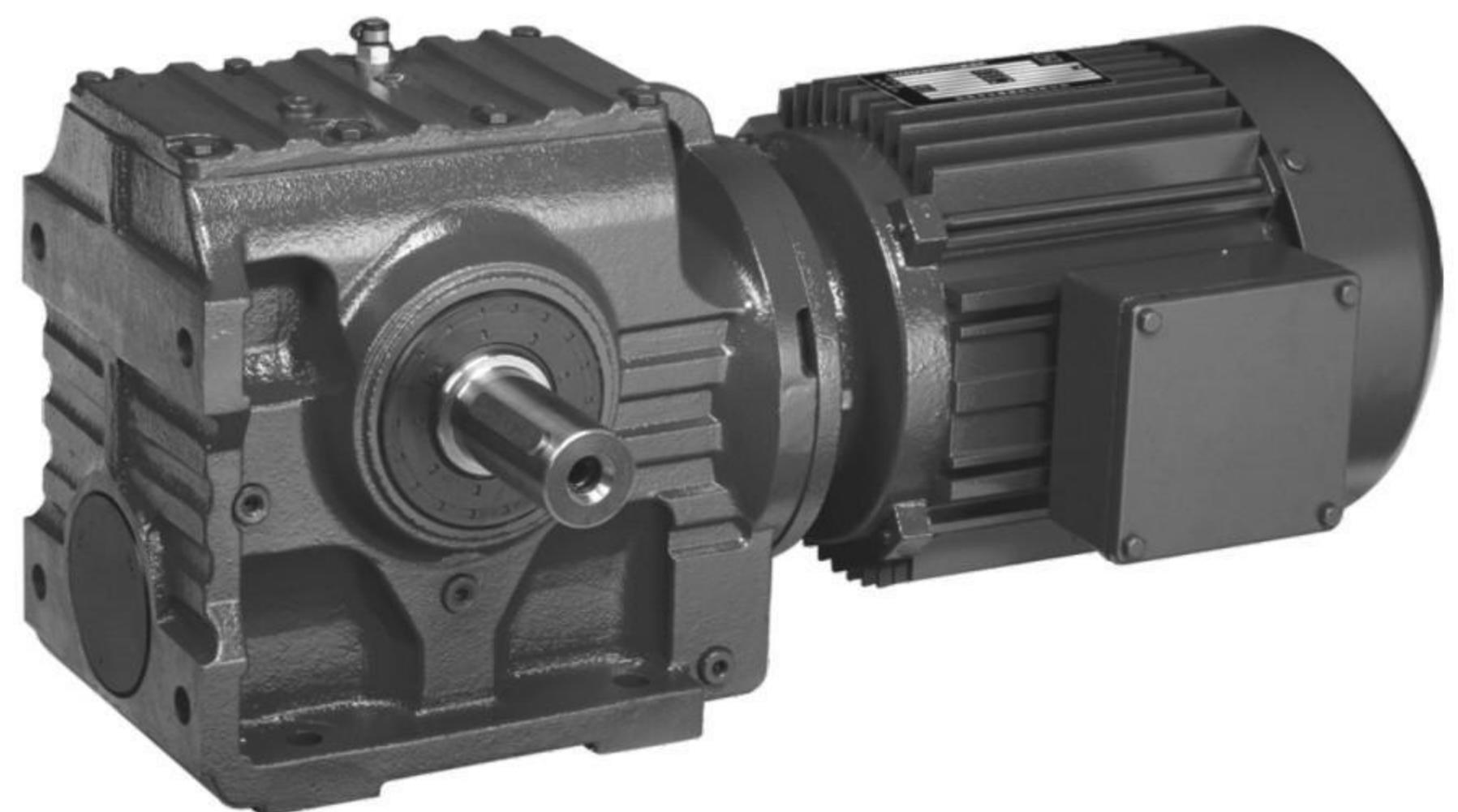


S系列齿轮减速电机 S series Geared Motor



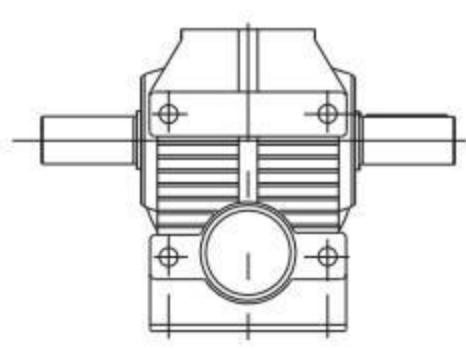
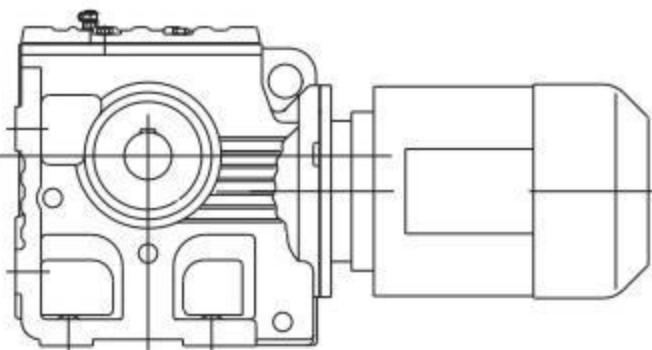
8. BS 斜齿轮—蜗轮蜗杆减速电机 BS Helical – Worm Geared Motor

8.1 设计方案

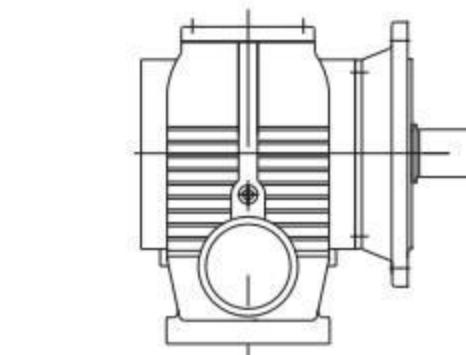
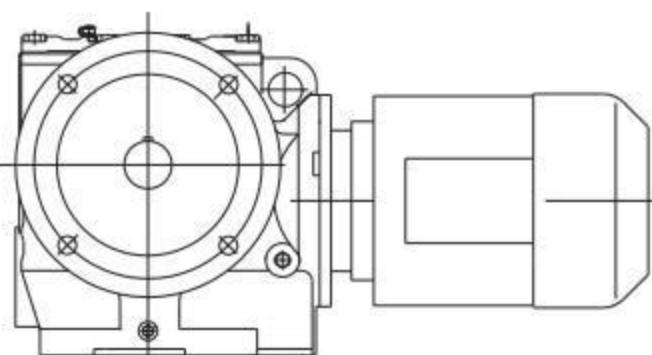
8.1 Versions of DAIFUSI geared motors

斜齿轮—蜗轮蜗杆减速电机有以下设计方案：

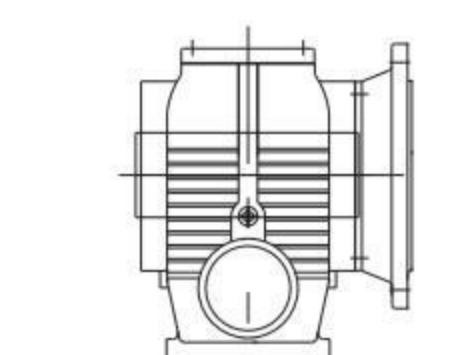
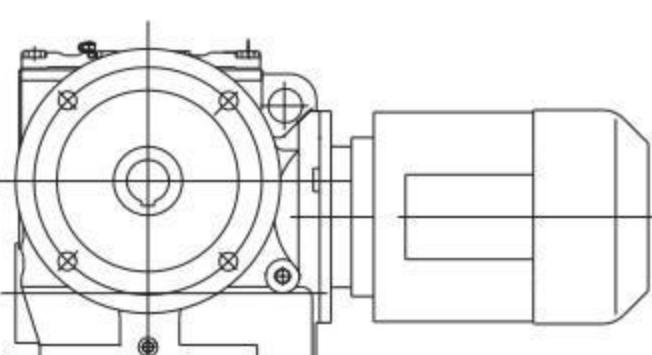
The following types of helical – worm gearmotor can be supplied:



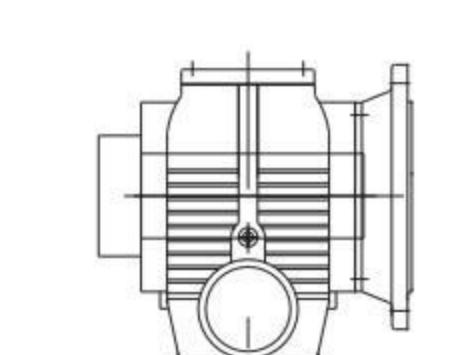
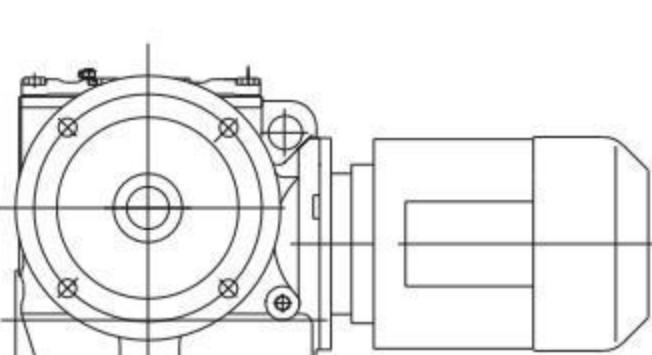
BS..D..
底脚安装斜齿轮—蜗轮蜗杆减速电机
Foot – mounted helical – worm gearmotor



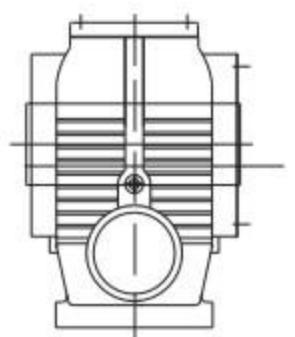
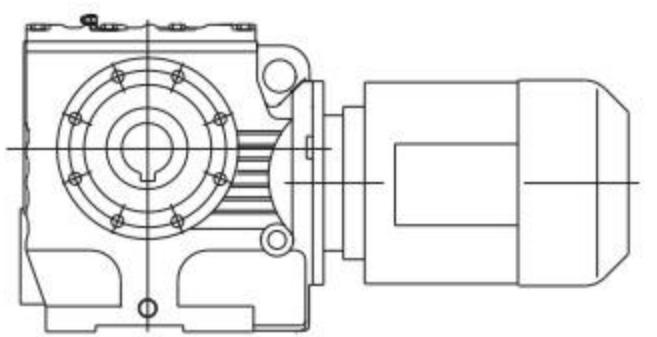
BSF..D..
法兰安装斜齿轮—蜗轮蜗杆减速电机
Helical – worm gearmotor flange – mounted version.



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

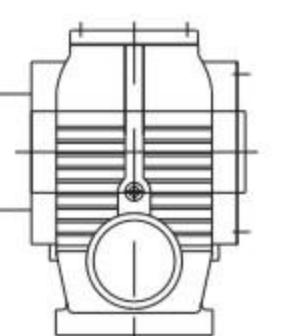
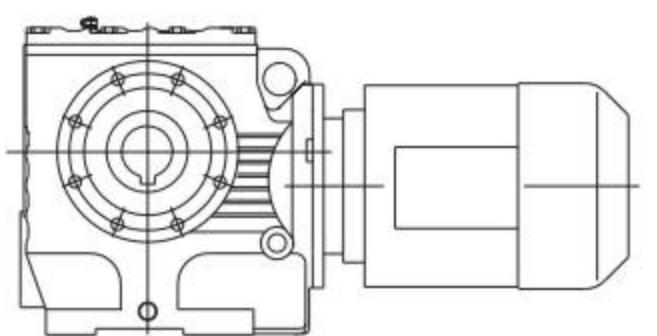


BSHF..D..
B5 法兰空心轴锁紧盘安装斜齿轮—蜗轮蜗杆减速电机
Helical – worm gearmotor in B5 flange – mounted version with hollow shaft and shrink disk.



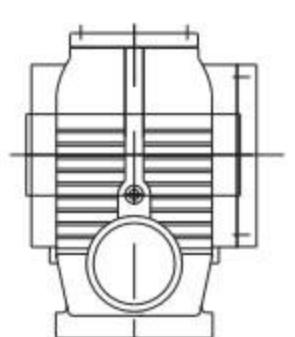
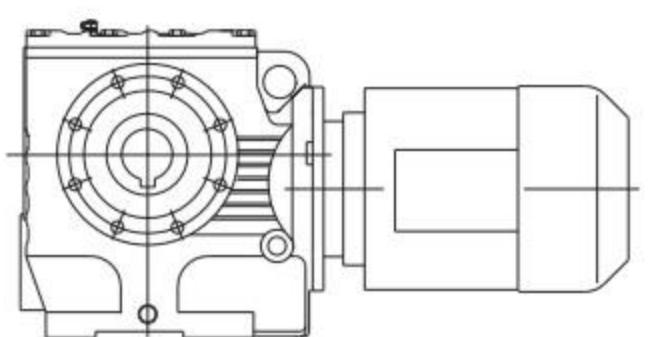
BSA..D..

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



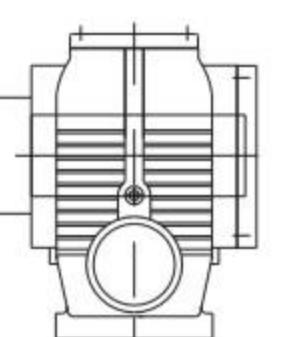
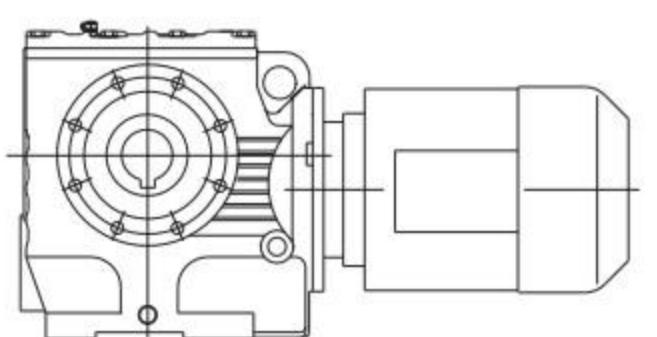
BSH..D..

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



BSAZ..D..

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



BSHZ..D..

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

8.2 可行的组合方式

8.2 Type of Combination

以下是斜齿轮蜗杆减速与交流（带制动）电机的组合列表。表中给出了每种组合的速比范围。

The below is combination table between gear box and electro motor in each list the ratio range.

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

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

8.3 速比与最大扭矩

8.3 Ratio and Max. Torque

BS37-57 $n_e=1400$ 1/min

BS37					90Nm
i	n_a [1/min]	M_{amax} [Nm]	F_{Ra} [N]	AD	
157.43	8.9	92	3000		
144.40	9.7	92	3000		
122.94	11	91	3000		
106.00	13	88	3000		
98.80	14	87	3000	AD ₁	
86.36	16	86	3000		
80.96	17	85	3000		
71.44	20	84	3000		
63.33	22	82	3000		
55.93	25	81	3000		
53.83	26	80	3000	AD ₂	
51.30	27	81	3000		
43.68	32	81	3000		
37.66	37	79	3000		
35.10	40	78	3000		
30.68	46	76	2870	AD ₁	
28.76	49	75	2800		
25.38	55	74	2660		
22.50	62	73	2530		
19.89	70	52	2470		
19.13	73	71	2380	AD ₂	
18.24	77	52	2380	AD ₁	
15.53	90	50	2240		
13.39	105	49	2110		
12.48	112	48	2060		
10.91	128	48	1940		
10.23	137	47	1900	AD ₂	
9.02	155	46	1810		
8.00	175	45	1730		
6.80	206	43	1630		

BS47					170Nm
i	n_a [1/min]	M_{amax} [Nm]	F_{Ra} [N]	AD	
201.00	7.0	170	5340		
184.80	7.6	170	5340		
158.12	8.9	170	5340		
137.05	10	168	5350		
128.10	11	168	5350		
110.73	13	168	5350	AD ₁	
94.08	15	168	5350		
84.00	17	167	5360		
71.75	20	167	5360		
69.39	20	155	5370		
67.20	21	167	5360		
63.80	22	155	5370		
56.61	25	165	5320	AD ₂	
54.59	26	155	5150		
47.32	30	155	4850	AD ₁	
44.22	32	155	4710		
38.23	37	155	4430		
32.48	43	155	4120		
29.00	48	155	3920		
24.77	57	155	3650		
23.20	60	152	3570		
20.33	69	110	3370		
19.54	72	144	3370	AD ₂	
17.62	79	110	3160		
16.47	85	110	3060		
14.24	98	110	2850		
12.10	116	109	2650		
10.80	130	109	2500		
9.23	152	109	2310		
8.64	162	109	2230		
7.28	192	103	2110		

BS57					300Nm
i	n_a [1/min]	M_{amax} [Nm]	F_{Ra} [N]	AD	
201.00	7.0	295	7130		
184.80	7.6	295	7130		
158.12	8.9	295	7130		
137.05	10	295	7130	AD ₁	
128.10	11	295	7130		
110.73	13	295	7130		
94.08	15	295	7130		
84.00	17	295	7130		
71.75	20	290	7170		
69.39	20	245	7520		
67.20	21	285	7220		
63.80	22	245	7520		
56.61	25	265	7370		
54.59	26	245	7520		
47.32	30	245	7520		
44.22	32	245	7520		
38.23	37	245	4430		
32.48	43	245	4120		
29.00	48	245	3920		
24.77	57	245	3650		
23.20	60	245	3570		
20.33	69	168	3370		
19.54	72	215	5720		
17.62	79	168	5350		
16.47	85	168	5200		
14.24	98	169	4860		
12.10	116	169	4520		
10.80	130	169	4290		
9.23	152	169	3990		
8.64	162	166	3900		
7.28	192	146	3790		

BS67-87 $n_e=1400$ 1/min

BS67					520Nm
i	n_a [1/min]	M_{amax} [Nm]	F_{Ra} [N]	AD	
217.41	6.4	520	8680		
190.11	7.4	520	8680		
180.60	7.8	520	8680		
158.45	8.8	520	8680		
134.40	10	520	8680		
121.33	12	520	8680		
106.75	13	520	8680	AD ₂	
100.80	14	520	8680		
85.83	16	520	8680		
78.00	18	520	8680		
75.06	19	480	9020		
67.57	21	520	8680		
65.63	21	480	9020		
62.35	22	480	9020		
58.80	24	500	8850	AD ₃	
54.70	26	480	8670		
46.40	30	480	8060		
41.89	33	480	7690		
36.85	38	480	7250		
34.80	40	480	7060		
29.63	47	480	6540	AD ₂	
26.93	52	480	6240		
24.44	57	340	6040		
23.33	60	480	5810		
23.22	60	340	5890		
20.37	69	340	5520		
20.30	69	425	5760	AD ₃	
17.28	81	340	5080		
15.60	90	340</			

BS97, BS37/47R17 n_e=1400 1/min

BS97					4000Nm			
i	n _a [1/min]	M _{amax} [Nm]	F _{Ra} [N]	AD				
286.40	4.9	4000	36300					
262.22	5.3	4000	36300					
231.67	6.0	4000	36300					
196.52	7.1	4000	36300					
180.95	7.7	3920	36500					
161.74	8.7	3840	36600					
145.60	9.6	3730	36800	AD ₃				
131.85	11	3650	37000					
116.92	12	3510	37200					
105.71	13	3440	37300					
89.60	16	3240	37600					
80.85	17	3230	37600					
78.26	18	3080	37900					
71.43	20	3300	37500	AD ₄				
65.45	21	2900	38100	AD ₃				
60.59	23	3300	37500					
55.79	25	3300	37100					
49.87	28	3300	35600					
44.89	31	3300	34100	AD ₄				
40.65	34	3300	32800					
36.05	39	3300	31300					
32.60	43	3200	30400					
27.63	51	3010	29000	AD ₅				
26.39	53	2600	26100	AD ₄				
24.13	58	2870	28000					
23.59	59	2600	24900					
21.23	66	2600	23700					
19.23	73	2600	22700					
17.05	82	2570	21100	AD ₅				
15.42	91	2470	20800					
13.07	107	2330	20100					
11.41	123	2210	19500					
9.55	147	2040	18800					
8.26	169	1770	18800					

BS37R17					90Nm			
i	n _a [1/min]	M _{amax} [Nm]	F _{Ra} [N]	AD				
10037	0.14	92	3000					
8654	0.16	92	3000					
8066	0.17	92	3000					
7051	0.20	92	3000					
6079	0.23	92	3000					
5431	0.26	92	3000					
4747	0.29	92	3000					
4155	0.34	92	3000					
3632	0.39	92	3000					
2866	0.49	92	3000					
2471	0.57	92	3000					
2160	0.65	92	3000					
1887	0.74	92	3000					
1665	0.84	92	3000					
1456	0.96	92	3000					
1271	1.1	92	3000					
1121	1.2	92	3000					
994	1.4	92	3000					
869	1.6	92	3000					
774	1.8	92	3000					
666	2.1	92	3000					
596	2.3	92	3000					
521	2.7	92	3000					
456	3.1	92	3000					
398	3.5	92	3000					
351	4.0	92	3000					
303	4.6	92	3000					
265	5.3	92	3000					
232	6.0	92	3000					
202	6.9	92	3000					
179	7.8	92	3000					
158	8.9	92	3000					
144	9.7	92	3000					
118	12	92	3000					
110	13	92	3000					

BS47R17					185Nm			
i	n _a [1/min]	M _{amax} [Nm]	F _{Ra} [N]	AD				
12909	0.11	185	5250					
11189	0.13	185	5250					
10374	0.13	185	5250					
8992	0.16	185	5250					
7860	0.18	185	5250					
6887	0.20	185	5250					
6055	0.23	185	5250					
5292	0.26	185	5250					
4637	0.30	185	5250					
4092	0.34	185	5250					
3582	0.39	185	5200					
3131	0.45	185	5200					
2714	0.52	185	5200					
2412	0.58	185	5200					
2131	0.66	185	5200					
1863	0.75	185	5200					
1663	0.84	185	5200					
1435	0.98	185	5200					
1254	1.1	185	5200					
1120	1.2	185	5200					
1083	1.3	185	5200					
965	1.5	185	5200					
865	1.6	185	5200					
750	1.9	185	5200					
655	2.1	185	5200					
574	2.4	185	5200					
506	2.8	185	5200					
438	3.2	185	5200					
388	3.6	185	5200					
336	4.2	185	5200					
294	4.8	185	5200					
269	5.2	185	5200					
229	6.1	185	5200					
204</td								

BS87/97R57 $n_e = 1400$ 1/min

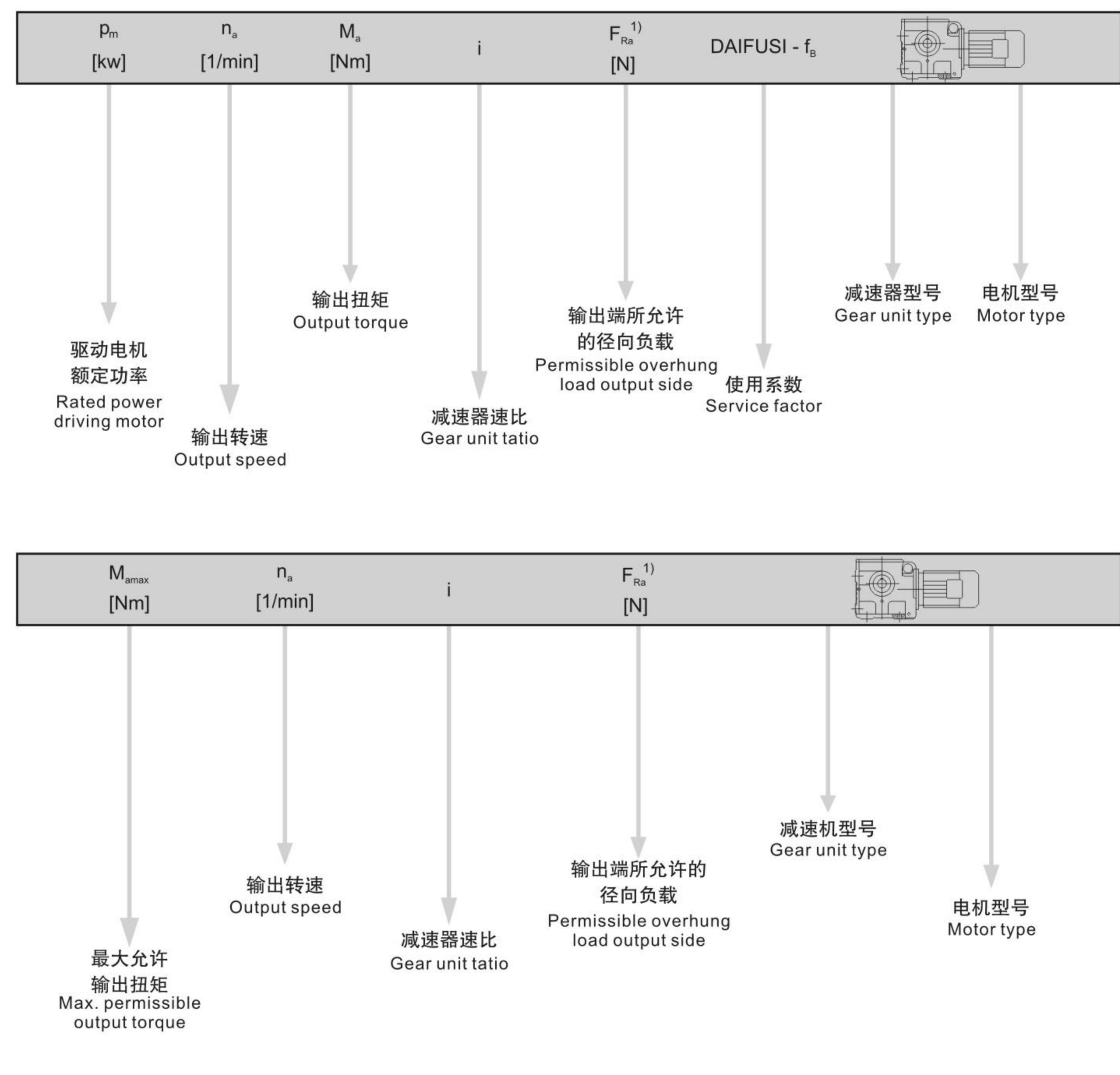
BS87R57		2500Nm		BS97R57		4200Nm	
i	n_a [1/min]	M_{amax} [Nm]	F_{Ra} [N]	i	n_a [1/min]	M_{amax} [Nm]	F_{Ra} [N]
25987	0.05	2500	27500	33818	0.04	4200	34200
23940	0.06	2500	27500	31154	0.04	4200	34200
20568	0.07	2500	27500	27847	0.05	4200	34200
18265	0.08	2500	27500	24641	0.06	4200	34200
16774	0.08	2500	27500	21537	0.07	4200	34200
14820	0.09	2500	27500	18749	0.07	4200	34200
13160	0.11	2500	27500	16233	0.09	4200	34200
11200	0.12	2500	27500	14576	0.10	4200	34200
9904	0.14	2500	27500	12752	0.11	4200	34200
8549	0.16	2500	27500	11267	0.12	4200	34200
7643	0.18	2500	27500	10078	0.14	4200	34200
6706	0.21	2500	27500	8608	0.16	4200	34200
5875	0.24	2500	27500	7554	0.19	4200	34200
5187	0.27	2500	27500	6640	0.21	4200	30600
4606	0.30	2500	27500	5780	0.24	4200	30600
3872	0.36	2500	27500	4937	0.28	4200	30600
3475	0.40	2500	27500	4444	0.32	4200	30600
2905	0.48	2500	27500	4017	0.35	4200	30600
2586	0.54	2500	27500	3453	0.41	4200	30600
2335	0.60	2500	27500	3108	0.45	4200	30600
2054	0.68	2500	27500	2654	0.53	4200	30600
1824	0.77	2500	27500	2329	0.60	4200	30600
1631	0.86	2500	27500	2081	0.67	4200	30600
1332	1.1	2500	27500	1860	0.75	4200	30600
1191	1.2	2500	27500	1574	0.89	4200	30600
1032	1.4	2500	27500	1394	1.0	4200	30600
930	1.5	2500	27500	1223	1.1	4200	30600
831	1.7	2500	27500	1070	1.3	4200	30600
719	1.9	2500	27500	928	1.5	4200	30600
624	2.2	2500	27500	824	1.7	4200	30600
558	2.5	2500	27500	714	2.0	4200	34400
485	2.9	2500	27500	626	2.2	4200	30600
435	3.2	2450	27600	538	2.6	4200	30600
378	3.7	2450	27600	484	2.9	4200	30700
323	4.3	2400	27700	420	3.3	4200	30700
281	5.0	2400	27700	376	3.7	4200	30800
255	5.5	1980	28400	327	4.3	4200	30800
222	6.3	1980	28400	287	4.9	4200	30900
205	6.8	1980	28400	252	5.6	4200	31000
				219	6.4	4200	31000
				205	6.8	4200	31000

8.4 选型表注释

8.4 Selection table

选型表的结构

Selection table geared motors



图例 Cutline

※ 也可用于 EExE 电机。※ EExE motor is optional.

1) 实心轴底脚安装减速机的径向负荷

1) Overhung load specified for foot – mounted gear unit with solid shaft

注意: Notice:

对于特殊低输出转速驱动 (多级减速电机), 电机功率必须与减速机的最大允许输出扭矩相对应。

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

输出转速 Output speed n_2 [r/min]	输出扭矩 Output torque T_a [N·m]	传动比 Ratio i	径向 负荷 Permitted overhung load FR2 [N]	使用 系数 Service factor fB	机型号 Model
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输出转速 Output speed n_2 [r/min]	输出扭矩 Output torque T_a [N·m]	传动比 Ratio i	径向 负荷 Permitted overhung load FR2 [N]	使用 系数 Service factor fB	机型号 Model
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0.12kW

0.12	4610	11267	28700	0.90	BS 97 R57 D63S4
0.14	4210	10078	32800	1.00	BSF 97 R57 D63S4
0.16	3500	8608	34200	1.20	BSA 97 R57 D63S4
0.18	3090	7554	34800	1.35	BSAF 97 R57 D63S4

0.18	3120	7643	14400	0.80	BS 87 R57 D63S4
0.21	2630	6706	27200	0.95	BSF 87 R57 D63S4
0.23	2330	5875	27800	1.05	BSA 87 R57 D63S4
0.27	1960	5187	28500	1.25	BSA 87 R57 D63S4
0.30	1740	4606	28800	1.45	BSAF 87 R57 D63S4
0.36	1450	3872	29200	1.70	

0.39	1340	3540	9700	0.95	
0.45	1170	3098	12500	1.10	
0.58	1280	2374	11600	0.95	BS 77 R37 D63S4
0.66	1130	2083	12900	1.10	BSF 77 R37 D63S4
0.76	960	1813	14100	1.30	BSA 77 R37 D63S4
0.79	910	1745	14300	1.35	BSAF 77 R37 D63S4
0.86	840	1600	14700	1.50	
0.98	735	1404	15200	1.70	
1.1	645	1245	15600	1.90	

1.0	665	1363	4800	0.85	BS 67 R37 D63S4
1.2	575	1194	8160	1.00	BSF 67 R37 D63S4
1.3	515	1045	8720	1.10	BSA 67 R37 D63S4
1.5	445	914	9280	1.30	BSAF 67 R37 D63S4

1.7	400	809	9580	1.40	
1.9	355	712	9860	1.60	BS 67 R37 D63S4
2.2	295	615	10100	1.95	BSF 67 R37 D63S4
2.5	265	543	10300	2.2	BSA 67 R37 D63S4
2.9	220	469	10400	2.6	BSAF 67 R37 D63S4
3.3	197	424	10500	2.9	
3.8	180	365	10500	3.2	

2.1	315	655	6930	0.95	
2.4	275	574	7290	1.10	
2.7	240	506	7540	1.25	BS 57 R17 D63S4
3.2	210	438	7750	1.45	BSF 57 R17 D63S4
3.6	183	388	7880	1.65	BSA 57 R17 D63S4
4.1	163	336	7980	1.85	BSAF 57 R17 D63S4
4.7	140	294	8070	2.1	
5.1	134	269	8090	2.2	

3.2	210	438	5060	0.90	
3.6	183	388	5210	1.00	
4.1	162	336	5320	1.15	BS 47 R17 D63S4
4.7	139	294	5450	1.35	BSF 47 R17 D63S4
5.4	95	257	5680	1.95	BSA 47 R17 D63S4
6.0	113	229	5570	1.65	BSAF 47 R17 D63S4
6.9	99	200	5630	1.90	
7.4	92	187	5660	2.0	

6.8	99	202	3000	0.95	
7.7	88	179	3000	1.05	BS 37 R17 D63S4
8.7	78	158	3000	1.15	BSF 37 R17 D63S4
9.6	72	144	3000	1.25	BSA 37 R17 D63S4
12	59	118	3000	1.55	BSAF 37 R17 D63S4
13	55	110	3000	1.65	

4.5	143	201.00	8050	2.1	BS 57 D63M6
4.9	133	184.80	8090	2.2	BSF 57 D63M6
5.7	116	158.12	8150	2.5	BSA 57 D63M6
6.6	103	137.05	8180	2.9	BSAF 57 D63M6

4.5	138	201.00	5490	1.30	BS 47 D63M6
4.9	129	184.80	5540	1.40	BSF 47 D63M6
5.7	112	158.12	5610	1.55	BSA 47 D63M6
6.6	99	137.05	5660	1.75	BSAF 47 D63M6
7.0	93	128.10	5680	1.85	

输出转速 Output speed n_2 [r/min]	输出扭矩 Output torque T_a [N·m]	传动比 Ratio i	径向 负荷 Permitted overhung load FR2 [N]	使用 系数 Service factor fB	机型号 Model
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6.9	95	201.00	5680	1.80	BS 47 D63S4

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输出转速 Output speed n_2 [r/min]	输出扭矩 Output torque T_a [N·m]	传动比 Ratio i	径向 负荷 Permitted overhung load FR2 [N]	使用 系数 Service factor f_B	机型号 Model
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0.25kW					
6.5	210	201.00	5120	0.80	
7.0	195	184.80	5210	0.85	
8.2	170	158.12	5340	1.00	
9.5	150	137.05	5440	1.10	
10	141	128.10	5480	1.20	
12	124	110.73	5560	1.35	BS 47 D63L4
14	108	94.08	5630	1.55	BSF 47 D63L4
15	98	84.00	5670	1.70	BSA 47 D63L4
18	85	71.75	5720	1.95	BSAF 47 D63L4
19	97	69.39	5640	1.60	
19	80	67.20	5740	2.1	
20	90	63.80	5670	1.70	
24	78	54.59	5720	2.0	
27	68	47.32	5760	2.3	
13	108	98.80	3000	0.80	
15	96	86.36	3000	0.90	
16	91	80.96	3000	0.95	
18	81	71.44	3000	1.05	
21	73	63.33	3000	1.10	
23	78	55.93	3000	1.05	
25	72	51.30	3000	1.15	
30	62	43.68	3000	1.30	
35	54	37.66	3000	1.45	BS 37 D63L4
37	51	35.10	3000	1.55	BSF 37 D63L4
42	45	30.68	3000	1.70	BSA 37 D63L4
45	42	28.76	3000	1.80	BSAF 37 D63L4
51	37	25.38	3000	2.0	
58	33	22.50	3000	2.2	
65	32	19.89	2870	1.65	
71	29	18.24	2820	1.80	
84	25	15.53	2710	2.0	
97	22	13.39	2620	2.3	
104	20	12.48	2570	2.4	
119	18	10.91	2480	2.7	
127	17	10.23	2440	2.8	
144	15	9.02	2360	3.1	
163	13	8.00	2290	3.4	
191	11	6.80	2180	3.8	
92	21	28.76	2740	3.0	
105	19	25.38	2650	3.3	
118	17	22.50	2560	3.4	BS 37 D63M2
134	16	19.89	2410	2.8	BSF 37 D63M2
146	15	18.24	2350	3.0	BSA 37 D63M2
171	13	15.53	2250	3.4	BSAF 37 D63M2
199	11	13.39	2160	3.8	
213	10	12.48	2120	4.0	
0.37kW					
0.67	2810	2054	25400	0.90	BS 87 R57 D71D4
0.76	2490	1824	27500	1.00	BSF 87 R57 D71D4
0.85	2230	1631	28000	1.10	BSA 87 R57 D71D4
1.5	1320	930	29400	1.90	BSAF 87 R57 D71D4
1.7	1190	831	29500	2.1	
1.9	1290	714	11500	0.95	
2.2	1150	637	12700	1.10	BS 77 R37 D71D4
2.4	1040	574	13600	1.20	BSF 77 R37 D71D4
2.8	900	499	14400	1.40	BSA 77 R37 D71D4
3.2	785	438	15000	1.60	BSAF 77 R37 D71D4
3.5	700	389	15400	1.80	
3.8	615	365	7700	0.95	BS 67 R37 D71D4
4.3	535	319	8540	1.05	BSF 67 R37 D71D4
4.9	470	281	9080	1.20	BSA 67 R37 D71D4
5.6	425	246	9430	1.35	BSAF 67 R37 D71D4
2.4	980	288.00	29700	2.5	BSF 87 D90S8
2.6	890	258.18	29800	2.8	BSA 87 D90S8
3.1	775	222.40	29900	3.2	BSAF 87 D90S8

输出转速 Output speed n_2 [r/min]	输出扭矩 Output torque T_a [N·m]	传动比 Ratio i	径向 负荷 Permitted overhung load FR2 [N]	使用 系数 Service factor f_B	机型号 Model
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0.37kW					
3.0	735	225.26	15200	1.75	BS 77 D90S8
3.2	700	214.00	15300	1.80	BSF 77 D90S8
3.6	630	189.09	15600	2.0	BSA 77 D90S8
4.2	545	161.60	15900	2.3	BSAF 77 D90S8
10	210	137.05	5110	0.80	
11	199	128.10	5190	0.85	
12	175	110.73	5320	0.95	
15	151	94.08	8000	1.90	BSA 57 D71D4
16	137	84.00	8060	2.1	BSAF 57 D71D4
19	119	71.75	8130	2.4	
20	139	69.39	8070	1.75	
21	115	67.20	8150	2.5	
22	128	63.80	8110	1.90	
10	210	137.05	5110	0.80	
11	199	128.10	5190	0.85	
12	175	110.73	5320	0.95	
15	151	94.08	5430	1.10	
16	137	84.00	5500	1.20	
19	119	71.75	5580	1.40	
20	136	69.39	5460	1.15	
21	112	67.20	5610	1.50	BS 47 D71D4
22	126	63.80	5510	1.25	BSF 47 D71D4
25	109	54.59	5590	1.40	BSA 47 D71D4
29	96	47.32	5410	1.60	BSAF 47 D71D4
31	90	44.22	5330	1.75	
36	78	38.23	5140	2.0	
42	67	32.48	4930	2.3	
48	60	29.00	4790	2.6	
56	52	24.77	4590	3.0	
59	49	23.20	4510	3.1	
68	46	20.33	4180	2.4	
78	40	17.62	4030	2.8	
84	37	16.47	3960	3.0	

输出转速 Output speed n_2 [r/min]	输出扭矩 Output torque T_a [N·m]	传动比 Ratio i	径向 负荷 Permitted overhung load FR2 [N]	使用 系数 Service factor f_B	机型号 Model
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0.37kW					
22	103	63.33	3000	0.80	

输出转速 Output speed n_2 [r/min]	输出扭矩 Output torque T_a [N·m]	传动比 Ratio i	径向 负荷 Permitted overhung load FR2 [N]	使用系数 Service factor fB	机型号 Model
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0.55kW

44	94	30.68	2680	0.80	
47	89	28.76	2670	0.85	
54	79	25.38	2630	0.95	
60	70	22.50	2600	1.05	
71	60	19.13	2540	1.20	BS 37 D80K4
88	53	15.53	2230	0.95	BSF 37 D80K4
102	46	13.39	2200	1.10	BSA 37 D80K4
109	43	12.48	2180	1.15	BSAF 37 D80K4
125	37	10.91	2130	1.30	
133	35	10.23	2110	1.35	
151	31	9.02	2070	1.50	
170	28	8.00	2020	1.60	
200	24	6.80	1950	1.80	

0.75kW

94	46	28.76	2420	1.40	
106	41	25.38	2360	1.50	
120	37	22.50	2310	1.55	
136	34	19.89	2100	1.30	
148	32	18.24	2070	1.40	BS 37 D71D2
174	27	15.53	2010	1.55	BSF 37 D71D2
202	24	13.39	1950	1.75	BSA 37 D71D2
216	22	12.48	1920	1.85	BSAF 37 D71D2
248	19	10.91	1870	2.0	
264	18	10.23	1840	2.1	
299	16	9.02	1780	2.2	
338	14	8.00	1730	2.5	
397	12	6.80	1660	2.4	

输出转速 Output speed n_2 [r/min]	输出扭矩 Output torque T_a [N·m]	传动比 Ratio i	径向 负荷 Permitted overhung load FR2 [N]	使用系数 Service factor fB	机型号 Model
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0.75kW

5.4	890	256.47	14500	1.45	
6.1	790	225.26	14900	1.60	
6.4	755	214.00	15100	1.70	BS 77 D80N4
7.3	675	189.09	15400	1.90	BSF 77 D80N4
8.5	585	161.60	15800	2.2	BSA 77 D80N4
9.3	545	148.15	15900	2.3	BSAF 77 D80N4
11	480	130.00	16000	2.5	
11	460	123.20	16000	2.6	
13	405	107.83	16000	2.9	
7.3	625	190.11	7570	0.85	
7.6	595	180.60	7900	0.85	
8.7	530	158.45	8570	1.00	
10	460	134.40	9180	1.15	
11	420	121.33	9470	1.25	BS 67 D80N4
13	375	106.75	9750	1.40	BSF 67 D80N4
14	355	100.80	9860	1.45	BSA 67 D80N4
16	305	85.83	10100	1.70	BSAF 67 D80N4
18	310	75.06	10100	1.55	
21	275	65.63	10200	1.75	
22	260	62.35	10300	1.85	
25	230	54.70	10300	2.1	
30	198	46.40	9840	2.4	
13	365	71.75	6430	0.80	BS 57 D90S6
13	345	67.20	6660	0.85	BSF 57 D90S6
16	295	56.61	7140	1.00	BSA 57 D90S6
19	295	47.32	7150	0.90	BSAF 57 D90S6
20	275	44.22	7300	1.00	

输出转速 Output speed n_2 [r/min]	输出扭矩 Output torque T_a [N·m]	传动比 Ratio i	径向 负荷 Permitted overhung load FR2 [N]	使用系数 Service factor fB	机型号 Model
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0.75kW

141	43	19.13	2090	1.05	
174	37	15.53	1860	1.15	
202	32	13.39	1820	1.30	BS 37 D80K2
216	30	12.48	1800	1.35	BSF 37 D80K2
248	26	10.91	1760	1.50	BSA 37 D80K2
264	25	10.23	1740	1.55	BSAF 37 D80K2
299	22	9.02	1690	1.65	
338	19	8.00	1650	1.80	
397	17	6.80	1590	1.75	
1.7	4720	824	23300	0.90	
2.0	3370	714	34400	1.25	BS 97 R57 D90S4
2.2	3590	626	34000	1.15	BSF 97 R57 D90S4
2.6	3090	538	34800	1.35	BSA 97 R57 D90S4
2.9	2790	484	35200	1.50	BSAF 97 R57 D90S4
3.3	2430	420	35700	1.75	
2.2	2820	624	25400	0.90	
2.5	2550	558	27400	1.00	
2.9	2240	485	28000	1.10	
3.2	2040	435	28400	1.20	BS 87 R57 D90S4
3.7	1790	378	28800	1.35	BSF 87 R57 D90S4
4.3	1560	323	29100	1.55	BSA 87 R57 D90S4
5.0	1370	281	29300	1.75	BSAF 87 R57 D90S4
5.5	1460	255	29200	1.35	
6.3	1280	222	29400	1.55	
6.8	1200	205	29500	1.65	
12	365	110.73	6400	0.80	
15	315	94.08	6930	0.95	
16	285	84.00	7210	1.05	
19	250	71.75	7500	1.15	
21	235	67.20	7590	1.20	
25	225	54.59	7650	1.10	
29	197	47.32	7810	1.25	
31	185	44.22	7870	1.35	BS 57 D80N4
36	161	38.23	7980	1.50	BSF 57 D80N4
42	138	32.48	7670	1.80	BSAF 57 D80N4
48	124	29.00	7450	2.0	
56	107	24.77	7150	2.3	
59	100	23.20	7030	2.5	
68	93	20.33	6490	1.80	
78	81	17.62	6260	2.1	
84	76	16.47	6160	2.2	
97	66	14.24	5930	2.6	
29	194	47.32	4530	0.80	BS 47 D80N4
31	182	44.22	4500</		

输出转速 Output speed n_2 [r/min]	输出扭矩 Output torque T_a [N·m]	传动比 Ratio i	径向 负荷 Permitted overhung load FR2 [N]	使用 系数 Service factor fB	机型号 Model
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1.5kW

2.4	4030	286.40	33100	1.05	BS 97 D112M8
2.7	3720	262.22	33700	1.15	BSF 97 D112M8
3.0	3330	231.67	34400	1.25	BSA 97 D112M8
3.6	2870	196.52	35200	1.45	BSAF 97 D112M8

3.0kW

3.2	3150	286.40	34700	1.35	BS 97 D100M6
3.5	2910	262.22	35100	1.45	BSF 97 D100M6
4.0	2600	231.67	35500	1.60	BSA 97 D100M6
4.7	2230	196.52	35900	1.90	BSAF 97 D100M6

4.0kW

4.9	2130	286.40	36000	1.90	BS 97 D90L4
5.4	1970	262.22	36200	2.0	BSF 97 D90L4
6.1	1760	231.67	36400	2.3	BSA 97 D90L4
7.2	1510	196.52	36600	2.7	BSAF 97 D90L4

5.5kW

3.6	2740	258.18	26600	0.90	BS 87 D100M6
4.1	2390	222.40	27700	1.00	BSF 87 D100M6
4.5	2200	202.96	28100	1.10	BSA 87 D100M6
5.1	1980	180.00	28500	1.20	BSAF 87 D100M6

7.5kW

4.9	2060	288.00	28300	1.10	BS 87 D90L4
5.5	1860	258.18	28700	1.20	BSF 87 D90L4
6.3	1630	222.40	29000	1.40	BSA 87 D90L4
6.9	1500	202.96	29200	1.50	BSAF 87 D90L4

10.0kW

7.8	1340	180.00	29400	1.65	BS 87 D90L4
9.3	1140	151.30	29600	1.90	BSF 87 D90L4
10	1060	139.05	29600	2.0	BSA 87 D90L4
11	950	123.48	29700	2.2	BSAF 87 D90L4

15.0kW

13	850	110.40	29800	2.3	BS 97 D90L4
14	770	99.26	29900	2.5	BSF 97 D90L4

20.0kW

7.5	1330	189.09	10600	0.95	BS 87 D90L4
8.7	1150	161.60	12700	1.10	BSF 87 D90L4
9.5	1060	148.15	13400	1.15	BSA 87 D90L4
11	940	130.00	14100	1.30	BSAF 87 D90L4

30.0kW

11	900	123.20	14400	1.35	BS 97 D90L4
13	795	107.83	14900	1.45	BSF 97 D90L4
15	725	97.14	15300	1.60	BSA 97 D90L4
17	640	85.22	15400	1.70	BSAF 97 D90L4

40.0kW

19	650	75.09	14100	1.70	BS 97 D90L4
20	620	71.33	14000	1.80	BSF 97 D90L4

55.0kW

21	510	66.67	14600	2.0	BS 97 D90L4
22	550	63.03	13700	2.0	BSF 97 D90L4

75.0kW

25	440	56.92	14000	2.3	BS 97 D90L4
26	470	53.87	13200	2.3	BSF 97 D90L4

100.0kW

29	435	49.38	13000	2.5	BS 97 D90L4
33	385	43.33	12600	2.9	BSF 97 D90L4

132.0kW

16	600	85.83	7850	0.85	BS 67 D90L4
18	550	78.00	8390	0.95	BSF 67 D90L4

160.0kW

21	540	65.63	8510	0.90	BSA 67 D90L4
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200.0kW

23	515	62.35	8740	0.95	BS 67 D90L4
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250.0kW

26	455	54.70	8810	1.05	BSF 67 D90L4
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300.0kW

30	390	46.40	8590	1.25	BSA 67 D90L4
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350.0kW

34	355	41.89	8450	1.35	BSAF 67 D90L4
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400.0kW

38	310	36.85	8250	1.55	BS 67 D90L4
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450.0kW

41	295	34.80	8160	1.60	BS 67 D90L4
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500.0kW

48	255	29.63	7900	1.90	BSF 67 D90L4
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550.0kW

52	230	26.93	7740	2.1	BSA 67 D90L4
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600.0kW

58	220	24.44	7000	1.55	BSAF 67 D90L4
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650.0kW

61	210	23.22	6950	1.60	BS 67 D90L4
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700.0kW

69	186	20.37	6790	1.85	BS 67 D90L4
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750.0kW

82	159	17.28	6580	2.1	BSF 67 D90L4
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800.0kW

90	144	15.60	6440	2.4	BSA 67 D90L4
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850.0kW

103	127	13.73	6260	2.7	BSAF 67 D90L4
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输出转速 Output speed n_2 [r/min]	输出扭矩 Output torque T_a [N·m]	传动比 Ratio i	径向 负荷 Permitted overhung load FR2 [N]	使用 系数 Service factor fB	机型号 Model
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1.5kW

43	270	32.48	6630	0.90	BS 57 D90L4
49	245	29.00	6520	1.00	BSF 57 D90L4
57	210	24.77	6340	1.15	BSA 57 D90L4
61	196	23.20	6270	1.25	BSAF 57 D90L4
72	167	19.54	6060	1.30	BS 57 D90L4
80	159	17.62	5430	1.05	BSF 57 D90L4
86	149	16.47	5380	1.15	BSA 57 D90L4
99	129	14.24	5250	1.30	BSAF 57 D90L4
117	110	12.10	5100	1.55	BS 57 D90L4
131	99	10.80	4980	1.70	BSF 57 D90L4
153	85	9.23	4820	2.0	BSA 57 D90L4

2.2kW

99	129	14.24	2610	0.85	BS 47 D90L4
117	110	12.10	2620	1.00	BSF 47 D90L4
131	99	10.80	2620	1.10	BSA 47 D90L4

输出转速 Output speed n_2 [r/min]	输出扭矩 Output torque T_a [N·m]	传动比 Ratio i	径向 负荷 Permitted overhung load FR2 [N]	使用 系数 Service factor fB	机型号 Model
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4.0kW

6.1	4650	231.67	28300	0.85	
7.2	3990	196.52	33200	1.00	
7.8	3700	180.95	33800	1.05	
8.8	3330	161.74	34400	1.15	
9.8	3020	145.60	34900	1.25	BS 97 D112M4
11	2750	131.85	35300	1.35	BSF 97 D112M4
12	2460	116.92	35700	1.45	BSA 97 D112M4
13	2230	105.71	35900	1.55	BSAF 97 D112M4
16	1910	89.60	36300	1.70	
18	1940	80.85	36200	1.65	
20	1720	71.43	36400	1.90	
23	1470	60.59	36600	2.2	
25	1350	55.79	36700	2.4	

12	2510	123.48	27500	0.80	
13	2260	110.40	28000	0.90	
14	2040	99.26	28400	0.95	
16	1790	86.15	28800	1.05	
18	1610	77.14	29000	1.15	
20	1660	70.43	28900	0.95	BS 87 D112M4
22	1520	64.27	29100	1.05	BSF 87 D112M4
25	1350	57.00	29300	1.20	BSA 87 D112M4
30	1150	47.91	29500	1.40	BSAF 87 D112M4
32	1060	44.03	29600	1.50	
36	940	39.10	29700	1.70	
41	840	34.96	29800	1.90	
45	760	31.43	29100	2.1	
52	665	27.28	28200	2.4	
56	635	25.50	26600	1.95	

25	1160	56.92	10800	0.85	BS 77 D112M4
26	1250	53.87	9250	0.90	BSF 77 D112M4
29	1150	49.38	9320	0.95	BSA 77 D112M4
33	1020	43.33	9370	1.10	BSAF 77 D112M4
35	960	41.07	9370	1.15	
40	850	35.94	9340	1.30	
44	765	32.38	9290	1.40	
50	675	28.41	9190	1.55	
57	600	25.07	9070	1.70	
62	565	22.89	7650	1.25	BS 77 D112M4
68	520	20.99	7650	1.35	BSF 77 D112M4
77	455	18.42	7620	1.55	BSA 77 D112M4
81	435	17.45	7590	1.65	BSAF 77 D112M4
93	380	15.28	7510	1.85	
103	345	13.76	7430	2.1	
118	300	12.07	7310	2.4	
133	265	10.65	7170	2.7	
150	235	9.44	7030	3.1	
176	205	8.06	6830	3.3	

82	420	17.28	3810	0.80	
91	380	15.60	4180	0.90	BS 67 D112M4
103	335	13.73	4500	1.00	BSF 67 D112M4
110	320	12.96	4520	1.05	BSA 67 D112M4
129	270	11.03	4530	1.25	BSAF 67 D112M4
142	245	10.03	4520	1.35	
163	215	8.69	4490	1.55	
188	188	7.56	4430	1.55	

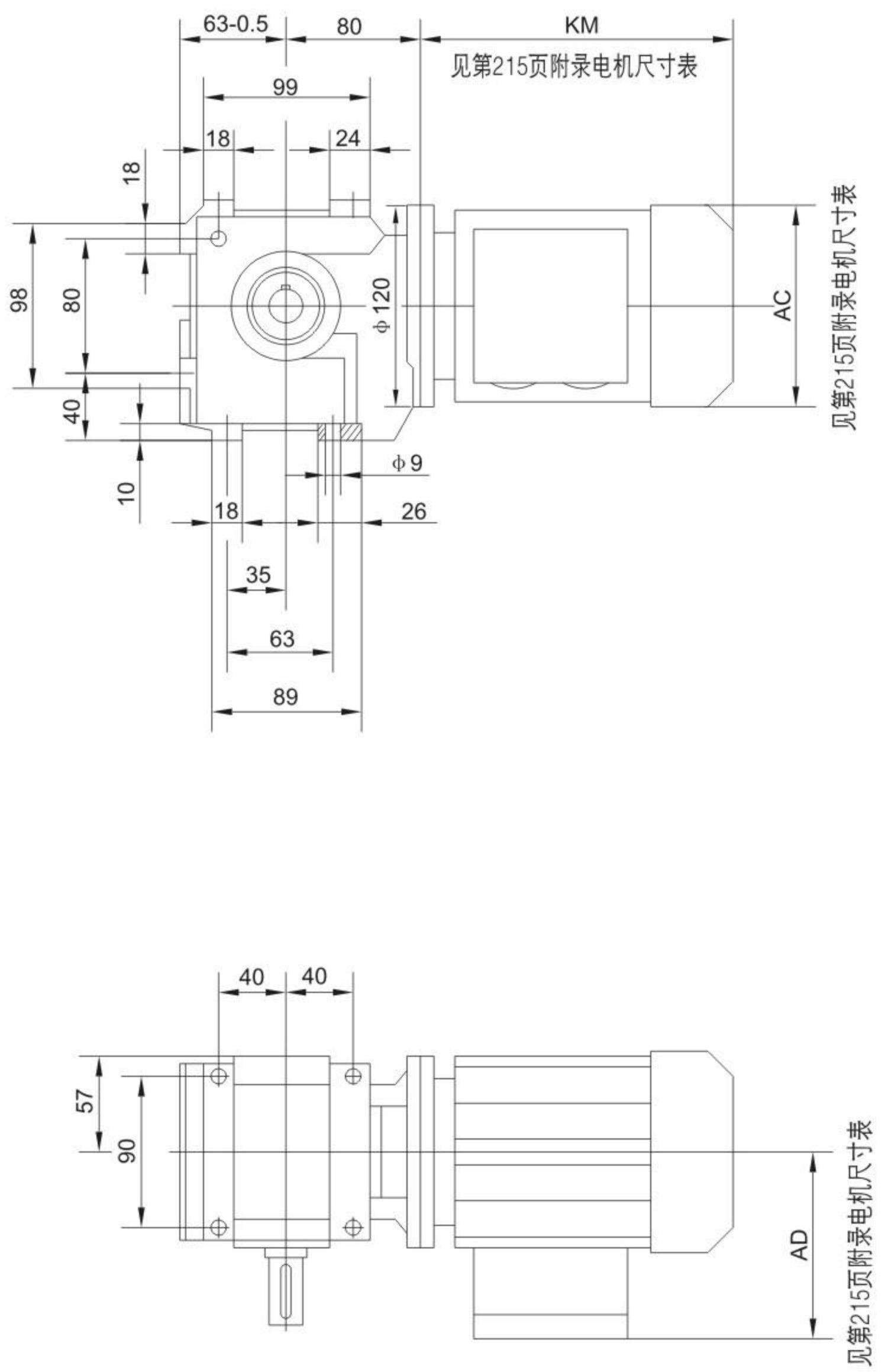
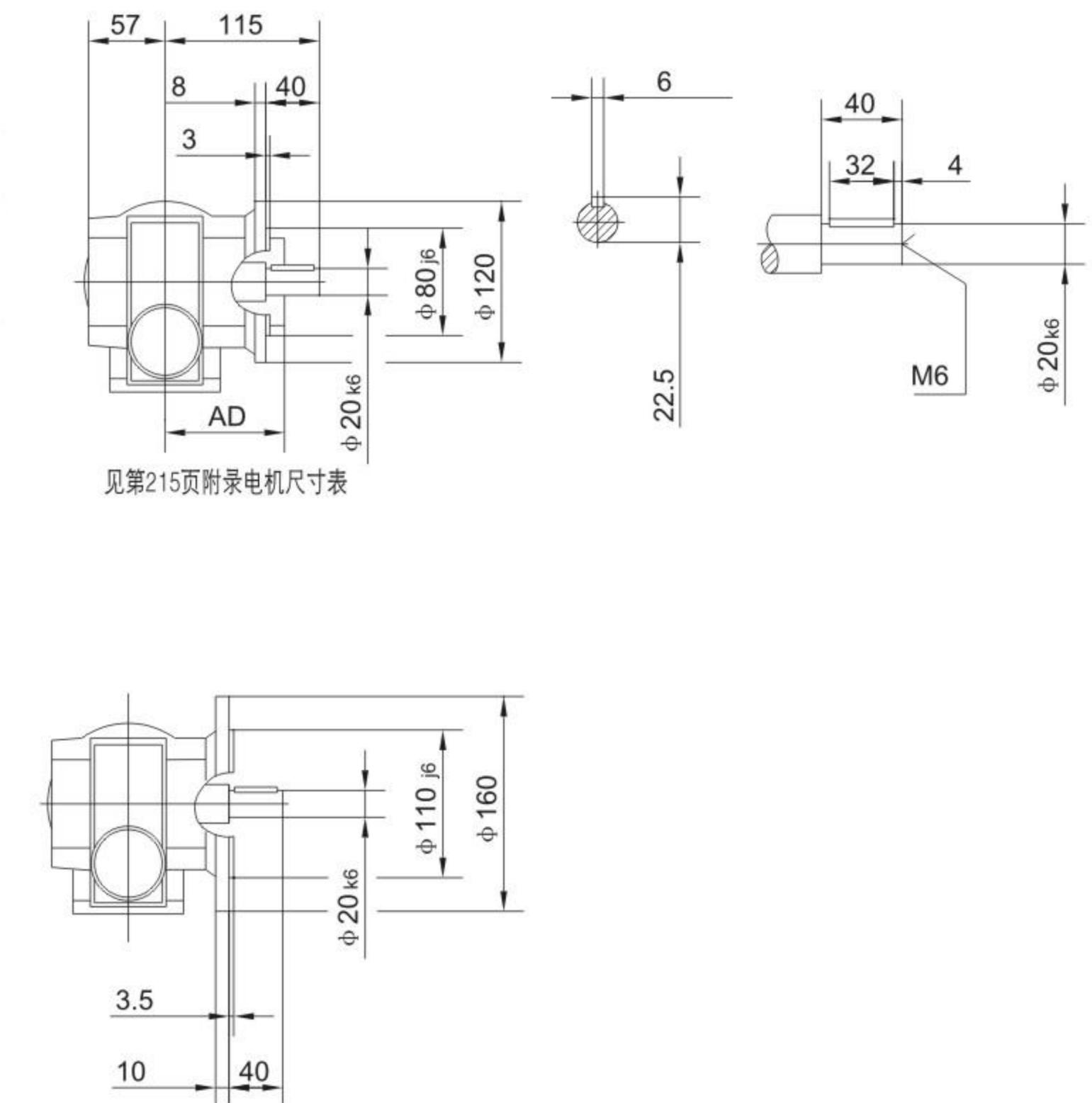
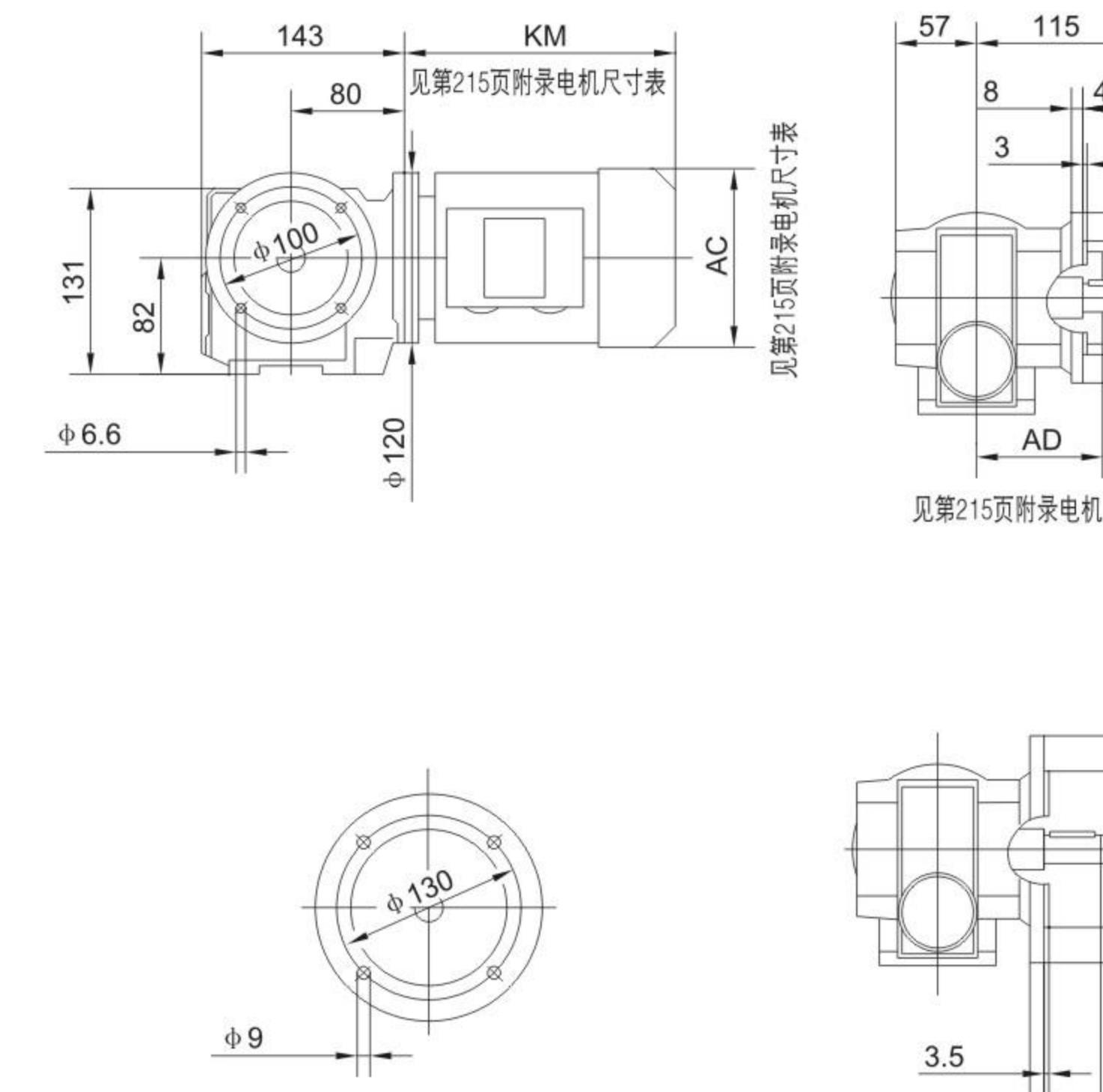
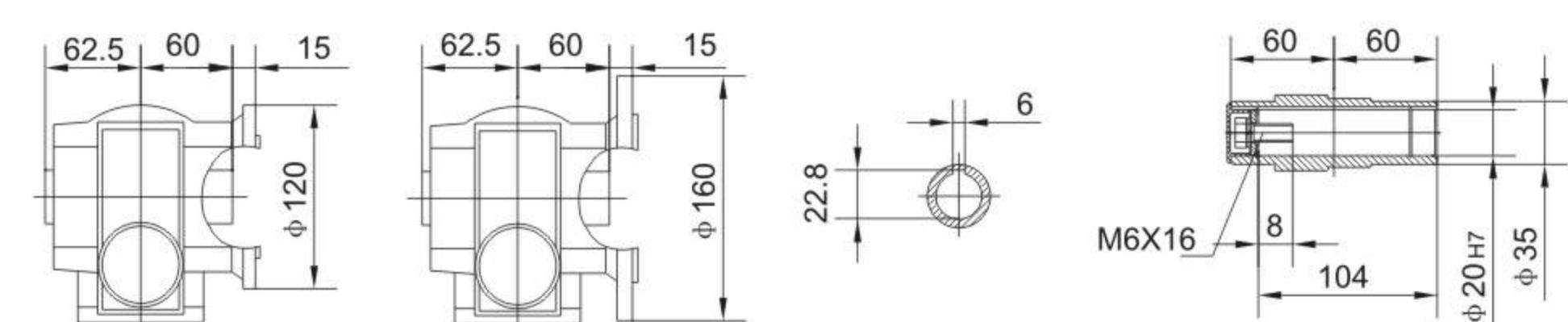
5.5kW					
8.8	4550	161.74	29900	0.85	
9.8	4130	145.60	32900	0.90	
11	3760	131.85	33700	0.95	
12	3360	116.92	34400	1.05	BS 97 D132S4
14	3050	105.71	34900	1.15	BSF 97 D132S4
16	2610	89.60	35500	1.25	BSA 97 D132S4
18	2290	78.26	35900	1.35	BSAF 97 D132S4
20	2350	71.43	35800	1.40	BSAF 97 D132S4
22	1930	65.45	36200	1.50	
24	2000	60.59	36200	1.65	
26	1850	55.79	36300	1.80	
29	1660	49.87	36500	2.0	
32	1500	44.89	36600	2.2	
35	1360	40.65	36700	2.4	

输出转速 Output speed n_2 [r/min]	输出扭矩 Output torque T_a [N·m]	传动比 Ratio i	径向 负荷 Permitted overhung load FR2 [N]	使用 系数 Service factor fB	机型号 Model
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5.5kW

19	2200	77.14	28100	0.85	BS 87 D132S4
22	1850	64.00	28700	0.90	BSF 87 D132S4
25	1850	57.00	28700	0.85	BSA 87 D132S4
30	1560	47.91	29100	1.00	BSAF 87 D132S4

32	1440	44.03	29200	1.10	
37	1280	39.10	29200	1.25	
41	1150	34.96	28600	1.40	
45	1040	31.43	28000	1.55	
52	910	27.28	27200	1.75	BS 87 D132S4
56	870	25.50	25200	1.45	BSF 87 D132S4
67	730	21.43	24500	1.70	BSA 87 D132S4
73	675	19.70	24100	1.85	BSAF 87 D132S4
82	600	17.49	23500	2.1	
91	535	15.64	23000	2.3	
102	485	14.06	22500	2.6	
117	420	12.21	21800	3.0	
131	375	10.93	21200	3.3	

BS37..**BSF37..****BSAF37..**

BR..

BF..

BK..

BS..

H..

B..

BR..

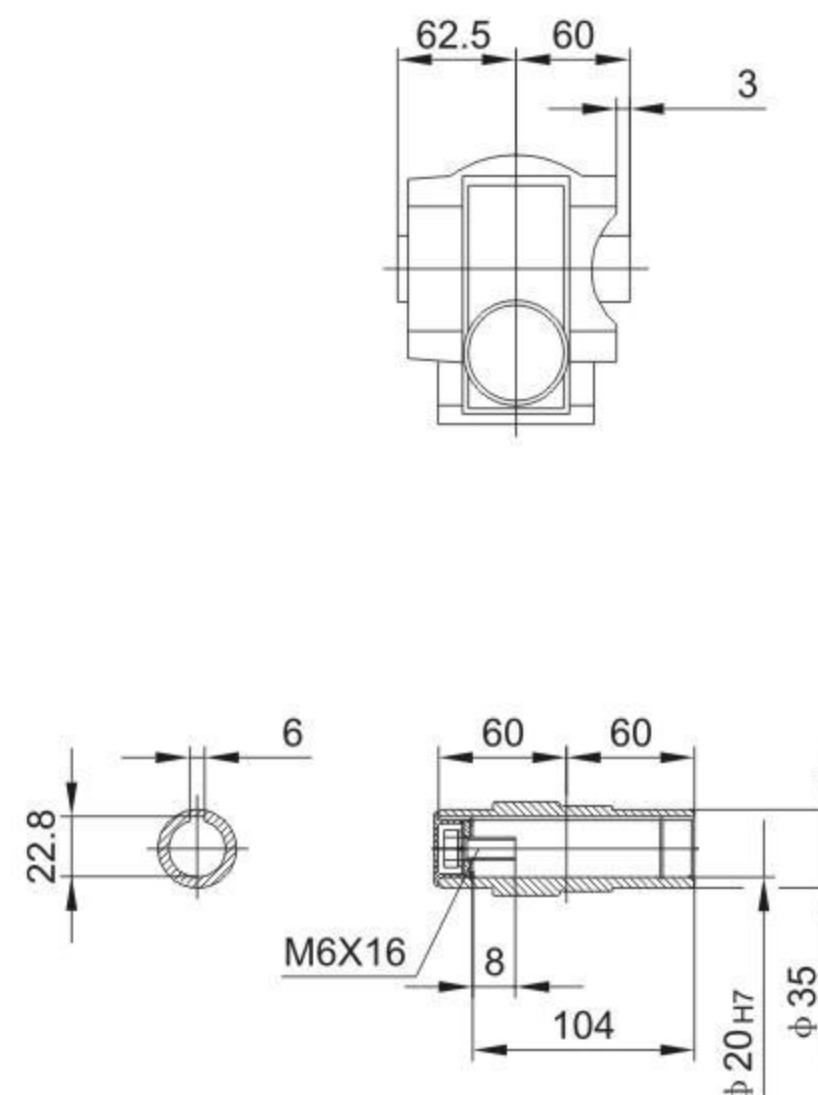
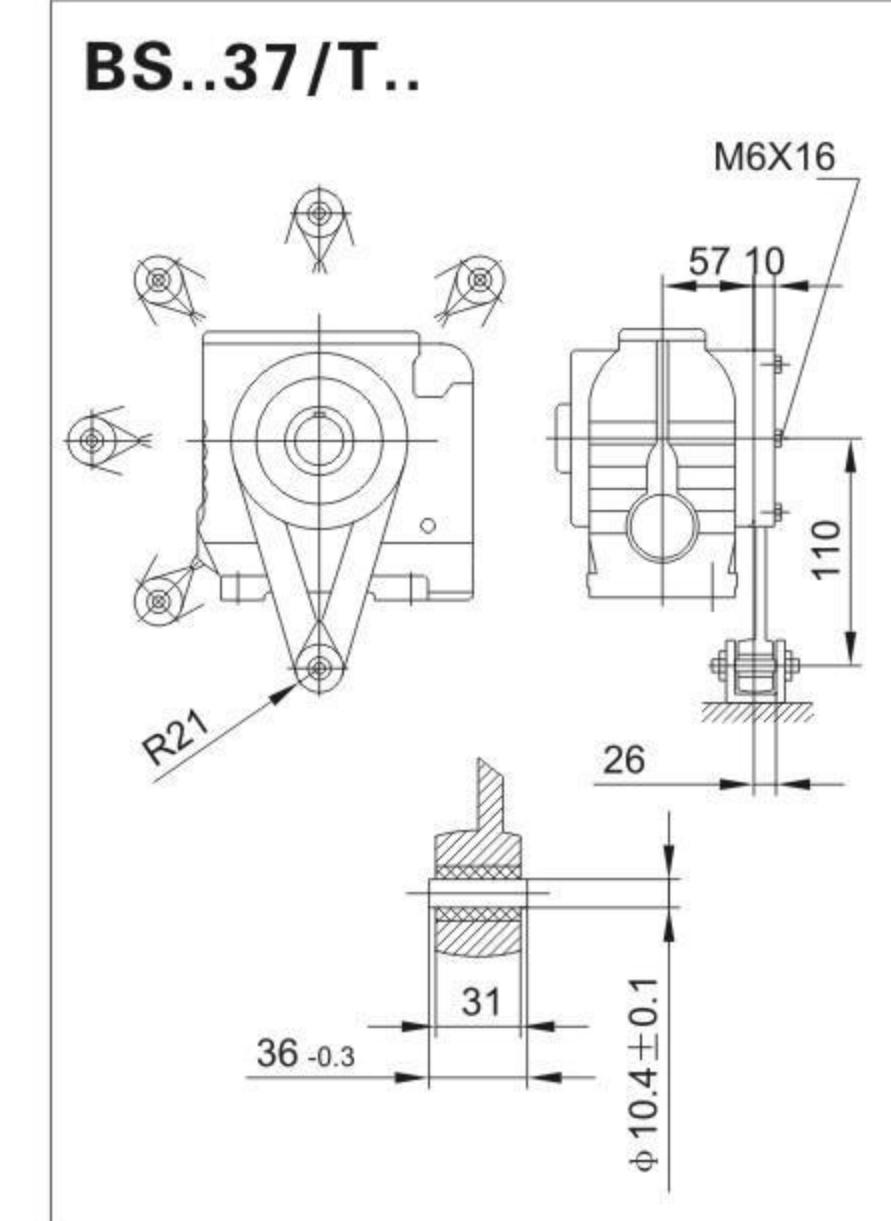
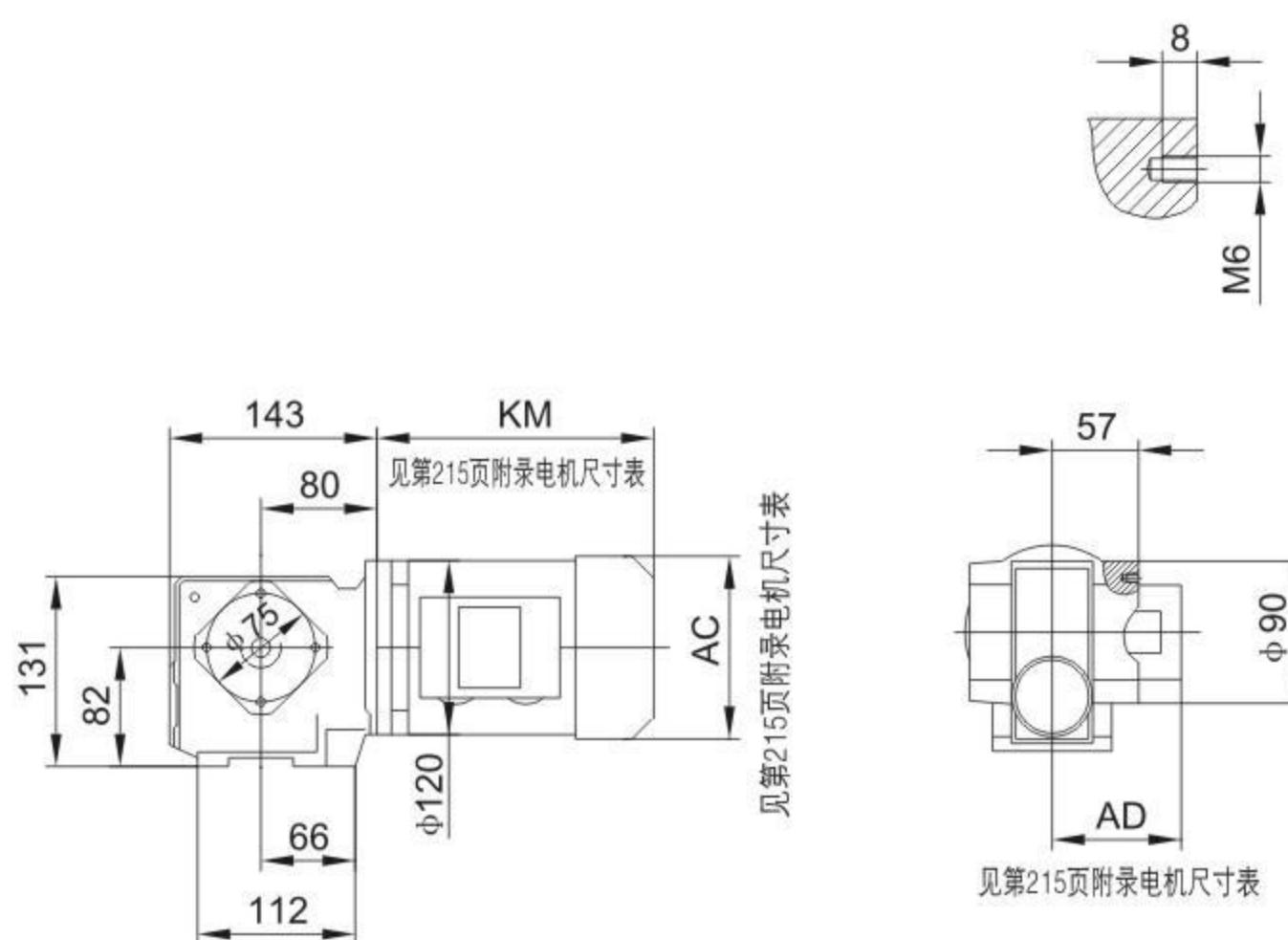
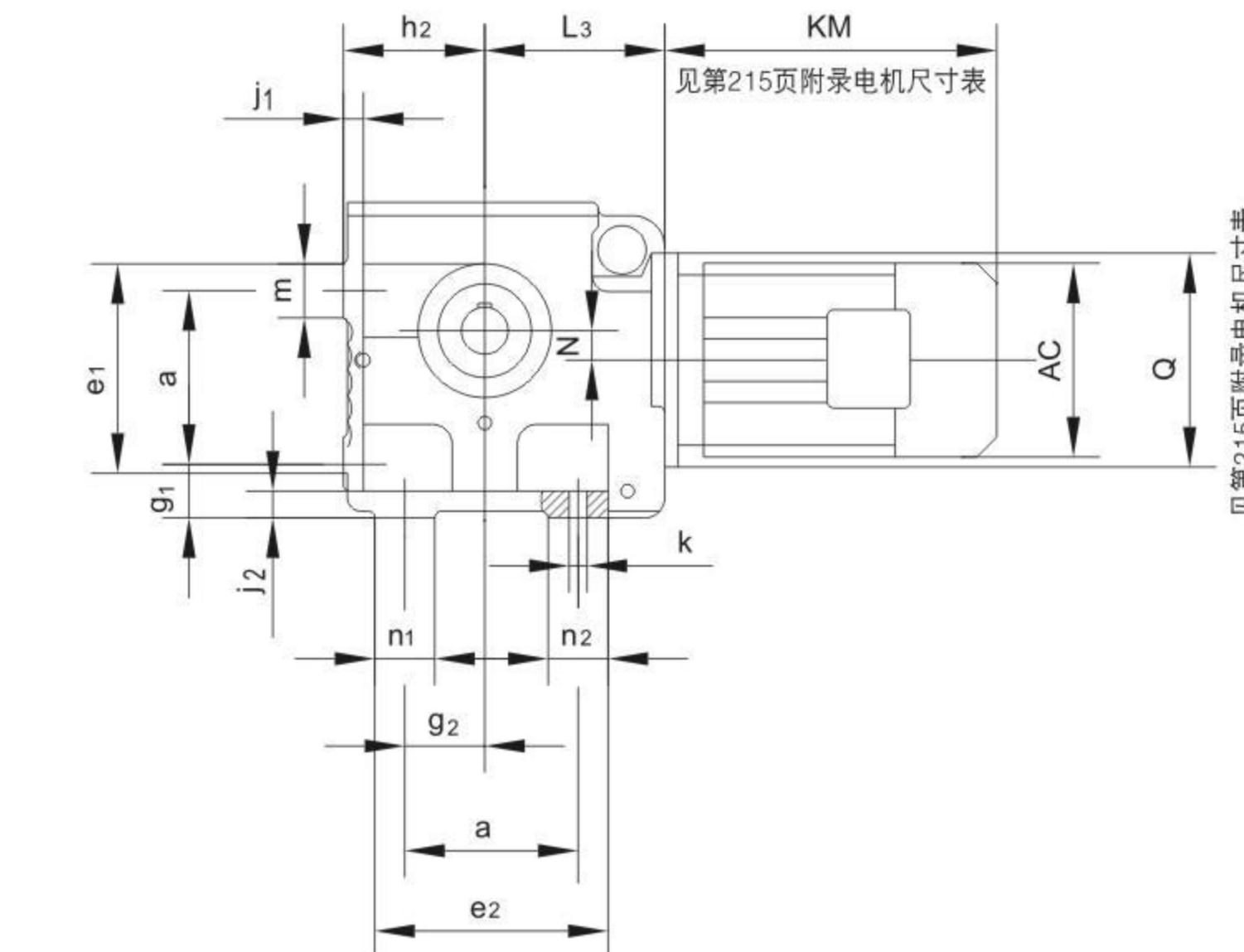
BF..

BK..

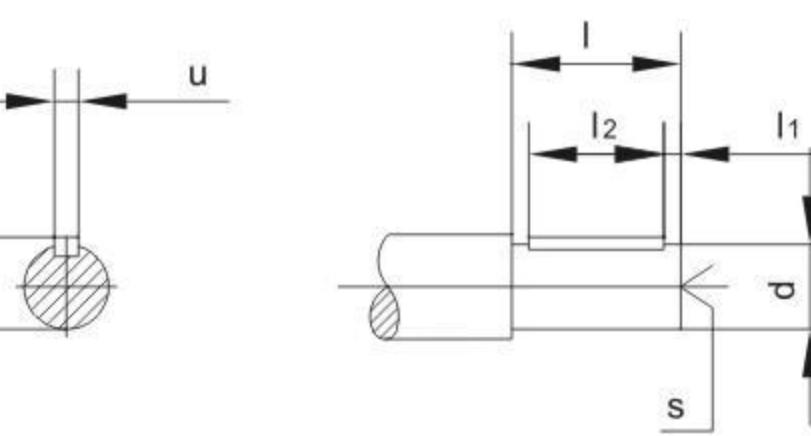
BS..

H..

B..

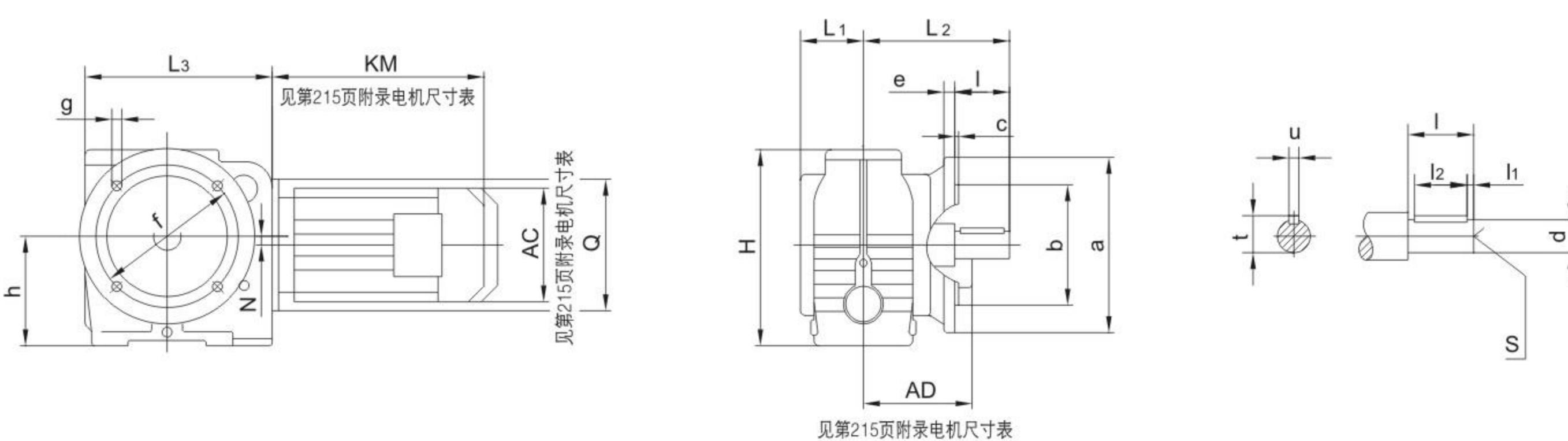
BSA37..**BS47..~S97..**

见第215页附录电机尺寸表

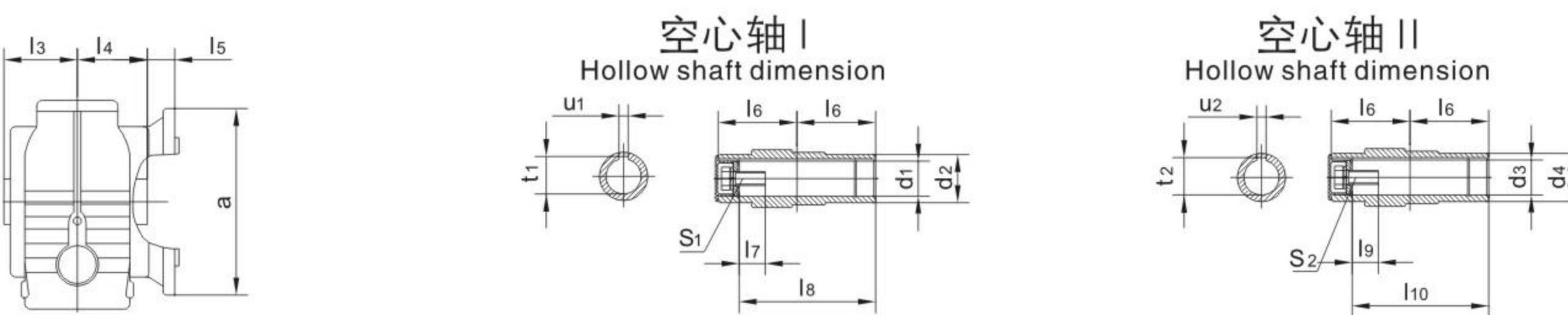


型号 Model	a b	e ₁ e ₂ f	g ₁ g ₂	h ₁ h ₂	j j k	m n ₁ n ₂	轴伸尺寸 Shaft dimension				L ₁ L ₂ L ₃	N Q
							d l	l ₁ l ₂	s	t u		
BS47..	80 100	105 112 120	35	100 _{-0.5} 75 _{-0.5}	12 15 11	25 30 30	25k6 50	5 40	M10	28 8	115 60 96	165 8 120
BS57..	100 110	130 130 136	35 45	112 _{-0.5} 80 _{-0.5}	12 15 11	30 30 30	30k6 60	3.5 50	M10	33 8	134 71 107	20 189 120
BS67..	130 130	170 175 160	40	140 _{-0.5} 106 _{-0.5}	15 20 13.5	40 45 45	35k6 70	7 56	M12	38 10	160 85.5 135	22 236 160
BS77..	135 150	177 204 185	70	180 _{-0.5} 125 _{-0.5}	25 25 17.5	42 50 69	45k6 90	5 80	M16	48.5 14	195 101 162	34 301 200
BS87..	180 200	230 247 250	82	225 _{-0.5} 150 _{-0.5}	30 30 22	50 60 67	60m6 120	5 110	M20	64 18	255 130 190	37.5 368 250
BS97..	235 250	295 320 300	90	280 ₋₁ 180 _{-0.5}	35 35 26	60 80 85	70m6 140	7.5 125	M20	74.5 20	295 150 240	52 455 300

BSF47..~SF97..

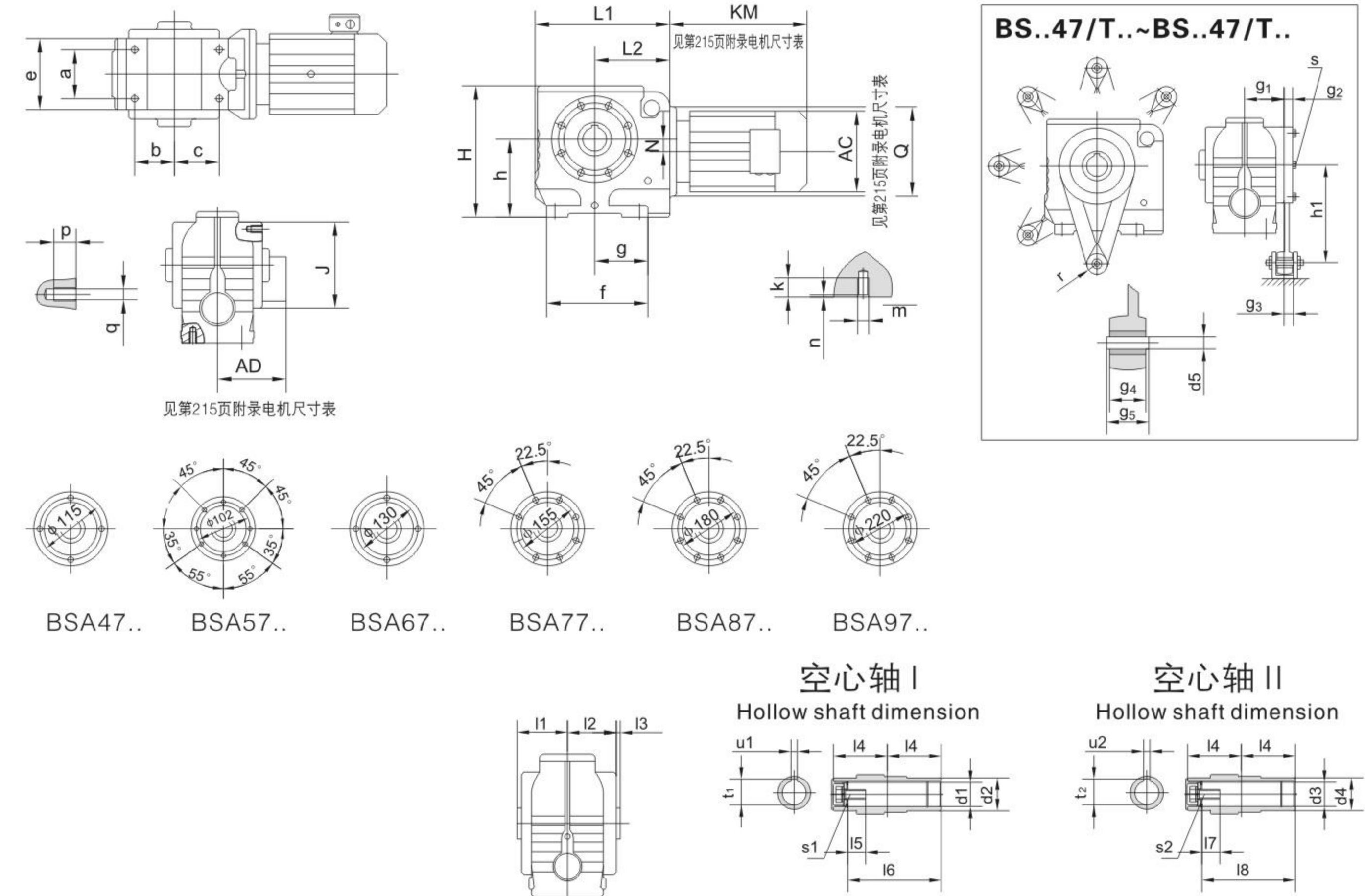


BSAF47..~SAF97..



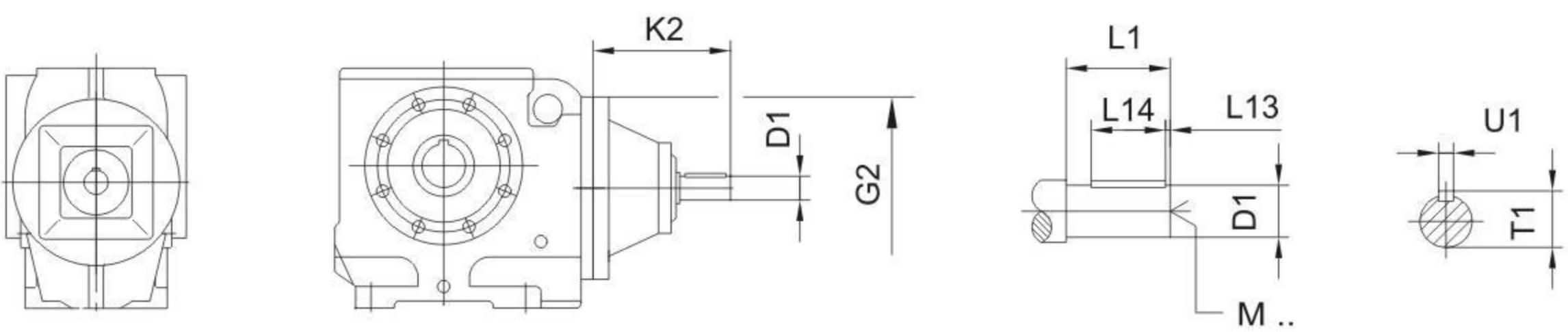
型号 Model	法兰 型式 flange form	a b	c e	f g h	轴伸尺寸 Shaft dimension			空心轴 I 尺寸 Hollow shaft dimension				空心轴 II 尺寸 Hollow shaft dimension			H	L ₁ L ₂ L ₃	N Q
					d I	I ₁ I ₂	s t u	d ₁ d ₂	I ₃ I ₄ I ₅	I ₆ I ₇ I ₈	s t u	d ₃ d ₄	I ₉ I ₁₀	s ₂ t ₂ u ₂			
BSF47.. BSAF47..	Flg.1	160 110j6	3.5 10	130 9 100	25k6 50	5 40	M10 28 8	30 ^{H7} 45	63 60 24	60 17 105	M10X25 33.3 8	25 ^{H7} 45	17 105	M10X25 28.3 8	179	57.5 133.5 171	8 120
BSF57.. BSAF57..	Flg.1	200 130j6	3.5 12	165 11 112	30k6 60	3.5 50	M10 33 8	35 ^{H7} 50	78 75 25	75 22 132	M12X30 38.3 10	30 ^{H7} 50	17 132	M10X25 33.3 8	189	72 160 187	20 120
BSF67.. BSAF67..	Flg.1	200 130j6	3.5 12	165 11 140	35k6 70	7 56	M12 38 10	45 ^{H7} 65	87 84 42.5	84 29 144	M16X40 48.8 14	40 ^{H7} 65	29 144	M16X40 43.3 12	236	80.5 190 242	22 160
BSF77.. BSAF77..	Flg.1	250 180j6	4 15	215 13.5 180	45k6 90	5 80	M16 48.5 14	60 ^{H7} 80	108 105 45.5	105 37 180	M20X50 64.4 18	50 ^{H7} 80	32 183	M16X45 53.8 14	301	121 232 287	34 200
BSF87.. BSAF87..	Flg.1	350 250h6	5 18	300 17.5 225	60m6 120	5 110	M20 64 18	70 ^{H7} 95	128 125 52.5	125 34 220	M20X50 74.9 20	60 ^{H7} 95	36 220	M20X50 64.4 18	368	145 290 340	37.5 250
BSF97.. BSAF97..	Flg.2	450 350h6	5 22	400 17.5 280	70m6 140	7.5 125	M20 74.5 20	90 ^{H7} 120	149 145 60	145 41 255	M24X60 95.4 25	70 ^{H7} 120	34 260	M20X50 74.9 20	455	165 340 420	52 300

BSA47..~BSA97..



型号 Model	a b c	e f g	h	k m h	p q	空心轴 I 尺寸 Hollow shaft dimension				空心轴 II 尺寸 Hollow shaft dimension				扭矩臂尺寸 Torque arm form				H L ₁ L ₂	N Q
						d ₁ d ₂	l ₁ l ₂ l ₃	l ₄ l ₅ l ₆	s ₁ t ₁ u ₁	d ₃ d ₄	l ₇ l ₈	s ₂ t ₂ u ₂	g ₁ g ₂ g ₃	g ₄ g ₅ h ₁	d ₅ r s ₃				
BSA47.. BS..47/T..	60	94	100	20	12 M8	30 ^{H7}	63	60	M10X25	25 ^{H7}	17	M10X25	57.5	31	10.4 _{±0.1}	179	8 120		
	35	127		M10		45	60	17	33.3	45	105	28.3	15	36-0.3	21	171			
	52	67		4		2.5	105	8		8		20.5	130	M8X25	96				
BSA57.. BS..57/T..	60	100	112	20	12 M8	35 ^{H7}	78	75	M12X30	30 ^{H7}	17	M10X25	72	31	10.4 _{±0.1}	189	20 120		
	58.5	146		M10		50	75	22	38.3	50	132	33.3	15	36-0.3	21	187			
	58.5	73		4		3	132	10		8		18.5	160	M8X25	107				
BSA67.. BS..67/T..	88	128	140	25	20 M12	45 ^{H7}	87	84	M16X40	40 ^{H7}	29	M16X40	80.5	31	10.4 _{±0.1}	236	22 160		
	71.5	182		M12		65	84	29	48.8	65	144	43.3	18	36-0.3	21	242			
	80.5	95.5		5		3.5	144	14		12		19.5	200	M12X35	135				
BSA77.. BS..77/T..	102	154	180	32	20 M12	60 ^{H7}	108	105	M20X50	50 ^{H7}	32	M16X45	101	54	16.4 _{±0.08}	301	34 200		
	85	204		M16		80	105	37	64.4	80	183	53.8	18	60-0.3	30	287			
	85	104		6		4	180	18		14		32.5	250	M12X35	162				
BSA87.. BS..87/T..	118	194	225	32	26 M16	70 ^{H7}	128	125	M20X50	60 ^{H7}	36	M20X50	120	54	16.4 _{±0.08}	368	37.5 250		
	115	260		M16		95	125	34	74.9	95	220	64.4	24	60-0.5	30	340			
	110	125		6		5	220	20		18		25.5	310	M16X45	190				
BSA97.. BS..97/T..	160	236	280	36	26 M16	90 ^{H7}	149	145	M24X60	70 ^{H7}	34	M20X50	140	72	25 _{±0.08}	455	52 300		
	135	301		M20		120	145	41	95.4	120	260	74.9	26	80-0.5	40	420			
	113	140		6		5	255	25		20		33	380	M16X50	240				

BS..AD..



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

BS..AM..

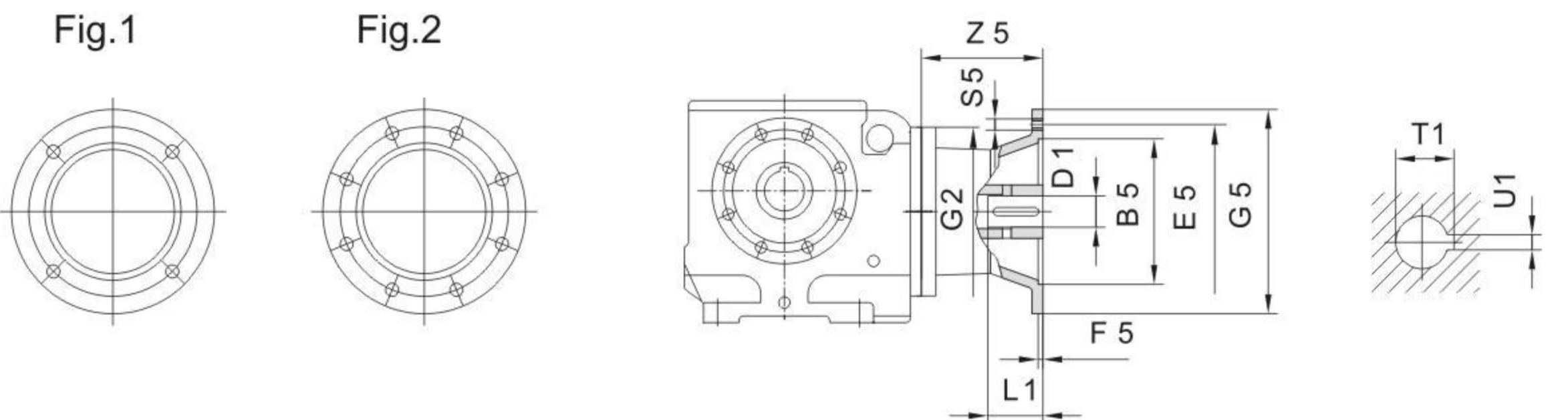
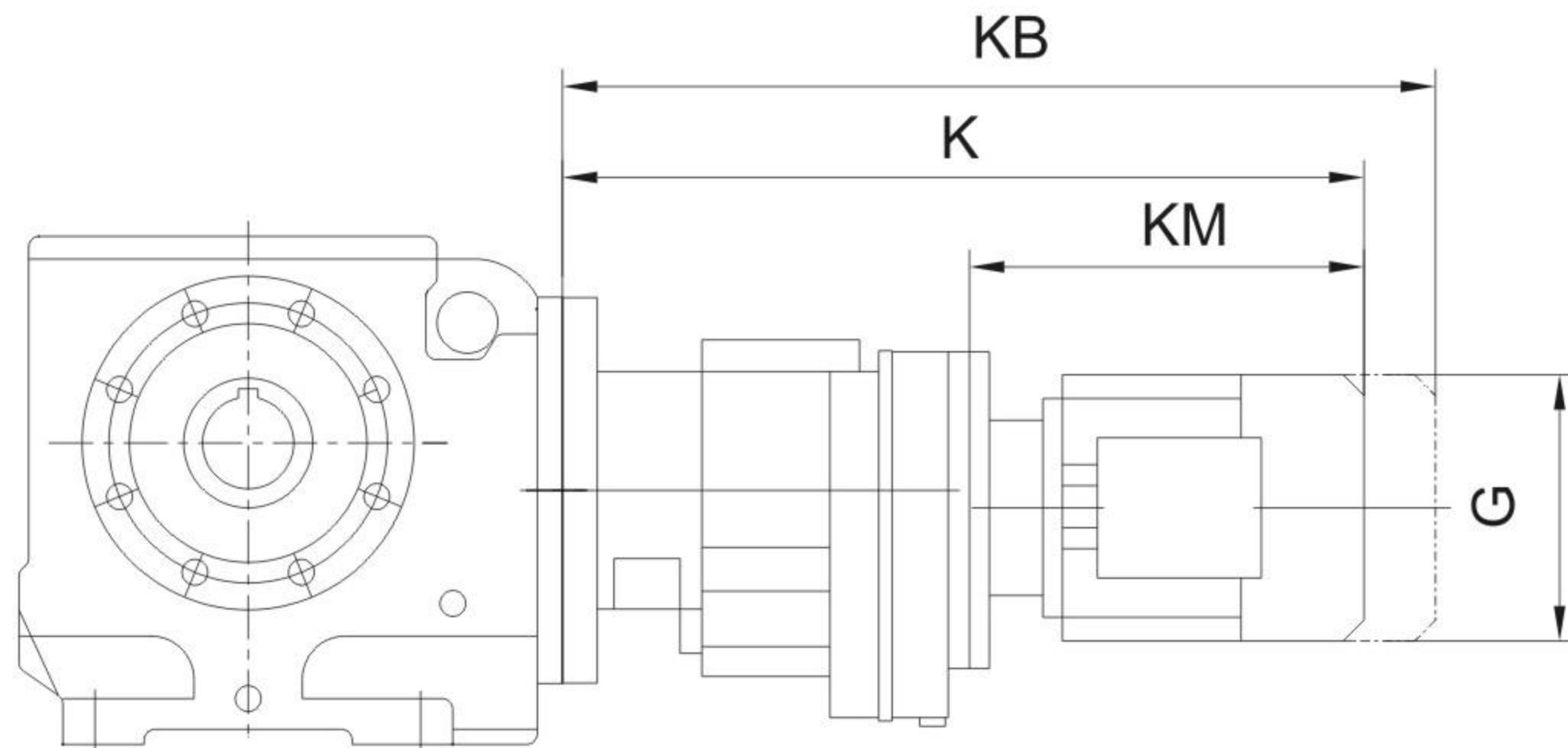


		Fig	B5	E5	F5	G2	G5	S5	Z5	D1	L1	T1	U1		
BS..37, BS..47,S..57	AM63	1	95	115	3.5	120	140	M8	72	11	23	12.8	4		
	AM71 ¹⁾		110	130			160			14	30	16.3	5		
	AM80 ¹⁾		130	165	4.5		200	M10	106	19	40	21.8	6		
	AM90 ¹⁾								24	50	27.3	8			
BS..67	AM63	1	95	115	3.5	160	140	M8	66	11	23	12.8	4		
	AM71		110	130			160			14	30	16.3	5		
	AM80		130	165	4.5		200	M10	99	19	40	21.8	6		
	AM90						250	M12	134	28	60	31.3	8		
	AM100 ¹⁾		180	215	5	200	140	M8	60	11	23	12.8	4		
	AM112 ¹⁾						160			14	30	16.3	5		
BS..77	AM63	1	95	115	3.5		140	M10	92	19	40	21.8	6		
	AM71		110	130			160			24	50	27.3	8		
	AM80		130	165	4.5		200	M12	126	28	60	31.3	8		
	AM90						250		300	179	38	80	41.3	10	
	AM100 ¹⁾		180	215	5		140	M12	174	38	80	41.3	10		
	AM112 ¹⁾						160		350	232	42	110	45.3	12	
	AM132S ¹⁾						180	M16	227	48	48	110	51.8	14	
	AM132M ¹⁾						200		350	268	55	110	59.3	16	
BS..87	AM80	1	130	165	4.5	250	19	40	21.8	6					
	AM90						200	M10	87	24	50	27.3	8		
	AM100		180	215			250	M12	121	28	60	31.3	8		
	AM112					300	174	M16	232	42	110	45.3	12		
	AM132MS		230	265	6		180		350	268	55	110	59.3	16	
	AM132M						200	M16	227	48	48	110	51.8	14	
	AM132ML						220		350	268	55	110	59.3	16	
	AM160 ¹⁾		250	300			240	M16	232	42	110	45.3	12		
BS..97	AM180 ¹⁾	1	250	300	7	300	180	M16	227	48	110	45.3	12		
	AM200 ¹⁾		300	350			200		350	268	55	110	59.3	16	
	AM225 ¹⁾		350	400			220	M16	232	42	110	45.3	12		
							240		350	268	55	110	59.3	16	
	AM100	2	180	215	5	300	180	M16	227	48	110	45.3	12		
	AM112						200		350	268	55	110	59.3	16	
	AM132S	2	230	265			220	M16	232	42	110	45.3	12		
	AM132M						240		350	268	55	110	59.3	16	
	AM132ML	2	250	300			220	M16	232	42	110	45.3	12		
	AM160						240		350	268	55	110	59.3	16	
	AM180	2	250	300			220	M16	232	42	110	45.3	12		
	AM200 ¹⁾		300	350			240		350	268	55	110	59.3	16	
	AM225 ¹⁾	2	350	400			220	M16	232	42	110	45.3	12		

1) 如果安装在BS系列脚安装方式的减速机壳，请检查尺寸G5、2，它可能已突出安装平面。

Dimension G5/2 May protrude past foot mounting surface if mounted on BS foot - mounted gear unit, please check.

BS..AM..



		G	K	KB	KM
BS..37R17	D63..	155	368	425	193
	D71D	155	369	433	194
	D80..	155	419	483	244
BS..47R17 BS..57R37	D63..	155	400	425	193
	D71D	155	401	433	194
	D80..	155	451	483	244
BS..67R37	D63..	155	410	457	235
	D71D	155	401	465	236
	D80..	155	451	515	286
	D90..	155	451	536	286
BS..77R37	D63..	155	392	449	235
	D71D	155	393	457	236
	D80..	155	443	507	286
	D90..	210	443	528	286
BS..87R57	D63..	155	445	502	229
	D71D	155	445	509	229
	D80..	155	495	559	279
	D90..	210	495	580	279
	D100M	210	545	630	329
	D100L	210	565	650	349
BS..97R57	D63..	155	440	497	229
	D71D	155	440	504	229
	D80..	155	490	554	279
	D90..	210	510	595	299
	D100M	210	540	625	329
	D100L	210	560	645	349
	D112M	240	575	655	364

注：上表中电机尺寸为参考尺寸，因空间限制对电机尺寸有严格要求时请向我公司咨询。

Notes: The dimension of motor in the above table is only reference. If you have special require require. pls consult us.

9. 设计和装配注意事项

Important notes of design and mounting

9.1 拆装单键空心轴减速机

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

重要提示
Installation

· 在装配过程中一定要使用所供应的润滑剂。它的作用是防止接触腐蚀和便于拆卸。
Always use the supplied NOCO Fluid paste during the assembly procedure. It avoids contact corrosion and easy for disassembly.

· 键的尺寸X是由用户确定，但X必须>DK。
The key dimension X is defined by the customer, however X must be > DK.

安装
Customer
shaft

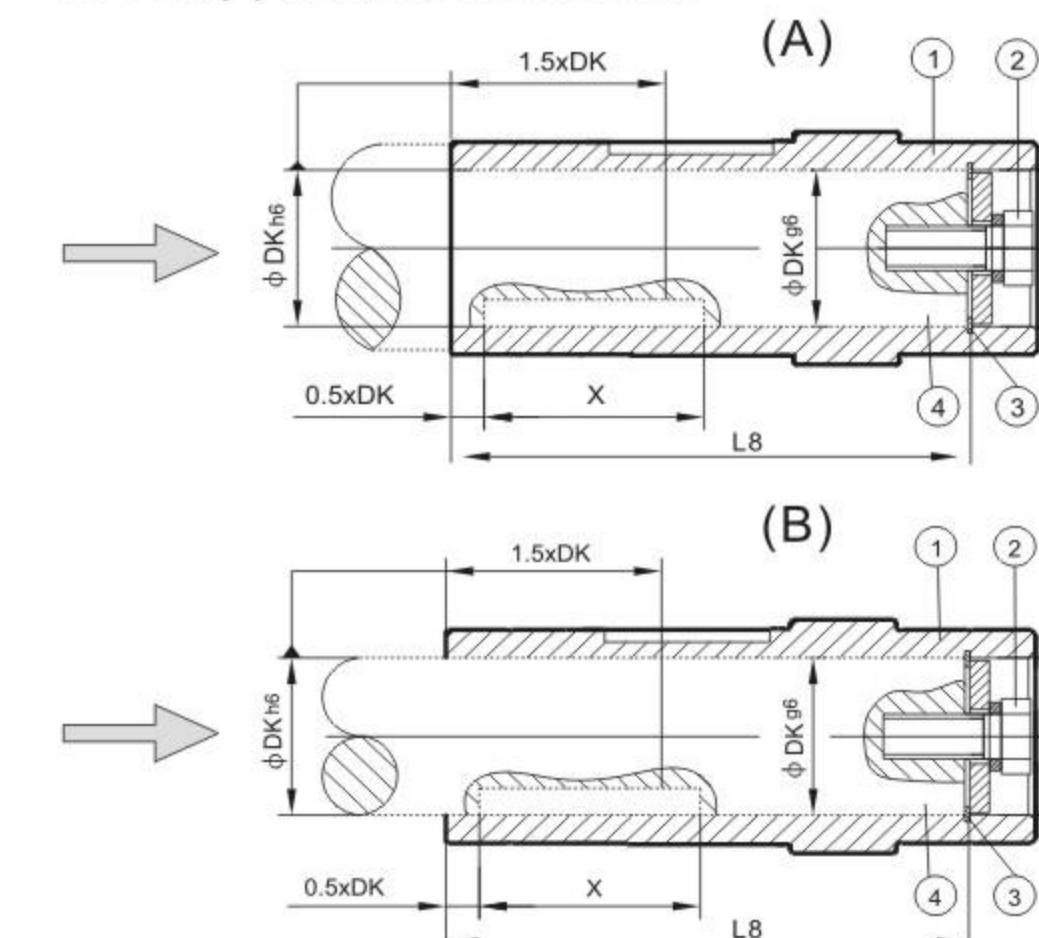
DAIFUSI 推荐两种方法将用户轴安装到单键空心轴上。1. 用提供的固定件进行装配
DAIFUSI recommends two methods for mounting gear unit with hollow shafts and keys onto the input shaft of the driven machine(=customer shaft):
Install with supplied fastening elements
2. 用DAIFUSI可选件:装卸工具进行装配
Install using the optional DAIFUSI installation/removal kit

9.1.1 提供的固定件

9.1.1 Supplied fastening elements

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

· 带垫片的紧固螺栓
Retaining screw with washer ①
· 孔用挡圈
Circlip ②



带轴肩的用户轴

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

用户轴不带轴肩

安装长度必须等于L8(图)
Installation length of customer shaft with contact shoulede(B) must equal to L8

紧固螺栓要拧紧到MS所示拧紧力矩值
The retaining screw ② must be tightened to the tightening torque MS listed in the following table

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

图: 空心轴组装示意图(带轴肩的用户轴)

Fig: Customer shaft with contact shoulder (A) and without contact shoulder (B)

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

8.1.2 DAIFUSI 拆装工具

8.1.2 DAIFUSI installation / removal kit

可使用DAIFUSI的选件：拆装工具进行装配。可以通过表中给出的零件号订购减速机的拆装工具。DAIFUSI 的拆装工具包含以下零件：

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

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

- Distance piece for installation without contact shoulder ⑤
- Retaining screw for installation ②
- Removal washer for installation ⑦
- Fixed nut for removal ⑧

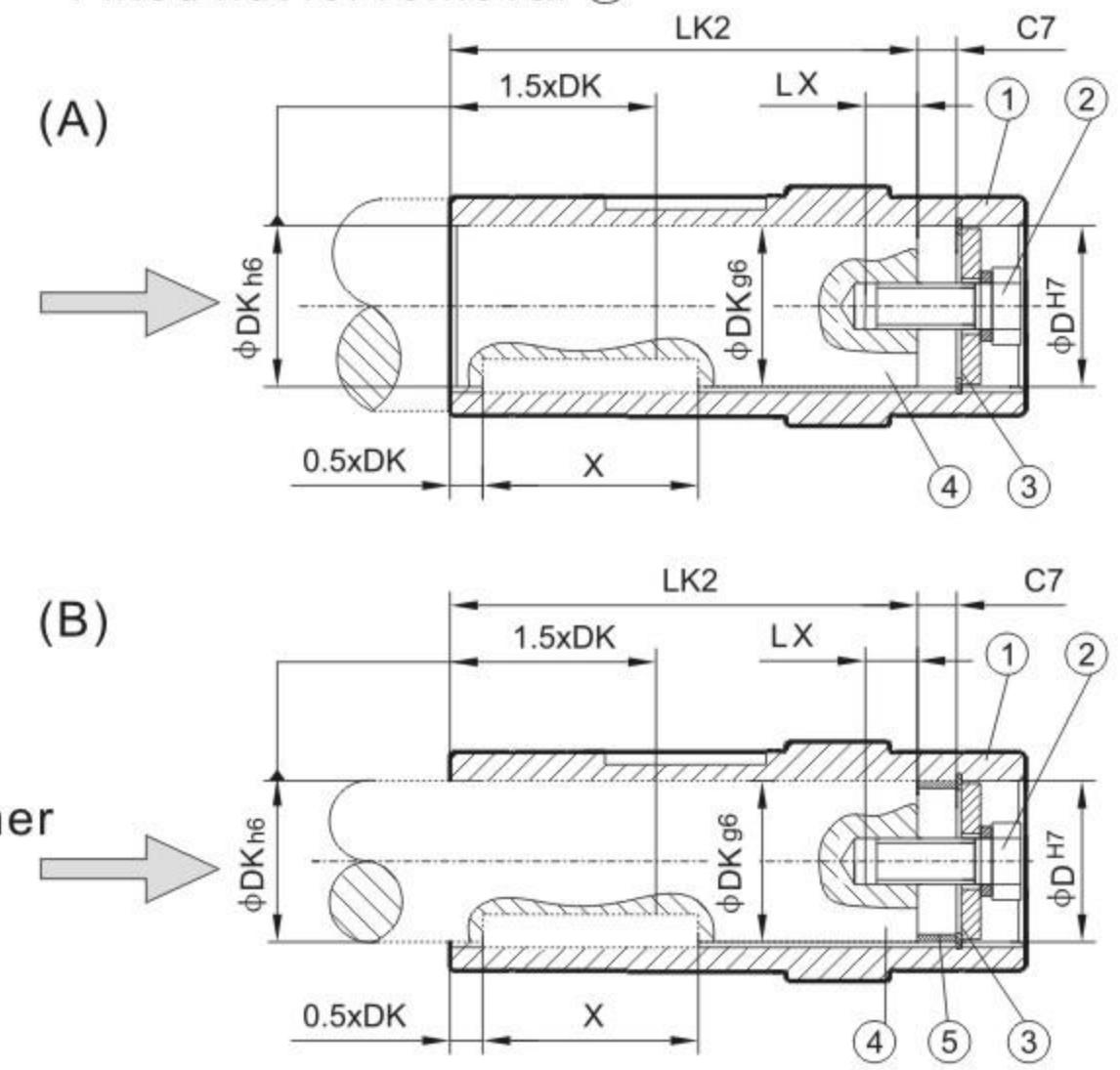


图: 带轴肩附用户轴 (A) 和不带轴肩附用户轴(B)

Fig: Customer shaft with contact shoulder(A)and without contact shoulder (B)

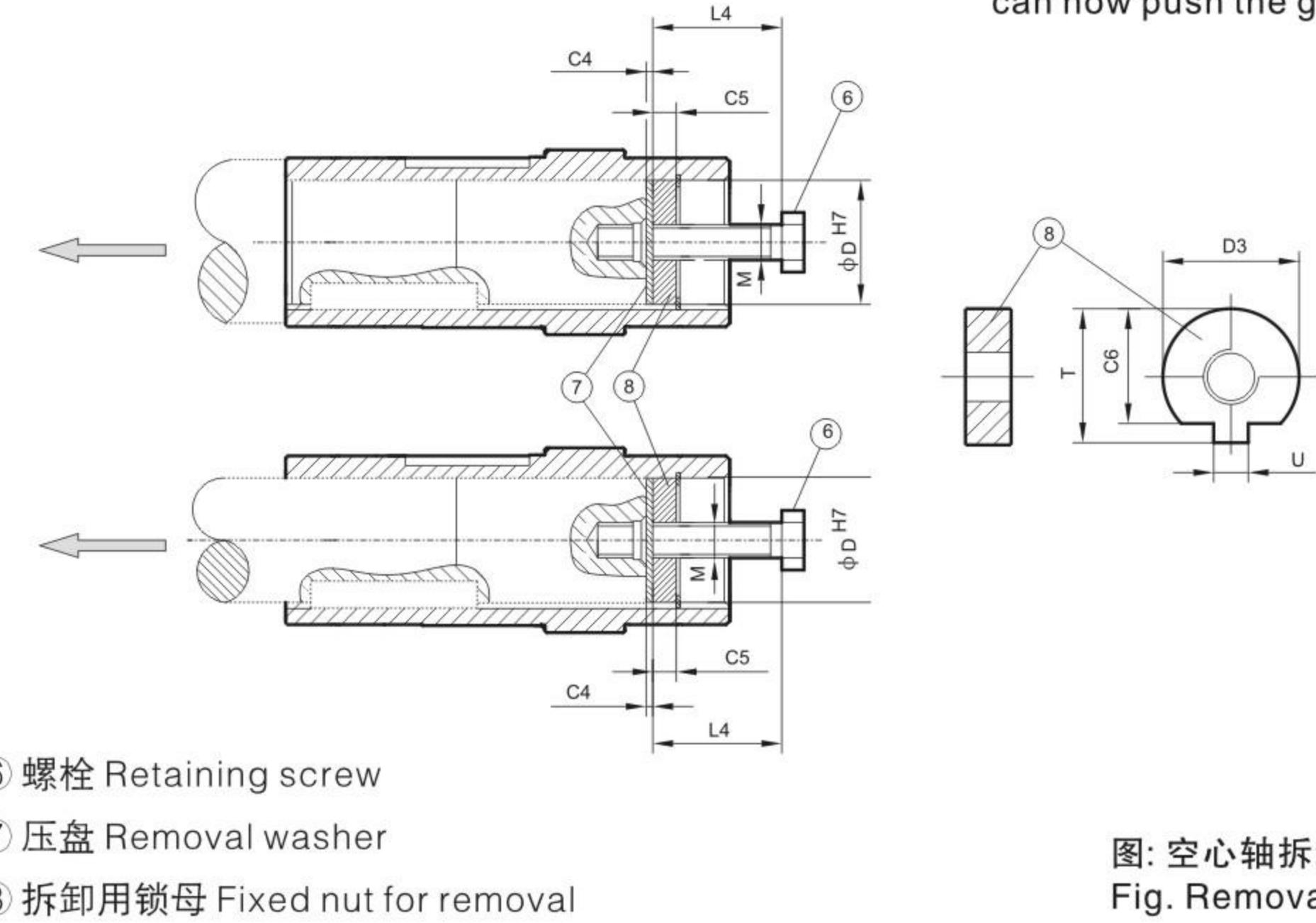
减速器型号 Gear unit type	D ^{H7} [mm]	DK[mm]	LK2[mm]	LX ⁺² [Nm]	C7[Nm]	MS[Nm]
BSA..37	20	20	92	16	12	8
BSA..47	25	25	89	22	16	20
BFA..37,BKA..37,BSA..47 BSA..57	30	30	89 89,116	22	16	20
BFA..47,BKA..47,BSA..57	35	35	114	28	18	20
BFA..57,BKA..57 BFA..67,BKA..67 BSA..67	40	40	124 138,138,126	36	18	40
BSA..67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

拆卸 Removal

用DAIFUSI的拆装工具进行装配，须按以下步骤进行拆卸

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

这样就可以把轴拆下来。



Applies prior installation with the DAIFUSI installation/removal kit only.

Proceed as follows for removal:

1. Remone the retaining screw ⑥
2. Remove the Circlip ③ and if used, the distance piece ⑤
3. Insed the removal washer ⑦ and the fixed nut ⑧ between the customer shaft ④ and circlip ③ according to Fig.
4. Re-insert the circlip ③.
5. Re-insert the retaining screw ⑥. You can now push the gear unit off the shaft.

图: 空心轴拆卸示意图
Fig. Removal

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

9.2 带轴阶的空心轴和锁紧盘选件

9.2 Shouldered hollow shaft with shrink disk (option)

带空心轴锁紧盘的减速机(BFH/FHF/FHZ37-157)平行轴减速机BKH/KHF/KHZ37-157斜齿轮-锥齿轮减速机和BSH/SHF47-97斜齿轮蜗轮蜗杆减速机, 可提供较大的轴孔直径D'作为选件
D=D'为标准产品
Gear units with a hollow shaft and shrink disk (parallel shaft helical gear units H/FHF/SH/SHF47-97) can be supplied with an optional larger hole diameter D'
The standard is D' = D.

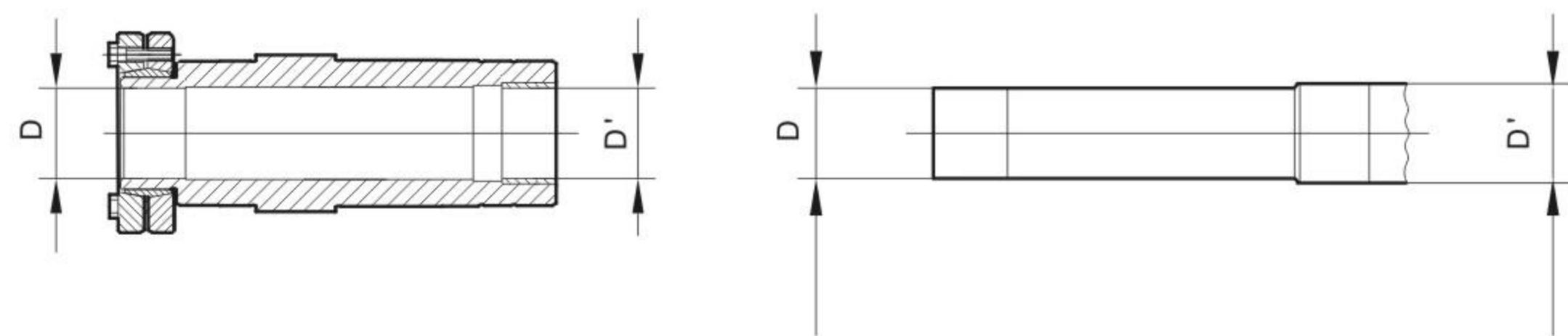


图: 选件轴孔直径D'
Fig: Optional hole diameter D'

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

订购带轴阶的空心轴减速机(可选轴孔直径D')必须注明D/D'尺寸。

例如: BFH37 D80N4 30/32

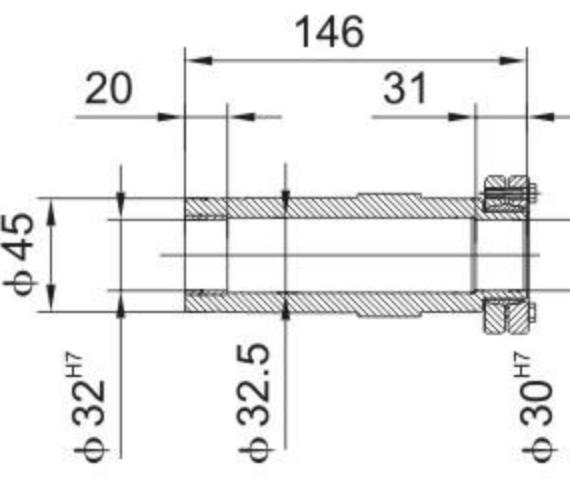
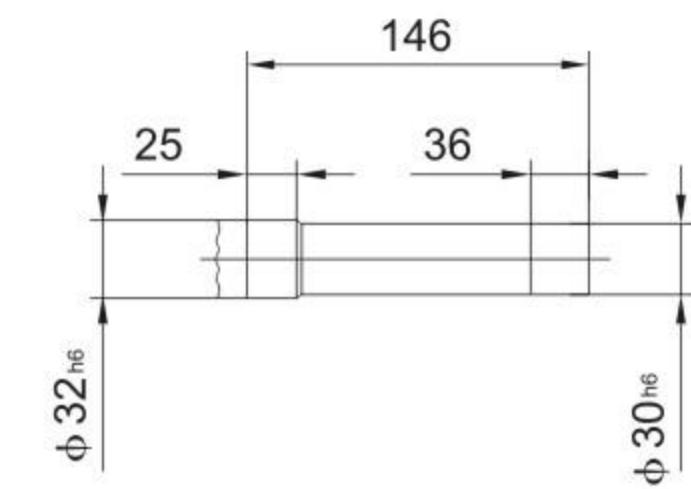
Diameter D/D' must be specified when ordering gear units with a shouldered hollow shaft (optional hole diameter D').

带轴阶空心轴和锁紧盘的平行轴减速电机

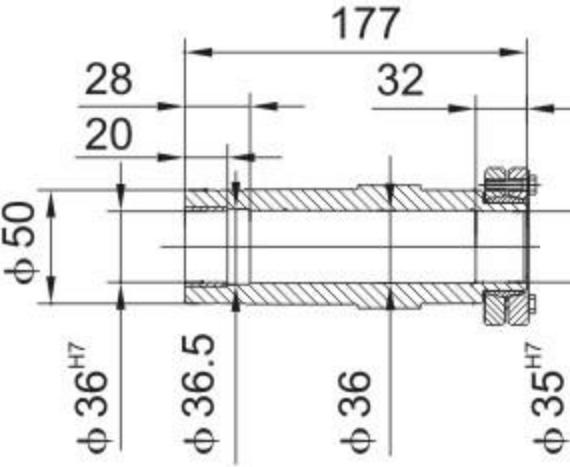
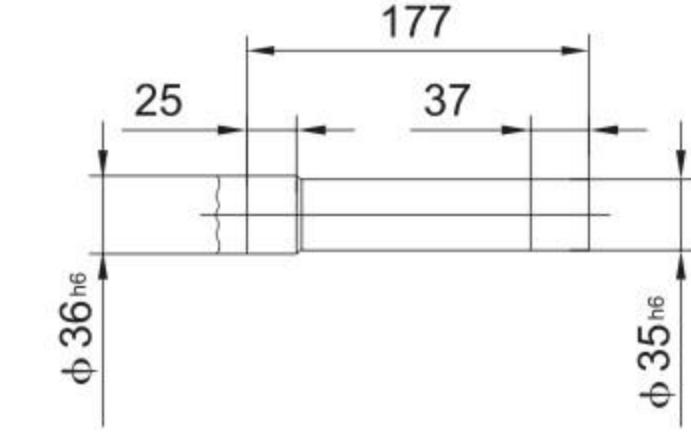
Parallel shaft helical gear unit with shouldered hollow shfat

BFH/FHF/FHZ37

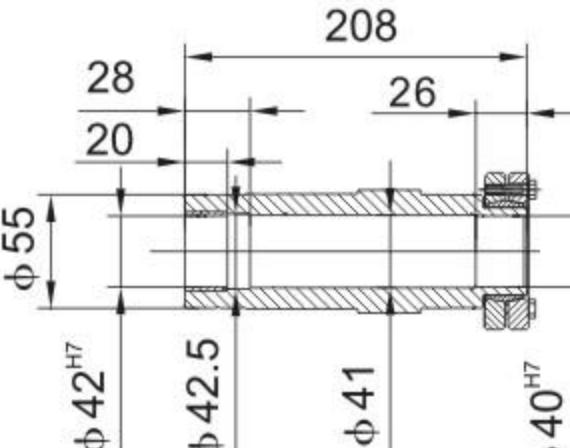
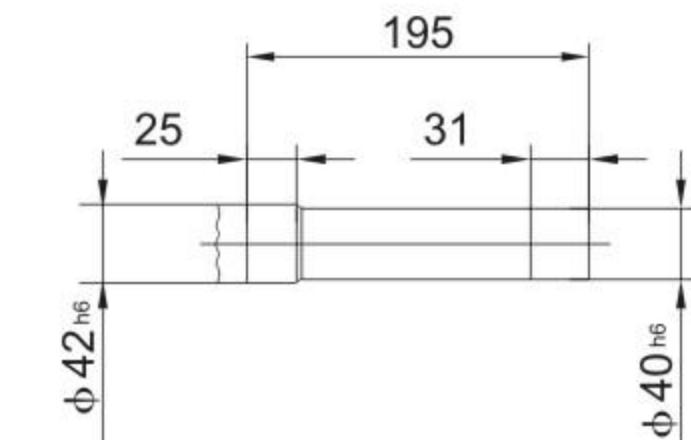
$\phi 30^{H7}/\phi 32^{H7}$

**BFH/FHF/FHZ47**

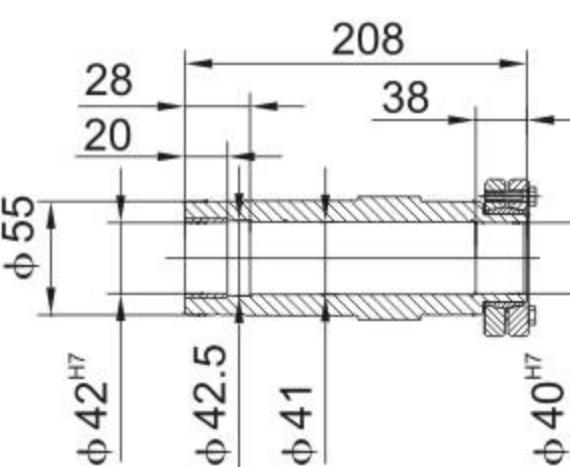
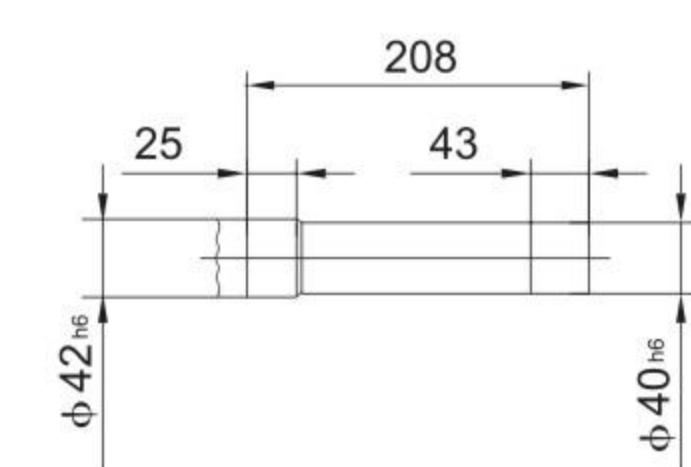
$\phi 35^{H7}/\phi 36^{H7}$

**BFH/FHF/FHZ57**

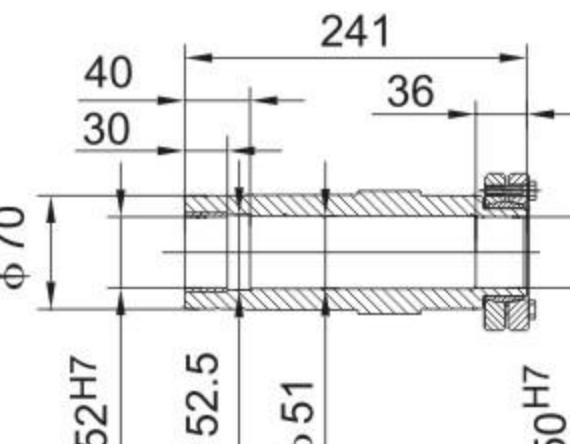
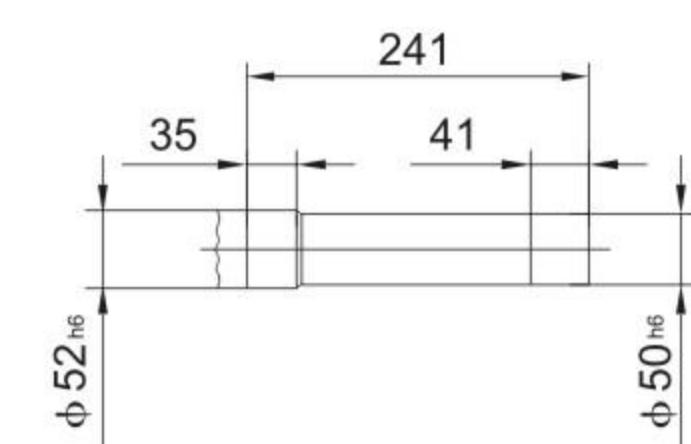
$\phi 40^{H7}/\phi 42^{H7}$

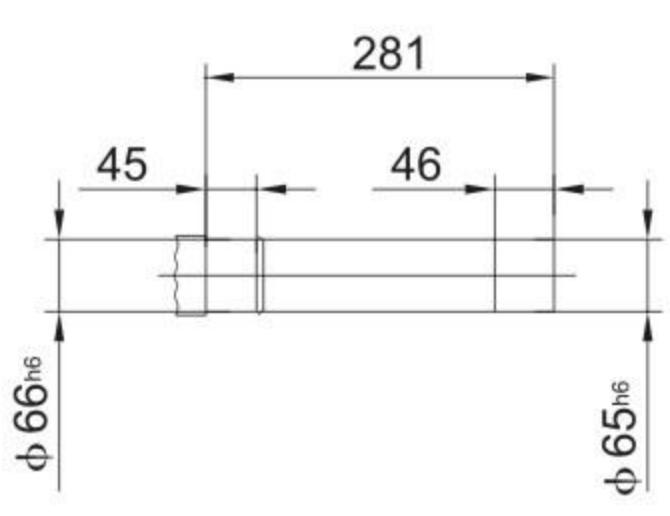
**BFH/FHF/FHZ67**

$\phi 40^{H7}/\phi 42^{H7}$

**BFH/FHF/FHZ77**

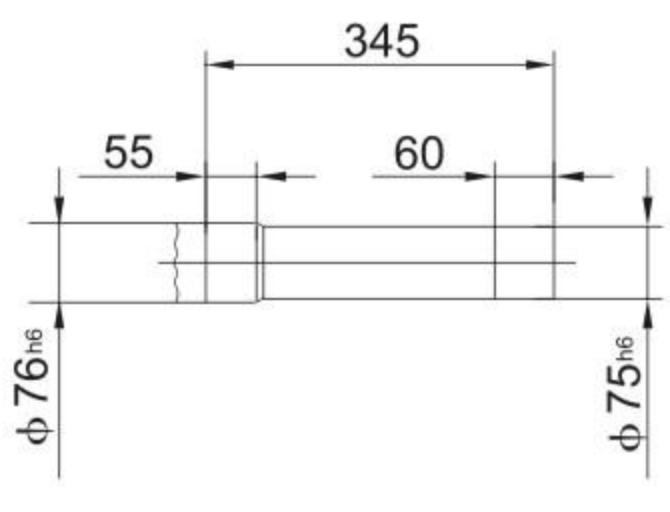
$\phi 50^{H7}/\phi 52^{H7}$





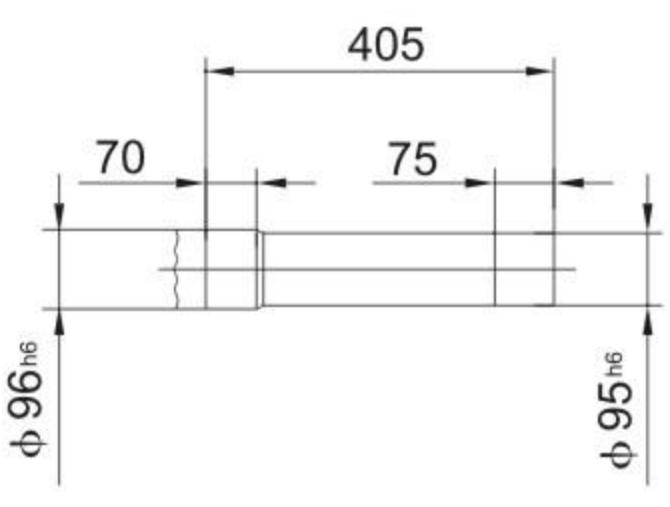
BFH/FHF/FHZ87

$\phi 65^{h7}/\phi 66^{h7}$



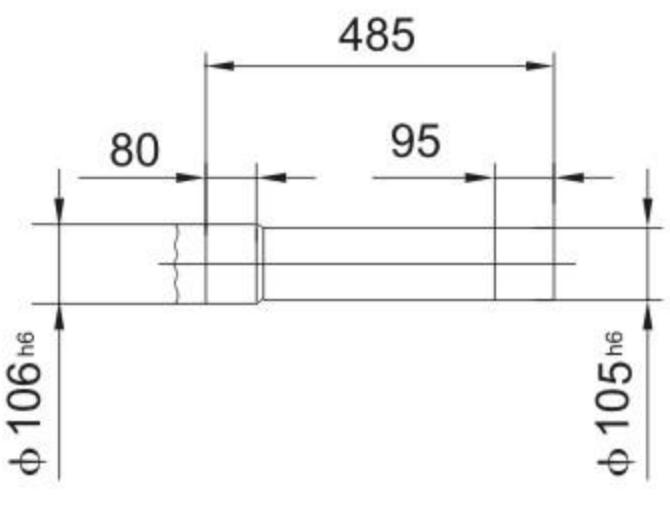
BFH/FHF/FHZ97

$\phi 75^{h7}/\phi 76^{h7}$



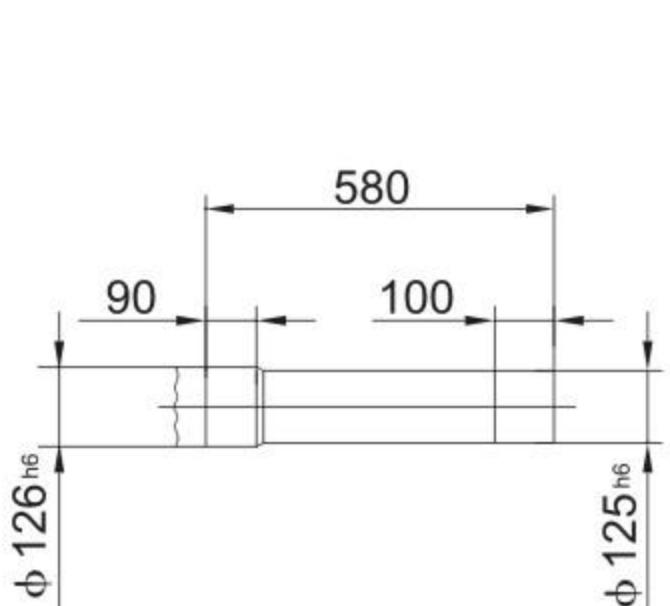
BFH/FHF/FHZ107

$\phi 95^{h7}/\phi 96^{h7}$



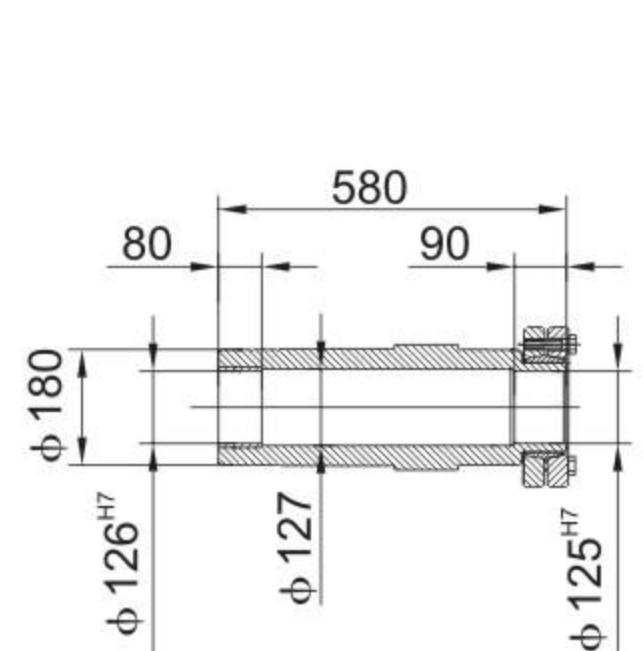
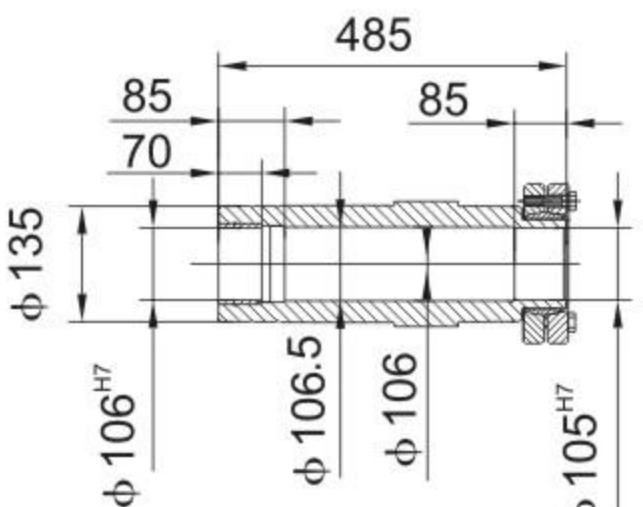
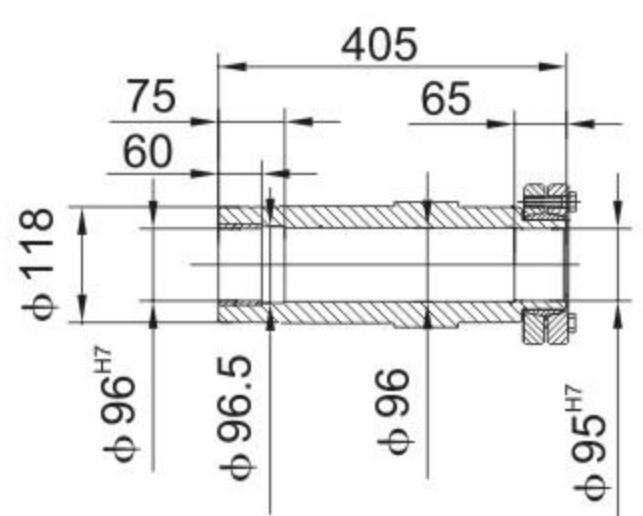
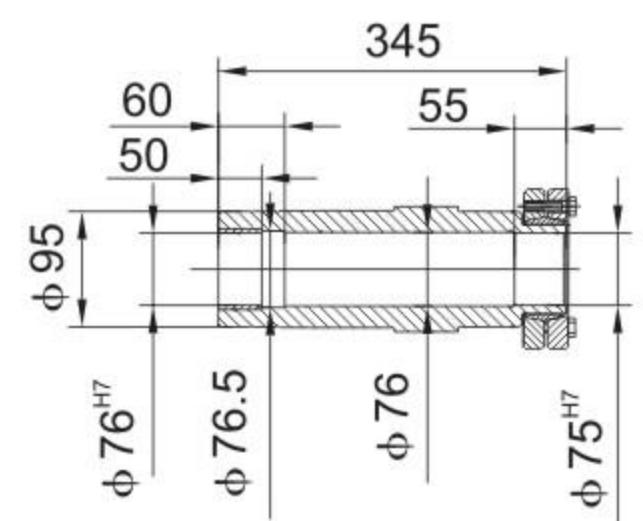
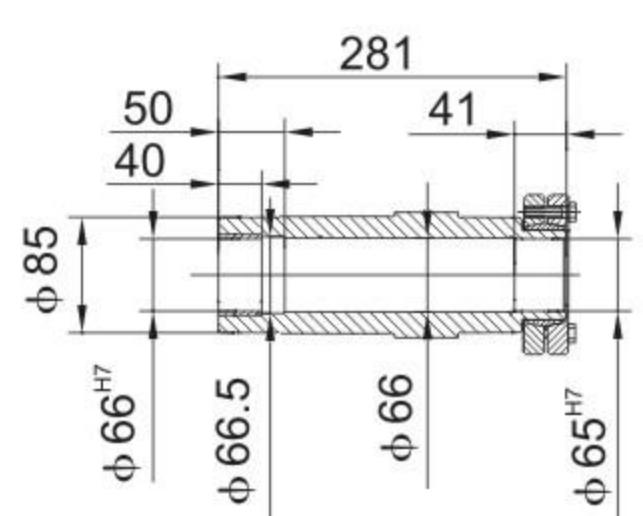
BFH/FHF/FHZ127

$\phi 105^{h7}/\phi 106^{h7}$

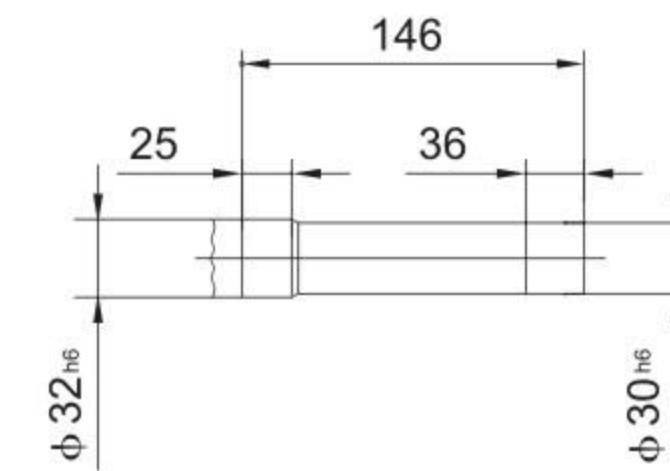


BFH/FHF/FHZ157

$\phi 125^{h7}/\phi 126^{h7}$

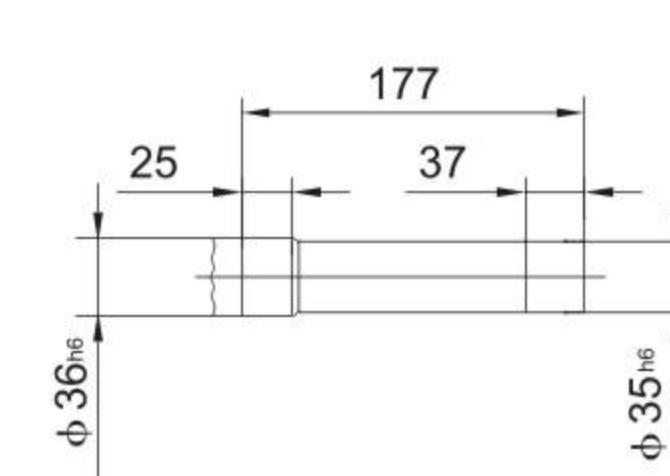


带轴阶空心轴和锁紧盘的斜齿轮—锥齿轮减速电机
Helical – bevel gear unit with shouldered hollow shaft



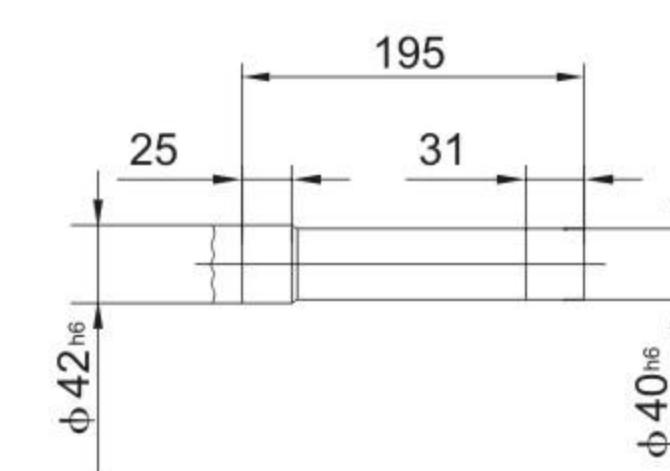
BKH/KHF/KHZ37

$\phi 30^{h7}/\phi 32^{h7}$



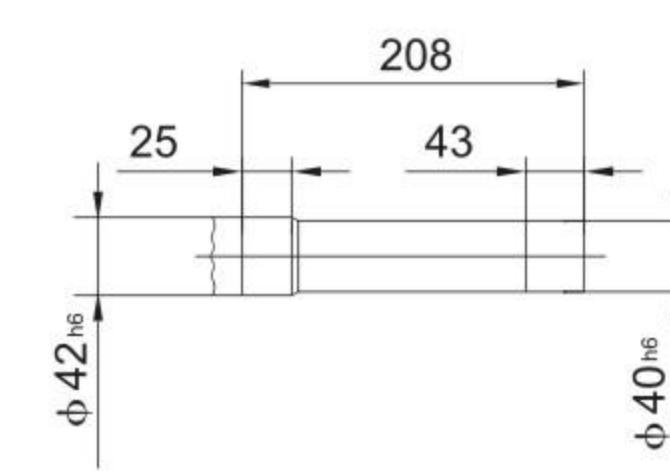
BKH/KHF/KHZ47

$\phi 35^{h7}/\phi 36^{h7}$



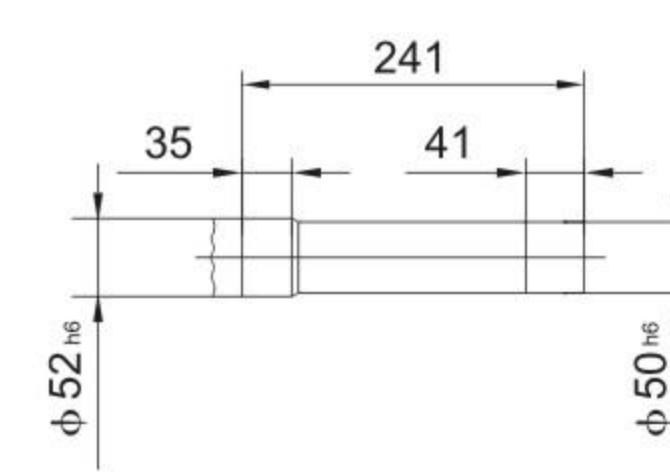
BKH/KHF/KHZ57

$\phi 40^{h7}/\phi 42^{h7}$



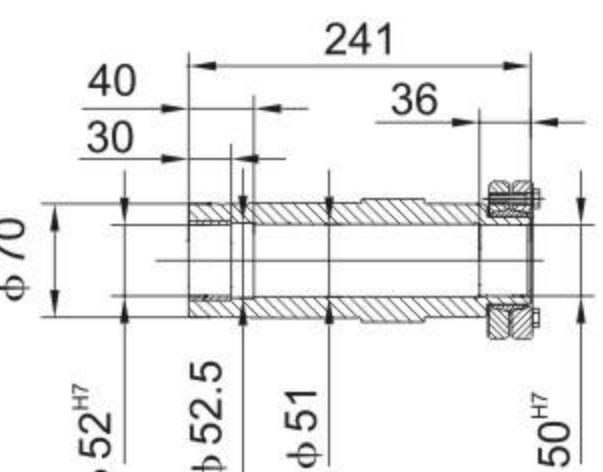
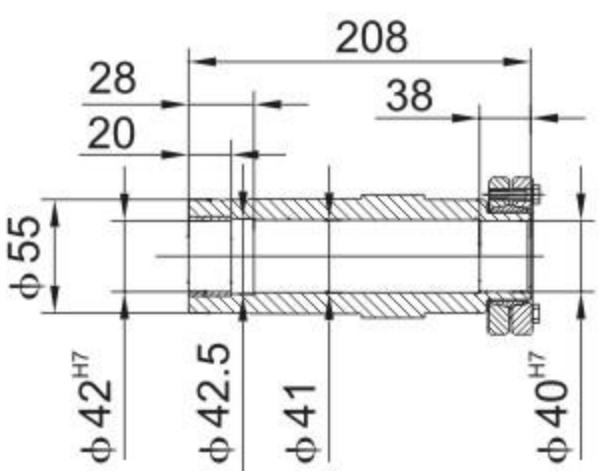
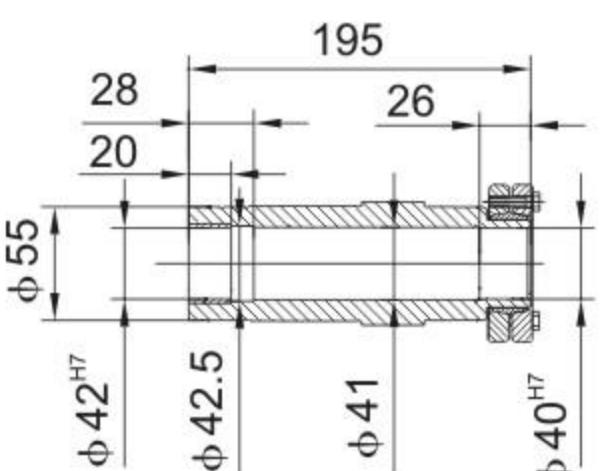
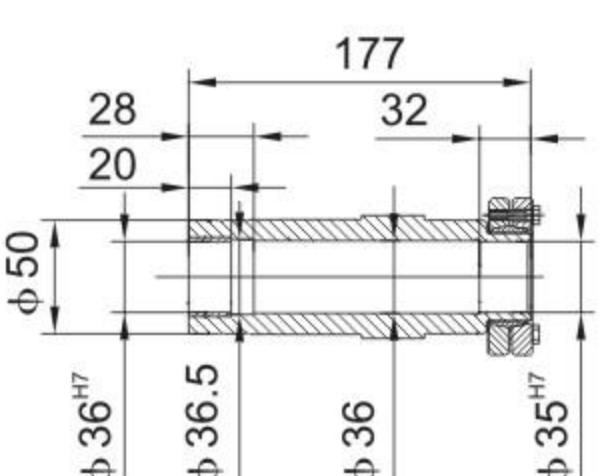
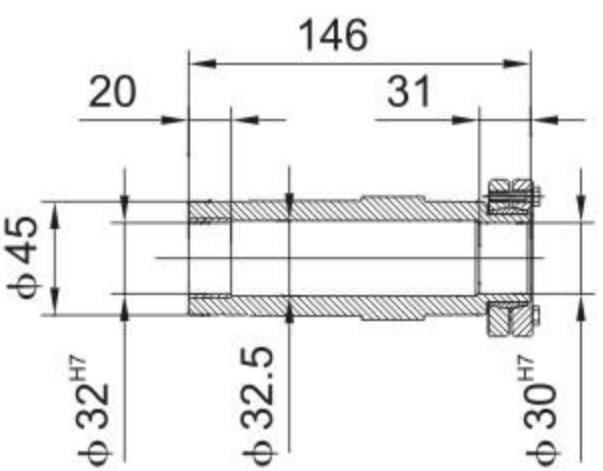
BKH/KHF/KHZ67

$\phi 40^{h7}/\phi 42^{h7}$



BKH/KHF/KHZ77

$\phi 50^{h7}/\phi 52^{h7}$



BR..

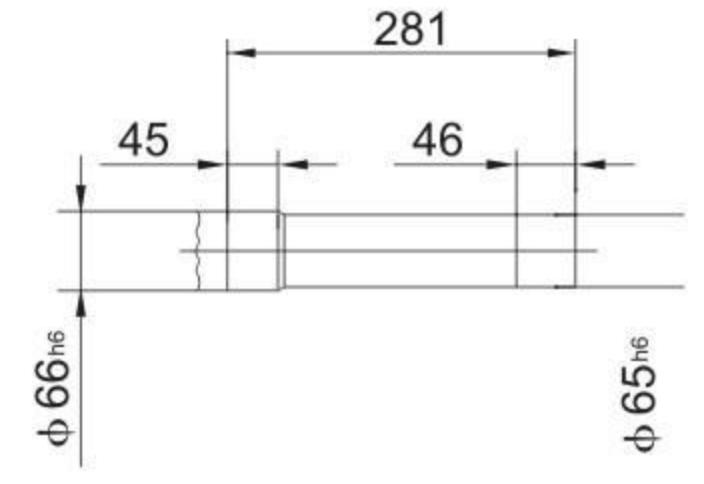
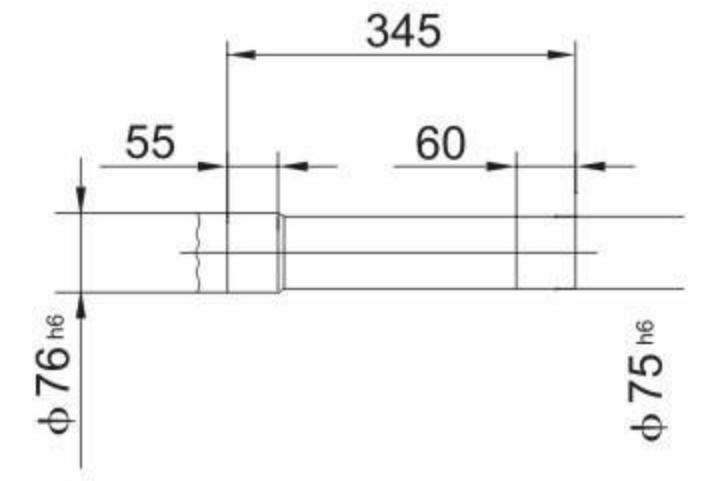
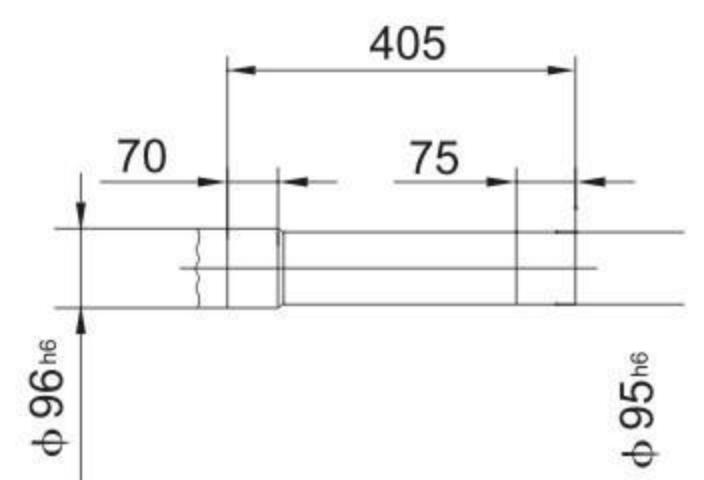
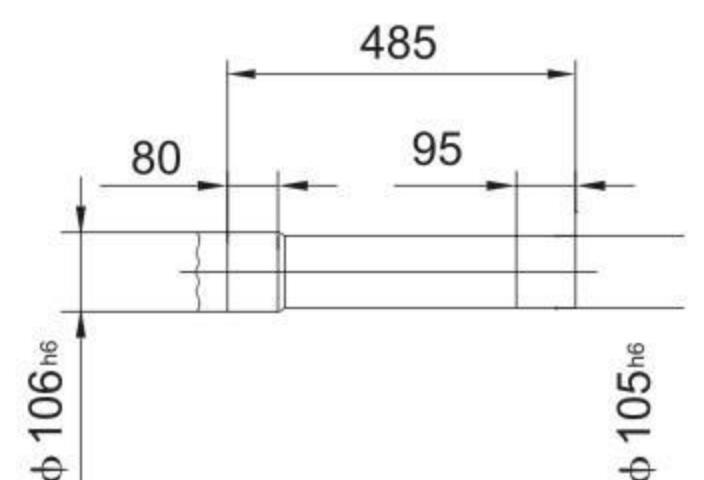
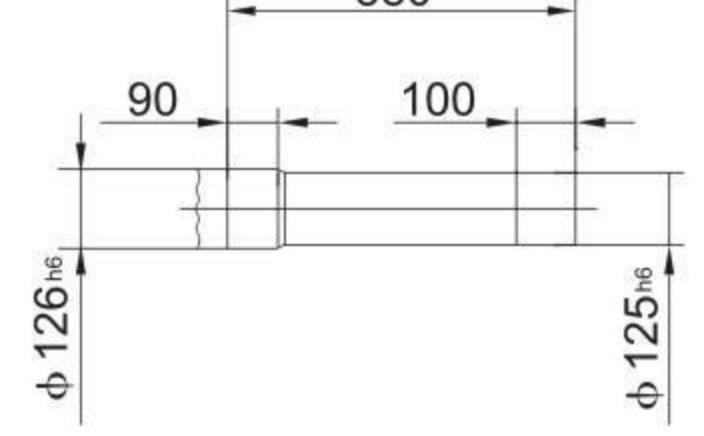
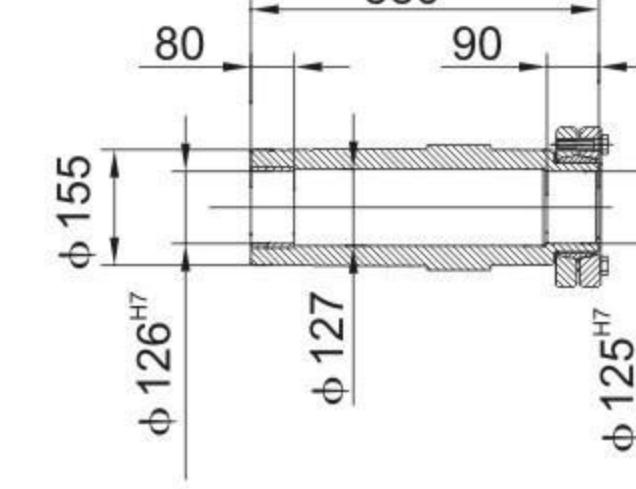
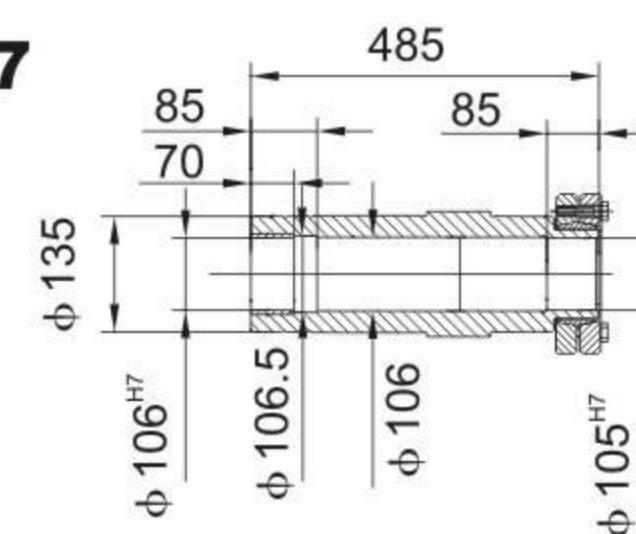
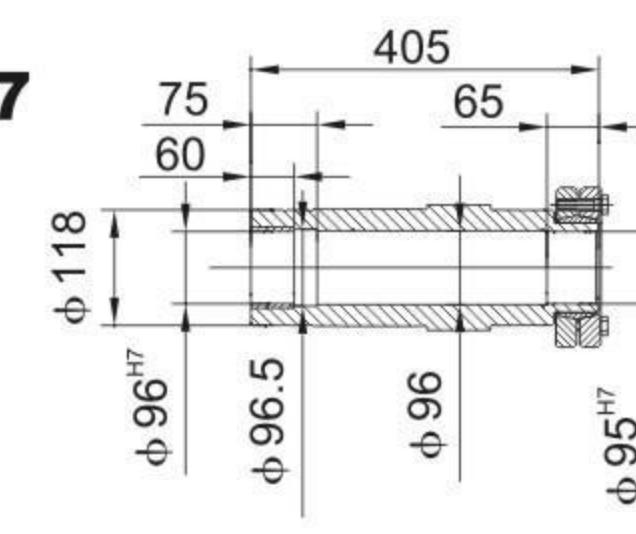
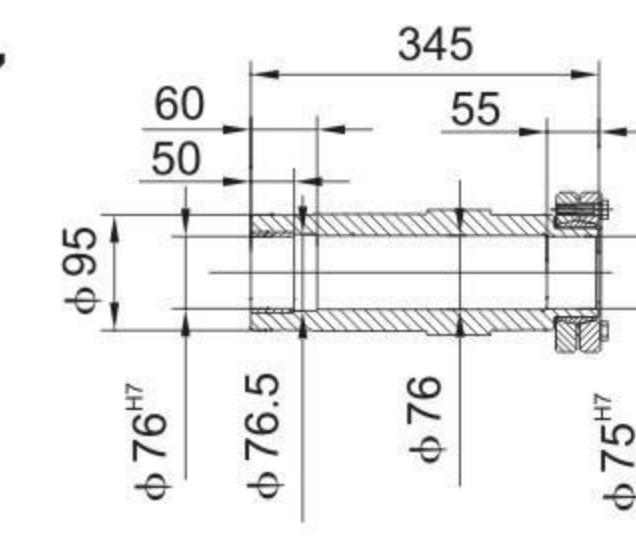
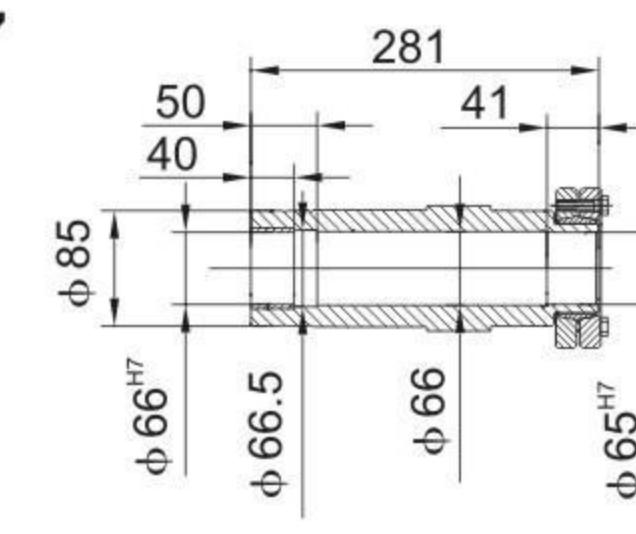
BF..

BK..

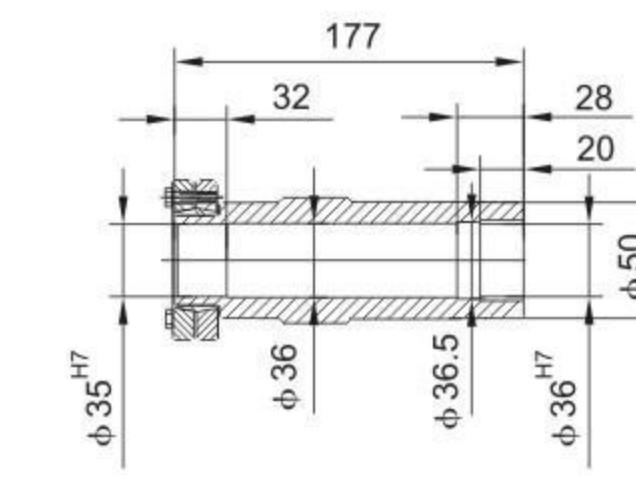
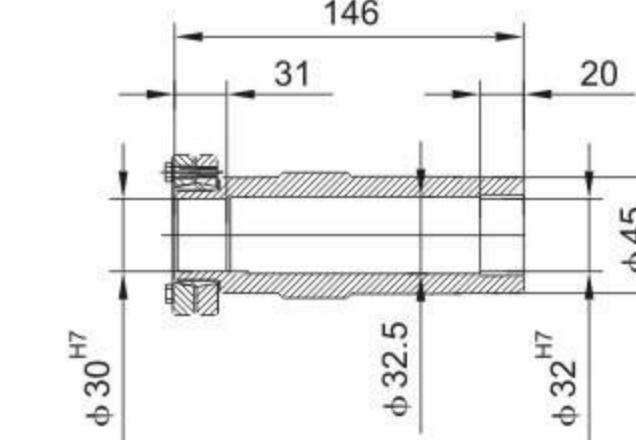
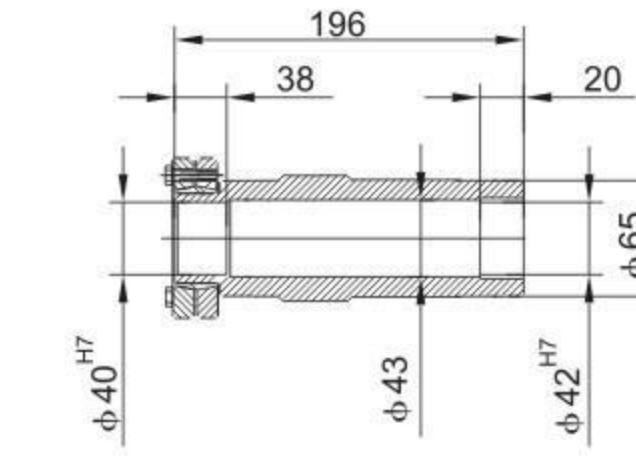
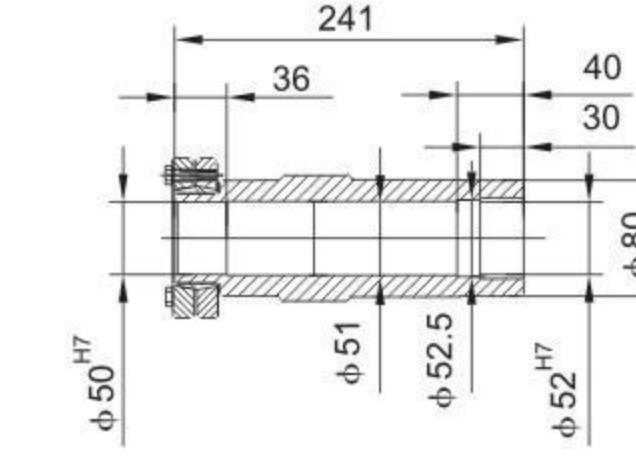
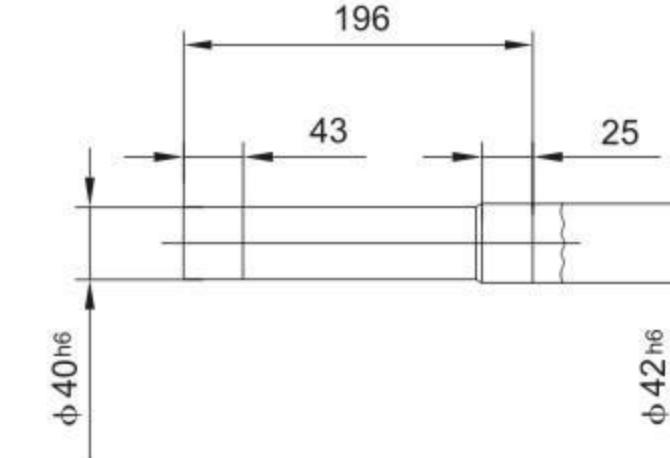
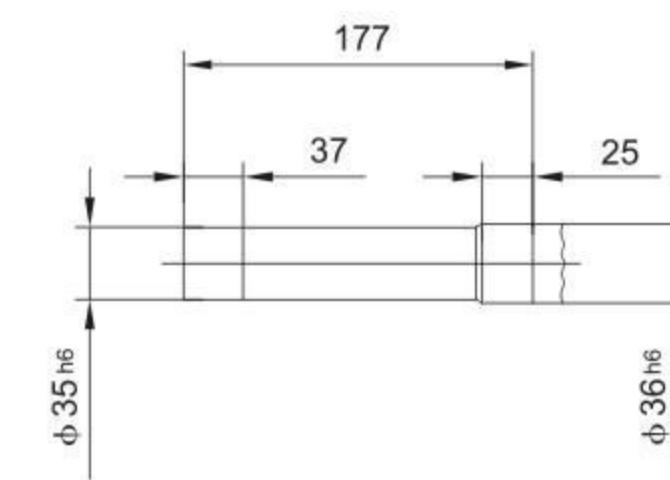
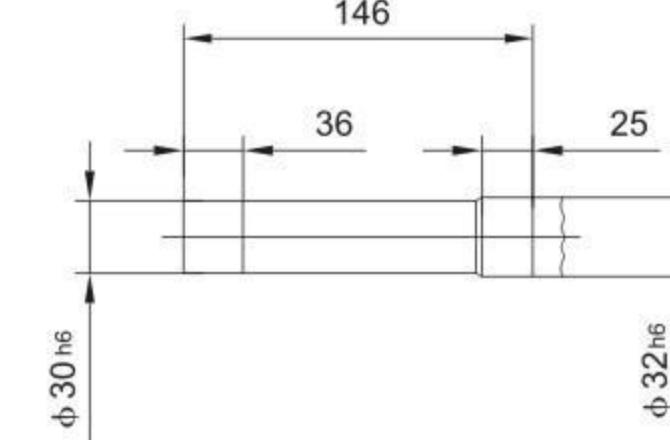
BS..

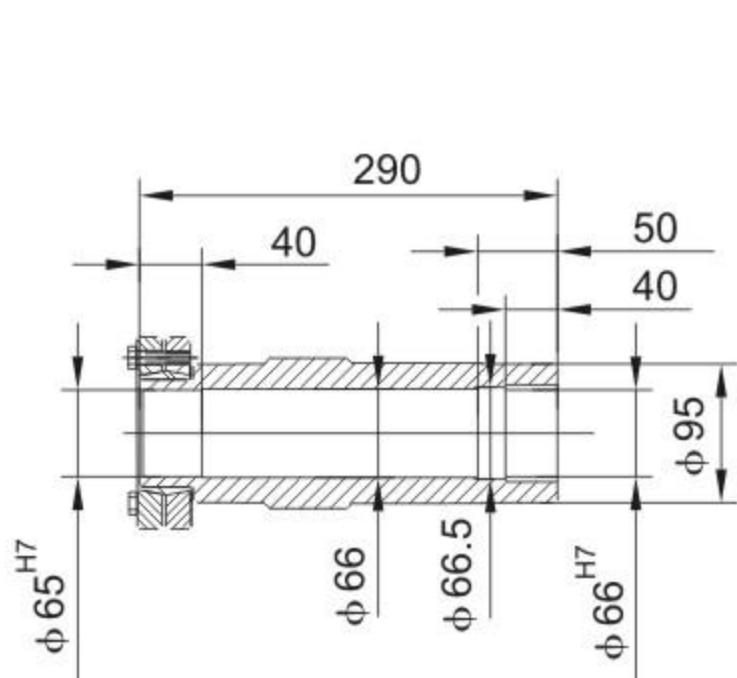
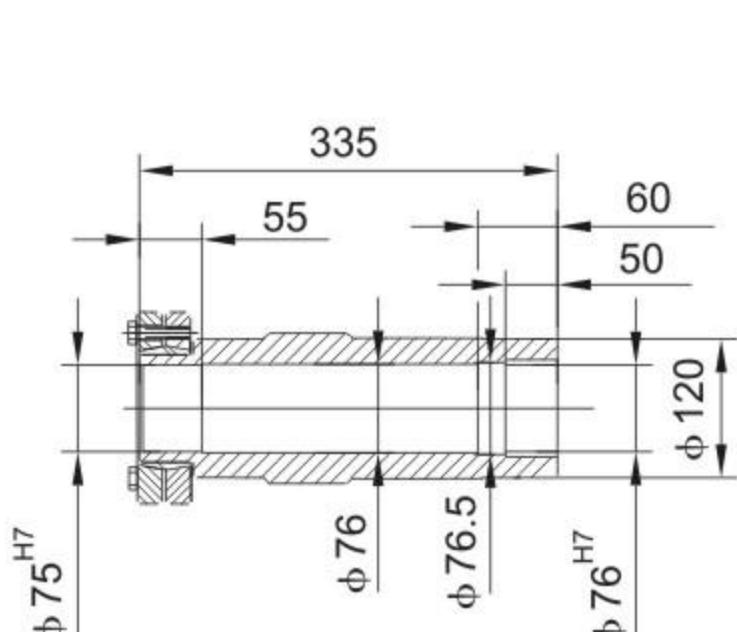
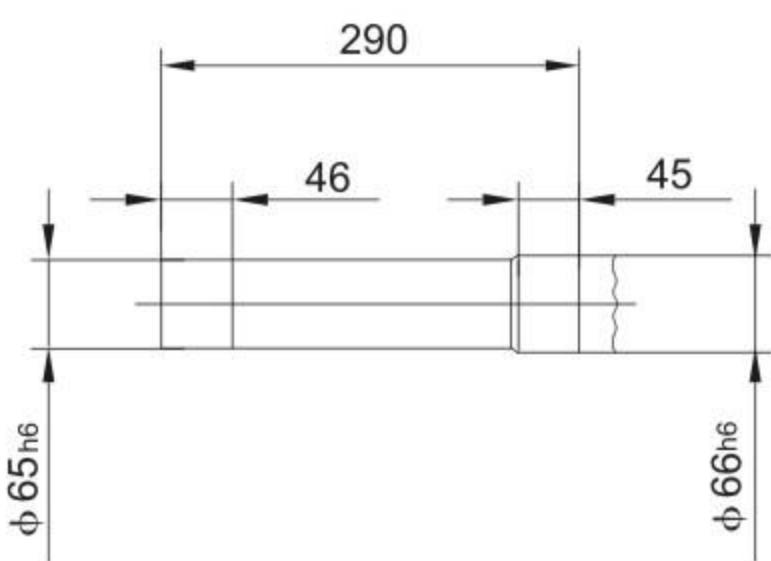
H..

B..

**BKH/KHF/KHZ87** $\phi 65^{H7}/\phi 66^{H7}$ **BKH/KHF/KHZ97** $\phi 75^{H7}/\phi 76^{H7}$ **BKH/KHF/KHZ107** $\phi 95^{H7}/\phi 96^{H7}$ **BKH/KHF/KHZ127** $\phi 105^{H7}/\phi 106^{H7}$ **BKH/KHF/KHZ157** $\phi 125^{H7}/\phi 126^{H7}$ 

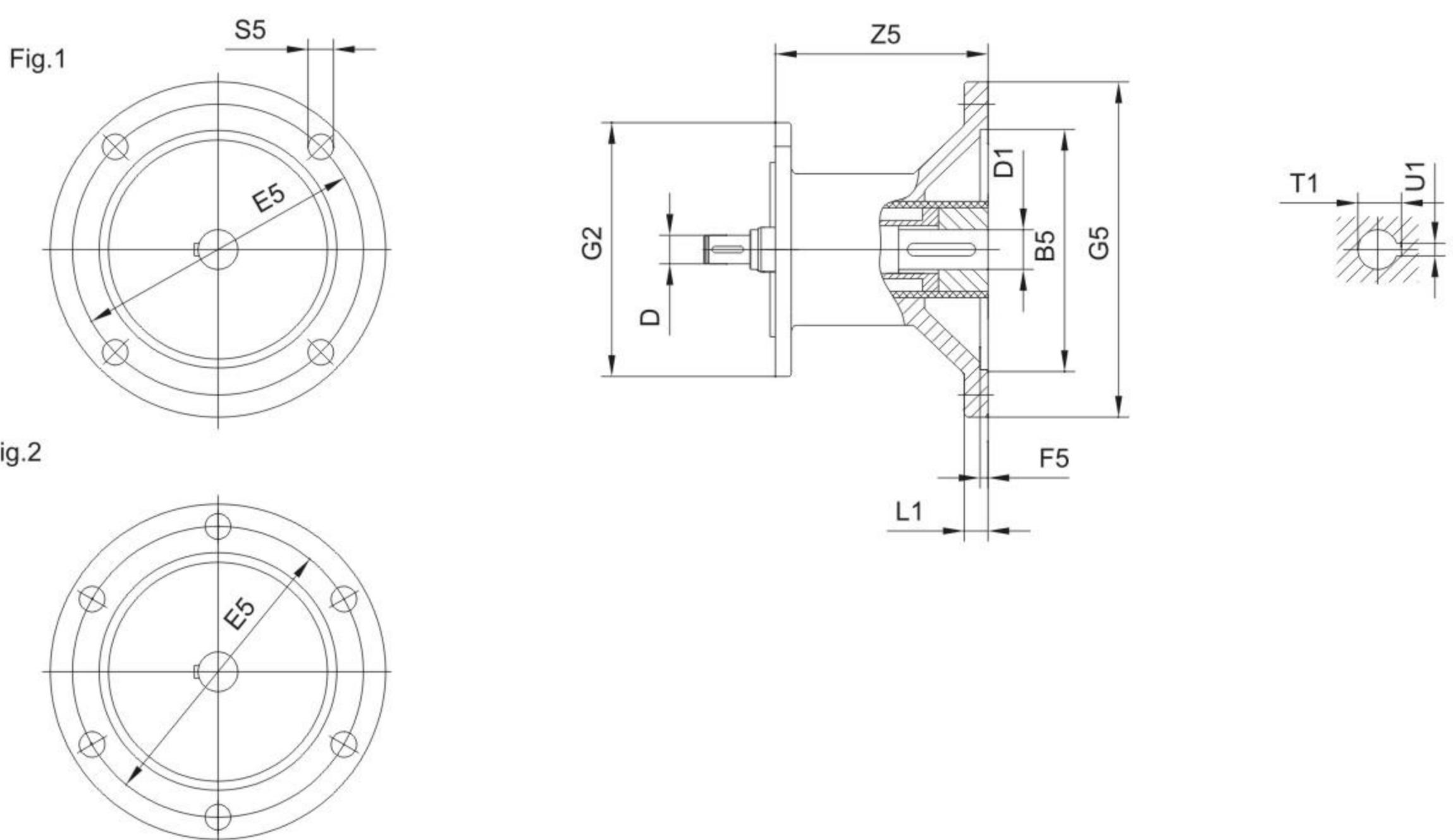
带轴阶空心轴和锁紧盘的斜齿轮一蜗杆减速电机
Helical – worm gear unit with shouldered hollow shaft

BSH/SHF/SHZ47 $\phi 30^{H7}/\phi 32^{H7}$ **BSH/SHF/SHZ57** $\phi 35^{H7}/\phi 36^{H7}$ **BSH/SHF/SHZ67** $\phi 40^{H7}/\phi 42^{H7}$ **BSH/SHF/SHZ77** $\phi 50^{H7}/\phi 52^{H7}$ 

**BSH/SHF/SHZ87** $\phi 65^{H7}/\phi 66^{H7}$ **BSH/SHF/SHZ97** $\phi 75^{H7}/\phi 76^{H7}$ 

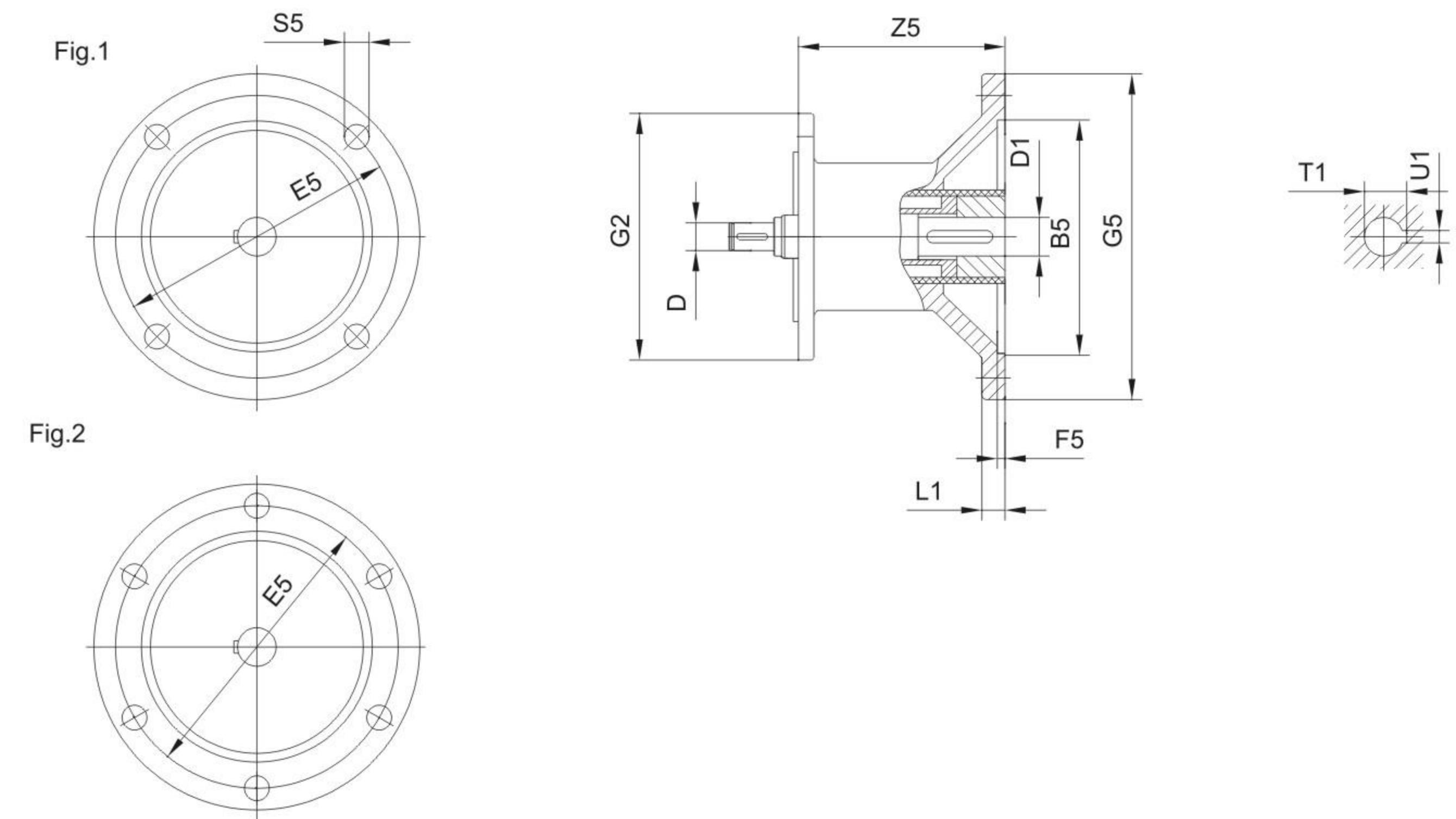
9.3 用于安装IEC标准电机的联轴器
9.3 Coupling for mounting of IEC motors

减速箱规格 Gear unit type	联轴器规格 Coupling type	B5	D	E5	F5	G2	G5	S5	Z5	D1	L1	T1	U1
BR..27,BR..37 BF..37,BF..47 BK..37 BS..37,BS..47,BS..57	AM63	95		115			140			11	23	12.8	4
	AM71 ¹⁾	110		130			160	M8	72	14	30	16.3	5
	AM80 ¹⁾	130	12		165	4.5				19	40	21.8	6
	AM90 ¹⁾		14				200	M10	106	24	50	27.3	8
BR..47,BR..57,BR..67 BF..57,BF..67 BK..47,BK..57,BK..67 BS..67	AM63	95	10	115	3.5		140			11	23	12.8	4
	AM71	110		130			160	M8	66	14	30	16.3	5
	AM80	130	12		165	4.5				19	40	21.8	6
	AM90		14				200	M10	99	24	50	27.3	8
	AM100 ¹⁾	180	16		215	5				250	M12	134	28
	AM112 ¹⁾		18							60		31.3	8
BR..77 BF..77 BK..77 BS..77	AM63	95	10	115	3.5		140			11	23	12.8	4
	AM71	110		130			160	M8	60	14	30	16.3	5
	AM80	130	12		165	4.5				200	M10	92	19
	AM90		14				250			24	50	27.3	8
	AM100 ¹⁾	180	16		215					126	28	60	31.3
	AM112 ¹⁾		18				300	M12	179	38	80	41.3	10
	AM132S ¹⁾	230	22		265								
	AM132M ¹⁾		28										
BR..87 BF..87 BK..87 BS..87	AM80	130	12		165	4.5				200	M10	87	19
	AM90		14				250			24	50	27.3	8
	AM100	180	16		215					121	28	60	31.3
	AM112		18				300	M12	174	38	80	41.3	10
	AM132S	230	22		265								
	AM132M		28										
	AM132ML									350	M16	232	42
	AM160 ¹⁾	250	28		300	6				48	110	45.3	12
	AM180 ¹⁾		32									51.8	14



减速箱规格 Gear unit type	联轴器规格 Coupling type	Fig	B5	D	E5	F5	G2	G5	S5	Z5	D1	L1	T1	U1	
BR..97 BF..97 BK..97 BS..97	AM100	1	180	16	215		250	M12	116	28	60	31.3	8		
	AM112			18					300	169	38	80	41.3	10	
	AM132S AM132M		230	22	265										
	AM132ML			28					350	227	42		45.3	12	
	AM160		250	28	300	6		M16		48		110	51.8	14	
	AM180				32				400	268	55		59.3	16	
	AM200		300	38	350					283	60	140	64.4	18	
	AM225 ¹⁾		350	38	400				450						
BR..107 BF..107 BK..107	AM100	1	180	16	215		250	M12	110	28	60	31.3	8		
	AM112			18					300	163	38	80	41.3	10	
	AM132S AM132M		230	22	265				350	221	42		45.3	12	
	AM132ML			28					400	262	55		51.8	14	
	AM160		250	28	300	6		M16		48		110	59.3	16	
	AM180				32				450	277	60	140	64.4	18	
	AM200		300	38	350										
	AM225		350	38	400				450						
BR..137	AM132S AM132M	1	230	22	265	5		300	M12	156	38	80	41.3	10	
	AM132ML			28					350	214	42		45.3	12	
	AM160		250	28	300	6				400	255	55		51.8	14
	AM180				32					450	270	60	140	59.3	16
	AM200		300	38	350			M16							
	AM225		350	38	400				450						

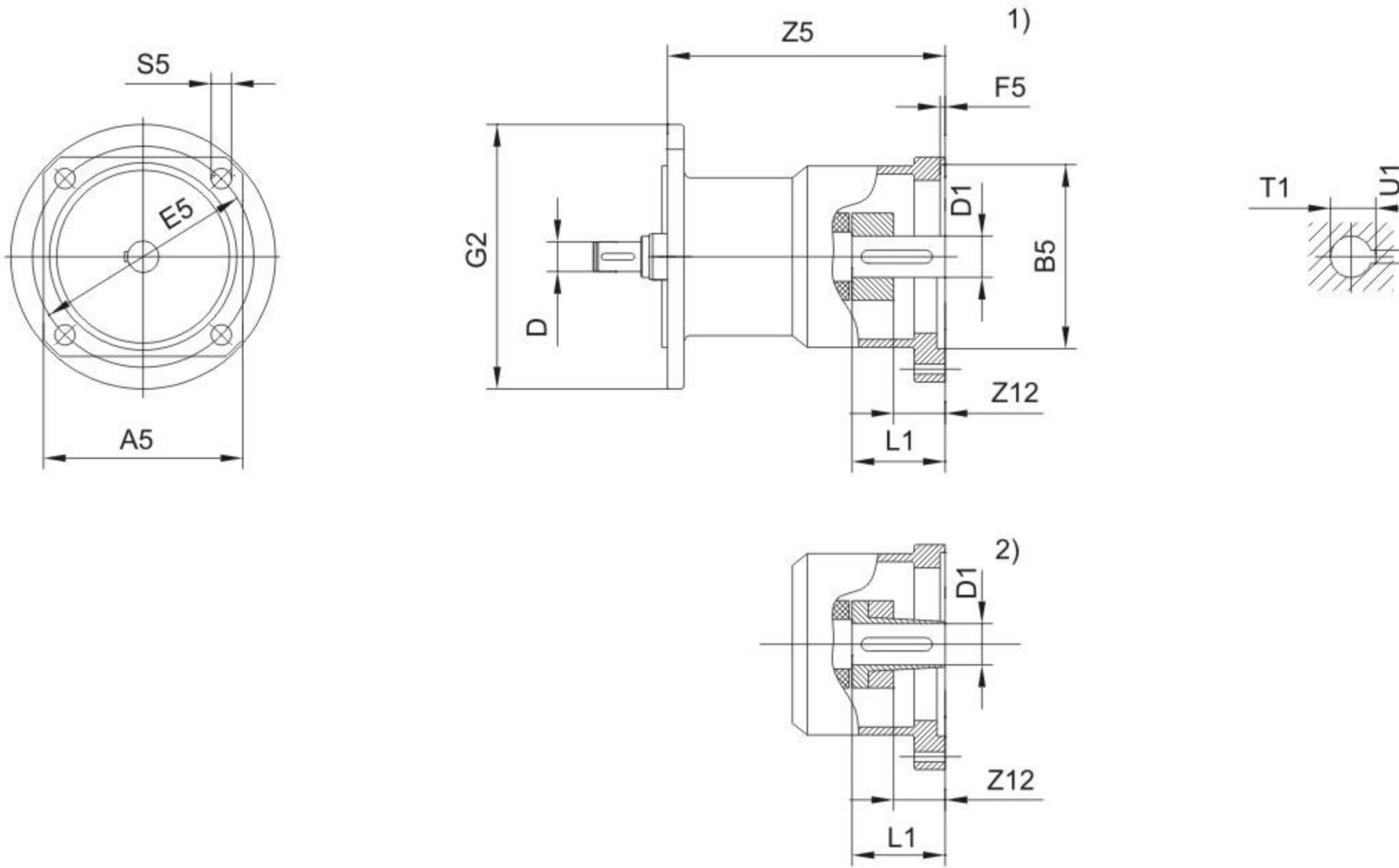
1) 如果安装在BR、BK和BS系列地脚安装方式的减速机上, 请检查尺寸G5/2, 它可能已突出安装平面。
Dimension 1/2 G5 may protrude past foot mounting surface if mounted on P.K or S foot – mounted gear unit, Please check.



减速机规格 Gear unit type	联接盘规格 Motor adapter	Fig.	B5	D	E5	F5	G2	G5	S5	Z5	D1	L1	T1	U1	
BR..147 BF..127 BK..127	AM132S AM132M	1	230	22			265	5		300	M12	148	38	80	41.3 10
	AM132ML			28					350	206	42		45.3	12	
	AM160		250	28			300	6		400	M16	247	48	110	51.8 14
	AM180			32					450	262	55		59.3	16	
	AM200		300	38			350			450		64.4	60		64.4 18
	AM225		350	38			400			450		65	75	140	69.4 20
	AM250		450	48			450			550		75	140		79.9 20
	AM280									350	M16	198	42	110	45.3 12
BR..167 BF..157 BK..157	AM160	1	250	28			300	6		400		42	48	110	51.8 14
	AM180			32					450	239	55		59.3	16	
	AM200		300	38			350			450		60	65	140	64.4 18
	AM225		350	38			400			450		65	75	140	69.4 20
	AM250		450	48			450			550		75	140		79.9 20
	AM280									350	M16	198	42	110	45.3 12
	AM167		350	38			400			450		48	48	110	51.8 14
	BK..167 BK..187		450	48			450			550		55	65	140	59.3 16

9.4 用于安装伺服电机的联轴器

9.4 Adapter for mounting of servomotors



减速机规格 Gear unit type	联接盘规格 Motor adcopator	A5	B5	D	E5	F5	G2	S5	Z5	Z12 ¹⁾	Z12 ²⁾	D1	L1	T1 ¹⁾	U1 ¹⁾	
BR..27 BR..37 BF..37 BF..47 BK..37 BS..37 BS..47 BS..57	AQ..80/1	82	60	10	75	3	M5	104.5	5.5	5.5	11	23	12.8	4		
	AQ..80/2															
	AQ..80/3			50	95						14	30	16.3	5		
	AQ..100/1	100	80			100	M6	129.5	-	-						
	AQ..100/2		95	115						14	30	16.3	5			
	AQ..100/3			10	M8	100	-	-								
	AQ..100/4	95	80					12	100						14	30
	AQ..115/1			115	95	14	M6	143.5	7	14						
	AQ..115/2									14	30	16.3	5			
	AQ..115/3	115	95	16	130											
	AQ..80/1				M8		152.5	16	23	19	40	21.8	6			
	AQ..80/2									21	16	24	50	27.3		
	AQ..80/3	82	60	10	75	3	M5	98	5.5	5.5	11	23	12.8	4		
	AQ..100/1										14	30	16.3	5		
	AQ..100/2			50	95											
	AQ..100/3				10	M6	100	-	-	14	30	16.3	5			
	AQ..100/4			100										95		
	AQ..115/1			115	95	14	M8	143.5	7	14	30	16.3	5			
	AQ..115/2															
	AQ..115/3			115	95	16	M8	152.5	16	23	19	40	21.8	6		
	AQ..80/1										21	16	24	50	27.3	
	AQ..80/2			115	95	16	M8	145.5	7	14	30	16.3	5			
	AQ..80/3															
	AQ..100/1	100	80	10	100	3	M5	98	5.5	5.5	11	23				

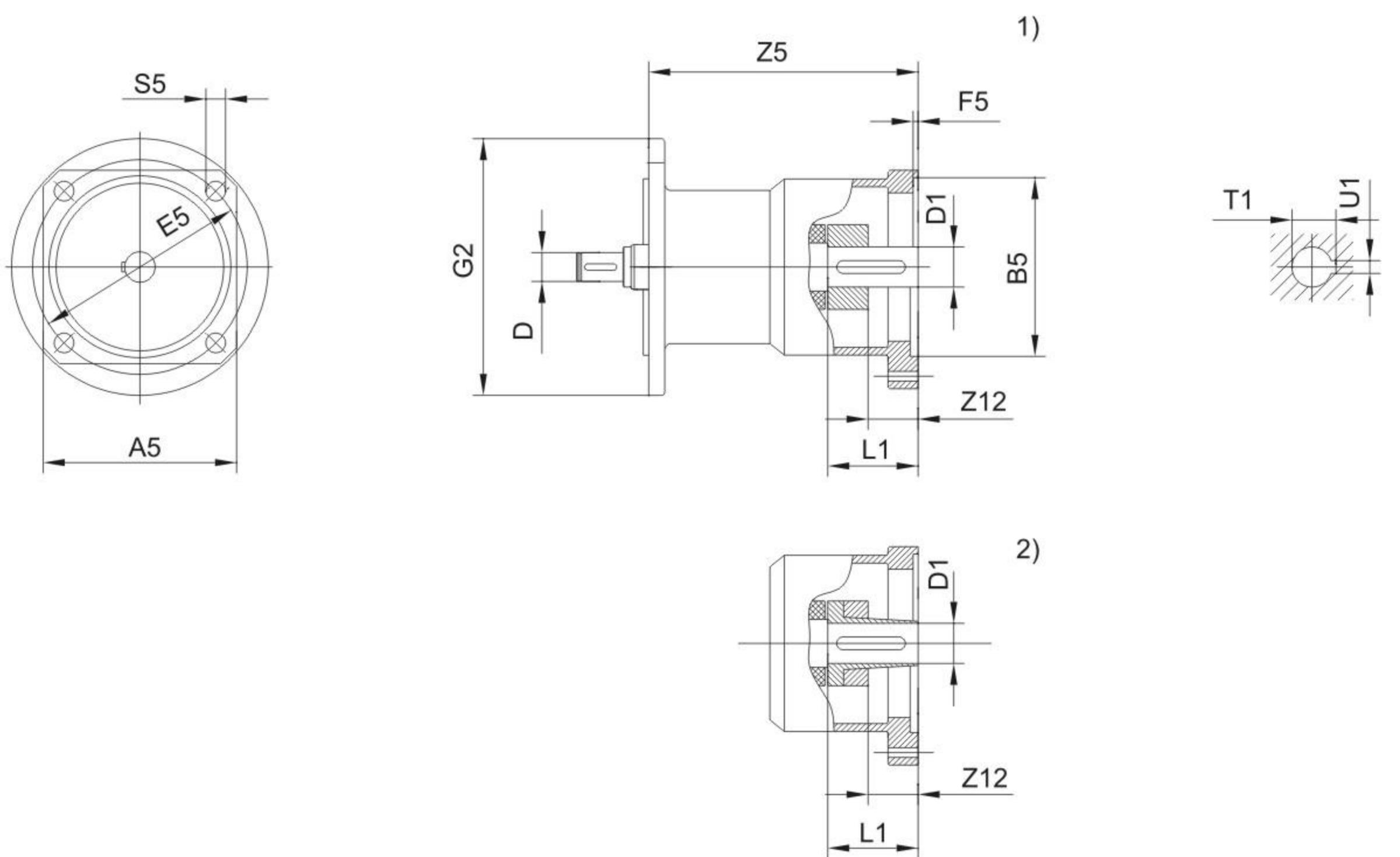
1)适用于键连接(AQA..)

1)Applies to type with key way (AQA..)

2)适用于锁紧套连接(AQH..)

2)Applies to type with clamping ring hub (AQH..)

减速箱规格 Gear unit type	联轴器规格 Coupling type	A5	B5	D	E5	F5	G2	S5	Z5	Z12 ¹⁾	Z12 ²⁾	D1	L1	T1 ¹⁾	U1 ¹⁾			
BR..77 BF..77 BK..77 BS..77	AQ..80/1	82	60	10	75	3	M5	92	5.5	5.5	11	23	12.8	4				
	AQ..80/2										14	30	16.3	5				
	AQ..80/3			50	95													
	AQ..100/1	100	80	10	100						100	115	14	16.3	5			
	AQ..100/2				M6		80	12	10									
	AQ..100/3			100		95			115					100	100	14	16.3	5
	AQ..100/4																	
	AQ..115/1	115	95	16	115	16	M6	95	14	115	16	130	14	16.3	5			
	AQ..115/2																	



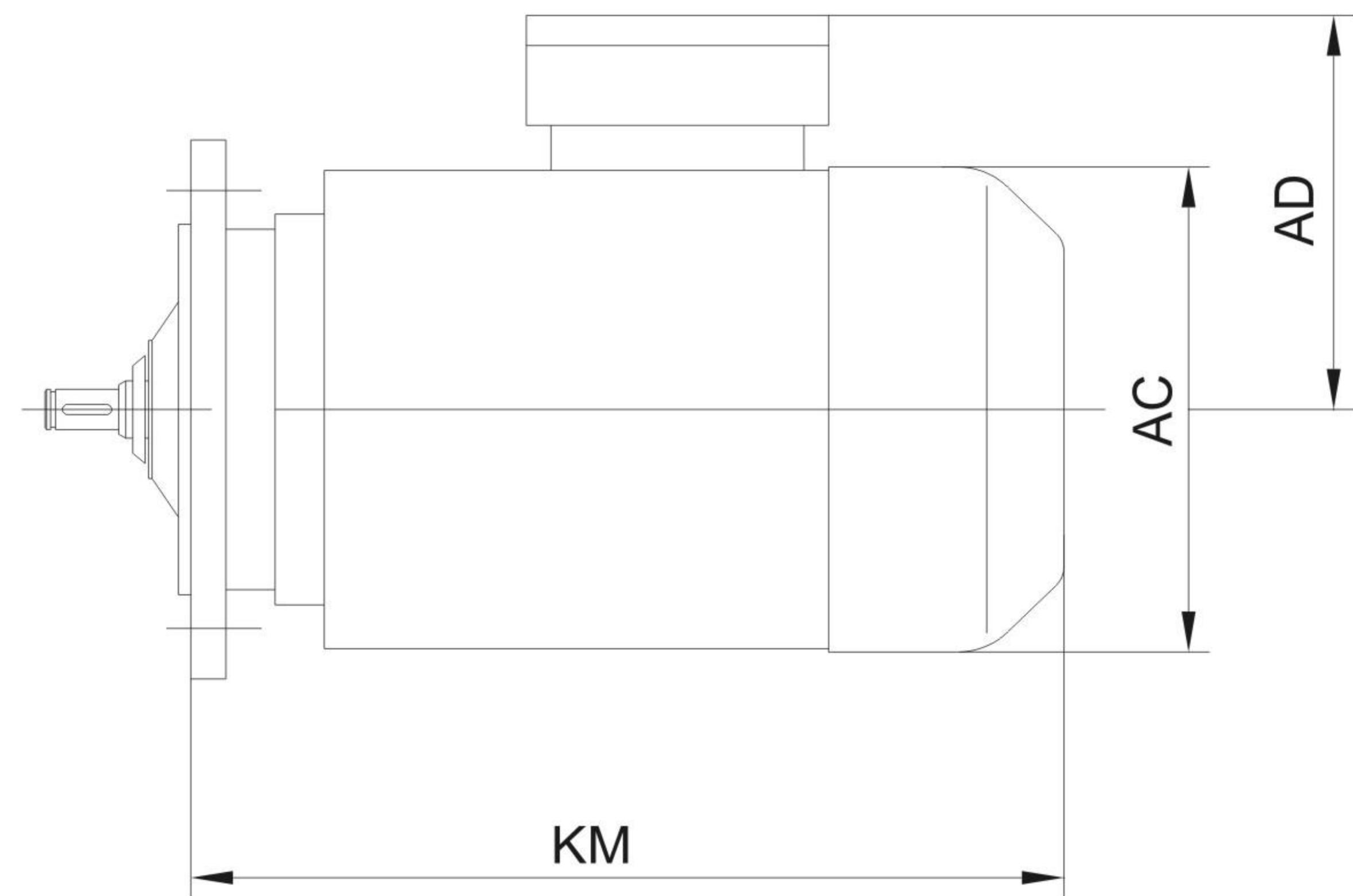
减速箱规格 Gear unit type	联轴器规格 Coupling type	A5	B5	D	E5	F5	G2	S5	Z5	Z12 ¹⁾	Z12 ²⁾	D1	L1	T1	U1			
BR..97 BF..97 BK..97 BS..97	AQ..140/1	140	110	16	165	300	M10	157	21	16	24	50	27.3	8				
	AQ..140/2		130	18				170	24	22	32	60	35.3	10				
	AQ..140/3	190	130	22	215		M12	215.5	26	24	32	60	35.3	10				
	AQ..190/1		130	22				239.5	39	34	38	80	41.3					
	AQ..190/2		180	28														
	AQ..190/3																	
BR..107 BF..107 BK..107	AQ..140/1	140	110	16	165	350	M10	151	21	16	24	50	27.3	8				
	AQ..140/2		130	18				164	24	22	32	60	35.3	10				
	AQ..140/3	190	130	22	215		M12	209.5	26	24	32	60	35.3	10				
	AQ..190/1		130	22				233.5	39	34	38	80	41.3					
	AQ..190/2		180	28														
	AQ..190/3																	
BR..137	AQ..190/1	130		22	215	400	M10	202.5	-	25	32	60	35.3	10				
	AQ..190/2							226.5	39	34	38	80	41.3					
	AQ..190/3	190		28			M12	194.5	26	24	32	60	35.3					
	AQ..190/1							218.5	39	34	38	80	41.3					
BR..147 BF..127 BK..127	AQ..190/2	130		22														
	AQ..190/3																	

1)适用于键连接(AQA..)

1)Applies to type with key way (AQA)

2)适用于锁紧套连接(AQH..)

2)Applies to type with clamping ring hub (AQH..)

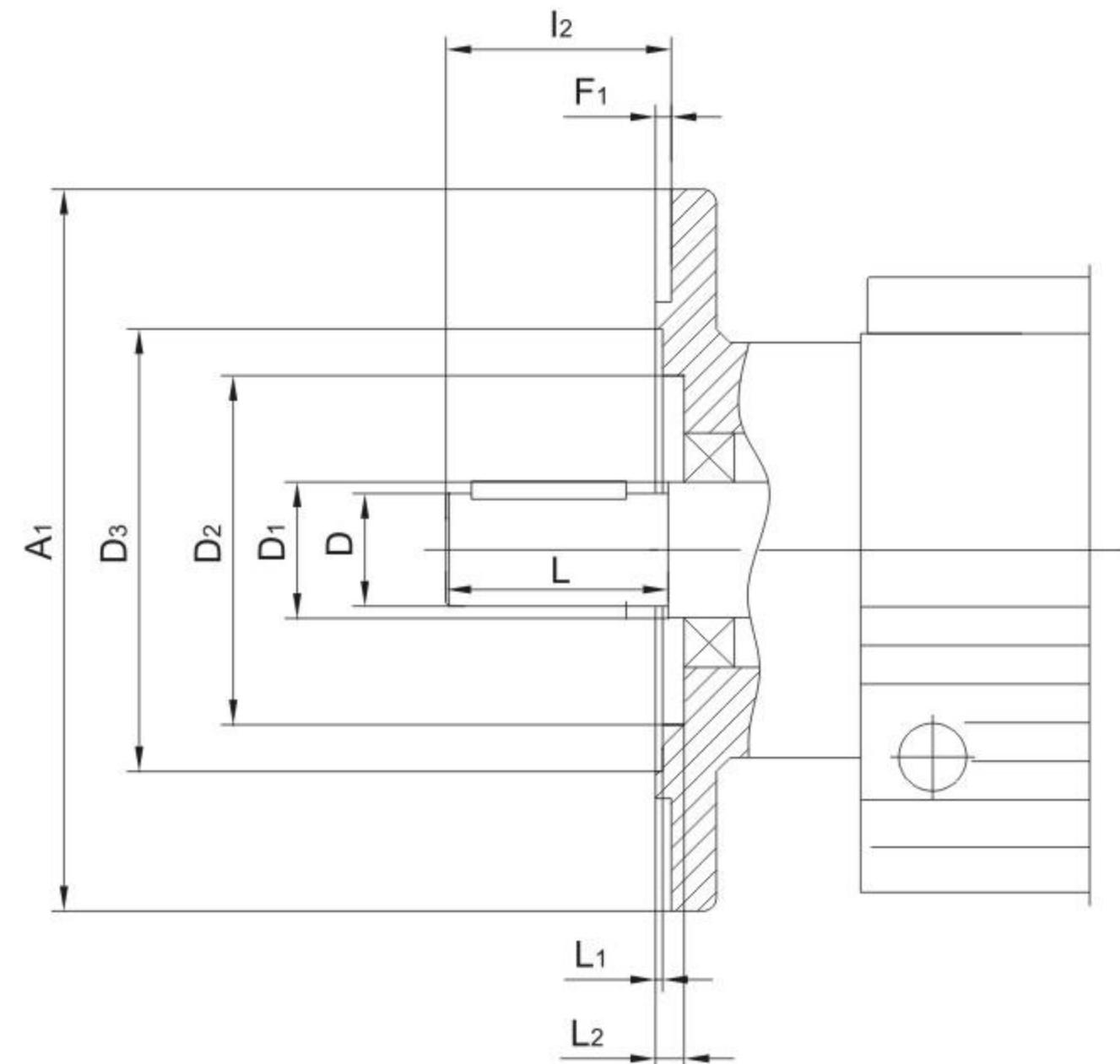


型号	Y63M	Y71M	Y80M	Y90S Y90L	Y100L	Y112M	Y132S Y132L	Y160M Y160L	Y180M Y180L	Y200L	Y225S Y225M	Y250M	Y280S Y280M	Y315S Y315M
AC	130	145	175	195	215	240	275	330	380	420	470	510	580	612
AD	70	80	145	155	180	190	210	255	280	305	335	370	400	430
KM	250	280	320	342 367	400	408	473	560	645	710	724	810	895	1010

注：上表中的电机尺寸为部分铁心长度电机的参考尺寸，具体尺寸根据铁心长度与联接法兰尺寸确定，因空间限制对电机尺寸有要求时请向我公司咨询。

Notice: The data in the above table is only for reference. If you have any special requirements, please contact us.

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



选择和安装输出零件时请注意L1和L2尺寸

Check dimensions L1 and L2 for selection and installation of output elements

规格 Type	A1	D	D1	D2		D3	F1	12	L	L1		L2
				R.F	R..F					R.F	R..F	
BRF17,BR17F	120	20	25	46	46	65	3	40	40	1	1	5
	140				-	78	3			1	-	5
BRF27,BR27F	120	25	30	54	4	66	3	50	50	1	1	6
	140				-	79	3			3	-	7
	160				-	92	3.5			3	-	7
BRF37,BR37F	120	25	35	60	63	70	3	50	50	5	4	7
	160				-	96	3.5			1	-	7.5
	200				-	119	3.5			1	-	7.5
BRF47,BR47F	140	30	35	72	64	82	3	60	60	4	1	6
	160				-	96	3.5			0.5	-	6.5
	200				-	116	3.5			0.5	-	6.5
BRF57,BR57F	160	35	40	76	75	96	3.5	70	70	4	2.5	5
	200				-	116	3.5			0	-	5
	250				-	160	4			0.5	-	5.5
BRF67,BR67F	200	35	50	90	90	118	3.5	70	70	2	4	7
	250				-	160	4			1	-	7.5
BRF77,BR77F	250	40	52	112	100	160	4	80	80	0.5	2.5	7
	300				-	210	4			0.5	-	7
BRF87,BR87F	300	50	62	123	122	210	4	100	100	0	1.5	8
	350				-	226	5			1	-	9
BRF97	350	60	72	136	236	5	120	120	0			9
	450				320							
BRF107	350	70	82	157	232	5	140	140	0			11
	450				316							
BRF137	450	90	108	180	316	5	170	170	0			10
	550				416							
BRF147	450	110	125	210	316	5	210	210	0			10
	550				416	5	210			1		10
BRF167	550	120	145	290	416	5	210	210	1			11
	660				517	6	210			2		11

9.7 减速机安装 9.7 Gear unit mounting

例外 Exception

安装减速机和减速电机时一定要使用8.8级螺栓

Always use bolts quality 8.8 for mounting gear units and geared motors.

当传递样本上所给定的额定扭矩时，下面几种法兰安装(BRF..)和地脚/法兰安装(BR..F)的斜齿轮减速电机，法兰和用户安装单元固定时一定要用10.9级的螺栓。

- BRF37和带 φ 120mm法兰的BR37F
- BRF47和带 φ 140mm法兰的BR47F
- BRF57和带 φ 160mm法兰的BR57F

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

- BRF37, BR37F with flange φ 120mm
- BRF47, BR47F with flange φ 140mm
- BRF57, BR57F with flange φ 160mm

KH167.., KH187.. 的力矩臂 Torque arms for KH167.., KH187..

对于减速电机BKH167..和BKH187..作为标准配置，一般不提供扭矩臂。如果需要，请和DAIFUSI联系，我们将给出推荐的安装位置和尺寸图。
As standard, there are no torque arms available for gear unit sizes BKH167.. and BKH187.. Please contact DAIFUSI if you require torque arms for these gear units. We will submit The configuration of recommendations.

9.8 润滑 9.8 Lubricants

概述 General information

润滑油的等级 和粘度类型 Lubricating conglutination

耐磨轴承 用润滑油 Anti-friction bearing greases

除非特别要求，DAIFUSI所提供的减速电机均按其减速机规格注了油。订货时，所规定的安装位置对注油量的多少是一个决定性因素。对于安装位置的调整必须相应地调节注油量。(按219页注油量表)。 Unless there is a special requirement, DAIFUSI always supplies the drives that with lubricant fill specifically for the reducer and mounting position. When ordering a drive, the decisive factor of lubricant fill quantities is the drives mounting position. You must adapt the lubricant fill to any subsequent change made to the mounting position check P219 for the (Lubricant fill quantities)

DAIFUSI 推荐使用的润滑油见P219页润滑油表,其等级和粘度指标见下表
DAIFUSI commend the lubricant oil in P219. The grade and conglutination index in the following.

DIN(ISO,SAE)标准润滑油 Normal lubricating	粘度指标 conglutination index	环境温度°C Ambient temperature	减速机型号 Gear unit type
Mineral oil CLP(cc)	ISOVG 220	-10-+40	BR系列,BF系列 BK系列减速机
	ISOVG 680	0-+40	BS系列减速机

特殊应用场合必须使用特殊润滑油，比如要求长使用寿命润滑油。若需要可提供用于食品行业和生物降解润滑油。

The special lubricante oil. must be used in special situation. For example requesting use the oil with long life-span. If you want, we can afford the biology decompose oil for food industry.

DIN(ISO,SAE)标准润滑油 Normal lubricating	粘度指标 conglutination index	环境温度°C Ambient temperature	减速机型号 Gear unit type
Mineral oil CLP(CC)	ISOVG 100	-20-+25	BR系列、BF系列 BK系列减速机
Synthetic fluid, clp pg	ISOVG 220	-25-+80	BR系列、BF系列 BK系列减速机
Synthetic fluid ,CLP HC	ISOVG 460	-30-+80	BS系列减速机

下列润滑脂用于减速机和电机的耐磨轴承润滑

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

减速机型号 Gear unit type	环境温度 0°C +50 +100			润滑油 DIN (ISO)	ISO粘度与 NLGI相应	Mobil	Shell	Klüberol	Aral Degol	BP Energol	Tribol	Meropa 220	Optigear Bm220	Renolin CLP 220	R, F, K		
	-10	标准	+40		+80												
*-25			+25	CLP (CC)	VG 220	Mobilgear 630	Shell Omala	Klüberol GEM 1-225	Aral Degol	BP Energol	Tribol	Meropa 220	Optigear Bm220	Renolin CLP 220			
*-40			+40	CLP PG	VG 220	Mobil	Shell Tiveta	Klüberol GEM 2-220	Aral Degol	BP Energol	Tribol	Synlube CLP 220	Optiflex A 220				
*-40			+40	CLP HC	VG 220	Mobil	Shell Omala	Klüberol GEM 4-220	Aral Degol	BP Energol	Tribol	Pinnacle	Optigear Synthetic A 220				
*-40			+40	CLP HC	VG 150	Mobil	SHC 630	Klüberol	Klüberol GEM 4-150	BP Energol	Tribol	Meropa 220	Optigear Bm220	Renolin CLP 220			
*-40			+40	CLP HC	VG 32	Mobil	SHC 624	Klüberol	Klüberol GEM 1-68	BP Energol	Tribol	Meropa 220	Optigear Bm220	Renolin CLP 220			
*-40			+40	CLP HC	VG 22	Mobil	D.T.E 15M	Shell Tellus	Klüberol GEM 4-32	BP Energol	Tribol	Meropa 220	Optigear Bm220	Renolin CLP 220			
*-40			+40	CLP HC	VG 15	Mobil	D.T.E 11M	Shell Tellus	Klüberol GEM 1-680	BP Energol	Tribol	Meropa 220	Optigear Bm220	Renolin CLP 220			
0	标准	+40		CLP CC	VG 680	Mobilgear	SHC 636	Klüberol	Klüberol GEM 1-680	Aral Degol	BP Energol	Tribol	Meropa 220	Optigear Bm220	Renolin CLP 220		
*-20		+60		CLP PG	VG 680	1)	HE 680	Klüberol	Klüberol GEM 1-680	Aral Degol	BP Energol	Tribol	Meropa 220	Optigear Bm220	Renolin CLP 220		
*-30		+80		CLP PG	VG 460	Mobil	SHC 634	Klüberol	Klüberol GEM 4-150	BP Energol	Tribol	Meropa 220	Optigear Bm220	Renolin CLP 220			
*-40		+10		CLP PG	VG 150	Mobil	SHC 629	Klüberol	Klüberol GEM 4-150	BP Energol	Tribol	Meropa 220	Optigear Bm220	Renolin CLP 220			
*-20		+10		CLP PG	VG 150	Mobil	Shell Omala	Klüberol	Klüberol GEM 1-150	BP Energol	Tribol	Meropa 220	Optigear Bm220	Renolin CLP 220			
*-25		+20		CLP PG	VG 220	1)	Mobil	Klüberol	Klüberol GEM 1-150	BP Energol	Tribol	Meropa 220	Optigear Bm220	Renolin CLP 220			
*-40		0		CLP PG	VG 32	Mobil	Mobil Glycole 30	Klüberol	Klüberol GEM 4-32	BP Energol	Tribol	Meropa 220	Optigear Bm220	Renolin CLP 220			
*-30		+40		CLP PG	VG 460	4)	Shell Cassida	Klüberol	Klüberol GEM 4-32	BP Energol	Tribol	Meropa 220	Optigear Bm220	Renolin CLP 220			
*-20		+40		CLP PG	VG 460	5)	Klüberol	Klüberol	Klüberol GEM 4-32	BP Energol	Tribol	Meropa 220	Optigear Bm220	Renolin CLP 220			
*-30		+40		CLP PG	VG 460	4)	HCE	Klüberol	Klüberol GEM 4-32	BP Energol	Tribol	Meropa 220	Optigear Bm220	Renolin CLP 220			
-20	标准	+40		CLP PG	VG 460	5)		Klüberol	Klüberol GEM 4-32	BP Energol	Tribol	Meropa 220	Optigear Bm220	Renolin CLP 220			
-25		+60		CLP PG	VG 460	5)	Glycole Grease 00	Shell Tivela	Shell Tivela GE 46-1200	Klüberol	Klüberol GEM 4-32	BP Energol	Tribol	Meropa 220	Optigear Bm220	Renolin CLP 220	
-15		+40		CLP PG	VG 460	5)	Grease DIN 51181	Shell Alvania	Shell Alvania GL 00	Aralub	Multifak	BP Energol	Tribol	Meropa 220	Optigear Bm220	Renolin CLP 220	
F 27	R 17	R 27		CLP PG	VG 460	5)	000-0	2)	EP 004	BP Energol	BP EP 00	BP EP 00	BP EP 00	BP EP 00	BP EP 00		

■=合成润滑油 Synthetic lubricant
□=矿物润滑油 Mineral lubricant

- 1) PIs contact with DAIFUSI when the Helical-worm geared motors use PG oil.
- 2) Small conjugitation index oil, other types of reducers. pls contact with DAIFUSI.
- 3) Food or beverage industry used oil.
- 4) biology decompose oil.

-- High request when start-up in low temperature.

*低温时起动要求高

CLP PG=聚二醇类
CLP HC=碳氢化合物类
E=二元酸酯合成油
HCE=碳氢化合物十二酯油

CLP:Petrolatum Oil
HLP:Hydraulic pressure oil
KBTS/Ga/Vi

DAIFUSI 世奇螺距减速机油表
Lubricant table

加油量
Lubricant
fill quantities

规定的注油量是参考值。精确的注油量随着减速机的级数和速比的不同而变化。注油时,最有效是检查油位塞,因为它指示精确注油量。

The specified fill quantities are recommended values. The precise vary depending on the number of stages and gear ratio. When filling, it is essential to check the oil level plug since it indicates the precise oil capacity.

**斜齿轮减
速器(BR系列)**
Helical gear
units (BR..)

下表按安装位置M1–M6,给出了注油量的参考值。

The following tables show referenced values for lubricant fill quantities in relation to relation to the Mounting position M1–M6

减速器型号 Gear unit type	Referenced 注油量(升) Fill quantity (L)					
	M1 ¹⁾	M2 ¹⁾	M3	M4	M5	M6
BR17/R17F	0.25	0.6	0.35	0.6	0.35	0.35
BR27/R27F	0.25/0.4	0.7	0.4	0.7	0.4	0.4
BR37/R37F	0.3/1	0.9	1	1.1	0.8	1
BR47/R47F	0.7/1.5	1.6	1.5	1.7	1.5	1.5
BR57/R57F	0.8/1.7	1.9	1.7	2.1	1.7	1.7
BR67/R67F	1.1/2.3	2.6/3.5	2.8	3.2	1.8	2
BR77/R77F	1.2/2.3	3.8/4.3	3.6	4.3	2.5	3.4
BR87/R87F	2.3/6	6.7/8.4	7.2	7.7	6.3	6.5
BR97	4.6/9.8	11.7/14	11.7	13.4	11.3	11.7
BR107	6/13.7	16.3	16.9	19.2	13.2	15.9
BR137	10/25	28	29.5	31.5	25	25
BR147	15.4/40	46.5	48	52	39.5	41
BR167	27/70	82	78	88	66	69

减速器型号 Gear unit type	注油量(升) Fill quantity (L)					
	M1 ¹⁾	M2 ¹⁾	M3	M4	M5	M6
BRF17	0.25	0.6	0.35	0.6	0.35	0.35
BRF27	0.25/0.4	0.7	0.4	0.7	0.4	0.4
BRF37	0.4/1	0.9	1	1.1	0.8	1
BRF47	0.7/1.5	1.6	1.5	1.7	1.5	1.5
BRF57	0.8/1.7	1.8	1.7	2	1.7	1.7
BRF67	1.2/2.5	2.7/3.6	2.7	3.1	1.9	2.1
BRF77	1.2/2.6	3.8/4.1	3.3	4.1	2.4	3
BRF87	2.4/6	6.8/7.9	7.1	7.7	6.3	6.4
BRF97	5.1/10.2	11.9/14	11.2	14	11.2	11.8
BRF107	6.3/14.9	15.9	17	19.2	13.1	15.9
BRF137	9.5/25	27	29	32.5	25	25
BRF147	16.4/42	47	48	52	42	42
BRF167	26/70	82	78	88	65	71

1)多级减速机中较大的减速机须注较多的油量。

The output end gear unit of multi-stage gear units be filled with the larger oil volume.

减速器型号 Gear unit type	注油量(升) Fill quantity (L)					
	M1	M2	M3	M4	M5	M6
BRX57	0.6	0.8	1.3	1.3	0.9	0.9
BRX67	0.8	0.8	1.7	1.9	1.1	1.1
BRX77	1.1	1.5	2.6	2.7	1.6	1.6
BRX87	1.7	2.5	4.8	4.8	2.9	2.9
BRX97	2.1	3.4	7.4	7	4.8	4.8
BRX107	3.9	5.6	11.6	11.9	7.7	7.7

减速器型号 Gear unit type	注油量(升) Fill quantity (L)					
	M1	M2	M3	M4	M5	M6
BRXF57	0.5	0.8	1.1	1.1	0.7	0.7
BRXF67	0.7	0.8	1.5	1.7	1	1
BRXF77	0.9	1.5	2.4	2.5	1.6	1.6
BRXF87	1.6	2.5	4.9	4.7	2.9	2.9
BRXF97	2.1	3.6	7.1	7	4.8	4.8
BRXF107	3.1	5.9	11.2	10.5	7.2	7.2

平行轴斜齿轮减速速器(BF系列)

Parallel shaft helical gear units.(BF..)

BF..,BFA..B,BFH..B,BFV..B

减速器型号 Gear unit type	注油量(升) Fill quantity (L)					
	M1	M2	M3	M4	M5	M6
BF37	1	1.2	0.7	1.2	1	1.1
BF47	1.5	1.8	1.1	1.9	1.5	1.7
BF57	2.6	3.7	2.1	3.5	2.8	2.9
BF67	2.7	3.8	1.9	3.8	2.9	3.2
BF77	5	7.3	4.3	8	6	6.3
BF87	10	13.0	7.7	13.8	10.8	11
BF97	18.5	22.5	12.6	25.2	18.5	20
BF107	24.5	32	19.5	37.5	27	27
BF127	40.5	55	34	61	46.5	47
BF157	69	104	63	105	86	78

BFF..

减速器型号 Gear unit type	注油量(升) Fill quantity (L)					
	M1	M2	M3	M4	M5	M6
BFF37	1	1.2	0.7	1.3	1	1.1
BFF47	1.6	1.9	1.1	1.9	1.5	1.7
BFF57	2.8	3.8	2.1	3.7	2.9	3
BFF67	2.7	3.8	1.9	3.8	2.9	3.2
BFF77	5.1	7.3	4.3	8.1	6	6.3
BFF87	10.3	13.2	7.8	14.1	11	11.2
BFF97	19	22.5	12.6	25.5	18.9	20.5
BFF107	25.5	32	19.5	38.5	27.5	28
BFF127	41.5	56	34	63	46.5	49
BFF157	72	105	64	106	87	79

BFA..,BFH..,BFV..,BFAF..,BFHF..,BFVF..,BFAZ..,BFHZ..,BFVZ..

减速器型号 Gear unit type	注油量(升) Fill quantity (L)					
	M1	M2	M3	M4	M5	M6
BF..37	1	1.2	0.7	1.2	1	1.1
BF..47	1.5	1.8	1.1	1.9	1.5	1.7
BF..57	2.7	3.8	2			

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

BK.,BKA..B,BKH..B,BKV..B

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

BKF..

减速器型号 Gear unit type	注油量(升) Fill quantity (L)					
	M1	M2	M3	M4	M5	M6
BKF37	0.5	1.1	1.1	1.5	1	1
BKF47	0.8	1.3	1.7	2.2	1.6	1.6
BKF57	1.3	2.3	2.7	3	2.9	2.7
BKF67	1.1	2.4	2.8	3.6	2.7	2.7
BKF77	2.1	4.1	4.4	6	4.5	4.5
BKF87	3.7	8.2	9	11.9	8.4	8.4
BKF97	7	14.7	17.3	21.5	15.7	16.5
BKF107	10	22	26	35	25	25
BKF127	21	41.5	46	55	41	41
BKF157	31	66	69	92	62	62

BKA..,BKH..,BKV..,BKA..,BKHF..,BKVF..,BKAZ..,BKHZ..,BKVZ..

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

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

BS..

减速器型号 Gear unit type	注油量(升) Fill quantity (L)					
	M1	M2	M3 ¹⁾	M4	M5	M6
BS37	0.25	0.4	0.5	0.6	0.4	0.4
BS47	0.35	0.8	0.7	1.1	0.8	0.8
BS57	0.5	1.2	1	1.5	1.3	1.3
BS67	1	2.0	2.2/3.1	3.2	2.6	2.6
BS77	1.9	4.2	3.7/5.4	6	4.4	4.4
BS87	3.3	8.1	6.9/10.4	12	8.4	8.4
BS97	6.8	15	13.4/18	22.5	17	17

1)多级减速箱中较大的减速机须注较多的油量。

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

BSF..

减速器型号 Gear unit type	注油量(升) Fill quantity (L)					
	M1	M2	M3 ¹⁾	M4	M5	M6
BSF37	0.25	0.4	0.5	0.6	0.4	0.4
BSF47	0.4	0.9	0.9	1.2	1.0	1
BSF57	0.5	1.2	1	1.6	1.4	1.4
BSF67	1	2.2	2.3/3	3.2	2.7	2.7
BSF77	1.9	4.1	3.9/5.8	6.5	4.9	4.9
BSF87	3.8	8	7.1/10.1	12	9.1	9.1
BSF97	7.4	15	13.8/18.8	23.6	18	18

1)多级减速箱中较大的减速机须注较多的油量。

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

BSA..,BSH..,BSAF..,BSHF..,BSAZ..,BSHZ..

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

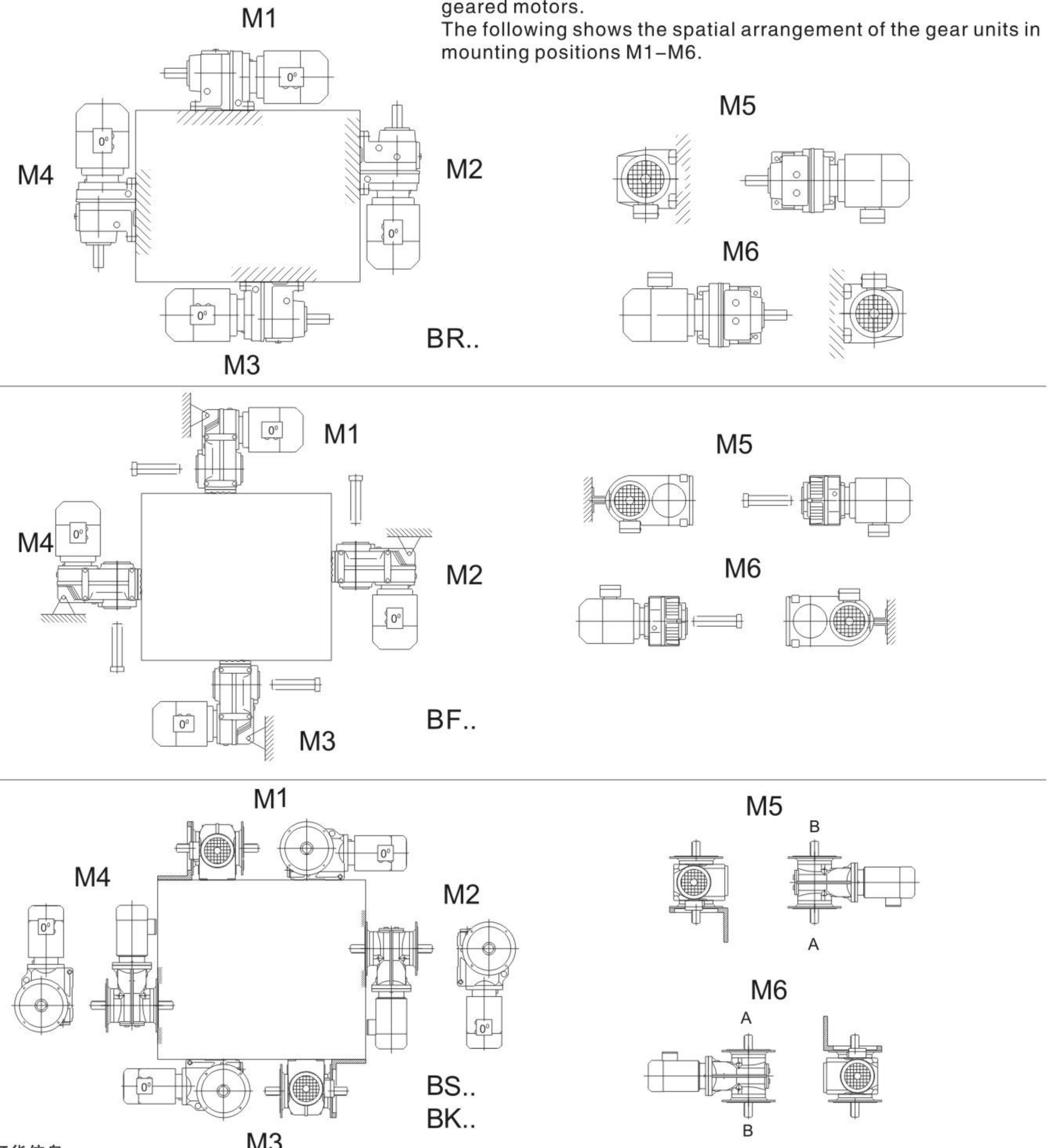
1)多级减速箱中较大的减速机须注较多的油量。

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

10. 安装位置 Mounting Position

10.1 安装位置概述

10.1 Mounting Position designation



重要的订货信息 Important indention information

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

电机接线盒位置 Unit exactly are necessary

电机接线上出线口位置
Position of the motor terminal box

对直角轴减速机：输出方向
For the right-angle shaft reducers:output shaft connection.

对直角轴型带收缩盘轴装式减速机：连接端带或不带法兰
For the right-angle shaft reducers:with shrink-disk:with or without feange.

带逆止器的减速电机：设备的旋转方向
For the drive with a backstop: the Direction of rotation.

Unit exactly are necessary
Position of the motor terminal box

For the right-angle shaft reducers:output shaft connection.

For the right-angle shaft reducers:with shrink-disk:with or without feange.
For the drive with a backstop: the Direction of rotation.

电机接线盒和出线嘴位置

Position of the motor terminal box cable entry

电机接线盒从电机风扇罩看(如图),位置分别表示为 0° , 90° , 180° 或 270°

出线嘴的位置也可以进行选择(如图),分别表示为“Normal”, “1”, “2”或“3”

Possible positions of the terminal box are 0° , 90° , 180° or 270° as ciewed onto the fan guard=B-side

In addition, the position of the cable entry can be selected. The possibilities are "X"(=normal position), "1", "2",or "3"

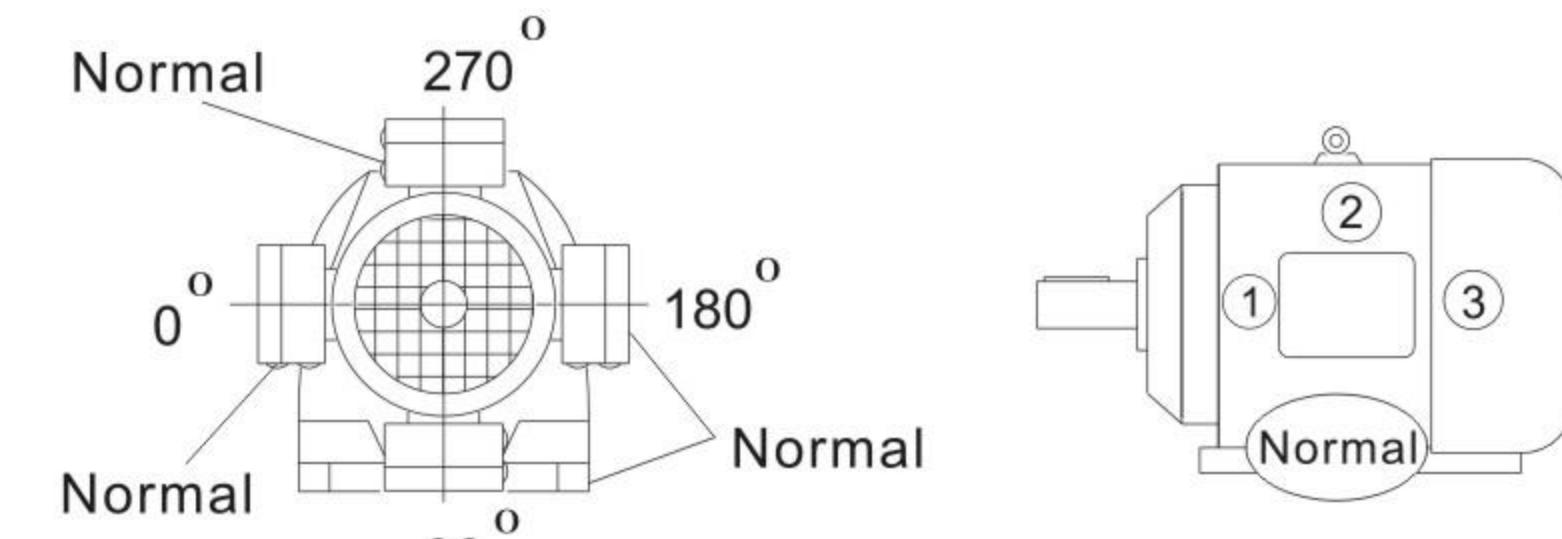


图:接线盒与出线嘴的位置

Fig:Position of the terminal box and cable entry

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

注意:

对于BR17D71..减速电机,接线盒位置不能标为 90°
D71..BMG接线盒位置为 90° 时,出线嘴位置不能标为“2”。

Unless other information is given regarding the terminal box, the 0° type with "X" cable entry will be supplied. We recommend selecting cable entry "2" with mounting position M3.

The terminal box cannot be positioned at 90° on the BR17D71 geared motor.
Cable entry "2" is not possible with the DT71..BMG motor with terminal box position 90°

带逆止器减速电机的旋转方向

Direction of totation of the drive with a backstop

若减速电机带逆止器,规定出减速电机的旋转方向是很必要的。按下列标识:
从输出轴看:顺时针(CW)为向右旋转逆时针(CCW)为向左旋转

If the drive has a RS backstop, it is necessary to stipulate the direction of drive rotation.
The following definition applies:

Looking onto the output shaft: Clockwise (CW) =Rotating to the right
Counterclockwise(CCW) = Rotating to the left

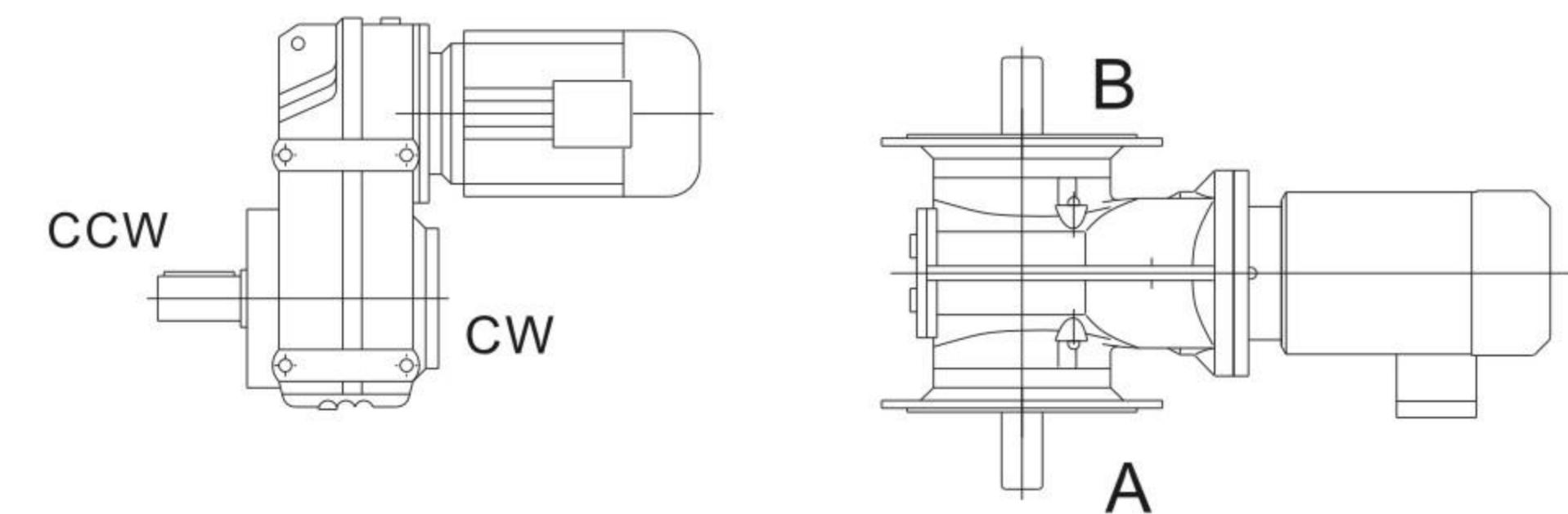


图:输出轴的旋转方向

Fig: Direction of rotation of the output shaft

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

输出轴的位置
Position of the output shaft

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

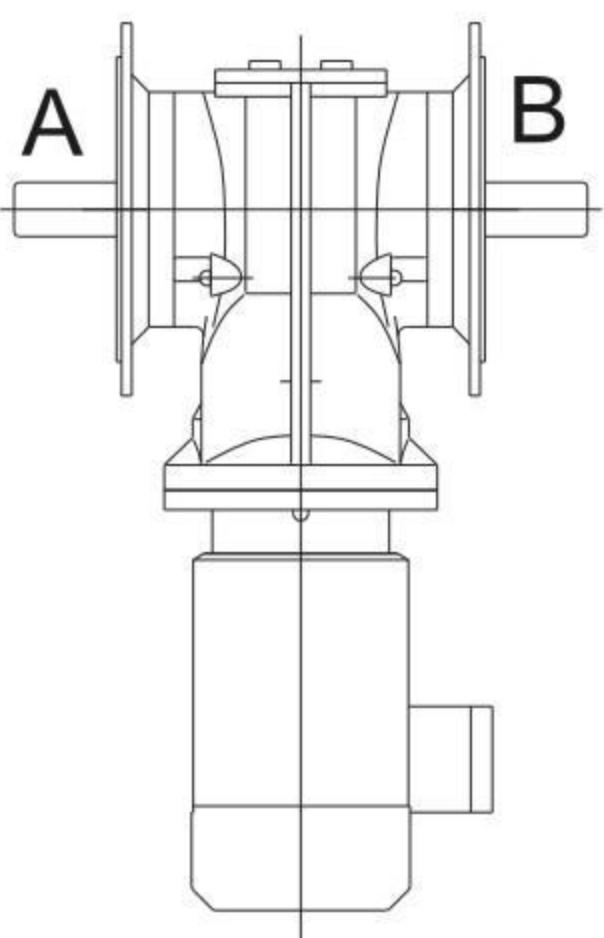


图:出轴方向
Fig: Position of the Output shaft

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

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

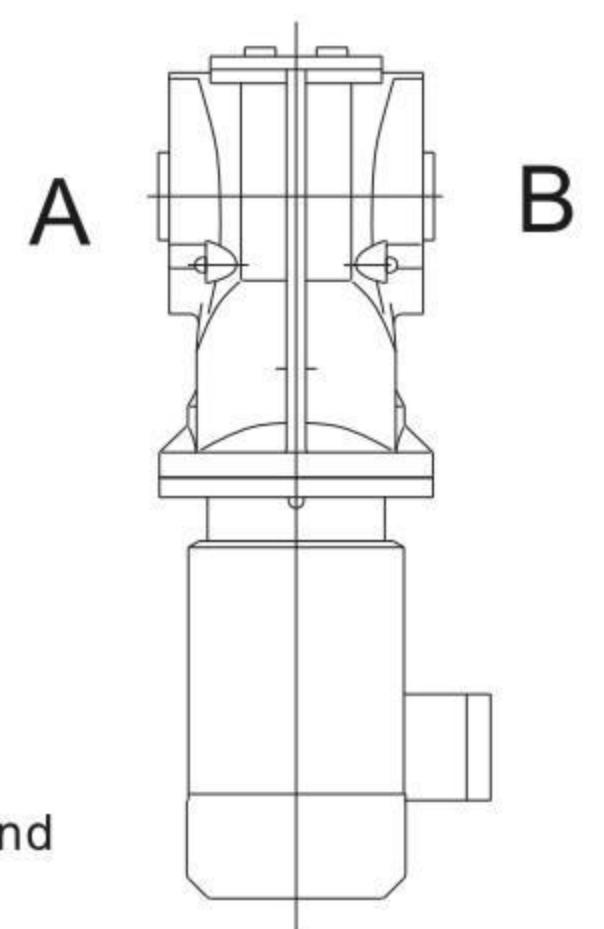


图:连接端的位置
Fig: Position of the connection end

定购实例
Sample orders

对于BK167/K187来讲, 安装置为M5和M6时, 连接端只能是在底部连接。
Connection end at bottom only is possible with BK167/K187 helical-bevel gear units in mounting positions M5 and M6.

类型 Type	安装位置 Mounting position	连接端 Shaft with	锁紧盘位置 Position of shrink disk	法兰 Flange	接线位置 Position of terminal box	出线嘴位置 Position of cable entry	旋转方向 Ration direction	出轴方向 Output shaft direction
BKF47D71D4/RS	M5	A	-	B	0°	"Normal"	CW	A
BSF97D180M4	M2	A+B	-	A+B	180°	"2"	-	A+B
BKH107D160L4	M1	-	B	-	270°	"3"	-	-

所有符号的含义
Symbols used

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

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

搅油损失
Churning losses

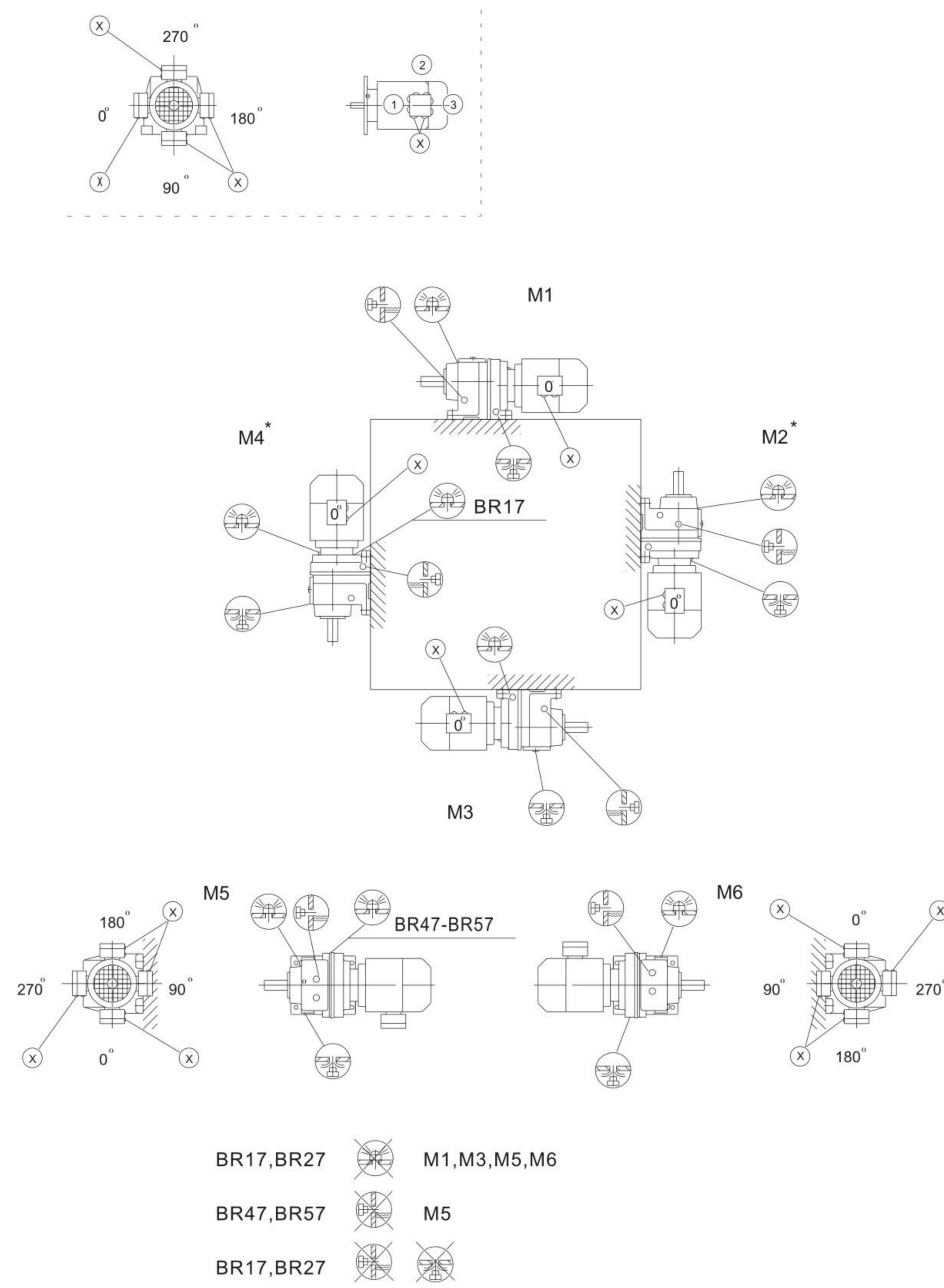
在某些安装位置可能增加搅油损失,在下列结构中请向DAIFUSI咨询
Increased churning losses may arise in some mounting positions,
Please contact DAIFUSI in case of the following combinations.

安装位置 Mounting position	减速器型号 Gear unit type	减速器规格 Gear unit size	输入速度(rpm) Input speed
M2,M4	BR	97-107	>2500
		>107	>1500
	BF	97-107	>2500
		>107	>1500
	BK	77-107	>2500
		>107	>1500
BS	BS	77-97	>2500

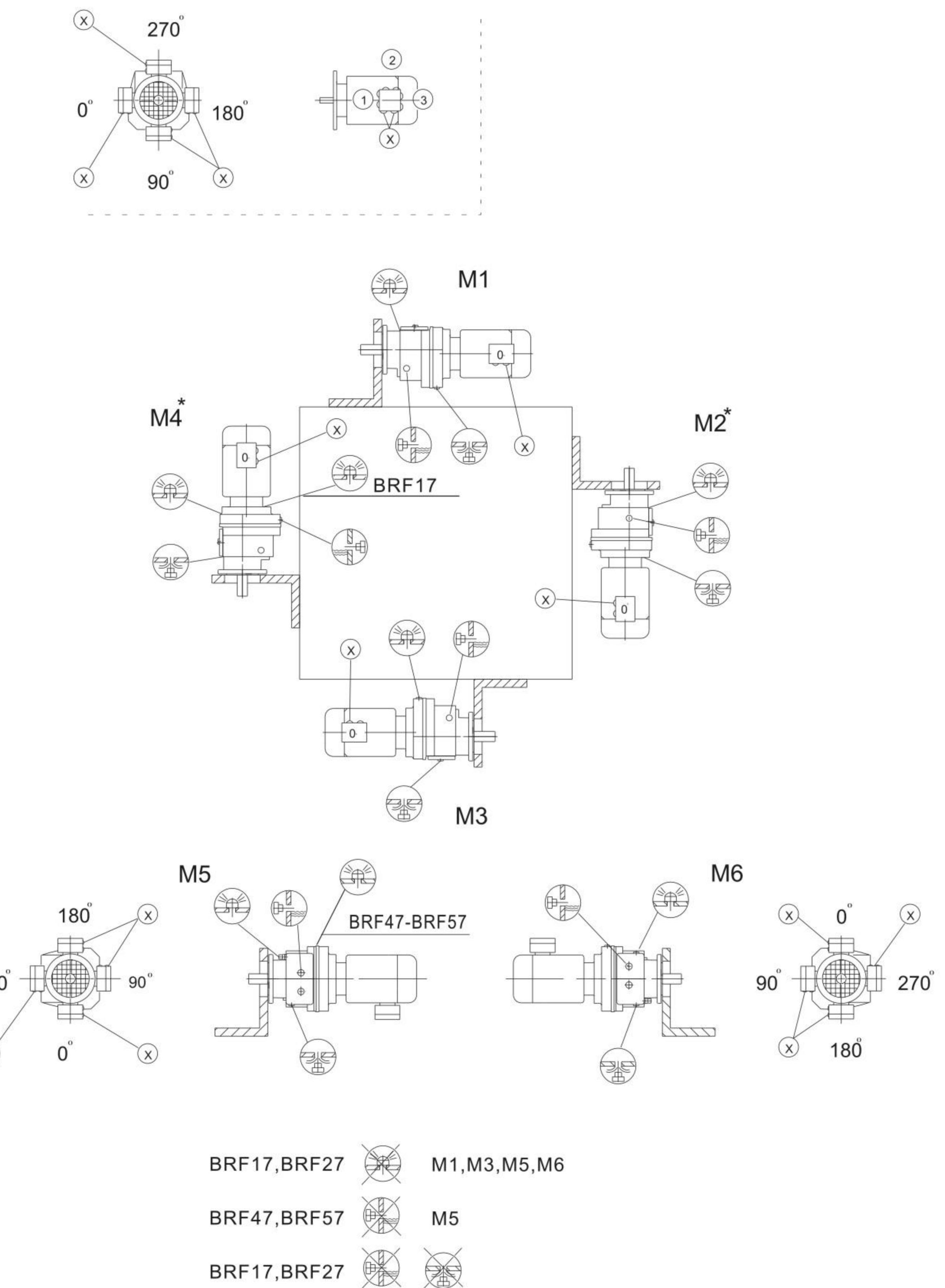
10.2 斜齿轮减速电机安装位置

10.2 Mounting position of Helical gear unit

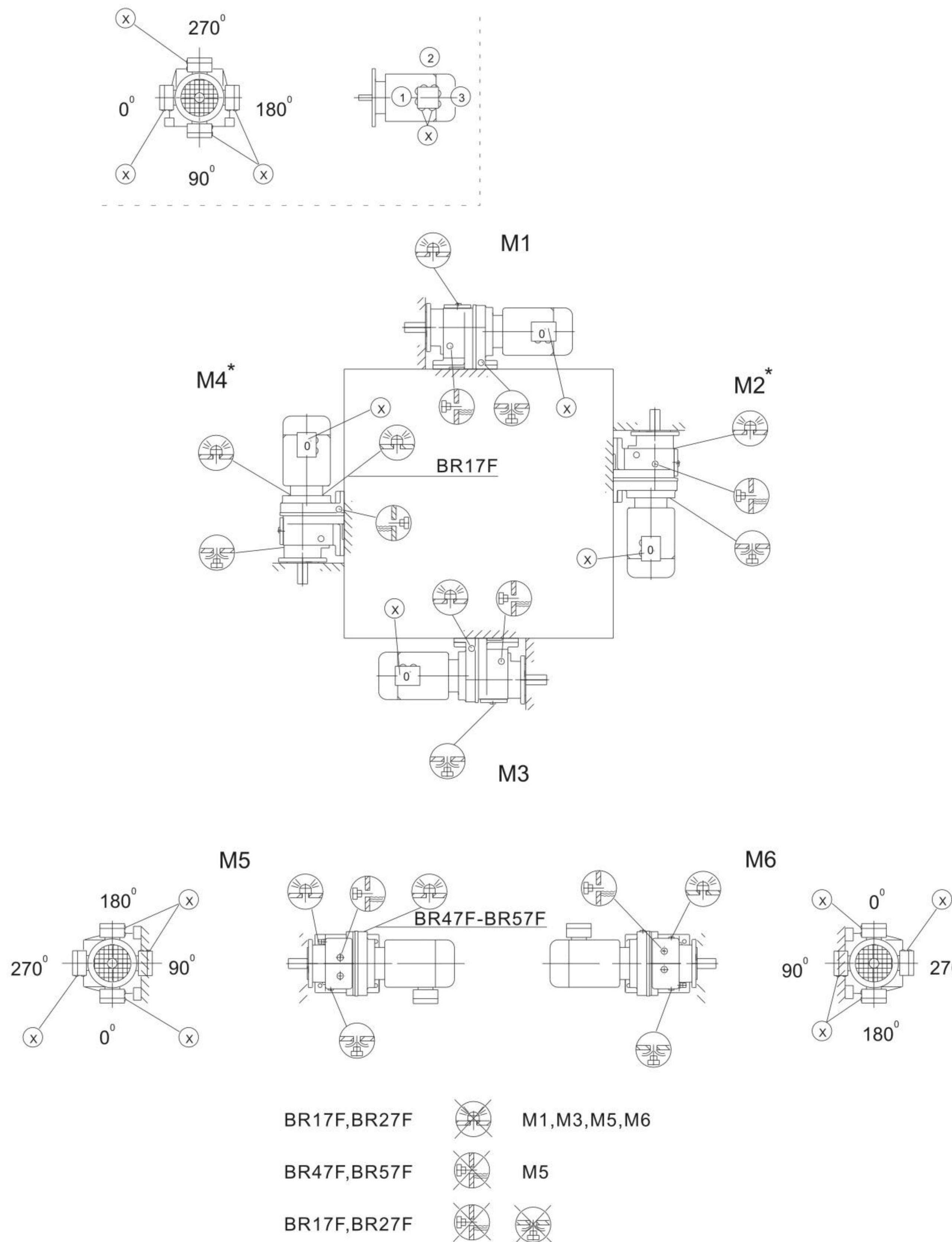
BR17-BR167



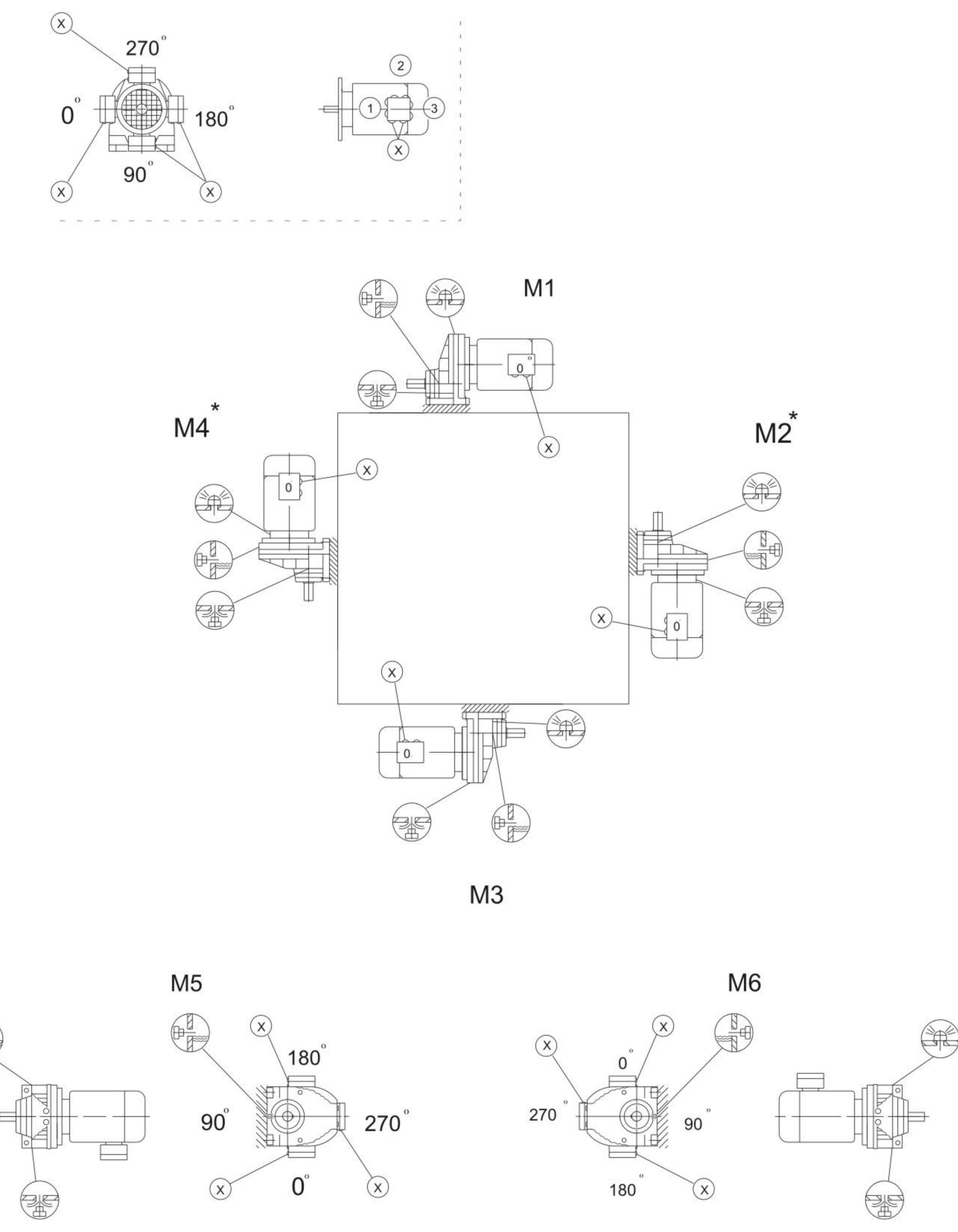
BRF17-BRF167



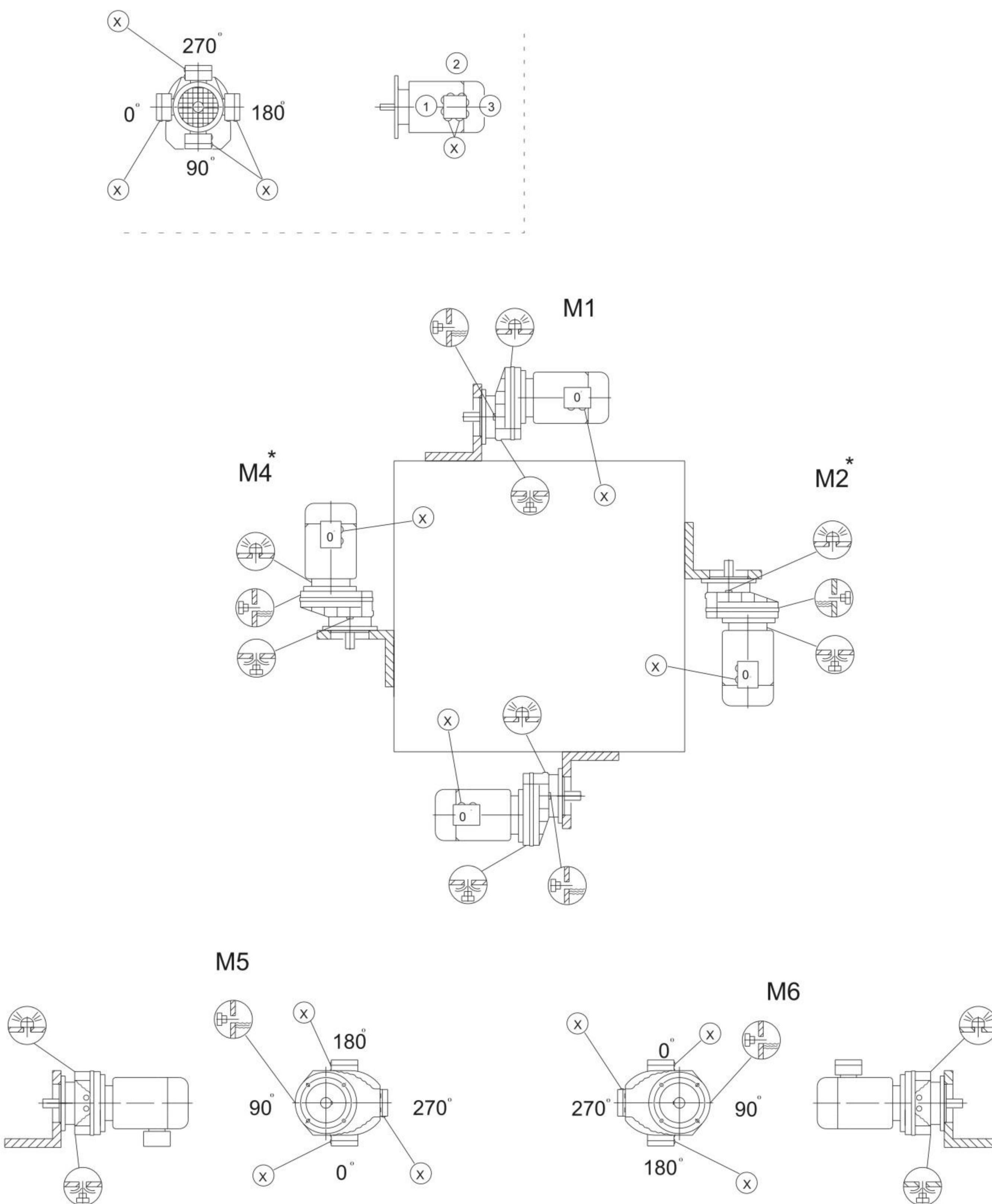
BR17F-BR87F



BRX57~BRX107



BRXF57~BRXF107



BR..

BF..

BK..

BS..

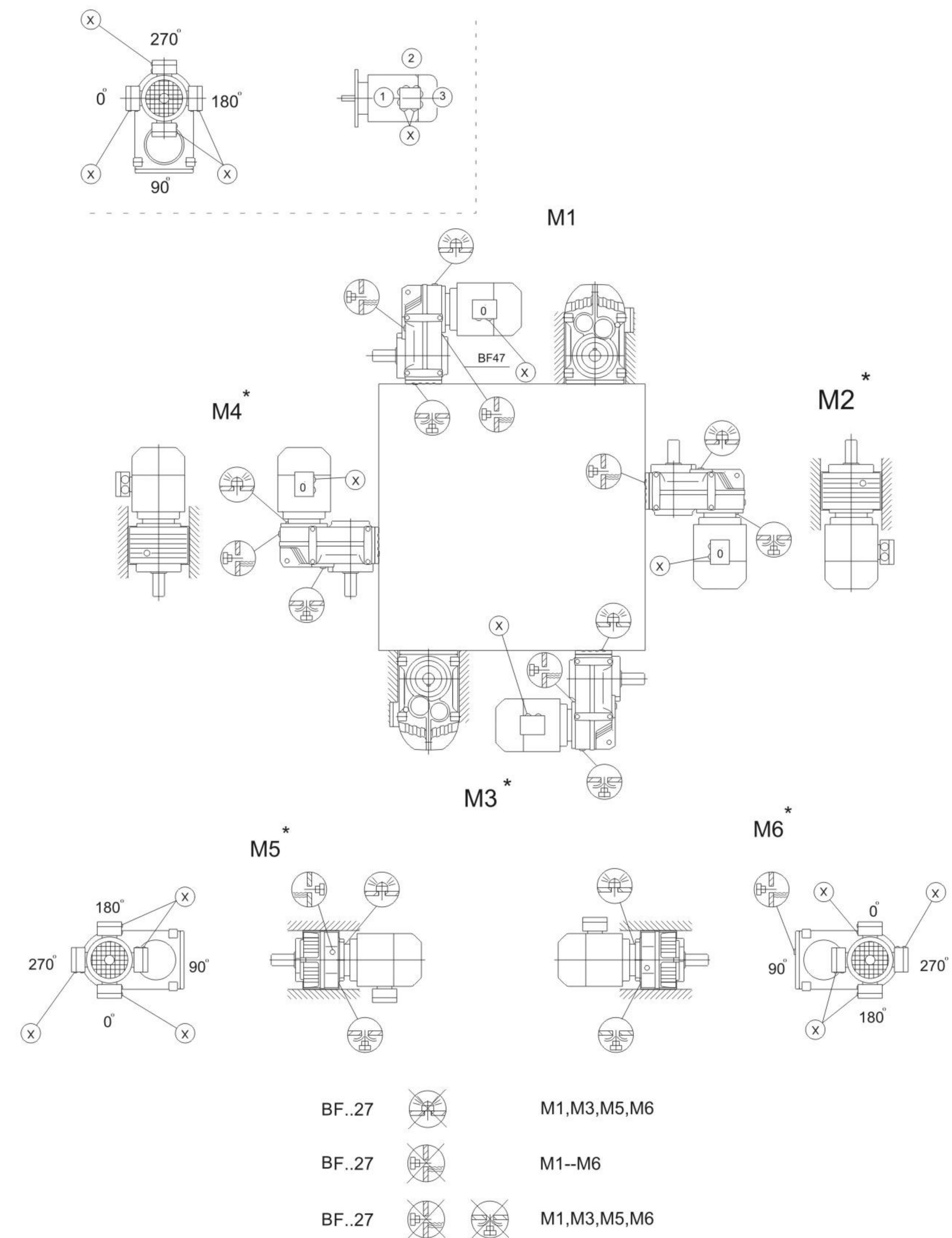
H..

B..

10.3 平行轴斜齿轮减速电机安装位置

10.3 Mounting position of parallel shaft helical Gear unit

BF/FA..B/FH27B-157B, BFV27B-107B



BR..

BF..

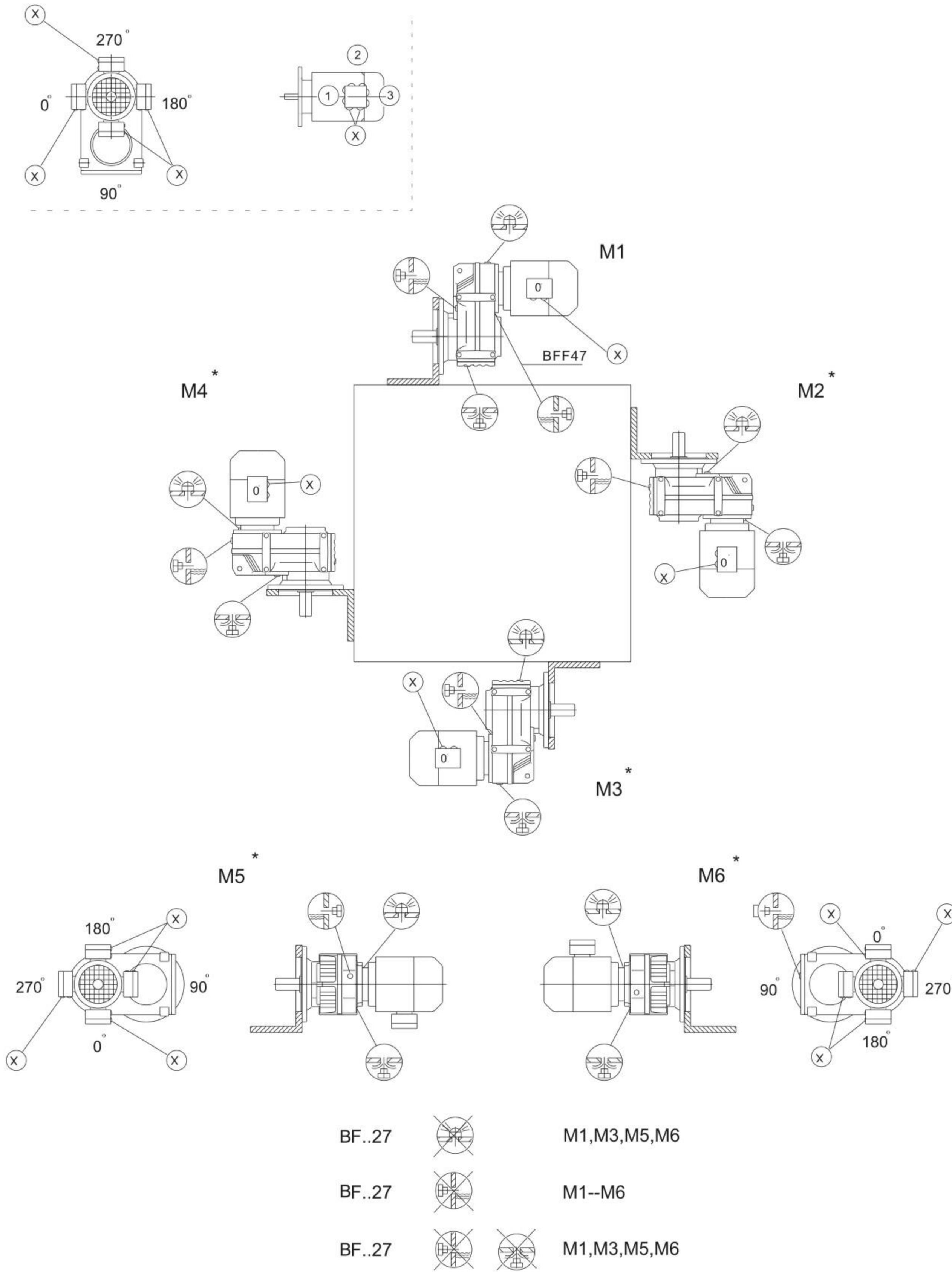
BK..

BS..

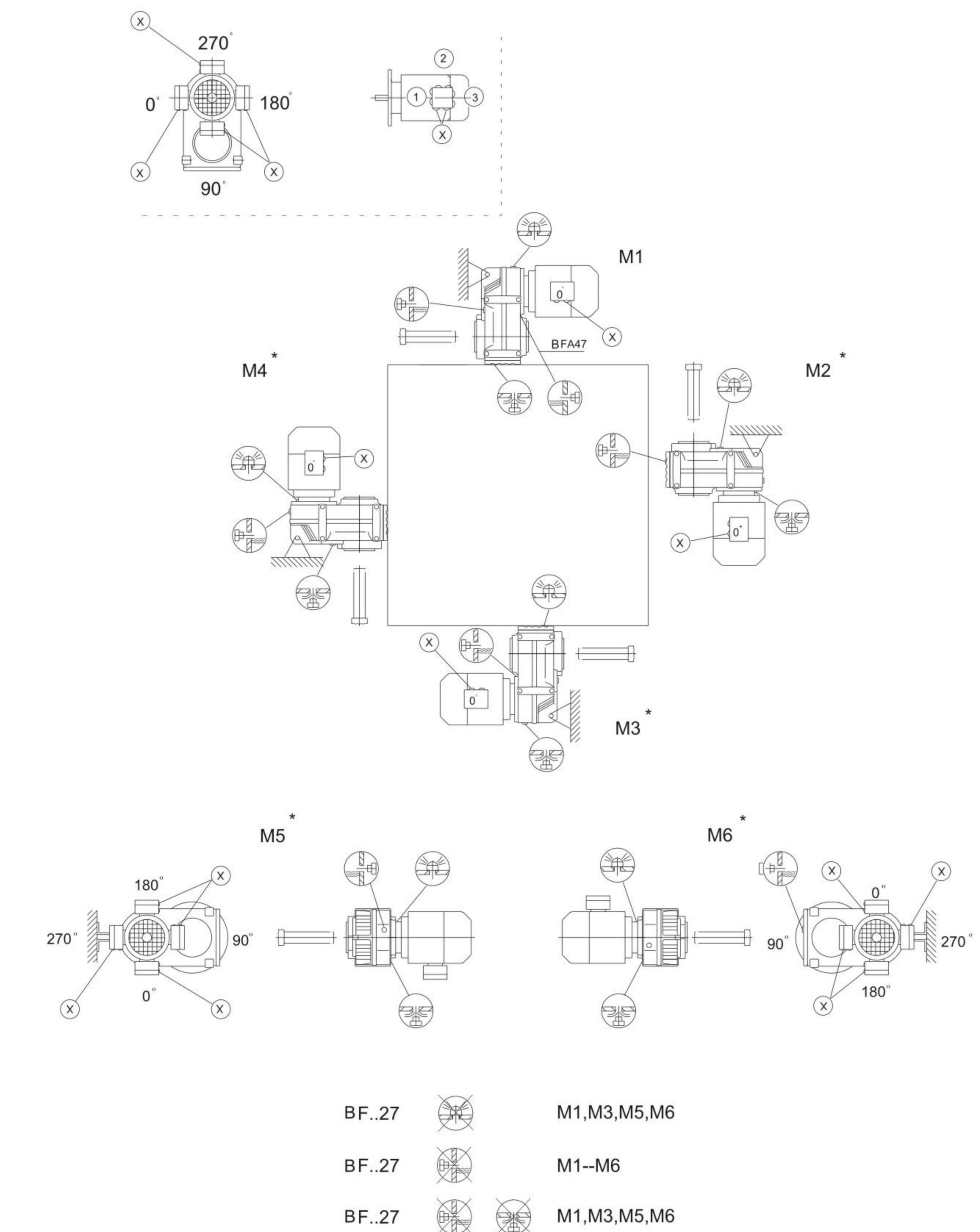
H..

B..

BFF/FAF/FHF/FAZ/FHZ27-157, BFVF/FVZ27-107



BFA/FH27-157, BFV27-107



BR..

BF..

BK..

BS..

H..

B..

BR..

BF..

BK..

BS..

H..

B..

10.4 斜齿轮-伞齿轮减速电机安装位置
 Mounting position of helical – bevel Gear unit
BK/KA..B/KH37B-157B,BKV37B-107B

BR...

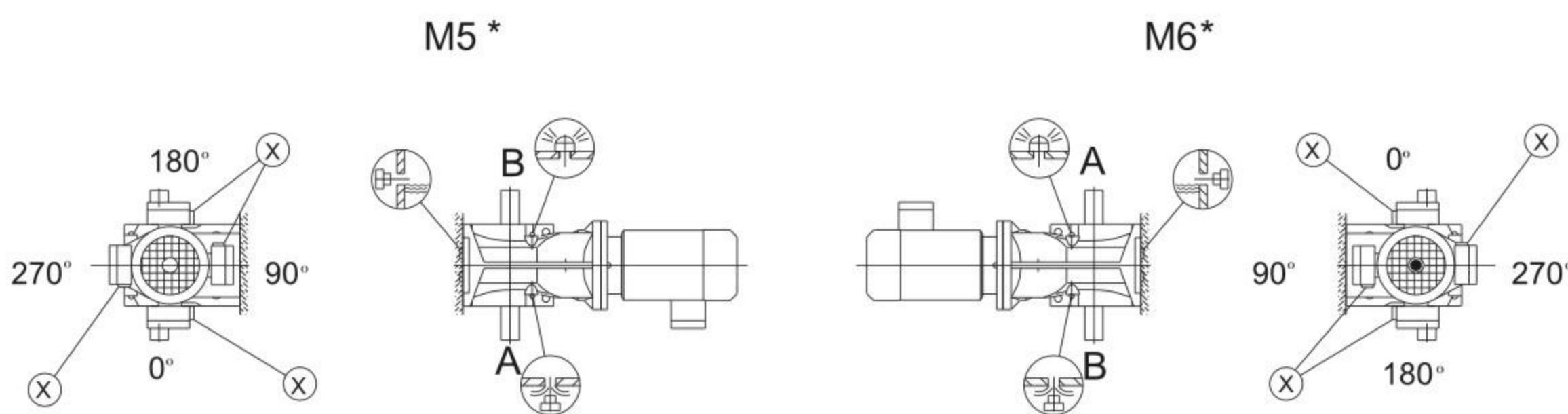
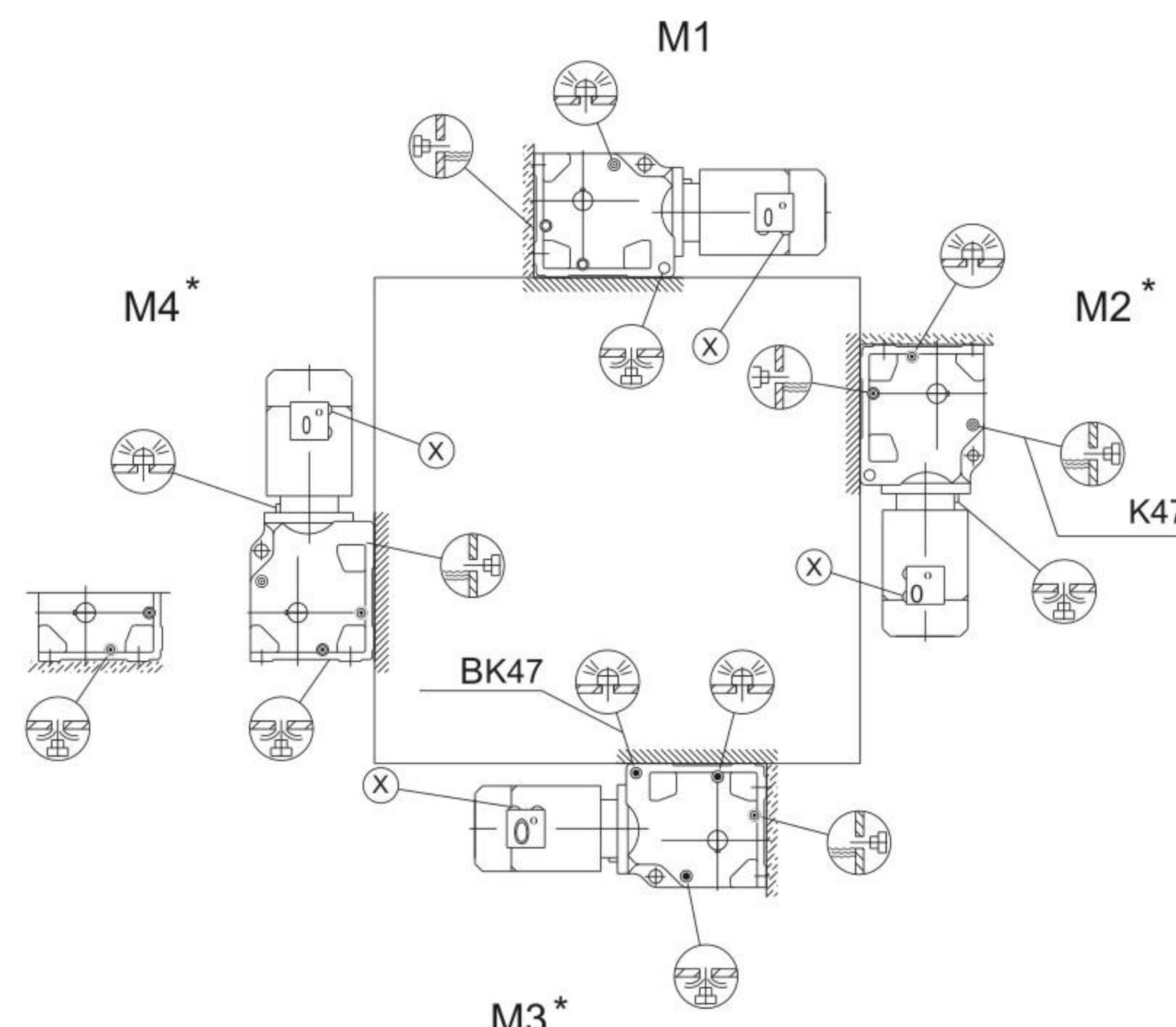
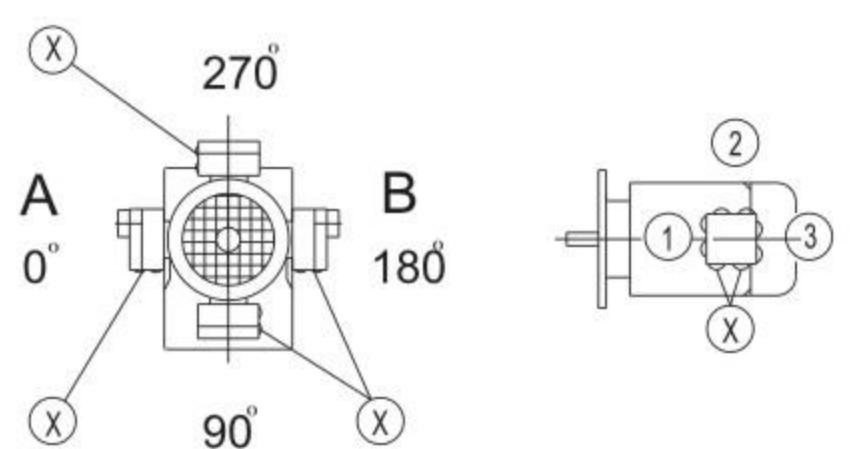
BF...

BK...

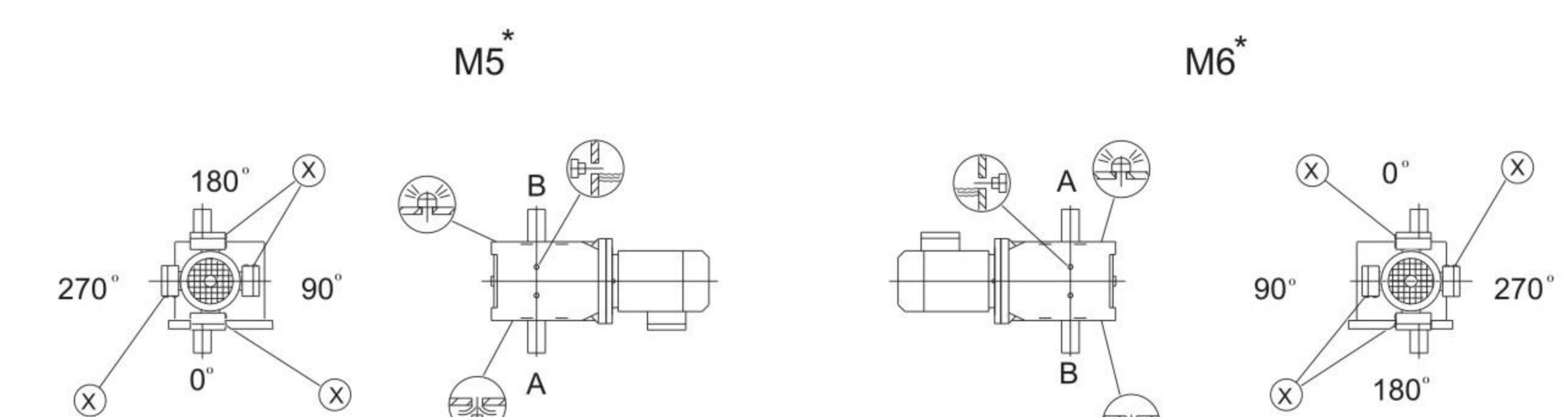
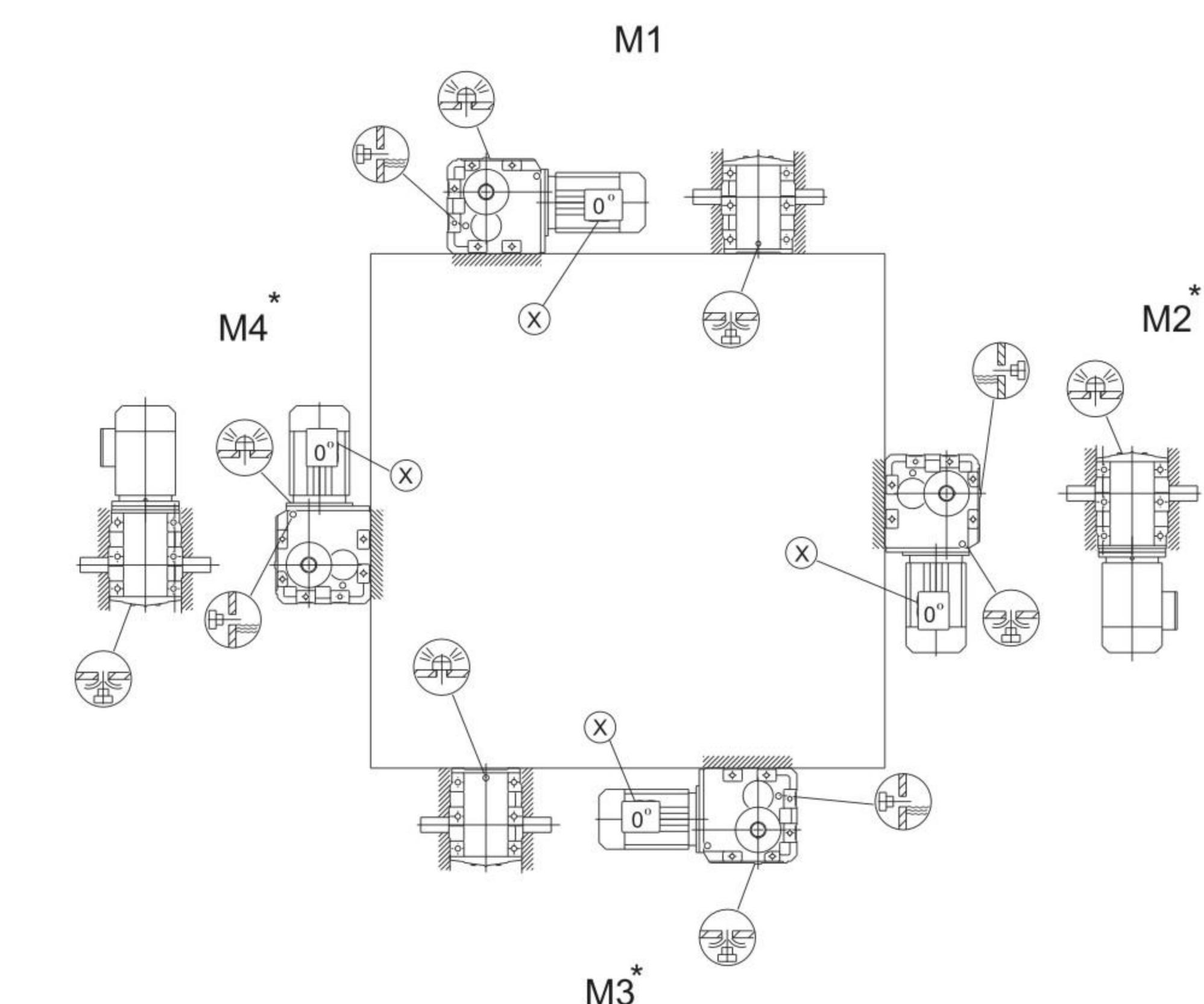
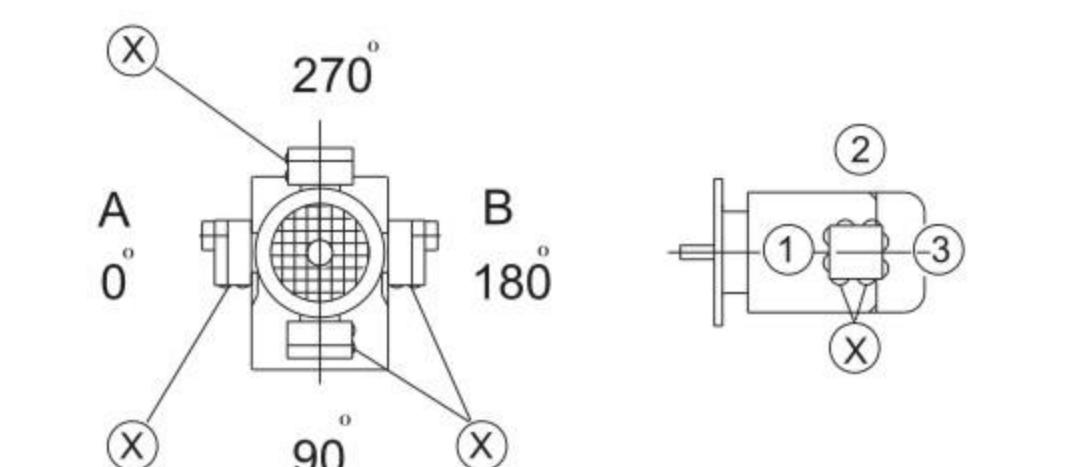
BS...

H...

B...



重要:请参见"减速器选型"中"径向和轴向负载"部分(P17)
 Important:Please refer to the information in the " Geared Motos" catalog. Optional Planning for Gear units Ouerhung and axial loads part" (P17)

BK167-187,BKH167B-187B

重要:请参见"减速器选型"中"径向和轴向负载"部分(P17)
 Important:Please refer to the information in the " Geared Motos" catalog. Optional Planning for Gear units Ouerhung and axial loads part" (P17)

BR...

BF...

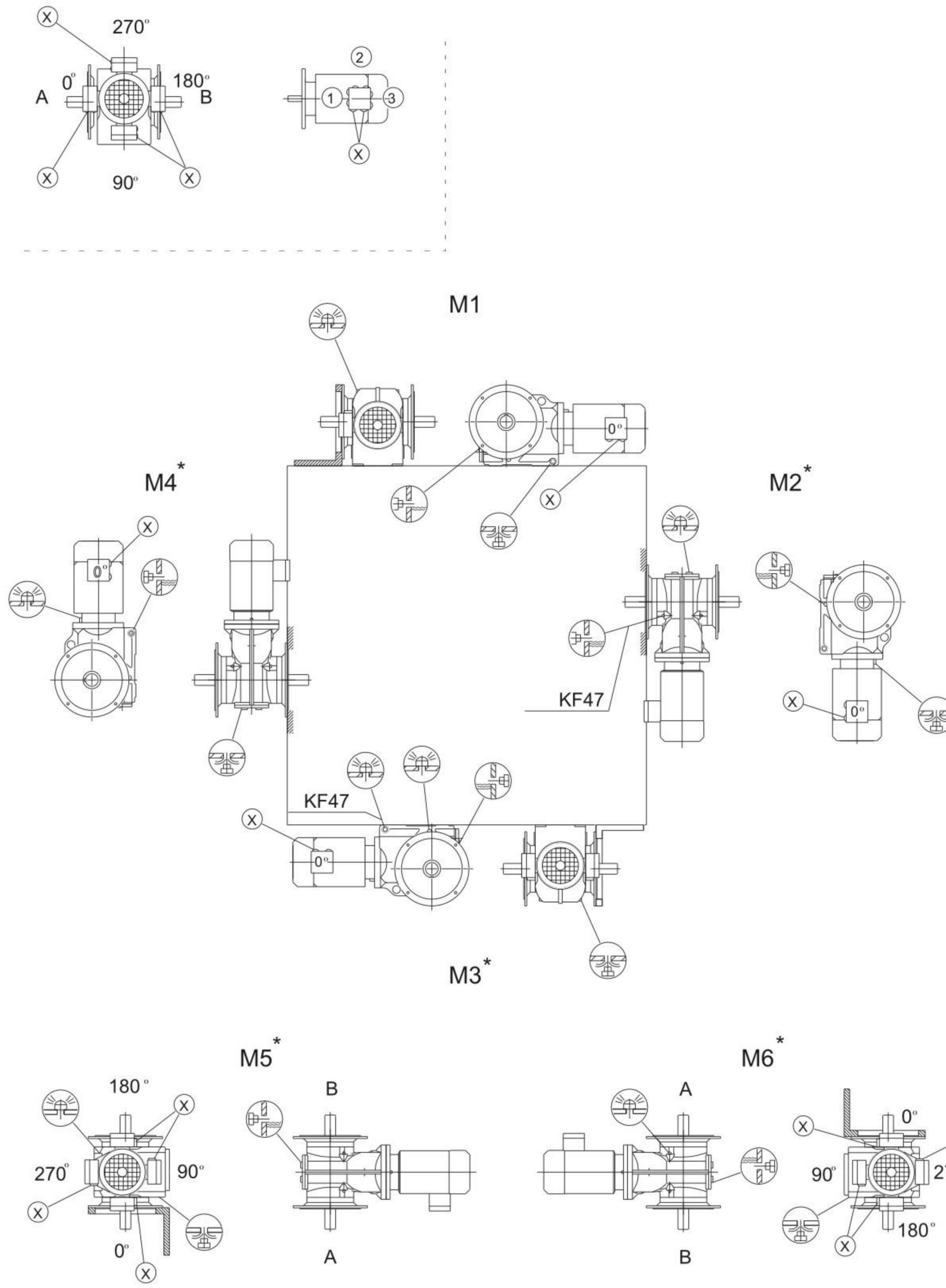
BK...

BS...

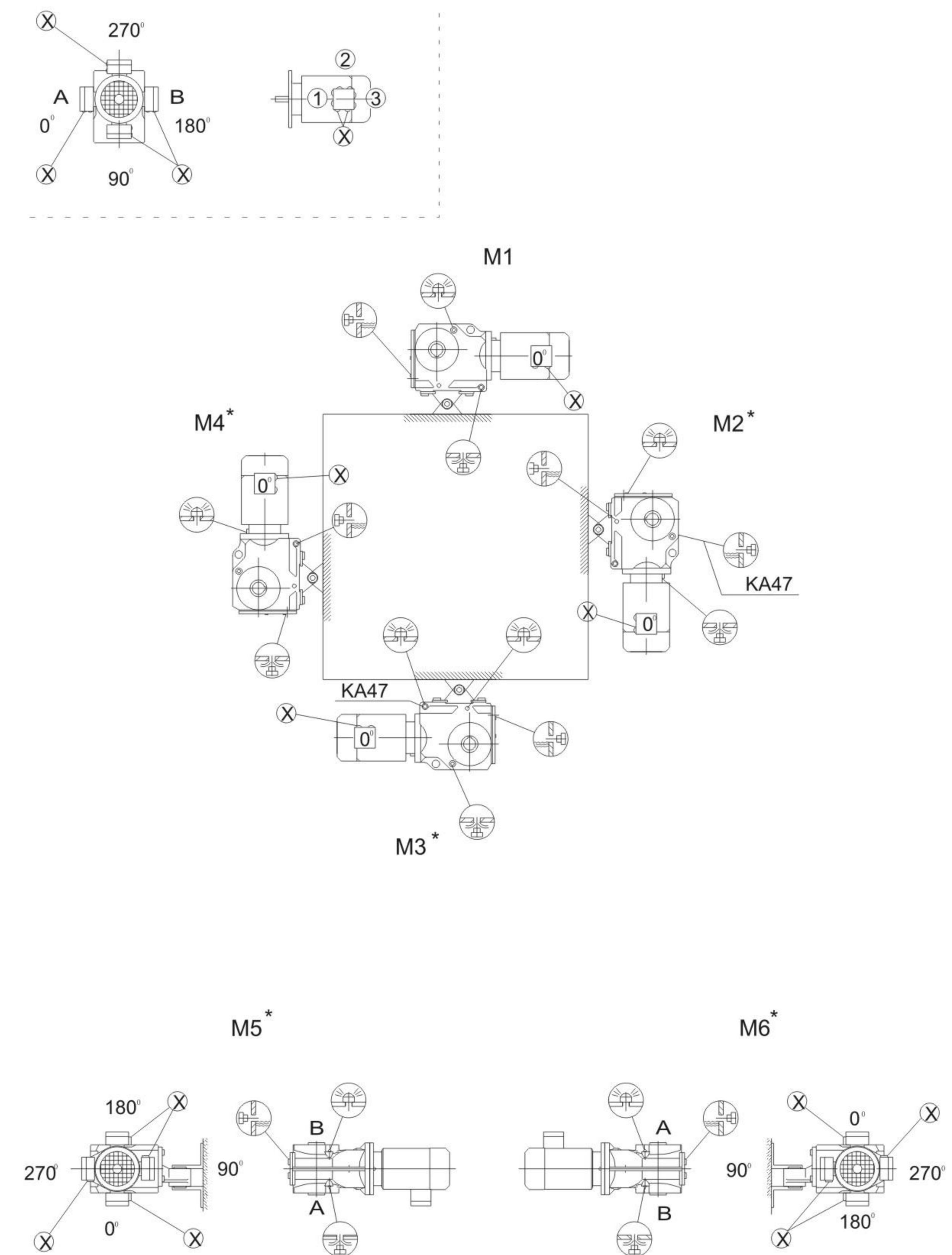
H...

B...

BKF/KAF/KAZ/KHZ37-157,BKVF/KVZ37-107



BKA/KH37-157,BKV37-107



BR..

BF..

BK..

BS..

H..

B..

BR..

BF..

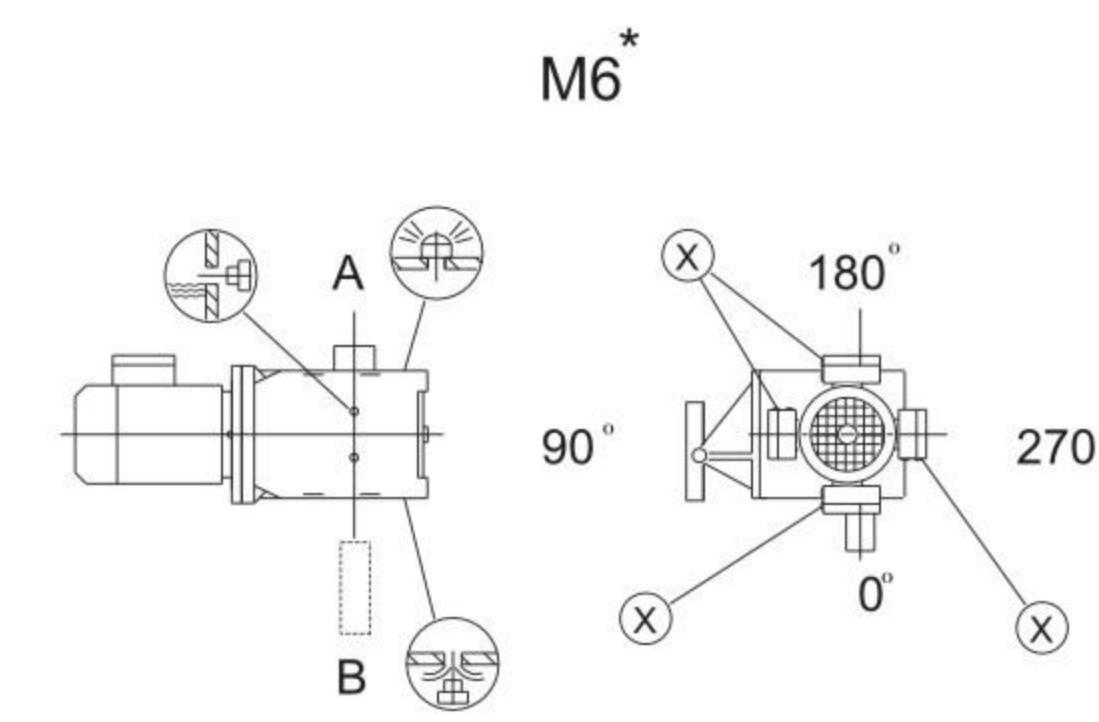
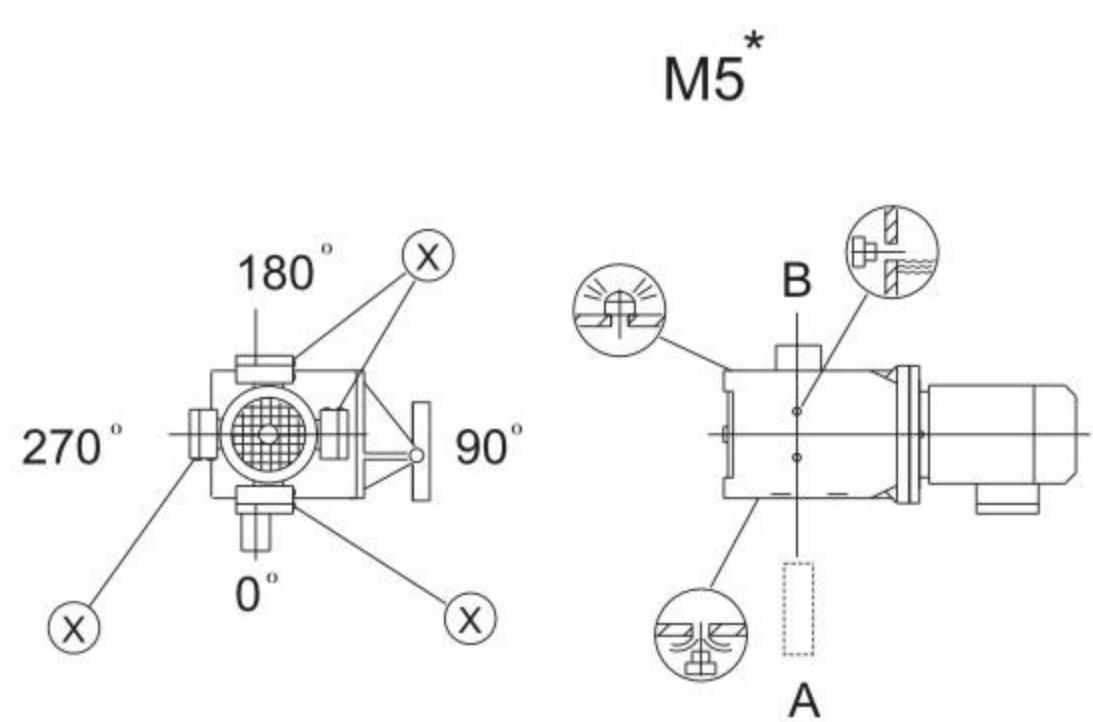
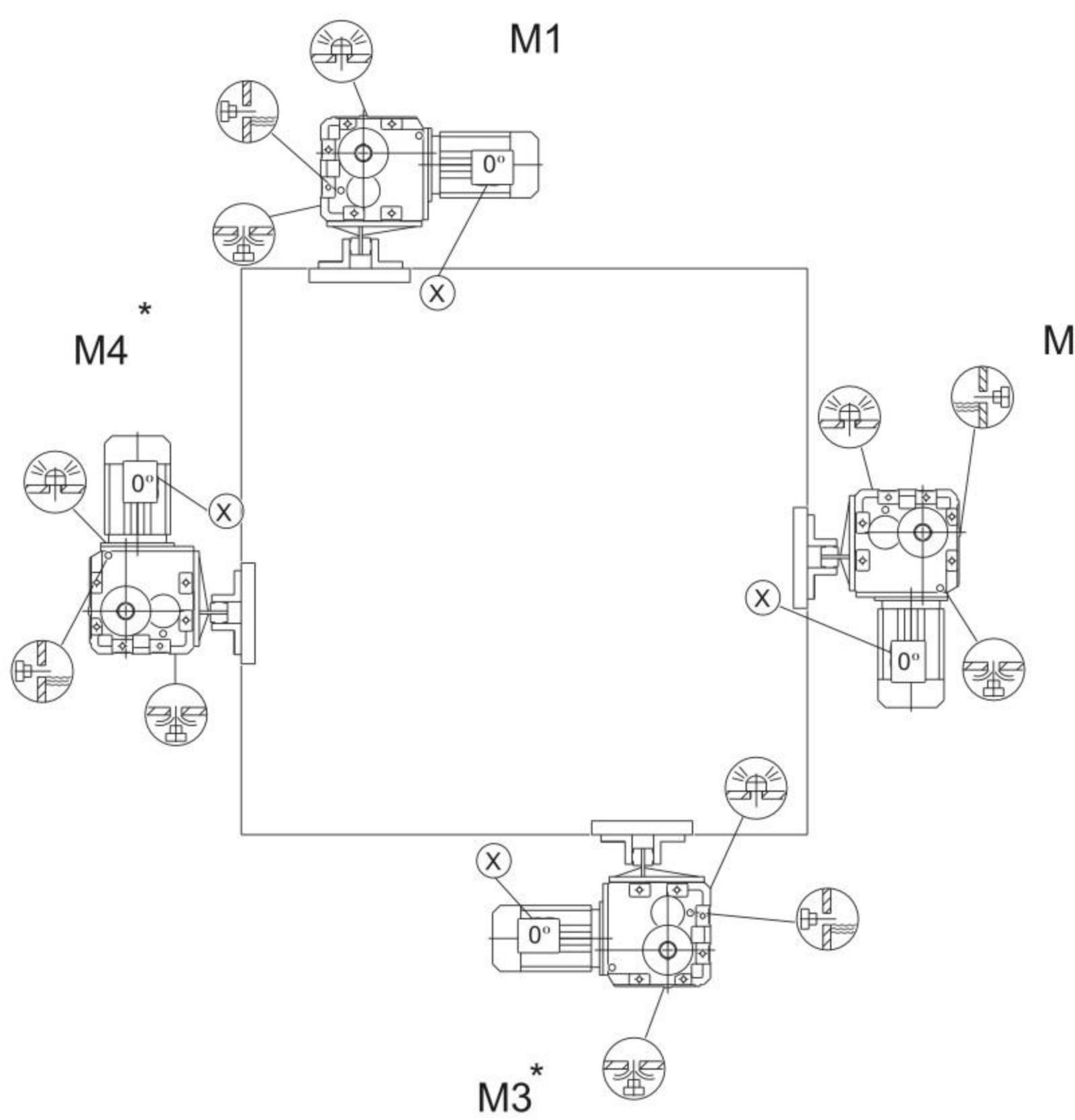
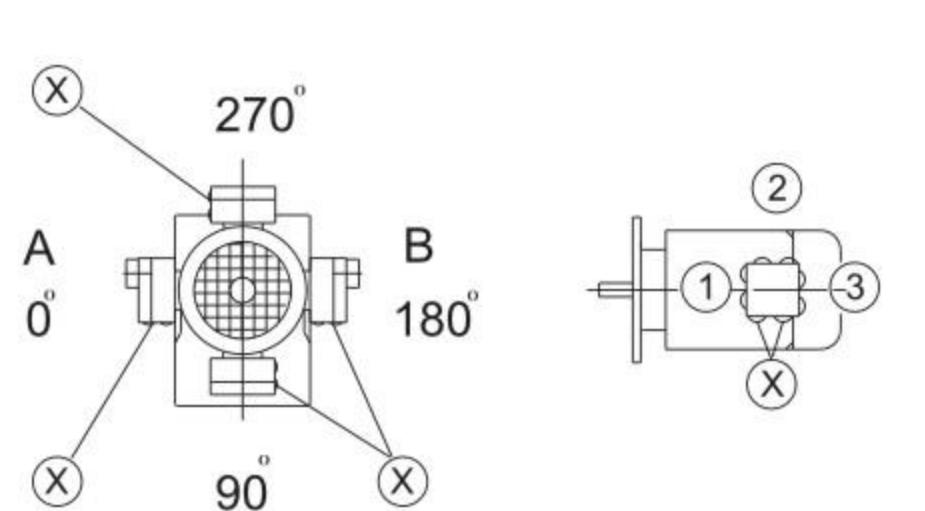
BK..

BS..

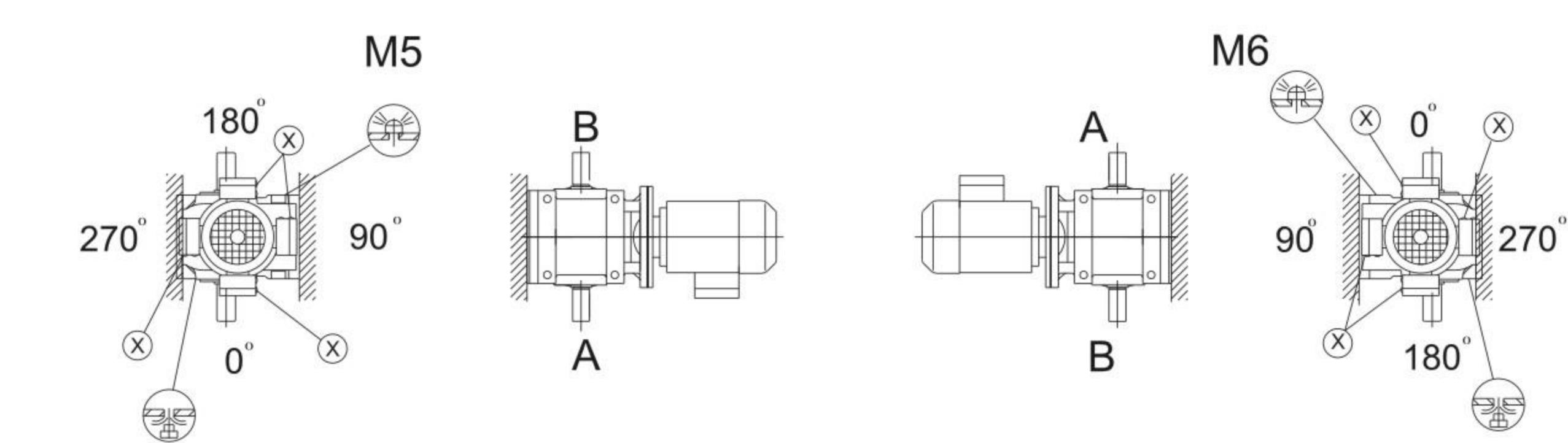
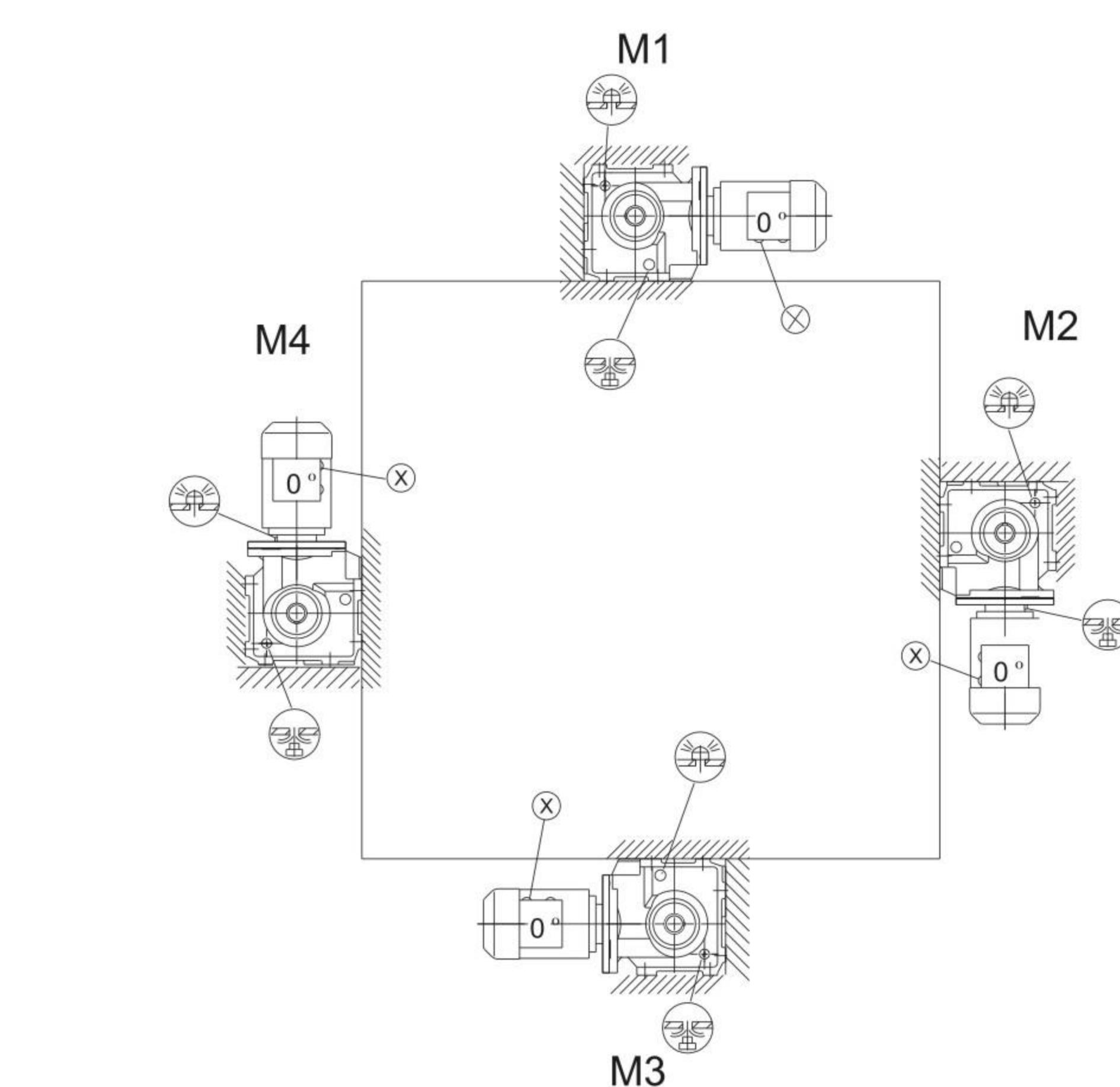
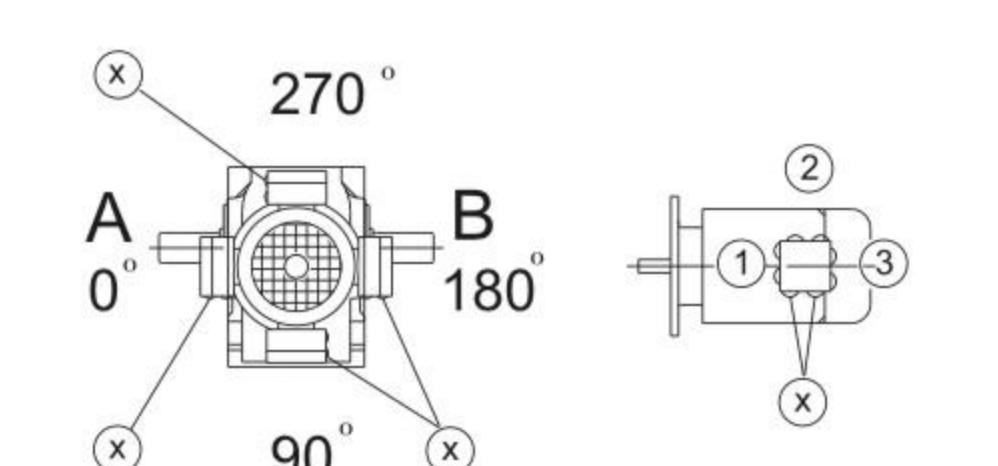
H..

B..

BKH167-187

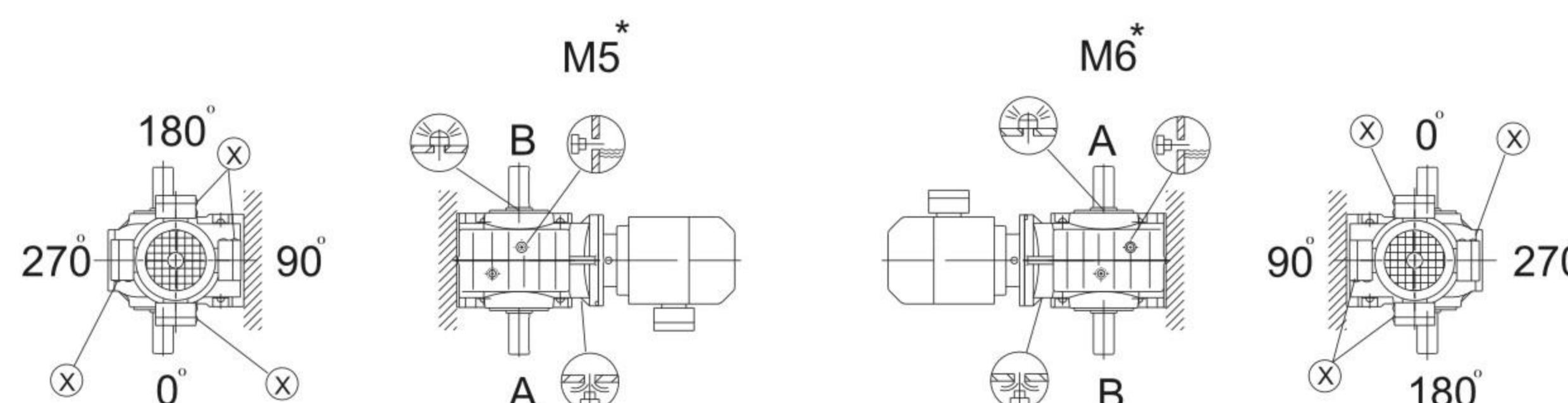
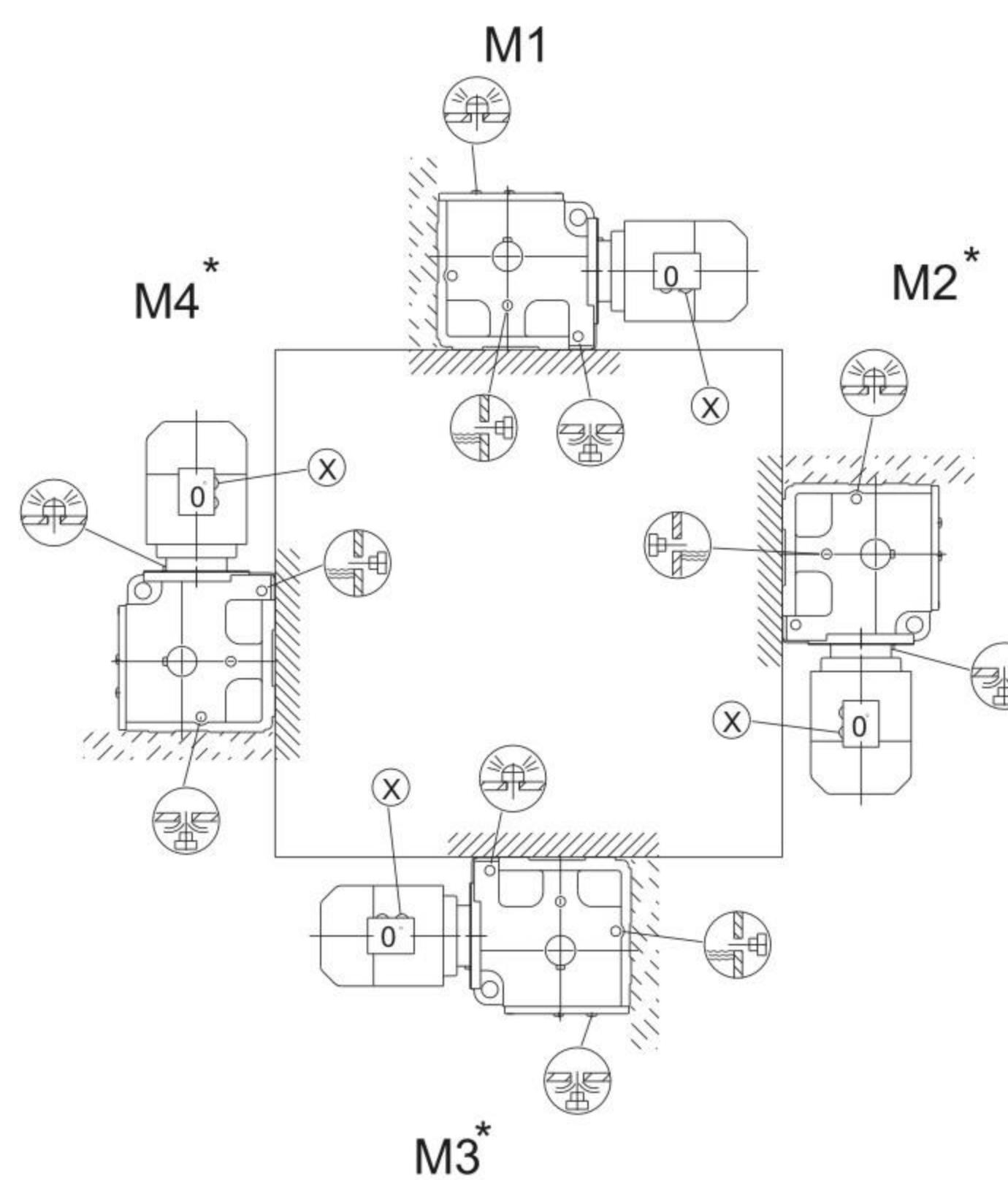
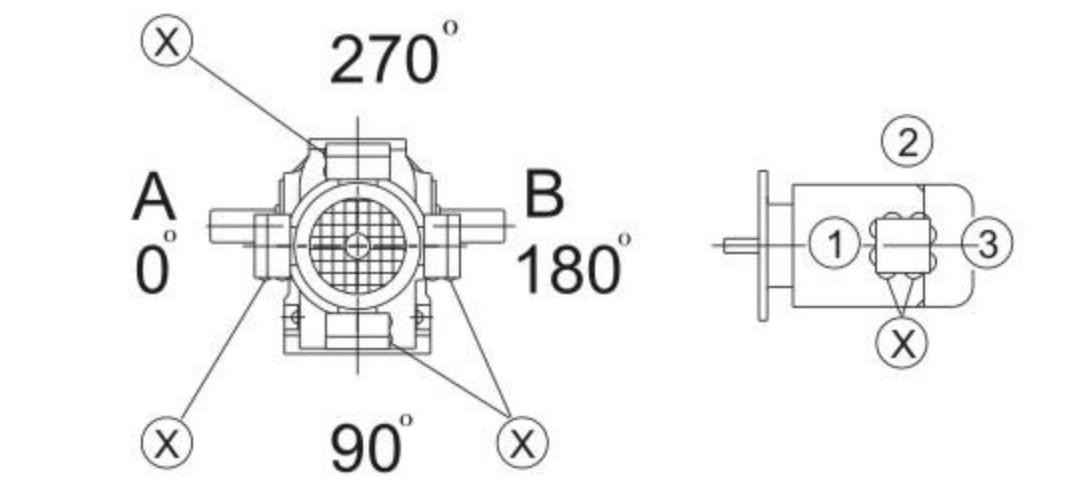


10.5 斜齿轮-蜗杆减速机安装位置
10.5 Mounting position of Helical - worm Gear motor
BS37

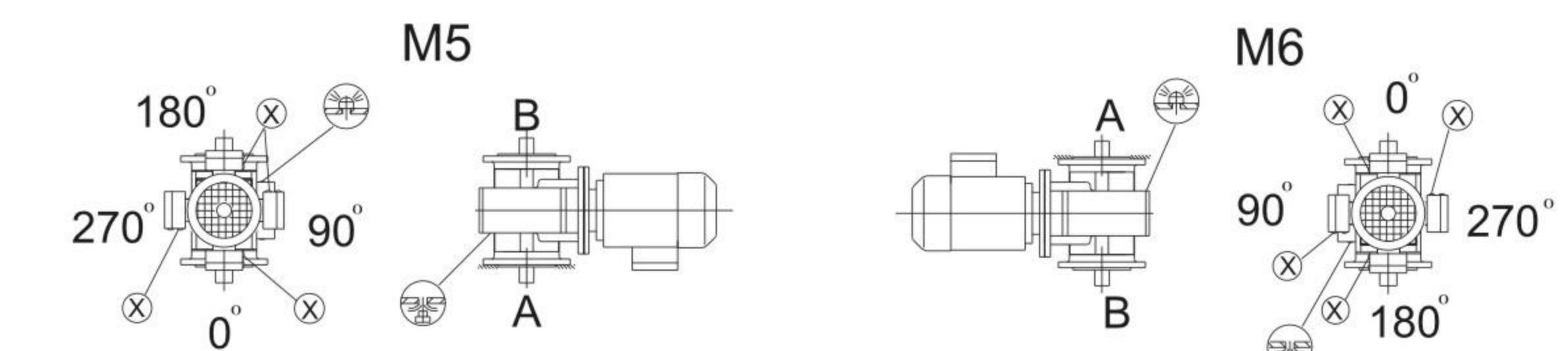
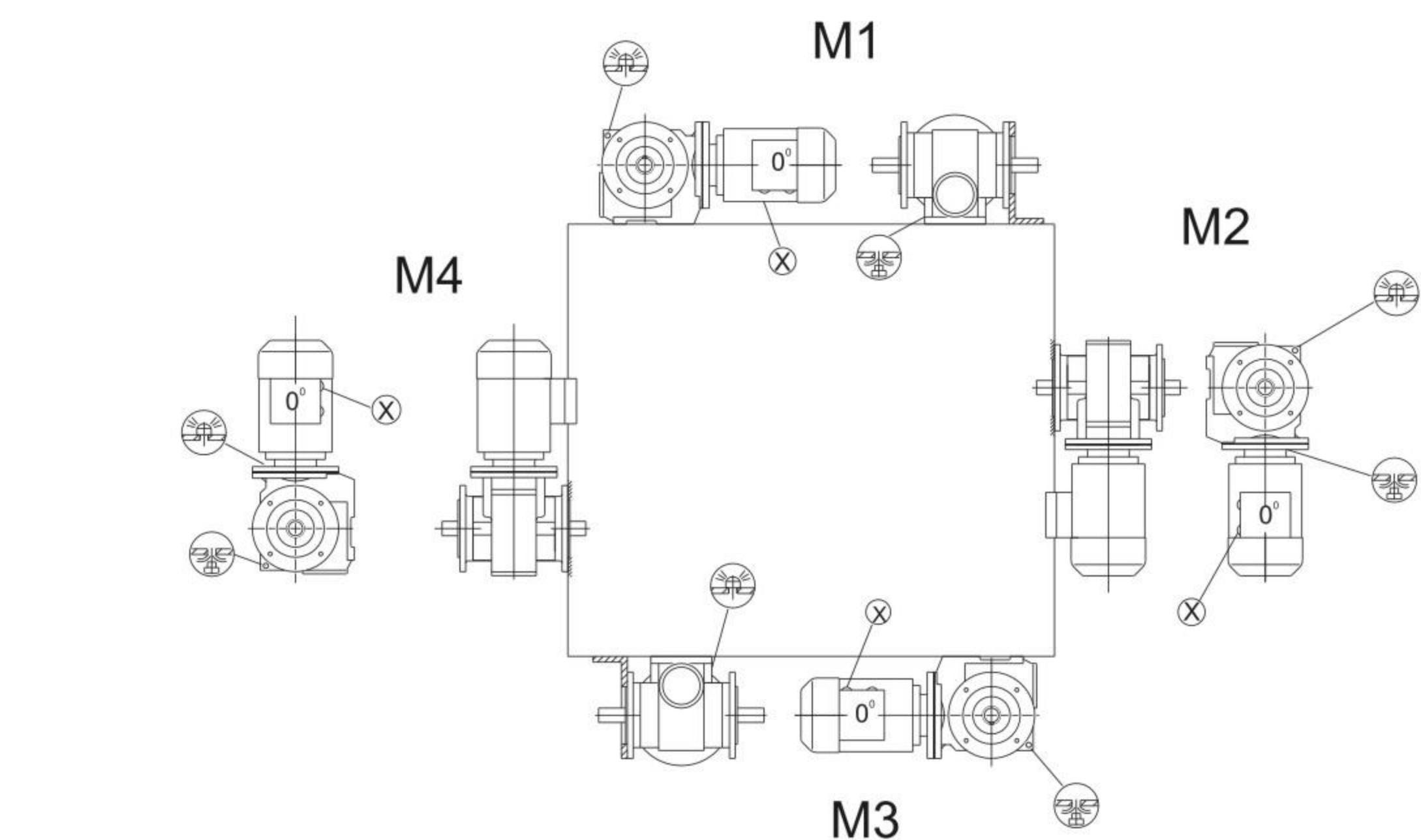
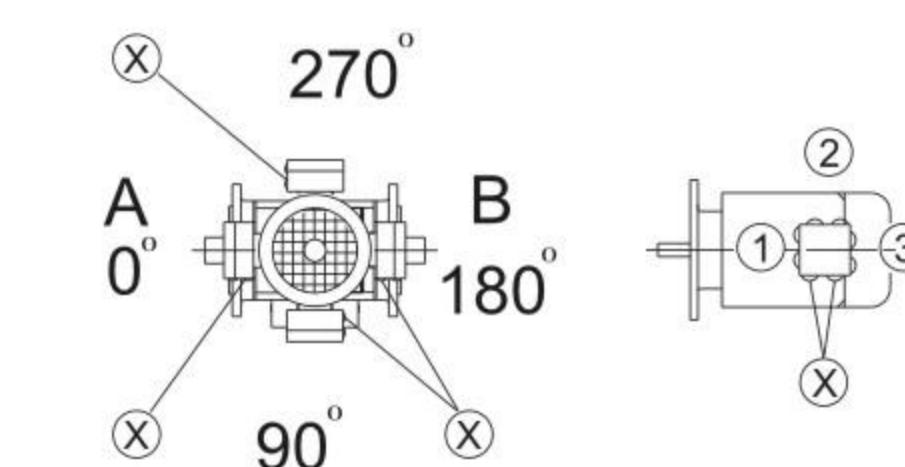


重要:请参见“减速器选型”中“径向和轴向负载”部分(P17)
Important:Please refer to the information in the “Geared Motos” catalog. Optional Planning for Gear units Ouerhung and axial loads part” (P17)

BS47-BS97



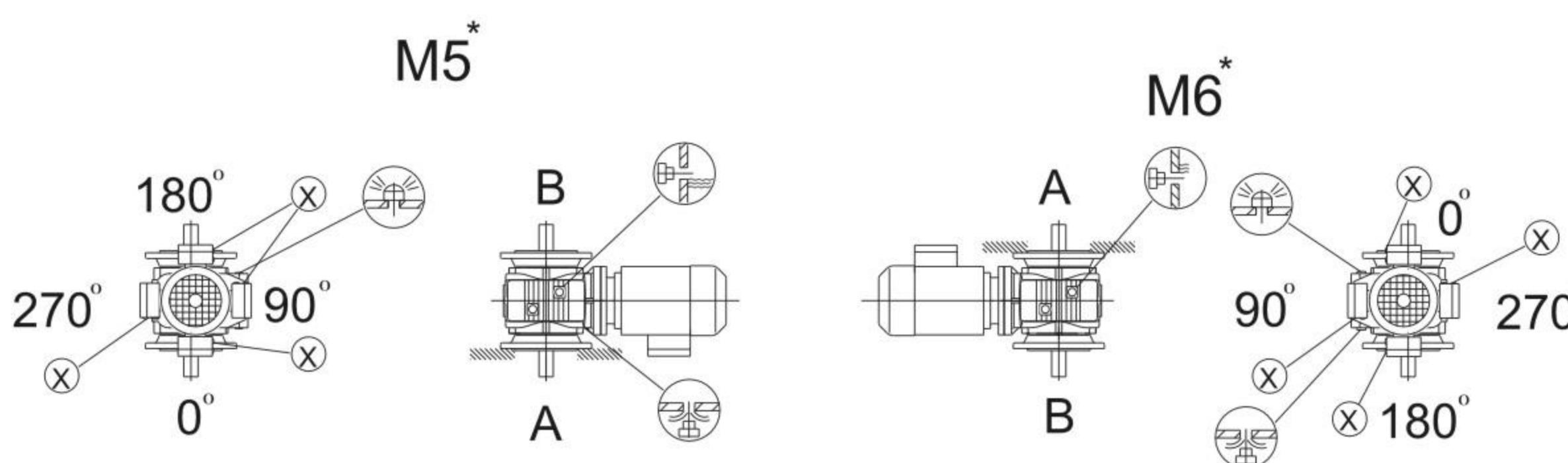
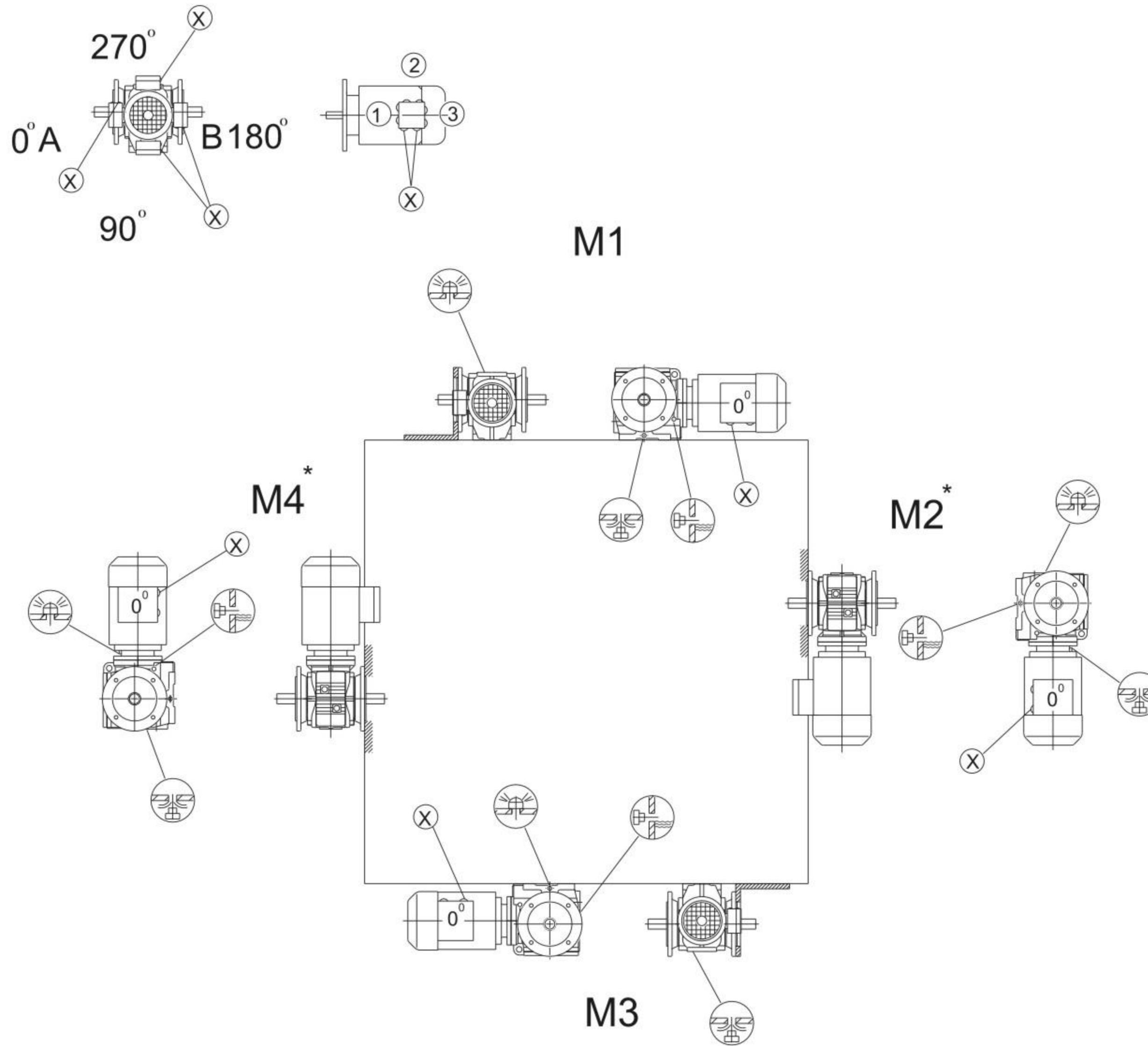
BSF/SAF/SHF37



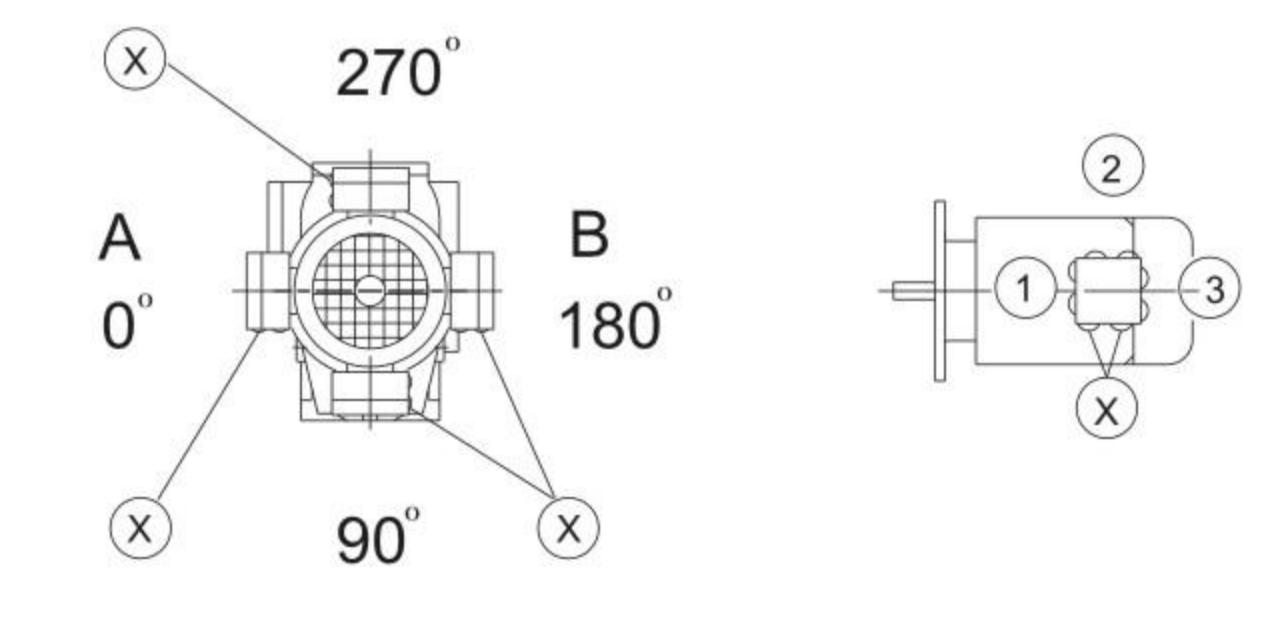
重要:请参见"减速器选型"中"径向和轴向负载"部分(P17)

Important:Please refer to the information in the "Geared Motos" catalog. Optional Planning for Gear units Ouerhung and axial loads part" (P17)

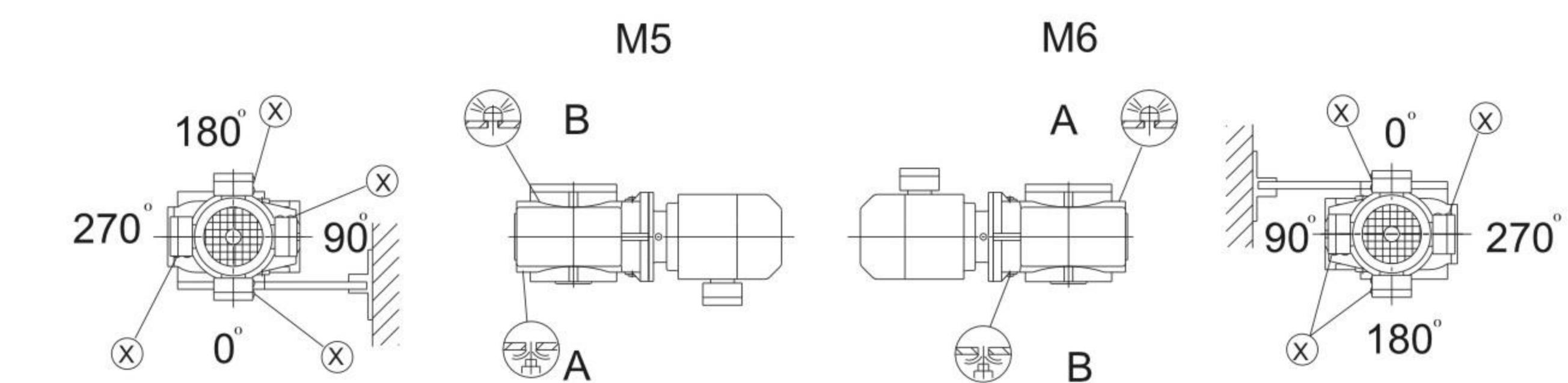
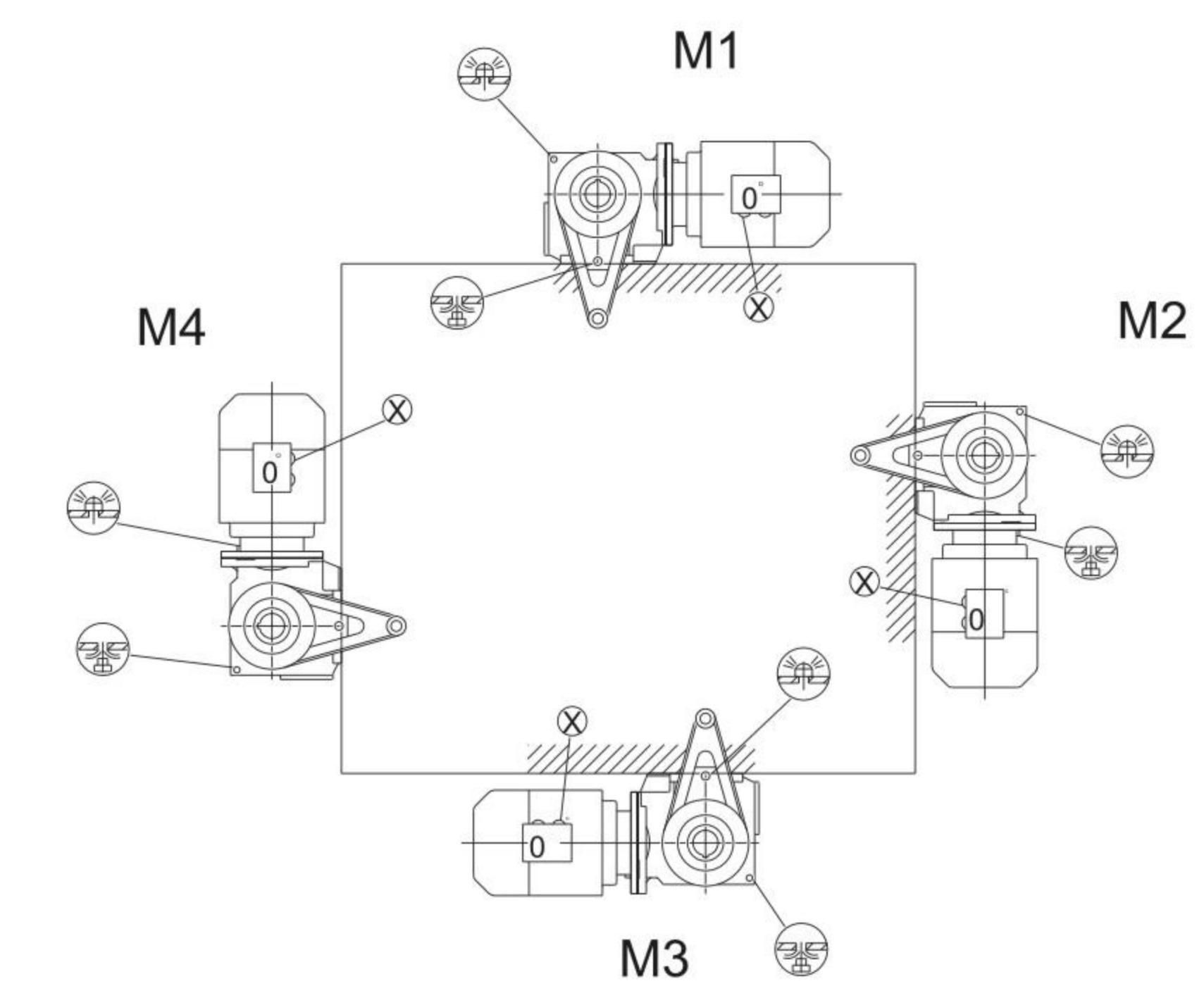
BSF/SAF/SHF/SAZ/SHZ47..-97..



BSA/SH37



BSA/SH37



BR..

BF..

BK..

BS..

H..

B..

BR..

BF..

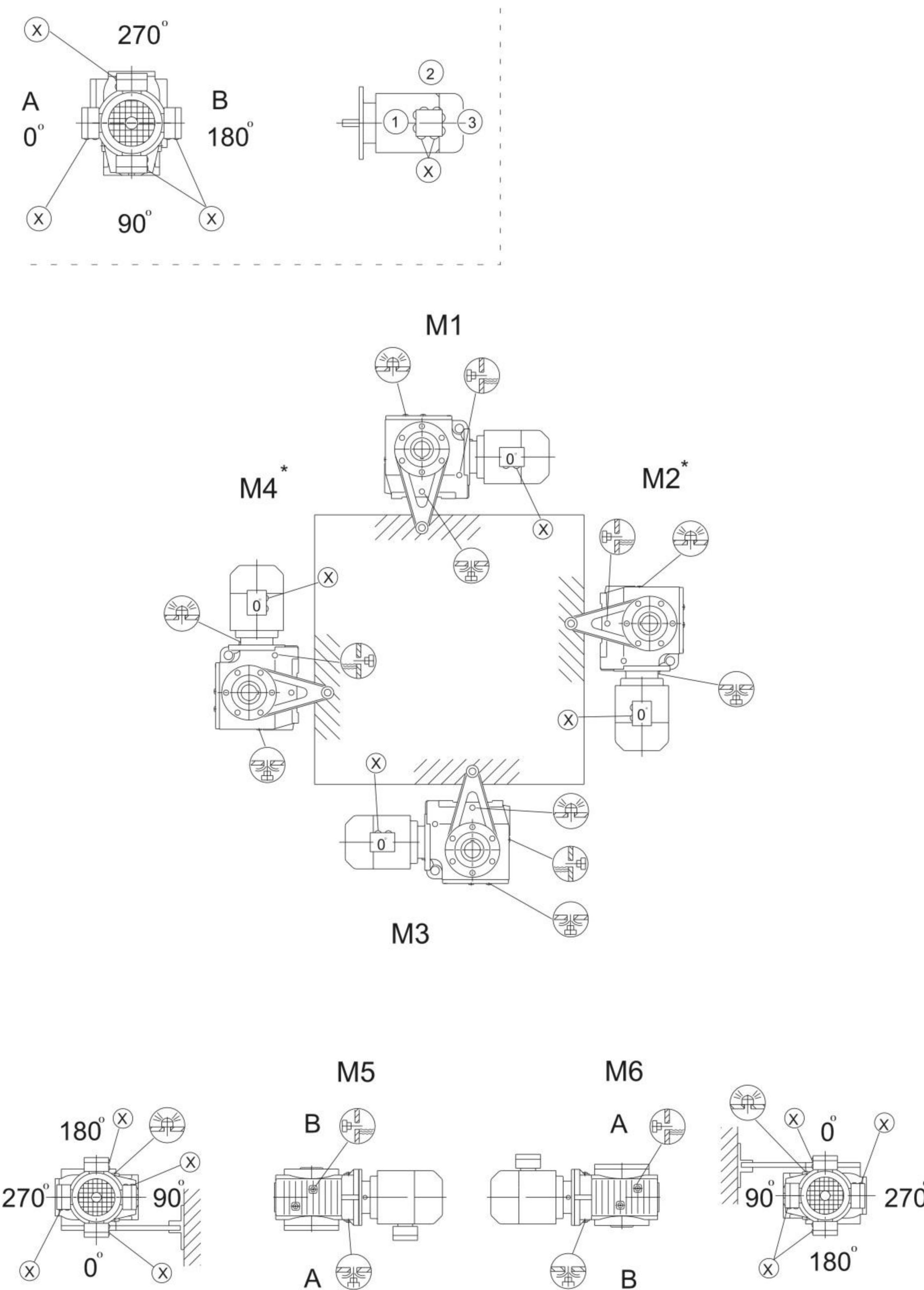
BK..

BS..

H..

B..

BSA/SH47..-97..



范围的分类
Scope of classification

- =DAIFUSI 作为标准部件提供
Standard parts supplied by DAIFUSI
- =DAIFUSI 不作为标准部件提供
Standard parts unsupplied by DAIFUSI

中心高公差
Shaft heights tolerances

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

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

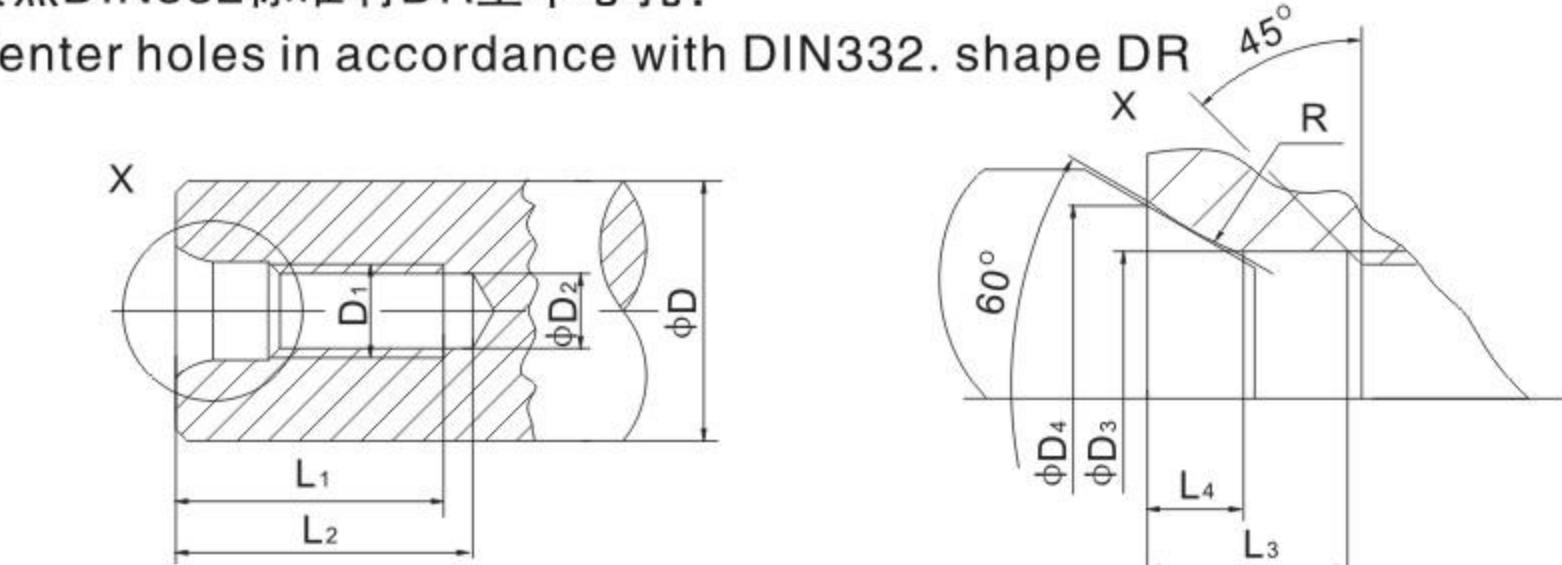
轴公差
Shaft tolerance

直径公差 Diameter tolerance

$\phi \leq 50\text{mm} \rightarrow \text{ISO}k6$
 $\phi > 250 \rightarrow \text{ISO}m6$

按照DIN332标准有DR型中心孔：

Center holes in accordance with DIN332. shape DR



输出轴直径 ϕD Diameter of Output shaft	D_1	D_2	D_3	D_4	R	L_1 $+2$	L_2 min	L_1	L_4 \approx
$\phi D=7-10\text{mm}$	M3	2.5	3.2	5.3	4.0	9.0	12.0	2.6	1.8
$\phi D>10-13\text{mm}$	M4	3.3	4.3	6.7	5.0	10.0	14.0	3.2	2.1
$\phi D>13-16\text{mm}$	M5	4.2	5.3	8.1	6.3	12.5	17.0	4.0	2.4
$\phi D>16-21\text{mm}$	M6	5.0	6.4	9.6	8.0	16.0	21.0	5.0	2.8
$\phi D>21-24\text{mm}$	M8	6.8	8.4	12.2	10.0	19.0	25.0	6.0	3.3
$\phi D>24-30\text{mm}$	M10	8.5	10.5	14.9	16.0	22.0	30.0	7.5	3.8
$\phi D>30-38\text{mm}$	M12	10.2	13.0	18.1	20.0	28.0	37.0	9.5	4.4
$\phi D>38-50\text{mm}$	M16	14.0	17.0	23.0	25.0	36.0	45.0	12.0	5.2
$\phi D>50-85\text{mm}$	M20	17.5	21.0	28.4	31.5	42.0	53.0	15.0	6.4
$\phi D>85-130\text{mm}$	M24	21.0	25.0	34.2	40.0	50.0	63.0	18.0	8.0
$\phi D>130\text{mm}$	M30	26.5	31.0	42.6	50.0	63.0	85.0	20.0	10.0

空心轴
Hollow shaft

键：根据DIN6885确定（圆头平键）
keys: In accordance with DIN6885 (domed type)

直径公差
Diameter tolerance

$\phi \rightarrow \text{ISO}H7$ 塞规测量
ISOH7 measured with plug gauge

花键轴

D_m = 测量棒直径 Measuring roller diameter
Me = 检测尺寸 Inspection size

BR..

BF..

BK..

BS..

H..

B..

法兰 Flange

止口公差 Centering shoulder tolerance

- φ ≤230mm(flange size A 120-A300) →ISOj6
- φ >230mm(flange size A 350-A660) →ISOh6

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

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

起吊螺栓及吊耳 Lifting eyebolts, suspension eye lugs

BR17和BR27减速机,电机机座号小于100的减速电机没有配备专门的运输吊装工具、其它的减速机和电机配有铸造的吊装孔,用螺栓固定在机体上的吊耳或吊环。

BR17...BR27 helical gear units, motors up to DV100 and Spiroplan geared motoes are delivered without special retransport fixtures. Otherwise, the gear units and motors are equipped with cast-on suspension eye lugs, screw-on suspension eye lugs or sceew-on lifting eyebolts.

减速机/电机型号规格 Gear unit/motor type	吊环/吊耳 Screw-on lifting eyebolts /suspension eye lugs	铸造吊装孔 Cast-on suspension eye lugs
BR/RF37-57, BRX/RXF57-67	●	—
≥ BR67	●	—
BF37-157	—	●
BK37-157	—	●
BK167-187	●	—
BS37-47	●	—
BS57-97	—	●
≥ BDV112	●	—

通气阀 Breather valves

减速机尺寸图总是显示为螺塞, 相应的螺塞在出厂前按照其定货要求的安装位置更换为通气阀。这意味着减速机的外形尺寸图稍有不同。
The gear unit dimension drawings are always shown with screw plugs. The corresponding screw plug is replaced by an breather valve at the factory depending on with mounting position M1-M6 is ordered. This means the contour dimensions may be slightly different.

锁紧盘连接 Shrink disk connection

对于锁紧盘连接的空心轴减速机:若需要可向DAIFUSI索要关于锁紧盘的详细数据表。
Hollow shaft gear unit with shrink disk connection :If required, please request a detailed data sheet on shrink disks from DAIFUSI, data sheet no.33 753..95.

花键空心轴 Splined hollow shaft

BFV..和BKV..减速机从37到107可提供按DIN5480制作的花键空心轴。
Hollow shaft gear units BFV.. in sizes 37-107 and BKV.. in sizes 37-107 are supplied with a splined hollow shaft to ISO4762.

BFA/BFH/BFV的橡胶缓冲垫 Rubber buffer for BFA/BFH/BFV

f为在力矩Mamax作用下橡胶缓冲垫被压缩的距离尺寸
f stands for the compressed dimension of Rubber buffer in the Manax torque.

制动电机 Brake motors

配制动电机时,G1B的尺寸代替G1;KB代替K
In brake motors, dimensions G1B apply instead of G1 and KB instead of K

电机附件 Motor accessory

电机的尺寸因不同的电机附件而不同, 请参考电机选择的尺寸图。
The motor dimensions may differ as a result of motor accessory. Please refer to the dimensions of the motor accessory.

特殊应用 Special versions

接线盒的尺寸, 在特殊应用如KS或CSA时与标准形式的尺寸不同。
The dimensions of the terminal box on special versions such as KS or CSA may differ from the standard dimensions.