85		R 77 RF 77 D132M4
80	890	17.82	5720	0.85		
92	780	15.60	6610	0.95		
102	705	14.05	7180	1.00		
116	615	12.33	7750	1.10		
131	545	10.88	8010	1.20		
148	485	9.64	7810	1.30		
166	430	8.59	7620	1.45		
185	390	7.74	7590	1.55		
211	340	6.79	7340	1.70		
239	300	5.99	7110	1.80		
269	265	5.31	6890	1.90		
113	635	12.70	4240	0.80	R 67 RF 67 D132M4	
124	580	11.54	4860	0.85		
143	500	10.00	5620	0.95		
164	435	8.70	5930	1.00		
183	390	7.79	5500	0.95		
194	370	7.36	5720	1.00		
228	315	6.27	5600	1.05		
251	285	5.70	5480	1.10		
290	245	4.93	5300	1.15		
333	215	4.29	5130	1.25		

输出转速 Output speed n_2 [1/min]	输出转矩 Output torque M_2 [N·m]	传动比 Ratio i	径向负荷 Permitted overhung load $F_{Ra}^{(1)}$ [N]	使用系数 Service factor f_s	型号 Model	
179	400	7.97	980	0.90	R 57 RF 57 D132M4	
190	375	7.53	1280	0.95		
223	320	6.41	2020	1.05		
246	290	5.82	2380	1.10		
283	255	5.05	2760	1.20		
326	220	4.39	2710	1.25		
196	365	14.77	2580	1.20		R 57 RF 57 D132M2
208	345	13.95	2780	1.25		
244	295	11.88	2780	1.40		
269	265	10.79	2750	1.45		
310	230	9.35	2710	1.60		
364	197	7.97	2670	1.80		
385	186	7.53	2640	1.90		
452	158	6.41	2570	2.1		
498	144	5.82	2520	2.2		
575	125	5.05	2440	2.5		
660	108	4.39	2370	2.6		
9.2kW						
3.8	21100	3.76	120000	0.85	R 167 R97 D132ML4 RF 167 R97 D132ML4	
4.3	18800	335	120000	0.95		
4.8	16900	303	120000	1.05		
5.2	15600	279	120000	1.15		
5.1	15700	280	40800	0.85		R 147 R87 D132ML4 RF 147 R87 D132ML4
5.8	13900	247	60800	0.95		
6.7	12000	214	64600	1.10		
7.6	10600	189	66900	1.25		
9.1	8900	159	69300	1.45		
8.8	9960	163.31	67800	1.30	R 147 RF 147 D132ML4	
9.8	8960	146.91	69200	1.45		
12	7310	119.86	71000	1.80		
13	6670	109.31	71600	1.95		R 147 RF 147 D132ML4
15	5770	94.60	72400	2.2		
17	5090	83.47	72900	2.5		
20	4400	72.09	73300	3.0		
22	4090	66.99	73500	3.2		
9.2	9540	156.31	43400	0.85	R 137 RF 137 D132ML4	
10	8610	141.12	51400	0.95		
11	7820	128.72	53800	1.00		
13	6940	113.72	55500	1.15		
14	6300	103.20	56600	1.25	R 137 RF 137 D132ML4	
16	5410	88.70	57900	1.50		
18	4940	80.91	58500	1.60		
20	4480	73.49	59000	1.80		
22	3980	65.20	59500	2.0		
24	3610	59.17	59900	2.2		
28	3100	50.86	60300	2.6		
32	2710	44.39	60500	3.0		
9.2kW						
18	4790	78.57	23300	0.90		R 107 RF 107 D132ML4
20	4450	72.88	28600	0.95		
22	4000	65.60	29400	1.05		
24	3620	59.41	28800	1.20		
27	3210	52.68	28100	1.35		
30	2910	47.63	27500	1.50		
36	2460	40.37	26500	1.75		
41	2150	35.26	25700	2.0		
49	1800	29.49	24600	2.4		

输出转速 Output speed n_2 [1/min]	输出转矩 Output torque M_2 [N·m]	传动比 Ratio i	径向负荷 Permitted overhung load $F_{Ra}^{(1)}$ [N]	使用系数 Service factor f_s	型号 Model
47	1880	30.77	24900	2.3	R 107 RF 107 D132ML4
52	1680	27.58	24200	2.6	
58	1520	24.90	23500	2.8	
64	1380	22.62	23000	3.1	
72	1220	20.07	22200	3.5	
27	3250	53.21	3280	0.90	
30	2900	47.58	20600	1.05	
34	2610	42.78	20300	1.15	
39	2270	37.13	19800	1.30	R 97 RF 97 D132ML4
43	2030	33.25	19400	1.40	
52	1680	27.58	18700	1.60	
58	1530	25.03	18300	1.85	R 97 RF 97 D132ML4
64	1370	22.37	17900	2.0	
71	1230	20.14	17400	2.1	
79	1110	18.24	17000	2.2	
89	990	16.17	16500	2.4	
98	890	14.62	16100	2.6	
116	755	12.39	15400	2.9	
67	1310	21.51	13900	1.15	
75	1170	19.10	13600	1.25	
84	1040	17.08	13200	1.35	
94	940	15.35	13000	1.45	
108	810	13.33	12600	1.55	
121	730	11.93	12200	1.70	
145	605	9.90	11700	1.95	
158	560	9.14	11700	2.2	
175	500	8.22	11400	2.3	
202	435	7.13	10900	2.5	
225	390	6.39	10600	2.6	
102	860	14.05	4740	0.85	R 77 RF 77 D132ML4
117	750	12.33	5610	0.90	
132	665	10.88	6280	1.00	
149	590	9.64	6800	1.05	
186	470	7.74	6300	1.30	R 77 RF 77 D132ML4

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输出转速 Output speed n_2 [1/min]	输出转矩 Output torque M_2 [N·m]	传动比 Ratio i	径向负荷 Permitted overhung load $F_{Ra}^{(1)}$ [N]	使用系数 Service factor f_b	型号 Model
9.4	11200	153.07	120000	1.60	
10	10200	139.98	120000	1.75	
12	8890	121.81	120000	2.0	R 167 D160M4
13	7840	107.49	120000	2.3	RF 167 D160M4
15	6800	93.19	120000	2.7	
17	6050	82.91	120000	3.0	
6.5	16100	146.91	35400	0.80	
8.0	13100	119.86	62400	1.00	R 147 D160L6
8.8	12000	109.31	64600	1.10	RF 147 D160L6
10	10400	94.60	67300	1.25	
12	9130	83.47	39000	1.40	
8.8	11900	163.31	64700	1.10	R 147 D160M4
9.8	10700	146.91	66700	1.20	RF 147 D160M4
12	8740	119.86	69400	1.50	
13	7970	109.31	70300	1.65	
15	6900	94.60	71400	1.90	
17	6090	83.47	72100	2.1	R 147 D160M4
20	5260	72.09	72800	2.5	RF 147 D160M4
22	4890	66.99	73000	2.7	
24	4460	61.09	73300	2.9	
27	3860	52.87	73600	3.4	
11.0kW					
10	10300	142.12	23300	0.80	
11	9350	128.18	46900	0.85	
13	8300	113.72	52700	0.95	
14	7530	103.20	54400	1.05	
16	6470	88.70	56300	1.25	
18	5900	80.91	57200	1.35	R 137 D160M4
20	5360	73.49	57900	1.50	RF 137 D160M4
22	4760	65.20	58700	1.70	
24	4320	59.17	59200	1.85	
28	3710	50.86	59800	2.2	
32	3240	44.39	60200	2.5	
38	2750	37.65	60500	2.9	
44	2400	32.91	60700	3.3	
22	4790	65.60	23700	0.90	
24	4330	59.41	27600	1.00	
27	3840	52.68	27100	1.10	R 107 D160M4
30	3470	47.63	26600	1.25	RF 107 D160M4
36	2940	40.37	25700	1.45	
41	2570	35.26	25000	1.65	
49	2150	29.49	24000	2.0	
47	2240	30.77	24200	1.90	
52	2010	27.58	23600	2.1	R 107 D160M4
58	1820	24.90	23100	2.4	RF 107 D160M4
64	1650	22.62	22500	2.6	
72	1460	20.07	21800	2.9	
79	1330	18.21	21300	3.2	
34	3120	42.78	14500	0.95	R 97 D160M4
39	2710	37.13	18900	1.10	RF 97 D160M4
43	2430	33.25	18600	1.20	
52	2010	27.58	18000	1.35	
58	1830	25.03	17700	1.55	R 97 D160M4
64	1630	22.37	17300	1.65	RF 97 D160M4
71	1470	20.14	16900	1.80	
79	1330	18.24	16600	1.90	
89	1180	16.17	16100	2.0	
98	1070	14.62	15700	2.2	
116	900	12.39	15100	2.4	R 97 D160M4
133	790	10.83	14600	2.7	RF 97 D160M4
155	675	9.29	14300	3.0	
172	610	8.39	13900	3.3	
202	520	7.12	13200	3.8	
232	455	6.21	12700	4.2	

输出转速 Output speed n_2 [1/min]	输出转矩 Output torque M_2 [N·m]	传动比 Ratio i	径向负荷 Permitted overhung load $F_{Ra}^{(1)}$ [N]	使用系数 Service factor f_b	型号 Model
67	1570	21.51	13200	0.95	R 87 D160M4
75	1390	19.10	13000	1.05	RF 87 D160M4
84	1250	17.08	12800	1.10	
94	1120	15.35	12500	1.20	
108	970	13.33	12200	1.30	
121	870	11.93	11900	1.40	
145	720	9.90	11400	1.65	R 87 D160M4
158	665	9.14	11500	1.80	RF 87 D160M4
175	600	8.22	11200	1.95	
202	520	7.13	10800	2.1	
225	465	6.39	10400	2.2	
272	385	5.30	9910	2.3	
132	795	10.88	4250	0.85	R 77 D160M4
149	705	9.64	5000	0.90	RF 77 D160M4
186	565	7.74	4630	1.10	
212	495	6.79	5250	1.15	R 77 D160M4
240	435	5.99	5720	1.25	RF 77 D160M4
271	390	5.31	6090	1.30	
15.0kW					
6.4	20700	229	120000	0.85	R 167 R107 D160L4
7.3	18100	200	120000	1.00	RF 167 R107 D160L4
8.6	15200	169	120000	1.20	
6.4	20800	227	120000	0.85	R 167 R107 D160L4
7.4	18100	198	120000	1.00	RF 167 R107 D160L4
6.3	22600	153.07	120000	0.80	
6.9	20700	139.98	120000	0.85	R 167 D180L6
8.0	18000	121.81	120000	1.00	RF 167 D180L6
9.0	15900	107.49	120000	1.15	
6.4	22500	229.71	120000	0.80	R 167 D160L4
7.8	18300	186.93	120000	1.00	RF 167 D160L4
9.5	15000	153.07	120000	1.20	
10	13700	139.98	120000	1.30	
12	12000	121.81	120000	1.50	
14	10500	107.49	120000	1.70	R 167 D160L4
16	9140	93.19	120000	1.95	RF 167 D160L4
18	8130	82.91	120000	2.2	
20	7230	73.70	120000	2.5	
22	6610	67.40	120000	2.7	
8.9	16100	109.31	34400	0.80	
10	14000	94.60	60600	0.95	
12	12300	83.47	64000	1.05	R 147 D180L6
13	10600	72.09	66800	1.20	RF 147 D180L6
14	9890	66.99	67900	1.30	
8.9	16000	163.31	36200	0.80	
9.9	14400	146.91	57400	0.90	R 147 D160L4
12	11800	119.86	65000	1.10	RF 147 D160L4
13	10700	109.31	66700	1.20	
15	9280	94.60	68800	1.40	
17	8190	83.47	70100	1.60	
20	7070	72.09	71300	1.85	R 147 D160L4
22	6570	66.99	71700	2.0	RF 147 D160L4
24	5990	61.09	72200	2.2	
28	5190	52.87	72800	2.5	
31	4580	46.65	73200	2.8	
14	10100	103.20	30700	0.80	
16	8700	88.70	51000	0.90	R 137 D160L4
18	7940	80.91	53500	1.00	RF 137 D160L4
20	7210	73.49	55000	1.10	

输出转速 Output speed n_2 [1/min]	输出转矩 Output torque M_2 [N·m]	传动比 Ratio i	径向负荷 Permitted overhung load $F_{Ra}^{(1)}$ [N]	使用系数 Service factor f_b	型号 Model
15.0kW					
22	6400	65.20	56400	1.25	
25	5800	59.17	57300	1.40	
29	4990	50.86	58400	1.60	R 137 D160L4
33	4360	44.39	59100	1.85	RF 137 D160L4
39	3690	37.65	59800	2.2	
44	3230	32.91	60200	2.5	
52	2730	27.83	60500	2.8	
31	4670	47.63	24500	0.90	
36	3960	40.37	23900	1.10	R 107 D160L4
41	3460	35.26	23400	1.25	RF 107 D160L4
50	2890	29.49	22600	1.50	
47	3020	30.77	22800	1.40	
53	2710	27.58	22400	1.60	
59	2440	24.90	21900	1.75	
65	2220	22.62	21400	1.95	R 107 D160L4
73	1970	20.07	20900	2.2	RF 107 D160L4
80	1790	18.21	20400	2.4	
93	1540	15.65	19700	2.8	
107	1340	13.66	19000	3.2	
53	2710	27.58	16500	1.00	R 97 D160L4
					RF 97 D160L4
58	2460	25.03	16300	1.15	
65	2200	22.37	16100	1.25	
72	1980	20.14	15800	1.30	
80	1790	18.24	15600	1.40	
90	1590	16.17	15200	1.50	
100	1430	14.62	14900	1.60	R 97 D160L4
118	1220	12.39	14400	1.80	RF 97 D160L4
135	1060	10.83	14000	1.95	
157	910	9.29	13800	2.2	
174	820	8.39	13400	2.5	
205	700	7.12	12800	2.9	
235	610	6.21	12400	3.1	
85	1680	17.08	11600	0.85	
95	1510	15.35	11500	0.90	R 87 D160L4
110	1310	13.33	11300	1.00	RF 87 D160L4
122	1170	11.93	11100	1.05	
147	970	9.90	10700	1.20	
160	900	9.14	11000	1.35	
178	810	8.22	10700	1.45	R 87 D160L4
205	700	7.13	10300	1.55	RF 87 D160L4
229	625	6.39	10100	1.65	
275	520	5.30	96000	1.75	
18.5kW					
7.8	22500	186.93	120000	0.80	
9.6	18500	153.07	120000	1.00	R 167 D180M4
10	16900	139.98	120000	1.05	RF 167 D180M4
12	14700	121.81	120000	1.25	
14	13000	107.49	120000	1.40	
16	11200	93.19	120000	1.60	
18	10000	82.91	120000	1.80	R 167 D180M4
20	8890	73.70	120000	2.0	RF 167 D180M4
22	8130	67.40	120000	2.2	
25	7070	58.65	120000	2.5	
12	14500	119.86	56900	0.90	R 147 D180M4
13	13200	109.31	62300	1.00	RF 147 D180M4
15	11400	94.60	65600	1.15	

输出转速 Output speed n_2 [1/min]	输出转矩 Output torque M_2 [N·m]	传动比 Ratio i	径向负荷 Permitted overhung load $F_{Ra}^{(1)}$ [N]	使用系数 Service factor f_b	型号 Model
18	10100	83.47	67700	1.30	
20	8690	72.09	69500	1.50	
22	8080	66.99	70200	1.60	R 147 D180M4
24	7370	61.09	71000	1.75	RF 147 D180M4
28	6380	52.87	71900	2.0	
31	5630	46.65	72500	2.3	
36	4860	40.29	73000	2.7	
18	9760	80.91	39000	0.80	
20	8860	73.49	50200	0.90	R 137 D180M4
22	7860	65.20	53700	1.00	RF 137 D180M4
25	7140	59.17	55100	1.10	
29	6130	50.86	56800	1.30	
33	5350	44.39	58000	1.50	R 137 D180M4
39	4540	37.65	58900	1.75	RF 137 D180M4
45	3970	32.91	59500	2.0	
53	3360	27.83	60100	2.3	
50	3570	2			

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输出转速 Output speed n_2 [1/min]	输出转矩 Output torque M_2 [N·m]	传动比 Ratio i	径向负荷 Permitted overhung load $F_{Ra}^{(1)}$ [N]	使用系数 Service factor f_B	型号 Model	
14	15400	107.49	120000	1.15	R 167 D180L4 RF 167 D180L4	
16	13400	93.19	120000	1.35		
18	11900	82.91	120000	1.50		
20	10600	73.70	120000	1.70		
22	9670	67.40	120000	1.85		
25	8410	58.65	120000	2.1		
28	7420	51.76	120000	2.4		
33	6430	44.87	120000	2.8		
13	15700	109.31	41300	0.85	R 147 D180L4 RF 147 D180L4	
15	13600	94.60	61500	0.95		
18	12000	83.47	64600	1.10		
20	10300	72.09	67300	1.25		
22	9610	66.99	68300	1.35	R 147 D180L4 RF 147 D180L4	
24	8760	61.09	69400	1.50		
28	7580	52.87	70800	1.70		
31	6690	46.65	71600	1.95		
36	5780	40.29	72400	2.2		
41	5110	35.64	72900	2.5		
49	4300	29.95	73400	3.0		
22kW						
22	9350	65.20	46900	0.85	R 137 D180L4 RF 137 D180L4	
25	8480	59.17	51900	0.95		
29	7290	50.86	54800	1.10		
33	6370	44.39	56500	1.25		
39	5400	37.65	57900	1.50	R 137 D180L4 RF 137 D180L4	
45	4720	32.91	58700	1.70		
53	3990	27.83	59500	1.90		
50	4240	29.57	59300	1.85	R 137 D180L4 RF 137 D180L4	
61	3460	24.12	60000	2.3		
67	3150	22.00	60200	2.5		
77	2730	19.04	60500	2.9		
87	2410	16.80	60700	3.3		
101	2080	14.51	60900	3.8	R 137 D180L4 RF 137 D180L4	
114	1840	12.83	61000	4.3		
42	5060	35.26	7280	0.85		R 107 D180L4 RF 107 D180L4
50	4230	29.49	20400	1.00		
59	3570	24.90	20000	1.20	R 107 D180L4 RF 107 D180L4	
65	3240	22.62	19700	1.35		
73	2880	20.07	19300	1.50		
80	2610	18.21	19000	1.65		
94	2240	15.65	18500	1.90	R 107 D180L4 RF 107 D180L4	
107	1960	13.66	18000	2.2		
126	1660	11.59	17300	2.6		
145	1450	10.13	16800	3.0		
171	1230	8.56	16100	3.5		
186	1130	7.86	16100	2.6		
220	960	6.66	15400	3.1		
252	840	5.82	14800	3.6		
73	2890	20.14	14000	0.90		R 97 D180L4 RF 97 D180L4
80	2620	18.24	13900	0.95		
91	2320	16.17	13700	1.05		
100	2100	14.62	13600	1.10		
118	1780	12.39	13200	1.25	R 97 D180L4 RF 97 D180L4	
135	1550	10.83	13000	1.35		
158	1330	9.29	13100	1.50		
175	1200	8.39	12800	1.70		
206	1020	7.12	12300	1.95		
236	890	6.21	11900	2.1		
282	745	5.20	11400	2.4		
326	645	4.50	10900	2.5		
148	1420	9.90	9640	0.85		R 87 D180L4 RF 87 D180L4
160	1310	9.14	10100	0.90		
178	1180	8.22	9960	1.00		
205	1020	7.13	9700	1.05		
229	920	6.39	9490	1.10		
276	760	5.30	9110	1.20		

输出转速 Output speed n_2 [1/min]	输出转矩 Output torque M_2 [N·m]	传动比 Ratio i	径向负荷 Permitted overhung load $F_{Ra}^{(1)}$ [N]	使用系数 Service factor f_B	型号 Model
30kW					
14	20900	107.49	120000	0.85	R 167 D200L4 RF 167 D200L4
16	18200	93.19	120000	1.00	
18	16200	82.91	120000	1.10	
20	14400	73.70	120000	1.25	
22	13100	67.40	120000	1.35	R 167 D200L4 RF 167 D200L4
25	11400	58.65	120000	1.55	
28	10100	51.76	120000	1.80	
33	8740	44.87	120000	2.1	
37	7780	39.92	120000	2.3	
43	6710	34.41	120000	2.7	
53	5450	27.96	120000	3.3	
62	4620	23.71	120000	3.9	
18	16300	83.47	32400	0.80	R 147 D200L4 RF 147 D200L4
20	14000	72.09	60400	0.95	
22	13100	66.99	62500	1.00	
24	11900	61.09	64700	1.10	
28	10300	52.87	67300	1.25	R 147 D200L4 RF 147 D200L4
32	9090	46.65	69000	1.45	
36	7850	40.29	70500	1.65	
41	6950	35.64	71400	1.85	
49	5840	29.95	72300	2.2	
61	4710	24.19	73100	2.5	
72	3980	20.44	73600	3.0	R 147 D200L4 RF 147 D200L4
82	3510	18.04	73800	3.0	
94	3050	15.64	74000	4.3	
29	9910	50.86	35800	0.80	R 137 D200L4 RF 137 D200L4
33	8650	44.39	51200	0.90	
39	7340	37.65	54700	1.10	
45	6410	32.91	56400	1.25	
53	5420	27.83	57900	1.40	
61	4700	24.12	58800	1.70	R 137 D200L4 RF 137 D200L4
67	4290	22.00	59200	1.85	
77	3710	19.04	59800	2.2	
88	3270	16.80	60100	2.4	
101	2830	14.51	59500	2.8	R 137 D200L4 RF 137 D200L4
115	2500	12.83	58400	3.2	
136	2100	10.79	56600	3.8	
194	1480	7.59	53300	3.5	
230	1240	6.38	51300	4.1	
73	3910	20.07	17600	1.10	
81	3550	18.21	17400	1.20	
94	3050	15.65	17100	1.40	
108	2660	13.66	16800	1.60	
127	2260	11.59	16300	1.90	
145	1970	10.13	15900	2.2	
172	1670	8.56	15400	2.6	
187	1530	7.86	15500	1.95	
221	1300	6.66	14900	2.3	
252	1140	5.82	14400	2.6	
299	960	4.92	13700	3.0	
101	2850	14.62	12000	0.80	R 97 D200L4 RF 97 D200L4
119	2420	12.39	11900	0.90	
136	2110	10.83	11800	1.00	
158	1810	9.29	12300	1.10	
175	1640	8.39	12100	1.25	
207	1390	7.12	11700	1.45	
237	1210	6.21	11400	1.55	R 97 D200L4 RF 97 D200L4
283	1010	5.20	10900	1.75	
327	880	4.50	10500	1.85	

输出转速 Output speed n_2 [1/min]	输出转矩 Output torque M_2 [N·m]	传动比 Ratio i	径向负荷 Permitted overhung load $F_{Ra}^{(1)}$ [N]	使用系数 Service factor f_B	型号 Model
37kW					
16	22400	93.19	120000	0.80	R 167 D225S4 RF 167 D225S4
18	19900	82.91	120000	0.90	
20	17700	73.70	120000	1.00	
22	16200	67.40	120000	1.10	
25	14100	58.65	120000	1.30	
28	12400	51.76	120000	1.45	
33	10800	44.87	120000	1.65	
37	9600	39.92	120000	1.90	
43	8270	34.41	120000	2.2	
53	6720	27.96	120000	2.7	
48	7380	30.71	120000	1.35	
60	5900	24.57	120000	2.4	
67	5250	21.85	120000	2.5	
77	4580	19.03	120000	3.5	
87	4080	16.98	120000	3.7	
22	16100	66.99	35000	0.80	R 147 D225S4 RF 147 D225S4
24	14700	61.09	54200	0.90	
28	12700	52.87	63200	1.00	
32	11200	46.65	65900	1.15	R 147 D225S4 RF 147 D225S4
36	9680	40.29	68200	1.35	
41	8570	35.64	69700	1.50	
49	7200	29.95	71100	1.80	
61	5810	24.19	72400	2.0	
72	4910	20.44	73000	2.4	R 147 D225S4 RF 147 D225S4
82	4340	18.04	73400	2.4	
94	3760	15.64	73700	3.5	
106	3340	13.91	73900	3.8	R 147 D225S4 RF 147 D225S4
39	9050	37.65	49400	0.90	
45	7910	32.91	53600	1.00	
53	6690	27.83	55900	1.15	
61	5800	24.12	57300	1.40	R 137 D225S4 RF 137 D225S4
67	5290	22.00	58000	1.50	
77	4580	19.04	57800	1.75	
88	4040	16.80	57300	2.0	
101	3490	14.51	56600	2.3	R 137 D225S4 RF 137 D225S4
115	3080	12.83	55800	2.6	
136	2590	10.79	54400	3.1	
169	2090	8.71	52600	3.7	
194	1820	7.59	51900	2.8	
230	1530	6.38	50100	3.3	
285	1240	5.15	47800	3.7	
73	4820	20.07	16100	0.90	R 107 D225S4 RF 107 D225S4
81	4380	18.21	16100	1.00	
94	3760	15.65	15900	1.15	
108	3280	13.66	15700	1.30	
127	2790	11.59	15400	1.55	
145	2430	10.13	15100	1.75	
172	2060	8.56	14700	2.1	
187	1890	7.86	15000	1.55	
221	1600	6.66	14400	1.85	
252	1400	5.82	14000	2.1	
299	1180	4.92	13400	2.5	
45kW					
20	21500	73.77	120000	0.85	R 167 D225M4 RF 167 D225M4
22	19700	67.40	120000	0.90	
25	17100	58.65	120000	1.05	
28	15100	51.76	120000	1.20	
33	13100	44.87	120000	1.35	R 167 D225M4 RF 167 D225M4
37	11700	39.92	120000	1.55	
43	10100	34.41	120000	1.80	
53	8170	27.96	120000	2.2	
62	693	23.71	120000	2.6	

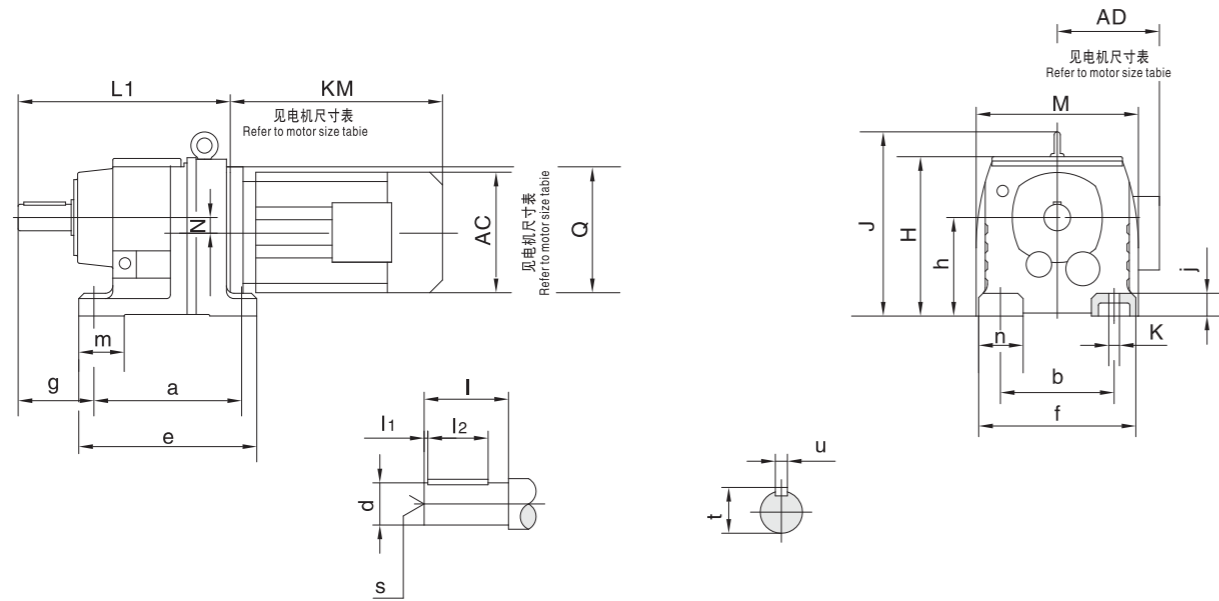
输出转速 Output speed n_2 [1/min]	输出转矩 Output torque M_2 [N·m]	传动比 Ratio i	径向负荷 Permitted overhung load $F_{Ra}^{(1)}$ [N]	使用系数 Service factor f_B	型号 Model
48	8980	30.71	120000	1.10	R 167 D225M4 RF 167 D225M4
60	7180	24.57	120000	1.95	
67	6390	21.85	120000	2.0	
77	5560	19.03	120000	2.9	
87	4960	16.98	120000	3.0	
28	15500	52.87	44400	0.85	R 147 D225M4 RF 147 D225M4
32	13600	46.65	61300	0.95	
36	11800	40.29	65000	1.10	
41	10400	35.64	67200	1.25	
49	8760	29.95	69400	1.50	
61	7070	24.19	71300	1.70	
72	5970	20.44	72200	2.0	R 147 D225M4 RF 147 D225M4
82	5270	18.04	72800	2.0	
94	4570	15.64	73200	2.8	
106	4070	13.91	73500	3.1	
123	3510	11.99	73800	3.7	
203	2120	7.25	74300	4.1	
45	9620	32.91	41700	0.85	R 137 D225M4 RF 137 D225M4
53	8130	27.83	51200	0.95	
61	7050	24.12	52400	1.15	R 137 D225M4 RF 137 D225M4
67	6430	22.00	52900	1.25	
77	5570	19.04	53300	1.45	
88	4910	16.80	53400	1.65	
101	4240	14.51	53200	1.90	R 137 D225M4 RF 137 D225M4
115	3750	12.83	52800	2.1	
136	3150	10.79	51900	2.5	
169	2550	8.71	50500	3.1	
194	2220	7.59	50200	2.3	
230	1860	6.38	48700	2.7	
285	1510	5.15	46700	3.0	
94	4580	15.65	14600	0.95	R 107 D225M4 RF 107 D225M4
108	3990	13.66	14600	1.10	
127	3390	11.59	14400	1.25	
145	2960	10.13	14300	1.45	
172	2500	8.56	14000	1.70	
187	2300	7.86	14400	1.30	
221	1950	6.66	14000	1.50	
252	1700	5.82	13600	1.75	
299	1440	4.92	13100	2.0	
25	20900	58.65	120000	0.85	
29	18400	51.76	120000	1.00	
33	16000	44.87	120000	1.15	
37	14200	39.92	120000	1.25	
43	12300	34.41	120000	1.45	
53	9960	27.96	120000	1.80	
62	8440	23.71	120000	2.1	
60	8750	24.57	120000	1.60	R 167 D250M4 RF 167 D250M4
68	7780	21.85	120000	1.65	
77	6780	19.03	120000	2.4	
87	6050	16.98	120000	2.5	R 167 D250M4 RF 167 D250M4
102	5150	14.48	120000	3.5	
123	4270	11.99	120000	4.0	
32	16600	46.65	26600	0.80	R 147 D250M4 RF 147 D250M4
37	14300	40.29	58200	0.90	
41	12700	35.64	63300	1.00	
49	10700	29.95	66800	1.20	
61	8610	24.19	69600	1.40	
72	7280	20.44	71100	1.65	R 147 D250M4 RF 147 D250M4
82	6420	18.04	71900	1.65	
94	5570	15.64	72500	2.3	
106	4950	13.91	73000	2.5	
123	4270	11.99	73400	3.0	R 147 D250M4 RF 147 D250M4
151	3470	9.74	73800	3.8	
203	2580	7.25	74200	3.4	
250	2100	5.89	72500	4.1	

输出转速 Output speed n_2 [1/min]	输出转矩 Output torque M_2 [N·m]	传动比 Ratio i	径向负荷 Permitted overhung load $F_{Ra}^{(1)}$ [N]	使用系数 Service factor f_B	型号 Model
77	6780	19.04	47800	1.20	R 137 D250M4 RF 137 D250M4
88	5980	16.80	48500	1.35	
102	5170	14.51	48900	1.55	
115	4570	12.83	49000	1.75	R 137 D250M4 RF 137 D250M4
137	3840	10.79	48800	2.1	
169	3100	8.71	48000	2.5	
194	2700	7.59	48100	1.90	
231	2270	6.38	46900	2.2	
286	1830	5.15	45200	2.5	
33	21700	44.87	120000	0.85	R 167 D280S4 RF 167 D280S4
37	19300	39.92	120000	0.95	
43	16700	34.41	120000	1.10	
53	13500	27.96	120000	1.35	
62	11500	23.71	120000	1.55	
60	11900	24.57	120000	1.20	R 167 D280S4 RF 167 D280S4
68	10600	21.85	120000	1.25	
78	9210	19.03	120000	1.75	
87	8220	16.98	120000	1.85	R 167 D280S4 RF 167 D280S4
102	7000	14.48	120000	2.6	
123	5800	11.99	116600	2.9	
145	4950	10.24	112800	3.4	
49	14500	29.95	56500	0.90	
61	11700	24.19	65100	1.00	
72	9890	20.44	67900	1.20	R 147 D280S4 RF 147 D280S4
82	8730	18.04	69500	1.20	
95	7570	15.64	70800	1.70	
106	6730	13.91	71600	1.85	
123	5800	11.99	72400	2.2	
152	4710	9.74	73100	2.8	R 147 D280S4 RF 147 D280S4
179	4000	8.26	73500	3.2	
204	3510	7.25	73100	2.5	
251	2850	5.89	70100	3.0	
296	2420	5.00	67600	3.6	
37	23200	39.92	120000	0.80	
43	20000	34.41	120000	0.90	
53	16200	27.96	120000	1.10	
62	13800	23.71	120000	1.30	

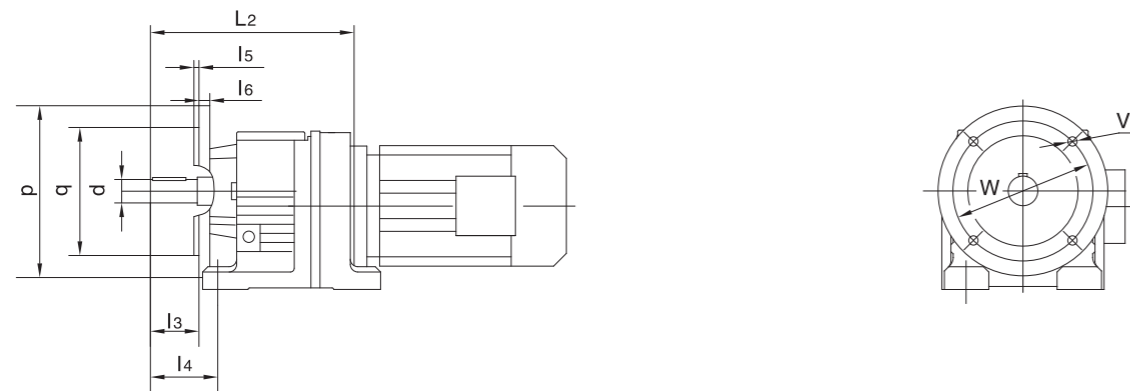
输出转速 Output speed n_2 [1/min]	输出转矩 Output torque M_2 [N·m]	传动比 Ratio i	径向负荷 Permitted overhung load $F_{Ra}^{(1)}$ [N]	使用系数 Service factor f_B	型号 Model
90kW					
60	14300	24.57	120000	1.00	R 167 D280M4 RF 167 D280M4
68	12700	21.85	120000	1.00	
78	11100	19.03	120000	1.45	
87	9860	16.98	120000	1.50	R 167 D280M4 RF 167 D280M4
102	8410	14.48	117300	2.1	
123	6960	11.99	113500	2.4	
145	5940	10.24	110100	2.9	
72	11900	20.44	64800	1.00	
82	10500	18.04	67100	1.00	
95	9080	15.64	69000	1.45	
106	8080	13.91	70200	1.55	
123	6960	11.99	71400	1.85	R 147 D280M4 RF 147 D280M4
152	5660	9.74	72500	2.3	
179	4800	8.26	73000	2.7	
204	4210	7.25	70900	2.1	
251	3420	5.89	68300	2.5	
296	2900	5.00	66100	3.0	

输出转速 Output speed n_2 [1/min]	输出转矩 Output torque M_2 [N·m]	传动比 Ratio i	径向负荷 Permitted overhung load $F_{Ra}^{(1)}$ [N]	使用系数 Service factor f_B	型号 Model
110kW					
53	19800	27.96	117100	0.90	R 167 D315S4 RF 167 D315S4
63	16800	23.71	116900	1.05	
78	13500	19.03	115500	1.20	R 167 D315S4 RF 167 D315S4
87	12000	16.98	114300	1.25	
103	10200	14.48	112200	1.75	
124	8480	11.99	109300	2.0	
145	7240	10.24	106500	2.3	
63	20100	23.71	107900	0.90	R 167 D315M4 RF 167 D315M4
78	16200	19.03	108300	1.00	
87	14400	16.98	107800	1.05	R 167 D315M4 RF 167 D315M4
103	12300	14.48	106700	1.45	
124	10200	11.99	104700	1.65	
145	8690	10.24	102600	1.95	
103	14900	14.48	99700	1.20	R 167 D315M4a RF 167 D315M4a
124	12300	11.99	98900	1.40	
145	10500	10.24	97600	1.60	

R37..~R167..



R37F..~R87F..

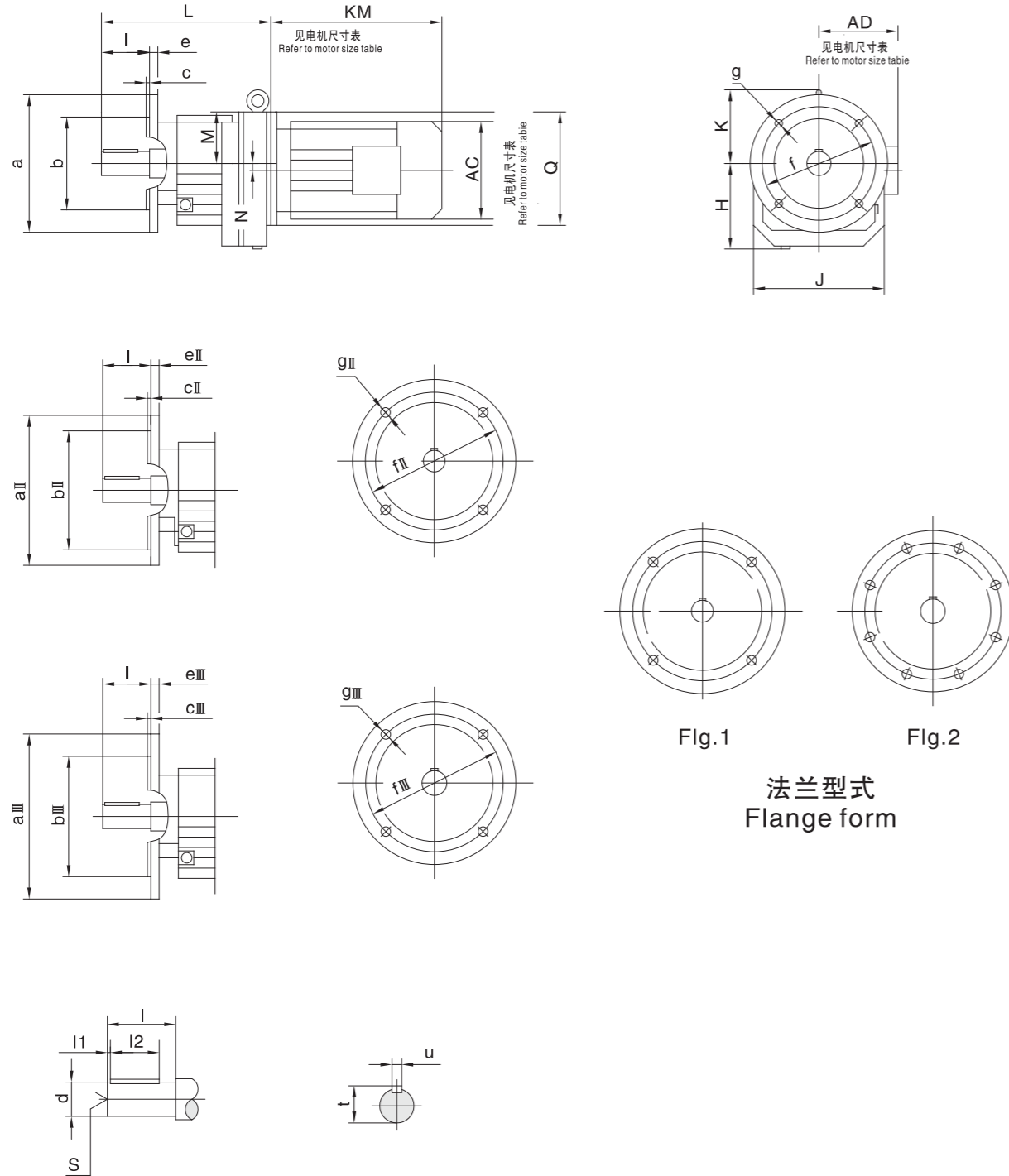


型号 size	a b	e f	g	h	j	k	m n	轴伸尺寸 Shaft dimension				
								d	l	l ₁ l ₂	S	t u
R37.. R37F..	130 110	160 145	75	90 _{-0.5}	18	9	40 35	25k6	50	3.5 40	m10	28 8
R47.. R47F..	165 135	195 170	90	115 _{-0.5}	24	13.5	50 42	30k6	60	3.5 50	m10	33 8
R57.. R57F..	165 135	200 190	100	115 _{-0.5}	24	13.5	60 55	35k6	70	7 56	m12	38 10
R67.. R67F..	195 150	235 210	100	130 _{-0.5}	30	14	60 60	35k6	70	7 56	m12	38 10
R77.. R77F..	205 170	245 230	115	140 _{-0.5}	30	17.5	60 60	40k6	80	5 70	m16	43 12
R87.. R87F..	260 215	310 290	140	180 _{-0.5}	45	17.5	90 75	50k6	100	10 80	m16	53.5 14

型号 size	法兰尺寸 flange dimension					H	J	L1	L2	M	N	Q
	P q	l ₃	l ₄	l ₅ i ₆	V w							
R37.. R37F..	120 80j6	50	81	3 8	6.6 100	151	/	201	207	145	10.1	120
R47.. R47F..	140 95j6	60	90	3 10	9 115	187	/	235	235	178	14	160
R57.. R57F..	160 110j6	70	100	3.5 10	9 130	187	/	257	257	202	11.2	160
R67.. R67F..	200 130j6	70	100	3.5 12	11 165	212	243	280	280	215	20.7	160
R77.. R77F..	250 180j6	80	115	4 15	13.5 215	228	269	300	300	235	15.9	200
R87.. R87F..	300 230j6	100	140	4 16	13.5 26.5	295	345	372	372	297	12.6	250

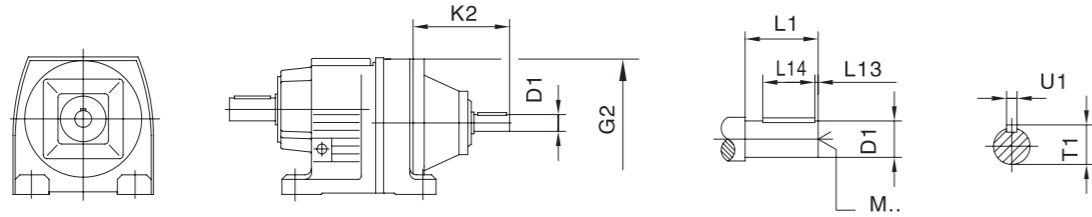
型号 size	a b	e f	g	h	j	k	m n	轴伸尺寸 Shaftdimension					H	J	L M	N	Q
								d	l	l ₁ l ₂	S	t u					
R97..	310 250	365 340	160	225 _{-0.5}	55	22	100 90	60m6	120	5 110	M20	64 18	368	418	440 348	10.2	300
R107..	370 290	440 400	185	250 _{-0.5}	65	26	125 110	70m6	140	7.5 125	M20	74.5 20	408	475	495 409	20.4	350
R137..	410 340	490 450	220	315 ₋₁	70	33	130 110	90m6	170	5 160	M24	95 25	495	562	589 458	25.1	400
R147..	500 380	590 530	260	355 ₋₁	80	39	150 150	110m6	210	15 180	M24	116 28	565	637	695 540	33.4	450
R167..	580 500	670 660	270	425 ₋₁	100	39	160 160	120m6	210	5 200	M24	127 32	675	749	790 670	59.9	550

RF37..~ RF167..



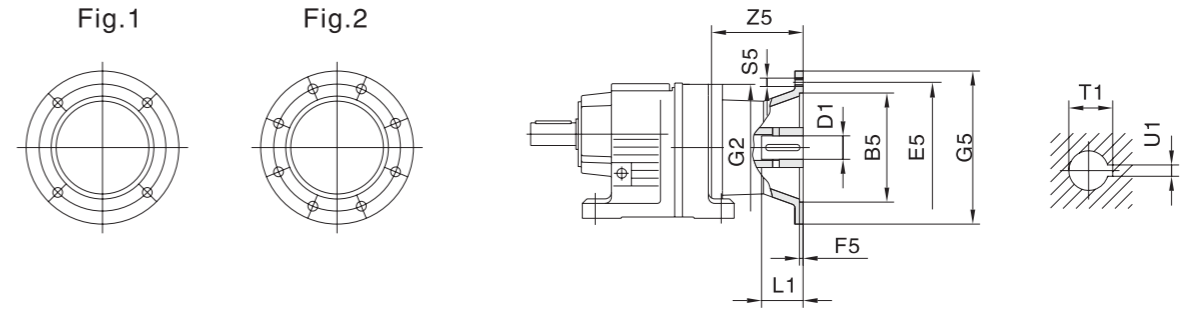
型号 size	法兰 尺寸 dimension	a aII aIII	b bII bIII	c cII cIII	e eII eIII	f fII fIII	g gII gIII	H J K	L M N	Q	轴伸尺寸 Shaftdimension				
											d	l	l ₁ l ₂	s	t u
RF37..	Flg.1	120 160 200	80j6 110j6 130j6	3 3.5 3.5	8 10 12	100 130 165	6.6 9 11	94 161 /	207 61 10.1	120	25k6	50	3.5 40	m10	28 8
RF47..	Flg.1	140 160 200	95j6 110j6 130j6	3 3.5 3.5	10 10 12	115 130 165	9 9 11	118 178 /	235 72 14	160	30k6	60	3.5 50	m10	33 8
RF57..	Flg.1	160 200 250	110j6 130j6 180j6	3.5 3.5 4	10 12 15	130 165 215	9 11 13.5	121 202 /	257 72 11.2	160	35k6	70	7 56	m12	38 10
RF67..	Flg.1	200 250 /	130j6 180j6 /	3.5 4 /	12 15 /	165 215 /	11 13.5 /	134 215 113	280 82 20.7	160	35k6	70	7 56	m12	38 10
RF77..	Flg.1	250 300 /	180j6 230j6 /	4 4 /	15 18.5 /	215 265 /	13.5 13.5 /	144 235 129	300 88 15.9	200	40k6	80	5 70	m16	43 12
RF87..	Flg.1	300 350 /	230j6 250h6 /	4 5 /	16 18 /	265 300 /	13.5 17.5 /	184 297 165	372 115 12.6	250	50k6	100	10 80	m16	53.5 14
RF97..	Flg.1 Flg.2 /	350 450 /	250h6 350h6 /	5 5 /	18 22 /	300 400 /	17.5 17.5 /	230 348 193	440 144 10.2	300	60m6	120	5 110	m20	64 18
RF107..	Flg.1 Flg.2 /	350 450 /	250h6 350h6 /	5 5 /	20 22 /	300 400 /	17.5 17.5 /	255 409 224	495 158 20.4	350	70m6	140	7.5 125	m20	74.5 20
RF137..	Flg.2	450 550 /	350h6 450h6 /	5 5 /	22 25 /	400 500 /	17.5 17.5 /	320 458 247	589 180 25.1	400	90m6	170	5 160	m24	95 25
RF147..	Flg.2	450 550 /	350h6 450h6 /	5 5 /	22 25 /	400 500 /	17.5 17.5 /	361 540 285	695 210 33.4	450	110m6	210	15 180	m24	116 28
RF167..	Flg.2	550 660 /	450h6 550h6 /	5 6 /	25 28 /	500 600 /	17.5 22 /	430 670 324	790 250 59.9	550	120m6	210	5 200	m24	127 32

R..AD..



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

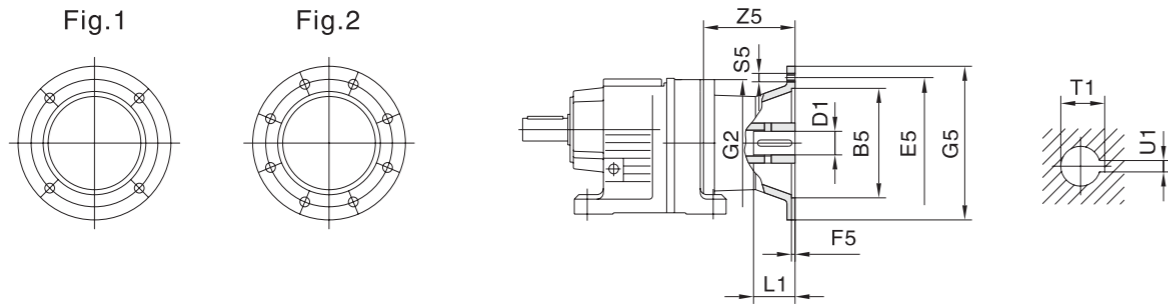
R..AM..



减速机型号 Gear unit size	联接盘规格 Motor adcopator	Fig	B5	E5	F5	G2	G5	S5	Z5	D1	L1	T1	U1			
R..47 R..57 R..67	AM63	1	95	115	3.5	160	140	M8	50	11	23	12.8	4			
	AM71		110	130			54		14	30	16.3	5				
	AM80		4.5	130	165		69	19	40	21.8	6					
	AM90			250	M12		81	28	60	31.3	8					
	AM100 ¹⁾ AM112 ¹⁾						180	215	5	24	50	27.3	8			
R..77	AM63	1	95	115	3.5	200	140	M8	54	11	23	12.8	4			
	AM71		110	130			54		14	30	16.3	5				
	AM80		4.5	130	165		60	19	40	21.8	6					
	AM90			250	M12		81	28	60	31.3	8					
	AM100 ¹⁾ AM112 ¹⁾						180	215	5	24	50	27.3	8			
	R..87		AM132S ¹⁾ AM132M ¹⁾ AM132ML ¹⁾	1	230		265	5	250	300	M12	92	38	80	41.3	10
			AM80		4.5		130	165		69		19	40	21.8	6	
AM90		250	M12			81	28	60		31.3		8				
AM100					5	180	215	81		28	60	31.3	8			
AM112		250	M12			92	38	80		41.3	10					
AM132S AM132M AM132ML AM160 ¹⁾ AM180 ¹⁾					250	300	6	350		M16	125	42 48	110	45.3 51.8	12 14	
R..97	AM100	1	180	215	5	300	250	M12	81	28	60	31.3	8			
	AM112		230	265			M12		92	38	80	41.3	10			
	AM132S AM132M AM132ML							230	265	5	300	M12	92	38	80	41.3
	AM160		6	250	300		6	350	M16	125	42 48	110	45.3 51.8	12 14		
	AM180			7	300		350	7		400	M16	144	55	110	59.3	16
	AM200		2		350		400	7	450	M16		159	60	140	64.4	18
	AM225 ¹⁾															

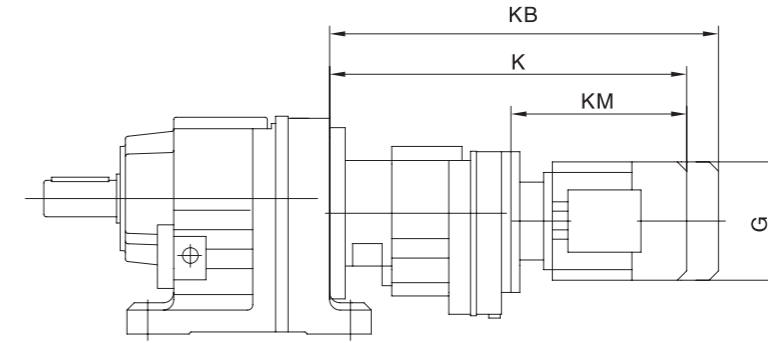
1) 如果安装在 R 系列底脚安装方式的减速机上, 请检查尺寸 G5/2, 它可能已突出平面
Dimension G5/2 May protrude past foot mounting surface if mounted on R foot - mounted gear unit, please check.

R..AM..



减速机型号 Gear unit size	联接盘规格 Motor adcopator	Fig	B5	E5	F5	G2	G5	S5	Z5	D1	L1	T1	U1
R..107	AM100	1	180	215	5	350	250	M12	81	28	60	31.3	8
	AM112												
	AM132S												
	AM132M												
	AM132ML	2	230	265	6	350	300	M16	92	38	80	41.3	10
	AM160												
	AM180												
	AM200												
AM225	2	250	300	7	400	400	M16	124	42	110	45.3	12	
AM132M													
AM132ML													
AM160													
R..137	AM132S	1	230	265	5	400	300	M12	92	38	80	41.3	10
	AM132M												
	AM132ML												
	AM160												
	AM180	2	250	300	6	400	350	M16	124	42	110	45.3	12
	AM200												
	AM225												
	AM250												
R..147	AM132S	1	230	265	5	450	300	M12	92	38	80	41.3	10
	AM132M												
	AM132ML												
	AM160												
	AM180	2	250	300	6	450	400	M16	144	55	140	59.3	16
	AM200												
	AM225												
	AM250												
AM280	2	300	350	7	550	450	M16	159	60	140	64.4	18	
AM225													
AM250													
AM280													
R..167	AM160	1	250	300	6	550	350	M16	124	42	110	45.3	12
	AM180												
	AM200												
	AM225												
	AM250	2	300	350	7	550	400	M16	144	55	140	59.3	16
	AM225												
	AM250												
	AM280												

R..R..



减速机型号 Gear unit size	电机规格 Motor type	G	K	KB	KM
R..47R37 R..57R37 R..67R37	D63..	155	400	457	235
	D71D	155	401	465	236
	D80..	155	451	515	286
R..77R37	D63..	155	392	449	235
	D71D	155	393	457	236
	D80..	155	443	507	286
	D90..	210	443	528	286
R..87R57	D63..	155	445	502	229
	D71D	155	445	509	229
	D80..	155	495	559	279
R..97R57	D90..	210	495	580	279
	D63..	155	440	497	229
	D71D	155	440	504	229
	D80..	155	490	554	279
	D90..	210	490	575	279
	D100M	210	540	625	329
	D100L	210	560	645	249
	D63..	155	470	527	223
	D71D	155	470	534	223
	D80..	155	520	584	273
D90..	210	518	603	271	
R..107R77	D100M	210	568	653	321
	D100L	210	588	673	341
	D112M	240	602	682	355
	D132S	240	647	727	400
	D132M	285	699	811	452
	D132ML	285	719	831	472
	D160M	330	749	861	502
	D63..	155	463	520	223
	D71D	155	463	527	223
	D80..	155	513	577	273
	D90..	210	511	596	271
	D100M	210	561	646	321
	D100L	210	581	666	341
	D112M	240	595	675	355
D132S	240	640	720	400	
D132M	285	692	804	452	
132ML	285	712	824	472	
D160M	330	742	854	502	

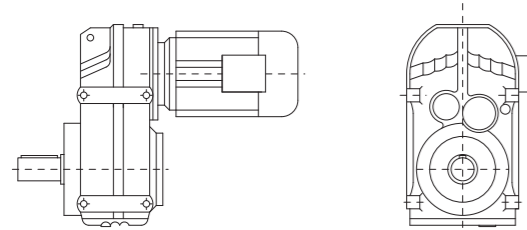
减速机型号 Gear unit size	电机规格 Motor type	G	K	KB	KM
R..147R77	D90..	210	503	588	271
	D100M	210	553	638	321
	D100L	210	573	658	341
	D112M	240	587	667	355
	D132S	240	632	712	400
	D132M	285	684	796	452
	D132ML	285	704	816	472
	D160M	330	734	846	502
	D90..	210	547	632	267
	D100M	210	597	682	317
R..147R87	D100L	210	617	702	337
	D112M	240	630	710	350
	D132S	240	675	755	395
	D132M	285	727	839	447
	D132ML	285	747	859	467
	D160M	330	777	889	497
	D160L	330	824	980	544
	D180..	380	896	1052	616
	D80..	155	586	650	261
	D90..	210	586	671	261
R..167R97	D100M	210	636	721	311
	D100L	210	656	741	331
	D112M	240	670	750	345
	D132S	240	715	795	390
	D132M	285	767	879	442
	D132ML	285	787	899	462
	D160M	330	817	929	492
	D160L	330	864	1020	539
	D180..	380	936	1092	611
	D100M	210	687	772	305
	D100L	210	707	792	325
	D112M	240	721	801	339
	D132S	240	766	846	384
	D132M	285	818	930	436
D132ML	285	838	950	456	
D160M	330	868	980	486	
D160L	330	915	1071	533	
D180..	380	988	1143	605	
D200..	420	1075	1231	693	
D225..	470	1107	1263	725	

注: 上表中电机尺寸为参考尺寸, 因空间限制对尺寸有严格要求时请向我公司咨询。
Notes: The dimension of motor in the above table is only for reference. If you have special require, please consult us.

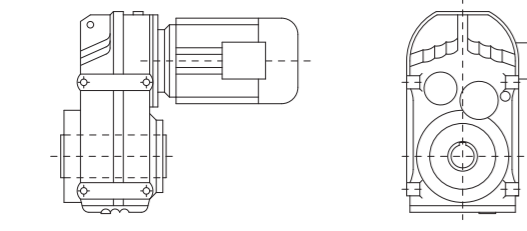
6. F 平行轴 – 斜齿轮减速电机 F Parallel shaft – Helical Geared Motor

6.1 设计方案 6.1 Versions of geared motors

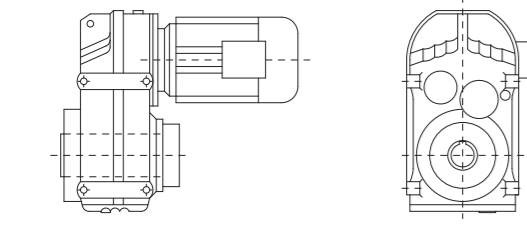
平行轴装式斜齿轮减速电机有以下设计方案：
The following types of Parallel Shaft – Helical Geared Motor can be supplied:



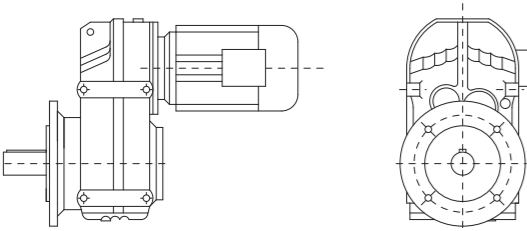
F..D..
底脚安装平行轴-斜齿轮减速电机
Solid shaft
Rail mount with tapped holes



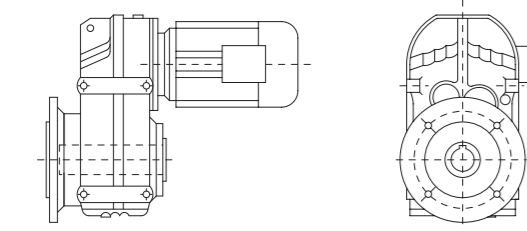
FA..B D..
底脚空心轴安装平行轴-斜齿轮减速机
Hollow shaft with key
Rail mount with tapped holes



FV..B D..
底脚花键空心轴安装平行轴-斜齿轮减速机
Splined hollow shaft
Rail mount with tapped holes



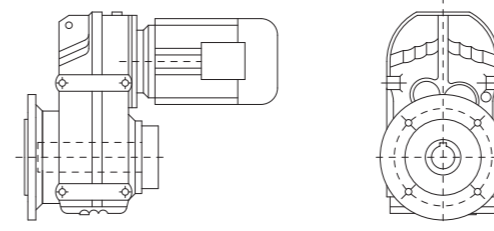
FH..B D..
底脚空心轴锁紧盘安装平行轴-斜齿轮减速电机
Shrink disk hollow shaft
Rail mount with tapped holes



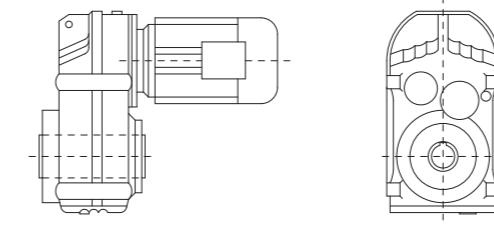
FF..D..
B5 法兰安装平行轴-斜齿轮减速电机
Solid shaft
Flange mounted(D&B5 style flange with through holes)

FAF..D..
B5 法兰空心轴安装平行轴-斜齿轮减速电机
Hollow shaft with key
Flange mount(D&B5 style flange with through holes)

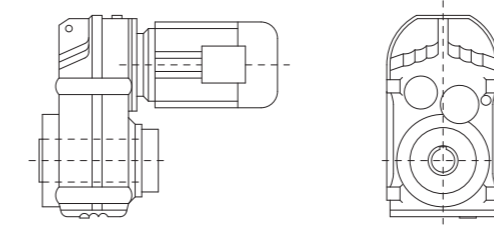
FVF..D..
B5 法兰花键空心轴安装平行轴-斜齿轮减速电机
Hollow shaft with key
Flange mount(D&B5 style flange with through holes)



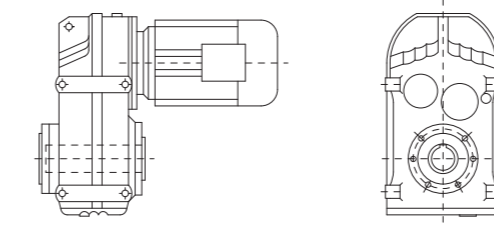
FHF..D..
B5 法兰空心轴锁紧盘安装平行轴-斜齿轮减速电机
Shrink disk hollow shaft
Flange mount(D&B5 style flange with through holes)



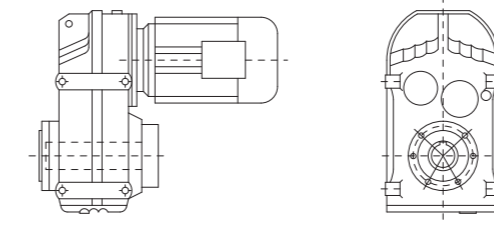
FA..D..
空心轴安装平行轴-斜齿轮减速机
Hollow shaft with key
Shaft mount



FV..D..
花键空心轴安装平行轴-斜齿轮减速机
Splined hollow shaft
Shaft mount



FH..D..
空心轴锁紧盘安装平行轴-斜齿轮减速电机
Shrink disk hollow shaft
Shaft mount



FAZ..D
B14 法兰空心轴安装平行轴-斜齿轮减速电机
Hollow shaft with key
Face mount(D&B14 style flange with tapped holes)

FVZ..D
B14 法兰花键空心轴安装平行轴-斜齿轮减速电机
Hollow shaft with key
Face mount(D&B14 style flange with tapped holes)

FHZ..D
B14 法兰空心轴锁紧盘安装平行轴-斜齿轮减速电机
Shrink disk hollow shaft
Face mount(D&B14 style flange with tapped holes)

6.2 可行的组合方式 6.2 Type of combination

以下是平行轴-斜齿轮减速机与交流(带制动)电机的组合列表。表中给出了每种组合的速比范围。
The below is combination table between gear box and electro motor in each list the ratio range.

减速机型号 Gear unit size	级 Stages	D63 D71	D80	D90	D100	D112	D132S	D132M
F/FF/FA/FAF37	2	4.22-7.44 8.97-23.63	3.77-23.63	3.77-20.57	3.77-6.74 8.01-14.33 17.03			
F/FF/FA/FAF37	3	23.88-128.51	23.88-100.36	23.88-51.70 58.32-86.53	23.88-31.69 38.31 51.70 58.32 70.50			
F/FF/FA/FAF47	2	6.34-8.96 13.93-30.86	4.99-30.86	4.99-30.86	4.99-25.72			
F/FF/FA/FAF47	3	28.88-190.76	28.88-150.06	28.88-130.07	28.88-56.49 68.09-105.09			
F/FF/FA/FAF57	2	6.58-9.31 13.52-40.13	5.18-34.24	5.18-29.94	5.18-24.96	5.18-21.17		
F/FF/FA/FAF57	3	30.15-199.70	30.15-157.09	30.15-136.16	30.15-58.97 83.46-110.01	30.15-50.10 83.46-93.47		
F/FF/FA/FAF67	2	7.53-9.08 18.29-36.30	5.95-9.08 14.46-36.30	3.97-36.30	3.97-32.08	3.97-27.41	3.97-22.05	3.97-22.05
F/FF/FA/FAF67	3	43.20-228.99	34.01-195.39	34.01-170.85	34.01-142.40	34.01-67.65 90.59-120.79	34.01-53.73 90.59-95.94	34.01-53.73 90.59-95.94
F/FF/FA/FAF77	2	21.43-36.58	8.26-9.30 17.49-36.58	5.76-9.30 12.20-36.58	4.28-36.58	4.28-31.51	4.28-25.50	4.28-25.50
F/FF/FA/FAF77	3	48.37-72.50 94.93-281.71	38.23-225.79	25.54-198.31	25.54-166.47	25.54-142.27	25.54-58.32 75.02-114.45	25.54-58.32 75.02-114.45
F/FF/FA/FAF87	2		23.68-33.92	7.35-8.29 17.12-33.92	5.63-8.29 13.12-33.92	5.63-8.29 13.12-33.92	4.12-33.92	4.12-33.92
F/FF/FA/FAF87	3		109.49-270.68	39.30-50.36 76.39-270.68	29.20-228.93	29.20-197.20	29.20-159.61	29.20-159.61
F/FF/FA/FAF97	2			9.06 22.11-43.28	7.07-9.06 17.25-43.28	7.07-9.06 17.25-43.28	4.57-43.28	4.57-43.28
F/FF/FA/FAF97	3			58.06-72.29 80.31 89.85-97.58 112.99-276.77	44.49-72.29 80.31-276.77	44.49-72.29 80.31-276.77	32.50-223.88	32.50-223.88
F/FF/FA/FAF107	2				21.76-33.79	21.76-33.79	7.40-9.69 14.67-33.79	7.40-9.69 14.67-33.79
F/FF/FA/FAF107	3				58.12-83.99 92.47-254.40	58.12-83.99 92.47-254.40	37.61-254.40	37.61-254.40
F/FF/FA/FAF127	2							7.88-8.86 14.55-26.86
F/FF/FA/FAF127	3							37.28-170.83

续表 Continued

减速机型号 Gear unit size	级 Stages	D132ML	D160M	D160L	D180	D200
F/FF/FA/FAF77	2	4.28-19.70	4.28-19.70			
F/FF/FA/FAF77	3	25.54-43.58	25.54-43.58			
F/FF/FA/FAF87	2	4.12-26.50	4.12-26.50	4.12-26.50	4.12-21.32	
F/FF/FA/FAF87	3	29.20-123.29	29.20-123.29	29.20-123.29	29.20-50.36	
F/FF/FA/FAF97	2	4.57-33.91	4.57-33.91	4.57-33.91	4.57-27.44	4.57-22.11
F/FF/FA/FAF97	3	32.50-89.85 102.16-174.87	32.50-89.85 102.16-174.87	32.50-89.85 102.16-174.87	32.50-75.63 86.59 102.16-140.71	32.50-58.06 75.63 86.59 102.16-112.99
F/FF/FA/FAF107	2	6.22-9.69 12.33-33.79	6.22-9.69 12.33-33.79	6.22-9.69 12.33-33.79	6.22-33.79	6.22-27.57
F/FF/FA/FAF107	3	31.80-199.31	31.80-199.31	31.80-199.31	31.80-161.28	31.80-74.52 88.49 101.38-129.97
F/FF/FA/FAF127	2	6.80-8.86 12.54-26.86	6.80-8.86 12.54-26.86	6.80-8.86 12.54-26.86	5.52-26.86	4.68-26.86
F/FF/FA/FAF127	3	31.33-170.83	31.33-170.83	31.33-170.83	25.30-153.67	25.30-125.37
F/FF/FA/FAF157	2		16.85-53.55	16.85-53.55	13.96-43.94	11.92-35.75
F/FF/FA/FAF157	3		40.06-267.43	40.06-267.43	32.55-217.62	27.60-178.20

减速机型号 Gear unit size	级 Stages	D225	D250M	D280	D315	D315M-A/B
F/FF/FA/FAF107	2	6.22-27.57				
F/FF/FA/FAF107	3	31.80-74.52 88.49 101.38-129.97				
F/FF/FA/FAF127	2	4.68-26.86	4.68-21.38	4.68-21.38		
F/FF/FA/FAF127	3	25.30-125.37	25.30-55.31 75.41-98.95	25.30-55.31 75.41-98.95		
F/FF/FA/FAF157	2	11.92-35.75	11.92-28.60	11.92-28.60	11.92-22.16	11.92-16.85
F/FF/FA/FAF157	3	27.60-178.20	27.60-68.28 96.53-141.80	27.60-68.28 96.53-141.80	27.60-52.24 96.53-108.49	27.60-40.06

6.3 速比与最大扭矩
6.3 Ratio and Max.Torque

F37-57 $n_e=1400$ 1/min

F37		200Nm		
i	n_a [1/min]	M_{amax} [Nm]	F_{Ra} [N]	AD
3-stage				
128.51	11	200	4290	AD ₁
117.88	12	200	4290	
100.36	14	200	4290	
86.53	16	200	4290	
80.65	17	200	4290	
70.50	20	200	4290	
66.09	21	200	4290	
58.32	24	200	4290	
54.54	26	200	4290	
51.70	27	200	4290	
2-stage				
47.02	30	200	4290	AD ₂
43.83	32	200	4290	
38.31	37	200	4290	
35.91	39	200	4290	
31.69	44	200	4290	
28.09	50	200	4060	
23.88	59	200	3760	
23.63	59	200	3740	
20.57	68	200	3500	
19.27	73	200	3390	
17.03	82	200	3180	
15.81	89	200	3070	
14.33	98	200	2910	
12.87	109	200	2750	
11.08	126	190	2620	
10.42	134	185	2580	
8.97	156	175	2460	
8.01	175	170	2360	
7.44	188	145	2350	
6.74	208	140	2270	
6.05	231	135	2190	
5.21	269	125	2120	
4.90	286	120	2100	
4.22	332	110	2030	
3.77	372	105	1970	

F47		400Nm		
i	n_a [1/min]	M_{amax} [Nm]	F_{Ra} [N]	AD
3-stage				
190.76	7.3	400	5920	AD ₁
175.38	8.0	400	5920	
150.06	9.3	400	5920	
130.07	11	400	5920	
121.57	12	400	5920	
105.09	13	400	5920	
89.29	16	400	5920	
79.72	18	400	5920	
68.09	21	400	5920	
65.36	21	400	5920	
2-stage				
56.49	25	400	5920	AD ₂
48.00	29	400	5920	
42.86	33	400	5920	
36.61	38	400	5920	
34.29	41	400	5920	
28.88	48	400	5790	
30.86	45	400	5920	
29.32	48	400	5830	
25.72	54	400	5470	
21.82	64	400	5030	
19.70	71	400	4770	
17.33	81	400	4450	
16.36	86	400	4320	
13.93	100	400	3950	
12.66	111	400	3740	
10.97	128	400	3440	
8.96	156	330	3250	
7.88	178	380	2630	
7.44	188	380	2530	
6.34	221	350	2470	
5.76	243	340	2390	
4.99	281	320	2310	

F57		600Nm		
i	n_a [1/min]	M_{amax} [Nm]	F_{Ra} [N]	AD
3-stage				
199.70	7.0	600	8200	AD ₂
183.60	7.6	600	8200	
157.09	8.9	600	8200	
136.16	10	600	8200	
127.27	11	600	8200	
110.01	13	600	8200	
93.47	15	600	8200	
83.46	17	600	8200	
72.98	19	600	8200	
68.22	21	600	8200	
2-stage				
40.13	35	290	9710	AD ₂
34.24	41	500	8670	
29.94	47	545	7890	
28.45	49	535	7760	
24.96	56	575	7060	
21.17	66	600	6350	
19.11	73	600	6020	
16.81	83	600	5620	
15.88	88	600	5450	
13.52	104	600	4980	
12.29	114	600	4710	
10.64	132	600	4320	
9.31	150	420	4760	
8.19	171	420	4450	
7.73	181	420	4310	
6.58	213	420	3940	
5.98	234	420	3730	
5.18	270	415	3460	

F67-87 $n_e=1400$ 1/min

F67		820Nm		
i	n_a [1/min]	M_{amax} [Nm]	F_{Ra} [N]	AD
3-stage				
228.99	6.1	820	10300	AD ₂
195.39	7.2	820	10300	
170.85	8.2	820	10300	
162.31	8.6	820	10300	
142.40	9.8	820	10300	
120.79	12	820	10300	
109.04	13	820	10300	
95.94	15	820	10300	
90.59	15	820	10300	
79.76	18	820	10300	
2-stage				
36.30	39	820	10300	AD ₂
32.08	44	820	10300	
27.41	51	820	10300	
25.13	56	820	10300	
22.05	63	820	10300	
20.90	67	820	10300	
18.29	77	820	10300	
16.48	85	820	10300	
14.46	97	820	10300	
12.76	110	820	10300	
2-stage				
9.66	145	820	10300	AD ₃
9.08	154	530	11400	
8.60	163	570	10900	
7.53	186	610	10100	
6.78	206	620	9660	
5.95	235	610	9200	
5.25	267	590	8850	
4.66	300	560	8590	
3.97	353	500	8390	

F77		1500Nm		
i	n_a [1/min]	M_{amax} [Nm]	F_{Ra} [N]	AD
3-stage				
281.71	5.0	1500	15700	AD ₂
262.93	5.3	1500	15700	
225.79	6.2	1500	15700	
198.31	7.1	1500	15700	
188.40	7.4	1500	15700	
166.47	8.4	1500	15700	
142.27	9.8	1500	15700	
130.42	11	1500	15700	
114.45	12	1500	15700	
108.46	13	1500	15700	
2-stage				
43.58	32	1500	15700	AD ₃
38.23	37	1500	15700	
33.74	41	1500	15700	
29.91	47	1500	15700	
25.54	55	1450	16100	
36.58	38	1110	17900	
31.51	44	1380	16500	
28.75	49	1430	16200	
25.50	55	1500	15700	
21.43	65	1500	15700	
2-stage				
19.70	71	1500	15700	AD ₄
17.49	80	1500	15700	
15.64	90	1500	15700	
14.06	100	1500	15700	
12.20	115	1500	14900	
10.93	128	1500	14200	
9.30	151	1080	13800	
8.26	169	1080	13100	
7.39	189	1080	12500	
6.64	211	1080	12000	
2-stage				
5.76	243	1080	11300	AD ₄
5.16	271	1080	10700	
4.28	327	1010	10200	

F87		3000Nm		
i	n_a [1/min]	M_{amax} [Nm]	F_{Ra} [N]	AD
3-stage				
270.68	5.2	3000	19800	AD ₂
255.37	5.5	3000	19800	
228.93	6.1	3000	19800	
197.20	7.1	3000	19800	
179.97	7.8	3000	19800	
159.61	8.8	3000	19800	
134.16	10	3000	19800	
123.29	11	3000	19800	
109.49	13	3000	19800	
97.89	14	3000	19800	
2-stage				
88.01	16	3000	19800	AD ₃
76.39	18	3000	19800	
68.40	20	3000	19600	
56.75	25	3000	17700	
50.36	28	2940	16800	
45.28	31	2820	16200	
39.30	36	2720	15400	
35.19	40	2610	14900	
29.20	48	2510	13800	
2-stage				
33.92	41	2610	14600	AD ₄
28.78	49	2450	13900	
26.50	53	3000	11100	
23.68	59	3000	10300	
21.32	66	3000	9530	
19.31	73	3000	8840	
17.12	82	3000	8040	
15.48	90	3000	7390	
13.12	107	3000	6370	
11.46	122	3000	5580	
2-stage				
9.58	146	2880	5050	AD ₅
8.29	169	1530	8890	
7.35	190	1530	8280	
6.65	211	1530	7790	
5.63	248	1530	7020	
4.92	284	1530	6430	
4.12	340	1460	5980	

F97-127 $n_e=1400$ 1/min

F97		4300Nm					
i	n_a [1/min]	M_{amax} [Nm]	F_{Ra} [N]	AD			
3-stage							
276.77	5.1	4300	29900	AD ₃			
253.41	5.5	4300	29900				
223.88	6.3	4300	29900				
189.92	7.4	4300	29900				
174.87	8.0	4300	29900				
156.30	9.0	4300	29900				
140.71	9.9	4300	29900				
127.42	11	4300	29900				
112.99	12	4300	29900				
102.16	14	4300	29900				
97.58	14	4300	29900				
89.85	16	4300	29900				
86.59	16	4300	29900	AD ₄			
80.31	17	4300	29900				
75.63	19	4300	29900				
72.29	19	4300	29900				
65.47	21	4300	29900				
58.06	24	4300	27200				
52.49	27	4300	25800				
44.49	31	4300	23600				
38.86	36	4300	21900	AD ₄			
32.50	43	4300	19800				
2-stage							
43.28	32	3070	27600	AD ₄			
36.64	38	3070	25500				
33.91	41	4300	20300	AD ₅			
30.39	46	4300	19000				
27.44	51	4300	17900				
24.92	56	4300	16800				
22.11	63	4300	15600				
20.07	70	4300	14600				
17.25	81	4300	13200				
15.06	93	4300	11900				
12.77	110	4300	10500			AD ₆	
11.16	125	4100	10000				
9.06	154	2360	13600				
8.22	170	2360	12800				
7.07	198	2360	11700				
6.17	227	2250	11200				
5.23	268	2150	10600				
4.57	306	2050	10100				

F107		7840Nm					
i	n_a [1/min]	M_{amax} [Nm]	F_{Ra} [N]	AD			
3-stage							
254.40	5.5	7680	49800	AD ₃			
215.37	6.5	7680	49800				
199.31	7.0	7680	49800				
178.64	7.8	7680	49800				
161.28	8.7	7680	49800				
146.49	9.6	7680	49800				
129.97	11	7680	49800				
117.94	12	7680	49800				
101.38	14	7680	49800			AD ₄	
92.47	15	7680	49800				
88.49	16	7680	49800				
83.99	17	7680	49800				
74.52	19	7680	49800				
67.62	21	7680	49800				
58.12	24	7680	47800				
50.73	28	7680	45100				
43.03	33	7680	42000	AD ₅			
37.61	37	7680	39500				
31.80	44	7680	36500				
2-stage							
33.79	41	7400	38300	AD ₆			
27.57	51	7840	33700				
25.14	56	7840	32200				
21.76	64	7840	30000				
19.20	73	7840	28100				
16.58	84	7840	26000				
14.67	95	7680	24700				
12.33	114	7000	24300				
9.96	141	6500	22900				
9.69	144	4910	25400				
8.37	167	4800	24000				
7.40	189	4600	23200				
6.22	225	4600	21100				

F127		12000Nm					
i	n_a [1/min]	M_{amax} [Nm]	F_{Ra} [N]	AD			
3-stage							
170.83	8.2	12000	90000	AD ₄			
153.67	9.1	12000	90000				
125.37	11	12000	90000				
114.34	12	12000	88000				
98.95	14	12000	83000				
87.31	16	12000	78900				
75.41	19	12000	74300				
70.07	20	12000	72100			AD ₅	
63.91	22	12000	69400				
55.31	25	12000	65300				
48.80	29	12000	61800				
42.15	33	12000	57900			AD ₆	
37.28	38	12000	54800				
31.33	45	12000	50600	AD ₇			
25.30	55	12000	45700				
2-stage							
26.86	52	8500	55300	AD ₆			
24.57	57	8500	53300				
21.38	65	12000	42000	AD ₈			
18.87	74	11000	41900				
16.36	86	11000	39000				
14.55	96	11000	36200				
12.54	112	10000	36400				
10.19	137	9500	34000				
8.86	158	7000	36400				
7.88	178	6000	37000				
6.80	206	7000	32200				
5.52	254	6000	31700				
4.68	299	6000	29500				

F157 $n_e=1400$ 1/min

F157		18000Nm					
i	n_a [1/min]	M_{amax} [Nm]	F_{Ra} [N]	AD			
267.43	5.2	18000	100300	AD ₅			
217.62	6.4	18000	100300				
178.20	7.9	18000	100300				
162.96	8.6	18000	100300				
141.80	9.9	18000	100300				
125.14	11	18000	100300				
108.49	13	18000	100300				
96.53	15	18000	100300				
85.80	16	18000	95700				
78.46	18	18000	92300				
68.28	21	18000	87000				
60.25	23	18000	82500				
52.24	27	18000	77500			AD ₆	
46.48	30	18000	73600			AD ₇	
40.06	35	18000	68900				
32.55	43	18000	62500	AD ₈			
27.60	51	18000	57800				
2-stage							
53.55	26	8000	98300	AD ₅			
43.94	32	10000	87800	AD ₆			
35.75	39	11000	79300				
28.60	49	17000	60800	AD ₈			
25.43	55	15000	61500				
22.16	63	18000	51800				
19.77	71	17000	50900				
16.85	83	18000	44900				
13.96	100	17000	42500				
11.92	117	16000	40900				

F127R77, F127/R87, F157R97

$n_e=1400$ 1/min

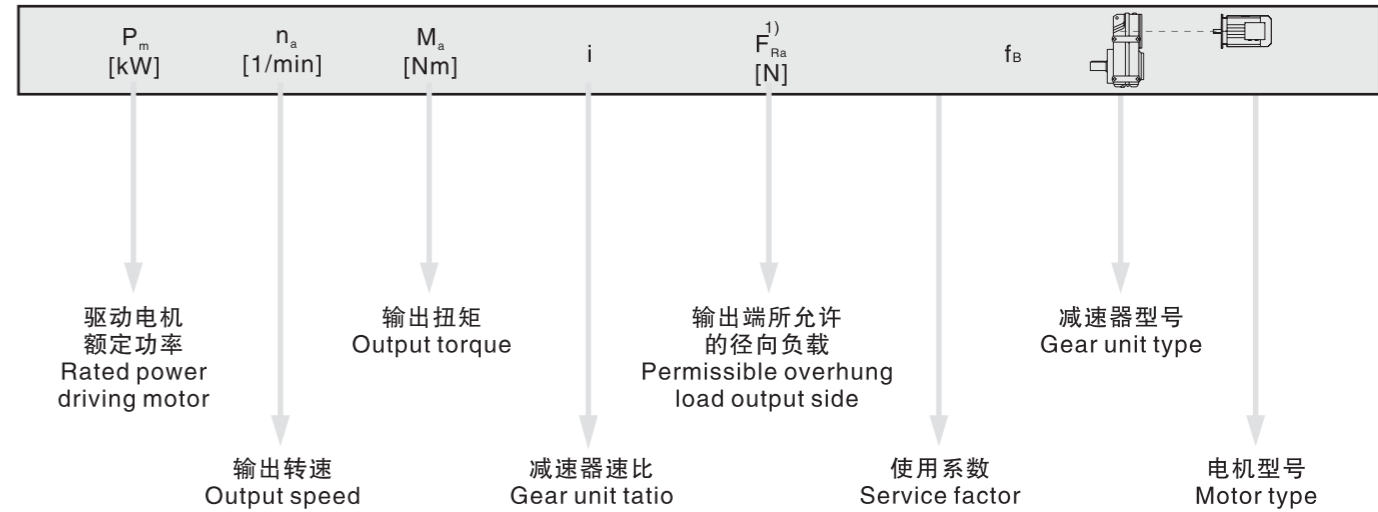
F127R77		12000Nm	
i	n_a [1/min]	M_{amax} [Nm]	F_{Ra} [N]
24478	0.06	12000	90000
22323	0.06	12000	90000
19048	0.07	12000	90000
16656	0.08	12000	90000
14722	0.10	12000	90000
12912	0.11	12000	90000
11656	0.12	12000	90000
10191	0.14	12000	90000
8831	0.16	12000	90000
7643	0.18	12000	90000
6715	0.21	12000	90000
5925	0.24	12000	90000
5153	0.27	12000	90000
4533	0.31	12000	90000
3926	0.36	12000	90000
3454	0.41	12000	90000
3031	0.46	12000	90000
2672	0.52	12000	90000
2357	0.59	12000	90000
2038	0.69	12000	90000
1784	0.78	12000	90000
1606	0.87	12000	90000
1390	1.0	12000	90000
1220	1.1	12000	90000
1077	1.3	12000	90000
930	1.5	12000	90000
820	1.7	12000	90000
727	1.9	12000	90000
648	2.2	12000	90000
549	2.6	12000	90000
495	2.8	12000	90000
428	3.3	12000	90000
376	3.7	12000	90000

F127R87		12000Nm	
i	n_a [1/min]	M_{amax} [Nm]	F_{Ra} [N]
483	2.9	12000	90000
418	3.3	12000	90000
374	3.7	12000	90000
312	4.5	12000	90000
293	4.8	12000	90000
259	5.4	12000	90000
223	6.3	12000	90000
198	7.1	12000	90000
166	8.4	12000	90000

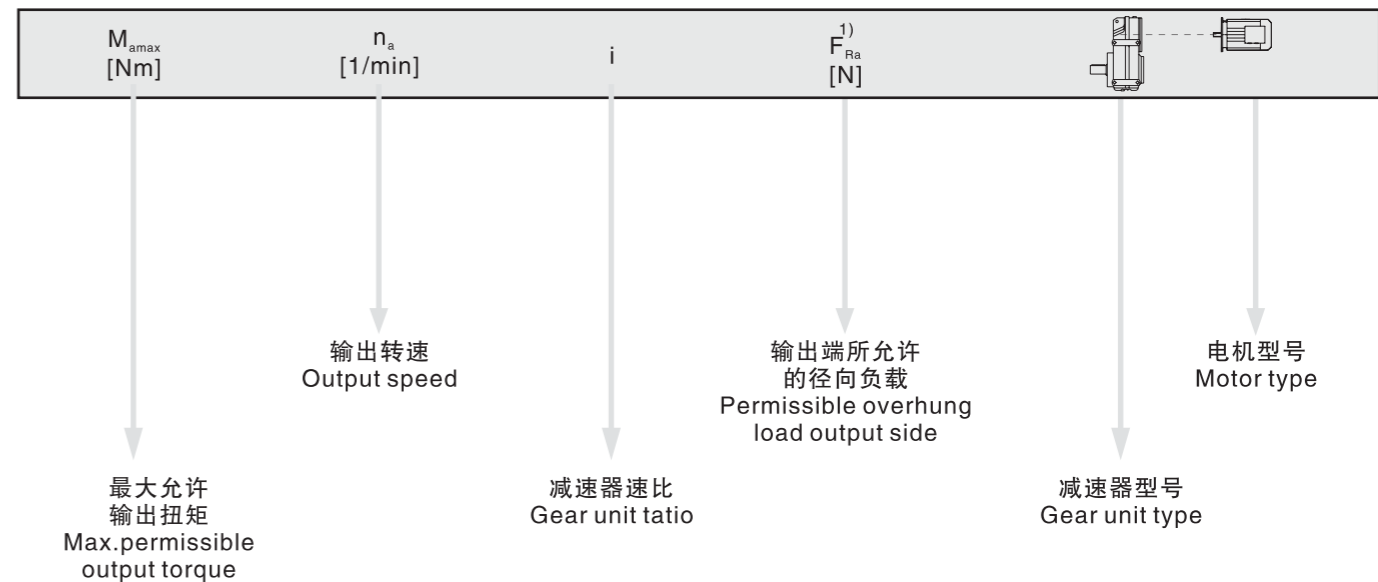
F157R97		18000Nm	
i	n_a [1/min]	M_{amax} [Nm]	F_{Ra} [N]
31434	0.04	18000	100300
26173	0.05	18000	100300
23464	0.06	18000	100300
20212	0.07	18000	100300
17984	0.08	18000	100300
16358	0.09	18000	100300
13751	0.10	18000	100300
12235	0.11	18000	100300
10033	0.14	18000	100300
9021	0.16	18000	100300
8026	0.17	18000	100300
7075	0.20	18000	100300
6295	0.22	18000	100300
5404	0.26	18000	100300
4831	0.29	18000	100300
4130	0.34	18000	100300
3607	0.39	18000	100300
3210	0.44	18000	100300
2780	0.50	18000	100300
2427	0.58	18000	100300
2185	0.64	18000	100300
1944	0.72	18000	100300
1674	0.84	18000	100300
1441	0.97	18000	100300
1308	1.1	18000	100300
1169	1.2	18000	100300
953	1.5	18000	100300
845	1.7	18000	100300
764	1.8	18000	100300
680	2.1	18000	100300
576	2.4	18000	100300
503	2.8	18000	100300
446	3.1	18000	100300
353	4.0	18000	100300
302	4.6	18000	100300
273	5.1	18000	100300
232	6.0	18000	100300
202	6.9	18000	100300
197	7.1	18000	100300

6.4 选型表注释
6.4 Selection table

选型表的结构
Selection table for geared motors



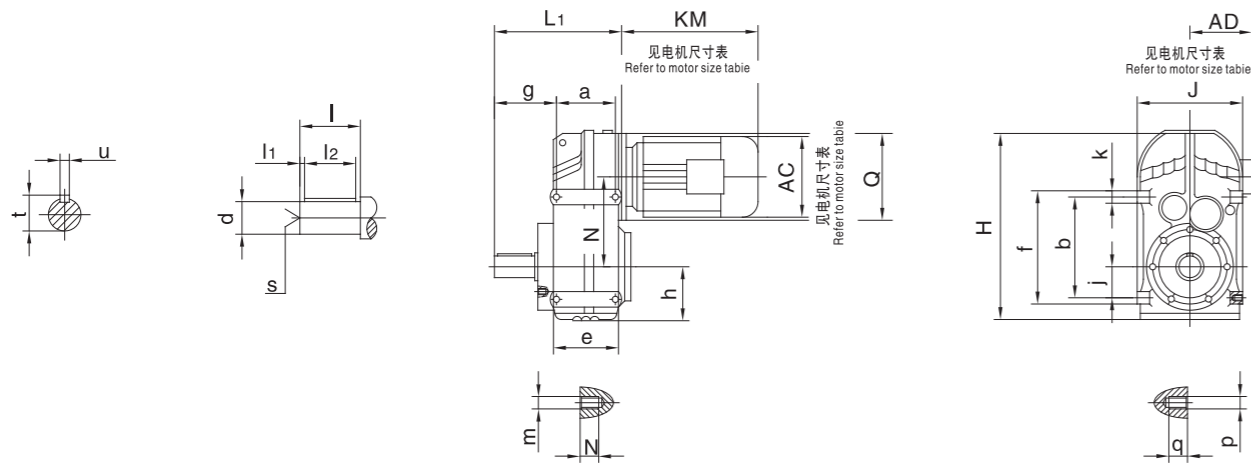
对于特殊低输出转速
For particularly low output speeds



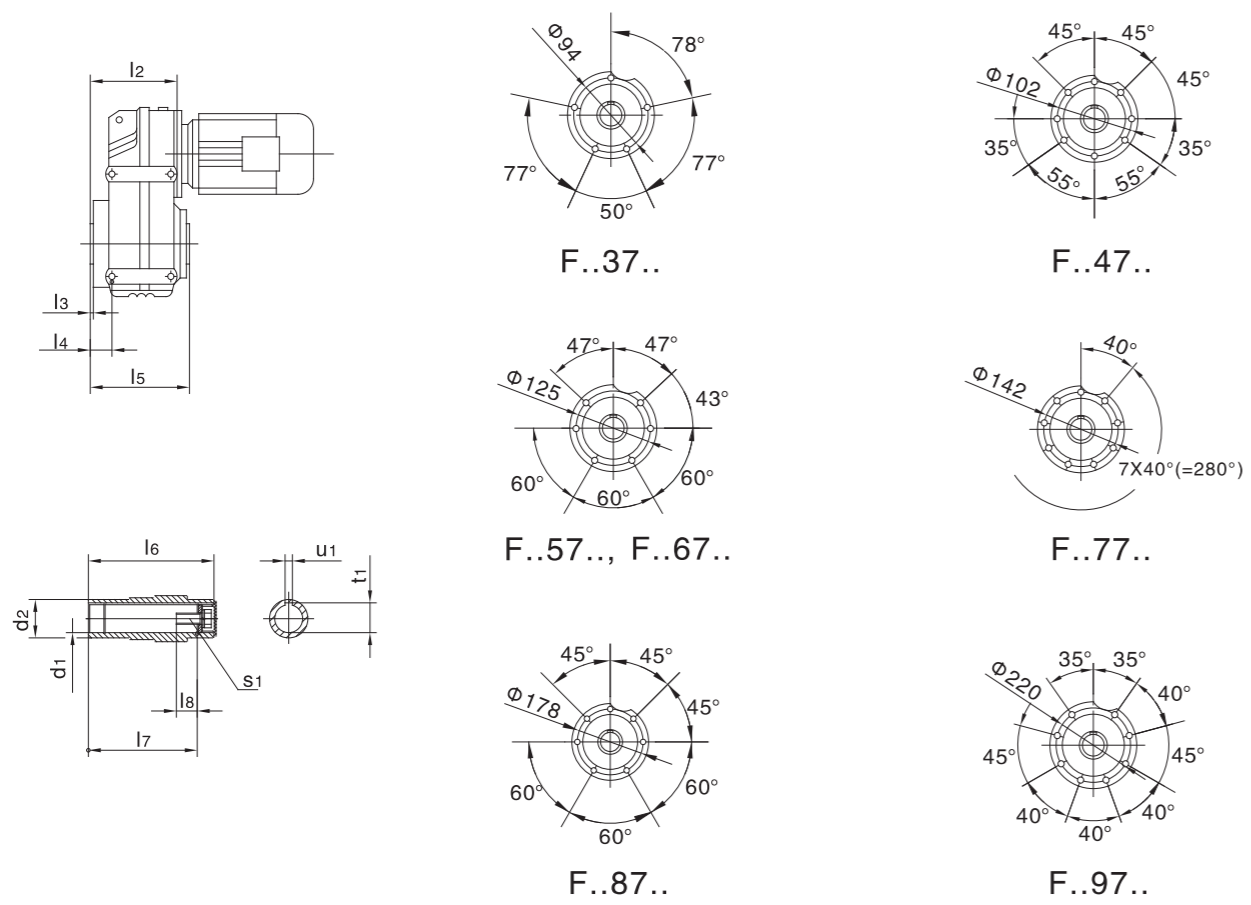
图例 Cuttine
※ 也可用于EEXe 电机。※EEXE motor is optional.
1) 实心轴底脚安装减速机的径向负荷
1) Overhung load specified for foot-mounted gear unit with solid shaft

注意: Notice:
对于特殊低输出转速驱动(多级减速电机), 电机功率必须与减速机的最大允许输出地扭矩相对应。
In drives for particularly low output speeds (multi-stage geared motor), the motor power must belimited according to maximum permitted output torque of the gear unit.

F37..~F157..



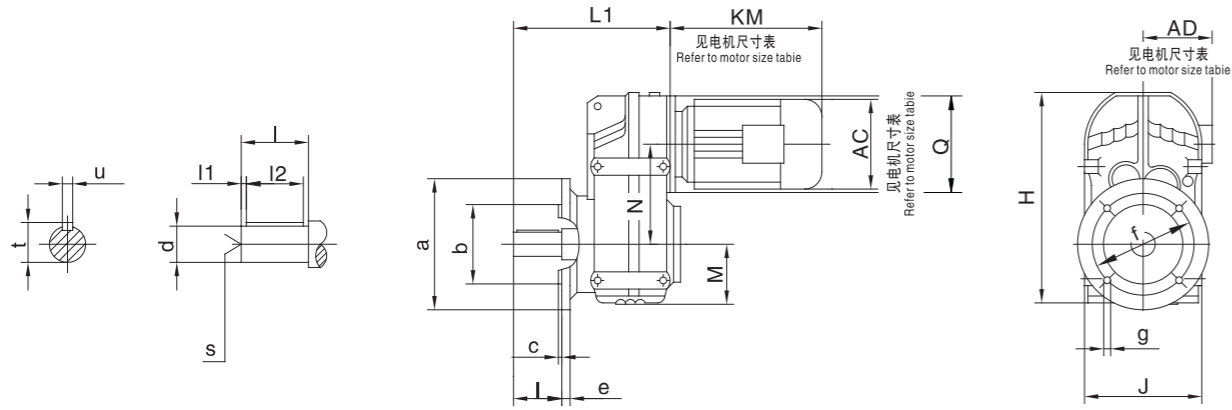
FA37B..~FA157B..



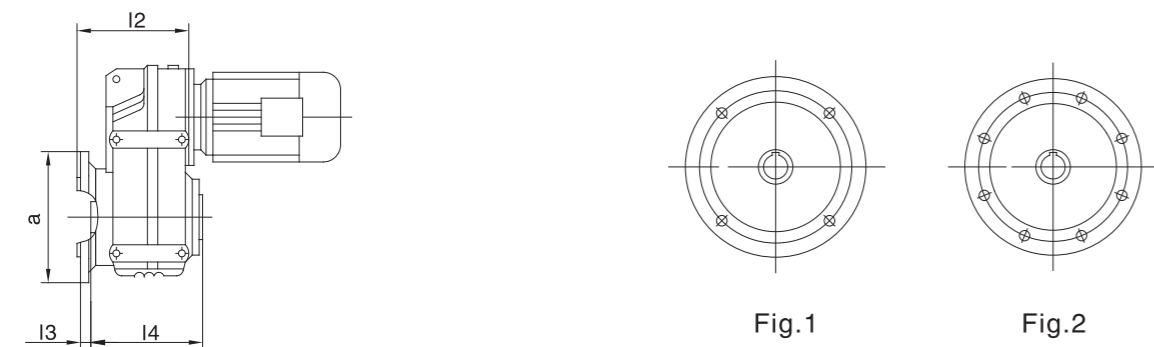
型号 size	a b	e f	g	h	j	k	m n	P q	轴伸尺寸 Shaft dimension				
									d	l	l1 l2	S	t u
F37.. FA37B..	77 115	95 135	72.5	76	31	20	M8 11	M8 11	25k6	50	5 40	M10	28 8
F47.. FA47B..	93 145	109 165	91	77	43	20	M8 11	M10 15	30k6	60	3.5 50	M10	33 8
F57.. FA57B..	102 170	126 195	104.5	93	55	25	M12 17	M12 17	35k6	70	7 56	M12	38 10
F67.. FA67B..	1121 190	131 215	118.5	97	60	25	M12 17	M12 17	40k6	80	5 70	M16	43 12
F77.. FA77B..	140 240	165 275	137.5	121	70	35	M12 17	M16 26	50k6	100	10 80	M16	53.5 14
F87.. FA87B..	165 310	195 350	163	152	100	40	M16 26	M16 26	60m6	120	5 110	M20	64 18
F97.. FA97B..	205 350	240 400	190.5	178	120	50	M16 26	M20 28	70m6	140	7.5 125	M20	74.5 20
F107.. FA107B..	220 400	260 460	241.5	200	125	60	/ /	M24 36	90m6	170	5 160	M24	95 25
F127.. FA127B..	270 450	316 520	291	236	142	70	/ /	M30 45	110m6	210	15 180	M24	116 28
F157.. FA157B..	310 540	364 620	325	286	170	80	/ /	M36 55	120m6	210	5 200	M24	127 32

型号 Model	空心轴尺寸 Hollow shaft dimension								HJ	L1	L2	N	Q
	d1	d2	l3 l4	l5	l6 l7	l8	s1	t1 u1					
F37.. FA37B..	30H7	45	2.5 22.5	123	120 105	17	M10X25	33.3 8	252 165	160	110	112	120
F47.. FA47B..	35H7	50	3 31	153	150 132	22	M10X25	38.3 10	269 180	193	133	128.1	120
F57.. FA57B..	40H7	55	3 33.5	170	166 142	29	M16X40	43.3 12	317 200	221	150	136	160
F67.. FA67B..	40H7	55	3.5 37	184	180 156	29	M16X40	43.3 12	343 212	242	161	159.5	160
F77.. FA77B..	50H7	70	4 36.5	213	210 183	32	M16X45	53.8 14	426 270	294	193	200	200
F87.. FA87B..	60H7	85	4 43	243	240 210	36	M20X50	64.4 18	531 330	344	224	246.7	250
F97.. FA97B..	70H7	95	4 48.5	303	300 270	34	M20X50	74.9 20	623 400	416	274	285	300
F107.. FA107B..	90H7	118	2.5 69.5	353	350 313	40	M24X60	95.4 25	717 450	484	312	332.4	350
F127.. FA127B..	100H7	135	2.5 79.25	413	410 373	38	M24X60	106.4 28	856 530	585	373	382.6	450
F157.. FA157B..	120H7	155	7 118	503	500 460	36	M24X60	127.4 32	1021 660	662	455	447	550

FF37..~ FF157..



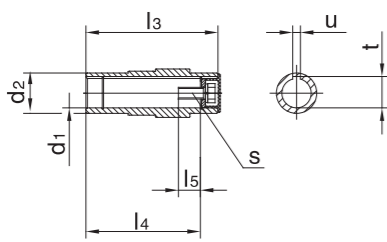
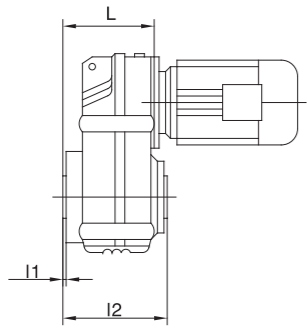
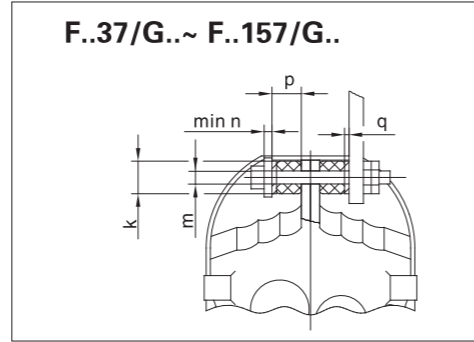
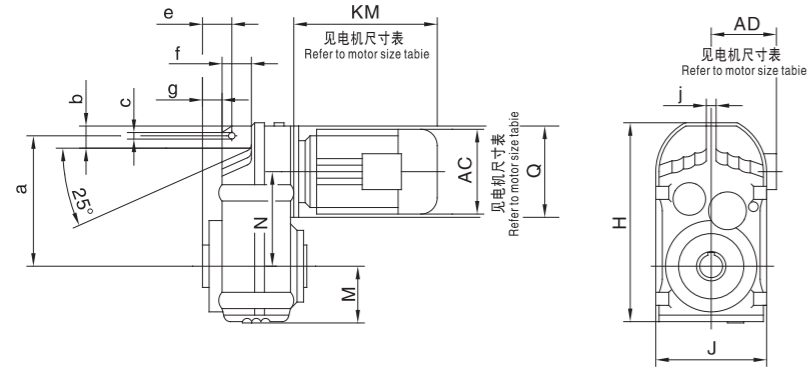
FAF37..~ FAF157



法兰型式
flange form

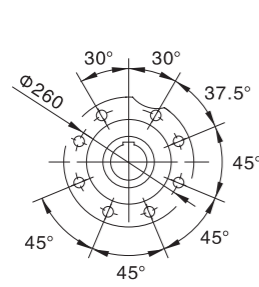
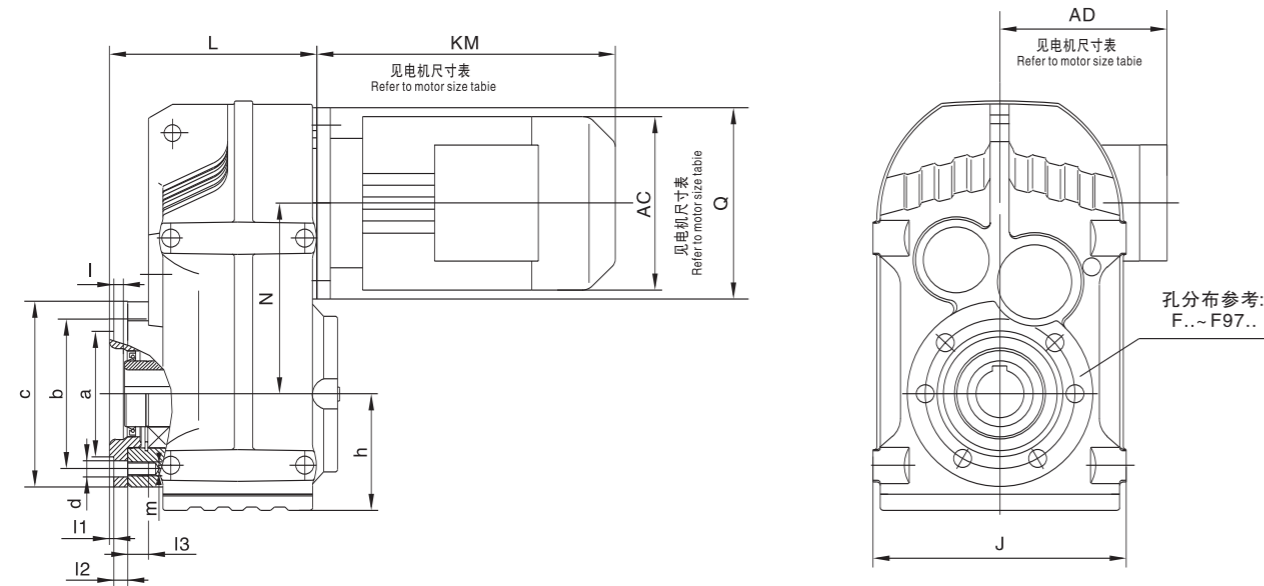
型号 Model	法兰 型式 flange form	a b	c e	f g	轴伸尺寸 Shaft dimension				空心轴尺寸 Hollow Shaft dimension					H J	L1 L2	M N Q
					d l	l1 l2	s	t u	d1 d2	l3 l4	l5 l6	l7 l8	t1 u1			
FF37.. FAF37..	Flg.1	160	3.5	130	25k6	5	M10	28	30H7	24	120	17	33.3	252	184	76
		110j6	10	9	50	40		8	45	123	105	M10X25	8	165	138	112 120
FF47.. FAF47..	Flg.1	200	3.5	165	30k6	3.5	M10	33	35H7	25	150	22	38.3	269	218	77
		130j6	12	11	60	50		8	50	153	132	M10X25	10	180	162	128.1 120
FF57.. FAF57..	Flg.1	250	4	215	35k6	7	M12	38	40H7	23.5	166	29	43.3	317	243	93
		180j6	15	13.5	70	56		10	55	170	142	M16X40	12	200	177	136 160
FF67.. FAF67..	Flg.1	250	4	215	40k6	5	M16	43	40H7	23	180	29	43.3	343	264	97
		180j6	15	13.5	80	70		12	55	184	156	M16X40	12	212	188	159.5 160
FF77.. FAF77..	Flg.1	300	4	265	50k6	10	M16	53.5	50H7	37	210	32	53.8	426	330	121
		230h6	16	13.5	100	80		14	70	213	183	M16X45	14	270	234	200 200
FF87.. FAF87..	Flg.1	350	5	300	60m6	5	M20	64	60H7	30	240	36	64.4	531	374	152
		250h6	18	17.5	120	110		18	85	243	210	M20X50	18	330	259	246.7 250
FF97.. FAF97..	Flg.2	450	5	400	70m6	7.5	M20	74.5	70H7	41.5	300	34	74.9	623	456	178
		350h6	22	17.5	140	125		20	95	303	270	M20X50	20	400	321	285 300
FF107.. FAF107..	Flg.2	450	5	400	90m6	5	M24	95	90H7	41	350	40	95.4	717	523	200
		350h6	22	17.5	170	160		25	118	353	313	M24X60	25	450	358	332.4 350
FF127.. FAF127..	Flg.2	550	5	500	110m6	15	M24	116	100H7	51	410	38	106.4	856	643	236
		450h6	25	17.5	210	180		28	135	413	373	M24X60	28	530	426	382.6 450
FF157.. FAF157..	Flg.2	660	6	600	120m6	5	M24	127	120H7	60	500	36	127.4	1021	725	286
		550h6	28	22	210	200		32	155	503	460	M24X60	32	660	521	447 550

FA37..~ FA157..

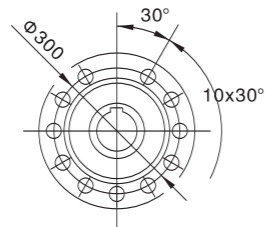


型号 Model	a b	c e	f g	空心轴尺寸 Hollow Shaft dimension					扭矩臂尺寸 Torque arm form		H J j	L	M	N Q
				d1 d2	l1 l2	l3 l4	l5 s	t u	k m n	p q				
FA37.. F..37/G..	158	14	46	30H7	0.5	120	17	33.3	40	20	252	110	76	112
	30	31.5	15	45	123	105	M10X25	8	12.5	1	172			120
FA47.. F..47/G..	170	14	64	35H7	1	150	22	38.3	40	20	269	133	77	128.1
	22	32	12	50	153	132	M10X25	10	12.5	1.8	189			120
FA57.. F..57/G..	198	14	60	40H7	1	166	29	43.3	40	20	317	150	93	136
	31	40.5	19.5	55	170	142	M16X40	12	12.5	2.4	210			160
FA67.. F..67/G..	218	14	65	40H7	1	180	29	43.3	40	20	343	161	97	159.5
	40	41	21	55	184	156	M16X40	12	12.5	3	223			160
FA77.. F..77/G..	278	22	69	50H7	1	210	32	53.8	60	30	426	193	121	200
	49	50	28	70	213	183	M16X45	14	21	3.2	282			200
FA87.. F..87/G..	346	22	79	60H7	1	240	36	64.4	60	30	531	224	152	246.7
	57	62	32	85	243	210	M20X50	18	21	4.5	336			250
FA97.. F..97/G..	395	26	104	70H7	1	300	34	74.9	80	40	623	274	178	285
	88	70	34	95	303	270	M20X50	20	25	5	414			300
FA107.. F..107/G..	485	26	100	90H7	2.5	350	40	95.4	80	40	717	312	200	332.4
	108	88	57	118	353	313	M24X60	25	25	6	456			350
FA127.. F..127/G..	550	33	125	100H7	2.5	410	38	106.4	100	60	856	373	236	382.6
	138	110	66	135	413	373	M24X60	28	32	9	530			450
FA157.. F..157/G..	660	33	140	120H7	7	500	36	127.4	120	60	1021	455	286	447
	170	150	98	155	503	460	M24X60	32	120	9	660			550

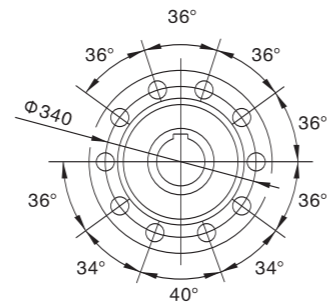
FAZ37..~ FAZ157..



FAZ107..



FAZ127..

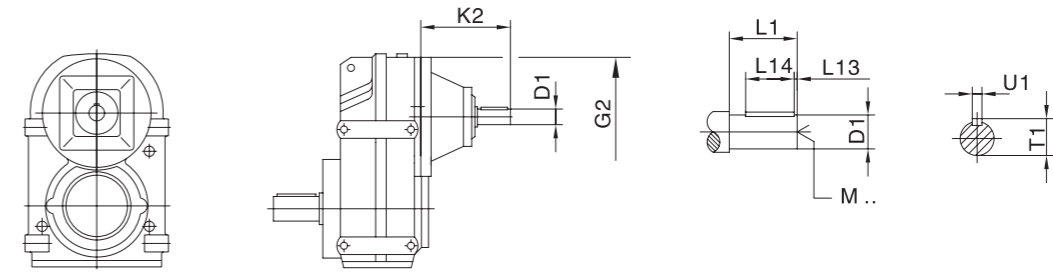


FAZ157..

孔分布参考:
F..~ F97..

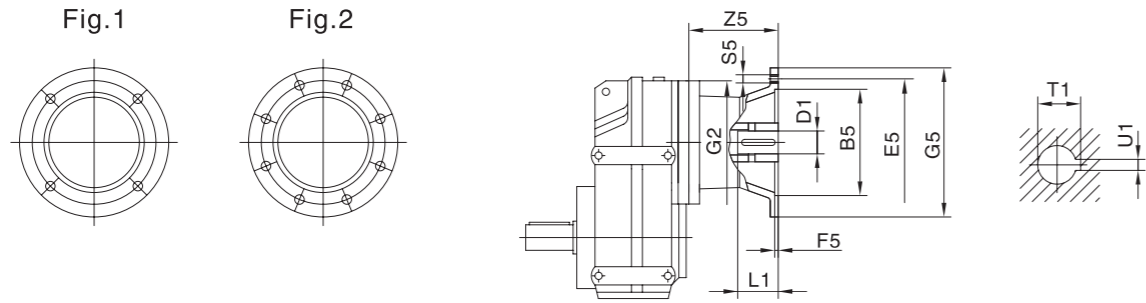
型号 Model	a	b	c	d	h	J	L	l	l1	l2	l3	m	N	Q
FAZ37..	80j6	94	110	9	76	165	122	9	3	11.5	11	M8	112	120
FAZ47..	80j6	102	120	9	77	180	144	8	3	11	11	M8	128.1	120
FAZ57..	105j6	125	155	13.5	93	200	162	9	3.5	12	17	M12	136	160
FAZ67..	105j6	125	155	13.5	97	212	173	8.5	3.5	12	17	M12	159.5	160
FAZ77..	125j6	142	170	13.5	121	270	206	10	3.5	14	17	M12	200	200
FAZ87..	155j6	178	215	17.5	152	330	239	11	4	15	26	M16	246.7	250
FAZ97..	180j6	220	260	17.5	178	400	292	14	4	18	26	M16	285	300
FAZ107..	210j6	260	304	22	200	450	312	8	4	22	28	M20	332.4	350
FAZ127..	250j6	300	350	22	236	530	377.5	5	5	30	28	M20	382.6	450
FAZ157..	290j6	340	400	26	286	660	455	14	5	28	36	M24	447	550

F..AD



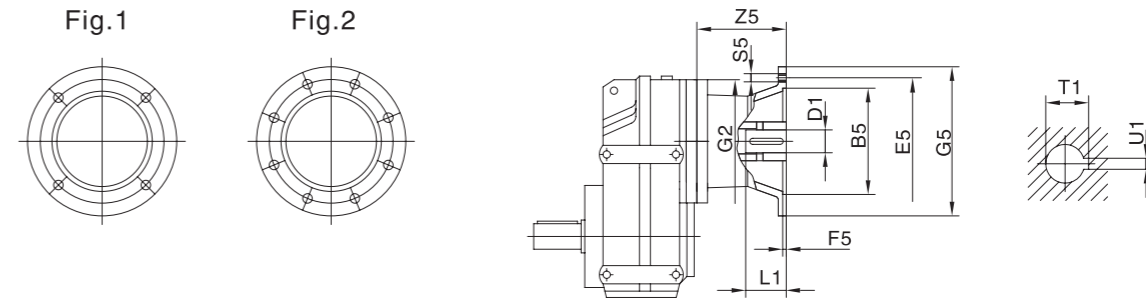
减速机型号 Gear unit size	联接盘规格 Motor adcopator	G2	K2	D1	L1	L13	L14	T1	U1	M
F..37 F..47	AD1	120	102	16	40	4	32	18	5	M5
	AD2		130	19	40	4	32	21.5	6	M6
F..57 F..67	AD2	160	123	19	40	4	32	21.5	6	M6
	AD3		159	24	50	5	40	27	8	M8
F..77	AD2	200	116	19	40	4	32	21.5	6	M6
	AD3		151	24	50	5	40	27	8	M8
	AD4		224	38	80	5	70	41	10	M12
F..87	AD2	250	111	19	40	4	32	21.5	6	M6
	AD3		156	28	60	5	50	31	8	M10
	AD4		219	38	80	5	70	41	10	M12
	AD5		292	42	110	10	70	45	12	M16
F..97	AD3	300	151	28	60	5	50	31	8	M10
	AD4		214	38	80	5	70	41	10	M12
	AD5		287	42	110	10	70	45	12	M16
	AD6		327	48	110	10	80	51.5	14	M16
F..107	AD3	350	145	28	60	5	50	31	8	M10
	AD4		208	38	80	5	70	41	10	M12
	AD5		281	42	110	10	70	45	12	M16
	AD6		321	48	110	10	80	51.5	14	M16
F..127	AD4	450	193	38	80	5	70	41	10	M12
	AD5		266	42	110	10	70	45	12	M16
	AD6		306	48	110	10	80	51.5	14	M16
	AD7		300	55	110	10	90	59	16	M20
F..157	AD8	550	383	70	140	15	110	74.5	20	M20
	AD5		258	42	110	10	70	45	12	M16
	AD6		298	48	110	10	80	51.5	14	M16
	AD7		292	55	110	10	90	59	16	M20
	AD8		374	70	140	15	110	74.5	20	M20

F..AM



减速机型号 Gear unit size	联接盘规格 Motor adcopator	Fig	B5	E5	F5	G2	G5	S5	Z5	D1	L1	T1	U1
F..37 F..47	AM63	1	95	115	3.5	120	140	M8	50	11	23	12.8	4
	AM71 ¹⁾		110	130			54		14	30	16.3	5	
	AM80 ¹⁾		130	165	4.5		200	M10	69	19	40	21.8	6
	AM90 ¹⁾						24		50	27.3	8		
F..57 F..67	AM63	1	95	115	3.5	160	140	M8	50	11	23	12.8	4
	AM71		110	130			54		14	30	16.3	5	
	AM80		130	165	4.5		200	M10	69	19	40	21.8	6
	AM90						24		50	27.3	8		
	AM100 ¹⁾		180	215	5		250	M12	81	28	60	31.3	8
	AM112 ¹⁾						250		M12	81	28	60	31.3
F..77	AM63	1	95	115	3.5	200	140	M8	50	11	23	12.8	4
	AM71		110	130			54		14	30	16.3	5	
	AM80		130	165	4.5		200	M10	69	19	40	21.8	6
	AM90						24		50	27.3	8		
	AM100 ¹⁾		180	215	5		250	M12	81	28	60	31.3	8
	AM112 ¹⁾						250		M12	81	28	60	31.3
	AM132S ¹⁾		230	265	5		300	M12	92	38	80	41.3	10
	AM132M ¹⁾						300		M12	92	38	80	41.3
AM132ML ¹⁾	230	265	5	300	M12	92	38	80	41.3	10			
F..87	AM80	1	130	165	4.5	250	200	M10	69	19	40	21.8	6
	AM90						24		50	27.3	8		
	AM100		180	215	5		250	M12	81	28	60	31.3	8
	AM112						250		M12	81	28	60	31.3
	AM132S		230	265	5		300	M12	92	38	80	41.3	10
	AM132M						300		M12	92	38	80	41.3
	AM132ML		250	300	6		350	M16	125	42	110	45.3	12
	AM160 ¹⁾						48		51.8	14			
AM180 ¹⁾	250	300	6	350	M16	125	42	110	45.3	12			
F..97	AM100	1	180	215	5	300	250	M12	81	28	60	31.3	8
	AM112						250		M12	81	28	60	31.3
	AM132S		230	265	5		300	M12	92	38	80	41.3	10
	AM132M						300		M12	92	38	80	41.3
	AM132ML		250	300	6		350	M16	125	42	110	45.3	12
	AM160						48		51.8	14			
	AM180		300	350	7		400	M16	144	55	140	59.3	16
	AM200						159		60	64.4		18	
AM225 ¹⁾	2	350	400	7	450	M16	159	60	140	64.4	18		

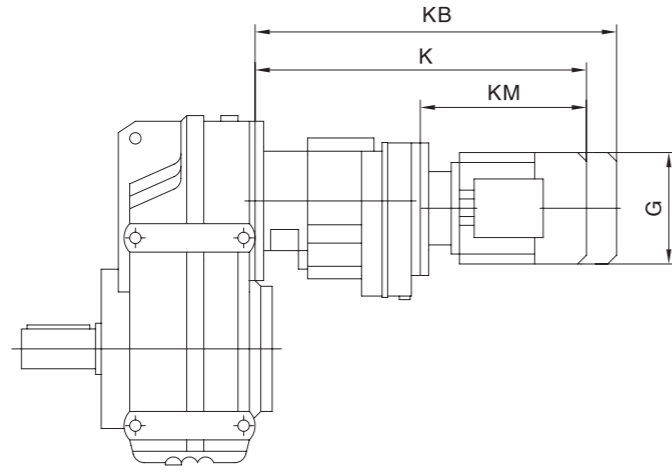
F..AM



减速机型号 Gear unit size	联接盘规格 Motor adcopator	Fig	B5	E5	F5	G2	G5	S5	Z5	D1	L1	T1	U1					
F..107	AM100	1	180	215	5	350	250	M12	81	28	60	31.3	8					
	AM112						300							92	38	80	41.3	10
	AM132S		230	265	6		350	M16	124	42	110	45.3	12					
	AM132M						48		51.8	14								
	AM160		250	300	7		400	M16	144	55	140	59.3	16					
	AM180						159		60	64.4		18						
	AM200		300	350	7		450	M16	159	60	140	64.4	18					
AM225	2	350				400	7		450	M16		159	60	140	64.4	18		
F..127	AM132S	1	230	265	5	450	300	M12	92	38	80	41.3	10					
	AM132M						350							124	42	110	45.3	12
	AM132ML						48							51.8	14			
	AM160	250	300	6	400		M16	144	55	140	59.3	16						
	AM180				159			60	64.4		18							
	AM200	300	350	7	450		M16	159	60	140	64.4	18						
	AM225				2			350	400		7	450	M16	159	60	140	64.4	18
	AM250	450	500	7	550		M16	180	65	140	69.4	18						
	AM280				75			79.9	20									
	F..157	AM160	1	250	300		6	550	350	M16	124	42	110	45.3	12			
AM180		48				51.8			14									
AM200		300	350	7	400	M16	144		55	140	59.3	16						
AM225					159		60		64.4		18							
AM250		450	500	7	550	M16	180		65	140	69.4	18						
AM280					75		79.9		20									

1) 如果安装在 F 系列底脚安装方式的减速机上, 请检查尺寸 G5/2, 它可能已 突出平面。
Dimension G5/2 May protrude past foot mounting surface if mounted on F foot - mounted gear unit, please check.

F..R..



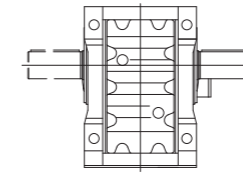
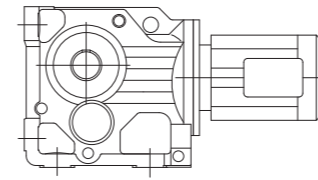
减速机型号 Gear unit size	电机规格 Motor type	G	K	KB	KM
F..57R37	D63..	155	400	457	235
	D71D	155	401	465	236
	D80..	155	451	515	286
F..67R37	D63..	155	401	457	235
	D71D	155	401	465	236
	D80..	155	451	515	286
	D90..	210	451	536	286
F..77R37	D63..	155	392	449	235
	D71D	155	393	457	236
	D80..	155	443	507	286
	D90..	210	443	528	286
F..87R57	D63..	155	445	502	229
	D71D	155	445	509	229
	D80..	155	495	559	279
	D90..	210	495	580	279
	D100M	210	545	630	329
F..97R57	D100L	210	565	650	249
	D63..	155	440	497	229
	D71D	155	440	504	229
	D80..	155	490	554	279
	D90..	210	510	595	299
F..107R77	D100M	210	540	625	329
	D100L	210	560	645	349
	D112M	240	575	655	364
	D63..	155	470	527	223
	D71D	155	470	534	223
	D80..	155	520	584	273
	D90..	210	518	603	271
	D100M	210	568	653	321
	D100L	210	588	673	341
	D112M	240	602	682	355
F..127R77	D132S	240	647	727	400
	D132M	285	699	811	452
	D132ML	285	719	831	472
	D160M	330	749	871	512
	D63..	155	455	512	223
	D71D	155	455	519	223
	D80..	155	505	569	273
	D90..	210	503	588	271
	D100M	210	553	638	321
	D100L	210	573	658	341
F..127R87	D112M	240	587	667	355
	D132S	240	632	712	40
	D132M	285	684	796	452
	D132ML	285	704	816	472
	D160M	330	734	846	502
	D90..	210	547	632	267
	D100M	210	597	682	317
	D100L	210	617	702	337
	D112M	240	630	710	350
	D132S	240	675	755	395
F..157R97	D132M	285	727	839	447
	D132ML	285	747	859	467
	D160M	330	777	889	497
	D160L	330	824	980	544
	D180..	380	896	1052	616
	D80..	155	586	650	261
	D90..	210	586	671	261
	D100M	210	636	721	311
	D100L	210	656	741	331
	D112M	240	670	750	345
F..157R97	D132S	240	715	795	390
	D132M	285	767	879	442
	D132ML	285	787	899	462
	D160M	330	817	929	492
	D160L	330	864	1020	539
	D180..	380	936	1092	611
	D200..	420	1024	1180	669

注: 上表中电机尺寸为参考尺寸, 因空间限制对尺寸有严格要求时请向我公司咨询。
Notes: The dimension of motor in the above table is only for reference. If you have special require, please consult us.

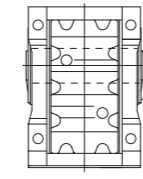
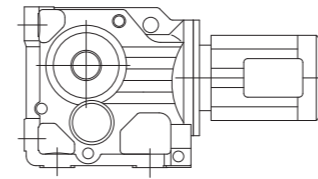
7. K 斜齿轮 – 伞齿轮减速电机
K Helical – Bevel Geared Motor

7.1 设计方案
7.1 Versions of geared motors

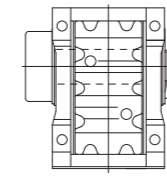
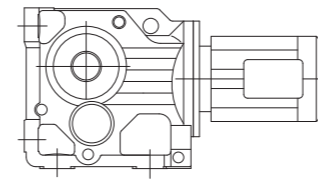
斜齿轮 – 伞齿轮减速电机有以下设计方案
The following types of helical – bevel geared motor can be supplied:



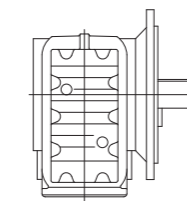
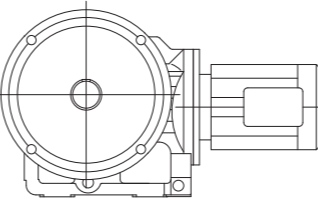
K..D..
底脚安装斜齿轮--伞齿轮减速电机
Foot – mounted helical – bevel geared motor



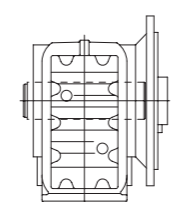
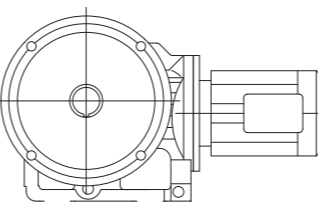
KA..B D..
底脚空心轴安装斜齿轮--伞齿轮减速电机
Foot – mounted helical – bevel geared motor with hollow shaft.



KV..B D..
底脚花键空心轴(DIN5480)安装斜齿轮--伞齿轮减速电机
Foot – mounted helical – bevel geared motor with hollow shaft and splined hollow shaft to DIN 5480.



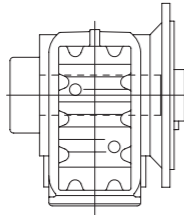
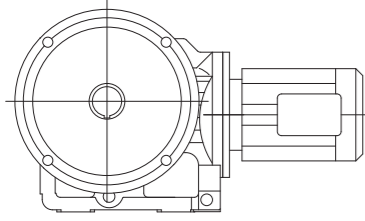
KH..B D..
底脚空心轴锁紧盘安装斜齿轮--伞齿轮减速电机
Foot – mounted helical – bevel geared motor with hollow shaft and shrink disk



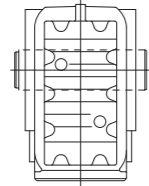
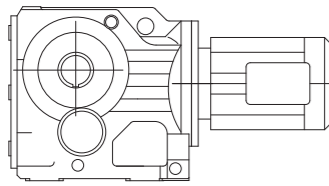
KF..D..
B5 法兰安装斜齿轮--伞齿轮减速电机
Helical – bevel geared motor in B5 flange – mounted version

KAF..D..
B5 法兰空心轴安装斜齿轮--伞齿轮减速电机
Helical – bevel geared motor in B5 flange – mounted version with hollow shaft.

KVF..D..
B5 法兰花键空心轴(DIN5480)安装斜齿轮--伞齿轮减速电机
Helical – bevel geared motor in B5 flange – mounted version with hollow shaft and splined hollow shaft to DIN 5480.

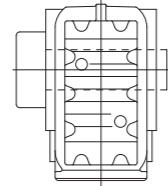
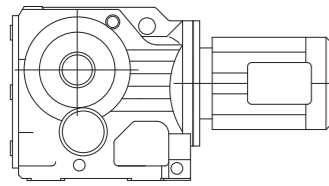


KHF..D..
B5 法兰空心轴锁紧盘安装斜齿轮--伞齿轮减速电机
Helical – bevel geared motor in B5 flange – mounted version with hollow shaft and shrink disk.

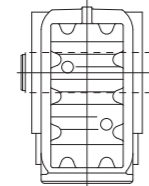
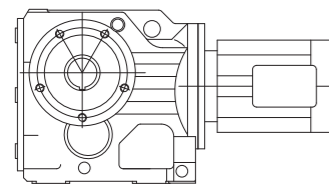


KA..D..
空心轴安装斜齿轮--伞齿轮减速电机
Helical – bevel geared motor with hollow shaft

KV..D..
花键空心轴(DIN 5480)安装斜齿轮--伞齿轮减速电机
Helical – bevel geared motor with hollow shaft and splined hollow shaft to DIN 5480.

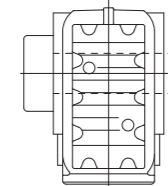
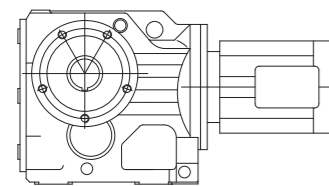


KH..D..
空心轴锁紧盘安装斜齿轮--伞齿轮减速电机
Helical – bevel geared motor with hollow shaft and shrink disk



KAZ..D..
B14 法兰空心轴安装斜齿轮--伞齿轮减速电机
Helical – bevel geared motor in B14 flange – mounted version with hollow shaft

KVZ..D..
B14 法兰花键空心轴(DIN 5480)安装斜齿轮--伞齿轮减速电机
Helical – bevel geared motor in B14 flange – mounted version with hollow shaft and splined hollow to DIN 5480.



KHZ..D..
B14 法兰空心轴锁紧盘安装斜齿轮--伞齿轮减速电机
Helical – bevel geared motor in B14 flange – mounted version with hollow shaft and shrink disk.

7.2 可行的组合方式 7.2 Type of Combination

以下是斜齿轮 – 伞齿轮减速机与交流（带制动）电机的组合列表。表中给出了每种组合的速比范围。
The below is combination table between gear box and electro motor in each list the ratio range.

减速机型号 Gear unit size	级 Stages	D63 D71	D80	D90	D100	D112	D132S	D132M
K/KF/KA/KAF37	3	5.36–106.38	5.36–83.69	5.36–24.99 29.96–72.54	5.36–10.49 13.08–20.19 29.96–58.60			
K/KF/KA/KAF47	3	7.36–11.77 13.65–31.30 39.61–131.87	5.81–104.37	5.81–90.86	5.81–21.81 25.91 35.39–63.30 75.20			
K/KF/KA/KAF57	3	9.59–11.92 19.34–35.70 48.89–145.14	7.55–11.92 15.22–123.85	6.57–108.29	6.57–90.26	6.57–30.28 38.49–76.56		
K/KF/KA/KAF67	3	10.63–12.48 19.30–35.62 48.77–144.79	8.37–12.48 15.19–123.54	7.28–108.03	7.28–90.04	7.28–30.22 38.39–76.37	7.28–24.00 38.39–60.66	7.28–24.00 38.39–60.66
K/KF/KA/KAF77	3	25.62–38.39 64.75–192.18	10.84–12.36 20.25–38.39 51.18–154.02	7.24–135.28	7.24–113.56	7.24–97.05	7.24–30.89 40.04–78.07	7.24–30.89 40.04–78.07
K/KF/KA/KAF87	3		27.88–31.39 70.46–197.37	11.17 16.00 19.45–31.39 49.16–174.19	8.29–11.17 14.45–147.32	8.29–11.17 14.45–126.91	7.21–102.71	7.21–102.71
K/KF/KA/KAF97	3			24.75–38.30 62.55–176.05	18.96–38.30 47.93–176.05	18.96–38.30 47.93–153.21	8.71–123.93	8.71–123.93
K/KF/KA/KAF107	3				13.43 22.62–29.00 32.69 57.17–143.47	13.43 22.62–29.00 32.69 57.17–143.47	8.69–29.00 32.69–143.47	8.69–29.00 32.69–143.47
K/KF/KA/KAF127	3							12.79 21.15–36.25 47.82–146.07

减速机型号 Gear unit size	级 Stages	D132ML	D160M	D160L	D180	D200
K/KF/KA/KAF77	3	7.24–23.08 40.04–58.34	7.24–23.08 40.04–58.34			
K/KF/KA/KAF87	3	7.21–79.34	7.21–79.34	7.21–79.34	7.21–14.45 17.42–24.92 36.52–63.00	
K/KF/KA/KAF97	3	8.71–96.80	8.71–96.80	8.71–96.80	8.71–30.82 41.87–77.89	8.71–24.75 41.87–62.55
K/KF/KA/KAF107	3	8.69–112.41	8.69–112.41	8.69–112.41	8.69–90.96	8.69–31.28 37.00–73.30
K/KF/KA/KAF127	3	10.74–12.79 17.77–136.14	10.74–12.79 17.77–136.14	10.74–12.79 17.77–136.14	8.68–110.18	8.68–89.89
K/KF/KA/KAF157	3		18.37–31.30 46.79–150.41	18.37–31.30 46.79–150.41	14.92–122.39	12.65–100.22
K/KH167	3		24.52–32.25 51.77–164.50	24.52–32.25 51.77–164.50	20.32–32.25 42.89–134.99	17.34–109.83
K/KH187	3		33.23–42.51 88.00–179.86	33.23–42.51 88.00–179.86	27.92–42.51 73.96–179.86	17.18–179.86

减速机型号 Gear unit size	级 Stages	D225	D250M	D280	D315	D315M_A/B
K/KF/KA/KAF107	3	8.69–31.28 37.00–73.30				
K/KF/KA/KAF127	3	8.68–89.89	8.68–31.37 40.19–70.95	8.68–31.37 40.19–70.95		
K/KF/KA/KAF157	3	12.65–100.22	12.65–79.75	12.65–79.75	12.65–23.95 38.02–61.02	12.65–18.37 38.02–46.79
K/KH167	3	17.34–109.83	17.34–87.86	17.34–87.86	17.34–68.07	17.34–24.52 36.61–51.77
K/KH187	3	17.18–179.86	17.18–144.59	17.18–144.59	17.18–112.60	17.18–33.23 45.50–88.00

7.3 速比与最大扭矩
7.3 Ratio and Max .Torque

K37-57, K37R, K 47R $n_e=1400$ 1/min

K37 200Nm					K47 400Nm				
i	n_a [1/min]	M_{amax} [Nm]	F_{Ra} [N]	AD	i	n_a [1/min]	M_{amax} [Nm]	F_{Ra} [N]	AD
106.38	13	200	5640	AD ₁	131.87	11	400	5920	AD ₂
97.81	14	200	5640						
83.69	17	200	5640						
72.54	19	200	5520						
67.80	21	200	5360						
58.60	24	200	5020						
49.79	28	200	4660						
44.46	31	200	4420						
37.97	37	200	4100						
35.57	39	200	3970						
29.96	47	200	3650	AD ₂	39.61	35	400	5920	AD ₃
28.83	49	200	3580						
24.99	56	200	3330						
23.36	60	195	3260						
20.19	69	185	3110						
17.15	82	180	2900						
15.31	91	175	2780						
13.08	107	165	2650						
12.14	115	160	2600						
10.49	133	160	2410						
8.91	157	160	2200	AD ₃	16.86	83	380	4230	AD ₃
7.96	176	155	2110						
6.80	206	150	1980						
6.37	220	145	1950						
5.36	261	140	1810						
8.56	164	270	3500						
7.36	190	250	3390						
6.58	213	240	3270						
5.81	241	230	3140						

K57 600Nm				
i	n_a [1/min]	M_{amax} [Nm]	F_{Ra} [N]	AD
145.14	9.6	600	7470	AD ₂
123.85	11	600	7470	
108.29	13	600	7470	
102.88	14	600	7470	
90.26	16	600	7470	
76.56	18	600	7470	
69.12	20	600	7470	
60.81	23	600	7470	
57.42	24	600	7470	
48.89	29	600	7470	
44.43	32	600	7470	AD ₃
38.49	36	600	7470	
35.70	39	600	7470	
30.28	46	600	7310	
27.34	51	600	6930	
24.05	58	600	6480	
22.71	62	600	6280	
19.34	72	575	5910	
17.57	80	555	5740	
15.22	92	535	5430	
13.25	106	510	5190	
11.92	117	415	5150	
11.26	124	415	4990	
9.59	146	405	4650	
8.71	161	390	4520	
7.55	185	365	4360	
6.57	213	345	4190	

K67-87, K67R-87R $n_e=1400$ 1/min

K67 820Nm				
i	n_a [1/min]	M_{amax} [Nm]	F_{Ra} [N]	AD
144.79	9.7	820	10300	AD ₂
123.54	11	820	10300	
108.03	13	820	10300	
102.62	14	820	10300	
90.04	16	820	10300	
76.37	18	820	10300	
68.95	20	820	10300	
60.66	23	820	10300	
57.28	24	820	10300	
48.77	29	820	10300	
44.32	32	820	10300	AD ₃
38.39	36	820	10500	
35.62	39	820	10300	
30.22	46	820	10300	
27.28	51	820	10300	
24.00	58	800	10500	
22.66	62	780	10700	
19.30	73	760	10800	
17.54	80	740	11000	
15.19	92	700	11300	
13.22	106	670	11500	
12.48	112	530	12300	
10.63	132	500	11800	
9.66	145	480	11500	
8.37	167	440	11100	
7.28	192	420	10700	

K77 1550Nm				
i	n_a [1/min]	M_{amax} [Nm]	F_{Ra} [N]	AD
192.18	7.3	1450	16100	AD ₂
179.37	7.8	1450	16100	
154.02	9.1	1550	15400	
135.28	10	1550	15400	
128.52	11	1550	15400	
113.56	12	1550	15400	
97.05	14	1550	15400	
88.97	16	1550	15400	
78.07	18	1550	15400	
73.99	19	1550	15400	
64.75	22	1550	15400	AD ₃
58.34	24	1550	15400	
51.18	27	1550	15400	
45.16	31	1550	15400	
40.04	35	1550	15400	
38.39	36	1550	15700	
35.20	40	1550	15400	
30.89	45	1550	15400	
29.27	48	1550	15400	
25.62	55	1550	15400	
23.08	61	1550	15400	
20.25	69	1500	15700	
17.87	78	1450	16100	
15.84	88	1400	15500	
13.52	104	1340	14800	
12.36	113	1000	15100	
10.84	129	990	14400	
9.56	146	940	13900	
8.48	165	890	13500	
7.24	193	820	13100	

K87 2700Nm				
i	n_a [1/min]	M_{amax} [Nm]	F_{Ra} [N]	AD
197.37	7.1	2700	27300	AD ₂
174.19	8.0	2700	27300	
164.34	8.5	2700	27300	
147.32	9.5	2700	27300	
126.91	11	2700	27300	
115.82	12	2700	27300	
102.71	14	2700	27300	
86.34	16	2700	27300	
79.34	18	2700	27300	
70.46	20	2700	27300	
63.00	22	2700	26200	AD ₃
56.64	25	2700	25000	
49.16	28	2700	23500	
44.02	32	2600	22800	
36.52	38	2500	21400	
31.39	45	2700	19200	
27.88	50	2600	18500	
24.92	56	2500	18000	
22.41	62	2300	17900	
19.45	72	2300	16800	
17.42	80	2200	16300	
16.00	87	1800	16000	
14.45	97	2100	15300	
12.56	111	2000	14800	
11.17	125	1500	14900	
10.00	140	1500	14200	
8.29	169	1400	13500	
7.21	194	1300	13200	

K97-127, K97R, K107R $n_e=1400$ 1/min

K97		4300Nm	
i	n_a [1/min]	M_{amax} [Nm]	F_{Ra} [N]
176.05	8.0	4300	40000
153.21	9.1	4300	40000
140.28	10	4300	40000
123.93	11	4300	40000
105.13	13	4300	40000
96.80	14	4300	40000
86.52	16	4300	38800
77.89	18	4300	37100
70.54	20	4300	35600
62.55	22	4300	33800
56.55	25	4300	32300
47.93	29	4300	30000
41.87	33	4300	28300
38.30	37	4300	27100
34.23	41	4300	25700
30.82	45	4300	24500
27.91	50	4300	23300
24.75	57	4300	22000
22.37	63	4300	20900
18.96	74	4300	19100
16.56	85	4300	17800
13.85	101	4300	16100
11.99	117	3890	16200
10.41	134	2870	16400
8.71	161	2660	15800

K107		8000Nm	
i	n_a [1/min]	M_{amax} [Nm]	F_{Ra} [N]
143.47	9.8	8000	65000
121.46	12	8000	61700
112.41	12	8000	59700
100.75	14	8000	57000
90.96	15	8000	54600
82.61	17	8000	52400
73.30	19	8000	49700
66.52	21	8000	47600
57.17	24	8000	44400
49.90	28	7840	42200
42.33	33	7360	40500
37.00	38	7200	38500
32.69	43	7200	36300
31.28	45	6800	36700
29.00	48	7200	34000
26.32	53	7200	32000
22.62	62	7200	28900
19.74	71	7200	26100
16.75	84	7050	23600
14.64	96	6890	21900
13.43	104	4300	29200
11.73	119	4300	27500
9.94	141	4190	25800
8.69	161	4070	24600

K127		13000Nm	
i	n_a [1/min]	M_{amax} [Nm]	F_{Ra} [N]
146.07	9.6	13000	79200
136.14	10	13000	79200
122.48	11	13000	79200
110.18	13	13000	79200
89.89	16	13000	75100
81.98	17	13000	72100
70.95	20	13000	67700
62.60	22	13000	64000
54.07	26	13000	59000
47.82	29	13000	56500
40.19	35	13000	52000
36.25	39	13000	49400
31.37	45	13000	45900
27.68	51	13000	43000
23.91	59	13000	39800
21.15	66	13000	37200
17.77	79	13000	33600
14.35	98	12100	31800
12.79	109	8530	35400
10.74	130	8000	33900
8.68	161	7230	32500

K157-187, K37R17, K47/57R37 $n_e=1400$ 1/min

K157		18000Nm	
i	n_a [1/min]	M_{amax} [Nm]	F_{Ra} [N]
150.41	9.3	18000	112200
122.39	11	18000	106500
100.22	14	18000	98000
91.65	15	18000	94400
79.75	18	18000	88900
70.38	20	18000	84200
61.02	23	18000	79000
54.29	26	18000	74900
46.79	30	18000	70000
38.02	37	18000	63300
31.30	45	18000	57500
27.62	51	18000	54000
23.95	58	18000	50000
21.31	66	18000	47000
18.37	76	18000	43200
14.92	94	18000	38200
12.65	111	17000	36700

K167		32000Nm	
i	n_a [1/min]	M_{amax} [Nm]	F_{Ra} [N]
164.50	8.5	32000	150000
134.99	10	32000	150000
109.83	13	32000	150000
87.86	16	32000	147200
78.14	18	32000	140100
68.07	21	32000	132000
60.74	23	32000	125600
51.77	27	32000	117000
42.89	33	32000	107400
36.61	38	32000	99700
32.25	43	32000	93700
28.77	49	32000	88600
24.52	57	32000	81700
20.32	69	32000	74000
17.34	81	32000	67900

K187		50000Nm	
i	n_a [1/min]	M_{amax} [Nm]	F_{Ra} [N]
179.86	7.8	50000	190000
165.21	8.5	50000	190000
144.59	9.7	50000	190000
129.69	11	50000	188200
112.60	12	50000	177200
102.16	14	50000	169900
88.00	16	50000	159000
73.96	19	50000	147000
64.04	22	50000	137500
53.36	26	50000	126100
45.50	31	50000	116600
42.51	33	50000	112700
38.57	36	50000	107200
33.23	42	50000	99100
27.92	50	50000	90200
24.18	58	47600	86800
20.15	69	43900	84000
17.18	81	41400	80800

K47R37		400Nm	
i	n_a [1/min]	M_{amax} [Nm]	F_{Ra} [N]
10138	0.14	400	5920
8534	0.16	400	5920
7662	0.18	400	5920
6826	0.21	400	5920
5983	0.23	400	5920
5159	0.27	400	5920
4601	0.30	400	5920
3940	0.36	400	5920
3477	0.40	400	5920
3043	0.46	400	5920
2733	0.51	400	5920
2354	0.59	400	5920
2063	0.68	400	5920
1819	0.77	400	5920
1586	0.88	400	5920
1388	1.0	400	5920
1222	1.1	400	5920
1097	1.3	400	5920
945	1.5	400	5920
831	1.7	400	5920
718	1.9	400	5920
639	2.2	400	5920
552	2.5	400	5920
495	2.8	400	5920
426	3.3	400	5920
375	3.7	400	5920
327	4.3	400	5920
289	4.8	400	5920
256	5.5	400	5920
225	6.2	400	5920
198	7.1	400	5920
171	8.2	400	5920
153	9.2	400	5920
131	11	400	5920
112	13	400	5920
99	14	400	5920
94	15	400	5920

K57R37		600Nm	
i	n_a [1/min]	M_{amax} [Nm]	F_{Ra} [N]
12169	0.12	600	7470
11162	0.13	600	7470
9503	0.15	600	7470
8547	0.16	600	7470
7277	0.19	600	7470
6478	0.22	600	7470
5662	0.25	600	7470
5033	0.28	600	7470
4340	0.32	600	7470
3854	0.36	600	7470
3390	0.41	600	7470
2924	0.48	600	7470
2593	0.54	600	7470
2249	0.62	600	7470
1986	0.70	600	7470
1743	0.80	600	7470
1539	0.91	600	7470
1354	1.0	600	7470
1174	1.2	600	7470
1036	1.4	600	7470
906	1.5	600	7470
806	1.7	600	7470
699	2.0	600	7470
615	2.3	600	7470
544	2.6	600	7470
473	3.0	600	7470
421	3.3	600	7470
362	3.9	600	7470
319	4.4	600	7470
280	5.0	600	7470
246	5.7	600	7470
215	6.5	600	7470
192	7.3	600	7470
166	8.4	600	7470
145	9.7	600	7470
129	11	600	7470
111	13	600	7470
97	14	600	7470

K67/77R37, K87R57 $n_e=1400$ 1/min

K97R57, K107/127R77 $n_e=1400$ 1/min

K67R37		820Nm	
i	n_a [1/min]	M_{amax} [Nm]	F_{Ra} [N]
12139	0.12	820	10300
11134	0.13	820	10300
9479	0.15	820	10300
8173	0.17	820	10300
7259	0.19	820	10300
6462	0.22	820	10300
5648	0.25	820	10300
4846	0.29	820	10300
4329	0.32	820	10300
3750	0.37	820	10300
3315	0.42	820	10300
2917	0.48	820	10300
2532	0.55	820	10300
2244	0.62	820	10300
1981	0.71	820	10300
1739	0.81	820	10300
1535	0.91	820	10300
1351	1.0	820	10300
1171	1.2	820	10300
1034	1.4	820	10300
903	1.6	820	10300
793	1.8	820	10300
697	2.0	820	10300
613	2.3	820	10300
542	2.6	820	10300
471	3.0	820	10300
420	3.3	820	10300
361	3.9	820	10300
323	4.3	820	10300
279	5.0	820	10300
246	5.7	820	10300
217	6.5	820	10300
191	7.3	820	10300
166	8.4	820	10300
144	9.7	820	10300
122	11	820	10300

K77R37		1550Nm	
i	n_a [1/min]	M_{amax} [Nm]	F_{Ra} [N]
15310	0.09	1550	15400
14043	0.10	1550	15400
11955	0.12	1550	15400
10217	0.14	1550	15400
8809	0.16	1550	15400
7528	0.19	1550	15400
6606	0.21	1550	15400
5774	0.24	1550	15400
5089	0.28	1550	15400
4489	0.31	1550	15400
3961	0.35	1550	15400
3485	0.40	1550	15400
2901	0.48	1550	15400
2717	0.52	1550	15400
2370	0.59	1550	15400
2050	0.68	1550	15400
1772	0.79	1550	15400
1514	0.92	1550	15400
1388	1.0	1550	15400
1218	1.1	1550	15400
1053	1.3	1550	15400
924	1.5	1550	15400
815	1.7	1550	15400
709	2.0	1550	15400
622	2.3	1550	15400
552	2.5	1550	15400
485	2.9	1550	15400
428	3.3	1550	15400
367	3.8	1550	15400
328	4.3	1550	15400
280	4.8	1550	15400
252	5.6	1550	15400
221	6.3	1550	15400
195	7.2	1550	15400
175	8.0	1550	15400
154	9.1	1550	15400

K87R57		2700Nm	
i	n_a [1/min]	M_{amax} [Nm]	F_{Ra} [N]
14829	0.09	2700	27300
13168	0.11	2700	27300
11737	0.12	2700	27300
10217	0.14	2700	27300
9073	0.15	2700	27300
7854	0.18	2700	27300
6832	0.20	2700	27300
5930	0.24	2700	27300
5240	0.27	2700	27300
4562	0.31	2700	27300
4037	0.35	2700	27300
3609	0.39	2700	27300
3107	0.45	2700	27300
2728	0.51	2700	27300
2371	0.59	2700	27300
2088	0.67	2700	27300
1854	0.76	2700	27300
1657	0.84	2700	27300
1415	0.99	2700	27300
1229	1.1	2700	27300
1078	1.3	2700	27300
951	1.5	2700	27300
837	1.7	2700	27300
726	1.9	2700	27300
638	2.2	2700	27300
562	2.5	2700	27300
474	3.0	2700	27300
426	3.3	2700	27300
373	3.8	2700	27300
330	4.2	2700	27300
294	4.8	2700	27300
250	5.6	2700	27300
236	5.9	2700	27300
201	7.0	2700	27300
183	7.7	2700	27300
159	8.8	2700	27300
141	9.9	2700	27400

K97R57		4300Nm	
i	n_a [1/min]	M_{amax} [Nm]	F_{Ra} [N]
18091	0.08	4300	40000
16666	0.08	4300	40000
14897	0.09	4300	40000
13182	0.11	4300	40000
11677	0.12	4300	40000
10317	0.14	4300	40000
9083	0.15	4300	40000
8054	0.17	4300	40000
6970	0.20	4300	40000
6027	0.23	4300	40000
5391	0.26	4300	40000
4669	0.30	4300	40000
4082	0.34	4300	40000
3583	0.39	4300	40000
3108	0.45	4300	40000
2757	0.51	4300	40000
2419	0.58	4300	40000
2123	0.66	4300	40000
1856	0.75	4300	40000
1625	0.86	4300	40000
1430	0.98	4300	40000
1261	1.1	4300	40000
1102	1.3	4300	40000
957	1.5	4300	40000
855	1.6	4300	40000
743	1.9	4300	40000
652	2.1	4300	40000
573	2.4	4300	40000
504	2.8	4300	40000
437	3.2	4300	40000
382	3.7	4300	40000
342	4.1	4300	40000
305	4.6	4300	40000
258	5.4	4300	40000
232	6.0	4300	40000
199	7.0	4300	40000

K107R77		8000Nm	
i	n_a [1/min]	M_{amax} [Nm]	F_{Ra} [N]
14311	0.10	8000	65000
12211	0.11	8000	65000
10677	0.13	8000	65000
9524	0.15	8000	65000
8328	0.17	8000	65000
7270	0.19	8000	65000
6184	0.23	8000	65000
5662	0.25	8000	65000
5138	0.27	8000	65000
4359	0.32	8000	65000
3810	0.37	8000	65000
3358	0.42	8000	65000
2977	0.47	8000	65000
2599	0.54	8000	65000
2286	0.61	8000	65000
1939	0.72	8000	65000
1713	0.82	8000	65000
1554	0.90	8000	65000
1336	1.0	8000	65000
1166	1.2	8000	65000
1030	1.4	8000	65000
904	1.5	8000	65000
793	1.8	8000	65000
696	2.0	8000	65000
615	2.3	8000	65000
522	2.7	8000	65000
461	3.0	8000	65000
408	3.4	8000	65000
364	3.8	8000	65000
318	4.4	8000	65000
286	4.9	8000	65000
251	5.6	8000	65000
222	6.3	8000	65000
196	7.1	8000	65000
174	8.0	7200	65000
154	9.1	7200	65000
140	10	7200	65000

K127R77		13000Nm	
i	n_a [1/min]	M_{amax} [Nm]	F_{Ra} [N]
17550	0.08	13000	79200
16006	0.09	13000	79200
14975	0.09	13000	79200
12440	0.11	13000	79200
10915	0.13	13000	79200
9819	0.14	13000	79200
8443	0.17	13000	79200
7482	0.19	13000	79200
6565	0.21	13000	79200
5804	0.24	13000	79200
5027	0.28	13000	79200
4423	0.32	13000	79200
3889	0.36	13000	79200
3311	0.42	13000	79200
3009	0.47	13000	79200
2607	0.54	13000	79200
2268	0.62	13000	79200
1926	0.73	13000	79200
1757	0.80	13000	79200
1541	0.91	13000	79200
1342	1.0	13000	79200
1177	1.2	13000	79200
1025	1.4	13000	79200
899	1.6	13000	79200
790	1.8	13000	79200
704	2.0	13000	79200
610	2.3	13000	79200
549	2.6	13000	79200
477	2.9	13000	79200
418	3.3	13000	79200

K 127R87, K157R97, K157R107 $n_e=1400$ 1/min

K167/187R97, K167/187R107 $n_e=1400$ 1/min

K127R87		13000Nm	
i	n_a [1/min]	M_{amax} [Nm]	F_{Ra} [N]
536	2.6	13000	79200
473	3.0	13000	79200
418	3.3	13000	79200
367	3.8	13000	79200
330	4.2	13000	79200
287	4.9	13000	79200
253	5.5	13000	79200
213	6.6	13000	79200
200	7.0	13000	79200
166	8.4	13000	79200
147	9.5	13000	79200

K157R97		18000Nm	
i	n_a [1/min]	M_{amax} [Nm]	F_{Ra} [N]
17679	0.08	18000	112200
15729	0.09	18000	112200
14721	0.10	18000	112200
13097	0.11	18000	112200
11368	0.12	18000	112200
10114	0.14	18000	112200
8718	0.16	18000	112200
7734	0.18	18000	112200
6881	0.20	18000	112200
5931	0.24	18000	112200
5074	0.28	18000	112200
4514	0.31	18000	112200
3979	0.35	18000	112200
3516	0.40	18000	112200
3051	0.46	18000	112200
2610	0.54	18000	112200
2322	0.60	18000	112200
2029	0.69	18000	112200
1805	0.78	18000	112200
1659	0.84	18000	112200
1365	1.0	18000	112200
1229	1.1	18000	112200
1093	1.3	18000	112200
942	1.5	18000	112200
854	1.6	18000	112200
756	1.9	18000	112200
661	2.1	18000	112200
567	2.5	18000	112200
504	2.8	18000	112200
434	3.2	18000	112200
379	3.7	18000	112200
333	4.2	18000	112200
291	4.8	18000	112200

K157R107		18000Nm	
i	n_a [1/min]	M_{amax} [Nm]	F_{Ra} [N]
385	3.6	18000	112200
325	4.3	18000	112200
299	4.7	18000	112200
253	5.5	18000	112200
230	6.1	18000	112200
213	6.6	18000	112200
187	7.5	18000	112200
157	8.9	18000	112200
122	11	18000	106500
107	13	18000	100700

K167R97		32000Nm	
i	n_a [1/min]	M_{amax} [Nm]	F_{Ra} [N]
19723	0.07	32000	150000
17406	0.08	32000	150000
15000	0.09	32000	150000
13238	0.11	32000	150000
11573	0.12	32000	150000
10264	0.14	32000	150000
8628	0.16	32000	150000
6562	0.21	32000	150000
5355	0.26	32000	150000
4788	0.29	32000	150000
4079	0.34	32000	150000
3376	0.41	32000	150000
2755	0.51	32000	150000
2263	0.62	32000	150000
2182	0.64	32000	150000
1704	0.82	32000	150000
1408	0.99	32000	150000
1296	1.1	32000	150000
1101	1.3	32000	150000
944	1.5	32000	150000
843	1.7	32000	150000
757	1.8	32000	150000
632	2.2	32000	150000
561	2.5	32000	150000
481	2.9	32000	150000
423	3.3	32000	150000
369	3.8	32000	150000

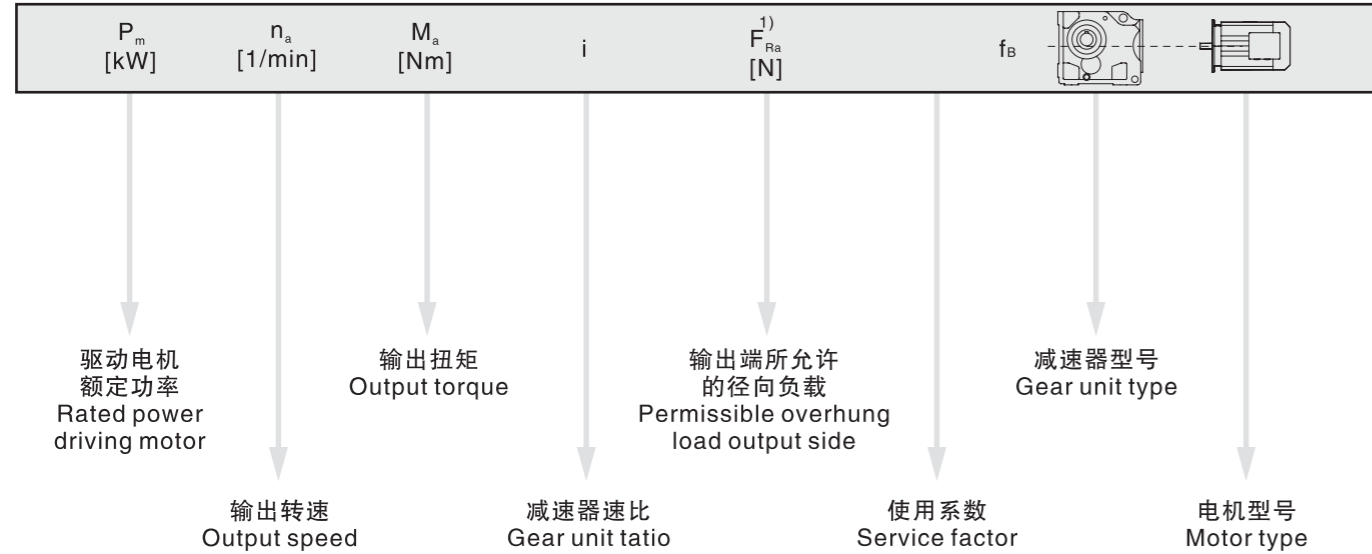
K167R107		32000Nm	
i	n_a [1/min]	M_{amax} [Nm]	F_{Ra} [N]
318	4.4	32000	150000
278	5.0	32000	150000
244	5.7	32000	150000
213	6.6	32000	150000
206	6.8	32000	150000
180	7.8	32000	150000
160	8.8	32000	150000
135	10	32000	150000
118	12	32000	150000

K187R97		50000Nm	
i	n_a [1/min]	M_{amax} [Nm]	F_{Ra} [N]
32625	0.04	50000	190000
27165	0.05	50000	190000
24353	0.06	50000	190000
19144	0.07	50000	190000
16978	0.08	50000	190000
14272	0.10	50000	190000
13116	0.11	50000	190000
11647	0.12	50000	190000
10413	0.13	50000	190000
9363	0.15	50000	190000
8126	0.17	50000	190000
7343	0.19	50000	190000
6747	0.21	50000	190000
5991	0.23	50000	190000
5358	0.26	50000	190000
4817	0.29	50000	190000
4370	0.32	50000	190000
3609	0.39	50000	190000
3062	0.46	50000	190000
2818	0.50	50000	190000
2519	0.56	50000	190000
2268	0.62	50000	190000
2054	0.68	50000	190000
1821	0.77	50000	190000
1605	0.87	50000	190000
1395	1.0	50000	190000
1196	1.2	50000	190000
1046	1.3	50000	190000
945	1.5	50000	190000
738	1.9	50000	190000
621	2.3	50000	190000
527	2.7	50000	190000

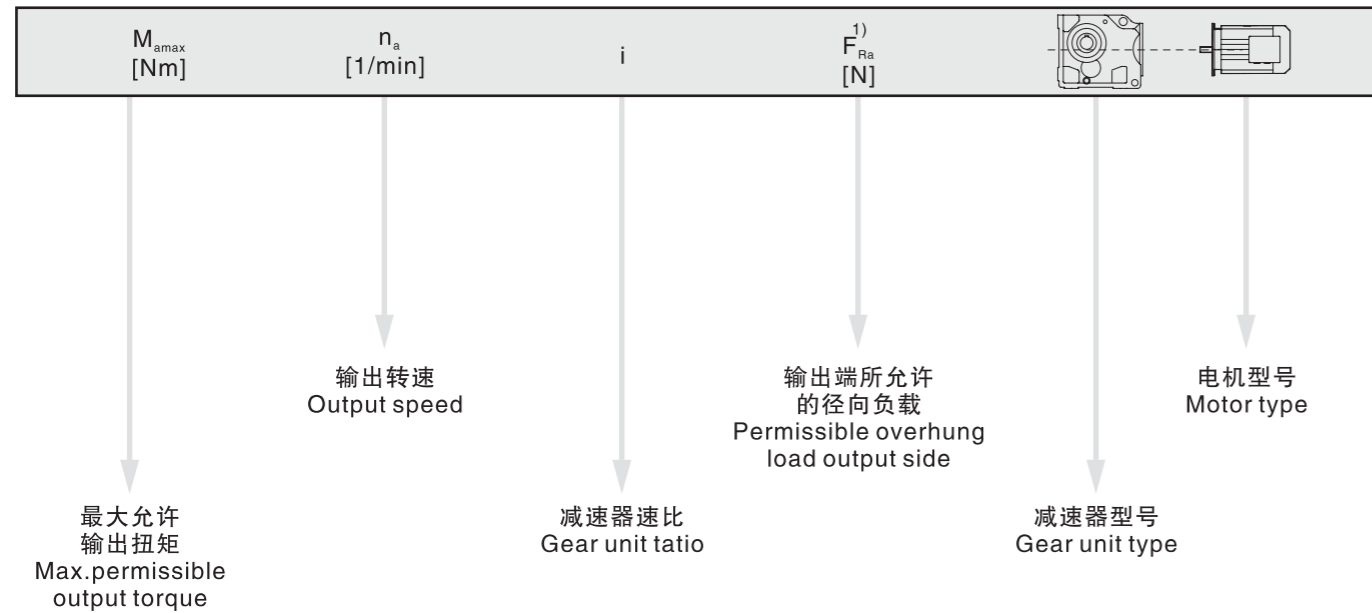
K187R107		50000Nm	
i	n_a [1/min]	M_{amax} [Nm]	F_{Ra} [N]
835	1.7	50000	190000
729	1.9	50000	190000
622	2.3	50000	190000
520	2.7	50000	190000
454	3.1	50000	190000
355	3.9	50000	190000
261	5.4	50000	190000
221	6.3	50000	190000
193	7.3	50000	190000
163	8.6	50000	190000

7.4 选型表注释 7.4 Selection table

选型表的结构
Selection table for geared motors



对于特殊低输出转速
For particularly low output speeds



图例 Cuttine
※ 也可用于EEXe 电机。※ EEXE motor is optional.
1) 实心轴底脚安装减速机的径向负荷
1) Overhung load specified for foot-mounted gear unit with solid shaft

注意: Notice:
对于特殊低输出转速驱动(多级减速电机), 电机功率必须与减速机的最大允许输出地扭矩相对应。
In drives for particularly low output speeds (multi-stage geared motor), the motor power must belimited according to maximum permitted output torque of the gear unit.

输出转速 Output speed n_a [1/min]	输出扭矩 Output torque M_a [N·m]	传动比 Ratio i	径向负荷 Permitted overhung load $F_{Ra}^{1)}$ [N]	使用系数 Service factor f_b	型号 Model
0.12kW					
0.08	11800	17550	79800	1.10	
0.09	10700	16006	80400	1.20	
0.09	9880	14975	80700	1.30	K 127 R77 D63S4
0.11	8010	12440	81500	1.60	KF 127 R77 D63S4
0.13	6920	10915	81800	1.90	KA 127 R77 D63S4
0.14	6320	9819	82000	2.1	KAF 127 R77 D63S4
0.16	5220	8443	82300	2.5	
0.18	4820	7482	82300	2.7	
0.10	9590	14311	65000	0.85	
0.11	8060	12211	65000	1.00	
0.13	6930	10677	65000	1.15	
0.14	6280	9524	65000	1.25	K 107 R77 D63S4
0.17	5410	8328	65000	1.50	KF 107 R77 D63S4
0.19	4720	7270	65000	1.70	KA 107 R77 D63S4
0.22	3760	6184	65000	2.1	KAF 107 R77 D63S4
0.24	3320	5662	65000	2.4	
0.27	3020	5138	65000	2.7	
0.32	2700	4359	65000	3.0	
0.17	5310	8054	39500	0.80	
0.20	4350	6970	40000	1.00	
0.23	3890	6027	40000	1.10	K 97 R57 D63S4
0.26	3560	5391	40000	1.20	KF 97 R57 D63S4
0.30	2950	4669	40000	1.45	KA 97 R57 D63S4
0.34	2640	4082	40000	1.65	KAF 97 R57 D63S4
0.39	2320	3583	40000	1.85	
0.44	2040	3108	40000	2.1	
0.50	1720	2757	40000	2.5	
0.57	1580	2419	40000	2.7	
0.65	1370	2123	40000	3.2	K 97 R57 D63S4
0.74	1220	1856	40000	3.5	KF 97 R57 D63S4
0.85	1000	1625	40000	4.3	KA 97 R57 D63S4
0.96	860	1430	40000	5.0	KAF 97 R57 D63S4
1.1	830	1261	40000	5.2	
1.2	725	1102	40000	5.9	
0.26	3380	5240	26300	0.80	
0.30	2850	4562	27100	0.95	K 87 R57 D63S4
0.34	2610	4037	27400	1.05	KF 87 R57 D63S4
0.38	2330	3609	27700	1.15	KA 87 R57 D63S4
0.44	1990	3107	28100	1.35	KAF 87 R57 D63S4
0.51	1700	2728	28300	1.60	
0.58	1500	2371	28500	1.80	
0.66	1380	2088	28600	1.95	
0.74	1220	1854	28700	2.2	
0.83	1090	1657	28700	2.5	K 87 R57 D63S4
0.97	930	1415	28800	2.9	KF 87 R57 D63S4
1.1	800	1229	28900	3.4	KA 87 R57 D63S4
1.3	695	1078	28900	3.9	KAF 87 R57 D63S4
1.5	585	951	29000	4.6	
1.6	505	837	29000	5.4	
1.9	435	726	29000	6.2	
0.51	1790	2717	13400	0.85	K 77 R37 D63S4
0.58	1510	2370	15700	1.05	KF 77 R37 D63S4
					KA 77 R37 D63S4
					KAF 77 R37 D63S4
0.67	1380	2050	16500	1.10	
0.78	1180	1772	17500	1.30	
0.91	1010	1514	18300	1.55	
0.99	920	1388	18600	1.70	K 77 R37 D63S4
1.1	810	1218	19000	1.90	KF 77 R37 D63S4
1.3	710	1053	19200	2.2	KA 77 R37 D63S4
1.5	620	924	19500	2.5	KAF 77 R37 D63S4
1.7	550	815	19600	2.8	
2.0	440	709	19800	3.5	
2.2	385	622	19900	4.0	

输出转速 Output speed n_a [1/min]	输出扭矩 Output torque M_a [N·m]	传动比 Ratio i	径向负荷 Permitted overhung load $F_{Ra}^{1)}$ [N]	使用系数 Service factor f_b	型号 Model
0.12kW					
1.0	930	1351	9230	0.90	
1.2	795	1171	10500	1.05	
1.3	695	1034	11300	1.20	
1.5	585	903	12000	1.40	
1.7	545	793	12200	1.50	
2.0	440	697	12700	1.85	K 67 R37 D63S4
2.2	390	613	12900	2.1	KF 67 R37 D63S4
2.5	340	542	13000	2.4	KA 67 R37 D63S4
2.9	315	471	13000	2.6	KAF 67 R37 D63S4
3.3	265	420	13000	3.1	
3.8	235	361	13000	3.5	
4.3	210	323	13000	3.9	
4.9	176	279	13000	4.7	
5.6	155	246	13000	5.3	
6.3	134	217	13000	6.1	
1.5	585	906	7750	1.05	
1.7	525	806	8220	1.15	
2.0	445	699	8690	1.35	
2.2	390	615	8930	1.55	
2.5	340	544	9120	1.75	
2.9	310	473	9250	1.95	K 57 R37 D63S4
3.3	265	421	9420	2.3	KF 57 R37 D63S4
3.8	235	362	9510	2.5	KA 57 R37 D63S4
4.3	210	319	9610	2.9	KAF 57 R37 D63S4
4.9	176	280	9710	3.4	
5.6	155	246	9770	3.9	
6.4	135	215	9830	4.4	
7.2	122	192	9860	4.9	
2.2	430	639	2520	0.95	
2.5	370	552	6350	1.10	
2.8	315	495	6930	1.25	K 47 R37 D63S4
3.2	280	426	7240	1.45	KF 47 R37 D63S4
3.7	235	375	7560	1.70	KA 47 R37 D63S4
4.2	215	327	7670	1.85	KAF 47 R37 D63S4
4.8	189	289	7830	2.1	
6.2	184	144.79	13000	4.4	K 67 D63M6
					KF 67 D63M6
					KA 67 D63M6
					KAF 67 D63M6
6.2	185	145.14	9680	3.2	
7.3	158	123.85	9760	3.8	K 57 D63M6
8.3	138	108.29	9820	4.3	KF 57 D63M6
8.8	131	102.88	9840	4.6	KA 57 D63M6
10	115	90.26	9880	5.2	KAF 57 D63M6
12	98	76.56	9930	6.2	
9.5	121	145.14	9870	5.0	K 57 D63S4
11	103	123.85	9920	5.8	KF 57 D63S4
13	90	108.29	9950	6.7	KA 57 D63S4
13	85	102.88	9960	7.0	KAF 57 D63S4
15	75	90.26	9990	8.0	
6.8	168	131.87	7930	2.4	K 47 D63M6
7.4	155	121.48	7990	2.6	KF 47 D63M6
8.6	133	104.37	8070	3.0	KA 47 D63M6
					KAF 47 D63M6
10	110	131.87	8140	3.7	K 47 D63S4
11	101	121.48	8170	4.0	KF 47 D63S4
					KA 47 D63S4
					KAF 47 D63S4

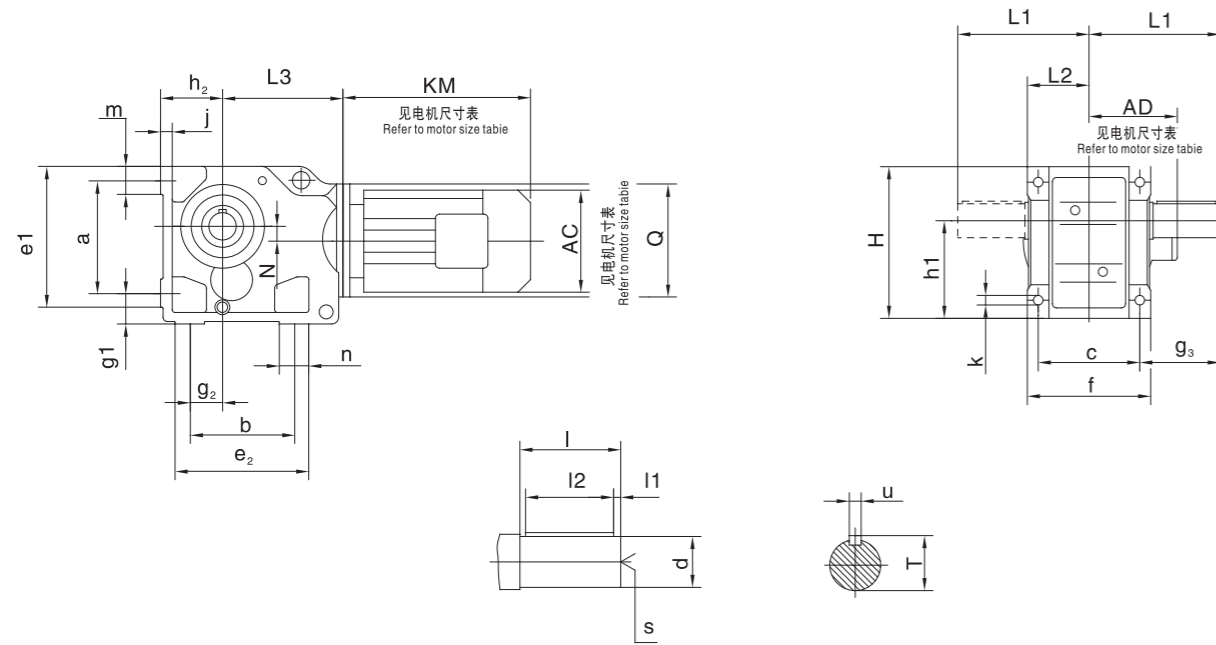
Table with 6 columns: Output speed, Output torque, Ratio, Permitted overhung load, Service factor, Model. Contains multiple rows of data for different motor models.

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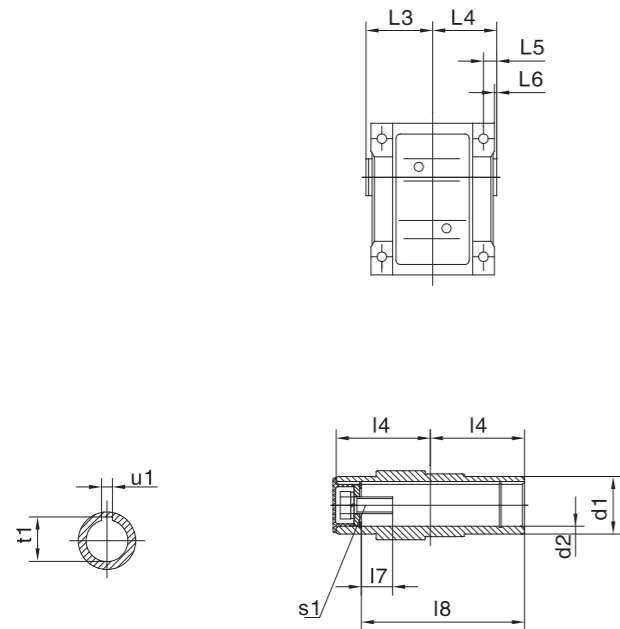
Table with 6 columns: Output speed, Output torque, Ratio, Permitted overhung load, Service factor, Model. Contains multiple rows of data for different motor models.

K37..~K157..



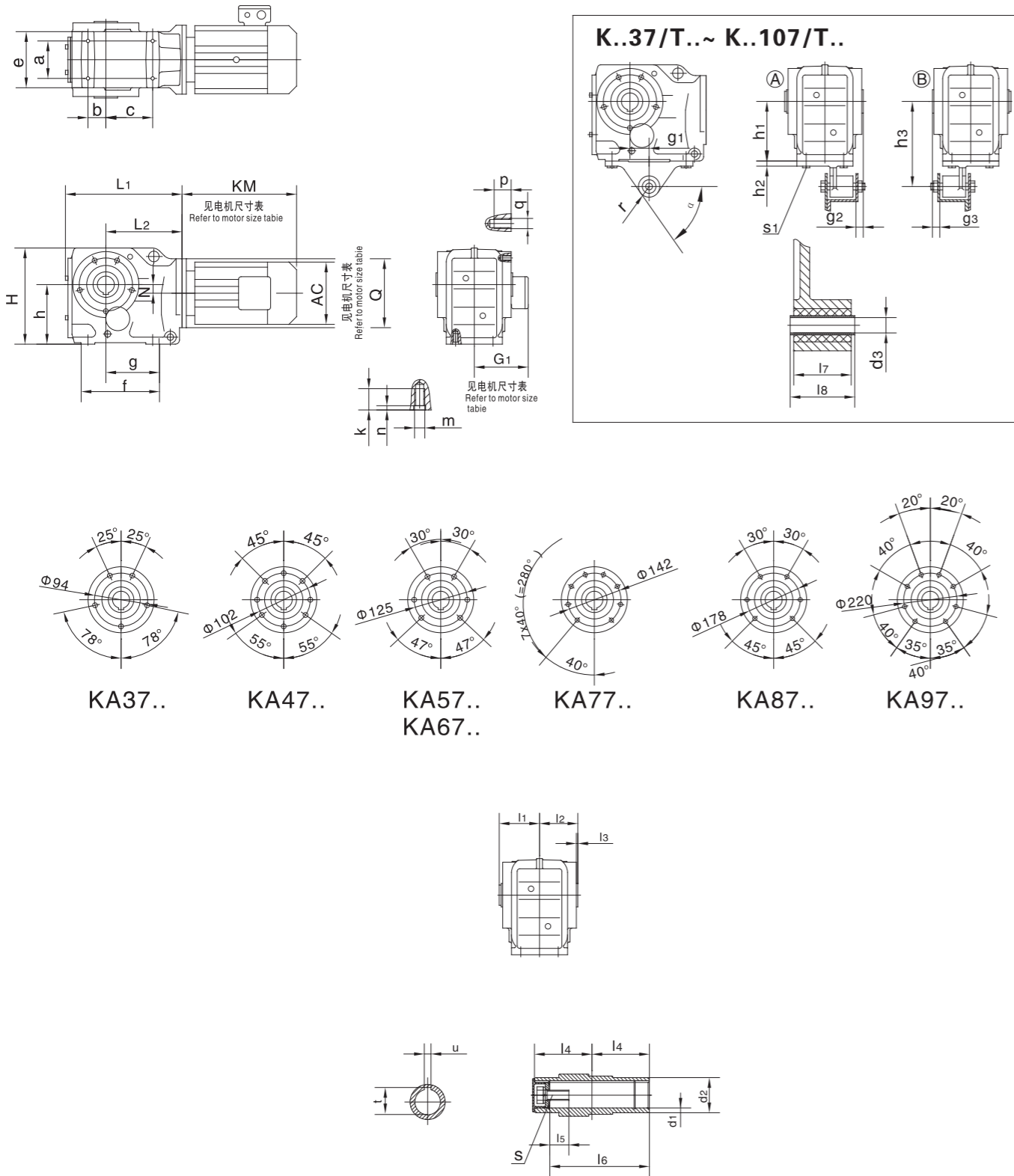
型号 size	a b c	e ₁ e ₂ f	g ₁ g ₂ g ₃	h ₁ h ₂	j	k	m n	轴伸尺寸 Shaft dimension				
								d	l	l ₁ l ₂	s	t u
K37..	115 110 100	150 143 120	32 28 60	100 ^{-0.5} 63 ^{-0.5}	16	11	37 38	25k6	50	5 40	M10	28 8
K47.. KA47B..	130 130 120	170 162 145	37 35 75	112 ^{-0.5} 71 ^{-0.5}	18	11	37 32	30k6	60	3.5 50	M10	33 8
K57.. KA57B..	150 130 130	190 172 157	45 30 88	132 ^{-0.5} 80 ^{-0.5}	21	13.5	43 40	35k6	70	7 56	M12	38 10
K67.. KA67B..	160 120 140	203 170 170	45 30 101	140 ^{-0.5} 90 ^{-0.5}	24	13.5	43 45	40k6	80	5 70	M16	43 12
K77.. KA77B..	200 150 165	263 208 200	55 40 123.5	180 ^{-0.5} 112 ^{-0.5}	27	17.5	55 55	50k6	100	10 80	M16	53.5 14
K87.. KA87B..	233 180 180	305 260 230	70 55 150	212 ^{-0.5} 132 ^{-0.5}	32	22	67 75	60m6	120	5 110	M20	64 18
K97.. KA97B..	295 240 240	372 294 290	75 75 171	265 ⁻¹ 160 ^{-0.5}	36	26	82 60	70m6	140	7.5 125	M20	74.5 20
K107.. KA107B..	360 280 270	448 380 340	95 95 212	315 ⁻¹ 200 ^{-0.5}	40	33	98 100	90m6	170	5 160	M24	95 25
K127.. KA127B..	420 350 330	526 440 400	110 115 253	375 ⁻¹ 225 ^{-0.5}	45	39	111 100	110m6	210	15 180	M24	116 28
K157.. KA157B..	500 380 420	634 480 500	130 140 247	450 ⁻¹ 280 ⁻¹	50	39	130 100	120m6	210	5 200	M24	127 32

KA37B..~KA157B..



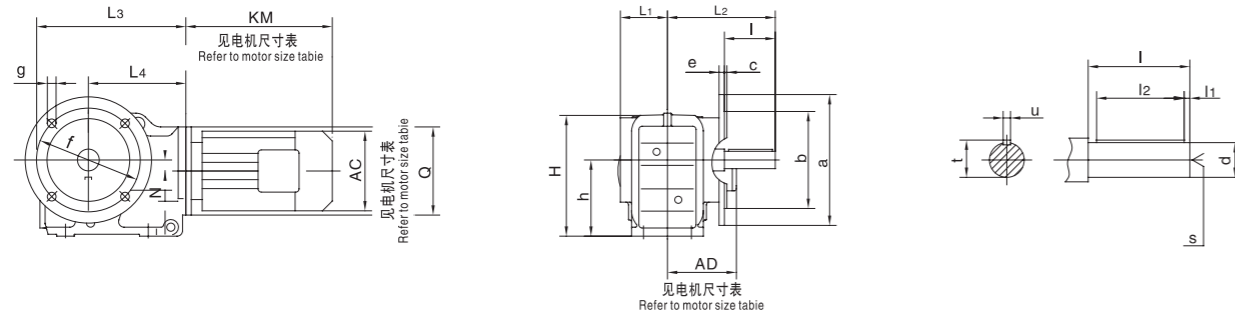
型号 size	空心轴尺寸 hollow shaft dimention							H	L1 L2	L3	N	Q
	d1	d2	l3 l4	l5 l6	l7 l8	s1	t1 u1					
K37..	-	-	-	-	-	-	-	165	110 60	139	8.5	120
K47.. KA47B..	35 ^{H7}	50	78 75	15 3	22 132	M12x30	38.3 10	185	135 72	166	7.2	160
K57.. KA57B..	40 ^{H7}	55	86 83	18 3	29 142	M16x40	43.3 12	217	153 80	173	13.1	160
K67.. KA67B..	40 ^{H7}	55	93 90	20 3.5	29 156	M16x40	43.3 12	228	171 86.5	179	20	160
K77.. KA77B..	50 ^{H7}	70	108 105	22.5 4	32 183	M16x45	53.8 14	288	206 101	202	31.3	200
K87.. KA87B..	60 ^{H7}	85	123 120	30 4	36 210	M20x50	64.4 18	340	240 116	257	25.9	250
K97.. KA97B..	70 ^{H7}	95	153 150	30 4	34 270	M20x50	74.9 20	417	291 146	277	32.3	300
K107.. KA107B..	90 ^{H7}	118	178 175	40 2.5	40 313	M24x60	95.4 25	503	347 175	341	52	350
K127.. KA127B..	100 ^{H7}	135	208 205	40 2.5	38 373	M24x60	106.4 28	592	418 203	390	53	450
K157.. KA157B..	120 ^{H7}	155	253 250	40	36 460	M24x60	127.4 32	705	457 250	426	71.7	550

KA37..~ KA107..

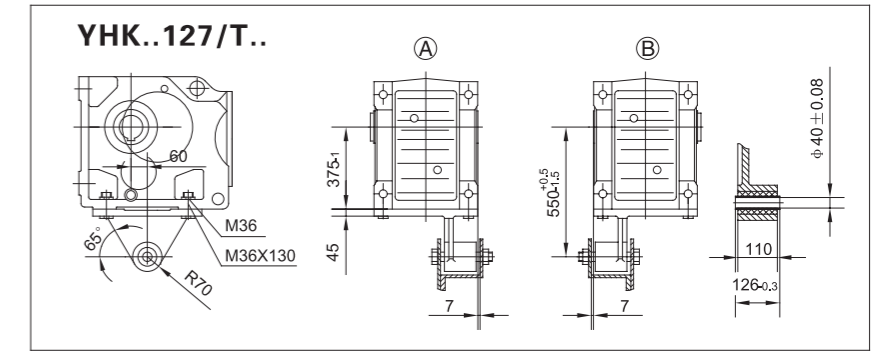


型号 size	a b c	e f g	h	k m n	p q	空心轴尺寸 Hollow shaft dimension				扭矩臂尺寸 Torque arm form				H L1 L2	N Q
						d1 d2	l1 l2 l3	l4 l5 l6	s t u	g1 g2 g3	h1 h2 h3	d3 l7 l8	r s1 ∞		
KA37.. K..37/T..	60 35 82	100 147 97	100-0.5	20 M10 4	12 M8	30 ^{H7} 45	63 60 2.5	60 17 105	M10 33.3 8	23.5 20 20	100-0.5 10 140 ^{+0.2} _{-0.7}	10.4±0.1 31 36-0.3	22.5 M10x25 60°	164 210 139	8.5 120
KA47.. K..47/T..	70 40 100	110 170 115	112-0.5	20 M10 4	12 M8	35 ^{H7} 50	78 75 3	75 22 132	M12 38.3 10	30 20 20	112-0.5 12 160 ^{+0.2} _{-0.7}	10.4±0.1 31 36-0.3	22.5 M10x30 55°	185 243 166	7.2 160
KA57.. K..57/T..	88 47 105	122 182 120	132-0.5	25 M12 5	20 M12	40 ^{H7} 55	86 83 3	83 29 142	M16 43.3 12	40 18 18	132-0.5 13 192 ^{+0.2} _{-0.7}	16.4±0.08 54 60-0.3	29 M12x35 55°	215 269 173	13.1 160
KA67.. K..67/T..	88 42 110	130 182 125	140-0.5	25 M12 5	20 M12	40 ^{H7} 55	94 90 3.5	90 29 156	M16 43.3 12	45 25 25	140-0.5 13 200 ^{+0.2} _{-0.7}	16.4±0.08 54 60-0.3	29 M12x35 55°	226 274 179	20 160
KA77.. K..77/T..	102 48 122	154 204 139	180-0.5	32 M16 6	20 M12	50 ^{H7} 70	108 105 4	105 32 186	M16 53.8 14	52.5 25 25	180-0.5 14 250 ^{+0.2} _{-0.7}	16.4±0.08 54 60-0.3	29 M16x40 60°	286 312 202	31.3 200
KA87.. K..87/T..	118 65 160	170 280 190	212-0.5	32 M16 6	26 M16	60 ^{H7} 85	123 120 4	120 36 210	M20 64.4 18	60 30 30	212-0.5 16 300 ^{+0.2} _{-0.7}	25±0.08 72 80-0.3	41 M16x45 60°	338 390 257	25.9 250
KA97.. K..97/T..	160 83 165	226 298 190	265-1	36 M20 6	26 M16	70 ^{H7} 95	153 150 4	150 34 270	M20 74.9 20	70 40 40	265-1 17 350 ^{+0.2} _{-1.2}	25±0.08 92 100-0.3	41 M20x50 50°	414 435 277	32.3 300
KA107.. K..107/T..	190 100 190	266 370 230	315-1	44 M24 8	-	90 ^{H7} 118	178 175 2.5	175 40 313	M24 95.4 25	74 45 45	315-1 20 450 ^{+0.5} _{-1.5}	25±0.08 92 100-0.3	41 M24x60 55°	500 537 341	52 350

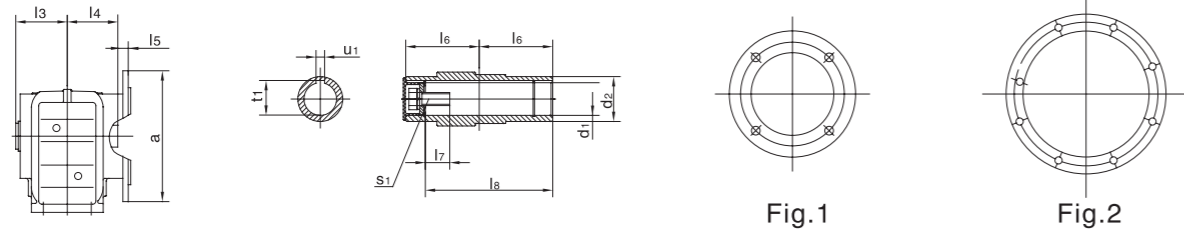
KF37..~ KF157..



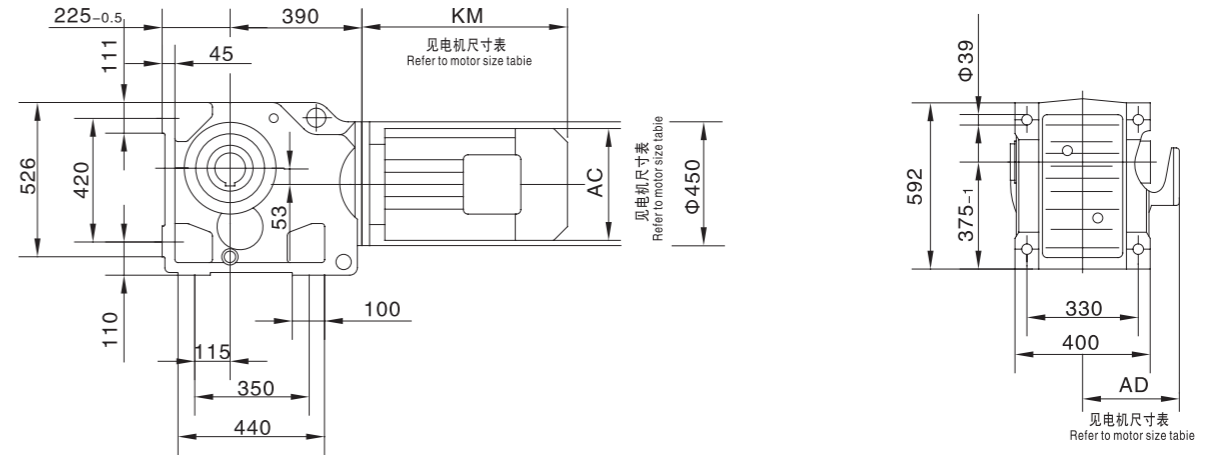
KA127..



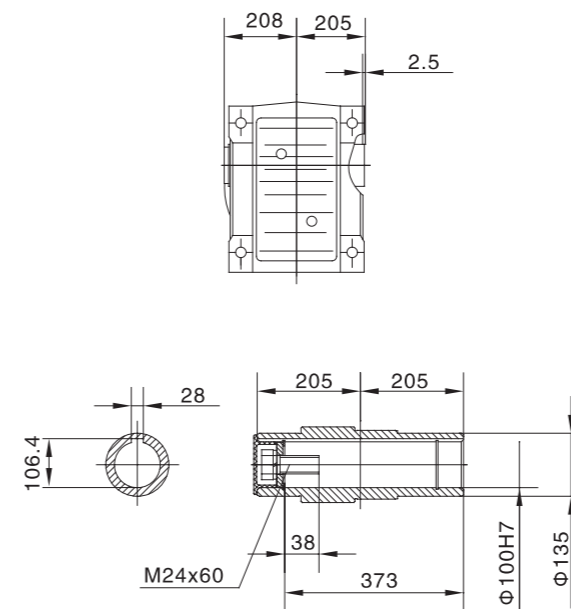
KAF37..~ KAF157..



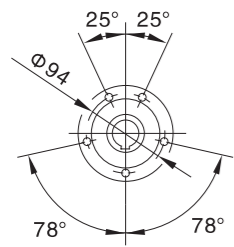
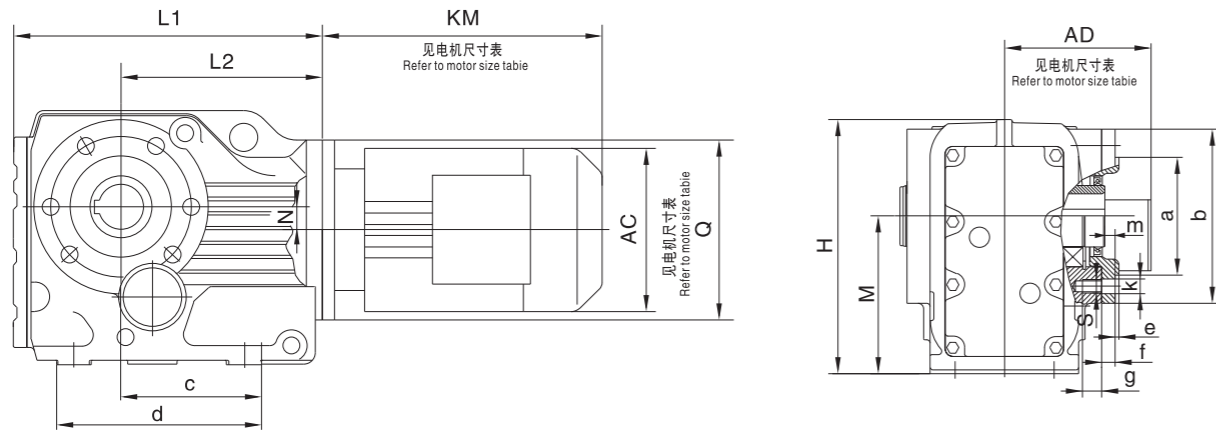
法兰型式
Flange form



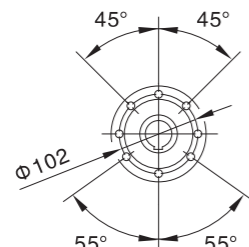
型号 model	法兰 型式 Flange form	a b	c e	f g h	轴伸尺寸 Shaft dimension				空心轴尺寸 Hollow shaft dimension				H	L1 L2 L3	L4 N Q	
					d l	l1 l2	s	t u	d1 d2	l3 l4 l5	l6 l7 l8	s1				t1 u1
KF37.. KAF37..	Fig.1	160 110j6	3.5 10	130 9 100	25k6 50	5 40	M10	28 8	30 ^{H7} 45	63 60 24	60 17 105	M10×25	33.3 8	164	57.5 134 210	139 8.5 120
KF47.. KAF47..	Fig.1	200 130j6	3.5 10	165 11 112	30k6 60	3.5 50	M10	33 8	35 ^{H7} 50	78 75 22	75 22 132	M12×30	38.3 10	185	72 160 243	166 7.2 160
KF57.. KAF57..	Fig.1	250 180j6	4 15	215 13.5 132	35k6 70	7 56	M12	38 10	40 ^{H7} 55	86 83 29	83 29 142	M16×40	43.3 12	215	80 177 269	173 13.1 160
KF67.. KAF67..	Fig.1	250 180j6	4 15	215 13.5 140	40k6 80	5 70	M16	43 12	40 ^{H7} 55	94 90 29	90 29 156	M16×40	43.3 12	226	86.5 193 274	179 20 160
KF77.. KAF77..	Fig.1	300 230j6	4 16	265 13.5 180	50k6 100	80 10	M16	53.5 14	50 ^{H7} 70	108 105 32	105 32 183	M16×45	53.8 14	286	101 242 312	202 31.3 200
KF87.. KAF87..	Fig.1	350 250h6	5 18	300 17.5 212	60m6 120	5 110	M20	64 18	60 ^{H7} 85	123 120 36	120 36 210	M20×50	64.4 18	338	138 270 390	257 25.9 250
KF97.. KAF97..	Fig.2	450 350h6	5 22	400 17.5 265	70m6 140	7.5 125	M20	74.5 20	70 ^{H7} 95	153 150 34	150 34 270	M20×50	74.9 20	414	171 332 435	277 32.3 300
KF107.. KAF107..	Fig.2	450 350h6	5 25	400 17.5 315	90m6 170	5 160	M24	95 25	90 ^{H7} 118	178 175 40	175 40 313	M24×60	95.4 25	500	175 386 537	341 52 350
KF127.. KAF127..	Fig.2	550 450h6	5 22	500 17.5 375-1	110m6 210	15 180	M24	116 28	100 ^{H7} 135	208 205 51	205 38 373	M24×60	106.4 28	592	203 466 615	390 53 450
KF157.. KAF157..	Fig.2	660 550h6	6 28	600 22 450-1	120m6 210	5 200	M24	127 32	120 ^{H7} 155	253 250 60	250 36 460	M24×60	127.4 32	705	253 520 706	705 71.7 550



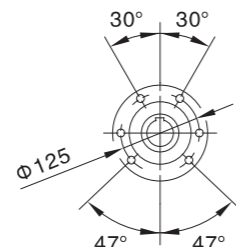
KAZ37..~KAZ107..



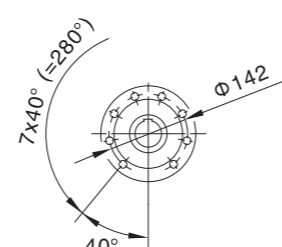
KAZ37..



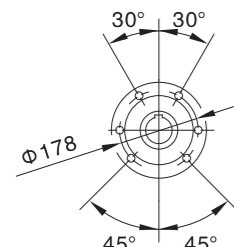
KAZ47..



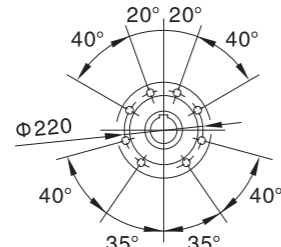
KAZ67..



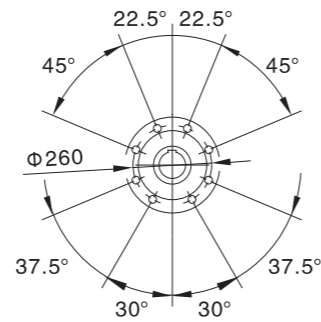
KAZ77..



KAZ87..



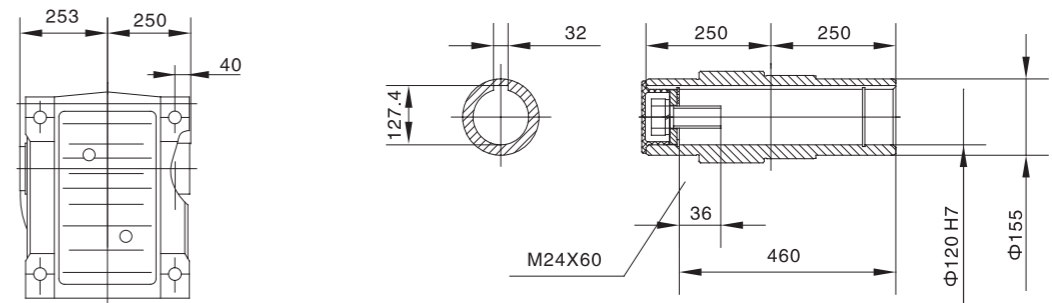
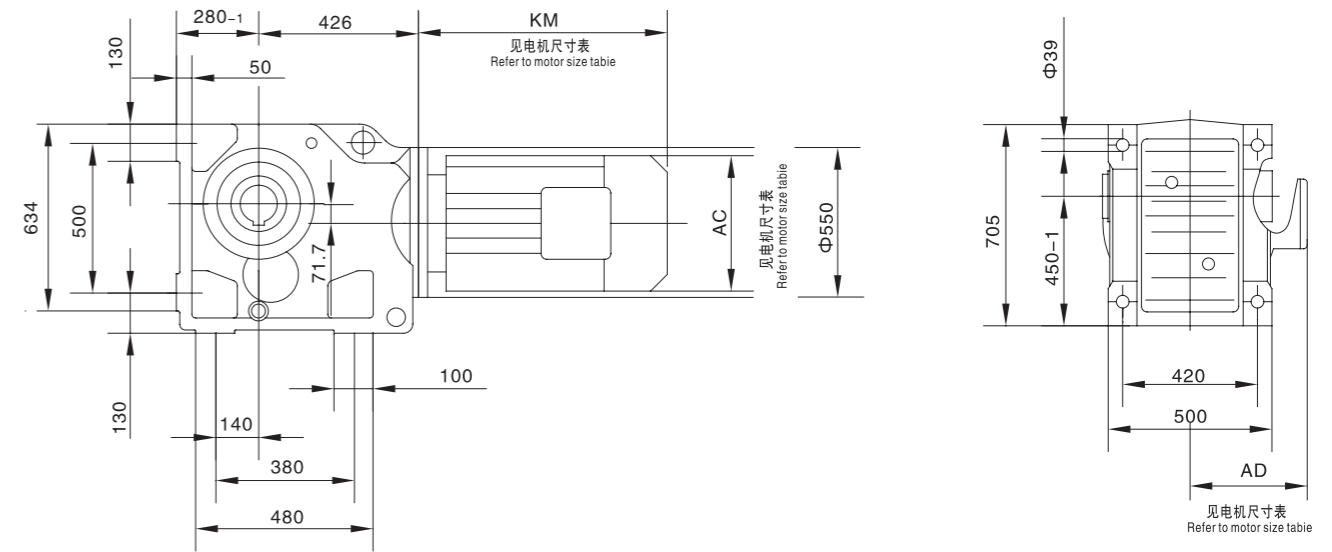
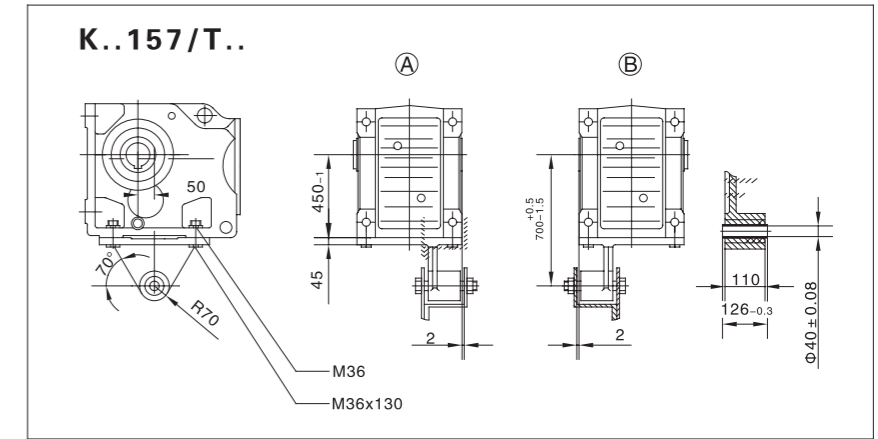
KAZ97..



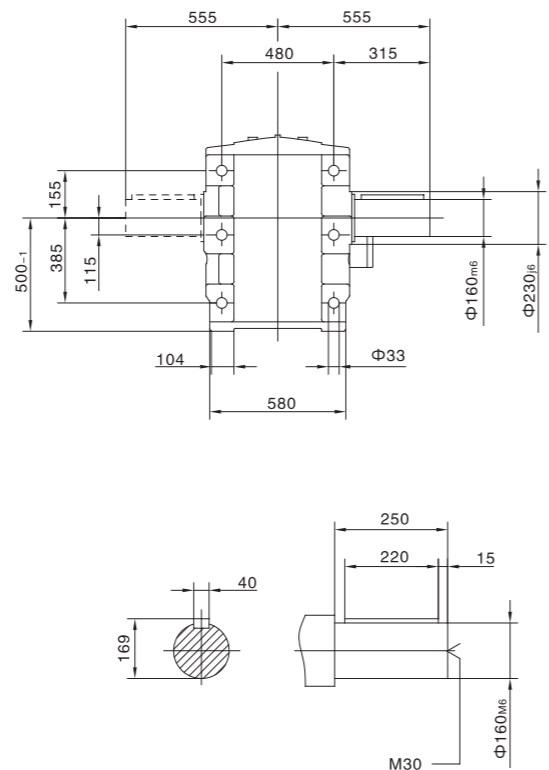
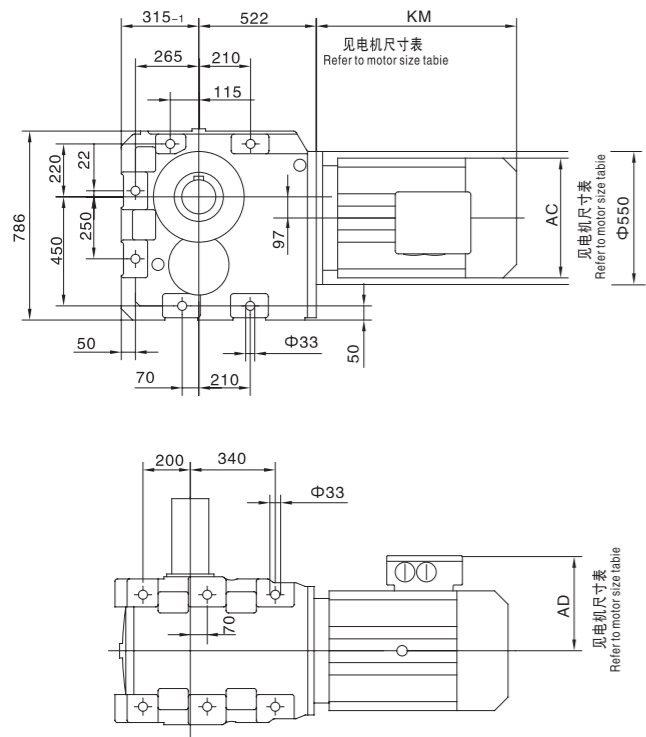
KAZ107..

型号 Model	a	b	c	d	e	f	g	H	k	L1	L2	m	M	N	Q	S
KAZ37..	110	80j6	97	147	3	11.5	12	164	9	210	139	9	100	8.5	120	M8
KAZ47..	120	80j6	115	170	3	11	12	185	9	243	166	8.5	112	7.2	160	M8
KAZ57..	155	105j6	120	182	3.5	12	20	215	13.5	269	173	9	132	13.1	160	M12
KAZ67..	155	105j6	125	182	3.5	12	20	226	13.5	274	179	8.5	140	20	160	M12
KAZ77..	170	125j6	139	204	3.5	14	20	286	13.5	312	202	10	180	31.3	200	M12
KAZ87..	215	155j6	190	280	4	15	26	338	17.5	390	257	11	212	25.9	250	M16
KAZ97..	260	180j6	190	298	4	18	26	414	17.5	435	277	14	265	32.3	300	M16
KAZ107..	304	210j6	23	370	4	22	30	500	22	537	341	8	315	52	350	M20

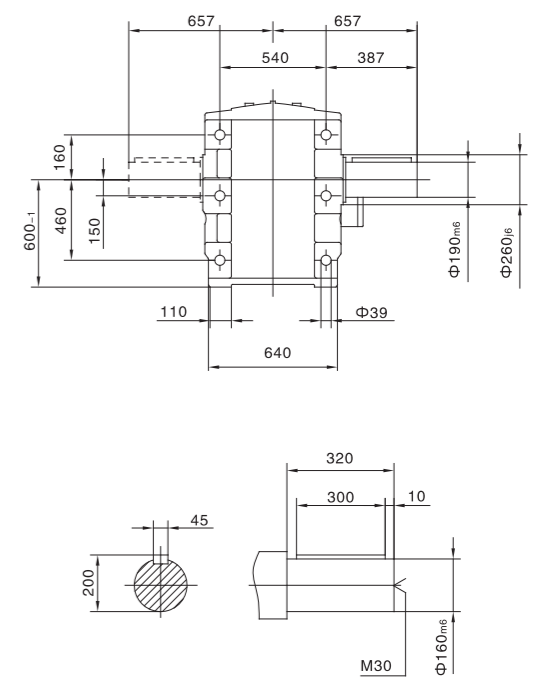
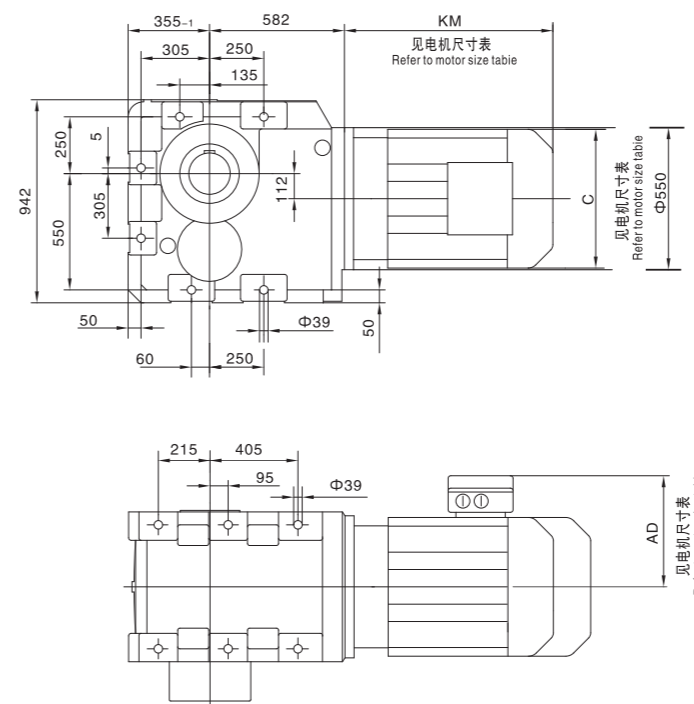
KA157..



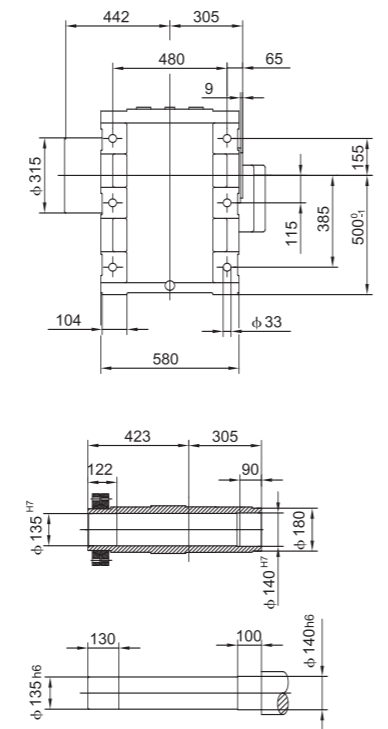
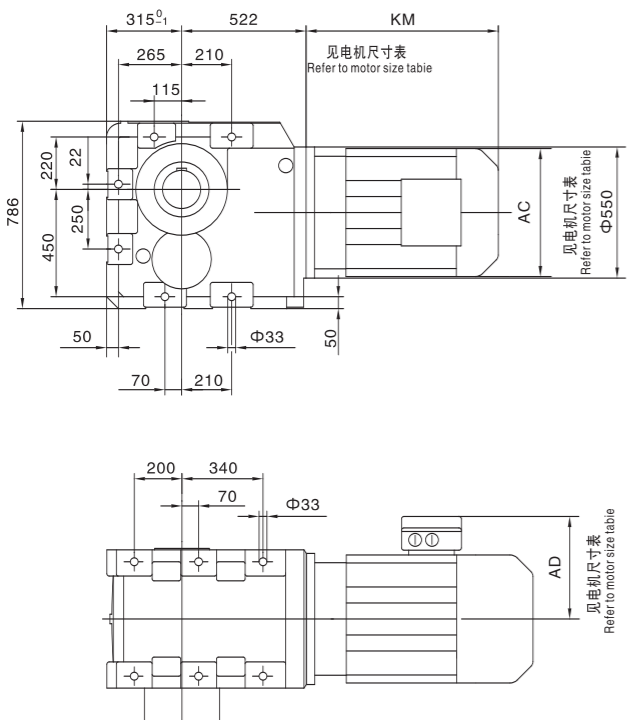
K167..



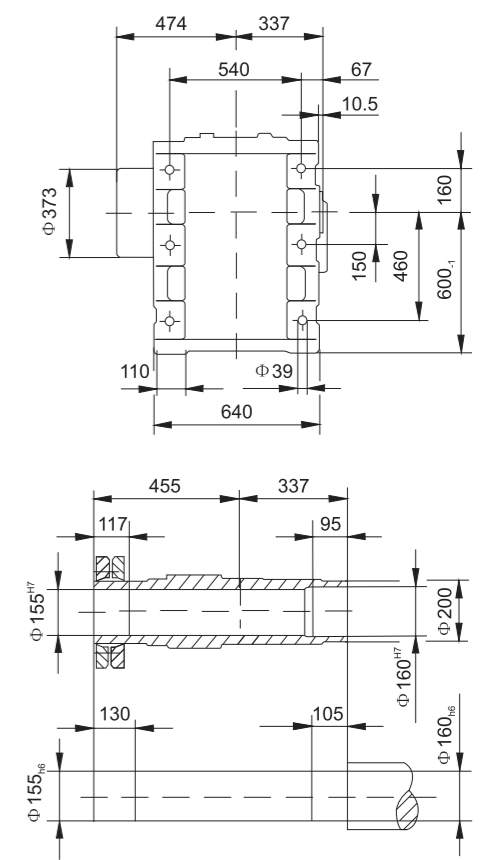
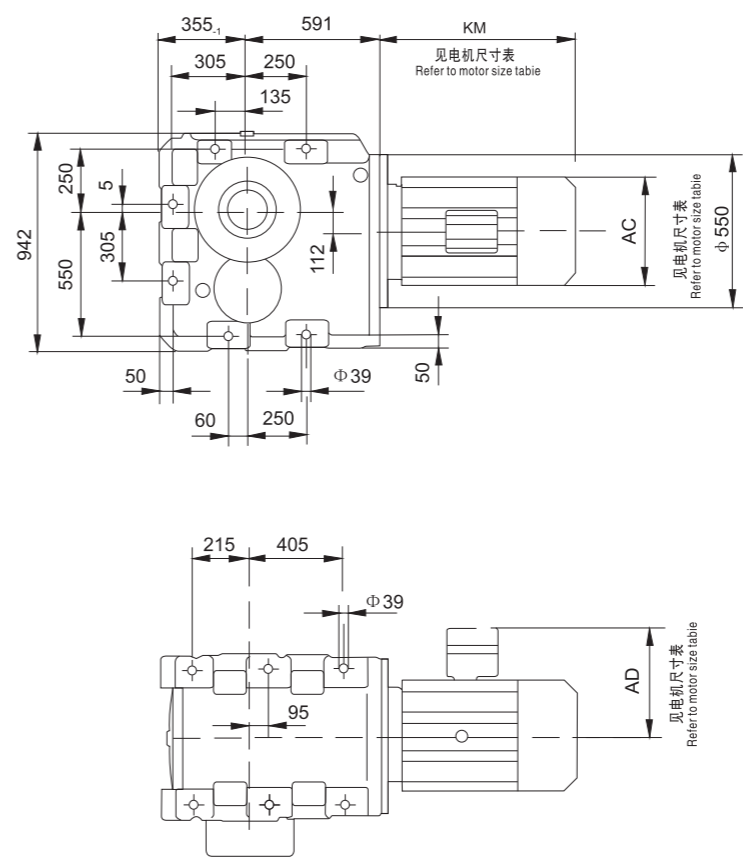
K187..



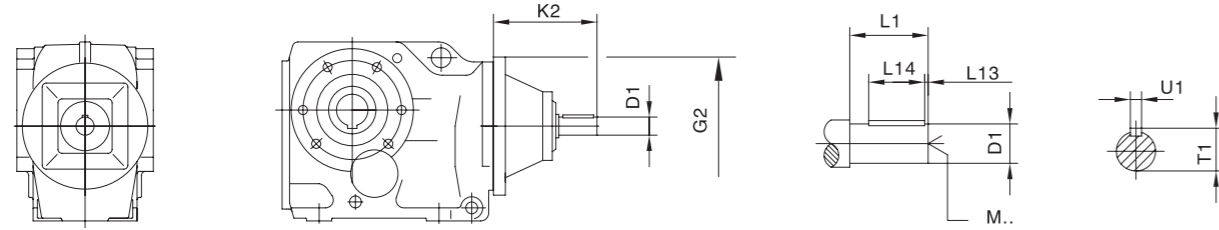
KH167..



KH187..

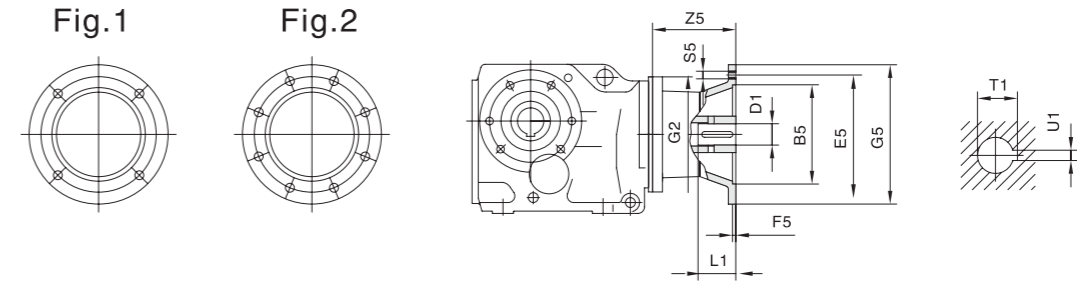


K..AD..



减速箱规格 Gear unit type	联接盘规格 Motor adcopator	G2	K2	D1	L1	L13	L14	T1	U1	M
K..37	AD1	120	102	16	40	4	32	18	5	M5
	AD2		130	19	40	4	32	21.5	6	M6
K..47 K..57 K..67	AD2	160	123	19	40	4	32	21.5	6	M6
	AD3		159	24	50	5	40	27	8	M8
K..77	AD2	200	116	19	40	4	32	21.5	6	M6
	AD3		151	24	50	5	40	27	8	M8
	AD4		224	38	80	5	70	41	10	M12
K..87	AD2	250	111	19	40	4	32	21.5	6	M6
	AD3		156	28	60	5	50	31	8	M10
	AD4		219	38	80	5	70	41	10	M12
K..97	AD3	300	151	28	60	5	50	31	8	M10
	AD4		214	38	80	5	70	41	10	M12
	AD5		287	42	110	10	70	45	12	M16
K..107	AD3	350	145	28	60	5	50	31	8	M10
	AD4		208	38	80	5	70	41	10	M12
	AD5		281	42	110	10	70	45	12	M16
	AD6		321	48	110	10	80	51.5	14	M16
K..127	AD4	450	193	38	80	5	70	41	10	M12
	AD5		266	42	110	10	70	45	12	M16
	AD6		306	48	110	10	80	51.5	14	M16
	AD7		300	55	110	10	90	59	16	M20
	AD8		383	70	140	15	110	74.5	20	M20
K..157 K..167 K..187	AD5	550	258	42	110	10	70	45	12	M16
	AD6		298	48	110	10	80	51.5	14	M16
	AD7		292	55	110	10	90	59	16	M20
	AD8		374	70	140	15	110	74.5	20	M20

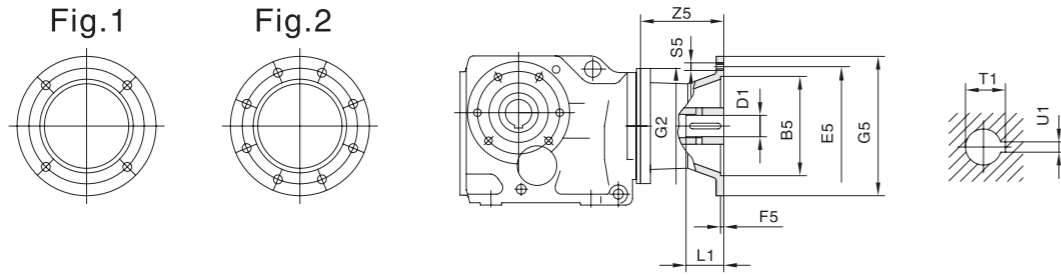
K..AM..



减速箱规格 Gear unit type	联接盘规格 Motor adcopator	Fig	B5	E5	F5	G2	G5	S5	Z5	D1	L1	T1	U1
K..37	AM63	1	95G7	115	3.5	120	140	M8	50	11	23	12.8	4
	AM71 ¹⁾		110G7	130			54		14	30	16.3	5	
	AM80 ¹⁾		130G7	165	4.5		200	M10	69	19	40	21.8	6
	AM90 ¹⁾			24			50		27.3	8			
K..47 K..57 K..67	AM63	1	95G7	115	3.5	160	140	M8	50	11	23	12.8	4
	AM71		110G7	130			54		14	30	16.3	5	
	AM80		130G7	165	4.5		200	M10	69	19	40	21.8	6
	AM90			24			50		27.3	8			
	AM100 ¹⁾		180G7	215	5		250	M12	81	28	60	31.3	8
K..77	AM63	1	95G7	115	3.5	200	140	M8	54	11	23	12.8	4
	AM71		110G7	130			14		30	16.3	5		
	AM80		130G7	165	4.5		200	M10	69	19	40	21.8	6
	AM90			24			50		27.3	8			
	AM100 ¹⁾		180G7	215	5		250	M12	81	28	60	31.3	8
	AM112 ¹⁾												
	AM132S ¹⁾ AM132M ¹⁾ AM132ML ¹⁾												
K..87	AM80	1	130G7	165	4.5	250	200	M10	69	19	40	21.8	6
	AM90						24		50	27.3	8		
	AM100		180G7	215	5		250	M12	81	28	60	31.3	8
	AM112												
	AM132S AM132M AM132ML		230G7	265	5		300	M12	92	38	80	41.3	10
	AM160 ¹⁾												
	AM180 ¹⁾												
K..97	AM100	1	180G7	215	5	300	250	M12	81	28	60	31.3	8
	AM112												
	AM132S AM132M		230G7	265	5		300	M12	92	38	80	41.3	10
	AM132ML												
	AM160 ¹⁾		250G7	300	6		350	M16	125	42	110	45.3	6
	AM180 ¹⁾						48			51.8		8	
	AM200 ¹⁾						300G7			350	7	400	M16
	AM225 ¹⁾		350G7	400	7			450	159			60	

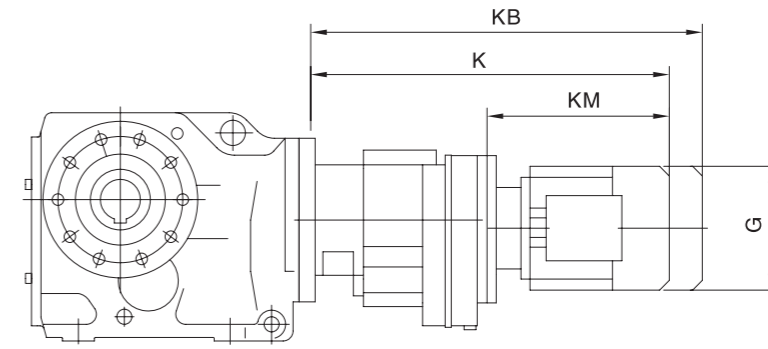
1) 如果安装在K系列底脚安装方式的减速机上, 请检查尺寸G5/2, 它可能已突出平面。
Dimension G5/2 May protrude past foot mounting surface if mounted on K foot - mounted gear unit, please check.

K..AM..



减速箱规格 Gear unit type	联接盘规格 Motor adaptor	Fig	B5	E5	F5	G2	G5	S5	Z5	D1	L1	T1	U1	
K..107	AM100	1	180	215	5	350	250	M12	81	28	60	31.3	8	
	AM112													
	AM132S													
	AM132M													
	AM132ML	2	230	265	7	300	M16	92	38	80	41.3	10		
	AM160													
	AM180													
	AM200													
AM225	300	350	400	450	M16	124	42	48	110	45.3	12			
AM225														
K..127	AM132S	1	230	265	5	450	300	M12	92	38	80	41.3	10	
	AM132M													
	AM132ML													
	AM160													
	AM180	2	250	300	6	350	M16	124	42	48	110	45.3	12	
	AM200													
	AM225													
	AM250													
AM280	300	350	400	550	M16	144	55	65	140	59.3	16			
AM280														
K..157 K..167 K..187	AM160	1	250	300	6	550	350	M16	124	42	48	110	45.3	12
	AM180													
	AM200													
	AM225													
	AM250	2	300	350	7	400	M16	144	55	65	140	59.3	16	
	AM280													
	AM280													
	AM280													

K..R..



减速箱规格 Gear unit type	电机规格 Motor type	G	K	KB	KM
K..67R37	D63..	155	400	457	235
	D71D	155	401	465	236
	D80..	155	451	515	286
K..57R37	D63..	155	410	457	235
	D71D	155	401	456	236
	D80..	155	451	515	286
	D90..	210	451	536	286
K..77R37	D63..	155	392	449	235
	D71D	155	393	457	236
	D80..	155	443	507	286
	D90..	210	443	528	286
K..87R57	D63..	155	445	502	229
	D71D	155	445	509	229
	D80..	210	495	559	279
	D90..	210	495	580	279
	D100M	210	545	630	329
	D100L	210	565	650	349
K..97R57	D63..	155	440	497	229
	D71D	155	440	504	229
	D80..	155	490	554	279
	D90..	210	490	575	279
	D100M	210	540	625	329
	D100L	210	560	645	349
	D112M	240	575	655	364
	D132S	285	699	811	452
K..107R77	D63..	155	470	527	223
	D71D	155	470	534	223
	D80..	155	520	584	273
	D90..	210	518	603	271
	D100M	210	568	653	321
	D100L	210	588	673	341
	D112M	240	602	682	355
	D132S	240	647	727	400
	D132M	285	699	811	452
	D132ML	285	719	831	472
	D160M	330	749	861	512

减速箱规格 Gear unit type	电机规格 Motor type	G	K	KB	KM
K..127R77	D63..	155	455	512	223
	D71D	155	455	519	223
	D80..	155	505	569	273
	D90..	210	503	588	271
	D100M	210	553	638	321
	D100L	210	573	658	341
	D112M	240	587	667	355
	D132S	240	632	712	400
	D132M	285	684	796	452
	D132ML	285	704	816	472
K..127R87	D160M	330	734	846	502
	D90..	210	547	632	267
	D100M	210	597	682	317
	D100L	210	617	702	337
	D112M	240	630	710	350
	D132S	240	675	755	395
	D132M	285	727	839	447
	D132ML	285	747	859	467
	D160M	330	777	889	497
	D160L	330	824	980	544
K..157R97 K..167R97 KH..167BR97	D180..	380	896	1052	616
	D80..	155	586	650	261
	D90..	210	586	671	261
	D100M	210	636	721	311
	D100L	210	656	741	331
	D112M	240	670	750	345
	D132S	240	715	795	390
	D132M	285	767	879	442
	D132ML	285	787	899	462
	D160M	330	817	929	492
K..157R107 K167R97 KH167BR97	D160L	330	864	1020	539
	D180..	380	936	1092	61
	D200..	420	1024	1180	699
	D100M	210	687	772	305
	D100L	210	707	792	325
	D112M	240	721	801	339
	D132S	240	766	846	384
	D132M	285	818	930	436
	D132ML	285	838	950	456
	D160M	330	868	980	486
K187R97 KH187BR97	D160L	330	915	1071	533
	D180..	380	987	1143	605
	D200..	420	1075	1231	693
	D225..	470	1107	1263	725

注: 上表中电机尺寸为参考尺寸, 因空间限制对尺寸有严格要求时请向我公司咨询。
Notes: The dimension of motor in the above table is only for reference. If you have special require, please consult us.

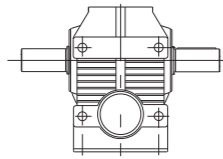
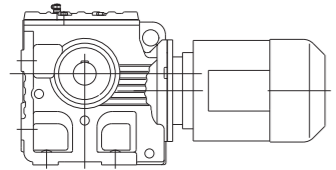
8. S 斜齿轮 – 蜗轮蜗杆减速电机 S Helical – Worm Geared Motor

8.1 设计方案

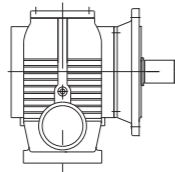
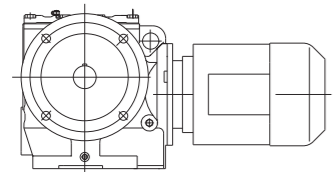
8.1 Versions of geared motors

斜齿轮 – 蜗轮蜗杆齿轮减速电机有以下设计方案：

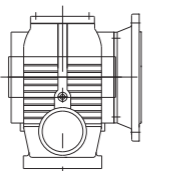
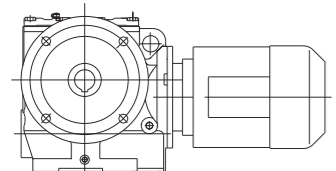
The following types of helical – worm gearmotor can be supplied:



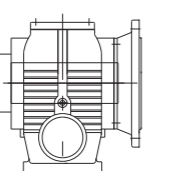
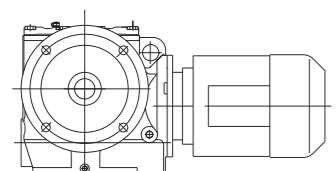
S..D..
底脚安装斜齿轮--蜗轮蜗杆齿轮减速电机
Foot – mounted helical – worm gearmotor



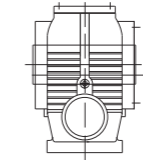
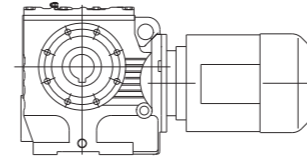
SF..D..
法兰安装斜齿轮--蜗轮蜗杆齿轮减速电机
Helical – worm gearmotor flange – mounted version.



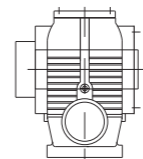
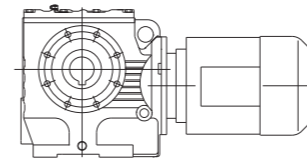
SAF..D..
B5 法兰空心轴安装斜齿轮--蜗轮蜗杆齿轮减速电机
Helical – worm gearmotor in B5 flange – mounted version with hollow shaft.



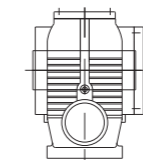
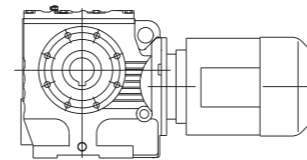
SHF..D..
B5 法兰空心轴锁紧盘安装斜齿轮--蜗轮蜗杆齿轮减速电机
Helical – worm gearmotor in B5 flange – mounted version with hollow shaft and shrink disk.



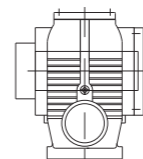
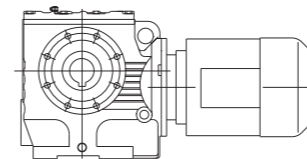
SA..D..
空心轴安装斜齿轮--蜗轮蜗杆齿轮减速电机
Helical – worm gearmotor with hollow shaft.



SH..D..
空心轴锁紧盘安装斜齿轮--蜗轮蜗杆齿轮减速电机
Helical – worm gearmotor with hollow shaft and shrink disk.



SAZ..D..
B14 法兰空心轴安装斜齿轮--蜗轮蜗杆齿轮减速电机
Helical – worm gearmotor in B14 flange – mounted version with hollow shaft



SHZ..D..
B14 法兰空心轴锁紧盘安装斜齿轮--蜗轮蜗杆齿轮减速电机
Helical – worm gearmotor in B14 flange – mounted version with hollow shaft and shrink disk.

8.2 可行的组合方式 8.2 Type of Combination

以下是斜齿轮-蜗杆减速与交流(带制动)电机的组合列表。表中给出了每种组合的速比范围。
The below is combination table between gear box and electro motor in each list the ratio range.

减速器型号 Gear unit size	级 Stages	D63 D71	D80	D90	D100	D112	D132S	D132M
S/SF/SA/SAF37	2	6.80-18.24 19.89-51.30 55.93-157.43	6.80-15.53 19.13 22.50-43.68 53.83 63.33-122.94	6.80-13.39 19.13 22.50-37.66 53.83 63.33-106.00				
S/SF/SA/SAF47	2	7.28-17.62 20.33-54.59 63.80-201.00	7.28-17.62 20.33-54.59 67.20 71.75-158.12	7.28-19.54 23.20-47.32 56.61 67.20 71.75-137.05	7.28-14.24 19.54 23.20-38.23 56.61 67.20 71.75-110.73			
S/SF/SA/SAF57	2	7.28-17.62 20.33-54.59 63.80-201.00	7.28-17.62 20.33-54.59 67.20 71.75-158.12	7.28-19.54 23.20-47.32 56.61 67.20 71.75-137.05	7.28-14.24 19.54 23.20-38.23 56.61 67.20 71.75-110.73			
S/SF/SA/SAF67	2	11.03-17.28 20.37-23.22 24.44 29.63-54.70 62.35-65.63 75.06 85.83-217.41	8.69-17.28 20.37-23.22 24.44-54.70 62.35-65.63 75.06 85.83-217.41	7.56-17.28 20.37-23.22 24.44-54.70 62.35-65.63 78.00-190.1	7.56-17.28 20.37 23.33 26.93-54.70 58.80 67.57 78.00-158.45	7.56-20.30 23.33 26.93-46.40 58.80 67.57 78.00-134.40	7.56-13.73 20.30 23.33 26.93-36.85 58.80 67.57 78.00-106.75	7.56-13.73 20.30 23.33 26.93-36.85 58.80 67.57 78.00-106.75
S/SF/SA/SAF77	2	15.28-18.42 20.99 22.89 35.94-53.87 63.03 71.33-75.09 107.83-256.47	12.07-18.42 20.99 22.89 28.41-53.87 63.03 71.33-75.09 85.22-256.47	8.06-18.42 20.99 22.89-75.09 85.22-225.26	8.06-18.42 20.99 22.89-66.67 75.20-189.09	8.06-18.42 20.99 22.89-56.92 66.67 75.20-161.60	8.06-18.97 22.22 25.07-43.33 56.92 66.67 75.20-130.00	8.06-18.97 22.22 25.07-43.33 56.92 66.67 75.20-130.00
S/SF/SA/SAF87	2		17.49-19.70 21.43 25.50 39.10-57.00 64.27-70.43 81.76 91.20	12.21-19.70 21.43 25.50-57.00 64.27-70.43 81.76-288.00	9.07-19.70 21.43 25.50-57.00 64.27-77.14 86.15 99.26-258.18	9.07-19.70 21.43 25.50-57.00 64.27-77.14 86.15 99.26-222.40	7.88-19.70 21.43 25.50-64.00 77.14 86.15 99.26-180.00	7.88-19.70 21.43 25.50-64.00 77.14 86.15 99.26-180.00
S/SF/SA/SAF97	2		23.59 26.39 49.87-60.59 71.43 80.85 161.74-286.40	17.05-23.59 26.39 36.05-60.59 71.43 80.85 116.92-286.40	13.07-23.859 26.39 32.60-60.59 71.43 80.85-286.40	13.07-23.59 26.39 32.60-60.59 71.43 80.85-286.40	8.26-23.59 26.39 32.60-78.26 71.43 89.60-231.67	8.26-23.59 26.39 32.60-78.26 71.43 89.60-231.67

减速器型号 Gear unit size	级 Stages	D132ML	D160M	D160L	D180
S/SF/SA/SAF77	2	8.06-13.76 18.97 22.22 25.07-32.38 56.92 66.67 75.20-97.14	8.06-13.76 18.97 22.22 25.07-32.38 56.92 66.67 75.20-97.14		
S/SF/SA/SAF87	2	7.88-20.27 24.43 27.28-44.03 64.00 77.14 86.15 99.26-139.05	7.88-20.27 24.43 27.28-44.03 64.00 77.14 86.15 99.26-139.05	7.88-20.27 24.43 27.28-44.03 64.00 77.14 86.15 99.26-139.05	7.88-15.64 20.27 24.43 27.28-34.96 64.00 77.14 86.15 99.26-110.40
S/SF/SA/SAF97	2	8.26-23.59 26.39 32.60-55.79 65.45 78.26 89.60-180.95	8.26-23.59 26.39 32.60-55.79 65.45 78.26 89.60-180.95	8.26-23.59 26.39 32.60-55.79 65.45 78.26 89.60-180.95	8.26-21.23 24.13 27.63-44.89 65.45 78.26 89.60-145.60

8.3 速比与最大扭矩 8.3 Ratio and Max. Torque

S37-57 $n_e=1400$ 1/min

S37		90Nm			
i	n_a [1/min]	M_{amax} [Nm]	F_{Ra} [N]	AD	
157.43	8.9	92	3000		
144.40	9.7	92	3000		
122.94	11	91	3000		
106.00	13	88	3000		
98.80	14	87	3000		
86.36	16	86	3000		AD ₁
80.96	17	85	3000		
71.44	20	84	3000		
63.33	22	82	3000		
55.93	25	81	3000		
53.83	26	80	3000		AD ₂
51.30	27	81	3000		
43.68	32	81	3000		
37.66	37	79	3000		
35.10	40	78	3000		
30.68	46	76	2870		AD ₁
28.76	49	75	2800		
25.38	55	74	2660		
22.50	62	73	2530		
19.89	70	52	2470		
19.13	73	71	2380		AD ₂
18.24	77	52	2380		AD ₁
15.53	90	50	2240		
13.39	105	49	2110		
12.48	112	48	2060		
10.91	128	48	1940		
10.23	137	47	1900		AD ₂
9.02	155	46	1810		
8.00	175	45	1730		
6.80	206	43	1630		

S47		170Nm			
i	n_a [1/min]	M_{amax} [Nm]	F_{Ra} [N]	AD	
201.00	7.0	170	5340		
184.80	7.6	170	5340		
158.12	8.9	170	5340		
137.05	10	168	5350		
128.10	11	168	5350		
110.73	13	168	5350		AD ₁
94.08	15	168	5350		
84.00	17	167	5360		
71.75	20	167	5360		
69.39	20	155	5370		
67.20	21	167	5360		
63.80	22	155	5370		
56.61	25	165	5320		AD ₂
54.59	26	155	5150		
47.32	30	155	4850		AD ₁
44.22	32	155	4710		
38.23	37	155	4430		
32.48	43	155	4120		
29.00	48	155	3920		
24.77	57	155	3650		
23.20	60	152	3570		
20.33	69	110	3370		AD ₂
19.54	72	144	3370		
17.62	79	110	3160		
16.47	85	110	3060		
14.24	98	110	2850		
12.10	116	109	2650		
10.80	130	109	2500		
9.23	152	109	2310		
8.64	162	109	2230		
7.28	192	103	2110		

S57		300Nm			
i	n_a [1/min]	M_{amax} [Nm]	F_{Ra} [N]	AD	
201.00	7.0	295	7130		
184.80	7.6	295	7130		
158.12	8.9	295	7130		
137.05	10	295	7130		
128.10	11	295	7130		AD ₁
110.73	13	295	7130		
94.08	15	295	7130		
84.00	17	295	7130		
71.75	20	290	7170		
69.39	20	245	7520		
67.20	21	285	7220		
63.80	22	245	7520		
56.61	25	265	7370		
54.59	26	245	7520		
47.32	30	245	7520		
44.22	32	245	7520		
38.23	37	245	7320		
32.48	43	245	6840		
29.00	48	245	6520		AD ₂
24.77	57	245	6100		
23.20	60	245	5930		
20.33	69	168	5690		
19.54	72	215	5720		
17.62	79	168	5350		
16.47	85	168	5200		
14.24	98	169	4860		
12.10	116	169	4520		
10.80	130	169	4290		
9.23	152	169	3990		
8.64	162	166	3900		
7.28	192	146	3790		

S67-87 $n_e=1400$ 1/min

S67		520Nm		
i	n_a [1/min]	M_{amax} [Nm]	F_{Ra} [N]	AD
217.41	6.4	520	8680	
190.11	7.4	520	8680	
180.60	7.8	520	8680	
158.45	8.8	520	8680	
134.40	10	520	8680	
121.33	12	520	8680	
106.75	13	520	8680	AD ₂
100.80	14	520	8680	
85.83	16	520	8680	
78.00	18	520	8680	
75.06	19	480	9020	
67.57	21	520	8680	
65.63	21	480	9020	
62.35	22	480	9020	
58.80	24	500	8850	AD ₃
54.70	26	480	8670	
46.40	30	480	8060	
41.89	33	480	7690	
36.85	38	480	7250	
34.80	40	480	7060	AD ₂
29.63	47	480	6540	
26.93	52	480	6240	
24.44	57	340	6040	
23.33	60	480	5810	
23.22	60	340	5890	
20.37	69	340	5520	
20.30	69	425	5760	AD ₃
17.28	81	340	5080	
15.60	90	340	4820	AD ₂
13.73	102	340	4510	
12.96	108	340	4310	
11.03	127	340	3660	AD ₃
10.03	140	340	3290	
8.69	161	335	2860	
7.56	185	295	3220	

S77		1270Nm		
i	n_a [1/min]	M_{amax} [Nm]	F_{Ra} [N]	AD
256.47	5.5	1270	11800	
225.26	6.2	1270	11800	
214.00	6.5	1270	11800	
189.09	7.4	1270	11800	
161.60	8.7	1260	11900	
148.15	9.4	1240	12000	
130.00	11	1210	12300	
123.20	11	1200	12400	
107.83	13	1170	12600	
97.14	14	1140	12900	AD ₂
85.22	16	1100	13200	
75.20	19	1070	13400	
75.09	19	1100	13200	
71.33	20	1100	13200	
66.67	21	1040	13600	
63.03	22	1100	12800	
56.92	25	990	13300	
53.87	26	1100	11900	
49.38	28	1100	11500	
43.33	32	1100	10800	
41.07	34	1100	10500	
35.94	39	1100	9850	
32.38	43	1090	9400	
28.41	49	1050	8970	
25.07	56	1020	8550	
22.89	61	705	7440	
22.22	63	980	8220	
20.99	67	705	6820	AD ₃
18.97	74	930	7800	
18.42	76	705	5920	
17.45	80	710	5470	
15.28	92	710	4610	
13.76	102	710	3960	
12.07	116	720	3000	
10.65	131	720	2280	AD ₄
9.44	148	725	1040	
8.06	174	680	1160	

S87		2280Nm		
i	n_a [1/min]	M_{amax} [Nm]	F_{Ra} [N]	AD
288.00	4.9	2280	27900	
258.18	5.4	2280	27900	
222.40	6.3	2280	27900	
202.96	6.9	2260	28000	
180.00	7.8	2210	28100	
151.30	9.3	2150	28200	
139.05	10	2100	28300	
123.48	11	2060	28300	AD ₂
110.40	13	2000	28400	
99.26	14	1960	28500	
91.20	15	1510	29100	
86.15	16	1880	28600	
81.76	17	1600	29000	
77.14	18	1820	28700	
70.43	20	1600	29000	
64.27	22	1600	29000	
64.00	22	1700	28900	AD ₃
57.00	25	1600	29000	AD ₂
47.91	29	1600	29000	
44.03	32	1600	29000	AD ₃
39.10	36	1600	28200	
34.96	40	1600	27100	
31.43	45	1600	26000	
27.28	51	1600	24700	
25.50	55	1240	23400	
24.43	57	1600	23700	
21.43	65	1240	21800	
20.27	69	1600	22100	
19.70	71	1240	21100	
17.49	80	1240	20200	AD ₄
15.64	90	1240	19300	
14.06	100	1240	18500	
12.21	115	1240	17400	
10.93	128	1240	16600	
9.07	154	1140	15900	
7.88	178	1010	15700	

S97, S37 $n_e=1400$ 1/min

S97		4000Nm		
i	n_a [1/min]	M_{amax} [Nm]	F_{Ra} [N]	AD
286.40	4.9	4000	36300	
262.22	5.3	4000	36300	
231.67	6.0	4000	36300	
196.52	7.1	4000	36300	
180.95	7.7	3920	36500	
161.74	8.7	3840	36600	AD ₃
145.60	9.6	3730	36800	
131.85	11	3650	37000	
116.92	12	3510	37200	
105.71	13	3440	37300	
89.60	16	3240	37600	
80.85	17	3230	37600	
78.26	18	3080	37900	
71.43	20	3300	37500	AD ₄
65.45	21	2900	38100	AD ₃
60.59	23	3300	37500	
55.79	25	3300	37100	
49.87	28	3300	35600	
44.89	31	3300	34100	AD ₄
40.65	34	3300	32800	
36.05	39	3300	31300	
32.60	43	3200	30400	
27.63	51	3010	29000	AD ₅
26.39	53	2600	26100	AD ₄
24.13	58	2870	28000	
23.59	59	2600	24900	
21.23	66	2600	23700	
19.23	73	2600	22700	
17.05	82	2570	21100	AD ₅
15.42	91	2470	20800	
13.07	107	2330	20100	
11.41	123	2210	19500	
9.55	147	2040	18800	
8.26	169	1770	18800	

S67/77R37 $n_e=1400$ 1/min

S87/97R57 $n_e=1400$ 1/min

S67R37		570Nm	
i	n_a [1/min]	M_{amax} [Nm]	F_{Ra} [N]
21362	0.07	570	8190
19594	0.07	570	8190
18120	0.08	570	8190
16682	0.08	570	8190
14383	0.10	570	8190
12774	0.11	570	8190
11013	0.13	570	8190
9694	0.14	570	8190
8529	0.16	570	8190
7455	0.19	570	8190
6531	0.21	570	8190
5759	0.24	570	8190
4965	0.28	570	8190
4410	0.32	570	8190
3880	0.36	570	8190
3432	0.41	570	8190
2944	0.48	570	8190
2630	0.53	570	8190
2279	0.61	570	8190
2014	0.70	570	8190
1772	0.79	570	8190
1559	0.90	570	8190
1363	1.0	570	8190
1194	1.2	570	8190
1045	1.3	570	8190
914	1.5	570	8190
809	1.7	570	8190
712	2.0	570	8190
615	2.3	570	8190
543	2.6	570	8190
469	3.0	570	8190
424	3.3	570	8190
365	3.8	570	8190
319	4.4	570	8190
281	5.0	570	8190
246	5.7	570	8190
221	6.3	570	8190
198	7.1	570	8190
168	8.3	570	8190
156	9.0	570	8190

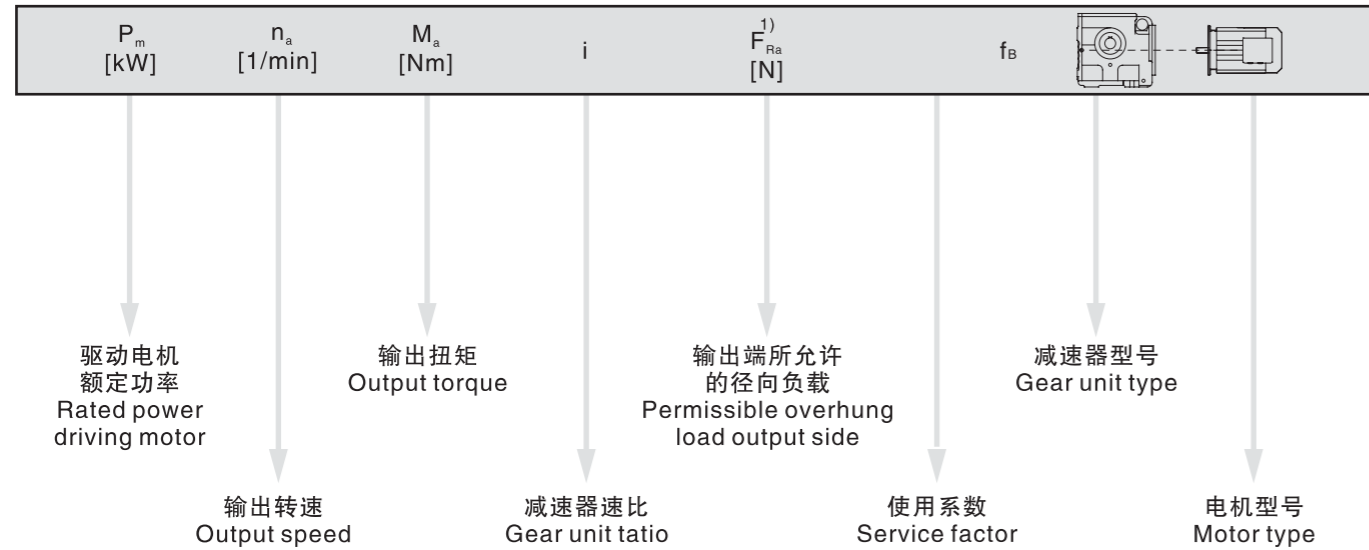
S77R37		1270Nm	
i	n_a [1/min]	M_{amax} [Nm]	F_{Ra} [N]
25493	0.05	1270	11700
21787	0.06	1270	11700
19907	0.07	1270	11700
17013	0.08	1270	11700
14668	0.10	1270	11700
13110	0.11	1270	11700
11569	0.12	1270	11700
9887	0.14	1270	11700
8817	0.16	1270	11700
7735	0.18	1270	11700
6735	0.21	1270	11700
5943	0.24	1270	11700
5214	0.27	1270	11700
4618	0.30	1270	11700
3992	0.35	1270	11700
3540	0.40	1270	11700
3098	0.45	1270	11700
2753	0.51	1240	12000
2374	0.59	1240	12000
2083	0.67	1240	12000
1813	0.77	1240	12000
1745	0.80	1240	12000
1600	0.88	1240	12000
1404	1.0	1240	12000
1245	1.1	1240	12000
1100	1.3	1240	12000
954	1.5	1240	12000
837	1.7	1240	12000
714	2.0	1240	12000
637	2.2	1240	12000
574	2.4	1240	12000
499	2.8	1240	12000
438	3.2	1240	12000
389	3.6	1240	12000
327	4.3	1240	12000
289	4.8	1240	12000
250	5.6	1240	12000
219	6.4	1240	12000

S87R57		2500Nm	
i	n_a [1/min]	M_{amax} [Nm]	F_{Ra} [N]
25987	0.05	2500	27500
23940	0.06	2500	27500
20568	0.07	2500	27500
18265	0.08	2500	27500
16774	0.08	2500	27500
14820	0.09	2500	27500
13160	0.11	2500	27500
11200	0.12	2500	27500
9904	0.14	2500	27500
8549	0.16	2500	27500
7643	0.18	2500	27500
6706	0.21	2500	27500
5875	0.24	2500	27500
5187	0.27	2500	27500
4606	0.30	2500	27500
3872	0.36	2500	27500
3475	0.40	2500	27500
2905	0.48	2500	27500
2586	0.54	2500	27500
2335	0.60	2500	27500
2054	0.68	2500	27500
1824	0.77	2500	27500
1631	0.86	2500	27500
1332	1.1	2500	27500
1191	1.2	2500	27500
1032	1.4	2500	27500
930	1.5	2500	27500
831	1.7	2500	27500
719	1.9	2500	27500
624	2.2	2500	27500
558	2.5	2500	27500
485	2.9	2500	27500
435	3.2	2450	27600
378	3.7	2450	27600
323	4.3	2400	27700
281	5.0	2400	27700
255	5.5	1980	28400
222	6.3	1980	28400
205	6.8	1980	28400

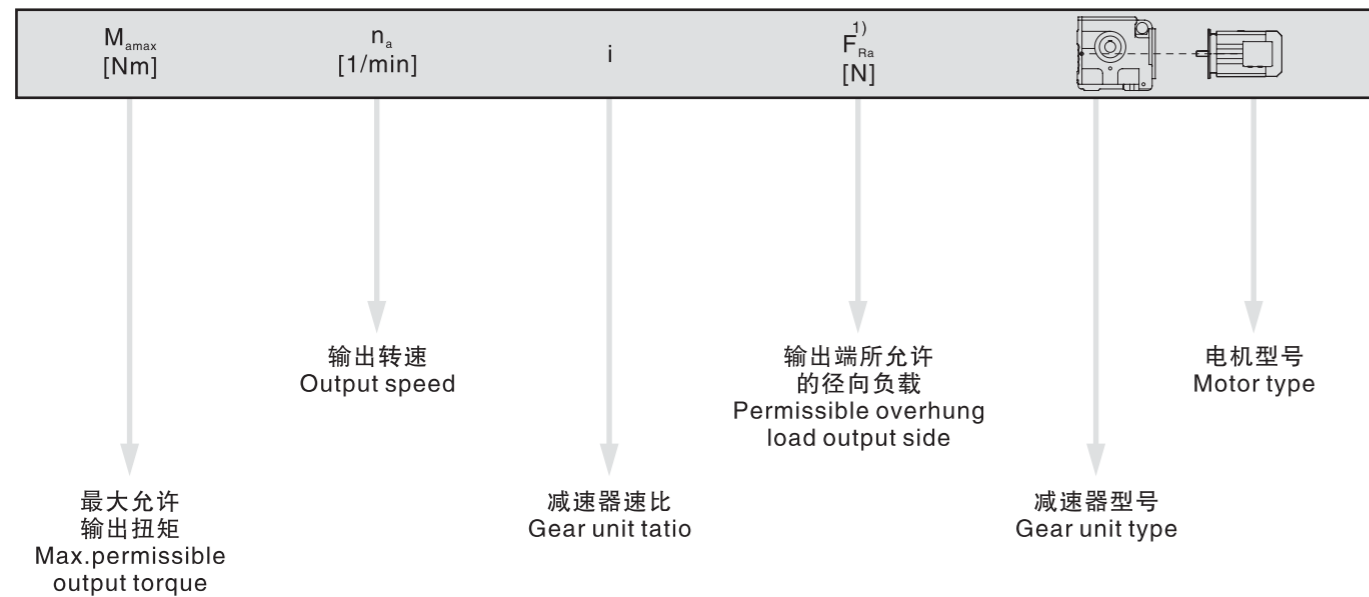
S97R57		4200Nm	
i	n_a [1/min]	M_{amax} [Nm]	F_{Ra} [N]
33818	0.04	4200	34200
31154	0.04	4200	34200
27847	0.05	4200	34200
24641	0.06	4200	34200
21537	0.07	4200	34200
18749	0.07	4200	34200
16233	0.09	4200	34200
14576	0.10	4200	34200
12752	0.11	4200	34200
11267	0.12	4200	34200
10078	0.14	4200	34200
8608	0.16	4200	34200
7554	0.19	4200	34200
6640	0.21	4200	30600
5780	0.24	4200	30600
4937	0.28	4200	30600
4444	0.32	4200	30600
4017	0.35	4200	30600
3453	0.41	4200	30600
3108	0.45	4200	30600
2654	0.53	4200	30600
2329	0.60	4200	30600
2081	0.67	4200	30600
1860	0.75	4200	30600
1574	0.89	4200	30600
1394	1.0	4200	30600
1223	1.1	4200	30600
1070	1.3	4200	30600
928	1.5	4200	30600
824	1.7	4200	30600
714	2.0	4200	34400
626	2.2	4200	30600
538	2.6	4200	30600
484	2.9	4200	30700
420	3.3	4200	30700
376	3.7	4200	30800
327	4.3	4200	30800
287	4.9	4200	30900
252	5.6	4200	31000
219	6.4	4200	31000
205	6.8	4200	31000

8.4 选型表注释 8.4 Selection table

选型表的结构
Selection table for geared motors



对于特殊低输出转速
For particularly low output speeds



图例 Cuttine
※ 也可用于EExe 电机。※EEXE motor is optional.
1) 实心轴底脚安装减速机的径向负荷
1) Overhung load specified for foot-mounted gear unit with solid shaft

注意: Notice:
对于特殊低输出转速驱动 (多级减速电机), 电机功率必须与减速机的最大允许输出地扭矩相对应。
In drives for particularly low output speeds (multi-stage geared motor), the motor power must belimited according to maximum permitted output torque of the gear unit.

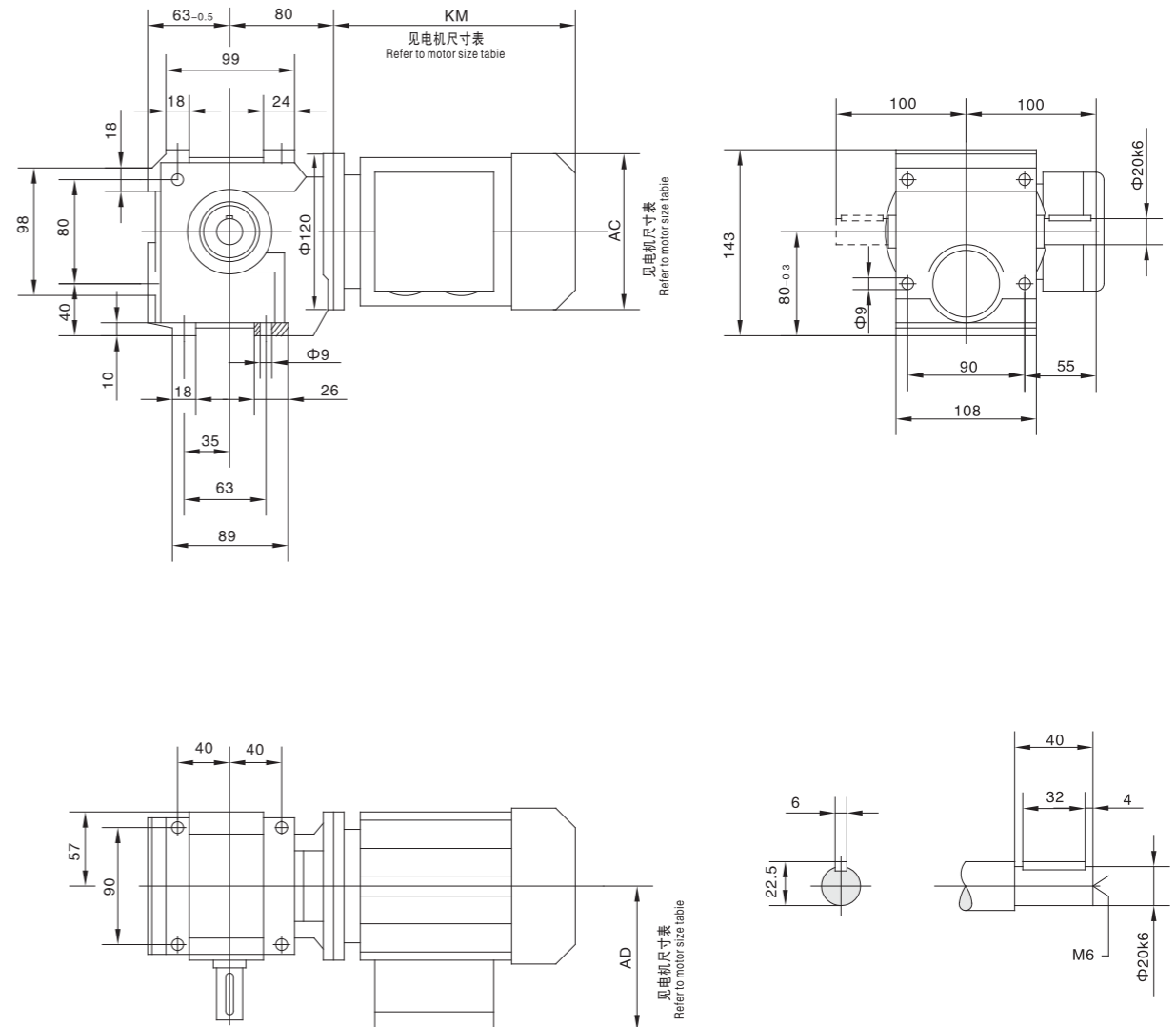
输出转速 Output speed n_a [1/min]	输出扭矩 Output torque M_a [N·m]	传动比 Ratio i	径向负荷 Permitted overhung load $F_{Ra}^{1)}$ [N]	使用系数 Service factor f_B	型号 Model
0.12kW					
0.12	4610	11267	28700	0.90	S 97 R57 D63S4
0.14	4210	10078	32800	1.00	SF 97 R57 D63S4
0.16	3500	8608	34200	1.20	SA 97 R57 D63S4
0.18	3090	7554	34800	1.35	SAF 97 R57 D63S4
0.18	3120	7643	14400	0.80	S 87 R57 D63S4
0.21	2630	6706	27200	0.95	SF 87 R57 D63S4
0.23	2330	5875	27800	1.05	SA 87 R57 D63S4
0.27	1960	5187	28500	1.25	SAF 87 R57 D63S4
0.30	1740	4606	28800	1.45	S 77 R37 D63S4
0.36	1450	3872	29200	1.70	SF 77 R37 D63S4
0.39	1340	3540	9700	0.95	SF 77 R37 D63S4
0.45	1170	3098	12500	1.10	SA 77 R37 D63S4
0.58	1280	2374	11600	0.95	SAF 77 R37 D63S4
0.66	1130	2083	12900	1.10	S 67 R37 D63S4
0.76	960	1813	14100	1.30	SF 67 R37 D63S4
0.79	910	1745	14300	1.35	SA 67 R37 D63S4
0.86	840	1600	14700	1.50	SAF 67 R37 D63S4
0.98	735	1404	15200	1.70	S 57 D63M6
1.1	645	1245	15600	1.90	SF 57 D63M6
1.0	665	1363	4800	0.85	SA 57 D63M6
1.2	575	1194	8160	1.00	SAF 57 D63M6
1.3	515	1045	8720	1.10	S 47 D63M6
1.5	445	914	9280	1.30	SF 47 D63M6
1.7	400	809	9580	1.40	SA 47 D63M6
1.9	355	712	9860	1.60	SAF 47 D63M6
2.2	295	615	10100	1.95	S 37 D63S4
2.5	265	543	10300	2.2	SF 37 D63S4
2.9	220	469	10400	2.6	SA 37 D63S4
3.3	197	424	10500	2.9	SAF 37 D63S4
3.8	180	365	10500	3.2	S 37 D63S4
4.5	143	201.00	8050	2.1	SF 37 D63S4
4.9	133	184.80	8090	2.2	SA 37 D63S4
5.7	116	158.12	8150	2.5	SAF 37 D63S4
6.6	103	137.05	8180	2.9	S 37 D63S4
4.5	138	201.00	5490	1.30	SF 37 D63S4
4.9	129	184.80	5540	1.40	SA 37 D63S4
5.7	112	158.12	5610	1.55	SAF 37 D63S4
6.6	99	137.05	5660	1.75	S 37 D63S4
7.0	93	128.10	5680	1.85	SF 37 D63S4

输出转速 Output speed n_a [1/min]	输出扭矩 Output torque M_a [N·m]	传动比 Ratio i	径向负荷 Permitted overhung load $F_{Ra}^{1)}$ [N]	使用系数 Service factor f_B	型号 Model
0.12kW					
6.9	95	201.00	5680	1.80	S 47 D63S4
7.5	89	184.80	5700	1.90	SF 47 D63S4
8.7	77	158.12	5740	2.2	SA 47 D63S4
10	68	137.05	5780	2.5	SAF 47 D63S4
11	64	128.10	5790	2.6	S 37 D63M6
12	57	110.73	5810	3.0	SF 37 D63M6
5.7	107	157.43	3000	0.85	SF 37 D63M6
6.2	99	144.40	3000	0.95	SA 37 D63M6
7.3	86	122.94	3000	1.05	SAF 37 D63M6
8.5	76	106.00	3000	1.20	S 37 D63S4
9.1	71	98.80	3000	1.30	SF 37 D63S4
10	64	86.36	3000	1.45	SA 37 D63S4
8.8	74	157.43	3000	1.25	SF 37 D63S4
9.6	68	144.40	3000	1.35	SA 37 D63S4
11	60	122.94	3000	1.55	SAF 37 D63S4
13	52	106.00	3000	1.70	S 37 D63S4
14	49	98.80	3000	1.75	SF 37 D63S4
16	44	86.36	3000	1.95	SA 37 D63S4
17	41	80.96	3000	2.1	SAF 37 D63S4
19	37	71.44	3000	2.3	S 37 D63S4
22	33	63.33	3000	2.5	SF 37 D63S4
25	35	55.93	3000	2.3	SA 37 D63S4
27	33	51.30	3000	2.5	SAF 37 D63S4
32	28	43.68	3000	2.9	S 37 D63S4
37	25	37.66	3000	3.2	SF 37 D63S4
39	23	35.10	3000	3.4	SA 37 D63S4
45	20	30.68	3000	3.7	SAF 37 D63S4
48	19	28.76	3000	3.9	S 37 D63S4
54	17	25.38	3000	4.3	SF 37 D63S4
61	15	22.50	3000	4.8	SA 37 D63S4
69	14	19.89	3000	3.6	SAF 37 D63S4
76	13	18.24	3000	3.9	S 37 D63S4
89	11	15.53	2870	4.4	SF 37 D63S4
0.18kW					
0.29	2970	4606	20900	0.85	S 87 R57 D63M4
0.34	2480	3872	27500	1.00	SF 87 R57 D63M4
					SA 87 R57 D63M4
					SAF 87 R57 D63M4
0.38	2350	3475	27800	1.05	S 87 R57 D63M4
0.45	1970	2905	28500	1.25	SF 87 R57 D63M4
0.51	1710	2586	28900	1.45	SA 87 R57 D63M4
0.57	1520	2335	29100	1.65	SAF 87 R57 D63M4
0.64	1320	2054	29400	1.90	S 87 R57 D63M4
0.72	1170	1824	29500	2.1	SF 87 R57 D63M4
0.81	1050	1631	29600	2.4	SA 87 R57 D63M4
0.94	1220	1404	12200	1.00	S 77 R37 D63M4
1.1	1070	1245	13000	1.15	SF 77 R37 D63M4
					SA 77 R37 D63M4
					SAF 77 R37 D63M4
1.2	990	1100	13900	1.25	S 77 R37 D63M4
1.4	850	954	14700	1.45	SF 77 R37 D63M4
1.6	745	837	15200	1.65	SA 77 R37 D63M4
1.9	625	714	15600	2.0	SAF 77 R37 D63M4
2.1	555	637	15900	2.2	S 77 R37 D63M4
2.3	500	574	16000	2.5	SF 77 R37 D63M4
1.6	660	809	5140	0.85	S 67 R37 D63M4
1.9	580	712	8060	1.00	SF 67 R37 D63M4
2.2	490	615	8920	1.15	SA 67 R37 D63M4
2.4	440	543	9330	1.30	SAF 67 R37 D63M4
2.8	370	469	9780	1.55	S 67 R37 D63M4
3.1	335	424	9970	1.70	SF 67 R37 D63M4
3.6	295	365	10100	1.90	SA 67 R37 D63M4

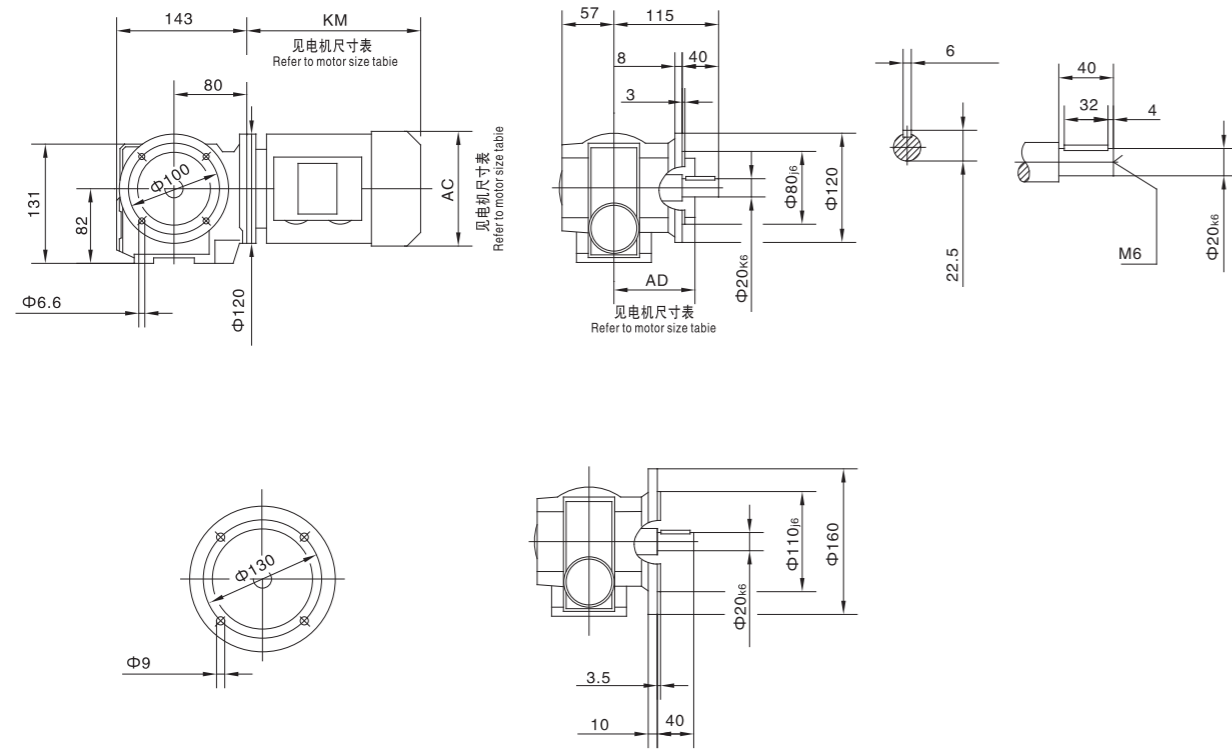
输出转速 Output speed n_n [1/min]	输出转矩 Output torque M_n [N·m]	传动比 Ratio i	径向负荷 Permitted overhung load $F_{Ra}^{(1)}$ [N]	使用系数 Service factor f_B	型号 Model
7.5kW					
50	1260	28.41	6240	0.85	S 77D132M4
57	1110	25.07	6450	0.90	SF 77D132M4
64	990	22.22	6600	1.00	SA 77D132M4
78	850	18.42	1860	0.85	SAF 77D132M4
82	810	17.45	2290	0.90	S 77D132M4 SF 77D132M4 SA 77D132M4 SAF 77D132M4
94	705	15.28	3250	1.00	
104	640	13.76	3890	1.10	
118	560	12.07	4570	1.30	
134	495	10.65	5110	1.45	
151	440	9.44	5540	1.65	
177	380	8.06	5560	1.80	
9.2kW					
18	3810	78.26	33600	0.80	S 97D132ML4
22	3210	65.45	34600	0.90	SF 97D132ML4
26	3070	55.79	34800	1.05	SA 97D132ML4 SAF 97D132ML4
29	2750	49.87	35300	1.20	S 97D132ML4 SF 97D132ML4 SA 97D132ML4 SAF 97D132ML4
32	2480	44.89	35600	1.35	
35	2260	40.65	35700	1.45	
40	2010	36.05	35000	1.65	
44	1820	32.60	34400	1.75	
55	1510	26.39	30700	1.70	
61	1350	23.59	30200	1.90	
68	1220	21.23	29700	2.1	
75	1110	19.23	29200	2.3	
84	980	17.05	28500	2.6	
93	890	15.42	28000	2.8	
110	755	13.07	27000	3.1	
126	660	11.41	26200	3.3	
41	1910	34.96	25600	0.85	S 87D132ML4
46	1730	31.43	25300	0.95	SF 87D132ML4
53	1500	27.28	24800	1.05	SA 87D132ML4
59	1350	24.43	24400	1.20	SAF 87D132ML4
71	1120	20.27	23700	1.40	S 87D132ML4 SF 87D132ML4 SA 87D132ML4 SAF 87D132ML4
73	1120	19.70	21600	1.10	
82	1000	17.49	21300	1.25	
92	890	15.64	21000	1.40	
102	800	14.06	20700	1.55	
118	700	12.21	20200	1.75	
132	625	10.93	19800	2.0	
159	520	9.07	19100	2.2	
183	455	7.88	18600	2.2	
76	1040	18.97	5760	0.90	
105	780	13.76	1350	0.90	
119	685	12.07	2290	1.05	
135	605	10.65	3060	1.20	
152	535	9.44	3690	1.35	
179	460	8.06	4360	1.50	
11.0kW					
26	3670	55.79	33800	0.90	S 97D160M4 SF 97D160M4 SA 97D160M4 SAF 97D160M4
29	3290	49.87	34500	1.00	
32	2970	44.89	34800	1.10	
35	2700	40.65	34400	1.20	
40	2400	36.05	33800	1.40	
44	2170	32.60	33300	1.45	
55	1810	26.39	29400	1.45	
61	1620	23.59	29000	1.60	
68	1460	21.23	28600	1.80	
75	1320	19.23	28200	1.95	
84	1180	17.05	27600	2.2	
93	1070	15.42	27200	2.3	
110	900	13.07	26400	2.6	
126	790	11.41	25700	2.8	
53	1800	27.28	23700	0.90	S 87D160M4
59	1610	24.43	23400	1.00	SF 87D160M4
71	1340	20.27	22800	1.20	SA 87D160M4 SAF 87D160M4

输出转速 Output speed n_n [1/min]	输出转矩 Output torque M_n [N·m]	传动比 Ratio i	径向负荷 Permitted overhung load $F_{Ra}^{(1)}$ [N]	使用系数 Service factor f_B	型号 Model	
11.0kW						
73	1340	19.70	20400	0.95	S 87D160M4 SF 87D160M4 SA 87D160M4 SAF 87D160M4	
82	1190	17.49	20200	1.05		
92	1070	15.64	20000	1.15		
102	960	14.06	19800	1.30		
118	840	12.21	19400	1.50		
132	750	10.93	19100	1.65		
159	625	9.07	18600	1.85		
183	545	7.88	18100	1.85		
15.0kW						
33	4000	44.89	31400	0.85		S 97D160L4
36	3630	40.65	31300	0.90	SF 97D160L4	
41	3230	36.05	31000	1.00	SA 97D160L4 SAF 97D160L4	
45	2920	32.60	30800	1.10	S 97D160L4 SF 97D160L4 SA 97D160L4 SAF 97D160L4	
55	2430	26.39	26400	1.05		
62	2180	23.59	26300	1.20		
69	1970	21.23	26200	1.30		
76	1780	19.23	26000	1.45		
86	1580	17.05	25700	1.60		
95	1430	15.42	25400	1.70		
112	1220	13.07	24800	1.90		
128	1060	11.41	24300	2.1		
153	890	9.55	23600	2.3		
177	775	8.26	22900	2.3		
93	1430	15.64	17900	0.85		S 87D160L4
104	1290	14.06	17900	0.95	SF 87D160L4	
120	1120	12.21	17800	1.10	SA 87D160L4 SAF 87D160L4	
134	1010	10.93	17600	1.25	S 87D160L4 SF 87D160L4 SA 87D160L4 AF 87D160L4	
161	840	9.07	17300	1.35		
185	730	7.88	17000	1.40		
18.5kW						
41	3970	36.05	28700	0.85	S 97D180M4 SF 97D180M4 SA 97D180M4 SAF 97D180M4	
45	3590	32.60	28600	0.90		
53	3060	27.63	28400	1.00		
61	2680	24.13	28100	1.05		
69	2420	21.23	24100	1.10		
76	2190	19.23	24100	1.20		
86	1950	17.05	24000	1.30		
95	1760	15.42	23900	1.40		
112	1500	13.07	23500	1.55		
128	1310	11.41	23200	1.70		
153	1100	9.55	22600	1.85		
177	950	8.26	22100	1.85		
22kW						
53	3630	27.63	26600	0.85		S 97D180L4 SF 97D180L4 SA 97D180L4 SAF 97D180L4
61	3180	24.13	26500	0.90		
69	2870	21.23	19800	0.90		
76	2600	19.23	21800	1.00		
86	2310	17.05	22300	1.10		
95	2090	15.42	22400	1.20		
112	1780	13.07	22300	1.30	S 97D180L4 SF 97D180L4 SA 97D180L4 SAF 97D180L4	
128	1560	11.41	22100	1.40		
153	1300	9.55	21700	1.55		
177	1130	8.26	21300	1.55		

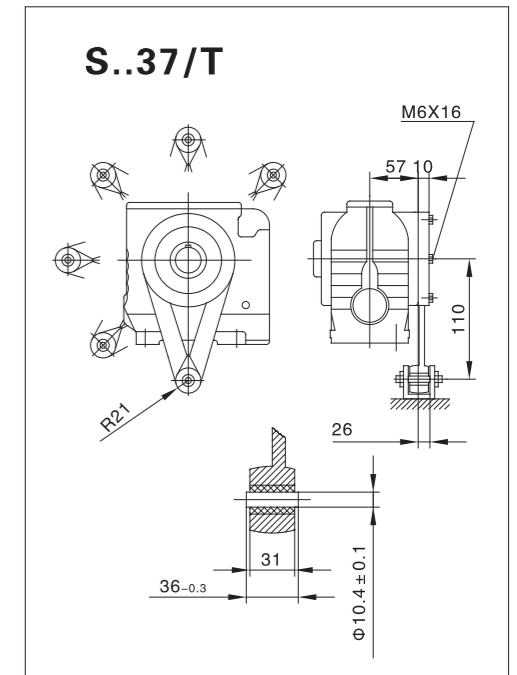
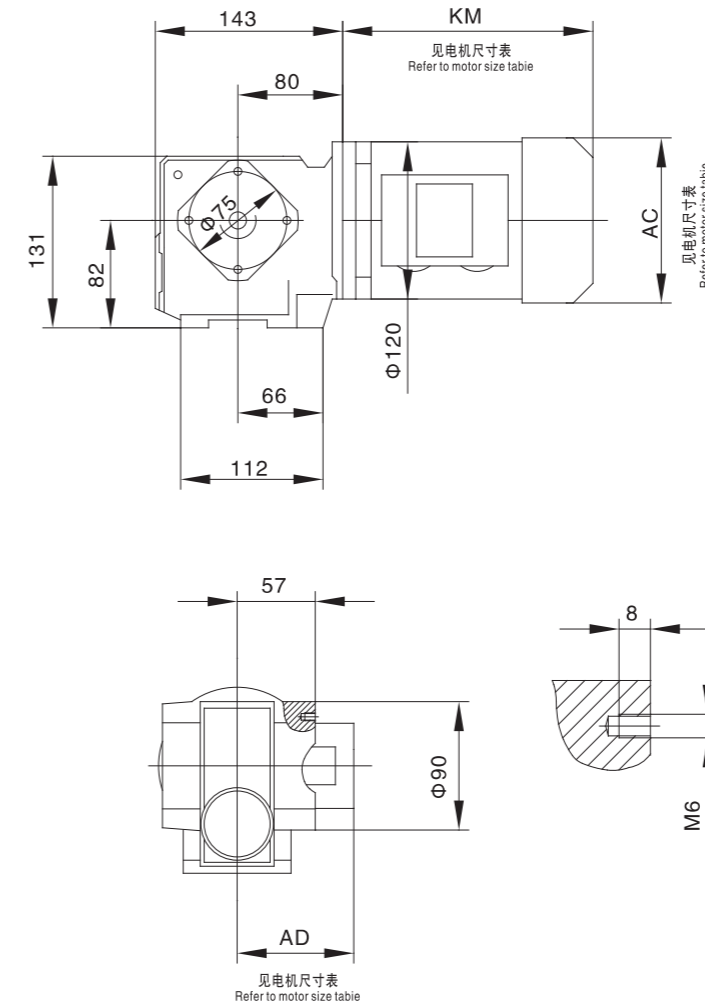
S37..



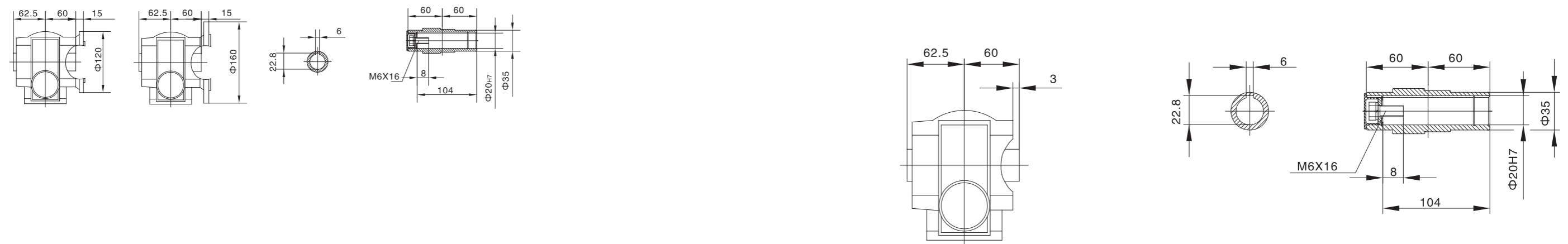
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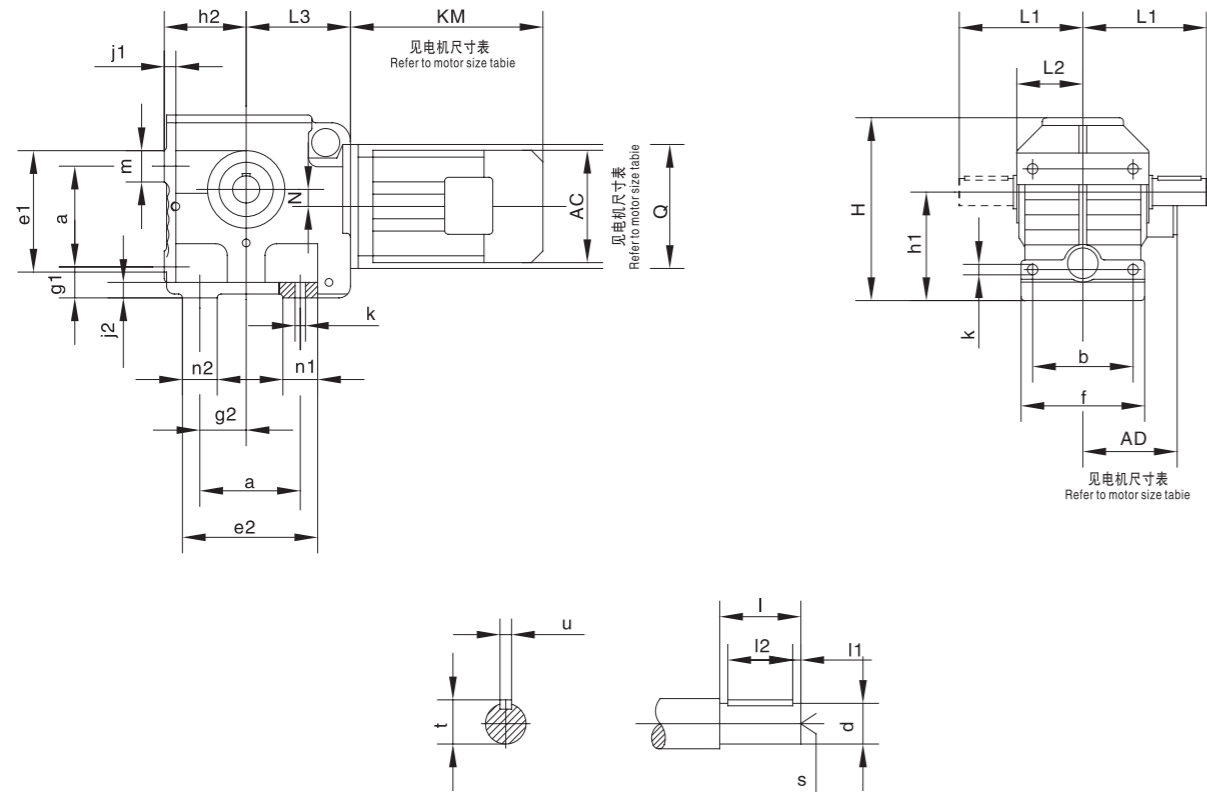
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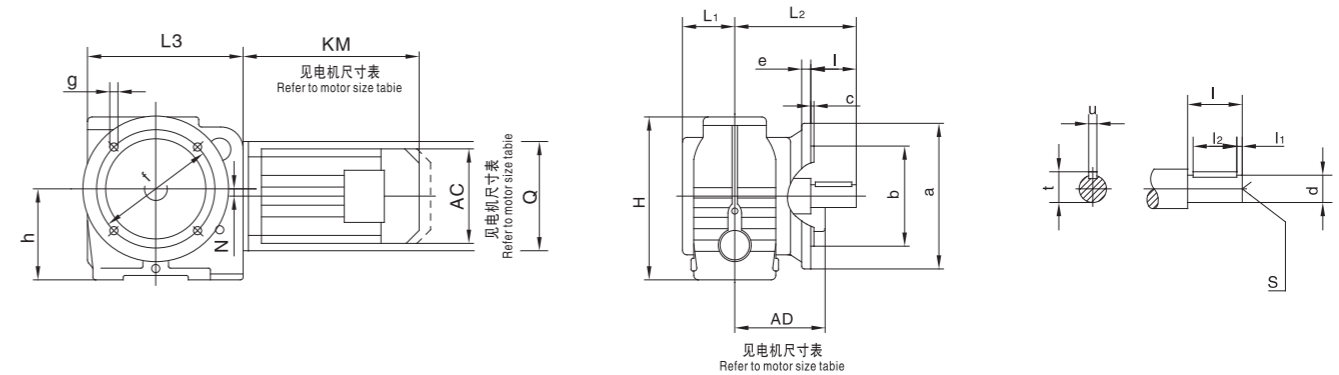
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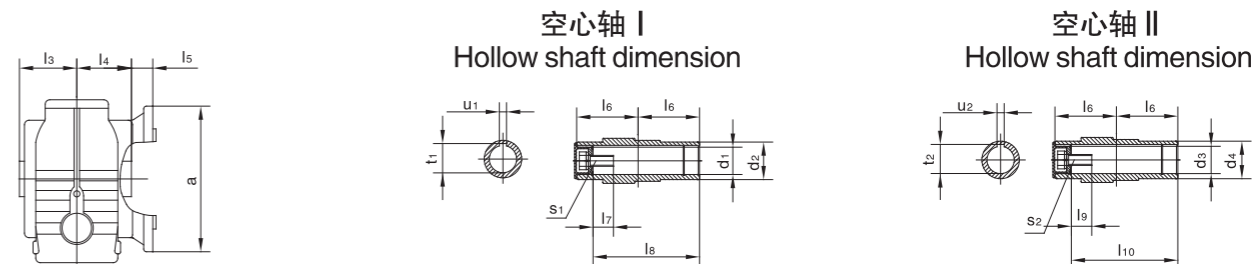
S47..~ S97..



SF47..~ F97..



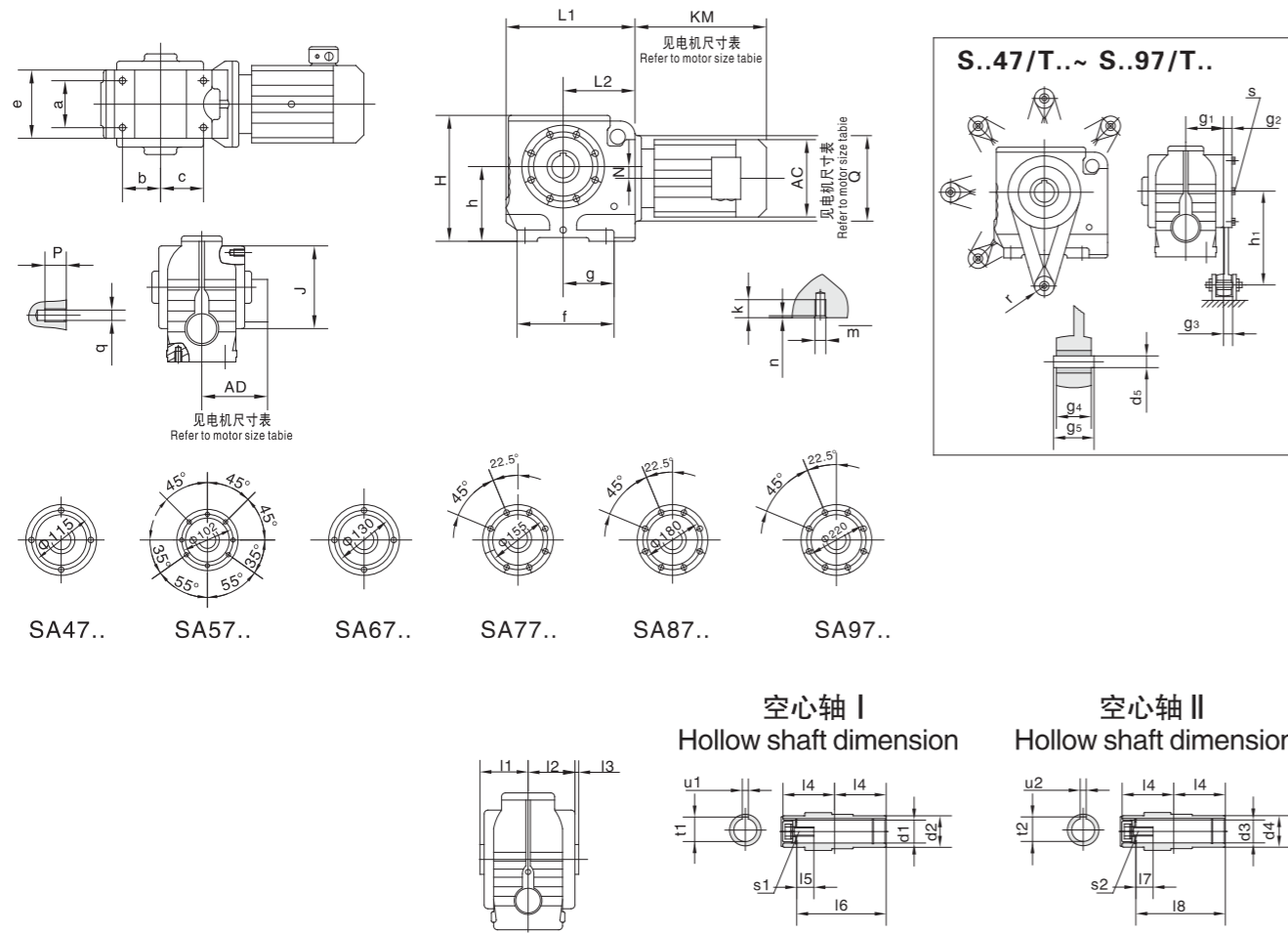
SAF47..~ SAF97..



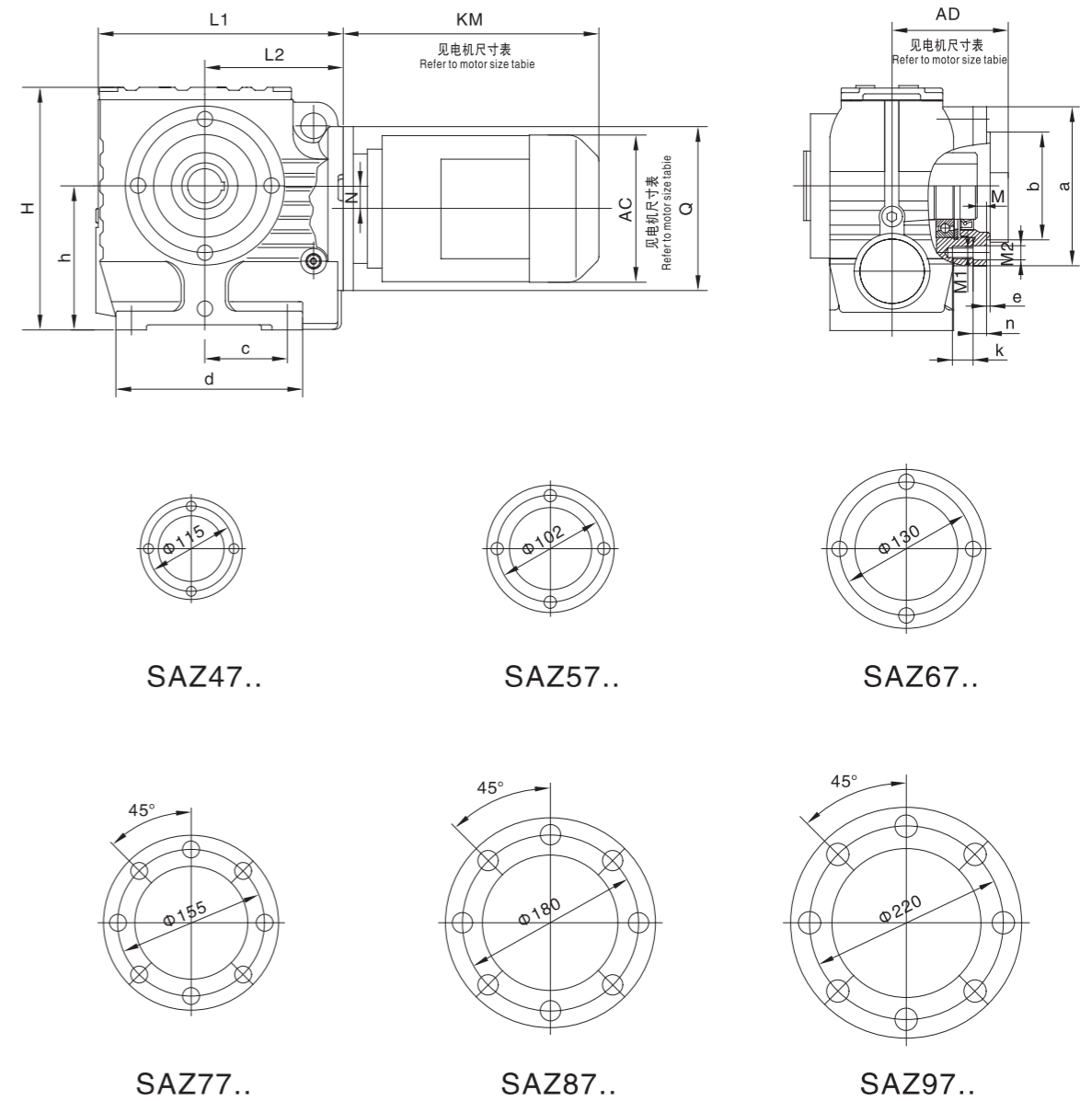
型号 Model	a b	e1 e2 f	g1 g2	h1 h2	j1 j2 k	m n1 n2	轴伸尺寸 Shaft dimension				L1 L2 L3	H	N Q
							d l	l1 l2	s	t u			
S47..	80 100	105	35	100 _{-0.5}	12	25	25k6	5	M10	28	115	165	8 120
		112 120	35	75 _{-0.5}	15 11	30 30	50	40	8	60 96			
S57..	100 110	130	35	112 _{-0.5}	12	30	30k6	3.5	M10	33	134	189	20 120
		130 136	45	80 _{-0.5}	15 11	30 30	60	50	8	71 107			
S67..	130 130	170	40	140 _{-0.5}	15	40	35k6	7	M12	38	160	236	22 160
		175 160	60	106 _{-0.5}	20 13.5	45 45	70	56	10	85.5 135			
S77..	135 150	177	70	180 _{-0.5}	25	42	45k6	5	M16	48.5	195	301	34 200
		204 185	75	125 _{-0.5}	25 17.5	50 69	90	80	14	101 162			
S87..	180 200	230	82	225 _{-0.5}	30	50	60m6	5	M20	64	255	368	37.5 250
		247 250	92	150 _{-0.5}	30 22	60 67	120	110	18	130 190			
S97..	235 250	295	90	280 ₋₁	35	60	70m6	7.5	M20	74.5	295	455	52 300
		320 300	115	180 _{-0.5}	35 26	80 85	140	125	20	150 240			

型号 Model	法兰 型式 flange form	a b	c e	f g h	轴伸尺寸 Shaft dimension			空心轴 I 尺寸 Hollow shaft dimension			空心轴 II 尺寸 Hollow shaft dimension			H	L1 L2 L3	N Q	
					d l	l1 l2	s t u	d1 d2	l3 l4 l5	l6 l7 l8	s t u	d3 d4	l9 l10				s2 t2 u2
SF47.. SAF47..	Flg.1	160 110j6	3.5 10	130 9 100	25k6	5	M10	30 ^{H7} 45	63	60	M10X25	25 ^{H7} 45	17	M10X25	57.5	133.5	8
					50	40	8	24	105	8	105	171	120				
SF57.. SAF57..	Flg.1	200 130j6	3.5 12	165 11 112	30k6	3.5	M10	35 ^{H7} 50	78	75	M12X30	30 ^{H7} 50	17	M10X25	72	160	20
					60	50	8	25	132	8	132	187	120				
SF67.. SAF67..	Flg.1	200 130j6	3.5 12	165 11 140	35k6	7	M12	45 ^{H7} 65	87	84	M16X40	40 ^{H7} 65	29	M16X40	80.5	190	22
					70	56	10	42.5	144	14	144	242	160				
SF77.. SAF77..	Flg.1	250 180j6	4 15	215 13.5 180	45k6	5	M16	60 ^{H7} 80	108	105	M20X50	50 ^{H7} 80	32	M16X45	121	232	34
					90	80	14	45.5	180	18	183	287	200				
SF87.. SAF87..	Flg.1	350 250h6	5 18	300 17.5 225	60m6	5	M20	70 ^{H7} 95	128	125	M20X50	60 ^{H7} 95	36	M20X50	145	290	37.5
					120	110	18	52.5	220	20	220	340	250				
SF97.. SAF97..	Flg.2	450 350h6	5 22	400 17.5 280	70m6	7.5	M20	90 ^{H7} 120	149	145	M24X60	70 ^{H7} 120	34	M20X50	165	340	52
					140	125	20	60	255	25	260	420	300				

SA47..~ SA97..



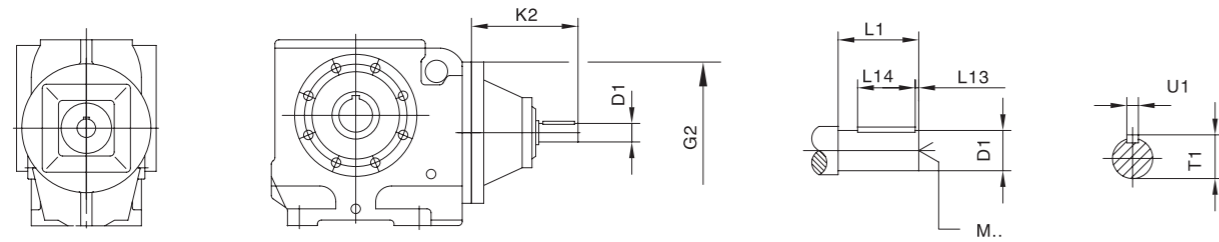
SAZ47..~ SAZ97..



型号 Model	a b c	e f g	h	k m h	p q	空心轴 I 尺寸 Hollow shaft dimension				空心轴 II 尺寸 Hollow shaft dimension				扭矩臂尺寸 Torque arm form			H L1 L2	N Q
						d1 d2	l1 l2 l3	l4 l5 l6	s1 t1 u1	d3 d4	l7 l8	s2 t2 u2	g1 g2 g3	g4 g5 h1	d5 r s3			
SA47.. S..47/T..	60	94	100	20	12	30 ^{H7}	63	60	M10X25	25 ^{H7}	17	M10X25	57.5	31	10.4±0.1	179	8	
	35	127				45	60	17	33.3	45	105	28.3	15	36-0.3	21	171		
	52	67				2.5	105	8	20.5	130	M8X25	96						
SA57.. S..57/T..	60	100	112	20	12	35 ^{H7}	78	75	M12X30	30 ^{H7}	17	M10X25	72	31	10.4±0.1	189	20	
	58.5	146				50	75	22	38.3	50	132	15	36-0.3	21	187			
	58.5	73				3	132	10	18.5	160	M8X25	107						
SA67.. S..67/T..	88	128	140	25	20	45 ^{H7}	87	84	M16X40	40 ^{H7}	29	M16X40	80.5	31	10.4±0.1	236	22	
	71.5	182				65	84	29	48.8	65	144	18	36-0.3	21	242			
	80.5	95.5				3.5	144	14	19.5	200	M12X35	135						
SA77.. S..77/T..	102	154	180	32	20	60 ^{H7}	108	105	M20X50	50 ^{H7}	32	M16X45	101	54	16.4±0.08	301	34	
	85	204				80	105	37	64.4	80	183	18	60-0.3	30	287			
	85	104				4	180	18	32.5	250	M12X35	162						
SA87.. S..87/T..	118	194	225	32	26	70 ^{H7}	128	125	M20X50	60 ^{H7}	36	M20X50	120	54	16.4±0.08	368	37.5	
	115	260				95	125	34	74.9	95	220	24	60-0.5	30	340			
	110	125				5	220	20	25.5	310	M16X45	190						
SA97.. S..97/T..	160	236	280	36	26	90 ^{H7}	149	145	M24X60	70 ^{H7}	34	M20X50	140	72	25±0.08	455	52	
	135	301				120	145	41	95.4	120	260	26	80-0.5	40	420			
	113	140				5	255	25	33	380	M16X50	240						

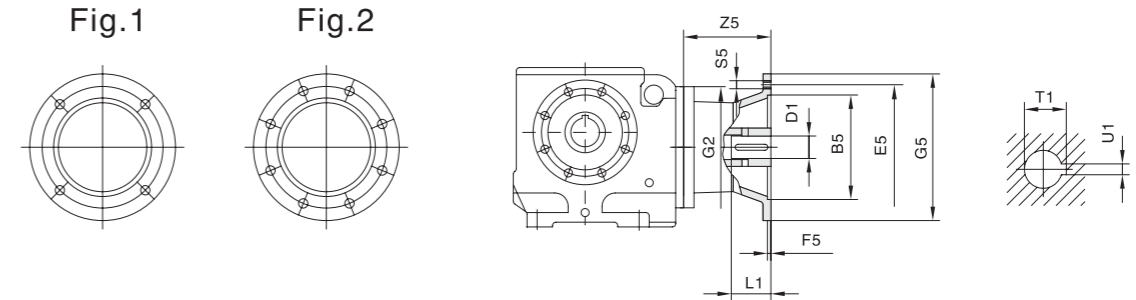
型号 Model	a	b	c	d	e	h	H	k	L1	L2	M	M1	M2	N	n	Q
SAZ47..	130	95j6	67	127	3	100	179	12	171	96	8.5	M8	9	8	11	120
SAZ57..	120	80j6	73	146	3	112	189	12	187	107	8	M8	9	20	11	120
SAZ67..	155	105j6	95.5	182	3.5	140	236	20	242	135	9.5	M12	13.5	22	13	160
SAZ77..	180	125j6	104	204	4	180	301	18.5	287	162	14.5	M12	13.5	34	18.5	200
SAZ87..	215	150j6	125	260	5	225	368	23.5	340	190	18.5	M16	17.5	37.5	23.5	250
SAZ97..	260	180j6	140	301	5	280	455	23.5	420	240	18.5	M16	17.5	52	23.5	300

S..AD..



减速箱规格 Gear unit type	联接盘规格 Motor adcopator	G2	K2	D1	L1	L13	L14	T1	U1	M
S..37 S..47,S..57	AD1	120	102	16	40	4	32	18	5	M5
	AD2		130	19	40	4	32	21.5	6	M6
S..67	AD2	160	123	19	40	4	32	21.5	6	M6
	AD3		159	24	50	5	40	27	8	M8
S..77	AD2	200	116	19	40	4	32	21.5	6	M6
	AD3		151	24	50	5	40	27	8	M8
	AD4		224	38	80	5	70	41	10	M12
S..87	AD2	250	111	19	40	4	32	21.5	6	M6
	AD3		156	28	60	5	50	31	8	M10
	AD4		219	38	80	5	70	41	10	M12
	AD5		292	42	110	10	70	45	12	M16
S..97	AD3	300	151	28	60	5	50	31	8	M10
	AD4		214	38	80	5	70	41	10	M12
	AD5		287	42	110	10	70	45	12	M16
	AD6		327	48	110	10	80	51.5	14	M16

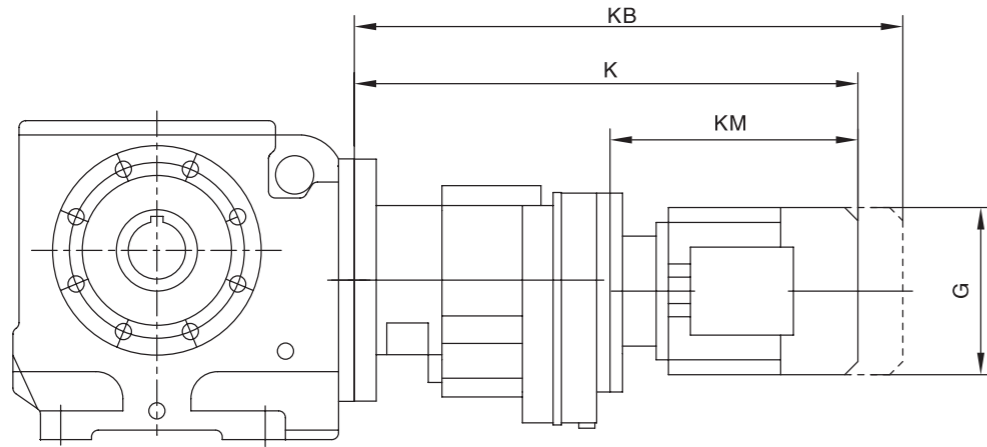
S..AM..



减速箱规格 Gear unit type	联接盘规格 Motor adcopator	Fig	B5	E5	F5	G2	G5	S5	Z5	D1	L1	T1	U1		
S..37 S..47,S..57	AM63	1	95	115	3.5	120	140	M8	50	11	23	12.8	4		
	AM71 ¹⁾		110	130			160		54	14	30	16.3	5		
	AM80 ¹⁾		130	165	4.5		200	M10	69	19	40	21.8	6		
	AM90 ¹⁾						24		50	27.3	8				
S..67	AM63	1	95	115	3.5	160	140	M8	50	11	23	12.8	4		
	AM71		110	130			160		54	14	30	16.3	5		
	AM80		130	165	4.5		200	M10	69	19	40	21.8	6		
	AM90						24		50	27.3	8				
	AM100 ¹⁾		180	215	5		250	M12	81	28	60	31.3	8		
	AM112 ¹⁾														
S..77	AM63	1	95	115	3.5	200	140	M8	54	11	23	12.8	4		
	AM71		110	130			160		54	14	30	16.3	5		
	AM80		130	165	4.5		200	M10	69	19	40	21.8	6		
	AM90						24		50	27.3	8				
	AM100 ¹⁾		180	215	5		250	M12	81	28	60	31.3	8		
	AM112 ¹⁾														
	AM132S ¹⁾		230	265	5		300	M12	92	38	80	41.3	10		
	AM132M ¹⁾														
	AM132ML ¹⁾														
	S..87		AM80	1	130		165	4.5	250	200	M10	69	19	40	21.8
AM90		24	50			27.3				8					
AM100		180	215		5	250	M12	81		28	60	31.3	8		
AM112															
AM132MS		230	265		5	300	M12	92		38	80	41.3	10		
AM132M															
AM132ML		250	300		6	350	M16	125		42	110	45.3	12		
AM160 ¹⁾						48		51.8		14					
AM180 ¹⁾															
S..97	AM100	1	180	215	5	300	250	M12	81	28	60	31.3	8		
	AM112														
	AM132S		230	265	5		300	M12	92	38	80	41.3	10		
	AM132M														
	AM132ML		250	300	6		350	M16	125	42	110	45.3	12		
	AM160						48		51.8	14					
	AM180		300	350	7		400	M16	144	55	110	59.3	16		
	AM200 ¹⁾														
	AM225 ¹⁾		2	350	400		7	450	M16	159	60	140	64.4	18	

1) 如果安装在 S 系列脚安装方式的减速机伞，请检查尺寸 G5/2，它可能已突出安装平面。
Dimension G5/2 May protrude past foot mounting surface if mounted on S foot-mounted gear unit, please check.

S..R..



减速箱规格 Gear unit type	电机规格 Motor type	G	K	KB	KM
S..57R37	D71D	155	401	433	194
	D80..	155	451	483	244
S..67R37	D63..	155	410	457	235
	D71D	155	401	465	236
	D80..	155	451	515	286
S..77R37	D90..	155	451	536	286
	D63..	155	392	449	235
	D71D	155	393	457	236
S..87R57	D80..	155	443	507	286
	D90..	210	443	528	286
	D90..	210	495	580	279
S..97R57	D100M	210	545	630	329
	D100L	210	565	650	349
	D63..	155	440	497	229
	D71D	155	440	504	229
S..97R57	D80..	155	490	554	279
	D90..	210	510	595	299
	D100M	210	540	625	329
	D100L	210	560	645	349
	D112M	240	575	655	364

注：上表中点击尺寸为参考尺寸，因空间限制对电机尺寸有严格要求时请向我公司咨询。
Notes: The dimension of motor in the above table is only reference. If you have special require require. Please consult us.

9. 设计和装配注意事项 Important notes of design and mounting

9.1 拆装单键空心轴减速机

9.1 Installation/removal of gear units with hollow shafts and keys

重要提示
Installation

- 在装配过程中一定要使用所供应的润滑剂。它的作用是防止接触腐蚀和便于拆卸。
Always use the supplied NOCO Fluid paste during the assembly procedure. It avoids contact corrosion and easy for disassembly.
- 键的尺寸X是有用户确定，但X必须>Dk。
The key dimension X is defined by the customer, however X must be >Dk.

安装
Customer shaft

推荐两种方法将用户轴安装到单键空心轴上。
Recommends two methods for mounting gear unit with hollow shafts and keys onto the input shaft of the driven machine(=customer shaft):

1. 用提供的固定件进行装配
Install with supplied fastening elements
2. 用可选件装卸工具进行装配
Install using the optional installation/removal kit

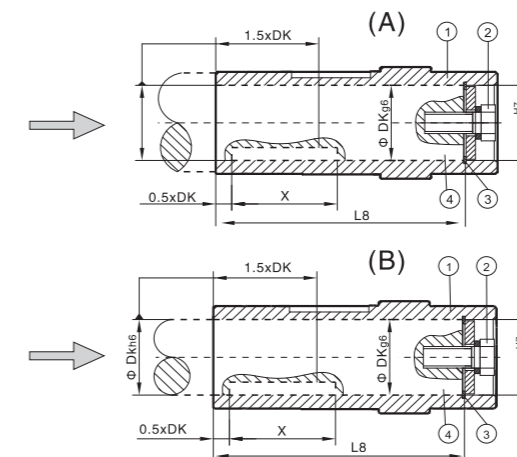
9.1.1 提供的固定件

9.1.1 Supplied fastening elements

标准产品提供下列固定件：
The following fastening elements are supplied as standard:

· 带垫片的紧固螺栓
Retaining screw with washer①

· 孔用挡圈
Circlip②



带轴肩的用户轴
用户轴的安装长度必须为L8-1(mm)(图)
Installation length of customer shaft with contact shoulder(A) must be L8-1mm

用户轴不带轴肩
安装长度必须等于L8(图)
Installation length of customer shaft with contact shoulder(B) must equal to L8

紧固螺栓要拧紧到MS所示拧紧力矩值
The retaining screw② must be tightened to the tightening torque MS listed in the following table

①空心轴 Hollow shaft
②带垫片的紧固螺栓 Retaining screw with washer
③孔用挡圈 Circlip
④用户轴 Customer shaft

图：空心轴组装示意图(带轴肩的用户轴)
Fig: Customer shaft with contact shoulder(A) and with contact shoulder(B)

减速器型号 Gear unit type	D ^{H7} [mm]	DK[mm]	L8[mm]	MS[Nm]
SA..37	20	20	84,106,104	8
SA..47	25	25	105	20
FA..37, KA..37, SA..47, SA..57	30	30	105 132	20
FA..47, KA..47, SA..57	35	35	132	20
FA..57, KA..57 FA..67, KA..67 SA..67	40	40	142 156 144	40
SA..67	45	45	144	40
FA..77, KA..77, SA..77	50	50	183	40
FA..87, FA..87, SA..77, SA..87,	60	60	210 180,220	80
FA..97, FA..97, SA..87, SA..97,	70	70	270 220,260	80
FA..107, KA..107, SA..97	90	90	313,313,255	200
FA..127, KA..127,	100	100	373	200
FA..157, KA..157,	120	120	460	200

9.1.2 拆装工具 9.1.2 Installation / removal kit

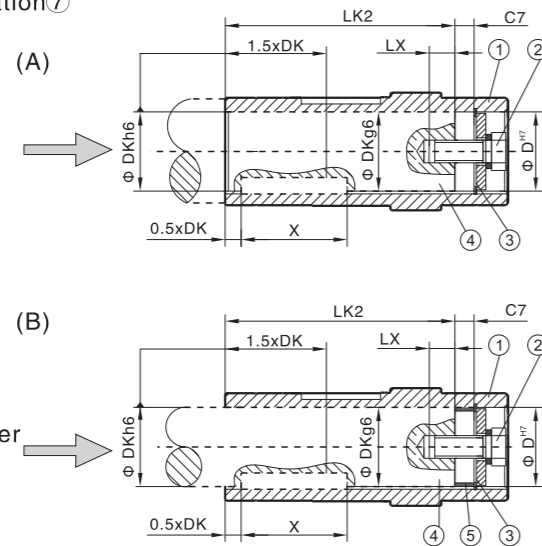
可使用的选项：拆装工具进行装配。可以通过表中给出的零件号订购减速机的拆装工具。

拆装工具包含以下零件：

- 对没有轴肩的用户轴装配所有的轴套
- 拆卸用的压盘
- 装配用的紧固螺栓
- 拆卸用的锁母

You can use the optional installation/removal kit for installation. The kit can be ordered for the specific gear unit types by quoting the part numbers in the table below. The accessories of the tools including:

- Distance piece for installation without contact shoulder⑤
- Retaining screw for installation②
- Removal washer for installation⑦
- Fixed nut for removal⑧



带轴肩的用户轴
安装长度LK2【→图A】不使用轴套
The installation length of the customer shaft must be LK2. The distance piece must not be used if the customer shaft does have a contact shoulder(A).

不带轴肩的用户轴
安装长度LK2【→图B】轴套必须使用
The installation length of the customer shaft must be LK2. The distance piece must not be used if the customer shaft does have a contact shoulder(B).

- ①空心轴
- ②带垫片的紧固螺栓
- ③孔用挡圈
- ④用户轴
- ⑤轴套

- ①Hollow shaft
- ②Retaining screw with washer
- ③Circlip
- ④Customer shaft
- ⑤Distance piece

图：带轴肩附用户轴 (A) 和 不带轴肩附用户轴 (B)
Fig: Customer shaft with contact shoulder (A) and without contact shoulder (B)

减速器型号 Gear unit type	D ^{H7} [mm]	DK[mm]	LK2[mm]	LX ⁺² [Nm]	C7[Nm]	MS[Nm]
SA..37	20	20	92	16	12	8
SA..47	25	25	89	22	16	20
FA..37, KA..37, SA..47 SA..57	30	30	89 89,116	22	16	20
FA..47, KA..47, SA..57	35	35	114	28	18	20
FA..57, KA..57 FA..67, KA..57 SA..67	40	40	124 138,138,126	36	18	40
SA..67	45	45	126	36	18	40
FA..77, KA..77, SA..77	50	50	165	36	18	40
FA..87, KA..87 SA..77, SA..87	60	60	188 158,198	42	22	80
FA..97, KA..97 SA..87, SA..97	70	70	248 198,238	42	22	80
FA..107, KA..107, SA..97	90	90	287 229	50	26	200
FA..127, KA..127	100	100	347	50	26	200
FA..157, KA..157	120	120	434	50	26	200

拆卸 Removal

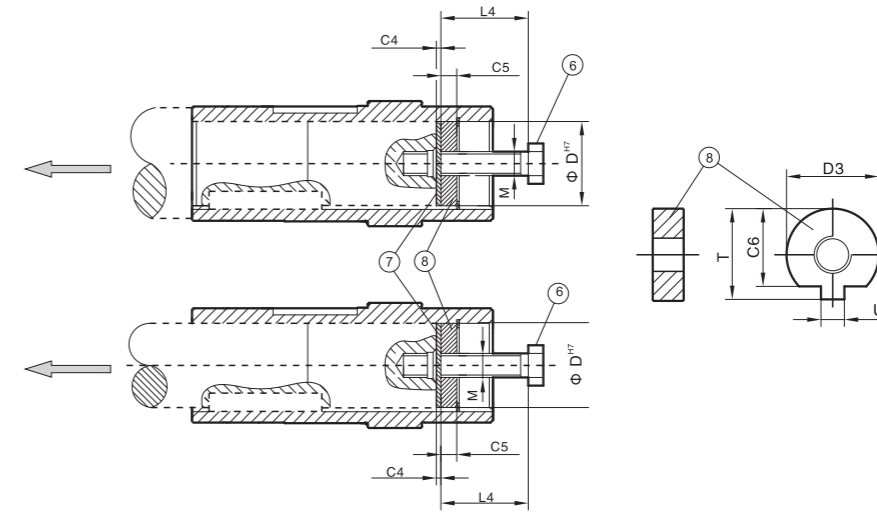
用拆装工具进行装配，须按以下步骤进行拆卸

1. 拆下紧固螺栓⑥
 2. 拆下挡圈③，若使用了轴套⑤也一并拆下
 3. 在用户轴④和挡圈③之间按图13装上压盘⑦和锁母⑧
 4. 重新装上挡圈③
 5. 重新装上紧固螺栓⑥
- 这样就可以把轴拆下来。

Applies prior installation with the installation/removal kit only.

Proceed as follows for removal:

1. Remove the retaining screw⑥
2. Remove the Circlip③ and if used, the distance piece⑤
3. Inset the removal washer⑦ and the fixed nut⑧ between the customer shaft④ and circlip③ according to Fig.
4. Re-insert the circlip③.
5. Re-insert the retaining screw⑥. You can now push the gear unit off the shaft.



- ⑥螺栓 Retaining screw
- ⑦压盘 Removal washer
- ⑧拆卸用锁母 Fixed nut for removal

图：空心轴拆卸示意图
Fig. Removal

型号 Model	D ^{H7} [mm]	M	C4 [mm]	C5 [mm]	C6 [mm]	U ^{-0.5} [mm]	T3 ^{-0.5} [mm]	D ^{-0.5L4} [mm]	拆装工具零件号 Installation/ removal kit part number
SA..37	20	M6	5	6	15.5	5.5	22.5	19.7	25
SA..47	25	M10	5	10	20	7.5	28	24.7	35
FA..37, KA..37, SA..57	30	M10	5	10	25	7.5	33	29.7	35
FA..47, SA..57	35	M12	5	12	29	9.5	38	34.7	45
FA..57, KA..57, FA..67, KA..67, SA..67	40	M16	5	12	34	11.5	41.9	39.7	50
SA..67	45	M16	5	12	38.5	13.5	48.5	44.7	50
FA..77, KA..77, SA..77	50	M16	5	12	43.5	13.5	53.5	49.7	50
FA..87, KA..87, SA..77, SA..87	60	M20	5	16	56	17.5	64	59.7	60
FA..97, KA..97, SA..97	70	M20	5	16	65.5	19.5	74.5	69.7	60
FA..107, KA..107, SA..97	90	M24	5	20	80	24.5	95	89.7	70
FA..127, KA..127	100	M24	5	20	89	27.5	106	99.7	70
FA..157, KA..157	120	M24	5	20	107	31	127	119.7	70

9.2 带轴阶的空心轴和锁紧盘选件 9.2 Shouldered hollow shaft with shrink disk (option)

带空心轴锁紧盘的减速机(FH/FHF/FHZ 37-157)平行轴减速机 KH/KHF/KHZ37-157斜齿轮-锥齿轮减速机和YHSH/SHF47-97斜齿轮蜗轮蜗杆减速机, 可提供较大的轴孔直径D' 作为选件 D=D' 为标准产品
Gear unit with a hollow shaft and shrink disk (parallel shaft helical gear units H/FHF/SH/SHF47-97) can be supplied with an optional larger hole diameter D' The standard is D'=D.

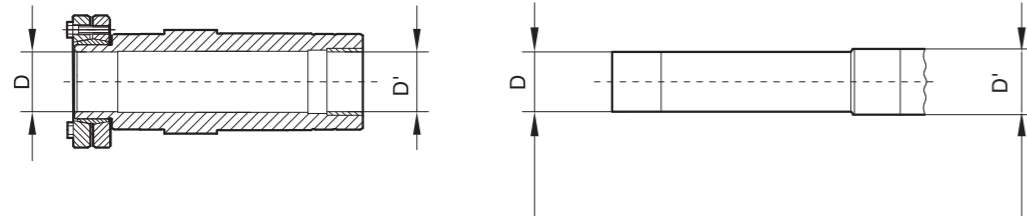
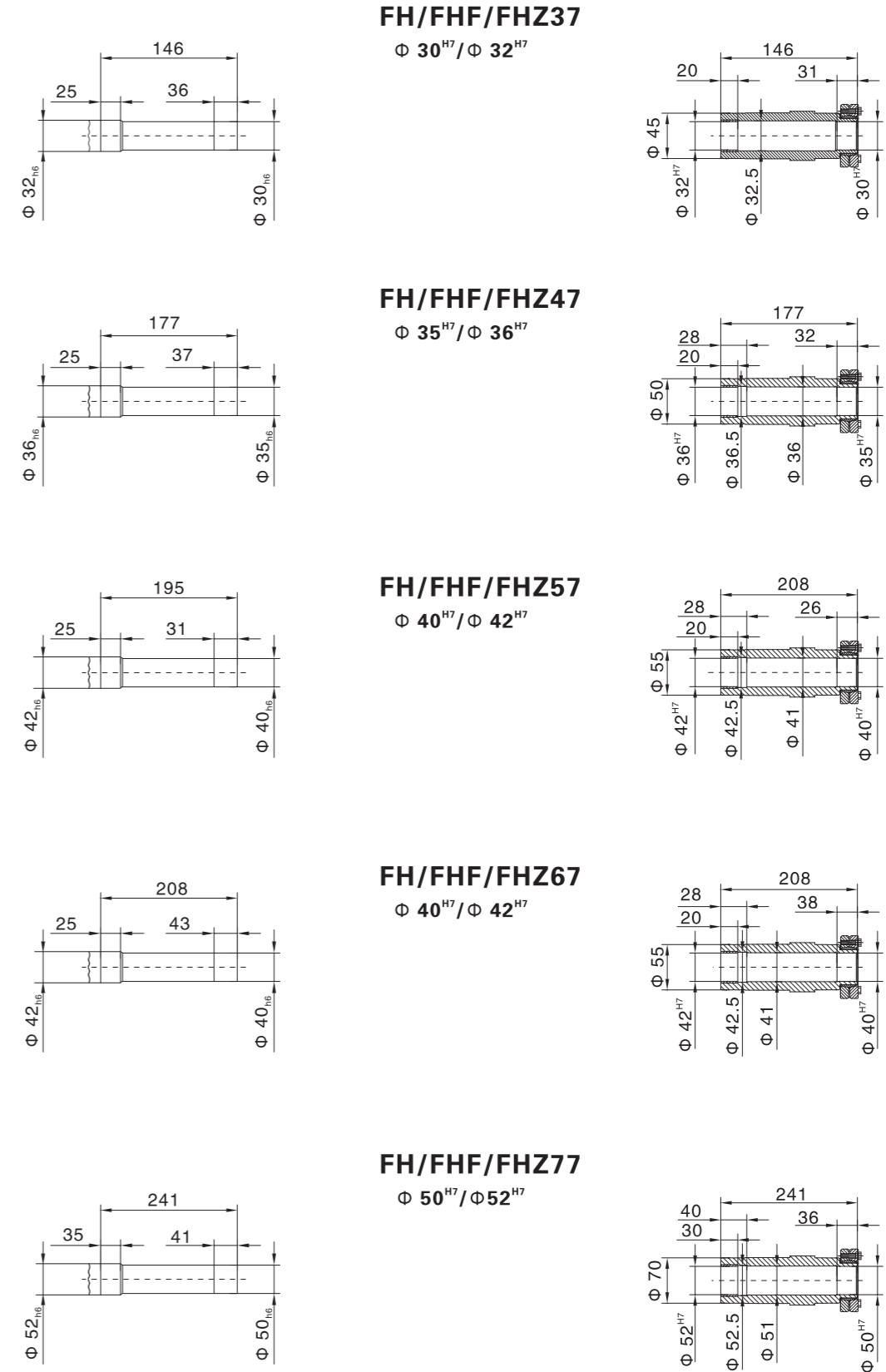


图: 选件轴孔直径D'
Fig: Optional hole diameter D'

减速机型号 Gear unit size	孔径 D/D' Hole diameter
FH/FHF/FHZ37, KH/KHF/KHZ37, SH/SHF/SHZ47	30/32
FH/FHF/FHZ47, KH/KHF/KHZ47, SH/SHF/SHZ57	35/36
FH/FHF/FHZ57, KH/KHF/KHZ57	40/42
FH/FHF/FHZ67, KH/KHF/KHZ67, SH/SHF/SHZ67	40/42
FH/FHF/FHZ77, KH/KHF/KHZ77, SH/SHF/SHZ77	50/52
FH/FHF/FHZ87, KH/KHF/KHZ87, SH/SHF/SHZ87	65/66
FH/FHF/FHZ97, KH/KHF/KHZ97, SH/SHF/SHZ97	75/76
FH/FHF/FHZ107, KH/KHF/KHZ107	95/96
FH/FHF/FHZ127, KH/KHF/KHZ127	105/106
FH/FHF/FHZ157, KH/KHF/KHZ157	125/126

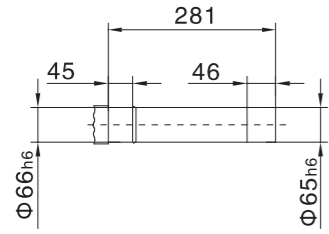
订购带轴阶的空心轴减速机(可选轴孔直径D')必须注明D/D'尺寸。
例如: FH37 D80N4 30/32
Diameter D/D' must be specified when ordering gear units with a shouldered hollow shaft (optional hole diameter D').

带轴阶空心轴和锁紧盘的平行轴减速电机 Parallel shaft helical gear unit with shouldered hollow shaft

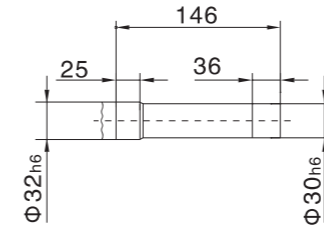
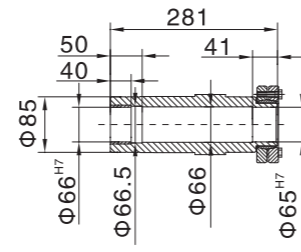


带轴阶空心轴和锁紧盘的平行轴减速电机
Parallel shaft helical gear unit with shouldered hollow shaft

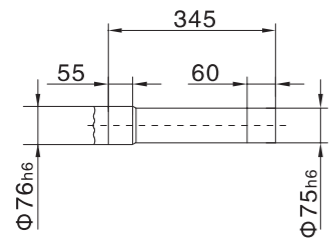
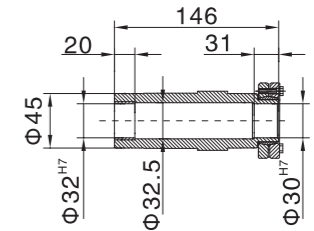
带轴阶空心轴和锁紧盘的斜齿轮-锥齿轮减速电机
Helical-bevel gear unit with shouldered hollow shaft



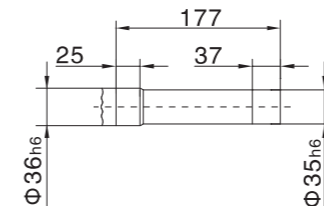
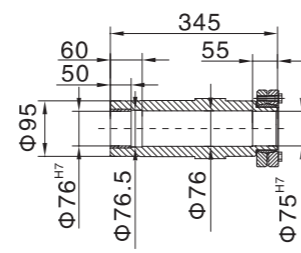
FH/FHF/FHZ87
Φ65^{H7}/Φ66^{H7}



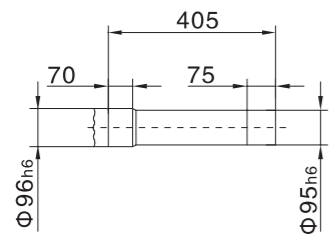
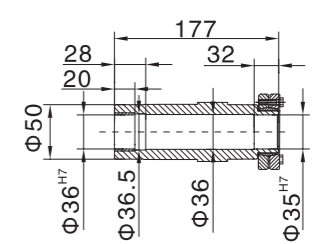
KH/KHF/KHZ37
Φ30^{H7}/Φ32^{H7}



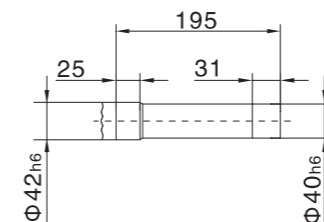
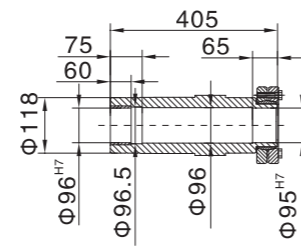
FH/FHF/FHZ97
Φ75^{H7}/Φ76^{H7}



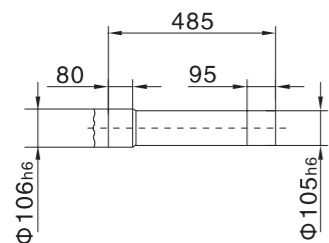
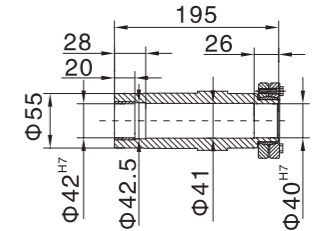
KH/KHF/KHZ47
Φ35^{H7}/Φ36^{H7}



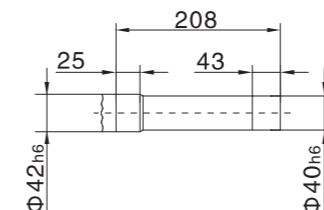
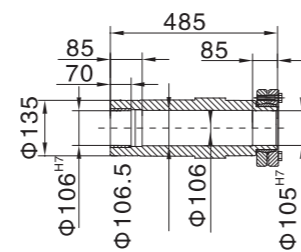
FH/FHF/FHZ107
Φ95^{H7}/Φ96^{H7}



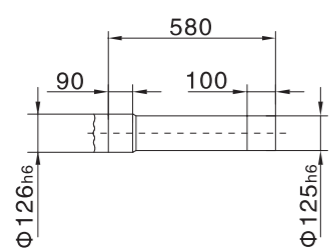
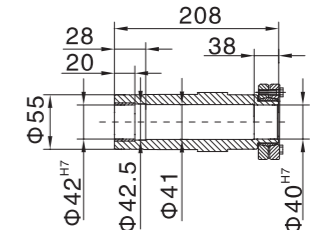
KH/KHF/KHZ57
Φ40^{H7}/Φ42^{H7}



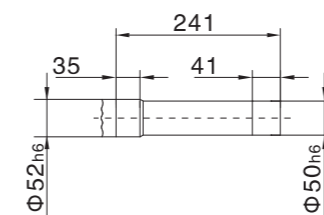
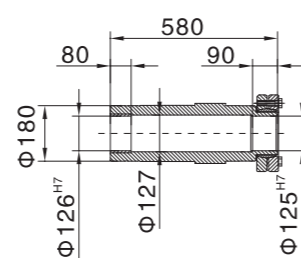
FH/FHF/FHZ127
Φ105^{H7}/Φ106^{H7}



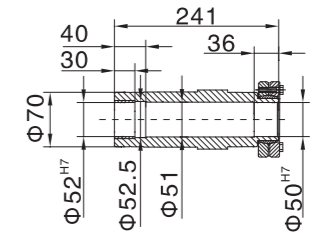
KH/KHF/KHZ67
Φ40^{H7}/Φ42^{H7}



FH/FHF/FHZ157
Φ125^{H7}/Φ126^{H7}

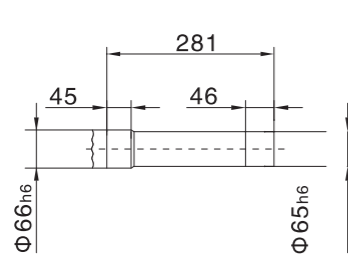


KH/KHF/KHZ77
Φ50^{H7}/Φ52^{H7}

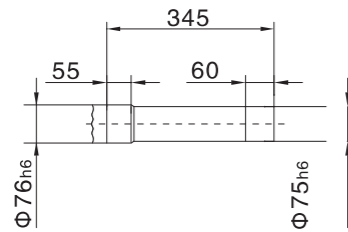
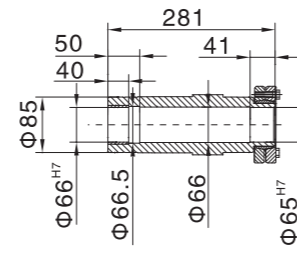


带轴阶空心轴和锁紧盘的斜齿轮-锥齿轮减速电机
Helical-bevel gear unit with shouldered hollow shaft

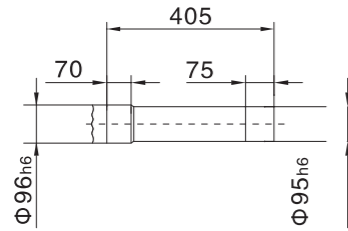
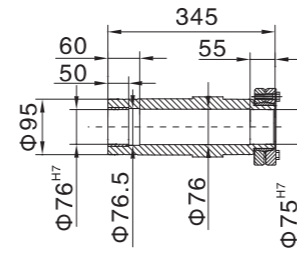
带轴阶空心轴和锁紧盘的斜齿轮-蜗杆减速电机
Helical-worm gear unit with shouldered hollow shaft



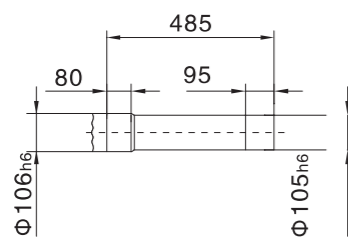
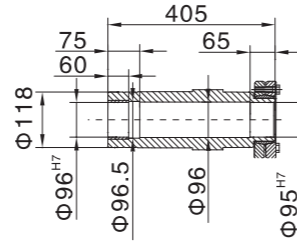
KH/KHF/KHZ87
Φ65^{H7}/Φ66^{H7}



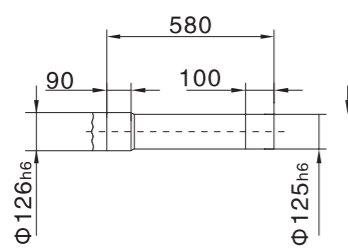
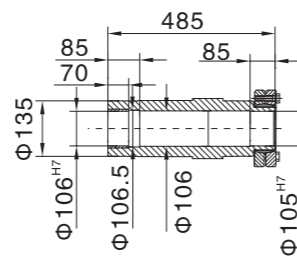
KH/KHF/KHZ97
Φ75^{H7}/Φ76^{H7}



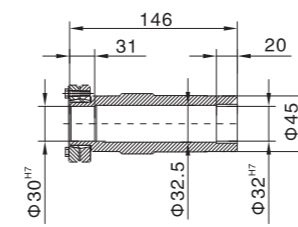
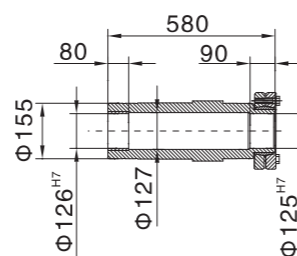
KH/KHF/KHZ107
Φ95^{H7}/Φ96^{H7}



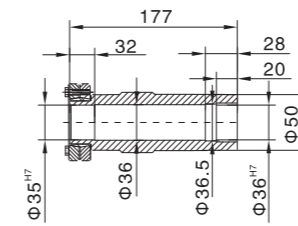
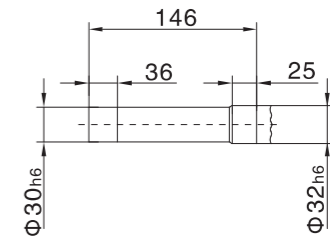
KH/KHF/KHZ127
Φ105^{H7}/Φ106^{H7}



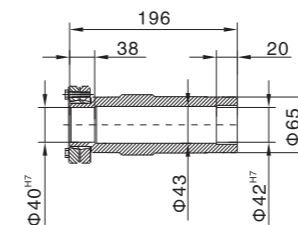
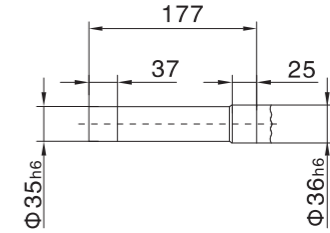
KH/KHF/KHZ157
Φ125^{H7}/Φ126^{H7}



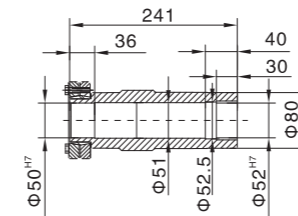
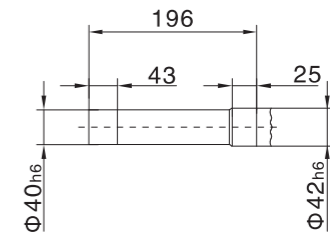
SH/SHF/SHZ47
Φ30^{H7}/Φ32^{H7}



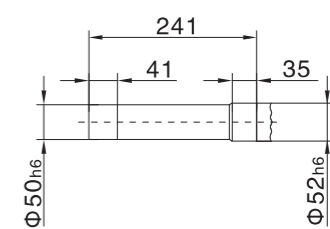
SH/SHF/SHZ57
Φ35^{H7}/Φ36^{H7}



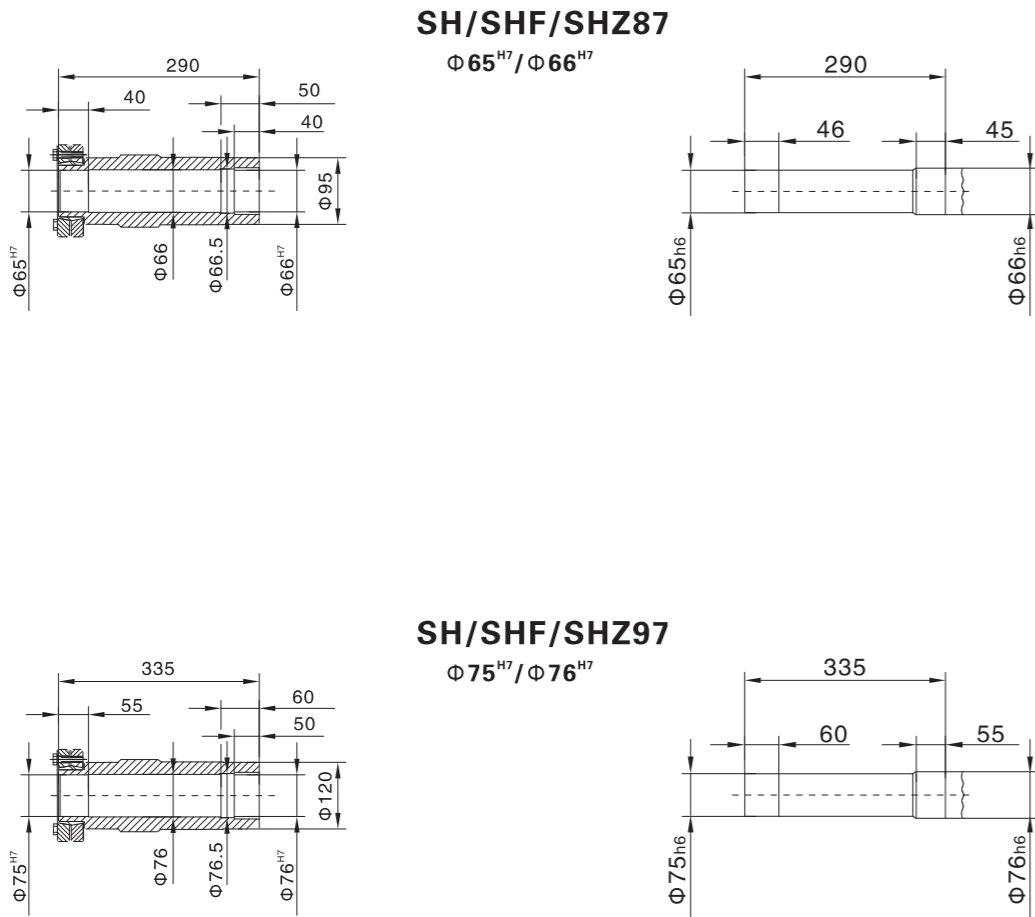
SH/SHF/SHZ67
Φ40^{H7}/Φ42^{H7}



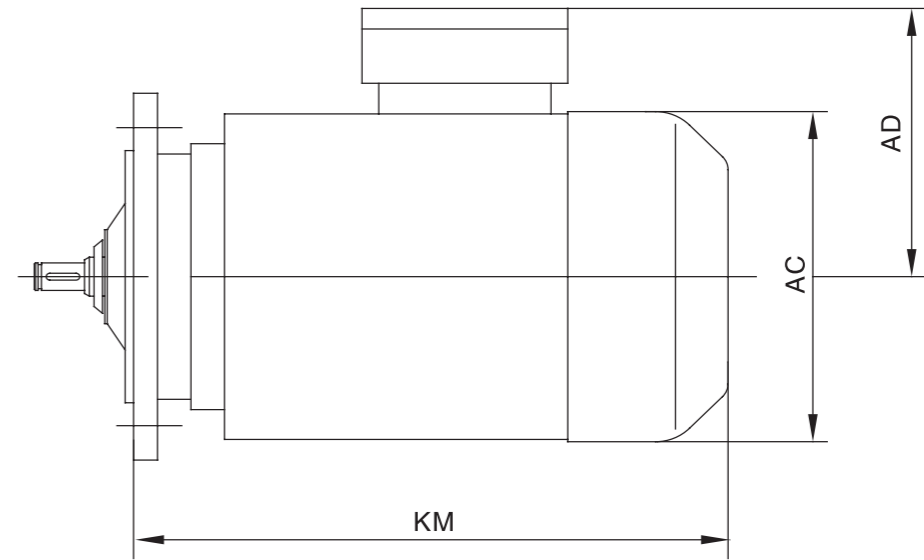
SH/SHF/SHZ77
Φ50^{H7}/Φ52^{H7}



带轴阶空心轴和锁紧盘的斜齿轮-蜗杆减速电机
Helical-worm gear unit with shouldered hollow shaft



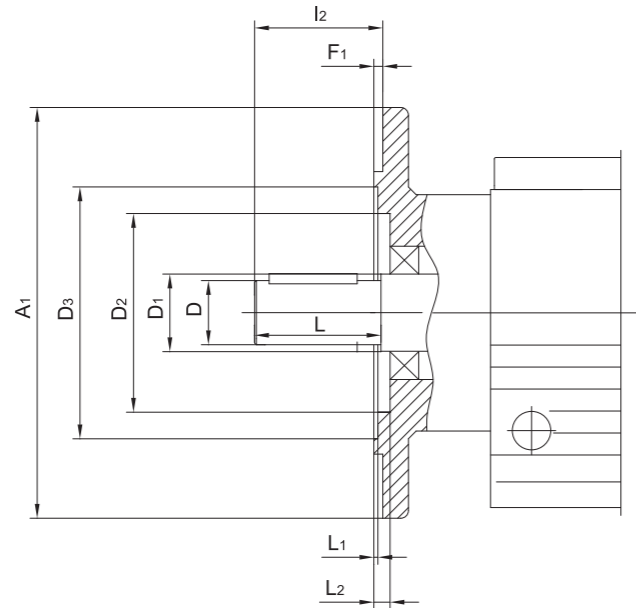
9.5 电机尺寸图
9.5 The size of motor



型号 Model	D63M	D71M	D80M	D90S D90L	D100L	D112M	D132S D132L	D160M D160L	D180M D180L	D200L	D225S D225M	D250M	D280S D280M	D315S D315M
AC	130	145	175	195	215	240	275	330	380	420	470	510	580	612
AD	70	80	145	155	180	190	210	255	280	305	335	370	400	430
KM	250	280	320	342 367	400	408	473 513	560 615	645 685	710	724 754	810	895 945	1010 1065

注：上表中的电机尺寸为部分铁芯长度电机的参考尺寸，具体尺寸根据铁芯长度与联接法兰尺寸确定，因空间限制对电机尺寸有要求时请向我公司咨询。
Notice: The data in the above table is only for reference. If you have any special requirements, please contact us.

9.6 RF..和 R..F减速电机法兰外形图
9.6 Flange contours of RF.. and R..F gear units



选择和安装输出零件时请注意L1和L2尺寸
Check dimensions L1 and L2 for selection and installation of output elements

规格 Type	A1	D	D1	D2		D3	F1	12	L	L1		L2
				RF	R..F					RF	R..F	
RF37, R37F	120	25	35	60	63	70	3	50	50	5	4	7
	160				-	96	3.5			1	-	7.5
	200				-	119	3.5			1	-	7.5
RF47, R47F	140	30	35	72	64	82	3	60	60	4	1	6
	160				-	96	3.5			0.5	-	6.5
	200				-	116	3.5			0.5	-	6.5
RF57, R57F	160	35	40	76	75	96	3.5	70	70	4	2.5	5
	200				-	116	3.5			0	-	5
	250				-	160	4			0.5	-	5.5
RF67, R67F	200	35	50	90	90	118	3.5	70	70	2	4	7
	250				-	160	4			1	-	7.5
RF77, R77F	250	40	52	112	100	160	4	80	80	0.5	2.5	7
	300				-	210	4			0.5	-	7
RF87, R87F	300	50	62	123	122	210	4	100	100	0	1.5	8
	350				-	226	5			1	-	9
RF97	350	60	72	136	236	5	120	120	0		9	
	450				320							
RF107	350	70	82	157	232	5	140	140	0		11	
	450				316							
RF137	450	90	108	180	316	5	170	170	0		10	
	550				416							
RF147	450	110	125	210	316	5	210	210	0		10	
	550				416							
RF167	550	120	145	290	416	5	210	210	1		10	
	660				517	6	210	210	2		11	

9.7 减速机安装
9.7 Gear unit mounting

安装减速机和减速电机时一定要使用8.8级螺栓
Always use bolts quality 8.8 for mounting gear units and geared motors.

例外
Exception

当传递样本上所给定的额定扭矩时，下面几种法兰安装（RF..）和地脚/法兰安装（R..F..）的斜齿轮减速电机，法兰和用户安装单元固定时一定要用10.9级的螺栓。
• RF37和带Φ 120mm法兰的RF37
• RF47和带Φ 140mm法兰的RF47
• RF57和带Φ 160mm法兰的RF57

Bolts of quality 10.9 must be used for used for fastening the flange to the customer supplied unit in order to transmit the rated torque specified in the catalog. These bolts must be used in case following flange – mounted helical geared motors (RF..) and foot/flange – mounted helical geared motors (R..F..) :

- RF37, RF37F with flange Φ 120mm
- RF47, RF47F with flange Φ 140mm
- RF57, RF57F with flange Φ 160mm

KH167.., KH187..
的力矩臂

对于减速电机 KH167..和KH187..作为标准配置，一般不提供扭矩臂。如果需要，请和我公司联系，我们将给出推荐的安装位置和尺寸图。

Torque arms for
KH167.., KH187..

As standard, there are no torque arms available for gear unit sizes KH167..and KH187 Please contact company if you require torque arms for these gear units. We will submit The configuration of recommendations.

9.8 润滑 9.8 Lubricants

概述 General information

除非特别要求，我司所提供的减速机均按其减速机规格注了油。订货时，所规定的安装位置对注油量的多少是一个决定性因素。对于安装位置的调整必须相应地调节注油量。(按注油量表)。
Unless there is a special requirement, always supplies the drives that with lubricant fill specifically for the reducer and mounting position. When ordering a drive, the decisive factor of lubricant fill quantities is the drives mounting position. You must adapt the lubricant fill to any subsequent change made to the mounting position check for the (Lubricant fill quantities)

润滑油的等级和粘度类型 Lubricating conglutination

推荐使用的润滑油见 润滑油表，其等级和粘度指标见下表
Commend the lubricant oil. The grade and conglutination index in the following.

DIN(ISO,SAE)标准润滑油 Normal lubricating	粘度指标 Conglutination index	环境温度℃ Ambient temperature	减速机型号 Gear unit type
Mineral oil CLp(cc)	ISOVG 220	-10~+40	R系列, F系列 K系列减速机
	ISOVG 680	0~+40	S系减速机

特殊应用场合必须使用特殊润滑油，比如要求长使用寿命润滑油。若需要可提供用于食品行业和生物降解润滑油。
The special lubricante oil. must be used in special situation. For example requesting use the oil with long life-span.If you want, we can afford the biology decompose oil for food industry.

DIN(ISO,SAE)标准润滑油 Normal lubricating	粘度指标 Conglutination index	环境温度℃ Ambient temperature	减速机型号 Gear unit type
Mineral oil CLp(CC)	ISOVG 100	-20~+25	R系列, F系列 K系列减速机
Synthetic fluid,clp pg	ISOVG 220	-25~+80	R系列, F系列 K系列减速机
Synthetic fluid,CLP HC	ISOVG 460	-30~+80	S系减速机

耐磨轴承用润滑油 Anti-friction bearing greases

下列润滑脂用于减速机和电机的耐磨轴承润滑

DIN(ISO,SAE)标准润滑油 Normal lubricating	环境温度℃ Ambient temperature	减速机型号 Gear unit type
矿物轴承润滑脂K32N/K2K mineral bearing lubricating lipin K32N/K2K	-30~+60	正常型式：减速机、电机 Normal type: motor reducer
合成轴承润滑脂KHC 2R-40 synthetic bearing lubricating lipin K2R-40	-40~+80	减速机加注合成润滑油 Reducers need to inject the synthetic lubricant
矿物轴承润滑脂K3N-30 mineral bearing lubricating lipin K3N-30	-25~+80	特殊型式：按应用场合确定的电机 Special type: select the motor in different situation
合成轴承润滑脂K2S-50 synthetic bearing lubricating lipin K2S-50	-45~-25	特殊型式：按应用场合确定的电机 Special type: select the motor in different situation

传动装置润滑油表 Lubricant table

减速机型号 Gear unit type	环境温度 0° +50 +100	ISO粘度与NLGI相应	润滑油类型 DIN(ISO)	品牌	规格
R F K	-10 标准	VG 220	CLP (CC)	壳牌 Shell	Shell Omala 220
	-25	VG 220	CLP PG	美孚 Mobil	Mobilgear 30
	*-40	VG 220	CLP HC	壳牌 Shell	Shell Tivela WB
	*-40	VG 150	CLP HC	壳牌 Shell	Shell Omala 220 HD
	-20	VG 150	CLP (CC)	壳牌 Shell	Shell Omala 100
	-30	VG 68-46	CLP (CC)	壳牌 Shell	Shell Tellus T32
	*-40	VG 32	CLP HC	美孚 Mobil	Mobil SHC 624
	*-40	VG 15	HLP (HM)	美孚 Mobil	Mobil D.T.E 11M
	0 标准	VG 680	CLP (CC)	壳牌 Shell	Shell Omala 680
	-20	VG 680 1)	CLP PG	美孚 Mobil	Mobil Glygoyle HE 680
S	*-30	VG 460	CLP PHC	美孚 Mobil	Mobil SHC 634
	*-40	VG 150	CLP (CC)	美孚 Mobil	Mobil SHC 629
	-20	VG 150	CLP (CC)	美孚 Mobil	Mobil D.T.E 18M
	-25	VG 220 1)	CLP PG	美孚 Mobil	Mobil Glygoyle 30
	*-40	VG 32	CLP HG	美孚 Mobil	Mobil SHC 624
	*-30	VG 460 4)	HCE	壳牌 Shell	Shell Cassida Fluid GL 460
	-20	VG 460 5)	E	壳牌 Shell	Shell Tivela Compound A
	-25	00 2)	DUN 51181	壳牌 Shell	Shell Alvania Compound A
	-15	000-0 2)		壳牌 Shell	Shell Alvania GL 00
	-15				

■ 合成润滑油 Synthetic lubricant
□ 矿物润滑油 Mineral lubricant
1)With the Helical-worm geared motors use PG oil. Please contact with company
2)Small conglutination index oil, other types of reducers. Please contact with company.
3)Food or beverage industry used oil.
4)biology decompose oil.
--High request when start-up in low temperature.

1)用PG油的斜齿轮蜗轮蜗杆减速机请和公司联系
2)低粘度油脂,其它型号减速机请和公司联系
3)食品饮料行业用油(食品级油)
4)生物降解油(用于农业,林业和工业)
*低温时启动要求高

CLPPG=聚二酯类
CLP HC=碳氢化合物类
E=二元酸酯合成油
HCE=碳氢化合物十二脂油

CLP=矿物油
HLP=液压油
CLP:Petrolatam oil
HLP:Hydraulic pressure oil
KBTS/Ga/Vi

加油量
Lubricant
fill quantities

规定的注油量是参考值。精确的注油量随着减速机的级数和速比的不同而变化。注油时，最有效是检查油位塞，因为它指示精确注油量。
The specified fill quantities are recommended values. The precise vary depending on the number of stages and gear ratio. When filling, it is essential to check the oil level plug since it indicates the precise oil capacity.

斜齿轮减
速器(R系列)
Helical gear
units(R..)

下表按安装位置M1-M16,给出了注油量的参考值。
The following tables show referenced values for lubricant fill quantities in relation to relation to the Mounting position M1-M16

减速器型号 Gear unit type	注油量(升) Fill quantity(L)					
	M1 ¹⁾	M2 ¹⁾	M3	M4	M5	M6
R37/R37F	0.3/1	0.9	1	1.1	0.8	1
R47/R47F	0.7/1.5	1.6	1.5	1.7	1.5	1.5
R57/R57F	0.8/1.7	1.9	1.7	2.1	1.7	1.7
R67/R67F	1.1/2.3	2.6/3.5	2.8	3.2	1.8	2
R77/R77F	1.2/3	3.8/4.3	3.6	4.3	2.5	3.4
R87/R87F	2.3/6	6.7/8.4	7.2	7.7	6.3	6.5
R97	4.6/9.8	11.7/14	11.7	13.4	11.3	11.7
R107	6/13.7	16.3	16.9	19.2	13.2	15.9
R137	10/25	28	29.5	31.5	25	25
R147	15.4/40	46.5	48	52	39.5	41
R167	27/70	82	78	88	66	69

减速器型号 Gear unit type	注油量(升) Fill quantity(L)					
	M1 ¹⁾	M2 ¹⁾	M3	M4	M5	M6
RF37	0.4/1	0.9	1	1.1	0.8	1
RF47	0.7/1.5	1.6	1.5	1.7	1.5	1.5
RF57	0.8/1.7	1.8	1.7	2	1.7	1.7
RF67	1.1/2.5	2.7/3.6	2.7	3.1	1.9	2.1
RF77	1.2/2.6	3.8/4.1	3.3	4.1	2.4	3
RF87	2.4/6	6.8/7.9	7.1	7.7	6.3	6.4
RF97	5.1/10.2	11.9/14	11.2	14	11.2	11.8
RF107	6.3/14.9	15.9	17	19.2	13.1	15.9
RF137	9.5/25	27	29	32.5	25	25
RF147	16.4/42	47	48	52	42	42
RF167	26/70	82	78	88	65	71

平行轴斜齿轮减速器(F系列)
Parallel shaft helical gear units.(F..)

F.., FA..B, FH..B, FV..B

减速器型号 Gear unit type	注油量(升) Fill quantity(L)					
	M1	M2	M3	M4	M5	M6
F37	1	1.2	0.7	1.2	1	1.1
F47	1.5	1.8	1.1	1.9	1.5	1.7
F57	2.6	3.7	2.1	3.5	2.8	2.9
F67	2.7	3.8	1.9	3.8	2.9	3.2
F77	5	7.3	4.3	8	6	6.3
F87	10	13.0	7.7	13.8	10.8	11
F97	18.5	22.5	12.6	25.2	18.5	20
F107	24.5	32	19.5	37.5	27	27
F127	40.5	55	34	61	46.5	47
F157	69	104	63	105	86	78

FF..

减速器型号 Gear unit type	注油量(升) Fill quantity(L)					
	M1	M2	M3	M4	M5	M6
FF37	1	1.2	0.7	1.3	1	1.1
FF47	1.6	1.9	1.1	1.9	1.5	1.7
FF57	2.8	3.8	2.1	3.7	2.9	3
FF67	2.7	3.8	1.9	3.8	2.9	3.2
FF77	5.1	7.3	4.3	8.1	6	6.3
FF87	10.3	13.2	7.8	14.1	11	11.2
FF97	19	22.5	12.6	25.5	18.9	20.5
FF107	25.5	32	19.5	38.5	27.5	28
FF127	41.5	56	34	63	46.5	49
FF157	72	105	64	106	87	79

FA.., FH.., FV.., FAF.., FHF.., FVF.., FAZ.., FHZ.., FVZ

减速器型号 Gear unit type	注油量(升) Fill quantity(L)					
	M1	M2	M3	M4	M5	M6
F..37	1	1.2	0.7	1.2	1	1.1
F..47	1.5	1.8	1.1	1.9	15	1.7
F..57	2.7	3.8	2.1	3.6	2.9	3
F..67	2.7	3.8	1.9	3.8	2.9	3.2
F..77	5	7.3	4.3	8	6	6.3
F..87	10	13.0	7.7	13.8	10.8	11
F..97	18.5	22.5	12.6	25.0	18.5	20
F..107	24.5	32	19.5	37.5	27	27
F..127	39	55	34	61	45	46.5
F..157	68	103	62	104	85.	77

斜齿轮-锥齿轮减速器(K 系列)
Helical-bevel Gear unit (K..)

K.., KA..B, KH..B, KV..B

减速器型号 Gear unit type	注油量(升) Fill quantity(L)					
	M1	M2	M3	M4	M5	M6
K..37	0.5	1	1	1.3	1	1
K..47	0.8	1.3	1.5	2	1.6	1.6
K..57	1.2	2.3	2.5	3	2.6	2.4
K..67	1.1	2.4	2.6	3.4	2.6	2.6
K..77	2.2	4.1	4.4	5.9	4.2	4.4
K..87	3.7	8	8.7	10.9	7.8	8
K..97	7	14	15.7	20	15.7	15.5
K..107	10	21	25.5	33.5	24	24
K..127	21	41.5	44	54	40	41
K..157	31	62	6.5	90	58	62
K..167	35	100	100	125	85	85
K..187	60	170	170	205	130	130

KF..

减速器型号 Gear unit type	注油量(升) Fill quantity(L)					
	M1	M2	M3	M4	M5	M6
KF37	0.5	1.1	1.1	1.5	1	1
KF47	0.8	1.3	1.7	2.2	1.6	1.6
KF57	1.3	2.3	2.7	3	2.9	2.7
KF67	1.1	2.4	2.8	3.6	2.7	2.7
KF77	2.1	4.1	4.4	6	4.5	4.5
KF87	3.7	8.2	9	11.9	8.4	8.4
KF97	7	14.7	17.3	21.5	15.7	16.5
KF107	10	22	26	35	25	25
KF127	21	41.5	46	55	41	41
KF157	31	66	69	92	62	62

KA.., KH.., KV.., KAF.., KHF.., KVF.., KAZ.., KHZ.., KVZ

减速器型号 Gear unit type	注油量(升) Fill quantity(L)					
	M1	M2	M3	M4	M5	M6
K..37	0.5	1	1	1.4	1	1
K..47	0.8	1.3	1.6	2.1	1.6	1.6
K..57	1.3	2.3	2.7	3	2.9	2.7
K..67	1.1	2.4	2.7	3.6	2.6	2.6
K..77	2.1	4.1	4.6	6	4.4	4.4
K..87	3.7	8.2	8.8	11.1	8	8
K..97	7	14.7	15.7	20	15.7	15.7
K..107	10	20.5	24	32	24	24
K..127	21	41.5	43	52	40	40
K..157	31	66	67	87	62	62
K..167	35	100	100	125	85	85
K..187	60	170	170	205	130	130

斜齿轮-蜗轮蜗杆减速器(S 系列)
Helical-worm Gear units.(S..)

S..

减速器型号 Gear unit type	注油量(升) Fill quantity(L)					
	M1	M2	M3 ¹⁾	M4	M5	M6
S37	0.25	0.4	0.5	0.6	0.4	0.4
S47	0.35	0.8	0.7	1.1	0.8	0.8
S57	0.5	1.2	1	1.5	1.3	1.3
S67	1	2.0	2.2/3.1	3.2	2.6	2.6
S77	1.9	4.2	3.7/5.4	6	4.4	4.4
S87	3.3	8.1	6.9/10.4	12	8.4	8.4
S97	6.8	15	13.4/18	22.5	17	17

1) 多级减速箱中较大的减速机须注较多的油量。
The output end unit of multi-stage gear units must be filled with the larger oil volume.

SF..

减速器型号 Gear unit type	注油量(升) Fill quantity(L)					
	M1	M2	M3 ¹⁾	M4	M5	M6
SF37	0.25	0.4	0.5	0.6	0.4	0.4
SF47	0.4	0.9	0.9	1.2	1.0	1
SF57	0.5	1.2	1	1.6	1.4	1.4
SF67	1	2.2	2.3/3	3.2	2.7	2.7
SF77	1.9	4.1	3.9/5.8	6.5	4.9	4.9
SF87	3.8	8	7.1/10.1	12	9.1	9.1
SF97	7.4	15	13.8/18.8	23.6	18	18

1) 多级减速箱中较大的减速机须注较多的油量。
The output end unit of multi-stage gear units must be filled with the larger oil volume.

SA.., SH.., SAF.., SHF.., SAZ.., SHZ.

减速器型号 Gear unit type	注油量(升) Fill quantity(L)					
	M1	M2	M3 ¹⁾	M4	M5	M6
S..37	0.25	0.4	0.5	0.6	0.4	0.4
S..47	0.4	0.8	0.7	1.1	0.8	0.8
S..57	0.5	1.1	1	1.6	1.2	1.2
S..67	1	2	1.8/2.6	2.9	2.5	2.5
S..77	1.8	3.9	3.6/5	5.9	4.5	4.5
S..87	3.8	7.4	6/8.7	11.2	8	8
S..97	7	14	11.4/16	21	15.7	15.7

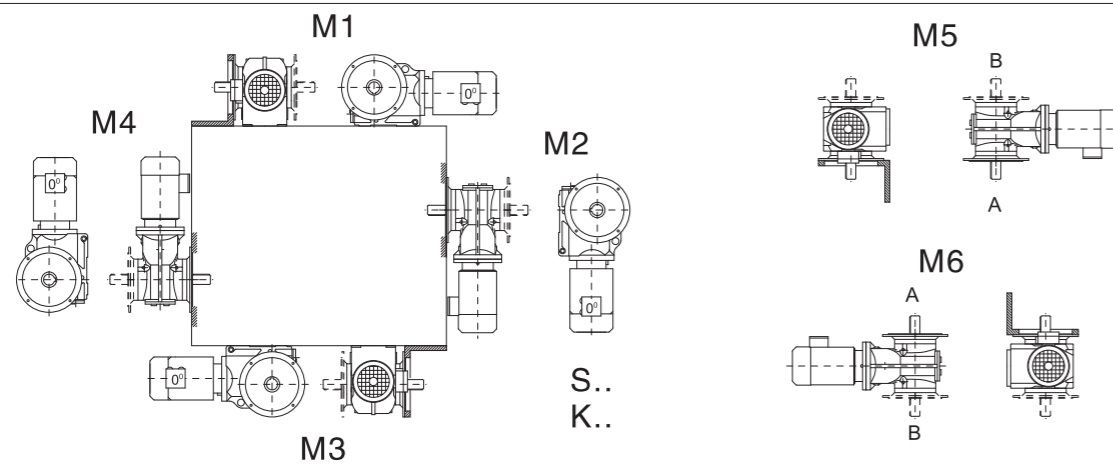
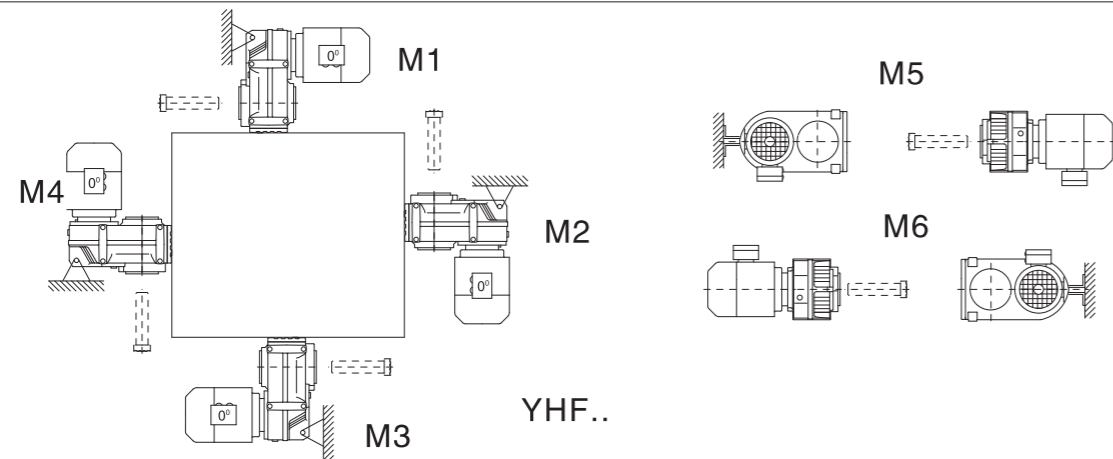
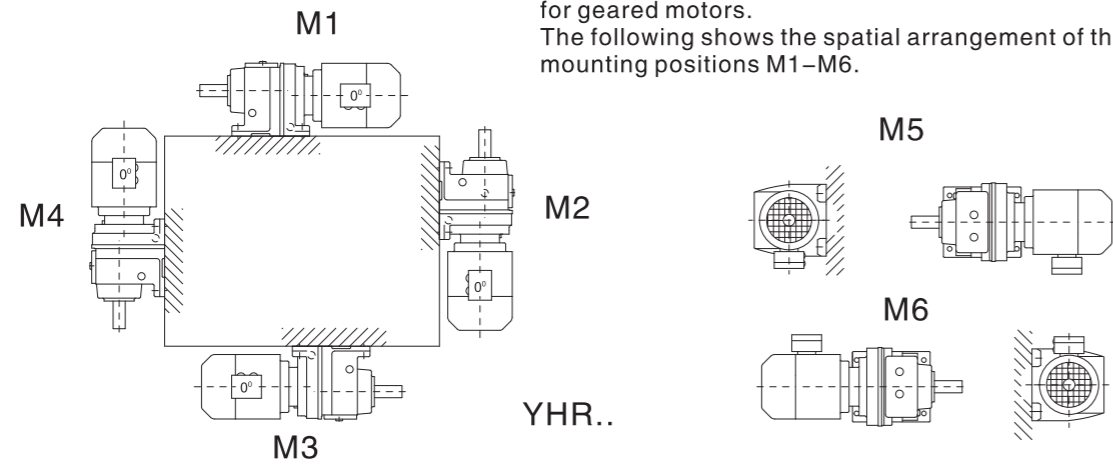
1) 多级减速箱中较大的减速机须注较多的油量。
The output end unit of multi-stage gear units must be filled with the larger oil volume.

10. 安装位置 Monnting Position

10.1 安装位置概述

10.1 Mounnting position designation

安装位置说明：减速电机有M1..M6共6种安装位置。
下面的图表说明了减速器安装位置M1..M6的空间排列。
differentiates between six mounnting position M1-M6 for geared motors.
The following shows the spatial arrangement of the gear units in mounting positions M1-M6.



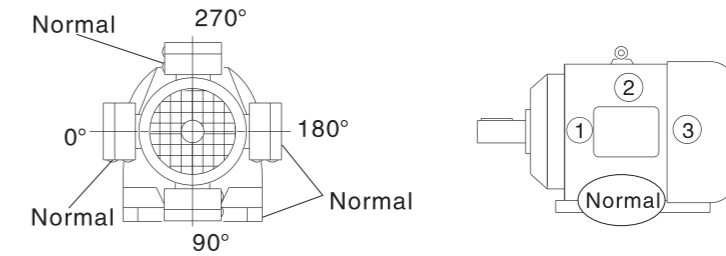
重要的订货信息
Important indention information
除了安装位置以外，下面订货资料也是必需的，以便精确描述要求的减速电机外形。
Except the mounting position,the indention informations for depicting the figure of gear

电机接线盒位置
电机接线盒上出线口位置
对直角轴减速机：输出方向
对直角轴型带收缩盘轴式减速机：连接端带或不带法兰
带逆止器的减速机：设备的旋转方向

Unit exactly are necessary
Position of the motor terminal box
For the right-angle shaft reducers:output shaft connection.
For the right-angle shaft reducers:with shrink-disk:with or without feange.
For the drive with a backstop: the Direction of rotation.

电机接线盒和出线嘴位置 Position of the motor terminal box cable entry

电机接线盒从电机风扇罩看（如图），位置分别表示为0°，90°，180°或270°
出线嘴的位置也可以进行选择（如图），分别表示为“Normal”，“1”，“2”或“3”
Possible positions of the teminal box are 0° ,90° ,180° or 270° as ciewed onto the fan guard=B-side
In addition, the position of the cable entry can be selected. The possibilities are "X" (=normal position), "1", "2", or "3"



图：接线盒与出线嘴的位置
Fig:Position of the terminal box and cable entry

对于接线盒，除非给出了详细信息，否则接线盒按0°，出线嘴按“Normal”供货。
我们建议安装位置在M3时，应选择出线嘴位置为“2”。

注意：

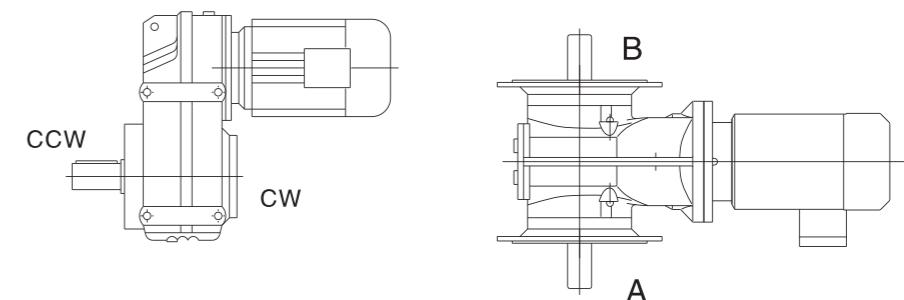
对于 R17D71..减速机，接 线盒位置不能标为90°
D71..BMG接线盒位置为90° 时，出线嘴位置不能标为“2”。
Unless other information is given regarding the terminal box,the 0° type with "X" cable entry will be supplied.We recommend selecting cable entry "2"with mounting position M3.

The terminal box cannot be positioned at 90° on the YHR17D71 geared motor.
Cable entry "2" is not possible with the D71..BMG motor with terminal box position 90°



带逆止器减速电机的旋转方向 Direction of totatiom of the drive with a backstop

若减速电机带逆止器，规定出减速电机的旋转方向是很必要的。按下列标识：
从输出轴看：顺时针(CW)为向右旋转逆时针(CCW)为向左旋转
If the drive has a RS backstop,it is necessary to stipulate the direction of drive rotation.
The following defintion applies:
Looking onto the output shaft:Clockwise(CW)=Rotating to the right
Counterclockwise(CCW)=Rotating to the left



图：输出轴的旋转方向
Fig: Direction of rotation of the output shaft

对于直角轴型式减速机，规定出给定的旋转方向是从A端看还是从B端看的，这是非常重要的。
In right-angle gear units, it is necessary to indicate if the direction of rotation is given where be looked from the A or B end.

输出轴的位置 Position of the output shaft

对于直角轴型减速机，规定出轴方向是必要的：· A或B,还是A+B(见图)
In right-angle gear units, it is necessary to indicate the position of the output shaft and output flange: A or B or A+B

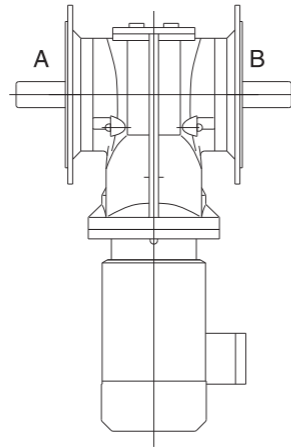


图:出轴方向
Fig:Position of the Output shaft

带锁紧盘的轴装直角轴减速机 Position of the connection end in tight-angle gear units with shrink disk

对于轴装式带锁紧盘的正文轴型式减速电机，规定出A端还是B端为连接端并且连接端是否有法兰是必要的。在图中，A端是连接端，锁紧盘在连接端对面。
In shaft mounted right-angle gear units with shrink disk, it is necessary to indicate whether the A or B end is the connection end. In Fig. The A end and is the connection end. The shrink disk is located opposite the connection end.

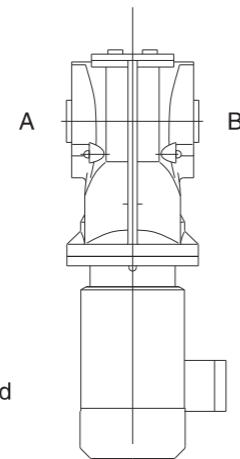


图:连接端的位置
Fig:Position of the connection end

订购实例 Sample orders

对于 K167/K187来讲，安装为M5和M6时，连接端只能是在底部连接。
Connection end at bottom only is possible with K167/K187 helical-bevel gear units in mounting positions M5 and M6.

类型 Type	安装位置 Mounting position	连接端 Shaft with	锁紧盘位置 Position of shrink disk	法兰 Flange	接线位置 Position of terminal box	出线嘴位置 Position of cable entry	旋转方向 rotation direction	出轴方向 Output direction
KF47D71D4/RS	M5	A	-	B	0°	"Normal"	CW	A
SF97D180M4	M2	A+B	-	A+B	180°	"2"	-	A+B
KH107D160L4	M1	A	B	-	270°	"3"	-	-

所有符号的含义 Symbols used

下表列出，在安装位置上的符号及其含义
The following table shows the symbols used in the mounting position sheets and what they mean:

符号 Symbol	含义 Meaning
	通气器 Breather valve
	油标 Oil level plug
	放油螺塞 Oil drain plug
	进线位置 In line plug

搅油损失 Churning losses

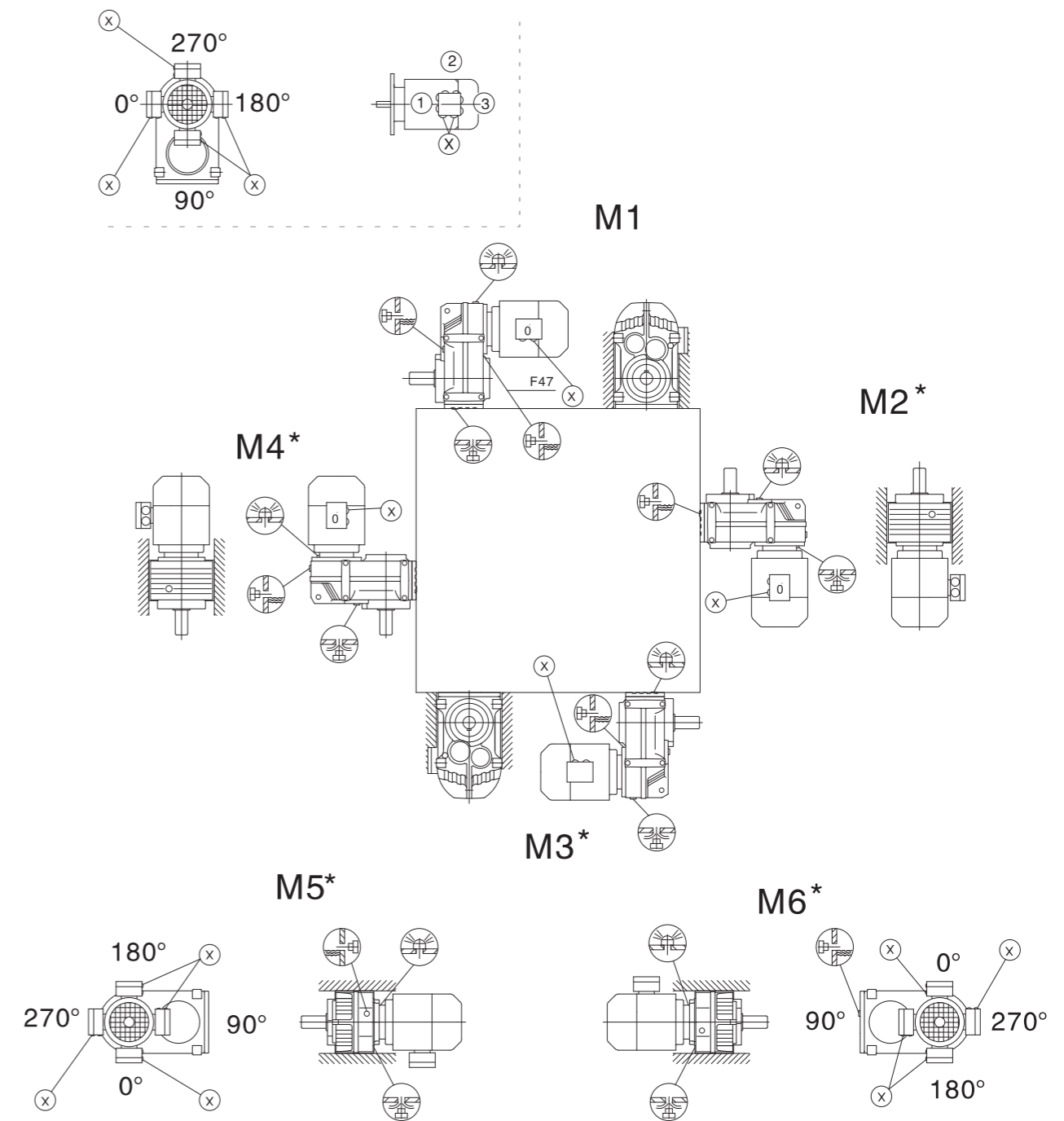
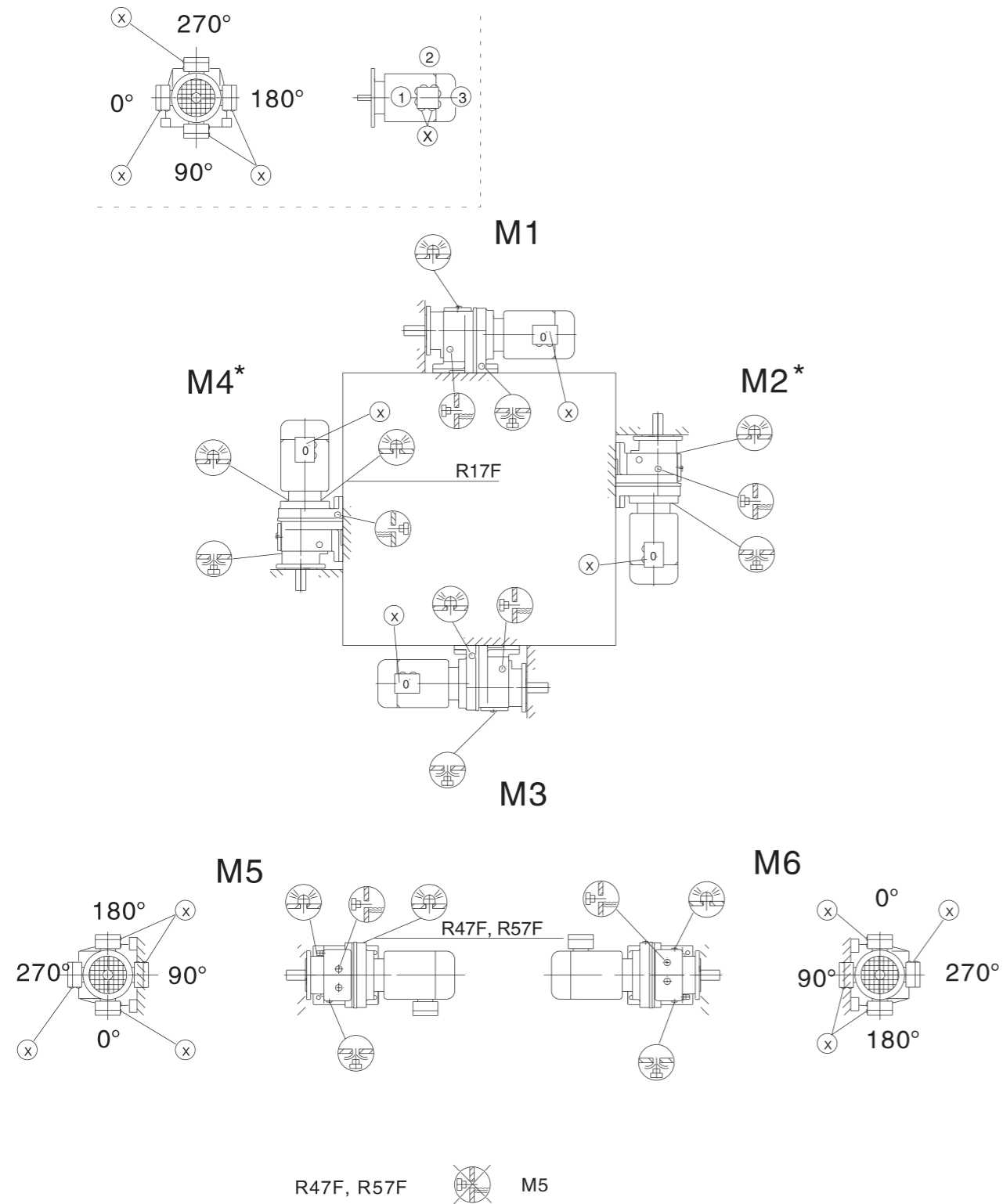
在某些安装位置可能增加搅油损失，在下列结构中请向我公司咨询
In creased churning losses may arise in some mounting positions, Please contact company in case of the following combinations.

安装位置 Mounting position	减速器型号 Gear unit type	减速器规格 Gear unit size	输入速度(rpm) Input speed
M2, M4	R	97-107	>2500
		>107	>1500
M2, M3, M4, M5, M6	F	97-107	>2500
		>107	>1500
	K	77-107	>2500
		>107	>1500
	S	77-97	>2500

R37F- R87F

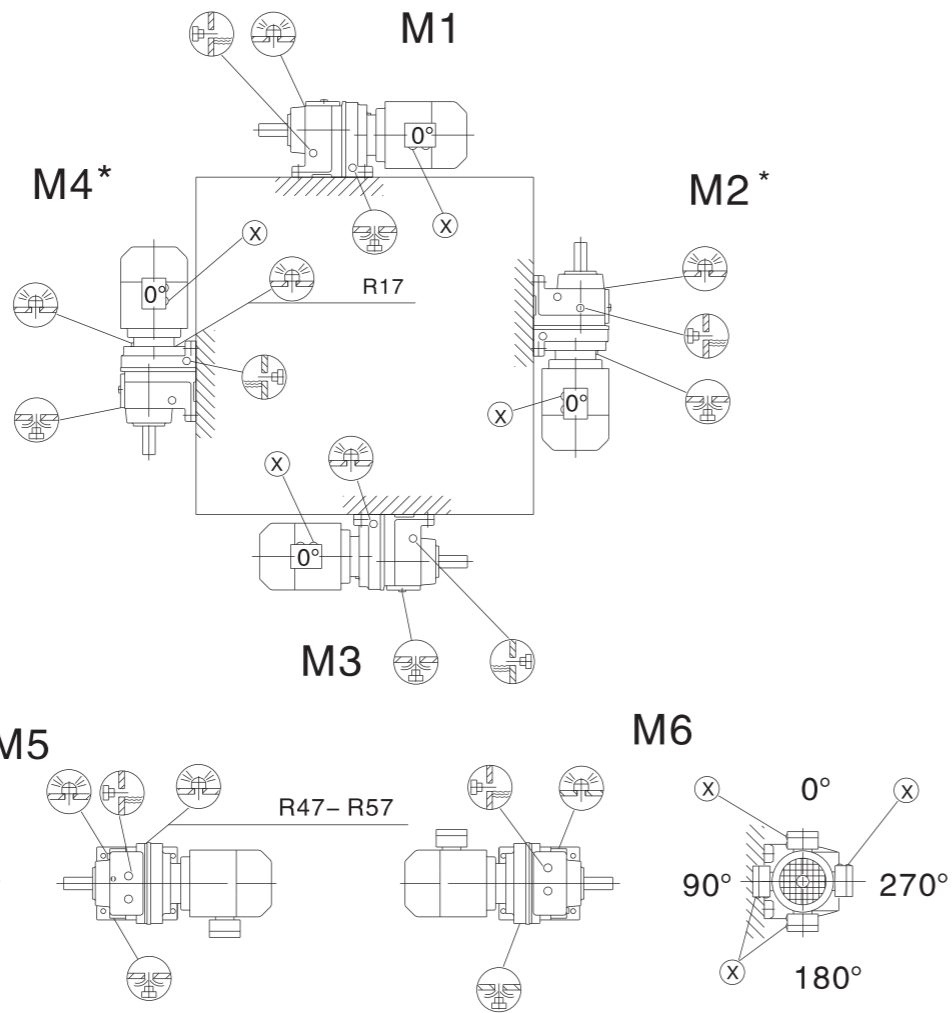
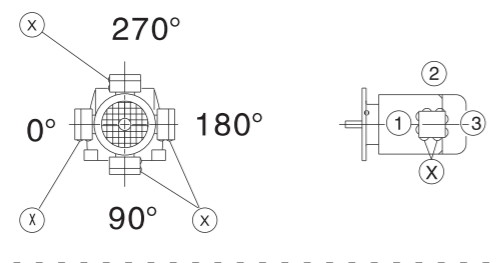
10.3 平行轴斜齿轮减速电机安装位置
10.3 Mounting position of parallel shaft helical Gear unit

F/FA..B/FH37B-157B, FV37B-107B



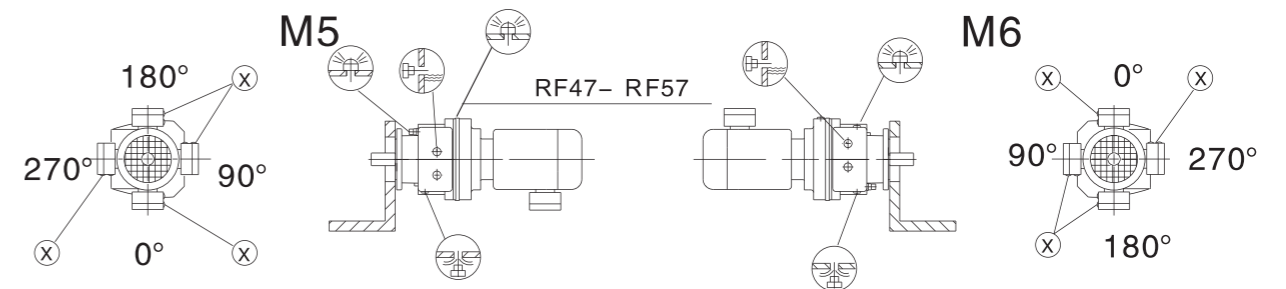
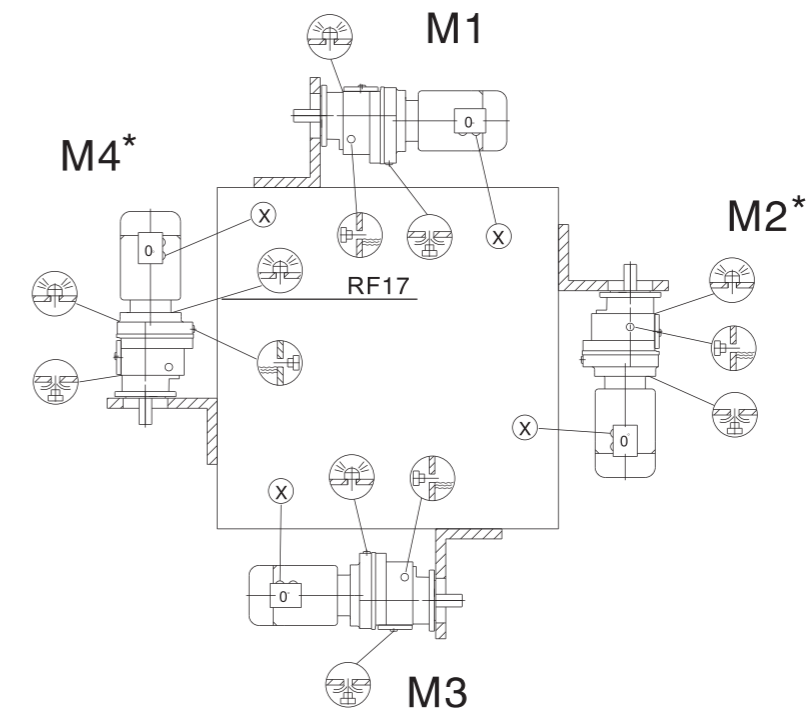
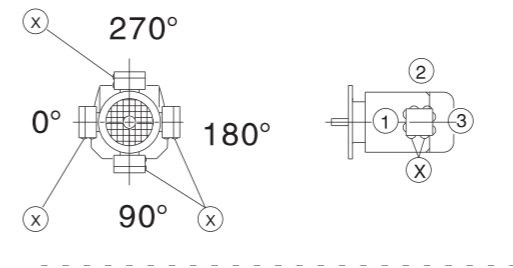
10.2 斜齿轮减速电机安装位置
10.2 Mounting position of Helical gear unit

R37- R167



R47, R57 M5

RF37- RF167



RF47, RF57 M5

FF/FAF/FHF/FAZ/FHZ37-157, FVF/FVZ37-107

FA/FH37-157, FV37-107

R

F

K

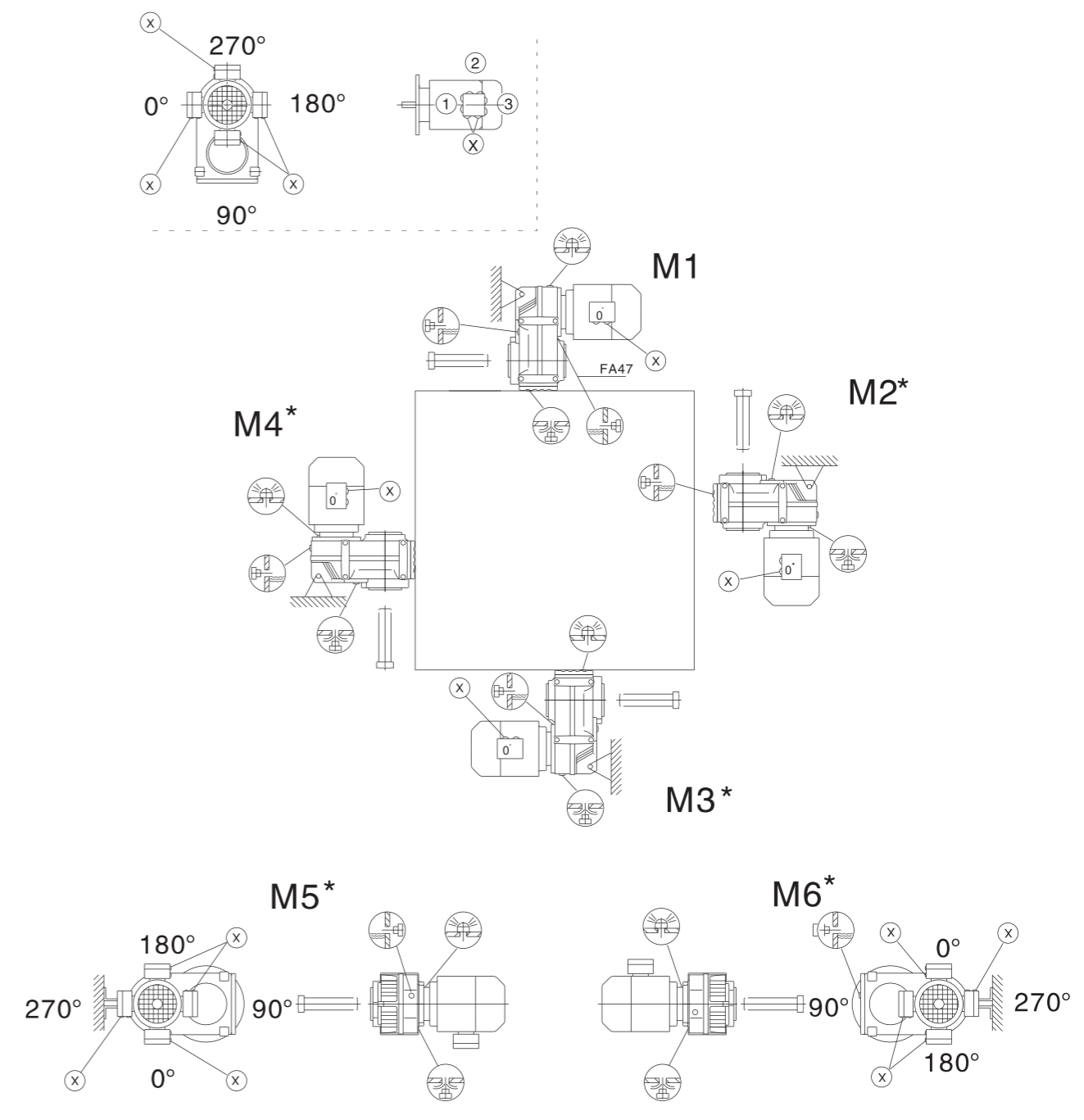
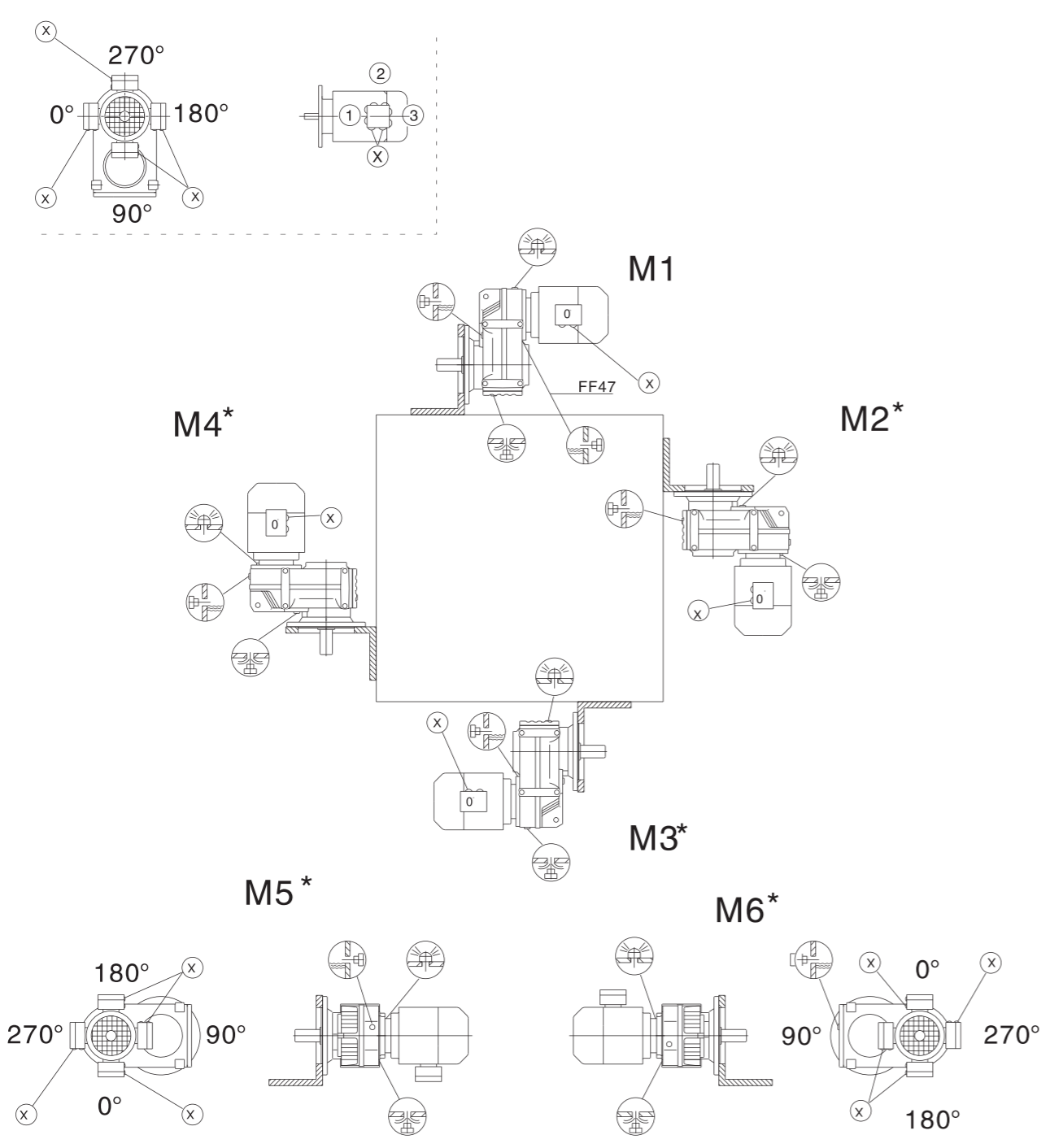
S

R

F

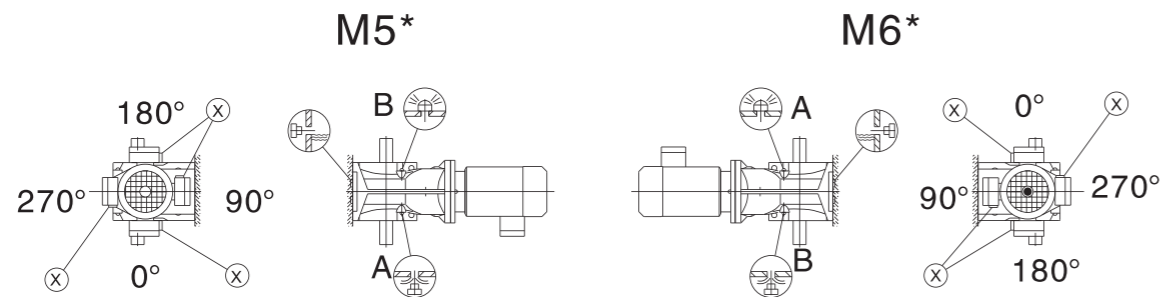
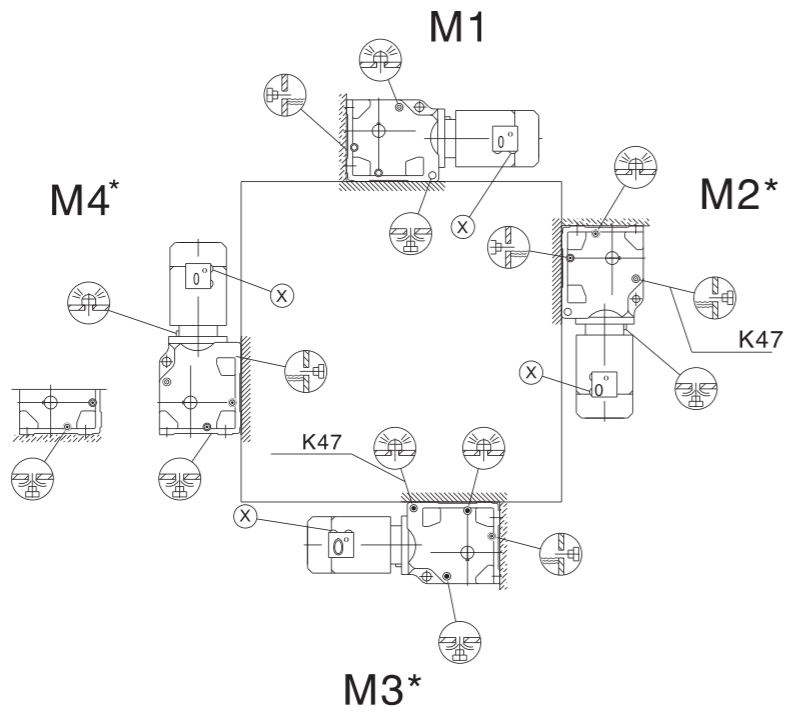
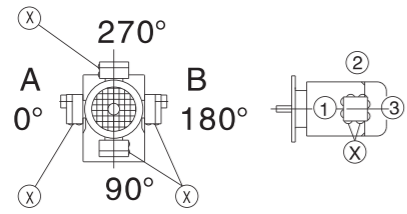
K

S



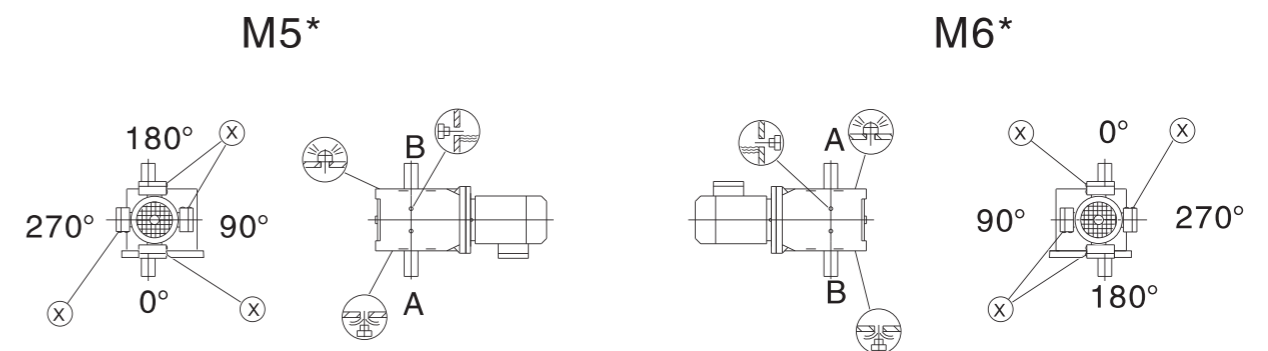
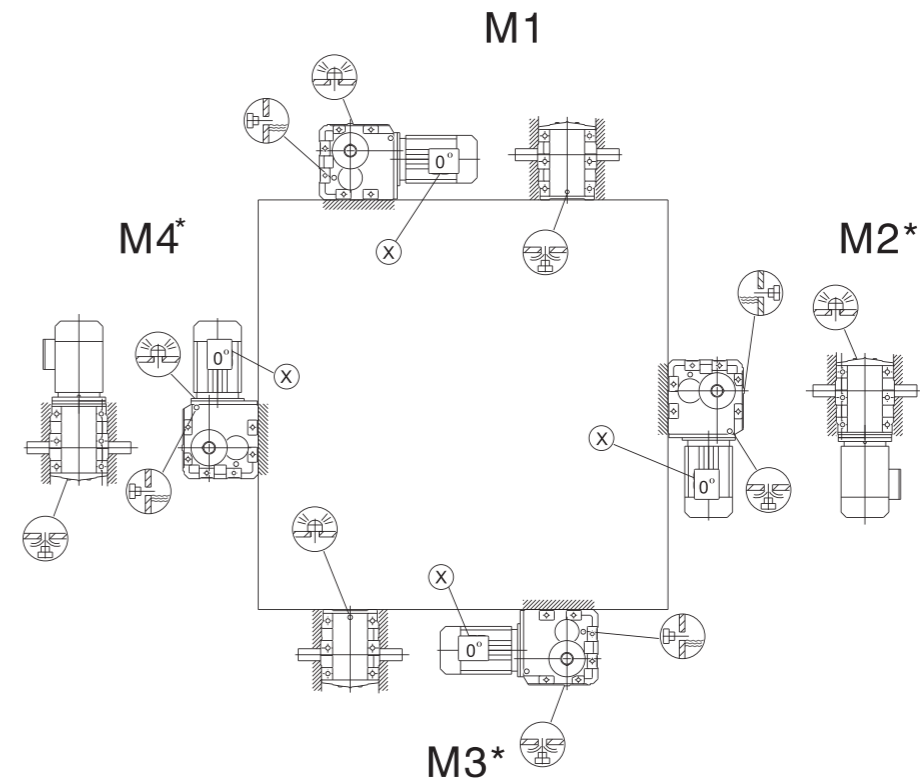
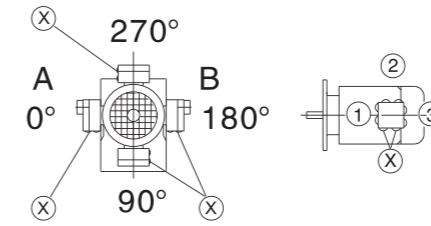
10.4 斜齿轮-伞齿轮减速电机安装位置
Mounting position of helical – bevel Gear unit

K/KA..B/KH37B – 157B, KV37B – 107B



重要:请参见"减速器选型"中"径向和轴向负载"部分(P21)
Important:Please refer to the information in the "Geared Motors"catalog.Optional Planning for Gear units Ouerhung and axial loads part"(P21)

K167-187, KH167B-187B



重要:请参见"减速器选型"中"径向和轴向负载"部分(P21)
Important:Please refer to the information in the "Geared Motors"catalog.Optional Planning for Gear units Ouerhung and axial loads part"(P21)

KF/KAF/KAZ/KHZ37-157, KVF/KVZ37-107

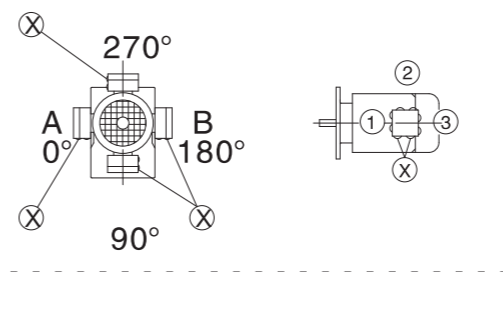
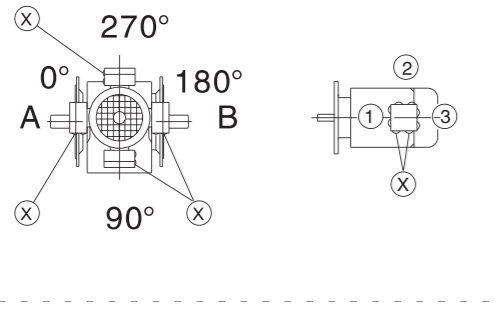
KA/KH37-157/T, KV37-107/T

R

F

K

S

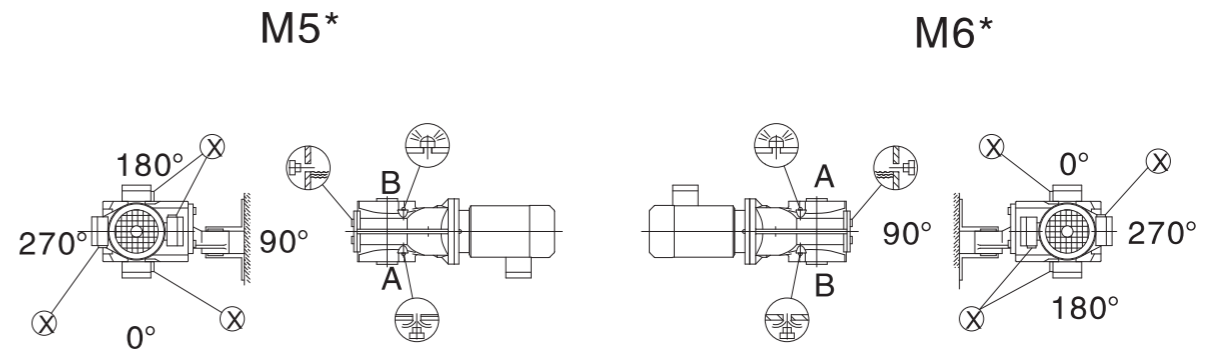
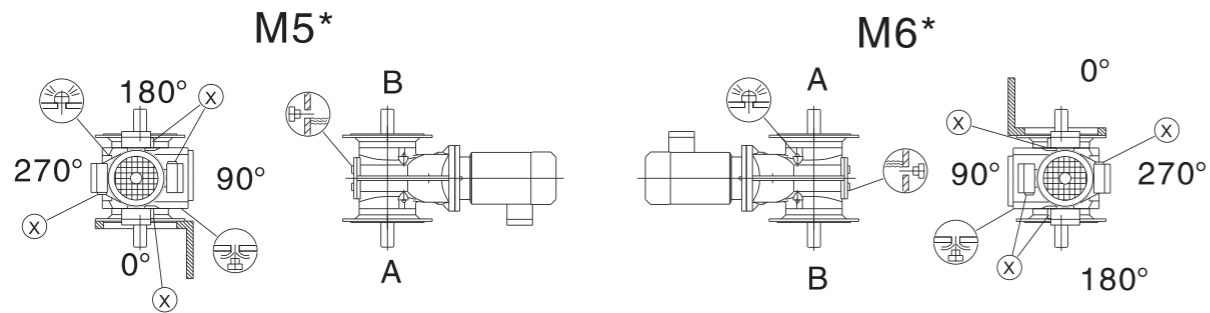
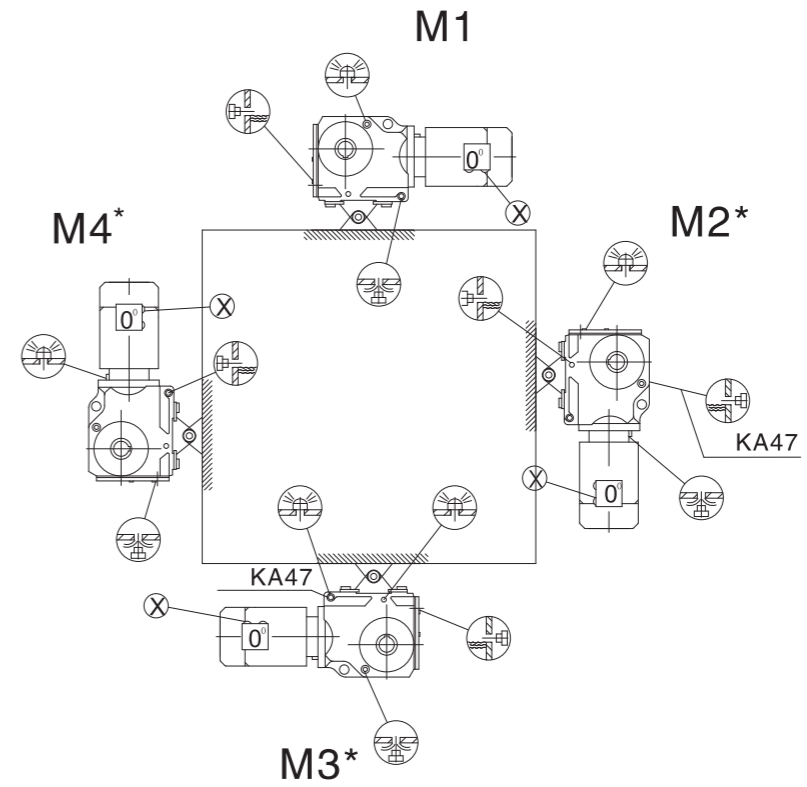
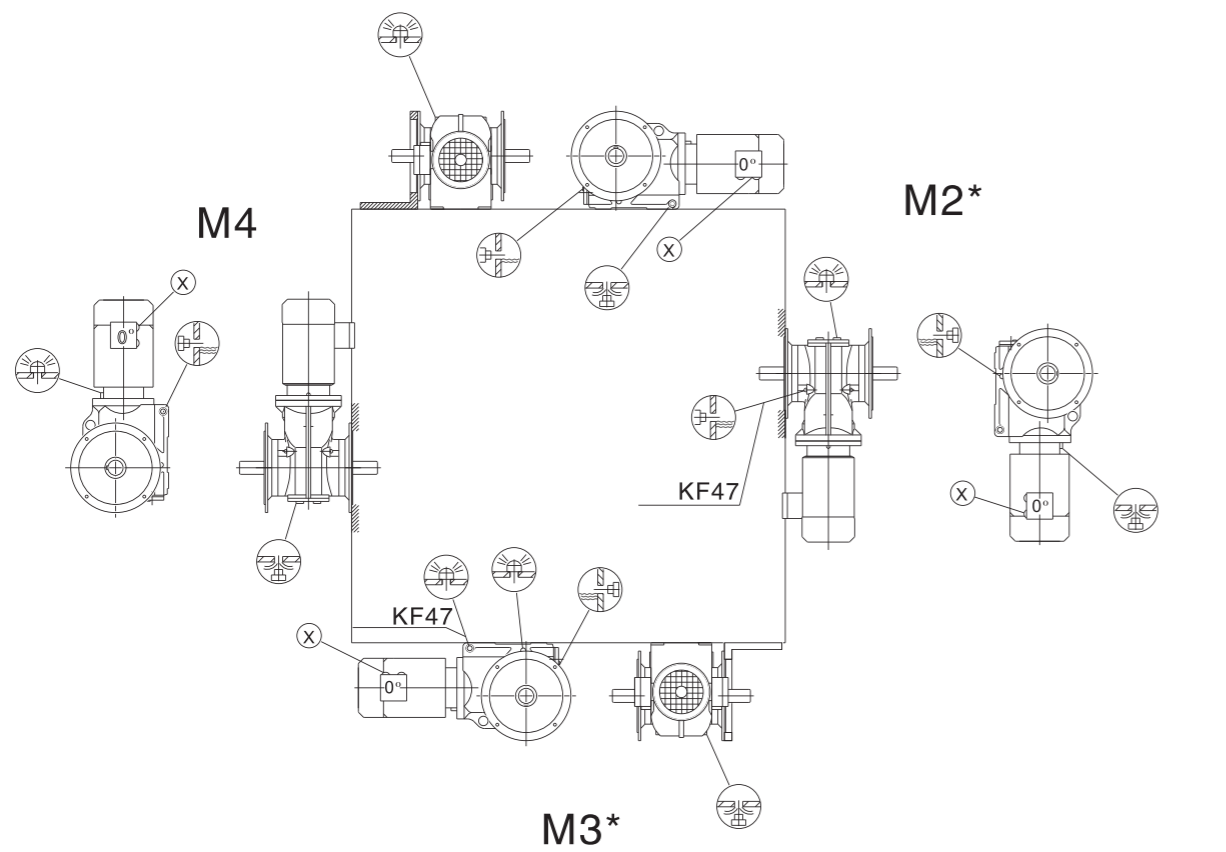


R

F

K

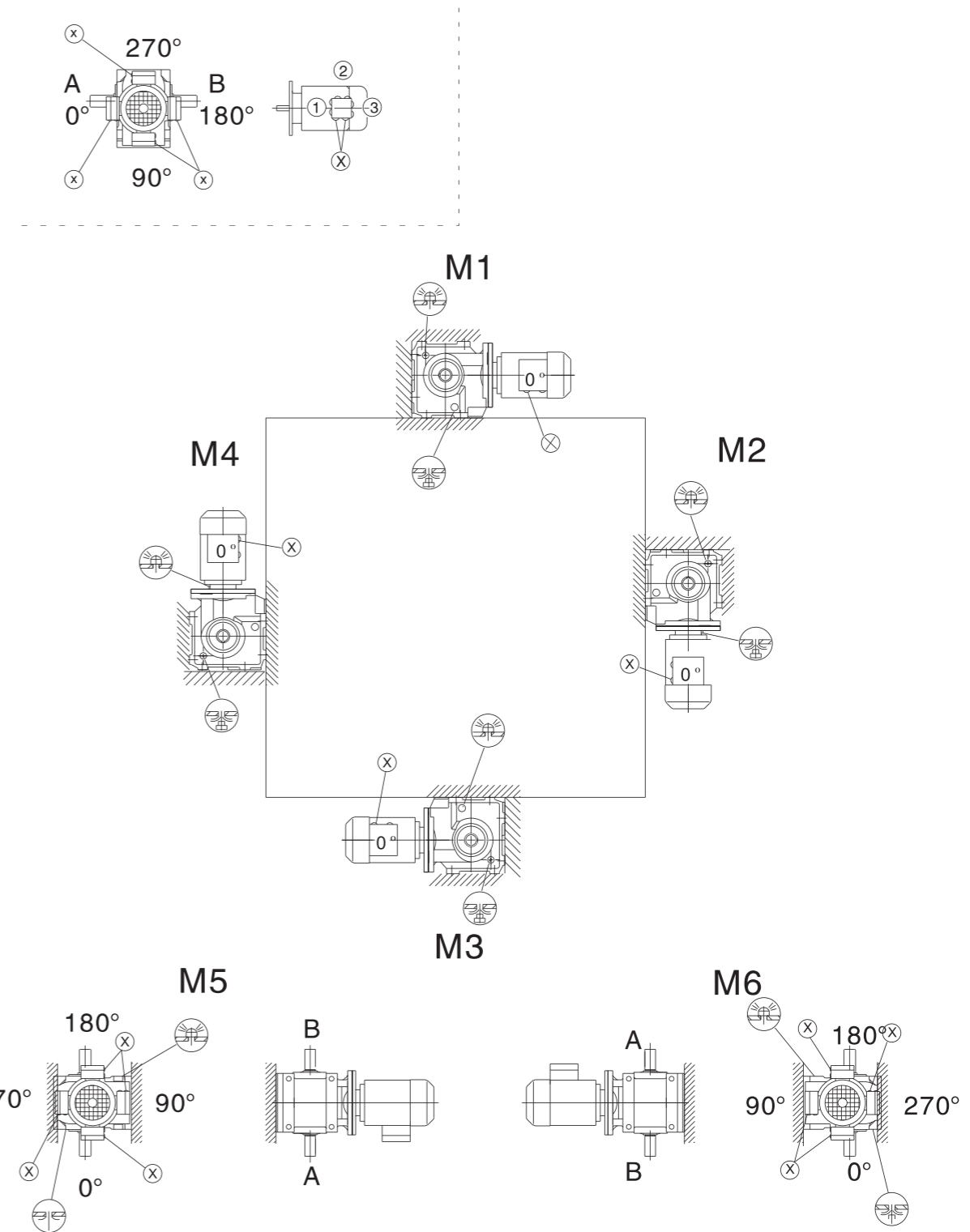
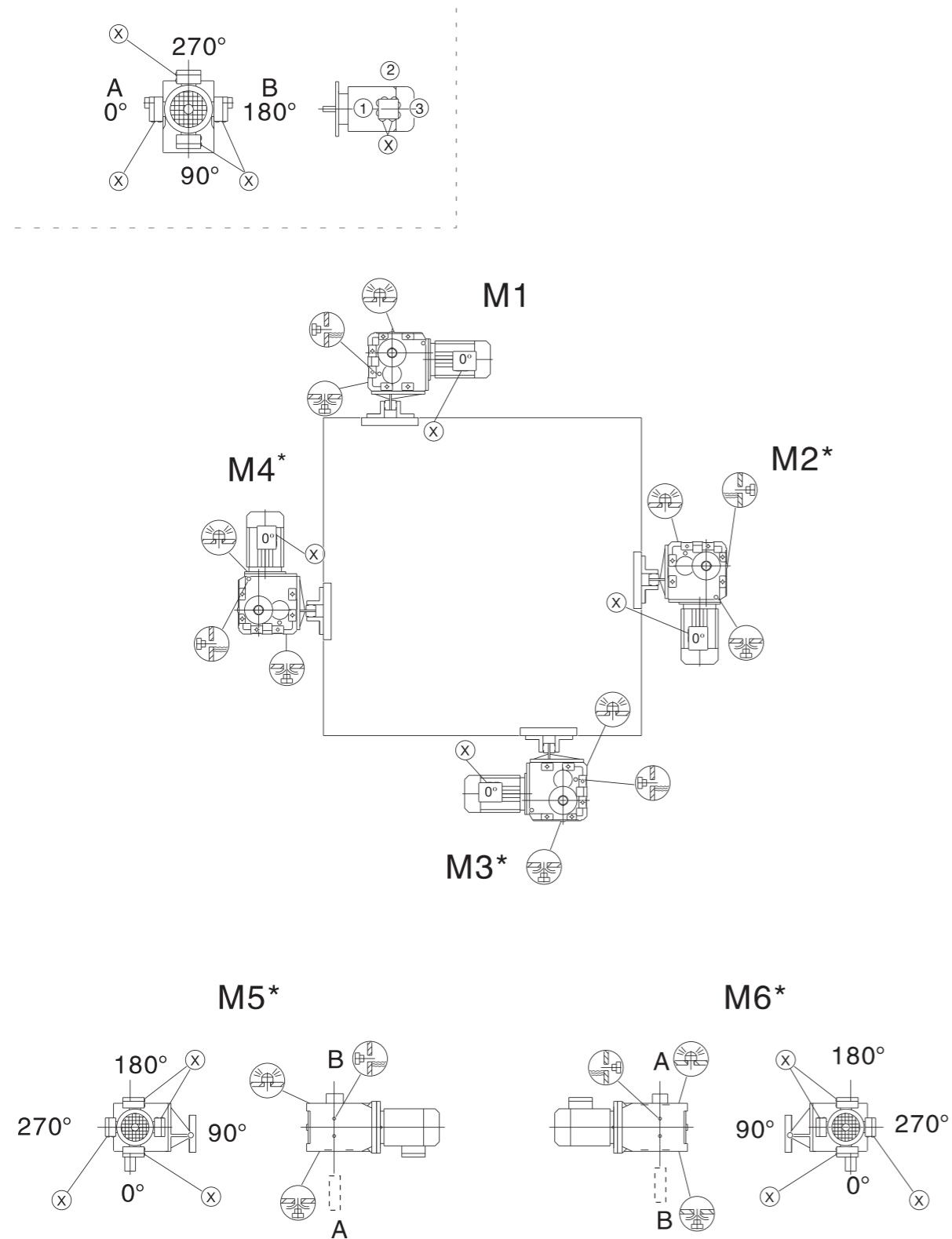
S



KH167-187

10.5 斜齿轮-蜗杆减速电机安装位置
10.5 Mounting position of Helical-worm Gear motor

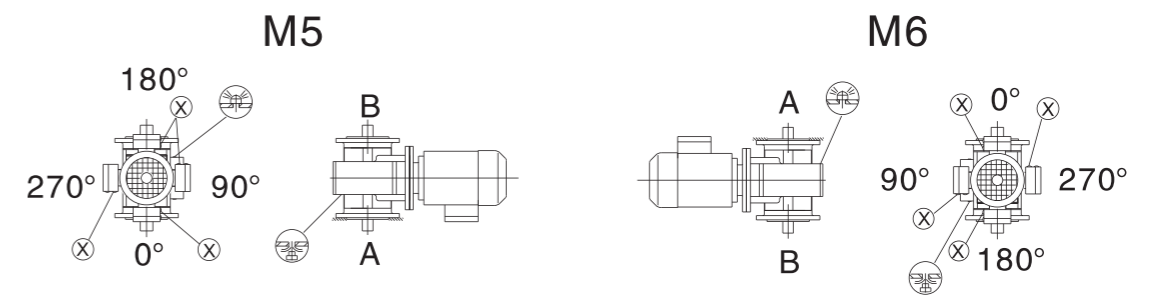
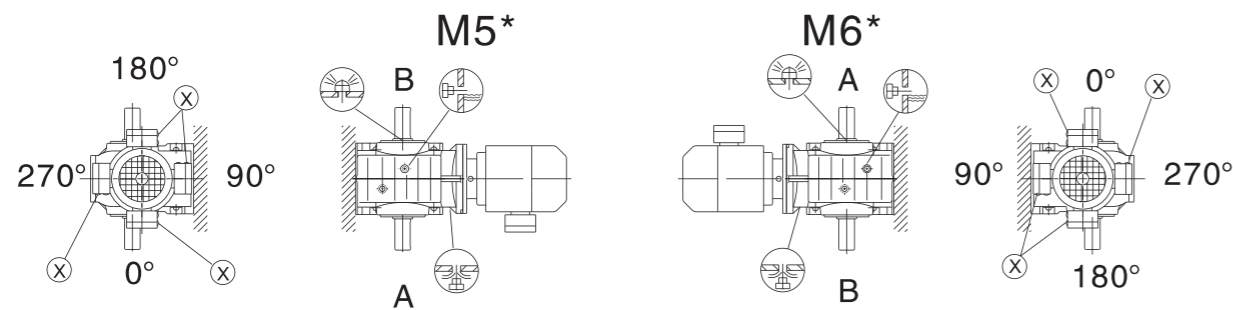
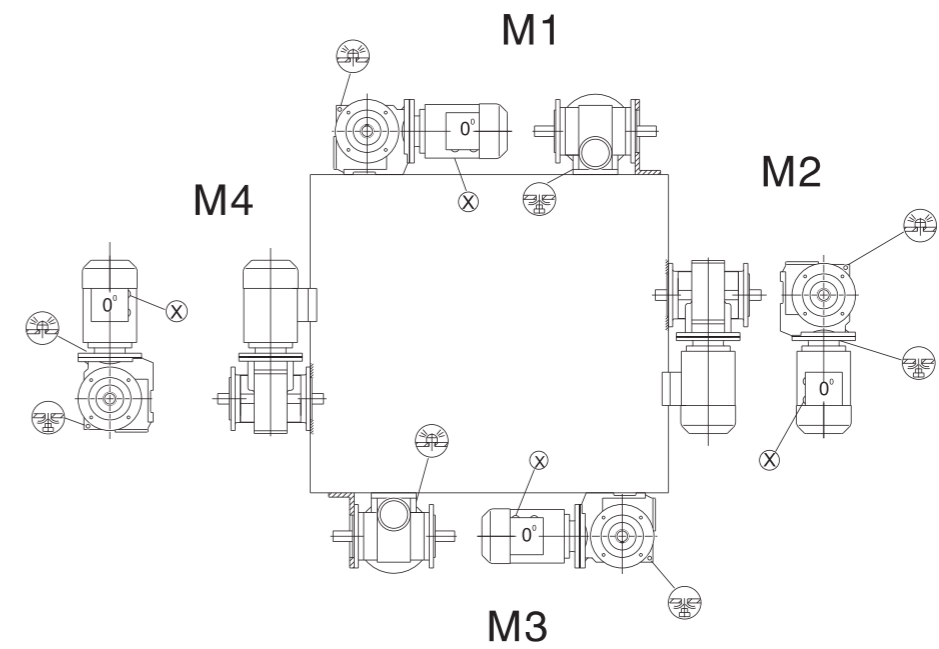
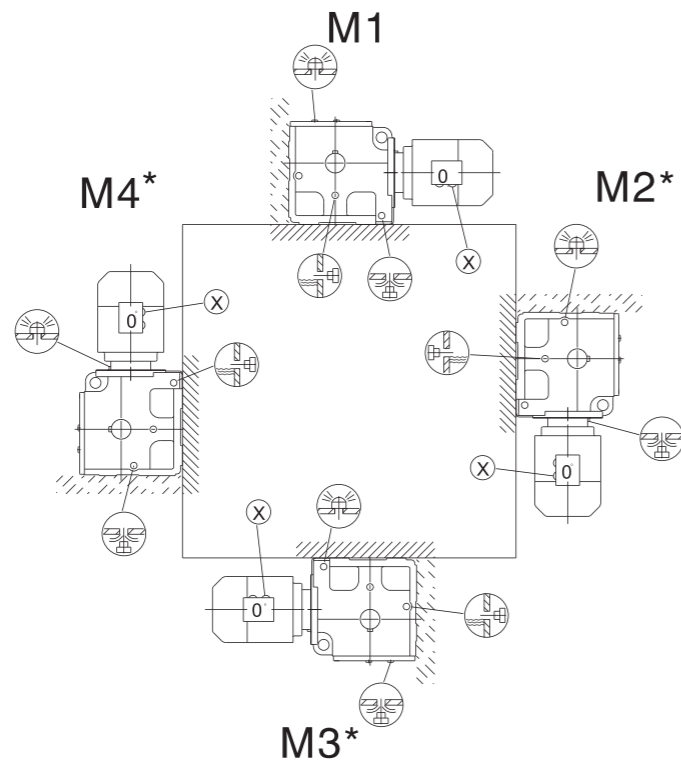
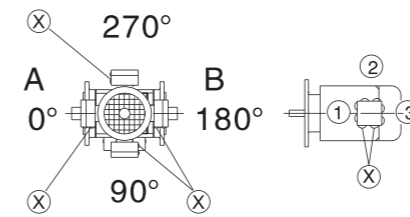
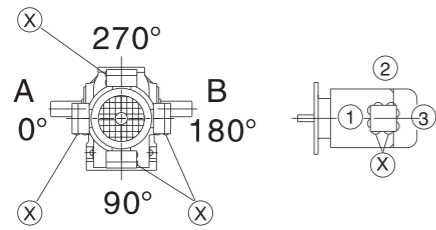
S37



重要:请参见"减速器选型"中"径向和轴向负载"部分(P21)
Important: Please refer to the information in the "Geared Motors" catalog. Optional Planning for Gear units Overhung and axial loads part" (P21)

S47- S97

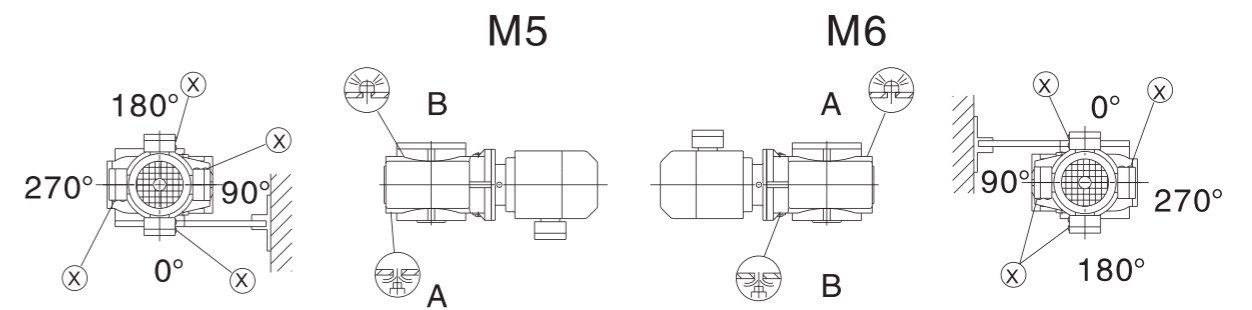
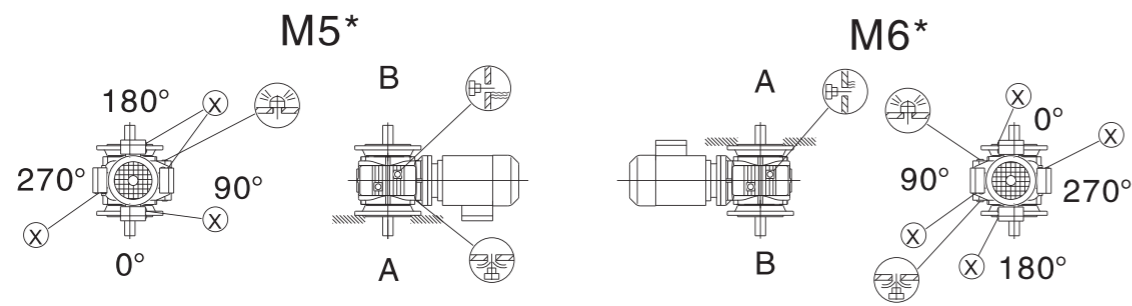
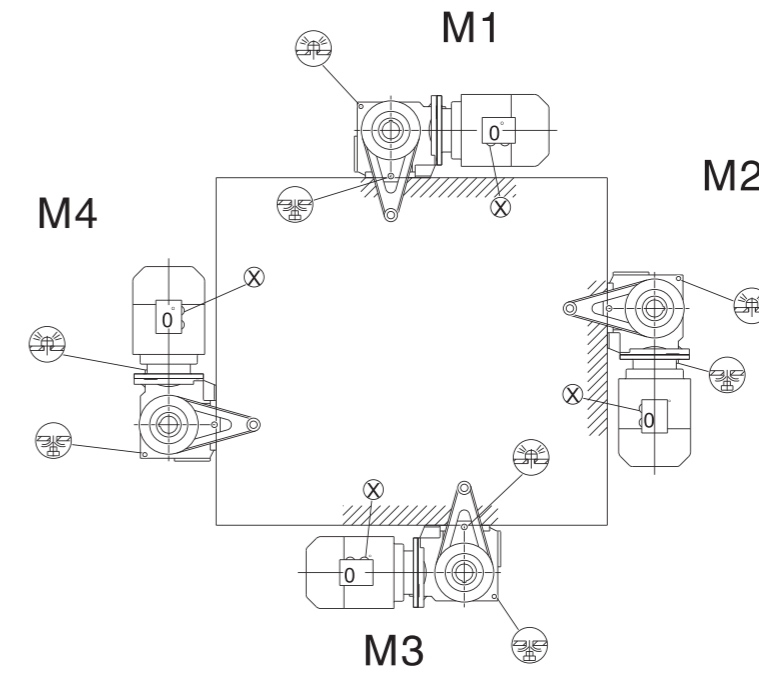
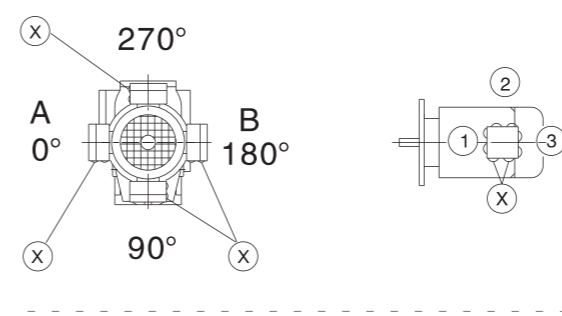
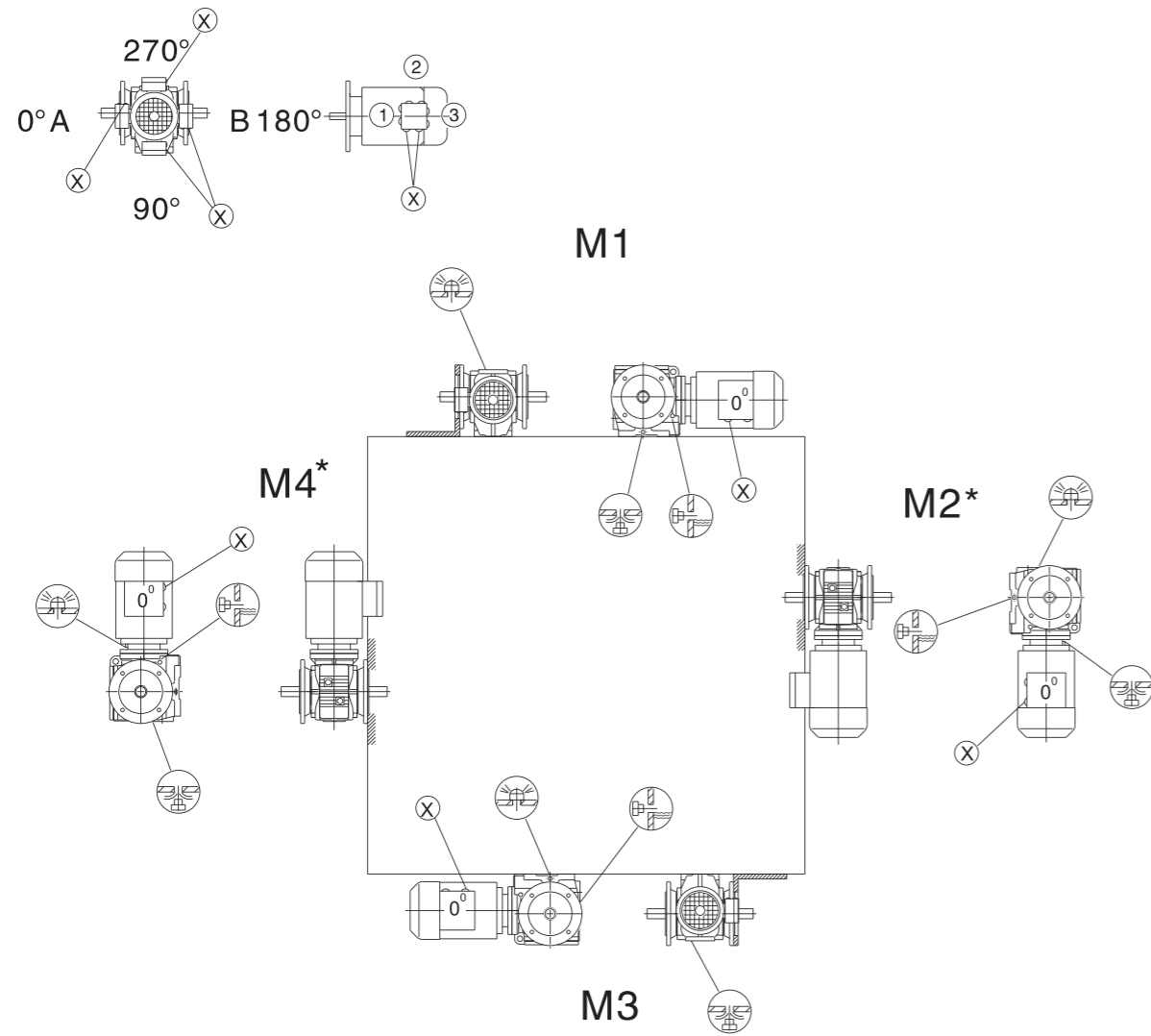
SF/SAF/SHF37



重要:请参见"减速器选型"中"径向和轴向负载"部分(P21)
 Important:Please refer to the information in the "Geared Motors"catalog.Optional Planning for Gear units Overhung and axial loads part"(P21)

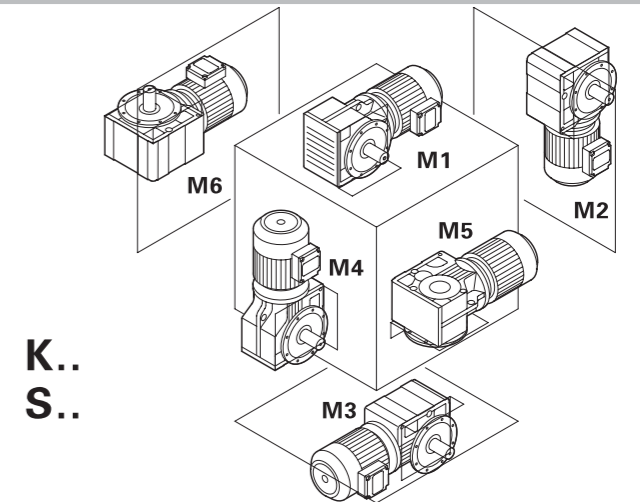
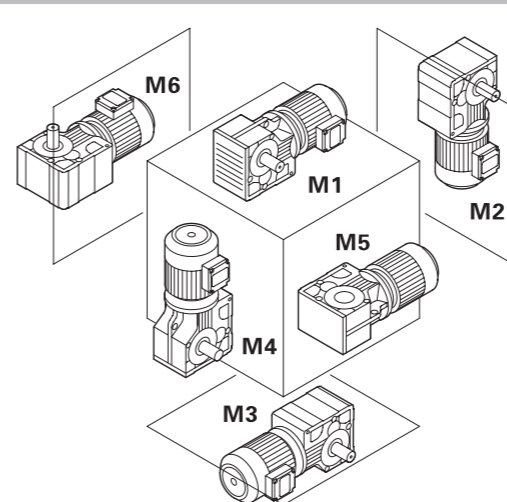
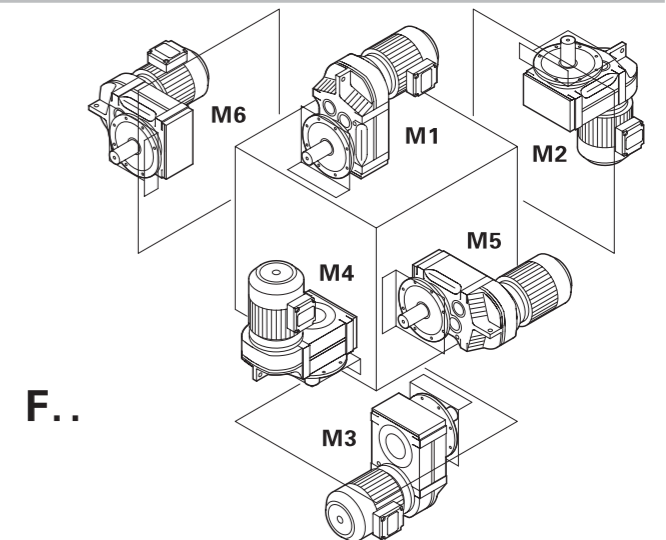
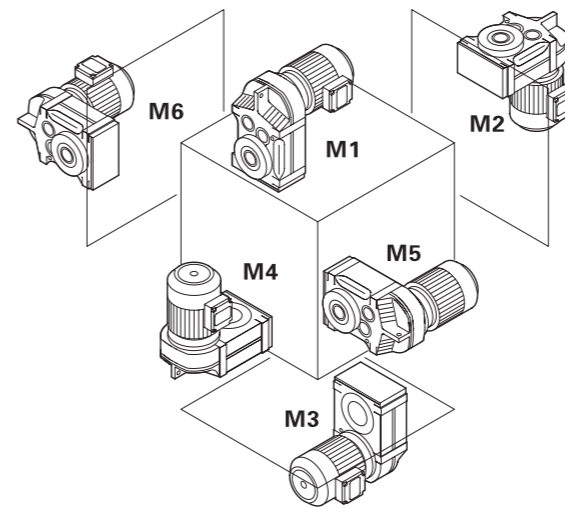
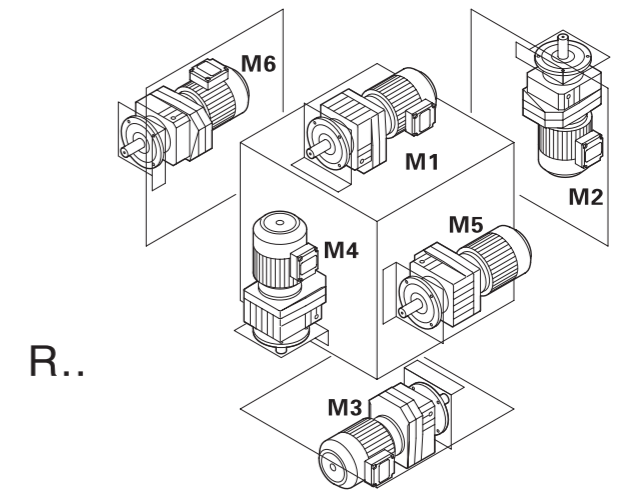
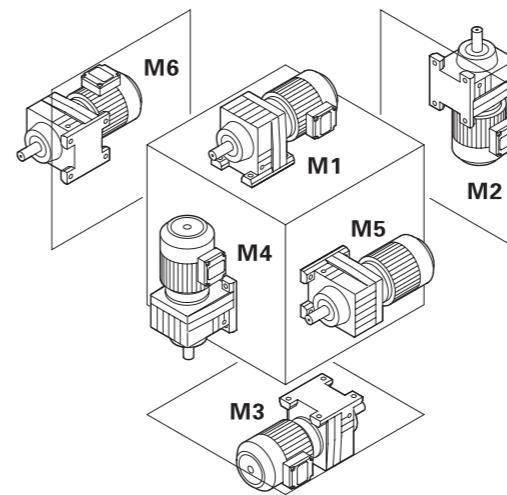
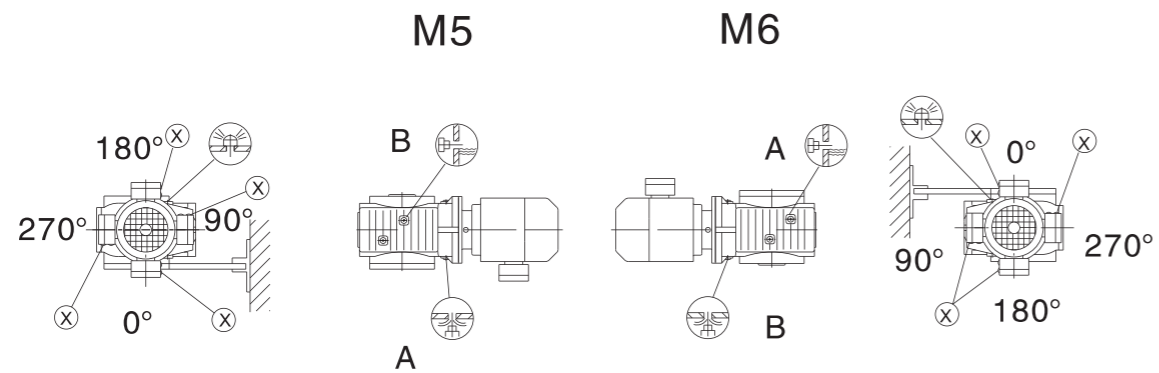
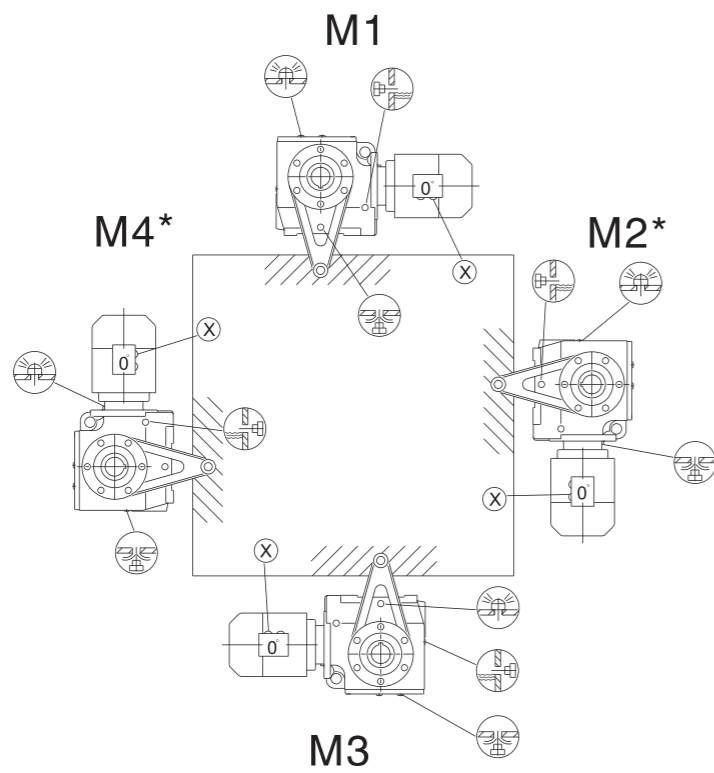
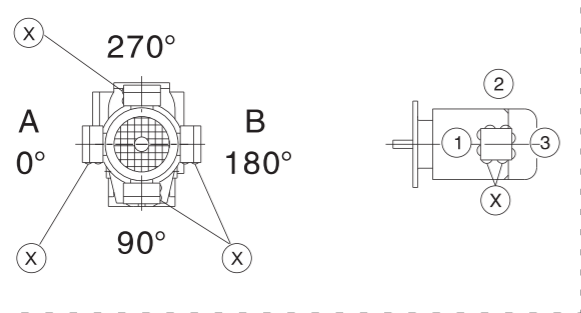
SF/SAF/SHF/SAZ/SHZ47..-97..

SA/SH37/T..



SA/SH47..-97..

安装位置示意图
Schematic diagram of the installation location



11. 尺寸信息 Dimension information

中心高公差
Shaft heights tolerances

$h \leq 250\text{mm} \rightarrow -0.5\text{mm}$
 $h > 250 \rightarrow -1\text{mm}$

地脚安装减速机: 当配有电机时, 电机可能已凸出到安装平面以下, 请注意检查。
Foot-mounted gear units: The motor may project below the mounting surface when fitted, please check.

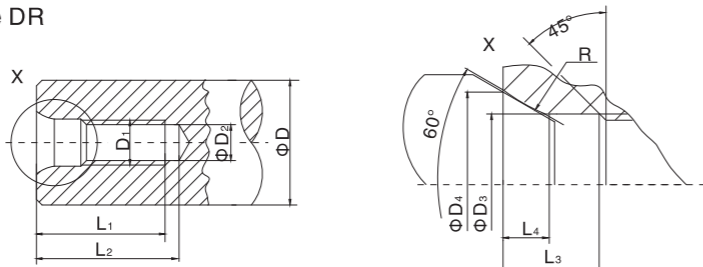
轴公差
Shaft tolerance

直径公差 Diameter tolerance

$\Phi \leq 50\text{mm} \rightarrow \text{ISOk6}$
 $\Phi > 50 \rightarrow \text{ISOm6}$

按照DIN332标准有DR型中心孔:

Center hole in accordance with DIN332.
shape DR



输出轴直径ΦD Diameter of Output shaft	D1	D2	D3	D4	R	L1 +2	L2 min	L1	L4 ≈
ΦD=7-10mm	M3	2.5	3.2	5.3	4.0	9.0	12.0	2.6	1.8
ΦD>10-13mm	M4	3.3	4.3	6.7	5.0	10.0	14.0	3.2	2.1
ΦD>13-16mm	M5	4.2	5.3	8.1	6.3	12.5	17.0	4.0	2.4
ΦD>16-21mm	M6	5.0	6.4	9.6	8.0	16.0	21.0	5.0	2.8
ΦD>21-24mm	M8	6.8	8.4	12.2	10.0	19.0	25.0	6.0	3.3
ΦD>24-30mm	M10	8.5	10.5	14.9	16.0	22.0	30.0	7.5	3.8
ΦD>30-38mm	M12	10.2	13.0	18.1	20.0	28.0	37.0	9.5	4.4
ΦD>38-50mm	M16	14.0	17.0	23.0	25.0	36.0	45.0	12.0	5.2
ΦD>50-85mm	M20	17.5	21.0	28.4	31.5	42.0	53.0	15.0	6.4
ΦD>85-130mm	M24	21.0	25.0	34.2	40.0	50.0	63.0	18.0	8.0
ΦD>130mm	M30	26.5	31.0	42.6	50.0	63.0	85.0	20.0	10.0

空心轴
Hollow shaft

键: 根据DIN6885确定 (圆头平键)

Keys: In accordance with DIN6885(domed type)

直径公差

Diameter tolerance

$\Phi \rightarrow \text{ISOH7}$ 塞规测量

ISOH7 measured with plug gauge

花键轴
Multiple-spine shafts

Dm = 测量棒直径 Measuring roller diameter

Me = 检测尺寸 Inspection size

法兰
Flange

止口公差 Centering shoulder tolerance

$\Phi \leq 230\text{mm}$ (flange size A 120-A300) $\rightarrow \text{ISOj6}$

$\Phi > 230\text{mm}$ (flange size A 350-A660) $\rightarrow \text{ISOh6}$

对于每个规格的斜齿轮减速机、交流(制动)电机和防爆(制动)电机最多可提供三种不同尺寸的法兰, 每种法兰的尺寸见相关尺寸表。

Up to three different flange dimensions are available for each size of helical gear units AC (brake) motor and explosion-proof AC (brake) motor. The possible flanges per size are indicated in the relevant dimension sheets.

起吊螺栓及吊耳

Lifting eyebolts, suspension eye lugs

减速机/电机型号规格 Gear unit/motor type	吊环/吊耳 Screw-on lifting eyebolts /suspension eye lugs	铸造吊装孔 Cast-on suspension eye lugs
R/RF37-57	●	—
≥ R67	●	—
F37-157	—	●
K37-157	—	●
K167-187	●	—
S37-47	●	—
S57-97	—	●
≥ D112	●	—

通气阀

Breather valves

减速机尺寸图总是显示为螺塞, 相应地螺塞在出厂前按照其定货要求的安装位置更换为通气阀。这意味着减速机的外形尺寸图稍有不同。

The gear unit dimension drawings are always shown with screw plugs. The corresponding screw plug is replaced by an breather valve at the factory depending on with mounting position M1-M6 is ordered. This means the contour dimensions may be slightly different.

锁紧盘连接

Shrink disk connection

对于锁紧盘连接的空心轴减速机: 若需要可向我公司索要关于锁紧盘的详细数据表。

Hollow shaft gear unit with shrink disk connection: If required, please request a detailed data sheet on shrink disks from company, data sheet no.33 753..95.

花键空心轴

Splined hollow shaft

FV..和 KV..减速机从37到107可提供按DIN5480 制作的花键空心轴。

Hollow shaft gear units FV.. in sizes 37-107 and KV.. In sizes 37-107 are supplied with a splined hollow shaft to ISO4762.

FA/ FH/ FV的橡胶缓冲垫

Rubber buffer for FA/ FH/ FV

f为在力矩Mamax作用下橡胶缓冲垫被压缩的距离尺寸

f stands for the compressed dimension of Rubber buffer in the Manax torque.

制动电机

brake motors

配制制动电机时, G1B的尺寸代替G1; KB代K

In brake motors, dimensions G1B apply instead of G1 and KB instead of K

电机附件

Motor accessory

电机的尺寸因不同的电机附件而不同, 请参考电机选择的尺寸图。

The motor dimensions may different as a result of motor accessory. Please refer to the dimensions of the motor accessory.

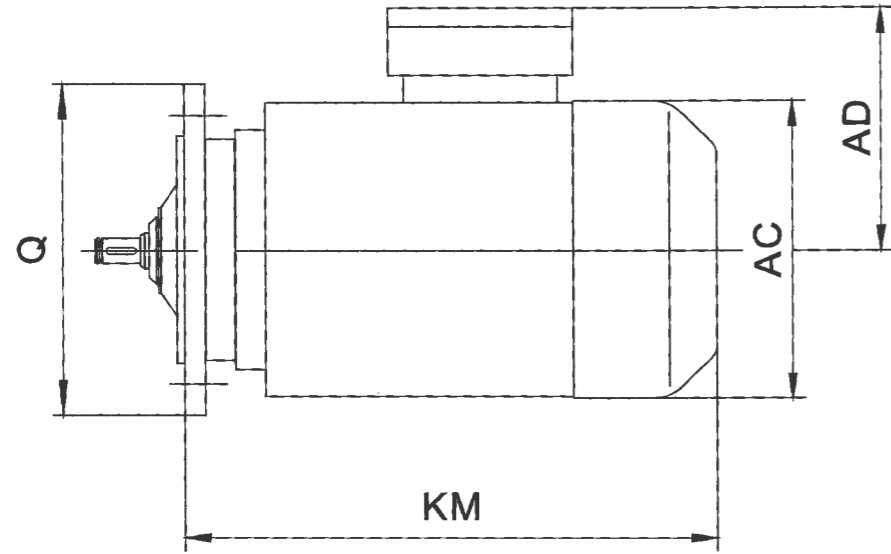
特殊应用

Special versions

接线盒的尺寸, 在特殊应用如KS或CSA时与标准形式的尺寸不同。

The dimensions of the terminal box on special versions such as KS or CSA may different from the standard dimensions.

11.1 电机尺寸表
Size of motor



电机型号	Q mm	KM mm	L1 mm	L2 mm	L3 mm	AD mm	AC mm
D63	120	221	259	281	319	96	138
	160	216	254	276	314		
	200	210	248	270	308		
D71	120	239	281	299	341	103	158
	160	234	276	294	336		
	200	228	270	288	330		
D80	120	271	320	330	379	108	168
	160	265	314	324	373		
	200	259	308	318	367		
	250	254	303	313	362		
D90	120	314	370	369	425	139	195
	160	309	365	364	420		

电机型号	Q mm	KM mm	L1 mm	L2 mm	L3 mm	AD mm	AC mm
D132ML	400	385	468	423	506	168	275
	450	377	460	415	498		
	550	369	452	407	490		
D160M	200	509	607	544	642	261	330
	250	504	602	539	637		
	300	499	597	534	632		
	350	493	591	528	626		
	400	486	584	521	619		
	450	478	576	513	611		
D160L	250	548	646	583	681	261	330
	300	543	641	578	676		

电机型号	Q mm	KM mm	L1 mm	L2 mm	L3 mm	AD mm	AC mm	电机型号	Q mm	KM mm	L1 mm	L2 mm	L3 mm	AD mm	AC mm
D90	200	301	357	356	412	139	195	D160L	350	537	635	572	670	261	330
	250	297	353	352	408				400	530	628	565	663		
	300	291	347	346	402				450	522	620	557	655		
					550	514	612		549	647					
D100	120	334	399	389	454	131	218	D180	250	575	689	600	714	280	380
	160	326	391	381	446				300	570	684	595	709		
	200	318	383	373	438				350	564	678	589	703		
	250	314	379	369	434				400	557	671	582	696		
	300	308	373	363	428				450	549	663	574	688		
	350	302	367	357	422				550	541	655	566	680		
D112	160	382	459	427	504	151	240		D200	300	700	824	740		
	200	373	450	418	495			350		694	818	734	858		
	250	368	445	413	490			400		687	811	727	851		
	300	363	440	408	485			450		679	803	719	843		
	350	357	434	402	479			550		671	795	711	835		
D132S	160	420	503	458	541	168	275	D225S		300	716	858	756	898	335
	200	408	491	446	529				350	710	852	750	892		
	250	403	486	441	524				400	703	845	743	885		
	300	398	481	436	519				450	695	837	735	877		
	350	392	475	430	513				550	687	829	727	869		
	400	385	468	423	506			D225M	300	741	883	781	923	335	470
200	408	491	446	529	350	735	877		775	917					
250	403	486	441	524	400	728	870		768	910					
300	398	481	436	519	450	720	862		760	903					
350	392	475	430	513	550	712	854		752	894					
400	385	468	423	506	D250M	400	793		946	839	992	370	510		
450	377	460	415	498		450	785	938	831	984					
550	369	452	407	490		550	777	930	823	976					
D132ML	200	408	491	446	529	168	275	D280	400	898	1054	943	1099	408	580
	250	403	486	441	524				450	890	1046	935	1091		
	300	398	481	436	519				550	882	1038	927	1083		
	350	392	475	430	513				D315	660	1130	1286	1175		

注意：
L1表示电机增加制动器后的KM值。
L2表示电机为变频调速三相异步电动机时的KM值。
L3表示电动机为变频调节三相电动机并附带制动器时的KM值。
因空间限制对电机尺寸有要求时请向我公司咨询。

Notes:
L1 is the KM value for motor with thrake.
L2 is the KM value for asynchronous motor with frequency.
L3 is the KM value for asynchronous motor with frequency and brake.
If you have any special requirements please contact us.

减速电机重量 Gear motor weights

Gear Reducer size	Kg	Gear reducer size	Kg	Gear reducer size	Kg	Gear reducer size	Kg
R..37	10	R..87	55	F27	6.5	F57	25
R..37F	12	R..87F	63	FA27	6	FA57	24
R..47	14	R..97	100	FF27	8	FF57	31
R..47F	14	R..97F	118	FAF27	7	FAF57	30
R..57	20	R..107	130	F37	13	F67	31
R..57F	24	R..137	235	FA37	12	FA67	27
R..67	25	R..147	360	FF37	15	FF67	37
R..67F	29	R..167	605	FAF37	14	FAF67	35
R..77	30	R..177	980	F47	18	F77	55
R..77F	36	R..187	1400	FA47	17	FA77	50
				FF47	21	FF77	66
				FAF47	20	FAF77	58

Gear reducer size	Kg	Gear reducer size	Kg	Gear reducer size	Kg	Gear reducer size	Kg	Gear reducer size	Kg
F87	96	F127	401	K37	12	K67	30	K97	150
FA87	90	FA127	365	KF37	15	KF67	36	KF97	171
FF87	112	FF127	447	KA37	11.5	KA67	37	KA97	130
FAF87	105	FAF127	401	KAF37	15	KAF67	34	KAF97	156
F97	157	F157	632	K47	19	K77	54	K107	260
FA97	150	FA157	610	KF47	22.5	KF77	62	KF107	271
FF97	190	FF157	740	KA47	18	KA77	46	KA107	231
FAF97	171	FAF157	670	KAF47	21	KAF77	55	KAF107	265
F107	241	F167	1040	K57	24	K87	90	K127	410
FA107	225	FA167	990	KF57	29	KF87	100	KF127	452
FF107	269	F177	1520	KA57	22	KA87	78	KA127	381
FAF107	245	FA177	1460	KAF57	28	KAF87	91	KAF127	419

减速电机重量 Gear motor weights

Gear reducer size	Kg	Gear reducer size	Kg	Gear reducer size	Kg	Gear reducer size	Kg	Motor size	Kg
K157	635	S37	6	S67	25	S97	140	D63S2	9
KF157	715	SF37	8	SF67	32	SF97	171	D63M2	10
KA157	603	SA37	6	SA67	26	SA97	135	D63L2	10
KAF157	660	SAF37	7.5	SAF67	31	SAF97	160	D71D2	14
K167	1035	S47	10	S77	45			D80K2	18
KH167	1000	SF47	14	SF77	55			D80N2	20
K187	1615	SA47	11	SA77	45			D90S2	20
KH187	1550	SAF47	13	SAF77	52			D90L2	23
		S57	14	S87	80			D100M2	30
		SF57	18	SF87	101			D100L2	32
		SA57	14	SA87	76			D112M2	37
		SAF57	17	SAF	94			D132S2	57

Motor size	Kg	Motor size	Kg	Motor size	Kg	Motor size	Kg	Motor size	Kg
D132M2	60	D63L4	11	D160L4	130	D90S6	20	D225M6	281
D160M2	114	D71D4	12	D180M4	166	D90L6	20	D250M6	378
D160L2	131	D80K4	14	D180L4	182	D100M6	28	D280S6	475
D180M2	168	D80N4	15	D200L4	232	D100L6	31	D280M6	541
D200L2	236	D90S4	19	D225S4	280	D112M6	37		
D225S2	255	D90L4	23	D225M4	309	D132S6	64		
D225M2	288	D100M4	32	D250M4	400	D132M6	73		
D250M2	382	D100L4	35	D280S4	515	D160M6	104		
D280S2	494	D112M4	52	D280M4	601	D160L6	126		
D280M2	550	D132S4	60	D71D6	12	D180M6	169		
D63S4	10	D132M4	72	D80K6	14	D200L6	225		
D63M4	11	D130M4	109	D80N6	17	D225S6	266		

注：减速机重量表中重量值为平均各种速比重量的平均值，需要特定速速比时精确值及减速机附带其它输入输出模块的重量值，请咨询本公司。

Notes: The weight of reducers in the table is the average weight for each ratio. If you need exact weight for certain ratio or input output modules. please consult our company.