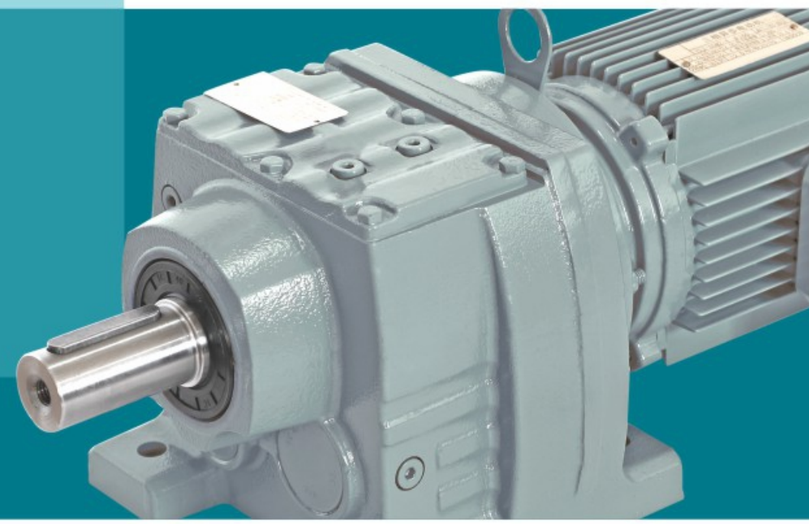
一鼎华微传动
YIDING HUA MICRO TRANSMISSION



硬齿面齿轮减速机制造商
Manufacturer Of Hardened Face Gear Reducers

一鼎华微传动
YIDING HUA MICRO TRANSMISSION

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中国·杭州

产品图片
PRODUCT PICTURES

S系列斜齿轮--蜗轮蜗杆减速机

一、性能特点Characteristics:

1. 一鼎华微传动是在模块组合体系的基础上设计的，可以方便地配用各种型式的电动机或采用其它动力输入。同种机型可配用多种功率的电动机。容易实现各种机型之间的组合联接。
2. 传动效率高，单机型减速机效率高达96%。
3. 传动比划分细，范围广。组合机型可以形成较大的传动比，输出转速低。
4. 安装形式多样，可任意位置卧式或法兰安装。

1. YIDING Hua Micro transmission are based on the building block design,so it's convenient for them to fit all types of motors or to connect with other power input,The same tyhpe of reductors can fit motors with different power,so that it's possible for different types of machines to combine or connect.
2. High transmission efficiency.A single machine can reach a transmission efficiency as much as 96%.
3. Precise division of transmission ratio with a wide range.The combination of machines can produce a larger transmission ratio at a low output rotational speed.
4. Various ways of installation.Horizontal installation at any position or flanged installation.

二、工作场所条件 Working Environment:

1. 环境温度-40℃～50℃。（0℃以下启动时润滑油要加热到0℃以上。）
2. 海拔不超过1000米。
3. 输入转速不大于1800rpm,齿轮最高圆周速度不超过22m/s。
4. 可用于正反运转。
5. 无行业限制。
6. 其他条件下使用请与我公司技术部联系。

1. Working temperature:-40℃ ~ 50℃(The lubrication should be heated until above 0℃ if the machine works Below 0℃.)
2. The working place should be lower than 1,000 meters above sea level.
3. The imput rotational speed should not exceed 1,800r/m.The circumferential speed of the gear should not exceed 22m/s.
4. Suitable for normal-reverse rotation.
5. Without industry limitation.
6. Please consult our technical supporting department for other circumstances.

三、选型指南 Instructions for Selection:

减速机通常是按每小时起停次数小于10，常温20℃下，按恒定转矩设计的。在按选型参数表选择机型号前，须先了解工作机载荷和工作情况，在运行功率确定后，按下面方法选择参数表中的使用系数f_B。

R、S、K、F四大系列选型：

1. 确定工作机运行功率P(KW)
2. 根据工作机的载荷特征和每天工作小时数确定最低工况系数f_1(表1)
3. 根据每小时起动次数确定起动系数f_2（表2）
4. 计算总工况系数f_A.（S系列须考虑环境温度系数f_3表3）

$f_A=f_1Xf_2$ $(f_A=f_1Xf_2Xf_3)$

5. 根据减速机运行功率和输出转速由选型表选定减速机规格，同时必须满足f_A≤选型参数表提供的使用系数f_B.

注：□如用户对减速机可靠性要求较高，须考虑必要的安全系数或来电咨询

□输出端的径向载荷及轴向载荷，请与我公司技术部联系

□减速机的使用与维护请参阅随机附带《减速机使用说明书》

Speed reducer is designed by referring to invariable torque on the condition of normal temperature below20℃,with on–off frequency less than 10 per hour,Before selecting machine model according to model selection parameter table,it is required to know the load and operating conditions of working machine.After confirming operating power,select utilization coefficient fB in parameter table according to the following methods.

Modeling of R、S、K、F four large series

1.To confirm operating power P(KW)of working machine;

2.To confirm the lowest operating mode coefficient f_1(Table 1)according to load features of workng machine and daily operating hours;

3.To confirm startup coefficient f_2(Table 2)according to the number of starts per hour;

4.To calculate total operating mode coefficient f_A;(Ambient temperature coefficient f_3(Table 3) must be considered for S series.)

$f_A=f_1Xf_2$ $(f_A=f_1Xf_2Xf_3)$

5.To select the specifications of speed rdducer from model selecti on table according to its operating power and output rotating speed,meanwhile it is necessary to ensure that f_A ≤utilization coefficient $f_B$offered in model selection parameter table.

Notes: □If users have higher reliability requirements for speed reducer,certain safety coefficient must be multiplied or you can call us for further consultation;

□Please contact the technical department of our company for any information on radial load and axial load of output terminal;

□Please refer to the《Operation instructions of speed reducer》attached with the machine.

一鼎华微传动 YIDING HUA MICRO TRANSMISSION
通过 ISO9001 国际质量体系认证
选型指南

表1 工作最低工况系数f_1

工作机		日带载运行时间(小时)			工作机		日带载运行时间(小时)		
		≤0.5	>0.5～10	>10			≤0.5	>0.5～10	>10
污水处理	浓缩器	–	–	1.2	起重机械	回转机构*	1	1.4	1.8
	压滤波器	1	1.3	1.5		俯仰机构	1	1.4	1.8
	絮凝器	0.8	1	1.3		行走机构	1.5	1.75	2
	曝气机	–	1.8	2		提升机构	1	1.1	1.4
	搂集设备	1	1.2	1.3		转臂式起重机	1	1.2	1.6
	纵向，回转组合接集装置	1	1.3	1.5	化学工业	挤压机	–	–	1.6
	预缩器	–	1.1	1.3		调浆机	–	1.8	1.8
	螺杆泵	–	1.3	1.5		橡胶研光机	–	1.5	1.5
	水轮机	–	–	2		冷却圆筒	–	1.3	1.4
	离心机	1	1.2	1.3		混料机，用于均匀介质	1	1.3	1.4
	1个活塞容积式泵	1.3	1.4	1.8		混料机，用于非均匀介质	1.4	1.6	1.7
	>1个活塞容积式泵	1.2	1.4	1.5		搅拌机，用于密度均匀介质	1	1.3	1.5
挖泥机	斗式运输机	/	1.6	1.6		搅拌机，用于非密度均匀介质	1.2	1.4	1.6
	倾卸装置	/	1.3	1.5		烘炉	1	1.3	1.5
	行走机构*	1.2	1.6	1.8		离心机	1	1.2	1.3
	斗轮式挖掘机：用于捡拾	/	1.7	1.7	风机类	冷却塔风扇	–	–	2
	斗轮式挖掘机：用于粗料	/	2.2	2.2		风机（轴流和离心式）	–	1.4	1.5
	切碎机	/	2.2	2.2	蔗糖生产	甘蔗切碎机	–	–	1.7
钢铁工业	拉线机	1.25	1.5	1.75		甘蔗碾磨机	–	–	1.7
	绕线机	1	1.25	1.5	甜菜糖生产	甜菜绞碎机	–	–	1.2
	集中驱动辊道（无反转）	1.25	1.5	1.75		榨取机，机械制冷机，蒸煮机	–	–	1.4
	单驱动辊道（无反转）	1.5	1.75	2		甜菜清洗机	–	–	1.5
	集中驱动辊道（有反转）	1.75	2.25	2.5		甜菜切碎机	–	–	1.5
	单驱动辊道（有反转）	2	2.25	2.75	索道缆车	运货索道	–	1.3	1.4
纺织工业	织机	1.25	1.5	1.75		往反系统空中索道	–	1.6	1.8
	纺纱机	1	1.25	1.5		T型杆升降机	–	1.3	1.4
	洗涤机	1	1.25	1.5		连续索道	–	1.4	1.6
输送机械	斗式输送机	–	1.2	1.5	水泥工业	混泥土搅拌机	–	1.5	1.5
	绞车	1.4	1.6	1.6		破碎机*	–	1.2	1.4
	卷扬机	–	1.5	1.8		回转窑	–	–	2
	皮带输送机<=150KW	1	1.2	1.3		管式磨机	–	–	2
	皮带输送机>151KW	1.1	1.3	1.4		选扮机	–	1.6	1.6
	货用电梯*	–	1.2	1.5		辊压机	–	–	2
	客用电梯*	–	1.5	1.8	造纸机械	各种类型**	–	1.8	2
	刮板输送机	–	1.2	1.5		碎浆机驱动装置	–	2	2.25
	自动扶梯	–	1.2	1.4	压缩机	往复式压缩机	–	1.8	1.9
	轨道行走机构	–	1.5	–		离心式压缩机	–	1.4	1.5

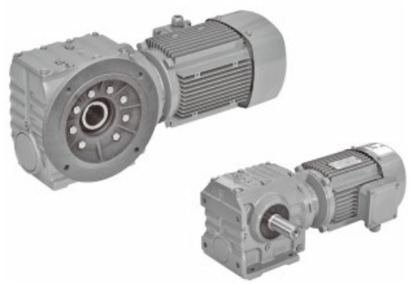
工作机额定功率P2的确定：*）按最大扭矩确定额定功率。**）检验热功率是绝对必要的。

表2 起动系数 f_2

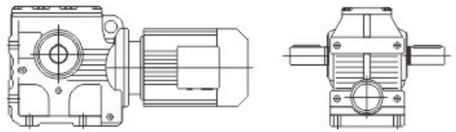
起动次数/每小时	≤.0.5h	0.5–10h	>10h
<10	1.00	1.00	1
<100	1.15	1.25	1.4
<500	1.25	1.4	1.7

表3 环境温度系数 f_3

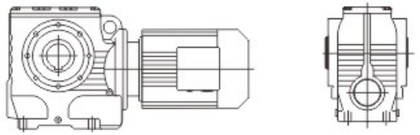
环境温度	10℃	20℃	30℃	40℃	50℃
环境温度系数f_3	0.88	1.00	1.15	1.35	1.65



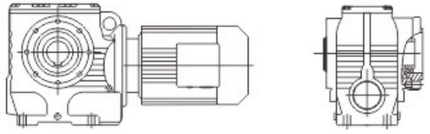
S系列减速机有以下设计方案：
S series gear units are available in the following designs:



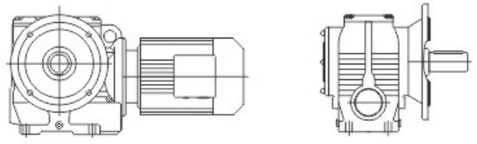
S..Y..
底脚轴伸式安装斜齿-蜗轮蜗杆减速机
Foot-mounted helical-worm gear units with solid shaft



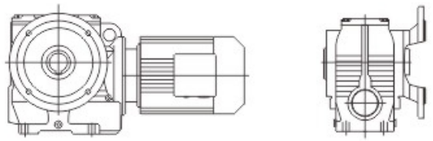
SA...Y..
空心轴安装斜齿-蜗轮蜗杆减速机
Helical-worm gear units with hollow shaft



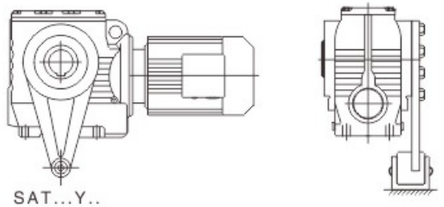
SAZ...Y..
小法兰空心轴安装斜齿-蜗轮蜗杆减速机
Short-flange mounted helical-worm gear units with hollow shaft



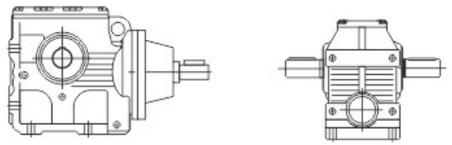
SF...Y..
法兰轴伸式安装斜齿-蜗轮蜗杆减速机
Flange-mounted helical-worm gear units with solid shaft



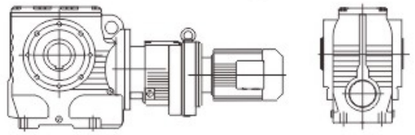
SAF...Y..
法兰空心轴安装斜齿-蜗轮蜗杆减速机
Flange-mounted helical-worm gear units with hollow shaft



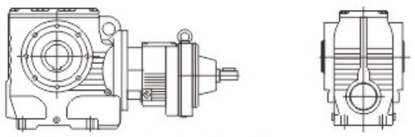
SAT...Y..
带防转臂空心轴安装斜齿-蜗轮蜗杆减速机
Torque-arm-mounted helical-worm gear units with hollow shaft



S(SF、SA、SAF、SAZ)S...
轴输入的斜齿-蜗轮蜗杆减速机
Shaft input helical-worm gear units



SA(S、SF、SAF、SAZ)...R...Y...
组合式斜齿-蜗轮蜗杆减速机
Combinatorial helical-worm gear units



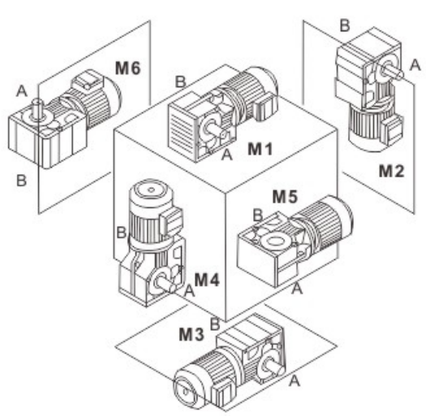
SA(S、SF、SAF、SAZ)S...R...
轴输入的组合式斜齿-蜗轮蜗杆减速机
Shaft input combinatorial helical-worm gear units

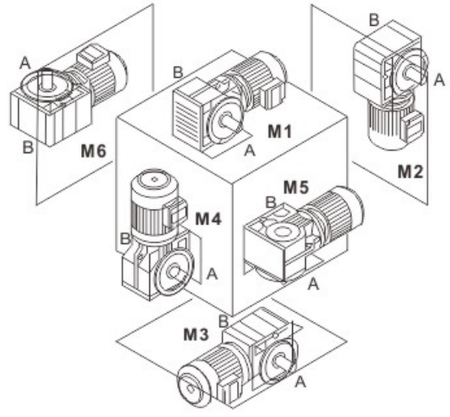
SA(S、SF、SAF、SAZ)S...R...
电机用户自配或配特殊电机时需加联接法兰
When equipping the user's motor or the special one, the flange is required to be connected

型号与标记：
Type Designations:

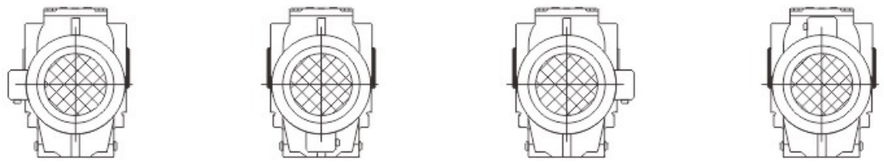
SAF37-Y 0.55-4P-12.08-M1-270°-A-φ25	SAF37-Y 0.55-4P-12.08-M1-270°-A-φ25
减速机类型 结构形式 规格 电机代号 电机功率、极数 传动比 安装形式 电机接线盒位置 输出轴、锁紧盘或法兰方向 输出轴孔径	Gear units type Structure Size Motor code Motor power、pole Ratio Mounting position Position of the motor thermal box Position of output shaft, shrink disk or flang Output shaft aperture
减速机类型： 斜齿-蜗轮蜗杆减速机	Gear units type: Helical-worm gear units
结构形式： 普通轴伸式(省略) 轴装式 A 轴伸法兰式 F 轴装法兰式 AF 轴装小法兰式 AZ 轴装带防转臂 AT 普通轴伸式，轴输入 S 普通轴装式，轴输入 AS 轴伸法兰式，轴输入 FS 轴装法兰式，轴输入 AFS	Structure: Foot-mounted solid shaft output (—) Hollow shaft output A Flange-mounted solid shaft output F Flange-mounted hollow shaft output AF Short-flange-mounted hollow shaft output AZ Torque-arm-mounted hollow shaft output AT Foot-mounted solid shaft output,shaft input S Hollow shaft output,shaft input AS Flange-mounted solid shaft output,shaft input FS Flange-mounted hollow shaft output,shaft input AFS
规格： (见选型参数表)	Size: (see selection table)
电机代号： 普通(更新) Y(Y2) 防　　爆 B 直　　流 Z 制　　动 YEJ 多　　速 D 变　　频 YVP 电磁调速 YCT 冶金起重 R 变频制动 YVPJ 辊　　道 G	Motor code: Ordinary(renew) Y(Y2) Flame-proof B Direct current Z Brake YEJ Multi-speed D Variable frequency YVP Electromagnetism speed modulation YCT Hoisting in metallurgy R Variable frequency and brake YVPJ Roller tables G
电机功率、极数： (见选型参数表)	Motor power、pole : (see selection table)
传动比： (见选型参数表)	Ratio: (see selection table)
安装形式： M1、M2、M3、M4、M5、M6、(见第7页)	Mounting position: M1、M2、M3、M4、M5、M6、(see page 7)
电机接线盒位置： 0°、90°、180°、270°(见第7页)	Position of the motor thermal box: 0°、90°、180°、270°(see page 7)
输出轴或法兰方向： 从电机尾部看左边为 A 从电机尾部看右边为 B (见安装形式) 从电机尾部看左右边为 A+B	Position of output shaft or flange: viewing on motor end:left side -A right side-B,both sides-A+B(see mounting position)
输出轴孔径： (见安装尺寸图)带实心轴输出时省略	Output shaft aperture: (See the chart of mouting dimension)It will be omitted when solid output shaft

安装形式：
Mounting position:





电机接线盒位置
Position of the motor thermal box



输入功率及许用转矩
Input power rating and permissible torque

规格 Size	37	47	57	67	77	87	97
结构形式 Structure	S SA SF SAF SAT SAZ						
输入功率(kw) Input power rating	0.18~0.75	0.18~1.5	0.18~3	0.25~5.5	0.55~7.5	0.75~15	1.5~22
传动比 Ratio	10.27~165.71	11.46~244.74	10.75~196.21	11.55~227.20	9.96~241.09	11.83~223.26	12.75~230.48
许用转矩(N.m) Permissible torque	90	170	300	520	1270	2280	4000

减速机重量
Gear unit weight

规格 Size	37	47	57	67	77	87	97
重量(kg) Weight	7	10	14	26	50	100	170

所注重量为平均值，仅供参考
The weights are mean values, only for reference.

润滑油量表
Lubrication table

S...:

规格 Size	润滑油量（升） Fill quantity in liters					
	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

SF...:

规格 Size	润滑油量（升） Fill quantity in liters					
	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	1.0
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

SA...、SAF...、SAZ...:

规格 Size	润滑油量（升） Fill quantity in liters					
	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	2.0	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

注：[1)]表示减速机为组合型时低速级所加油量为大值。
Notes：[1)]The large gear unit of multi-stage gear units must be filled with the larger oil volume.

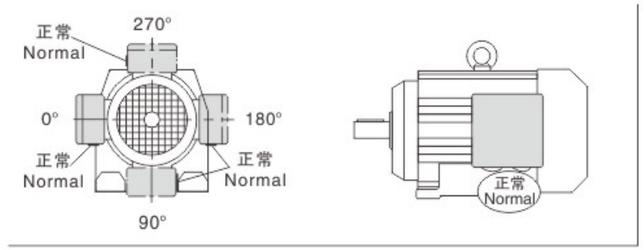
说明：1. 轴输入型没有电动机的各项内容。
2. 无特别说明时Y系列电动机供货按IP54防护等级。
3. 不注明安装形式时，按安装形式图（见10–15页）中M1安装形式供货。
4. 不注明接线盒角度时，按安装形式图（见10–15页）中0度位置供货。
5. S、SF、SAF、SAZ型减速机不注明输出轴或法兰方向时，按安装形式图（见10–15页）中A向供货。
6. 选SA、SAF、SAZ型时，必须注明输出轴孔径尺寸。
7. 对输出旋转方向与输入旋转方向有特殊要求的用户，请与我公司技术部联系。

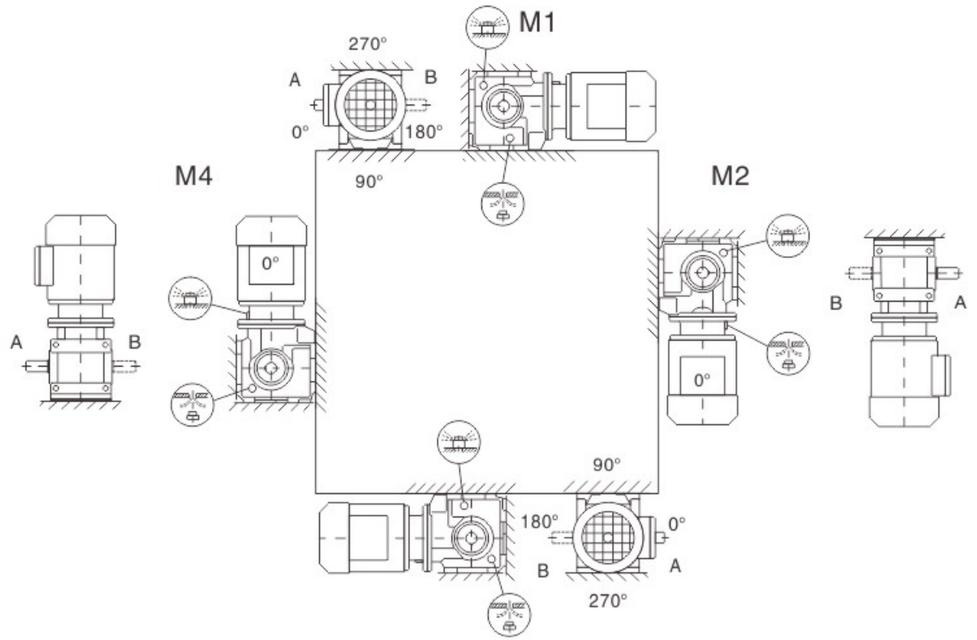
Note: 1. The shaft input type does not have all the contents of the motor.
2. Motors of Y series are supplied with protection grade of IP54 unless otherwise specified
3. The mounting position of M1 as shown in the mounting position example(page 10–15)is the default way when supplying unless otherwise specified.
4. 0° as shown in the mounting position example(page 10–15) is the default connection box angle when supplying unless otherwise specified.
5. The mounting position of A as shown in the mounting position example(Page 10–15)is the default way When supplying reductors such as S、SF、SAF、SAZ model unless otherwise specified.
6. When selecting SA, SAF, and SAZ models, the output axis aperture size must be indicated.
7. Please contact our technical supporting department in case there's any special requirements on the output and input rotatory directions.

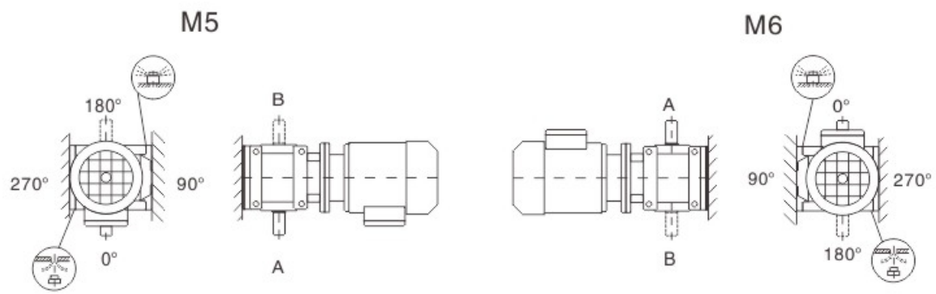
安装形式图释义　Explanation of mounting position example

通气孔 Breather valve	油位孔 Oil level plug	放油孔 Oil drain plug

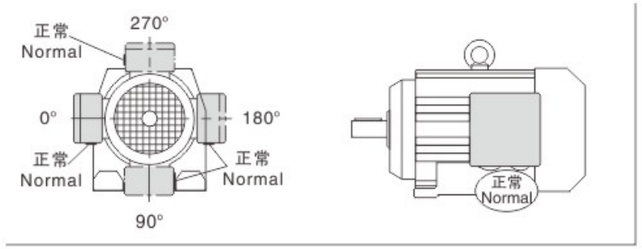
HWS37安装形式图 HWS37 Mounting position example

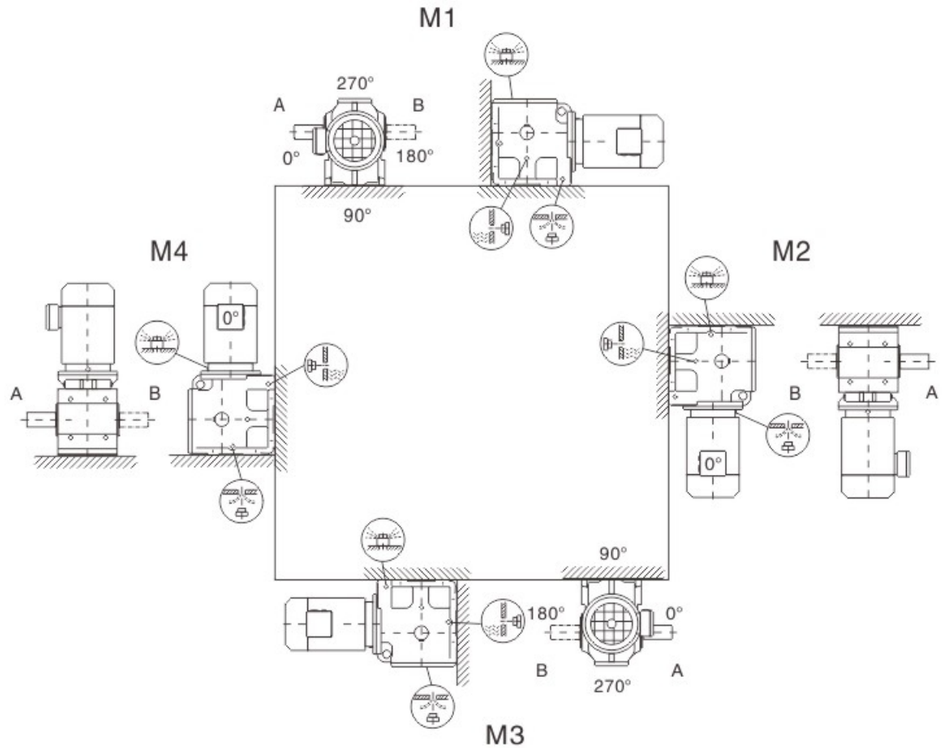


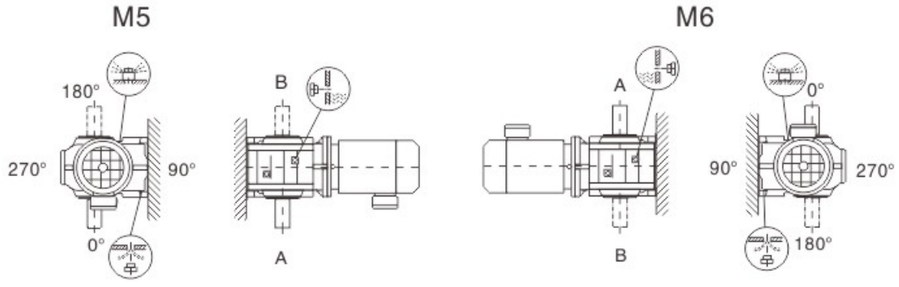




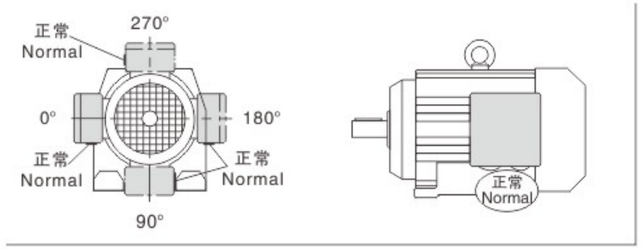
HWS47-97安装形式图 HWS47-97 Mounting position example

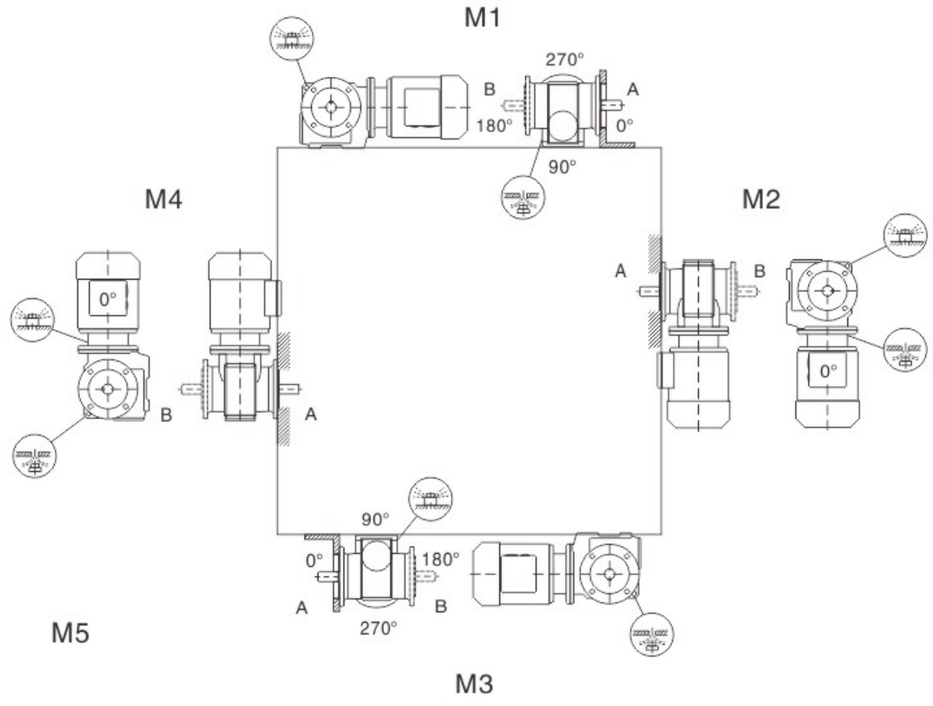


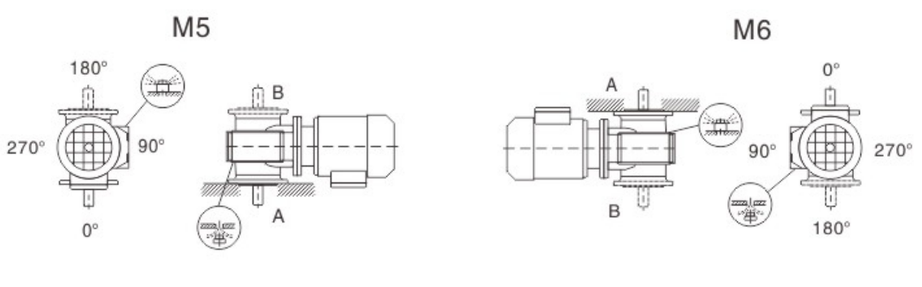




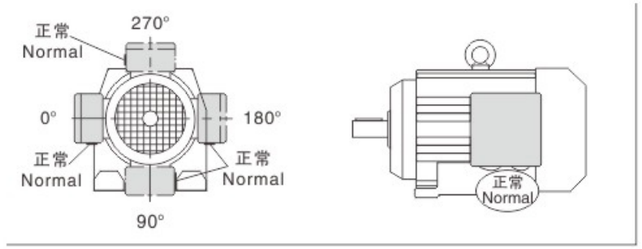
HWSF/HWSAF37安装形式图 HWSF/HWSAF37 Mounting position example

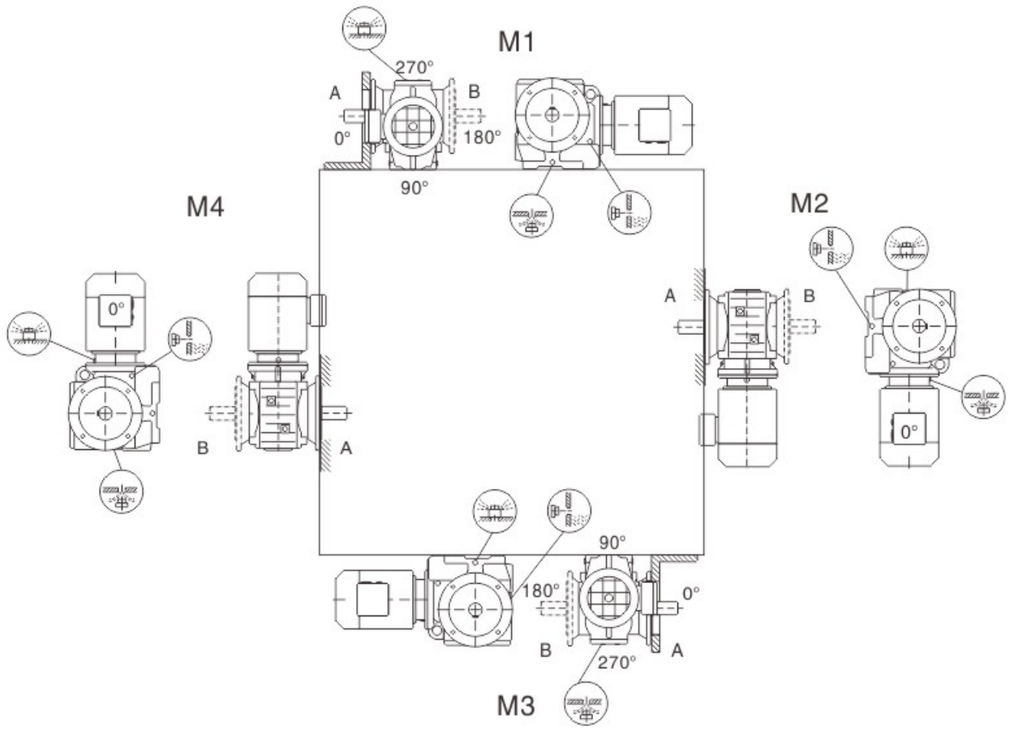


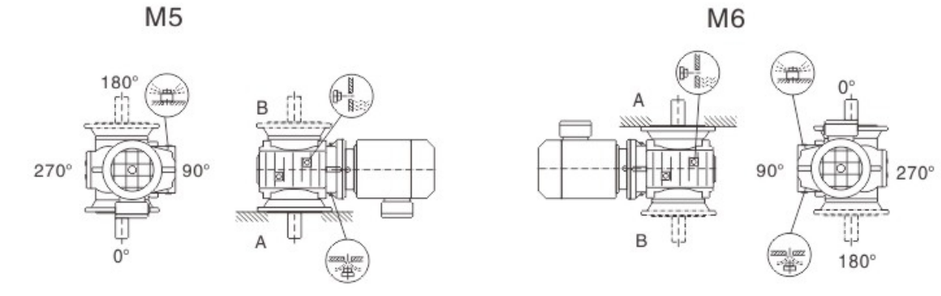




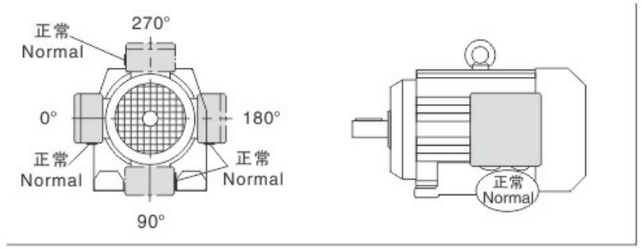
HWSF/HWSAF/HWSAZ47-97安装形式图 HWSF/HWSAF/HWSAZ47-97 Mounting position example

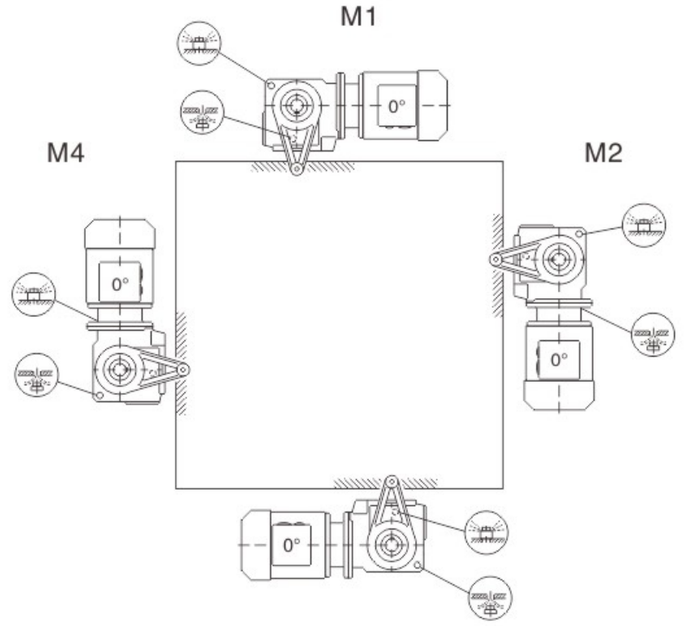


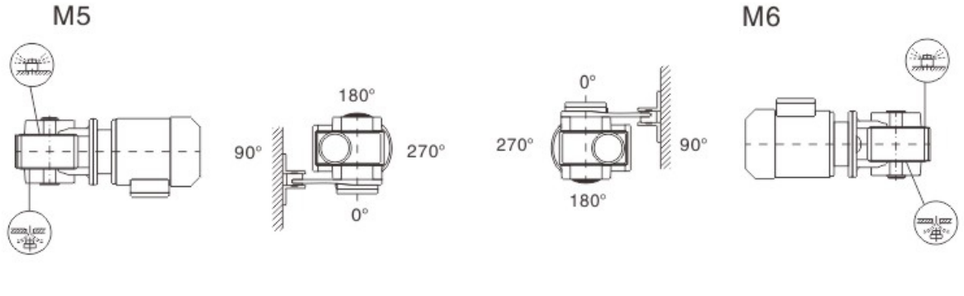




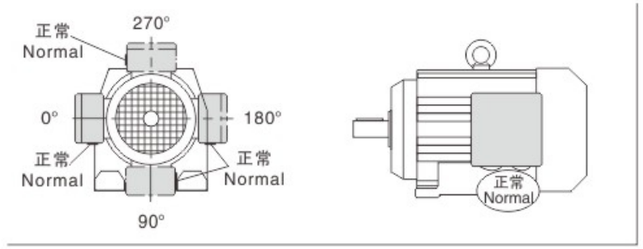
HWSAT37安装形式图 HWSAT37 Mounting position example

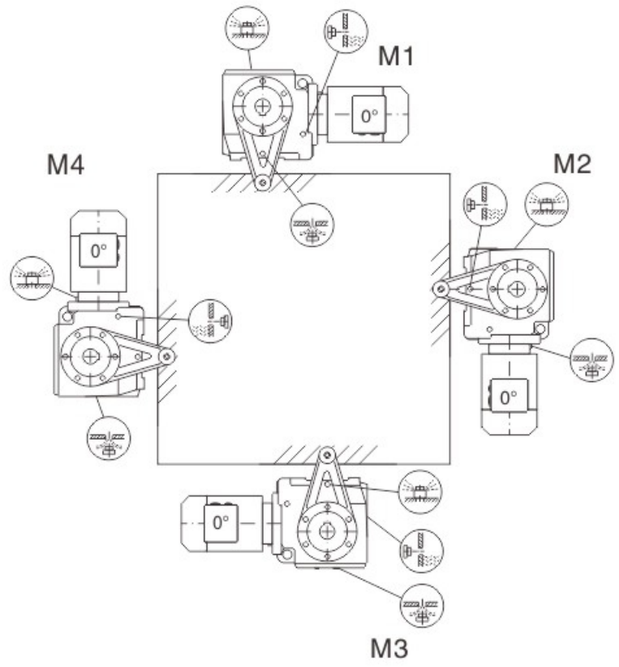


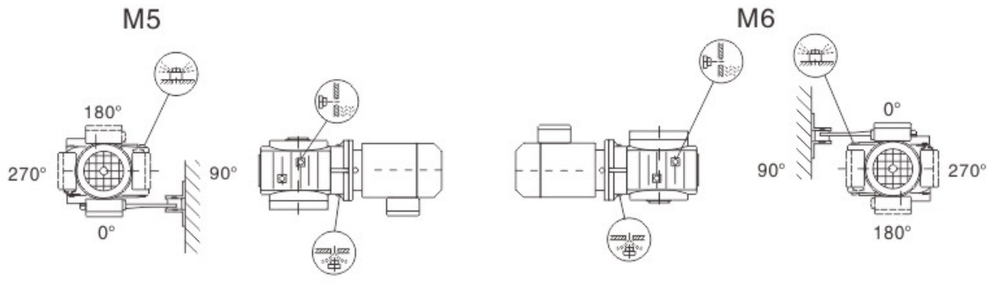




HWSAT47-97安装形式图 HWSAT47-97 Mounting position example







输出转速 Output speed n_a [r/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} [N]	使用系数 Service factor f_B	机型号 Model	电机极数 Pole P
0.12kW						
0.12	4610	11267	28700	0.90	HWS 97 R57	4
0.14	4210	10078	32800	1.00	HWSF 97 R57	4
0.16	3500	8608	34200	1.20	HWSA 97 R57	4
0.18	3090	7554	34800	1.35	HWSAF 97 R57	4
0.21	2630	6706	27200	0.95	HWS 87 R57	4
0.23	2330	5875	27800	1.05	HWSF 87 R57	4
0.27	1960	5187	28500	1.25	HWSA 87 R57	4
0.30	1740	4606	28800	1.45	HWSAF 87 R57	4
0.36	1450	3872	29200	1.70		
0.39	1340	3540	9700	0.95		
0.45	1170	3098	12500	1.10		
0.58	1280	2374	11600	0.95		
0.66	1130	2083	12900	1.10	HWS 77 R37	4
0.76	960	1813	14100	1.30	HWSF 77 R37	4
0.79	910	1745	14300	1.35	HWSA 77 R37	4
0.86	840	1600	14700	1.50	HWSAF 77 R37	4
0.98	735	1404	15200	1.70		
1.1	645	1245	15600	1.90		
					HWS 67 R37	4
1.2	575	1194	8160	1.00	HWSF 67 R37	4
1.3	515	1045	8720	1.10	HWSA 67 R37	4
1.5	445	914	9280	1.30	HWSAF 67 R37	4
1.7	400	809	9580	1.40		
1.9	355	712	9860	1.60		
2.2	295	615	10100	1.95	HWS 67 R37	4
2.5	265	543	10300	2.2	HWSF 67 R37	4
2.9	220	469	10400	2.6	HWSA 67 R37	4
3.3	197	424	10500	2.9	HWSAF 67 R37	4
3.8	180	365	10500	3.2		
2.1	315	655	6930	0.95		
2.4	275	574	7290	1.10		
2.7	240	506	7540	1.25	HWS 57 R17	4
3.2	210	438	7750	1.45	HWSF 57 R17	4
3.6	183	388	7880	1.65	HWSA 57 R17	4
4.1	163	336	7980	1.85	HWSAF 57 R17	4
4.7	140	294	8070	2.1		
5.1	134	269	8090	2.2		
3.2	210	438	5060	0.90		
3.6	183	388	5210	1.00		
4.1	162	336	5320	1.15	HWS 47 R17	4
4.7	139	294	5450	1.35	HWSF 47 R17	4
5.4	95	257	5680	1.95	HWSA 47 R17	4
6.0	113	229	5570	1.65	HWSAF 47 R17	4
6.9	99	200	5630	1.90		
7.4	92	187	5660	2.0		
6.8	99	202	3000	0.95		
7.7	88	179	3000	1.05	HWS 37 R17	4
8.7	78	158	3000	1.15	HWSF 37 R17	4
9.6	72	144	3000	1.25	HWSA 37 R17	4
12	59	118	3000	1.55	HWSAF 37 R17	4
13	55	110	3000	1.65		
4.5	143	201.00	8050	2.1	HWS 57	6
4.9	133	184.80	8090	2.2	HWSF 57	6
5.7	116	158.12	8150	2.5	HWSA 57	6
6.6	103	137.05	8180	2.9	HWSAF 57	6
4.5	138	201.00	5490	1.30		
4.9	129	184.80	5540	1.40	HWS 47	6
5.7	112	158.12	5610	1.55	HWSF 47	6
6.6	99	137.05	5660	1.75	HWSA 47	6
7.0	93	128.10	5680	1.85	HWSAF 47	6

输出转速 Output speed n_a [r/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} [N]	使用系数 Service factor f_B	机型号 Model	电机极数 Pole P
0.12kW						
6.9	95	201.00	5680	1.80		
7.5	89	184.80	5700	1.90	HWS 47	4
8.7	77	158.12	5740	2.2	HWSF 47	4
10	68	137.05	5780	2.5	HWSA 47	4
11	64	128.10	5790	2.6	HWSAF 47	4
12	57	110.73	5810	3.0		
5.7	107	157.43	3000	0.85		
6.2	99	144.40	3000	0.95	HWS 37	6
7.3	86	122.94	3000	1.05	HWSF 37	6
8.5	76	106.00	3000	1.20	HWSA 37	6
9.1	71	98.80	3000	1.30	HWSAF 37	6
10	64	86.36	3000	1.45		
8.8	74	157.43	3000	1.25		
9.6	68	144.40	3000	1.35		
11	60	122.94	3000	1.55	HWS 37	4
13	52	106.00	3000	1.70	HWSF 37	4
14	49	98.80	3000	1.75	HWSA 37	4
16	44	86.36	3000	1.95	HWSAF 37	4
17	41	80.96	3000	2.1		
19	37	71.44	3000	2.3		
22	33	63.33	3000	2.5		
25	35	55.93	3000	2.3		
27	33	51.30	3000	2.5		
32	28	43.68	3000	2.9		
37	25	37.66	3000	3.2	HWS 37	4
39	23	35.10	3000	3.4	HWSF 37	4
45	20	30.68	3000	3.7	HWSA 37	4
48	19	28.76	3000	3.9	HWSAF 37	4
54	17	25.38	3000	4.3		
61	15	22.50	3000	4.8		
69	14	19.89	3000	3.6		
76	13	18.24	3000	3.9		
89	11	15.53	2870	4.4		
0.18kW						
					HWS 87 R57	4
0.29	2970	4606	20900	0.85	HWSF 87 R57	4
0.34	2480	3872	27500	1.00	HWSA 87 R57	4
					HWSAF 87 R57	4
0.38	2350	3475	27800	1.05		
0.45	1970	2905	28500	1.25	HWS 87 R57	4
0.51	1710	2586	28900	1.45	HWSF 87 R57	4
0.57	1520	2335	29100	1.65	HWSA 87 R57	4
0.64	1320	2054	29400	1.90	HWSAF 87 R57	4
0.72	1170	1824	29500	2.1		
0.81	1050	1631	29600	2.4		
					HWS 77 R37	4
0.94	1220	1404	12200	1.00	HWSF 77 R37	4
1.1	1070	1245	13000	1.15	HWSA 77 R37	4
					HWSAF 77 R37	4
1.2	990	1100	13900	1.25		
1.4	850	954	14700	1.45	HWS 77 R37	4
1.6	745	837	15200	1.65	HWSF 77 R37	4
1.9	625	714	15600	2.0	HWSA 77 R37	4
2.1	555	637	15900	2.2	HWSAF 77 R37	4
2.3	500	574	16000	2.5		
1.9	580	712	8060	1.00		
2.2	490	615	8920	1.15	HWS 67 R37	4
2.4	440	543	9330	1.30	HWSF 67 R37	4
2.8	370	469	9780	1.55	HWSA 67 R37	4
3.1	335	424	9970	1.70	HWSAF 67 R37	4
3.6	295	365	10100	1.90		

输出转速 Output speed n_a [r/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} [N]	使用系数 Service factor f_B	机型号 Model	电机极数 Pole P
0.18kW						
3.0	345	438	6630	0.85		
3.4	305	388	7040	1.00		
3.9	270	336	7350	1.10	HWS 57R17	4
4.5	235	294	7600	1.30	HWSF 57R17	4
4.9	220	269	7690	1.35	HWSA 57R17	4
5.8	188	229	7860	1.60	HWSAF 57R17	4
6.5	169	204	7950	1.80		
7.1	154	187	8010	1.95		
4.5	230	294	4910	0.80		
5.1	158	257	5400	1.15		
5.8	185	229	5200	1.00	HWS 47R17	4
6.6	162	200	5330	1.15	HWSF 47R17	4
7.1	152	187	5380	1.20	HWSA 47R17	4
8.0	134	165	5470	1.40	HWSAF 47R17	4
8.9	121	148	5530	1.55		
10	108	131	5590	1.70		
4.0	255	217.41	10300	2.2	HWS 67	6
4.6	225	190.11	10400	2.5	HWSF 67	6
4.8	215	180.60	10400	2.6	HWSA 67	6
					HWSAF 67	6
4.3	220	201.00	7670	1.35	HWS 57	6
4.7	205	184.80	7760	1.45	HWSF 57	6
5.5	180	158.12	7900	1.65	HWSA 57	6
6.3	159	137.05	7990	1.85	HWSAF 57	6
6.6	154	201.00	8010	1.90	HWS 57	4
7.1	143	184.80	8050	2.1	HWSF 57	4
8.4	125	158.12	8120	2.4	HWSA 57	4
9.6	110	137.05	8160	2.7	HWSAF 57	4
4.3	215	201.00	5090	0.85		
4.7	199	184.80	5180	0.95	HWS 47	6
5.5	173	158.12	5320	1.00	HWSF 47	6
6.3	153	137.05	5420	1.10	HWSA 47	6
6.8	144	128.10	5470	1.20	HWSAF 47	6
6.6	149	201.00	5440	1.15		
7.1	138	184.80	5490	1.25		
8.4	121	158.12	5570	1.40		
9.6	107	137.05	5630	1.60	HWS 47	4
10	100	128.10	5660	1.65	HWSF 47	4
12	88	110.73	5700	1.90	HWSA 47	4
14	77	94.08	5750	2.2	HWSAF 47	4
16	69	84.00	5770	2.4		
18	60	71.75	5800	2.8		
19	69	69.39	5750	2.2		
8.4	115	157.43	3000	0.80		
9.1	107	144.40	3000	0.85	HWS 37	4
11	93	122.94	3000	1.00	HWSF 37	4
12	82	106.00	3000	1.10	HWSA 37	4
13	77	98.80	3000	1.15	HWSAF 37	4
15	68	86.36	3000	1.25		
16	64	80.96	3000	1.30		
18	58	71.44	3000	1.45		
21	52	63.33	3000	1.60		
24	55	55.93	3000	1.45		
26	51	51.30	3000	1.60		
30	44	43.68	3000	1.85		
35	38	37.66	3000	2.1		
38	36	35.10	3000	2.2		
43	32	30.68	3000	2.4	HWS 37	4
46	30	28.76	3000	2.5	HWSF 37	4
52	27	25.38	3000	2.8	HWSA 37	4
59	24	22.50	3000	3.1	HWSAF 37	4
66	22	19.89	3000	2.3		
72	21	18.24	2940	2.5		
85	18	15.53	2810	2.8		
99	15	13.39	2700	3.2		
106	14	12.48	2650	3.4		
121	13	10.91	2550	3.8		
129	12	10.23	2500	4.0		

输出转速 Output speed n_a [r/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} [N]	使用系数 Service factor f_B	机型号 Model	电机极数 Pole P
0.25kW						
0.45	2860	2905	24300	0.85		
0.50	2500	2586	27500	1.00		
0.56	2240	2335	28000	1.10	HWS 87 R57	4
0.63	1950	2054	28500	1.30	HWSF 87 R57	4
0.71	1730	1824	28900	1.45	HWSA 87 R57	4
0.80	1550	1631	29100	1.60	HWSAF 87 R57	4
1.4	910	930	29800	2.8		
1.4	1230	954	12100	1.00		
1.5	1080	837	13300	1.15	HWS 77 R37	4
1.8	910	714	14400	1.35	HWSF 77 R37	4
2.0	810	637	14900	1.55	HWSA 77 R37	4
2.3	730	574	15200	1.70	HWSAF 77 R37	4
2.6	625	499	15600	2.0		
2.4	635	543	7420	0.90		
2.8	540	469	8500	1.05	HWS 67 R37	4
3.1	485	424	8970	1.15	HWSF 67 R37	4
3.6	430	365	9390	1.30	HWSA 67 R37	4
4.1	375	319	9750	1.50	HWSAF 67 R37	4
4.6	330	281	9990	1.75		
4.4	340	294	6720	0.90		
4.8	315	269	6950	0.95	HWS 57 R17	4
5.7	270	229	7330	1.10	HWSF 57 R17	4
6.4	245	204	7530	1.25	HWSA 57 R17	4
6.9	225	187	7660	1.35	HWSAF 57 R17	4
7.9	198	165	7810	1.50		
9.9	159	131	7990	1.90		
3.1	435	217.41	9350	1.30	HWS 67	8
3.6	390	190.11	9670	1.45	HWSF 67	8
3.8	370	180.60	9770	1.50	HWSA 67	8
4.3	330	158.45	9980	1.70	HWSAF 67	8
4.1	350	217.41	9890	1.60	HWS 67	6
4.6	310	190.11	10100	1.80	HWSF 67	6
4.9	295	180.60	10100	1.90	HWSA 67	6
5.6	265	158.45	10300	2.1	HWSAF 67	6
6.0	245	217.41	10300	2.1		
6.8	220	190.11	10400	2.4	HWS 67	4
7.2	210	180.60	10500	2.5	HWSF 67	4
8.2	187	158.45	10500	2.8	HWSA 67	4
9.7	161	134.40	10600	3.2	HWSAF 67	4
11	147	121.33	10600	3.5		
12	131	106.75	10700	4.0		
4.4	305	201.00	7050	1.00		
4.8	285	184.80	7230	1.05	HWS 57	6
5.6	245	158.12	7510	1.20	HWSF 57	6
6.4	220	137.05	7690	1.35	HWSA 57	6
6.9	205	128.10	7760	1.45	HWSAF 57	6
6.5	215	201.00	7700	1.35		
7.0	200	184.80	7790	1.45		
8.2	176	158.12	7920	1.70	HWS 57	4
9.5	155	137.05	8010	1.90	HWSF 57	4
10	146	128.10	8040	2.0	HWSA 57	4
12	129	110.73	8110	2.3	HWSAF 57	4
14	111	94.08	8160	2.7		
15	101	84.00	8190	2.9		

输出转速 Output speed n_a [r/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} [N]	使用系数 Service factor f_B	机型号 Model	电机极数 Pole P
0.25kW						
6.5	210	201.00	5120	0.80		
7.0	195	184.80	5210	0.85		
8.2	170	158.12	5340	1.00		
9.5	150	137.05	5440	1.10		
10	141	128.10	5480	1.20		
12	124	110.73	5560	1.35	HWS 47	4
14	108	94.08	5630	1.55	HWSF 47	4
15	98	84.00	5670	1.70	HWSA 47	4
18	85	71.75	5720	1.95	HWSAF 47	4
19	97	69.39	5640	1.60		
19	80	67.20	5740	2.1		
20	90	63.80	5670	1.70		
24	78	54.59	5720	2.0		
27	68	47.32	5760	2.3		
13	108	98.80	3000	0.80		
15	96	86.36	3000	0.90		
16	91	80.96	3000	0.95		
18	81	71.44	3000	1.05		
21	73	63.33	3000	1.10		
23	78	55.93	3000	1.05		
25	72	51.30	3000	1.15		
30	62	43.68	3000	1.30		
35	54	37.66	3000	1.45		
37	51	35.10	3000	1.55		
42	45	30.68	3000	1.70	HWS 37	4
45	42	28.76	3000	1.80	HWSF 37	4
51	37	25.38	3000	2.0	HWSA 37	4
58	33	22.50	3000	2.2	HWSAF 37	4
65	32	19.89	2870	1.65		
71	29	18.24	2820	1.80		
84	25	15.53	2710	2.0		
97	22	13.39	2620	2.3		
104	20	12.48	2570	2.4		
119	18	10.91	2480	2.7		
127	17	10.23	2440	2.8		
144	15	9.02	2360	3.1		
163	13	8.00	2290	3.4		
191	11	6.80	2180	3.8		
92	21	28.76	2740	3.0		
105	19	25.38	2650	3.3		
118	17	22.50	2560	3.4	HWS 37	2
134	16	19.89	2410	2.8	HWSF 37	2
146	15	18.24	2350	3.0	HWSA 37	2
171	13	15.53	2250	3.4	HWSAF 37	2
199	11	13.39	2160	3.8		
213	10	12.48	2120	4.0		
0.37kW						
0.67	2810	2054	25400	0.90	HWS 87 R57	4
0.76	2490	1824	27500	1.00	HWSF 87 R57	4
0.85	2230	1631	28000	1.10	HWSA 87 R57	4
1.5	1320	930	29400	1.90	HWSAF 87 R57	4
1.7	1190	831	29500	2.1		
1.9	1290	714	11500	0.95		
2.2	1150	637	12700	1.10	HWS 77 R37	4
2.4	1040	574	13600	1.20	HWSF 77 R37	4
2.8	900	499	14400	1.40	HWSA 77 R37	4
3.2	785	438	15000	1.60	HWSAF 77 R37	4
3.5	700	389	15400	1.80		
3.8	615	365	7700	0.95	HWS 67 R37	4
4.3	535	319	8540	1.05	HWSF 67 R37	4
4.9	470	281	9080	1.20	HWSA 67 R37	4
5.6	425	246	9430	1.35	HWSAF 67 R37	4
2.4	980	288.00	29700	2.5	HWS 87	8
2.6	890	258.18	29800	2.8	HWSF 87	8
3.1	775	222.40	29900	3.2	HWSA 87	8
					HWSAF 87	8

输出转速 Output speed n_a [r/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} [N]	使用系数 Service factor f_B	机型号 Model	电机极数 Pole P
0.37kW						
3.0	735	225.26	15200	1.75	HWS 77	8
3.2	700	214.00	15300	1.80	HWSF 77	8
3.6	630	189.09	15600	2.0	HWSA 77	8
4.2	545	161.60	15900	2.3	HWSAF 77	8
3.5	645	256.47	15600	2.0	HWS 77	6
4.0	575	225.26	15800	2.2	HWSF 77	6
4.2	545	214.00	15900	2.3	HWSA 77	6
					HWSAF 77	6
4.1	505	217.41	8810	1.10	HWS 67	6
4.7	450	190.11	9260	1.25	HWSF 67	6
5.0	430	180.60	9400	1.30	HWSA 67	6
5.7	380	158.45	9700	1.45	HWSAF 67	6
6.3	345	217.41	9900	1.50		
7.3	310	190.11	10100	1.70	HWS 67	4
7.6	295	180.60	10200	1.75	HWSF 67	4
8.7	260	158.45	10300	2.0	HWSA 67	4
10	225	134.40	10400	2.3	HWSAF 67	4
11	205	121.33	10500	2.5		
5.7	360	158.12	6490	0.80		
6.6	315	137.05	6930	0.95	HWS 57	6
7.0	300	128.10	7100	1.00	HWSF 57	6
8.1	265	110.73	7390	1.10	HWSA 57	6
9.6	230	94.08	7630	1.30	HWSAF 57	6
11	205	84.00	7760	1.45		
6.9	305	201.00	7050	0.95		
7.5	285	184.80	7230	1.05		
8.7	245	158.12	7510	1.20		
10	220	137.05	7690	1.35		
11	205	128.10	7770	1.45	HWS 57	4
12	180	110.73	7900	1.65	HWSF 57	4
15	156	94.08	8000	1.90	HWSA 57	4
16	141	84.00	8060	2.1	HWSAF 57	4
19	122	71.75	8130	2.4		
20	139	69.39	8070	1.75		
21	115	67.20	8150	2.5		
22	128	63.80	8110	1.90		
10	210	137.05	5110	0.80		
11	199	128.10	5190	0.85		
12	175	110.73	5320	0.95		
15	151	94.08	5430	1.10		
16	137	84.00	5500	1.20		
19	119	71.75	5580	1.40		
20	136	69.39	5460	1.15		
21	112	67.20	5610	1.50		
22	126	63.80	5510	1.25	HWS 47	4
25	109	54.59	5590	1.40	HWSF 47	4
29	96	47.32	5410	1.60	HWSA 47	4
31	90	44.22	5330	1.75	HWSAF 47	4
36	78	38.23	5140	2.0		
42	67	32.48	4930	2.3		
48	60	29.00	4790	2.6		
56	52	24.77	4590	3.0		
59	49	23.20	4510	3.1		
68	46	20.33	4180	2.4		
78	40	17.62	4030	2.8		
84	37	16.47	3960	3.0		

输出转速 Output speed n_a [r/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} [N]	使用系数 Service factor f_B	机型号 Model	电机极数 Pole P
0.37kW						
22	103	63.33	3000	0.80		
27	101	51.30	3000	0.80		
32	87	43.68	3000	0.95		
37	76	37.66	3000	1.05		
39	71	35.10	3000	1.10		
45	63	30.68	3000	1.20		
48	59	28.76	3000	1.30		
54	52	25.38	2940	1.40	HWS 37	4
61	47	22.50	2870	1.55	HWSF 37	4
69	44	19.89	2610	1.20	HWSA 37	4
76	41	18.24	2570	1.30	HWSAF37	4
89	35	15.53	2500	1.45		
103	30	13.39	2420	1.60		
111	28	12.48	2390	1.70		
127	25	10.91	2320	1.95		
135	23	10.23	2280	2.0		
153	21	9.02	2220	2.2		
173	18	8.00	2150	2.5		
203	16	6.80	2070	2.7		
104	28	25.38	2540	2.2		
118	25	22.50	2460	2.3		
133	24	19.89	2290	1.85		
145	22	18.24	2250	2.0	HWS 37	2
171	19	15.53	2160	2.3	HWSF 37	2
198	16	13.39	2080	2.5	HWSA 37	2
212	15	12.48	2040	2.7	HWSAF37	2
243	13	10.91	1970	3.0		
259	12	10.23	1940	3.1		
294	11	9.02	1870	3.3		
0.55kW						
1.0	2810	1332	25400	0.90		
1.1	2540	1191	27400	1.00		
1.3	2210	1032	28100	1.15	HWS 87 R57	4
1.5	2040	930	28400	1.25	HWSF 87 R57	4
1.6	1840	831	28700	1.35	HWSA 87 R57	4
1.9	1600	719	29000	1.55	HWSAF87 R57	4
2.2	1400	624	29300	1.80		
2.4	1270	558	29400	1.95		
3.1	1010	435	29700	2.4		
3.1	1210	438	12300	1.05	HWS 77 R37	4
3.5	1070	389	13300	1.15	HWSF 77 R37	4
4.2	910	327	14300	1.35	HWSA 77 R37	4
4.7	820	289	14800	1.50	HWSAF77 R37	4
5.4	710	250	15300	1.75		
5.5	650	246	6600	0.90	HWS 67 R37	4
6.2	580	221	8080	1.00	HWSF 67 R37	4
6.9	530	198	8590	1.10	HWSA 67 R37	4
8.1	455	168	9230	1.25	HWSAF67 R37	4
2.4	1450	288.00	29200	1.70	HWS 87	8
2.6	1320	258.18	29400	1.85	HWSF 87	8
3.1	1150	222.40	29600	2.1	HWSA 87	8
					HWSAF87	8
3.1	1130	288.00	29600	2.2	HWS 87	6
3.5	1020	258.18	29700	2.4	HWSF 87	6
4.1	900	222.40	29800	2.7	HWSA 87	6
4.4	820	202.96	29800	2.9	HWSAF87	6
3.0	1090	225.26	13200	1.15	HWS 77	8
3.2	1040	214.00	13500	1.20	HWSF 77	8
3.6	930	189.09	14200	1.35	HWSA 77	8
4.2	810	161.60	14900	1.55	HWSAF77	8
3.5	960	256.47	14100	1.35	HWS 77	6
4.0	850	225.26	14700	1.50	HWSF 77	6
4.2	810	214.00	14800	1.55	HWSA 77	6
4.8	730	189.09	15200	1.75	HWSAF77	6
5.6	635	161.60	15600	2.0		

输出转速 Output speed n_a [r/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} [N]	使用系数 Service factor f_B	机型号 Model	电机极数 Pole P
0.55kW						
5.3	660	256.47	15500	1.90	HWS 77	4
6.0	590	225.26	15800	2.2	HWSF 77	4
6.4	560	214.00	15800	2.3	HWSA 77	4
7.2	505	189.09	16000	2.5	HWSAF 77	4
6.3	520	217.41	8660	1.00		
7.2	465	190.11	9150	1.10		
7.5	445	180.60	9300	1.15		
8.6	395	158.45	9620	1.30	HWS 67	4
10	340	134.40	9930	1.55	HWSF 67	4
11	310	121.33	10100	1.65	HWSA 67	4
13	275	106.75	10200	1.85	HWSAF 67	4
13	265	100.80	10300	1.95		
16	230	85.83	10400	2.3		
18	230	75.06	10400	2.1		
21	205	65.63	10500	2.3		
9.6	340	94.08	6710	0.85		
11	305	84.00	7030	0.95		
13	265	71.75	7360	1.10	HWS 57	6
13	250	67.20	7470	1.15	HWSF 57	6
16	245	54.59	7520	1.10	HWSA 57	6
19	215	47.32	7710	1.25	HWSAF 57	6
20	200	44.22	7790	1.35		
24	176	38.23	7920	1.55		
8.6	370	158.12	6330	0.80		
9.9	330	137.05	6820	0.90		
11	310	128.10	7010	0.95		
12	270	110.73	7320	1.10		
14	235	94.08	7590	1.25		
16	210	84.00	7730	1.40		
19	184	71.75	7880	1.55	HWS 57	4
20	174	67.20	7930	1.65	HWSF 57	4
25	167	54.59	7960	1.45	HWSA 57	4
29	146	47.32	8040	1.70	HWSAF 57	4
31	137	44.22	8080	1.80		
36	120	38.23	8130	2.0		
42	103	32.48	7970	2.4		
47	92	29.00	7730	2.7		
55	79	24.77	7390	3.1		
59	75	23.20	7250	3.3		
67	69	20.33	6760	2.4		
16	205	84.00	5140	0.80		
19	179	71.75	5290	0.95		
20	169	67.20	5350	1.00		
25	165	54.59	5130	0.95		
29	144	47.32	5010	1.10		
31	135	44.22	4950	1.15		
36	118	38.23	4810	1.30		
42	101	32.48	4650	1.55	HWS 47	4
47	91	29.00	4540	1.70	HWSF 47	4
55	78	24.77	4380	2.0	HWSA 47	4
59	74	23.20	4310	2.1	HWSAF 47	4
67	69	20.33	3920	1.60		
77	60	17.62	3810	1.85		
83	56	16.47	3750	1.95		
96	49	14.24	3630	2.2		
112	42	12.10	3500	2.6		
126	37	10.80	3400	2.9		
147	32	9.23	3270	3.4		

输出转速 Output speed n_a [r/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} [N]	使用系数 Service factor f_B	机型号 Model	电机极数 Pole P
0.55kW						
44	94	30.68	2680	0.80		
47	89	28.76	2670	0.85		
54	79	25.38	2630	0.95		
60	70	22.50	2600	1.05		
71	60	19.13	2540	1.20		
88	53	15.53	2230	0.95	HWS 37	4
102	46	13.39	2200	1.10	HWSF 37	4
109	43	12.48	2180	1.15	HWSA 37	4
125	37	10.91	2130	1.30	HWSAF 37	4
133	35	10.23	2110	1.35		
151	31	9.02	2070	1.50		
170	28	8.00	2020	1.60		
200	24	6.80	1950	1.80		
94	46	28.76	2420	1.40		
106	41	25.38	2360	1.50		
120	37	22.50	2310	1.55		
136	34	19.89	2100	1.30		
148	32	18.24	2070	1.40		
174	27	15.53	2010	1.55	HWS 37	2
202	24	13.39	1950	1.75	HWSF 37	2
216	22	12.48	1920	1.85	HWSA 37	2
248	19	10.91	1870	2.0	HWSAF 37	2
264	18	10.23	1840	2.1		
299	16	9.02	1780	2.2		
338	14	8.00	1730	2.5		
397	12	6.80	1660	2.4		
0.75kW						
1.1	4840	1223	21300	0.85		
1.3	4240	1070	30700	1.00		
1.5	3650	928	33900	1.15	HWS 97R57	4
1.7	3230	824	34600	1.30	HWSF 97R57	4
1.9	2300	714	35900	1.85	HWSA 97R57	4
2.2	2450	626	35700	1.70	HWSAF 97R57	4
2.6	2110	538	36100	2.0		
2.8	1900	484	36300	2.2		
1.3	3030	1032	18700	0.85		
1.5	2780	930	25900	0.90		
1.7	2510	831	2750	1.00	HWS 87R57	4
1.9	2190	719	28100	1.15	HWSF 87R57	4
2.2	1920	624	28600	1.30	HWSA 87R57	4
2.5	1730	558	28900	1.45	HWSAF 87R57	4
3.2	1390	435	29300	1.75		
4.3	1060	323	29600	2.3		
4.2	1240	327	12000	1.00	HWS 77R37	4
4.8	1110	289	13100	1.10	HWSF 77R37	4
5.5	960	250	14000	1.30	HWSA 77R37	4
6.3	850	219	14700	1.45	HWSAF 77R37	4
2.4	2040	286.40	36100	2.1	HWS 97	8
2.6	1890	262.22	36300	2.2	HWSF 97	8
3.0	1690	231.67	36400	2.5	HWSA 97	8
					HWSAF 97	8
3.1	1540	288.00	29100	1.60	HWS 87	6
3.5	1400	258.18	29300	1.75	HWSF 87	6
4.1	1220	222.40	29500	1.95	HWSA 87	6
4.4	1120	202.96	29600	2.1	HWSAF 87	6
4.8	1050	288.00	29600	2.2	HWS 87	4
5.3	950	258.18	29700	2.4	HWSF 87	4
6.2	830	222.40	29800	2.8	HWSA 87	4
6.8	765	202.96	29900	3.0	HWSAF 87	4
4.0	1160	225.26	12700	1.10	HWS 77	6
4.2	1110	214.00	13100	1.15	HWSF 77	6
4.8	990	189.09	13900	1.30	HWSA 77	6
5.6	860	161.60	14600	1.45	HWSAF 77	6

输出转速 Output speed n_a [r/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} [N]	使用系数 Service factor f_B	机型号 Model	电机极数 Pole P
0.75kW						
5.4	890	256.47	14500	1.45		
6.1	790	225.26	14900	1.60		
6.4	755	214.00	15100	1.70	HWS 77	4
7.3	675	189.09	15400	1.90	HWSF 77	4
8.5	585	161.60	15800	2.2	HWSA 77	4
9.3	545	148.15	15900	2.3	HWSAF 77	4
11	480	130.00	16000	2.5		
11	460	123.20	16000	2.6		
13	405	107.83	16000	2.9		
7.3	625	190.11	7570	0.85		
7.6	595	180.60	7900	0.85		
8.7	530	158.45	8570	1.00		
10	460	134.40	9480	1.15		
11	420	121.33	9470	1.25	HWS 67	4
13	375	106.75	9750	1.40	HWSF 67	4
14	355	100.80	9860	1.45	HWSA 67	4
16	305	85.83	10100	1.70	HWSAF 67	4
18	310	75.06	10100	1.55		
21	275	65.63	10200	1.75		
22	260	62.35	10300	1.85		
25	230	54.70	10300	2.1		
30	198	46.40	9840	2.4		
13	365	71.75	6430	0.80	HWS 57	6
13	345	67.20	6660	0.85	HWSF 57	6
16	295	56.64	7140	1.00	HWSA 57	6
19	295	47.32	7150	0.90	HWSAF 57	6
20	275	44.22	7300	1.00		
12	365	110.73	6400	0.80		
15	315	94.08	6930	0.95		
16	285	84.00	7210	1.05		
19	250	71.75	7500	1.15		
21	235	67.20	7590	1.20		
25	225	54.59	7650	1.10		
29	197	47.32	7810	1.25	HWS 57	4
31	185	44.22	7870	1.35	HWSF 57	4
36	161	38.23	7980	1.50	HWSA 57	4
42	138	32.48	7670	1.80	HWSAF 57	4
48	124	29.00	7450	2.0		
56	107	24.77	7150	2.3		
59	100	23.20	7030	2.5		
68	93	20.33	6490	1.80		
78	81	17.62	6260	2.1		
84	76	16.47	6160	2.2		
97	66	14.24	5930	2.6		
29	194	47.32	4530	0.80	HWS 47	4
31	182	44.22	4500	0.85	HWSF 47	4
36	159	38.23	4420	1.00	HWSA 47	4
42	136	32.48	4310	1.15	HWSAF 47	4
48	122	29.00	4230	1.25		
56	106	24.77	4110	1.45		
59	99	23.20	4060	1.55		
68	93	20.33	3610	1.20		
78	81	17.62	3530	1.35	HWS 47	4
84	76	16.47	3490	1.45	HWSF 47	4
97	66	14.24	3410	1.65	HWSA 47	4
114	56	12.10	3300	1.95	HWSAF 47	4
128	50	10.80	3230	2.2		
150	43	9.23	3120	2.5		
160	41	8.64	3070	2.7		
190	34	7.28	2950	3.0		
72	81	19.13	2270	0.85		
111	57	12.48	1930	0.85	HWS 37	4
127	50	10.91	1920	0.95	HWSF 37	4
135	47	10.23	1910	1.00	HWSA 37	4
153	42	9.02	1890	1.10	HWSAF 37	4
173	37	8.00	1860	1.20		
203	32	6.80	1820	1.35		

输出转速 Output speed n_a [r/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} [N]	使用系数 Service factor f_B	机型号 Model		电机极数 Pole P
0.75kW							
141	43	19.13	2090	1.05			
174	37	15.53	1860	1.15			
202	32	13.39	1820	1.30	HWS	37	2
216	30	12.48	1800	1.35	HWSF	37	2
248	26	10.91	1760	1.50	HWSA	37	2
264	25	10.23	1740	1.55	HWSAF	37	2
299	22	9.02	1690	1.65			
338	19	8.00	1650	1.80			
397	17	6.80	1590	1.75			
1.1kW							
1.7	4720	824	23300	0.90			
2.0	3370	714	34400	1.25	HWS	97 R57	4
2.2	3590	626	34000	1.15	HWSF	97 R57	4
2.6	3090	538	34800	1.35	HWSA	97 R57	4
2.9	2790	484	35200	1.50	HWSAF	97 R57	4
3.3	2430	420	35700	1.75			
2.2	2820	624	25400	0.90			
2.5	2550	558	27400	1.00			
2.9	2240	485	28000	1.10			
3.2	2040	435	28400	1.20	HWS	87 R57	4
3.7	1790	378	28800	1.35	HWSF	87 R57	4
4.3	1560	323	29100	1.55	HWSA	87 R57	4
5.0	1370	281	29300	1.75	HWSAF	87 R57	4
5.5	1460	255	29200	1.35			
6.3	1280	222	29400	1.55			
6.8	1200	205	29500	1.65			
6.4	1240	219	12000	1.00	HWS	77 R37	4
					HWSF	77 R37	4
					HWSA	77 R37	4
					HWSAF	77 R37	4
2.4	3030	286.40	34900	1.40	HWS	97	8
2.6	2800	262.22	35200	1.50	HWSF	97	8
2.9	2500	231.67	35600	1.70	HWSA	97	8
3.5	2160	196.52	36000	1.95	HWSAF	97	8
3.2	2310	286.40	35900	1.80	HWS	97	6
3.5	2130	262.22	36000	1.95	HWSF	97	6
4.0	1900	231.67	36300	2.2	HWSA	97	6
					HWSAF	97	6
3.2	2220	288.00	28100	1.10	HWS	87	6
3.6	2010	258.18	28400	1.20	HWSF	87	6
4.1	1760	222.40	28800	1.35	HWSA	87	6
4.5	1620	202.96	29000	1.45	HWSAF	87	6
4.9	1520	288.00	29100	1.50			
5.4	1370	258.18	29300	1.65	HWS	87	4
6.3	1200	222.40	29500	1.90	HWSF	87	4
6.9	1100	202.96	29600	2.0	HWSA	87	4
7.8	990	180.00	29700	2.2	HWSAF	87	4
9.2	840	151.30	29800	2.5			
6.2	1150	225.26	12800	1.10			
6.5	1100	214.00	13200	1.15			
7.4	980	189.09	13900	1.30			
8.7	850	161.60	14700	1.50	HWS	77	4
9.4	785	148.15	15000	1.60	HWSF	77	4
11	695	130.00	15400	1.75	HWSA	77	4
11	665	123.20	15500	1.80	HWSAF	77	4
13	585	107.83	15800	2.0			
14	535	97.14	15900	2.1			
16	470	85.22	16000	2.3			

输出转速 Output speed n_a [r/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} [N]	使用系数 Service factor f_B	机型号 Model		电机极数 Pole P
1.1kW							
12	605	121.33	7790	0.85			
13	540	106.75	8490	0.95			
14	515	100.80	8740	1.00			
16	445	85.83	9300	1.15			
18	405	78.00	9550	1.30	HWS	67	4
21	400	65.63	9610	1.20	HWSF	67	4
22	380	62.35	9720	1.25	HWSA	67	4
26	335	54.70	9560	1.45	HWSAF	67	4
30	285	46.40	9240	1.65			
33	260	41.89	9040	1.85			
38	230	36.85	8780	2.1			
40	220	34.80	8660	2.2			
47	187	29.63	8330	2.6			
20	360	71.75	6480	0.80	HWS	57	4
21	340	67.20	6710	0.85	HWSF	57	4
25	290	56.61	7180	0.90	HWSA	57	4
30	285	47.32	7220	0.85	HWSAF	57	4
32	265	44.22	7360	0.90			
37	235	38.23	7410	1.05			
43	200	32.48	7170	1.25			
48	179	29.00	7000	1.35			
57	154	24.77	6760	1.60	HWS	57	4
60	145	23.20	6660	1.70	HWSF	57	4
72	123	19.54	6390	1.75	HWSA	57	4
79	117	17.62	5870	1.45	HWSAF	57	4
85	110	16.47	5780	1.55			
98	95	14.24	5610	1.75			
116	82	12.10	5400	2.1			
130	73	10.80	5260	2.3			
152	63	9.23	5050	2.7			
48	177	29.00	3720	0.90			
57	153	24.77	3670	1.00	HWS	47	4
60	143	23.20	3640	1.05	HWSF	47	4
72	122	19.54	3560	1.20	HWSA	47	4
79	117	17.62	3070	0.95	HWSAF	47	4
85	109	16.47	3060	1.00			
98	95	14.24	3030	1.15			
116	81	12.10	2980	1.35	HWS	47	4
130	73	10.80	2940	1.50	HWSF	47	4
152	63	9.23	2870	1.75	HWSA	47	4
162	59	8.64	2840	1.85	HWSAF	47	4
192	50	7.28	2750	2.1			
175	54	8.00	1570	0.85	HWS	37	4
206	46	6.80	1580	0.95	HWSF	37	4
					HWSA	37	4
					HWSAF	37	4
202	47	13.39	1590	0.85			
216	44	12.48	1580	0.90	HWS	37	2
248	39	10.91	1570	1.00	HWSF	37	2
264	36	10.23	1560	1.05	HWSA	37	2
299	32	9.02	1540	1.10	HWSAF	37	2
338	28	8.00	1510	1.25			
397	24	6.80	1470	1.20			
1.5kW							
2.0	4590	714	29100	0.90			
2.2	4890	626	19100	0.85	HWS	97 R57	4
2.6	4220	538	31100	1.00	HWSF	97 R57	4
2.9	3810	484	33600	1.10	HWSA	97 R57	4
3.4	3310	420	34500	1.25	HWSAF	97 R57	4
3.8	2990	376	35000	1.40			
4.3	2630	327	35500	1.60			
2.9	3060	485	17200	0.80			
3.2	2780	435	25900	0.90			
3.7	2450	378	27600	1.00	HWS	87 R57	4
4.4	2130	323	28200	1.15	HWSF	87 R57	4
5.0	1870	281	28600	1.30	HWSA	87 R57	4
5.5	2000	255	28400	1.00	HWSAF	87 R57	4
6.3	1750	222	28800	1.15			
6.9	1630	205	29000	1.20			

输出转速 Output speed n_a [r/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} [N]	使用系数 Service factor f_B	机型号 Model		电机极数 Pole P
1.5kW							
2.4	4030	286.40	33100	1.05	HWS	97	8
2.7	3720	262.22	33700	1.15	HWSF	97	8
3.0	3330	231.67	34400	1.25	HWSA	97	8
3.6	2870	196.52	35200	1.45	HWSAF	97	8
3.2	3150	286.40	34700	1.35	HWS	97	6
3.5	2910	262.22	35100	1.45	HWSF	97	6
4.0	2600	231.67	35500	1.60	HWSA	97	6
4.7	2230	196.52	35900	1.90	HWSAF	97	6
4.9	2130	286.40	36000	1.90	HWS	97	4
5.4	1970	262.22	36200	2.0	HWSF	97	4
6.1	1760	231.67	36400	2.3	HWSA	97	4
7.2	1510	196.52	36600	2.7	HWSAF	97	4
3.6	2740	258.18	26600	0.90	HWS	87	6
4.1	2390	222.40	27700	1.00	HWSF	87	6
4.5	2200	202.96	28100	1.10	HWSA	87	6
5.1	1980	180.00	28500	1.20	HWSAF	87	6
4.9	2060	288.00	28300	1.10			
5.5	1860	258.18	28700	1.20			
6.3	1630	222.40	29000	1.40			
6.9	1500	202.96	29200	1.50	HWS	87	4
7.8	1340	180.00	29400	1.65	HWSF	87	4
9.3	1140	151.30	29600	1.90	HWSA	87	4
10	1060	139.05	29600	2.0	HWSAF	87	4
11	950	123.48	29700	2.2			
13	850	110.40	29800	2.3			
14	770	99.26	29900	2.5			
7.5	1330	189.09	10600	0.95			
8.7	1150	161.60	12700	1.10			
9.5	1060	148.15	13400	1.15			
11	940	130.00	14100	1.30			
11	900	123.20	14400	1.35			
13	795	107.83	14900	1.45			
15	725	97.14	15300	1.60	HWS	77	4
17	640	85.22	15400	1.70	HWSF	77	4
19	650	75.09	14100	1.70	HWSA	77	4
20	620	71.33	14000	1.80	HWSAF	77	4
21	510	66.67	14600	2.0			
22	550	63.03	13700	2.0			
25	440	56.92	14000	2.3			
26	470	53.87	13200	2.3			
29	435	49.38	13000	2.5			
33	385	43.33	12600	2.9			
16	600	85.83	7850	0.85	HWS	67	4
18	550	78.00	8390	0.95	HWSF	67	4
21	540	65.63	8510	0.90	HWSA	67	4
					HWSAF	67	4
23	515	62.35	8740	0.95			
26	455	54.70	8810	1.05			
30	390	46.40	8590	1.25			
34	355	41.89	8450	1.35			
38	310	36.85	8250	1.55			
41	295	34.80	8160	1.60	HWS	67	4
48	255	29.63	7900	1.90	HWSF	67	4
52	230	26.93	7740	2.1	HWSA	67	4
58	220	24.44	7000	1.55	HWSAF	67	4
61	210	23.22	6950	1.60			
69	186	20.37	6790	1.85			
82	159	17.28	6580	2.1			
90	144	15.60	6440	2.4			
103	127	13.73	6260	2.7			

输出转速 Output speed n_a [r/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} [N]	使用系数 Service factor f_B	机型号 Model		电机极数 Pole P
1.5kW							
43	270	32.48	6630	0.90			
49	245	29.00	6520	1.00			
57	210	24.77	6340	1.15			
61	196	23.20	6270	1.25			
72	167	19.54	6060	1.30	HWS	57	4
80	159	17.62	5430	1.05	HWSF	57	4
86	159	16.47	5380	1.15	HWSA	57	4
99	129	14.24	5250	1.30	HWSAF	57	4
117	110	12.10	5100	1.55			
131	99	10.80	4980	1.70			
153	85	9.23	4820	2.0			
99	129	14.24	2610	0.85	HWS	47	4
117	110	12.10	2620	1.00	HWSF	47	4
131	99	10.80	2620	1.10	HWSA	47	4
					HWSAF	47	4
153	85	9.23	2590	1.30	HWS	47	4
163	79	8.64	2580	1.35	HWSF	47	4
194	67	7.28	2530	1.55	HWSA	47	4
					HWSAF	47	4
299	44	9.02	1330	0.85	HWS	37	4
338	39	8.00	1350	0.90	HWSF	37	4
397	33	6.80	1340	0.90	HWSA	37	4
					HWSAF	37	4
2.2kW							
3.4	4900	420	18800	0.85	HWS	97 R57	4
3.8	4410	376	28300	0.95	HWSF	97 R57	4
4.3	3870	327	33500	1.10	HWSA	97 R57	4
4.9	3420	287	34300	1.25	HWSAF	97 R57	4
5.6	3000	252	35000	1.40			
3.3	4530	286.40	30200	0.95	HWS	97	6
3.6	4180	262.22	32800	1.00	HWSF	97	6
4.1	3730	231.67	33700	1.15	HWSA	97	6
4.8	3210	196.52	34600	1.30	HWSAF	97	6
4.9	3130	286.40	34800	1.30			
5.4	2890	262.22	35100	1.40			
6.1	2570	231.67	35500	1.55			
7.2	2210	196.52	36000	1.80	HWS	97	4
7.8	2050	180.95	36100	1.90	HWSF	97	4
8.7	1840	161.74	36300	2.1	HWSA	97	4
9.7	1670	145.60	36500	2.2	HWSAF	97	4
11	1520	131.85	36600	2.4			
12	1360	116.92	36700	2.6			
13	1240	105.71	36800	2.8			
16	1060	89.60	36900	3.1			
5.5	2730	258.18	26800	0.85			
6.3	2380	222.40	27700	0.95			
6.9	2190	202.96	28100	1.05			
7.8	1970	180.00	28500	1.10			
9.3	1680	151.30	28900	1.30			
10	1550	139.05	29100	1.35	HWS	87	4
11	1390	123.48	29300	1.50	HWSF	87	4
13	1250	110.40	29500	1.60	HWSA	87	4
14	1130	99.26	29600	1.75	HWSAF	87	4
16	990	86.15	29700	1.90			
17	1060	81.76	29600	1.50			
18	890	77.14	29800	2.0			
20	920	70.43	29700	1.75			
22	840	64.27	29800	1.90			
25	750	57.00	29900	2.1			

输出转速 Output speed n_a [r/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} [N]	使用系数 Service factor f_B	机型号 Model		电机极数 Pole P
2.2kW							
11	1390	130.00	6140	0.85			
11	1320	123.20	11100	0.90			
13	1170	107.83	12600	1.00			
15	1060	97.14	13400	1.10			
17	940	85.22	14100	1.15			
19	840	75.20	13800	1.30			
21	745	66.67	13500	1.40			
22	810	63.03	12400	1.35	HWS	77	4
25	645	56.92	13100	1.55	HWSF	77	4
26	695	53.87	12100	1.60	HWSA	77	4
29	635	49.38	11900	1.75	HWSAF	77	4
33	560	43.33	11700	1.95			
34	535	41.07	11600	2.1			
39	470	35.94	11300	2.3			
44	425	32.38	11000	2.6			
50	375	28.41	10700	2.8			
56	330	25.07	10400	3.1			
62	310	22.89	9490	2.3			
67	285	20.99	9340	2.5			
30	570	46.40	7480	0.85			
34	515	41.89	7440	0.95			
38	460	36.85	7360	1.05			
41	435	34.80	7320	1.10			
48	370	29.63	7180	1.30			
52	340	26.93	7080	1.40	HWS	67	4
60	295	23.33	6920	1.60	HWSF	67	4
69	275	20.37	6060	1.25	HWSA	67	4
82	235	17.28	5960	1.45	HWSAF	67	4
90	210	15.60	5880	1.60			
103	186	13.73	5770	1.85			
109	176	12.96	5710	1.95			
128	151	11.03	5550	2.3			
141	137	10.03	5450	2.5			
162	119	8.69	5300	2.8			
99	190	14.24	4640	0.90			
117	162	12.10	4580	1.05	HWS	57	4
131	145	10.80	4520	1.15	HWSF	57	4
153	124	9.23	4420	1.35	HWSA	57	4
163	117	8.64	4380	1.40	HWSAF	57	4
194	99	7.28	4250	1.50			
3.0kW							
4.9	4710	287	23700	0.90	HWS	97R57	4
5.6	4140	252	32400	1.00	HWSF	97R57	4
6.4	3620	219	33900	1.15	HWSA	97R57	4
6.8	3400	205	34300	1.25	HWSAF	97R57	4
4.9	4290	286.40	32600	0.95			
5.3	3960	262.22	33300	1.00			
6.0	3530	231.67	34100	1.15			
7.1	3040	196.52	34900	1.30			
7.7	2810	180.95	35200	1.40	HWS	97	4
8.7	2530	161.74	35600	1.50	HWSF	97	4
9.6	2300	145.60	35900	1.65	HWSA	97	4
11	2090	131.85	36100	1.75	HWSAF	97	4
12	1870	116.92	36300	1.90			
13	1700	105.71	36400	2.0			
16	1450	89.60	36600	2.2			
17	1470	80.85	36600	2.2			

输出转速 Output speed n_a [r/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} [N]	使用系数 Service factor f_B	机型号 Model		电机极数 Pole P
3.0kW							
7.8	2700	180.00	27100	0.80			
9.2	2300	151.30	27900	0.95			
10	2130	139.05	28200	1.00			
11	1900	123.48	28600	1.10			
13	1720	110.40	28900	1.15			
14	1550	99.26	29100	1.25			
16	1360	86.15	29300	1.40			
17	1460	81.76	29200	1.10	HWS	87	4
18	1230	77.14	29500	1.50	HWSF	87	4
20	1260	70.43	29400	1.25	HWSA	87	4
22	1160	64.27	29500	1.40	HWSAF	87	4
25	1030	57.00	29700	1.55			
29	870	47.91	29800	1.85			
32	800	44.03	29800	2.0			
36	715	39.10	29900	2.2			
40	640	34.96	29900	2.5			
16	1290	85.22	11500	0.85	HWS	77	4
19	1150	75.20	12500	0.95	HWSF	77	4
21	1020	66.67	12400	1.00	HWSA	77	4
22	1110	63.03	10900	1.00	HWSAF	77	4
25	880	56.92	12100	1.10			
26	950	53.87	10800	1.15			
28	880	49.38	10800	1.25			
32	770	43.33	10700	1.40			
34	735	41.07	10600	1.50			
39	645	35.94	10400	1.70			
43	585	32.38	10300	1.85	HWS	77	4
49	515	28.41	10100	2.0	HWSF	77	4
56	455	25.07	9840	2.2	HWSA	77	4
61	430	22.89	8680	1.65	HWSAF	77	4
67	395	20.99	8590	1.80			
76	345	18.42	8450	2.0			
80	330	17.45	8390	2.2			
92	290	15.28	8210	2.5			
102	260	13.76	8060	2.7			
116	230	12.07	7870	3.1			
131	205	10.65	7670	3.5			
40	595	34.80	6350	0.80	HWS	67	4
47	510	29.63	6350	0.95	HWSF	67	4
52	465	26.93	6330	1.05	HWSA	67	4
					HWSAF	67	4
60	405	23.33	6270	1.20			
69	375	20.37	5230	0.90			
81	320	17.28	5250	1.05	HWS	67	4
90	290	15.60	5240	1.15	HWSF	67	4
102	255	13.73	5210	1.35	HWSA	67	4
108	240	12.96	5190	1.40	HWSAF	67	4
127	205	11.03	5100	1.65			
140	188	10.03	5050	1.80			
161	164	8.69	4940	2.0			
185	143	7.56	4830	2.1			
130	199	10.80	3990	0.85	HWS	57	4
152	171	9.23	3970	1.00	HWSF	57	4
162	160	8.64	3960	1.05	HWSA	57	4
192	136	7.28	3900	1.10	HWSAF	57	4
4.0kW							
6.5	4780	219	22700	0.90	HWS	97R57	4
6.9	4490	205	27300	0.95	HWSF	97R57	4
					HWSA	97R57	4
					HWSAF	97R57	4

输出转速 Output speed n_a [r/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} [N]	使用系数 Service factor f_B	机型号 Model		电机极数 Pole P
4.0kW							
6.1	4650	231.67	28300	0.85			
7.2	3990	196.52	33200	1.00			
7.8	3700	180.95	33800	1.05			
8.8	3330	161.74	3440	1.15			
9.8	3020	145.60	34900	1.25	HWS	97	4
11	2750	131.85	35300	1.35	HWSF	97	4
12	2460	116.92	35700	1.45	HWSA	97	4
13	2230	105.71	35900	1.55	HWSAF	97	4
16	1910	89.60	36300	1.70			
18	1940	80.85	36200	1.65			
20	1720	71.43	36400	1.90			
23	1470	60.59	36600	2.2			
25	1350	55.79	36700	2.4			
12	2510	123.48	27500	0.80			
13	2260	110.40	28000	0.90			
14	2040	99.26	28400	0.95			
16	1790	86.15	28800	1.05			
18	1610	77.14	29000	1.15			
20	1660	70.43	28900	0.95	HWS	87	4
22	1520	64.27	29100	1.05	HWSF	87	4
25	1350	57.00	29300	1.20	HWSA	87	4
30	1150	47.91	29500	1.40	HWSAF	87	4
32	1060	44.03	29600	1.50			
36	940	39.10	29700	1.70			
41	840	34.96	29800	1.90			
45	760	31.43	29100	2.1			
52	665	27.28	28200	2.4			
56	635	25.50	26600	1.95			
25	1160	56.92	10800	0.85	HWS	77	4
26	1250	53.87	9250	0.90	HWSF	77	4
29	1150	49.38	9320	0.95	HWSA	77	4
33	1020	43.33	9370	1.10	HWSAF	77	4
35	960	41.07	9370	1.15			
40	850	35.94	9340	1.30			
44	765	32.38	9290	1.40			
50	675	28.41	9190	1.55			
57	600	25.07	9070	1.70	HWS	77	4
62	565	22.89	7650	1.25	HWSF	77	4
68	520	20.99	7650	1.35	HWSA	77	4
77	455	18.42	7620	1.55	HWSAF	77	4
81	435	17.45	7590	1.65			
93	380	15.28	7510	1.85			
103	345	13.76	7430	2.1			
118	300	12.07	7310	2.4			
133	265	10.65	7170	2.7			
150	235	9.44	7030	3.1			
176	205	8.06	6830	3.3			
82	420	17.28	3810	0.80			
91	380	15.60	4180	0.90	HWS	67	4
103	335	13.73	4500	1.00	HWSF	67	4
110	320	12.96	4520	1.05	HWSA	67	4
129	270	11.03	4530	1.25	HWSAF	67	4
142	245	10.03	4520	1.35			
163	215	8.69	4490	1.55			
188	188	7.56	4430	1.55			
5.5kW							
8.8	4550	161.74	29900	0.85			
9.8	4130	145.60	32900	0.90			
11	3760	131.85	33700	0.95			
12	3360	116.92	34400	1.05			
14	3050	105.71	34900	1.15	HWS	97	4
16	2610	89.60	35500	1.25	HWSF	97	4
18	2290	78.26	35900	1.35	HWSA	97	4
20	2350	71.43	35800	1.40	HWSAF	97	4
22	1930	65.45	36200	1.50			
24	2000	60.59	36200	1.65			
26	1850	55.79	36300	1.80			
29	1660	49.87	36500	2.0			
32	1500	44.89	36600	2.2			
35	1360	40.65	36700	2.4			

输出转速 Output speed n_a [r/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} [N]	使用系数 Service factor f_B	机型号 Model		电机极数 Pole P
5.5kW							
19	2200	77.14	28100	0.85	HWS	87	4
22	1850	64.00	28700	0.90	HWSF	87	4
25	1850	57.00	28700	0.85	HWSA	87	4
30	1560	47.91	29100	1.00	HWSAF	87	4
32	1440	44.03	29200	1.10			
37	1280	39.10	29200	1.25			
41	1150	34.96	28600	1.40			
45	1040	31.43	28000	1.55			
52	910	27.28	27200	1.75	HWS	87	4
56	870	25.50	25200	1.45	HWSF	87	4
67	730	21.43	24500	1.70	HWSA	87	4
73	675	19.70	24100	1.85	HWSAF	87	4
82	600	17.49	23500	2.1			
91	535	15.64	23000	2.3			
102	485	14.06	22500	2.6			
117	420	12.21	21800	3.0			
131	375	10.93	21200	3.3			
35	1320	41.07	7560	0.85	HWS	77	4
40	1160	35.94	7750	0.95	HWSF	77	4
44	1050	32.38	7850	1.05	HWSA	77	4
					HWSAF	77	4
50	920	28.41	7920	1.15			
57	820	25.07	7940	1.25			
64	725	22.22	7920	1.35			
78	625	18.42	5920	1.15			
82	590	17.45	6170	1.20	HWS	77	4
94	520	15.28	6490	1.35	HWSF	77	4
104	470	13.76	6510	1.50	HWSA	77	4
118	410	12.07	6500	1.75	HWSAF	77	4
134	365	10.65	6450	2.0			
151	325	9.44	6390	2.2			
177	275	8.06	6280	2.5			
130	370	11.03	2930	0.90	HWS	67	4
143	340	10.03	3260	1.00	HWSF	67	4
165	295	8.69	3670	1.15	HWSA	67	4
189	255	7.56	3850	1.15	HWSAF	67	4
7.5kW							
14	4160	105.71	32900	0.85			
16	3560	89.60	34100	0.90			
18	3130	78.26	34800	1.00			
20	3200	71.43	34600	1.05			
22	2630	65.45	35500	1.10	HWS	97	4
24	2730	60.59	35300	1.20	HWSF	97	4
26	2520	55.79	35600	1.30	HWSA	97	4
29	2260	49.87	35900	1.45	HWSAF	97	4
32	2040	44.89	36100	1.60			
35	1850	40.65	36300	1.80			
40	1650	36.05	36200	2.0			
44	1490	32.60	35500	2.2			
54	1240	26.39	32000	2.1			
61	1110	23.59	31400	2.3			
67	1000	21.23	30700	2.6			
74	910	19.23	30100	2.9			
32	1970	44.03	27800	0.80	HWS	87	4
37	1750	39.10	27400	0.90	HWSF	87	4
41	1570	34.96	27000	1.00	HWSA	87	4
					HWSAF	87	4
45	1420	31.43	26500	1.15			
52	1230	27.28	25900	1.30			
56	1180	25.50	23500	1.05			
67	1000	21.43	23000	1.25			
73	920	19.70	22700	1.35	HWS	87	4
82	820	17.49	22300	1.50	HWSF	87	4
91	730	15.64	21900	1.70	HWSA	87	4
102	660	14.06	21500	1.90	HWSAF	87	4
117	575	12.21	20900	2.2			
131	515	10.93	20500	2.4			
158	430	9.07	19700	2.7			
181	375	7.88	19100	2.7			

输出转速 Output speed n_a [r/min]	输出转距 Output torque M_a [N·m]	传动比 Ratio i	径向负荷 Permitted overhung load F_{Ra} [N]	使用系数 Service factor f_B	机型号 Model		电机极数 Pole P
7.5KW							
50	1260	28.41	6240	0.85	HWS	77	4
57	1110	25.07	6450	0.90	HWSF	77	4
64	990	22.22	6600	1.00	HWSA	77	4
78	850	18.42	1860	0.85	HWSAF	77	4
82	810	17.45	2290	0.90			
94	705	15.28	3250	1.00	HWS	77	4
104	640	13.76	3890	1.10	HWSF	77	4
118	560	12.07	4570	1.30	HWSA	77	4
134	495	10.65	5110	1.45	HWSAF	77	4
151	440	9.44	5540	1.65			
177	380	8.06	5580	1.80			
9.2KW							
18	3810	78.26	33600	0.80	HWS	97	4
22	3210	65.45	34600	0.90	HWSF	97	4
26	3070	55.79	34800	1.05	HWSA	97	4
29	2750	49.87	35300	1.20	HWSAF	97	4
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	HWS	97	4
61	1350	23.59	30200	1.9	HWSF	97	4
68	1220	21.23	29700	2.1	HWSA	97	4
75	1110	19.23	29200	2.3	HWSAF	97	4
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	HWS	87	4
46	1730	31.43	25300	0.95	HWSF	87	4
53	1500	27.28	24800	1.05	HWSA	87	4
59	1350	24.43	24400	1.20	HWSAF	87	4
71	1120	20.27	23700	1.40			
73	1120	19.70	21600	1.10			
82	1000	17.49	21300	1.25	HWS	87	4
92	890	15.64	21000	1.40	HWSF	87	4
102	800	14.06	20700	1.55	HWSA	87	4
118	700	12.21	20200	1.75	HWSAF	87	4
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	HWS	77	4
119	685	12.07	2290	1.05	HWSF	77	4
135	605	10.65	3060	1.20	HWSA	77	4
152	535	9.44	3690	1.35	HWSAF	77	4
179	460	8.06	4360	1.50			
11.0KW							
26	3670	55.79	33800	0.90			
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	HWS	97	4
55	1810	26.39	29400	1.45	HWSF	97	4
61	1620	23.59	29000	1.60	HWSA	97	4
68	1460	21.23	28600	1.80	HWSAF	97	4
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	HWS	87	4
59	1610	24.43	23400	1.00	HWSF	87	4
71	1340	20.27	22800	1.20	HWSA	87	4
					HWSAF	87	4

输出转速 Output speed n_a [r/min]	输出转距 Output torque M_a [N·m]	传动比 Ratio i	径向负荷 Permitted overhung load F_{Ra} [N]	使用系数 Service factor f_B	机型号 Model		电机极数 Pole P
11.0KW							
73	1340	19.70	20400	0.95			
82	1190	17.49	20200	1.05	HWS	87	4
92	1070	15.64	20000	1.15	HWSF	87	4
102	960	14.06	19800	1.30	HWSA	87	4
118	840	12.21	19400	1.50	HWSAF	87	4
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	HWS	97	4
36	3630	40.65	31300	0.90	HWSF	97	4
41	3230	36.05	31000	1.00	HWSA	97	4
45	2920	32.60	30800	1.10	HWSAF	97	4
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	HWS	97	4
86	1580	17.05	25700	1.60	HWSF	97	4
95	1430	15.42	25400	1.70	HWSA	97	4
112	1220	13.07	24800	1.90	HWSAF	97	4
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	HWS	87	4
104	1290	14.06	17900	0.95	HWSF	87	4
120	1120	12.21	17800	1.10	HWSA	87	4
134	1010	10.93	17600	1.25	HWSAF	87	4
161	840	9.07	17300	1.35	HWS	87	4
185	730	7.88	17000	1.40	HWSF	87	4
18.5KW					HWSA	87	4
41	3970	36.05	28700	0.85	HWSAF	87	4
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	HWS	97	4
76	2190	19.23	24100	1.20	HWSF	97	4
86	1950	17.05	24000	1.30	HWSA	97	4
95	1760	15.42	23900	1.40	HWSAF	97	4
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	HWS	97	4
61	3180	24.13	26500	0.90	HWSF	97	4
69	2870	21.23	19800	0.90	HWSA	97	4
76	2600	19.23	21800	1.00	HWSAF	97	4
86	2310	17.05	22300	1.10			
95	2090	15.42	22400	1.20			
112	1780	13.07	22300	1.30	HWS	97	4
128	1560	11.41	22100	1.40	HWSF	97	4
153	1300	9.55	21700	1.55	HWSA	97	4
177	1130	8.26	21300	1.55	HWSAF	97	4

HWS37/47/57R17 n_a=1400 r/min

HWS37R17			90Nm
i	n_a [r/min]	M_{amax} [Nm]	F_{Re} [N]
10037	0.14	92	3000
8654	0.16	92	3000
8066	0.17	92	3000
7051	0.20	92	3000
6079	0.23	92	3000
5431	0.26	92	3000
4747	0.29	92	3000
4155	0.34	92	3000
3632	0.39	92	3000
2866	0.49	92	3000
2471	0.57	92	3000
2160	0.65	92	3000
1887	0.74	92	3000
1665	0.84	92	3000
1456	0.96	92	3000
1271	1.1	92	3000
1121	1.2	92	3000
994	1.4	92	3000
869	1.6	92	3000
774	1.8	92	3000
666	2.1	92	3000
596	2.3	92	3000
521	2.7	92	3000
456	3.1	92	3000
398	3.5	92	3000
351	4.0	92	3000
303	4.6	92	3000
265	5.3	92	3000
232	6.0	92	3000
202	6.9	92	3000
179	7.8	92	3000
158	8.9	92	3000
144	9.7	92	3000
118	12	92	3000
110	13	92	3000

HWS47R17			185Nm
i	n_a [r/min]	M_{amax} [Nm]	F_{Re} [N]
12909	0.11	185	5250
11189	0.13	185	5250
10374	0.13	185	5250
8992	0.16	185	5250
7860	0.18	185	5250
6887	0.20	185	5250
6055	0.23	185	5250
5292	0.26	185	5250
4637	0.30	185	5250
4092	0.34	185	5250
3582	0.39	185	5200
3131	0.45	185	5200
2714	0.52	185	5200
2412	0.58	185	5200
2131	0.66	185	5200
1863	0.75	185	5200
1663	0.84	185	5200
1435	0.98	185	5200
1254	1.1	185	5200
1120	1.2	185	5200
1083	1.3	185	5200
965	1.5	185	5200
956	1.5	185	5210
865	1.6	185	5200
750	1.9	185	5200
655	2.1	185	5200
574	2.4	185	5200
506	2.8	185	5200
438	3.2	185	5200
388	3.6	185	5200
336	4.2	185	5200
294	4.8	185	5200
257	5.4	185	5260
229	6.1	185	5200
200	7.0	185	5200
187	7.5	185	5200
165	8.5	185	5200
147	9.5	185	5200
131	11	185	5200

HWS57R17			300Nm
i	n_a [r/min]	M_{amax} [Nm]	F_{Ra} [N]
12909	0.11	330	6800
11189	0.13	330	6800
10374	0.13	330	6800
8992	0.16	330	6800
7860	0.18	330	6800
6887	0.20	330	6800
6055	0.23	330	6800
5292	0.26	330	6800
4637	0.30	330	6800
4092	0.34	330	6800
3628	0.39	330	6800
3131	0.45	300	7090
2714	0.52	300	7090
2412	0.58	300	7090
2131	0.66	300	7090
1863	0.75	300	7090
1663	0.84	300	7090
1435	0.98	300	7090
1254	1.1	300	7090
1083	1.3	300	7090
965	1.5	300	7090
865	1.6	300	7090
750	1.9	300	7090
655	2.1	300	7090
574	2.4	300	7090
506	2.8	300	7090
438	3.2	300	7090
388	3.6	300	7090
336	4.5	300	7090
294	4.8	300	7090
269	5.2	300	7090
229	6.1	300	7090
204	6.9	300	7090
187	7.5	300	7090
165	8.5	300	7090
131	11	300	7090

HWS67/77R37，HWS87R57 n_a=1400 r/min

HWS67R37				570Nm
i	n_a [r/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	

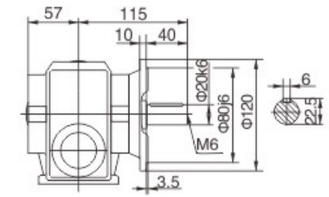
HWS77R37				1270Nm
i	n_a [r/min]	M_{amax} [Nm]	F_{Ra} [N]	
25493	0.05	1270	11700	
21787	0.06	1270	11700	
19907	0.07	1270	11700	
17013	0.08	1270	11700	
14668	0.10	1270	11700	
13110	0.11	1270	11700	
11569	0.12	1270	11700	
9887	0.14	1270	11700	
8817	0.16	1270	11700	
7735	0.18	1270	11700	
6735	0.21	1270	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	

HWS87R57				2500Nm
i	n_a [r/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	

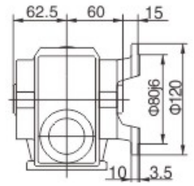
HWS97R57 n_a=1400 r/min

HWS97R57				4200Nm
i	n_a [r/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	
536	2.6	4200	30600	
464	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	

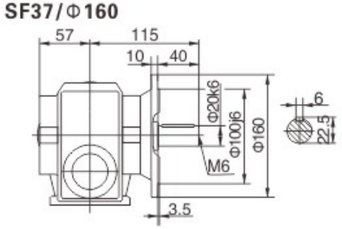
SF37/Φ120



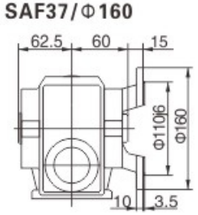
SAF37/Φ120

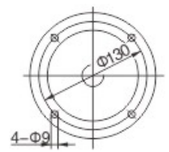


SF37/Φ160

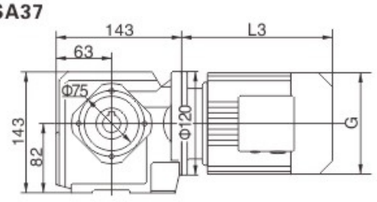


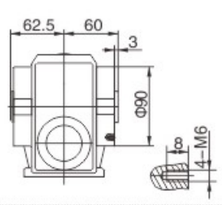
SAF37/Φ160



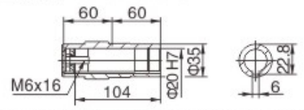


SA37

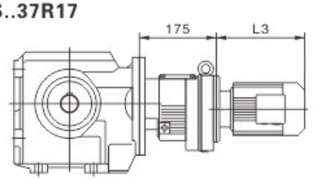




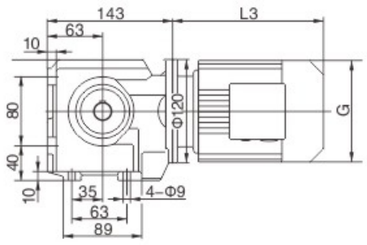
SAF37/SA37/SAZ37 空心轴/Hollow shaft

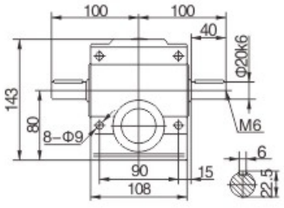


S..37R17

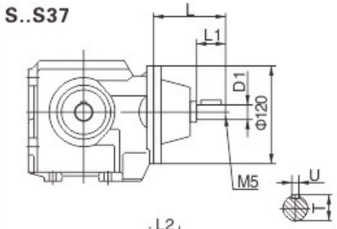


S37

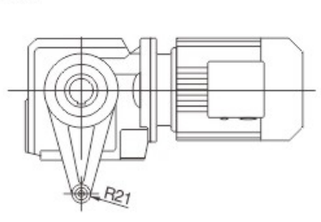


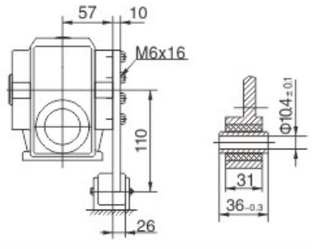


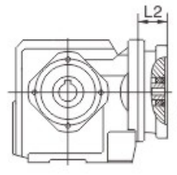
S..S37



SAT37





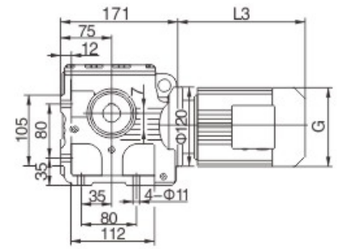


电机需方配或配特殊电机时需加联接法兰
When equipping the user's motor or the special one,the flange is required to connected.

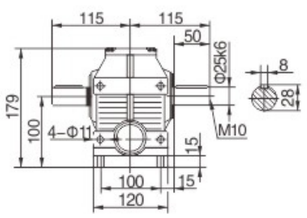
注：详细尺寸见第36–37页
Note: For details, see pages 36–37

Y2电机机座号 Motor size	63	71	80	
功率/4P Power/(KW)	0.18	0.25 | 0.37	0.55 | 0.75	
L3	235	245	278	
G	130	145	175	
L2	45	92	80	

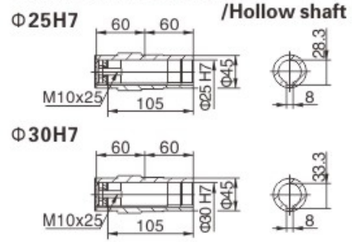
注：1.SA、SF、SAF、SAZ壳体为通用件，安装尺寸均可相互参照. 2."S.."表示S、SA、SF、SAF、SAZ.
Note：1.The housings of SA、SF、SAF、SAZ are common parts. The mounting dimensions may consult each other. 2."S.."mean S、SA、SF、SAF、SAZ.

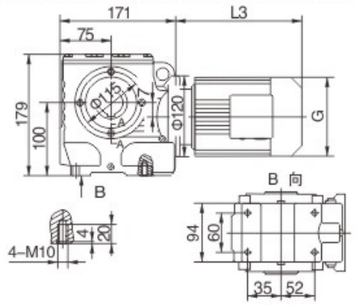


S47

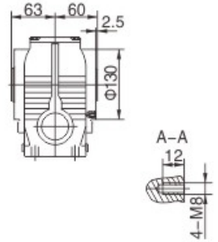


SA47/SAZ47/SAF47空心轴 /Hollow shaft

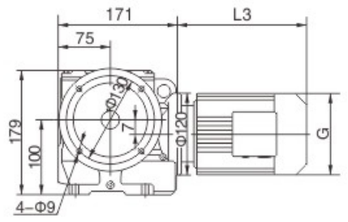




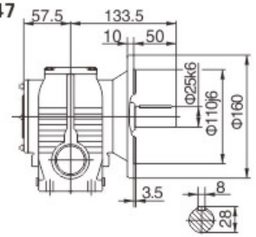
SA47



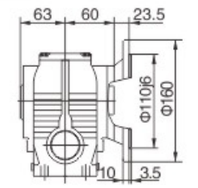
SAZ47



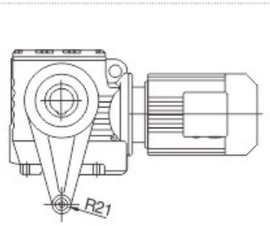
SF47

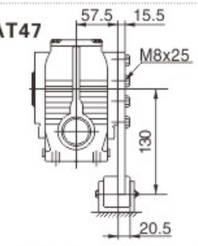


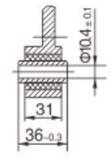
SAF47



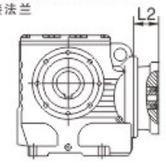
SAT47





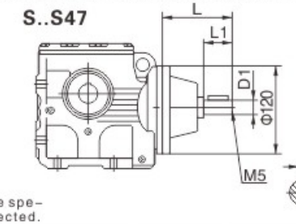


电机需方配或配特殊电机时需加联接法兰

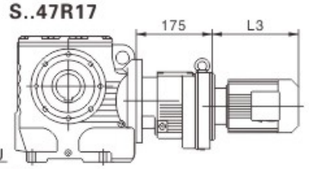


When equipping the user's motor or the special one,the flange is required to connected.

S..S47



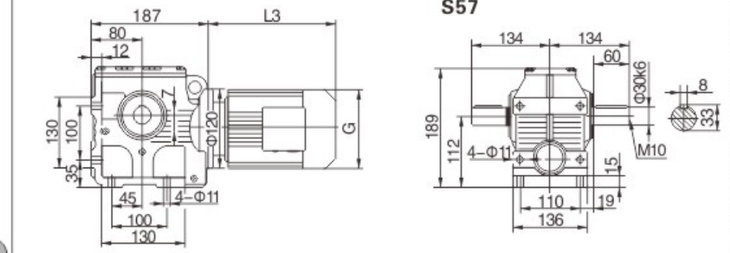
S..47R17



注：详细尺寸见第36–37页
Note: For details, see pages 36–37

Y2电机机座号 Motor size	63	71	80	90S	90L	
功率/4P Power/(KW)	0.18	0.25 | 0.37	0.55 | 0.75	1.1	1.5	
L3	235	245	278	304	328	
G	130	145	175	195	195	
L2	45	92	80	80	80	

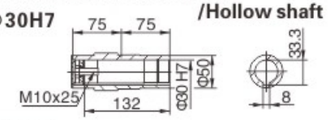
注：1.SA、SF、SAF、SAZ壳体为通用件，安装尺寸均可相互参照. 2."S.."表示S、SA、SF、SAF、SAZ.
Note：1.The housings of SA、SF、SAF、SAZ are common parts. The mounting dimensions may consult each other. 2."S.."mean S、SA、SF、SAF、SAZ.



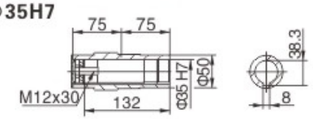
S57

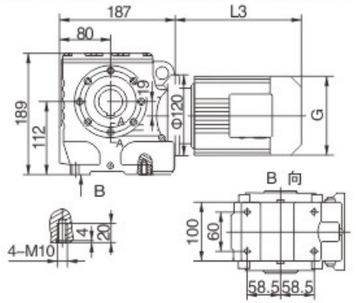
SA57/SAZ57/SAF57空心轴 /Hollow shaft

Φ30H7

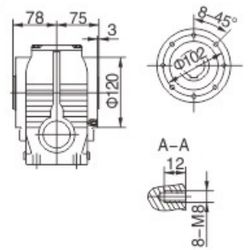


Φ35H7

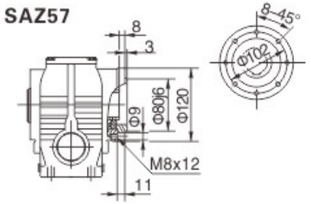


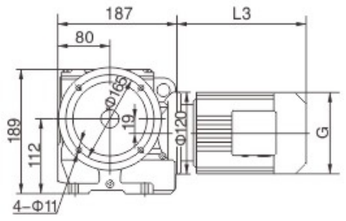


SA57

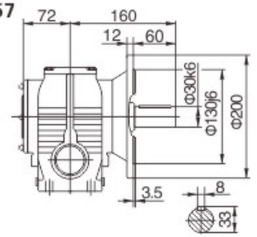


SAZ57

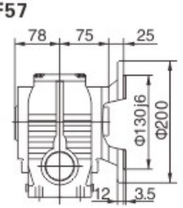




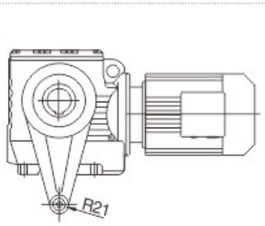
SF57

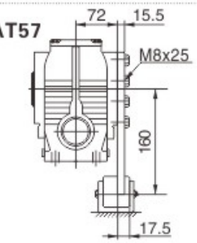


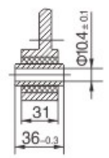
SAF57



SAT57

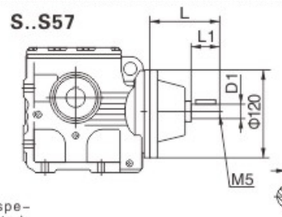




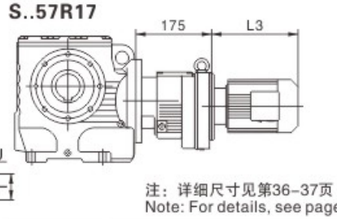


电机需方配或配特殊电机时需加联接法兰

S..S57



S..57R17

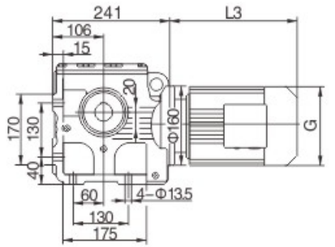


When equipping the user's motor or the special one,the flange is required to connected.

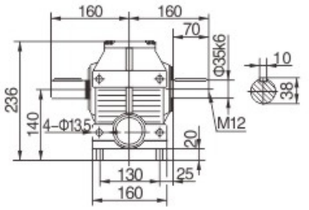
注：详细尺寸见第36–37页
Note: For details, see pages 36–37

Y₂电机机座号 Motor size	63	71		80		90S	90L	100		
功率/4P Power/(KW)	0.18	0.25	0.37	0.55	0.75	1.1	1.5	2.2	3.0	
L3	235	245		278		304	328	340		
G	130	145		175		195	195	215		
L2	45	92		80		80	80	80		

注：1.SA、SF、SAF、SAZ壳体为通用件，安装尺寸均可相互参照. 2."S.."表示S、SA、SF、SAF、SAZ.
Note：1.The housings of SA、SF、SAF、SAZ are common parts. The mounting dimensions may consult each other. 2."S.."mean S、SA、SF、SAF、SAZ.

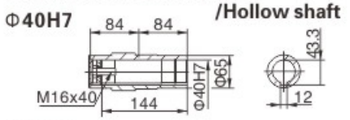


S67

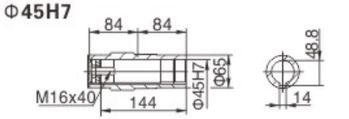


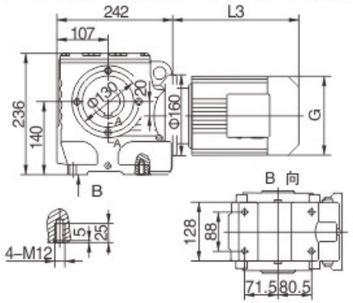
SA67/SAZ67/SAF67空心轴 /Hollow shaft

Φ40H7

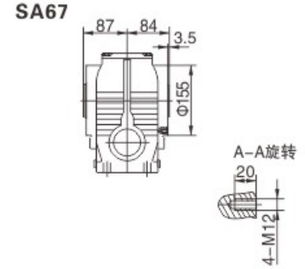


Φ45H7

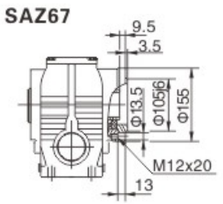


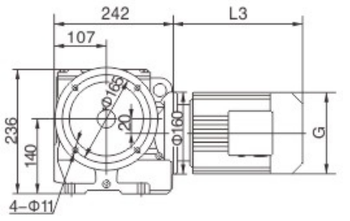


SA67

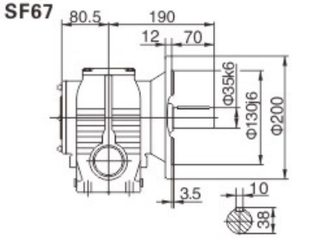


SAZ67

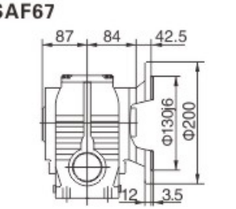




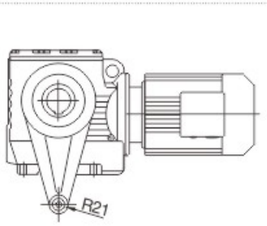
SF67

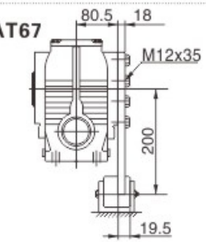


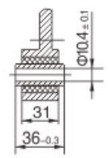
SAF67



SAT67

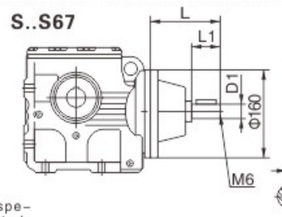




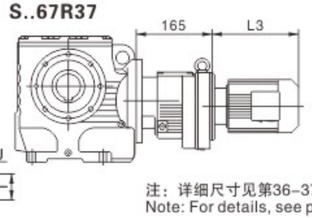


电机需方配或配特殊电机时需加联接法兰

S..S67



S..67R37

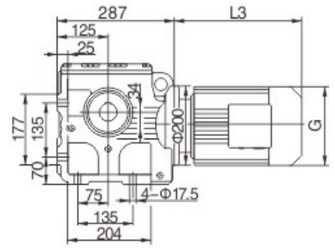


When equipping the user's motor or the special one,the flange is required to connected.

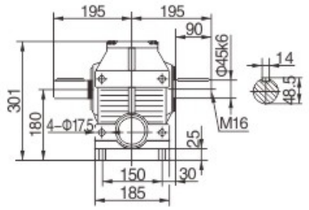
注：详细尺寸见第36–37页
Note: For details, see pages 36–37

Y₂电机机座号 Motor size	71		80		90S	90L	100		112M	132S	
功率/4P Power/(KW)	0.25	0.37	0.55	0.75	1.1	1.5	2.2	3.0	4.0	5.5	
L3	245		278		304	328	350		380	425	
G	145		175		195	195	215		240	275	
L2	55		80		80	80	100		100	110	

注：1.SA、SF、SAF、SAZ壳体为通用件，安装尺寸均可相互参照. 2."S.."表示S、SA、SF、SAF、SAZ.
Note：1.The housings of SA、SF、SAF、SAZ are common parts. The mounting dimensions may consult each other. 2."S.."mean S、SA、SF、SAF、SAZ.

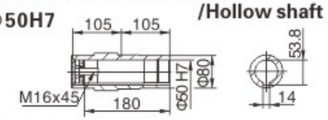


S77

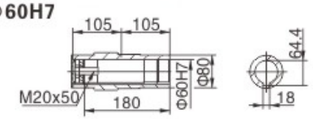


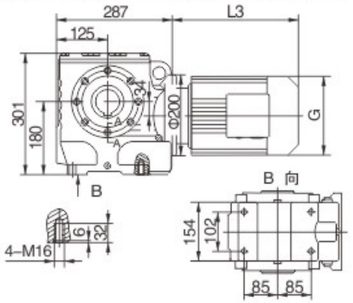
SA77/SAZ77/SAF77空心轴 /Hollow shaft

Φ50H7

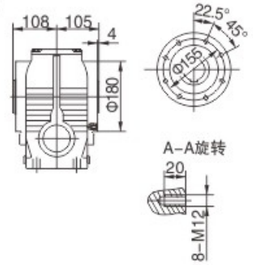


Φ60H7

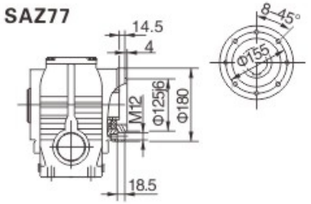


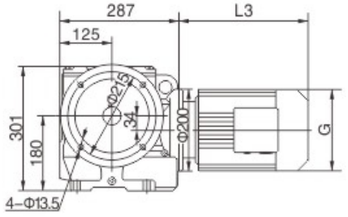


SA77

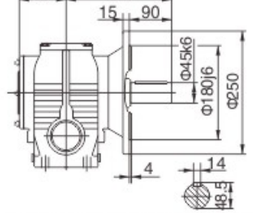


SAZ77

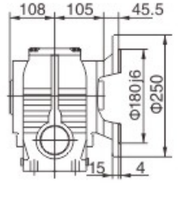




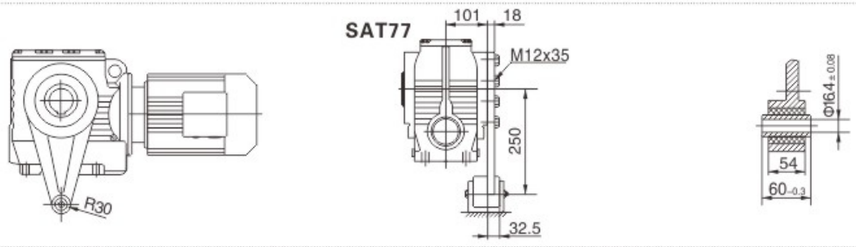
SF77



SAF77

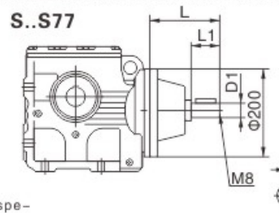


SAT77



电机需方配或配特殊电机时需加联接法兰

S..S77



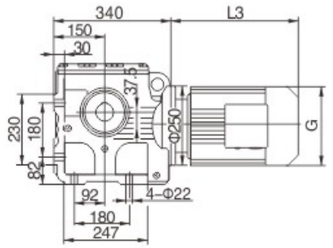
S..77R37

When equipping the user's motor or the special one,the flange is required to connected.

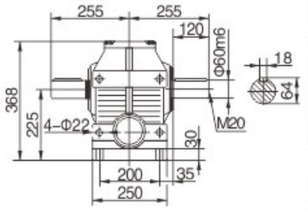
注：详细尺寸见第36–37页
Note: For details, see pages 36–37

Y₂电机机座号 Motor size	80	90S	90L	100	112M	132S	132M	
功率/4P Power/(KW)	0.55 | 0.75	1.1	1.5	2.2 | 3.0	4.0	5.5	7.5	
L3	278	304	328	350	380	425	461	
G	175	195	195	215	240	275	275	
L2	80	80	80	100	100	110	110	

注：1.SA、SF、SAF、SAZ壳体为通用件，安装尺寸均可相互参照. 2."S.."表示S、SA、SF、SAF、SAZ.
Note：1.The housings of SA、SF、SAF、SAZ are common parts. The mounting dimensions may consult each other. 2."S.."mean S、SA、SF、SAF、SAZ.

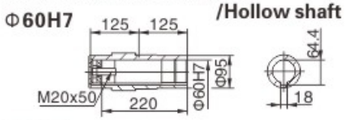


S87

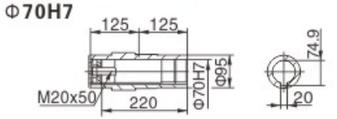


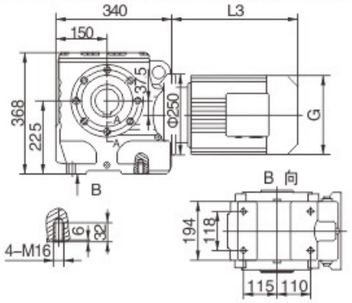
SA87/SAZ87/SAF87空心轴 /Hollow shaft

Φ60H7

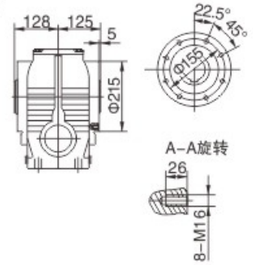


Φ70H7

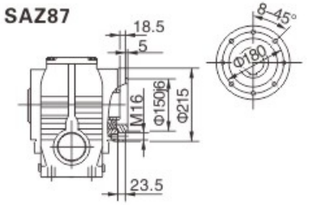


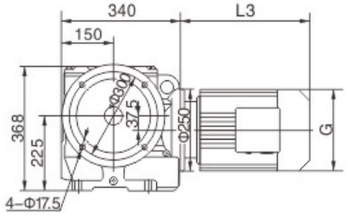


SA87

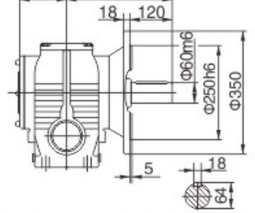


SAZ87

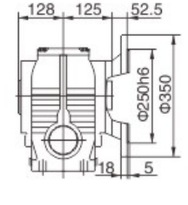




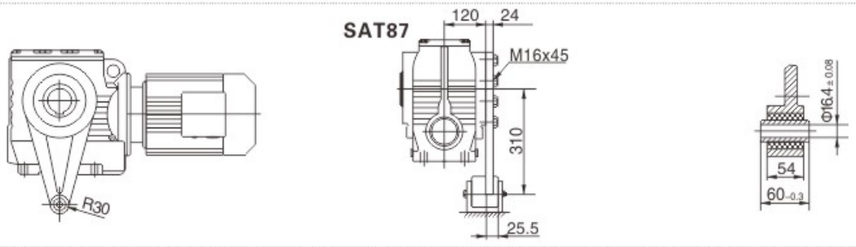
SF87



SAF87

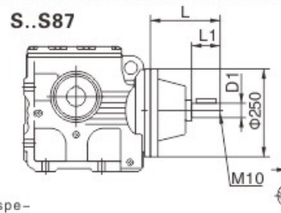


SAT87



电机需方配或配特殊电机时需加联接法兰

S..S87



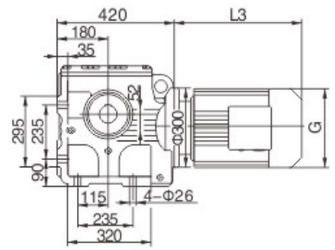
S..87R57

When equipping the user's motor or the special one,the flange is required to connected.

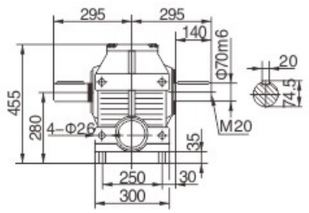
注：详细尺寸见第36–37页
Note: For details, see pages 36–37

Y₂电机机座号 Motor size	80	90S	90L	100	112M	132S	132M	160M	160L	
功率/4P Power/(KW)	0.55 | 0.75	1.1	1.5	2.2 | 3.0	4.0	5.5	7.5	11	15	
L3	246	280	304	350	380	425	461	524	547	
G	175	195	195	215	240	275	275	330	330	
L2	80	80	80	100	100	110	110	133	133	

注：1.SA、SF、SAF、SAZ壳体为通用件，安装尺寸均可相互参照. 2."S.."表示S、SA、SF、SAF、SAZ.
Note：1.The housings of SA、SF、SAF、SAZ are common parts. The mounting dimensions may consult each other. 2."S.."mean S、SA、SF、SAF、SAZ.

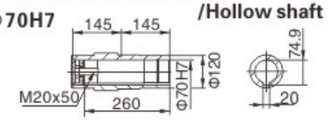


S97

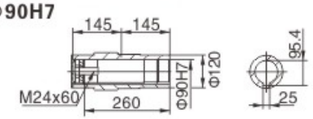


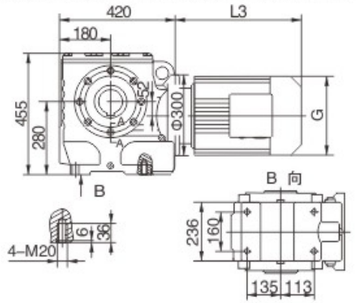
SA97/SAZ97/SAF97空心轴 /Hollow shaft

Φ70H7

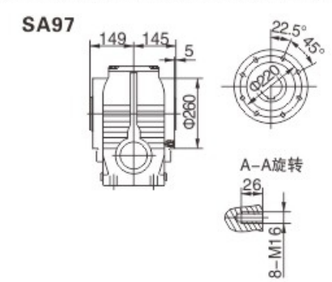


Φ90H7

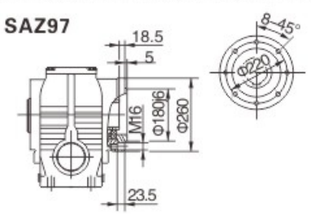


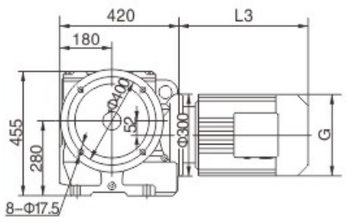


SA97

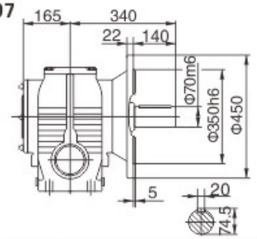


SAZ97

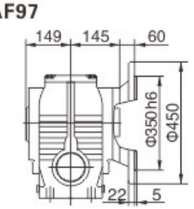




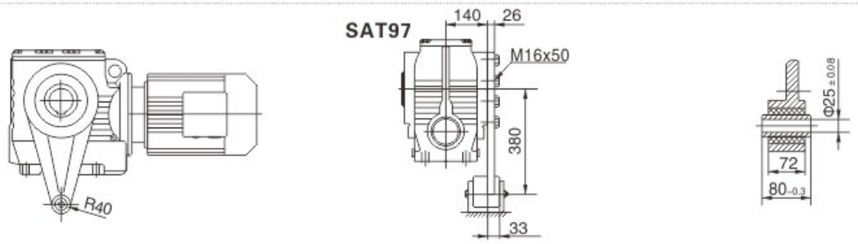
SF97



SAF97

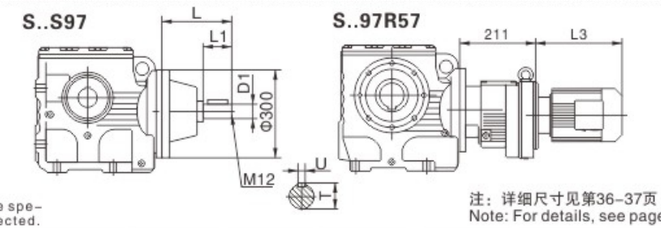


SAT97



电机需方配或配特殊电机时需加联接法兰

S..S97



S..97R57

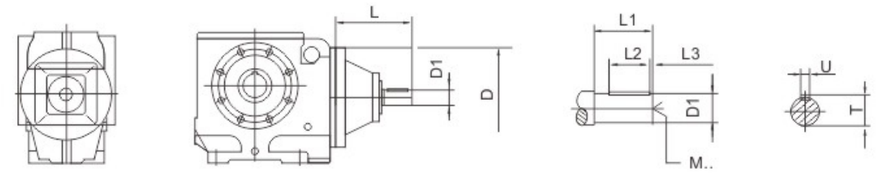
When equipping the user's motor or the special one,the flange is required to connected.

注：详细尺寸见第36-37页
Note: For details, see pages 36-37

Y2电机机座号 Motor size	90L	100		112M	132S	132M	160M	160L	180M	180L	
功率/4P Power/(KW)	1.5	2.2	3.0	4.0	5.5	7.5	11	15	18.5	22	
L3	304	315		334	425	461	524	547	555	588	
G	195	215		240	275	275	330	330	380	380	
L2	107	100		100	110	110	133	133	133	133	

注：1.SA、SF、SAF、SAZ壳体为通用件，安装尺寸均可相互参照. 2."S.."表示S、SA、SF、SAF、SAZ.
Note：1.The housings of SA、SF、SAF、SAZ are common parts. The mounting dimensions may consult each other. 2."S.."mean S、SA、SF、SAF、SAZ.

HWS..~AD..



		D	L	D1	L1	L3	L2	T	U	M
HWS..37, HWS..47,S..57	AD1	120	102	16	40	4	32	18	5	M5
	AD2		130	19	40	4	32	21.5	6	M6
HWS..67	AD2	160	123	19	40	4	32	21.5	6	M6
	AD3		159	24	50	5	40	27	8	M8
HWS..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
HWS..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
HWS..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

HWS..AM..

Fig.1

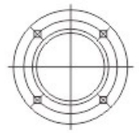
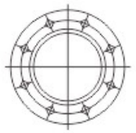
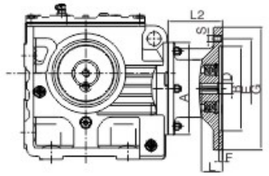


Fig.2





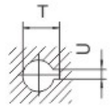


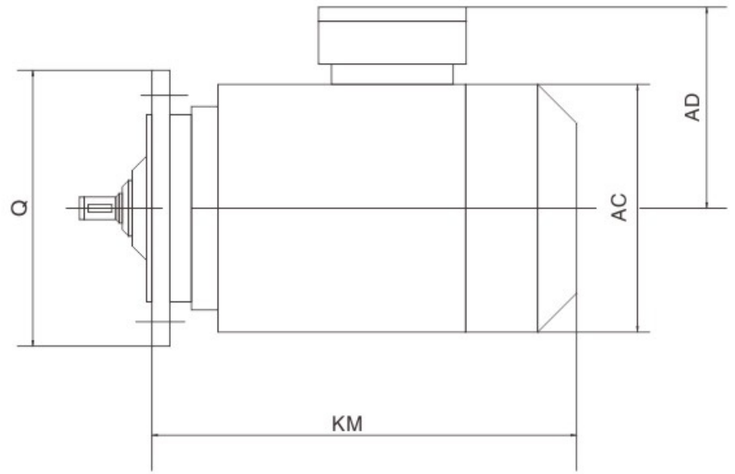
		Fig1	B	E	F	A	G	S	L2	D	L	T	U
HWS..37, HWS..47, HWS..57.	Am63	1	95	115	3.5	120	140	M8	45	11	23	12.8	4
	AM71[1)]		110	130			160		92	14	30	16.3	5
	Am80[1)]		130	165	4.5		200	M10	80	19	40	21.8	6
	Am90[1)]									24	50	27.3	8
HWS..67	Am63	1	95	115	3.5	160	140	M8	45	11	23	12.8	4
	Am71		110	130			160		55	14	30	16.3	5
	Am80		130	165	4.5		200	M10	80	19	40	21.8	6
	Am90									24	50	27.3	8
	Am100[1)]		180	215	5		250	M12	100	28	60	31.3	8
	Am112[1)]												
HWS..77	Am63	1	95	115	3.5	200	140	M8	45	11	23	12.8	4
	Am71		110	130			160		55	14	30	16.3	5
	Am80		130	165	4.5		200	M10	80	19	40	21.8	6
	Am90									24	50	27.3	8
	Am100[1)]		180	215	5		250	M12	100	28	60	31.3	8
	Am112[1)]												
	AM132S[1)]		230	265			300		110	38	80	41.3	10
	AM132M[1)]												
	AM132ML[1)]												
HWS..87	Am80	1	130	165	4.5	250	200	M10	80	19	40	21.8	6
	Am90									24	50	27.3	8
	Am100		180	215	5		250	M12	100	28	60	31.3	8
	Am112												
	Am132MS		230	265			300		110	38	80	41.3	10
	AM132M												
	AM132ML												
	Am160[1)]		250	300	6		350	M16	133	42	110	45.3	12
	Am180[1)]									48		51.8	14
HWS..97	Am100	1	180	215	5	300	250	M12	100	28	60	31.3	8
	Am112												
	AM132S		230	265			300		110	38	80	41.3	10
	AM132M												
	AM132ML												
	Am160		250	300	6		350	M16	133	42	110	45.3	12
	Am180									48		51.8	14
	Am200[1)]		300	350	7		400		135	55		59.3	16
	Am225[1)]	2	350	400			450		143	60	140	64.4	18

1）如果安装在BS系列脚安装方式的减速机伞，请检查尺寸G/2，它可能已突出安装平面

Dimension G/2 May protrude past toot mounting surface if mounted on BS foot-mounted gear unit, please check.

附件一：电机尺寸表/The size of motor

(仅作参考，以厂家实际尺寸为准)
(for reference only, based on manufacturer's actual size)



电机型号	Q mm	标准KM mm	YEJ KM mm	YVP KM mm	YVPJ KM mm	AD mm	AC mm
Y63	120	221	275	290	330	70	130
	160	210	264	279	319		
	200	200	254	269	309		
Y71	120	249	300	299	373	80	140
	160	244	295	294	373		
	200	238	289	288	363		
Y80	120	271	330	327	418	145	175
	160	265	324	321	418		
	200	259	318	315	418		
	250	254	313	310	385		
Y90S (L)	120	300	355	350	440	155	195
		325	380	375	465		
	160	295	350	345	440		
		320	375	370	465		

电机型号	Q mm	标准KM mm	YEJ KM mm	YVP KM mm	YVPJ KM mm	AD mm	AC mm
Y132ML	400	385	468	423	506	168	275
	450	377	460	415	498		
	550	369	452	407	490		
Y160M	200	520	633	562	697	255	315
	250	520	633	562	697		
	300	520	633	562	697		
	350	502	613	542	677		
	400	502	613	542	677		
	450	475	585	515	650		
	550	476	568	505	603		
Y160L	250	565	678	607	742	255	315
	300	565	678	607	742		

电机型号	Q mm	普通 KM mm	YEJ KM mm	YVP KM mm	YVPJ KM mm	AD mm	AC mm
Y90S (L)	200	287	342	337	440	155	195
		312	367	362	465		
	250	283	338	333	415		
		308	363	358	440		
	300	291	342	346	402		
Y100	120	355	415	400	495	180	215
	160	347	407	392	490		
	200	339	399	389	490		
	250	335	395	380	490		
	300	329	389	375	452		
	350	323	383	370	455		
Y112	160	380	440	420	520	190	240
	200	371	431	411	520		
	250	366	426	406	520		
	300	361	421	401	470		
	350	355	415	395	470		
Y132S	160	420	490	460	580	210	275
	200	408	478	448	580		
	250	403	473	443	580		
	300	398	468	438	580		
	350	392	462	432	545		
	400	385	455	425	543		
	450	369	439	409	543		
Y132M	160	458	528	498	618	210	275
	200	446	516	486	618		
	250	441	511	481	618		
	300	436	506	476	618		
	350	430	500	470	583		
	400	423	493	463	581		
	450	407	477	447	581		
Y132ML	200	408	491	446	529	168	275
	250	403	486	441	524		
	300	398	481	436	519		
	350	392	475	430	513		

电机型号	Q mm	普通 KM mm	YEJ KM mm	YVP KM mm	YVPJ KM mm	AD mm	AC mm
Y160L	350	547	658	587	722	255	315
	400	547	658	587	722		
	450	520	630	560	695		
	550	518	635	560	695		
Y180M (L)	250	600	685	622	782	280	380
		638	723	660	800		
	300	581	666	603	762		
		619	703	641	781		
	350	581	666	603	762		
		619	703	641	781		
	400	581	666	603	762		
		619	703	641	781		
	450	553	638	575	725		
		591	676	613	753		
	550	581	666	603	763		
		619	703	641	781		
Y200	300	665	795	730	859	305	420
	350	665	795	730	859		
	400	654	782	717	852		
	450	654	782	717	852		
	550	642	770	705	840		
Y225S	300	716	858	770	900	335	470
	350	680	847	756	886		
	400	680	847	756	886		
	450	674	840	750	880		
	550	669	830	745	875		
Y225M	300	741	883	795	925	335	470
	350	702	872	781	911		
	400	702	872	781	911		
	450	696	865	775	905		
	550	691	860	770	900		
Y250M	400	785	932	839	992	370	510
	450	790	936	831	984		
	550	785	931	823	976		
Y280	400	898	1054	943	1099	408	580
	450	890	1046	835	1091		
	550	882	1038	927	1083		
Y315	660	1130	1286	1175	1331	530	635

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

Notes:
YEJ is the KM value for motor with brake.
YVP is the KM value for asynchronous motor with frequency.
YVPJ is the KM value for asynchronous motor with frequency and brake.
if you have any special requirements, please contact us.

附件二：润滑油/LUBRICATION

2.1 概述

如果订货时没有商定特殊要求，公司将为您提供适用于减速器及其安装方式的润滑油进行润滑的传动机构。因为这个原因，所以请您在订货时指定与安装方式相关的参数（M1~M6，→“安装方式及重要的订货提供参数”章节）。在后期调整安装方式时，您必须根据改变后的安装方式相应调整加注润滑油（→润滑油注入量）。

2.1 General information

Unless a special arrangement is made, JIACHENG supplies the drives with a lubricant fill adapted for the specific gear unit and mounting position. The decisive factor is the mounting position (M1..M6,→ Sec."Mounting Positions and important Order Information")specified when ordering the drive. You must adapt the lubricant fill in case of any subsequent changes made to the mounting position(→ Lubricant fill quantities).

2.2 滚动轴承润滑脂

减速器和电动机的滚动轴承在出厂时就加注了润滑脂。对于配有润滑油加注装置的滚动轴承，建议在更换机油时也更换润滑脂。下列润滑脂更换时参考：

2.2 Anti-friction bearing greases

The lubricant table on the following page shows the permitted lubricants for JIACHENG gear units. Please note the following key to the lubricant table:

	环境温度	制造厂家	型号	润滑油类型
减速器滚动轴承	-20℃~+60℃	Mobil	Mobilux EP 2	矿物油
	-40℃~+80℃	Mobil	Mobiltemp SHC 100	合成油
电机滚动轴承	-20℃~+80℃	Esso	Unirex EQ 3	矿物油
	-20℃~+60℃	Shell	Alvania RI3	矿物油
	+80℃~+100℃	Kl ü ber	Barrierta L55/2	合成油
	-45℃~+25℃	Shell	Aero Shell Grease 16	合成油

需要下列润滑脂加注量

- 如果是高速运转的轴承(电动机和减速器输入端)：轴承腔中加入三分之一的润滑脂。
- 如果是低速运转的轴承(电动机和减速器输出端)：轴承腔中加入三分之二的润滑脂。

The following grease quantities are required:

For fast-running bearings (motor and gear unit input end): Fill the cavities between the folling elements one third full with grease.

For fast-running bearings (in gear units and at gear unit output end): Fill the cavities between the folling elements one third full with grease.

2.3 润滑油型号表/Tyepes of lubrication

	℃ −50 0 +50 +100	ISO	SHELL	Mobil MOBIL	BP	润滑油类型
HWR.. HWF.. HWK..	标准 Standard −10 +40	VG 220	Shell Omala 220	Mobilgear 630	BP Energol GR−XP 220	矿物油
	−20 +25	VG 150 VG 100	Shell Omala 100	Mobilgear 627	BP Energol GR−XP 100	
	−30 +10	VG 68−46 VG 32	Shell Tellus T 32	Mobil D.T.E. 13M		
	−40 −20	VG 22 VG 15	Shell Tellus T 15	Mobil D.T.E. 11M	BP Energol HLP−HM 15	
	−40 +80	VG 220	Shell Omala 220	Mobil SHC 630		合成油
	−40 +40	VG 150		Mobil SHC 629		
	−40 +10	VG 32		Mobil SHC 624		
HWS..	−0 +40	VG 680	Shell Omala 680	Mobilgear 636	BP Energol GR−XP 680	矿物油
	−20 +10	VG 150 VG 100	Shell Omala 100	Mobilgear 627	BP Energol GR−XP 100	
	−20 +60	VG 680[1)]	Shell Tivela S 680		BP Energol GR−XP 680	合成油
	−30 +80	VG 460	Shell Omala 460	Mobil SHC 634		
	−40 +10	VG 150	Shell Omala 150	Mobil SHC 629		
	−25 +40	VG 220[1)]	Shell Tivela 220	Mobil Glygoyle 30		
	−40 0	VG 32		Mobil Glygoyle 24		

2.4 润滑油加注量

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

2.4 Lubricant fill quantity

The specified fill quantities are recommended values. The precise values vary depending on the number of stages and gear ratio. When filling, it is essential to check the oil level plug since it indicates the precise oil capacity. The lubricating oil gauge lists the corresponding standard reference lubricating oil injection values for the reducer of the installation mode M1 ~ M6.

附件三：维护/MAINTENANCE

1). 对于齿轮箱，首次换油必须在工作大约300小时(齿轮磨合期)后进行，在换油时应使用合适的清洗剂小心地冲洗齿轮箱，不得将矿物油和合成油混合。

2). 每工作3000小时，最低程度半年，应检测油以及油位，油封密封不严引起滴漏的常规检测，若是IEC输入的减速器，则检测检查弹性体，必要时进行更换。

3). 根据不同的工作条件(见下图)而定，最长每三年检测一次，更换矿物油，更换轴承润滑油脂。

4). 根据不同的工作条件而定，更换输出轴上的油封。

5). 产品出现故障时，不要拆卸部件，与本公司售后服务部门联系(需提供减速器规格、出厂日期、编号、已使用时间、主机名称、主机生产单位和故障类型)后，再采取合理的措施。

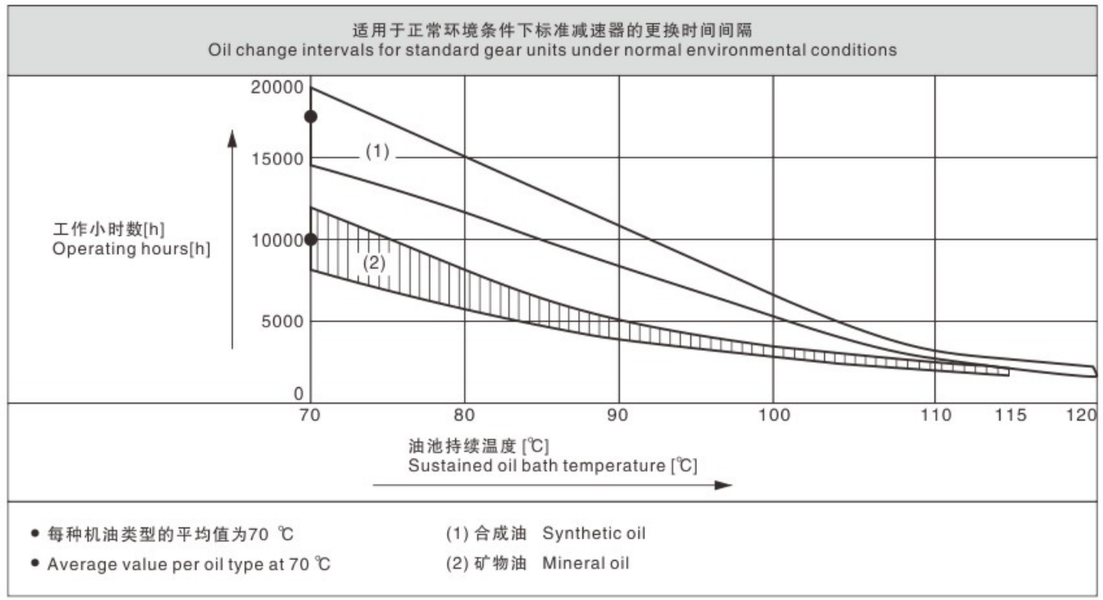
1). For gear units, first oil change should be after about 300 hours(run−in period). The right lotion is require to clean the gear units with care.Never mix the synthetic oil and mineral oil together.

2). Every 3,000 working time, at least every 6 months, you have to check the oil and oil level,the seals visually for leakage. For IEC input gear units, the elastomer should be tested or replaced if necessary.

3). Depending on the working conditions(see chart below), every 3 years at the latest for inspection is needed. Then change the mineral oil and replacing bearing grease.

4). Depending on the working conditions, change the oil seals on output shaft.

5). Once the malfunctions appear, stop disassembling the parts, and firstly please contact the customer service(the information about specification, deliver date, series number, time used, name of machine, machine manufacturer, malfunction problems is required), then take reasonable measures.



附件四：存放/STORAGE

1). 有顶棚，防雨雪，无振动。

2). 在设备和地面之间垫放木块或其他材料。

3). 开箱后暂不使用的齿轮减速器在其加工表面涂上防锈油，并应及时放回包装箱内。

4). 在定期检查的情况下，两年以及更长时间。在进行检查时，应检查清洁度和机械损伤，检查防锈层是否完好。

1). Under roof, protected against rain and snow, no shock loads.

2). Underlay the block and other material between the ground and equipment.

3). The opened but not used gear units should be added with the anti–corrosive oil on its surface, and then return to the packing containers timely.

4). Two years or more given regular inspec–tions. Check fo cleanliness and mechanical damage as part of the inspection, Check corrosion protection.

附件五：定货须知/NOTICE FOR ORDER

减速器定单请向我们提供以下信息：

1). 减速器型号标记(减速器类型、速比、功率和安装方式)。

2). 订货时注意：选用RF和RXF型时要注明输出法兰的外径大小；选SA、SAF、SAZ型时要注明输出轴孔径大小

3). 选K、KF、KAF、KAZ及S、SF、SAF、SAZ型时要注明输出轴及输出法兰的方向（A向或B向）。

4). 订货时还须注明减速机工作时的实际安装方式（M1~M6）,共有6种安装方式。

5). 如配直联电机，则要注明电机接线盒的方向，共有0度、90度、180度、270度四种方向。

6). 减速器表面喷涂颜色，有蓝色和灰色两种供选择，一般按蓝色提供。

7). 订购数量。

8). 其他特殊要求。

9). 单位名称、联系人、联系电话。

Please offer the following information when place the orders:

1). the model mark of the gear units (type, ratio, power and mounting position).

2). Note when ordering: When selecting RF and RXF models, indicate the external diameter of the output flange; When selecting SA, SAF, and SAZ models, indicate the output axis aperture size

3). When selecting K, KF, KAF, KAZ, and S, SF, SAF, and SAZ, indicate the direction of the output axis and the output flange(A or B).

4). When ordering, it must also indicate the actual installation method(M1 ~ M6) when the reducer is working. There are 6 kinds of installation methods.

5). If you are equipped with a straight–line motor, you must indicate the direction of the motor junction box. There are four directions: 0 degrees, 90 degrees, 180 degrees, and 270 degrees.

6). gear units are available with “blue/gray” painting optionally. Unless specified, it offers the blue painting as standard.

7). quantity ordered.

8). other special requirements.

9). company, contact and telephone.

附件六：故障诊断/FAULT DIAGNOSIS

6.1 减速器故障/Gear unit malfunctions

故障	可能的原因	解决办法
异常、均匀的运转噪声。	A. 滚动/碾压噪声：轴承损坏。 B. 冲击型噪声：齿轮啮合不均匀。	A. 检查润滑油，更换轴承。 B. 请咨询客户服务部。
异常、不均匀的运转噪声。	机油中有异物。	・检测润滑。 ・停止运转传动装置，向客户服务部咨询。
机油泄漏[1)] ・在减速器盖上。 ・在电机凸缘上。 ・在电机轴密封圈上。 ・在减速器凸缘上。 ・在输出端轴密封圈上。	A. 减速器底座上的橡胶密封发生渗漏。 B. 密封圈损坏。 C. 减速器没有排气。	A. 拧紧各个外盖上的螺钉并且观察减速器。如果机油继续泄露，请咨询客户服务部。 B. 请咨询客户服务部。 C. 给减速器排气(参见“安装方式”)。
机油从排气阀旁渗出。	A. 机油太多。 B. 传动装置安装方式错误。 C. 频繁冷起动(机油起泡沫)和/或者较高的油位。	A. 修正油量(参见“润滑油”)。 B. 正确安装排气阀并且矫正油位(参见“安装方式”)。
尽管电机在运转或者传动轴已经被驱动，但是传动轴不转动。	减速器中的轴轮毂联接断裂。	将减速器或减速电机送修。

[1)]在磨合试运转阶段(24小时的运转时间内)，轴密封圈有可能出现短期内的漏油/漏脂的现象。

Problem	Possible cause	Remedy
Unusual, regular running noise	A. Meshing/grinding noise: Bearing damage. B. Knocking noise: Irregularity in the gearing	A. Check the oil, change bearings B. Contact customer service
Unusual, regular running noise	Foreign bodies in the oil	・Check the oil ・Stop the drive, contact customer service
Oil leaking[1)] ・From the gear cover plate ・From the motor flange ・From the motor oil seal ・From the gear unit flange ・From the output end oil seal	A. Rubber seal on the gear cover plate leaking B. Seal defective C. Gear unit not vented	A. Tighten the bolts on the gear cover plate and observe the gear unit. Oil still leaking: Contact customer service B. Contact customer service C. Vent the gear unit (see "Mounting Positions")
Oil leaking from breaking valve	A. Too much oil B. Drive operated in incorrect mounting position C. Frequent cold starts(oil foams) and/or high oillevel	A. Correct the oil level (see Sec. "Inspection and Maintenance") B. Mount the breather valve correctly (see Sec. "Mounting Positions")and correct the oil level (see "Lubricants")
Output shaft does not turn although the motor is run–ning of the input shaft is rotated	Connection between shaft and hub in gear unit interrupted	Send in the gear unit/gearmotor for repair

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

6.2 IEC 连接器运转故障/IEC couplings malfunctions

故障	可能的原因	解决办法
异常、均匀的运转噪声。	滚动/碾压噪声：轴承损坏。	与我公司客户服务部联系。
机油泄漏。	密封圈损坏。	与我公司客户服务部联系。
尽管电机在运转或者传动轴已经被驱动，但是传动轴不转动。	减速器中的轴轮毂联接断裂。	将减速器发送到我公司进行维修。
运转时的噪声发生变化以及/或者出现不正常的震动。	A. 齿圈磨损，因为通过金属直接接触进行短期转动扭矩的传输造成。 B. 轴向轮毂连接螺栓松动。	A. 更换齿圈。 B. 拧紧螺栓。
过早的齿圈磨损。	A. 接触腐蚀性流体或油；臭氧的侵蚀影响，工作环境温度过高等等，都导致齿圈发生规格的改变。 B. 对于齿圈，不允许过高的环境温度以及接触区域温度过高；最大的温度允许范围为-20℃到+80℃。 C. 负载过载。	与我公司客户服务部联系。

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

附件七：减速器负载特征表(参考件)/Charge Characteristic Chart (for reference)

风机类 AIR BLOWERS		卷扬机齿轮传动装置 Hoist gear assembly	A
风机(轴向和径向) Air blower(axial or radial)	A	吊杆起落齿轮传动装置 Derrick gear assembly	B
冷却塔风扇 Fan of cooling tower	B	转向齿轮传动装置 Steering gear assembly	B
引风机 Induced draught fan	B	行走齿轮传动装置 Moving gear assembly	C
螺旋活塞式风机 Rotary piston type fan	B	挖泥机类 LAND DREDGER	
蜗轮式风机 Turbo-fan	A	筒式传送机 Drum-type conveyer	C
建筑机械类 CONSTRUCTION MACHINERY		筒式转动机 Drum-type rotation wheel	C
混凝土搅拌机 Concrete mixer	B	挖泥头 Dredger head	C
卷扬机 Hoist	B	机动绞车 Powered crab	B
路面建筑机械 Road building machinery	B	泵 Pump	B
钻孔机 Boring mill	B	泵转向齿轮传动装置 Pump turning gear assembly	B
化工机械类 CHEMICAL MACHINERY		行走齿轮传动装置(履带) Moving gear assembly (apron wheel)	C
搅拌机(液体) Mixer (liquid)	A	行走齿轮传动装置(铁轨) Moving gear assembly (track)	B
搅拌机(半液体) Mixer (half liquid)	B	食品工业机械类 FOODSTUFF PROCESSING MACHINERY	
离心机(重型) Centrifuge(heavy)	B	灌注及装箱机器 Placer or box filler	A
离心机(轻型) Centrifuge(light)	A	甘蔗压榨机 Cane crusher	A
冷却滚筒** Cooling rolling drum	B	甘蔗切断机 Cane cutter	B
干燥滚筒** Dry rolling drum	B	甘蔗粉碎机 Cane crasher	C
搅拌机 Mixer	B	搅拌机 Mixer	B
压缩机类 COMPRESSOR		酱状物吊筒 Paste bucket	B
活塞式压缩机 Piston type compressor	C	装包机 Packager	A
涡轮式压缩机 Turbo-compressor	B	糖甜菜切断机 Beet slicer	B
传送运输机类 TRANSMISSION FREIGHTER		糖和甜菜清洗机 Beet washing machine	B
平板传送机 Pan conveyer	B	发动机及转换器类 MOTOR AND CONVERSION EQUIPMENTS	
平衡块升降机 Balance lifter	B	频率转换器 Frequency converter	C
槽式传送机 Trough conveyer	B	发动机 Motor	C
带式传送机(大件) Ribbon conveyer (large piece)	C	焊接发动机 Welding motor	C
带式传送机(碎料) Ribbon conveyer (small piece)	B	洗衣机类 WASHING MACHINE	
筒式面粉传送机 Drum-type flour conveyer	A	滚筒 Rolling drum	B
链式传送机 Chain conveyer	B	洗衣机 Washing machine	B
环式传送机 Ring type conveyer	B	金属滚轧机类 METAL ROLLER MACHINE	
货物升降机 Lifter	B	钢坯剪断机** Steel cutter	C
卷扬机 Hoist	B	链式输送机** Chain conveyer	B
连杆式传送机 Crank-connecting conveyer	B	冷轧机** Cold mill	C
载入升降机 Lifter	B	连铸成套设备 Continuous casting equipments	B
螺旋式传送机 Worm conveyer	B	冷床** Cold bed	B
钢带式传送机 Steel-band conveyer	B	剪料机头** Cropper	C
链式槽型传送机 Chain reed-tpe conveyer	B	交叉转变输送机** Cross steering transmitte	B
绞车运输机 Crab freighter	B	除锈机** Deruster	C
起重机类 HOIST		重型和中型板轧机** Heavy and medium steel mill	C
转臂式起重传动传动齿轮装置 Bracket swing gear assembly	B	棒坯切轧机** Bar mill	C

捧坯转动机类 BAR TRANSMISSION EQUIPMENTS		泵类 PUMPS	
捧坯推料机 Bar pusher	B	离心泵(稀液体) Centrifugal pump(thin liquid)	A
推床 Push bed	B	离心泵(半液体) Centrifugal pump(half liquid)	B
剪板机** Shears	C	活塞泵 Displacement pump	C
板材摆升降台** Lumber elevator platform	B	柱塞泵 Plunger pump	C
轧辊调整装置 ROLL ADJUSTING EQUIPMENTS		压力泵 Force pump	C
辊式矫直机 Roller leveling machine	B	塑料机械类 PLASTIC EQUIPMENTS	
轧钢机辊道(重型) Mill rolling way (heavy)	C	压光机** Glazing press	B
轧钢机辊道(轻型) Mill rolling way (light)	B	挤压机** Ejecting press	B
薄板轧机** Sheet rolling mill	C	螺旋压出机** Spiral extruding machine	B
修整剪切机** Trimming shears	B	混合机** Mixing machine	B
焊管机 Pipe welde	C	橡胶机械类 PUBBER EQUIPMENTS	
焊管机(带材和线材) Soldering machine(belt material and wire rod)	B	压光机** Glazing press	B
线材拉拔机 Wire drawbench	B	挤压机** Ejecting press	C
金属加工机床类 METAL PROCESSING MACHINE TOOLS		混合搅拌机** Mixing stir machine	B
动力轴 Power shaft	A	捏合机 Kneading machine	B
锻造机** Forging machine	C	滚压机** Roller machine	C
锻锤 Drop hammer	C	石料、瓷土料加工机械类 STONE PORCELAIN CLAY PROCESSING EQUIPMENTS	
机床及附助装置 Machine tool and necessary	A		
机床及主要传动装置 Machine tool and main driving equipment	B	球磨机 Ball crusher	B
金属刨床 Metal facing machine	C	挤压料碎机 Ejecting press and breaker	C
板材矫直机床 Plate-leveling machine tool	C	破碎机 Breaker	C
冲床 Backing-out punch	C	压砖机 Brick press	C
冲压机床 Press machine tool	C	锤料碎机 Beating crusher	C
剪床 Cutting machine	B	转炉** Converter	C
薄板弯曲机床 Sheet bending machine tool	B	筒型磨机** Cylinder mill	C
石油工业机械类 PETROLEUM PROCESSING MACHINERY		纺织机械类 TEXTILE MACHINERY	
输油管油泵** Pump of oil pipe line	B	送料机 Feeding machine	B
转子钻井设备 Rotary drilling equipment	C	织布机 Loom machine	B
制纸机类 PAPERING MACHINE		印染机 Dyeing machine	B
压光机** Glazing press	C	精制筒 Purified drum	B
多层纸板机** Multilayer paper board machine	C	威罗机 Welon machine	B
干燥滚筒** Drying cylinder	C	水处理设备类 WASTER TREATMENT EQUIPMENTS	
上光滚筒** Glazing cylinder	C	鼓风机** Air blast	B
搅浆机** Masher	C	螺杆泵 Screw pump	B
搅浆擦碎机** Mashing and breaking machine	C	木料加工机床 WOOD PROCESSING MACHINE TOOL	
吸水滚** Suction roll	C	剥皮机 Barker	C
潮纸滚压机** Wet paper roller machine	C	刨床 Facing machine	B
吸水滚压机木** Water absorbing roller machine	C	锯床 Saw bench	C
威罗机 Welon machine	C	木材加工机床 Wood processing machine tool	A

注：A-均匀冲击负责；B-中等冲击负载；C-重冲击负载；**-用于24小时工作制。
Note：A-Uniform load；B-Moderate shock load；C-Heavy shock load；**-for 24 hour system.

附件八：减速电机重量 Gear motor weights
减速机重量 Gear Reducer weights

Gear reducer weights	Kg	Gear reducer weights	Kg	Gear reducer weights	Kg	Gear reducer weights	Kg	Gear reducer weights	Kg
RX57	9	R..27	4	R..87	55	F27	6.5	F57	25
RXF57	11	R..27F	4	R..87F	63	FA27	6	FA57	24
RX67	12	R..37	10	R..97	100	FF27	8	FF57	31
RXF67	16	R..37F	12	R..97F	118	FAF27	7	FAF57	30
RX77	20	R..47	14	R..107	130	F37	13	F67	31
RXF77	24	R..47F	14	R..137	235	FA37	12	FA67	27
RX87	35	R..57	20	R..147	360	FF37	15	FF67	37
RXF87	40	R..57F	24	R..167	605	FAF37	14	FAF67	35
RX97	59	R..67	25			F47	18	F77	55
RXF97	66	R..67F	29			FA47	17	FA77	50
RX107	88	R..77	30			FF47	21	FF77	66
RXF107	103	R..77F	36			FAF47	20	FAF77	58

Gear reducer weights	Kg	Gear reducer weights	Kg	Gear reducer weights	Kg	Gear reducer weights	Kg	Gear reducer weights	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	FA37	11.5	FA67	37	FA97	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			K57	24	K87	90	K127	410
FA107	225			KF57	29	KF87	100	KF127	452
FF107	269			KA57	22	KA87	78	KA127	381
FAF107	245			KAF57	28	KAF87	91	KAF127	419

减速电机重量 Gear motor weights
减速机重量 Gear Reducer weights

Gear reducer weights	Kg
K157	635
KF157	715
KA157	603
KAF157	660
K167	1035
KH167	1000
K187	1615
KH187	1550

Gear reducer weights	Kg
S37	6
SF37	8
SA37	6
SAF37	7.5
S47	10
SF47	14
SA47	11
SAF47	13
S57	14
SF57	18
SA57	14
SAF57	17

Gear reducer weights	Kg
S67	25
SF67	32
SA67	26
SAF67	31
S77	45
SF77	55
SA77	45
SAF77	52
S87	80
SF87	101
SA87	76
SAF87	94

Gear reducer weights	Kg
S97	140
SF97	171
SA97	135
SAF97	160

Motor weights	Kg
DS63S2	6.5
DS63M2	6.8
DS63L2	7.3
DS71M2	9.1
DS80S2	11.5
DS80M2	14.3
DS90M2	18.4
DS90L2	21.5
DS100M2	26
DS112M2	41.5
DS132S2	44
DS132M2	60

Motor weights	Kg
DS160S2	80
DS160M2	106
DS160L2	114
DS180M2	168
DS200L2	236
DS225M2	288
D250M2	382
D280S2	494
DS280M2	550
DS63S4	6.2
DS63M4	6.5
DS63L4	7.5

Motor weights	Kg
DS71S4	7.8
DS71M4	9.1
DS80S4	11.5
DS80M4	14.2
DS90M4	18.4
DS90L4	21.5
DS100M4	26
DS112M4	41.5
DS132S4	44
DS132M4	60
DS160S4	80
DS160M4	92

Motor weights	Kg
DS180S4	122
DS180M4	141
DS180L4	152
DS200L4	260
DS225S4	295
DS225M4	315
DS250M4	400
DS280S4	515
DS280M4	601
DS63M6	6.6
DS63L6	7.2
DS71S6	7.8

Motor weights	Kg
DS71M6	9.1
DS80S6	11.5
DS80M6	14.3
DS90L6	21.3
DS100M6	26
DS100L6	41.5
DS112M6	41.5
DS132S6	44
DS160S6	80
DS160M6	92
DS180M6	126
DS180L6	169

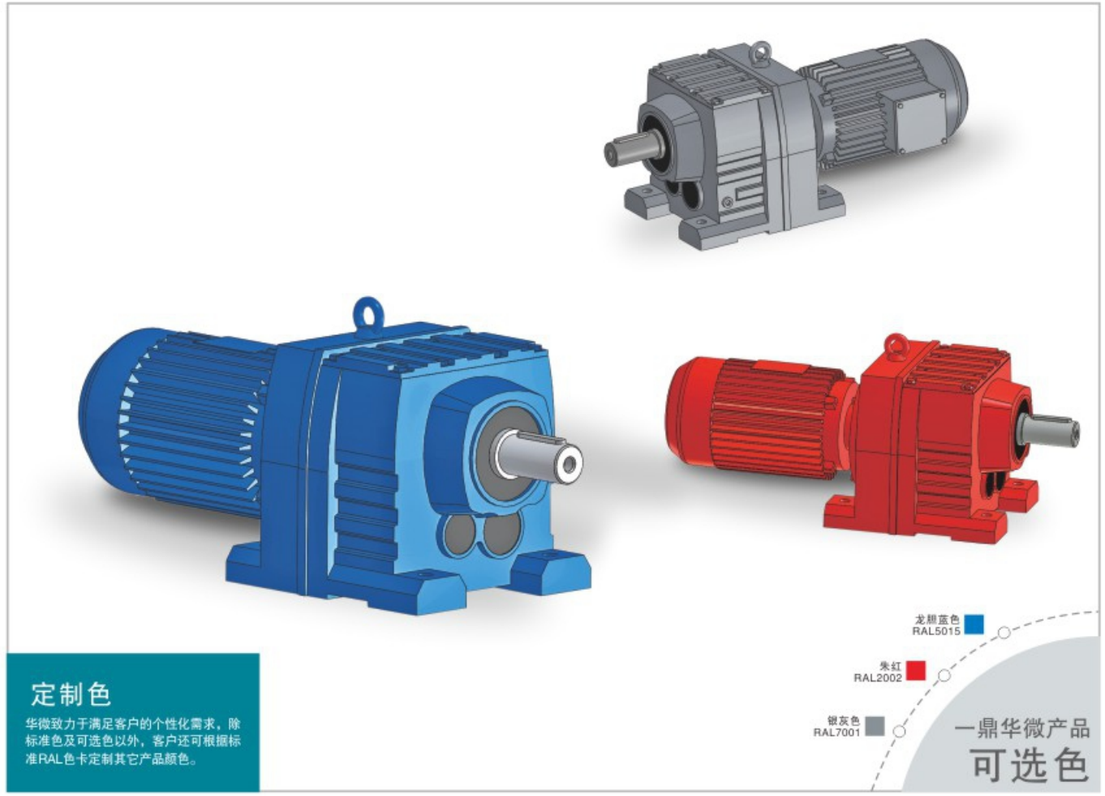
Motor weights	Kg
DS200L6	225
DS225M6	280
DS250M6	378
DS280S6	475
D280M6	541

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.

可选色方案

一鼎华微可提供丰富的产品可选颜色方案，可选色包含：朱红、银灰色、龙胆蓝色、(详见下图)。客户可根据自身不同需求选择相应产品颜色。



油漆涂装

全新涂层选用符合国家环保要求的绿色油漆产品。油漆中不含VOC、TDI、苯/甲苯、二甲苯、重金属等有毒有害物质。且具有超强的附着力、耐候性、耐腐蚀性。能适用普通室外中等腐蚀环境和各类室内工况。并有增强型涂层体系适应重腐蚀环境。