



S系列斜齿轮-蜗轮蜗杆减速机

动力传动专业制造商

PROFESSIONAL MANUFACTURER OF POWER TRANSMISSION

设计理念: 遵循规律, 总是超越

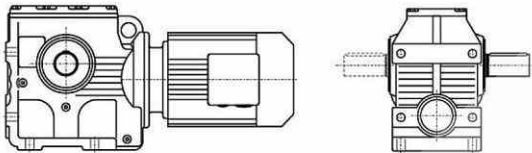
DESIGN PHILOSOPHY: To follow the law, but always beyond.

经营理念: 为客户需求而设计, 为客户满意而执着

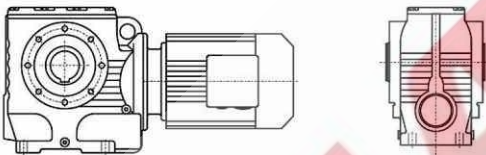
BUSINESS PHILOSOPHY: Design for customer demand, dedication for customer satisfaction



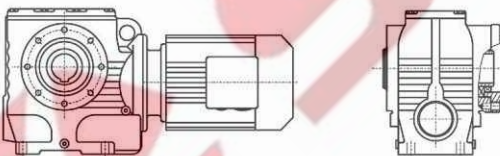
S系列减速机有以下设计方案：
S series gear units are available in the following designs:



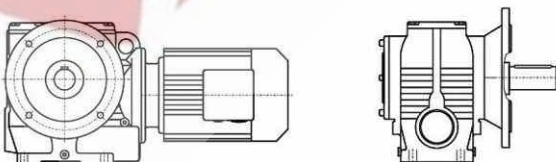
S..Y..
底脚轴伸式安装斜齿-蜗轮蜗杆减速机
Foot-mounted helical-worm gear units with solid shaft



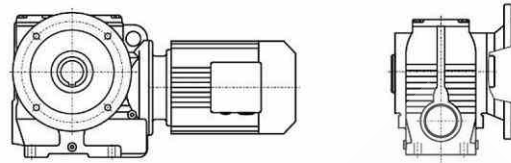
SA...Y...
空心轴安装斜齿-蜗轮蜗杆减速机
Helical-worm gear units with hollow shaft



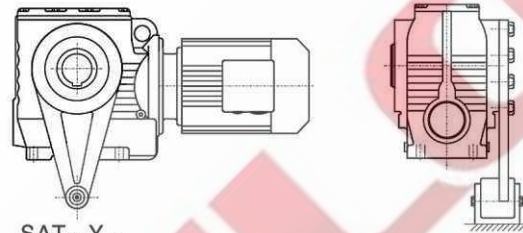
SAZ...Y...
小法兰空心轴安装斜齿-蜗轮蜗杆减速机
Short-flange mounted helical-worm gear units with hollow shaft



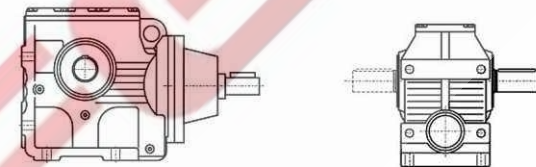
SF...Y..
法兰轴伸式安装斜齿-蜗轮蜗杆减速机
Flange-mounted helical-worm gear units with solid shaft



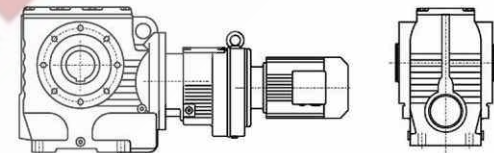
SAF...Y..
法兰空心轴安装斜齿-蜗轮蜗杆减速机
Flange-mounted helical-worm gear units with hollow shaft



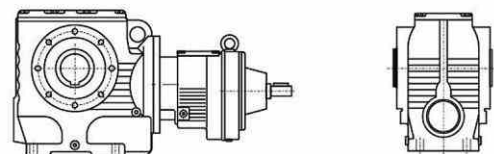
SAT...Y..
带防转臂空心轴安装斜齿-蜗轮蜗杆减速机
Torque-arm-mounted helical-worm gear units with hollow shaft



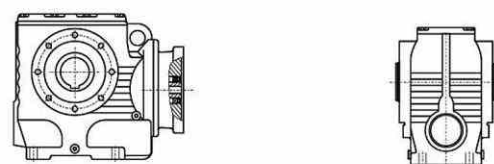
S(SF, SA, SAF, SAZ) S...
轴输入的斜齿-蜗轮蜗杆减速机
Shaft input helical-worm gear units



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) ...Y...
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

S

型号与标记:

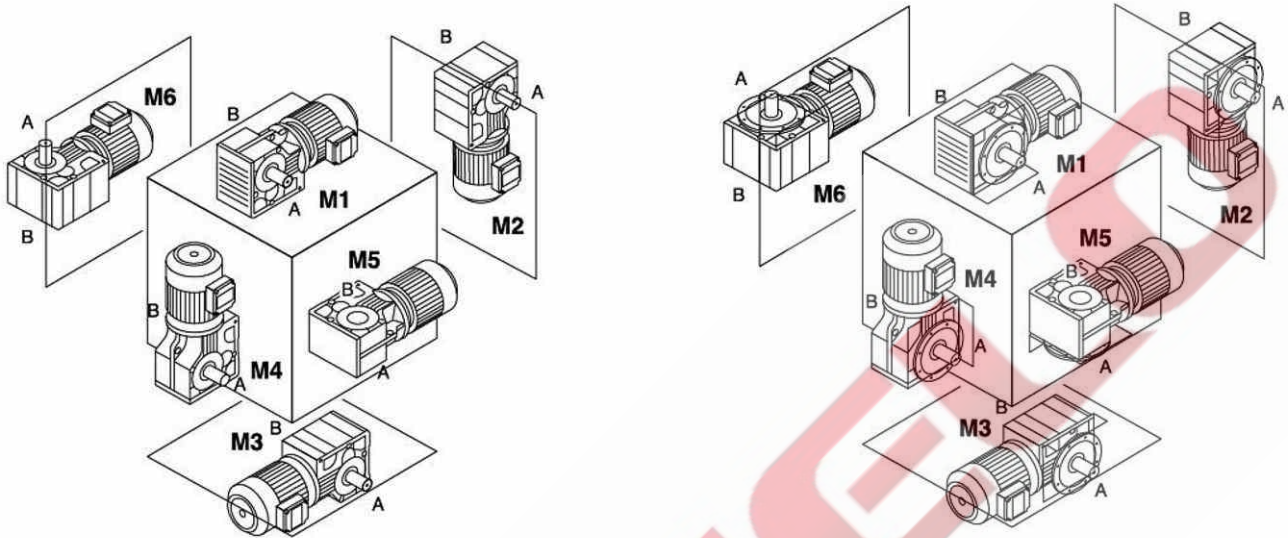
Type Designations:

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 flange 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 *带锁紧盘式 H..(H,HF,HZ,HT)	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 *Hollow shaft output with shrink disk H..(H,HF,HZ,HT)
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71页)	Mounting position: M1、M2、M3、M4、M5、M6(see page 71)
电机接线盒位置: 0°、90°、180°、270° (见第71页)	Position of the motor thermal box: 0°、90°、180°、270° (see page 71)
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

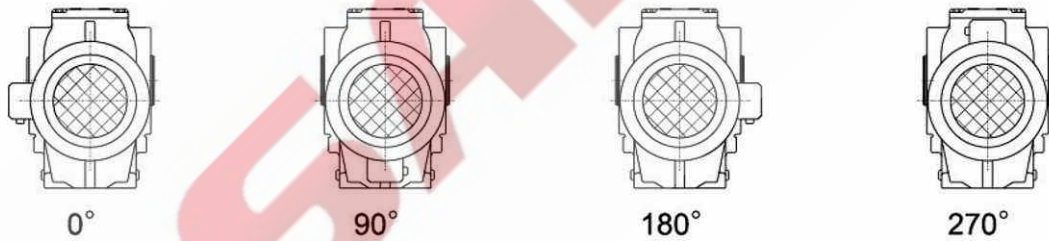
*带锁紧盘式, 详见393-394页。

*Hollow shaft output with shrink disk, see P393-394 for detail.

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	10.78~196.21	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

S

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.

选型参数表 SELECTION TABLE

输出转速 Output speed r/min	输出扭矩 Output torque Nm	传动比 Ratio i	使用系数 Service factor f _s	机型号 Type Type	极数 Pole p	输出转速 Output speed r/min	输出扭矩 Output torque Nm	传动比 Ratio i	使用系数 Service factor f _s	机型号 Type Type	极数 Pole p		
0.18kW						0.18kW							
0.30	2579	4606	0.83			9.5	109	146.84	1.47				
0.36	2563	3872	0.84			10	102	137.25	1.57				
0.40	2515	3475	0.85	S	87R57	4	12	88	118.64	1.82	S	47	4
0.48	2394	2905	0.90	SF	87R57	4	14	75	100.80	2.14	SF	47	4
0.54	2239	2586	0.96	SA	87R57	4	15	67	90.00	2.40	SA	47	4
0.60	2021	2335	1.06	SAF	87R57	4	18	57	76.88	2.80	SAF	47	4
0.68	1778	2054	1.21				19	53	72.00	2.99			
0.76	1579	1824	1.36				23	45	60.65	3.56			
0.85	1412	1631	1.52										
0.99	1215	1404	0.98			9.1	113	152.00	0.80				
1.1	1078	1245	1.11			11	96	129.41	0.89				
1.3	952	1100	1.25	S	77R37	4	12	83	111.58	1.03			
1.5	826	954	1.45	SF	77R37	4	13	77	104.00	1.10			
1.7	725	837	1.65	SA	77R37	4	15	67	90.91	1.26			
1.9	618	714	1.93	SAF	77R37	4	16	63	85.22	1.34			
2.2	551	637	2.2				18	56	75.20	1.52			
2.4	497	574	2.4				21	49	66.67	1.72			
						25	45	56.67	1.89				
						27	42	52.00	2.02	S	37	4	
						31	39	45.45	2.16	SF	37	4	
1.7	600	809	0.81			33	37	42.61	2.30	SA	37	4	
2.0	532	712	0.92	S	67R37	4	37	33	37.60	2.61	SAF	37	4
2.3	528	615	0.93	SF	67R37	4	42	29	33.33	2.95			
2.6	470	543	1.04	SA	67R37	4	49	25	28.33	3.47			
3.0	406	469	1.20	SAF	67R37	4	59	23	23.46	3.66			
3.3	367	424	1.33				74	19	18.85	4.56			
3.8	316	365	1.55				84	16	16.48	5.21			
						90	15	15.45	5.56				
3.2	336	438	0.87			102	13	13.63	6.30				
3.6	325	388	0.84			115	12	12.08	7.11				
4.1	291	336	0.97	S	57R17	4	135	10	10.27	8.37			
4.7	255	294	1.11	SF	57R17	4							
5.2	233	269	1.21	SA	57R17	4							
6.1	198	229	1.42	SAF	57R17	4							
6.8	177	204	1.60										
7.4	162	187	1.74										
						0.25kW							
						0.48	2495	2905	0.86				
						0.54	2470	2586	0.87				
						0.60	2406	2335	0.89	S	87R57	4	
						0.68	2221	2054	0.96	SF	87R57	4	
						0.76	2193	1824	0.98	SA	87R57	4	
						0.85	1961	1631	1.09	SAF	87R57	4	
						1.5	1118	930	1.92				
						1.5	1147	954	1.04				
						1.7	1006	837	1.19	S	77R37	4	
						1.9	858	714	1.39	SF	77R37	4	
						2.2	766	637	1.56	SA	77R37	4	
						2.4	690	574	1.73	SAF	77R37	4	
						2.8	600	499	1.99				
						2.6	564	543	0.87				
						3.0	560	469	0.87	S	67R37	4	
						3.3	510	424	0.96	SF	67R37	4	
						3.8	439	365	1.11	SA	67R37	4	
						4.4	384	319	1.27	SAF	67R37	4	
						4.9	338	281	1.45				
						4.7	353	294	0.80				
						5.2	323	269	0.87				
						6.1	275	229	1.02	S	57R17	4	
						6.8	245	204	1.15	SF	57R17	4	
						7.4	225	187	1.25	SA	57R17	4	
						8.4	198	165	1.42	SAF	57R17	4	
						11	158	131	1.79				
						2.8	505	227.20	0.97				
						3.1	456	205.11	1.07	S	67	8	
						3.6	401	180.46	1.22	SF	67	8	
						3.8	378	170.40	1.29	SA	67	8	
						4.5	320	144.00	1.53	SAF	67	8	
						5.7	182	244.74	0.88				
						6.1	170	228.75	0.94	S	47	4	
						7.0	147	197.73	1.09	SF	47	4	
						8.3	125	168.00	1.28	SA	47	4	
						9.3	111	150.00	1.44	SAF	47	4	

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选型参数表

SELECTION TABLE

输出转速 Output speed r/min	输出扭矩 Output torque Nm	传动比 Ratio i	使用系数 Service factor f _s	机 型 号 Type Type	极 数 Pole p	输出转速 Output speed r/min	输出扭矩 Output torque Nm	传动比 Ratio i	使用系数 Service factor f _s	机 型 号 Type Type	极 数 Pole p
0.25kW						0.37kW					
3.7	383	227.20	1.28			0.68	2611	2054	0.82	S 87R57	4
4.1	346	205.11	1.41	S 67	6	0.76	2488	1824	0.86	SF 87R57	4
4.7	304	180.46	1.61	SF 67	6	0.85	2318	1631	0.92	SA 87R57	4
5.0	287	170.40	1.70	SA 67	6	1.5	1655	930	1.29	SAF87R57	4
5.9	243	144.00	2.01	SAF67	6	1.7	1479	831	1.45		
6.1	234	227.20	2.09			1.9	1271	714	0.94		
6.8	211	205.11	2.31			2.2	1134	637	1.05	S 77R37	4
7.7	186	180.46	2.63	S 67	4	2.4	1021	574	1.17	SF 77R37	4
8.2	176	170.40	2.78	SF 67	4	2.8	888	499	1.34	SA 77R37	4
9.7	148	144.00	3.30	SA 67	4	3.2	779	438	1.53	SAF77R37	4
11	134	130.00	3.65	SAF67	4	3.6	692	389	1.72		
12	118	114.38	4.15								
13	111	108.00	4.39			3.8	557	365	0.88	S 67R37	4
						4.4	568	319	0.92	SF 67R37	4
4.3	331	196.21	0.85	S 57	6	4.9	500	281	0.98	SA 67R37	4
4.7	304	180.40	0.93	SF 57	6	5.7	438	246	1.12	SAF67R37	4
5.5	260	154.35	1.08	SA 57	6						
6.4	225	133.79	1.25	SAF57	6	3.0	702	222.00	3.03	S 87	8
6.8	211	125.05	1.34			3.4	627	198.00	3.42	SF 87	8
						4.0	527	166.43	4.07	SA 87	8
7.1	202	196.21	1.39							SAF87	8
7.7	186	180.40	1.52			2.8	763	241.09	1.57		
9.0	159	154.35	1.77	S 57	4	3.3	652	206.04	1.83	S 77	8
10	138	133.79	2.05	SF 57	4	3.5	598	188.89	2.00	SF 77	8
11	129	125.05	2.19	SA 57	4	4.0	524	165.75	2.28	SA 77	8
13	111	108.09	2.53	SAF57	4	4.3	497	157.08	2.40	SAF77	8
15	95	91.84	2.98								
17	85	82.00	3.34			3.9	544	227.20	0.90		
						4.3	491	205.11	1.00	S 67	6
7.0	204	197.73	0.81			4.9	432	180.46	1.13	SF 67	6
8.3	173	168.00	0.92			5.2	408	170.40	1.20	SA 67	6
9.3	155	150.00	1.04			6.1	345	144.00	1.42	SAF67	6
9.5	151	146.84	1.06								
10	141	137.25	1.13			6.1	347	227.20	1.41		
12	122	118.64	1.31	S 47	4	6.8	313	205.11	1.56		
14	104	100.80	1.54	SF 47	4	7.7	275	180.46	1.78	S 67	4
15	93	90.00	1.73	SA 47	4	8.2	260	170.40	1.88	SF 67	4
18	79	76.88	2.02	SAF47	4	9.7	220	144.00	2.23	SA 67	4
19	74	72.00	2.16			11	198	130.00	2.47	SAF67	4
23	71	60.65	2.24			12	174	114.38	2.80		
24	63	59.32	2.56								
28	61	50.40	2.64			5.7	370	154.35	0.81		
31	54	45.00	2.96			6.6	321	133.79	0.88	S 57	6
						7.1	300	125.05	0.94	SF 57	6
13	107	104.00	0.81			8.2	259	108.09	1.09	SA 57	6
15	94	90.91	0.91			9.6	220	91.84	1.28	SAF57	6
16	88	85.22	0.97			10.8	196	82.00	1.44		
18	77	75.20	1.10								
21	69	66.67	1.24			7.1	299	196.21	0.94		
25	63	56.67	1.36			7.7	275	180.40	1.02		
27	58	52.00	1.46			9.0	235	154.35	1.20		
31	55	45.45	1.56			10	204	133.79	1.38		
33	51	42.61	1.66			11	191	125.05	1.48	S 57	4
37	45	37.60	1.88	S 37	4	13	165	108.09	1.71	SF 57	4
42	40	33.33	2.12	SF 37	4	15	140	91.84	2.01	SA 57	4
49	34	28.33	2.50	SA 37	4	17	125	82.00	2.25	SAF57	4
59	32	23.46	2.64	SAF37	4	20	119	70.04	2.64		
74	26	18.85	3.28			21	111	66.89	2.37		
84	23	16.48	3.75			22	107	62.53	2.53		
90	21	15.45	4.00								
102	19	13.63	4.54			10	209	137.25	0.80	S 47	4
115	17	12.08	5.12			12	181	118.64	0.88	SF 47	4
135	14	10.27	6.02			14	154	100.80	1.04	SA 47	4
						15	137	90.00	1.17	SAF47	4
						18	117	76.88	1.36		

选型参数表

SELECTION TABLE

输出转速 Output speed r/min	输出扭矩 Output torque Nm	传动比 Ratio i	使用系数 Service factor f _s	机型号 Type Type	极数 Pole p	输出转速 Output speed r/min	输出扭矩 Output torque Nm	传动比 Ratio i	使用系数 Service factor f _s	机型号 Type Type	极数 Pole p
0.37kW						0.55kW					
19	110	72.00	1.46			3.7	859	241.09	1.39		
23	106	60.65	1.52			4.3	734	206.04	1.63	S 77	6
24	93	59.32	1.73			4.7	673	188.89	1.78	SF 77	6
28	90	50.40	1.78			5.3	590	165.75	2.02	SA 77	6
31	80	45.00	2.00	S 47	4	5.6	559	157.08	2.13	SAF77	6
36	68	38.44	2.34	SF 47	4					S 77	4
39	64	36.00	2.50	SA 47	4	5.8	547	241.09	2.18	SF 77	4
46	54	30.33	2.96	SAF47	4	6.7	467	206.04	2.56	SA 77	4
50	56	27.74	2.84			7.4	428	188.89	2.79	SAF77	4
54	53	25.93	3.03								
62	46	22.41	3.51			6.1	515	227.20	0.95		
73	39	19.04	4.13			6.8	465	205.11	1.05		
82	35	17.00	4.63			7.7	409	180.46	1.20		
						8.2	386	170.40	1.27		
21	102	66.67	0.84			9.7	326	144.00	1.50	S 67	4
25	93	56.67	0.92			11	295	130.00	1.66	SF 67	4
27	86	52.00	0.98			12	259	114.38	1.89	SA 67	4
31	81	45.45	1.05			13	245	108.00	2.00	SAF67	4
33	76	42.61	1.12			15	208	91.96	2.35		
37	67	37.60	1.27	S 37	4	17	189	83.57	2.58		
42	59	33.33	1.43	SF 37	4	19	172	72.39	2.98		
49	50	28.33	1.69	SA 37	4	21	164	65.00	2.84		
59	48	23.46	1.78	SAF37	4						
74	38	18.85	2.22			9.6	327	91.84	0.86		
84	34	16.48	2.54			11	292	82.00	0.97		
90	31	15.45	2.71			12	251	70.40	1.01	S 57	6
102	28	13.63	3.07			13	278	66.89	1.12	SF 57	6
115	25	12.08	3.46			14	260	62.53	1.09	SA 57	6
135	21	10.27	4.07			16	225	54.05	1.26	SAF57	6
						19	191	45.92	1.48		
						22	170	41.00	1.66		
						25	146	35.20	1.93		
0.55kW						0.55kW					
1.0	2517	1332	0.85			9.0	350	154.35	0.81		
1.2	2475	1191	0.87			10	303	133.79	0.93		
1.3	2460	1032	0.87	S 87R57	4	11	284	125.05	0.99		
1.5	2340	930	0.92	SF 87R57	4	13	245	108.09	1.15		
1.7	2198	831	0.97	SA 87R57	4	15	208	91.84	1.35		
1.9	1902	719	1.13	SAF87R57	4	17	186	82.00	1.52		
2.2	1651	624	1.30			20	177	70.40	1.59		
2.5	1476	558	1.45			21	165	66.89	1.70	S 57	4
3.2	1151	435	1.86			22	160	62.53	1.77	SF 57	4
						26	143	54.05	1.97	SA 57	4
2.8	1320	499	0.90			30	121	45.92	2.32	SAF57	4
3.2	1159	438	1.03	S 77R37	4	34	108	41.00	2.60		
3.6	1029	389	1.16	SF 77R37	4	40	93	35.02	3.04		
4.3	865	327	1.38	SA 77R37	4	42	91	32.80	3.10		
4.8	764	289	1.56	SAF77R37	4	46	87	30.12	3.25		
5.6	661	250	1.81			53	79	26.11	3.57		
						57	74	24.40	3.82		
5.7	558	246	0.84	S 67R37	4	66	64	21.09	4.42		
6.3	585	221	0.88	SF 67R37	4						
7.0	524	198	0.93	SA 67R37	4	18	174	76.88	0.92		
8.3	444	168	1.10	SAF67R37	4	19	163	72.00	0.98		
						23	157	60.65	1.02		
3.0	1044	222.00	2.05	S 87	8	25	138	59.32	1.16		
3.4	931	198.00	2.30	SF 87	8	28	133	50.40	1.20		
4.0	783	166.43	2.74	SA 87	8	31	119	45.00	1.34		
				SAF87	8	36	102	38.44	1.57	S 47	4
						39	95	36.00	1.68	SF 47	4
4.0	791	222.00	2.71	S 87	6	46	80	30.33	1.91	SA 47	4
4.5	705	198.00	3.04	SF 87	6	50	84	27.74	1.99	SAF47	4
5.3	593	166.43	3.62	SA 87	6	54	78	25.93	2.04		
				SAF87	6	62	68	22.41	2.36		
						73	58	19.04	2.78		
3.3	969	206.04	1.23	S 77	8	82	51	17.00	3.11		
3.5	888	188.89	1.34	SF 77	8	96	44	14.52	3.65		
4.0	780	165.75	1.53	SA 77	8	102	41	13.60	3.89		
4.3	739	157.08	1.62	SAF77	8	121	35	11.46	4.62		

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选型参数表

SELECTION TABLE

输出转速 Output speed r/min	输出扭矩 Output torque Nm	传动比 Ratio i	使用系数 Service factor f _s	机 型 号 Type Type	极 数 Pole p	输出转速 Output speed r/min	输出扭矩 Output torque Nm	传动比 Ratio i	使用系数 Service factor f _s	机 型 号 Type Type	极 数 Pole p
0.55kW						0.75kW					
42	88	33.33	0.96			6.8	634	205.11	0.80		
49	75	28.33	1.13			7.7	558	180.46	0.88		
59	71	23.46	1.20			8.2	527	170.40	0.93		
74	57	18.85	1.49			9.7	445	144.00	1.10		
84	50	16.48	1.71	S 37	4	11	402	130.00	1.22		
90	47	15.45	1.82	SF 37	4	12	354	114.38	1.38	S 67	4
102	41	13.63	2.06	SA 37	4	13	334	108.00	1.46	SF 67	4
115	37	12.08	2.33	SAF37	4	15	284	91.96	1.72	SA 67	4
135	31	10.27	2.74			17	258	83.57	1.89	SAF67	4
0.75kW						0.75kW					
1.1	4411	1223	0.85			19	224	72.39	2.09		
1.3	3860	1070	0.97			21	234	65.00	2.18		
1.5	3347	928	1.12	S 97R57	4	22	206	63.00	2.37		
1.7	2972	824	1.27	SF 97R57	4	24	195	57.19	2.51		
1.9	2575	714	1.46	SA 97R57	4	26	185	54.00	2.51		
2.2	2258	626	1.67	SAF97R57	4	30	166	45.98	2.95		
2.6	1941	538	1.94			13	331	70.04	0.80		
2.9	1746	484	2.2			14	369	66.89	0.82	S 57	6
0.75kW						0.75kW					
1.3	2659	1032	0.81			15	345	62.53	0.85	SF 57	6
1.5	2593	930	0.83			17	298	54.05	0.95	SA 57	6
1.7	2569	831	0.83	S 87R57	4	20	253	45.92	1.11	SAF57	6
1.9	2396	719	0.89	SF 87R57	4	22	226	41.00	1.25		
2.2	2251	624	0.95	SA 87R57	4	13	334	108.09	0.84		
2.5	2013	558	1.06	SAF87R57	4	15	284	91.84	0.99		
3.2	1569	435	1.37			17	254	82.00	1.11		
4.3	1165	323	1.84			20	217	70.04	1.17		
0.75kW						0.75kW					
4.3	1179	327	1.01	S 77R37	4	21	241	66.89	1.25		
4.8	1042	289	1.15	SF 77R37	4	22	226	62.53	1.30		
5.6	902	250	1.32	SA 77R37	4	26	195	54.05	1.45		
6.3	790	219	1.51	SAF77R37	4	30	166	45.92	1.70	S 57	4
0.75kW						0.75kW					
3.0	1457	230.48	2.58	S 97	8	34	148	41.00	1.91	SF 57	4
3.3	1311	207.48	2.87	SF 97	8	40	126	35.02	2.23	SA 57	4
3.6	1187	187.89	3.17	SA 97	8	42	118	32.80	2.27	SAF57	4
0.75kW						0.75kW					
4.1	1048	222.00	2.04	S 87	6	46	124	30.12	2.38		
4.6	935	198.00	2.29	SF 87	6	53	108	26.11	2.62		
5.5	786	166.43	2.73	SA 87	6	57	101	24.40	2.80		
0.75kW						0.75kW					
6.2	690	223.26	3.10	S 87	4	66	87	21.09	3.24		
7.0	612	198.00	3.50	SF 87	4	78	74	17.92	3.82		
8.4	515	166.43	4.16	SA 87	4	87	66	16.00	4.28		
0.75kW						0.75kW					
3.8	1139	241.09	1.05	S 77	6	102	56	13.67	5.00		
4.4	973	206.04	1.23	SF 77	6	31	162	45.00	0.99		
4.8	892	188.89	1.34	SA 77	6	36	139	38.44	1.15		
5.5	783	165.75	1.53	SAF77	6	39	130	36.00	1.23		
0.75kW						0.75kW					
5.8	745	241.09	1.60			46	109	30.33	1.40	S 47	4
6.7	637	206.04	1.87			50	114	27.74	1.46	SF 47	4
7.4	584	188.89	2.04	S 77	4	54	107	25.93	1.50	SA 47	4
8.4	512	165.75	2.33	SF 77	4	62	92	22.41	1.73	SAF47	4
8.8	486	157.08	2.46	SA 77	4	73	78	19.04	2.04		
10	425	137.48	2.81	SAF77	4	82	70	17.00	2.28		
11	383	123.86	3.12			96	60	14.52	2.67		
13	336	108.65	3.55			102	56	13.60	2.85		
0.75kW						0.75kW					
						121	47	11.46	3.39		
0.75kW						0.75kW					
						74	78	18.85	1.09		
						84	68	16.48	1.25	S 37	4
						90	64	15.45	1.33	SF 37	4
						102	56	13.63	1.51	SA 37	4
						115	50	12.08	1.71	SAF37	4
						135	42	10.27	2.01		

选型参数表

SELECTION TABLE

输出转速 Output speed r/min	输出扭矩 Output torque Nm	传动比 Ratio i	使用系数 Service factor f _s	机型号 Type Type	极数 Pole p	输出转速 Output speed r/min	输出扭矩 Output torque Nm	传动比 Ratio i	使用系数 Service factor f _s	机型号 Type Type	极数 Pole p
1.1kW						1.1kW					
1.7	4328	824	0.87			20	351	70.04	0.80		
2.0	3750	714	1.00	S 97R57	4	21	328	66.89	0.86		
2.2	3288	626	1.14	SF 97R57	4	22	315	62.53	0.89		
2.6	2826	538	1.33	SA 97R57	4	26	284	54.05	0.99		
2.9	2542	484	1.48	SAF97R57	4	30	241	45.92	1.17		
3.3	2206	420	1.70			34	215	41.00	1.31		
2.2	2547	624	0.84			40	184	35.02	1.53	S 57	4
2.5	2512	558	0.85			43	181	32.80	1.56	SF 57	4
2.9	2341	485	0.92			46	172	30.12	1.64	SA 57	4
3.2	2285	435	0.94	S 87R57	4	54	157	26.11	1.80	SAF57	4
3.7	1985	378	1.08	SF 87R57	4	57	146	24.40	1.93		
4.3	1697	323	1.26	SA 87R57	4	66	127	21.09	2.23		
5.0	1476	281	1.45	SAF87R57	4	78	108	17.92	2.62		
5.5	1339	255	1.60			88	96	16.00	2.94		
6.3	1166	222	1.84			102	82	13.67	3.44		
6.8	1077	205	1.99			109	77	12.80	3.67		
						130	65	10.78	4.36		
6.4	1150	219	1.04	S 77R37	4	46	182	30.33	0.88		
				SF 77R37	4	50	167	27.74	0.96		
				SA 77R37	4	54	156	25.93	1.03	S 47	4
				SAF77R37	4	62	135	22.41	1.19	SF 47	4
3.0	2136	230.48	1.76	S 97	8	74	114	19.04	1.40	SA 47	4
3.3	1923	207.48	1.96	SF 97	8	82	102	17.00	1.57	SAF47	4
3.6	1742	187.89	2.16	SA 97	8	96	87	14.52	1.84		
				SAF97	8	103	82	13.60	1.96		
						122	69	11.46	2.33		
3.9	1596	230.48	2.36	S 97	6	1.5kW					
4.4	1437	207.48	2.62	SF 97	6	2.0	4484	714	0.84		
4.8	1301	187.89	2.89	SA 97	6	2.2	4383	626	0.86	S 97R57	4
				SAF97	6	2.6	3853	538	0.98	SF 97R57	4
6.3	999	222.00	2.14			2.9	3467	484	1.08	SA 97R57	4
7.1	891	198.00	2.40	S 87	4	3.3	3008	420	1.25	SAF97R57	4
8.4	749	166.43	2.86	SF 87	4	3.7	2693	376	1.40		
9.2	689	152.95	3.11	SA 87	4	4.3	2342	327	1.61		
10.3	612	135.83	3.50	SAF87	4						
5.8	1085	241.09	1.10			2.9	2707	485	0.79		
6.8	928	206.04	1.29			3.2	2481	435	0.86		
7.4	850	188.89	1.40			3.7	2313	378	0.93	S 87R57	4
8.4	746	165.75	1.60	S 77	4	4.3	2225	323	0.96	SF 87R57	4
8.9	707	157.08	1.69	SF 77	4	5.0	2013	281	1.06	SA 87R57	4
10	619	137.48	1.93	SA 77	4	5.5	1826	255	1.17	SAF87R57	4
11	558	123.86	2.14	SAF77	4	6.3	1590	222	1.35		
13	489	108.65	2.44			6.8	1468	205	1.46		
15	432	95.88	2.77								
11	585	130.00	0.84			3.0	2871	230.48	1.31	S 97	8
12	515	114.38	0.95			3.3	2584	207.48	1.45	SF 97	8
13	486	108.00	1.01			3.7	2340	187.89	1.61	SA 97	8
15	414	91.96	1.18			4.1	2076	166.62	1.81	SAF97	8
17	376	83.57	1.30								
19	341	72.39	1.43	S 67	4	4.0	2153	230.48	1.75	S 97	6
22	326	65.00	1.50	SF 67	4	4.4	1938	207.48	1.94	SF 97	6
23	284	63.00	1.63	SA 67	4	4.9	1755	187.89	2.14	SA 97	6
24	300	57.19	1.72	SAF67	4	5.5	1557	166.62	2.42	SAF97	6
26	284	54.00	1.72								
30	242	45.98	2.02			6.1	1415	230.48	2.66	S 97	4
34	220	41.79	2.23			6.7	1274	207.48	2.95	SF 97	4
39	190	36.20	2.57			7.5	1154	187.89	3.26	SA 97	4
44	165	31.50	2.96							SAF97	4
53	139	26.40	3.53								
						4.1	2074	222.00	1.03	S 87	6
						4.6	1850	198.00	1.16	SF 87	6
						5.5	1555	166.43	1.38	SA 87	6
						6.1	1429	152.95	1.50	SAF87	6

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选型参数表

SELECTION TABLE

输出转速 Output speed r/min	输出扭矩 Output torque Nm	传动比 Ratio i	使用系数 Service factor f _s	机型号 Type Type	极数 Pole p	输出转速 Output speed r/min	输出扭矩 Output torque Nm	传动比 Ratio i	使用系数 Service factor f _s	机型号 Type Type	极数 Pole p
1.5kW						2.2kW					
6.3	1363	222.00	1.56			3.4	4350	420	0.86	S 97R57	4
7.1	1216	198.00	1.76			3.8	3894	376	0.97	SF 97R57	4
8.4	1022	166.43	2.10	S 87	4	4.3	3387	327	1.11	SA 97R57	4
9.2	939	152.95	2.28	SF 87	4	4.9	2972	287	1.26	SAF97R57	4
10	834	135.83	2.57	SA 87	4	5.6	2610	252	1.44		
12	746	121.44	2.87	SAF87	4	4.1	3091	230.48	1.22	S 97	6
13	970	109.19	3.20			4.5	2782	207.48	1.35	SF 97	6
15	582	94.77	3.68			5.0	2520	187.89	1.49	SA 97	6
7.4	1160	188.89	1.03							SAF97	6
8.4	1018	165.75	1.17			6.2	2046	230.48	1.84		
8.9	964	157.08	1.24			6.8	1842	207.48	2.04		
10	844	137.48	1.41			7.6	1668	187.89	2.25	S 97	4
11	760	123.86	1.57	S 77	4	8.5	1479	166.62	2.54	SF 97	4
13	667	108.65	1.79	SF 77	4	9.4	1337	150.64	2.81	SA 97	4
15	589	95.88	2.03	SA 77	4	11	1133	127.68	3.32	SAF97	4
16	564	85.00	2.12	SAF77	4	13	990	111.52	3.80		
18	522	78.78	2.29			15	863	93.27	4.54		
19	517	72.22	2.31			17	828	83.31	4.36		
22	454	63.38	2.63			6.4	1971	222.00	1.08		
23	430	60.06	2.78			7.2	1758	198.00	1.22		
27	377	52.57	3.17			8.5	1477	166.43	1.45		
30	339	47.36	3.52			9.3	1358	152.95	1.58		
34	298	41.54	4.01			10	1206	135.83	1.78	S 87	4
17	513	83.57	0.95			12	1078	121.44	1.99	SF 87	4
19	466	72.39	1.05			13	969	109.19	2.21	SA 87	4
22	444	65.00	1.10			15	841	94.77	2.55	SAF87	4
23	410	63.00	1.19			17	753	84.86	2.74		
24	387	57.19	1.26			19	733	75.63	2.84		
26	367	54.00	1.26			20	700	70.40	3.06		
30	329	45.98	1.48	S 67	4	21	630	67.62	3.40		
34	299	41.79	1.63	SF 67	4	23	625	60.80	3.43		
39	259	36.20	1.89	SA 67	4	27	547	52.77	3.92		
44	226	31.50	2.17	SAF67	4	10	1220	137.48	0.98		
53	216	26.40	2.26			11	1100	123.86	1.09		
59	195	23.83	2.51			13	965	108.65	1.24		
67	171	20.92	2.86			15	851	95.88	1.40		
71	162	19.80	3.02			17	755	85.00	1.46		
83	138	16.86	3.54			18	816	78.78	1.58		
91	125	15.32	3.90			20	748	72.22	1.60		
106	109	13.27	4.50			22	656	63.38	1.82	S 77	4
121	95	11.55	5.17			24	622	60.06	1.92	SF 77	4
43	247	32.80	1.20			27	544	52.57	2.19	SA 77	4
46	235	30.12	1.14			30	491	47.36	2.43	SAF77	4
54	214	26.11	1.32			34	430	41.54	2.78		
57	200	24.40	1.41	S 57	4	39	380	36.66	3.14		
66	173	21.09	1.63	SF 57	4	44	337	32.50	3.55		
78	147	17.92	1.92	SA 57	4	51	307	27.75	3.89		
88	131	16.00	2.15	SAF57	4	55	287	25.93	4.15		
102	112	13.67	2.52			62	269	22.75	4.43		
109	105	12.80	2.69			66	255	21.56	4.68		
130	88	10.78	3.20			31	476	45.98	1.03		
96	119	14.52	1.35	S 47	4	34	433	41.79	1.13		
103	111	13.60	1.44	SF 47	4	39	375	36.20	1.30		
122	94	11.46	1.71	SA 47	4	45	326	31.50	1.50		
				SAF47	4	54	312	26.40	1.56	S 67	4
						60	282	23.83	1.73	SF 67	4
						68	248	20.97	1.97	SA 67	4
						72	234	19.80	2.09	SAF67	4
						84	200	16.86	2.45		
						93	181	15.32	2.70		
						107	157	13.27	3.11		
						123	137	11.55	3.58		

选型参数表

SELECTION TABLE

输出转速 Output speed r/min	输出扭矩 Output torque Nm	传动比 Ratio i	使用系数 Service factor f _s	机型号 Type Type	极数 Pole p	输出转速 Output speed r/min	输出扭矩 Output torque Nm	传动比 Ratio i	使用系数 Service factor f _s	机型号 Type Type	极数 Pole p
2.2kW						3kW					
89	189	16.00	1.49	S 57	4	39	511	36.20	0.96		
104	162	13.67	1.74	SF 57	4	45	445	31.50	1.10		
111	152	12.80	1.86	SA 57	4	54	426	26.40	1.15		
132	128	10.78	2.21	SAF57	4	60	385	23.83	1.27	S 67	4
3kW											
4.9	4053	287	0.93	S 97R57	4	68	338	20.97	1.44	SF 67	4
				SF 97R57	4	72	320	19.80	1.53	SA 67	4
				SA 97R57	4	84	272	16.86	1.80	SAF67	4
				SAF97R57	4	93	247	15.32	1.98		
						107	214	13.27	2.28		
						123	186	11.55	2.62		
6.2	2790	230.48	1.35			104	221	13.67	1.28	S 57	4
6.8	2512	207.48	1.50			111	207	12.80	1.36	SF 57	4
7.6	2275	187.89	1.65			132	174	10.78	1.62	SA 57	4
8.5	2017	166.62	1.86	S 97	4					SAF57	4
9.4	1824	150.64	2.06	SF 97	4	4kW					
11	1546	127.68	2.43	SA 97	4	6.2	3668	230.48	1.02		
13	1350	111.52	2.79	SAF97	4	6.9	3302	207.48	1.14		
15	1129	93.27	3.20			7.7	2991	187.89	1.26		
17	1177	83.31	3.33			8.6	2652	166.62	1.42		
18	978	80.75	3.85			9.6	2398	150.64	1.57	S 97	4
8.5	2015	166.43	1.06			11	2032	127.68	1.85	SF 97	4
9.3	1852	152.95	1.16			13	1775	111.52	2.12	SA 97	4
10	1644	135.83	1.30			15	1547	93.27	2.43	SAF97	4
12	1470	121.44	1.46			17	1485	83.31	2.53		
13	1322	109.19	1.62			18	1399	80.75	2.93		
15	1147	94.77	1.87			19	1285	75.32	2.69		
17	1027	84.86	2.01	S 87	4	23	1185	63.84	3.17		
19	1068	75.63	2.09	SF 87	4	26	1035	55.76	3.63		
20	955	70.40	2.24	SA 87	4	12	1933	121.44	1.11		
21	859	67.62	2.50	SAF87	4	13	1738	109.19	1.23		
23	852	60.80	2.51			15	1508	94.77	1.42		
27	745	52.77	2.88			17	1404	84.86	1.53		
30	696	47.25	3.08			19	1351	75.63	1.59		
33	667	43.13	3.21			20	1256	70.40	1.71		
36	617	39.20	3.47			21	1129	67.62	1.90		
37	554	38.25	3.87			24	1121	60.80	1.91	S 87	4
42	481	34.09	4.45			27	980	52.77	2.19	SF 87	4
17	1113	85.00	1.07			30	915	47.25	2.34	SA 87	4
18	1029	78.78	1.16			33	877	43.13	2.44	SAF87	4
20	1020	72.22	1.17			37	812	39.20	2.64		
22	895	63.38	1.33			38	728	38.25	2.94		
24	848	60.06	1.41			42	682	34.09	3.14		
27	742	52.57	1.61			45	633	32.15	3.39		
30	669	47.36	1.79			49	627	29.55	3.42		
34	587	41.54	2.04	S 77	4	55	557	26.24	3.85		
39	518	36.66	2.31	SF 77	4	61	498	23.46	4.30		
44	459	32.50	2.60	SA 77	4	24	1115	60.06	1.07		
51	419	27.75	2.85	SAF77	4	27	976	52.57	1.22		
55	392	25.93	3.05			30	879	47.36	1.36		
62	367	22.75	3.25			35	771	41.54	1.55		
66	348	21.56	3.43			39	681	36.66	1.75		
75	305	18.87	3.92			44	604	32.50	1.98		
84	274	17.00	4.35			52	550	27.75	2.17	S 77	4
95	241	14.91	4.96			56	515	25.93	2.32	SF 77	4
108	212	13.16	5.62			63	483	22.75	2.47	SA 77	4
122	188	11.67	6.34			67	458	21.56	2.61	SAF77	4
143	161	9.96	7.43			76	400	18.87	2.98		
						85	361	17.00	3.31		
						97	316	14.91	3.77		
						109	279	13.16	4.28		
						123	248	11.67	4.82		
						145	211	9.96	5.65		

S

选型参数表

SELECTION TABLE

输出转速 Output speed r/min	输出扭矩 Output torque Nm	传动比 Ratio i	使用系数 Service factor f _s	机型号 Type Type	极数 Pole p	输出转速 Output speed r/min	输出扭矩 Output torque Nm	传动比 Ratio i	使用系数 Service factor f _s	机型号 Type Type	极数 Pole p
4kW						7.5kW					
73	420	19.80	1.16	S 67	4	13	3304	111.52	1.14		
85	358	16.86	1.37	SF 67	4	16	2880	93.27	1.31		
94	325	15.32	1.50	SA 67	4	17	2764	83.31	1.36		
109	282	13.27	1.74	SAF67	4	18	2604	80.75	1.44		
125	245	11.55	1.99			19	2393	75.32	1.57		
5.5kW						23	2207	63.84	1.70	S 97	4
8.6	3647	166.62	1.03			26	1928	55.76	1.95	SF 97	4
9.6	3297	150.64	1.14			31	1612	46.64	2.33	SA 97	4
11	2794	127.68	1.35			36	1438	40.38	2.62	SAF97	4
13	2441	111.52	1.54			40	1396	36.39	2.69		
15	2127	93.27	1.77	S 97	4	45	1294	32.76	2.91		
17	2041	83.31	1.84	SF 97	4	49	1172	29.67	3.21		
18	1923	80.75	1.96	SA 97	4	55	1039	26.31	3.62		
19	1767	75.32	2.13	SAF97	4	61	940	23.79	4.00		
23	1630	63.84	2.31			72	796	20.16	4.72		
26	1424	55.76	2.64			31	1704	47.25	1.26		
31	1191	46.64	3.16			34	1633	43.13	1.31		
36	1031	40.38	3.65			37	1511	39.20	1.42		
17	1931	84.86	1.11			38	1355	38.25	1.58		
19	1857	75.63	1.15			43	1270	34.09	1.69		
20	1727	70.40	1.24			45	1178	32.15	1.82	S 87	4
21	1552	67.62	1.38			49	1167	29.55	1.84	SF 87	4
24	1541	60.80	1.39			56	1037	26.24	2.07	SA 87	4
27	1347	52.77	1.59			62	927	23.46	2.31	SAF87	4
30	1259	47.25	1.70			69	833	21.09	2.57		
33	1206	43.13	1.78	S 87	4	80	723	18.31	2.96		
37	1116	39.20	1.92	SF 87	4	89	648	16.39	3.31		
38	1001	38.25	2.14	SA 87	4	107	537	13.60	3.99		
42	938	34.09	2.28	SAF87	4	123	467	11.83	4.59		
45	870	32.15	2.46			53	1024	27.75	1.17		
49	862	29.55	2.49			56	959	25.93	1.24		
55	766	26.24	2.80			64	899	22.75	1.33	S 77	4
61	685	23.46	3.13			68	852	21.56	1.40	SF 77	4
68	615	21.09	3.48			77	746	18.87	1.60	SA 77	4
79	534	18.31	4.01			86	672	17.00	1.78	SAF77	4
88	478	16.39	4.48			98	589	14.91	2.03		
106	397	13.60	5.40			111	520	13.16	2.30		
122	345	11.83	6.21			125	461	11.67	2.59		
35	1061	41.54	1.13			147	394	9.96	3.03		
39	936	36.66	1.28			11kW					
44	830	32.50	1.44			26	2808	55.76	1.34		
52	757	27.75	1.58			31	2349	46.64	1.60		
56	709	25.93	1.69	S 77	4	36	2095	40.38	1.80		
63	664	22.75	1.80	SF 77	4	40	2034	36.39	1.85	S 97	4
67	629	21.56	1.90	SA 77	4	45	1886	32.76	1.99	SF 97	4
76	551	18.87	2.17	SAF77	4	49	1708	29.67	2.20	SA 97	4
85	496	17.00	2.41			55	1514	26.31	2.48	SAF97	4
97	435	14.91	2.74			61	1369	23.79	2.75		
109	384	13.16	3.11			72	1160	20.16	3.24		
123	341	11.67	3.51			83	1014	17.61	3.71		
145	291	9.96	4.11			99	848	14.73	4.43		
94	447	15.32	1.09	S 67	4	115	734	12.75	5.12		
109	387	13.27	1.26	SF 67	4	56	1510	26.24	1.42		
125	337	11.55	1.45	SA 67	4	62	1350	23.46	1.59	S 87	4
				SAF67	4	69	1214	21.09	1.77	SF 87	4
						80	1054	18.31	2.03	SA 87	4
						89	943	16.39	2.27	SAF87	4
						107	783	13.60	2.74		
						123	681	11.83	3.15		

选型参数表

SELECTION TABLE

输出转速	输出扭矩	传动比	使用系数	机型号	极数	输出转速	输出扭矩	传动比	使用系数	机型号	极数
Output speed	Output torque	Ratio	Service factor	Type	Pole	Output speed	Output torque	Ratio	Service factor	Type	Pole
r/min	Nm	i	f _s	Type	p	r/min	Nm	i	f _s	Type	p
15kW											
31	3203	46.64	1.17								
36	2856	40.38	1.32								
40	2773	36.39	1.36								
45	2571	32.76	1.46								
49	2329	29.67	1.61	S 97	4						
55	2065	26.31	1.82	SF 97	4						
61	1867	23.79	2.01	SA 97	4						
72	1582	20.16	2.38	SAF97	4						
83	1382	17.61	2.72								
99	1156	14.73	3.25								
115	1001	12.75	3.76								
89	1287	16.39	1.67	S 87	4						
107	1068	13.60	2.01	SF 87	4						
123	929	11.83	2.31	SA 87	4						
				SAF87	4						
18.5kW											
40	3499	36.39	1.07								
45	3150	32.76	1.19								
50	2853	29.67	1.32								
56	2530	26.31	1.49	S 97	4						
62	2287	23.79	1.64	SF 97	4						
73	1938	20.16	1.94	SA 97	4						
83	1693	17.61	2.22	SAF97	4						
100	1416	14.73	2.65								
115	1226	12.75	3.07								
22kW											
56	3008	26.31	1.25								
62	2720	23.79	1.38								
73	2305	20.16	1.63	S 97	4						
83	2014	17.61	1.87	SF 97	4						
100	1684	14.73	2.23	SA 97	4						
115	1458	12.75	2.58	SAF97	4						

S

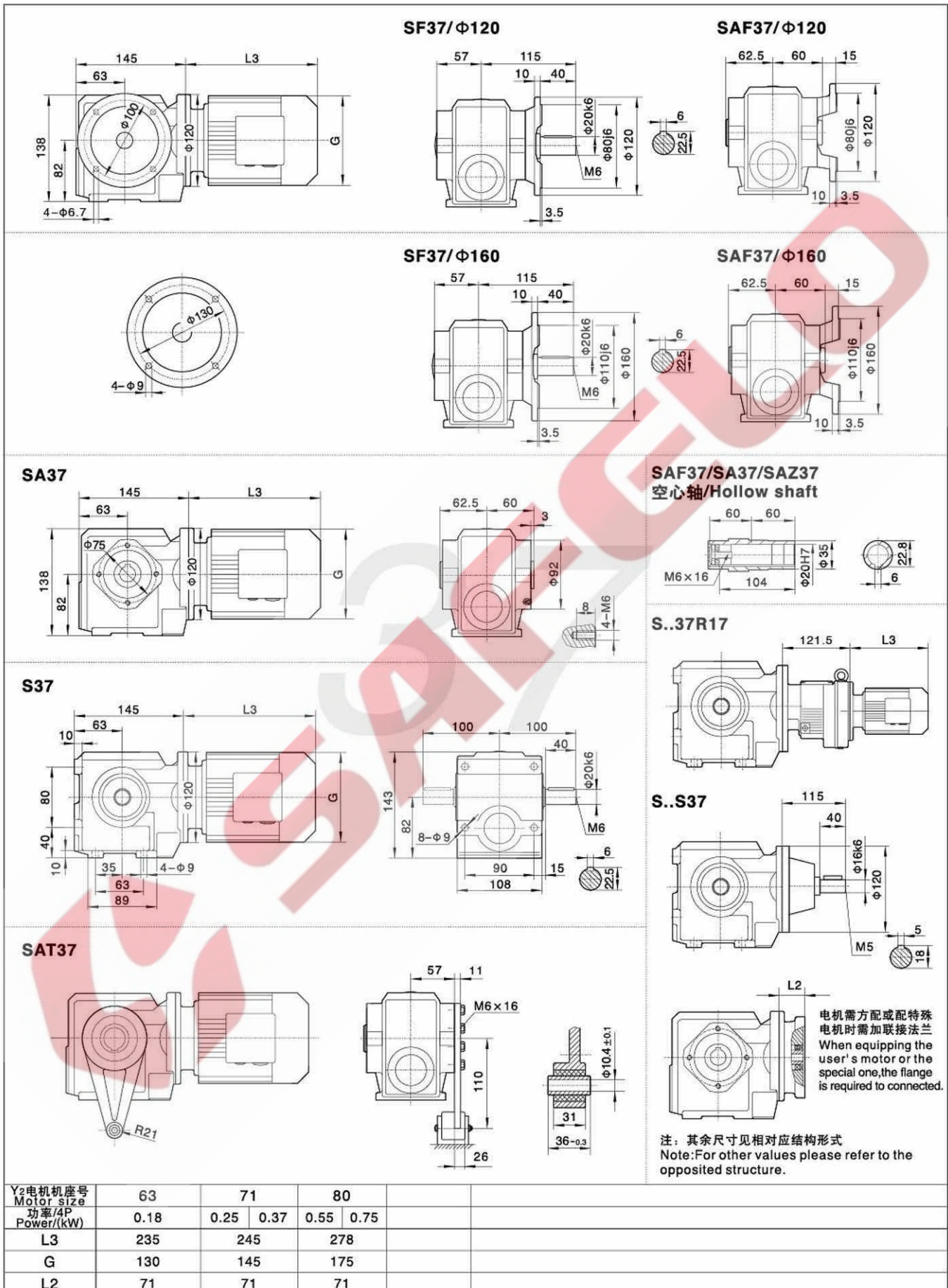
选型参数表

SELECTION TABLE

Mamax Permissible torque Nm	输出转速 Output speed r/min	传动比 Ratio i	机型号 Type Type	功率 Power kW/4p	Mamax Permissible torque Nm	输出转速 Output speed r/min	传动比 Ratio i	机型号 Type Type	功率 Power kW/4p	
90	7.8	179	S 37R17 SF 37R17 SA 37R17 SAF37R17	0.18	2280	0.24	5875	S 87R57 SF 87R57 SA 87R57 SAF87R57	0.18	
	8.8	158				0.27	5187			
	9.7	144				0.30	4606			
	12	118		0.25		0.36	3872			
	13	110				0.40	3475			
170	3.6	388	S 47R17 SF 47R17 SA 47R17 SAF47R17	0.18		0.48	2905		0.55	0.25
	4.1	336				0.54	2586			
	4.7	294		0.25		0.60	2335			
	5.4	257				0.68	2054			
	6.1	229		0.18		0.76	1824			
	7.0	200			0.85	1631				
	7.4	187			1.0	1332				
	8.4	165			1.2	1191				
300	2.4	574	S 57R17 SF 57R17 SA 57R17 SAF57R17	0.18	1.3	1032	0.75	1.1		
	2.7	506			1.5	930				
	3.2	438			1.7	831				
	3.6	388		0.25	1.9	719				
	4.1	336			2.2	624				
	4.7	294		0.37	2.5	558				
	5.2	269			2.9	485				
	6.1	229		0.55	3.2	435				
	6.8	204			3.7	378				
	7.4	187		0.18	4.4	323				
	8.4	165			5.1	281				
520	1.3	1045	S 67R37 SF 67R37 SA 67R37 SAF67R37	0.18	4000	0.16	8608	0.55		
	1.5	914				0.18	7554			
	1.7	809				0.21	6640			
	2.0	712		0.25		0.24	5780			
	2.3	615				0.28	4937			
	2.6	543		0.37		0.31	4444			
	3.0	469				0.35	4017			
	3.3	424		0.55		0.40	3453			
	3.8	365				0.45	3108			
	4.4	319		0.75		0.52	2654			
	4.9	281				0.60	2329			
	5.7	246		0.18		0.67	2081			
	6.3	221				0.75	1860			
7.0	198	0.25	0.88	1574						
0.45	3098		0.18	1.0	1394					
0.67	2083	0.25		1.1	1223					
0.77	1813		0.37	1.3	1070					
0.80	1745	0.55		1.5	928					
0.87	1600		0.75	1.7	824					
1.0	1404	0.18		2.0	714					
1.1	1245		0.25	2.2	626					
1.3	1100	0.37		2.6	538					
1.5	954		0.55	2.9	484					
1.7	837	0.75		3.4	420					
1.9	714		0.18	3.8	376					
2.2	637	0.25		4.3	327					
2.4	574		0.37	4.9	287					
2.8	499	0.55		5.7	252					
3.2	438		0.75	6.6	219					
3.6	389	0.18								
4.3	327		0.25							
4.8	289	0.37								
5.6	250		0.55							
6.4	219	0.75								

表上所配功率均有超载,按实际条件确定的转矩不得大于减速机额定转矩。

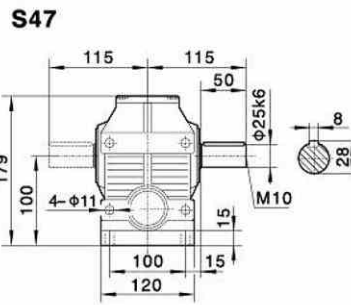
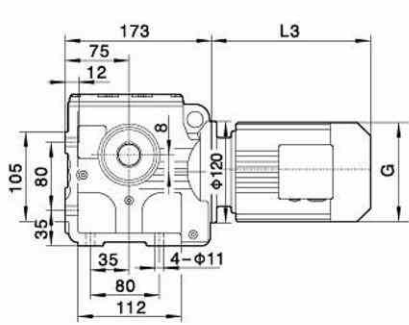
The power are all overload in the table. The decided torque according to operating condition should not more than gear units' nominal torque.



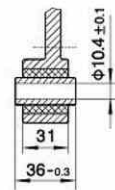
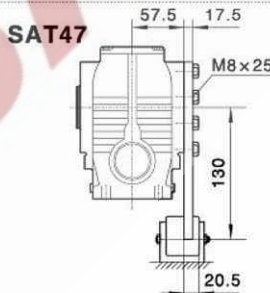
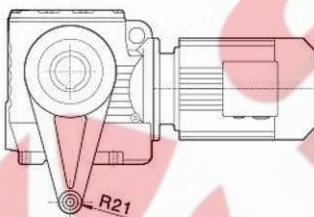
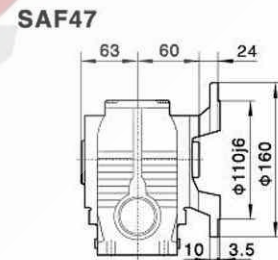
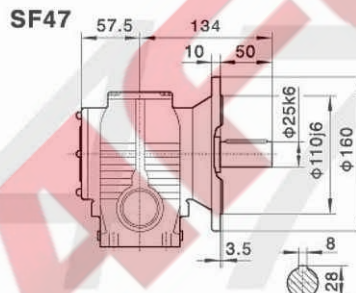
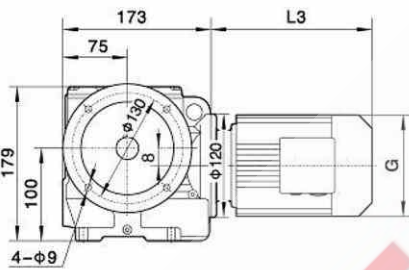
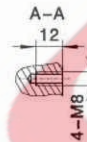
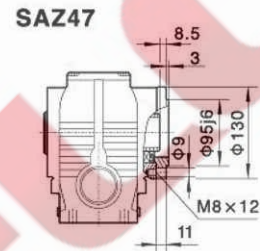
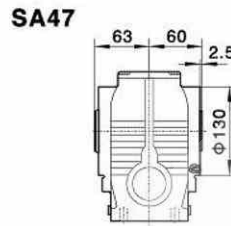
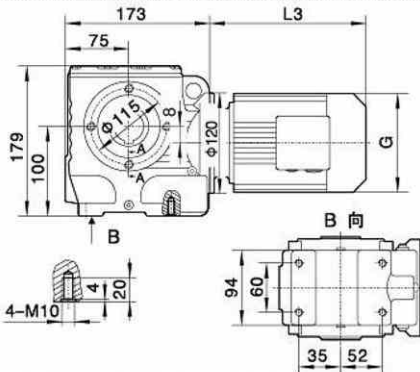
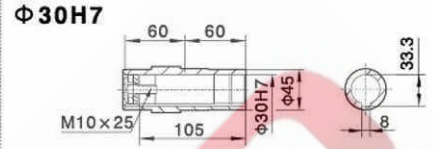
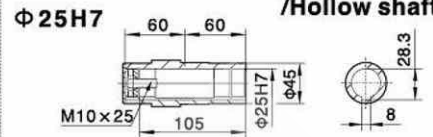
S

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

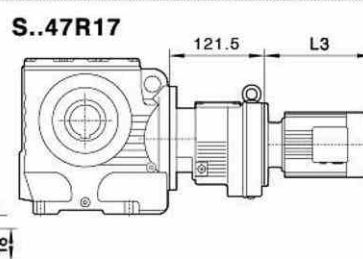
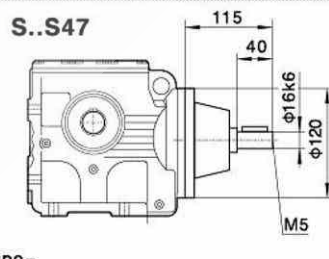
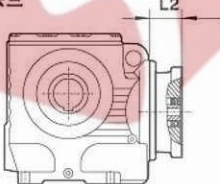
Note:1.The housings of SA、SF、SAF、SAZ are common parts.The mounting dimensions may consult each other. 2."S.."mean S、SA、SF、SAF、SAZ



SA47/SAZ47/SAF47空心轴
/Hollow shaft



电机需方配或配特殊电机时需加联接法兰



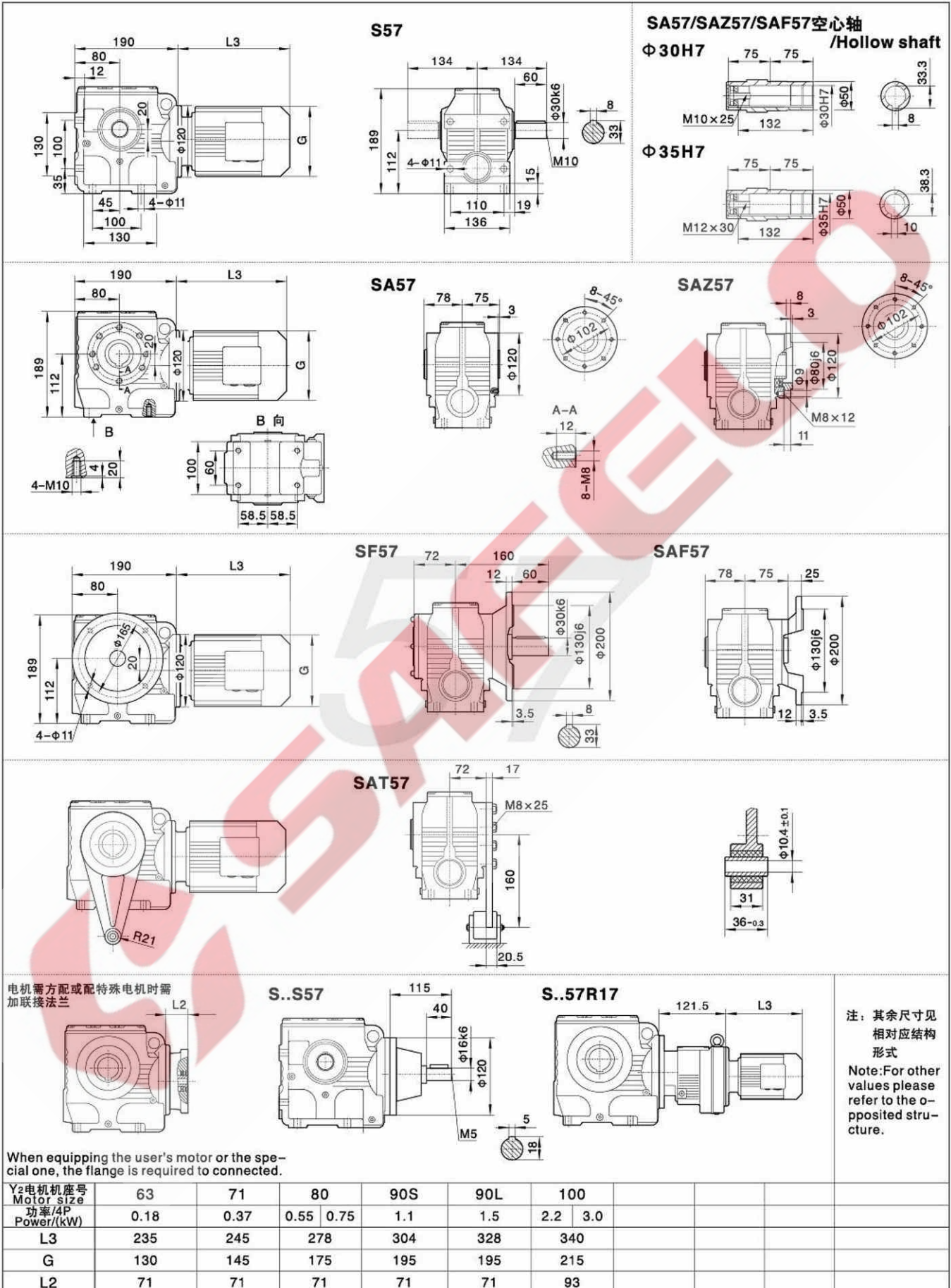
注: 其余尺寸见相对应结构形式
Note: For other values please refer to the opposed structure.

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

Y ₂ 电机座号 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	71	71	71	71	71

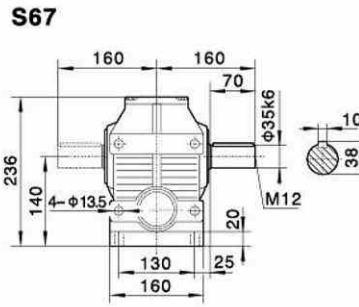
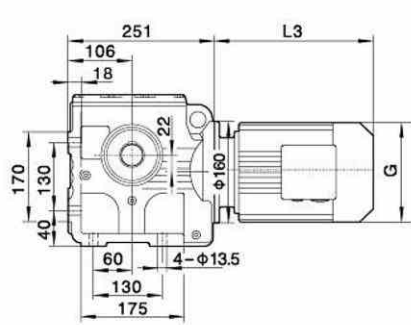
注: 1.SA、SF、SAF、SAZ壳体为通用件, 安装尺寸均可相互参照。2."S.."表示S、SA、SF、SAF、SAZ

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

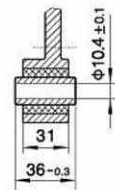
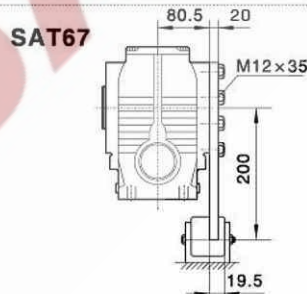
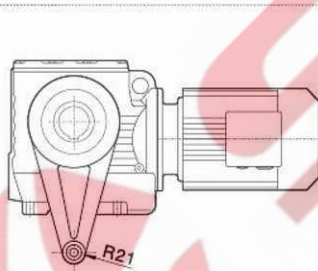
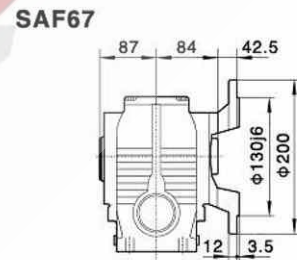
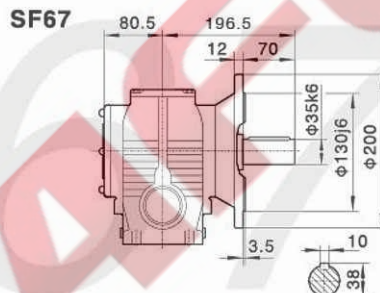
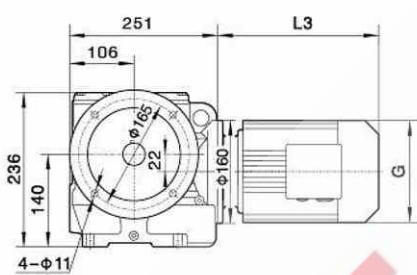
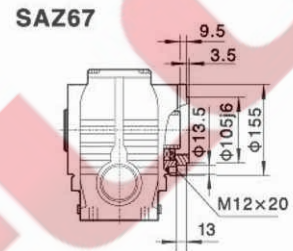
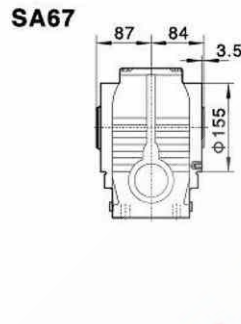
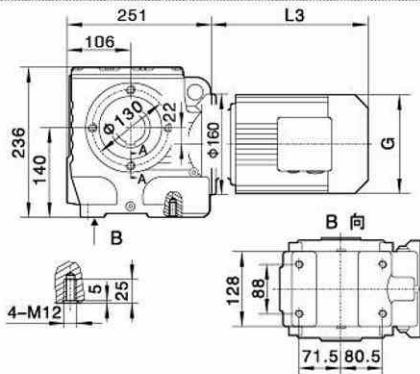
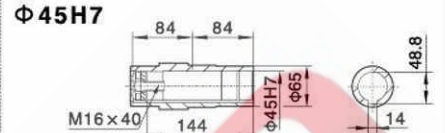
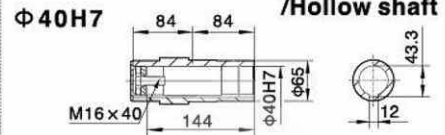


注:1.SA、SF、SAF、SAZ壳体为通用件,安装尺寸均可相互参照。2."S.."表示S、SA、SF、SAF、SAZ

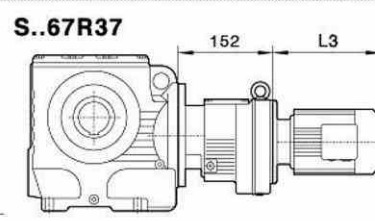
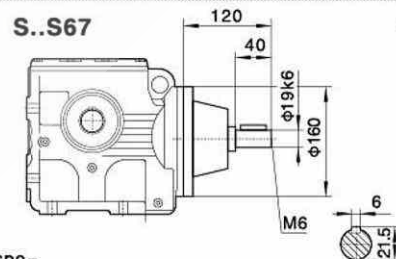
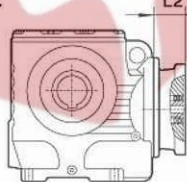
Note:1.The housings of SA、SF、SAF、SAZ are common parts.The mounting dimensions may consult each other. 2."S.."mean S、SA、SF、SAF、SAZ



SA67/SAZ67/SAF67空心轴
/Hollow shaft



电机需方配或配特殊电机时需加联接法兰



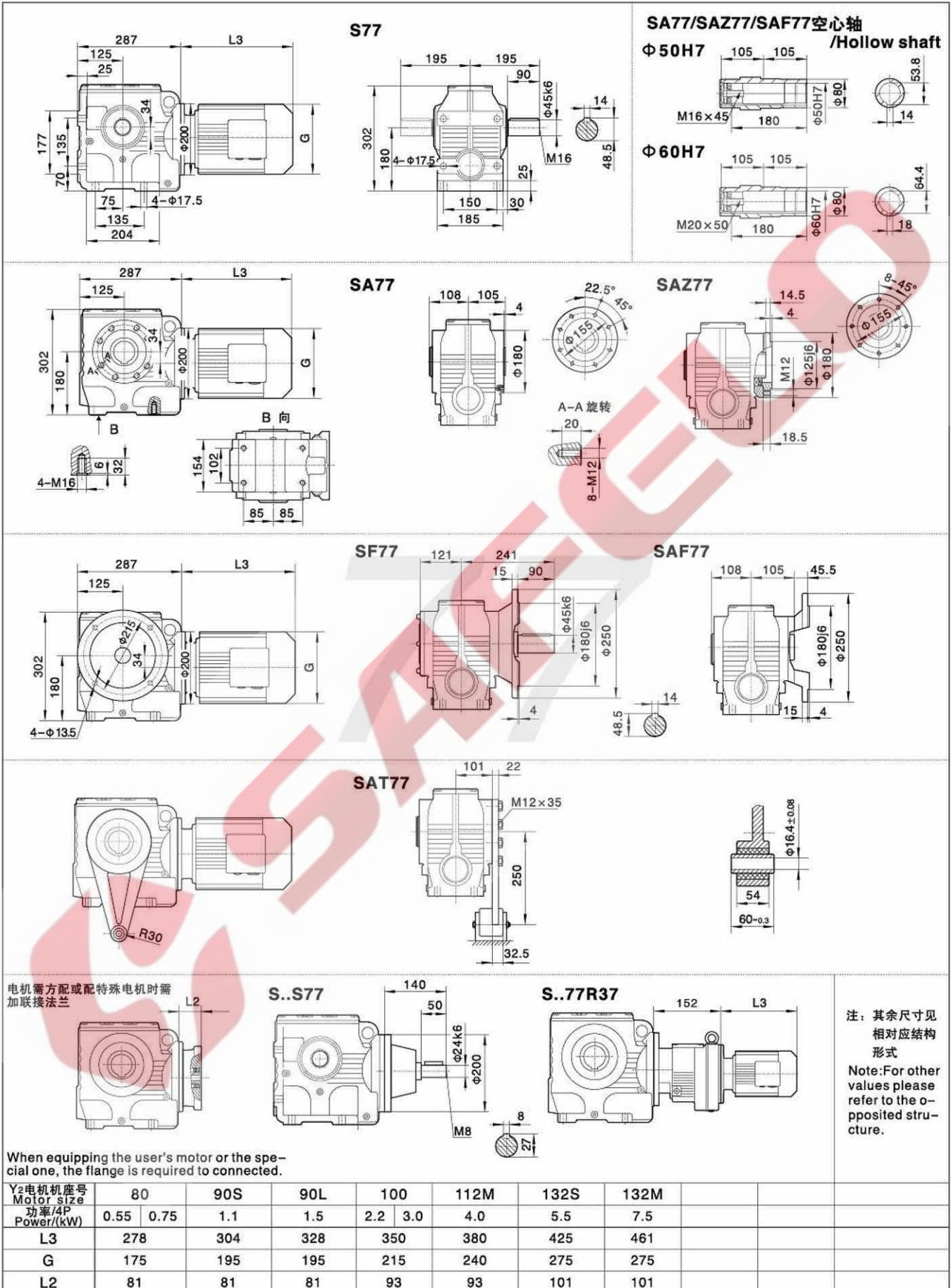
注: 其余尺寸见相对应结构形式
Note: For other values please refer to the opposed structure.

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

Y ₂ 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	81	81	81	81	93	93	101			

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

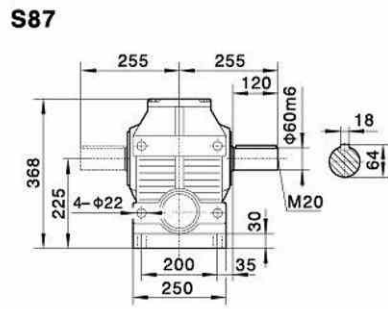
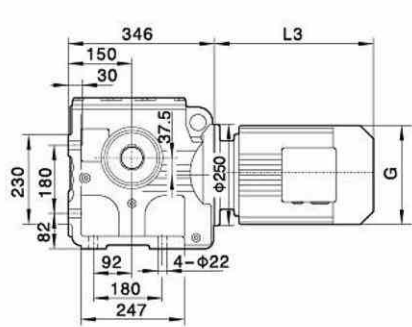
Note: 1. The housings of SA、SF、SAF、SAZ are common parts. The mounting dimensions may consult each other. 2."S.."mean S、SA、SF、SAF、SAZ



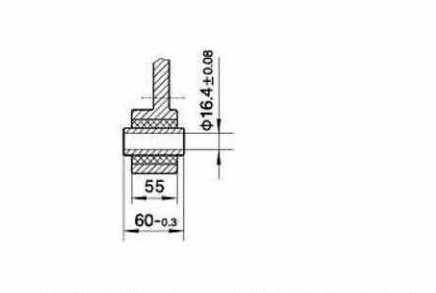
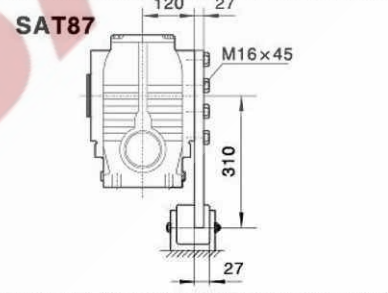
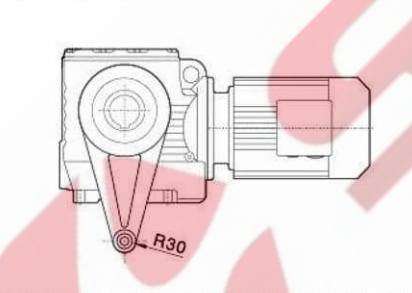
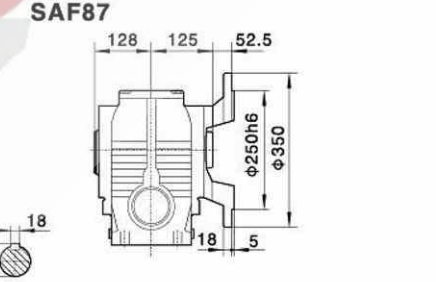
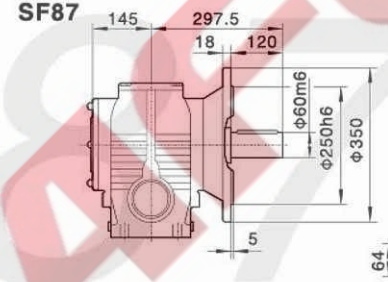
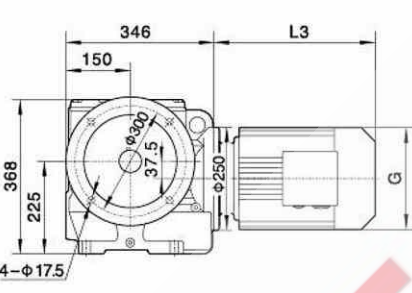
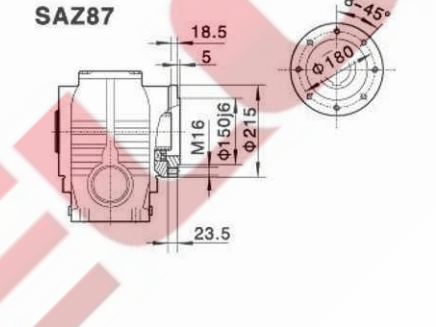
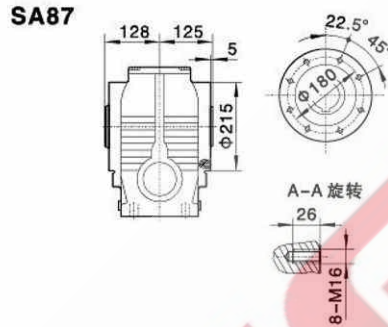
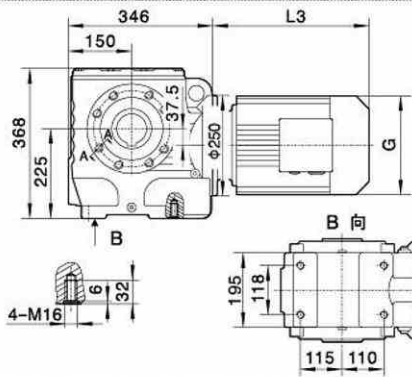
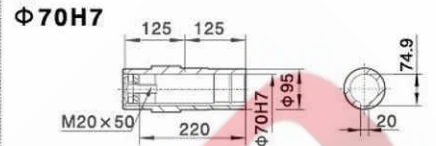
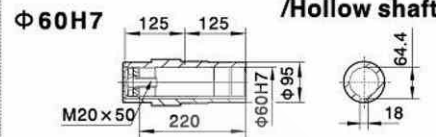
注：其余尺寸见
相对应结构
形式
Note: For other
values please
refer to the
opposite structure.

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

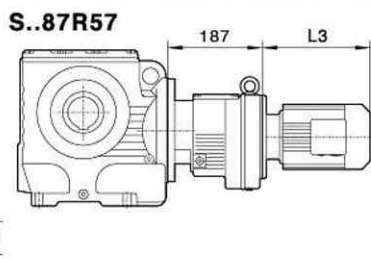
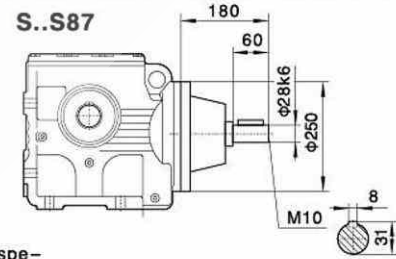
Note:1.The housings of SA、SF、SAF、SAZ are common parts.The mounting dimensions may consult each other. 2."S.."mean S、SA、SF、SAF、SAZ



SA87/SAZ87/SAF87空心轴 /Hollow shaft



电机需方配或配特殊电机时需加联接法兰

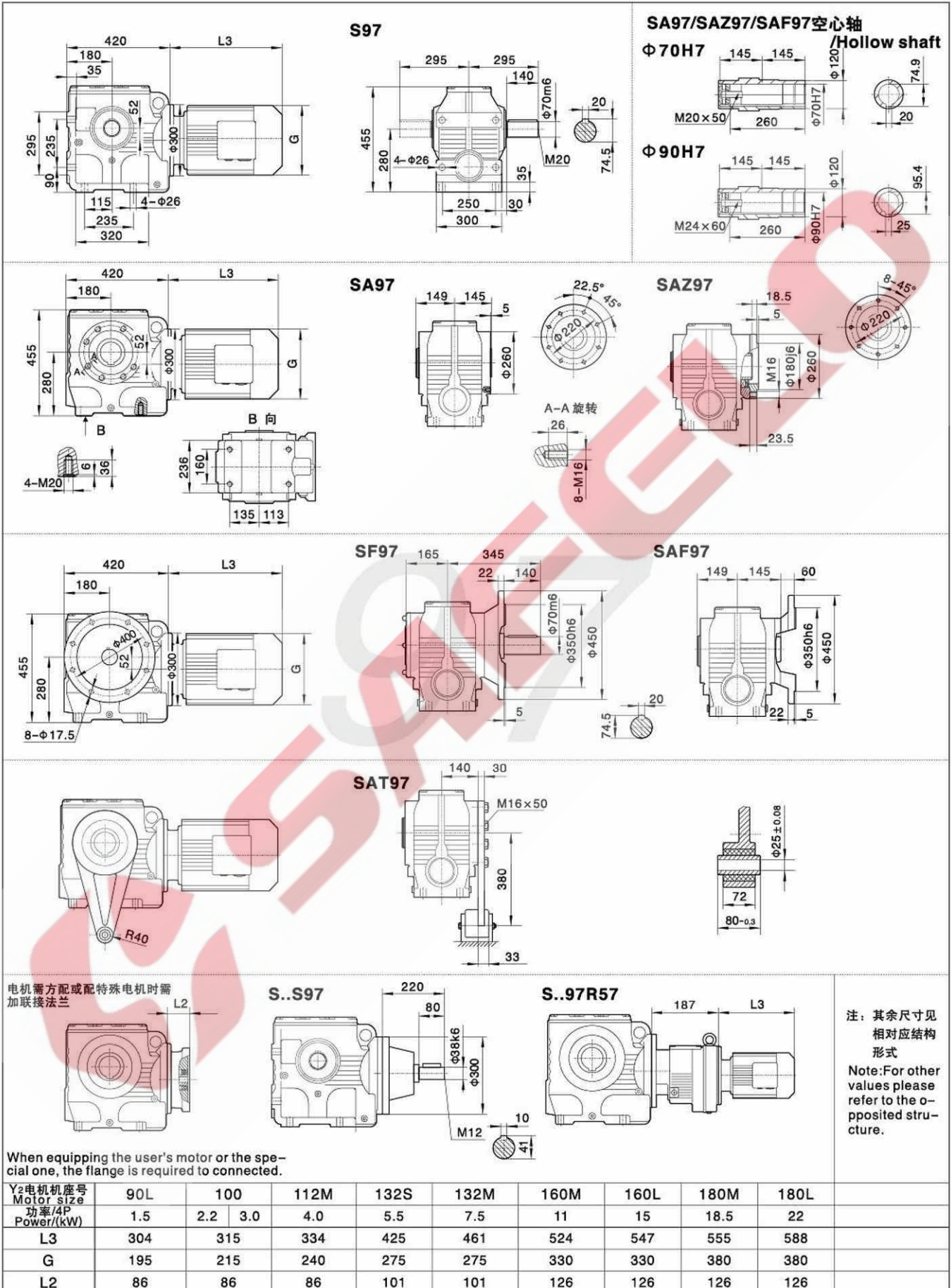


注: 其余尺寸见相对应结构形式
Note: For other values please refer to the opposed structure.

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

Y ₂ 电机座号 Motor size	80	90S	90L	100	112M	132S	132M	160M	160L
功率/4P Power/(kW)	0.75	1.1	1.5	2.2	3.0	4.0	5.5	7.5	15
L3	246	280	304	350	380	425	461	524	547
G	175	195	195	215	240	275	275	330	330
L2	86	86	86	71	71	101	101	126	126

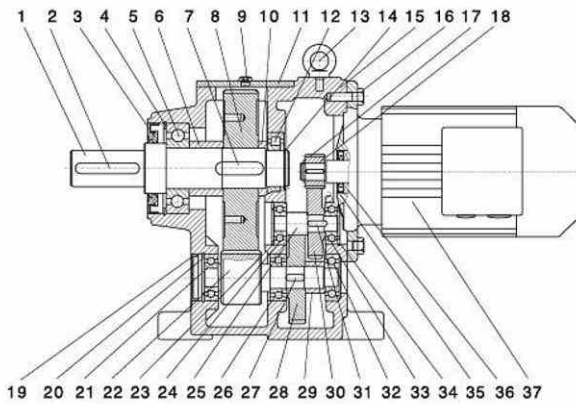
注: 1.SA、SF、SAF、SAZ壳体为通用件, 安装尺寸均可相互参照。2."S.."表示S、SA、SF、SAF、SAZ
Note: 1. The housings of SA、SF、SAF、SAZ are common parts. The mounting dimensions may consult each other. 2."S.."mean S、SA、SF、SAF、SAZ



S

一. R 系列结构图

R series structural drawing

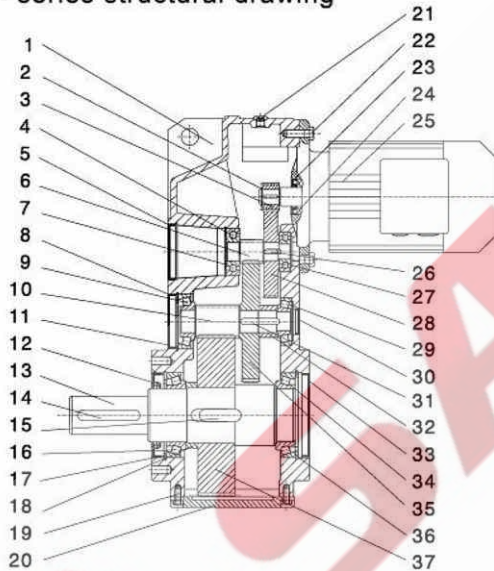


- | | | | |
|-----------|-------------|--------------|-------------|
| 1. 输出轴 | 10. 轴套 II | 19. 封盖 | 28. 齿轮 II |
| 2. 平键 I | 11. 盖 | 20. 孔用挡圈 II | 29. 轴套 III |
| 3. 输出轴油封 | 12. 轴承 II | 21. 轴承 III | 30. 齿轮 I |
| 4. 孔用挡圈 I | 13. 吊环 | 22. 齿轮轴 III | 31. 平键 IV |
| 5. 轴承 I | 14. 轴用挡圈 I | 23. 孔用挡圈 III | 32. 轴承 VI |
| 6. 轴套 I | 15. 箱体 | 24. 轴承 IV | 33. 轴承 VII |
| 7. 平键 II | 16. 螺栓 | 25. 齿轮轴 II | 34. 孔用挡圈 IV |
| 8. 齿轮 III | 17. 轴用挡圈 II | 26. 轴承 V | 35. 电机油封 |
| 9. 通气帽 | 18. 输入齿轮 | 27. 平键 III | 36. 电机轴承 |

- | | | |
|----------------------|--------------------|----------------------|
| 1. Output shaft | 13. Hoisting ring | 25. Gear shaft II |
| 2. Parallel key | 14. Circlip II | 26. Bearing V |
| 3. Output shaft seal | 15. Housing | 27. Parallel key III |
| 4. Circlip I | 16. Bolts | 28. Gear II |
| 5. Bearing I | 17. Circlip II | 29. Bush III |
| 6. Bush I | 18. Input gear | 30. Gear I |
| 7. Parallel key II | 19. Cover | 31. Parallel key IV |
| 8. Gear III | 20. Circlip II | 32. Bearing VI |
| 9. Breather valve | 21. Bearing III | 33. Bearing VII |
| 10. Bush II | 22. Gear shaft III | 34. Circlip IV |
| 11. Cover | 23. Circlip III | 35. Motor seal |
| 12. Bearing II | 24. Bearing IV | 36. Motor bearing |
| | | 37. Motor |

二. F 系列结构图

F series structural drawing

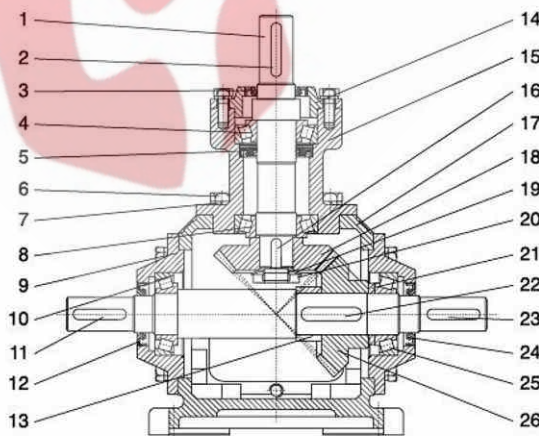


- | | | | |
|-----------|--------------|------------|-------------|
| 1. 箱体 | 10. 齿轮轴 III | 19. 螺栓 | 28. 齿轮 I |
| 2. 轴用挡圈 I | 11. 孔用挡圈 II | 20. 盖 | 29. 轴承 V |
| 3. 输入齿轮 | 12. 输出轴油封 | 21. 通气帽 | 30. 封盖 III |
| 4. 孔用挡圈 I | 13. 输出轴 | 22. 螺栓 | 31. 平键 IV |
| 5. 封盖 I | 14. 平键 I | 23. 电机油封 | 32. 轴套 II |
| 6. 齿轮轴 II | 15. 平键 II | 24. 电机轴承 | 33. 封盖 IV |
| 7. 轴承 I | 16. 轴承 III | 25. 电机 | 34. 轴承 VI |
| 8. 封盖 II | 17. 孔用挡圈 III | 26. 平键 III | 35. 齿轮 II |
| 9. 轴承 II | 18. 轴套 III | 27. 轴承 IV | 36. 孔用挡圈 IV |

- | | | |
|-----------------------|---------------------|----------------------|
| 1. Housing | 13. Output shaft | 25. Motor |
| 2. Circlip I | 14. Parallel key I | 26. Parallel key III |
| 3. Output gear | 15. Parallel key II | 27. Bearing IV |
| 4. Circlip I | 16. Bearing III | 28. Gear I |
| 5. Cover | 17. Circlip III | 29. Bearing V |
| 6. Gear shaft II | 18. Bush III | 30. Cover III |
| 7. Bearing I | 19. Bolts | 31. Parallel key IV |
| 8. Cover II | 20. Cover | 32. Bush II |
| 9. Bearing II | 21. Breather valve | 33. Cover IV |
| 10. Gear shaft III | 22. Bolts | 34. Bearing VI |
| 11. Circlip II | 23. Motor seal | 35. Gear II |
| 12. Output shaft seal | 24. Motor bearing | 36. Circlip IV |
| | | 37. Gear III |

三. T 系列结构图

T series structural drawing

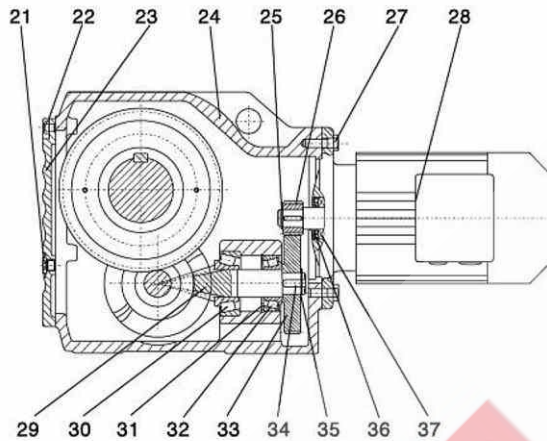
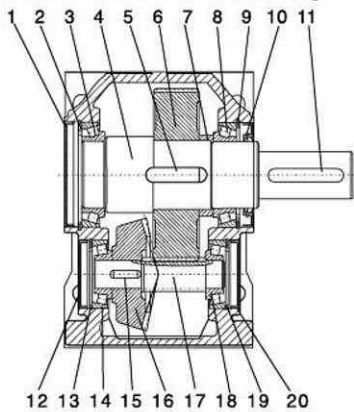


- | | | |
|----------|-------------|--------------|
| 1. 输入轴 | 10. 轴承 III | 19. 止动垫圈 |
| 2. 平键 I | 11. 平键 II | 20. 圆螺母 |
| 3. 输入轴油封 | 12. 输出轴油封 I | 21. 调整垫 I |
| 4. 轴承 I | 13. 调整垫 II | 22. 平键 IV |
| 5. 输入轴油封 | 14. 输入法兰盖 | 23. 平键 V |
| 6. 螺栓 | 15. 输入法兰 | 24. 输出轴油封 II |
| 7. 弹簧垫圈 | 16. 平键 III | 25. 轴承 IV |
| 8. 轴承 II | 17. 箱体 | 26. 输出弧齿锥齿轮 |
| 9. 输出法兰 | 18. 输入弧齿锥齿轮 | |

- | | | |
|---------------------|-------------------------------|--------------------------------|
| 1. Input shaft | 10. Bearing III | 19. Washer |
| 2. Parallel key I | 11. Parallel key II | 20. Round screw nut |
| 3. Input shaft seal | 12. Output shaft seal I | 21. Ring I |
| 4. Bearing I | 13. Ring II | 22. Parallel key IV |
| 5. Input shaft seal | 14. Input flange cover | 23. Parallel key V |
| 6. Bolts | 15. Input flange | 24. Output shaft seal II |
| 7. Washer | 16. Parallel key III | 25. Bearing IV |
| 8. Bearing II | 17. Housing | 26. Output helical -bevel gear |
| 9. Output flange | 18. Input helical -bevel gear | |

四. K系列结构图

K series structural drawing



- 9.Circlip II
- 10.Output shaft seal
- 11.Parallel key II
- 12.Cover II
- 13.Circlip III
- 14.Bearing III
- 15.Parallel key III
- 16.Helical-bevel gear
- 17.Gear shaft III
- 18.Bearing IV
- 19.Circlip IV
- 20.Cover III
- 21.Breather valve
- 22.Bolts II
- 23.Cover
- 24.Housing
- 25.Circlip I
- 26.Input gear
- 27.Bolts II
- 28.Motor
- 29.Helical-bevel gear shaft
- 30.Bearing V
- 31.Circlip V
- 32.Bearing VI
- 33.Gear I
- 34.Parallel key IV
- 35.Circlip II
- 36.Motor seal
- 37.Motor bearing

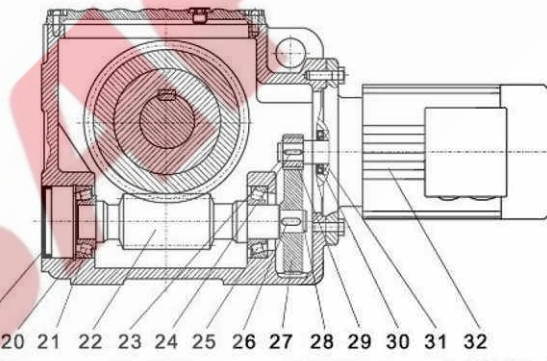
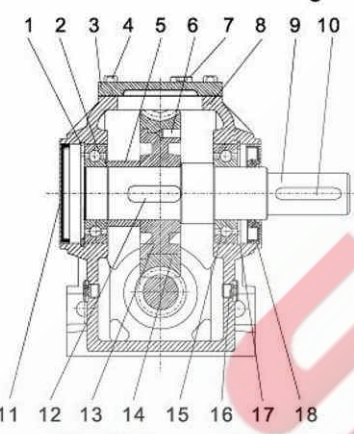
- 1.封盖 I
- 2.孔用挡圈 I
- 3.轴承 I
- 4.输出轴
- 5.平键 I
- 6.齿轮 III
- 7.轴套 III
- 8.轴承 II
- 9.孔用挡圈 II
- 10.输出轴油封
- 11.平键 II
- 12.封盖 II
- 13.孔用挡圈 III
- 14.轴承 III
- 15.平键 III
- 16.弧齿锥齿轮
- 17.齿轮轴 III
- 18.轴承 IV
- 19.孔用挡圈 IV
- 20.封盖 III
- 21.通气帽

- 22.螺栓 I
- 23.端盖
- 24.箱体
- 25.轴用挡圈 I
- 26.输入齿轮
- 27.螺栓 II
- 28.电机
- 29.弧齿锥齿轮轴
- 30.轴承 V
- 31.孔用挡圈 V
- 32.轴承 VI
- 33.齿轮 I
- 34.平键 IV
- 35.轴用挡圈 II
- 36.电机油封
- 37.电机轴承

- 1.Cover I
- 2.Circlip I
- 3.Bearing I
- 4.Output shaft
- 5.Parallel key I
- 6.Gear III
- 7.Bush III
- 8.Bearing II

五. S系列结构图

S series structural drawing



- 9.Output shaft
- 10.Parallel key I
- 11.Cover I
- 12.Parallel key II
- 13.Worm wheel core
- 14.Worm wheel edge
- 15.Bearing II
- 16.Oil sight glass
- 17.Circlip II
- 18.Output shaft seal
- 19.Cover II
- 20.Circlip III
- 21.Bearing III
- 22.Worm
- 23.Circlip I
- 24.Parallel key III
- 25.Bearing IV
- 26.Parallel key IV
- 27.Gear I
- 28.Circlip II
- 29.Input gear
- 30.Motor seal
- 31.Motor bearing
- 32.Motor

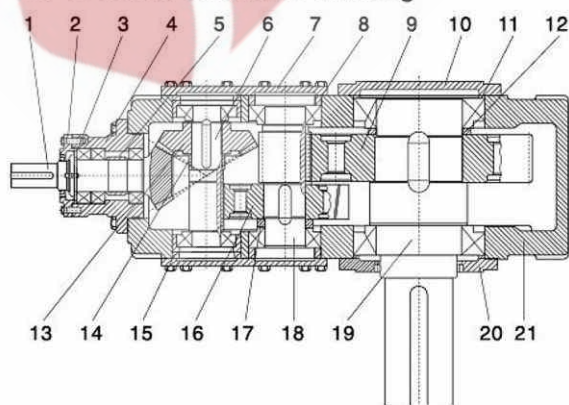
- 1.孔用挡圈 I
- 2.轴承 I
- 3.盖
- 4.螺栓 II
- 5.轴套 III
- 6.螺钉
- 7.通气帽
- 8.箱体
- 9.输出轴
- 10.平键 I
- 11.封盖 I
- 12.平键 II
- 13.蜗轮芯
- 14.蜗轮轮缘
- 15.轴承 II
- 16.油镜
- 17.孔用挡圈 II
- 18.输出轴油封

- 19.封盖 II
- 20.孔用挡圈 III
- 21.轴承 III
- 22.蜗杆
- 23.轴用挡圈 I
- 24.平键 III
- 25.轴承 IV
- 26.平键 IV
- 27.齿轮 I
- 28.轴用挡圈 II
- 29.输入齿轮
- 30.电机油封
- 31.电机轴承
- 32.电机

- 1.Circlip I
- 2.Bearing I
- 3.Cover
- 4.Bolts II
- 5.Bush III
- 6.Screws
- 7.Breather valve
- 8.Housing

六. H、B系列结构图

H、B series structural drawing



- 1.弧齿锥齿轮轴
- 2.通盖 I
- 3.调整环 I
- 4.轴承座
- 5.定距环 I
- 6.齿轮轴 I
- 7.止盖 I
- 8.调整环 III
- 9.齿轮 III
- 10.止盖 II
- 11.调整环 IV
- 12.定距环 IV
- 13.弧齿锥齿轮
- 14.定距环 II
- 15.调整环 II
- 16.齿轮 II
- 17.定距环 III
- 18.齿轮轴 II
- 19.输出轴
- 20.通盖 II
- 21.机体
- 1.Helical-bevel gear shaft
- 2.Cover I
- 3.Ring I
- 4.Bearing seat
- 5.Ring I
- 6.Gear shaft I
- 7.Cover I
- 8.Ring III
- 9.Gear III
- 10.Cover II
- 11.Ring IV
- 12.Ring IV
- 13.Helical-bevel gear
- 14.Ring II
- 15.Ring II
- 16.Gear II
- 17.Ring III
- 18.Gear shaft II
- 19.Output shaft
- 20.Cover II
- 21.Housing

电机

电机按标准供货，若指定或高于此标准必须说明。

Y普通三相异步电动机：

电压380V，频率50Hz（其它电压、频率需注明）

防护等级：IP44或IP54（指定IP54、IP55、IP56、IP65等需注明）

绝缘等级：B或F（指定F等需注明）

制动电机的制动器电压：380V或220V（指定电压或其它电压需注明）

防爆电机防爆等级：d II BT4（其它等级需注明）

变频电机频率范围：0-50Hz（0-60Hz、0-120Hz或指定的范围需提出）

电机的噪声、电流、效率、功率因素、额定转矩等项目按国家标准。

以下要求及附件需另行说明：

- * 制动电机配手释放装置
- * 电机的热传感器
- * 不带风冷或强制风冷
- * 配旋转编码器
- * 防水、防潮、防尘的要求

电机代号

四极三相异步电动机代号 - Y（六极代号-Y6、八极代号-Y8、二级代号-Y2，下同）

制动电机代号 - YEJ

防爆电机代号 - YB

变频电机代号 - YVP

多速电机代号 - YD

变频制动代号 - YPEJ

其它电机代号另咨询。

MOTOR

Motors comply with National standard, please state if specification of other standards needed.

Y general tri-phase asynchronous motor data:
380V, 50Hz (other voltage & frequency should be stated)

Index of performance:
IP44 or IP54 (specification of IP54, IP55, IP56, IP65 should be stated)

Insulation class:
B & F (using F should be stated)

Braking voltage of braking motor:
380V or 220V (other voltages should be stated)

Explosion-proof class:
d II BT4 (other classes should be stated)

Frequency range:
0~50Hz (0~60Hz, 0~120Hz or other range will be stated)

Noise, current, efficiency, power factor, nominal torque all comply with national standard.

The following will be specified by customers:

- * Brake motor equipped with manual brake release
- * Thermal sensor
- * No air cooling or forced air cooling
- * Installation of rotation encoder
- * Water proof, damp proof, dust proof

Motor code:

Y — 4-pole tri-phase asynchronous motor
(Y2 — 2-pole, Y6 — 6-pole, Y8 — 8-pole)

YEJ — Brake motor

YB — Explosion-proof motor

YVP — Frequency conversion motor

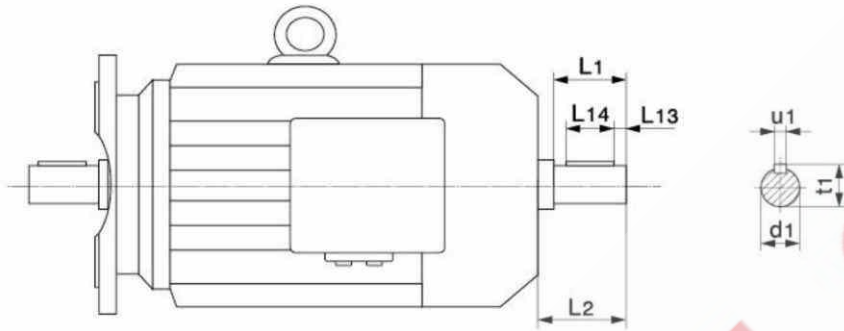
YD — Multi-speed motor

YPEJ — Frequency-conversion brake motor

Other codes are available on request.

电机双出轴：

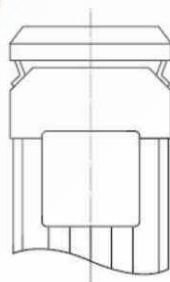
Double extended shaft motor:



	63	71	80	90/100	112	132S	132M	160L	180	200-225
d1	11	11	14	19	24	28	38	42	48	55
L1	23	23	30	40	50	60	80	110	110	110
L2	27	25	31	42	55	65	85	115	115	115
L13	3.5	1	4	4	5	5	5	10	10	10
L14	16	20	22	32	40	50	70	70	80	90
t1	12.5	12.5	16	21.5	27	31	41	45	51.5	59
u1	4	4	5	6	8	8	10	12	14	16

电机配室外防护罩：

Motor equipped with shield:



电机接线盒未注明位置一般以0° 供货。

In general, position of terminal box is at angular 0° without specification.

以下只对Y、Y2的额定转速、外形长度尺寸提供一般说明。由于购买厂家不同，和配齿轮箱时法兰缩小，有时尺寸会有些变化，此处不标，其它例如直流、伺服、起重冶金高转差率电机及其它特种电机另行咨询。

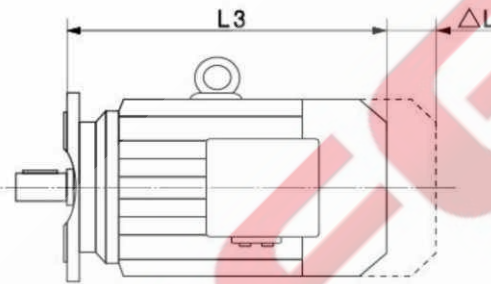
一般情况下Y132以下机座的普通三相异步电机以Y2系列提供，Y132以上以Y系列提供，以实际供货为准。

电机功率和转速、长度尺寸表：

We only provide general data of Y&Y2as example as follows. For the data of DC motor, servo-motor, and other special motors, please consult us.

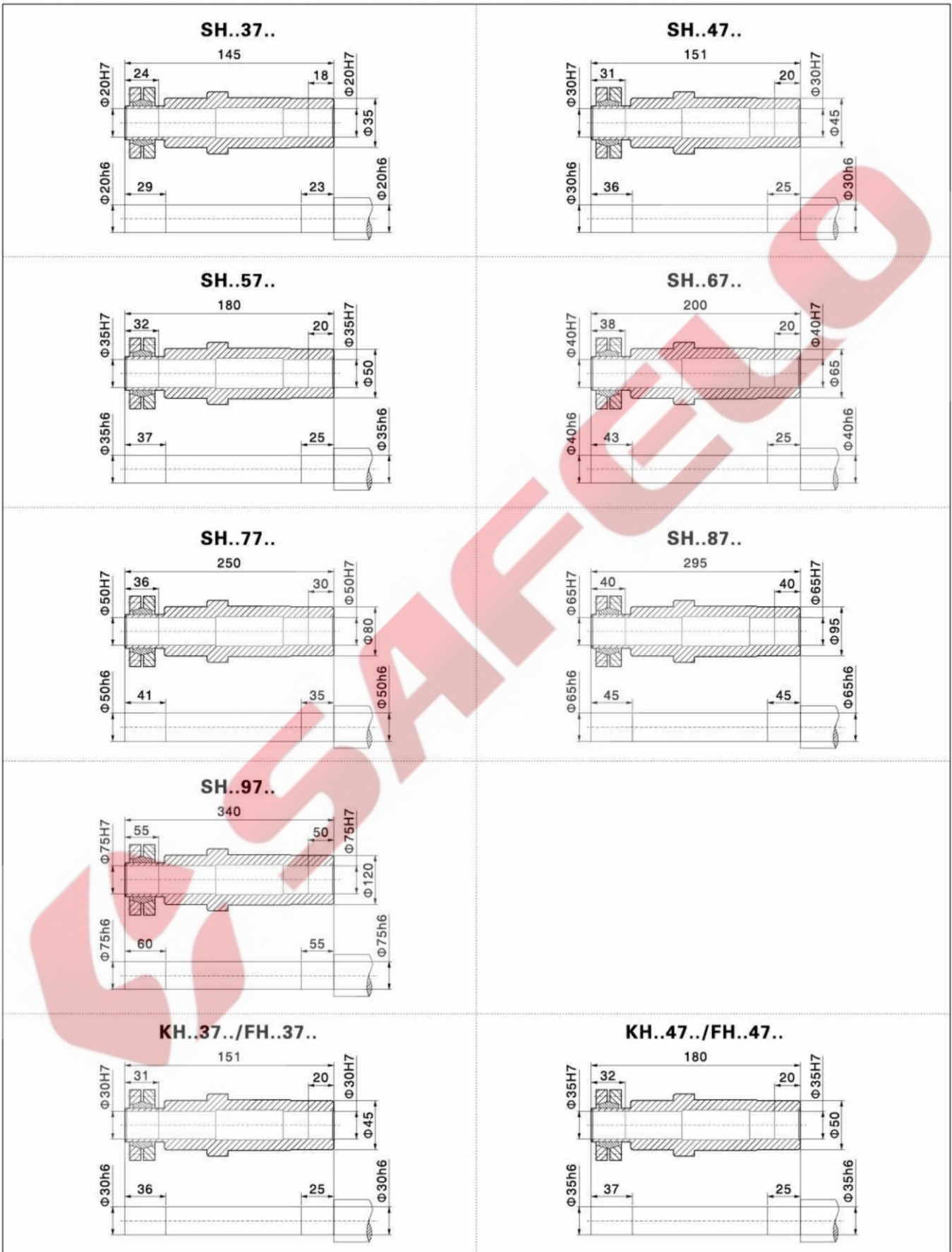
General 3-phase asynchronous motor belowsize 132 are provided as Y2 series, Type of motors above size 132 willbe provided as Y series.

Table of Power, speed and length dimension:



	2极 (2electrodes)		4极 (4electrodes)		6极 (6electrodes)		8极 (8electrodes)		m (kg)				配H. B. P. T. RV. JW L3 (mm)				配R. S. K. F另加 ΔL	
	Pm (kW)	n (r.p.m)	Pm (kW)	n (r.p.m)	Pm (kW)	n (r.p.m)	Pm (kW)	n (r.p.m)	(铝壳)	Y	YB	YEJ	YVP	Y	YB	YEJ	YVP	
63	0.18	2720	0.12	1310					5.5			11	197	270	328		40	
	0.25	2720	0.18	1310					6		15	12						
71	0.37	2740	0.25	1330	0.18	850			6.5	10	16	12	14	235	285	330		30
	0.55	2740	0.37	1330	0.25	850			7.5	10.50	16	13	15					
80	0.75	2845	0.55	1390	0.37	885	0.18	645	10	15	31	20	16	255	290	350	330	40
	1.1	2845	0.75	1390	0.55	885	0.25	645	11	16	32	21	17					
90s	1.5	2840	1.1	1390	0.75	910	0.37	670	16	20	35	27	23	270	310	370	330	50
90l	2.2	2840	1.5	1390	1.1	910	0.55	670	20	23	39	31	28	295	335	395	360	50
100	3	2860	2.2	1410	1.5	920	0.75	680		32	49	41	35	325	370	420	405	60
			3	1410			1.1	680		35	53	44	36					
112M	4	2880	4	1440	2.2	935	1.5	690		46	67	60	43	340	400	450	420	60
132S	5.5	2900	5.5	1440	3	960	2.2	705		60	93	85	63	395	430	505	450	60
	7.5	2900																
132M			7.5	1440	4	960	3	705		73	105	98	75	435	470	545	490	75
					5.5	965												
160M			11	1460	7.5	970	4	720		115	150	143	116	495	545	610	550	90
					5.5	720												
160L			15	1460						135	169	165	136	560	585	655	605	90
180M			18.5	1470	11	970	7.5	720		172	205	203	169	590	620	715	605	110
180L			22	1470	15	970	11	730		185	222	216	183	630	640	765	705	110
200			30	1470	18.5	970	15	730		253	300	296	236	665	695	790	740	110
					22	970												
225S			37	1480			18.5	730		300	360	370	291	680	705	860	730	130
225M			45	1480	30	980	22	730		335	390	405	327	705	730	890	770	135
250			55	1480	37	980	30	730		420	530	498	393	795	795		860	115
280S			75	1480	45	980	37	740		560	660	633	520	860	870		930	125
280M			90	1480	55	980	45	740		670	785	723	610	920	920		980	125
315S			110	1480	75	980				920	1000	1150	950	1010	1100		1285	
315M			132	1480	90	980				1050	1100	1230	1030	1180	1180		1380	
315L			160	1480	110	980				1160	1100	1320	1100	1200	1270		1450	
			200	1480	132	980				1240	1600	1420	1200					

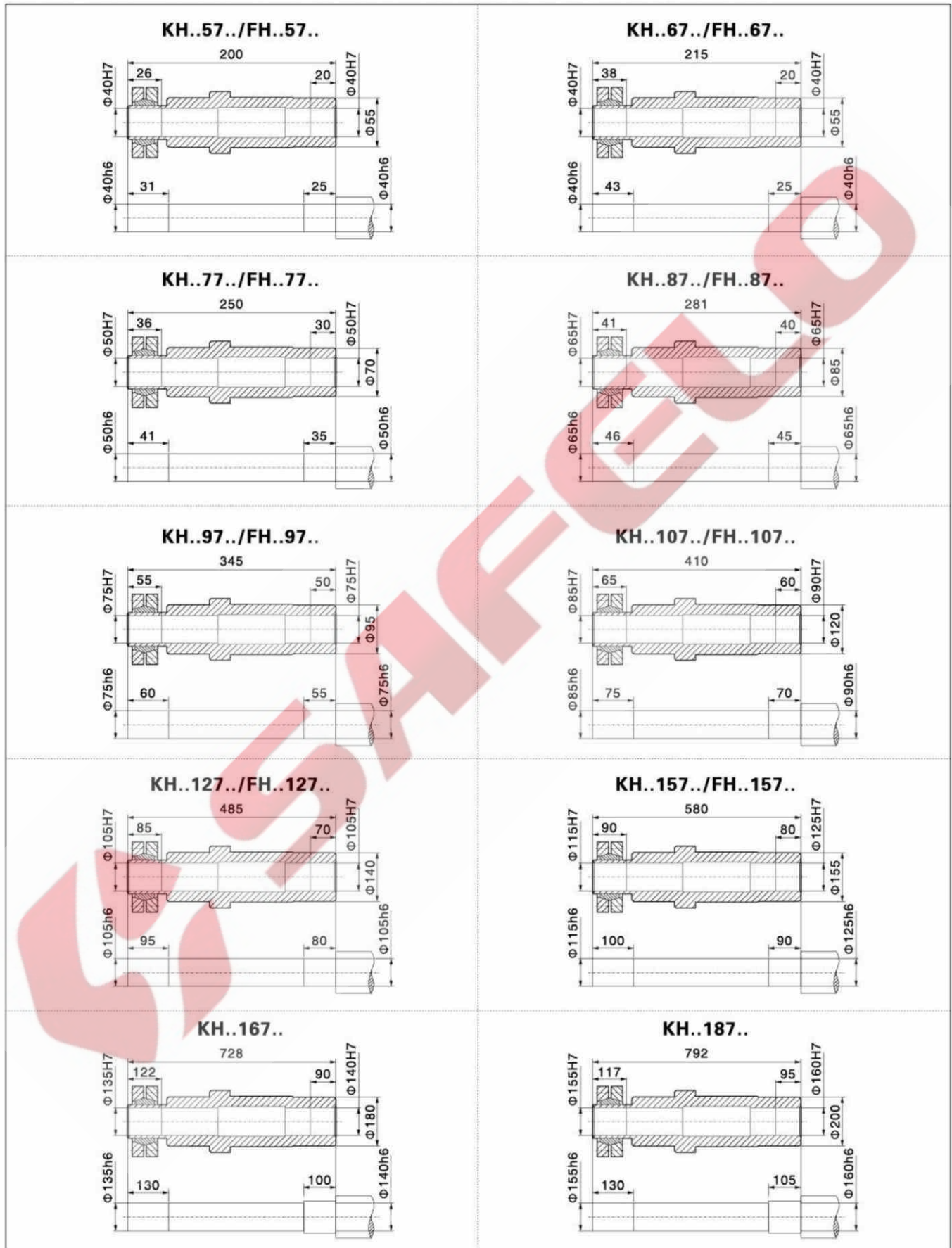
S、F、K系列锁紧盘尺寸图 Dimensions of shrink disk for S、F、K series



注：1.四大系列带锁紧盘型减速机除输出轴不同外，其余均同平键空心轴标准产品。

Note: 1. Except the output shaft, the main four series gear units with shrink disk are the same as the standard ones with hollow shafts with plat key.

S、F、K系列锁紧盘尺寸图 Dimensions of shrink disk for S、F、K series



注：1.四大系列带锁紧盘型减速机除输出轴不同外，其余均同平键空心轴标准产品。

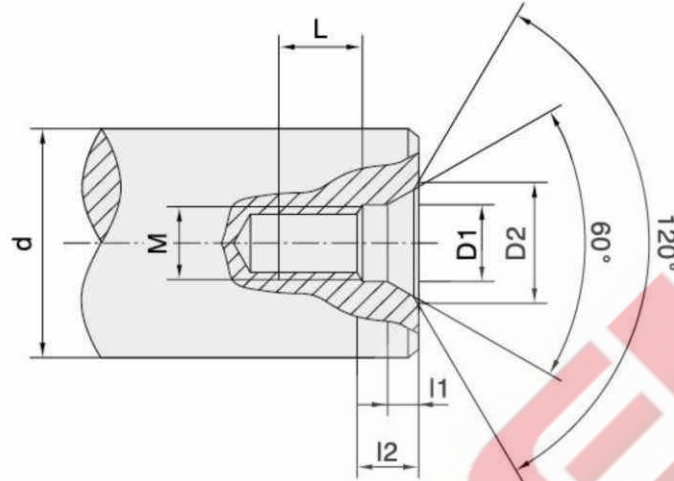
Note: 1. Except the output shaft, the main four series gear units with shrink disk are the same as the standard ones with hollow shafts with flat key.

出轴/入轴轴端螺纹孔:

Screw hole in shaft end:

R、S、K、F、T、JW、H、B、P、RV轴端单螺孔(C型带螺纹的中心孔):

R、S、K、F、T、JW、H、B、P、RV series' s single screw hole in shaft end (C screw hole):



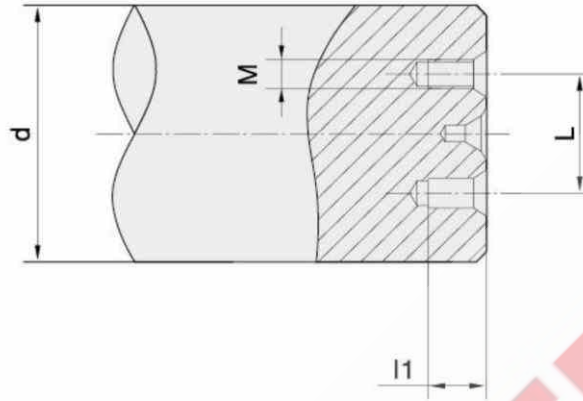
d	M	L	I2	I1	D1	D2
$7 < d \leq 10$	M3	10	2.6	1.8	3.2	5.8
$10 < d \leq 13$	M4	10	3.2	2.1	4.3	7.4
$13 < d \leq 16$	M5	10	4	2.4	5.3	8.8
$16 < d \leq 21$	M6	12	5	2.8	6.4	10.5
$21 < d \leq 24$	M8	12	6	3.3	8.4	13.2
$24 < d \leq 30$	M10	15	7.5	3.8	10.5	16.3
$30 < d \leq 38$	M12	20	9.5	4.4	13	19.8
$38 < d \leq 50$	M16	25	12	5.2	17	25.3
$50 < d \leq 85$	M20	30	15	6.4	21	31.3
$85 < d \leq 130$	M24	35	18	8	25	38
$130 < d \leq 225$	M30	45	18	11	31	48
$225 < d \leq 320$	M36	55	22	15	37	60
$320 < d \leq 500$	M42	60	26	19	43	71
$500 < d \leq 710$	M48	65	30	23	49	83

注: 轴端双螺纹孔时, 订货时需特殊说明。

Note: If two holes in shaft-end are necessary, please make a specification for it when placing an order.

轴端双螺孔:

Double screw holes in shaft end:



轴端双螺孔 Double screw hole in shaft end				轴端双螺孔 Double screw hole in shaft end			
d	M	l1	L	d	M	l1	L
40 < d ≤ 45	M8	12	20	150 < d ≤ 165	M12	20	120
45 < d ≤ 50	M8	12	22	165 < d ≤ 180	M16	28	130
50 < d ≤ 60	M10	18	26	180 < d ≤ 210			160
60 < d ≤ 70			36	210 < d ≤ 230			160
70 < d ≤ 80			50	230 < d ≤ 280	M20	38	180
80 < d ≤ 100	60	280 < d ≤ 290	190				
100 < d ≤ 110	M12	20	70	290 < d ≤ 310	M24	45	220
110 < d ≤ 120			80	310 < d ≤ 330			230
120 < d ≤ 130			85	330 < d ≤ 340			240
130 < d ≤ 140			90	d > 340			250
140 < d ≤ 150			110				

注: 轴端双螺纹孔时, 订货时需特殊说明。

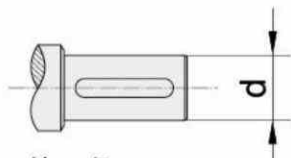
Note: If two holes in shaft-end are necessary, please make a specification for it when placing an order.

输出、输入部分公差标准:

Tolerance for input and output parts:

轴径公差:

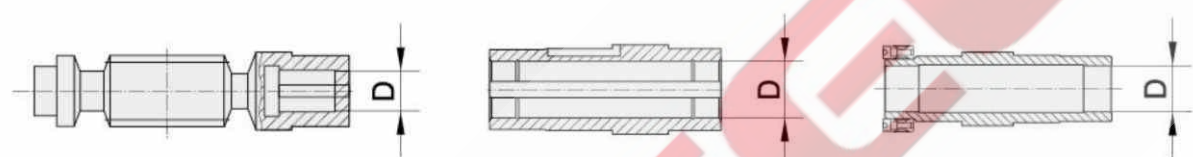
Tolerance for shaft diameter:



轴 径 Shaft diameter	公 差 Tolerance
$d \leq 50$	K6
$50 < d \leq 250$	m6
$d > 250$	n6

蜗杆、空心轴孔径公差:

Worm, hollow shaft diameter tolerance:



孔 径 Hole diameter	公 差 Tolerance
D	H7

输出法兰凸肩和螺母公差:

Nut, flange protruding step tolerance:



凸 肩 直 径 d	公 差 h7
d	h7

输出法兰、底座定位凹肩公差:

Flange, housing base concave step tolerance:



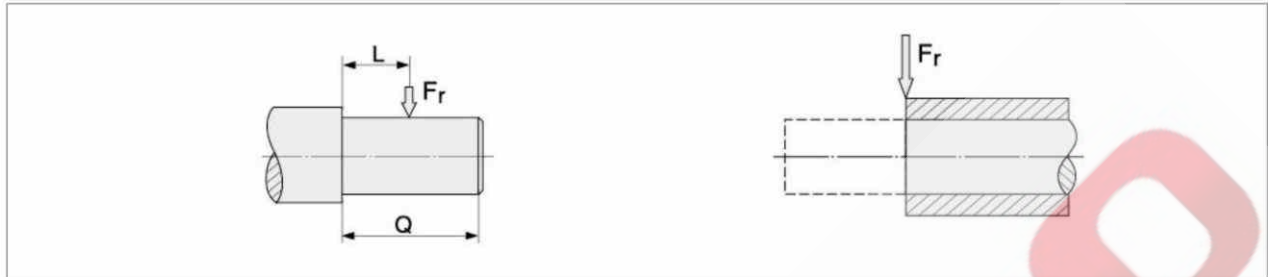
凹 肩 直 径 D	公 差 H7
D	H7

径向力Fr和轴向力Fa:

Radial loads "Fr" and axial loads "Fa" of output shaft:

输入、输出轴径向力的计算:

Calculation of radial force Fr:



$$Fr1 = \frac{T1 \times f \times Lf}{r}$$

$$Fr2 = \frac{T2 \times f \times Lf}{r}$$

Fr1、Fr2: 输入、输出轴上的径向力大小 (N)
f: 轴上所装配零件径向力系数 (表1)
Lf: 载荷位置系数 (表2)
r: 轴的半径 (m)

Fr1、Fr2: Input,output radial force value (N)
f: Radial force factor of parts on shaft (table 1)
Lf: Load position factor (table 2)
r: Radium of shaft (mm)

径向力系数Radial force factor:(f) 表Table 1

链轮 Chain wheel	齿轮 Gear	V带轮 V belt wheel	平带轮 Flat belt wheel
1.00	1.25	1.5	2.0

载荷位置系数Load position factor:(f) 表Table 2

L/Q	≤0.5	0.75	1
Lf	1	1.5	2

当不受径向力时, 许用轴向力
Fa=Fr/2

Permissible axial loads Fa=Fr/2
without radial loads Fr.

需很大的许用轴向力和许用径向力请向我
们另行咨询, 因为有些行业用途时结构(例轴承)
需作一些变动。

Radial loads Fr are very big, please contact
us because of some modification depending on
different industry.

工作周期ED:

Working circle:

$$ED = \frac{t_f}{t_f + t_r} \cdot 100\%$$

t_f: 带负载的工作时间; t_r: 停歇时间。

t_f: Period under load; t_r: Period of repos.

噪声:

应提供允许的声压水平 (dB) 最大值, 当声压超
过这一水平时, 可以采用吸音罩罩住, 若需可提
供在敞开场地的瑞德森标准声压值。

Noise:

Usershould offer permissible sound pressure maxi-
mum value(dB), if noise is greater than maximum
value, please use cover of sound absorption. If requir-
ing, REDSUN may offer normal noise intensity value
in open field.

减速机的选型所需的参数

减速机的选择用户应提供以下尽量详细的技术要求、载荷周期和运行条件，瑞德森公司将可为客户完成最后的选择，保证减速机的质量、经济和可靠性。

为了确保承诺的有效性，主要承包商对传动系统的坚固性负责，通过影响因素进行控制，连接传动部分必须协调。用户需在规定的范围内安装、润滑、使用、运行、维护，不受极限速度、扭矩、振动的影响。

被动设备

- 名称和种类
- 负载性质（使用冲击系数或惯量）
- 运行负载
- 输出功率
- 输出转速 $n_2(\text{rpm})$:
- 输出扭矩 $T_2(\text{N} \cdot \text{m})$:
- 连续使用时间 小时/天 小时/月 小时/年
- 起动力矩和频率
- 制动力矩和频率
- 冲击负载、峰值负载和频率
- 正反运转和频率
- 径向、轴向负载

原动机(或电动机是否正反转及其频率，输出轴径向和轴向负载)

- 型号和种类
- 额定功率和转速
- 最大扭矩
- 起动转矩
- 转动惯量直连电动机时，参照电动机的说明
- 代号及附件
- 电机接线盒位置是否指定

减速器（所选减速器必须能经受起动、制动、冲击力矩等影响）

- 要求的型号
- 安装形式
- 安装方位
- 输出形式
- 电源
- 润滑（飞溅润滑、强制润滑）
- 冷却：不附加冷却装置（即风冷）
强制风冷
强制水、油冷却
- 噪声：要求声压值 \leq
- 其它附件

Required parameter for motor selection

Reducer users should offer below detailed technical requirements, REDSUN would accomplish final selection for client and assure reducer's quality, economy, reliability. To ensure validity for promise.

To ensure validity for promise, main contractor should take charge of system ruggedness and transmission factor controlling, connecting pieces must harmonize with transmission components. User must use reducer, operate reducer and maintain reducer properly in the stated tang, and reducer is not influenced by limited speed, torque, vibration.

Passive equipment

- Name and variety
- Load character (use shock factor or inertia)
- Running load
- Output power(kW)
- Output speed(rpm)
- Output torque($\text{N} \cdot \text{m}$)
- Time of woking continuously(hour per day)
- Starting moment and frequency
- Brake momet and frequency
- Shock load,peak load and frequency
- Rotate in both directions and frequency
- Radial and axial load

Impelling force(or motor,if rotate in both direction and frequency of that, output shaft radial and axial load)

- Mode and variety
- Power rating and speed
- Maximal torque
- Starting torque
- Connect with motor directly, rotational inertia refer to specification of motor
- Code and appurtenances
- If position of the terminal box is special requirement.

Reducer (Selected reducer can stand up to influence of starting and brake and shock moment)

- Requied model
- Mounting mode
- Mounting position
- Output mode
- Electrical source
- Lubrication(splash lubrication or forced lubrication)
- Cooling method: No cooling device(air blast)
- Cooling by fan
- Cooling by water or oil
- Noise(dB):required sound pressure value \leq
- Other appurtenances

联接:

- 被驱动设备和减速器联接:
- 减速机和电动机或其它原动机联接:
- * 当用皮带、链条或开式齿轮联接时, 必须告知装在轴端的皮带、链条或齿轮的直径, 以及中心距和负载方向。
- * 如果使用刚性联轴器, 必须告知作用在轴上的轴向和径向负载。

环境条件:

- 周围温度、空旷场地、狭小场地、通风条件:
- 特殊条件: 高温、低温、灰尘、化学作用、直接日照、冰等

特殊要求:

- 例如: 外伸中间轴 (S、R、K、F、RV、H、B、P 都有可能)
- 制动停机 (例倾斜输送机)
- 特殊密封 (灰尘、严格要求的食品、化学原料等)
- 速度监测、保护、逆止器等

其它要求:

Connection:

- Driven equipment is connected with gear unit
Gear unit is connected with motor or other drives.
- * When gear unit is connected with belt, chain or gear, user must tell REDSUN their diameter, centre distance and load direction.
 - * If gear unit is connected with rigid coupling, user must tell REDSUN radial and axial load applied on shaft.

Ambient condition:

- Ambient temperature, open field, narrow field, ventilation condition:
- Special condition: high temperature, low temperature, dust, chemistry, direct sun, ice etc:

Special requirement:

- Example: Extend intermediate shaft (it is possible for S、R、K、F、RV、H、B、P)
- Braking and stopping (Such as inclined conveyer)
- Special seal (dust, food and chemical material with special requirements.
- Speed monitor, protection, backstop.

Other requirement:

安装、使用、润滑说明

一般说明

减速机的安装、操作、维护保养和修理人员均需阅读和理解本说明并遵守其中的规定。若因违反本说明的规定而造成的任何损伤和停机，本公司概不负责。

注意事项

- 一定不能用高压清理设备清洁减速机。
- 对减速机所进行检修、保养、维护、安装都必须在减速机不工作的情况下进行。
- 在减速机上不得进行焊接工作，也不得用作焊接工作的接地点。焊接会造成精密齿轮和轴承的不可修复的损坏。
- 如果在减速机的运行过程中发现了任何异常现象（例如过热或者不正常的噪声等），应该立即停机检查。
- 凡是旋转的零部件必须配备合适的防护罩以防止人员的意外接触，例如联轴器，液力偶合器，齿轮，驱动皮带轮等。
- 一定要遵守减速机上所附加的说明，例如铭牌、指示方向的箭头等。这些铭牌和标记上面不得有灰尘和油漆。
- 在组装或者解体工作中损坏了的螺栓一定要用同等强度和类型的新螺栓更换。
- 安装升降机时，台架面上的孔，在满足丝杆能方便通过的前提下，应尽可能小。
- 根据减速机的操作条件，减速机的表面、润滑油和零部件可能会达到相当高的温度，小心烫伤！
- 当更换润滑油的时候，要谨慎小心不要被热油烫伤。
- 减速机应该放置在不振动的干燥木制基座上并遮盖好。当储存减速机 and 任何单独的零部件的时候一定要做好防锈措施，以免生锈，储存时不得将减速机叠放在一起。
- 除订货合同中另外有所规定，否则减速机不得储存在或工作在强酸、强碱、低温、高温和重度的空气污染、潮湿，具有化学物品的场所。
- 在搬运减速机时，一定要特别小心，应防止撞击轴端，因为这样将有可能造成减速机的损坏，在吊运减速机时，不得将吊环螺钉挂在轴端处的螺纹上。
- 除订货合同中另外有所规定，减速机和无级变速器工作环境温度不超过40摄氏度，温升低于40摄氏度。
- MB 无级变速器出厂时，调速限位螺钉已经调整在极限位置，不得任意调整，以免损坏零件。
- MB 无级变速器必须在开机情况下方可调速，否则会损坏零件。

Installation, usage, lubrication

General

It must be read and understood by operators, maintenance and repair persons. And they must comply with all regulations in this manual. Any damages and stop of machine caused by wrong operation will be buyer's responsibility.

Notes

- Gear units can not be cleaned by high-pressure cleaning machine.
- Repair, maintenance, installation must be made with gear unit powered off.
- No welding can be made on gear units, and it cannot be a welding ground point. Welding will cause irreparability of precision gears and shafts.
- During running, gear units must be stopped immediately for check once any problem (such as over heated and high noise) occurs.
- Any rotating parts will be equipped with appropriate shields in order to keep it from accidental touch. Such as couplings, hydraulic couplings, gears, driving belt wheels.
- Please note the instructions attached on gear units, such as label, arrow indicating direction. And they will be kept clean without dust and oil.
- The bolts damaged in installation or dismantlement should be replaced with new one of the same tension and type.
- When installing screw jacks, the screw holes in mounting plate should be as small as possible up to bolts' diameter.
- When gear units running, its temperature may get up to a high point, please take care, there is a danger of scald.
- When changing lubrication, please be careful not to be scalded by hot oil.
- Gear units should be put on dry wooden non-vibration base and be covered. When storing gear units and their components, we should take rust-proof measures, and we cannot pile up gear units.
- Unless there are special requirements in contracts, gear units cannot be stored or work in places with acid, alkali, low temperature, high temperature, heavy air pollution, damp, chemical products.
- When removing gear units, please be careful to avoid knocking shaft end and damaging; when swinging them, bolts of swinging rings cannot put in screw holes in the shaft ends.
- Unless there are special requirements in contracts, ambient temperature of gear units and variable speed drives is below 40°C, and temperature rise should lower 40°C.
- Before delivery of MB series, speed-limiting screw has been adjusted to an extreme point to protect spare parts. And speed adjustment must be done after the drives start up, or the drives will damage.

- 减速机、无级变速器应在许用转矩范围内使用，超扭矩使用应在输出轴上装安全装置，以免减速机损坏。
- 各种减速机、无级变速器适用于连续运转，并允许正反两向运转。（配逆止器时除外）
- 若出现安装方位变动，一般情况下调换油镜、油塞、通气帽即可。
- 备件一定要从瑞德森机械有限公司购买。

安装与拆卸

关于安装的综合信息：在户外安装时应该避免阳光的直射，一定要避免热力集中影响减速机的正常性能。

整机安装

- 1) 准备刚性好的基础或牢固的台架来安装传动设备，同时也需充分考虑即使加上最大载荷也不至于改变装配好后各部件的位置。
- 2) 底座式安装应校准中心高，联轴器联接时应校准两轴的同轴度，柔性联轴器时浮动量不超过联轴器的允许范围，刚性连接时保证各安装联接的形位公差；长轴联接还要考虑轴的足够刚度。
- 3) 法兰式安装，凸肩（或凹肩）应配合良好，以免错位。法兰式安装并配空心轴联接时，特别应保证联接处的形位公差。
- 4) 扭力臂安装，空心轴与工作轴应配合良好，工作轴的浮动或设备振动应小于弹性块允许的范围，力臂应固定并锁紧。
- 5) 在减速机上安装驱动零件时（如联轴器、齿轮、链轮等），如果需要预加热，则必须保护好轴上的油封，要用防热屏减少热辐射。
- 6) 输出轴加装联轴器、皮带轮、齿轮、链轮等时，请勿重击，应用输出轴外端螺孔，压入连接件。皮带轮、链轮、搅拌式还需考虑径向力。

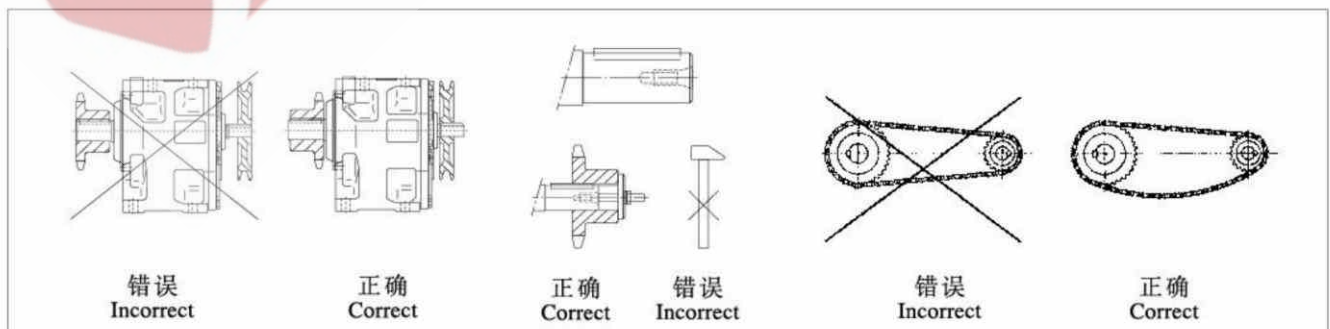
- Gear units and MB should run under permissible torque, safety devices should be equipped to avoid damage if load is larger permissible torque.
- Gear units and MB can run continuously and are permitted to rotate in both directions.
- If mounting position changes, the positions of breather screw, oil level, oil drain plug will be change with each other as usual.
- Spare parts must be purchased from REDSUN.

Installation and dismantlement

Installing gear units should avoid direct sunshine and heat concentration to guarantee smooth running.

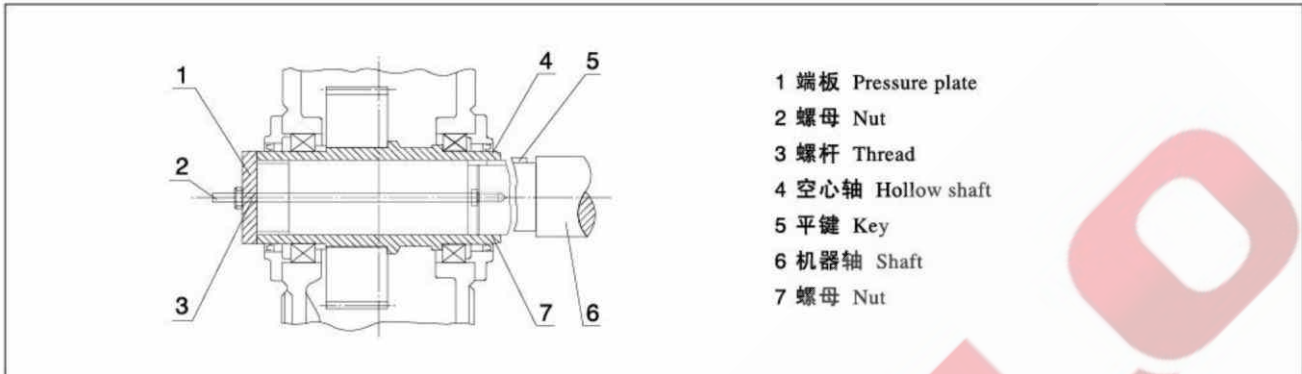
Installation of whole units

- 1) Please choose foundation with good rigidity or stable plat form to install transmission devices. In the meantime, also should take full consideration that the positions of all parts will not change even if maximum torque is loaded on units.
- 2) Choosing foot-mount, the height of centre line should be calibrated; Choosing coupling-connect, coaxiality should be calibrated; Choosing flexible coupling, run-out should keep within permissible values; Choosing rigid coupling, contour and position tolerance should be guaranteed; Choosing long coupling, rigidity of shaft should be enough.
- 3) Flange-mount, protruding or concave steps should inosculate with housings; using hollow shaft, contour and position tolerance at connection parts should be guaranteed.
- 4) Torque-arm-mount, hollow shafts should be fit with working shafts; run-out of working shafts and vibration of units should be within range of vibration values, torque arm should be fixed and locked.
- 5) Mounting driving parts such as couplings, gears, gear chains, if pre-heat is necessary, seal should be protected by using heat-proof shelter to diminish heat radiation.
- 6) Installing couplings, belt wheels, gears, chain gears on output shafts, please use screw hole in shaft end to press them in the correct position (see following pictures). And radial force should be considered in case of Belt wheel, chain gears and agitation mode.



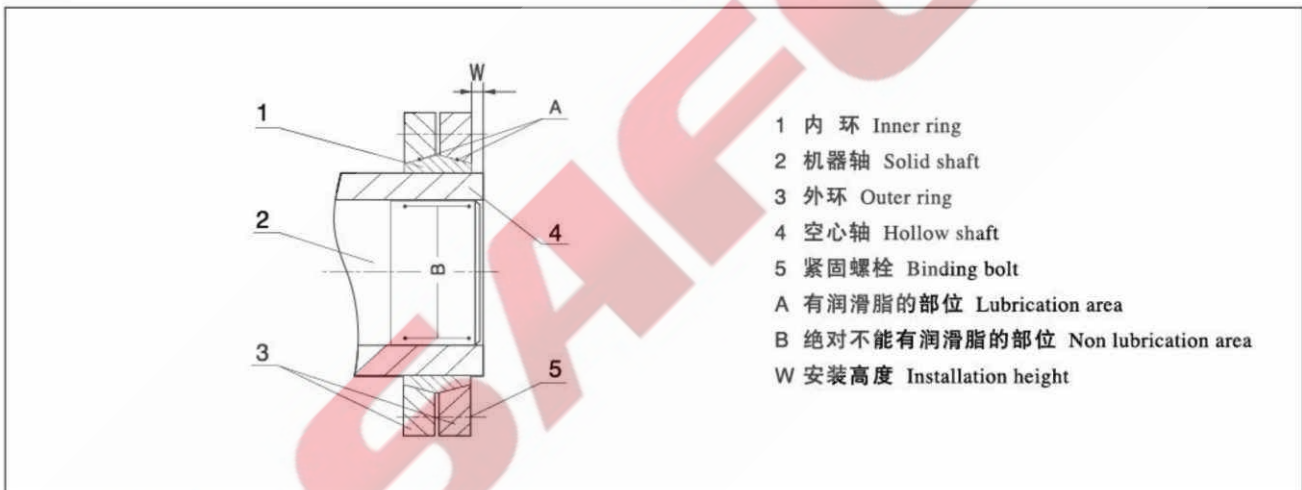
7) 空心轴与实心轴连接时，应清理干净并涂防锈油(空心轴一定要精密对中)。除了在图中所示的螺母和螺杆以外，还可以使用其它类型的装置例(如液压提升装置)。

7) When connecting hollow shaft and solid shaft, please clean the surface and put anti-corrosive oil on it. When connecting, besides nuts and threads illustrated in the drawing below, other installing tools such as oil hydraulic devices can be used.



8) 当空心轴配置收缩盘时，为了安全起见在收缩盘上应加防护罩；空心轴的孔和工作轴在收缩盘的区域里面一定不能涂有润滑脂。在安装机器的轴之前不要拧紧紧固螺栓。

8) When hollow shaft equipped with shrink disk, protect shield should be installed on shrink disk for safety. Connecting area (equipped shrink disk) of hollow shaft and solid shaft must not be put lubrication cream. Before installing solid shaft, not tighten binding bolts.



9) 安装螺栓一般情况下采用 8.8 级，如果有高温或者振动冲击等情况，请在螺纹连接处作好防松措施。各个紧固螺栓的拧紧扭矩见下表：

9) Generally fixing bolts adopt GBT8.8. In case of high temperature and vibration, please take anti-loose measures. The tightening torques of binding bolts as follows

螺栓大小 (mm) Diameter of bolt	预紧力矩 (N·m) Pre-binding-torque	螺栓大小 (mm) Length of bolt	预紧力矩 (N·m) Pre-binding torque
M6	15	M30	2000
M8	36	M36	3560
M10	72	M42	5720
M12	123	M48	8640
M16	295	M56	13850
M20	580	M64	14300
M24	1000	M72	20800

拆卸

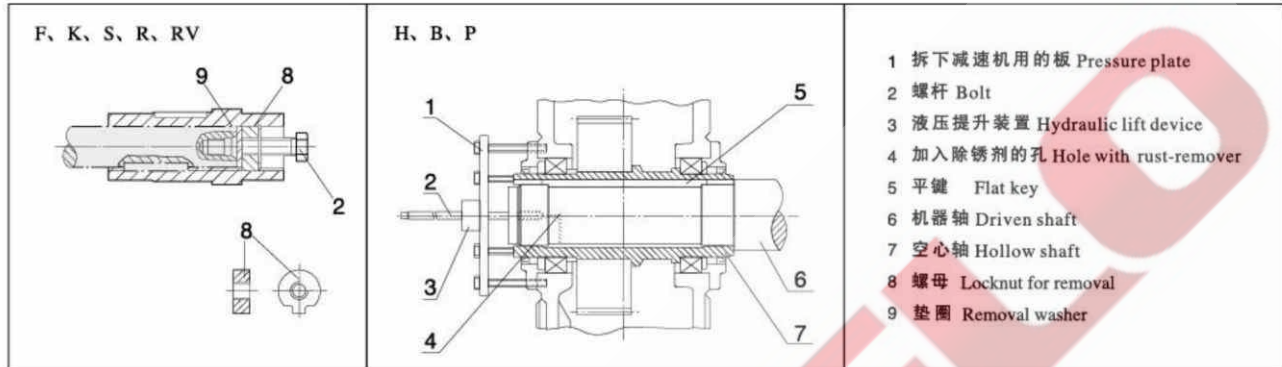
1) 空心轴的拆卸

根据现场实际可使用的设备，可以用端板上的螺杆（参见下图）、中心螺杆或者液压提升装置将减速机从机器轴上脱下来。空心轴的每个端面都配备了2个螺丝孔可以拧入固定端板的螺栓。

Dismantlement

1) Dismantle hollow shaft

According to tools available on the spot, Bolts on pressure plate, center bolt, oil hydraulic device are available to dismantle gear units from driven solid shaft. There are two screw holes in the end surface of hollow shaft for tightening bolts fixing pressure plate.



注：端板和辅助板不在供货范围内。（空心轴端螺纹孔的分布和大小请参照本公司技术图纸）。

Note: Pressure plate and attached plate are not included in shipment. (Screw holes on hollow shaft end refer to drawings)

2) 当空心轴配置收缩盘时，在首次受力之前一定不能拆下来。拆卸时严禁按照相邻的顺序松开螺栓。

2) When hollow shaft equipped with shrink disk, it is prohibited to loosen bolts one by one in a round way.

润滑与冷却

润滑

1) 润滑油的选择：

Lubrication and cooling

Lubrication

1) Choosing lubrication oil, as following table:

系列 Series of reducer	环境温度 Ambient temperature				ISO粘度与NLGI相应 Adhesiveness of ISO and NLGI unitive	Esso	Mobil	Shell	GB牌号 L-CK
	-50	0℃	+50	+100					
R, F, K, T, H, B, P	-25		+80		VG220		Mobil Glygoyle 30	Shell Tivela OIWB	N220
	0	+40			VG220	SPARTAN EP 220	Mobilgear 630	Shell Omala OI220	N220
	-15	+25			VG150 VG100	SPARTAN EP 150	Mobilgear 629	Shell Omala OI 100	N150
	-30	+10			VG68-46 VG32	ESSOATF D-21811	Mobil D. T. E. 15M	Shell Tellus OI T 32	N68
RV, S	-20		+60		VG22 VG15	UNIVIS J 13	Mobil D. T. E. 11M	Shell Tellus OI T 15	N22
	-45	0			VG680		Mobil Glygoyle HE 680		N680
	0	+40			VG680	SPARTAN EP 680	Mobilgear 636	Shell Omala OI 680	N680
	-15	+25			VG220	SPARTAN EP 220	Mobilgear 630	Shell Omala OI 220	N220
JW	-20	+10			VG150 VG100	SPARTAN EP 150	Mobil D. T. E. 18M	Shell Omala OI 100	N150
	-25	+10			VG220		Mobil Glygoyle 30		N220
	-45-20				VG22 VG15	UNIVIS J 13	Mobil D. T. E. 11M	Shell Tellus OI T 15	N22, N15

升降机的润滑油选择：JW010-JW200，选000#钙基润滑脂；JW300-JW1000，选VG150齿轮润滑油。
Lubrication oil: JW010-JW200, 000# calcium grease; JW300-JW1000, VG150 gear lubrication.

2) 润滑油的更换

要用和原来的润滑油同一牌号、同一厂家的润滑油。更换润滑油品种时，要用润滑油将减速机箱体里面的沉积物、金属颗粒和残留的润滑油都冲洗干净。

2) Change of lubrication oil

Changing lubrication oil, it must be the same type and produced by the same factory. If type is different, must completely remove deposits, metal grains, residues of the old oil in housing with new lubrication oil.

对于升降机在其正常工作前，都必须对丝杆表面涂抹润滑油，将丝杆升到最大行程，然后在丝杆表面涂抹润滑油。

Before screw jacks running, must lubricate screw threads with lubrication cream. Let threads get up to highest point and lubricate threads.

3) 润滑方式：

- A. 油池润滑：一般情况下减速机都采用油池飞溅润滑；
- B. 浸油润滑：所有的齿轮和轴承都浸没在润滑油里面；
- C. 强制润滑：是靠辅助设备将润滑油强制压入齿轮箱内对轴承和齿轮进行润滑的。
- D. 稀油站集中润滑：客户可以根据实际情况自配润滑系统。

3) Lubrication methods

- A. Splash lubrication: generally gear units adopt or splash lubrication.
- B. Oil-bath lubrication: all gears and bearings must immerse in oil.
- C. Forced lubrication: attached devices press oil into housing to lubricate gears and bearings.
- D. Oil tank lubrication: Customers can equip lubrication system accordingly.

冷却

根据要求，有些减速机可配备风扇、冷却螺旋管、水冷或者空冷的润滑油冷却系统或者单独的供油系统。在单独的供油系统的情况下，一定要遵守有关这些装置的规定。

1) 风扇：

带有风扇的减速机，在安装联轴器或其它零部件的安全防护罩的时一定要留出足够的空间让空气进入。所留出空间的正确尺寸请参照我公司技术图纸。一定要将风扇罩固定好并防止外界的损坏而且不能和风扇叶接触。

2) 冷却螺旋管：

冷却水要由用户自行提供。自来水、海水还是半咸水都可以进行冷却，在连接冷却水的螺旋管之前要先将堵头从冷却水盘管的连接衬套上取下来并彻底冲洗螺旋管将脏物清理干净。（冷却水的流量请参照我公司技术图纸。）

注：冷却水可以任意方向流过减速机。冷却水的压力不得超过8巴。为了避免过高的压力，冷却水的入口必须要配备一个流量控制装置，例如减压阀或者截止阀。

起动

要遵守“安全说明”中的规定。

添加润滑油：

本公司产品一般都未带润滑油出厂，在设备运行前请先加入润滑油。

核查设备：

- 1) 检查油面高度，润滑油冷却或者供油系统管路的密封性。
- 2) 检查冷却装置，截止阀的开启状态
- 3) 配备了止回装置的减速机，检查电机接线是否正确。
- 4) 检查轴封是否有效。
- 5) 检查旋转的零部件是否与其它零件接触。

配置了电动油泵的减速机应当保证在启动设备前首先开启油泵电机。

故障、原因和措施

维修工作一定要由经过培训的素质合格的人员谨慎地进行。

Cooling

For different requirements, gear units can be equipped with cooling fans, cooling coils, water or air cooling systems, separate oil supply systems. Under condition of separate oil supply system, please comply with its operation regulations.

1) Cooling fan:

When gear units with cooling fans are installed safety shield of couplings or other spare parts, enough space should be left to let air get into. The dimension of the space refers to our technical drawings. The fan shield should be fastened and protected against damage, and cannot touch the leaves of fan.

2) Cooling coil:

Cooling water is supplied by customers. Tap water, seawater, half salt water can applied to cooling. Before installing cooling coils, please get the plug off the coil clean it. (water flux refer to our technical drawings)

Note: Cooling water can flow through gear units in all directions. The pressure of cooling water cannot exceed 8 bar. To avoid higher pressure, a flux controller should be installed at the entrance of cooling coil such as decompression valve or cut-off.

Start up

Please comply with the regulations in safety instructions

Add lubrication oil:

Generally there is no lubrication oil in our products. Please add oil before machines begin running.

Verify machines:

- 1) Check oil level, air-proof of cooling system or oil supply system.
- 2) Check the open-and-close state of cooling devices and cut-off.
- 3) Check the position of input wires when gear units are equipped with anti-counter-rotation devices.
- 4) Check validity of seals.
- 5) Check if the rotating components touch other ones.

Make sure that electric oil pump should start up before the start-up of gear units.

Malfunction, cause and measure

Maintenance should be made by qualified workers.

故障 Malfunction	原因 Causes	措施 Measures
在减速机的紧固 件处有大的噪声 High noise at tightening parts	紧固件松动了 Loose of tightening parts	将螺栓/螺母拧紧到规定的扭矩。 更换损坏了的螺栓/螺母。 Tighten nut bolt to correct state Replace damaged nut/bolt
减速机的噪声变化 Changing noise	齿轮的轮齿发生了损坏 Teeth of gears get damaged	和客户服务部联系。 检查所有零件上的齿，更换损坏了的零件。 Consult after-sales department Check teeth of gears and replace damaged one.
	轴承间隙过大 Clearance of bearings too big	和售后服务部联系。 调整轴承的间隙。 Consult after-sales department Adjust the clearance of bearings
	轴承损坏 Bearings get damaged	和客户服务部联系。 更换损坏的轴承。 Consult after-sales department Replace damaged bearings

故障 Malfunction	原因 Causes	措施 Measures
轴承温度升高 Bearing temperature rise	箱体里面的油面过高或过低 Oil level is too high or low	在室温下检查油面的高度并按需加油。 Check oil level at room temperature and add on reduce oil
	油过于陈旧 Oil is used too long	和售后服务部联系。 —检查上次换油的时间。 Consult after-sales department. Check the date that oil be replaced last time.
	油泵的机械故障 Malfunction of oil pump	和售后服务部联系。 检查油泵的工作是否正常，修理或换新的油泵。 Consult after-sales department. Check if pump works normally, repair or replace it.
	轴承损坏 Bearing damage	和售后服务部联系。 —查阅操作人员在振动测量中所获得的数据。 —检查并按需更换轴承。 Consult after-sales department. —Look up the date about vibration. —Check and replace it on request.
工作温度过高 working temperature too high	箱体里面的油面过高 Oil level is too high	检查油面的高度，如果有必要的话，调整。 Check oil level, and adjust if necessary .
	油过于陈旧 Oil is used too long	和售后服务部联系。 检查上一次换油的时间，如果有必要的话就更换。 Consult after-sales department. Check the date that oil was replaced last time, replace it if necessary.
	油受到严重污染 Oil is polluted seriously	和售后服务部联系。 —换油。 Consult after-sales department. —Replace oil.
	在配备了润滑油冷却系统的减速机上：冷却剂的流量过低或者过高 Flux of cooling material is too high or low	全面调节进口和出口管道的阀门。 检查水冷装置的自由流量。 Adjust entrance and exit valves. Check the flux of water cooling devices.
	通过水冷装置的油流过低，其原因是：滤油器严重堵塞 Oil flux through water cooling devices is too low	清理滤油器。 Clean oil filter.
	油泵的机械故障 油泵损坏 Malfunction of oil pump oil pump damage	和售后服务部联系。 —检查油泵的功能是否正常。 —修理或者换新。 Consult after-sales department. —Check of oil pump works normally. —Repair or replace it.
	在配备了风扇的减速机上： 风扇罩的空气入口和/或箱体严重污染 Entrance of fan shield and housing polluted seriously	清理风扇罩和箱体。 Cleanse fan shield and housing.
	配备了冷却螺旋管的减速机： 冷却螺旋管里面结垢 Residues in cooling coil	和售后服务部联系。 —清理或者更换螺旋管。 Consult after-sales department. —Clean or replace cooling coil.

故障 Malfunction	原因 Causes	措施 Measures
轴承处的 振幅升高 Swing at bearing higher	轴承损坏 Bearing is damaged	和售后服务部联系。 —检查并按需更换轴承。 Consult after-sales department. —Check and replace bearing.
	齿轮损坏 Gear is damaged	和售后服务部联系。 —检查并按需更换齿轮。 Consult after-sales department. —Check and replaces gears.
止回装置的温度过高 止回功能的失效 Temperature of anti-backstop too high and it becomes malfunction	止回装置损坏 Anti-backstop becomes malfunction	和售后服务部联系。 —检查并按需更换止回装置。 Consult after-sales department. —Replace anti-backstop
减速机漏油 Oil-leak of gear unit	箱体盖或者联接 处的密封不良 Sealing at cover and connection notin good state	检查密封和连接处，如果必要的话， 更换新的。将连接处密封好。 Check air-proof and connection part, replace them if necessary, and seal up connection part.
	径向轴封环失效 Shaft seal is malfunction	和售后服务部联系。 —换新的径向密封环。 Consult after-sales department. —Replace it.
油中有水 Water in oil	油中有杂物 Mixer in oil	用试管检查油的状态是否有水分存在。 实验室分析油。 Classify if there is water in oil by using tube. Analyse oil in laboratory.
	润滑油冷却器或者 冷却螺旋管失效 Cooling coil is of mal-fanction	和售后服务部联系。 —找出并修理泄漏之处。 —更换冷却器或者螺旋管。 Consult after-sales department. —Find out and repair leakage place. —replace cooling coil
	减速机受到机器间通风过 来的凉空气而产生凝露 Cool air will cause water drop in gear unit.	用合适的保温材料将减速机保护起来。 关闭空气的出口或者在结构上改变其方向。 Shelter gear units with proper

注：对于客户自己无法排除的故障请和我公司
售后服务部联系。

Note: Please consult after-sales department, if malfunction can not
be removed by consumer s tehmselves.

保养

用户要定期对减速机进行维护和保养，要定期检查润滑油的使用状态，定期清理通气帽、风扇、冷凝管和减速机表面的灰尘和异物，保持减速机清洁，保证减速机的正常运行。

Maintenance

Users must maintain gear units periodically check oil state periodically clean breather screw, fan, cooling coil and surface of gear units periodically. Keep gear units clean and assure that gear units work smoothly.

措施期限备注:

Maintenance periods:

检查油温 Check oil temperature	每日 Everyday
检查减速机的不正常的噪声 Check abnormal noise of gear units	每日 Everyday
检查油面高度 Check oil level	每月 Every month
检查减速机的漏油 Check leakage	每月 Every month
检验油中的水分 Analyse water	400工作小时后, 至少每年一次 Every 400 working hours. At least 1 years.
在起动之后的首次换油 Replace oil first time after start up	在400工作小时后 Every 400 working hours.
其后的换油 Afterward oil replacement	每18个月或者5000工作小时 Every 18 months or 5000 working hours
清理滤油器 Clean oil filter	每3个月 Every 3 months
清理通气帽 Clean breathe screw	每3个月 Every 3 months
清理风扇、风扇罩和减速机箱体 Clean fan, fan shield and housing	和换油同时进行 At the same time as replacing oil
检查冷却螺旋管的沉积物 Check residues in cooling coil.	大约每2年, 和换油同时进行 Every 2 years and the same time as replacing oil
检查润滑油空气冷却器 Check air-cooling devices	和换油同时进行 At the same time as replacing oil
检查润滑油水冷却器 Check water-cooling devices	和换油同时进行 At the same time as replacing oil
检查紧固螺栓的紧固程度 Check tightening bolt	第一次换油后, 其后每隔一次换油 After first replacing oil, every 2times of replacing oil
对于减速机的全面检查 Make an over all check	大约每2年和换油同时进行 Every 2 years and coincide with replacing oil

售后服务 After-sale service

各种传动设备，客户发现有质量问题时，不要先拆卸零件，应说明以下情况然后与本公司售后服务部联系，说明现象后确认问题所在，再采用较理想的方法处理。

When customers find some quality problem, please not dismantle the gear units and fill in the following form and contact out after-sales department. We will offer reasonable methods to resolve the problem.

型号规格 Model:

出厂日期 Date:

编号 Number:

已使用时间 Use time:

使用场合或主机名称 Ambience or main machine:

主机生产单位 Company that main machine was made in:

质量问题 Problem:

用户单位 (Name):

地 址 (Add):

电 话 (Tel):

传 真 (Fax):

邮 编 (Post):

联 系 人 (Link man):

上海塞弗勒减速机有限公司

地址：上海市金山区亭卫公路1500号
电话：021-56613070 021-56613150
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