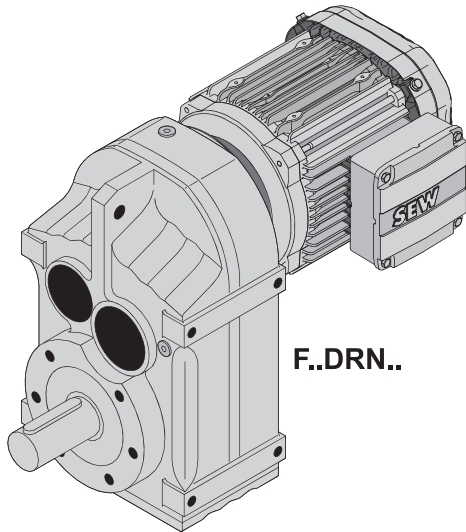
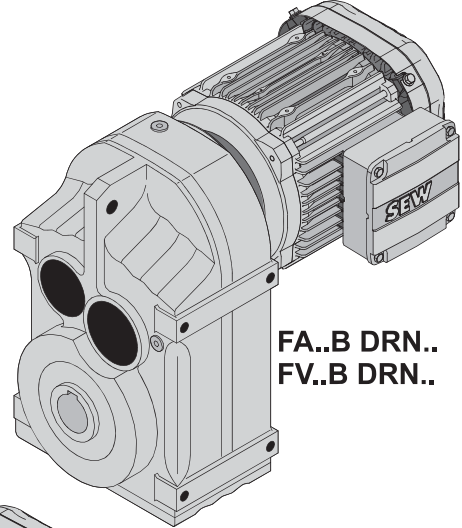


9 Parallel-shaft helical gearmotors

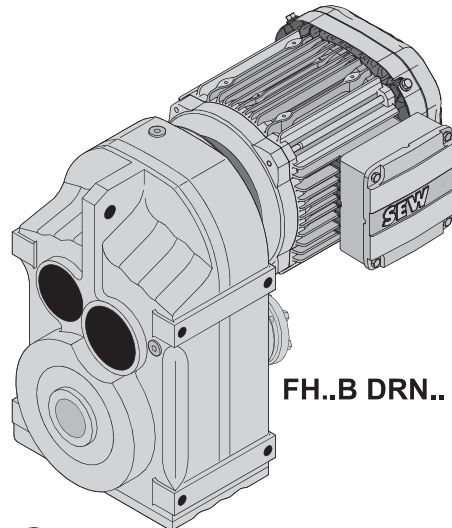
9.1 F..DRN.. designs



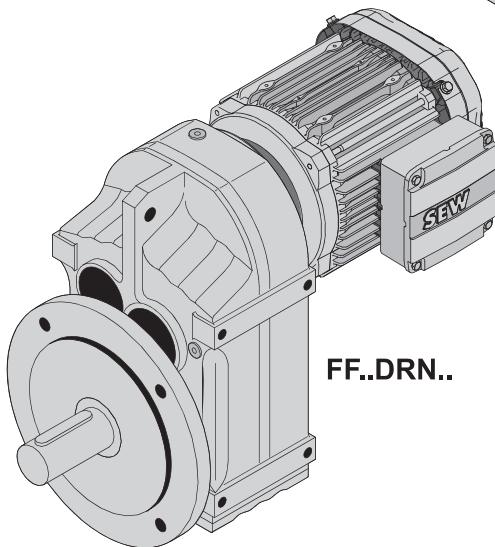
F..DRN..



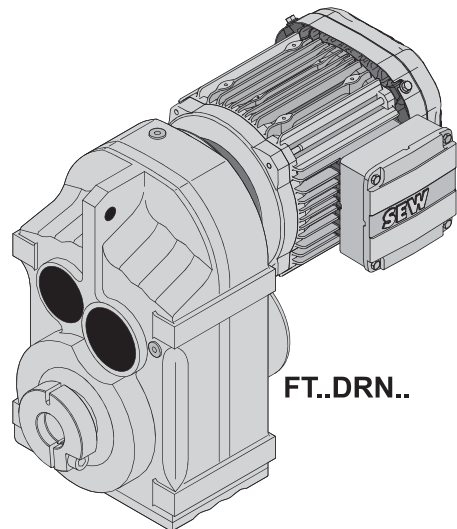
FA..B DRN..  
FV..B DRN..



FH..B DRN..



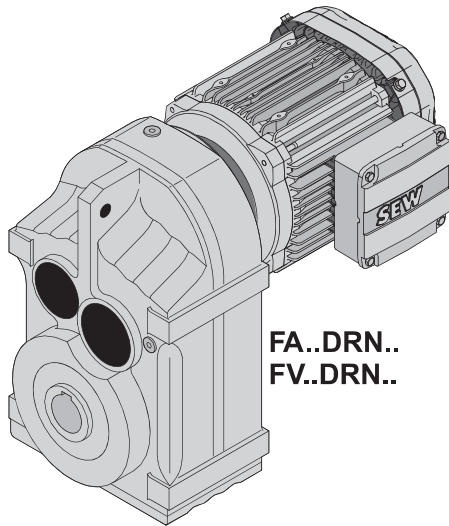
FF..DRN..



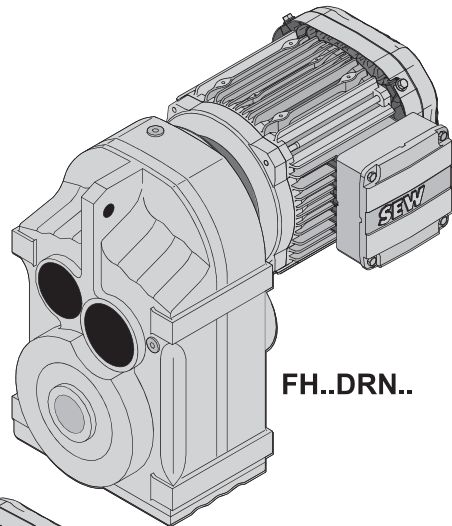
FT..DRN..

9007212722209035

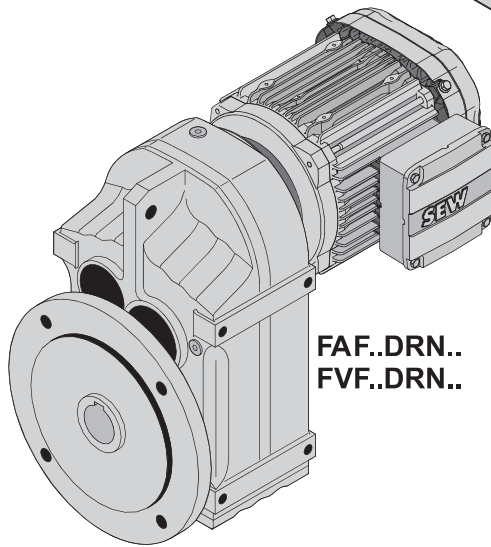
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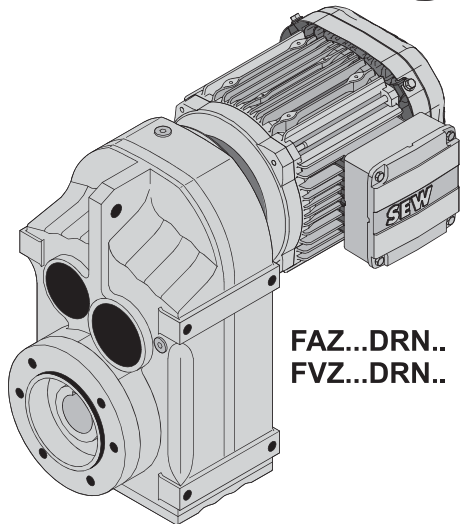
FA..DRN..  
FV..DRN..



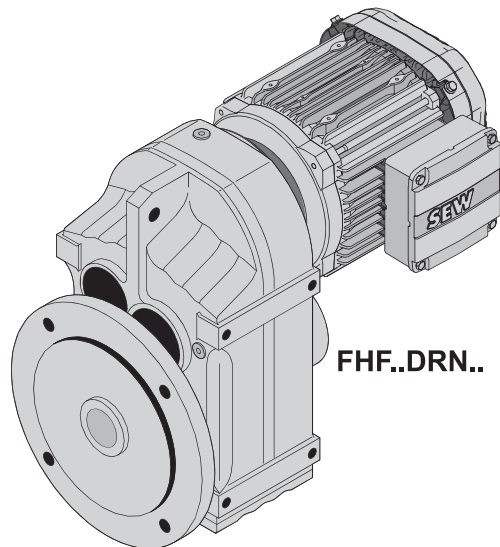
FH..DRN..



FAF..DRN..  
FVF..DRN..



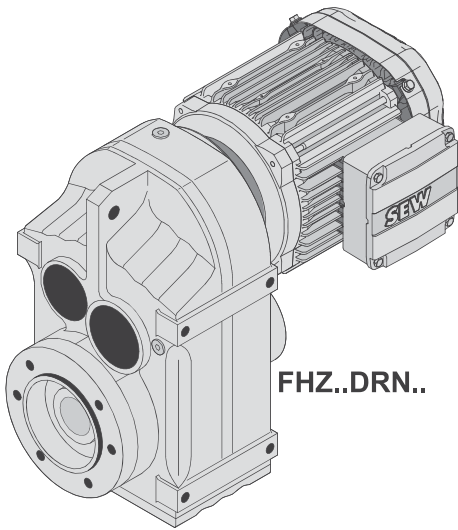
FAZ...DRN..  
FVZ...DRN..



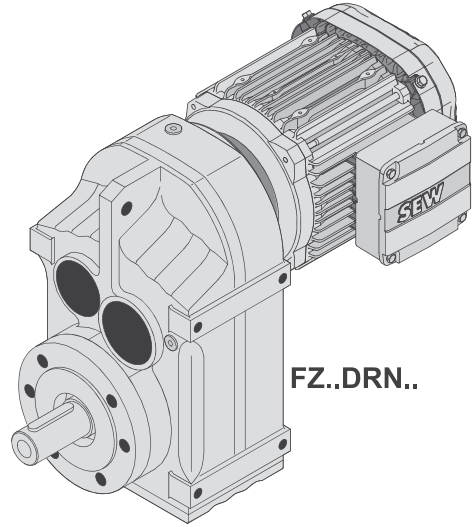
FHF..DRN..

9007212722211595

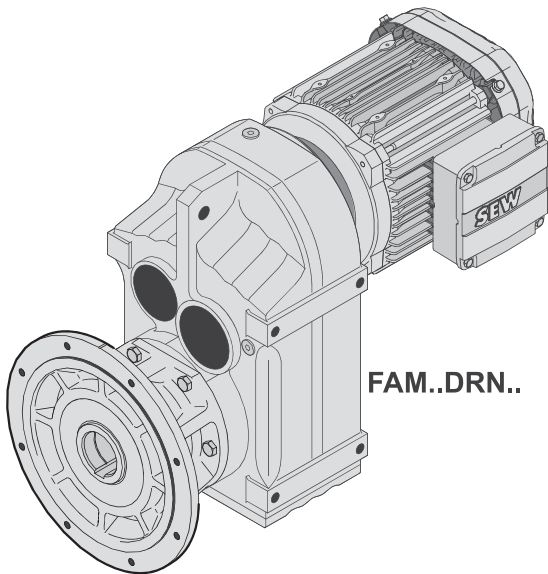
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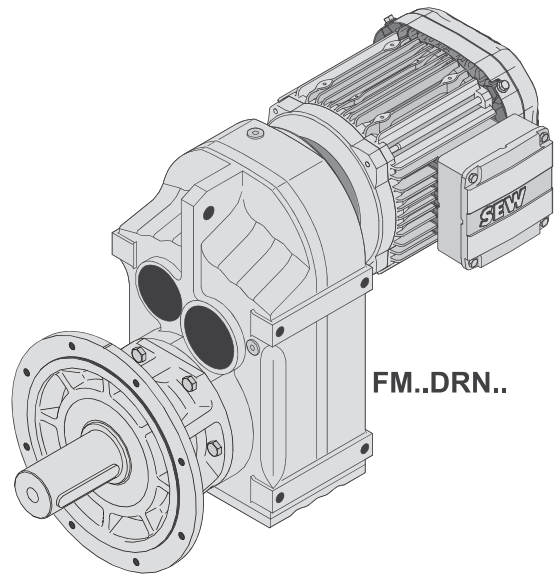
FHZ..DRN..



FZ..DRN..





FAM..DRN..











FM..DRN..

18014411977161867

### 9.2 Possible geometrical combinations of F..DRN..

<b>F27, <math>n_e=1400 \text{ min}^{-1}</math></b>					<b>130 Nm</b>			
$n_a$ $\text{min}^{-1}$	$M_{amax}$ Nm	$F_{Ra}$ N	$\varphi_{(R)}$ '	i	DRN 63MS 63M 71MS 71M 80MK	DRN 80M 90S	DRN 90L	DRN 100LS 100L
 3								
9.9	130	4500	-	140.74				
11	130	4500	-	129.09				
13	130	4500	-	109.90				
15	130	4500	-	94.76				
16	130	4500	-	88.32				
18	130	4500	-	77.21				
19	130	4500	-	72.37				
22	130	4400	-	63.86				
25	130	4180	-	56.62				
28	130	3980	-	50.19				
30	130	3860	-	46.78				
34	130	3640	-	40.89				
37	130	3530	-	38.33				
41	130	3340	-	33.83				
 2								
47	130	3140	-	29.56				
52	130	3030	-	27.18				
60	130	2820	-	23.25				
69	130	2630	-	20.15				
74	130	2550	-	18.84				
86	130	2370	-	16.28				
101	130	2180	-	13.84				
113	130	2060	-	12.35				
133	130	1900	-	10.55				
142	130	1830	-	9.88				
149	130	1660	-	9.40				
172	123	1580	-	8.13				
203	114	1530	-	6.91				
227	109	1480	-	6.17				
266	100	1440	-	5.27				
284	96	1420	-	4.93				
337	87	1380	-	4.16				

<b>F27R17, <math>n_e=1400 \text{ min}^{-1}</math></b>					<b>130 Nm</b>			
$n_a$ $\text{min}^{-1}$	$M_{amax}$ Nm	$F_{Ra}$ N	$\varphi_{(R)}$ '	i	DR2S 56M	DRN 63MS 63M 71MS 71M 80MK	DRN 80M	
 3  3								
0.16	130	4500	-	8972				
0.18	130	4500	-	7736				
0.19	130	4500	-	7211				
0.22	130	4500	-	6303				

F27R17, $n_e=1400 \text{ min}^{-1}$					130 Nm		
$n_a$ $\text{min}^{-1}$	$M_{amax}$ Nm	$F_{Ra}$ N	$\phi_{(R)}$ '	i	DR2S	DRN	DRN
					56M	63MS 63M 71MS 71M 80MK	80M
0.26	130	4500	-	5435			
0.29	130	4500	-	4855			
0.33	130	4500	-	4243			
0.38	130	4500	-	3715			
0.43	130	4500	-	3247			
0.49	130	4500	-	2878			
0.56	130	4500	-	2515			
0.63	130	4500	-	2217			
 2  3							
0.74	130	4500	-	1898			
0.85	130	4500	-	1645			
0.92	130	4500	-	1525			
1.1	130	4500	-	1322			
1.2	130	4500	-	1146			
1.4	130	4500	-	1013			
1.6	130	4500	-	890			
1.8	130	4500	-	778			
2.1	130	4500	-	682			
2.3	130	4500	-	602			
2.7	130	4500	-	520			
 3  2							
0.72	130	4500	-	1948			
0.77	130	4500	-	1826			
0.87	130	4500	-	1610			
1.0	130	4500	-	1399			
1.1	130	4500	-	1230			
1.5	130	4500	-	948			
1.7	130	4500	-	829			
1.9	130	4500	-	731			
2.2	130	4500	-	633			
2.5	130	4500	-	551*			
2.9	130	4500	-	489			
3.3	130	4500	-	427			
3.7	130	4500	-	379			
4.3	130	4500	-	326			
4.9	130	4500	-	288			
5.6	130	4500	-	251			
6.3	130	4500	-	221			
8.1	130	4500	-	172			
9.2	130	4500	-	153			
11	130	4500	-	130			
 2  2							
3.1	130	4500	-	458			
3.5	130	4500	-	397			
4.1	130	4500	-	342			
4.6	130	4500	-	302			
5.3	130	4500	-	266			
5.9	130	4500	-	236			



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## Parallel-shaft helical gearmotors

Possible geometrical combinations of F..DRN..







F27R17, $n_e=1400 \text{ min}^{-1}$					130 Nm		
$n_a$ $\text{min}^{-1}$	$M_{amax}$ Nm	$F_{Ra}$ N	$\phi_{(R)}$ '	i	DR2S	DRN	DRN
					56M	63MS 63M 71MS 71M 80MK	80M
6.6	130	4500	-	211			
7.5	130	4500	-	186			
9.9	130	4500	-	142			
11	130	4500	-	124			
13	130	4500	-	109			
15	130	4500	-	96			

F37, $n_e=1400 \text{ min}^{-1}$					200 Nm			
$n_a$ $\text{min}^{-1}$	$M_{amax}$ Nm	$F_{Ra}$ N	$\phi_{(R)}$ '	i	DRN	DRN	DRN	DRN
					63MS 63M 71MS 71M 80MK	80M 90S	90L	100LS 100L
 3								
11	200	4290	7	128.51				
12	200	4290	7	117.88				
14	200	4290	7	100.36				
16	200	4290	7	86.53				
17	200	4290	7	80.65				
20	200	4290	7	70.50				
21	200	4290	7	66.09				
24	200	4290	7	58.32				
26	200	4290	8	54.54				
27	200	4290	7	51.70				
30	200	4290	8	47.02				
32	200	4290	8	43.83				
37	200	4290	8	38.31				
39	200	4290	8	35.91				
44	200	4290	8	31.69				
50	200	4060	8	28.09				
59	200	3760	8	23.88				
 2								
59	200	3740	7	23.63				
68	200	3500	7	20.57				
73	200	3390	7	19.27				
82	200	3180	7	17.03				
89	200	3070	7	15.81				
98	200	2910	7	14.33				
109	200	2750	7	12.87				
126	190	2620	7	11.08				
134	185	2580	7	10.42				
156	175	2460	7	8.97				
175	170	2360	8	8.01				
188	145	2350	10	7.44				
208	140	2270	10	6.74				
231	135	2190	11	6.05				
269	125	2120	11	5.21				
286	120	2100	11	4.90				

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F37, $n_e=1400 \text{ min}^{-1}$					200 Nm			
$n_a$ $\text{min}^{-1}$	$M_{amax}$ Nm	$F_{Ra}$ N	$\varphi_{(R)}$ '	i	DRN 63MS 63M 71MS 71M 80MK	DRN 80M 90S	DRN 90L	DRN 100LS 100L
332	110	2030	11	4.22				
371	105	1970	12	3.77				



F37R17, $n_e=1400 \text{ min}^{-1}$					200 Nm			
$n_a$ $\text{min}^{-1}$	$M_{amax}$ Nm	$F_{Ra}$ N	$\varphi_{(R)}$ '	i	DR2S 56M	DRN 63MS 63M 71MS 71M 80MK	DRN 80M	


 3  3								
0.17	200	4290	-	8193				
0.20	200	4290	-	7064				
0.21	200	4290	-	6585				
0.24	200	4290	-	5756				
0.28	200	4290	-	4963				
0.32	200	4290	-	4434				
0.36	200	4290	-	3875				
0.41	200	4290	-	3392				
0.47	200	4290	-	2965				
0.54	200	4290	-	2587				
0.61	200	4290	-	2284				
0.70	200	4290	-	1997				
0.80	200	4290	-	1742				
0.91	200	4290	-	1545				
 2  3								
0.73	200	4290	-	1929				
0.83	200	4290	-	1679				
0.90	200	4290	-	1550				
1.0	200	4290	-	1356				
1.2	200	4290	-	1180				
1.3	200	4290	-	1044				
1.5	200	4290	-	914				
1.7	200	4290	-	808				
2.0	200	4290	-	698				
2.3	200	4290	-	616				
2.6	200	4290	-	544				
3.0	200	4290	-	466				
3.4	200	4290	-	411				
3.8	200	4290	-	364				
 3  2								
1.0	200	4290	-	1370				
1.2	200	4290	-	1198				
1.3	200	4290	-	1047				
1.5	200	4290	-	915				
1.7	200	4290	-	807				
2.0	200	4290	-	707				
2.3	200	4290	-	617				
2.6	200	4290	-	538				

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## Parallel-shaft helical gearmotors


Possible geometrical combinations of F..DRN..





F37R17, $n_e=1400 \text{ min}^{-1}$					200 Nm		
$n_a$ $\text{min}^{-1}$	$M_{amax}$ Nm	$F_{Ra}$ N	$\phi_{(R)}$ '	i	DR2S	DRN	DRN
					56M	63MS 63M 71MS 71M 80MK	80M
2.9	200	4290	-	477			
3.4	200	4290	-	412			
3.8	200	4290	-	365			
4.3	200	4290	-	322			
5.0	200	4290	-	278			
5.8	200	4290	-	242			
6.3	200	4290	-	221			
7.2	200	4290	-	195			
8.3	200	4290	-	168			
9.5	200	4290	-	147			
11	200	4290	-	127			
12	200	4290	-	121			
13	200	4290	-	108			
15	200	4290	-	91			
 2  2							
4.3	200	4290	-	326			
4.9	200	4290	-	285			
5.6	200	4290	-	250			
6.4	200	4290	-	219			
7.5	200	4290	-	186			
8.4	200	4290	-	167			
9.7	200	4290	-	145			
11	200	4290	-	129			
12	200	4290	-	118			
14	200	4290	-	98			
16	200	4290	-	87			

F47, $n_e=1400 \text{ min}^{-1}$					400 Nm			
$n_a$ $\text{min}^{-1}$	$M_{amax}$ Nm	$F_{Ra}$ N	$\phi_{(R)}$ '	i	DRN	DRN	DRN	DRN
					63MS 63M 71MS 71M 80MK	80M 90S	90L	100LS 100L
 3								
7.3	400	5920	7	190.76				
8.0	400	5920	7	175.38				
9.3	400	5920	7	150.06				
11	400	5920	7	130.07				
12	400	5920	7	121.57				
13	400	5920	7	105.09				
16	400	5920	7	89.29				
18	400	5920	7	79.72				
21	400	5920	7	68.09				
21	400	5920	7	65.36				
25	400	5920	7	56.49				
29	400	5920	7	48.00*				
33	400	5920	7	42.86				
38	400	5920	7	36.61				

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F47, $n_e=1400 \text{ min}^{-1}$					400 Nm			
$n_a$ $\text{min}^{-1}$	$M_{amax}$ Nm	$F_{Ra}$ N	$\varphi_{(R)}$ '	i	DRN 63MS 63M 71MS 71M 80MK	DRN 80M 90S	DRN 90L	DRN 100LS 100L
41	400	5920	7	34.29				
48	400	5790	7	28.88				
 2								
45	400	5920	6	30.86				
48	400	5830	6	29.32				
54	400	5460	6	25.72				
64	400	5030	6	21.82				
71	400	4770	6	19.70				
81	400	4450	6	17.33				
86	400	4320	6	16.36				
101	400	3950	7	13.93				
111	400	3740	7	12.66				
128	400	3440	7	10.97				
156	330	3250	8	8.96				
178	380	2630	9	7.88				
188	380	2530	9	7.44*				
221	350	2470	9	6.34				
243	340	2390	9	5.76				
281	320	2310	10	4.99				





F47R17, $n_e=1400 \text{ min}^{-1}$					400 Nm			
$n_a$ $\text{min}^{-1}$	$M_{amax}$ Nm	$F_{Ra}$ N	$\varphi_{(R)}$ '	i	DR2S 56M	DRN 63MS 63M 71MS 71M 80MK	DRN 80M	
 3  3								
0.11	400	5920	-	12251				
0.13	400	5920	-	10619				
0.14	400	5920	-	9846				
0.16	400	5920	-	8534				
0.19	400	5920	-	7460				
0.21	400	5920	-	6536				
0.24	400	5920	-	5746				
0.28	400	5920	-	5022				
0.32	400	5920	-	4401				
0.36	400	5920	-	3883				
0.41	400	5920	-	3443				
0.47	400	5920	-	2976				
0.53	400	5920	-	2629				
0.61	400	5920	-	2304				
0.69	400	5920	-	2033				
 2  3								
0.56	400	5920	-	2519				
0.58	400	5920	-	2394				
0.64	400	5920	-	2172				
0.69	400	5920	-	2025				
0.79	400	5920	-	1770				

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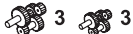

## Parallel-shaft helical gearmotors

Possible geometrical combinations of F..DRN..

F47R17, $n_e=1400 \text{ min}^{-1}$					400 Nm		
$n_a$ $\text{min}^{-1}$	$M_{amax}$ Nm	$F_{Ra}$ N	$\phi_{(R)}$ '	$i$	DR2S	DRN	DRN
					56M	63MS 63M 71MS 71M 80MK	80M
0.89	400	5920	-	1576			
1.0	400	5920	-	1363			
1.2	400	5920	-	1192			
1.3	400	5920	-	1061			
1.5	400	5920	-	931			
1.7	400	5920	-	822			
2.0	400	5920	-	706			
2.3	400	5920	-	619			
 3  2							
0.78	400	5920	-	1785			
0.89	400	5920	-	1578			
1.0	400	5920	-	1364			
1.2	400	5920	-	1203			
1.3	400	5920	-	1049			
1.5	400	5920	-	918			
1.7	400	5920	-	809			
2.0	400	5920	-	700			
2.3	400	5920	-	622			
2.6	400	5920	-	543			
2.9	400	5920	-	475			
3.3	400	5920	-	419			
3.8	400	5920	-	370			
4.3	400	5920	-	324			
4.9	400	5920	-	288			
5.6	400	5920	-	249			
6.4	400	5920	-	218			
7.3	400	5920	-	193			
8.0	400	5920	-	175			
9.5	400	5920	-	147			
11	400	5920	-	130			
 2  2							
2.7	400	5920	-	524			
2.9	400	5920	-	489			
3.3	400	5920	-	427			
3.7	400	5920	-	381			
4.2	400	5920	-	334			
4.7	400	5920	-	295			
5.5	400	5920	-	253			
6.5	400	5920	-	217			
7.4	400	5920	-	190			
7.9	400	5920	-	178			
9.4	400	5920	-	149			
11	400	5920	-	131			

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F57, $n_e=1400 \text{ min}^{-1}$					600 Nm					
$n_a$ $\text{min}^{-1}$	$M_{amax}$ Nm	$F_{Ra}$ N	$\varphi_{(R)}$ '	i	DRN 63MS 63M 71MS 71M 80MK	DRN 80M 90S	DRN 90L	DRN 100LS 100L	DRN 112M	DRN 132S 132M
 3										
7.0	600	9200	6	199.70						
7.6	600	9200	7	183.60						
8.9	600	9200	7	157.09						
10	600	9200	7	136.16						
11	600	9200	7	127.27						
13	600	9200	7	110.01						
15	600	9200	7	93.47						
17	600	9200	7	83.46						
19	600	9200	7	72.98						
21	600	9200	7	68.22						
24	600	9200	7	58.97						
28	600	9200	7	50.10						
31	600	9160	7	44.73						
37	600	8510	7	38.21						
39	600	8250	7	35.79						
46	590	7650	7	30.15						
 2										
35	290	10500	6	40.13						
41	500	8670	6	34.24						
47	545	7890	6	29.94						
49	535	7760	6	28.45						
56	575	7060	6	24.96						
66	600	6350	6	21.17						
73	600	6020	6	19.11						
83	600	5620	6	16.81						
88	600	5450	6	15.88						
104	600	4980	7	13.52						
114	600	4710	7	12.29						
132	600	4320	7	10.64						
150	420	4760	8	9.31						
171	420	4450	8	8.19						
181	420	4310	8	7.73						
213	420	3940	8	6.58						
234	420	3730	9	5.98						
270	415	3460	9	5.18						





F57R37, $n_e=1400 \text{ min}^{-1}$					600 Nm			
$n_a$ $\text{min}^{-1}$	$M_{amax}$ Nm	$F_{Ra}$ N	$\varphi_{(R)}$ '	i	DRN 63MS 63M 71MS 71M 80MK	DRN 80M 90S	DRN 90L	DRN 100LS 100L
 3  3								
0.09	600	9200	-	14832				
0.10	600	9200	-	13604				
0.11	600	9200	-	12602				
0.12	600	9200	-	11252				

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## Parallel-shaft helical gearmotors

Possible geometrical combinations of F..DRN..

F57R37, $n_e=1400 \text{ min}^{-1}$					600 Nm			
$n_a$ $\text{min}^{-1}$	$M_{amax}$ Nm	$F_{Ra}$ N	$\phi_{(R)}$ '	i	DRN	DRN	DRN	DRN
					63MS 63M 71MS 71M 80MK	80M 90S	90L	100LS 100L
0.14	600	9200	-	9986				
0.16	600	9200	-	8787				
0.18	600	9200	-	7908				
0.20	600	9200	-	6913				
0.23	600	9200	-	6030				
0.26	600	9200	-	5289				
0.30	600	9200	-	4654				
0.34	600	9200	-	4060				
0.39	600	9200	-	3564				
0.44	600	9200	-	3161				
0.51	600	9200	-	2737				
0.58	600	9200	-	2409				
0.66	600	9200	-	2131				
0.76	600	9200	-	1840				
0.86	600	9200	-	1623				
0.97	600	9200	-	1439				
1.1	600	9200	-	1238				
 2  3								
0.49	600	9200	-	2854				
0.54	600	9200	-	2576				
0.62	600	9200	-	2266				
0.70	600	9200	-	2012				
0.78	600	9200	-	1791				
0.87	600	9200	-	1617				
0.98	600	9200	-	1422				
1.1	600	9200	-	1243				
1.3	600	9200	-	1066				
1.5	600	9200	-	949				
1.6	600	9200	-	856				
1.9	600	9200	-	749				
2.1	600	9200	-	658				
2.6	600	9200	-	549				
2.9	600	9200	-	483				
 3  2								
1.3	600	9200	-	1106				
1.4	600	9200	-	967				
1.6	600	9200	-	851				
1.9	600	9200	-	738				
2.2	600	9200	-	646				
2.5	600	9200	-	558				
2.8	600	9200	-	506				
3.1	600	9200	-	452				
3.6	600	9200	-	386				
4.1	600	9200	-	338				
5.5	600	9200	-	255				
7.0	600	9200	-	201				
7.7	600	9200	-	181				
9.0	600	9200	-	155				

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F57R37, $n_e=1400 \text{ min}^{-1}$					600 Nm			
$n_a$ $\text{min}^{-1}$	$M_{amax}$ Nm	$F_{Ra}$ N	$\Phi_{(R)}$ '	i	DRN	DRN	DRN	DRN
					63MS 63M 71MS 71M 80MK	80M 90S	90L	100LS 100L
 2  2								
3.3	600	9200	-	426				
3.7	600	9200	-	382				
4.2	600	9200	-	330				
4.7	600	9200	-	298				
5.3	600	9200	-	262				
6.2	600	9200	-	226				
7.0	600	9200	-	200				
8.2	600	9200	-	170				
9.2	600	9200	-	152				
10	600	9200	-	134				

F67, $n_e=1400 \text{ min}^{-1}$					820 Nm					
$n_a$ $\text{min}^{-1}$	$M_{amax}$ Nm	$F_{Ra}$ N	$\Phi_{(R)}$ '	i	DRN	DRN	DRN	DRN	DRN	DRN
					63MS 63M 71MS 71M 80MK	80M 90S	90L	100LS 100L	112M	132S 132M
 3										
6.1	820	10300	6	228.99						
7.2	820	10300	6	195.39						
8.2	820	10300	6	170.85						
8.6	820	10300	6	162.31						
9.8	820	10300	6	142.40						
12	820	10300	6	120.79						
13	820	10300	6	109.04						
15	820	10300	6	95.94						
15	820	10300	6	90.59						
18	820	10300	7	79.76						
21	820	10300	7	67.65						
23	820	10300	7	61.07						
26	820	10300	7	53.73						
28	820	10300	7	50.74						
32	820	10300	7	43.20						
36	780	10700	7	39.26						
41	740	11000	7	34.01						
 2										
39	820	10300	6	36.30						
44	820	10300	6	32.08						
51	820	10300	6	27.41						
56	820	10300	6	25.13						
63	820	10300	6	22.05						
67	820	10300	6	20.90*						
77	820	10300	6	18.29						
85	820	10300	6	16.48						
97	820	10300	6	14.46						
110	820	10300	6	12.76						
124	820	10300	6	11.31						





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## Parallel-shaft helical gearmotors


Possible geometrical combinations of F..DRN..

F67, $n_e=1400 \text{ min}^{-1}$					820 Nm					
$n_a$ $\text{min}^{-1}$	$M_{amax}$ Nm	$F_{Ra}$ N	$\Phi_{(R)}$ °	i	DRN 63MS 63M 71MS 71M 80MK	DRN 80M 90S	DRN 90L	DRN 100LS 100L	DRN 112M	DRN 132S 132M
145	820	10300	7	9.66						
154	530	11400	8	9.08						
163	570	10900	9	8.60						
186	610	10100	9	7.53						
206	620	9660	9	6.78						
235	610	9200	9	5.95						
267	590	8850	9	5.25						
300	560	8590	10	4.66						
353	500	8390	10	3.97						

F67R37, $n_e=1400 \text{ min}^{-1}$					820 Nm			
$n_a$ $\text{min}^{-1}$	$M_{amax}$ Nm	$F_{Ra}$ N	$\Phi_{(R)}$ °	i	DRN 63MS 63M 71MS 71M 80MK	DRN 80M 90S	DRN 90L	DRN 100LS 100L
					 3  3			
0.07	820	10300	-	19199				
0.08	820	10300	-	17610				
0.09	820	10300	-	14992				
0.11	820	10300	-	12926				
0.12	820	10300	-	11480				
0.14	820	10300	-	10220				
0.16	820	10300	-	8933				
0.18	820	10300	-	7940				
0.20	820	10300	-	7096				
0.23	820	10300	-	6080				
0.26	820	10300	-	5341				
0.30	820	10300	-	4690				
0.34	820	10300	-	4091				
0.39	820	10300	-	3574				
0.45	820	10300	-	3133				
0.51	820	10300	-	2756				
0.57	820	10300	-	2439				
					 2  3			
0.41	820	10300	-	3377				
0.48	820	10300	-	2912				
0.52	820	10300	-	2714				
0.59	820	10300	-	2372				
0.66	820	10300	-	2126				
0.75	820	10300	-	1859				
0.86	820	10300	-	1631				
0.97	820	10300	-	1437				
1.1	820	10300	-	1256				
1.2	820	10300	-	1126				
1.4	820	10300	-	984				
1.6	820	10300	-	864				
1.9	820	10300	-	722				

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F67R37, $n_e=1400 \text{ min}^{-1}$					820 Nm			
$n_a$ $\text{min}^{-1}$	$M_{amax}$ Nm	$F_{Ra}$ N	$\varphi_{(R)}$ '	i	DRN	DRN	DRN	DRN
					63MS 63M 71MS 71M 80MK	80M 90S	90L	100LS 100L
2.2	820	10300	-	634				
2.6	820	10300	-	539				
 3  2								
0.66	820	10300	-	2106				
0.74	820	10300	-	1884				
0.86	820	10300	-	1635				
0.98	820	10300	-	1429				
1.1	820	10300	-	1271				
1.3	820	10300	-	1102				
1.4	820	10300	-	970				
1.6	820	10300	-	858				
1.9	820	10300	-	755				
2.2	820	10300	-	641				
2.4	820	10300	-	572				
2.8	820	10300	-	509				
3.2	820	10300	-	437				
3.6	820	10300	-	384				
4.1	820	10300	-	338				
4.6	820	10300	-	305				
5.4	820	10300	-	257				
6.1	820	10300	-	231				
6.8	820	10300	-	205				
8.0	820	10300	-	175				
 2  2								
2.8	820	10300	-	500				
3.1	820	10300	-	454				
3.6	820	10300	-	392				
4.2	820	10300	-	333				
4.7	820	10300	-	297				
5.4	820	10300	-	261				
5.9	820	10300	-	238				
7.0	820	10300	-	200				
8.0	820	10300	-	176				

F77, $n_e=1400 \text{ min}^{-1}$					1500 Nm							
$n_a$ $\text{min}^{-1}$	$M_{amax}$ Nm	$F_{Ra}$ N	$\varphi_{(R)}$ '	i	DRN	DRN	DRN	DRN	DRN	DRN	DRN	DRN
					63MS 63M 71MS 71M 80MK	80M 90S	90L	100LS 100L	112M	132S 132M	132L 160M 160L	
 3												
5.0	1500	15700	6	281.71								
5.3	1500	15700	6	262.93								
6.2	1500	15700	6	225.79								
7.1	1500	15700	6	198.31								
7.4	1500	15700	6	188.40								
8.4	1500	15700	6	166.47								
9.8	1500	15700	6	142.27								

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## Parallel-shaft helical gearmotors

Possible geometrical combinations of F..DRN..

F77, $n_e=1400 \text{ min}^{-1}$					1500 Nm						
$n_a$ $\text{min}^{-1}$	$M_{amax}$ Nm	$F_{Ra}$ N	$\varphi_{(R)}$ '	i	DRN	DRN	DRN	DRN	DRN	DRN	DRN
					63MS 63M 71MS 71M 80MK	80M 90S	90L	100LS 100L	112M	132S 132M	132L 160M 160L
11	1500	15700	6	130.42							
12	1500	15700	6	114.45							
13	1500	15700	6	108.46*							
15	1500	15700	6	94.93							
16	1500	15700	6	85.52							
19	1500	15700	6	75.02							
19	1500	15700	6	72.50							
21	1500	15700	6	66.46							
24	1500	15700	6	58.32							
25	1500	15700	6	55.27							
29	1500	15700	6	48.37							
32	1500	15700	7	43.58							
37	1500	15700	6	38.23							
41	1500	15700	7	33.74							
47	1500	15700	7	29.91							
55	1450	16100	7	25.54							



38	1110	17900	5	36.58							
44	1380	16500	5	31.51							
49	1430	16200	5	28.75							
55	1500	15700	5	25.50*							
65	1500	15700	5	21.43							
71	1500	15700	6	19.70							
80	1500	15700	6	17.49							
90	1500	15700	6	15.64*							
100	1500	15700	6	14.06							
115	1500	14900	6	12.20							
128	1500	14200	6	10.93							
151	1080	13800	8	9.30							
169	1080	13100	8	8.26							
189	1080	12500	8	7.39							
211	1080	12000	8	6.64							
243	1080	11300	8	5.76							
271	1080	10700	8	5.16							
327	1010	10200	9	4.28							

F77R37, $n_e=1400 \text{ min}^{-1}$					1500 Nm			
$n_a$ $\text{min}^{-1}$	$M_{amax}$ Nm	$F_{Ra}$ N	$\varphi_{(R)}$ '	i	DRN	DRN	DRN	DRN
					63MS 63M 71MS 71M 80MK	80M 90S	90L	100LS 100L
0.07	1500	15700	-	19180				
0.08	1500	15700	-	17593				
0.09	1500	15700	-	16128				
0.09	1500	15700	-	14978				
0.10	1500	15700	-	13731				







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F77R37, $n_e=1400 \text{ min}^{-1}$					1500 Nm			
$n_a$ $\text{min}^{-1}$	$M_{amax}$ Nm	$F_{Ra}$ N	$\phi_{(R)}$ '	i	DRN	DRN	DRN	DRN
					63MS 63M 71MS 71M 80MK	80M 90S	90L	100LS 100L
0.12	1500	15700	-	12049				
0.13	1500	15700	-	11035				
0.14	1500	15700	-	9683				
0.17	1500	15700	-	8464				
0.19	1500	15700	-	7520				
0.21	1500	15700	-	6580				
0.24	1500	15700	-	5808				
0.28	1500	15700	-	5026				
0.32	1500	15700	-	4435				
0.37	1500	15700	-	3832				
0.41	1500	15700	-	3381				
0.47	1500	15700	-	2978				
0.54	1500	15700	-	2613				
0.61	1500	15700	-	2284				
0.69	1500	15700	-	2029				
 2  3								
0.28	1110	17900	-	4931				
0.31	1110	17900	-	4523				
0.36	1110	17900	-	3851				
0.42	1110	17900	-	3320				
0.45	1110	17900	-	3095				
0.52	1110	17900	-	2705				
0.55	1110	17900	-	2536				
0.63	1110	17900	-	2238				
0.69	1110	17900	-	2039				
0.80	1110	17900	-	1759				
0.85	1110	17900	-	1639				
0.98	1110	17900	-	1433				
1.0	1110	17900	-	1343				
1.2	1110	17900	-	1185				
1.3	1110	17900	-	1051				
1.6	1110	17900	-	893				
 3  2								
0.81	1500	15700	-	1728				
0.91	1500	15700	-	1544				
1.0	1500	15700	-	1354				
1.2	1500	15700	-	1200				
1.3	1500	15700	-	1053				
1.5	1500	15700	-	910				
1.7	1500	15700	-	810				
2.0	1500	15700	-	710				
2.3	1500	15700	-	615*				
2.6	1500	15700	-	538				
2.9	1500	15700	-	480				
3.4	1500	15700	-	413				
3.8	1500	15700	-	367				
4.3	1500	15700	-	323				
5.0	1500	15700	-	280				

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F77R37, $n_e=1400 \text{ min}^{-1}$					1500 Nm			
$n_a$ $\text{min}^{-1}$	$M_{amax}$ Nm	$F_{Ra}$ N	$\Phi_{(R)}$ '	i	DRN		DRN	
					63MS 63M 71MS 71M 80MK	80M 90S	90L	100LS 100L
5.7	1500	15700	-	247				
6.3	1500	15700	-	221				
7.0	1500	15700	-	199				
 2  2								
1.7	1110	17900	-	815				
2.0	1110	17900	-	706				
2.1	1110	17900	-	660				
2.5	1110	17900	-	571				
2.9	1110	17900	-	485				
3.2	1110	17900	-	433				
3.8	1110	17900	-	370				
4.0	1110	17900	-	346				
4.8	1110	17900	-	292				

F87, $n_e=1400 \text{ min}^{-1}$					3000 Nm									
$n_a$ $\text{min}^{-1}$	$M_{amax}$ Nm	$F_{Ra}$ N	$\Phi_{(R)}$ '	i	DRN		DRN		DRN		DRN		DRN	
					71MS 71M 80MK	80M 90S	90L	100LS 100L	112M	132S 132M	132L 160M 160L	180M 180L	200L	
 3														
5.2	3000	19800	7	270.68										
5.5	3000	19800	7	255.37										
6.1	3000	19800	7	228.93										
7.1	3000	19800	7	197.20										
7.8	3000	19800	7	179.97										
8.8	3000	19800	7	159.61										
10	3000	19800	7	134.16										
11	3000	19800	7	123.29										
13	3000	19800	8	109.49										
14	3000	19800	8	97.89										
16	3000	19800	8	88.01										
18	3000	19800	8	76.39										
20	3000	19600	8	68.40										
25	3000	17700	8	56.75										
28	2940	16800	8	50.36										
31	2820	16200	8	45.28										
36	2720	15400	8	39.30										
40	2610	14900	8	35.19										
48	2510	13800	8	29.20										
 2														
41	2610	14600	7	33.92										
49	2450	13900	7	28.78										
53	3000	11100	7	26.50										
59	3000	10300	7	23.68										
66	3000	9520	7	21.32*										
73	3000	8840	7	19.31										
82	3000	8040	7	17.12										
90	3000	7390	7	15.48										

F87, $n_e=1400 \text{ min}^{-1}$					3000 Nm								
$n_a$ $\text{min}^{-1}$	$M_{amax}$ Nm	$F_{Ra}$ N	$\Phi_{(R)}$ °	i	DRN 71MS 71M 80MK	DRN 80M 90S	DRN 90L	DRN 100LS 100L	DRN 112M	DRN 132S 132M	DRN 132L 160M 160L	DRN 180M 180L	DRN 200L
107	3000	6370	7	13.12*									
122	3000	5580	8	11.46									
146	2880	5050	8	9.58									
169	1530	8890	7	8.29									
190	1530	8280	7	7.35									
211	1530	7790	7	6.65									
249	1530	7020	7	5.63									
285	1530	6430	8	4.92									
340	1460	5980	8	4.12									





F87R57, $n_e=1400 \text{ min}^{-1}$					3000 Nm					
$n_a$ $\text{min}^{-1}$	$M_{amax}$ Nm	$F_{Ra}$ N	$\Phi_{(R)}$ °	i	DRN 63MS 63M 71MS 71M 80MK	DRN 80M 90S	DRN 90L	DRN 100LS 100L	DRN 112M	DRN 132S 132M
3  3										
0.06	3000	19800	-	23042						
0.07	3000	19800	-	20462						
0.08	3000	19800	-	18238						
0.09	3000	19800	-	15877						
0.10	3000	19800	-	14099						
0.11	3000	19800	-	12205						
0.13	3000	19800	-	10433						
0.15	3000	19800	-	9381						
0.17	3000	19800	-	8142						
0.20	3000	19800	-	7100						
0.22	3000	19800	-	6273						
0.25	3000	19800	-	5510						
0.28	3000	19800	-	4954						
0.33	3000	19800	-	4245						
0.38	3000	19800	-	3721						
2  3										
0.28	3000	19800	-	4952						
0.31	3000	19800	-	4562						
0.36	3000	19800	-	3919						
0.40	3000	19800	-	3503						
0.44	3000	19800	-	3196						
0.49	3000	19800	-	2857						
0.55	3000	19800	-	2524						
0.66	3000	19800	-	2134						
0.73	3000	19800	-	1913*						
0.82	3000	19800	-	1717						
0.95	3000	19800	-	1476						
1.1	3000	19800	-	1278						
1.2	3000	19800	-	1142						
1.4	3000	19800	-	988						
1.6	3000	19800	-	883						
1.9	3000	19800	-	748						

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## Parallel-shaft helical gearmotors


Possible geometrical combinations of F..DRN..



F87R57, $n_e=1400 \text{ min}^{-1}$					3000 Nm					
$n_a$ $\text{min}^{-1}$	$M_{amax}$ Nm	$F_{Ra}$ N	$\Phi_{(R)}$ '	i	DRN 63MS 63M 71MS 71M 80MK	DRN 80M 90S	DRN 90L	DRN 100LS 100L	DRN 112M	DRN 132S 132M
 3  2										
0.43	3000	19800	-	3244						
0.49	3000	19800	-	2881						
0.54	3000	19800	-	2576						
0.64	3000	19800	-	2199						
0.73	3000	19800	-	1930						
0.82	3000	19800	-	1709						
0.94	3000	19800	-	1493						
1.1	3000	19800	-	1300						
1.2	3000	19800	-	1148						
1.4	3000	19800	-	1010						
1.6	3000	19800	-	887						
1.8	3000	19800	-	780						
2.1	3000	19800	-	674						
2.3	3000	19800	-	609						
2.7	3000	19800	-	515						
3.1	3000	19800	-	452						
4.1	3000	19800	-	345						
4.7	3000	19800	-	300						
5.6	3000	19800	-	249						
 2  2										
2.1	3000	19800	-	662						
2.4	3000	19800	-	592						
2.7	3000	19800	-	519						
3.0	3000	19800	-	468						
3.5	3000	19800	-	398						
4.0	3000	19800	-	350						
4.4	3000	19800	-	315*						
5.0	3000	19800	-	281						
5.8	3000	19800	-	240						
6.6	3000	19800	-	211						
7.3	3000	19800	-	193						

F97, $n_e=1400 \text{ min}^{-1}$					4300 Nm							
$n_a$ $\text{min}^{-1}$	$M_{amax}$ Nm	$F_{Ra}$ N	$\Phi_{(R)}$ '	i	DRN 80M 90S	DRN 90L	DRN 100LS 100L	DRN 112M	DRN 132S 132M	DRN 132L 160M 160L	DRN 180M 180L	DRN 200L 225S
 3												
5.1	4300	29900	6	276.77								
5.5	4300	29900	6	253.41								
6.3	4300	29900	6	223.88								
7.4	4300	29900	6	189.92								
8.0	4300	29900	6	174.87								
9.0	4300	29900	6	156.30								
9.9	4300	29900	6	140.71								
11	4300	29900	6	127.42								
12	4300	29900	6	112.99								

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F97, $n_e=1400 \text{ min}^{-1}$					4300 Nm							
$n_a$ $\text{min}^{-1}$	$M_{amax}$ Nm	$F_{Ra}$ N	$\Phi_{(R)}$ '	i	DRN	DRN	DRN	DRN	DRN	DRN	DRN	DRN
					80M 90S	90L	100LS 100L	112M	132S 132M	132L 160M 160L	180M 180L	200L 225S
14	4300	29900	6	102.16								
14	4300	29900	7	97.58								
16	4300	29900	7	89.85								
16	4300	29900	6	86.59								
17	4300	29900	7	80.31								
19	4300	29900	6	75.63								
19	4300	29900	7	72.29								
21	4300	29000	7	65.47								
24	4300	27200	7	58.06								
27	4300	25800	7	52.49								
31	4300	23600	7	44.49								
36	4300	21900	7	38.86								
43	4300	19800	7	32.50								
 2												
32	3070	27600	6	43.28								
38	3070	25500	6	36.64								
41	4300	20300	6	33.91								
46	4300	19000	6	30.39								
51	4300	17900	6	27.44*								
56	4300	16800	6	24.92								
63	4300	15600	6	22.11								
70	4300	14600	6	20.07								
81	4300	13200	6	17.25*								
93	4300	11900	6	15.06								
110	4300	10500	6	12.77								
125	4100	10000	6	11.16								
155	2360	13400	9	9.06								
170	2360	12600	9	8.22								
198	2360	11500	9	7.07								
227	2250	11100	9	6.17								
268	2150	10400	9	5.23								
306	2050	9950	9	4.57								
362	1800	9960	9	3.87								







F97R57, $n_e=1400 \text{ min}^{-1}$					4300 Nm					
$n_a$ $\text{min}^{-1}$	$M_{amax}$ Nm	$F_{Ra}$ N	$\Phi_{(R)}$ '	i	DRN	DRN	DRN	DRN	DRN	DRN
					63MS 63M 71MS 71M 80MK	80M 90S	90L	100LS 100L	112M	132S 132M
 3  3										
0.05	4300	29900	-	29211						
0.05	4300	29900	-	26911						
0.06	4300	29900	-	23814						
0.07	4300	29900	-	20813						
0.08	4300	29900	-	18119*						
0.09	4300	29900	-	15472						
0.10	4300	29900	-	14022						
0.11	4300	29900	-	12324						
0.13	4300	29900	-	10838						

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## Parallel-shaft helical gearmotors

Possible geometrical combinations of F..DRN..

F97R57, $n_e=1400 \text{ min}^{-1}$					4300 Nm					
$n_a$ $\text{min}^{-1}$	$M_{amax}$ Nm	$F_{Ra}$ N	$\Phi_{(R)}$ '	i	DRN 63MS 63M 71MS 71M 80MK	DRN 80M 90S	DRN 90L	DRN 100LS 100L	DRN 112M	DRN 132S 132M
0.15	4300	29900	-	9576						
0.17	4300	29900	-	8318						
0.19	4300	29900	-	7328						
0.22	4300	29900	-	6469						
0.25	4300	29900	-	5615						
0.28	4300	29900	-	4961*						
0.32	4300	29900	-	4333*						
 2  3										
0.22	4300	29900	-	6338						
0.25	4300	29900	-	5680						
0.28	4300	29900	-	5016						
0.32	4300	29900	-	4367						
0.36	4300	29900	-	3914						
0.42	4300	29900	-	3357						
0.47	4300	29900	-	3009						
0.57	4300	29900	-	2448						
0.64	4300	29900	-	2199						
0.71	4300	29900	-	1971						
0.80	4300	29900	-	1741*						
0.95	4300	29900	-	1468						
1.1	4300	29900	-	1316						
1.2	4300	29900	-	1189*						
1.4	4300	29900	-	1023						
 3  2										
0.36	4300	29900	-	3906						
0.42	4300	29900	-	3352						
0.48	4300	29900	-	2907						
0.55	4300	29900	-	2553						
0.62	4300	29900	-	2245						
0.71	4300	29900	-	1970						
0.81	4300	29900	-	1722						
0.92	4300	29900	-	1527						
1.1	4300	29900	-	1327						
1.2	4300	29900	-	1171*						
1.4	4300	29900	-	1022						
1.6	4300	29900	-	898						
1.8	4300	29900	-	784						
2.0	4300	29900	-	690						
2.3	4300	29900	-	605						
2.6	4300	29900	-	529						
3.0	4300	29900	-	467						
3.4	4300	29900	-	406						
3.9	4300	29900	-	363						
4.9	4300	29900	-	285						
5.7	4300	29900	-	245						
6.7	4300	29900	-	208						
7.2	4300	29900	-	195						
 2  2										

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F97R57, $n_e=1400 \text{ min}^{-1}$					4300 Nm					
$n_a$ $\text{min}^{-1}$	$M_{amax}$ Nm	$F_{Ra}$ N	$\varphi_{(R)}$ '	i	DRN	DRN	DRN	DRN	DRN	DRN
					63MS 63M 71MS 71M 80MK	80M 90S	90L	100LS 100L	112M	132S 132M
1.6	4300	29900	-	892						
1.8	4300	29900	-	760						
2.1	4300	29900	-	667						
2.5	4300	29900	-	569						
2.7	4300	29900	-	510						
3.0	4300	29900	-	473*						
3.5	4300	29900	-	403						
3.9	4300	29900	-	361						
4.4	4300	29900	-	317						
5.1	4300	29900	-	275						
5.8	4300	29900	-	242						

F107, $n_e=1400 \text{ min}^{-1}$					7840 Nm						
$n_a$ $\text{min}^{-1}$	$M_{amax}$ Nm	$F_{Ra}$ N	$\varphi_{(R)}$ '	i	DRN	DRN	DRN	DRN	DRN	DRN	DRN
					100LS 100L	112M	132S 132M	132L 160M 160L	180M 180L	200L 225S 225M	250M
 3											
5.5	7680	49800	6	254.40*							
6.5	7680	49800	6	215.37							
7.0	7680	49800	6	199.31							
7.8	7680	49800	6	178.64							
8.7	7680	49800	6	161.28*							
9.6	7680	49800	6	146.49							
11	7680	49800	6	129.97							
12	7680	49800	6	117.94							
14	7680	49800	6	101.38*							
15	7680	49800	6	92.47*							
16	7680	49800	6	88.49							
17	7680	49800	6	83.99							
19	7680	49800	6	74.52							
21	7680	49800	6	67.62							
24	7680	47800	6	58.12*							
28	7680	45100	6	50.73							
33	7680	42000	6	43.03							
37	7680	39500	6	37.61							
44	7680	36500	6	31.80							
 2											
41	7400	38300	6	33.79*							
51	7840	33300	6	27.57							
56	7840	31500	6	25.14							
64	7840	28800	6	21.76*							
73	7840	26500	6	19.20*							
84	7840	23900	6	16.58							
95	7680	22400	6	14.67							
114	7000	22600	6	12.33							
141	6500	21500	6	9.96							
144	4910	23500	7	9.69							
167	4800	22000	7	8.37							

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## Parallel-shaft helical gearmotors

Possible geometrical combinations of F..DRN..

F107, $n_e=1400 \text{ min}^{-1}$					7840 Nm						
$n_a$ $\text{min}^{-1}$	$M_{amax}$ Nm	$F_{Ra}$ N	$\phi_{(R)}$ °	i	DRN	DRN	DRN	DRN	DRN	DRN	DRN
					100LS 100L	112M	132S 132M	132L 160M 160L	180M 180L	200L 225S 225M	250M
189	4600	21300	7	7.40							
225	4600	19000	7	6.22							
278	4600	16400	7	5.03							

F107R77, $n_e=1400 \text{ min}^{-1}$					7840 Nm						
$n_a$ $\text{min}^{-1}$	$M_{amax}$ Nm	$F_{Ra}$ N	$\phi_{(R)}$ °	i	DRN	DRN	DRN	DRN	DRN	DRN	DRN
					63MS 63M 71MS 71M 80MK	80M 90S	90L	100LS 100L	112M	132S 132M	132L 160M 160L



0.06	7680	49800	-	25375*							
0.06	7680	49800	-	21652							
0.07	7680	49800	-	18933							
0.08	7680	49800	-	16888							
0.09	7680	49800	-	14767							
0.12	7680	49800	-	11348*							
0.14	7680	49800	-	10039							
0.16	7680	49800	-	8548							
0.18	7680	49800	-	7674							
0.21	7680	49800	-	6767							
0.24	7680	49800	-	5954							
0.27	7680	49800	-	5223							
0.31	7680	49800	-	4567							
0.35	7680	49800	-	3948							
0.40	7680	49800	-	3521							





0.26	7840	49400	-	5383*							
0.30	7840	49400	-	4593							
0.35	7840	49400	-	4016							
0.37	7840	49400	-	3815							
0.42	7840	49400	-	3347							
0.49	7840	49400	-	2839							
0.55	7840	49400	-	2563*							
0.62	7840	49400	-	2255							
0.66	7840	49400	-	2129							
0.77	7840	49400	-	1813							
0.88	7840	49400	-	1590							
0.97	7840	49400	-	1436							
1.1	7840	49400	-	1263							
1.2	7840	49400	-	1193							
1.4	7840	49400	-	1015							
1.5	7840	49400	-	923							
1.8	7840	49400	-	800							
2.0	7840	49400	-	696							




0.46	7680	49800	-	3037							
0.51	7680	49800	-	2756							
0.59	7680	49800	-	2369							

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F107R77, $n_e=1400 \text{ min}^{-1}$					7840 Nm						
$n_a$ $\text{min}^{-1}$	$M_{amax}$ Nm	$F_{Ra}$ N	$\phi_{(R)}$ '	i	DRN	DRN	DRN	DRN	DRN	DRN	DRN
					63MS 63M 71MS 71M 80MK	80M 90S	90L	100LS 100L	112M	132S 132M	132L 160M 160L
0.68	7680	49800	-	2068							
0.77	7680	49800	-	1826							
0.88	7680	49800	-	1597							
1.00	7680	49800	-	1401							
1.1	7680	49800	-	1243							
1.3	7680	49800	-	1087							
1.5	7680	49800	-	950							
1.7	7680	49800	-	834							
1.9	7680	49800	-	736							
2.2	7680	49800	-	640							
2.5	7680	49800	-	560							
2.9	7680	49800	-	489							
3.2	7680	49800	-	436							
3.8	7680	49800	-	370							
4.2	7680	49800	-	333							
4.8	7680	49800	-	291							
5.5	7680	49800	-	255							
6.2	7680	49800	-	225*							
7.4	7680	49800	-	190							
 2  2											
2.2	7840	49400	-	644							
2.4	7840	49400	-	591							
2.7	7840	49400	-	518*							
2.9	7840	49400	-	491							
3.3	7840	49400	-	430							
3.6	7840	49400	-	387							
4.1	7840	49400	-	340							
4.7	7840	49400	-	300							
5.3	7840	49400	-	266							


F127, $n_e=1400 \text{ min}^{-1}$					12000 Nm				
$n_a$ $\text{min}^{-1}$	$M_{amax}$ Nm	$F_{Ra}$ N	$\phi_{(R)}$ '	i	DRN	DRN	DRN	DRN	DRN
					132S 132M	132L 160M 160L	180M 180L	200L 225S 225M	250M 280S 280M
 3									
8.2	12000	90000	5	170.83					
9.1	12000	90000	5	153.67*					
11	12000	90000	5	125.37					
12	12000	88000	5	114.34					
14	12000	83000	5	98.95					
16	12000	79000	5	87.31*					
19	12000	74300	5	75.41*					
20	12000	72100	6	70.07					
22	12000	69400	6	63.91					
25	12000	65200	6	55.31					
29	12000	61300	6	48.80					
33	12000	56800	6	42.15					
38	12000	53200	6	37.28					

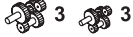

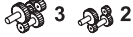

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## Parallel-shaft helical gearmotors



Possible geometrical combinations of F..DRN..


F127, $n_e=1400 \text{ min}^{-1}$					12000 Nm				
$n_a$ $\text{min}^{-1}$	$M_{amax}$ Nm	$F_{Ra}$ N	$\varphi_{(R)}$ °	i	DRN	DRN	DRN	DRN	DRN
					132S 132M	132L 160M 160L	180M 180L	200L 225S 225M	250M 280S 280M
45	12000	48300	6	31.33					
55	12000	42400	6	25.30					
 2									
52	8500	55300	5	26.86					
57	8500	53300	5	24.57					
65	12000	38000	5	21.38					
74	11000	38800	5	18.87					
86	11000	35400	5	16.36					
96	11000	32600	5	14.55					
112	10000	33300	5	12.54					
137	9500	30900	5	10.19					
158	7000	36400	7	8.86					
178	6000	37000	7	7.88					
206	7000	32200	7	6.80					
254	6000	31700	7	5.52					
299	6000	29500	7	4.68					

F127R77, $n_e=1400 \text{ min}^{-1}$					12000 Nm						
$n_a$ $\text{min}^{-1}$	$M_{amax}$ Nm	$F_{Ra}$ N	$\varphi_{(R)}$ °	i	DRN	DRN	DRN	DRN	DRN	DRN	DRN
					63MS 63M 71MS 71M 80MK	80M 90S	90L	100LS 100L	112M	132S 132M	132L 160M 160L
 3  3											
0.06	12000	90000	-	24478*							
0.06	12000	90000	-	22323							
0.07	12000	90000	-	19048							
0.08	12000	90000	-	16656							
0.10	12000	90000	-	14722*							
0.11	12000	90000	-	12912							
0.12	12000	90000	-	11656*							
0.14	12000	90000	-	10191							
0.16	12000	90000	-	8831							
0.18	12000	90000	-	7643							
0.21	12000	90000	-	6715							
0.24	12000	90000	-	5925							
0.27	12000	90000	-	5153							
0.31	12000	90000	-	4533							
0.36	12000	90000	-	3926							
0.41	12000	90000	-	3454							
0.46	12000	90000	-	3031							
 3  2											
0.52	12000	90000	-	2672							
0.59	12000	90000	-	2357*							
0.69	12000	90000	-	2038							
0.78	12000	90000	-	1784							
0.87	12000	90000	-	1606							
1.0	12000	90000	-	1390							
1.1	12000	90000	-	1220							

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F127R77, $n_e=1400 \text{ min}^{-1}$					12000 Nm						
$n_a$ $\text{min}^{-1}$	$M_{amax}$ Nm	$F_{Ra}$ N	$\Phi_{(R)}$ '	i	DRN	DRN	DRN	DRN	DRN	DRN	DRN
					63MS 63M 71MS 71M 80MK	80M 90S	90L	100LS 100L	112M	132S 132M	132L 160M 160L
1.3	12000	90000	-	1077							
1.5	12000	90000	-	930							
1.7	12000	90000	-	820							
1.9	12000	90000	-	727							
2.2	12000	90000	-	648							
2.6	12000	90000	-	549							
2.8	12000	90000	-	495							
3.3	12000	90000	-	428							
3.7	12000	90000	-	376							

F127R87, $n_e=1400 \text{ min}^{-1}$					12000 Nm							
$n_a$ $\text{min}^{-1}$	$M_{amax}$ Nm	$F_{Ra}$ N	$\Phi_{(R)}$ '	i	DRN	DRN	DRN	DRN	DRN	DRN	DRN	DRN
					80M 90S	90L	100LS 100L	112M	132S 132M	132L 160M 160L	180M 180L	200L
 3  2												
2.9	12000	90000	-	483								
3.3	12000	90000	-	418								
3.7	12000	90000	-	374								
4.5	12000	90000	-	312								
4.8	12000	90000	-	293								
5.4	12000	90000	-	259								
6.3	12000	90000	-	223								
7.1	12000	90000	-	198								
8.4	12000	90000	-	166								


F157, $n_e=1400 \text{ min}^{-1}$					20000 Nm					
$n_a$ $\text{min}^{-1}$	$M_{amax}$ Nm	$F_{Ra}$ N	$\Phi_{(R)}$ '	i	DRN	DRN	DRN	DRN	DRN	DRN
					132L 160M 160L	180M 180L	200L 225S 225M	250M 280S 280M	315S 315M	315L 315H
 3										
5.2	20000	93800	5	267.43						
6.4	20000	93800	5	217.62*						
7.9	20000	93800	5	178.20*						
8.6	20000	93800	5	162.96						
9.9	20000	93800	5	141.80*						
11	20000	93800	5	125.14						
13	20000	93800	5	108.49						
15	20000	93800	5	96.53*						
16	20000	91800	5	85.80*						
18	20000	88300	5	78.46						
21	20000	83000	5	68.28*						
23	20000	78500	5	60.25						
27	20000	73600	5	52.24						
30	20000	69600	5	46.48*						
35	20000	64900	5	40.06						
43	20000	58500	5	32.55						
51	20000	53800	5	27.60						

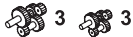

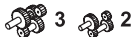

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## Parallel-shaft helical gearmotors

Possible geometrical combinations of F..DRN..

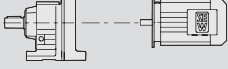

F157, $n_e=1400 \text{ min}^{-1}$					20000 Nm					
$n_a$ $\text{min}^{-1}$	$M_{amax}$ Nm	$F_{Ra}$ N	$\Phi_{(R)}$ '	i	DRN	DRN	DRN	DRN	DRN	DRN
					132L 160M 160L	180M 180L	200L 225S 225M	250M 280S 280M	315S 315M	315L 315H
										
26	11000	92400	5	53.55						
32	11900	84000	5	43.94*						
39	13600	74100	5	35.75*						
49	19100	56600	5	28.60*						
55	20000	51500	5	25.43						
63	19900	48000	5	22.16						
71	19400	46100	5	19.77						
83	18700	43500	5	16.85						
100	17900	40700	5	13.96						
117	17300	38300	5	11.92						

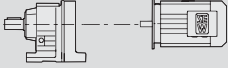

F157R97, $n_e=1400 \text{ min}^{-1}$					20000 Nm									
$n_a$ $\text{min}^{-1}$	$M_{amax}$ Nm	$F_{Ra}$ N	$\Phi_{(R)}$ '	i	DRN	DRN	DRN	DRN	DRN	DRN	DRN	DRN	DRN	
					71MS 71M 80MK	80M 90S	90L	100LS 100L	112M	132S 132M	132L 160M 160L	180M 180L	200L 225S	
 3 														
0.04	20000	93800	-	31434										
0.05	20000	93800	-	26173										
0.06	20000	93800	-	23464										
0.07	20000	93800	-	20212										
0.08	20000	93800	-	17984*										
0.09	20000	93800	-	16358										
0.10	20000	93800	-	13751										
0.11	20000	93800	-	12235										
0.14	20000	93800	-	10033										
0.16	20000	93800	-	9021										
0.17	20000	93800	-	8026										
0.20	20000	93800	-	7075										
0.22	20000	93800	-	6295										
0.26	20000	93800	-	5404										
0.29	20000	93800	-	4831										
0.34	20000	93800	-	4130*										
0.39	20000	93800	-	3607										
0.44	20000	93800	-	3210										
0.50	20000	93800	-	2780										
0.97	20000	93800	-	1441										
 3 														
0.58	20000	93800	-	2427										
0.64	20000	93800	-	2185										
0.72	20000	93800	-	1944*										
0.84	20000	93800	-	1674										
1.1	20000	93800	-	1308										
1.2	20000	93800	-	1169										
1.5	20000	93800	-	953										
1.7	20000	93800	-	845										
1.8	20000	93800	-	764										
2.1	20000	93800	-	680										
2.4	20000	93800	-	576										

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F157R97, $n_e=1400 \text{ min}^{-1}$					20000 Nm								
$n_a$ $\text{min}^{-1}$	$M_{amax}$ Nm	$F_{Ra}$ N	$\varphi_{(R)}$ '	i	DRN	DRN	DRN	DRN	DRN	DRN	DRN	DRN	DRN
					71MS 71M 80MK	80M 90S	90L	100LS 100L	112M	132S 132M	132L 160M 160L	180M 180L	200L 225S
2.8	20000	93800	-	503									
3.1	20000	93800	-	446									
4.0	20000	93800	-	353									
4.6	20000	93800	-	302									
5.1	20000	93800	-	273									
6.0	20000	93800	-	232									
6.9	20000	93800	-	202									
7.1	20000	93800	-	197									

## 9.3 F..DRN.. selection tables in kW

<b>P<sub>m</sub> = 0.12 kW</b>									
<b>n<sub>a</sub></b> <b>min<sup>-1</sup></b>	<b>M<sub>a</sub></b> <b>Nm</b>	<b>i</b>	<b>F<sub>Ra</sub><sup>1)</sup></b> <b>N</b>	<b>SEW</b> <b>f<sub>B</sub></b>				<b>m</b> <b>kg</b>	
0.06	13900	22323	86700	0.85					
0.07	11800	19048	90000	1.00	FA	127R77	DRN	63MS4	425 524
0.08	10300	16656	90000	1.15	FAF	127R77	DRN	63MS4	465 524
0.09	9180	14722	90000	1.30	F	127R77	DRN	63MS4	460 524
0.11	7990	12912	90000	1.50	FF	127R77	DRN	63MS4	510 524
0.12	7040	11656	90000	1.70					
0.14	6310	10191	90000	1.90					
0.09	9200	14767	45500	0.85					
0.12	7070	11348	51400	1.10					
0.14	5740	10039	54600	1.35					
0.16	4670	8548	57000	1.65	FA	107R77	DRN	63MS4	275 524
0.18	4750	7674	56800	1.60	FAF	107R77	DRN	63MS4	295 524
0.20	4090	6767	58200	1.90	F	107R77	DRN	63MS4	290 524
0.23	3460	5954	59500	2.2	FF	107R77	DRN	63MS4	320 524
0.26	2990	5223	60400	2.6					
0.30	2840	4567	60700	2.7					
0.39	2120	3521	62000	3.6					
0.21	4140	6469	30300	1.05	FA	97R57	DRN	63MS4	185 524
0.25	3820	5615	31300	1.15	FAF	97R57	DRN	63MS4	205 524
0.28	3320	4961	32500	1.30	F	97R57	DRN	63MS4	190 524
0.32	2900	4333	33500	1.50	FF	97R57	DRN	63MS4	225 524
0.35	2690	3906	34000	1.60	FA	97R57	DRN	63MS4	185 524
0.41	2320	3352	34800	1.85	FAF	97R57	DRN	63MS4	205 524
0.47	1910	2907	35500	2.2	F	97R57	DRN	63MS4	190 524
0.54	1750	2553	35800	2.4	FF	97R57	DRN	63MS4	225 524
0.33	2760	4245	23800	1.10	FA	87R57	DRN	63MS4	120 524
0.37	2210	3721	25800	1.35	FAF	87R57	DRN	63MS4	130 524
					F	87R57	DRN	63MS4	125 524
					FF	87R57	DRN	63MS4	140 524
0.43	2240	3244	25700	1.35					
0.48	1990	2881	26500	1.50					
0.54	1780	2576	27100	1.70					
0.63	1510	2199	27800	2.0	FA	87R57	DRN	63MS4	115 524
0.72	1300	1930	28300	2.3	FAF	87R57	DRN	63MS4	130 524
0.81	1170	1709	28600	2.5	F	87R57	DRN	63MS4	125 524
0.92	1030	1493	28900	2.9	FF	87R57	DRN	63MS4	140 524
1.1	810	1300	29300	3.7					
1.2	740	1148	29500	4.0					
0.53	1820	2613	13000	0.80	FA	77R37	DRN	63MS4	66 524
0.60	1570	2284	15200	0.95	FAF	77R37	DRN	63MS4	72 524
0.68	1380	2029	16400	1.10	F	77R37	DRN	63MS4	69 524
					FF	77R37	DRN	63MS4	80 524
0.80	1180	1728	17500	1.25					
0.89	1090	1544	17900	1.40					
1.0	950	1354	18500	1.55	FA	77R37	DRN	63MS4	65 524
1.1	840	1200	18800	1.75	FAF	77R37	DRN	63MS4	72 524
1.3	740	1053	19100	2.0	F	77R37	DRN	63MS4	69 524
1.5	630	910	19400	2.4	FF	77R37	DRN	63MS4	80 524
1.7	525	810	19600	2.8					
1.9	460	710	19800	3.2					
0.97	960	1429	7070	0.85					
1.1	860	1271	9840	0.95					
1.2	725	1102	11100	1.15					
1.4	635	970	11700	1.30	FA	67R37	DRN	63MS4	43 524
1.6	560	858	12100	1.45	FAF	67R37	DRN	63MS4	49 524
1.8	490	755	12400	1.65	F	67R37	DRN	63MS4	46 524
2.1	415	641	12700	1.95	FF	67R37	DRN	63MS4	52 524
2.4	390	572	12800	2.1					
2.7	330	509	13000	2.5					
3.2	285	437	13000	2.9					

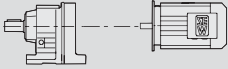

<b>P<sub>m</sub> = 0.12 kW</b>										
<b>n<sub>a</sub></b> <b>min<sup>-1</sup></b>	<b>M<sub>a</sub></b> <b>Nm</b>	<b>i</b>	<b>F<sub>Ra</sub><sup>1)</sup></b> <b>N</b>	<b>SEW</b> <b>f<sub>B</sub></b>					<b>m</b> <b>kg</b>	
1.6	610	851	9100	1.00						
1.9	520	738	9750	1.15	FA	57R37	DRN	63MS4	39	524
2.1	455	646	10200	1.30	FAF	57R37	DRN	63MS4	45	524
2.5	385	558	10600	1.55	F	57R37	DRN	63MS4	39	524
2.7	345	506	10900	1.75	FF	57R37	DRN	63MS4	46	524
3.0	295	452	11100	2.0						
3.2	310	426	11100	1.95	FA	57R37	DRN	63MS4	39	524
3.6	270	382	11300	2.2	FAF	57R37	DRN	63MS4	44	524
4.2	230	330	11500	2.6	F	57R37	DRN	63MS4	39	524
4.6	210	298	11500	2.9	FF	57R37	DRN	63MS4	45	524
5.3	185	262	11500	3.2						
2.5	385	543	6100	1.05	FA	47R17	DRN	63MS4	24	524
2.9	330	475	6740	1.20	FAF	47R17	DRN	63MS4	27	524
3.3	290	419	7150	1.40	F	47R17	DRN	63MS4	25	524
					FF	47R17	DRN	63MS4	28	524
2.6	380	524	6190	1.05						
2.8	350	489	6530	1.15	FA	47R17	DRN	63MS4	24	524
3.2	300	427	7020	1.30	FAF	47R17	DRN	63MS4	26	524
3.6	265	381	7310	1.50	F	47R17	DRN	63MS4	24	524
4.1	235	334	7550	1.70	FF	47R17	DRN	63MS4	27	524
4.7	205	295	7740	1.95						
5.5	172	253	7910	2.3						
4.3	215	322	3990	0.90	FA	37R17	DRN	63MS4	19	524
5.0	192	278	4400	1.05	FAF	37R17	DRN	63MS4	21	524
5.7	162	242	4750	1.25	F	37R17	DRN	63MS4	20	524
6.2	156	221	4820	1.30	FF	37R17	DRN	63MS4	22	524
4.2	235	326	3710	0.85						
4.8	200	285	4250	1.00	FA	37R17	DRN	63MS4	19	524
5.5	177	250	4590	1.15	FAF	37R17	DRN	63MS4	21	524
6.3	156	219	4820	1.30	F	37R17	DRN	63MS4	20	524
7.4	132	186	5040	1.50	FF	37R17	DRN	63MS4	22	524
8.3	118	167	5140	1.70						
6.2	155	221	4500	0.85	FA	27R17	DRN	63MS4	13	524
8.0	119	172	4500	1.10	FAF	27R17	DRN	63MS4	14	524
9.1	104	153	4500	1.25	F	27R17	DRN	63MS4	14	524
11	87	130	4500	1.50	FF	27R17	DRN	63MS4	15	524
6.5	150	211	4500	0.85						
7.4	131	186	4500	1.00	FA	27R17	DRN	63MS4	13	524
9.7	102	142	4500	1.25	FAF	27R17	DRN	63MS4	14	524
11	88	124	4500	1.45	F	27R17	DRN	63MS4	14	524
13	77	109	4500	1.70	FF	27R17	DRN	63MS4	14	524
14	67	96	4500	1.95						
3.8	300	228.99	13000	2.7	FA	67	DRN	63M6	33	477
4.5	255	195.39	13000	3.2	FAF	67	DRN	63M6	39	476
5.1	225	170.85	13000	3.6	F	67	DRN	63M6	36	475
5.4	210	162.31	13000	3.8	FF	67	DRN	63M6	42	476
6.1	188	142.40	13000	4.4						
4.4	260	199.70	11300	2.3	FA	57	DRN	63M6	29	471
4.7	240	183.60	11400	2.5	FAF	57	DRN	63M6	34	470
5.5	205	157.09	11500	2.9	F	57	DRN	63M6	29	469
6.4	179	136.16	11500	3.4	FF	57	DRN	63M6	36	470
6.8	168	127.27	11500	3.6						
6.9	166	199.70	11500	3.6	FA	57	DRN	63MS4	28	471
7.5	152	183.60	11500	3.9	FAF	57	DRN	63MS4	34	470
8.8	130	157.09	11500	4.6	F	57	DRN	63MS4	28	469
10	113	136.16	11500	5.3	FF	57	DRN	63MS4	35	470
4.6	250	190.76	7450	1.60						
5.0	230	175.38	7590	1.75						
5.8	198	150.06	7780	2.0	FA	47	DRN	63M6	22	465
6.7	171	130.07	7910	2.3	FAF	47	DRN	63M6	25	464
7.2	160	121.57	7960	2.5	F	47	DRN	63M6	23	463
8.3	138	105.09	8050	2.9	FF	47	DRN	63M6	26	464
9.7	118	89.29	8120	3.4						
11	105	79.72	8150	3.8						

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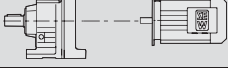

# 9

## Parallel-shaft helical gearmotors

F..DRN.. selection tables in kW

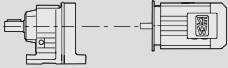

<b>P<sub>m</sub> = 0.12 kW</b>										
n <sub>a</sub> min <sup>-1</sup>	M <sub>a</sub> Nm	i	F <sub>Ra</sub> <sup>1)</sup> N	SEW f <sub>B</sub>					m kg	
7.2	158	190.76	7970	2.5	FA	47	DRN	63MS4	21	465
7.9	146	175.38	8020	2.8	FAF	47	DRN	63MS4	24	464
9.2	125	150.06	8100	3.2	F	47	DRN	63MS4	22	463
11	108	130.07	8150	3.7	FF	47	DRN	63MS4	25	464
6.8	169	128.51	4680	1.20	FA	37	DRN	63M6	17	459
7.4	155	117.88	4830	1.30	FAF	37	DRN	63M6	19	458
8.7	132	100.36	5030	1.50	F	37	DRN	63M6	17	457
10	114	86.53	5170	1.75	FF	37	DRN	63M6	19	458
11	107	128.51	5220	1.85	FA	37	DRN	63MS4	16	459
12	98	117.88	5270	2.0	FAF	37	DRN	63MS4	18	458
14	83	100.36	5340	2.4	F	37	DRN	63MS4	17	457
16	72	86.53	5390	2.8	FF	37	DRN	63MS4	19	458
17	67	80.65	5410	3.0						
7.9	145	109.90	4500	0.90	FA	27	DRN	63M6	11	454
9.2	125	94.76	4500	1.05	FAF	27	DRN	63M6	12	453
9.8	116	88.32	4500	1.10	F	27	DRN	63M6	11	452
11	102	77.21	4500	1.30	FF	27	DRN	63M6	12	453
9.8	117	140.74	4500	1.10						
11	107	129.09	4500	1.20						
13	91	109.90	4500	1.40						
15	79	94.76	4500	1.65						
16	73	88.32	4500	1.75						
18	64	77.21	4500	2.0	FA	27	DRN	63MS4	10	454
19	60	72.37	4500	2.2	FAF	27	DRN	63MS4	11	453
22	53	63.86	4500	2.5	F	27	DRN	63MS4	11	452
24	47	56.62	4500	2.8	FF	27	DRN	63MS4	11	453
28	42	50.19	4500	3.1						
30	39	46.78	4500	3.4						
34	34	40.89	4500	3.8						
36	32	38.33	4430	4.1						
41	28	33.83	4270	4.6						
47	25	29.56	4100	5.3						
51	23	27.18	4000	5.8						
59	19	23.25	3820	6.7						
68	17	20.15	3650	7.8						
73	16	18.84	3580	8.3						
85	14	16.28	3420	9.6						
100	11	13.84	3250	11	FA	27	DRN	63MS4	9.8	454
112	10	12.35	3140	13	FAF	27	DRN	63MS4	11	453
131	8.8	10.55	2990	15	F	27	DRN	63MS4	10	452
140	8.2	9.88	2920	16	FF	27	DRN	63MS4	11	453
147	7.8	9.40	2870	17						
170	6.8	8.13	2740	18						
200	5.7	6.91	2600	20						
224	5.1	6.17	2510	21						
262	4.4	5.27	2390	23						
280	4.1	4.93	2340	23						
332	3.5	4.16	2210	25						

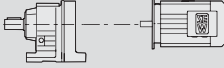

<b>P<sub>m</sub> = 0.18 kW</b>										
n <sub>a</sub> min <sup>-1</sup>	M <sub>a</sub> Nm	i	F <sub>Ra</sub> <sup>1)</sup> N	SEW f <sub>B</sub>					m kg	
0.11	13000	12912	88400	0.90						
0.12	11600	11656	90000	1.05	FA	127R77	DRN	63M4	425	524
0.13	10200	10191	90000	1.15	FAF	127R77	DRN	63M4	465	524
0.16	8500	8831	90000	1.40	F	127R77	DRN	63M4	465	524
0.18	7360	7643	90000	1.65	FF	127R77	DRN	63M4	510	524
0.20	6800	6715	90000	1.75						

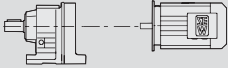

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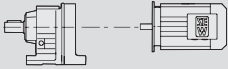



<b>P<sub>m</sub> = 0.18 kW</b>										
<b>n<sub>a</sub></b> <b>min<sup>-1</sup></b>	<b>M<sub>a</sub></b> <b>Nm</b>	<b>i</b>	<b>F<sub>Ra</sub><sup>1)</sup></b> <b>N</b>	<b>SEW</b> <b>f<sub>B</sub></b>					<b>m</b> <b>kg</b>	
0.16	8010	8548	48900	0.95						
0.18	7750	7674	49600	1.00						
0.20	6730	6767	52200	1.15	FA	107R77	DRN	63M4	275	524
0.23	5790	5954	54500	1.35	FAF	107R77	DRN	63M4	295	524
0.26	5030	5223	56200	1.55	F	107R77	DRN	63M4	290	524
0.30	4630	4567	57100	1.65	FF	107R77	DRN	63M4	320	524
0.39	3500	3521	59400	2.2						
0.45	3100	3037	60200	2.5	FA	107R77	DRN	63M4	275	524
0.50	2810	2756	60700	2.7	FAF	107R77	DRN	63M4	295	524
0.58	2420	2369	61400	3.2	F	107R77	DRN	63M4	290	524
0.66	2110	2068	62000	3.6	FF	107R77	DRN	63M4	320	524
0.32	4590	4333	29000	0.95	FA	97R57	DRN	63M4	185	524
					FAF	97R57	DRN	63M4	205	524
					F	97R57	DRN	63M4	190	524
					FF	97R57	DRN	63M4	225	524
0.35	4230	3906	30100	1.00						
0.41	3640	3352	31700	1.20						
0.47	3060	2907	33200	1.40						
0.54	2760	2553	33800	1.55	FA	97R57	DRN	63M4	185	524
0.61	2430	2245	34500	1.75	FAF	97R57	DRN	63M4	205	524
0.70	2110	1970	35200	2.0	F	97R57	DRN	63M4	190	524
0.80	1870	1722	35600	2.3	FF	97R57	DRN	63M4	225	524
0.90	1660	1527	36000	2.6						
1.0	1360	1327	36500	3.2						
1.2	1270	1171	36600	3.4						
0.53	2800	2576	23700	1.05						
0.63	2380	2199	25200	1.25						
0.71	2070	1930	26200	1.45						
0.80	1850	1709	26900	1.60	FA	87R57	DRN	63M4	120	524
0.92	1620	1493	27500	1.85	FAF	87R57	DRN	63M4	130	524
1.1	1330	1300	28200	2.2	F	87R57	DRN	63M4	125	524
1.2	1190	1148	28500	2.5	FF	87R57	DRN	63M4	140	524
1.4	1030	1010	28900	2.9						
1.6	920	887	29100	3.2						
1.8	800	780	29400	3.8						
0.89	1700	1544	14200	0.90						
1.0	1490	1354	15800	1.00						
1.1	1320	1200	16800	1.15	FA	77R37	DRN	63M4	66	524
1.3	1150	1053	17600	1.30	FAF	77R37	DRN	63M4	73	524
1.5	990	910	18300	1.50	F	77R37	DRN	63M4	70	524
1.7	840	810	18800	1.75	FF	77R37	DRN	63M4	81	524
1.9	740	710	19100	2.0						
2.2	660	615	19400	2.3						
1.6	890	858	9530	0.90						
1.8	790	755	10600	1.05	FA	67R37	DRN	63M4	44	524
2.1	670	641	11500	1.20	FAF	67R37	DRN	63M4	50	524
2.4	615	572	11800	1.35	F	67R37	DRN	63M4	47	524
2.7	530	509	12200	1.55	FF	67R37	DRN	63M4	53	524
3.1	460	437	12600	1.80						
3.6	410	384	12800	2.0						
2.8	550	500	12200	1.50						
3.0	505	454	12400	1.60						
3.5	430	392	12700	1.90	FA	67R37	DRN	63M4	43	524
4.1	360	333	12900	2.2	FAF	67R37	DRN	63M4	49	524
4.6	320	297	13000	2.5	F	67R37	DRN	63M4	46	524
5.3	280	261	13000	2.9	FF	67R37	DRN	63M4	52	524
5.8	250	238	13000	3.2						
6.9	205	200	13000	3.9						
2.5	605	558	9120	1.00						
2.7	545	506	9600	1.10	FA	57R37	DRN	63M4	40	524
3.0	475	452	10100	1.25	FAF	57R37	DRN	63M4	46	524
3.6	405	386	10500	1.45	F	57R37	DRN	63M4	40	524
4.1	350	338	10800	1.70	FF	57R37	DRN	63M4	47	524

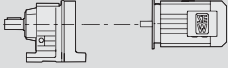

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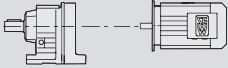

<b>P<sub>m</sub> = 0.18 kW</b>										
<b>n<sub>a</sub></b> <b>min<sup>-1</sup></b>	<b>M<sub>a</sub></b> <b>Nm</b>	<b>i</b>	<b>F<sub>Ra</sub><sup>1)</sup></b> <b>N</b>	<b>SEW</b> <b>f<sub>B</sub></b>					<b>m</b> <b>kg</b>	
3.2	480	426	10100	1.25						
3.6	425	382	10400	1.40						
4.2	365	330	10800	1.65	FA	57R37	DRN	63M4	39	524
4.6	325	298	11000	1.80	FAF	57R37	DRN	63M4	45	524
5.2	290	262	11200	2.1	F	57R37	DRN	63M4	40	524
6.1	240	226	11400	2.5	FF	57R37	DRN	63M4	46	524
6.9	210	200	11500	2.8						
3.7	390	370	6010	1.00	FA	47R17	DRN	63M4	25	524
4.2	355	324	6440	1.10	FAF	47R17	DRN	63M4	28	524
4.8	310	288	6940	1.30	F	47R17	DRN	63M4	26	524
5.5	265	249	7340	1.50	FF	47R17	DRN	63M4	29	524
4.1	370	334	6320	1.10						
4.7	320	295	6830	1.25	FA	47R17	DRN	63M4	24	524
5.4	270	253	7290	1.45	FAF	47R17	DRN	63M4	27	524
6.3	240	217	7500	1.65	F	47R17	DRN	63M4	25	524
7.2	210	190	7710	1.90	FF	47R17	DRN	63M4	28	524
7.7	197	178	7780	2.0						
7.4	205	186	4200	0.95	FA	37R17	DRN	63M4	20	524
8.2	185	167	4490	1.10	FAF	37R17	DRN	63M4	22	524
9.4	164	145	4740	1.20	F	37R17	DRN	63M4	21	524
11	145	129	4930	1.40	FF	37R17	DRN	63M4	22	524
9.7	159	142	4500	0.80	FA	27R17	DRN	63M4	14	524
11	138	124	4500	0.95	FAF	27R17	DRN	63M4	15	524
13	120	109	4500	1.10	F	27R17	DRN	63M4	14	524
14	105	96	4500	1.25	FF	27R17	DRN	63M4	15	524
3.2	525	281.71	19600	2.8	FA	77	DRN	71MS6	57	485
3.5	490	262.93	19700	3.0	FAF	77	DRN	71MS6	64	483
4.0	420	225.79	19800	3.5	F	77	DRN	71MS6	61	482
					FF	77	DRN	71MS6	72	483
4.0	430	228.99	12700	1.90	FA	67	DRN	71MS6	33	477
4.7	365	195.39	12900	2.2	FAF	67	DRN	71MS6	40	476
5.4	320	170.85	13000	2.5	F	67	DRN	71MS6	36	475
					FF	67	DRN	71MS6	42	476
6.0	285	228.99	13000	2.9	FA	67	DRN	63M4	33	477
7.0	240	195.39	13000	3.4	FAF	67	DRN	63M4	39	476
8.1	210	170.85	13000	3.8	F	67	DRN	63M4	36	475
					FF	67	DRN	63M4	42	476
4.6	375	199.70	10700	1.60						
5.0	340	183.60	10900	1.75	FA	57	DRN	71MS6	30	471
5.8	295	157.09	11200	2.0	FAF	57	DRN	71MS6	35	470
6.7	255	136.16	11400	2.4	F	57	DRN	71MS6	30	469
7.2	235	127.27	11500	2.5	FF	57	DRN	71MS6	36	470
8.3	205	110.01	11500	2.9						
6.9	245	199.70	11400	2.4	FA	57	DRN	63M4	29	471
7.5	225	183.60	11500	2.6	FAF	57	DRN	63M4	34	470
8.8	196	157.09	11500	3.1	F	57	DRN	63M4	29	469
10	170	136.16	11500	3.5	FF	57	DRN	63M4	36	470
11	159	127.27	11500	3.8						
4.8	355	190.76	6460	1.10	FA	47	DRN	71MS6	22	465
5.2	325	175.38	6780	1.20	FAF	47	DRN	71MS6	25	464
6.1	280	150.06	7220	1.40	F	47	DRN	71MS6	23	463
7.0	240	130.07	7500	1.65	FF	47	DRN	71MS6	26	464
7.5	225	121.57	7600	1.75						
7.2	235	190.76	7540	1.70	FA	47	DRN	63M4	22	465
7.8	215	175.38	7660	1.80	FAF	47	DRN	63M4	25	464
9.2	188	150.06	7840	2.1	F	47	DRN	63M4	23	463
11	163	130.07	7950	2.5	FF	47	DRN	63M4	26	464
11	152	121.57	8000	2.6						
7.8	220	117.88	3960	0.90	FA	37	DRN	71MS6	18	459
9.1	189	100.36	4450	1.05	FAF	37	DRN	71MS6	19	458
11	163	86.53	4750	1.25	F	37	DRN	71MS6	18	457
11	152	80.65	4860	1.30	FF	37	DRN	71MS6	20	458
13	132	70.50	5030	1.50						

<b>P<sub>m</sub> = 0.18 kW</b>										
<b>n<sub>a</sub></b> <b>min<sup>-1</sup></b>	<b>M<sub>a</sub></b> <b>Nm</b>	<b>i</b>	<b>F<sub>Ra</sub><sup>1)</sup></b> <b>N</b>	<b>SEW</b> <b>f<sub>B</sub></b>					<b>m</b> <b>kg</b>	
11	161	128.51	4770	1.25						
12	147	117.88	4900	1.35						
14	125	100.36	5080	1.60	<b>FA</b>	<b>37</b>	<b>DRN</b>	<b>63M4</b>	17	459
16	108	86.53	5200	1.85	<b>FAF</b>	<b>37</b>	<b>DRN</b>	<b>63M4</b>	19	458
17	101	80.65	5250	2.0	<b>F</b>	<b>37</b>	<b>DRN</b>	<b>63M4</b>	17	457
20	88	70.50	5320	2.3	<b>FF</b>	<b>37</b>	<b>DRN</b>	<b>63M4</b>	19	458
21	83	66.09	5350	2.4						
24	73	58.32	5390	2.7						
13	137	109.90	4500	0.95						
15	118	94.76	4500	1.10						
16	110	88.32	4500	1.20						
18	97	77.21	4500	1.35						
19	90	72.37	4500	1.45	<b>FA</b>	<b>27</b>	<b>DRN</b>	<b>63M4</b>	11	454
22	80	63.86	4500	1.65	<b>FAF</b>	<b>27</b>	<b>DRN</b>	<b>63M4</b>	12	453
24	71	56.62	4500	1.85	<b>F</b>	<b>27</b>	<b>DRN</b>	<b>63M4</b>	11	452
27	63	50.19	4500	2.1	<b>FF</b>	<b>27</b>	<b>DRN</b>	<b>63M4</b>	12	453
29	58	46.78	4500	2.2						
34	51	40.89	4360	2.5						
36	48	38.33	4290	2.7						
41	42	33.83	4150	3.1						
47	37	29.56	4000	3.5						
51	34	27.18	3900	3.8						
59	29	23.25	3730	4.5						
68	25	20.15	3580	5.2						
73	24	18.84	3510	5.5						
84	20	16.28	3360	6.4						
99	17	13.84	3200	7.5						
111	15	12.35	3100	8.4	<b>FA</b>	<b>27</b>	<b>DRN</b>	<b>63M4</b>	11	454
130	13	10.55	2950	9.9	<b>FAF</b>	<b>27</b>	<b>DRN</b>	<b>63M4</b>	11	453
139	12	9.88	2890	11	<b>F</b>	<b>27</b>	<b>DRN</b>	<b>63M4</b>	11	452
146	12	9.40	2840	11	<b>FF</b>	<b>27</b>	<b>DRN</b>	<b>63M4</b>	12	453
169	10	8.13	2710	12						
199	8.6	6.91	2580	13						
223	7.7	6.17	2490	14						
261	6.6	5.27	2370	15						
279	6.2	4.93	2320	16						
331	5.2	4.16	2200	17						
335	5.1	8.13	2190	24						
395	4.4	6.91	2080	26	<b>FA</b>	<b>27</b>	<b>DRN</b>	<b>63MS2</b>	9.8	454
442	3.9	6.17	2000	28	<b>FAF</b>	<b>27</b>	<b>DRN</b>	<b>63MS2</b>	11	453
517	3.3	5.27	1900	30	<b>F</b>	<b>27</b>	<b>DRN</b>	<b>63MS2</b>	10	452
552	3.1	4.93	1860	31	<b>FF</b>	<b>27</b>	<b>DRN</b>	<b>63MS2</b>	11	453
656	2.6	4.16	1760	33						

<b>P<sub>m</sub> = 0.25 kW</b>										
<b>n<sub>a</sub></b> <b>min<sup>-1</sup></b>	<b>M<sub>a</sub></b> <b>Nm</b>	<b>i</b>	<b>F<sub>Ra</sub><sup>1)</sup></b> <b>N</b>	<b>SEW</b> <b>f<sub>B</sub></b>					<b>m</b> <b>kg</b>	
0.16	12100	8831	90000	1.00						
0.18	10500	7643	90000	1.15	<b>FA</b>	<b>127R77</b>	<b>DRN</b>	<b>71MS4</b>	425	524
0.21	9610	6715	90000	1.25	<b>FAF</b>	<b>127R77</b>	<b>DRN</b>	<b>71MS4</b>	465	524
0.24	8480	5925	90000	1.40	<b>F</b>	<b>127R77</b>	<b>DRN</b>	<b>71MS4</b>	465	524
0.27	7270	5153	90000	1.65	<b>FF</b>	<b>127R77</b>	<b>DRN</b>	<b>71MS4</b>	510	524
0.31	6290	4533	90000	1.90						
0.24	8270	5954	48200	0.95	<b>FA</b>	<b>107R77</b>	<b>DRN</b>	<b>71MS4</b>	275	524
0.27	7200	5223	51000	1.05	<b>FAF</b>	<b>107R77</b>	<b>DRN</b>	<b>71MS4</b>	295	524
0.31	6530	4567	52700	1.15	<b>F</b>	<b>107R77</b>	<b>DRN</b>	<b>71MS4</b>	295	524
0.40	4970	3521	56400	1.55	<b>FF</b>	<b>107R77</b>	<b>DRN</b>	<b>71MS4</b>	320	524
0.46	4380	3037	57600	1.75						
0.51	3980	2756	58500	1.95	<b>FA</b>	<b>107R77</b>	<b>DRN</b>	<b>71MS4</b>	275	524
0.59	3420	2369	59600	2.2	<b>FAF</b>	<b>107R77</b>	<b>DRN</b>	<b>71MS4</b>	295	524
0.68	2980	2068	60400	2.6	<b>F</b>	<b>107R77</b>	<b>DRN</b>	<b>71MS4</b>	290	524
0.88	2280	1597	61700	3.4	<b>FF</b>	<b>107R77</b>	<b>DRN</b>	<b>71MS4</b>	320	524
1.0	1970	1401	62200	3.9						

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<b>P<sub>m</sub> = 0.25 kW</b>										
<b>n<sub>a</sub></b> <b>min<sup>-1</sup></b>	<b>M<sub>a</sub></b> <b>Nm</b>	<b>i</b>	<b>F<sub>Ra</sub><sup>1)</sup></b> <b>N</b>	<b>SEW</b> <b>f<sub>B</sub></b>					<b>m</b> <b>kg</b>	
0.48	4290	2907	29900	1.00						
0.55	3840	2553	31200	1.10						
0.63	3380	2245	32400	1.25						
0.71	2940	1970	33400	1.45	FA	97R57	DRN	71MS4	185	524
0.82	2600	1722	34200	1.65	FAF	97R57	DRN	71MS4	205	524
0.92	2300	1527	34800	1.85	F	97R57	DRN	71MS4	190	524
1.1	1920	1327	35500	2.2	FF	97R57	DRN	71MS4	225	524
1.2	1760	1171	35800	2.4						
1.4	1540	1022	36200	2.8						
0.73	2880	1930	23400	1.05						
0.82	2570	1709	24500	1.15						
0.94	2250	1493	25600	1.35						
1.1	1880	1300	26800	1.60	FA	87R57	DRN	71MS4	120	524
1.2	1680	1148	27300	1.80	FAF	87R57	DRN	71MS4	130	524
1.4	1460	1010	27900	2.0	F	87R57	DRN	71MS4	125	524
1.6	1300	887	28300	2.3	FF	87R57	DRN	71MS4	140	524
1.8	1120	780	28700	2.6						
2.1	950	674	29100	3.1						
1.3	1600	1053	15000	0.95						
1.5	1370	910	16500	1.10						
1.7	1190	810	17500	1.25	FA	77R37	DRN	71MS4	67	524
2.0	1040	710	18100	1.45	FAF	77R37	DRN	71MS4	73	524
2.3	920	615	18600	1.65	F	77R37	DRN	71MS4	71	524
2.6	800	538	19000	1.85	FF	77R37	DRN	71MS4	81	524
2.9	715	480	19200	2.1						
3.4	605	413	19500	2.5						
2.5	850	572	9940	0.95	FA	67R37	DRN	71MS4	45	524
2.8	745	509	10900	1.10	FAF	67R37	DRN	71MS4	51	524
3.2	640	437	11600	1.25	F	67R37	DRN	71MS4	47	524
					FF	67R37	DRN	71MS4	53	524
2.8	765	500	10800	1.05						
3.1	695	454	11300	1.15	FA	67R37	DRN	71MS4	43	524
3.6	600	392	11900	1.35	FAF	67R37	DRN	71MS4	50	524
4.2	505	333	12400	1.60	F	67R37	DRN	71MS4	46	524
4.7	445	297	12600	1.85	FF	67R37	DRN	71MS4	52	524
5.4	390	261	12800	2.1						
5.9	350	238	13000	2.3						
3.6	570	386	9420	1.05	FA	57R37	DRN	71MS4	41	524
4.2	495	338	9940	1.20	FAF	57R37	DRN	71MS4	46	524
5.5	375	255	10700	1.60	F	57R37	DRN	71MS4	41	524
					FF	57R37	DRN	71MS4	47	524
3.7	585	382	9280	1.00						
4.2	505	330	9880	1.20	FA	57R37	DRN	71MS4	40	524
4.7	455	298	10200	1.30	FAF	57R37	DRN	71MS4	46	524
5.4	400	262	10600	1.50	F	57R37	DRN	71MS4	40	524
6.2	340	226	10900	1.75	FF	57R37	DRN	71MS4	47	524
7.0	295	200	11100	2.0						
8.3	250	170	11400	2.4						
5.6	370	249	6310	1.10	FA	47R17	DRN	71MS4	26	524
6.4	325	218	6780	1.20	FAF	47R17	DRN	71MS4	28	524
7.3	290	193	7150	1.40	F	47R17	DRN	71MS4	26	524
8.1	260	175	7360	1.50	FF	47R17	DRN	71MS4	30	524
5.5	380	253	6180	1.05						
6.5	335	217	6700	1.20	FA	47R17	DRN	71MS4	25	524
7.4	290	190	7130	1.35	FAF	47R17	DRN	71MS4	28	524
7.9	270	178	7280	1.45	F	47R17	DRN	71MS4	26	524
9.4	225	149	7610	1.75	FF	47R17	DRN	71MS4	29	524
11	200	131	7770	2.0						
9.7	225	145	3880	0.90	FA	37R17	DRN	71MS4	21	524
11	200	129	4300	1.00	FAF	37R17	DRN	71MS4	22	524
12	182	118	4530	1.10	F	37R17	DRN	71MS4	21	524
14	151	98	4870	1.35	FF	37R17	DRN	71MS4	23	524
16	132	87	5030	1.50						

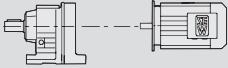

<b>P<sub>m</sub> = 0.25 kW</b>										
<b>n<sub>a</sub></b> <b>min<sup>-1</sup></b>	<b>M<sub>a</sub></b> <b>Nm</b>	<b>i</b>	<b>F<sub>Ra</sub><sup>1)</sup></b> <b>N</b>	<b>SEW</b> <b>f<sub>B</sub></b>					<b>m</b> <b>kg</b>	
3.2	735	281.71	19200	2.0	FA	77	DRN	71M6	59	485
3.5	685	262.93	19300	2.2	FAF	77	DRN	71M6	65	483
4.0	585	225.79	19500	2.5	F	77	DRN	71M6	62	482
4.6	515	198.31	19700	2.9	FF	77	DRN	71M6	73	483
4.9	490	188.40	19700	3.0						
4.0	595	228.99	11900	1.35	FA	67	DRN	71M6	35	477
4.7	505	195.39	12400	1.60	FAF	67	DRN	71M6	41	476
5.4	445	170.85	12600	1.85	F	67	DRN	71M6	37	475
5.6	420	162.31	12700	1.95	FF	67	DRN	71M6	44	476
6.4	370	142.40	12900	2.2						
6.1	385	228.99	12800	2.1	FA	67	DRN	71MS4	33	477
7.2	330	195.39	13000	2.5	FAF	67	DRN	71MS4	40	476
8.2	290	170.85	13000	2.8	F	67	DRN	71MS4	36	475
8.7	275	162.31	13000	3.0	FF	67	DRN	71MS4	42	476
9.9	240	142.40	13000	3.4						
4.6	520	199.70	9780	1.15	FA	57	DRN	71M6	31	471
5.0	475	183.60	10100	1.25	FAF	57	DRN	71M6	36	470
5.8	405	157.09	10500	1.45	F	57	DRN	71M6	31	469
6.7	355	136.16	10800	1.70	FF	57	DRN	71M6	37	470
7.2	330	127.27	11000	1.80						
8.3	285	110.01	11200	2.1						
7.0	335	199.70	10900	1.75	FA	57	DRN	71MS4	30	471
7.7	310	183.60	11100	1.90	FAF	57	DRN	71MS4	35	470
8.9	265	157.09	11300	2.2	F	57	DRN	71MS4	30	469
10	230	136.16	11500	2.6	FF	57	DRN	71MS4	36	470
11	215	127.27	11500	2.8						
13	187	110.01	11500	3.2						
6.1	390	150.06	6040	1.00	FA	47	DRN	71M6	24	465
7.0	335	130.07	6670	1.20	FAF	47	DRN	71M6	26	464
7.5	315	121.57	6900	1.25	F	47	DRN	71M6	24	463
8.7	270	105.09	7280	1.45	FF	47	DRN	71M6	28	464
7.4	320	190.76	6830	1.25	FA	47	DRN	71MS4	22	465
8.0	295	175.38	7080	1.35	FAF	47	DRN	71MS4	25	464
9.4	250	150.06	7420	1.55	F	47	DRN	71MS4	23	463
11	220	130.07	7650	1.80	FF	47	DRN	71MS4	26	464
12	205	121.57	7730	1.95						
13	179	105.09	7880	2.2						
16	152	89.29	8000	2.6						
11	215	128.51	4010	0.90						
12	200	117.88	4290	1.00	FA	37	DRN	71MS4	18	459
14	171	100.36	4670	1.15	FAF	37	DRN	71MS4	19	458
16	147	86.53	4900	1.35	F	37	DRN	71MS4	18	457
17	137	80.65	4990	1.45	FF	37	DRN	71MS4	20	458
20	120	70.50	5130	1.65						
21	112	66.09	5180	1.80						
24	99	58.32	5260	2.0						
26	93	54.54	5300	2.2						
27	88	51.70	5320	2.3						
30	80	47.02	5360	2.5						
32	74	43.83	5380	2.7						
37	65	38.31	5420	3.1						
39	61	35.91	5440	3.3						
44	54	31.69	5460	3.7						
18	131	77.21	4500	1.00	FA	27	DRN	71MS4	11	454
19	123	72.37	4500	1.05	FAF	27	DRN	71MS4	12	453
22	109	63.86	4500	1.20	F	27	DRN	71MS4	12	452
25	96	56.62	4480	1.35	FF	27	DRN	71MS4	13	453
28	85	50.19	4370	1.50						
30	79	46.78	4300	1.65						
34	69	40.89	4170	1.85						
37	65	38.33	4100	2.0						
42	57	33.83	3980	2.3						

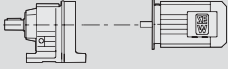

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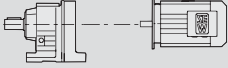

## Parallel-shaft helical gearmotors

F..DRN.. selection tables in kW

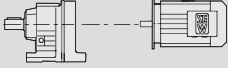

<b>P<sub>m</sub> = 0.25 kW</b>										
n <sub>a</sub> min <sup>-1</sup>	M <sub>a</sub> Nm	i	F <sub>Ra</sub> <sup>1)</sup> N	SEW f <sub>B</sub>					m kg	
48	50	29.56	3850	2.6						
52	46	27.18	3760	2.8						
60	40	23.25	3610	3.3						
70	34	20.15	3480	3.8						
75	32	18.84	3410	4.1						
86	28	16.28	3270	4.7						
102	24	13.84	3120	5.5						
114	21	12.35	3020	6.2	FA	27	DRN	71MS4	11	454
133	18	10.55	2890	7.2	FAF	27	DRN	71MS4	12	453
142	17	9.88	2830	7.7	F	27	DRN	71MS4	12	452
149	16	9.40	2770	8.1	FF	27	DRN	71MS4	13	453
173	14	8.13	2660	8.9						
203	12	6.91	2530	9.7						
228	10	6.17	2440	10						
267	8.9	5.27	2330	11						
285	8.4	4.93	2280	11						
338	7.1	4.16	2160	12						
339	7.0	8.13	2160	17						
399	6.0	6.91	2050	19	FA	27	DRN	63M2	11	454
447	5.3	6.17	1980	20	FAF	27	DRN	63M2	11	453
523	4.6	5.27	1890	22	F	27	DRN	63M2	11	452
558	4.3	4.93	1850	22	FF	27	DRN	63M2	12	453
663	3.6	4.16	1750	24						

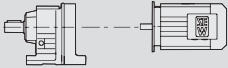

<b>P<sub>m</sub> = 0.37 kW</b>										
n <sub>a</sub> min <sup>-1</sup>	M <sub>a</sub> Nm	i	F <sub>Ra</sub> <sup>1)</sup> N	SEW f <sub>B</sub>					m kg	
0.21	14500	6715	85400	0.80						
0.24	12800	5925	88700	0.95						
0.27	11000	5153	90000	1.10	FA	127R77	DRN	71M4	430	524
0.31	9660	4533	90000	1.25	FAF	127R77	DRN	71M4	465	524
0.36	8450	3926	90000	1.40	F	127R77	DRN	71M4	465	524
0.41	7360	3454	90000	1.65	FF	127R77	DRN	71M4	510	524
0.47	6430	3031	90000	1.85						
0.47	6660	3037	52400	1.15	FA	107R77	DRN	71M4	275	524
0.51	6050	2756	53900	1.25	FAF	107R77	DRN	71M4	295	524
0.60	5200	2369	55900	1.50	F	107R77	DRN	71M4	295	524
0.68	4540	2068	57300	1.70	FF	107R77	DRN	71M4	320	524
0.89	3480	1597	59500	2.2						
0.72	4420	1970	29500	0.95						
0.82	3890	1722	31100	1.10	FA	97R57	DRN	71M4	185	524
0.93	3450	1527	32200	1.25	FAF	97R57	DRN	71M4	205	524
1.1	2910	1327	33500	1.45	F	97R57	DRN	71M4	195	524
1.2	2640	1171	34100	1.60	FF	97R57	DRN	71M4	225	524
1.4	2310	1022	34800	1.85						
1.6	1950	898	35500	2.2						
1.1	2850	1300	23500	1.05						
1.2	2540	1148	24600	1.20						
1.4	2220	1010	25700	1.35	FA	87R57	DRN	71M4	120	524
1.6	1960	887	26500	1.55	FAF	87R57	DRN	71M4	135	524
1.8	1710	780	27200	1.75	F	87R57	DRN	71M4	125	524
2.1	1460	674	27900	2.0	FF	87R57	DRN	71M4	140	524
2.3	1330	609	28200	2.2						
2.8	1120	515	28700	2.7						
3.1	990	452	29000	3.0						
1.8	1790	810	13300	0.85						
2.0	1570	710	15200	0.95						
2.3	1380	615	16500	1.10	FA	77R37	DRN	71M4	68	524
2.6	1210	538	17400	1.25	FAF	77R37	DRN	71M4	75	524
3.0	1070	480	18000	1.40	F	77R37	DRN	71M4	72	524
3.4	910	413	18600	1.65	FF	77R37	DRN	71M4	82	524
3.9	820	367	18900	1.80						
4.4	730	323	19200	2.0						

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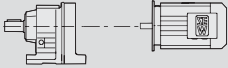

<b>P<sub>m</sub> = 0.37 kW</b>										
<b>n<sub>a</sub></b> <b>min<sup>-1</sup></b>	<b>M<sub>a</sub></b> <b>Nm</b>	<b>i</b>	<b>F<sub>Ra</sub><sup>1)</sup></b> <b>N</b>	<b>SEW</b> <b>f<sub>B</sub></b>					<b>m</b> <b>kg</b>	
3.7	860	384	9900	0.95	FA	67R37	DRN	71M4	46	524
4.2	765	338	10800	1.05	FAF	67R37	DRN	71M4	52	524
4.7	685	305	11400	1.20	F	67R37	DRN	71M4	49	524
5.5	575	257	12000	1.40	FF	67R37	DRN	71M4	55	524
6.1	505	231	12400	1.60						
5.5	565	255	9440	1.05	FA	57R37	DRN	71M4	42	524
7.0	440	201	10300	1.35	FAF	57R37	DRN	71M4	47	524
7.8	400	181	10600	1.50	F	57R37	DRN	71M4	42	524
					FF	57R37	DRN	71M4	49	524
5.4	600	262	9190	1.00	FA	57R37	DRN	71M4	41	524
6.3	510	226	9830	1.15	FAF	57R37	DRN	71M4	47	524
7.1	450	200	10200	1.35	F	57R37	DRN	71M4	41	524
8.3	380	170	10700	1.55	FF	57R37	DRN	71M4	48	524
9.3	340	152	10900	1.75						
11	295	134	11100	2.0						
8.1	390	175	6000	1.00	FA	47R17	DRN	71M4	27	524
9.6	330	147	6750	1.20	FAF	47R17	DRN	71M4	30	524
11	290	130	7120	1.35	F	47R17	DRN	71M4	28	524
					FF	47R17	DRN	71M4	31	524
3.5	1020	270.68	28900	2.9	FA	87	DRN	80MK6	100	492
3.7	960	255.37	29000	3.1	FAF	87	DRN	80MK6	115	490
4.1	860	228.93	29200	3.5	F	87	DRN	80MK6	105	489
					FF	87	DRN	80MK6	120	490
4.1	850	225.79	18800	1.75	FA	77	DRN	80MK6	61	485
4.7	745	198.31	19100	2.0	FAF	77	DRN	80MK6	68	483
5.0	710	188.40	19200	2.1	F	77	DRN	80MK6	65	482
5.6	625	166.47	19400	2.4	FF	77	DRN	80MK6	76	483
6.6	535	142.27	19600	2.8						
5.0	700	281.71	19300	2.1	FA	77	DRN	71M4	59	485
5.4	655	262.93	19400	2.3	FAF	77	DRN	71M4	65	483
6.3	560	225.79	19600	2.7	F	77	DRN	71M4	62	482
7.1	495	198.31	19700	3.0	FF	77	DRN	71M4	73	483
4.8	735	195.39	11000	1.10	FA	67	DRN	80MK6	37	477
5.5	645	170.85	11600	1.25	FAF	67	DRN	80MK6	43	476
5.8	610	162.31	11800	1.35	F	67	DRN	80MK6	40	475
6.6	535	142.40	12200	1.50	FF	67	DRN	80MK6	46	476
7.7	455	120.79	12600	1.80						
6.2	570	228.99	12100	1.45	FA	67	DRN	71M4	35	477
7.2	485	195.39	12500	1.70	FAF	67	DRN	71M4	41	476
8.3	425	170.85	12700	1.90	F	67	DRN	71M4	37	475
8.7	405	162.31	12800	2.0	FF	67	DRN	71M4	44	476
9.9	355	142.40	13000	2.3						
12	300	120.79	13000	2.7						
6.0	590	157.09	9250	1.00	FA	57	DRN	80MK6	33	471
6.9	510	136.16	9820	1.15	FAF	57	DRN	80MK6	39	470
7.3	480	127.27	10100	1.25	F	57	DRN	80MK6	33	469
8.5	415	110.01	10500	1.45	FF	57	DRN	80MK6	40	470
7.1	495	199.70	9930	1.20						
7.7	455	183.60	10200	1.30						
9.0	390	157.09	10600	1.55	FA	57	DRN	71M4	31	471
10	340	136.16	10900	1.75	FAF	57	DRN	71M4	36	470
11	315	127.27	11000	1.90	F	57	DRN	71M4	31	469
13	270	110.01	11300	2.2	FF	57	DRN	71M4	37	470
15	230	93.47	11500	2.6						
17	205	83.46	11500	2.9						
9.4	370	150.06	6260	1.05						
11	320	130.07	6820	1.25	FA	47	DRN	71M4	24	465
13	260	105.09	7370	1.50	FAF	47	DRN	71M4	26	464
16	220	89.29	7640	1.80	F	47	DRN	71M4	24	463
18	199	79.72	7780	2.0	FF	47	DRN	71M4	28	464
21	170	68.09	7920	2.4						
22	163	65.36	7950	2.5						

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<b>P<sub>m</sub> = 0.37 kW</b>										
$n_a$ min <sup>-1</sup>	$M_a$ Nm	$i$	$F_{Ra}^{1)}$ N	SEW $f_B$					$m$ kg	
16	215	86.53	4050	0.95						
18	200	80.65	4270	1.00						
20	176	70.50	4600	1.15						
21	165	66.09	4730	1.20						
24	146	58.32	4920	1.35						
26	136	54.54	5000	1.45	FA	37	DRN	71M4	19	459
27	129	51.70	5060	1.55	FAF	37	DRN	71M4	20	458
30	117	47.02	5140	1.70	F	37	DRN	71M4	19	457
32	109	43.83	5200	1.85	FF	37	DRN	71M4	21	458
37	96	38.31	5280	2.1						
39	90	35.91	5310	2.2						
45	79	31.69	5270	2.5						
50	70	28.09	5110	2.9						
59	60	23.88	4900	3.4						
25	141	56.62	4060	0.90	FA	27	DRN	71M4	13	454
28	125	50.19	4000	1.05	FAF	27	DRN	71M4	13	453
30	117	46.78	3960	1.10	F	27	DRN	71M4	13	452
35	102	40.89	3870	1.25	F	27	DRN	71M4	13	452
37	96	38.33	3820	1.35	FF	27	DRN	71M4	14	453
42	84	33.83	3730	1.55						
48	74	29.56	3630	1.75						
52	68	27.18	3560	1.90						
61	58	23.25	3440	2.2						
70	50	20.15	3320	2.6						
75	47	18.84	3270	2.8						
87	41	16.28	3150	3.2						
102	35	13.84	3020	3.8						
115	31	12.35	2930	4.2	FA	27	DRN	71M4	12	454
134	26	10.55	2800	4.9	FAF	27	DRN	71M4	13	453
143	25	9.88	2750	5.3	F	27	DRN	71M4	13	452
150	23	9.40	2690	5.5	FF	27	DRN	71M4	14	453
174	20	8.13	2590	6.1						
205	17	6.91	2470	6.6						
229	15	6.17	2390	7.1						
269	13	5.27	2280	7.6						
287	12	4.93	2240	7.8						
340	10	4.16	2120	8.4						
346	10	8.13	2120	12	FA	27	DRN	71MS2	11	454
407	8.7	6.91	2010	13	FAF	27	DRN	71MS2	12	453
456	7.8	6.17	1940	14	F	27	DRN	71MS2	12	452
533	6.6	5.27	1850	15	F	27	DRN	71MS2	12	452
570	6.2	4.93	1820	15	FF	27	DRN	71MS2	13	453
676	5.2	4.16	1720	17						

<b>P<sub>m</sub> = 0.55 kW</b>										
$n_a$ min <sup>-1</sup>	$M_a$ Nm	$i$	$F_{Ra}^{1)}$ N	SEW $f_B$					$m$ kg	
0.20	21600	7075	87400	0.90	FA	157R97	DRN	80MK4	770	524
0.23	19200	6295	96200	1.05	FAF	157R97	DRN	80MK4	830	524
0.27	16000	5404	105500	1.25	F	157R97	DRN	80MK4	790	524
0.52	8260	2780	119500	2.4	FF	157R97	DRN	80MK4	900	524
0.59	7300	2427	120000	2.7	FA	157R97	DRN	80MK4	770	524
0.86	5210	1674	120000	3.8	FAF	157R97	DRN	80MK4	820	524
1.1	4010	1308	120000	5.0	F	157R97	DRN	80MK4	790	524
1.2	3510	1169	120000	5.7	FF	157R97	DRN	80MK4	890	524
0.37	12700	3926	89100	0.95	FA	127R77	DRN	80MK4	430	524
0.42	11000	3454	90000	1.10	FAF	127R77	DRN	80MK4	470	524
0.47	9700	3031	90000	1.25	F	127R77	DRN	80MK4	465	524
					FF	127R77	DRN	80MK4	510	524



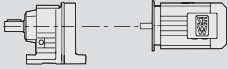

<b>P<sub>m</sub> = 0.55 kW</b>										
<b>n<sub>a</sub></b> <b>min<sup>-1</sup></b>	<b>M<sub>a</sub></b> <b>Nm</b>	<b>i</b>	<b>F<sub>Ra</sub><sup>1)</sup></b> <b>N</b>	<b>SEW</b> <b>f<sub>B</sub></b>					<b>m</b> <b>kg</b>	
0.61	7790	2369	49500	1.00						
0.69	6800	2068	52100	1.15						
0.79	5840	1826	54400	1.30						
0.90	5220	1597	55800	1.45	FA	107R77	DRN	80MK4	280	524
1.0	4550	1401	57300	1.70	FAF	107R77	DRN	80MK4	300	524
1.1	3970	1243	58500	1.95	F	107R77	DRN	80MK4	295	524
1.3	3550	1087	59300	2.2	FF	107R77	DRN	80MK4	325	524
1.5	3030	950	60300	2.5						
1.7	2640	834	61000	2.9						
2.2	2050	640	62100	3.7						
1.1	4370	1327	29700	1.00						
1.2	3920	1171	31000	1.10						
1.4	3430	1022	32300	1.25						
1.6	2930	898	33500	1.45	FA	97R57	DRN	80MK4	190	524
1.8	2590	784	34200	1.65	FAF	97R57	DRN	80MK4	210	524
2.1	2250	690	34900	1.90	F	97R57	DRN	80MK4	195	524
2.4	1980	605	35400	2.2	FF	97R57	DRN	80MK4	230	524
2.7	1720	529	35900	2.5						
3.1	1520	467	36200	2.8						
3.5	1300	406	36600	3.3						
4.0	1170	363	36800	3.7						
1.6	2930	887	22000	1.00						
1.8	2560	780	24600	1.15						
2.1	2200	674	25800	1.35	FA	87R57	DRN	80MK4	120	524
2.4	2000	609	26400	1.50	FAF	87R57	DRN	80MK4	135	524
2.8	1690	515	27300	1.75	F	87R57	DRN	80MK4	130	524
3.2	1480	452	27800	2.0	FF	87R57	DRN	80MK4	145	524
4.2	1110	345	28700	2.7						
3.0	1600	480	15000	0.95	FA	77R37	DRN	80MK4	70	524
3.5	1360	413	16500	1.10	FAF	77R37	DRN	80MK4	77	524
3.9	1220	367	17300	1.25	F	77R37	DRN	80MK4	74	524
4.5	1080	323	18000	1.40	FF	77R37	DRN	80MK4	85	524
5.6	850	257	9970	0.95	FA	67R37	DRN	80MK4	48	524
6.2	760	231	10800	1.10	FAF	67R37	DRN	80MK4	54	524
7.0	680	205	11400	1.20	F	67R37	DRN	80MK4	51	524
8.2	575	175	12000	1.40	FF	67R37	DRN	80MK4	57	524
3.6	1470	270.68	27900	2.0	FA	87	DRN	90SR6	110	492
3.8	1380	255.37	28100	2.2	FAF	87	DRN	90SR6	120	490
4.2	1240	228.93	28400	2.4	F	87	DRN	90SR6	115	489
4.9	1070	197.20	28800	2.8	FF	87	DRN	90SR6	130	490
5.4	970	179.97	29000	3.1						
4.3	1220	225.79	17300	1.20	FA	77	DRN	90SR6	69	485
4.9	1070	198.31	18000	1.40	FAF	77	DRN	90SR6	76	483
5.1	1020	188.40	18200	1.45	F	77	DRN	90SR6	73	482
					FF	77	DRN	90SR6	84	483
5.8	900	166.47	18700	1.65	FA	77	DRN	90SR6	69	485
6.8	770	142.27	19100	1.95	FAF	77	DRN	90SR6	76	483
7.4	705	130.42	19200	2.1	F	77	DRN	90SR6	73	482
					FF	77	DRN	90SR6	84	483
6.4	820	225.79	18900	1.80						
7.2	725	198.31	19200	2.1						
7.6	685	188.40	19300	2.2	FA	77	DRN	80MK4	61	485
8.6	605	166.47	19500	2.5	FAF	77	DRN	80MK4	68	483
10	520	142.27	19700	2.9	F	77	DRN	80MK4	65	482
11	475	130.42	19700	3.1	FF	77	DRN	80MK4	76	483
13	415	114.45	19800	3.6						
13	395	108.46*	19900	3.8						
15	345	94.93	19900	4.3						

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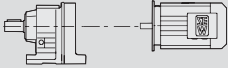

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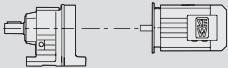

## Parallel-shaft helical gearmotors

F..DRN.. selection tables in kW

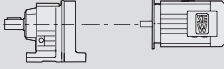

<b>P<sub>m</sub> = 0.55 kW</b>										
<b>n<sub>a</sub></b> <b>min<sup>-1</sup></b>	<b>M<sub>a</sub></b> <b>Nm</b>	<b>i</b>	<b>F<sub>Ra</sub><sup>1)</sup></b> <b>N</b>	<b>SEW</b> <b>f<sub>B</sub></b>					<b>m</b> <b>kg</b>	
7.3	715	195.39	11200	1.15						
8.4	625	170.85	11700	1.30						
8.8	590	162.31	11900	1.40	FA	67	DRN	80MK4	37	477
10	520	142.40	12300	1.55	FAF	67	DRN	80MK4	43	476
12	440	120.79	12700	1.85	F	67	DRN	80MK4	40	475
13	395	109.04	12800	2.0	FF	67	DRN	80MK4	46	476
15	350	95.94	13000	2.3						
16	330	90.59	13000	2.5						
18	290	79.76	13000	2.8						
9.1	570	157.09	9390	1.05						
11	495	136.16	9930	1.20						
11	465	127.27	10200	1.30	FA	57	DRN	80MK4	33	471
13	400	110.01	10600	1.50	FAF	57	DRN	80MK4	39	470
15	340	93.47	10900	1.75	F	57	DRN	80MK4	33	469
17	305	83.46	11100	1.95	FF	57	DRN	80MK4	40	470
20	265	72.98	11300	2.2						
21	245	68.22	11400	2.4						
24	215	58.97	11500	2.8						
14	380	105.09	6130	1.05						
16	325	89.29	6800	1.20						
18	290	79.72	7130	1.35	FA	47	DRN	80MK4	26	465
21	245	68.09	7460	1.60	FAF	47	DRN	80MK4	29	464
22	235	65.36	7530	1.65	F	47	DRN	80MK4	27	463
25	205	56.49	7730	1.95	FF	47	DRN	80MK4	30	464
30	176	48.00*	7890	2.3						
33	157	42.86	7980	2.5						
25	210	58.32	4090	0.95						
26	200	54.54	4300	1.00						
28	189	51.70	4440	1.05						
31	172	47.02	4650	1.15	FA	37	DRN	80MK4	21	459
33	160	43.83	4780	1.25	FAF	37	DRN	80MK4	23	458
37	140	38.31	4970	1.45	F	37	DRN	80MK4	22	457
40	131	35.91	5040	1.50	FF	37	DRN	80MK4	23	458
45	116	31.69	4940	1.70						
51	103	28.09	4820	1.95						
60	87	23.88	4640	2.3						
61	86	23.63	4630	2.3	FA	37	DRN	80MK4	21	459
70	75	20.57	4480	2.7	FAF	37	DRN	80MK4	22	458
74	71	19.27	4410	2.8	F	37	DRN	80MK4	21	457
84	62	17.03	4280	3.2	FF	37	DRN	80MK4	23	458
100	52	14.33	4090	3.8						
37	144	77.21	3410	0.90	FA	27	DRN	71M2	13	454
39	135	72.37	3390	0.95	FAF	27	DRN	71M2	13	453
44	119	63.86	3340	1.10	F	27	DRN	71M2	13	452
50	105	56.62	3290	1.25	FF	27	DRN	71M2	14	453
56	93	50.19	3230	1.40						
62	85	23.25	3180	1.55						
71	74	20.15	3100	1.75						
76	69	18.84	3060	1.90						
88	60	16.28	2970	2.2						
104	51	13.84	2860	2.6						
116	45	12.35	2790	2.9	FA	27	DRN	80MK4	15	454
136	39	10.55	2680	3.4	FAF	27	DRN	80MK4	15	453
145	36	9.88	2640	3.6	F	27	DRN	80MK4	15	452
153	34	9.40	2570	3.8	FF	27	DRN	80MK4	16	453
177	30	8.13	2480	4.1						
208	25	6.91	2380	4.5						
233	23	6.17	2310	4.8						
272	19	5.27	2210	5.2						
291	18	4.93	2170	5.3						
345	15	4.16	2070	5.7						

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<b>P<sub>m</sub> = 0.55 kW</b>										
n <sub>a</sub> min <sup>-1</sup>	M <sub>a</sub> Nm	i	F <sub>Ra</sub> <sup>1)</sup> N	SEW f <sub>B</sub>					m kg	
348	15	8.13	2060	8.1						
409	13	6.91	1970	8.9	FA	27	DRN	71M2	12	454
458	11	6.17	1900	9.5	FAF	27	DRN	71M2	13	453
536	9.8	5.27	1820	10	F	27	DRN	71M2	13	452
573	9.2	4.93	1780	10	FF	27	DRN	71M2	14	453
680	7.7	4.16	1690	11						

<b>P<sub>m</sub> = 0.75 kW</b>										
n <sub>a</sub> min <sup>-1</sup>	M <sub>a</sub> Nm	i	F <sub>Ra</sub> <sup>1)</sup> N	SEW f <sub>B</sub>					m kg	
0.27	22600	5404	72400	0.90	FA	157R97	DRN	80M4	770	524
0.30	19900	4831	93900	1.00	FAF	157R97	DRN	80M4	830	524
0.35	16800	4130	103600	1.20	F	157R97	DRN	80M4	790	524
0.52	11600	2780	114700	1.70	FF	157R97	DRN	80M4	900	524
0.59	10300	2427	116800	1.95						
0.66	9140	2185	118400	2.2	FA	157R97	DRN	80M4	770	524
0.74	8130	1944	119600	2.5	FAF	157R97	DRN	80M4	830	524
0.86	7280	1674	120000	2.7	F	157R97	DRN	80M4	790	524
1.1	5620	1308	120000	3.5	FF	157R97	DRN	80M4	900	524
1.2	4960	1169	120000	4.0						
0.48	13400	3031	87700	0.90	FA	127R77	DRN	80M4	435	524
					FAF	127R77	DRN	80M4	470	524
					F	127R77	DRN	80M4	470	524
					FF	127R77	DRN	80M4	520	524
0.54	12000	2672	90000	1.00						
0.61	10500	2357	90000	1.15	FA	127R77	DRN	80M4	435	524
0.71	9120	2038	90000	1.30	FAF	127R77	DRN	80M4	470	524
0.81	7940	1784	90000	1.50	F	127R77	DRN	80M4	470	524
0.90	7120	1606	90000	1.70	FF	127R77	DRN	80M4	510	524
0.79	8090	1826	48700	0.95						
0.90	7200	1597	51100	1.05						
1.0	6280	1401	53300	1.20	FA	107R77	DRN	80M4	280	524
1.2	5510	1243	55200	1.40	FAF	107R77	DRN	80M4	305	524
1.3	4900	1087	56500	1.55	F	107R77	DRN	80M4	300	524
1.5	4210	950	58000	1.80	FF	107R77	DRN	80M4	325	524
1.7	3670	834	59100	2.1						
2.2	2850	640	60700	2.7						
3.3	1940	436	62300	4.0						
1.4	4690	1022	26900	0.90						
1.6	4040	898	30600	1.05						
1.8	3560	784	31900	1.20						
2.1	3100	690	33100	1.40	FA	97R57	DRN	80M4	190	524
2.4	2730	605	33900	1.55	FAF	97R57	DRN	80M4	215	524
2.7	2370	529	34700	1.80	F	97R57	DRN	80M4	200	524
3.1	2090	467	35200	2.0	FF	97R57	DRN	80M4	230	524
3.5	1800	406	35700	2.4						
4.0	1620	363	36100	2.6						
2.1	3030	674	18400	1.00	FA	87R57	DRN	80M4	125	524
2.4	2750	609	23900	1.10	FAF	87R57	DRN	80M4	140	524
2.8	2320	515	25400	1.30	F	87R57	DRN	80M4	130	524
3.2	2040	452	26300	1.45	FF	87R57	DRN	80M4	145	524
4.2	1540	345	27700	1.95						
3.9	1670	367	14400	0.90	FA	77R37	DRN	80M4	74	524
4.5	1480	323	15800	1.00	FAF	77R37	DRN	80M4	80	524
5.2	1270	280	17000	1.15	F	77R37	DRN	80M4	77	524
					FF	77R37	DRN	80M4	88	524
3.5	2070	276.77	35300	2.1	FA	97	DRN	90S6	175	499
3.8	1890	253.41	35600	2.3	FAF	97	DRN	90S6	195	497
4.3	1670	223.88	36000	2.6	F	97	DRN	90S6	180	496
					FF	97	DRN	90S6	215	497
3.5	2020	270.68	26400	1.50	FA	87	DRN	90S6	110	492
3.8	1910	255.37	26700	1.55	FAF	87	DRN	90S6	120	490
4.2	1710	228.93	27300	1.75	F	87	DRN	90S6	115	489
4.8	1470	197.20	27900	2.0	FF	87	DRN	90S6	130	490


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<b>P<sub>m</sub> = 0.75 kW</b>											
<b>n<sub>a</sub></b> <b>min<sup>-1</sup></b>	<b>M<sub>a</sub></b> <b>Nm</b>	<b>i</b>	<b>F<sub>Ra</sub><sup>1)</sup></b> <b>N</b>	<b>SEW</b> <b>f<sub>B</sub></b>					<b>m</b> <b>kg</b>		
<b>5.3</b>	1340	179.97	28200	2.2	<b>FA</b>	<b>87</b>	<b>DRN</b>	<b>90S6</b>	110	492	
	<b>6.0</b>	1190	159.61	28600	2.5	<b>FAF</b>	<b>87</b>	<b>DRN</b>	<b>90S6</b>	120	490
						<b>F</b>	<b>87</b>	<b>DRN</b>	<b>90S6</b>	115	489
						<b>FF</b>	<b>87</b>	<b>DRN</b>	<b>90S6</b>	130	490
<b>5.3</b>	1340	270.68	28200	2.2	<b>FA</b>	<b>87</b>	<b>DRN</b>	<b>80M4</b>	105	492	
	<b>5.6</b>	1270	255.37	28400	2.4	<b>FAF</b>	<b>87</b>	<b>DRN</b>	<b>80M4</b>	115	490
						<b>F</b>	<b>87</b>	<b>DRN</b>	<b>80M4</b>	110	489
						<b>FF</b>	<b>87</b>	<b>DRN</b>	<b>80M4</b>	125	490
<b>5.1</b>	1400	188.40	16300	1.05	<b>FA</b>	<b>77</b>	<b>DRN</b>	<b>90S6</b>	69	485	
	<b>5.8</b>	1240	166.47	17200	1.20	<b>FAF</b>	<b>77</b>	<b>DRN</b>	<b>90S6</b>	76	483
						<b>F</b>	<b>77</b>	<b>DRN</b>	<b>90S6</b>	73	482
						<b>FF</b>	<b>77</b>	<b>DRN</b>	<b>90S6</b>	84	483
<b>7.3</b>	970	130.42	18400	1.55	<b>FA</b>	<b>77</b>	<b>DRN</b>	<b>90S6</b>	69	485	
					<b>FAF</b>	<b>77</b>	<b>DRN</b>	<b>90S6</b>	76	483	
					<b>F</b>	<b>77</b>	<b>DRN</b>	<b>90S6</b>	73	482	
					<b>FF</b>	<b>77</b>	<b>DRN</b>	<b>90S6</b>	84	483	
<b>6.4</b>	1120	225.79	17800	1.35	<b>FA</b>	<b>77</b>	<b>DRN</b>	<b>80M4</b>	65	485	
					<b>FAF</b>	<b>77</b>	<b>DRN</b>	<b>80M4</b>	71	483	
					<b>F</b>	<b>77</b>	<b>DRN</b>	<b>80M4</b>	68	482	
					<b>FF</b>	<b>77</b>	<b>DRN</b>	<b>80M4</b>	79	483	
<b>8.7</b>	820	166.47	18900	1.80	<b>FA</b>	<b>77</b>	<b>DRN</b>	<b>80M4</b>	65	485	
					<b>FAF</b>	<b>77</b>	<b>DRN</b>	<b>80M4</b>	71	483	
					<b>F</b>	<b>77</b>	<b>DRN</b>	<b>80M4</b>	68	482	
					<b>FF</b>	<b>77</b>	<b>DRN</b>	<b>80M4</b>	79	483	
<b>10</b>	705	142.27	19200	2.1	<b>FA</b>	<b>77</b>	<b>DRN</b>	<b>80M4</b>	65	485	
					<b>FAF</b>	<b>77</b>	<b>DRN</b>	<b>80M4</b>	71	483	
					<b>F</b>	<b>77</b>	<b>DRN</b>	<b>80M4</b>	68	482	
					<b>FF</b>	<b>77</b>	<b>DRN</b>	<b>80M4</b>	79	483	
<b>11</b>	645	130.42	19400	2.3	<b>FA</b>	<b>77</b>	<b>DRN</b>	<b>80M4</b>	65	485	
					<b>FAF</b>	<b>77</b>	<b>DRN</b>	<b>80M4</b>	71	483	
					<b>F</b>	<b>77</b>	<b>DRN</b>	<b>80M4</b>	68	482	
					<b>FF</b>	<b>77</b>	<b>DRN</b>	<b>80M4</b>	79	483	
<b>13</b>	565	114.45	19600	2.6	<b>FA</b>	<b>77</b>	<b>DRN</b>	<b>80M4</b>	65	485	
					<b>FAF</b>	<b>77</b>	<b>DRN</b>	<b>80M4</b>	71	483	
					<b>F</b>	<b>77</b>	<b>DRN</b>	<b>80M4</b>	68	482	
					<b>FF</b>	<b>77</b>	<b>DRN</b>	<b>80M4</b>	79	483	
<b>13</b>	535	108.46*	19600	2.8	<b>FA</b>	<b>77</b>	<b>DRN</b>	<b>80M4</b>	65	485	
					<b>FAF</b>	<b>77</b>	<b>DRN</b>	<b>80M4</b>	71	483	
					<b>F</b>	<b>77</b>	<b>DRN</b>	<b>80M4</b>	68	482	
					<b>FF</b>	<b>77</b>	<b>DRN</b>	<b>80M4</b>	79	483	
<b>8.4</b>	840	170.85	10000	0.95	<b>FA</b>	<b>67</b>	<b>DRN</b>	<b>80M4</b>	41	477	
					<b>FAF</b>	<b>67</b>	<b>DRN</b>	<b>80M4</b>	47	476	
					<b>F</b>	<b>67</b>	<b>DRN</b>	<b>80M4</b>	43	475	
					<b>FF</b>	<b>67</b>	<b>DRN</b>	<b>80M4</b>	49	476	
<b>8.9</b>	800	162.31	10400	1.00	<b>FA</b>	<b>67</b>	<b>DRN</b>	<b>80M4</b>	41	477	
					<b>FAF</b>	<b>67</b>	<b>DRN</b>	<b>80M4</b>	47	476	
					<b>F</b>	<b>67</b>	<b>DRN</b>	<b>80M4</b>	43	475	
					<b>FF</b>	<b>67</b>	<b>DRN</b>	<b>80M4</b>	49	476	
<b>10</b>	705	142.40	11200	1.15	<b>FA</b>	<b>67</b>	<b>DRN</b>	<b>80M4</b>	41	477	
					<b>FAF</b>	<b>67</b>	<b>DRN</b>	<b>80M4</b>	47	476	
					<b>F</b>	<b>67</b>	<b>DRN</b>	<b>80M4</b>	43	475	
					<b>FF</b>	<b>67</b>	<b>DRN</b>	<b>80M4</b>	49	476	
<b>12</b>	600	120.79	11900	1.35	<b>FA</b>	<b>67</b>	<b>DRN</b>	<b>80M4</b>	41	477	
					<b>FAF</b>	<b>67</b>	<b>DRN</b>	<b>80M4</b>	47	476	
					<b>F</b>	<b>67</b>	<b>DRN</b>	<b>80M4</b>	43	475	
					<b>FF</b>	<b>67</b>	<b>DRN</b>	<b>80M4</b>	49	476	
<b>13</b>	540	109.04	12200	1.50	<b>FA</b>	<b>67</b>	<b>DRN</b>	<b>80M4</b>	41	477	
					<b>FAF</b>	<b>67</b>	<b>DRN</b>	<b>80M4</b>	47	476	
					<b>F</b>	<b>67</b>	<b>DRN</b>	<b>80M4</b>	43	475	
					<b>FF</b>	<b>67</b>	<b>DRN</b>	<b>80M4</b>	49	476	
<b>15</b>	475	95.94	12500	1.70	<b>FA</b>	<b>67</b>	<b>DRN</b>	<b>80M4</b>	41	477	
					<b>FAF</b>	<b>67</b>	<b>DRN</b>	<b>80M4</b>	47	476	
					<b>F</b>	<b>67</b>	<b>DRN</b>	<b>80M4</b>	43	475	
					<b>FF</b>	<b>67</b>	<b>DRN</b>	<b>80M4</b>	49	476	
<b>16</b>	450	90.59	12600	1.80	<b>FA</b>	<b>67</b>	<b>DRN</b>	<b>80M4</b>	41	477	
					<b>FAF</b>	<b>67</b>	<b>DRN</b>	<b>80M4</b>	47	476	
					<b>F</b>	<b>67</b>	<b>DRN</b>	<b>80M4</b>	43	475	
					<b>FF</b>	<b>67</b>	<b>DRN</b>	<b>80M4</b>	49	476	
<b>18</b>	395	79.76	12800	2.1	<b>FA</b>	<b>67</b>	<b>DRN</b>	<b>80M4</b>	41	477	
					<b>FAF</b>	<b>67</b>	<b>DRN</b>	<b>80M4</b>	47	476	
					<b>F</b>	<b>67</b>	<b>DRN</b>	<b>80M4</b>	43	475	
					<b>FF</b>	<b>67</b>	<b>DRN</b>	<b>80M4</b>	49	476	
<b>21</b>	335	67.65	13000	2.4	<b>FA</b>	<b>67</b>	<b>DRN</b>	<b>80M4</b>	41	477	
					<b>FAF</b>	<b>67</b>	<b>DRN</b>	<b>80M4</b>	47	476	
					<b>F</b>	<b>67</b>	<b>DRN</b>	<b>80M4</b>	43	475	
					<b>FF</b>	<b>67</b>	<b>DRN</b>	<b>80M4</b>	49	476	
<b>24</b>	300	61.07	13000	2.7	<b>FA</b>	<b>67</b>	<b>DRN</b>	<b>80M4</b>	41	477	
					<b>FAF</b>	<b>67</b>	<b>DRN</b>	<b>80M4</b>	47	476	
					<b>F</b>	<b>67</b>	<b>DRN</b>	<b>80M4</b>	43	475	
					<b>FF</b>	<b>67</b>	<b>DRN</b>	<b>80M4</b>	49	476	
<b>11</b>	630	127.27	7950	0.95	<b>FA</b>	<b>57</b>	<b>DRN</b>	<b>80M4</b>	37	471	
					<b>FAF</b>	<b>57</b>	<b>DRN</b>	<b>80M4</b>	42	470	
					<b>F</b>	<b>57</b>	<b>DRN</b>	<b>80M4</b>	37	469	
					<b>FF</b>	<b>57</b>	<b>DRN</b>	<b>80M4</b>	43	470	
<b>13</b>	545	110.01	9590	1.10	<b>FA</b>	<b>57</b>	<b>DRN</b>	<b>80M4</b>	37	471	
					<b>FAF</b>	<b>57</b>	<b>DRN</b>	<b>80M4</b>	42	470	
					<b>F</b>	<b>57</b>	<b>DRN</b>	<b>80M4</b>	37	469	
					<b>FF</b>	<b>57</b>	<b>DRN</b>	<b>80M4</b>	43	470	
<b>15</b>	460	93.47	10200	1.30	<b>FA</b>	<b>57</b>	<b>DRN</b>	<b>80M4</b>	37	471	
					<b>FAF</b>	<b>57</b>	<b>DRN</b>	<b>80M4</b>	42	470	
					<b>F</b>	<b>57</b>	<b>DRN</b>	<b>80M4</b>	37	469	
					<b>FF</b>	<b>57</b>	<b>DRN</b>	<b>80M4</b>	43	470	
<b>17</b>	415	83.46	10500	1.45	<b>FA</b>	<b>57</b>	<b>DRN</b>	<b>80M4</b>	37	471	
					<b>FAF</b>	<b>57</b>	<b>DRN</b>	<b>80M4</b>	42	470	
					<b>F</b>	<b>57</b>	<b>DRN</b>	<b>80M4</b>	37	469	
					<b>FF</b>	<b>57</b>	<b>DRN</b>	<b>80M4</b>	43	470	
<b>20</b>	360	72.98	10800	1.65	<b>FA</b>	<b>57</b>	<b>DRN</b>	<b>80M4</b>	37	471	
					<b>FAF</b>	<b>57</b>	<b>DRN</b>	<b>80M4</b>	42	470	
					<b>F</b>	<b>57</b>	<b>DRN</b>	<b>80M4</b>	37	469	
					<b>FF</b>	<b>57</b>	<b>DRN</b>	<b>80M4</b>	43	470	
<b>21</b>	335	68.22	10900	1.75	<b>FA</b>	<b>57</b>	<b>DRN</b>	<b>80M4</b>	37	471	
					<b>FAF</b>	<b>57</b>	<b>DRN</b>	<b>80M4</b>	42	470	
					<b>F</b>	<b>57</b>	<b>DRN</b>	<b>80M4</b>	37	469	
					<b>FF</b>	<b>57</b>	<b>DRN</b>	<b>80M4</b>	43	470	
<b>24</b>	290	58.97	11200	2.0	<b>FA</b>	<b>57</b>	<b>DRN</b>	<b>80M4</b>	37	471	
					<b>FAF</b>	<b>57</b>	<b>DRN</b>	<b>80M4</b>	42	470	
					<b>F</b>	<b>57</b>	<b>DRN</b>	<b>80M4</b>	37	469	
					<b>FF</b>	<b>57</b>	<b>DRN</b>	<b>80M4</b>	43	470	
<b>29</b>	245	50.10	11400	2.4	<b>FA</b>	<b>57</b>	<b>DRN</b>	<b>80M4</b>	37	471	
					<b>FAF</b>	<b>57</b>	<b>DRN</b>	<b>80M4</b>	42	470	
					<b>F</b>	<b>57</b>	<b>DRN</b>	<b>80M4</b>	37	469	
					<b>FF</b>	<b>57</b>	<b>DRN</b>	<b>80M4</b>	43	470	
<b>32</b>	220	44.73	11300	2.7	<b>FA</b>	<b>57</b>	<b>DRN</b>	<b>80M4</b>	37	471	
					<b>FAF</b>	<b>57</b>	<b>DRN</b>	<b>80M4</b>	42	470	
					<b>F</b>	<b>57</b>	<b>DRN</b>	<b>80M4</b>	37	469	
					<b>FF</b>	<b>57</b>	<b>DRN</b>	<b>80M4</b>	43	470	
<b>18</b>	395	79.72	5970	1.00	<b>FA</b>	<b>47</b>	<b>DRN</b>	<b>80M4</b>	29	465	
					<b>FAF</b>	<b>47</b>	<b>DRN</b>	<b>80M4</b>	32	464	
					<b>F</b>	<b>47</b>	<b>DRN</b>	<b>80M4</b>	30	463	
					<b>FF</b>	<b>47</b>	<b>DRN</b>	<b>80M4</b>	33	464	
<b>21</b>	335	68.09	6680	1.20	<b>FA</b>	<b>47</b>	<b>DRN</b>	<b>80M4</b>	29	465	
					<b>FAF</b>	<b>47</b>	<b>DRN</b>	<b>80M4</b>	32	464	
					<b>F</b>	<b>47</b>	<b>DRN</b>	<b>80M4</b>	30	463	
					<b>FF</b>	<b>47</b>	<b>DRN</b>	<b>80M4</b>	33	464	
<b>22</b>	325	65.36	6820	1.25	<b>FA</b>	<b>47</b>	<b>DRN</b>	<b>80M4</b>	29	465	
					<b>FAF</b>	<b>47</b>	<b>DRN</b>	<b>80M4</b>	32	464	
					<b>F</b>	<b>47</b>	<b>DRN</b>	<b>80M4</b>	30	463	
					<b>FF</b>	<b>47</b>	<b>DRN</b>	<b>80M4</b>	33	464	
<b>25</b>	280	56.49	7220	1.40	<b>FA</b>	<b>47</b>	<b>DRN</b>	<b>80M4</b>	29	465	
					<b>FAF</b>	<b>47</b>	<b>DRN</b>	<b>80M4</b>	32	464	
					<b>F</b>	<b>47</b>	<b>DRN</b>	<b>8</b>			

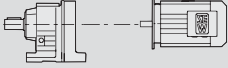

**P<sub>m</sub> = 0.75 kW**

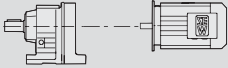

n <sub>a</sub> min <sup>-1</sup>	M <sub>a</sub> Nm	i	F <sub>Ra</sub> <sup>1)</sup> N	SEW f <sub>B</sub>					m kg	
61	118	23.63	4370	1.70						
70	102	20.57	4250	1.95	FA	37	DRN	80M4	24	459
75	96	19.27	4200	2.1	FAF	37	DRN	80M4	26	458
85	85	17.03	4090	2.4	F	37	DRN	80M4	25	457
100	71	14.33	3930	2.8	FF	37	DRN	80M4	27	458
112	64	12.87	3830	3.1						
351	20	8.13	2000	6.0						
413	17	6.91	1920	6.6	FA	27	DRN	80MS2	18	454
463	15	6.17	1860	7.0	FAF	27	DRN	80MS2	19	453
542	13	5.27	1780	7.6	F	27	DRN	80MS2	19	452
579	12	4.93	1740	7.8	FF	27	DRN	80MS2	19	453
687	10	4.16	1660	8.3						
62	116	23.25	2900	1.10						
71	100	20.15	2860	1.30						
76	94	18.84	2830	1.40						
88	81	16.28	2770	1.60						
104	69	13.84	2700	1.90						
117	61	12.35	2640	2.1	FA	27	DRN	80M4	18	454
136	52	10.55	2560	2.5	FAF	27	DRN	80M4	19	453
146	49	9.88	2520	2.6	F	27	DRN	80M4	19	452
153	47	9.40	2450	2.8	FF	27	DRN	80M4	19	453
177	40	8.13	2370	3.0						
208	34	6.91	2280	3.3						
234	31	6.17	2220	3.5						
273	26	5.27	2140	3.8						
292	25	4.93	2100	3.9						
346	21	4.16	2010	4.2						

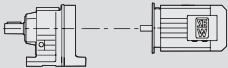

**P<sub>m</sub> = 1.1 kW**

n <sub>a</sub> min <sup>-1</sup>	M <sub>a</sub> Nm	i	F <sub>Ra</sub> <sup>1)</sup> N	SEW f <sub>B</sub>					m kg	
0.52	17400	2780	101800	1.15	FA	157R97	DRN	90S4	780	524
					FAF	157R97	DRN	90S4	840	524
					F	157R97	DRN	90S4	800	524
					FF	157R97	DRN	90S4	900	524
0.60	15400	2427	107100	1.30						
0.67	13700	2185	110800	1.45						
0.75	12200	1944	113700	1.65						
0.87	10800	1674	116000	1.85	FA	157R97	DRN	90S4	770	524
1.1	8380	1308	119300	2.4	FAF	157R97	DRN	90S4	830	524
1.2	7420	1169	120000	2.7	F	157R97	DRN	90S4	790	524
1.5	5930	953	120000	3.4	FF	157R97	DRN	90S4	900	524
1.7	5180	845	120000	3.9						
3.3	2740	446	120000	7.3						
4.8	1850	302	120000	11						
0.71	13400	2038	87700	0.90						
0.82	11700	1784	90000	1.00	FA	127R77	DRN	90S4	440	524
0.91	10500	1606	90000	1.15	FAF	127R77	DRN	90S4	475	524
1.1	9100	1390	90000	1.30	F	127R77	DRN	90S4	475	524
1.2	7950	1220	90000	1.50	FF	127R77	DRN	90S4	520	524
1.4	7070	1077	90000	1.70						
1.2	8140	1243	48600	0.95						
1.3	7200	1087	51100	1.05	FA	107R77	DRN	90S4	285	524
1.5	6220	950	53500	1.25	FAF	107R77	DRN	90S4	310	524
1.8	5430	834	55300	1.40	F	107R77	DRN	90S4	305	524
2.0	4770	736	56800	1.60	FF	107R77	DRN	90S4	330	524
2.3	4200	640	58000	1.85						
2.1	4560	690	29100	0.95						
2.4	4010	605	30700	1.05	FA	97R57	DRN	90S4	195	524
2.8	3490	529	32100	1.25	FAF	97R57	DRN	90S4	220	524
3.1	3080	467	33100	1.40	F	97R57	DRN	90S4	205	524
3.6	2660	406	34100	1.60	FF	97R57	DRN	90S4	240	524
4.0	2390	363	34600	1.80						

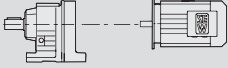

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<b>P<sub>m</sub> = 1.1 kW</b>										
<b>n<sub>a</sub></b> <b>min<sup>-1</sup></b>	<b>M<sub>a</sub></b> <b>Nm</b>	<b>i</b>	<b>F<sub>Ra</sub><sup>1)</sup></b> <b>N</b>	<b>SEW</b> <b>f<sub>B</sub></b>					<b>m</b> <b>kg</b>	
3.2	3000	452	19600	1.00	FA	87R57	DRN	90S4	130	524
4.2	2270	345	25600	1.30	FAF	87R57	DRN	90S4	145	524
4.8	1960	300	26500	1.50	F	87R57	DRN	90S4	140	524
5.8	1630	249	27500	1.85	FF	87R57	DRN	90S4	155	524
3.5	3030	276.77	33200	1.40	FA	97	DRN	90L6	175	499
3.8	2780	253.41	33800	1.55	FAF	97	DRN	90L6	200	497
4.3	2450	223.88	34500	1.75	F	97	DRN	90L6	185	496
5.0	2080	189.92	35200	2.1	FF	97	DRN	90L6	215	497
5.5	1910	174.87	35500	2.2						
5.3	1990	276.77	35400	2.1	FA	97	DRN	90S4	175	499
5.7	1820	253.41	35700	2.4	FAF	97	DRN	90S4	195	497
6.5	1610	223.88	36100	2.7	F	97	DRN	90S4	180	496
					FF	97	DRN	90S4	215	497
4.2	2510	228.93	24800	1.20	FA	87	DRN	90L6	110	492
4.8	2160	197.20	25900	1.40	FAF	87	DRN	90L6	125	490
5.3	1970	179.97	26500	1.50	F	87	DRN	90L6	120	489
6.0	1750	159.61	27200	1.70	FF	87	DRN	90L6	135	490
5.4	1950	270.68	26600	1.55	FA	87	DRN	90S4	110	492
5.7	1840	255.37	26900	1.65	FAF	87	DRN	90S4	120	490
6.4	1650	228.93	27400	1.80	F	87	DRN	90S4	115	489
7.4	1420	197.20	28000	2.1	FF	87	DRN	90S4	130	490
8.1	1290	179.97	28300	2.3	FA	87	DRN	90S4	110	492
9.1	1150	159.61	28600	2.6	FAF	87	DRN	90S4	120	490
11	960	134.16	29000	3.1	F	87	DRN	90S4	115	489
12	890	123.29	29200	3.4	FF	87	DRN	90S4	130	490
7.3	1430	198.31	16200	1.05	FA	77	DRN	90S4	69	485
7.7	1360	188.40	16600	1.10	FAF	77	DRN	90S4	76	483
8.7	1200	166.47	17400	1.25	F	77	DRN	90S4	73	482
10	1020	142.27	18200	1.45	FF	77	DRN	90S4	84	483
11	940	130.42	18500	1.60						
13	820	114.45	18900	1.80	FA	77	DRN	90S4	69	485
13	780	108.46*	19000	1.90	FAF	77	DRN	90S4	76	483
15	685	94.93	19300	2.2	F	77	DRN	90S4	73	482
17	615	85.52	19500	2.4	FF	77	DRN	90S4	84	483
19	540	75.02	19600	2.8						
12	870	120.79	9820	0.95	FA	67	DRN	90S4	47	477
					FAF	67	DRN	90S4	53	476
					F	67	DRN	90S4	50	475
					FF	67	DRN	90S4	56	476
13	785	109.04	10600	1.05						
15	690	95.94	11300	1.20						
16	650	90.59	11600	1.25						
18	575	79.76	12000	1.40						
22	485	67.65	12500	1.70	FA	67	DRN	90S4	47	477
24	440	61.07	12700	1.85	FAF	67	DRN	90S4	53	476
27	385	53.73	12900	2.1	F	67	DRN	90S4	50	475
29	365	50.74	12900	2.2	FF	67	DRN	90S4	56	476
34	310	43.20	13000	2.6						
37	280	39.26	13000	2.8						
43	245	34.01	13000	3.0						
17	600	83.46	9180	1.00						
20	525	72.98	9740	1.15						
21	490	68.22	9980	1.20						
25	425	58.97	10400	1.40	FA	57	DRN	90S4	43	471
29	360	50.10	10800	1.65	FAF	57	DRN	90S4	48	470
33	320	44.73	10600	1.85	F	57	DRN	90S4	43	469
38	275	38.21	10300	2.2	FF	57	DRN	90S4	50	470
41	255	35.79	10100	2.3						
48	215	30.15	9720	2.7						
26	405	56.49	5680	1.00	FA	47	DRN	90S4	35	465
30	345	48.00*	6600	1.15	FAF	47	DRN	90S4	38	464
					F	47	DRN	90S4	36	463
					FF	47	DRN	90S4	39	464

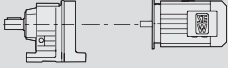

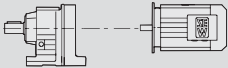

<b>P<sub>m</sub> = 1.1 kW</b>										
<b>n<sub>a</sub></b> <b>min<sup>-1</sup></b>	<b>M<sub>a</sub></b> <b>Nm</b>	<b>i</b>	<b>F<sub>Ra</sub><sup>1)</sup></b> <b>N</b>	<b>SEW</b> <b>f<sub>B</sub></b>					<b>m</b> <b>kg</b>	
34	305	42.86	6970	1.30	FA	47	DRN	90S4	35	465
40	260	36.61	7300	1.50	FAF	47	DRN	90S4	38	464
42	245	34.29	7210	1.60	F	47	DRN	90S4	36	463
50	205	28.88	6990	1.90	FF	47	DRN	90S4	39	464
47	220	30.86	7080	1.80	FA	47	DRN	90S4	34	465
50	210	29.32	7010	1.90	FAF	47	DRN	90S4	37	464
57	186	25.72	6820	2.1	F	47	DRN	90S4	35	463
67	158	21.82	6580	2.5	FF	47	DRN	90S4	38	464
74	142	19.70	6430	2.8						
46	225	31.69	3830	0.85	FA	37	DRN	90S4	30	459
52	200	28.09	3960	1.00	FAF	37	DRN	90S4	32	458
61	172	23.88	3920	1.15	F	37	DRN	90S4	31	457
					FF	37	DRN	90S4	33	458
71	149	20.57	3860	1.35						
76	139	19.27	3820	1.45						
85	123	17.03	3760	1.65	FA	37	DRN	90S4	30	459
102	103	14.33	3650	1.95	FAF	37	DRN	90S4	32	458
113	93	12.87	3580	2.1	F	37	DRN	90S4	31	457
131	80	11.08	3470	2.4	FF	37	DRN	90S4	32	458
140	75	10.42	3430	2.5						
162	65	8.97	3320	2.7						
72	146	20.15	2440	0.90						
77	136	18.84	2440	0.95						
89	118	16.28	2440	1.10						
105	100	13.84	2410	1.30						
118	89	12.35	2380	1.45						
138	76	10.55	2330	1.70	FA	27	DRN	90S4	24	454
147	71	9.88	2310	1.80	FAF	27	DRN	90S4	25	453
155	68	9.40	2230	1.90	F	27	DRN	90S4	24	452
179	59	8.13	2180	2.1	FF	27	DRN	90S4	25	453
211	50	6.91	2120	2.3						
236	45	6.17	2080	2.5						
276	38	5.27	2010	2.6						
295	36	4.93	1990	2.7						
350	30	4.16	1910	2.9						
352	30	8.13	1910	4.1						
414	25	6.91	1840	4.5	FA	27	DRN	80M2	18	454
464	23	6.17	1790	4.8	FAF	27	DRN	80M2	19	453
543	19	5.27	1720	5.2	F	27	DRN	80M2	19	452
580	18	4.93	1690	5.3	FF	27	DRN	80M2	19	453
688	15	4.16	1610	5.7						

<b>P<sub>m</sub> = 1.5 kW</b>										
<b>n<sub>a</sub></b> <b>min<sup>-1</sup></b>	<b>M<sub>a</sub></b> <b>Nm</b>	<b>i</b>	<b>F<sub>Ra</sub><sup>1)</sup></b> <b>N</b>	<b>SEW</b> <b>f<sub>B</sub></b>					<b>m</b> <b>kg</b>	
0.60	21300	2427	88800	0.95						
0.67	19000	2185	96900	1.05						
0.75	16900	1944	103200	1.20						
0.87	14800	1674	108300	1.35	FA	157R97	DRN	90L4	780	524
1.1	11500	1308	114800	1.75	FAF	157R97	DRN	90L4	840	524
1.2	10200	1169	116900	1.95	F	157R97	DRN	90L4	800	524
1.5	8250	953	119500	2.4	FF	157R97	DRN	90L4	900	524
1.7	7240	845	120000	2.8						
3.3	3820	446	120000	5.2						
4.8	2590	302	120000	7.7						
0.91	14400	1606	85700	0.85						
1.1	12400	1390	89500	0.95						
1.2	10900	1220	90000	1.10	FA	127R77	DRN	90L4	440	524
1.4	9690	1077	90000	1.25	FAF	127R77	DRN	90L4	480	524
1.6	8320	930	90000	1.45	F	127R77	DRN	90L4	480	524
1.8	7310	820	90000	1.65	FF	127R77	DRN	90L4	520	524
2.0	6460	727	90000	1.85						
2.2	5830	648	90000	2.1						

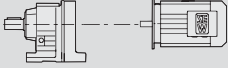

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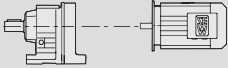

<b>P<sub>m</sub> = 1.5 kW</b>										
<b>n<sub>a</sub></b> <b>min<sup>-1</sup></b>	<b>M<sub>a</sub></b> <b>Nm</b>	<b>i</b>	<b>F<sub>Ra</sub><sup>1)</sup></b> <b>N</b>	<b>SEW</b> <b>f<sub>B</sub></b>					<b>m</b> <b>kg</b>	
1.5	8530	950	47500	0.90						
1.8	7460	834	50400	1.05						
2.0	6560	736	52700	1.15	<b>FA</b>	<b>107R77</b>	<b>DRN</b>	<b>90L4</b>	290	524
2.3	5760	640	54600	1.35	<b>FAF</b>	<b>107R77</b>	<b>DRN</b>	<b>90L4</b>	310	524
2.6	4980	560	56300	1.55	<b>F</b>	<b>107R77</b>	<b>DRN</b>	<b>90L4</b>	305	524
3.0	4350	489	57700	1.75	<b>FF</b>	<b>107R77</b>	<b>DRN</b>	<b>90L4</b>	335	524
3.4	3920	436	58600	1.95						
4.0	3320	370	59800	2.3						
2.8	4780	529	23800	0.90	<b>FA</b>	<b>97R57</b>	<b>DRN</b>	<b>90L4</b>	200	524
3.1	4220	467	30100	1.00	<b>FAF</b>	<b>97R57</b>	<b>DRN</b>	<b>90L4</b>	220	524
3.6	3650	406	31700	1.20	<b>F</b>	<b>97R57</b>	<b>DRN</b>	<b>90L4</b>	210	524
4.0	3270	363	32700	1.30	<b>FF</b>	<b>97R57</b>	<b>DRN</b>	<b>90L4</b>	240	524
4.9	2700	300	24100	1.10	<b>FA</b>	<b>87R57</b>	<b>DRN</b>	<b>90L4</b>	135	524
					<b>FAF</b>	<b>87R57</b>	<b>DRN</b>	<b>90L4</b>	150	524
5.9	2240	249	25700	1.35	<b>F</b>	<b>87R57</b>	<b>DRN</b>	<b>90L4</b>	140	524
					<b>FF</b>	<b>87R57</b>	<b>DRN</b>	<b>90L4</b>	155	524
3.8	3790	254.40*	58800	2.0	<b>FA</b>	<b>107</b>	<b>DRN</b>	<b>100L6</b>	265	506
4.5	3210	215.37	60000	2.4	<b>FAF</b>	<b>107</b>	<b>DRN</b>	<b>100L6</b>	285	504
4.8	2970	199.31	60400	2.6	<b>F</b>	<b>107</b>	<b>DRN</b>	<b>100L6</b>	280	503
5.4	2660	178.64	61000	2.9	<b>FF</b>	<b>107</b>	<b>DRN</b>	<b>100L6</b>	305	504
3.5	4120	276.77	30400	1.05	<b>FA</b>	<b>97</b>	<b>DRN</b>	<b>100L6</b>	190	499
3.8	3770	253.41	31400	1.15	<b>FAF</b>	<b>97</b>	<b>DRN</b>	<b>100L6</b>	210	497
4.3	3330	223.88	32500	1.30	<b>F</b>	<b>97</b>	<b>DRN</b>	<b>100L6</b>	195	496
5.1	2830	189.92	33700	1.50	<b>FF</b>	<b>97</b>	<b>DRN</b>	<b>100L6</b>	230	497
5.5	2600	174.87	34200	1.65						
5.3	2710	276.77	34000	1.60	<b>FA</b>	<b>97</b>	<b>DRN</b>	<b>90L4</b>	175	499
5.8	2480	253.41	34400	1.75	<b>FAF</b>	<b>97</b>	<b>DRN</b>	<b>90L4</b>	200	497
6.5	2190	223.88	35000	1.95	<b>F</b>	<b>97</b>	<b>DRN</b>	<b>90L4</b>	185	496
7.7	1860	189.92	35600	2.3	<b>FF</b>	<b>97</b>	<b>DRN</b>	<b>90L4</b>	215	497
8.3	1710	174.87	35900	2.5						
5.4	2650	270.68	24300	1.15	<b>FA</b>	<b>87</b>	<b>DRN</b>	<b>90L4</b>	110	492
5.7	2500	255.37	24800	1.20	<b>FAF</b>	<b>87</b>	<b>DRN</b>	<b>90L4</b>	125	490
6.4	2240	228.93	25700	1.35	<b>F</b>	<b>87</b>	<b>DRN</b>	<b>90L4</b>	120	489
7.4	1930	197.20	26600	1.55	<b>FF</b>	<b>87</b>	<b>DRN</b>	<b>90L4</b>	135	490
8.1	1760	179.97	27100	1.70	<b>FA</b>	<b>87</b>	<b>DRN</b>	<b>90L4</b>	110	492
9.2	1560	159.61	27700	1.90	<b>FAF</b>	<b>87</b>	<b>DRN</b>	<b>90L4</b>	125	490
11	1310	134.16	28300	2.3	<b>F</b>	<b>87</b>	<b>DRN</b>	<b>90L4</b>	120	489
13	1070	109.49	28800	2.8	<b>FF</b>	<b>87</b>	<b>DRN</b>	<b>90L4</b>	135	490
15	950	97.89	29100	3.1						
8.8	1630	166.47	14800	0.90	<b>FA</b>	<b>77</b>	<b>DRN</b>	<b>90L4</b>	73	485
10	1390	142.27	16400	1.10	<b>FAF</b>	<b>77</b>	<b>DRN</b>	<b>90L4</b>	79	483
11	1270	130.42	17000	1.15	<b>F</b>	<b>77</b>	<b>DRN</b>	<b>90L4</b>	76	482
13	1120	114.45	17800	1.35	<b>FF</b>	<b>77</b>	<b>DRN</b>	<b>90L4</b>	87	483
13	1060	108.46*	18100	1.40						
15	930	94.93	18600	1.60						
17	830	85.52	18900	1.80						
19	735	75.02	19200	2.0	<b>FA</b>	<b>77</b>	<b>DRN</b>	<b>90L4</b>	73	485
20	710	72.50	19200	2.1	<b>FAF</b>	<b>77</b>	<b>DRN</b>	<b>90L4</b>	79	483
22	650	66.46	19400	2.3	<b>F</b>	<b>77</b>	<b>DRN</b>	<b>90L4</b>	76	482
25	570	58.32	19600	2.6	<b>FF</b>	<b>77</b>	<b>DRN</b>	<b>90L4</b>	87	483
26	540	55.27	19600	2.8						
30	470	48.37	19700	3.2						
34	425	43.58	19800	3.5						
38	370	38.23	19900	4.0						
40	355	36.58	19900	3.1	<b>FA</b>	<b>77</b>	<b>DRN</b>	<b>90L4</b>	71	485
46	305	31.51	20000	4.5	<b>FAF</b>	<b>77</b>	<b>DRN</b>	<b>90L4</b>	78	483
					<b>F</b>	<b>77</b>	<b>DRN</b>	<b>90L4</b>	75	482
					<b>FF</b>	<b>77</b>	<b>DRN</b>	<b>90L4</b>	86	483



<b>P<sub>m</sub> = 1.5 kW</b>										
<b>n<sub>a</sub></b> min <sup>-1</sup>	<b>M<sub>a</sub></b> Nm	<b>i</b>	<b>F<sub>Ra</sub><sup>1)</sup></b> N	<b>SEW</b> <b>f<sub>B</sub></b>					<b>m</b> kg	
16	880	90.59	9650	0.90						
18	780	79.76	10600	1.05						
22	660	67.65	11500	1.25	FA	67	DRN	90L4	50	477
24	595	61.07	11900	1.35	FAF	67	DRN	90L4	56	476
27	525	53.73	12300	1.55	F	67	DRN	90L4	53	475
29	495	50.74	12400	1.65	FF	67	DRN	90L4	59	476
34	420	43.20	12700	1.95						
37	380	39.26	12900	2.0						
40	355	36.30	13000	2.3	FA	67	DRN	90L4	49	477
46	310	32.08	13000	2.6	FAF	67	DRN	90L4	55	476
53	265	27.41	13000	3.0	F	67	DRN	90L4	52	475
58	245	25.13	13000	3.3	FF	67	DRN	90L4	58	476
25	575	58.97	9370	1.05						
29	490	50.10	9980	1.20	FA	57	DRN	90L4	46	471
33	435	44.73	9940	1.35	FAF	57	DRN	90L4	52	470
38	370	38.21	9680	1.60	F	57	DRN	90L4	46	469
41	350	35.79	9560	1.70	FF	57	DRN	90L4	53	470
48	295	30.15	9240	2.0						
40	355	36.61	6460	1.10	FA	47	DRN	90L4	38	465
43	335	34.29	6600	1.20	FAF	47	DRN	90L4	41	464
51	280	28.88	6460	1.40	F	47	DRN	90L4	39	463
					FF	47	DRN	90L4	42	464
47	300	30.86	6520	1.30						
50	285	29.32	6480	1.40						
57	250	25.72	6360	1.60	FA	47	DRN	90L4	38	465
67	210	21.82	6190	1.85	FAF	47	DRN	90L4	40	464
74	193	19.70	6070	2.1	F	47	DRN	90L4	38	463
84	170	17.33	5920	2.4	FF	47	DRN	90L4	42	464
89	160	16.36	5850	2.5						
105	137	13.93	5650	2.9						
71	200	20.57	3410	1.00						
76	189	19.27	3410	1.05						
86	167	17.03	3390	1.20						
102	141	14.33	3340	1.40	FA	37	DRN	90L4	33	459
114	126	12.87	3300	1.60	FAF	37	DRN	90L4	35	458
132	109	11.08	3230	1.75	F	37	DRN	90L4	34	457
140	102	10.42	3200	1.80	FF	37	DRN	90L4	36	458
163	88	8.97	3120	2.0						
182	79	8.01	3060	2.2						
106	136	13.84	2090	0.95						
118	121	12.35	2090	1.05						
138	103	10.55	2090	1.25						
148	97	9.88	2080	1.35						
155	92	9.40	1990	1.40	FA	27	DRN	90L4	27	454
180	80	8.13	1970	1.55	FAF	27	DRN	90L4	28	453
212	68	6.91	1940	1.70	F	27	DRN	90L4	28	452
237	60	6.17	1920	1.80	FF	27	DRN	90L4	28	453
277	52	5.27	1880	1.95						
296	48	4.93	1860	2.0						
352	41	4.16	1800	2.1						
355	40	8.13	1800	3.0						
418	34	6.91	1740	3.3	FA	27	DRN	90S2	24	454
468	31	6.17	1700	3.6	FAF	27	DRN	90S2	25	453
548	26	5.27	1640	3.8	F	27	DRN	90S2	24	452
585	24	4.93	1620	3.9	FF	27	DRN	90S2	25	453
694	21	4.16	1550	4.2						
<b>P<sub>m</sub> = 2.2 kW</b>										
<b>n<sub>a</sub></b> min <sup>-1</sup>	<b>M<sub>a</sub></b> Nm	<b>i</b>	<b>F<sub>Ra</sub><sup>1)</sup></b> N	<b>SEW</b> <b>f<sub>B</sub></b>					<b>m</b> kg	
1.0	18100	1441	99700	1.10	FA	157R97	DRN	100LS4	780	524
					FAF	157R97	DRN	100LS4	840	524
					F	157R97	DRN	100LS4	810	524
					FF	157R97	DRN	100LS4	910	524

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<b>P<sub>m</sub> = 2.2 kW</b>										
<b>n<sub>a</sub></b> <b>min<sup>-1</sup></b>	<b>M<sub>a</sub></b> <b>Nm</b>	<b>i</b>	<b>F<sub>Ra</sub><sup>1)</sup></b> <b>N</b>	<b>SEW</b> <b>f<sub>B</sub></b>					<b>m</b> <b>kg</b>	
0.87	22200	1674	80700	0.90						
1.1	17300	1308	102200	1.15						
1.2	15400	1169	107100	1.30						
1.5	12400	953	113300	1.60						
1.7	10900	845	115800	1.80						
1.9	9850	764	117400	2.0	<b>FA</b>	<b>157R97</b>	<b>DRN</b>	<b>100LS4</b>	780	524
2.1	8760	680	118900	2.3	<b>FAF</b>	<b>157R97</b>	<b>DRN</b>	<b>100LS4</b>	840	524
2.5	7350	576	120000	2.7	<b>F</b>	<b>157R97</b>	<b>DRN</b>	<b>100LS4</b>	800	524
3.2	5790	446	120000	3.5	<b>FF</b>	<b>157R97</b>	<b>DRN</b>	<b>100LS4</b>	910	524
4.8	3920	302	120000	5.1						
5.3	3520	273	120000	5.7						
6.3	2950	232	120000	6.8						
7.4	2500	197	120000	8.0						
1.4	14400	1077	85700	0.85						
1.6	12400	930	89600	0.95						
1.8	10900	820	90000	1.10	<b>FA</b>	<b>127R77</b>	<b>DRN</b>	<b>100LS4</b>	445	524
2.0	9670	727	90000	1.25	<b>FAF</b>	<b>127R77</b>	<b>DRN</b>	<b>100LS4</b>	485	524
2.2	8680	648	90000	1.40	<b>F</b>	<b>127R77</b>	<b>DRN</b>	<b>100LS4</b>	480	524
2.6	7360	549	90000	1.65	<b>FF</b>	<b>127R77</b>	<b>DRN</b>	<b>100LS4</b>	530	524
2.9	6620	495	90000	1.80						
3.4	5730	428	90000	2.1						
2.3	8580	640	47300	0.90						
2.6	7450	560	50400	1.05	<b>FA</b>	<b>107R77</b>	<b>DRN</b>	<b>100LS4</b>	295	524
3.0	6500	489	52800	1.20	<b>FAF</b>	<b>107R77</b>	<b>DRN</b>	<b>100LS4</b>	315	524
3.3	5840	436	54400	1.30	<b>F</b>	<b>107R77</b>	<b>DRN</b>	<b>100LS4</b>	310	524
3.9	4950	370	56400	1.55	<b>FF</b>	<b>107R77</b>	<b>DRN</b>	<b>100LS4</b>	340	524
4.3	4460	333	57500	1.70						
5.1	3830	285	31200	1.10	<b>FA</b>	<b>97R57</b>	<b>DRN</b>	<b>100LS4</b>	205	524
5.9	3290	245	32600	1.30	<b>FAF</b>	<b>97R57</b>	<b>DRN</b>	<b>100LS4</b>	225	524
					<b>F</b>	<b>97R57</b>	<b>DRN</b>	<b>100LS4</b>	210	524
					<b>FF</b>	<b>97R57</b>	<b>DRN</b>	<b>100LS4</b>	245	524
3.8	5490	254.40*	55200	1.40	<b>FA</b>	<b>107</b>	<b>DRN</b>	<b>112M6</b>	270	506
4.5	4650	215.37	57100	1.65	<b>FAF</b>	<b>107</b>	<b>DRN</b>	<b>112M6</b>	290	504
4.9	4300	199.31	57800	1.80	<b>F</b>	<b>107</b>	<b>DRN</b>	<b>112M6</b>	290	503
5.5	3850	178.64	58700	2.0	<b>FF</b>	<b>107</b>	<b>DRN</b>	<b>112M6</b>	315	504
5.7	3680	254.40*	59100	2.1	<b>FA</b>	<b>107</b>	<b>DRN</b>	<b>100LS4</b>	255	506
6.7	3120	215.37	60200	2.5	<b>FAF</b>	<b>107</b>	<b>DRN</b>	<b>100LS4</b>	275	504
7.3	2880	199.31	60600	2.7	<b>F</b>	<b>107</b>	<b>DRN</b>	<b>100LS4</b>	275	503
8.1	2580	178.64	61100	3.0	<b>FF</b>	<b>107</b>	<b>DRN</b>	<b>100LS4</b>	300	504
4.3	4830	223.88	21700	0.90	<b>FA</b>	<b>97</b>	<b>DRN</b>	<b>112M6</b>	195	499
5.1	4100	189.92	30500	1.05	<b>FAF</b>	<b>97</b>	<b>DRN</b>	<b>112M6</b>	220	497
5.6	3770	174.87	31400	1.15	<b>F</b>	<b>97</b>	<b>DRN</b>	<b>112M6</b>	205	496
6.2	3370	156.30	32400	1.25	<b>FF</b>	<b>97</b>	<b>DRN</b>	<b>112M6</b>	235	497
5.2	4010	276.77	30700	1.05						
5.7	3670	253.41	31700	1.15						
6.5	3240	223.88	32700	1.35	<b>FA</b>	<b>97</b>	<b>DRN</b>	<b>100LS4</b>	180	499
7.6	2750	189.92	33900	1.55	<b>FAF</b>	<b>97</b>	<b>DRN</b>	<b>100LS4</b>	200	497
8.3	2530	174.87	34300	1.70	<b>F</b>	<b>97</b>	<b>DRN</b>	<b>100LS4</b>	190	496
9.3	2260	156.30	34900	1.90	<b>FF</b>	<b>97</b>	<b>DRN</b>	<b>100LS4</b>	220	497
10	2030	140.71	35300	2.1						
11	1840	127.42	35700	2.3						
7.3	2850	197.20	23500	1.05	<b>FA</b>	<b>87</b>	<b>DRN</b>	<b>100LS4</b>	115	492
8.1	2600	179.97	24400	1.15	<b>FAF</b>	<b>87</b>	<b>DRN</b>	<b>100LS4</b>	130	490
9.1	2310	159.61	25500	1.30	<b>F</b>	<b>87</b>	<b>DRN</b>	<b>100LS4</b>	120	489
11	1940	134.16	26600	1.55	<b>FF</b>	<b>87</b>	<b>DRN</b>	<b>100LS4</b>	140	490
12	1780	123.29	27100	1.70						
13	1580	109.49	27600	1.90						
15	1410	97.89	28000	2.1	<b>FA</b>	<b>87</b>	<b>DRN</b>	<b>100LS4</b>	115	492
16	1270	88.01	28400	2.4	<b>FAF</b>	<b>87</b>	<b>DRN</b>	<b>100LS4</b>	130	490
19	1100	76.39	27700	2.7	<b>F</b>	<b>87</b>	<b>DRN</b>	<b>100LS4</b>	120	489
21	990	68.40	27000	3.0	<b>FF</b>	<b>87</b>	<b>DRN</b>	<b>100LS4</b>	140	490
26	820	56.75	25700	3.6						
29	725	50.36	25000	4.0						
32	655	45.28	24300	4.3						

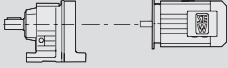

<b>P<sub>m</sub> = 2.2 kW</b>										
<b>n<sub>a</sub></b> <b>min<sup>-1</sup></b>	<b>M<sub>a</sub></b> <b>Nm</b>	<b>i</b>	<b>F<sub>Ra</sub><sup>1)</sup></b> <b>N</b>	<b>SEW</b> <b>f<sub>B</sub></b>					<b>m</b> <b>kg</b>	
13	1650	114.45	14600	0.90	FA	77	DRN	100LS4	77	485
13	1570	108.46*	15200	0.95	FAF	77	DRN	100LS4	83	483
15	1370	94.93	16500	1.10	F	77	DRN	100LS4	81	482
17	1230	85.52	17200	1.20	FF	77	DRN	100LS4	91	483
19	1080	75.02	18000	1.40						
22	960	66.46	18400	1.55	FA	77	DRN	100LS4	77	485
25	840	58.32	18800	1.80	FAF	77	DRN	100LS4	83	483
26	800	55.27	19000	1.85	F	77	DRN	100LS4	81	482
30	700	48.37	19300	2.1	FF	77	DRN	100LS4	91	483
33	630	43.58	19400	2.4						
40	525	36.58	19600	2.1	FA	77	DRN	100LS4	75	485
46	455	31.51	19800	3.0	FAF	77	DRN	100LS4	82	483
50	415	28.75	19800	3.4	F	77	DRN	100LS4	79	482
57	365	25.50*	19900	4.1	FF	77	DRN	100LS4	90	483
24	880	61.07	9680	0.95						
27	775	53.73	10700	1.05	FA	67	DRN	100LS4	54	477
29	735	50.74	11000	1.10	FAF	67	DRN	100LS4	60	476
34	625	43.20	11700	1.30	F	67	DRN	100LS4	57	475
37	565	39.26	12100	1.35	FF	67	DRN	100LS4	63	476
43	490	34.01	12400	1.50						
45	460	32.08	12600	1.75						
53	395	27.41	12800	2.1	FA	67	DRN	100LS4	53	477
58	360	25.13	12900	2.2	FAF	67	DRN	100LS4	59	476
66	315	22.05	13000	2.6	F	67	DRN	100LS4	55	475
69	300	20.90*	13000	2.7	FF	67	DRN	100LS4	62	476
79	265	18.29	13000	3.1						
32	645	44.73	6640	0.95	FA	57	DRN	100LS4	50	471
38	550	38.21	8640	1.10	FAF	57	DRN	100LS4	55	470
41	515	35.79	8590	1.15	F	57	DRN	100LS4	50	469
48	435	30.15	8430	1.35	FF	57	DRN	100LS4	57	470
58	360	24.96	8200	1.60						
68	305	21.17	7980	1.95	FA	57	DRN	100LS4	49	471
76	275	19.11	7820	2.2	FAF	57	DRN	100LS4	55	470
86	240	16.81	7630	2.5	F	57	DRN	100LS4	50	469
91	230	15.88	7540	2.6	FF	57	DRN	100LS4	56	470
56	370	25.72	5560	1.05						
66	315	21.82	5510	1.25						
74	285	19.70	5460	1.40						
84	250	17.33	5390	1.60	FA	47	DRN	100LS4	42	465
89	235	16.36	5350	1.70	FAF	47	DRN	100LS4	44	464
104	200	13.93	5220	2.0	F	47	DRN	100LS4	42	463
115	183	12.66	5140	2.2	FF	47	DRN	100LS4	46	464
132	159	10.97	5010	2.5						
162	130	8.96	4710	2.5						
101	205	14.33	2800	0.95						
113	186	12.87	2810	1.05						
131	161	11.08	2820	1.20						
139	151	10.42	2810	1.25						
162	130	8.97	2790	1.35	FA	37	DRN	100LS4	37	459
181	116	8.01	2760	1.45	FAF	37	DRN	100LS4	39	458
215	98	6.74	2620	1.45	F	37	DRN	100LS4	38	457
240	88	6.05	2580	1.55	FF	37	DRN	100LS4	40	458
278	76	5.21	2530	1.65						
296	71	4.90	2510	1.70						
344	61	4.22	2440	1.80						
385	55	3.77	2390	1.90						

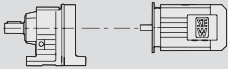

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## Parallel-shaft helical gearmotors


F..DRN.. selection tables in kW

<b>P<sub>m</sub> = 2.2 kW</b>										
n <sub>a</sub> min <sup>-1</sup>	M <sub>a</sub> Nm	i	F <sub>Ra</sub> <sup>1)</sup> N	SEW f <sub>B</sub>					m kg	
178	118	16.28	1720	1.10						
210	100	13.84	1730	1.30						
235	89	12.35	1730	1.45						
275	76	10.55	1710	1.70						
294	71	9.88	1700	1.80	FA	27	DRN	90L2	27	454
357	59	8.13	1610	2.1	FAF	27	DRN	90L2	28	453
421	50	6.91	1580	2.3	F	27	DRN	90L2	28	452
471	45	6.17	1560	2.4	FF	27	DRN	90L2	28	453
552	38	5.27	1520	2.6						
589	36	4.93	1500	2.7						
699	30	4.16	1460	2.9						

<b>P<sub>m</sub> = 3.0 kW</b>										
n <sub>a</sub> min <sup>-1</sup>	M <sub>a</sub> Nm	i	F <sub>Ra</sub> <sup>1)</sup> N	SEW f <sub>B</sub>					m kg	
1.1	23700	1308	39900	0.85						
1.2	21100	1169	89600	0.95						
1.5	17100	953	102800	1.15						
1.7	15000	845	107900	1.30						
1.9	13500	764	111100	1.45	FA	157R97	DRN	100L4	790	524
2.1	12000	680	114000	1.65	FAF	157R97	DRN	100L4	850	524
2.5	10100	576	117000	1.95	F	157R97	DRN	100L4	810	524
3.3	7970	446	119800	2.5	FF	157R97	DRN	100L4	920	524
4.8	5390	302	120000	3.7						
5.3	4850	273	120000	4.1						
6.3	4080	232	120000	4.9						
7.4	3460	197	120000	5.8						
2.0	13200	727	88100	0.90	FA	127R77	DRN	100L4	455	524
2.2	11800	648	90000	1.00	FAF	127R77	DRN	100L4	490	524
2.6	10000	549	90000	1.20	F	127R77	DRN	100L4	490	524
2.9	9040	495	90000	1.35	FF	127R77	DRN	100L4	530	524
3.3	7970	436	49000	0.95	FA	107R77	DRN	100L4	300	524
3.9	6760	370	52200	1.15	FAF	107R77	DRN	100L4	325	524
4.4	6080	333	53800	1.25	F	107R77	DRN	100L4	320	524
5.0	5320	291	55600	1.45	FF	107R77	DRN	100L4	345	524
3.8	7480	254.40*	50300	1.05	FA	107	DRN	132S6	285	506
4.5	6330	215.37	53200	1.20	FAF	107	DRN	132S6	305	504
4.9	5860	199.31	54300	1.30	F	107	DRN	132S6	300	503
5.5	5250	178.64	55700	1.45	FF	107	DRN	132S6	325	504
5.7	5000	254.40*	56300	1.55	FA	107	DRN	100L4	265	506
6.8	4230	215.37	57900	1.80	FAF	107	DRN	100L4	285	504
7.3	3920	199.31	58600	1.95	F	107	DRN	100L4	280	503
8.2	3510	178.64	59400	2.2	FF	107	DRN	100L4	305	504
9.0	3170	161.28*	60100	2.4						
6.5	4400	223.88	29600	1.00	FA	97	DRN	100L4	190	499
7.7	3730	189.92	31500	1.15	FAF	97	DRN	100L4	210	497
8.3	3440	174.87	32300	1.25	F	97	DRN	100L4	195	496
					FF	97	DRN	100L4	230	497
9.3	3070	156.30	33100	1.40						
10	2760	140.71	33800	1.55	FA	97	DRN	100L4	190	499
11	2500	127.42	34400	1.70	FAF	97	DRN	100L4	210	497
13	2220	112.99	35000	1.95	F	97	DRN	100L4	195	496
14	2010	102.16	35400	2.1	FF	97	DRN	100L4	230	497
16	1760	89.85	35800	2.4						
11	2630	134.16	24300	1.15	FA	87	DRN	100L4	125	492
12	2420	123.29	25100	1.25	FAF	87	DRN	100L4	135	490
13	2150	109.49	26000	1.40	F	87	DRN	100L4	130	489
					FF	87	DRN	100L4	145	490
15	1920	97.89	26700	1.55						
17	1730	88.01	26700	1.75	FA	87	DRN	100L4	125	492
19	1500	76.39	26100	2.0	FAF	87	DRN	100L4	135	490
21	1340	68.40	25500	2.2	F	87	DRN	100L4	130	489
26	1110	56.75	24600	2.7	FF	87	DRN	100L4	145	490
29	990	50.36	23900	3.0						

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<b>P<sub>m</sub> = 3.0 kW</b>										
n <sub>a</sub> min <sup>-1</sup>	M <sub>a</sub> Nm	i	F <sub>Ra</sub> <sup>1)</sup> N	SEW f <sub>B</sub>					m kg	
17	1680	85.52	14400	0.90	FA	77	DRN	100L4	84	485
19	1470	75.02	15900	1.00	FAF	77	DRN	100L4	91	483
22	1300	66.46	16900	1.15	F	77	DRN	100L4	88	482
					FF	77	DRN	100L4	98	483
25	1140	58.32	17700	1.30	FA	77	DRN	100L4	84	485
26	1080	55.27	18000	1.40	FAF	77	DRN	100L4	91	483
30	950	48.37	18500	1.60	F	77	DRN	100L4	88	482
33	850	43.58	18800	1.75	FF	77	DRN	100L4	98	483
38	750	38.23	19100	2.0						
40	715	36.58	19200	1.55	FA	77	DRN	100L4	83	485
46	615	31.51	19500	2.2	FAF	77	DRN	100L4	89	483
51	565	28.75	19600	2.5	F	77	DRN	100L4	86	482
57	500	25.50*	19700	3.0	FF	77	DRN	100L4	97	483
68	420	21.43	19800	3.6						
34	840	43.20	10000	0.95	FA	67	DRN	100L4	61	477
37	770	39.26	10700	1.00	FAF	67	DRN	100L4	67	476
43	665	34.01	11500	1.10	F	67	DRN	100L4	64	475
					FF	67	DRN	100L4	70	476
45	630	32.08	11700	1.30						
53	535	27.41	12200	1.50	FA	67	DRN	100L4	60	477
58	490	25.13	12400	1.65	FAF	67	DRN	100L4	66	476
66	430	22.05	12700	1.90	F	67	DRN	100L4	63	475
70	410	20.90*	12800	2.0	FF	67	DRN	100L4	69	476
80	355	18.29	12900	2.3						
88	320	16.48	13000	2.5						
101	280	14.46	13000	2.9						
58	490	24.96	7420	1.15						
69	415	21.17	7310	1.45	FA	57	DRN	100L4	56	471
76	375	19.11	7220	1.60	FAF	57	DRN	100L4	62	470
87	330	16.81	7100	1.80	F	57	DRN	100L4	57	469
92	310	15.88	7040	1.90	FF	57	DRN	100L4	63	470
108	265	13.52	6850	2.3						
119	240	12.29	6730	2.5						
137	205	10.64	6540	2.9						
74	385	19.70	4760	1.05						
84	340	17.33	4760	1.15	FA	47	DRN	100L4	49	465
89	320	16.36	4760	1.25	FAF	47	DRN	100L4	51	464
104	270	13.93	4720	1.45	F	47	DRN	100L4	50	463
115	245	12.66	4690	1.60	FF	47	DRN	100L4	53	464
133	215	10.97	4620	1.85						
163	176	8.96	4350	1.85						
131	215	11.08	2340	0.85						
140	205	10.42	2360	0.90						
162	176	8.97	2400	1.00	FA	37	DRN	100L4	44	459
182	158	8.01	2410	1.10	FAF	37	DRN	100L4	46	458
216	133	6.74	2290	1.05	F	37	DRN	100L4	45	457
241	119	6.05	2290	1.15	FF	37	DRN	100L4	47	458
279	103	5.21	2280	1.20						
297	96	4.90	2270	1.25						
345	83	4.22	2240	1.35						
386	74	3.77	2210	1.40						

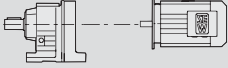

<b>P<sub>m</sub> = 4.0 kW</b>										
n <sub>a</sub> min <sup>-1</sup>	M <sub>a</sub> Nm	i	F <sub>Ra</sub> <sup>1)</sup> N	SEW f <sub>B</sub>					m kg	
1.5	22800	953	67600	0.85						
1.7	20100	845	93100	1.00						
1.9	18100	764	99700	1.10						
2.1	16100	680	105200	1.25	FA	157R97	DRN	112M4	800	524
2.5	13600	576	111000	1.45	FAF	157R97	DRN	112M4	860	524
3.3	10600	446	116300	1.85	F	157R97	DRN	112M4	820	524
4.8	7220	302	120000	2.8	FF	157R97	DRN	112M4	920	524
5.4	6500	273	120000	3.1						
6.3	5480	232	120000	3.6						
7.5	4650	197	120000	4.3						

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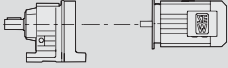

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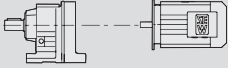

## Parallel-shaft helical gearmotors

F..DRN.. selection tables in kW

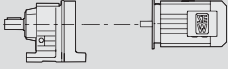

<b>P<sub>m</sub> = 4.0 kW</b>										
<b>n<sub>a</sub></b> <b>min<sup>-1</sup></b>	<b>M<sub>a</sub></b> <b>Nm</b>	<b>i</b>	<b>F<sub>Ra</sub><sup>1)</sup></b> <b>N</b>	<b>SEW</b> <b>f<sub>B</sub></b>					<b>m</b> <b>kg</b>	
2.7	13300	549	87800	0.90	FA	127R77	DRN	112M4	460	524
3.0	12000	495	90000	1.00	FAF	127R77	DRN	112M4	500	524
3.4	10400	428	90000	1.15	F	127R77	DRN	112M4	500	524
3.9	9120	376	90000	1.30	FF	127R77	DRN	112M4	540	524
4.4	8090	333	48700	0.95	FA	107R77	DRN	112M4	310	524
5.0	7070	291	51400	1.10	FAF	107R77	DRN	112M4	330	524
5.7	6200	255	53500	1.25	F	107R77	DRN	112M4	325	524
					FF	107R77	DRN	112M4	355	524
5.8	6630	254.40*	52500	1.15						
6.8	5610	215.37	54900	1.35						
7.3	5200	199.31	55900	1.50						
8.2	4660	178.64	57000	1.65	FA	107	DRN	112M4	270	506
9.1	4200	161.28*	58000	1.85	FAF	107	DRN	112M4	290	504
10.0	3820	146.49	58800	2.0	F	107	DRN	112M4	290	503
11	3390	129.97	59600	2.3	FF	107	DRN	112M4	315	504
12	3070	117.94	60200	2.5						
14	2640	101.38*	61000	2.9						
8.4	4560	174.87	29100	0.95	FA	97	DRN	112M4	195	499
9.4	4070	156.30	30500	1.05	FAF	97	DRN	112M4	220	497
10	3670	140.71	31700	1.15	F	97	DRN	112M4	205	496
11	3320	127.42	32500	1.30	FF	97	DRN	112M4	235	497
13	2940	112.99	33400	1.45						
14	2660	102.16	34100	1.60	FA	97	DRN	112M4	195	499
15	2540	97.58	34300	1.70	FAF	97	DRN	112M4	220	497
16	2340	89.85	34700	1.85	F	97	DRN	112M4	205	496
18	2090	80.31	35200	2.0	FF	97	DRN	112M4	235	497
20	1880	72.29	35600	2.3						
22	1700	65.47	35900	2.5						
13	2850	109.49	23500	1.05	FA	87	DRN	112M4	135	492
15	2550	97.89	24600	1.15	FAF	87	DRN	112M4	145	490
17	2290	88.01	24500	1.30	F	87	DRN	112M4	140	489
					FF	87	DRN	112M4	155	490
19	1990	76.39	24100	1.50	FA	87	DRN	112M4	135	492
21	1780	68.40	23800	1.70	FAF	87	DRN	112M4	145	490
26	1480	56.75	23100	2.0	F	87	DRN	112M4	140	489
29	1310	50.36	22600	2.2	FF	87	DRN	112M4	155	490
32	1180	45.28	22200	2.4						
22	1730	66.46	13900	0.85	FA	77	DRN	112M4	93	485
25	1520	58.32	15600	1.00	FAF	77	DRN	112M4	100	483
26	1440	55.27	16100	1.05	F	77	DRN	112M4	97	482
30	1260	48.37	17100	1.20	FF	77	DRN	112M4	110	483
34	1130	43.58	17700	1.30	FA	77	DRN	112M4	93	485
38	990	38.23	18300	1.50	FAF	77	DRN	112M4	100	483
43	880	33.74	18700	1.70	F	77	DRN	112M4	97	482
49	780	29.91	19000	1.90	FF	77	DRN	112M4	110	483
57	665	25.54	19300	2.2						
46	820	31.51	18900	1.70	FA	77	DRN	112M4	92	485
51	750	28.75	19100	1.90	FAF	77	DRN	112M4	98	483
57	665	25.50*	19300	2.2	F	77	DRN	112M4	96	482
68	555	21.43	19600	2.7	FF	77	DRN	112M4	105	483
74	510	19.70	19700	2.9						

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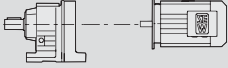

<b>P<sub>m</sub> = 4.0 kW</b>										
<b>n<sub>a</sub></b> <b>min<sup>-1</sup></b>	<b>M<sub>a</sub></b> <b>Nm</b>	<b>i</b>	<b>F<sub>Ra</sub><sup>1)</sup></b> <b>N</b>	<b>SEW</b> <b>f<sub>B</sub></b>					<b>m</b> <b>kg</b>	
53	715	27.41	11200	1.15						
58	655	25.13	11600	1.25						
66	575	22.05	12000	1.45						
70	545	20.90*	12200	1.50						
80	475	18.29	12500	1.70						
89	425	16.48	12700	1.90						
101	375	14.46	12900	2.2						
115	330	12.76	13000	2.5	<b>FA</b>	<b>67</b>	<b>DRN</b>	<b>112M4</b>	69	477
129	295	11.31	13000	2.8	<b>FAF</b>	<b>67</b>	<b>DRN</b>	<b>112M4</b>	76	476
152	250	9.66	13000	3.2	<b>F</b>	<b>67</b>	<b>DRN</b>	<b>112M4</b>	72	475
161	235	9.08	12900	2.2	<b>FF</b>	<b>67</b>	<b>DRN</b>	<b>112M4</b>	78	476
170	220	8.60	12700	2.5						
194	196	7.53	12300	3.1						
216	177	6.78	12000	3.5						
246	155	5.95	11600	3.9						
279	137	5.25	11300	4.3						
314	121	4.66	10900	4.6						
368	104	3.97	10500	4.8						
69	550	21.17	6490	1.10						
77	495	19.11	6480	1.20						
87	435	16.81	6440	1.35						
92	410	15.88	6420	1.45						
108	350	13.52	6320	1.70	<b>FA</b>	<b>57</b>	<b>DRN</b>	<b>112M4</b>	66	471
119	320	12.29	6240	1.85	<b>FAF</b>	<b>57</b>	<b>DRN</b>	<b>112M4</b>	71	470
138	275	10.64	6120	2.2	<b>F</b>	<b>57</b>	<b>DRN</b>	<b>112M4</b>	66	469
157	240	9.31	5820	1.75	<b>FF</b>	<b>57</b>	<b>DRN</b>	<b>112M4</b>	73	470
179	210	8.19	5700	1.95						
189	200	7.73	5650	2.1						
222	172	6.58	5480	2.4						
245	156	5.98	5380	2.7						
282	135	5.18	5220	3.1						

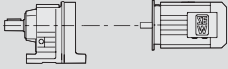

<b>P<sub>m</sub> = 5.5 kW</b>										
<b>n<sub>a</sub></b> <b>min<sup>-1</sup></b>	<b>M<sub>a</sub></b> <b>Nm</b>	<b>i</b>	<b>F<sub>Ra</sub><sup>1)</sup></b> <b>N</b>	<b>SEW</b> <b>f<sub>B</sub></b>					<b>m</b> <b>kg</b>	
2.1	22400	680	76100	0.90						
2.5	18900	576	97200	1.05						
2.9	16500	503	104400	1.20						
3.3	14800	446	108500	1.35	<b>FA</b>	<b>157R97</b>	<b>DRN</b>	<b>132S4</b>	810	524
4.2	11500	353	114900	1.75	<b>FAF</b>	<b>157R97</b>	<b>DRN</b>	<b>132S4</b>	870	524
4.8	10000	302	117200	2.0	<b>F</b>	<b>157R97</b>	<b>DRN</b>	<b>132S4</b>	830	524
5.3	9040	273	118500	2.2	<b>FF</b>	<b>157R97</b>	<b>DRN</b>	<b>132S4</b>	940	524
6.3	7630	232	120000	2.6						
7.2	6630	202	120000	3.0						
7.4	6470	197	120000	3.1						
3.5	13900	418	86700	0.85						
3.9	12400	374	89600	0.95	<b>FA</b>	<b>127R87</b>	<b>DRN</b>	<b>132S4</b>	495	524
4.7	10300	312	90000	1.15	<b>FAF</b>	<b>127R87</b>	<b>DRN</b>	<b>132S4</b>	530	524
5.0	9730	293	90000	1.25	<b>F</b>	<b>127R87</b>	<b>DRN</b>	<b>132S4</b>	530	524
5.7	8590	259	90000	1.40	<b>FF</b>	<b>127R87</b>	<b>DRN</b>	<b>132S4</b>	570	524
6.5	7410	223	90000	1.60						
3.4	14300	428	85800	0.85	<b>FA</b>	<b>127R77</b>	<b>DRN</b>	<b>132S4</b>	475	524
3.9	12600	376	89300	0.95	<b>FAF</b>	<b>127R77</b>	<b>DRN</b>	<b>132S4</b>	510	524
					<b>F</b>	<b>127R77</b>	<b>DRN</b>	<b>132S4</b>	510	524
					<b>FF</b>	<b>127R77</b>	<b>DRN</b>	<b>132S4</b>	550	524
6.8	7740	215.37	49600	1.00	<b>FA</b>	<b>107</b>	<b>DRN</b>	<b>132S4</b>	285	506
7.3	7160	199.31	51200	1.05	<b>FAF</b>	<b>107</b>	<b>DRN</b>	<b>132S4</b>	305	504
8.2	6420	178.64	53000	1.20	<b>F</b>	<b>107</b>	<b>DRN</b>	<b>132S4</b>	300	503
9.1	5790	161.28*	54500	1.30	<b>FF</b>	<b>107</b>	<b>DRN</b>	<b>132S4</b>	325	504

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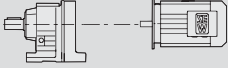

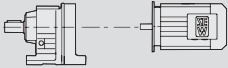

<b>P<sub>m</sub> = 5.5 kW</b>										
<b>n<sub>a</sub></b> <b>min<sup>-1</sup></b>	<b>M<sub>a</sub></b> <b>Nm</b>	<b>i</b>	<b>F<sub>Ra</sub><sup>1)</sup></b> <b>N</b>	<b>SEW</b> <b>f<sub>B</sub></b>					<b>m</b> <b>kg</b>	
10.0	5260	146.49	55700	1.45						
11	4670	129.97	57000	1.65	FA	107	DRN	132S4	285	506
12	4230	117.94	57900	1.80	FAF	107	DRN	132S4	305	504
14	3640	101.38*	59100	2.1	F	107	DRN	132S4	300	503
16	3320	92.47*	59800	2.3	FF	107	DRN	132S4	325	504
17	3180	88.49	60000	2.4						
17	3010	83.99	60400	2.5						
11	4580	127.42	29000	0.95	FA	97	DRN	132S4	210	499
13	4060	112.99	30600	1.05	FAF	97	DRN	132S4	230	497
14	3670	102.16	31700	1.15	F	97	DRN	132S4	215	496
					FF	97	DRN	132S4	250	497
15	3500	97.58	32100	1.25						
16	3220	89.85	32800	1.35						
17	3110	86.59	33100	1.40						
18	2880	80.31	33600	1.50	FA	97	DRN	132S4	210	499
19	2710	75.63	33900	1.60	FAF	97	DRN	132S4	230	497
20	2590	72.29	34200	1.65	F	97	DRN	132S4	215	496
22	2350	65.47	34700	1.85	FF	97	DRN	132S4	250	497
25	2080	58.06	34400	2.1						
28	1880	52.49	33700	2.3						
17	3160	88.01	11900	0.95	FA	87	DRN	132S4	145	492
19	2740	76.39	21200	1.10	FAF	87	DRN	132S4	155	490
21	2450	68.40	21200	1.20	F	87	DRN	132S4	150	489
26	2040	56.75	21000	1.45	FF	87	DRN	132S4	165	490
29	1810	50.36	20700	1.60	FA	87	DRN	132S4	145	492
32	1620	45.28	20500	1.75	FAF	87	DRN	132S4	155	490
37	1410	39.30	20100	1.95	F	87	DRN	132S4	150	489
42	1260	35.19	19700	2.1	FF	87	DRN	132S4	165	490
50	1040	29.20	19100	2.4						
43	1210	33.92	19600	2.1	FA	87	DRN	132S4	140	492
51	1030	28.78	19000	2.4	FAF	87	DRN	132S4	155	490
55	950	26.50	18700	3.1	F	87	DRN	132S4	145	489
62	850	23.68	18300	3.5	FF	87	DRN	132S4	160	490
30	1730	48.37	13900	0.85						
34	1560	43.58	15300	0.95	FA	77	DRN	132S4	105	485
38	1370	38.23	16500	1.10	FAF	77	DRN	132S4	110	483
43	1210	33.74	17400	1.25	F	77	DRN	132S4	110	482
49	1070	29.91	18000	1.40	FF	77	DRN	132S4	120	483
57	910	25.54	18600	1.60						
57	910	25.50*	18600	1.65						
68	770	21.43	19100	1.95	FA	77	DRN	132S4	105	485
74	705	19.70	19200	2.1	FAF	77	DRN	132S4	110	483
84	625	17.49	19400	2.4	F	77	DRN	132S4	105	482
93	560	15.64*	19600	2.7	FF	77	DRN	132S4	120	483
104	505	14.06	19200	3.0						
120	435	12.20	18500	3.4						
66	790	22.05	10500	1.05						
70	750	20.90*	10900	1.10						
80	655	18.29	11600	1.25						
89	590	16.48	11900	1.40						
101	515	14.46	12300	1.60						
115	455	12.76	12600	1.80						
129	405	11.31	12800	2.0	FA	67	DRN	132S4	81	477
151	345	9.66	12900	2.4	FAF	67	DRN	132S4	87	476
161	325	9.08	12400	1.60	F	67	DRN	132S4	84	475
170	305	8.60	12200	1.85	FF	67	DRN	132S4	90	476
194	270	7.53	11900	2.2						
215	240	6.78	11600	2.5						
246	210	5.95	11300	2.9						
278	189	5.25	11000	3.1						
314	167	4.66	10700	3.4						
368	143	3.97	10300	3.5						

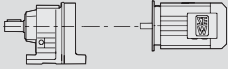





<b>P<sub>m</sub> = 5.5 kW</b>										
n <sub>a</sub> min <sup>-1</sup>	M <sub>a</sub> Nm	i	F <sub>Ra</sub> <sup>1)</sup> N	SEW f <sub>B</sub>					m kg	
87	600	16.81	5460	1.00						
92	570	15.88	5490	1.05						
108	485	13.52	5530	1.25						
119	440	12.29	5530	1.35	FA	57	DRN	132S4	77	471
137	380	10.64	5500	1.55	FAF	57	DRN	132S4	83	470
178	290	8.19	5180	1.45	F	57	DRN	132S4	78	469
189	275	7.73	5150	1.50	FF	57	DRN	132S4	84	470
222	235	6.58	5060	1.75						
244	215	5.98	4990	1.95						
282	186	5.18	4880	2.2						

<b>P<sub>m</sub> = 7.5 kW</b>										
n <sub>a</sub> min <sup>-1</sup>	M <sub>a</sub> Nm	i	F <sub>Ra</sub> <sup>1)</sup> N	SEW f <sub>B</sub>					m kg	
2.9	22500	503	74000	0.90						
3.3	20200	446	93000	1.00						
4.2	15800	353	106100	1.25	FA	157R97	DRN	132M4	830	524
4.9	13600	302	110900	1.45	FAF	157R97	DRN	132M4	890	524
5.4	12300	273	113500	1.60	F	157R97	DRN	132M4	850	524
6.3	10400	232	116600	1.90	FF	157R97	DRN	132M4	950	524
7.3	9080	202	118500	2.2						
7.5	8840	197	118800	2.3						
4.7	14100	312	86300	0.85	FA	127R87	DRN	132M4	510	524
5.0	13200	293	88000	0.90	FAF	127R87	DRN	132M4	550	524
5.7	11700	259	90000	1.00	F	127R87	DRN	132M4	550	524
6.6	10100	223	90000	1.20	FF	127R87	DRN	132M4	590	524
7.4	8950	198	90000	1.35						
3.7	19500	267.43	95300	1.00						
4.5	15900	217.62*	105900	1.25						
5.5	13000	178.20*	112200	1.55						
6.0	11900	162.96	114200	1.70						
6.9	10300	141.80*	116700	1.95	FA	157	DRN	160M6	740	520
7.8	9150	125.14	118400	2.2	FAF	157	DRN	160M6	800	518
9.0	7930	108.49	119800	2.5	F	157	DRN	160M6	760	517
10	7060	96.53*	120000	2.8	FF	157	DRN	160M6	870	518
11	6270	85.80*	120000	3.2						
12	5740	78.46	120000	3.5						
14	4990	68.28*	120000	4.0						
16	4400	60.25	120000	4.5						
19	3820	52.24	118700	5.2						
5.7	12400	170.83	89500	0.95	FA	127	DRN	160M6	485	513
6.4	11200	153.67*	90000	1.05	FAF	127	DRN	160M6	520	511
7.8	9170	125.37	90000	1.30	F	127	DRN	160M6	520	510
8.6	8360	114.34	90000	1.45	FF	127	DRN	160M6	570	511
8.6	8330	170.83	90000	1.45	FA	127	DRN	132M4	445	513
9.6	7490	153.67*	90000	1.60	FAF	127	DRN	132M4	485	511
12	6110	125.37	90000	1.95	F	127	DRN	132M4	480	510
					FF	127	DRN	132M4	530	511
8.2	8710	178.64	47000	0.90	FA	107	DRN	132M4	300	506
9.1	7860	161.28*	49300	1.00	FAF	107	DRN	132M4	320	504
10	7140	146.49	51200	1.05	F	107	DRN	132M4	320	503
11	6340	129.97	53200	1.20	FF	107	DRN	132M4	345	504
12	5750	117.94	54600	1.35						
14	4940	101.38*	56400	1.55	FA	107	DRN	132M4	300	506
16	4510	92.47*	57400	1.70	FAF	107	DRN	132M4	320	504
17	4310	88.49	57800	1.80	F	107	DRN	132M4	320	503
17	4090	83.99	58200	1.85	FF	107	DRN	132M4	345	504
20	3630	74.52	59200	2.1						
22	3290	67.62	59800	2.3						
15	4760	97.58	24600	0.90						
16	4380	89.85	29600	1.00	FA	97	DRN	132M4	225	499
17	4220	86.59	30100	1.00	FAF	97	DRN	132M4	245	497
18	3910	80.31	31000	1.10	F	97	DRN	132M4	235	496
19	3680	75.63	31600	1.15	FF	97	DRN	132M4	265	497
20	3520	72.29	32000	1.20						

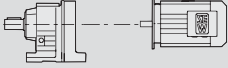

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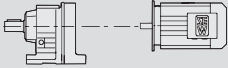

<b>P<sub>m</sub> = 7.5 kW</b>										
$n_a$ min <sup>-1</sup>	$M_a$ Nm	$i$	$F_{Ra}^{1)}$ N	SEW $f_B$					$m$ kg	
22	3190	65.47	32200	1.35						
25	2830	58.06	31700	1.50	FA	97	DRN	132M4	225	499
28	2560	52.49	31300	1.70	FAF	97	DRN	132M4	245	497
33	2170	44.49	30500	2.0	F	97	DRN	132M4	235	496
38	1890	38.86	29800	2.3	FF	97	DRN	132M4	265	497
45	1580	32.50	28800	2.7						
34	2110	43.28	30400	1.45	FA	97	DRN	132M4	220	499
40	1780	36.64	29500	1.70	FAF	97	DRN	132M4	240	497
43	1650	33.91	29000	2.6	F	97	DRN	132M4	225	496
48	1480	30.39	28400	2.9	FF	97	DRN	132M4	260	497
26	2760	56.75	18100	1.10	FA	87	DRN	132M4	160	492
29	2450	50.36	18200	1.20	FAF	87	DRN	132M4	175	490
32	2200	45.28	18200	1.30	F	87	DRN	132M4	165	489
37	1910	39.30	18100	1.40	FF	87	DRN	132M4	185	490
42	1710	35.19	17900	1.50						
50	1420	29.20	17600	1.75						
51	1400	28.78	17500	1.75	FA	87	DRN	132M4	160	492
55	1290	26.50	17400	2.3	FAF	87	DRN	132M4	170	490
62	1150	23.68	17100	2.6	F	87	DRN	132M4	165	489
69	1040	21.32*	16800	2.9	FF	87	DRN	132M4	180	490
76	940	19.31	16500	3.2						
86	830	17.12	16100	3.6						
95	755	15.48	15800	4.0						
44	1640	33.74	14700	0.90	FA	77	DRN	132M4	125	485
49	1450	29.91	16000	1.05	FAF	77	DRN	132M4	130	483
57	1240	25.54	17200	1.15	F	77	DRN	132M4	125	482
					FF	77	DRN	132M4	135	483
58	1240	25.50*	17200	1.20						
68	1040	21.43	18100	1.45						
75	960	19.70	18500	1.55						
84	850	17.49	18800	1.75						
94	760	15.64*	18900	1.95						
104	685	14.06	18500	2.2						
120	595	12.20	17900	2.5	FA	77	DRN	132M4	120	485
134	530	10.93	17500	2.8	FAF	77	DRN	132M4	130	483
158	450	9.30	16400	2.4	F	77	DRN	132M4	125	482
178	400	8.26	16000	2.7	FF	77	DRN	132M4	135	483
199	360	7.39	15600	3.0						
221	320	6.64	15300	3.3						
255	280	5.76	14800	3.8						
284	250	5.16	14400	4.3						
343	205	4.28	13700	4.8						
<b>P<sub>m</sub> = 9.2 kW</b>										
$n_a$ min <sup>-1</sup>	$M_a$ Nm	$i$	$F_{Ra}^{1)}$ N	SEW $f_B$					$m$ kg	
4.2	19400	353	95600	1.05						
4.9	16800	302	103600	1.20	FA	157R97	DRN	132L4	840	524
5.4	15100	273	107700	1.30	FAF	157R97	DRN	132L4	890	524
6.3	12800	232	112600	1.55	F	157R97	DRN	132L4	860	524
7.3	11100	202	115500	1.80	FF	157R97	DRN	132L4	960	524
7.5	10800	197	116000	1.85						
5.7	14300	259	85800	0.85	FA	127R87	DRN	132L4	520	524
6.6	12400	223	89600	0.95	FAF	127R87	DRN	132L4	560	524
7.4	10900	198	90000	1.10	F	127R87	DRN	132L4	560	524
					FF	127R87	DRN	132L4	600	524
8.6	10200	170.83	90000	1.20	FA	127	DRN	132L4	455	513
9.6	9180	153.67*	90000	1.30	FAF	127	DRN	132L4	490	511
12	7490	125.37	90000	1.60	F	127	DRN	132L4	490	510
13	6830	114.34	90000	1.75	FF	127	DRN	132L4	540	511
15	5910	98.95	90000	2.0						

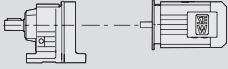

<b>P<sub>m</sub> = 9.2 kW</b>										
<b>n<sub>a</sub></b> <b>min<sup>-1</sup></b>	<b>M<sub>a</sub></b> <b>Nm</b>	<b>i</b>	<b>F<sub>Ra</sub><sup>1)</sup></b> <b>N</b>	<b>SEW</b> <b>f<sub>B</sub></b>					<b>m</b> <b>kg</b>	
10	8750	146.49	46800	0.90	FA	107	DRN	132L4	310	506
11	7760	129.97	49600	1.00	FAF	107	DRN	132L4	330	504
12	7040	117.94	51500	1.10	F	107	DRN	132L4	325	503
14	6050	101.38*	53900	1.25	FF	107	DRN	132L4	355	504
16	5520	92.47*	55100	1.40						
18	5010	83.99	56300	1.55	FA	107	DRN	132L4	310	506
20	4450	74.52	57500	1.70	FAF	107	DRN	132L4	330	504
22	4040	67.62	58300	1.90	F	107	DRN	132L4	325	503
25	3470	58.12*	58000	2.2	FF	107	DRN	132L4	355	504
29	3030	50.73	56500	2.5						
18	4790	80.31	23100	0.90	FA	97	DRN	132L4	235	499
19	4520	75.63	29200	0.95	FAF	97	DRN	132L4	255	497
20	4320	72.29	29600	1.00	F	97	DRN	132L4	240	496
22	3910	65.47	29600	1.10	FF	97	DRN	132L4	275	497
25	3460	58.06	29500	1.25						
28	3130	52.49	29300	1.35	FA	97	DRN	132L4	235	499
33	2650	44.49	28800	1.60	FAF	97	DRN	132L4	255	497
38	2320	38.86	28300	1.85	F	97	DRN	132L4	240	496
45	1940	32.50	27500	2.2	FF	97	DRN	132L4	275	497
43	2020	33.91	27700	2.1	FA	97	DRN	132L4	230	499
48	1810	30.39	27200	2.4	FAF	97	DRN	132L4	250	497
54	1630	27.44*	26700	2.6	F	97	DRN	132L4	235	496
59	1480	24.92	26200	2.9	FF	97	DRN	132L4	270	497
29	3000	50.36	16000	1.00	FA	87	DRN	132L4	170	492
32	2700	45.28	16300	1.05	FAF	87	DRN	132L4	185	490
37	2340	39.30	16400	1.15	F	87	DRN	132L4	175	489
42	2100	35.19	16400	1.25	FF	87	DRN	132L4	190	490
50	1740	29.20	16300	1.45						
55	1580	26.50	16200	1.90						
62	1410	23.68	16000	2.1	FA	87	DRN	132L4	165	492
69	1270	21.32*	15900	2.4	FAF	87	DRN	132L4	180	490
76	1150	19.31	15600	2.6	F	87	DRN	132L4	175	489
86	1020	17.12	15400	2.9	FF	87	DRN	132L4	190	490
95	920	15.48	15100	3.2						
112	780	13.12*	14600	3.8						
75	1170	19.70	17600	1.25						
84	1040	17.49	18100	1.45						
94	930	15.64*	18200	1.60						
105	840	14.06	17900	1.80						
120	725	12.20	17400	2.1	FA	77	DRN	132L4	130	485
135	650	10.93	17100	2.3	FAF	77	DRN	132L4	135	483
158	555	9.30	15900	1.95	F	77	DRN	132L4	135	482
178	490	8.26	15600	2.2	FF	77	DRN	132L4	145	483
199	440	7.39	15200	2.5						
221	395	6.64	14900	2.7						
255	340	5.76	14500	3.1						
285	305	5.16	14100	3.5						
343	255	4.28	13500	4.0						

<b>P<sub>m</sub> = 11.0 kW</b>										
<b>n<sub>a</sub></b> <b>min<sup>-1</sup></b>	<b>M<sub>a</sub></b> <b>Nm</b>	<b>i</b>	<b>F<sub>Ra</sub><sup>1)</sup></b> <b>N</b>	<b>SEW</b> <b>f<sub>B</sub></b>					<b>m</b> <b>kg</b>	
4.2	23200	353	55600	0.85						
4.9	20000	302	93500	1.00	FA	157R97	DRN	160M4	870	524
5.4	18100	273	99800	1.10	FAF	157R97	DRN	160M4	930	524
6.4	15300	232	107300	1.30	F	157R97	DRN	160M4	890	524
7.3	13300	202	111600	1.50	FF	157R97	DRN	160M4	1000	524
7.5	13000	197	112300	1.55						
6.6	14800	223	84800	0.80	FA	127R87	DRN	160M4	550	524
7.5	13100	198	88300	0.90	FAF	127R87	DRN	160M4	590	524
8.9	11000	166	90000	1.10	F	127R87	DRN	160M4	590	524
					FF	127R87	DRN	160M4	630	524

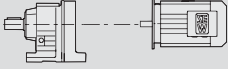

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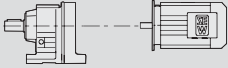

<b>P<sub>m</sub> = 11.0 kW</b>									<b>m</b>	
<b>n<sub>a</sub></b> <b>min<sup>-1</sup></b>	<b>M<sub>a</sub></b> <b>Nm</b>	<b>i</b>	<b>F<sub>Ra</sub><sup>1)</sup></b> <b>N</b>	<b>SEW</b> <b>f<sub>B</sub></b>				<b>kg</b>		
5.5	19000	267.43	96900	1.05						
6.8	15500	217.62*	106900	1.30						
8.3	12700	178.20*	112800	1.55						
9.0	11600	162.96	114800	1.70						
10	10100	141.80*	117100	2.0	FA	157	DRN	160M4	740	520
12	8920	125.14	118700	2.2	FAF	157	DRN	160M4	800	518
14	7730	108.49	120000	2.6	F	157	DRN	160M4	760	517
15	6880	96.53*	120000	2.9	FF	157	DRN	160M4	870	518
17	6110	85.80*	117500	3.3						
19	5590	78.46	115100	3.6						
22	4860	68.28*	111400	4.1						
8.6	12100	170.83	90000	1.00						
9.6	10900	153.67*	90000	1.10						
12	8940	125.37	90000	1.35	FA	127	DRN	160M4	485	513
13	8150	114.34	90000	1.45	FAF	127	DRN	160M4	520	511
15	7050	98.95	90000	1.70	F	127	DRN	160M4	520	510
17	6220	87.31*	90000	1.95	FF	127	DRN	160M4	570	511
20	5370	75.41*	88300	2.2						
12	8410	117.94	47800	0.90	FA	107	DRN	160M4	340	506
15	7220	101.38*	51000	1.05	FAF	107	DRN	160M4	365	504
16	6590	92.47*	52600	1.15	F	107	DRN	160M4	360	503
					FF	107	DRN	160M4	385	504
18	5980	83.99	54100	1.30						
20	5310	74.52	55600	1.45	FA	107	DRN	160M4	340	506
22	4820	67.62	56700	1.60	FAF	107	DRN	160M4	365	504
25	4140	58.12*	56200	1.85	F	107	DRN	160M4	360	503
29	3610	50.73	54900	2.1	FF	107	DRN	160M4	385	504
34	3060	43.03	53300	2.5						
44	2400	33.79*	50700	3.1	FA	107	DRN	160M4	330	506
53	1960	27.57	48500	4.0	FAF	107	DRN	160M4	355	504
59	1790	25.14	47500	4.4	F	107	DRN	160M4	350	503
					FF	107	DRN	160M4	375	504
22	4660	65.47	26900	0.90	FA	97	DRN	160M4	265	499
25	4140	58.06	27100	1.05	FAF	97	DRN	160M4	290	497
28	3740	52.49	27100	1.15	F	97	DRN	160M4	275	496
					FF	97	DRN	160M4	305	497
33	3170	44.49	26900	1.35	FA	97	DRN	160M4	265	499
38	2770	38.86	26700	1.55	FAF	97	DRN	160M4	290	497
45	2310	32.50	26200	1.85	F	97	DRN	160M4	275	496
					FF	97	DRN	160M4	305	497
43	2410	33.91	26300	1.80						
48	2160	30.39	25900	2.0	FA	97	DRN	160M4	260	499
54	1950	27.44*	25500	2.2	FAF	97	DRN	160M4	285	497
59	1770	24.92	25200	2.4	F	97	DRN	160M4	270	496
67	1570	22.11	24600	2.7	FF	97	DRN	160M4	300	497
37	2800	39.30	14600	0.95	FA	87	DRN	160M4	200	492
42	2500	35.19	14800	1.05	FAF	87	DRN	160M4	215	490
50	2080	29.20	15000	1.20	F	87	DRN	160M4	210	489
					FF	87	DRN	160M4	225	490
56	1880	26.50	15000	1.60						
62	1680	23.68	15000	1.80						
69	1520	21.32*	14900	1.95	FA	87	DRN	160M4	200	492
76	1370	19.31	14800	2.2	FAF	87	DRN	160M4	210	490
86	1220	17.12	14600	2.5	F	87	DRN	160M4	205	489
95	1100	15.48	14400	2.7	FF	87	DRN	160M4	220	490
112	930	13.12*	14000	3.2						

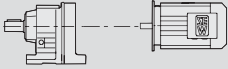

<b>P<sub>m</sub> = 11.0 kW</b>										
n <sub>a</sub> min <sup>-1</sup>	M <sub>a</sub> Nm	i	F <sub>Ra</sub> <sup>1)</sup> N	SEW f <sub>B</sub>			m kg			
75	1400	19.70	16300	1.05						
84	1240	17.49	17200	1.20						
94	1110	15.64*	17600	1.35						
105	1000	14.06	17300	1.50						
121	870	12.20	16900	1.70						
135	775	10.93	16600	1.90	FA	77	DRN	160M4	160	485
158	660	9.30	15400	1.65	FAF	77	DRN	160M4	170	483
178	585	8.26	15100	1.85	F	77	DRN	160M4	165	482
199	525	7.39	14800	2.0	FF	77	DRN	160M4	175	483
222	470	6.64	14500	2.3						
256	410	5.76	14100	2.6						
285	365	5.16	13800	2.9						
344	305	4.28	13300	3.3						

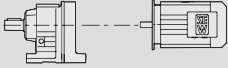

<b>P<sub>m</sub> = 15.0 kW</b>										
n <sub>a</sub> min <sup>-1</sup>	M <sub>a</sub> Nm	i	F <sub>Ra</sub> <sup>1)</sup> N	SEW f <sub>B</sub>			m kg			
6.4	20900	232	90200	0.95	FA	157R97	DRN	160L4	880	524
7.3	18200	202	99400	1.10	FAF	157R97	DRN	160L4	940	524
7.5	17700	197	100900	1.10	F	157R97	DRN	160L4	900	524
					FF	157R97	DRN	160L4	1010	524
6.8	21100	217.62*	89500	0.95						
8.3	17300	178.20*	102200	1.15						
9.0	15800	162.96	106100	1.25						
10	13700	141.80*	110700	1.45						
12	12100	125.14	113800	1.65	FA	157	DRN	160L4	760	520
14	10500	108.49	116500	1.90	FAF	157	DRN	160L4	810	518
15	9380	96.53*	115600	2.1	F	157	DRN	160L4	780	517
17	8330	85.80*	113000	2.4	FF	157	DRN	160L4	880	518
19	7620	78.46	111000	2.6						
22	6630	68.28*	107800	3.0						
24	5850	60.25	104900	3.4						
12	12100	125.37	88900	1.00						
13	11100	114.34	88300	1.10	FA	127	DRN	160L4	500	513
15	9610	98.95	86900	1.25	FAF	127	DRN	160L4	540	511
17	8480	87.31*	85500	1.40	F	127	DRN	160L4	540	510
20	7320	75.41*	83700	1.65	FF	127	DRN	160L4	580	511
21	6800	70.07	82700	1.75						
16	8980	92.47*	46200	0.85						
17	8590	88.49	47300	0.90	FA	107	DRN	160L4	360	506
18	8160	83.99	48500	0.95	FAF	107	DRN	160L4	380	504
20	7240	74.52	51000	1.05	F	107	DRN	160L4	375	503
22	6570	67.62	52700	1.15	FF	107	DRN	160L4	400	504
25	5640	58.12*	52200	1.35						
29	4930	50.73	51400	1.55	FA	107	DRN	160L4	360	506
34	4180	43.03	50300	1.85	FAF	107	DRN	160L4	380	504
39	3650	37.61	49300	2.1	F	107	DRN	160L4	375	503
46	3090	31.80	47900	2.5	FF	107	DRN	160L4	400	504
44	3280	33.79*	48400	2.2						
53	2670	27.57	46600	2.9	FA	107	DRN	160L4	350	506
59	2440	25.14	45800	3.2	FAF	107	DRN	160L4	370	504
68	2110	21.76*	44400	3.7	F	107	DRN	160L4	365	503
					FF	107	DRN	160L4	390	504
33	4320	44.49	22900	1.00						
38	3770	38.86	23100	1.15	FA	97	DRN	160L4	285	499
45	3150	32.50	23200	1.35	FAF	97	DRN	160L4	305	497
					F	97	DRN	160L4	290	496
					FF	97	DRN	160L4	325	497

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<b>P<sub>m</sub> = 15.0 kW</b>										
$n_a$ min <sup>-1</sup>	$M_a$ Nm	$i$	$F_{Ra}^{1)}$ N	SEW $f_B$					m kg	
43	3290	33.91	23200	1.30						
48	2950	30.39	23200	1.45						
54	2660	27.44*	23000	1.60						
59	2420	24.92	22900	1.80	FA	97	DRN	160L4	275	499
67	2140	22.11	22600	2.0	FAF	97	DRN	160L4	300	497
73	1950	20.07	22400	2.2	F	97	DRN	160L4	285	496
85	1670	17.25*	21900	2.6	FF	97	DRN	160L4	315	497
98	1460	15.06	21400	2.9						
115	1240	12.77	20800	3.5						
132	1080	11.16	20200	3.8						
56	2570	26.50	12400	1.15						
62	2300	23.68	12600	1.30						
69	2070	21.32*	12800	1.45						
76	1870	19.31	12800	1.60						
86	1660	17.12	12900	1.80						
95	1500	15.48	12800	2.0						
112	1270	13.12*	12700	2.4	FA	87	DRN	160L4	215	492
129	1110	11.46	12600	2.7	FAF	87	DRN	160L4	230	490
154	930	9.58	12300	3.1	F	87	DRN	160L4	220	489
178	800	8.29	11700	1.90	FF	87	DRN	160L4	235	490
200	710	7.35	11500	2.1						
222	645	6.65	11300	2.4						
262	545	5.63	11000	2.8						
300	475	4.92	10700	3.2						
358	395	4.12	10300	3.6						

<b>P<sub>m</sub> = 18.5 kW</b>										
$n_a$ min <sup>-1</sup>	$M_a$ Nm	$i$	$F_{Ra}^{1)}$ N	SEW $f_B$					m kg	
7.3	22500	202	74900	0.90	FA	157R97	DRN	180M4	910	524
7.5	21900	197	86400	0.90	FAF	157R97	DRN	180M4	960	524
					F	157R97	DRN	180M4	930	524
					FF	157R97	DRN	180M4	1030	524
8.3	21200	178.20*	88900	0.95						
9.1	19400	162.96	95600	1.05						
10	16900	141.80*	103200	1.20						
12	14900	125.14	108200	1.35						
14	12900	108.49	112300	1.55	FA	157	DRN	180M4	780	520
15	11500	96.53*	111200	1.75	FAF	157	DRN	180M4	840	518
17	10200	85.80*	109100	1.95	F	157	DRN	180M4	800	517
19	9370	78.46	107400	2.1	FF	157	DRN	180M4	910	518
22	8160	68.28*	104700	2.5						
25	7200	60.25	102100	2.8						
28	6240	52.24	99200	3.2						
13	13600	114.34	82200	0.90						
15	11800	98.95	81600	1.00						
17	10400	87.31*	80900	1.15	FA	127	DRN	180M4	520	513
20	9010	75.41*	79700	1.35	FAF	127	DRN	180M4	560	511
21	8370	70.07	79000	1.45	F	127	DRN	180M4	560	510
23	7630	63.91	78000	1.55	FF	127	DRN	180M4	600	511
27	6610	55.31	76300	1.80						
30	5830	48.80	74800	2.1						
20	8900	74.52	46400	0.85	FA	107	DRN	180M4	380	506
22	8080	67.62	48700	0.95	FAF	107	DRN	180M4	400	504
25	6940	58.12*	48700	1.10	F	107	DRN	180M4	395	503
29	6060	50.73	48400	1.25	FF	107	DRN	180M4	425	504
34	5140	43.03	47700	1.50	FA	107	DRN	180M4	380	506
39	4490	37.61	47000	1.70	FAF	107	DRN	180M4	400	504
46	3800	31.80	45900	2.0	F	107	DRN	180M4	395	503
					FF	107	DRN	180M4	425	504
44	4030	33.79*	46300	1.85	FA	107	DRN	180M4	370	506
54	3290	27.57	44900	2.4	FAF	107	DRN	180M4	390	504
59	3000	25.14	44200	2.6	F	107	DRN	180M4	385	503
68	2600	21.76*	43100	3.0	FF	107	DRN	180M4	415	504


<b>P<sub>m</sub> = 18.5 kW</b>										
<b>n<sub>a</sub></b> <b>min<sup>-1</sup></b>	<b>M<sub>a</sub></b> <b>Nm</b>	<b>i</b>	<b>F<sub>Ra</sub><sup>1)</sup></b> <b>N</b>	<b>SEW</b> <b>f<sub>B</sub></b>					<b>m</b> <b>kg</b>	
<b>38</b>	4640	38.86	20100	0.95	<b>FA</b>	<b>97</b>	<b>DRN</b>	<b>180M4</b>	305	499
<b>45</b>	3880	32.50	20600	1.10	<b>FAF</b>	<b>97</b>	<b>DRN</b>	<b>180M4</b>	325	497
					<b>F</b>	<b>97</b>	<b>DRN</b>	<b>180M4</b>	310	496
					<b>FF</b>	<b>97</b>	<b>DRN</b>	<b>180M4</b>	345	497
<b>54</b>	3270	27.44*	20900	1.30						
<b>59</b>	2970	24.92	20900	1.45						
<b>67</b>	2640	22.11	20900	1.65	<b>FA</b>	<b>97</b>	<b>DRN</b>	<b>180M4</b>	300	499
<b>74</b>	2390	20.07	20800	1.80	<b>FAF</b>	<b>97</b>	<b>DRN</b>	<b>180M4</b>	320	497
<b>86</b>	2060	17.25*	20500	2.1	<b>F</b>	<b>97</b>	<b>DRN</b>	<b>180M4</b>	305	496
<b>98</b>	1790	15.06	20200	2.4	<b>FF</b>	<b>97</b>	<b>DRN</b>	<b>180M4</b>	340	497
<b>116</b>	1520	12.77	19700	2.8						
<b>132</b>	1330	11.16	19300	3.1						
<b>69</b>	2540	21.32*	10900	1.20						
<b>77</b>	2300	19.31	11100	1.30						
<b>86</b>	2040	17.12	11400	1.45						
<b>95</b>	1850	15.48	11500	1.60						
<b>113</b>	1560	13.12*	11600	1.90	<b>FA</b>	<b>87</b>	<b>DRN</b>	<b>180M4</b>	235	492
<b>129</b>	1360	11.46	11600	2.2	<b>FAF</b>	<b>87</b>	<b>DRN</b>	<b>180M4</b>	250	490
<b>154</b>	1140	9.58	11500	2.5	<b>F</b>	<b>87</b>	<b>DRN</b>	<b>180M4</b>	245	489
<b>178</b>	990	8.29	10900	1.55	<b>FF</b>	<b>87</b>	<b>DRN</b>	<b>180M4</b>	260	490
<b>201</b>	870	7.35	10800	1.75						
<b>222</b>	790	6.65	10700	1.95						
<b>262</b>	670	5.63	10400	2.3						
<b>300</b>	585	4.92	10200	2.6						
<b>359</b>	490	4.12	9890	3.0						

<b>P<sub>m</sub> = 22 kW</b>										
<b>n<sub>a</sub></b> <b>min<sup>-1</sup></b>	<b>M<sub>a</sub></b> <b>Nm</b>	<b>i</b>	<b>F<sub>Ra</sub><sup>1)</sup></b> <b>N</b>	<b>SEW</b> <b>f<sub>B</sub></b>					<b>m</b> <b>kg</b>	
<b>9.1</b>	23100	162.96	59000	0.85						
<b>10</b>	20100	141.80*	93200	1.00						
<b>12</b>	17700	125.14	100800	1.10						
<b>14</b>	15400	108.49	107100	1.30						
<b>15</b>	13700	96.53*	106800	1.45	<b>FA</b>	<b>157</b>	<b>DRN</b>	<b>180L4</b>	790	520
<b>17</b>	12200	85.80*	105200	1.65	<b>FAF</b>	<b>157</b>	<b>DRN</b>	<b>180L4</b>	850	518
<b>19</b>	11100	78.46	103900	1.80	<b>F</b>	<b>157</b>	<b>DRN</b>	<b>180L4</b>	820	517
<b>22</b>	9710	68.28*	101600	2.1	<b>FF</b>	<b>157</b>	<b>DRN</b>	<b>180L4</b>	920	518
<b>25</b>	8570	60.25	99400	2.3						
<b>28</b>	7420	52.24	96800	2.7						
<b>32</b>	6610	46.48*	94600	3.0						
<b>37</b>	5690	40.06	91700	3.5						
<b>45</b>	4620	32.55	87600	4.3						
<b>15</b>	14000	98.95	76400	0.85						
<b>17</b>	12400	87.31*	76300	0.95						
<b>20</b>	10700	75.41*	75700	1.10	<b>FA</b>	<b>127</b>	<b>DRN</b>	<b>180L4</b>	540	513
<b>21</b>	9960	70.07	75300	1.20	<b>FAF</b>	<b>127</b>	<b>DRN</b>	<b>180L4</b>	580	511
<b>23</b>	9080	63.91	74600	1.30	<b>F</b>	<b>127</b>	<b>DRN</b>	<b>180L4</b>	580	510
<b>27</b>	7860	55.31	73400	1.55	<b>FF</b>	<b>127</b>	<b>DRN</b>	<b>180L4</b>	620	511
<b>30</b>	6940	48.80	72200	1.75						
<b>35</b>	5990	42.15	70600	2.0						
<b>25</b>	8260	58.12*	45200	0.95	<b>FA</b>	<b>107</b>	<b>DRN</b>	<b>180L4</b>	395	506
<b>29</b>	7210	50.73	45300	1.05	<b>FAF</b>	<b>107</b>	<b>DRN</b>	<b>180L4</b>	415	504
<b>34</b>	6120	43.03	45100	1.25	<b>F</b>	<b>107</b>	<b>DRN</b>	<b>180L4</b>	410	503
					<b>FF</b>	<b>107</b>	<b>DRN</b>	<b>180L4</b>	440	504
<b>39</b>	5340	37.61	44700	1.45	<b>FA</b>	<b>107</b>	<b>DRN</b>	<b>180L4</b>	395	506
<b>46</b>	4520	31.80	44000	1.70	<b>FAF</b>	<b>107</b>	<b>DRN</b>	<b>180L4</b>	415	504
					<b>F</b>	<b>107</b>	<b>DRN</b>	<b>180L4</b>	410	503
					<b>FF</b>	<b>107</b>	<b>DRN</b>	<b>180L4</b>	440	504
<b>44</b>	4800	33.79*	44300	1.55	<b>FA</b>	<b>107</b>	<b>DRN</b>	<b>180L4</b>	385	506
<b>54</b>	3920	27.57	43300	2.0	<b>FAF</b>	<b>107</b>	<b>DRN</b>	<b>180L4</b>	405	504
<b>59</b>	3570	25.14	42700	2.2	<b>F</b>	<b>107</b>	<b>DRN</b>	<b>180L4</b>	400	503
<b>68</b>	3090	21.76*	41800	2.5	<b>FF</b>	<b>107</b>	<b>DRN</b>	<b>180L4</b>	430	504
<b>77</b>	2730	19.20*	40900	2.9						

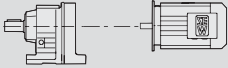

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<b>P<sub>m</sub> = 22 kW</b>										
$n_a$ min <sup>-1</sup>	$M_a$ Nm	$i$	$F_{Ra}^{1)}$ N	SEW $f_B$					$m$ kg	
54	3900	27.44*	18700	1.10						
59	3540	24.92	18900	1.20						
67	3140	22.11	19100	1.35	FA	97	DRN	180L4	315	499
74	2850	20.07	19200	1.50	FAF	97	DRN	180L4	335	497
86	2450	17.25*	19100	1.75	F	97	DRN	180L4	320	496
98	2140	15.06	19000	2.0	FF	97	DRN	180L4	355	497
116	1810	12.77	18700	2.4						
132	1580	11.16	18400	2.6						
69	3030	21.32*	9030	1.00						
76	2740	19.31	9460	1.10						
86	2430	17.12	9870	1.25						
95	2200	15.48	10100	1.35						
113	1860	13.12*	10400	1.60	FA	87	DRN	180L4	255	492
129	1620	11.46	10600	1.85	FAF	87	DRN	180L4	265	490
154	1360	9.58	10600	2.1	F	87	DRN	180L4	260	489
178	1170	8.29	10100	1.30	FF	87	DRN	180L4	275	490
201	1040	7.35	10100	1.45						
222	940	6.65	10000	1.60						
262	800	5.63	9890	1.90						
300	695	4.92	9740	2.2						
359	585	4.12	9490	2.5						

<b>P<sub>m</sub> = 30 kW</b>										
$n_a$ min <sup>-1</sup>	$M_a$ Nm	$i$	$F_{Ra}^{1)}$ N	SEW $f_B$					$m$ kg	
14	21000	108.49	90100	0.95						
15	18600	96.53*	96900	1.05						
17	16600	85.80*	96400	1.20						
19	15100	78.46	95800	1.30	FA	157	DRN	200L4	900	520
22	13200	68.28*	94500	1.50	FAF	157	DRN	200L4	960	518
25	11600	60.25	93200	1.70	F	157	DRN	200L4	920	517
28	10100	52.24	91400	2.0	FF	157	DRN	200L4	1030	518
32	8990	46.48*	89800	2.2						
37	7750	40.06	87600	2.6						
20	14500	75.41*	64600	0.80						
21	13500	70.07	65700	0.90						
23	12300	63.91	66800	0.95	FA	127	DRN	200L4	650	513
27	10700	55.31	66700	1.10	FAF	127	DRN	200L4	690	511
30	9440	48.80	66300	1.25	F	127	DRN	200L4	680	510
35	8150	42.15	65500	1.45	FF	127	DRN	200L4	730	511
40	7210	37.28	64600	1.65						
47	6060	31.33	63200	2.0						
58	4890	25.30	61100	2.5						
55	5200	26.86	61700	1.65	FA	127	DRN	200L4	640	513
60	4750	24.57	60800	1.80	FAF	127	DRN	200L4	670	511
69	4130	21.38	59300	2.9	F	127	DRN	200L4	670	510
78	3650	18.87	57900	3.0	FF	127	DRN	200L4	720	511
34	8320	43.03	39200	0.90	FA	107	DRN	200L4	500	506
39	7280	37.61	39600	1.05	FAF	107	DRN	200L4	530	504
47	6150	31.80	39700	1.25	F	107	DRN	200L4	520	503
					FF	107	DRN	200L4	550	504
54	5330	27.57	39500	1.45						
59	4860	25.14	39300	1.60						
68	4210	21.76*	38800	1.85	FA	107	DRN	200L4	495	506
77	3710	19.20*	38300	2.1	FAF	107	DRN	200L4	520	504
89	3200	16.58	37500	2.4	F	107	DRN	200L4	510	503
101	2830	14.67	36900	2.7	FF	107	DRN	200L4	540	504
120	2380	12.33	35800	2.9						
149	1920	9.96	34400	3.4						



<b>P<sub>m</sub> = 30 kW</b>										
<b>n<sub>a</sub></b> <b>min<sup>-1</sup></b>	<b>M<sub>a</sub></b> <b>Nm</b>	<b>i</b>	<b>F<sub>Ra</sub><sup>1)</sup></b> <b>N</b>	<b>SEW</b> <b>f<sub>B</sub></b>					<b>m</b> <b>kg</b>	
67	4280	22.11	15100	1.00						
74	3880	20.07	15500	1.10						
86	3330	17.25*	16000	1.30						
98	2910	15.06	16300	1.50						
116	2470	12.77	16400	1.75	<b>FA</b>	<b>97</b>	<b>DRN</b>	<b>200L4</b>	425 499	
133	2160	11.16	16400	1.90	<b>FAF</b>	<b>97</b>	<b>DRN</b>	<b>200L4</b>	445 497	
163	1750	9.06	15400	1.35	<b>F</b>	<b>97</b>	<b>DRN</b>	<b>200L4</b>	430 496	
180	1590	8.22	15300	1.50	<b>FF</b>	<b>97</b>	<b>DRN</b>	<b>200L4</b>	465 497	
209	1360	7.07	15100	1.70						
240	1190	6.17	14900	1.90						
283	1010	5.23	14600	2.1						
324	880	4.57	14300	2.3						

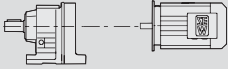

<b>P<sub>m</sub> = 37 kW</b>										
<b>n<sub>a</sub></b> <b>min<sup>-1</sup></b>	<b>M<sub>a</sub></b> <b>Nm</b>	<b>i</b>	<b>F<sub>Ra</sub><sup>1)</sup></b> <b>N</b>	<b>SEW</b> <b>f<sub>B</sub></b>					<b>m</b> <b>kg</b>	
15	23000	96.53*	63700	0.85						
17	20400	85.80*	88600	1.00						
19	18700	78.46	88700	1.05						
22	16200	68.28*	88400	1.25	<b>FA</b>	<b>157</b>	<b>DRN</b>	<b>225S4</b>	930 520	
25	14300	60.25	87800	1.40	<b>FAF</b>	<b>157</b>	<b>DRN</b>	<b>225S4</b>	990 518	
28	12400	52.24	86700	1.60	<b>F</b>	<b>157</b>	<b>DRN</b>	<b>225S4</b>	950 517	
32	11000	46.48*	85600	1.80	<b>FF</b>	<b>157</b>	<b>DRN</b>	<b>225S4</b>	1060 518	
37	9550	40.06	83900	2.1						
46	7750	32.55	81300	2.6						
54	6580	27.60	79000	3.0						
27	13100	55.31	59200	0.90						
30	11600	48.80	60800	1.05	<b>FA</b>	<b>127</b>	<b>DRN</b>	<b>225S4</b>	680 513	
35	10000	42.15	61100	1.20	<b>FAF</b>	<b>127</b>	<b>DRN</b>	<b>225S4</b>	720 511	
40	8880	37.28	60700	1.35	<b>F</b>	<b>127</b>	<b>DRN</b>	<b>225S4</b>	720 510	
47	7460	31.33	59900	1.60	<b>FF</b>	<b>127</b>	<b>DRN</b>	<b>225S4</b>	760 511	
59	6030	25.30	58400	2.0						
55	6400	26.86	58900	1.35						
60	5850	24.57	58200	1.45						
69	5090	21.38	57000	2.4						
79	4490	18.87	55900	2.5	<b>FA</b>	<b>127</b>	<b>DRN</b>	<b>225S4</b>	670 513	
91	3890	16.36	54500	2.8	<b>FAF</b>	<b>127</b>	<b>DRN</b>	<b>225S4</b>	710 511	
102	3460	14.55	53300	3.2	<b>F</b>	<b>127</b>	<b>DRN</b>	<b>225S4</b>	700 510	
118	2990	12.54	51800	3.3	<b>FF</b>	<b>127</b>	<b>DRN</b>	<b>225S4</b>	750 511	
145	2420	10.19	49500	3.9						
167	2110	8.86	47700	3.3						
188	1870	7.88	46400	3.2						
54	6570	27.57	36200	1.20						
59	5990	25.14	36300	1.30						
68	5180	21.76*	36200	1.50						
77	4570	19.20*	36000	1.70						
89	3950	16.58	35600	2.0	<b>FA</b>	<b>107</b>	<b>DRN</b>	<b>225S4</b>	530 506	
101	3490	14.67	35100	2.2	<b>FAF</b>	<b>107</b>	<b>DRN</b>	<b>225S4</b>	550 504	
120	2930	12.33	34300	2.4	<b>F</b>	<b>107</b>	<b>DRN</b>	<b>225S4</b>	540 503	
149	2370	9.96	33200	2.7	<b>FF</b>	<b>107</b>	<b>DRN</b>	<b>225S4</b>	570 504	
153	2310	9.69	32400	2.1						
177	1990	8.37	31600	2.4						
200	1760	7.40	31000	2.6						
238	1480	6.22	30000	3.1						

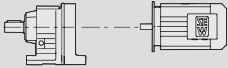

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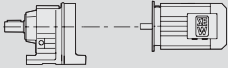

<b>P<sub>m</sub> = 45 kW</b>										
$n_a$ min <sup>-1</sup>	$M_a$ Nm	$i$	$F_{Ra}^{1)}$ N	SEW $f_b$					$m$ kg	
19	22700	78.46	70300	0.90						
22	19700	68.28*	81400	1.00						
25	17400	60.25	81600	1.15	FA	157	DRN	225M4	930	520
28	15100	52.24	81300	1.30	FAF	157	DRN	225M4	990	518
32	13400	46.48*	80800	1.50	F	157	DRN	225M4	950	517
37	11600	40.06	79800	1.70	FF	157	DRN	225M4	1060	518
46	9430	32.55	78000	2.1						
54	8000	27.60	76100	2.5						
30	14100	48.80	51600	0.85	FA	127	DRN	225M4	680	513
35	12200	42.15	54300	1.00	FAF	127	DRN	225M4	720	511
40	10800	37.28	55800	1.10	F	127	DRN	225M4	720	510
47	9080	31.33	56100	1.30	FF	127	DRN	225M4	760	511
59	7330	25.30	55400	1.65						
55	7780	26.86	55600	1.10						
60	7120	24.57	55200	1.20						
69	6190	21.38	54500	1.95						
79	5470	18.87	53600	2.0						
91	4740	16.36	52500	2.3	FA	127	DRN	225M4	670	513
102	4210	14.55	51600	2.6	FAF	127	DRN	225M4	710	511
118	3630	12.54	50300	2.8	F	127	DRN	225M4	700	510
145	2950	10.19	48300	3.2	FF	127	DRN	225M4	750	511
167	2560	8.86	46500	2.7						
188	2280	7.88	45400	2.6						
218	1970	6.80	44000	3.5						
268	1600	5.52	41900	3.8						
54	7990	27.57	31500	1.00						
59	7290	25.14	32600	1.10						
68	6300	21.76*	33200	1.25						
77	5560	19.20*	33300	1.40						
89	4800	16.58	33300	1.65	FA	107	DRN	225M4	530	506
101	4250	14.67	33100	1.80	FAF	107	DRN	225M4	550	504
120	3570	12.33	32600	1.95	F	107	DRN	225M4	540	503
149	2880	9.96	31900	2.2	FF	107	DRN	225M4	570	504
153	2810	9.69	30900	1.75						
177	2420	8.37	30400	2.0						
200	2140	7.40	29800	2.1						
238	1800	6.22	29000	2.5						

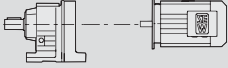

<b>P<sub>m</sub> = 55 kW</b>										
$n_a$ min <sup>-1</sup>	$M_a$ Nm	$i$	$F_{Ra}^{1)}$ N	SEW $f_b$					$m$ kg	
25	21300	60.25	73800	0.95						
28	18500	52.24	74600	1.10	FA	157	DRN	250M4	1080	520
32	16400	46.48*	74800	1.20	FAF	157	DRN	250M4	1140	518
37	14100	40.06	74700	1.40	F	157	DRN	250M4	1110	517
46	11500	32.55	73800	1.75	FF	157	DRN	250M4	1210	518
54	9780	27.60	72600	2.0						
52	10100	28.60*	72900	1.90	FA	157	DRN	250M4	1080	520
58	9010	25.43	71900	2.2	FAF	157	DRN	250M4	1140	518
67	7850	22.16	70600	2.5	F	157	DRN	250M4	1100	517
75	7000	19.77	69400	2.8	FF	157	DRN	250M4	1210	518
88	5970	16.85	67500	3.1						
40	13200	37.28	47000	0.90	FA	127	DRN	250M4	830	513
47	11100	31.33	50000	1.10	FAF	127	DRN	250M4	870	511
59	8960	25.30	51600	1.35	F	127	DRN	250M4	870	510
					FF	127	DRN	250M4	910	511

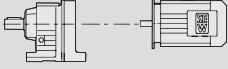

<b>P<sub>m</sub> = 55 kW</b>										
$n_a$ min <sup>-1</sup>	$M_a$ Nm	$i$	$F_{Ra}^{1)}$ N	SEW $f_B$					$m$ kg	
69	7570	21.38	51300	1.60						
79	6680	18.87	50800	1.65						
91	5790	16.36	50100	1.90						
102	5150	14.55	49400	2.1						
118	4440	12.54	48400	2.2	FA	127	DRN	250M4	820	513
145	3610	10.19	46800	2.6	FAF	127	DRN	250M4	850	511
167	3140	8.86	45100	2.2	F	127	DRN	250M4	850	510
188	2790	7.88	44100	2.1	FF	127	DRN	250M4	900	511
218	2400	6.80	42900	2.9						
268	1950	5.52	41000	3.1						
317	1650	4.68	39600	3.6						

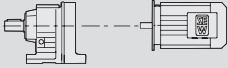

<b>P<sub>m</sub> = 75 kW</b>										
$n_a$ min <sup>-1</sup>	$M_a$ Nm	$i$	$F_{Ra}^{1)}$ N	SEW $f_B$					$m$ kg	
32	22400	46.48*	62900	0.90	FA	157	DRN	280S4	1130	520
37	19300	40.06	64400	1.05	FAF	157	DRN	280S4	1190	518
46	15700	32.55	65400	1.25	F	157	DRN	280S4	1150	517
54	13300	27.60	65500	1.50	FF	157	DRN	280S4	1260	518
52	13800	28.60*	65500	1.40						
58	12200	25.43	65400	1.65	FA	157	DRN	280S4	1130	520
67	10700	22.16	64900	1.85	FAF	157	DRN	280S4	1190	518
75	9550	19.77	64300	2.0	F	157	DRN	280S4	1150	517
88	8140	16.85	63200	2.3	FF	157	DRN	280S4	1260	518
106	6740	13.96	61600	2.6						
124	5750	11.92	60100	3.0						
59	12200	25.30	40000	1.00	FA	127	DRN	280S4	880	513
					FAF	127	DRN	280S4	920	511
					F	127	DRN	280S4	910	510
					FF	127	DRN	280S4	960	511
69	10300	21.38	43000	1.15						
79	9110	18.87	44400	1.20						
91	7900	16.36	45200	1.40						
102	7030	14.55	45000	1.55						
118	6060	12.54	44600	1.65	FA	127	DRN	280S4	870	513
145	4920	10.19	43700	1.95	FAF	127	DRN	280S4	900	511
167	4280	8.86	42200	1.65	F	127	DRN	280S4	900	510
188	3800	7.88	41600	1.55	FF	127	DRN	280S4	950	511
218	3280	6.80	40700	2.1						
268	2660	5.52	39300	2.2						
317	2260	4.68	38100	2.6						

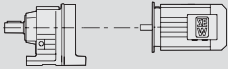

<b>P<sub>m</sub> = 90 kW</b>										
$n_a$ min <sup>-1</sup>	$M_a$ Nm	$i$	$F_{Ra}^{1)}$ N	SEW $f_B$					$m$ kg	
37	23200	40.06	56600	0.85	FA	157	DRN	280M4	1250	520
46	18800	32.55	59100	1.05	FAF	157	DRN	280M4	1310	518
54	16000	27.60	60200	1.25	F	157	DRN	280M4	1270	517
					FF	157	DRN	280M4	1380	518
67	12800	22.16	60600	1.55						
75	11400	19.77	60500	1.70	FA	157	DRN	280M4	1240	520
88	9770	16.85	59900	1.90	FAF	157	DRN	280M4	1300	518
106	8100	13.96	58900	2.2	F	157	DRN	280M4	1260	517
124	6910	11.92	57800	2.5	FF	157	DRN	280M4	1370	518
59	14600	25.30	29600	0.80	FA	127	DRN	280M4	990	513
					FAF	127	DRN	280M4	1030	511
					F	127	DRN	280M4	1030	510
					FF	127	DRN	280M4	1070	511

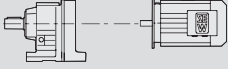

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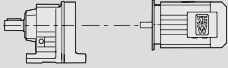

<b>P<sub>m</sub> = 90 kW</b>										
$n_a$ min <sup>-1</sup>	$M_a$ Nm	$i$	$F_{Ra}^{(1)}$ N	SEW $f_B$					<b>m</b> kg	
91	9490	16.36	39900	1.15						
102	8440	14.55	41100	1.30						
118	7270	12.54	41800	1.35						
145	5910	10.19	41400	1.60	FA	127	DRN	280M4	980	513
167	5140	8.86	40100	1.35	FAF	127	DRN	280M4	1020	511
188	4570	7.88	39700	1.30	F	127	DRN	280M4	1020	510
218	3940	6.80	39000	1.80	FF	127	DRN	280M4	1060	511
268	3200	5.52	37900	1.85						
316	2710	4.68	36900	2.2						

<b>P<sub>m</sub> = 110 kW</b>										
$n_a$ min <sup>-1</sup>	$M_a$ Nm	$i$	$F_{Ra}^{(1)}$ N	SEW $f_B$					<b>m</b> kg	
46	22900	32.55	50800	0.85	FA	157	DRN	315S4	1490	520
54	19400	27.60	53100	1.05	FAF	157	DRN	315S4	1550	518
					F	157	DRN	315S4	1510	517
					FF	157	DRN	315S4	1620	518
67	15600	22.16	54900	1.25	FA	157	DRN	315S4/ERF/NS	1490	520
					FAF	157	DRN	315S4/ERF/NS	1550	518
					F	157	DRN	315S4/ERF/NS	1510	517
					FF	157	DRN	315S4/ERF/NS	1610	518
75	13900	19.77	55400	1.40	FA	157	DRN	315S4	1490	520
88	11800	16.85	55600	1.55	FAF	157	DRN	315S4	1550	518
107	9850	13.96	55300	1.80	F	157	DRN	315S4	1510	517
125	8410	11.92	54700	2.1	FF	157	DRN	315S4	1610	518

<b>P<sub>m</sub> = 132 kW</b>										
$n_a$ min <sup>-1</sup>	$M_a$ Nm	$i$	$F_{Ra}^{(1)}$ N	SEW $f_B$					<b>m</b> kg	
54	23300	27.60	45400	0.85	FA	157	DRN	315M4	1510	520
					FAF	157	DRN	315M4	1570	518
					F	157	DRN	315M4	1530	517
					FF	157	DRN	315M4	1640	518
67	18700	22.16	48700	1.05	FA	157	DRN	315M4/ERF/NS	1510	520
75	16700	19.77	49800	1.15	FAF	157	DRN	315M4/ERF/NS	1570	518
					F	157	DRN	315M4/ERF/NS	1530	517
					FF	157	DRN	315M4/ERF/NS	1630	518
88	14200	16.85	50900	1.30	FA	157	DRN	315M4	1510	520
107	11800	13.96	51400	1.50	FAF	157	DRN	315M4	1570	518
125	10000	11.92	51400	1.70	F	157	DRN	315M4	1530	517
					FF	157	DRN	315M4	1630	518

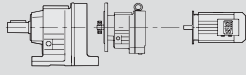

<b>P<sub>m</sub> = 160 kW</b>										
$n_a$ min <sup>-1</sup>	$M_a$ Nm	$i$	$F_{Ra}^{(1)}$ N	SEW $f_B$					<b>m</b> kg	
88	17300	16.85	44800	1.10	FA	157	DRN	315L4	1640	520
106	14300	13.96	46400	1.25	FAF	157	DRN	315L4	1700	518
125	12200	11.92	47100	1.40	F	157	DRN	315L4	1660	517
					FF	157	DRN	315L4	1770	518

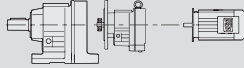

<b>P<sub>m</sub> = 200 kW</b>										
$n_a$ min <sup>-1</sup>	$M_a$ Nm	$i$	$F_{Ra}^{(1)}$ N	SEW $f_B$					<b>m</b> kg	
88	21600	16.85	36200	0.85	FA	157	DRN	315H4/ERF/NS	1760	520
					FAF	157	DRN	315H4/ERF/NS	1820	518
					F	157	DRN	315H4/ERF/NS	1780	517
					FF	157	DRN	315H4/ERF/NS	1880	518

<b>P<sub>m</sub> = 200 kW</b>										
<b>n<sub>a</sub></b> <b>min<sup>-1</sup></b>	<b>M<sub>a</sub></b> <b>Nm</b>	<b>i</b>	<b>F<sub>Ra</sub><sup>1)</sup></b> <b>N</b>	<b>SEW</b> <b>f<sub>B</sub></b>					<b>m</b> <b>kg</b>	
<b>107</b>	17900	13.96	39200	1.00	<b>FA</b>	<b>157</b>	<b>DRN</b>	<b>315H4</b>	1760	520
<b>125</b>	15200	11.92	41000	1.15	<b>FAF</b>	<b>157</b>	<b>DRN</b>	<b>315H4</b>	1820	518
					<b>F</b>	<b>157</b>	<b>DRN</b>	<b>315H4</b>	1780	517
					<b>FF</b>	<b>157</b>	<b>DRN</b>	<b>315H4</b>	1880	518

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## 9.4 F..R..DRN.. selection tables for low output speeds in Nm

$M_{a \max} = 130 \text{ Nm}$									
$n_a$ min <sup>-1</sup>	i	$F_{Ra}^{1)}$ N					m kg		
0.15	8972	4500							
0.18	7736	4500							
0.19	7211	4500							
0.22	6303	4500							
0.25	5435	4500	FA	27R17	DRN	63MS4	14	524	
0.28	4855	4500	FAF	27R17	DRN	63MS4	14	524	
0.33	4243	4500	F	27R17	DRN	63MS4	14	524	
0.37	3715	4500	FF	27R17	DRN	63MS4	15	524	
0.43	3247	4500							
0.48	2878	4500							
0.55	2515	4500							
0.62	2217	4500							
0.73	1898	4500							
0.84	1645	4500							
0.90	1525	4500							
1.0	1322	4500	FA	27R17	DRN	63MS4	13	524	
1.2	1146	4500	FAF	27R17	DRN	63MS4	14	524	
1.4	1013	4500	F	27R17	DRN	63MS4	14	524	
1.6	890	4500	FF	27R17	DRN	63MS4	15	524	
1.8	778	4500							
2.0	682	4500							
2.3	602	4500							
2.6	520	4500							
0.71	1948	4500							
0.76	1826	4500							
0.86	1610	4500							
0.99	1399	4500							
1.1	1230	4500							
1.5	948	4500							
1.7	829	4500	FA	27R17	DRN	63MS4	13	524	
1.9	731	4500	FAF	27R17	DRN	63MS4	14	524	
2.2	633	4500	F	27R17	DRN	63MS4	14	524	
2.5	551	4500	FF	27R17	DRN	63MS4	15	524	
2.8	489	4500							
3.2	427	4500							
3.6	379	4500							
4.2	326	4500							
4.8	288	4500							
5.5	251	4500							
6.2	221	4500							
8.0	172	4500	FA	27R17	DRN	63M4	14	524	
9.0	153	4500	FAF	27R17	DRN	63M4	15	524	
11	130	4500	F	27R17	DRN	63M4	15	524	
			FF	27R17	DRN	63M4	15	524	
3.0	458	4500							
3.5	397	4500							
4.0	342	4500	FA	27R17	DRN	63MS4	13	524	
4.6	302	4500	FAF	27R17	DRN	63MS4	14	524	
5.2	266	4500	F	27R17	DRN	63MS4	14	524	
5.8	236	4500	FF	27R17	DRN	63MS4	14	524	
6.5	211	4500							
7.4	186	4500							
9.7	142	4500	FA	27R17	DRN	63M4	14	524	
			FAF	27R17	DRN	63M4	15	524	
11	124	4500	F	27R17	DRN	63M4	14	524	
			FF	27R17	DRN	63M4	15	524	
13	109	4500	FA	27R17	DRN	71MS4	14	524	
			FAF	27R17	DRN	71MS4	15	524	
15	96	4500	F	27R17	DRN	71MS4	15	524	
			FF	27R17	DRN	71MS4	16	524	

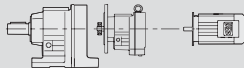

<b>M<sub>a max</sub> = 200 Nm</b>								
<b>n<sub>a</sub> min<sup>-1</sup></b>	<b>i</b>	<b>F<sub>Ra</sub><sup>1)</sup> N</b>					<b>m kg</b>	
0.17	8193	4290						
0.20	7064	4290						
0.21	6585	4290						
0.24	5756	4290						
0.28	4963	4290						
0.31	4434	4290						
0.36	3875	4290	<b>FA</b>	<b>37R17</b>	<b>DRN</b>	<b>63MS4</b>	20 524	
0.41	3392	4290	<b>FAF</b>	<b>37R17</b>	<b>DRN</b>	<b>63MS4</b>	21 524	
0.47	2965	4290	<b>F</b>	<b>37R17</b>	<b>DRN</b>	<b>63MS4</b>	20 524	
0.53	2587	4290	<b>FF</b>	<b>37R17</b>	<b>DRN</b>	<b>63MS4</b>	22 524	
0.60	2284	4290						
0.69	1997	4290						
0.79	1742	4290						
0.89	1545	4290						
0.72	1929	4290						
0.82	1679	4290						
0.89	1550	4290						
1.0	1356	4290						
1.2	1180	4290						
1.3	1044	4290	<b>FA</b>	<b>37R17</b>	<b>DRN</b>	<b>63MS4</b>	20 524	
1.5	914	4290	<b>FAF</b>	<b>37R17</b>	<b>DRN</b>	<b>63MS4</b>	21 524	
1.7	808	4290	<b>F</b>	<b>37R17</b>	<b>DRN</b>	<b>63MS4</b>	20 524	
2.0	698	4290	<b>FF</b>	<b>37R17</b>	<b>DRN</b>	<b>63MS4</b>	22 524	
2.2	616	4290						
2.5	544	4290						
3.0	466	4290						
3.4	411	4290						
3.8	364	4290						
1.0	1370	4290						
1.1	1198	4290						
1.3	1047	4290						
1.5	915	4290						
1.7	807	4290	<b>FA</b>	<b>37R17</b>	<b>DRN</b>	<b>63MS4</b>	19 524	
1.9	707	4290	<b>FAF</b>	<b>37R17</b>	<b>DRN</b>	<b>63MS4</b>	21 524	
2.2	617	4290	<b>F</b>	<b>37R17</b>	<b>DRN</b>	<b>63MS4</b>	20 524	
2.6	538	4290	<b>FF</b>	<b>37R17</b>	<b>DRN</b>	<b>63MS4</b>	22 524	
2.9	477	4290						
3.4	412	4290						
3.8	365	4290						
4.3	322	4290						
5.0	278	4290	<b>FA</b>	<b>37R17</b>	<b>DRN</b>	<b>63M4</b>	20 524	
5.7	242	4290	<b>FAF</b>	<b>37R17</b>	<b>DRN</b>	<b>63M4</b>	22 524	
6.2	221	4290	<b>F</b>	<b>37R17</b>	<b>DRN</b>	<b>63M4</b>	21 524	
7.1	195	4290	<b>FF</b>	<b>37R17</b>	<b>DRN</b>	<b>63M4</b>	23 524	
8.4	168	4290	<b>FA</b>	<b>37R17</b>	<b>DRN</b>	<b>71MS4</b>	21 524	
9.6	147	4290	<b>FAF</b>	<b>37R17</b>	<b>DRN</b>	<b>71MS4</b>	22 524	
			<b>F</b>	<b>37R17</b>	<b>DRN</b>	<b>71MS4</b>	21 524	
			<b>FF</b>	<b>37R17</b>	<b>DRN</b>	<b>71MS4</b>	23 524	
11	127	4290	<b>FA</b>	<b>37R17</b>	<b>DRN</b>	<b>71M4</b>	22 524	
12	121	4290	<b>FAF</b>	<b>37R17</b>	<b>DRN</b>	<b>71M4</b>	24 524	
13	108	4290	<b>F</b>	<b>37R17</b>	<b>DRN</b>	<b>71M4</b>	23 524	
15	91	4290	<b>FF</b>	<b>37R17</b>	<b>DRN</b>	<b>71M4</b>	24 524	
4.2	326	4290	<b>FA</b>	<b>37R17</b>	<b>DRN</b>	<b>63MS4</b>	19 524	
4.8	285	4290	<b>FAF</b>	<b>37R17</b>	<b>DRN</b>	<b>63MS4</b>	21 524	
			<b>F</b>	<b>37R17</b>	<b>DRN</b>	<b>63MS4</b>	20 524	
			<b>FF</b>	<b>37R17</b>	<b>DRN</b>	<b>63MS4</b>	22 524	
5.5	250	4290	<b>FA</b>	<b>37R17</b>	<b>DRN</b>	<b>63M4</b>	20 524	
6.3	219	4290	<b>FAF</b>	<b>37R17</b>	<b>DRN</b>	<b>63M4</b>	22 524	
7.4	186	4290	<b>F</b>	<b>37R17</b>	<b>DRN</b>	<b>63M4</b>	21 524	
			<b>FF</b>	<b>37R17</b>	<b>DRN</b>	<b>63M4</b>	22 524	
8.4	167	4290	<b>FA</b>	<b>37R17</b>	<b>DRN</b>	<b>71MS4</b>	21 524	
9.7	145	4290	<b>FAF</b>	<b>37R17</b>	<b>DRN</b>	<b>71MS4</b>	22 524	
			<b>F</b>	<b>37R17</b>	<b>DRN</b>	<b>71MS4</b>	21 524	
			<b>FF</b>	<b>37R17</b>	<b>DRN</b>	<b>71MS4</b>	23 524	

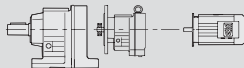

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## Parallel-shaft helical gearmotors

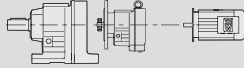

F..R..DRN.. selection tables for low output speeds in Nm

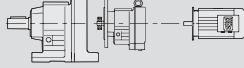

<b>M<sub>a max</sub> = 200 Nm</b>									
$n_a$ min <sup>-1</sup>	i	$F_{Ra}^{(1)}$ N					m kg		
11	129	4290	FA	37R17	DRN	71M4	22	524	
12	118	4290	FAF	37R17	DRN	71M4	23	524	
14	98	4290	F	37R17	DRN	71M4	22	524	
			FF	37R17	DRN	71M4	24	524	
17	87	4290	FA	37R17	DRN	80M4	27	524	
			FAF	37R17	DRN	80M4	29	524	
			F	37R17	DRN	80M4	28	524	
			FF	37R17	DRN	80M4	29	524	

<b>M<sub>a max</sub> = 400 Nm</b>									
$n_a$ min <sup>-1</sup>	i	$F_{Ra}^{(1)}$ N					m kg		
0.11	12251	5920							
0.13	10619	5920							
0.14	9846	5920							
0.16	8534	5920							
0.19	7460	5920							
0.21	6536	5920							
0.24	5746	5920	FA	47R17	DRN	63MS4	25	524	
0.27	5022	5920	FAF	47R17	DRN	63MS4	27	524	
0.31	4401	5920	F	47R17	DRN	63MS4	25	524	
0.36	3883	5920	FF	47R17	DRN	63MS4	28	524	
0.40	3443	5920							
0.46	2976	5920							
0.52	2629	5920							
0.60	2304	5920							
0.68	2033	5920							
0.55	2519	5920							
0.58	2394	5920							
0.64	2172	5920							
0.68	2025	5920							
0.78	1770	5920							
0.88	1576	5920	FA	47R17	DRN	63MS4	24	524	
1.0	1363	5920	FAF	47R17	DRN	63MS4	27	524	
1.2	1192	5920	F	47R17	DRN	63MS4	25	524	
1.3	1061	5920	FF	47R17	DRN	63MS4	28	524	
1.5	931	5920							
1.7	822	5920							
2.0	706	5920							
2.2	619	5920							
0.77	1785	5920							
0.87	1578	5920							
1.0	1364	5920	FA	47R17	DRN	63MS4	24	524	
1.1	1203	5920	FAF	47R17	DRN	63MS4	27	524	
1.3	1049	5920	F	47R17	DRN	63MS4	25	524	
1.5	918	5920	FF	47R17	DRN	63MS4	28	524	
1.7	809	5920							
2.0	700	5920							
2.2	622	5920							
2.5	543	5920	FA	47R17	DRN	63M4	25	524	
2.9	475	5920	FAF	47R17	DRN	63M4	28	524	
3.3	419	5920	F	47R17	DRN	63M4	26	524	
			FF	47R17	DRN	63M4	29	524	
3.8	370	5920	FA	47R17	DRN	71MS4	26	524	
4.3	324	5920	FAF	47R17	DRN	71MS4	28	524	
4.9	288	5920	F	47R17	DRN	71MS4	26	524	
			FF	47R17	DRN	71MS4	30	524	
5.7	249	5920	FA	47R17	DRN	71M4	27	524	
6.5	218	5920	FAF	47R17	DRN	71M4	30	524	
7.3	193	5920	F	47R17	DRN	71M4	28	524	
			FF	47R17	DRN	71M4	31	524	
8.3	175	5920	FA	47R17	DRN	80M4	32	524	
9.8	147	5920	FAF	47R17	DRN	80M4	35	524	
			F	47R17	DRN	80M4	33	524	
11	130	5920	FF	47R17	DRN	80M4	36	524	

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<b>M<sub>a max</sub> = 400 Nm</b>									
<b>n<sub>a</sub></b> <b>min<sup>-1</sup></b>	<b>i</b>	<b>F<sub>Ra</sub><sup>(1)</sup></b> <b>N</b>					<b>m</b> <b>kg</b>		
2.6	524	5920	FA	47R17	DRN	63M4	24	524	
2.8	489	5920	FAF	47R17	DRN	63M4	27	524	
3.2	427	5920	F	47R17	DRN	63M4	25	524	
3.6	381	5920	FF	47R17	DRN	63M4	28	524	
4.2	334	5920	FA	47R17	DRN	71MS4	25	524	
4.8	295	5920	FAF	47R17	DRN	71MS4	28	524	
			F	47R17	DRN	71MS4	26	524	
			FF	47R17	DRN	71MS4	29	524	
5.6	253	5920	FA	47R17	DRN	71M4	26	524	
6.5	217	5920	FAF	47R17	DRN	71M4	29	524	
7.5	190	5920	F	47R17	DRN	71M4	27	524	
8.0	178	5920	FF	47R17	DRN	71M4	30	524	
9.7	149	5920	FA	47R17	DRN	80M4	31	524	
11	131	5920	FAF	47R17	DRN	80M4	34	524	
			F	47R17	DRN	80M4	32	524	
			FF	47R17	DRN	80M4	35	524	

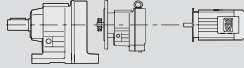

<b>M<sub>a max</sub> = 600 Nm</b>									
<b>n<sub>a</sub></b> <b>min<sup>-1</sup></b>	<b>i</b>	<b>F<sub>Ra</sub><sup>(1)</sup></b> <b>N</b>					<b>m</b> <b>kg</b>		
0.09	14832	9200							
0.10	13604	9200							
0.11	12602	9200							
0.12	11252	9200							
0.14	9986	9200							
0.16	8787	9200							
0.17	7908	9200							
0.20	6913	9200							
0.23	6030	9200							
0.26	5289	9200	FA	57R37	DRN	63MS4	39	524	
0.30	4654	9200	FAF	57R37	DRN	63MS4	45	524	
0.34	4060	9200	F	57R37	DRN	63MS4	40	524	
0.39	3564	9200	FF	57R37	DRN	63MS4	46	524	
0.44	3161	9200							
0.50	2737	9200							
0.57	2409	9200							
0.65	2131	9200							
0.75	1840	9200							
0.85	1623	9200							
0.96	1439	9200							
1.1	1238	9200							
0.48	2854	9200							
0.54	2576	9200							
0.61	2266	9200							
0.69	2012	9200	FA	57R37	DRN	63MS4	39	524	
0.77	1791	9200	FAF	57R37	DRN	63MS4	44	524	
0.85	1617	9200	F	57R37	DRN	63MS4	39	524	
0.97	1422	9200	FF	57R37	DRN	63MS4	45	524	
1.1	1243	9200							
1.3	1066	9200							
1.4	949	9200							
1.6	856	9200							
1.8	749	9200	FA	57R37	DRN	63M4	40	524	
2.1	658	9200	FAF	57R37	DRN	63M4	45	524	
			F	57R37	DRN	63M4	40	524	
			FF	57R37	DRN	63M4	46	524	
2.6	549	9200	FA	57R37	DRN	71MS4	40	524	
2.9	483	9200	FAF	57R37	DRN	71MS4	46	524	
			F	57R37	DRN	71MS4	40	524	
			FF	57R37	DRN	71MS4	47	524	
1.2	1106	9200	FA	57R37	DRN	63MS4	39	524	
1.4	967	9200	FAF	57R37	DRN	63MS4	45	524	
1.6	851	9200	F	57R37	DRN	63MS4	39	524	
			FF	57R37	DRN	63MS4	46	524	

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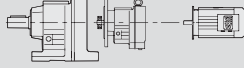

# 9

## Parallel-shaft helical gearmotors

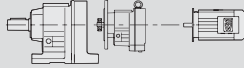

F..R..DRN.. selection tables for low output speeds in Nm

<b>M<sub>a max</sub> = 600 Nm</b>									
$n_a$ min <sup>-1</sup>	i	$F_{Ra}^{(1)}$ N					m kg		
1.9	738	9200	FA	57R37	DRN	63M4	40	524	
2.1	646	9200	FAF	57R37	DRN	63M4	46	524	
2.5	558	9200	F	57R37	DRN	63M4	40	524	
			FF	57R37	DRN	63M4	47	524	
2.8	506	9200	FA	57R37	DRN	71MS4	41	524	
			FAF	57R37	DRN	71MS4	46	524	
3.1	452	9200	F	57R37	DRN	71MS4	41	524	
			FF	57R37	DRN	71MS4	47	524	
3.7	386	9200	FA	57R37	DRN	71M4	42	524	
			FAF	57R37	DRN	71M4	47	524	
4.2	338	9200	F	57R37	DRN	71M4	42	524	
			FF	57R37	DRN	71M4	49	524	
5.6	255	9200	FA	57R37	DRN	80MK4	44	524	
			FAF	57R37	DRN	80MK4	50	524	
7.1	201	9200	F	57R37	DRN	80MK4	44	524	
			FF	57R37	DRN	80MK4	51	524	
7.9	181	9200							
9.3	155	9200	FA	57R37	DRN	80M4	48	524	
			FAF	57R37	DRN	80M4	53	524	
			F	57R37	DRN	80M4	48	524	
			FF	57R37	DRN	80M4	54	524	
3.3	426	9200	FA	57R37	DRN	71MS4	40	524	
			FAF	57R37	DRN	71MS4	46	524	
			F	57R37	DRN	71MS4	40	524	
			FF	57R37	DRN	71MS4	47	524	
3.7	382	9200	FA	57R37	DRN	71M4	41	524	
4.3	330	9200	FAF	57R37	DRN	71M4	47	524	
4.8	298	9200	F	57R37	DRN	71M4	41	524	
5.4	262	9200	FF	57R37	DRN	71M4	48	524	
6.3	226	9200	FA	57R37	DRN	80MK4	43	524	
			FAF	57R37	DRN	80MK4	49	524	
7.2	200	9200	F	57R37	DRN	80MK4	44	524	
			FF	57R37	DRN	80MK4	50	524	
8.5	170	9200	FA	57R37	DRN	80M4	47	524	
			FAF	57R37	DRN	80M4	52	524	
9.4	152	9200	F	57R37	DRN	80M4	47	524	
11	134	9200	FF	57R37	DRN	80M4	54	524	

<b>M<sub>a max</sub> = 820 Nm</b>									
$n_a$ min <sup>-1</sup>	i	$F_{Ra}^{(1)}$ N					m kg		
0.07	19199	10300							
0.08	17610	10300							
0.09	14992	10300							
0.11	12926	10300							
0.12	11480	10300							
0.14	10220	10300							
0.15	8933	10300							
0.17	7940	10300	FA	67R37	DRN	63MS4	43	524	
0.19	7096	10300	FAF	67R37	DRN	63MS4	50	524	
0.23	6080	10300	F	67R37	DRN	63MS4	46	524	
0.26	5341	10300	FF	67R37	DRN	63MS4	52	524	
0.29	4690	10300							
0.34	4091	10300							
0.39	3574	10300							
0.44	3133	10300							
0.50	2756	10300							
0.57	2439	10300							

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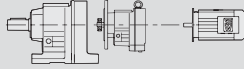

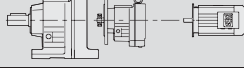

<b>M<sub>a max</sub> = 820 Nm</b>									
<b>n<sub>a</sub></b> <b>min<sup>-1</sup></b>	<b>i</b>	<b>F<sub>Ra</sub><sup>1)</sup></b> <b>N</b>					<b>m</b> <b>kg</b>		
0.41	3377	10300							
0.47	2912	10300							
0.51	2714	10300	FA	67R37	DRN	63MS4	42	524	
0.58	2372	10300	FAF	67R37	DRN	63MS4	48	524	
0.65	2126	10300	F	67R37	DRN	63MS4	45	524	
0.74	1859	10300	FF	67R37	DRN	63MS4	51	524	
0.85	1631	10300							
0.96	1437	10300							
1.1	1256	10300							
1.2	1126	10300	FA	67R37	DRN	63M4	43	524	
1.4	984	10300	FAF	67R37	DRN	63M4	49	524	
1.6	864	10300	F	67R37	DRN	63M4	46	524	
			FF	67R37	DRN	63M4	52	524	
1.9	722	10300	FA	67R37	DRN	71MS4	44	524	
			FAF	67R37	DRN	71MS4	50	524	
2.2	634	10300	F	67R37	DRN	71MS4	46	524	
			FF	67R37	DRN	71MS4	52	524	
2.6	539	10300	FA	67R37	DRN	71M4	45	524	
			FAF	67R37	DRN	71M4	51	524	
			F	67R37	DRN	71M4	48	524	
			FF	67R37	DRN	71M4	54	524	
0.66	2106	10300	FA	67R37	DRN	63MS4	43	524	
0.73	1884	10300	FAF	67R37	DRN	63MS4	49	524	
0.84	1635	10300	F	67R37	DRN	63MS4	46	524	
0.97	1429	10300	FF	67R37	DRN	63MS4	52	524	
1.1	1271	10300							
1.2	1102	10300	FA	67R37	DRN	63M4	44	524	
1.4	970	10300	FAF	67R37	DRN	63M4	50	524	
1.6	858	10300	F	67R37	DRN	63M4	47	524	
			FF	67R37	DRN	63M4	53	524	
1.9	755	10300	FA	67R37	DRN	71MS4	45	524	
2.2	641	10300	FAF	67R37	DRN	71MS4	51	524	
2.5	572	10300	F	67R37	DRN	71MS4	47	524	
			FF	67R37	DRN	71MS4	53	524	
2.8	509	10300	FA	67R37	DRN	71M4	46	524	
3.2	437	10300	FAF	67R37	DRN	71M4	52	524	
3.7	384	10300	F	67R37	DRN	71M4	49	524	
			FF	67R37	DRN	71M4	55	524	
4.2	338	10300	FA	67R37	DRN	80MK4	48	524	
4.7	305	10300	FAF	67R37	DRN	80MK4	54	524	
5.6	257	10300	F	67R37	DRN	80MK4	51	524	
			FF	67R37	DRN	80MK4	57	524	
6.2	231	10300	FA	67R37	DRN	80M4	51	524	
7.0	205	10300	FAF	67R37	DRN	80M4	58	524	
			F	67R37	DRN	80M4	54	524	
			FF	67R37	DRN	80M4	60	524	
8.3	175	10300	FA	67R37	DRN	90S4	57	524	
			FAF	67R37	DRN	90S4	64	524	
			F	67R37	DRN	90S4	60	524	
			FF	67R37	DRN	90S4	66	524	
2.8	500	10300	FA	67R37	DRN	71M4	45	524	
3.1	454	10300	FAF	67R37	DRN	71M4	51	524	
3.6	392	10300	F	67R37	DRN	71M4	47	524	
			FF	67R37	DRN	71M4	53	524	
4.3	333	10300	FA	67R37	DRN	80MK4	47	524	
4.8	297	10300	FAF	67R37	DRN	80MK4	53	524	
5.5	261	10300	F	67R37	DRN	80MK4	50	524	
			FF	67R37	DRN	80MK4	56	524	
6.0	238	10300	FA	67R37	DRN	80M4	50	524	
7.2	200	10300	FAF	67R37	DRN	80M4	57	524	
			F	67R37	DRN	80M4	53	524	
			FF	67R37	DRN	80M4	59	524	

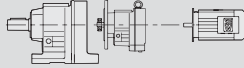

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## Parallel-shaft helical gearmotors

F..R..DRN.. selection tables for low output speeds in Nm

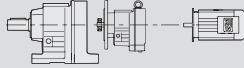

<b>M<sub>a max</sub> = 820 Nm</b>								
$n_a$ min <sup>-1</sup>	i	$F_{Ra}^{(1)}$ N					m kg	
8.3	176	10300	FA	67R37	DRN	90S4	56	524
			FAF	67R37	DRN	90S4	62	524
			F	67R37	DRN	90S4	59	524
			FF	67R37	DRN	90S4	65	524
<b>M<sub>a max</sub> = 1110 Nm</b>								
$n_a$ min <sup>-1</sup>	i	$F_{Ra}^{(1)}$ N					m kg	
0.28	4931	17900						
0.31	4523	17900						
0.36	3851	17900						
0.42	3320	17900						
0.45	3095	17900	FA	77R37	DRN	63MS4	64	524
0.51	2705	17900	FAF	77R37	DRN	63MS4	71	524
0.54	2536	17900	F	77R37	DRN	63MS4	68	524
0.62	2238	17900	FF	77R37	DRN	63MS4	79	524
0.68	2039	17900						
0.78	1759	17900						
0.84	1639	17900						
0.96	1433	17900	FA	77R37	DRN	63M4	65	524
1.0	1343	17900	FAF	77R37	DRN	63M4	72	524
1.2	1185	17900	F	77R37	DRN	63M4	69	524
1.3	1051	17900	FF	77R37	DRN	63M4	80	524
1.6	893	17900	FA	77R37	DRN	71MS4	66	524
			FAF	77R37	DRN	71MS4	72	524
			F	77R37	DRN	71MS4	69	524
			FF	77R37	DRN	71MS4	80	524
1.7	815	17900	FA	77R37	DRN	71MS4	65	524
			FAF	77R37	DRN	71MS4	72	524
			F	77R37	DRN	71MS4	69	524
			FF	77R37	DRN	71MS4	80	524
2.0	706	17900	FA	77R37	DRN	71M4	67	524
			FAF	77R37	DRN	71M4	73	524
			F	77R37	DRN	71M4	70	524
			FF	77R37	DRN	71M4	81	524
3.0	485	17900	FA	77R37	DRN	80MK4	69	524
			FAF	77R37	DRN	80MK4	75	524
			F	77R37	DRN	80MK4	73	524
			FF	77R37	DRN	80MK4	83	524
3.3	433	17900	FA	77R37	DRN	80M4	72	524
			FAF	77R37	DRN	80M4	79	524
			F	77R37	DRN	80M4	76	524
			FF	77R37	DRN	80M4	87	524
3.9	370	17900	FA	77R37	DRN	80M4	72	524
			FAF	77R37	DRN	80M4	79	524
			F	77R37	DRN	80M4	76	524
			FF	77R37	DRN	80M4	87	524
4.1	346	17900	FA	77R37	DRN	80M4	72	524
			FAF	77R37	DRN	80M4	79	524
			F	77R37	DRN	80M4	76	524
			FF	77R37	DRN	80M4	87	524
4.9	292	17900	FA	77R37	DRN	80M4	72	524
			FAF	77R37	DRN	80M4	79	524
			F	77R37	DRN	80M4	76	524
			FF	77R37	DRN	80M4	87	524

<b>M<sub>a max</sub> = 1500 Nm</b>								
<b>n<sub>a</sub> min<sup>-1</sup></b>	<b>i</b>	<b>F<sub>Ra</sub><sup>1)</sup> N</b>					<b>m kg</b>	
0.07	19180	15700						
0.08	17593	15700						
0.09	16128	15700						
0.09	14978	15700						
0.10	13731	15700						
0.11	12049	15700						
0.13	11035	15700						
0.14	9683	15700						
0.16	8464	15700	FA	77R37	DRN	63MS4	66 524	
0.18	7520	15700	FAF	77R37	DRN	63MS4	72 524	
0.21	6580	15700	F	77R37	DRN	63MS4	69 524	
0.24	5808	15700	FF	77R37	DRN	63MS4	80 524	
0.27	5026	15700						
0.31	4435	15700						
0.36	3832	15700						
0.41	3381	15700						
0.46	2978	15700						
0.53	2613	15700						
0.60	2284	15700						
0.68	2029	15700	FA	77R37	DRN	63M4	66 524	
			FAF	77R37	DRN	63M4	73 524	
			F	77R37	DRN	63M4	70 524	
			FF	77R37	DRN	63M4	81 524	
0.80	1728	15700	FA	77R37	DRN	63M4	66 524	
			FAF	77R37	DRN	63M4	73 524	
			F	77R37	DRN	63M4	70 524	
			FF	77R37	DRN	63M4	81 524	
0.89	1544	15700	FA	77R37	DRN	63M4	66 524	
			FAF	77R37	DRN	63M4	73 524	
			F	77R37	DRN	63M4	70 524	
			FF	77R37	DRN	63M4	81 524	
1.0	1354	15700	FA	77R37	DRN	71MS4	67 524	
			FAF	77R37	DRN	71MS4	73 524	
			F	77R37	DRN	71MS4	71 524	
			FF	77R37	DRN	71MS4	81 524	
1.2	1200	15700	FA	77R37	DRN	71MS4	67 524	
			FAF	77R37	DRN	71MS4	73 524	
			F	77R37	DRN	71MS4	71 524	
			FF	77R37	DRN	71MS4	81 524	
1.3	1053	15700	FA	77R37	DRN	71MS4	67 524	
			FAF	77R37	DRN	71MS4	73 524	
			F	77R37	DRN	71MS4	71 524	
			FF	77R37	DRN	71MS4	81 524	
1.6	910	15700	FA	77R37	DRN	71M4	68 524	
			FAF	77R37	DRN	71M4	75 524	
			F	77R37	DRN	71M4	72 524	
			FF	77R37	DRN	71M4	82 524	
1.8	810	15700	FA	77R37	DRN	71M4	68 524	
			FAF	77R37	DRN	71M4	75 524	
			F	77R37	DRN	71M4	72 524	
			FF	77R37	DRN	71M4	82 524	
2.0	710	15700	FA	77R37	DRN	71M4	68 524	
			FAF	77R37	DRN	71M4	75 524	
			F	77R37	DRN	71M4	72 524	
			FF	77R37	DRN	71M4	82 524	
2.3	615	15700	FA	77R37	DRN	80MK4	70 524	
			FAF	77R37	DRN	80MK4	77 524	
			F	77R37	DRN	80MK4	74 524	
			FF	77R37	DRN	80MK4	85 524	
2.7	538	15700	FA	77R37	DRN	80MK4	70 524	
			FAF	77R37	DRN	80MK4	77 524	
			F	77R37	DRN	80MK4	74 524	
			FF	77R37	DRN	80MK4	85 524	
3.0	480	15700	FA	77R37	DRN	80MK4	70 524	
			FAF	77R37	DRN	80MK4	77 524	
			F	77R37	DRN	80MK4	74 524	
			FF	77R37	DRN	80MK4	85 524	
3.5	413	15700	FA	77R37	DRN	80M4	74 524	
			FAF	77R37	DRN	80M4	80 524	
			F	77R37	DRN	80M4	77 524	
			FF	77R37	DRN	80M4	88 524	
3.9	367	15700	FA	77R37	DRN	80M4	74 524	
			FAF	77R37	DRN	80M4	80 524	
			F	77R37	DRN	80M4	77 524	
			FF	77R37	DRN	80M4	88 524	
4.5	323	15700	FA	77R37	DRN	90S4	80 524	
			FAF	77R37	DRN	90S4	86 524	
			F	77R37	DRN	90S4	83 524	
			FF	77R37	DRN	90S4	94 524	
5.2	280	15700	FA	77R37	DRN	90S4	80 524	
			FAF	77R37	DRN	90S4	86 524	
			F	77R37	DRN	90S4	83 524	
			FF	77R37	DRN	90S4	94 524	
5.9	247	15700	FA	77R37	DRN	90S4	80 524	
			FAF	77R37	DRN	90S4	86 524	
			F	77R37	DRN	90S4	83 524	
			FF	77R37	DRN	90S4	94 524	
6.6	221	15700	FA	77R37	DRN	90L4	83 524	
			FAF	77R37	DRN	90L4	89 524	
			F	77R37	DRN	90L4	86 524	
			FF	77R37	DRN	90L4	97 524	
7.3	199	15700	FA	77R37	DRN	90L4	83 524	
			FAF	77R37	DRN	90L4	89 524	
			F	77R37	DRN	90L4	86 524	
			FF	77R37	DRN	90L4	97 524	

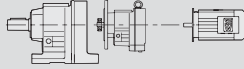

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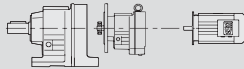

## Parallel-shaft helical gearmotors

F..R..DRN.. selection tables for low output speeds in Nm

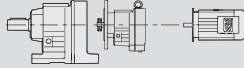

<b>M<sub>a max</sub> = 3000 Nm</b>								
<b>n<sub>a</sub></b> <b>min<sup>-1</sup></b>	<b>i</b>	<b>F<sub>Ra</sub><sup>1)</sup></b> <b>N</b>					<b>m</b> <b>kg</b>	
0.06	23042	19800						
0.07	20462	19800						
0.08	18238	19800						
0.09	15877	19800						
0.10	14099	19800						
0.11	12205	19800	FA	87R57	DRN	63MS4	120	524
0.13	10433	19800	FAF	87R57	DRN	63MS4	130	524
0.15	9381	19800	F	87R57	DRN	63MS4	125	524
0.17	8142	19800	FF	87R57	DRN	63MS4	140	524
0.19	7100	19800						
0.22	6273	19800						
0.25	5510	19800						
0.28	4954	19800						
0.32	4245	19800	FA	87R57	DRN	63M4	120	524
0.37	3721	19800	FAF	87R57	DRN	63M4	130	524
			F	87R57	DRN	63M4	125	524
			FF	87R57	DRN	63M4	140	524
0.28	4952	19800	FA	87R57	DRN	63MS4	115	524
0.30	4562	19800	FAF	87R57	DRN	63MS4	130	524
			F	87R57	DRN	63MS4	120	524
			FF	87R57	DRN	63MS4	135	524
0.35	3919	19800	FA	87R57	DRN	63M4	115	524
0.39	3503	19800	FAF	87R57	DRN	63M4	130	524
0.43	3196	19800	F	87R57	DRN	63M4	120	524
0.48	2857	19800	FF	87R57	DRN	63M4	135	524
0.56	2524	19800	FA	87R57	DRN	71MS4	115	524
0.66	2134	19800	FAF	87R57	DRN	71MS4	130	524
			F	87R57	DRN	71MS4	120	524
			FF	87R57	DRN	71MS4	140	524
0.74	1913	19800	FA	87R57	DRN	71M4	120	524
0.82	1717	19800	FAF	87R57	DRN	71M4	130	524
0.96	1476	19800	F	87R57	DRN	71M4	125	524
			FF	87R57	DRN	71M4	140	524
1.1	1278	19800	FA	87R57	DRN	80MK4	120	524
1.3	1142	19800	FAF	87R57	DRN	80MK4	135	524
1.4	988	19800	F	87R57	DRN	80MK4	125	524
			FF	87R57	DRN	80MK4	140	524
1.6	883	19800	FA	87R57	DRN	80M4	125	524
1.9	748	19800	FAF	87R57	DRN	80M4	135	524
			F	87R57	DRN	80M4	130	524
			FF	87R57	DRN	80M4	145	524
0.42	3244	19800	FA	87R57	DRN	63M4	120	524
0.48	2881	19800	FAF	87R57	DRN	63M4	130	524
			F	87R57	DRN	63M4	125	524
			FF	87R57	DRN	63M4	140	524
0.55	2576	19800	FA	87R57	DRN	71MS4	120	524
0.64	2199	19800	FAF	87R57	DRN	71MS4	130	524
			F	87R57	DRN	71MS4	125	524
			FF	87R57	DRN	71MS4	140	524
0.73	1930	19800	FA	87R57	DRN	71M4	120	524
0.83	1709	19800	FAF	87R57	DRN	71M4	135	524
0.95	1493	19800	F	87R57	DRN	71M4	125	524
			FF	87R57	DRN	71M4	140	524
1.1	1300	19800	FA	87R57	DRN	80MK4	120	524
1.2	1148	19800	FAF	87R57	DRN	80MK4	135	524
1.4	1010	19800	F	87R57	DRN	80MK4	130	524
			FF	87R57	DRN	80MK4	145	524
1.6	887	19800	FA	87R57	DRN	80M4	125	524
1.9	780	19800	FAF	87R57	DRN	80M4	140	524
2.1	674	19800	F	87R57	DRN	80M4	130	524
			FF	87R57	DRN	80M4	145	524

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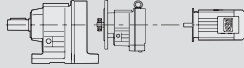

<b>M<sub>a max</sub> = 3000 Nm</b>									
$n_a$ min <sup>-1</sup>	i	$F_{Ra}^{1)}$ N					m kg		
2.4	609	19800	FA	87R57	DRN	90S4	130	524	
2.8	515	19800	FAF	87R57	DRN	90S4	145	524	
3.2	452	19800	F	87R57	DRN	90S4	140	524	
			FF	87R57	DRN	90S4	155	524	
4.2	345	19800	FA	87R57	DRN	90L4	135	524	
			FAF	87R57	DRN	90L4	150	524	
			F	87R57	DRN	90L4	140	524	
			FF	87R57	DRN	90L4	155	524	
4.8	300	19800	FA	87R57	DRN	100LS4	140	524	
5.8	249	19800	FAF	87R57	DRN	100LS4	150	524	
			F	87R57	DRN	100LS4	145	524	
			FF	87R57	DRN	100LS4	160	524	
2.2	662	19800	FA	87R57	DRN	80M4	125	524	
			FAF	87R57	DRN	80M4	135	524	
			F	87R57	DRN	80M4	130	524	
			FF	87R57	DRN	80M4	145	524	
2.5	592	19800	FA	87R57	DRN	90S4	130	524	
2.8	519	19800	FAF	87R57	DRN	90S4	140	524	
3.1	468	19800	F	87R57	DRN	90S4	135	524	
			FF	87R57	DRN	90S4	150	524	
3.7	398	19800	FA	87R57	DRN	90L4	130	524	
4.2	350	19800	FAF	87R57	DRN	90L4	145	524	
			F	87R57	DRN	90L4	140	524	
			FF	87R57	DRN	90L4	155	524	
4.6	315	19800	FA	87R57	DRN	100LS4	135	524	
5.2	281	19800	FAF	87R57	DRN	100LS4	150	524	
6.0	240	19800	F	87R57	DRN	100LS4	140	524	
			FF	87R57	DRN	100LS4	155	524	
6.9	211	19800	FA	87R57	DRN	100L4	145	524	
7.5	193	19800	FAF	87R57	DRN	100L4	155	524	
			F	87R57	DRN	100L4	150	524	
			FF	87R57	DRN	100L4	165	524	

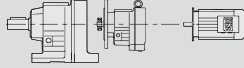

<b>M<sub>a max</sub> = 4300 Nm</b>									
$n_a$ min <sup>-1</sup>	i	$F_{Ra}^{1)}$ N					m kg		
0.05	29211	29900							
0.05	26911	29900							
0.06	23814	29900							
0.07	20813	29900							
0.08	18119	29900	FA	97R57	DRN	63MS4	185	524	
0.09	15472	29900	FAF	97R57	DRN	63MS4	205	524	
0.10	14022	29900	F	97R57	DRN	63MS4	190	524	
0.11	12324	29900	FF	97R57	DRN	63MS4	225	524	
0.13	10838	29900							
0.14	9576	29900							
0.17	8318	29900							
0.19	7328	29900							
0.21	6469	29900	FA	97R57	DRN	63M4	185	524	
0.24	5615	29900	FAF	97R57	DRN	63M4	205	524	
0.28	4961	29900	F	97R57	DRN	63M4	190	524	
0.32	4333	29900	FF	97R57	DRN	63M4	225	524	
0.22	6338	29900	FA	97R57	DRN	63MS4	180	524	
			FAF	97R57	DRN	63MS4	200	524	
			F	97R57	DRN	63MS4	185	524	
			FF	97R57	DRN	63MS4	220	524	
0.24	5680	29900	FA	97R57	DRN	63M4	180	524	
0.27	5016	29900	FAF	97R57	DRN	63M4	200	524	
0.31	4367	29900	F	97R57	DRN	63M4	185	524	
			FF	97R57	DRN	63M4	220	524	

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<b>M<sub>a max</sub> = 4300 Nm</b>									
<b>n<sub>a</sub></b> <b>min<sup>-1</sup></b>	<b>i</b>	<b>F<sub>Ra</sub><sup>1)</sup></b> <b>N</b>					<b>m</b> <b>kg</b>		
0.36	3914	29900	FA	97R57	DRN	71MS4	180	524	
0.42	3357	29900	FAF	97R57	DRN	71MS4	200	524	
0.47	3009	29900	F	97R57	DRN	71MS4	185	524	
			FF	97R57	DRN	71MS4	220	524	
0.58	2448	29900	FA	97R57	DRN	71M4	180	524	
0.64	2199	29900	FAF	97R57	DRN	71M4	200	524	
0.72	1971	29900	F	97R57	DRN	71M4	190	524	
			FF	97R57	DRN	71M4	220	524	
0.82	1741	29900	FA	97R57	DRN	80MK4	185	524	
0.98	1468	29900	FAF	97R57	DRN	80MK4	205	524	
1.1	1316	29900	F	97R57	DRN	80MK4	190	524	
			FF	97R57	DRN	80MK4	225	524	
1.2	1189	29900	FA	97R57	DRN	80M4	185	524	
1.4	1023	29900	FAF	97R57	DRN	80M4	210	524	
			F	97R57	DRN	80M4	195	524	
			FF	97R57	DRN	80M4	225	524	
0.36	3906	29900	FA	97R57	DRN	71MS4	185	524	
0.42	3352	29900	FAF	97R57	DRN	71MS4	205	524	
			F	97R57	DRN	71MS4	190	524	
			FF	97R57	DRN	71MS4	225	524	
0.49	2907	29900	FA	97R57	DRN	71M4	185	524	
0.55	2553	29900	FAF	97R57	DRN	71M4	205	524	
0.63	2245	29900	F	97R57	DRN	71M4	195	524	
0.72	1970	29900	FF	97R57	DRN	71M4	225	524	
0.83	1722	29900	FA	97R57	DRN	80MK4	190	524	
0.94	1527	29900	FAF	97R57	DRN	80MK4	210	524	
1.1	1327	29900	F	97R57	DRN	80MK4	195	524	
			FF	97R57	DRN	80MK4	230	524	
1.2	1171	29900	FA	97R57	DRN	80M4	190	524	
1.4	1022	29900	FAF	97R57	DRN	80M4	215	524	
			F	97R57	DRN	80M4	200	524	
			FF	97R57	DRN	80M4	230	524	
1.6	898	29900	FA	97R57	DRN	90S4	195	524	
1.9	784	29900	FAF	97R57	DRN	90S4	220	524	
2.1	690	29900	F	97R57	DRN	90S4	205	524	
			FF	97R57	DRN	90S4	240	524	
2.4	605	29900	FA	97R57	DRN	90L4	200	524	
2.8	529	29900	FAF	97R57	DRN	90L4	220	524	
			F	97R57	DRN	90L4	210	524	
			FF	97R57	DRN	90L4	240	524	
3.1	467	29900	FA	97R57	DRN	100LS4	205	524	
3.6	406	29900	FAF	97R57	DRN	100LS4	225	524	
4.0	363	29900	F	97R57	DRN	100LS4	210	524	
			FF	97R57	DRN	100LS4	245	524	
5.1	285	29900	FA	97R57	DRN	100L4	210	524	
6.0	245	29900	FAF	97R57	DRN	100L4	235	524	
			F	97R57	DRN	100L4	220	524	
			FF	97R57	DRN	100L4	250	524	
7.0	208	29900	FA	97R57	DRN	112M4	220	524	
7.5	195	29900	FAF	97R57	DRN	112M4	245	524	
			F	97R57	DRN	112M4	230	524	
			FF	97R57	DRN	112M4	260	524	
1.6	892	29900	FA	97R57	DRN	90S4	190	524	
1.9	760	29900	FAF	97R57	DRN	90S4	215	524	
2.2	667	29900	F	97R57	DRN	90S4	200	524	
			FF	97R57	DRN	90S4	230	524	
2.6	569	29900	FA	97R57	DRN	90L4	195	524	
2.9	510	29900	FAF	97R57	DRN	90L4	215	524	
3.1	473	29900	F	97R57	DRN	90L4	200	524	
			FF	97R57	DRN	90L4	235	524	
3.6	403	29900	FA	97R57	DRN	100LS4	200	524	
4.0	361	29900	FAF	97R57	DRN	100LS4	220	524	
4.6	317	29900	F	97R57	DRN	100LS4	205	524	
			FF	97R57	DRN	100LS4	240	524	



<b>M<sub>a max</sub> = 4300 Nm</b>								
$n_a$ min <sup>-1</sup>	i	F <sub>Ra</sub> <sup>1)</sup> N					m kg	
5.3	275	29900	FA	97R57	DRN	100L4	205	524
6.0	242	29900	FAF	97R57	DRN	100L4	225	524
			F	97R57	DRN	100L4	215	524
			FF	97R57	DRN	100L4	245	524

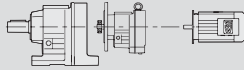

<b>M<sub>a max</sub> = 7680 Nm</b>								
$n_a$ min <sup>-1</sup>	i	F <sub>Ra</sub> <sup>1)</sup> N					m kg	
0.05	25375	49800	FA	107R77	DRN	63MS4	275	524
0.06	21652	49800	FAF	107R77	DRN	63MS4	295	524
0.07	18933	49800	F	107R77	DRN	63MS4	290	524
0.08	16888	49800	FF	107R77	DRN	63MS4	320	524
0.09	14767	49800						
0.12	11348	49800	FA	107R77	DRN	63M4	275	524
0.14	10039	49800	FAF	107R77	DRN	63M4	295	524
0.16	8548	49800	F	107R77	DRN	63M4	290	524
0.18	7674	49800	FF	107R77	DRN	63M4	320	524
0.21	6767	49800	FA	107R77	DRN	71MS4	275	524
0.24	5954	49800	FAF	107R77	DRN	71MS4	295	524
			F	107R77	DRN	71MS4	295	524
			FF	107R77	DRN	71MS4	320	524
0.27	5223	49800	FA	107R77	DRN	71M4	275	524
0.31	4567	49800	FAF	107R77	DRN	71M4	300	524
0.36	3948	49800	F	107R77	DRN	71M4	295	524
			FF	107R77	DRN	71M4	320	524
0.41	3521	49800	FA	107R77	DRN	80MK4	280	524
			FAF	107R77	DRN	80MK4	300	524
			F	107R77	DRN	80MK4	295	524
			FF	107R77	DRN	80MK4	325	524
0.47	3037	49800	FA	107R77	DRN	80MK4	280	524
0.52	2756	49800	FAF	107R77	DRN	80MK4	300	524
0.61	2369	49800	F	107R77	DRN	80MK4	295	524
			FF	107R77	DRN	80MK4	325	524
0.70	2068	49800	FA	107R77	DRN	80M4	280	524
0.79	1826	49800	FAF	107R77	DRN	80M4	305	524
			F	107R77	DRN	80M4	300	524
			FF	107R77	DRN	80M4	325	524
0.91	1597	49800	FA	107R77	DRN	90S4	285	524
1.0	1401	49800	FAF	107R77	DRN	90S4	310	524
1.2	1243	49800	F	107R77	DRN	90S4	305	524
			FF	107R77	DRN	90S4	330	524
1.3	1087	49800	FA	107R77	DRN	90L4	290	524
1.5	950	49800	FAF	107R77	DRN	90L4	310	524
			F	107R77	DRN	90L4	305	524
			FF	107R77	DRN	90L4	335	524
1.7	834	49800	FA	107R77	DRN	100LS4	295	524
2.0	736	49800	FAF	107R77	DRN	100LS4	315	524
2.3	640	49800	F	107R77	DRN	100LS4	310	524
			FF	107R77	DRN	100LS4	340	524
2.6	560	49800	FA	107R77	DRN	100L4	300	524
3.0	489	49800	FAF	107R77	DRN	100L4	325	524
3.3	436	49800	F	107R77	DRN	100L4	320	524
			FF	107R77	DRN	100L4	345	524
4.0	370	49800	FA	107R77	DRN	112M4	310	524
4.4	333	49800	FAF	107R77	DRN	112M4	330	524
			F	107R77	DRN	112M4	325	524
			FF	107R77	DRN	112M4	355	524
5.0	291	49800	FA	107R77	DRN	132S4	320	524
5.7	255	49800	FAF	107R77	DRN	132S4	345	524
			F	107R77	DRN	132S4	340	524
			FF	107R77	DRN	132S4	365	524

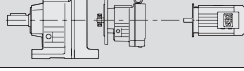

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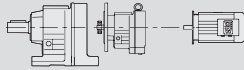

# 9

## Parallel-shaft helical gearmotors

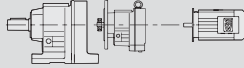

F..R..DRN.. selection tables for low output speeds in Nm

<b>M<sub>a max</sub> = 7680 Nm</b>									
$n_a$ min <sup>-1</sup>	i	$F_{Ra}^{(1)}$ N					m kg		
6.5	225	49800	FA	107R77	DRN	132M4	340	524	
	190	49800	FAF	107R77	DRN	132M4	360	524	
7.7	190	49800	F	107R77	DRN	132M4	355	524	
			FF	107R77	DRN	132M4	385	524	

<b>M<sub>a max</sub> = 7840 Nm</b>									
$n_a$ min <sup>-1</sup>	i	$F_{Ra}^{(1)}$ N					m kg		
0.26	5383	49400	FA	107R77	DRN	71M4	265	524	
0.31	4593	49400	FAF	107R77	DRN	71M4	290	524	
0.35	4016	49400	F	107R77	DRN	71M4	285	524	
0.37	3815	49400	FF	107R77	DRN	71M4	310	524	
0.43	3347	49400	FA	107R77	DRN	80MK4	270	524	
0.51	2839	49400	FAF	107R77	DRN	80MK4	290	524	
0.56	2563	49400	F	107R77	DRN	80MK4	285	524	
			FF	107R77	DRN	80MK4	315	524	
0.64	2255	49400	FA	107R77	DRN	80M4	275	524	
0.68	2129	49400	FAF	107R77	DRN	80M4	295	524	
0.79	1813	49400	F	107R77	DRN	80M4	290	524	
			FF	107R77	DRN	80M4	315	524	
0.91	1590	49400	FA	107R77	DRN	90S4	280	524	
1.0	1436	49400	FAF	107R77	DRN	90S4	300	524	
1.1	1263	49400	F	107R77	DRN	90S4	295	524	
			FF	107R77	DRN	90S4	320	524	
1.2	1193	49400	FA	107R77	DRN	90S4	320	524	
			FAF	107R77	DRN	90S4	320	524	
1.4	1015	49400	FA	107R77	DRN	90L4	280	524	
1.6	923	49400	FAF	107R77	DRN	90L4	300	524	
			F	107R77	DRN	90L4	300	524	
1.8	800	49400	FF	107R77	DRN	90L4	325	524	
			FA	107R77	DRN	100LS4	285	524	
2.1	696	49400	FAF	107R77	DRN	100LS4	305	524	
			F	107R77	DRN	100LS4	300	524	
2.2	644	49400	FF	107R77	DRN	100LS4	330	524	
			FA	107R77	DRN	100LS4	285	524	
2.5	591	49400	FAF	107R77	DRN	100LS4	305	524	
			F	107R77	DRN	100LS4	300	524	
2.8	518	49400	FF	107R77	DRN	100LS4	330	524	
			FA	107R77	DRN	100L4	290	524	
3.0	491	49400	FAF	107R77	DRN	100L4	315	524	
			F	107R77	DRN	100L4	310	524	
3.4	430	49400	FF	107R77	DRN	100L4	335	524	
			FA	107R77	DRN	112M4	300	524	
3.8	387	49400	FAF	107R77	DRN	112M4	320	524	
			F	107R77	DRN	112M4	315	524	
4.3	340	49400	FF	107R77	DRN	112M4	345	524	
			FA	107R77	DRN	132S4	310	524	
4.9	300	49400	FAF	107R77	DRN	132S4	335	524	
			F	107R77	DRN	132S4	330	524	
5.5	266	49400	FF	107R77	DRN	132S4	355	524	
			FA	107R77	DRN	132S4	355	524	

<b>M<sub>a max</sub> = 12000 Nm</b>									
$n_a$ min <sup>-1</sup>	i	$F_{Ra}^{(1)}$ N					m kg		
0.06	24478	90000	FA	127R77	DRN	63MS4	425	524	
	22323	90000	FAF	127R77	DRN	63MS4	465	524	
0.07	19048	90000	F	127R77	DRN	63MS4	460	524	
			FF	127R77	DRN	63MS4	510	524	
0.08	16656	90000	FA	127R77	DRN	63M4	425	524	
0.09	14722	90000	FAF	127R77	DRN	63M4	465	524	
			F	127R77	DRN	63M4	465	524	
0.11	12912	90000	FF	127R77	DRN	63M4	510	524	
			FA	127R77	DRN	63M4	510	524	

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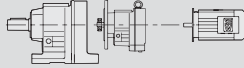

<b>M<sub>a max</sub> = 12000 Nm</b>								
<b>n<sub>a</sub> min<sup>-1</sup></b>	<b>i</b>	<b>F<sub>Ra</sub><sup>1)</sup> N</b>					<b>m kg</b>	
0.12	11656	90000	FA	127R77	DRN	71MS4	425	524
0.14	10191	90000	FAF	127R77	DRN	71MS4	465	524
0.16	8831	90000	F	127R77	DRN	71MS4	465	524
			FF	127R77	DRN	71MS4	510	524
0.19	7643	90000	FA	127R77	DRN	71M4	430	524
0.21	6715	90000	FAF	127R77	DRN	71M4	465	524
0.24	5925	90000	F	127R77	DRN	71M4	465	524
			FF	127R77	DRN	71M4	510	524
0.28	5153	90000	FA	127R77	DRN	80MK4	430	524
0.32	4533	90000	FAF	127R77	DRN	80MK4	470	524
0.37	3926	90000	F	127R77	DRN	80MK4	465	524
			FF	127R77	DRN	80MK4	510	524
0.42	3454	90000	FA	127R77	DRN	80M4	435	524
0.48	3031	90000	FAF	127R77	DRN	80M4	470	524
			F	127R77	DRN	80M4	470	524
			FF	127R77	DRN	80M4	520	524
0.54	2672	90000	FA	127R77	DRN	80M4	435	524
			FAF	127R77	DRN	80M4	470	524
			F	127R77	DRN	80M4	470	524
			FF	127R77	DRN	80M4	510	524
0.62	2357	90000	FA	127R77	DRN	90S4	440	524
0.71	2038	90000	FAF	127R77	DRN	90S4	475	524
			F	127R77	DRN	90S4	475	524
			FF	127R77	DRN	90S4	520	524
0.82	1784	90000	FA	127R77	DRN	90L4	440	524
0.91	1606	90000	FAF	127R77	DRN	90L4	480	524
1.1	1390	90000	F	127R77	DRN	90L4	480	524
			FF	127R77	DRN	90L4	520	524
1.2	1220	90000	FA	127R77	DRN	100LS4	445	524
1.4	1077	90000	FAF	127R77	DRN	100LS4	485	524
1.6	930	90000	F	127R77	DRN	100LS4	480	524
			FF	127R77	DRN	100LS4	530	524
1.8	820	90000	FA	127R77	DRN	100L4	455	524
2.0	727	90000	FAF	127R77	DRN	100L4	490	524
			F	127R77	DRN	100L4	490	524
			FF	127R77	DRN	100L4	530	524
2.3	648	90000	FA	127R77	DRN	112M4	460	524
2.7	549	90000	FAF	127R77	DRN	112M4	500	524
3.0	495	90000	F	127R77	DRN	112M4	500	524
			FF	127R77	DRN	112M4	540	524
3.4	428	90000	FA	127R77	DRN	132S4	475	524
3.9	376	90000	FAF	127R77	DRN	132S4	510	524
			F	127R77	DRN	132S4	510	524
			FF	127R77	DRN	132S4	550	524
3.0	483	90000	FA	127R87	DRN	132S4	495	524
3.5	418	90000	FAF	127R87	DRN	132S4	530	524
3.9	374	90000	F	127R87	DRN	132S4	530	524
			FF	127R87	DRN	132S4	570	524
4.7	312	90000	FA	127R87	DRN	132M4	510	524
5.0	293	90000	FAF	127R87	DRN	132M4	550	524
			F	127R87	DRN	132M4	550	524
			FF	127R87	DRN	132M4	590	524
5.7	259	90000	FA	127R87	DRN	132L4	520	524
6.6	223	90000	FAF	127R87	DRN	132L4	560	524
			F	127R87	DRN	132L4	560	524
			FF	127R87	DRN	132L4	600	524
7.5	198	90000	FA	127R87	DRN	160M4	550	524
			FAF	127R87	DRN	160M4	590	524
			F	127R87	DRN	160M4	590	524
			FF	127R87	DRN	160M4	630	524
8.9	166	90000	FA	127R87	DRN	160L4	570	524
			FAF	127R87	DRN	160L4	610	524
			F	127R87	DRN	160L4	600	524
			FF	127R87	DRN	160L4	650	524

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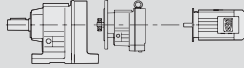

# 9

## Parallel-shaft helical gearmotors

F..R..DRN.. selection tables for low output speeds in Nm

<b>M<sub>a max</sub> = 20000 Nm</b>								
<b>n<sub>a</sub></b> <b>min<sup>-1</sup></b>	<b>i</b>	<b>F<sub>Ra</sub><sup>1)</sup></b> <b>N</b>					<b>m</b> <b>kg</b>	
<b>0.04</b>	31434	93800						
<b>0.05</b>	26173	93800	<b>FA</b>	<b>157R97</b>	<b>DRN</b>	<b>71MS4</b>	770	524
<b>0.06</b>	23464	93800	<b>FAF</b>	<b>157R97</b>	<b>DRN</b>	<b>71MS4</b>	820	524
<b>0.07</b>	20212	93800	<b>F</b>	<b>157R97</b>	<b>DRN</b>	<b>71MS4</b>	790	524
<b>0.08</b>	17984	93800	<b>FF</b>	<b>157R97</b>	<b>DRN</b>	<b>71MS4</b>	890	524
<b>0.09</b>	16358	93800						
<b>0.10</b>	13751	93800	<b>FA</b>	<b>157R97</b>	<b>DRN</b>	<b>71M4</b>	770	524
<b>0.12</b>	12235	93800	<b>FAF</b>	<b>157R97</b>	<b>DRN</b>	<b>71M4</b>	830	524
			<b>F</b>	<b>157R97</b>	<b>DRN</b>	<b>71M4</b>	790	524
			<b>FF</b>	<b>157R97</b>	<b>DRN</b>	<b>71M4</b>	890	524
<b>0.14</b>	10033	93800	<b>FA</b>	<b>157R97</b>	<b>DRN</b>	<b>80M4</b>	770	524
<b>0.16</b>	9021	93800	<b>FAF</b>	<b>157R97</b>	<b>DRN</b>	<b>80M4</b>	830	524
<b>0.18</b>	8026	93800	<b>F</b>	<b>157R97</b>	<b>DRN</b>	<b>80M4</b>	790	524
			<b>FF</b>	<b>157R97</b>	<b>DRN</b>	<b>80M4</b>	900	524
<b>0.20</b>	7075	93800	<b>FA</b>	<b>157R97</b>	<b>DRN</b>	<b>80MK4</b>	770	524
			<b>FAF</b>	<b>157R97</b>	<b>DRN</b>	<b>80MK4</b>	830	524
			<b>F</b>	<b>157R97</b>	<b>DRN</b>	<b>80MK4</b>	790	524
			<b>FF</b>	<b>157R97</b>	<b>DRN</b>	<b>80MK4</b>	900	524
<b>0.23</b>	6295	93800	<b>FA</b>	<b>157R97</b>	<b>DRN</b>	<b>80M4</b>	770	524
<b>0.27</b>	5404	93800	<b>FAF</b>	<b>157R97</b>	<b>DRN</b>	<b>80M4</b>	830	524
			<b>F</b>	<b>157R97</b>	<b>DRN</b>	<b>80M4</b>	790	524
			<b>FF</b>	<b>157R97</b>	<b>DRN</b>	<b>80M4</b>	900	524
<b>0.30</b>	4831	93800	<b>FA</b>	<b>157R97</b>	<b>DRN</b>	<b>90S4</b>	780	524
<b>0.35</b>	4130	93800	<b>FAF</b>	<b>157R97</b>	<b>DRN</b>	<b>90S4</b>	840	524
			<b>F</b>	<b>157R97</b>	<b>DRN</b>	<b>90S4</b>	800	524
			<b>FF</b>	<b>157R97</b>	<b>DRN</b>	<b>90S4</b>	900	524
<b>0.40</b>	3607	93800	<b>FA</b>	<b>157R97</b>	<b>DRN</b>	<b>100LS4</b>	780	524
<b>0.45</b>	3210	93800	<b>FAF</b>	<b>157R97</b>	<b>DRN</b>	<b>100LS4</b>	840	524
			<b>F</b>	<b>157R97</b>	<b>DRN</b>	<b>100LS4</b>	810	524
			<b>FF</b>	<b>157R97</b>	<b>DRN</b>	<b>100LS4</b>	910	524
<b>0.53</b>	2780	93800	<b>FA</b>	<b>157R97</b>	<b>DRN</b>	<b>90L4</b>	780	524
			<b>FAF</b>	<b>157R97</b>	<b>DRN</b>	<b>90L4</b>	840	524
			<b>F</b>	<b>157R97</b>	<b>DRN</b>	<b>90L4</b>	800	524
			<b>FF</b>	<b>157R97</b>	<b>DRN</b>	<b>90L4</b>	910	524
<b>1.0</b>	1441	93800	<b>FA</b>	<b>157R97</b>	<b>DRN</b>	<b>100L4</b>	790	524
			<b>FAF</b>	<b>157R97</b>	<b>DRN</b>	<b>100L4</b>	850	524
			<b>F</b>	<b>157R97</b>	<b>DRN</b>	<b>100L4</b>	810	524
			<b>FF</b>	<b>157R97</b>	<b>DRN</b>	<b>100L4</b>	920	524
<b>0.60</b>	2427	93800	<b>FA</b>	<b>157R97</b>	<b>DRN</b>	<b>90L4</b>	780	524
			<b>FAF</b>	<b>157R97</b>	<b>DRN</b>	<b>90L4</b>	840	524
			<b>F</b>	<b>157R97</b>	<b>DRN</b>	<b>90L4</b>	800	524
			<b>FF</b>	<b>157R97</b>	<b>DRN</b>	<b>90L4</b>	900	524
<b>0.66</b>	2185	93800	<b>FA</b>	<b>157R97</b>	<b>DRN</b>	<b>100LS4</b>	780	524
<b>0.75</b>	1944	93800	<b>FAF</b>	<b>157R97</b>	<b>DRN</b>	<b>100LS4</b>	840	524
<b>0.87</b>	1674	93800	<b>F</b>	<b>157R97</b>	<b>DRN</b>	<b>100LS4</b>	800	524
			<b>FF</b>	<b>157R97</b>	<b>DRN</b>	<b>100LS4</b>	910	524
<b>1.1</b>	1308	93800	<b>FA</b>	<b>157R97</b>	<b>DRN</b>	<b>100L4</b>	790	524
<b>1.2</b>	1169	93800	<b>FAF</b>	<b>157R97</b>	<b>DRN</b>	<b>100L4</b>	850	524
			<b>F</b>	<b>157R97</b>	<b>DRN</b>	<b>100L4</b>	810	524
			<b>FF</b>	<b>157R97</b>	<b>DRN</b>	<b>100L4</b>	920	524
<b>1.5</b>	953	93800	<b>FA</b>	<b>157R97</b>	<b>DRN</b>	<b>112M4</b>	800	524
<b>1.7</b>	845	93800	<b>FAF</b>	<b>157R97</b>	<b>DRN</b>	<b>112M4</b>	860	524
			<b>F</b>	<b>157R97</b>	<b>DRN</b>	<b>112M4</b>	820	524
			<b>FF</b>	<b>157R97</b>	<b>DRN</b>	<b>112M4</b>	920	524
<b>1.9</b>	764	93800	<b>FA</b>	<b>157R97</b>	<b>DRN</b>	<b>132S4</b>	810	524
<b>2.1</b>	680	93800	<b>FAF</b>	<b>157R97</b>	<b>DRN</b>	<b>132S4</b>	870	524
			<b>F</b>	<b>157R97</b>	<b>DRN</b>	<b>132S4</b>	830	524
			<b>FF</b>	<b>157R97</b>	<b>DRN</b>	<b>132S4</b>	940	524
<b>2.5</b>	576	93800	<b>FA</b>	<b>157R97</b>	<b>DRN</b>	<b>132M4</b>	830	524
<b>2.9</b>	503	93800	<b>FAF</b>	<b>157R97</b>	<b>DRN</b>	<b>132M4</b>	890	524
<b>3.3</b>	446	93800	<b>F</b>	<b>157R97</b>	<b>DRN</b>	<b>132M4</b>	850	524
			<b>FF</b>	<b>157R97</b>	<b>DRN</b>	<b>132M4</b>	950	524

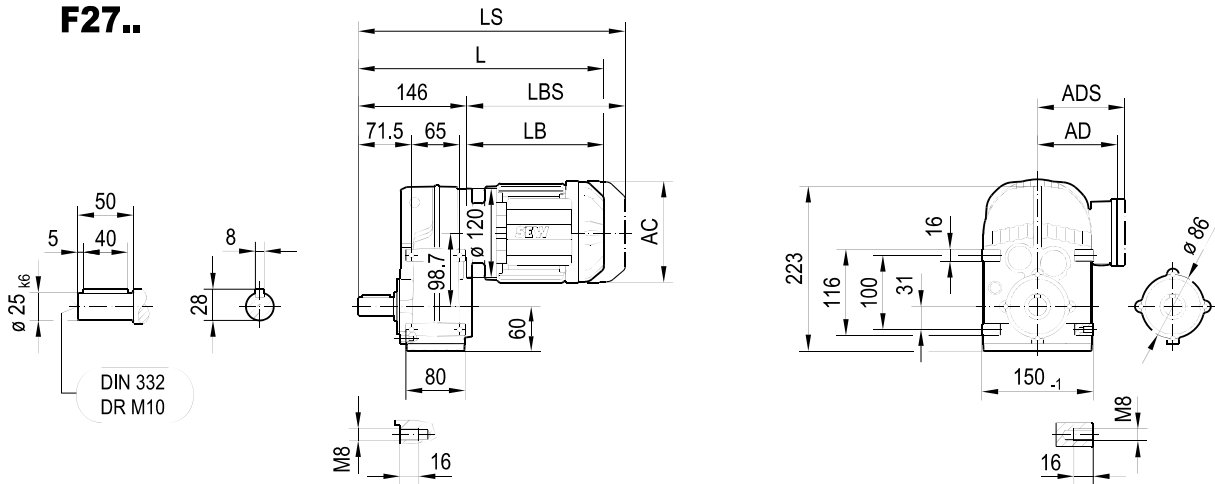
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<b>M<sub>a max</sub> = 20000 Nm</b>								
<b>n<sub>a</sub> min<sup>-1</sup></b>	<b>i</b>	<b>F<sub>Ra</sub><sup>1)</sup> N</b>					<b>m kg</b>	
<b>4.2</b> <b>4.9</b>	353	93800	<b>FA</b>	<b>157R97</b>	<b>DRN</b>	<b>160M4</b>	870	524
			<b>FAF</b>	<b>157R97</b>	<b>DRN</b>	<b>160M4</b>	930	524
	302	93800	<b>F</b>	<b>157R97</b>	<b>DRN</b>	<b>160M4</b>	890	524
			<b>FF</b>	<b>157R97</b>	<b>DRN</b>	<b>160M4</b>	1000	524
<b>5.4</b> <b>6.4</b>	273	93800	<b>FA</b>	<b>157R97</b>	<b>DRN</b>	<b>160L4</b>	880	524
			<b>FAF</b>	<b>157R97</b>	<b>DRN</b>	<b>160L4</b>	940	524
	232	93800	<b>F</b>	<b>157R97</b>	<b>DRN</b>	<b>160L4</b>	900	524
			<b>FF</b>	<b>157R97</b>	<b>DRN</b>	<b>160L4</b>	1010	524
<b>7.3</b> <b>7.5</b>	202	93800	<b>FA</b>	<b>157R97</b>	<b>DRN</b>	<b>180M4</b>	910	524
			<b>FAF</b>	<b>157R97</b>	<b>DRN</b>	<b>180M4</b>	960	524
	197	93800	<b>F</b>	<b>157R97</b>	<b>DRN</b>	<b>180M4</b>	930	524
			<b>FF</b>	<b>157R97</b>	<b>DRN</b>	<b>180M4</b>	1030	524

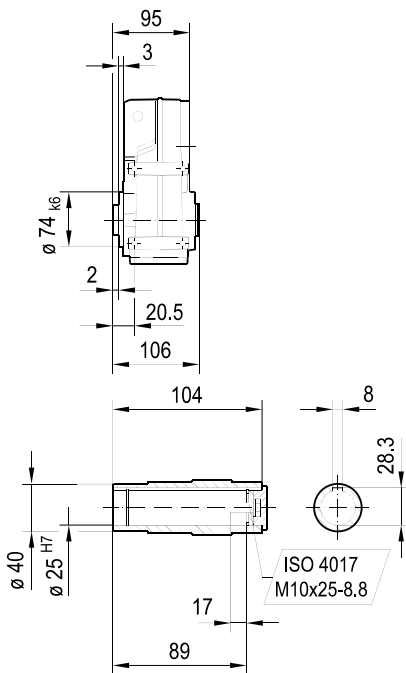
### 9.5 F..DRN.. dimension sheets in mm

42 020 01 14

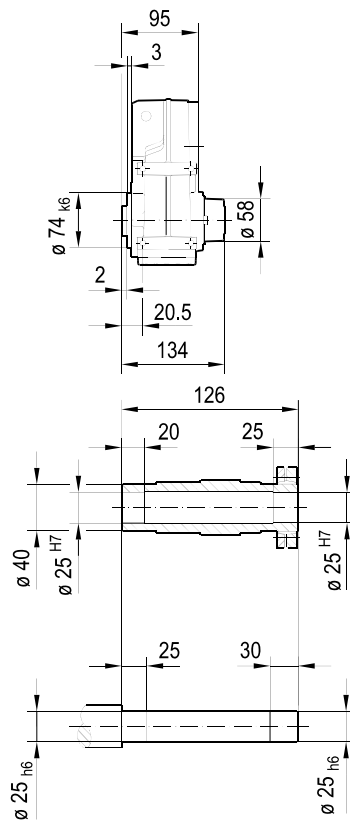
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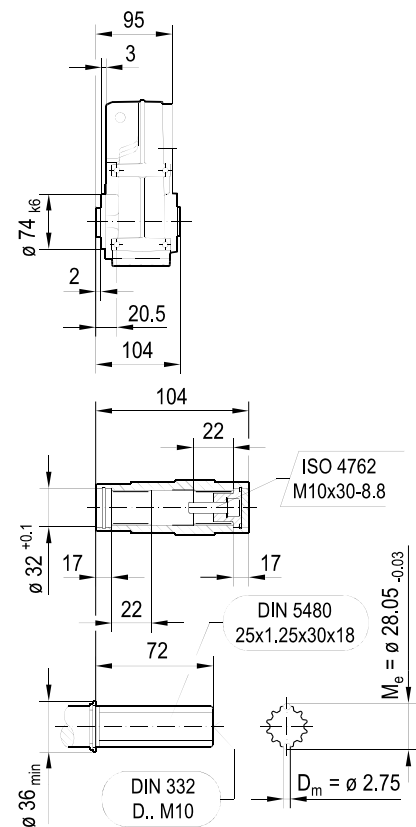
#### FA27B..



#### FH27B.. max. DR71..



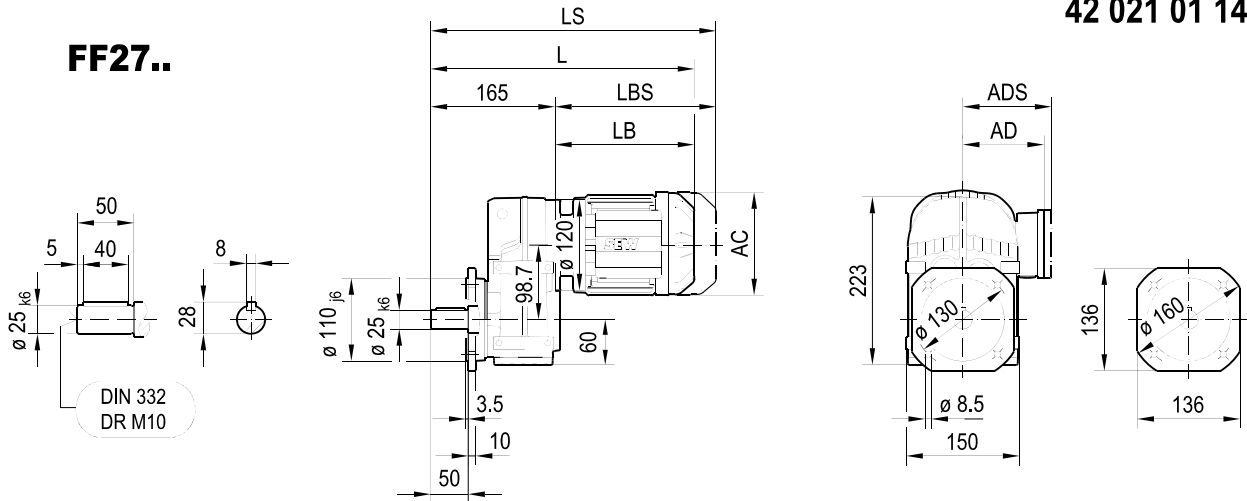
#### FV27B..



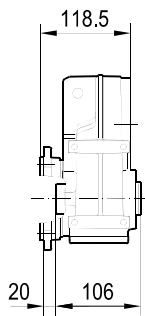
(> 7.3)	DRN								
	63MS	63M	71MS	71M	80MK	80MS	80M	90S	90L
AC	115	115	139	139	156	156	156	179	179
AD	98	98	118	118	128	128	128	140	140
ADS	98	98	129	129	139	139	139	150	150
L	336	350	352	372	383	400	428	429	461
LS	392	406	419	439	464	481	509	523	555
LB	190	204	206	226	237	254	282	283	315
LBS	246	260	273	293	318	335	363	377	409

42 021 01 14

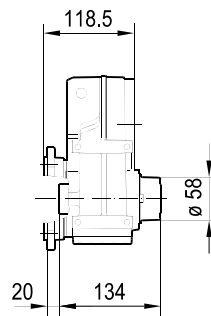
**FF27..**



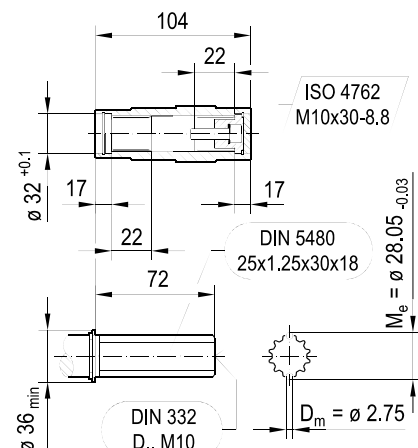
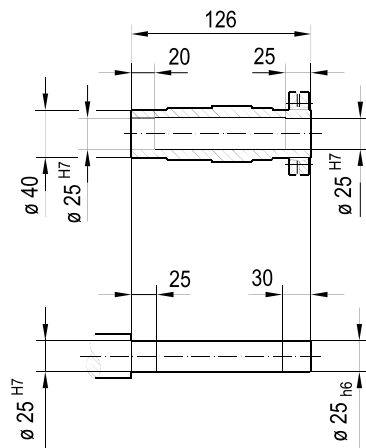
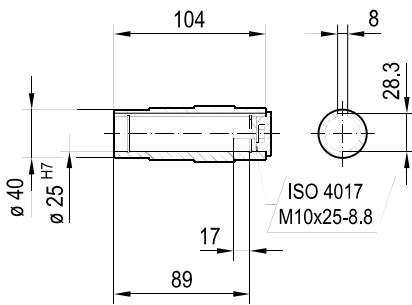
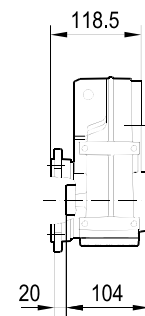
**FAF27..**



**FHF27..**  
max. DR71..



**FVF27..**

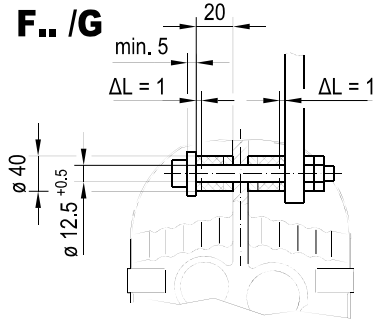
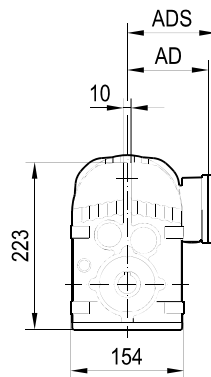
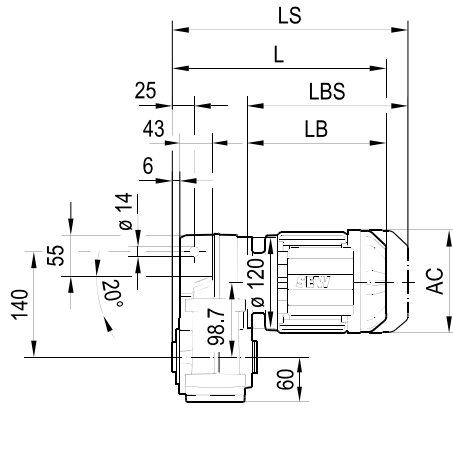


↳ (7.3)	DRN								
	63MS	63M	71MS	71M	80MK	80MS	80M	90S	90L
AC	115	115	139	139	156	156	156	179	179
AD	98	98	118	118	128	128	128	140	140
ADS	98	98	129	129	139	139	139	150	150
L	355	369	371	391	402	419	447	448	480
LS	411	425	438	458	483	500	528	542	574
LB	190	204	206	226	237	254	282	283	315
LBS	246	260	273	293	318	335	363	377	409

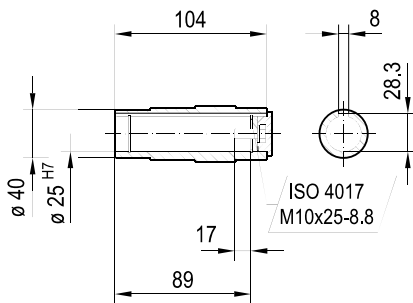
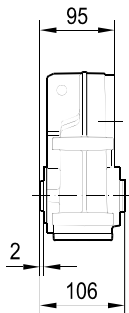
24832936/EN – 09/2018

42 022 01 14

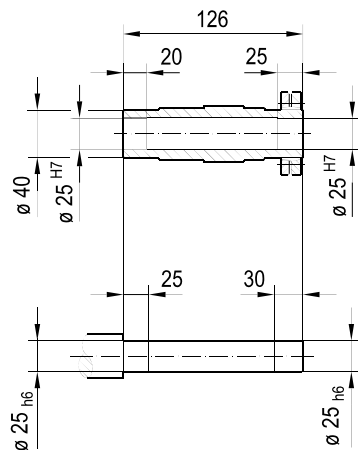
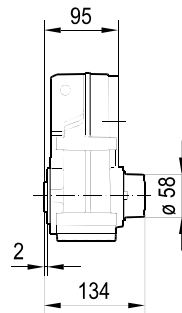
### FA27..



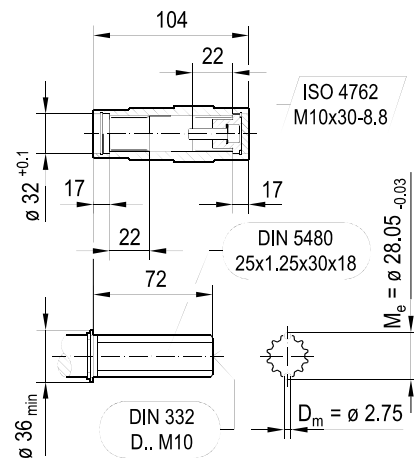
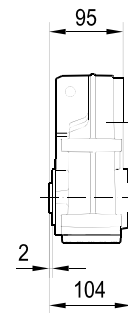
### FA27..



### FH27.. max. DR71..



### FV27..



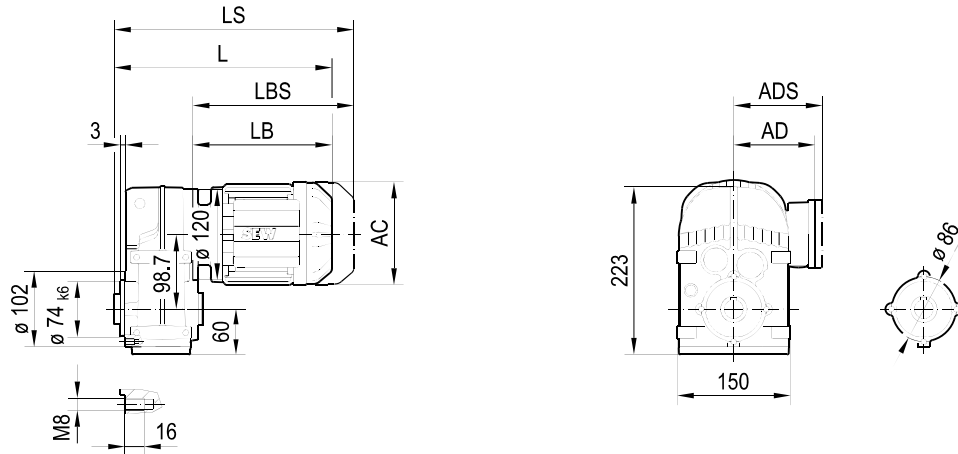
↳ 7.3	DRN								
	63MS	63M	71MS	71M	80MK	80MS	80M	90S	90L
AC	115	115	139	139	156	156	156	179	179
AD	98	98	118	118	128	128	128	140	140
ADS	98	98	129	129	139	139	139	150	150
L	285	299	301	321	332	349	377	378	410
LS	341	355	368	388	413	430	458	472	504
LB	190	204	206	226	237	254	282	283	315
LBS	246	260	273	293	318	335	363	377	409

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**FAZ27..**

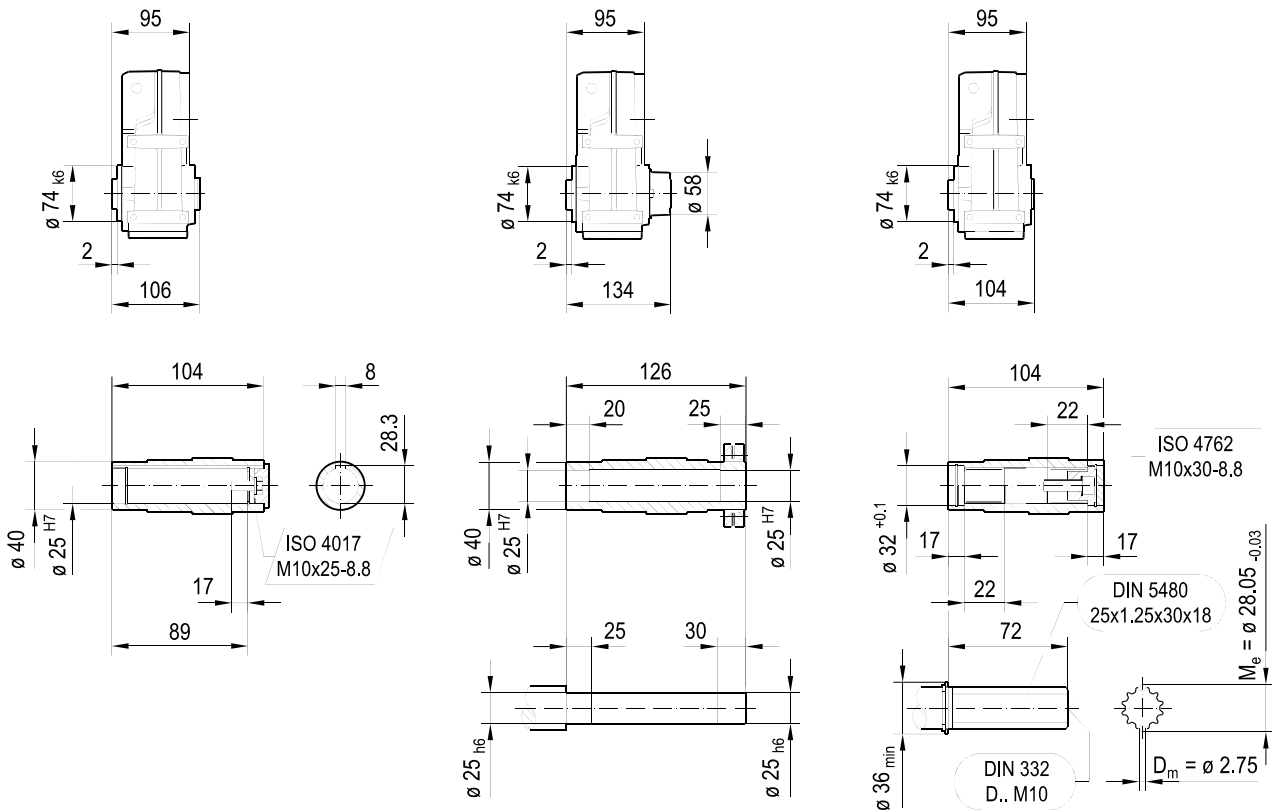
42 023 01 14



**FAZ27..**

**FHZ27..**  
max. DR71..

**FVZ27..**



↳ (7.3)	DRN									
	63MS	63M	71MS	71M	80MK	80MS	80M	90S	90L	
AC	115	115	139	139	156	156	156	179	179	
AD	98	98	118	118	128	128	128	140	140	
ADS	98	98	129	129	139	139	139	150	150	
L	285	299	301	321	332	349	377	378	410	
LS	341	355	368	388	413	430	458	472	504	
LB	190	204	206	226	237	254	282	283	315	
LBS	246	260	273	293	318	335	363	377	409	

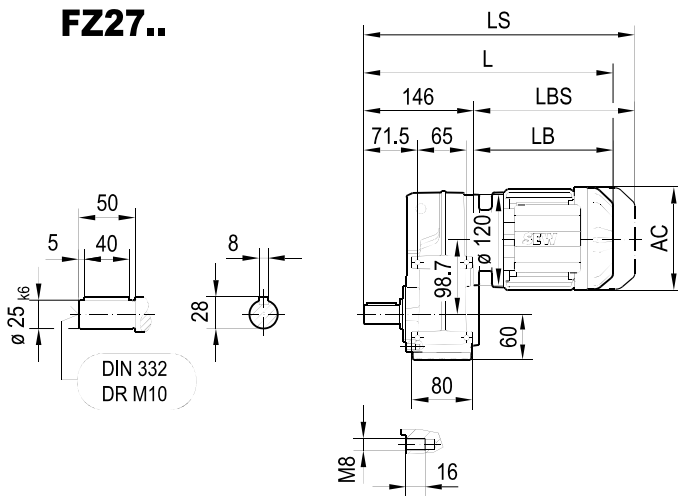
24832936/EN – 09/2018

# 9

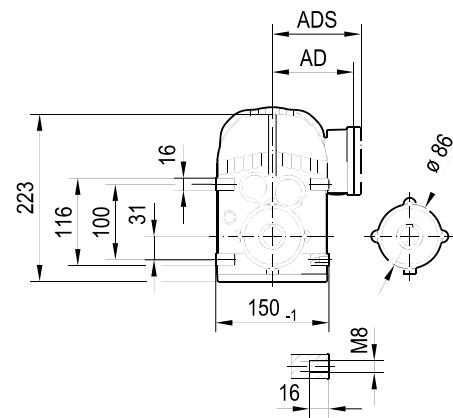
## Parallel-shaft helical gearmotors

F..DRN.. dimension sheets in mm

### FZ27..



### 42 071 00 15



(-> 7.3)	DRN								
	63MS	63M	71MS	71M	80MK	80MS	80M	90S	90L
AC	115	115	139	139	156	156	156	179	179
AD	98	98	118	118	128	128	128	140	140
ADS	98	98	129	129	139	139	139	150	150
L	336	350	352	372	383	400	428	429	461
LS	392	406	419	439	464	481	509	523	555
LB	190	204	206	226	237	254	282	283	315
LBS	246	260	273	293	318	335	363	377	409

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# 1

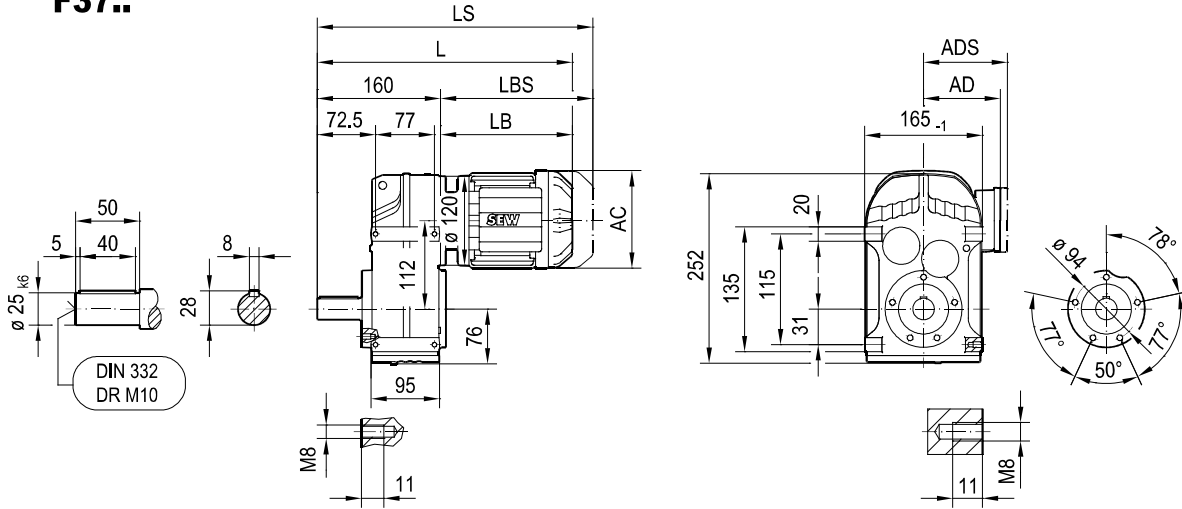
## Revision

F..DRN.. dimension sheets in mm

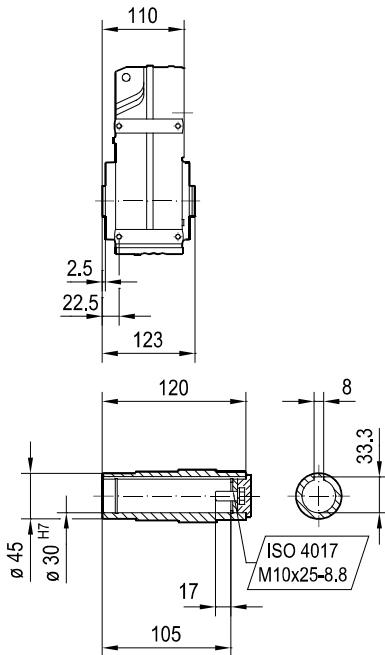
### 1.4 F..DRN.. dimension sheets in mm

42 024 01 14

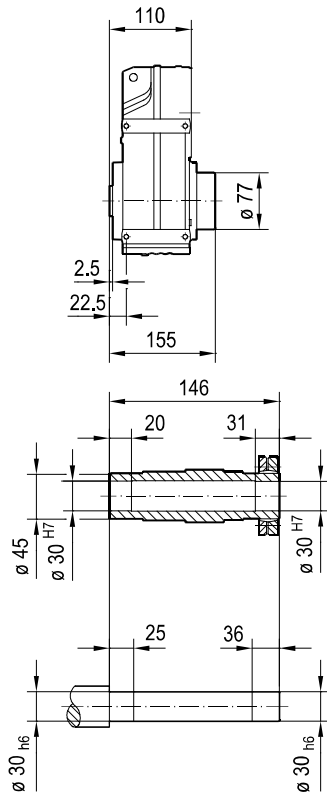
#### F37..



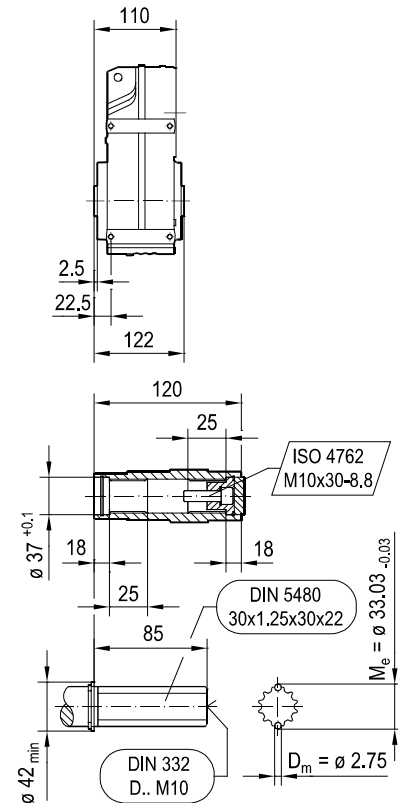
#### FA37B..



#### FH37B.. max. DRN80M



#### FV37B..

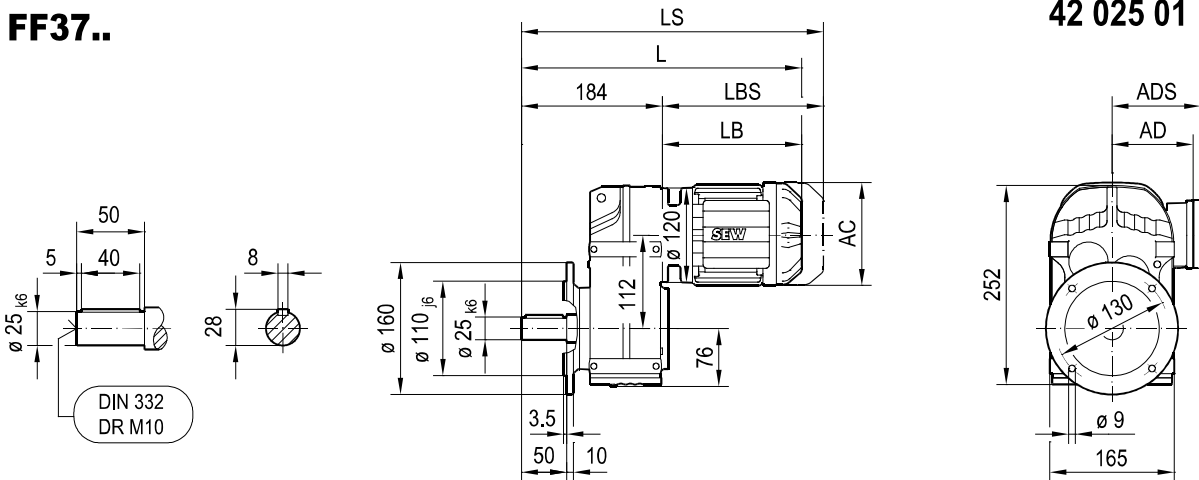


(- 7.3)	DRN									
	63MS	63M	71MS	71M	80MK	80M	90S	90L	100LS	100L/LM
AC	115	115	139	139	156	156	179	179	197	197
AD	98	98	118	118	128	128	140	140	157	157
ADS	98	98	129	129	139	139	150	150	158	158
L	350	364	366	386	397	442	443	475	474	524
LS	406	420	433	453	478	523	537	569	568	618
LB	190	204	206	226	237	282	283	315	314	364
LBS	246	260	273	293	318	363	377	409	408	458

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**FF37..**

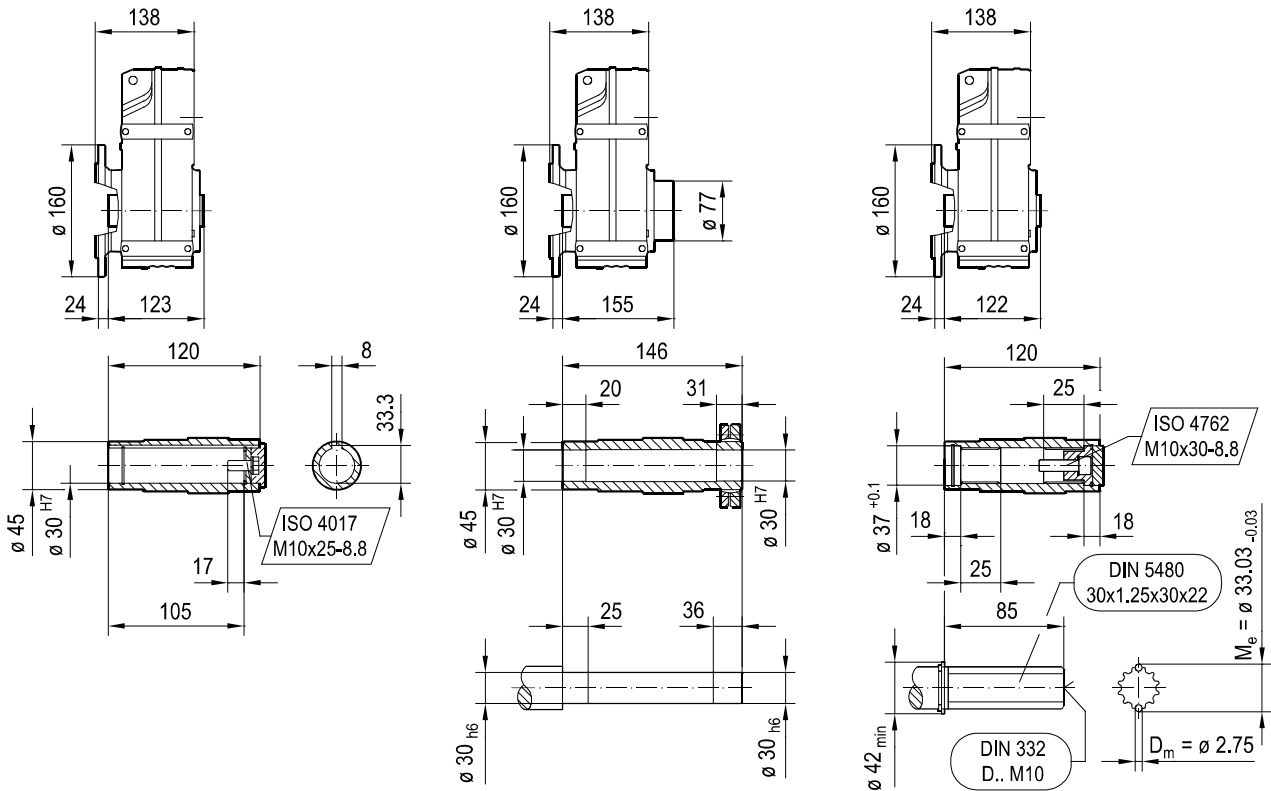
42 025 01 14



**FAF37..**

**FHF37..**  
max. DRN80M

**FVF37..**



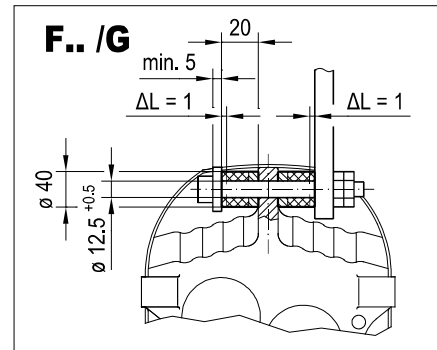
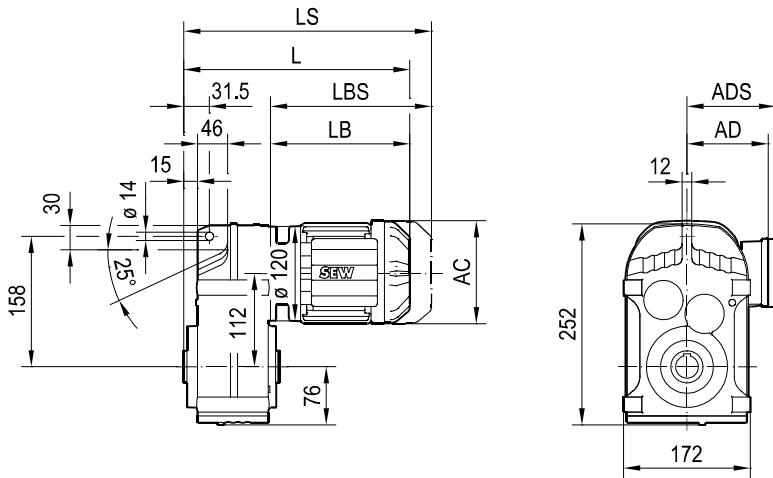
25960679/EN – 02/2019

(-> 7.3)	DRN									
	63MS	63M	71MS	71M	80MK	80M	90S	90L	100LS	100L/LM
AC	115	115	139	139	156	156	179	179	197	197
AD	98	98	118	118	128	128	140	140	157	157
ADS	98	98	129	129	139	139	150	150	158	158
L	374	388	390	410	421	466	467	499	498	548
LS	430	444	457	477	502	547	561	593	592	642
LB	190	204	206	226	237	282	283	315	314	364
LBS	246	260	273	293	318	363	377	409	408	458

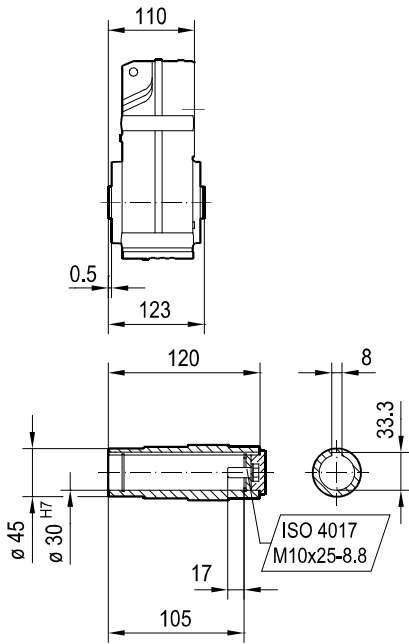
Revised Page 454

42 026 01 14

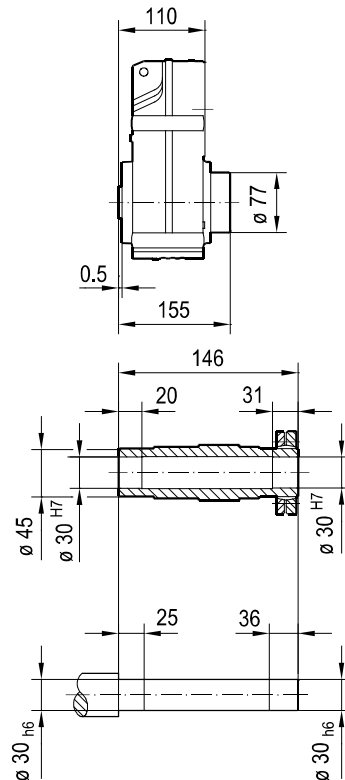
### FA37..



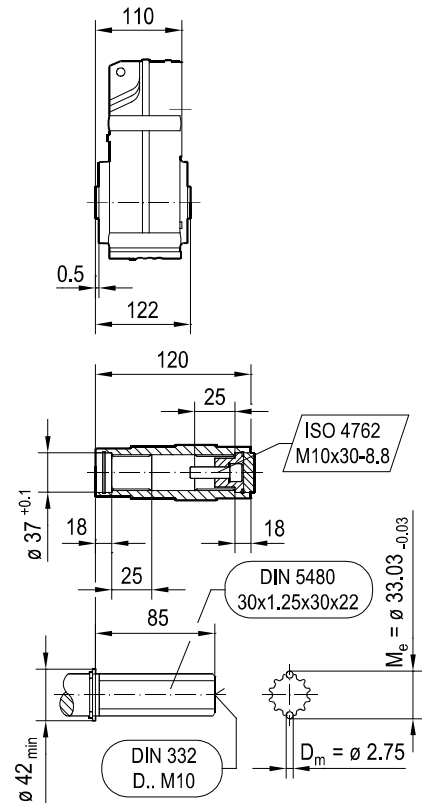
### FA37..



### FH37.. max. DRN80M



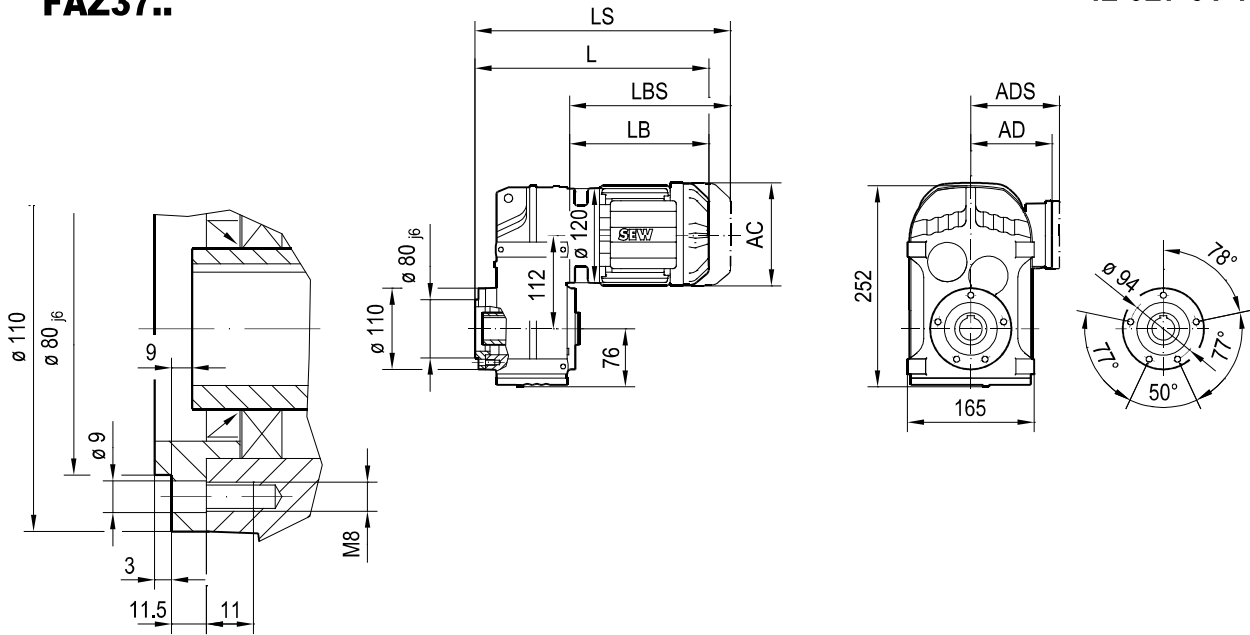
### FV37..



(-> 7.3)	DRN									
	63MS	63M	71MS	71M	80MK	80M	90S	90L	100LS	100L/LM
AC	115	115	139	139	156	156	179	179	197	197
AD	98	98	118	118	128	128	140	140	157	157
ADS	98	98	129	129	139	139	150	150	158	158
L	300	314	316	336	347	392	393	425	424	474
LS	356	370	383	403	428	473	487	519	518	568
LB	190	204	206	226	237	282	283	315	314	364
LBS	246	260	273	293	318	363	377	409	408	458

**FAZ37..**

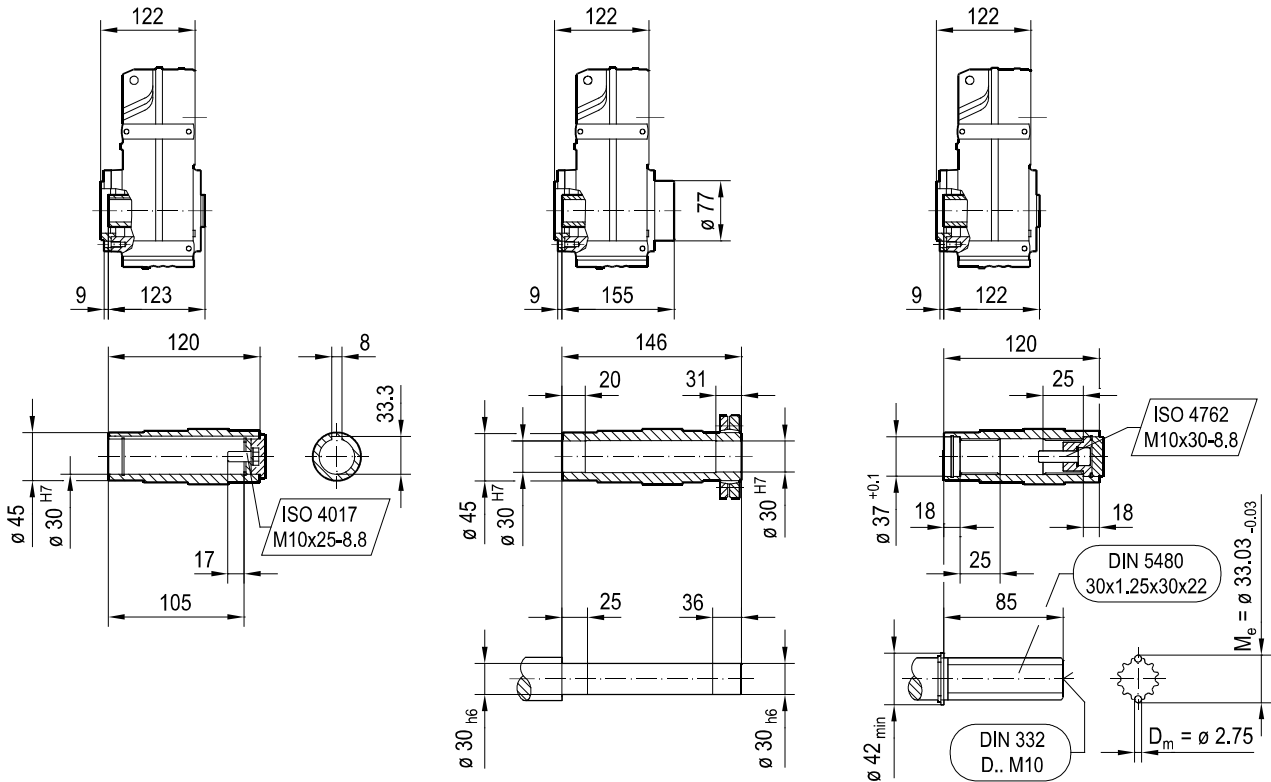
42 027 01 14



**FAZ37..**

**FHZ37..**  
max. DRN80M

**FVZ37..**



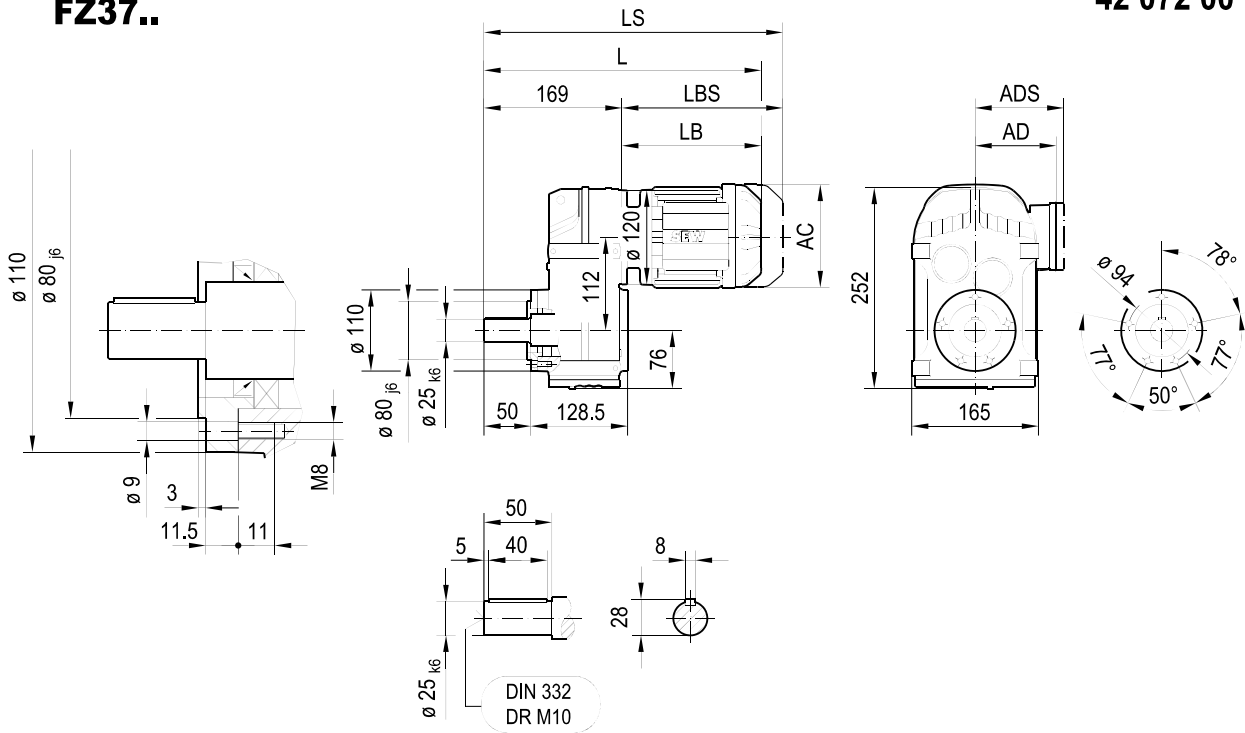
25960679/EN – 02/2019

(-> 7.3)	DRN									
	63MS	63M	71MS	71M	80MK	80M	90S	90L	100LS	100L/LM
AC	115	115	139	139	156	156	179	179	197	197
AD	98	98	118	118	128	128	140	140	157	157
ADS	98	98	129	129	139	139	150	150	158	158
L	312	326	328	348	359	404	405	437	436	486
LS	368	382	395	415	440	485	499	531	530	580
LB	190	204	206	226	237	282	283	315	314	364
LBS	246	260	273	293	318	363	377	409	408	458

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FZ37..

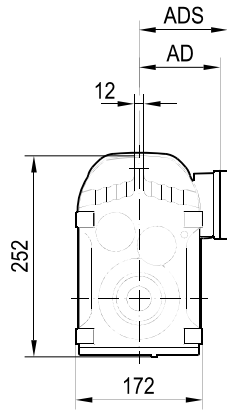
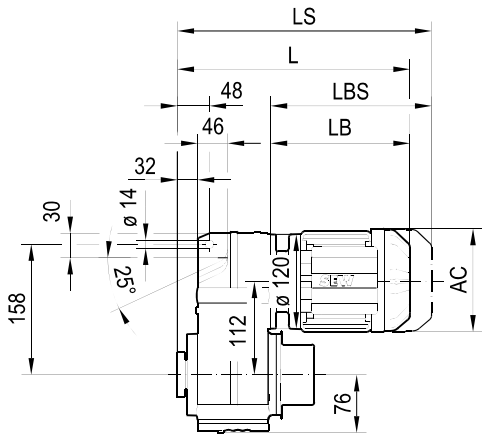
42 072 00 15



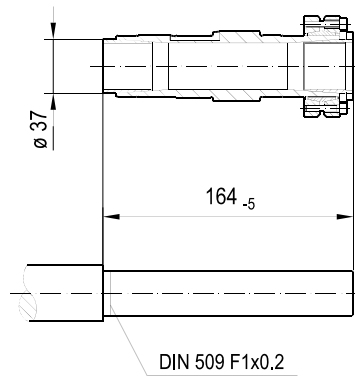
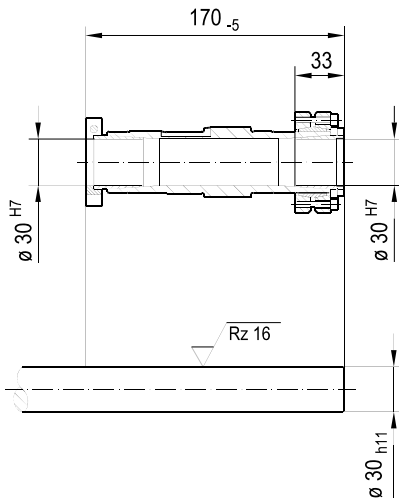
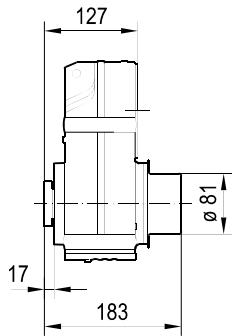
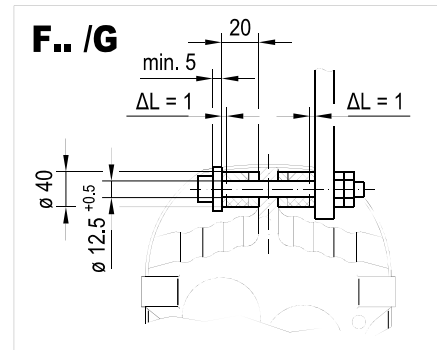
24832936/EN – 09/2018

↳ 7.3)	DRN									
	63MS	63M	71MS	71M	80MK	80M	90S	90L	100LS	100L/LM
AC	115	115	139	139	156	156	179	179	197	197
AD	98	98	118	118	128	128	140	140	157	157
ADS	98	98	129	129	139	139	150	150	158	158
L	359	373	375	395	406	451	452	484	483	533
LS	415	429	442	462	487	532	546	578	577	627
LB	190	204	206	226	237	282	283	315	314	364
LBS	246	260	273	293	318	363	377	409	408	458

### FT37..



### 42 028 01 14

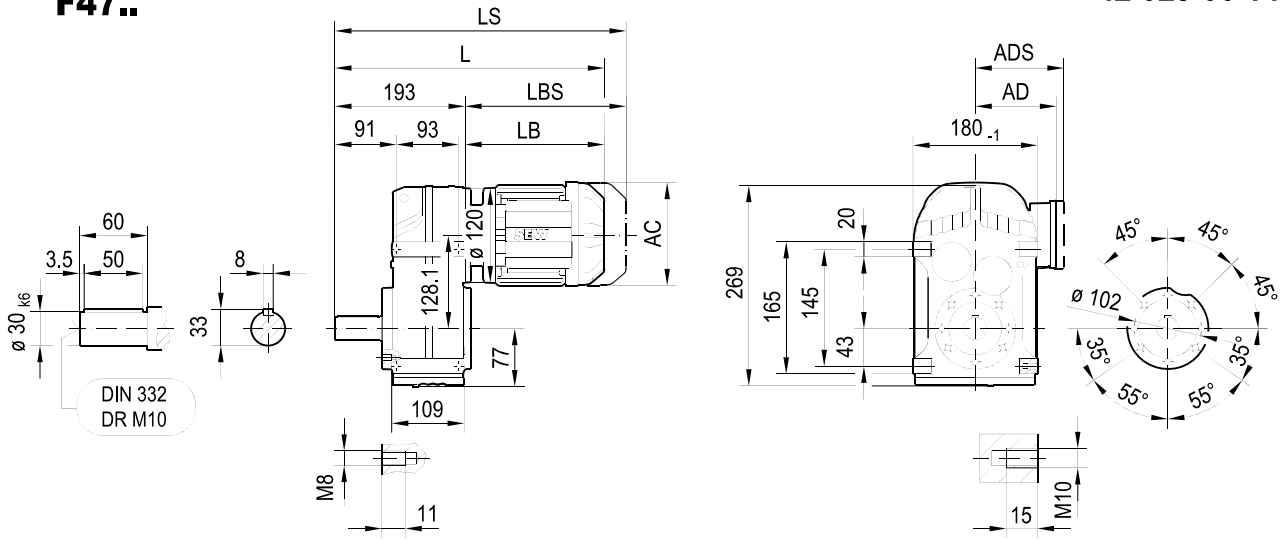


(-> 7.3)	DRN							
	63MS	63M	71MS	71M				
AC	115	115	139	139				
AD	98	98	118	118				
ADS	98	98	129	129				
L	317	331	333	353				
LS	373	387	400	420				
LB	190	204	206	226				
LBS	246	260	273	293				



F47..

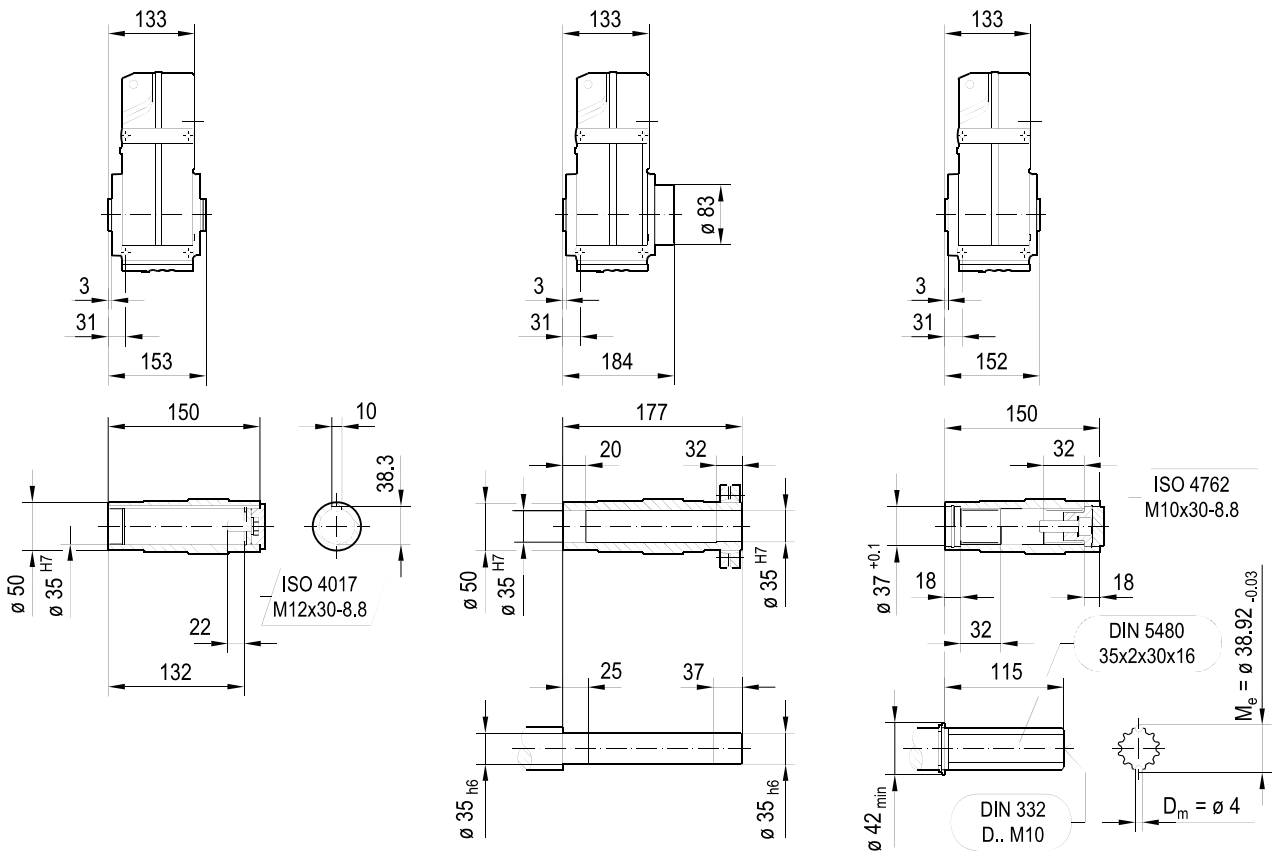
42 029 00 14



FA47B..

FH47B..

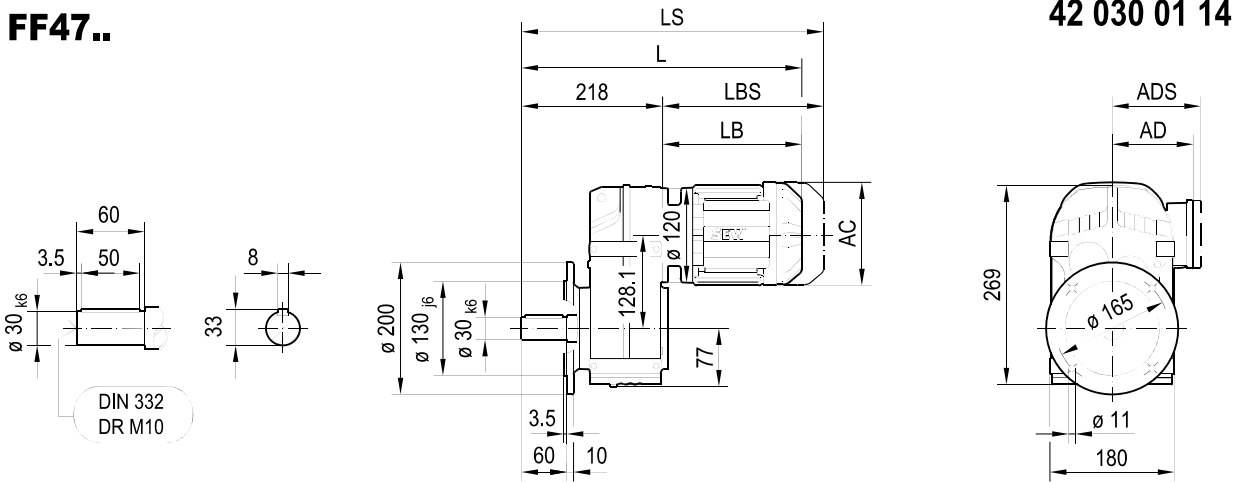
FV47B..



↔ (7.3)	DRN									
	63MS	63M	71MS	71M	80MK	80M	90S	90L	100LS	100L/LM
AC	115	115	139	139	156	156	179	179	197	197
AD	98	98	118	118	128	128	140	140	157	157
ADS	98	98	129	129	139	139	150	150	158	158
L	383	397	399	419	430	475	476	508	507	557
LS	439	453	466	486	511	556	570	602	601	651
LB	190	204	206	226	237	282	283	315	314	364
LBS	246	260	273	293	318	363	377	409	408	458

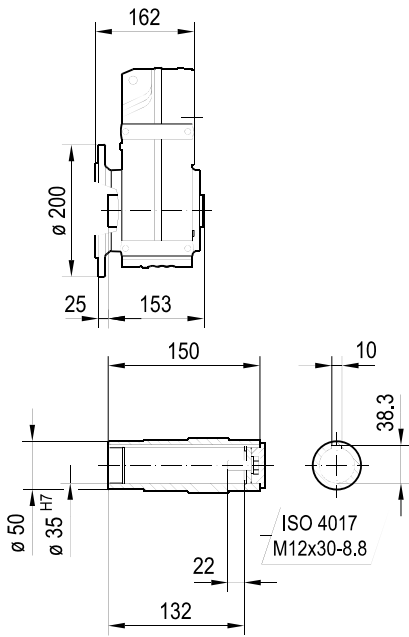
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### FF47..

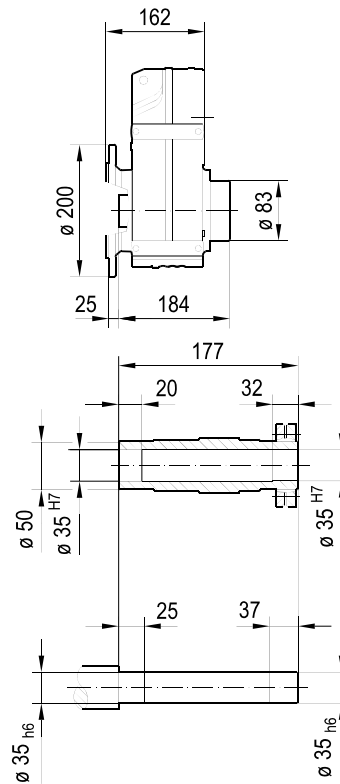


42 030 01 14

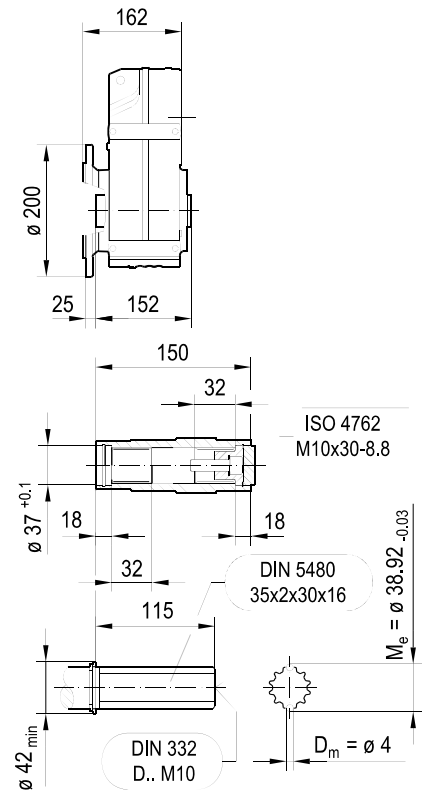
### FAF47..



### FHF47..



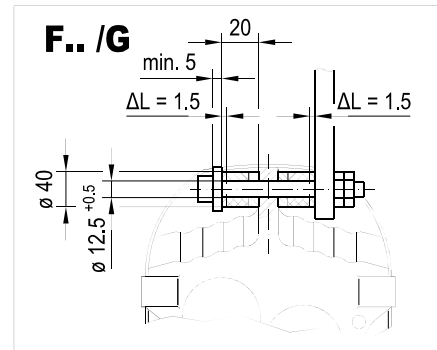
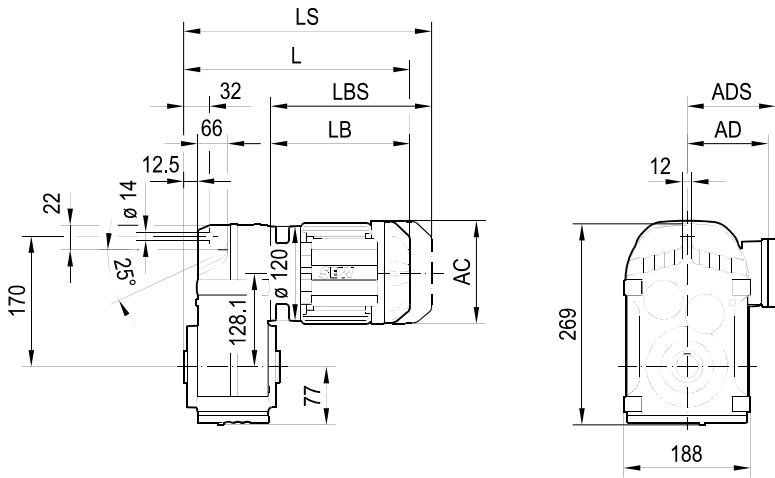
### FVF47..



(-> 7.3)	DRN									
	63MS	63M	71MS	71M	80MK	80M	90S	90L	100LS	100L/LM
AC	115	115	139	139	156	156	179	179	197	197
AD	98	98	118	118	128	128	140	140	157	157
ADS	98	98	129	129	139	139	150	150	158	158
L	408	422	424	444	455	500	501	533	532	582
LS	464	478	491	511	536	581	595	627	626	676
LB	190	204	206	226	237	282	283	315	314	364
LBS	246	260	273	293	318	363	377	409	408	458

**FA47..**

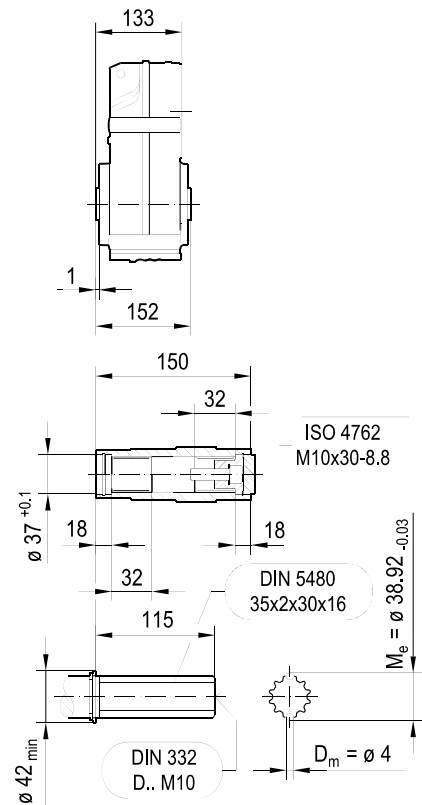
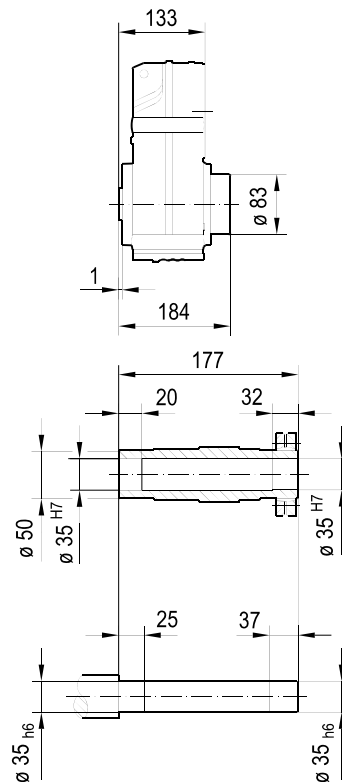
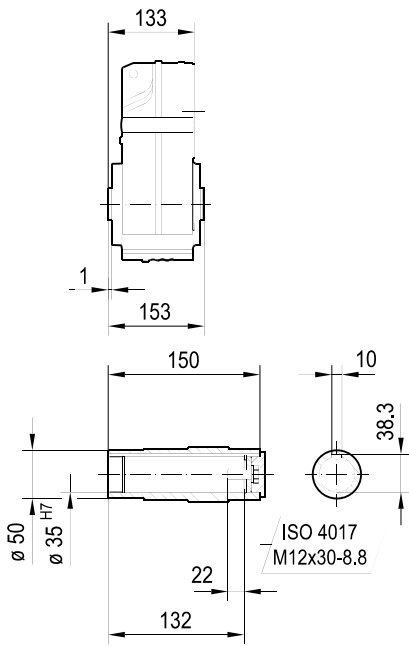
42 031 00 14



**FA47..**

**FH47..**

**FV47..**

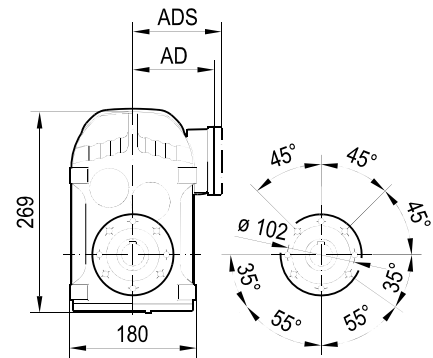
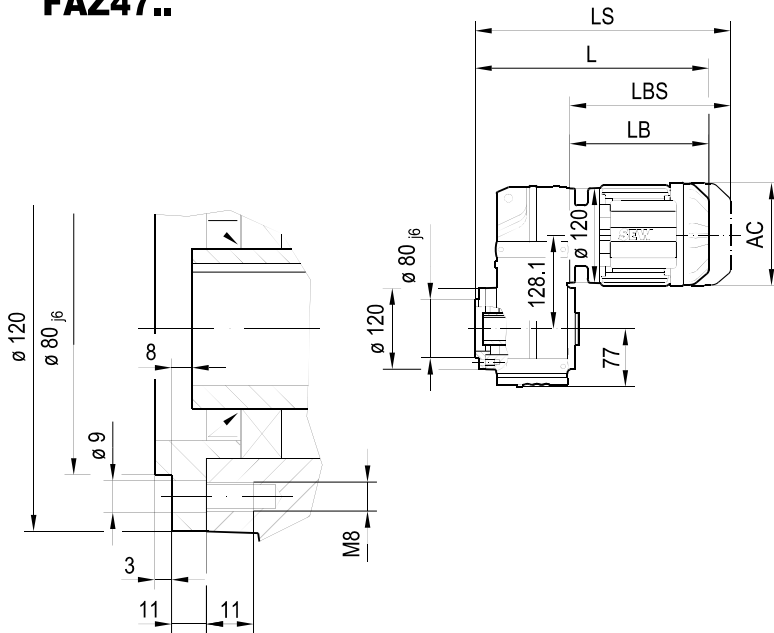


↳ (7.3)	DRN									
	63MS	63M	71MS	71M	80MK	80M	90S	90L	100LS	100L/LM
AC	115	115	139	139	156	156	179	179	197	197
AD	98	98	118	118	128	128	140	140	157	157
ADS	98	98	129	129	139	139	150	150	158	158
L	323	337	339	359	370	415	416	448	447	497
LS	379	393	406	426	451	496	510	542	541	591
LB	190	204	206	226	237	282	283	315	314	364
LBS	246	260	273	293	318	363	377	409	408	458

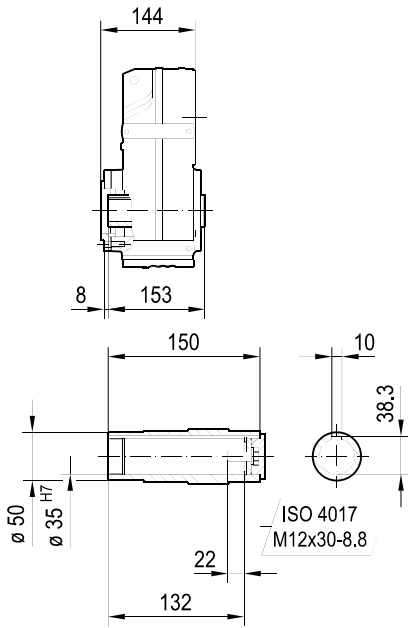
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42 032 00 14

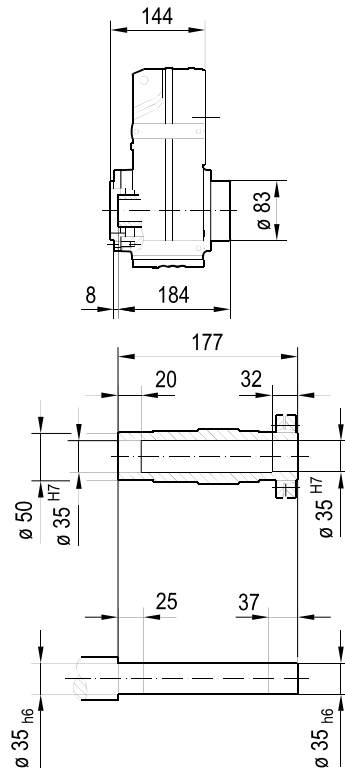
### FAZ47..



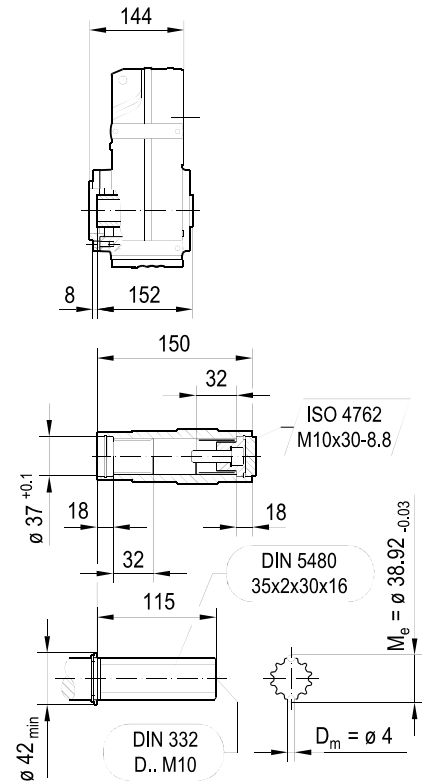
### FAZ47..



### FHZ47..



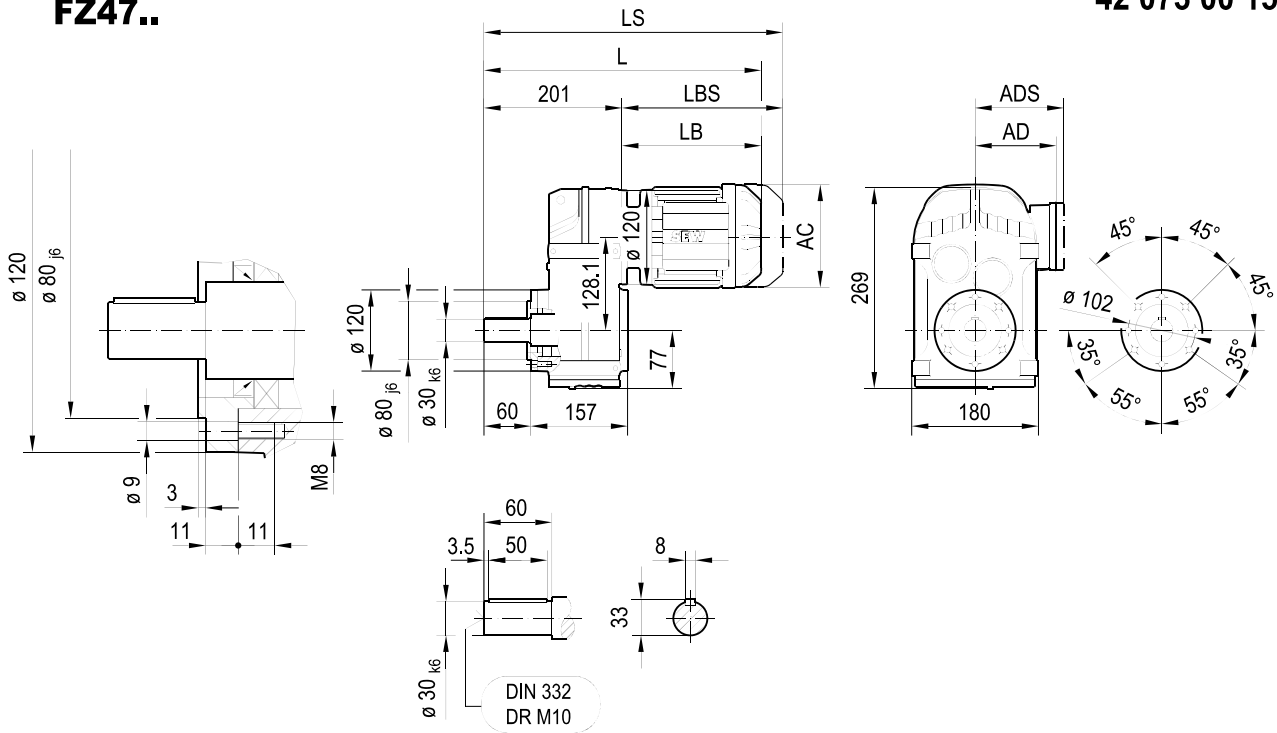
### FVZ47..



↔ 7.3	DRN									
	63MS	63M	71MS	71M	80MK	80M	90S	90L	100LS	100L/LM
AC	115	115	139	139	156	156	179	179	197	197
AD	98	98	118	118	128	128	140	140	157	157
ADS	98	98	129	129	139	139	150	150	158	158
L	334	348	350	370	381	426	427	459	458	508
LS	390	404	417	437	462	507	521	553	552	602
LB	190	204	206	226	237	282	283	315	314	364
LBS	246	260	273	293	318	363	377	409	408	458

FZ47..

42 073 00 15

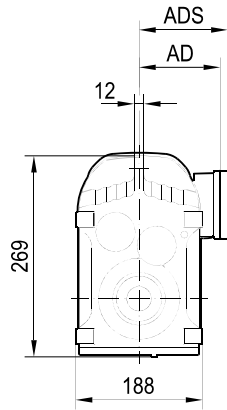
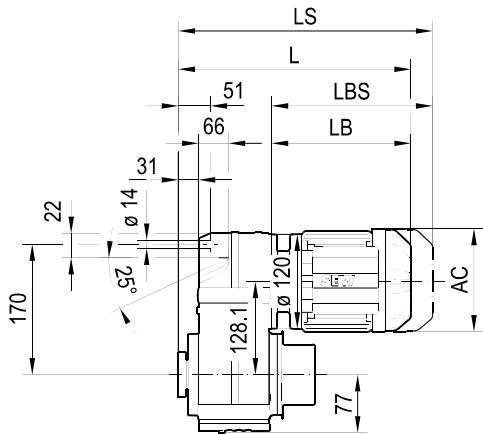


9

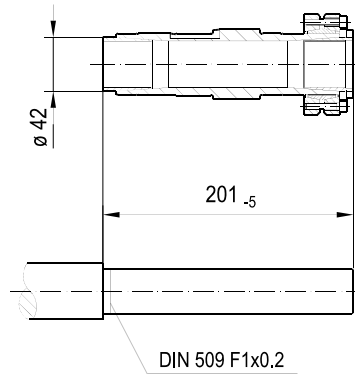
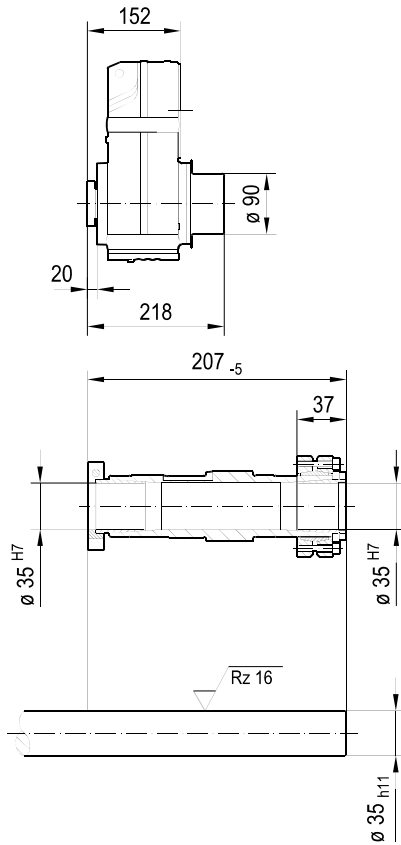
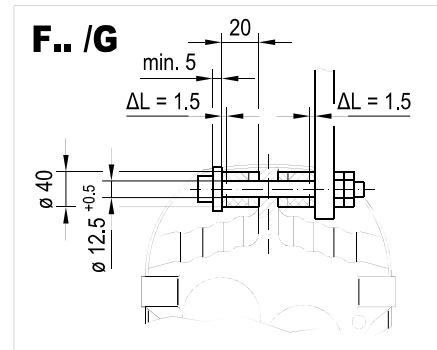
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(-> 7.3)	DRN									
	63MS	63M	71MS	71M	80MK	80M	90S	90L	100LS	100L/LM
AC	115	115	139	139	156	156	179	179	197	197
AD	98	98	118	118	128	128	140	140	157	157
ADS	98	98	129	129	139	139	150	150	158	158
L	391	405	407	427	438	483	484	516	515	565
LS	447	461	474	494	519	564	578	610	609	659
LB	190	204	206	226	237	282	283	315	314	364
LBS	246	260	273	293	318	363	377	409	408	458

### FT47..



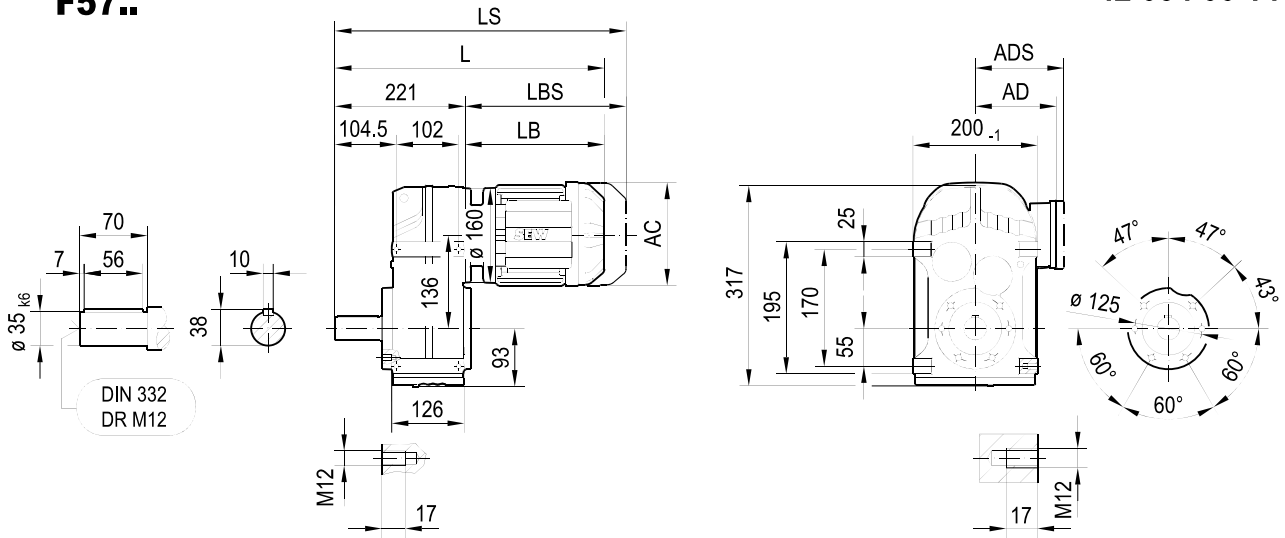
### 42 033 01 14



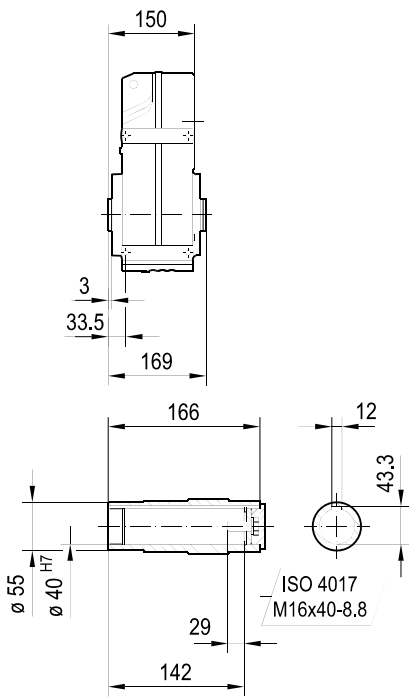
(-> 7.3)	DRN							
	63MS	63M	71MS	71M				
AC	115	115	139	139				
AD	98	98	118	118				
ADS	98	98	129	129				
L	342	356	358	378				
LS	398	412	425	445				
LB	190	204	206	226				
LBS	246	260	273	293				

42 034 00 14

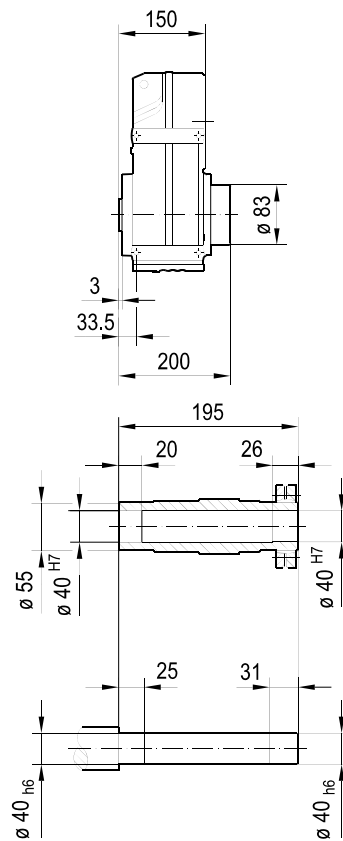
F57..



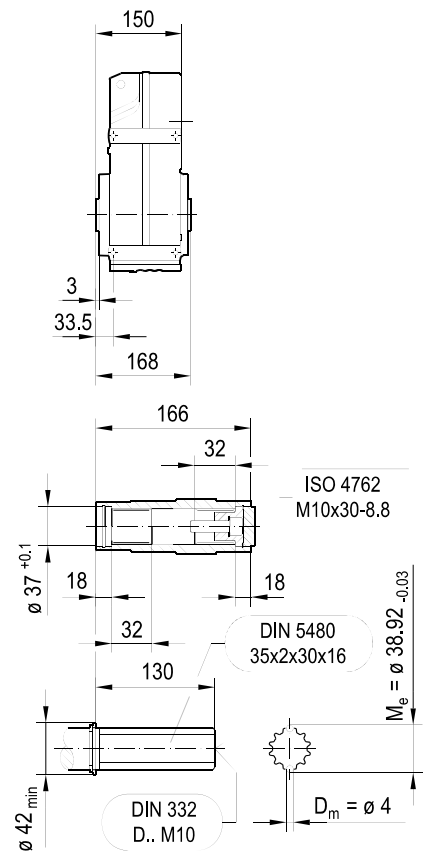
FA57B..



FH57B..  
max. DRN100L



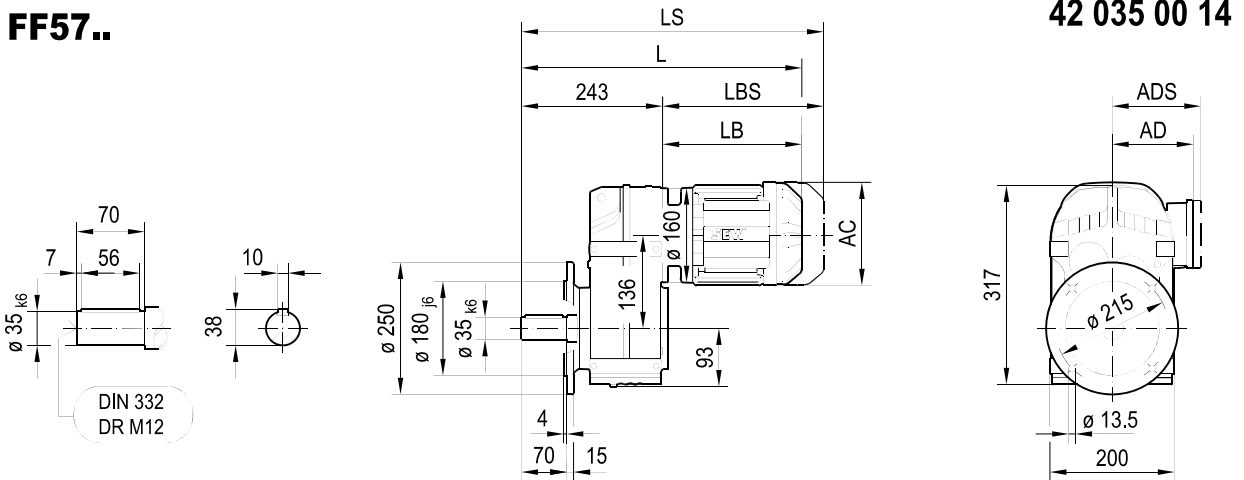
FV57B..



↔ (7.3)	DRN											
	63MS	63M	71MS	71M	80MK	80M	90S	90L	100LS	100L/LM	112M	132S
AC	115	115	139	139	156	156	179	179	197	197	221	221
AD	98	98	118	118	128	128	140	140	157	157	170	170
ADS	98	98	129	129	139	139	150	150	158	158	172	172
L	405	419	420	440	451	496	498	530	526	576	607	661
LS	461	475	488	508	532	577	591	623	620	670	719	773
LB	184	198	199	219	230	275	277	309	305	355	386	440
LBS	240	254	267	287	311	356	370	402	399	449	498	552

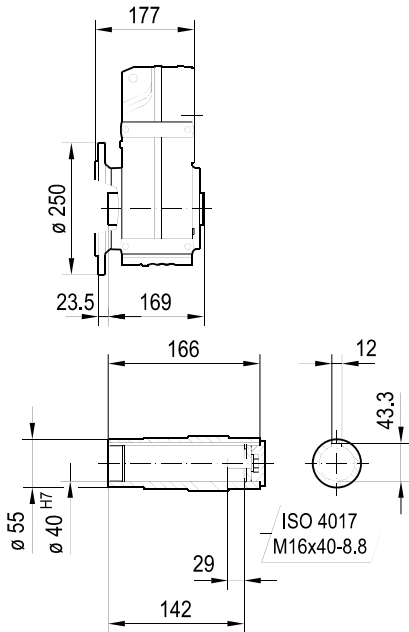
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### FF57..

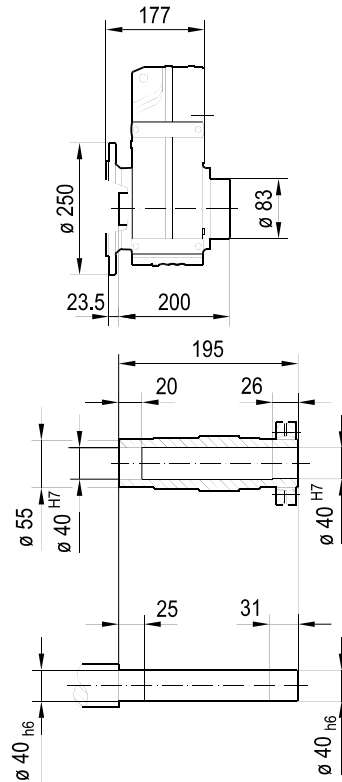


42 035 00 14

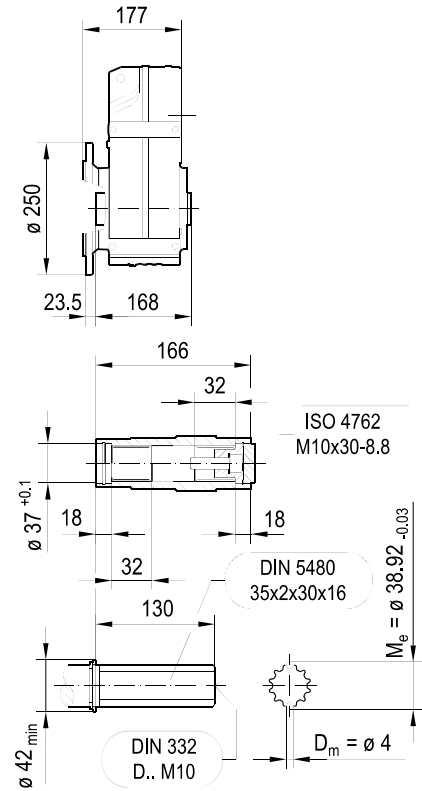
### FAF57..



### FHF57.. max. DRN100L



### FVF57..

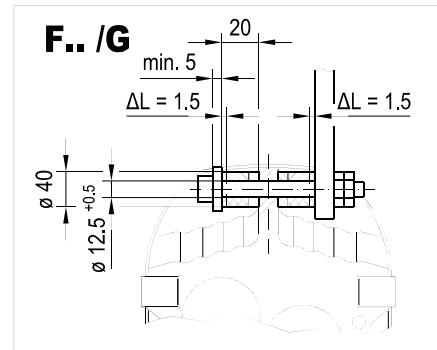
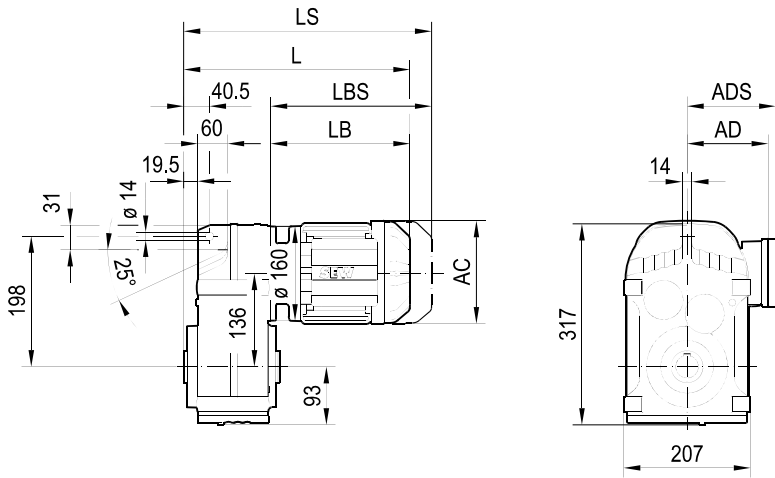


(-> 7.3)	DRN											
	63MS	63M	71MS	71M	80MK	80M	90S	90L	100LS	100L/LM	112M	132S
AC	115	115	139	139	156	156	179	179	197	197	221	221
AD	98	98	118	118	128	128	140	140	157	157	170	170
ADS	98	98	129	129	139	139	150	150	158	158	172	172
L	427	441	442	462	473	518	520	552	548	598	629	683
LS	483	497	510	530	554	599	613	645	642	692	741	795
LB	184	198	199	219	230	275	277	309	305	355	386	440
LBS	240	254	267	287	311	356	370	402	399	449	498	552



**FA57..**

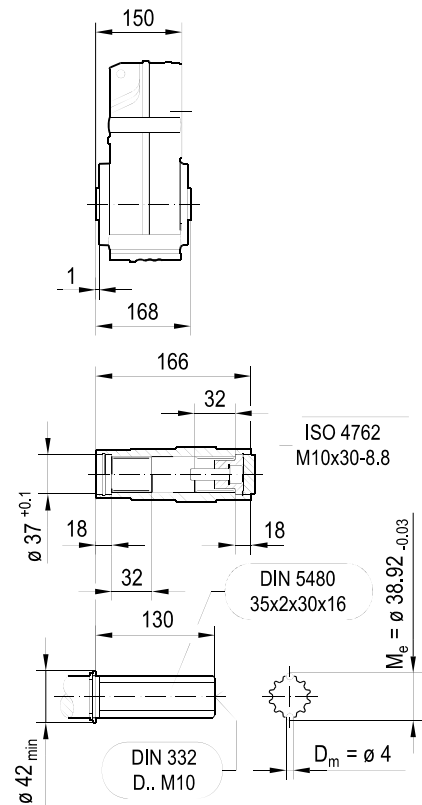
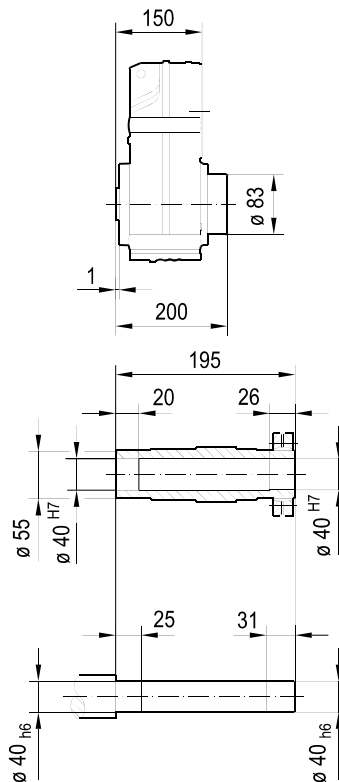
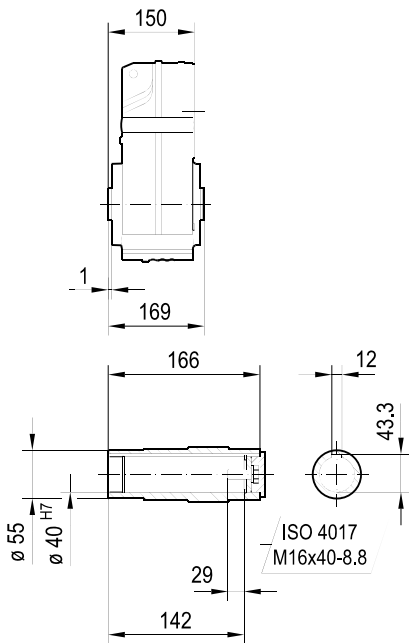
**42 036 00 14**



**FA57..**

**FH57..**  
max. DRN100L

**FV57..**

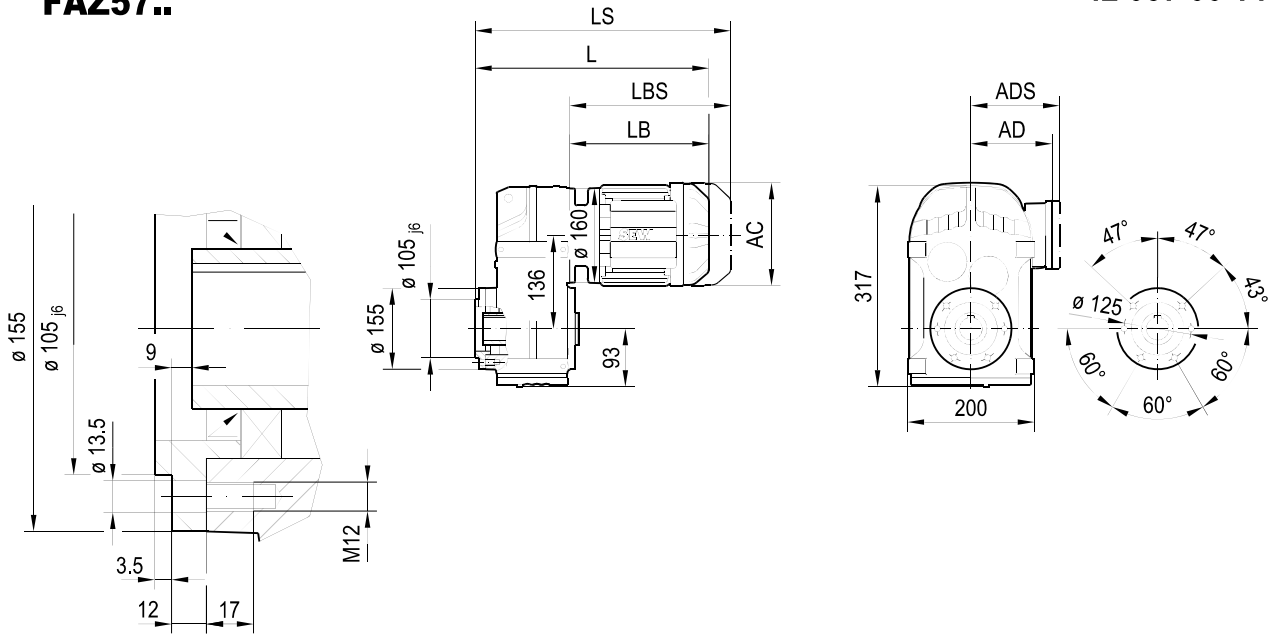


↔ (7.3)	DRN											
	63MS	63M	71MS	71M	80MK	80M	90S	90L	100LS	100L/LM	112M	132S
AC	115	115	139	139	156	156	179	179	197	197	221	221
AD	98	98	118	118	128	128	140	140	157	157	170	170
ADS	98	98	129	129	139	139	150	150	158	158	172	172
L	334	348	349	369	380	425	427	459	455	505	536	590
LS	390	404	417	437	461	506	520	552	549	599	648	702
LB	184	198	199	219	230	275	277	309	305	355	386	440
LBS	240	254	267	287	311	356	370	402	399	449	498	552

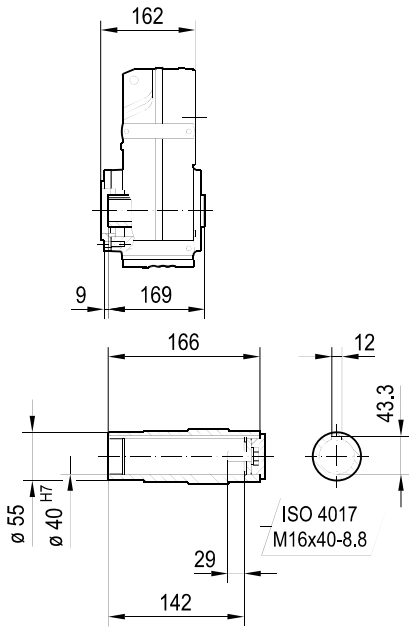
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42 037 00 14

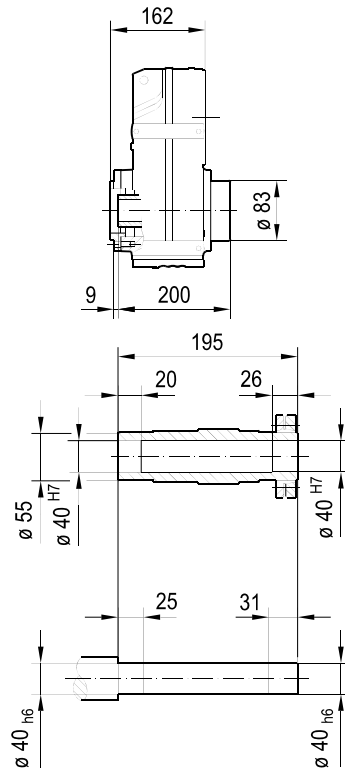
### FAZ57..



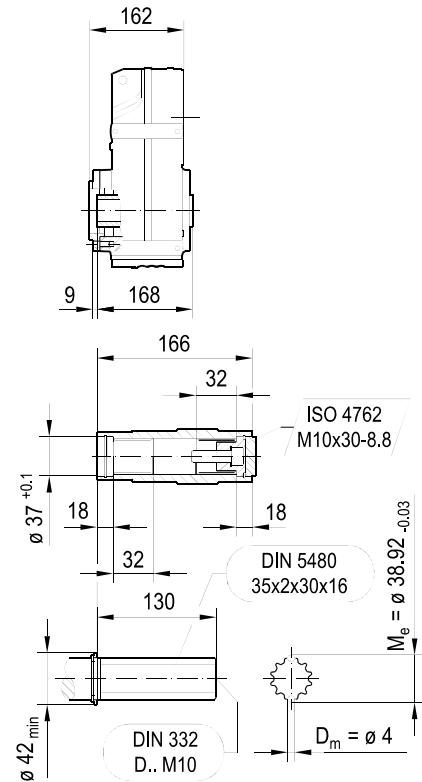
### FAZ57..



### FHZ57.. max. DRN100L



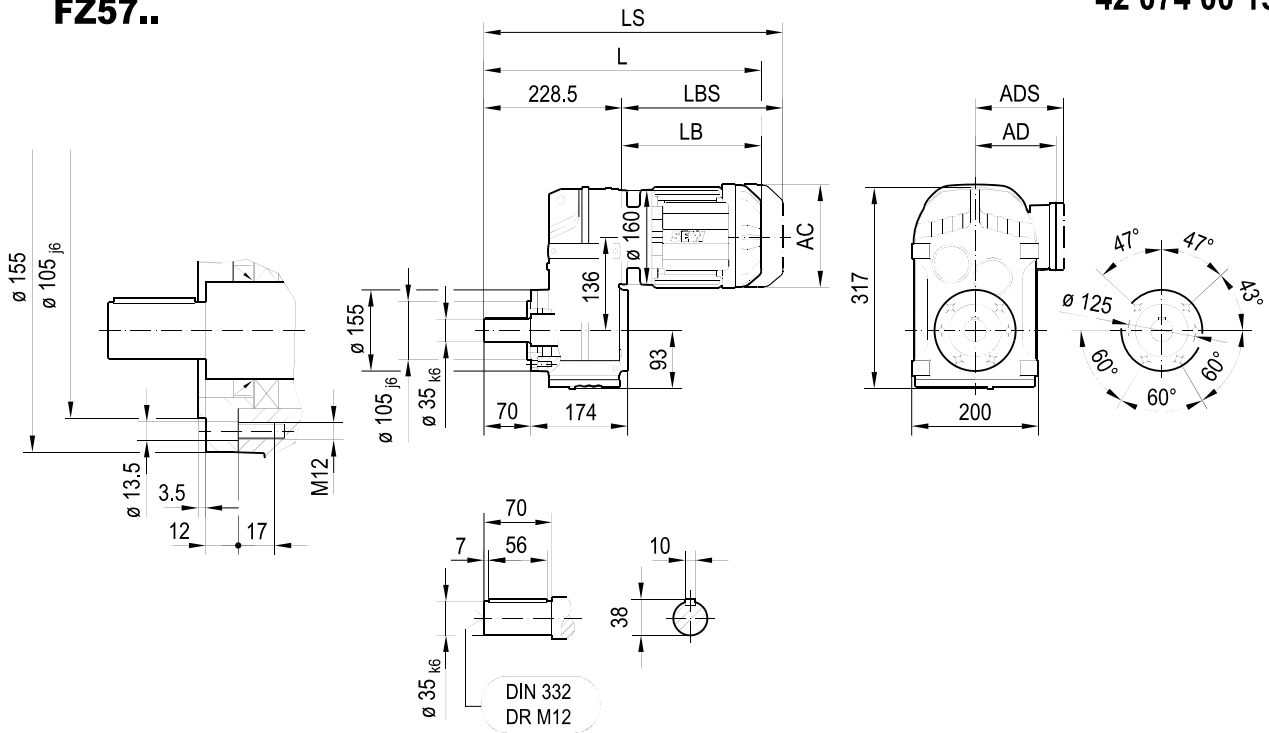
### FVZ57..



↔ (7.3)	DRN											
	63MS	63M	71MS	71M	80MK	80M	90S	90L	100LS	100L/LM	112M	132S
AC	115	115	139	139	156	156	179	179	197	197	221	221
AD	98	98	118	118	128	128	140	140	157	157	170	170
ADS	98	98	129	129	139	139	150	150	158	158	172	172
L	346	360	361	381	392	437	439	471	467	517	548	602
LS	402	416	429	449	473	518	532	564	561	611	660	714
LB	184	198	199	219	230	275	277	309	305	355	386	440
LBS	240	254	267	287	311	356	370	402	399	449	498	552

FZ57..

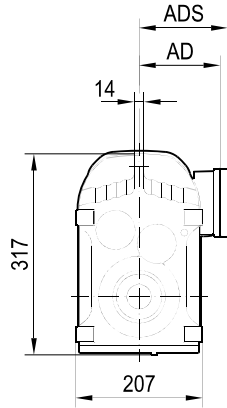
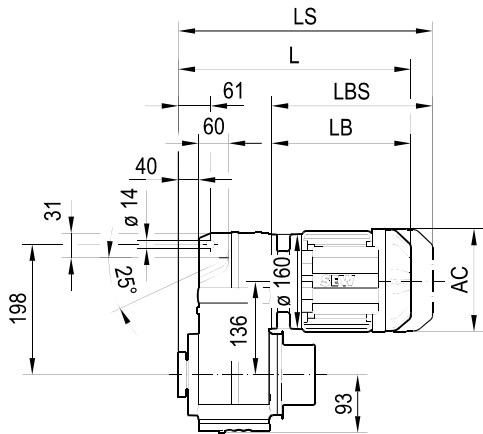
42 074 00 15



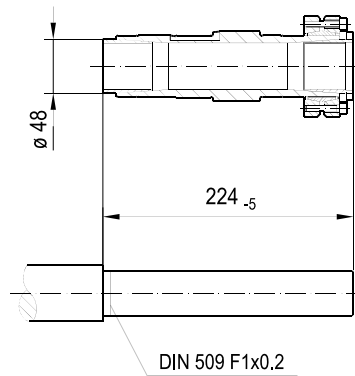
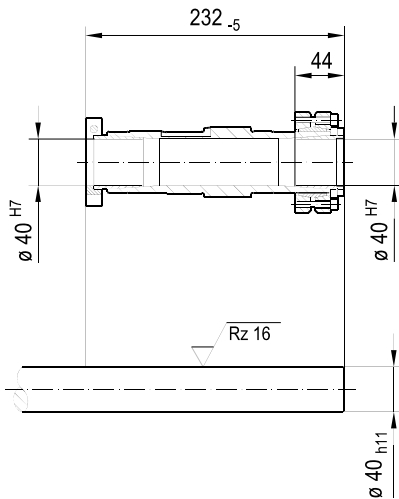
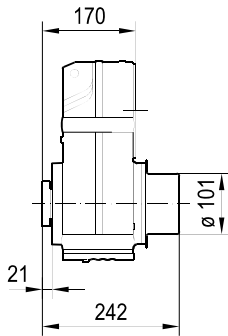
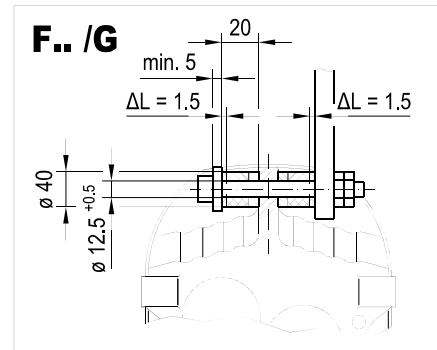
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↳ 7.3)	DRN											
	63MS	63M	71MS	71M	80MK	80M	90S	90L	100LS	100L/LM	112M	132S
AC	115	115	139	139	156	156	179	179	197	197	221	221
AD	98	98	118	118	128	128	140	140	157	157	170	170
ADS	98	98	129	129	139	139	150	150	158	158	172	172
L	412	426	428	448	459	504	505	537	534	584	615	669
LS	468	482	495	515	540	585	599	631	627	677	727	781
LB	184	198	199	219	230	275	277	309	305	355	386	440
LBS	240	254	267	287	311	356	370	402	399	449	498	552

### FT57..



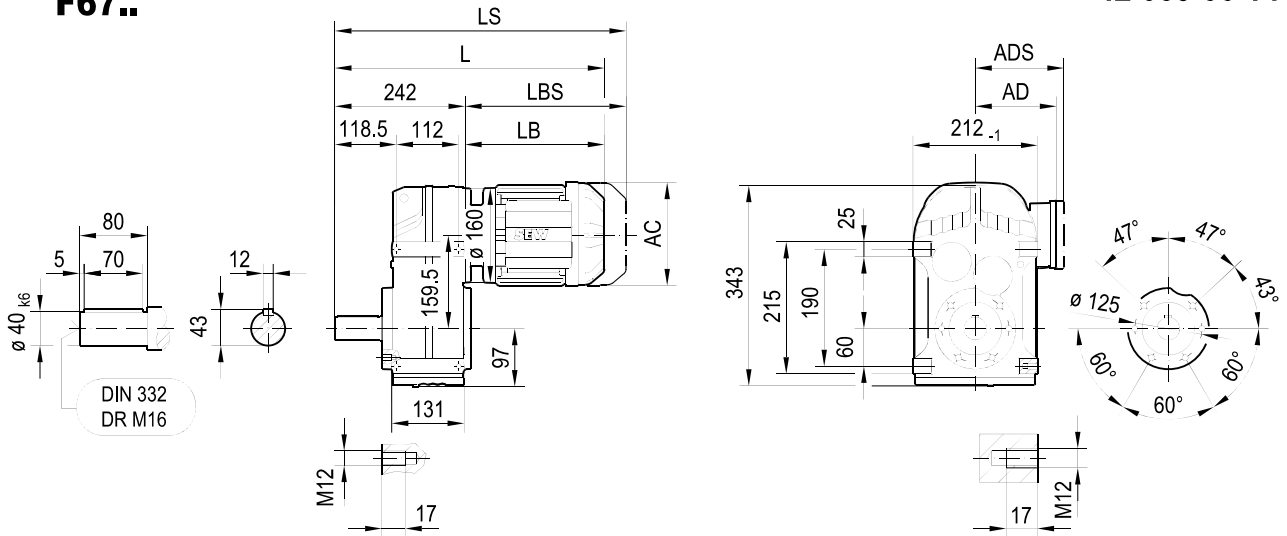
### 42 038 01 14



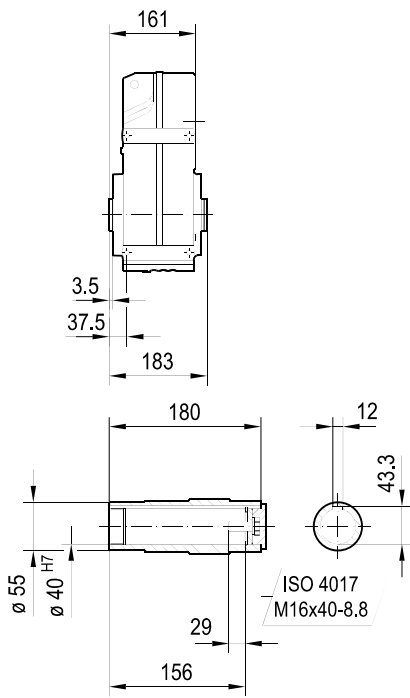
(-> 7.3)	DRN							
	63MS	63M	71MS	71M	80MK	80M	90S	
AC	115	115	139	139	156	156	179	
AD	98	98	118	118	128	128	140	
ADS	98	98	129	129	139	139	150	
L	354	368	369	389	400	445	447	
LS	410	424	437	457	481	526	540	
LB	184	198	199	219	230	275	277	
LBS	240	254	267	287	311	356	370	

42 039 00 14

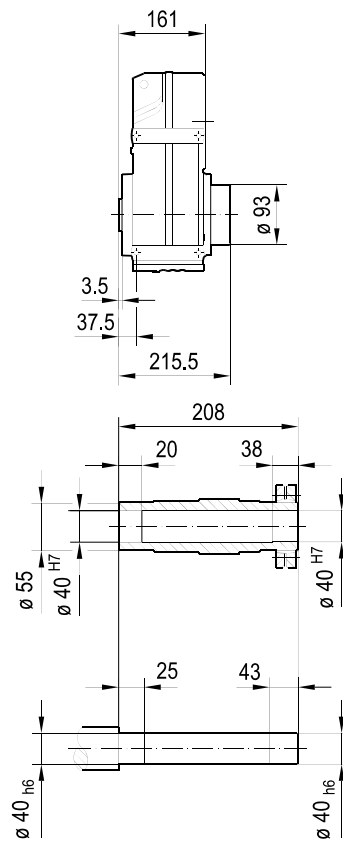
F67..



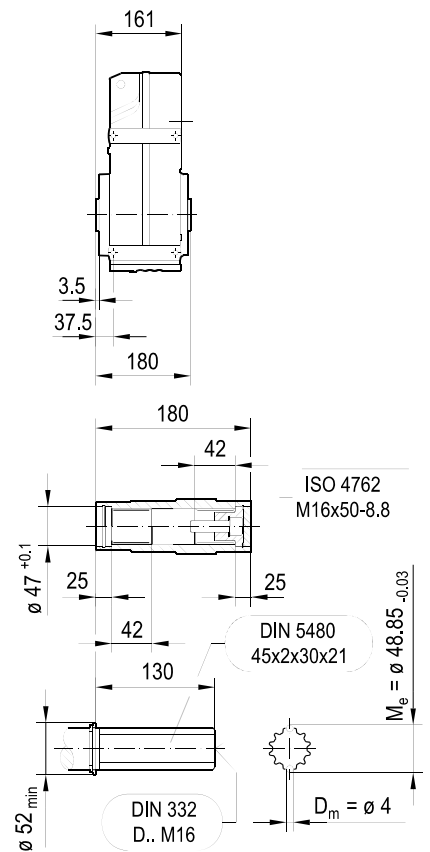
FA67B..



FH67B..  
max. DRN132S



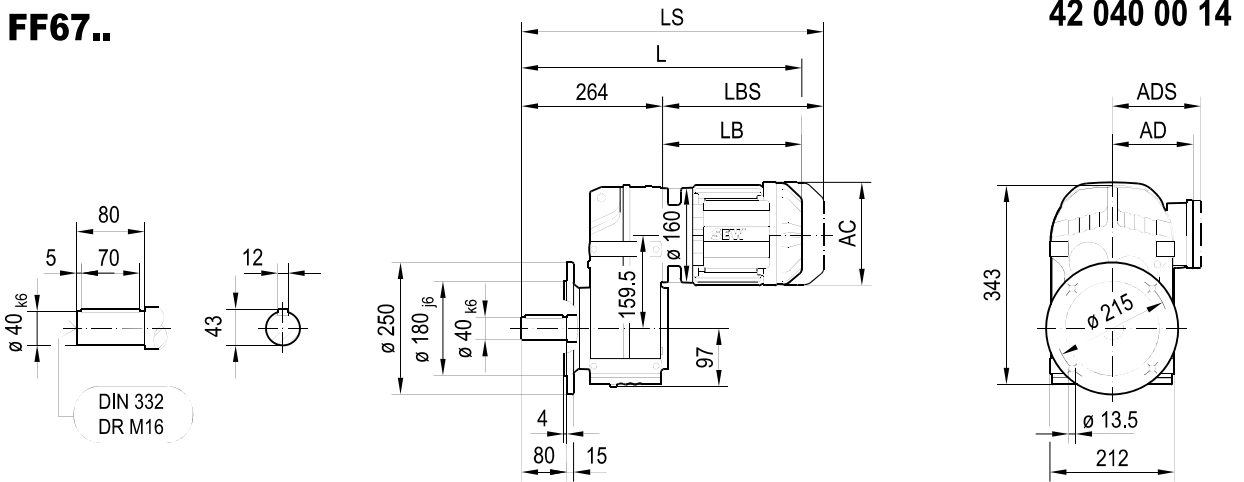
FV67B..



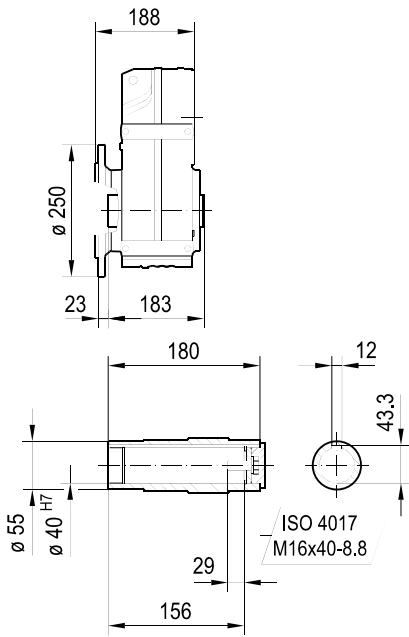
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↳ (7.3)	DRN										
	63M	71MS	71M	80MK	80M	90S	90L	100LS	100L/LM	112M	132S
AC	115	139	139	156	156	179	179	197	197	221	221
AD	98	118	118	128	128	140	140	157	157	170	170
ADS	98	129	129	139	139	150	150	158	158	172	172
L	440	441	461	472	517	519	551	547	597	628	682
LS	496	509	529	553	598	612	644	641	691	740	794
LB	198	199	219	230	275	277	309	305	355	386	440
LBS	254	267	287	311	356	370	402	399	449	498	552

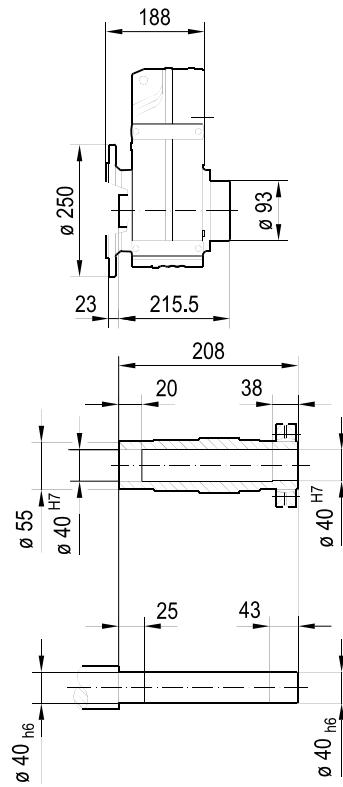
### FF67..



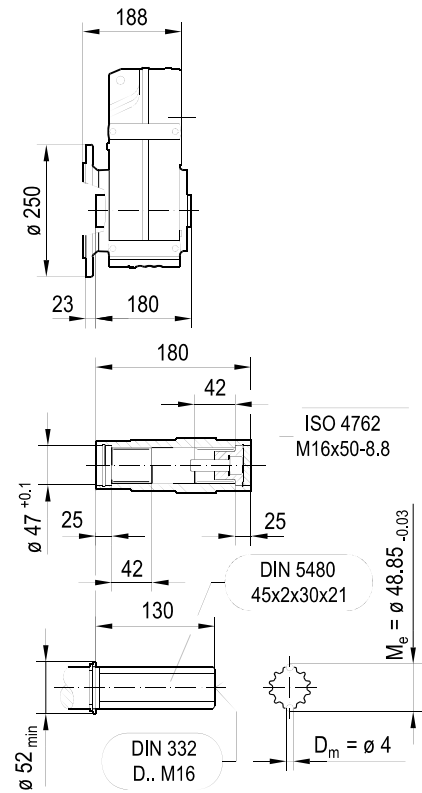
### FAF67..



### FHF67.. max. DRN132S



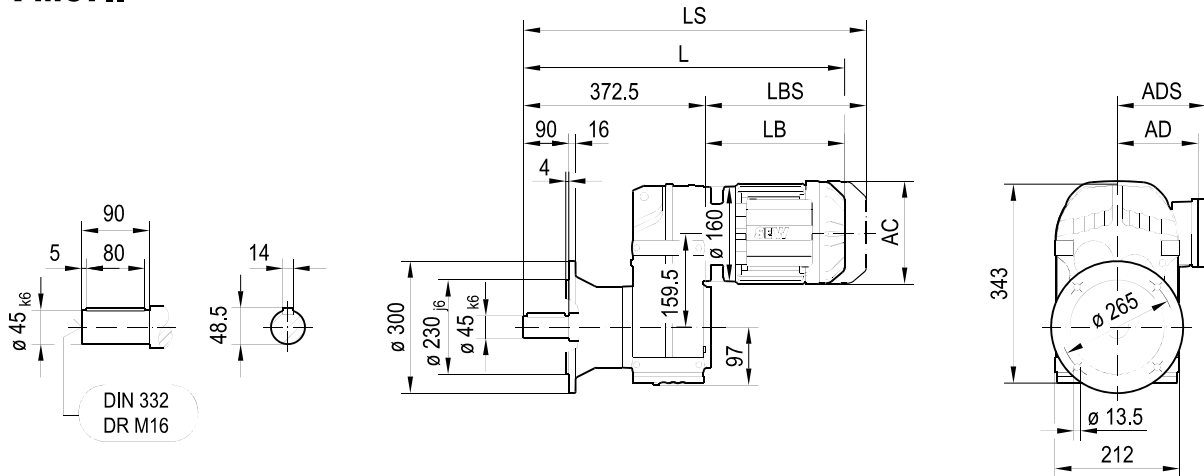
### FVF67..



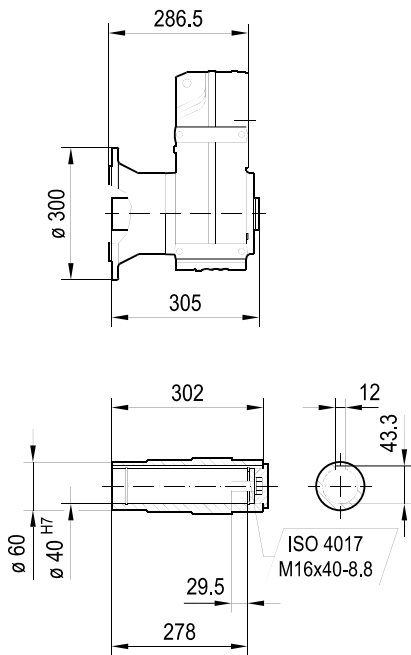
(-> 7.3)	DRN										
	63M	71MS	71M	80MK	80M	90S	90L	100LS	100L/LM	112M	132S
AC	115	139	139	156	156	179	179	197	197	221	221
AD	98	118	118	128	128	140	140	157	157	170	170
ADS	98	129	129	139	139	150	150	158	158	172	172
L	462	463	483	494	539	541	573	569	619	650	704
LS	518	531	551	575	620	634	666	663	713	762	816
LB	198	199	219	230	275	277	309	305	355	386	440
LBS	254	267	287	311	356	370	402	399	449	498	552

**FM67..**

42 112 00 17



**FAM67..**

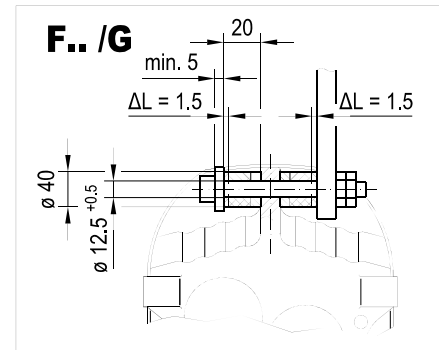
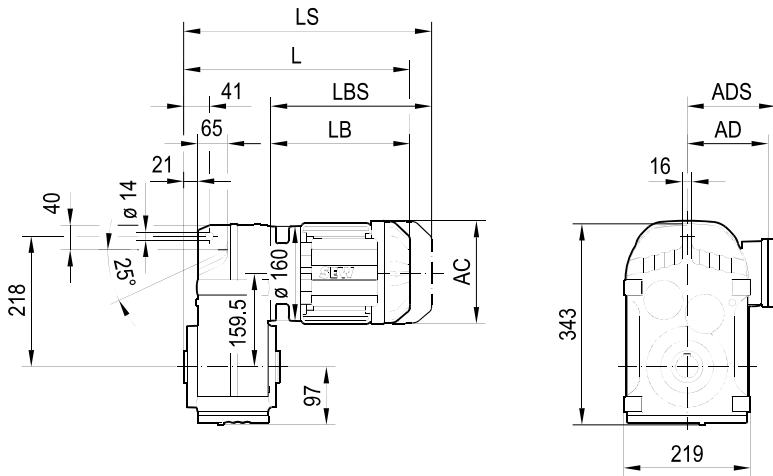


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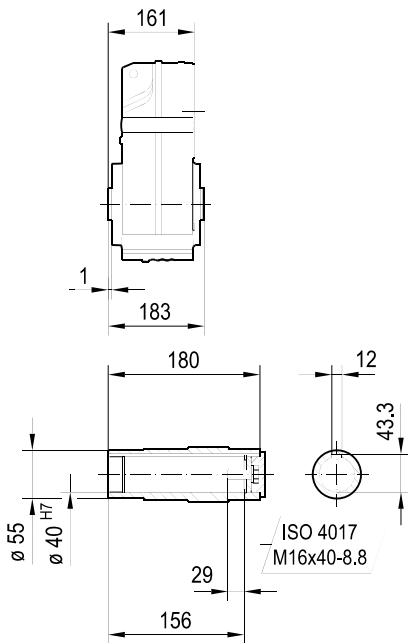
(-> 7.3)	DRN										
	63M	71MS	71M	80MK	80M	90S	90L	100LS	100L/LM	112M	132S
AC	115	139	139	156	156	179	179	197	197	221	221
AD	98	118	118	128	128	140	140	157	157	170	170
ADS	98	129	129	139	139	150	150	158	158	172	172
L	570	572	592	603	648	649	681	678	728	759	813
LS	626	639	659	684	729	743	775	771	821	871	925
LB	198	199	219	230	275	277	309	305	355	386	440
LBS	254	267	287	311	356	370	402	399	449	498	552

42 041 00 14

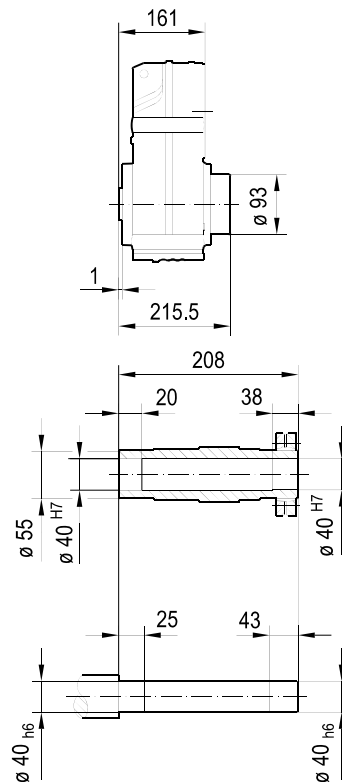
### FA67..



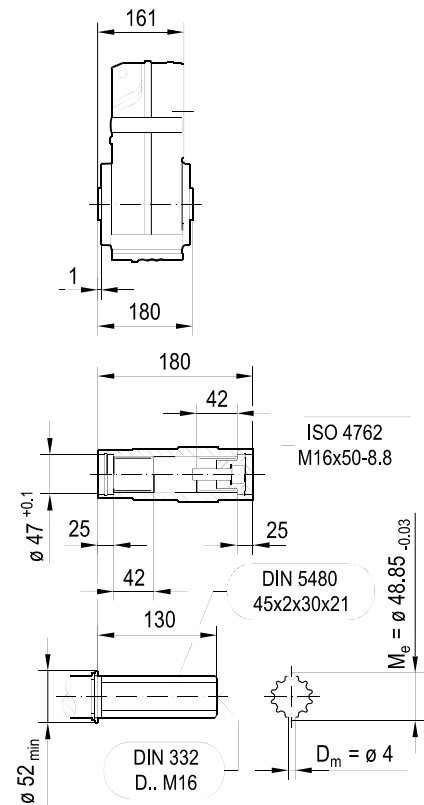
### FA67..



### FH67.. max. DRN132S



### FV67..

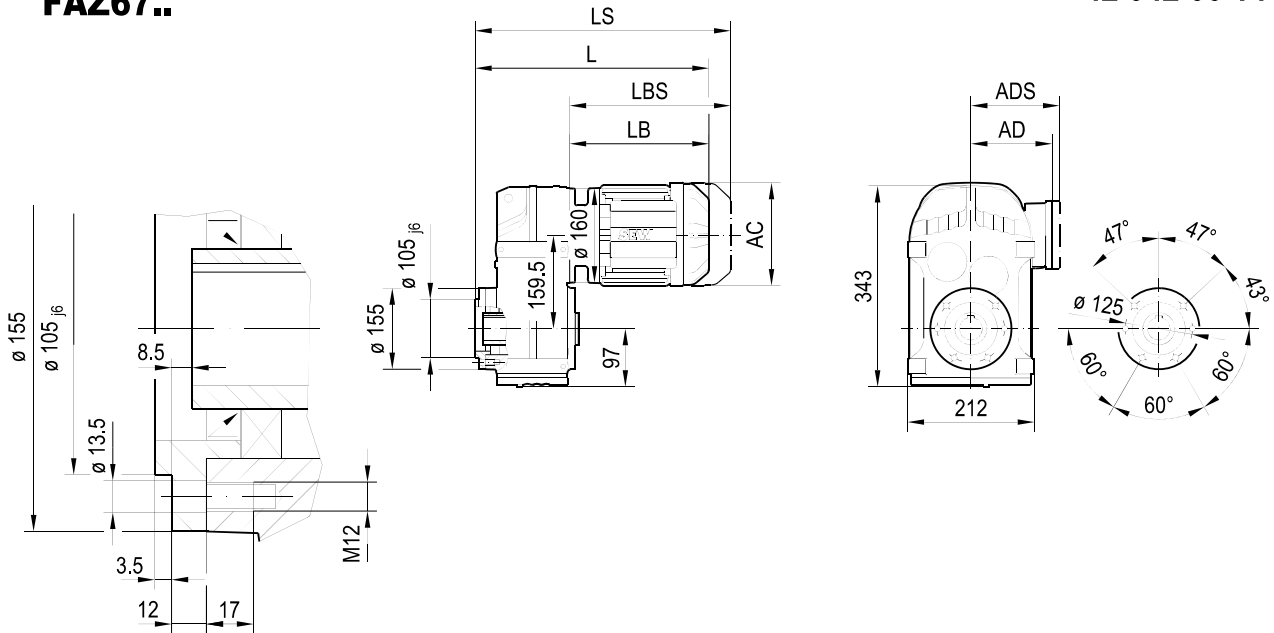


↔ 7.3	DRN										
	63M	71MS	71M	80MK	80M	90S	90L	100LS	100L/LM	112M	132S
AC	115	139	139	156	156	179	179	197	197	221	221
AD	98	118	118	128	128	140	140	157	157	170	170
ADS	98	129	129	139	139	150	150	158	158	172	172
L	359	360	380	391	436	438	470	466	516	547	601
LS	415	428	448	472	517	531	563	560	610	659	713
LB	198	199	219	230	275	277	309	305	355	386	440
LBS	254	267	287	311	356	370	402	399	449	498	552



**FAZ67..**

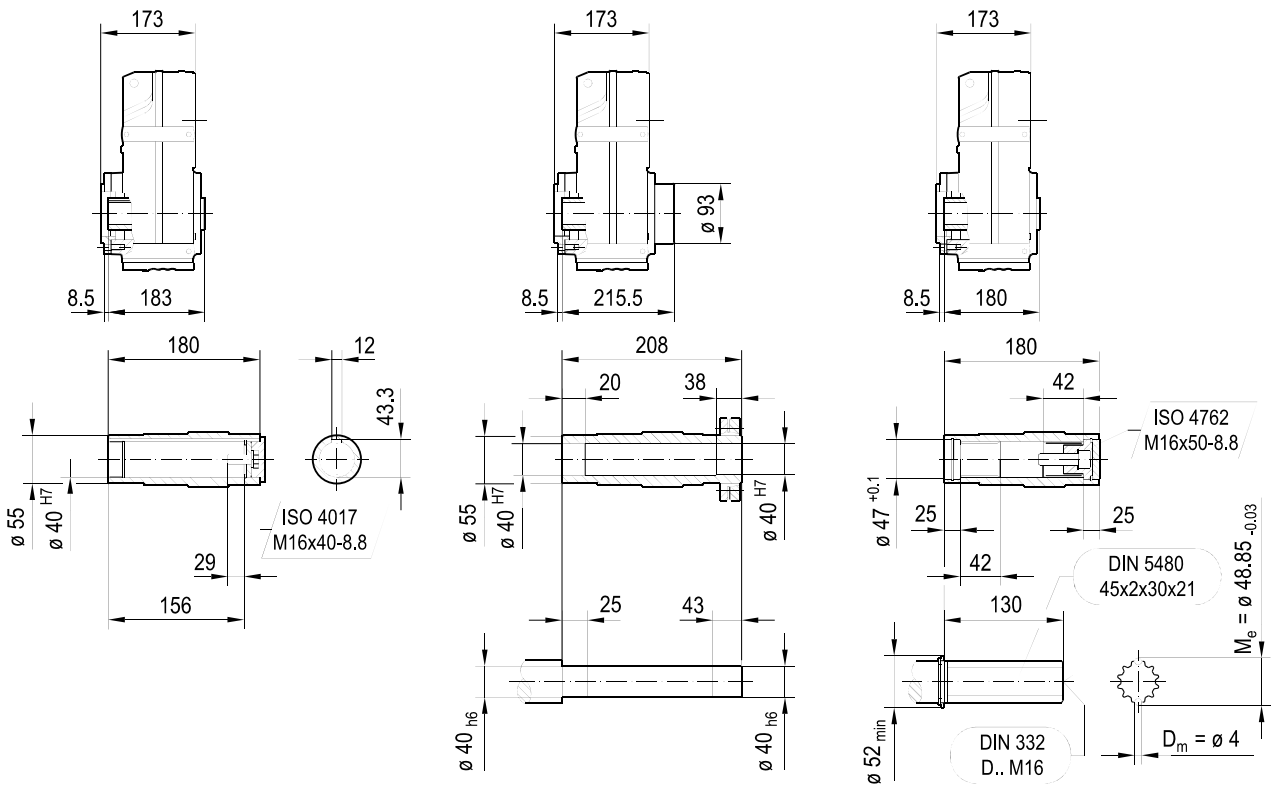
42 042 00 14



**FAZ67..**

**FHZ67..**  
max. DRN132S

**FVZ67..**

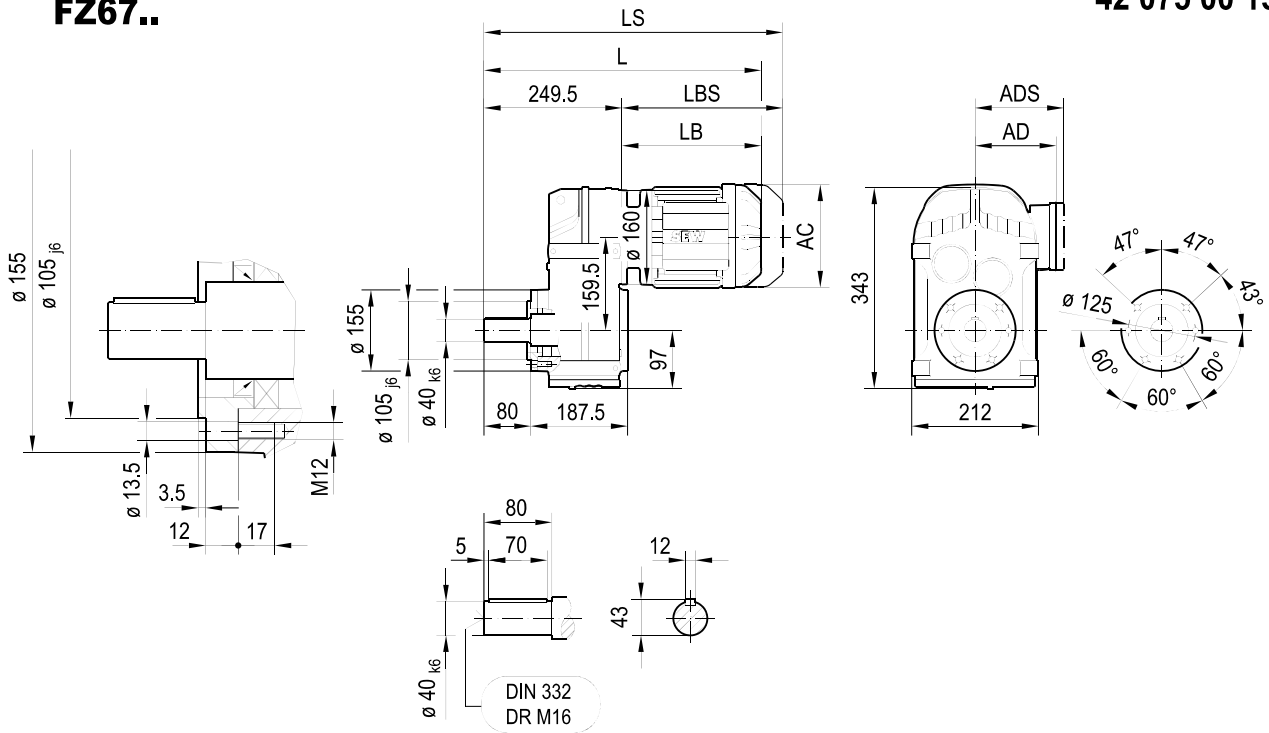


( $\rightarrow$ 7.3)	DRN										
	63M	71MS	71M	80MK	80M	90S	90L	100LS	100L/LM	112M	132S
AC	115	139	139	156	156	179	179	197	197	221	221
AD	98	118	118	128	128	140	140	157	157	170	170
ADS	98	129	129	139	139	150	150	158	158	172	172
L	371	372	392	403	448	450	482	478	528	559	613
LS	427	440	460	484	529	543	575	572	622	671	725
LB	198	199	219	230	275	277	309	305	355	386	440
LBS	254	267	287	311	356	370	402	399	449	498	552

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### FZ67..

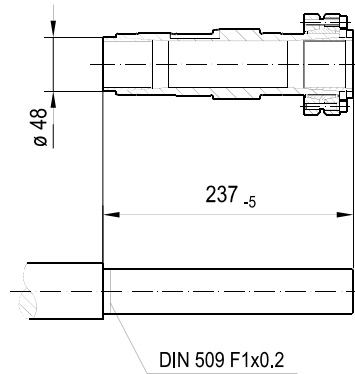
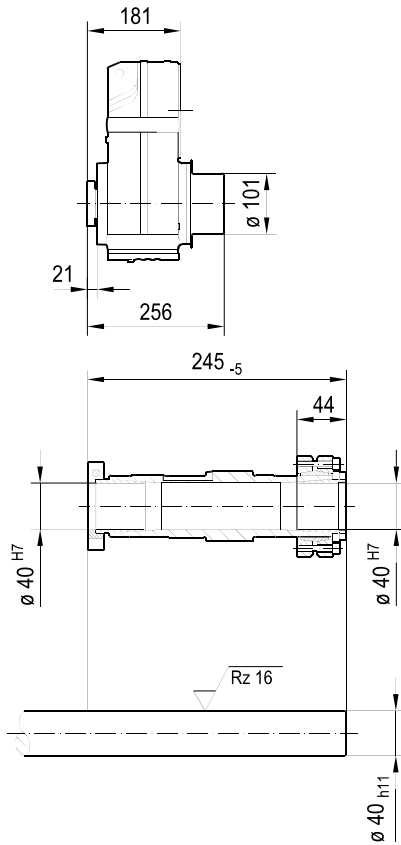
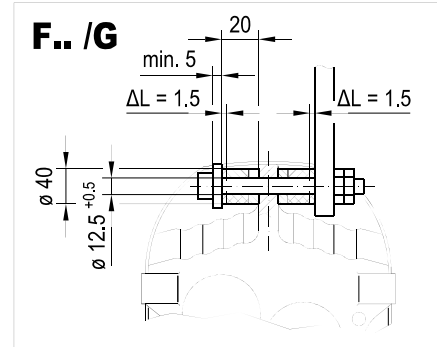
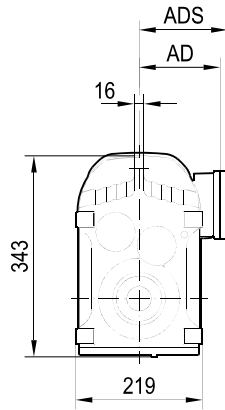
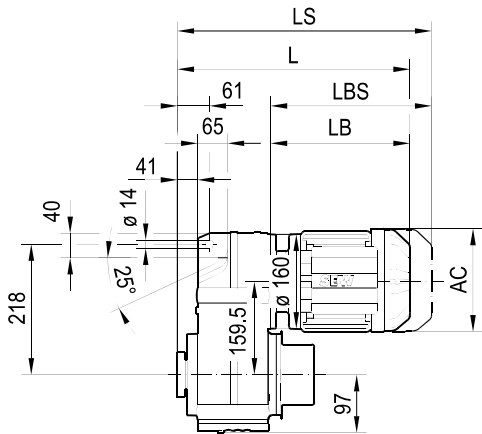
42 075 00 15



( $\rightarrow$ 7.3)	DRN										
	63M	71MS	71M	80MK	80M	90S	90L	100LS	100L/LM	112M	132S
AC	115	139	139	156	156	179	179	197	197	221	221
AD	98	118	118	128	128	140	140	157	157	170	170
ADS	98	129	129	139	139	150	150	158	158	172	172
L	447	449	469	480	525	526	558	555	605	636	690
LS	503	516	536	561	606	620	652	648	698	748	802
LB	198	199	219	230	275	277	309	305	355	386	440
LBS	254	267	287	311	356	370	402	399	449	498	552

**FT67..**

42 043 01 14

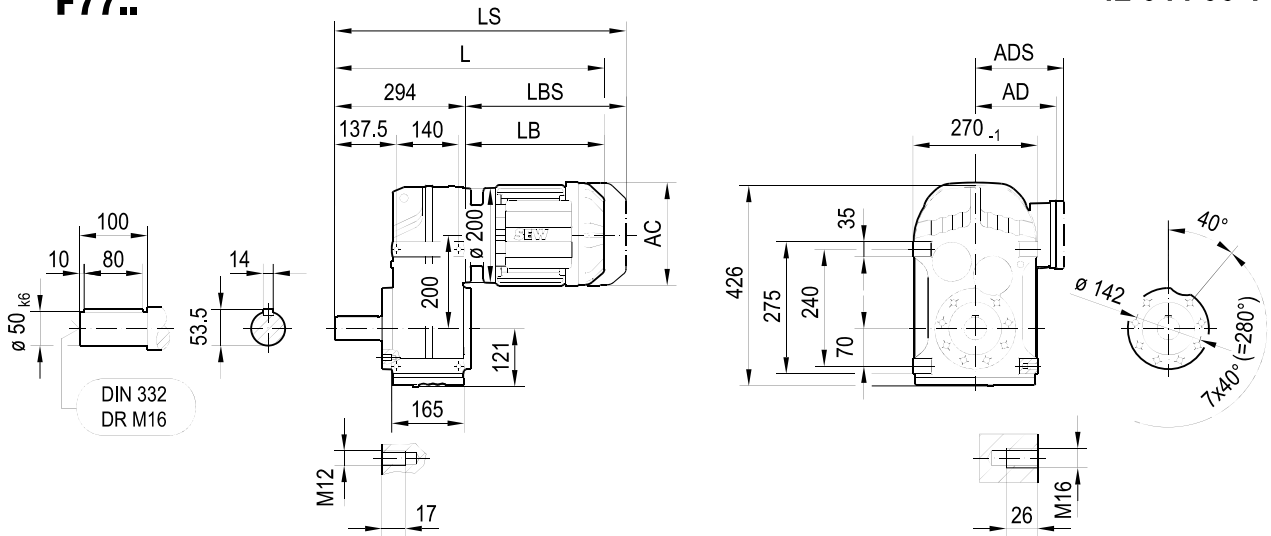


↳ (7.3)	DRN								
	63M	71MS	71M	80MK	80M	90S	90L	100LS	100L/LM
AC	115	139	139	156	156	179	179	197	197
AD	98	118	118	128	128	140	140	157	157
ADS	98	129	129	139	139	150	150	158	158
L	379	380	400	411	456	458	490	486	536
LS	435	448	468	492	537	551	583	580	630
LB	198	199	219	230	275	277	309	305	355
LBS	254	267	287	311	356	370	402	399	449

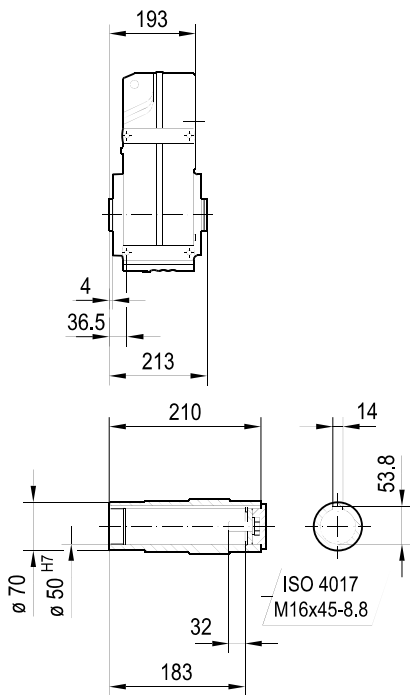
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42 044 00 14

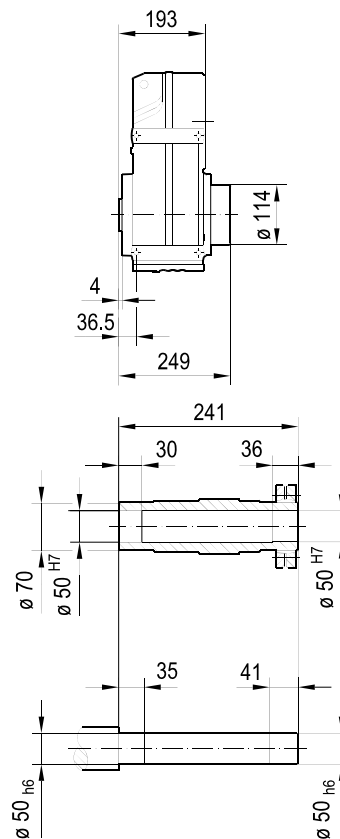
### F77..



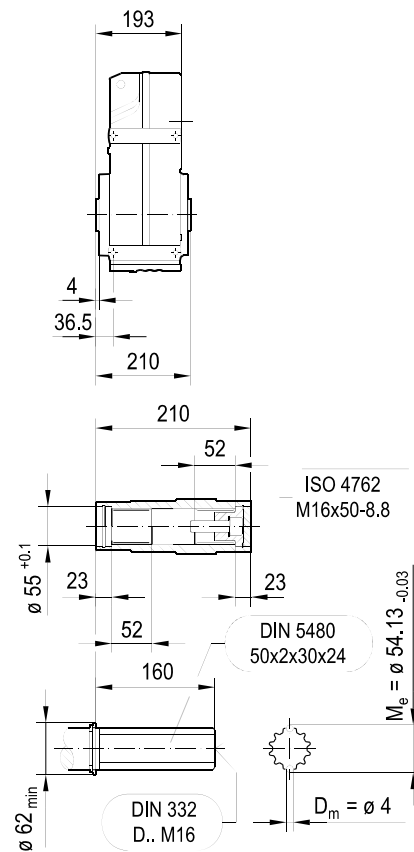
### FA77B..



### FH77B.. max. DRN132L



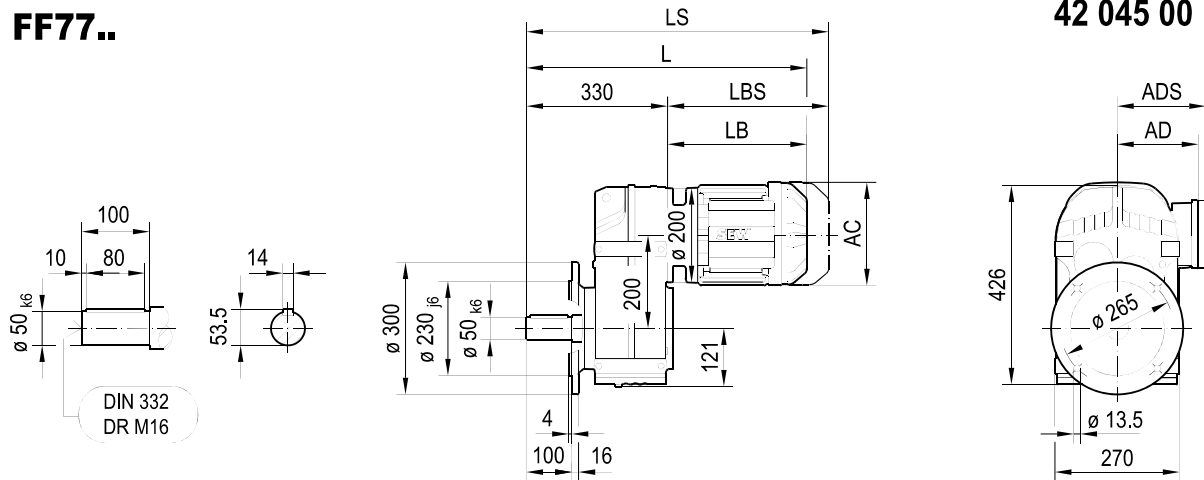
### FV77B..



(→ 7.3)	DRN												
	71MS	71M	80MK	80M	90S	90L	100LS	100L/LM	112M	132S	132M	132L	160..
AC	139	139	156	156	179	179	197	197	221	221	261	261	314
AD	118	118	128	128	140	140	157	157	170	170	228	228	253
ADS	129	129	139	139	150	150	158	158	172	172	228	228	253
L	486	506	517	562	564	596	592	642	673	723	741	767	833
LS	554	574	598	643	657	689	686	736	785	835	879	904	1022
LB	192	212	223	268	270	302	298	348	379	429	447	473	539
LBS	260	280	304	349	363	395	392	442	491	541	585	610	728

**FF77..**

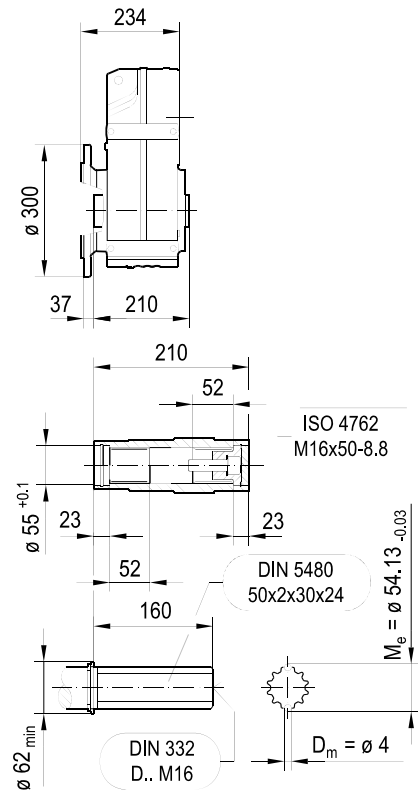
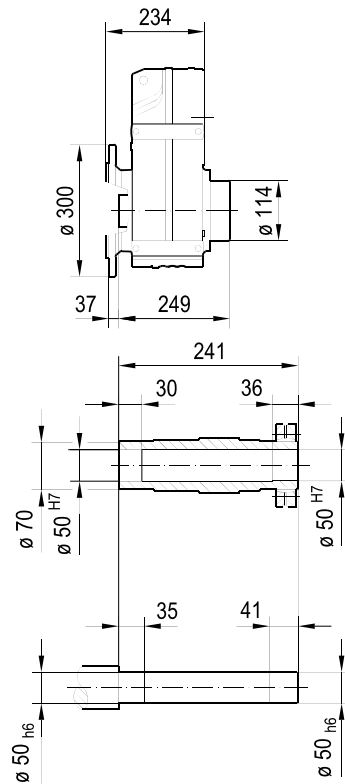
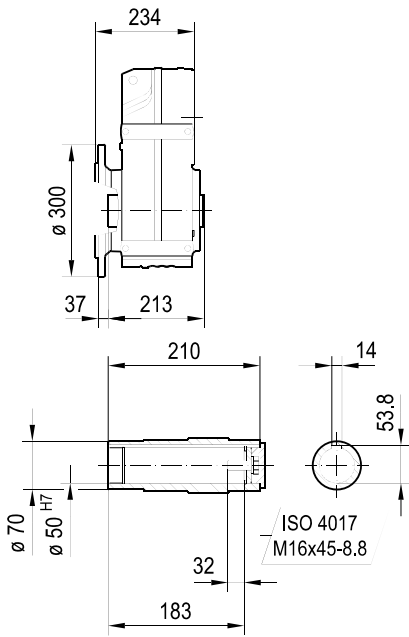
**42 045 00 14**



**FAF77..**

**FHF77..**  
max. DRN132L

**FVF77..**

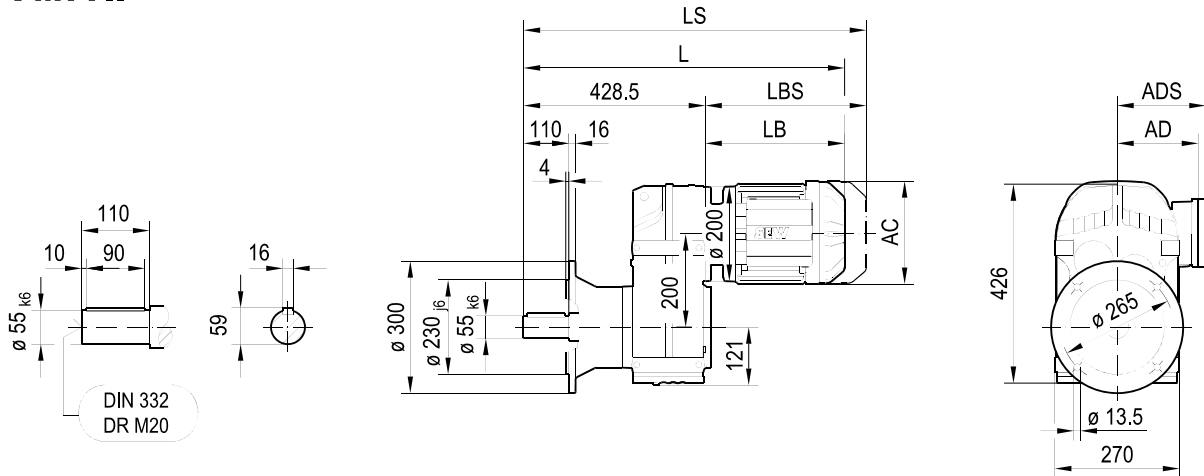


↳ (7.3)	DRN													
	71MS	71M	80MK	80M	90S	90L	100LS	100L/LM	112M	132S	132M	132L	160..	
AC	139	139	156	156	179	179	197	197	221	221	261	261	314	
AD	118	118	128	128	140	140	157	157	170	170	228	228	253	
ADS	129	129	139	139	150	150	158	158	172	172	228	228	253	
L	522	542	553	598	600	632	628	678	709	759	777	803	869	
LS	590	610	634	679	693	725	722	772	821	871	915	940	1058	
LB	192	212	223	268	270	302	298	348	379	429	447	473	539	
LBS	260	280	304	349	363	395	392	442	491	541	585	610	728	

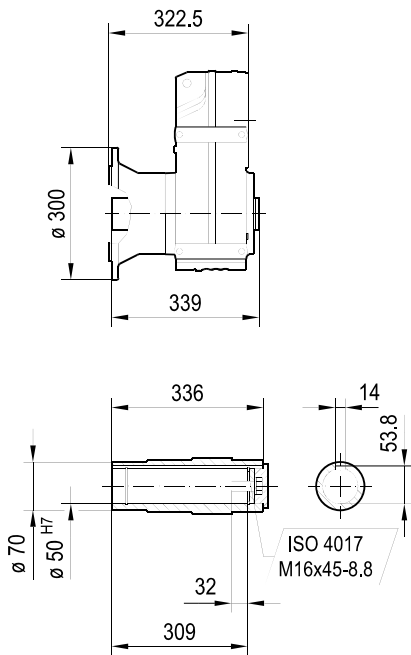
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### FM77..

42 113 01 17



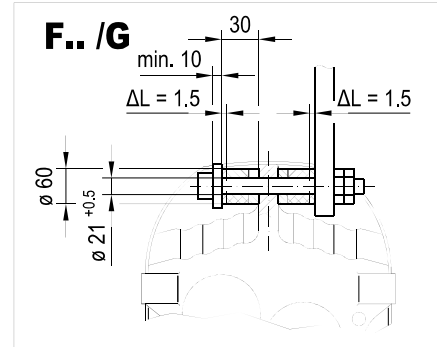
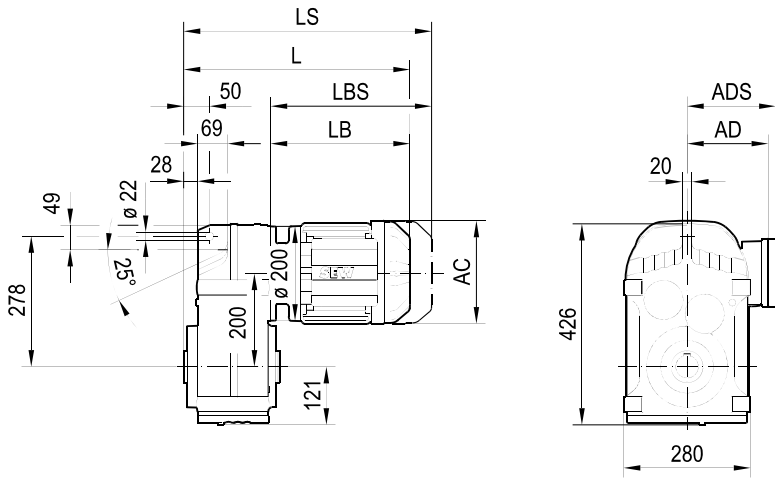
### FAM77..



(-> 7.3)	DRN												
	71MS	71M	80MK	80M	90S	90L	100LS	100L/LM	112M	132S	132M	132L	160..
AC	139	139	156	156	179	179	197	197	221	221	261	261	314
AD	118	118	128	128	140	140	157	157	170	170	228	228	253
ADS	129	129	139	139	150	150	158	158	172	172	228	228	253
L	621	641	652	697	698	730	727	777	808	858	876	901	968
LS	688	708	733	778	792	824	820	870	920	970	1013	1038	1157
LB	192	212	223	268	270	302	298	348	379	429	447	473	539
LBS	260	280	304	349	363	395	392	442	491	541	585	610	728

**FA77..**

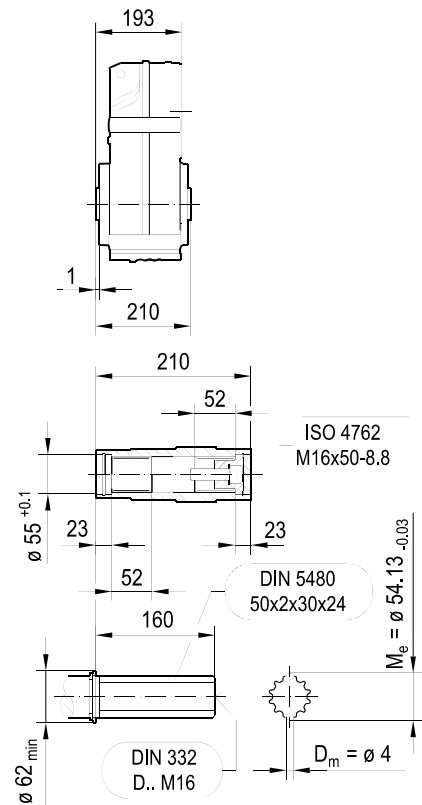
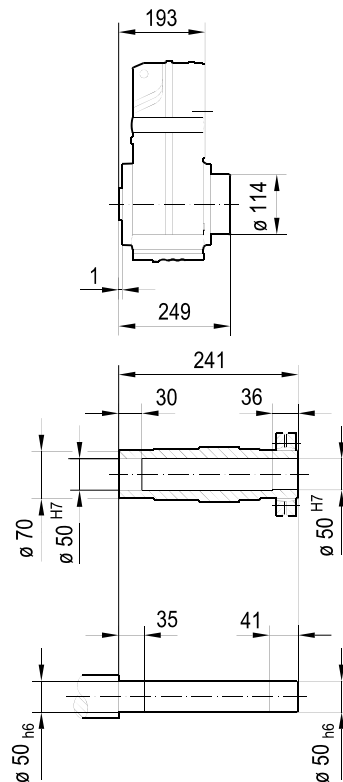
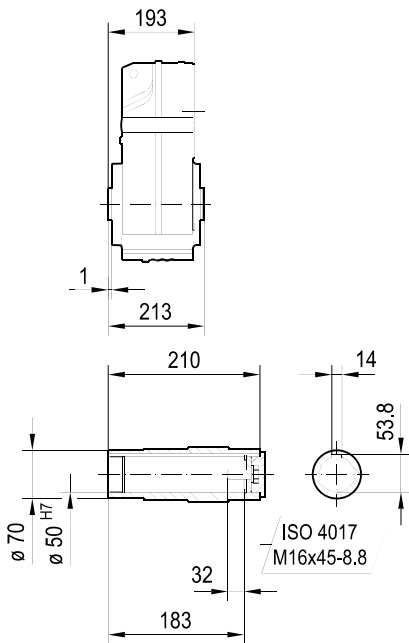
42 046 00 14



**FA77..**

**FH77..**  
max. DRN132L

**FV77..**

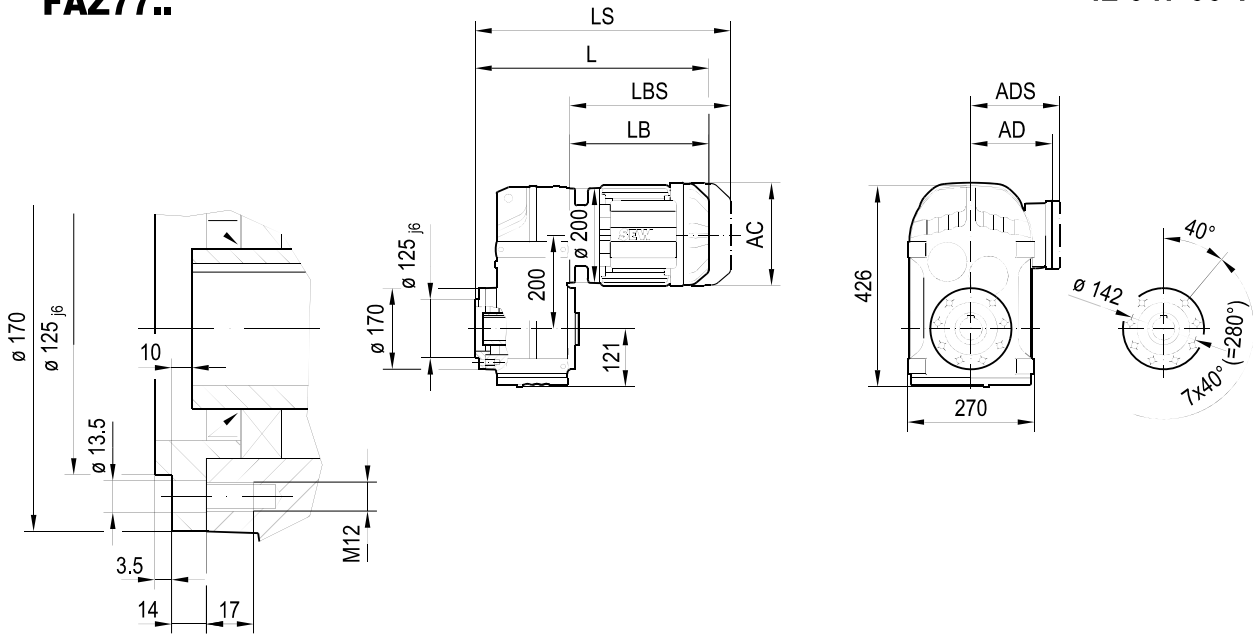


(→ 7.3)	DRN													
	71MS	71M	80MK	80M	90S	90L	100LS	100L/LM	112M	132S	132M	132L	160..	
AC	139	139	156	156	179	179	197	197	221	221	261	261	314	
AD	118	118	128	128	140	140	157	157	170	170	228	228	253	
ADS	129	129	139	139	150	150	158	158	172	172	228	228	253	
L	385	405	416	461	463	495	491	541	572	622	640	666	732	
LS	453	473	497	542	556	588	585	635	684	734	778	803	921	
LB	192	212	223	268	270	302	298	348	379	429	447	473	539	
LBS	260	280	304	349	363	395	392	442	491	541	585	610	728	

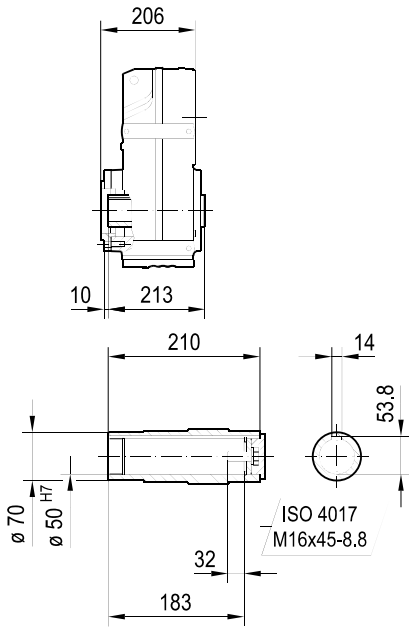
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42 047 00 14

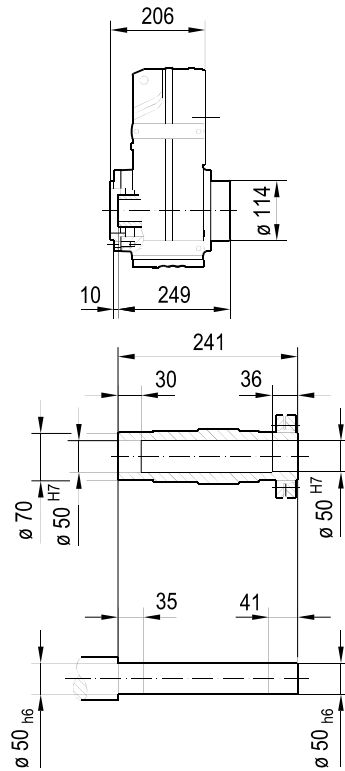
### FAZ77..



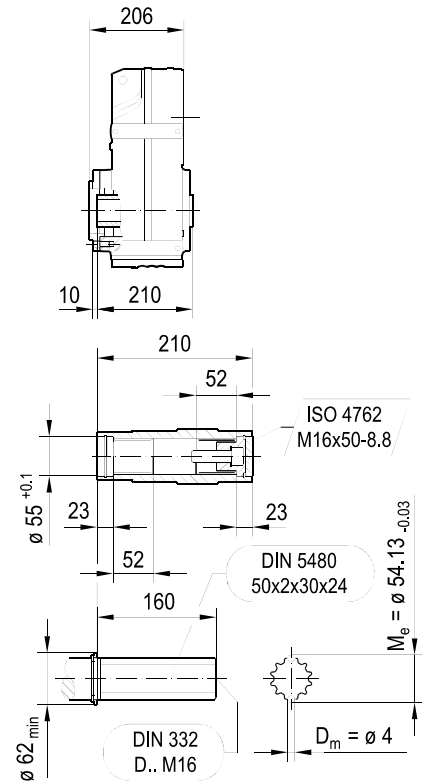
### FAZ77..



### FHZ77.. max. DRN132L



### FVZ77..

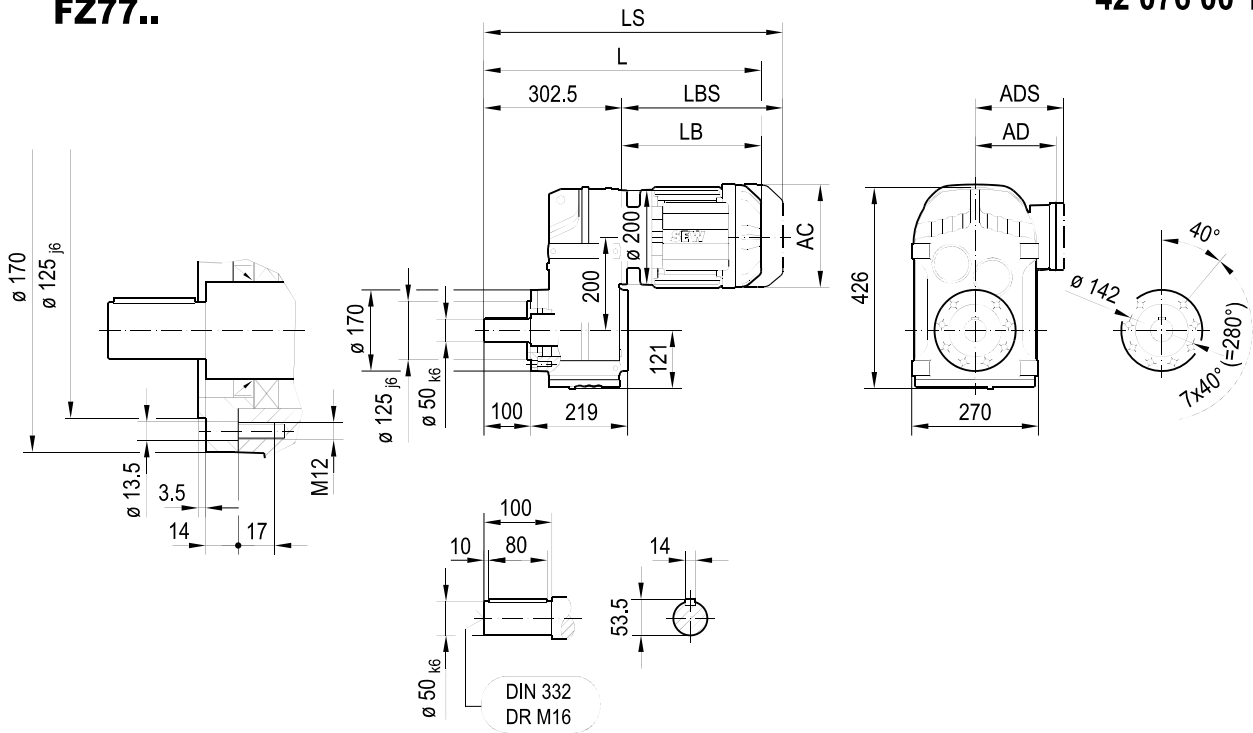


( $\rightarrow$ 7.3)	DRN													
	71MS	71M	80MK	80M	90S	90L	100LS	100L/LM	112M	132S	132M	132L	160..	
AC	139	139	156	156	179	179	197	197	221	221	261	261	314	
AD	118	118	128	128	140	140	157	157	170	170	228	228	253	
ADS	129	129	139	139	150	150	158	158	172	172	228	228	253	
L	398	418	429	474	476	508	504	554	585	635	653	679	745	
LS	466	486	510	555	569	601	598	648	697	747	791	816	934	
LB	192	212	223	268	270	302	298	348	379	429	447	473	539	
LBS	260	280	304	349	363	395	392	442	491	541	585	610	728	



FZ77..

42 076 00 15

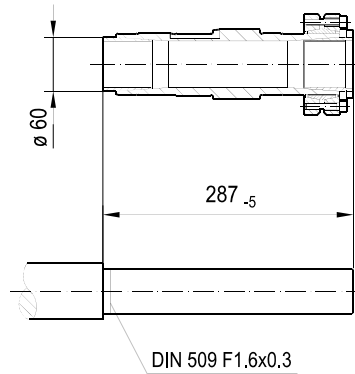
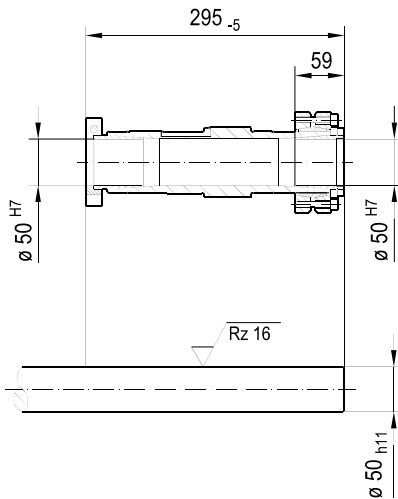
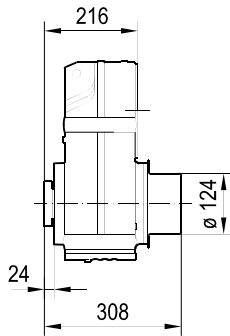
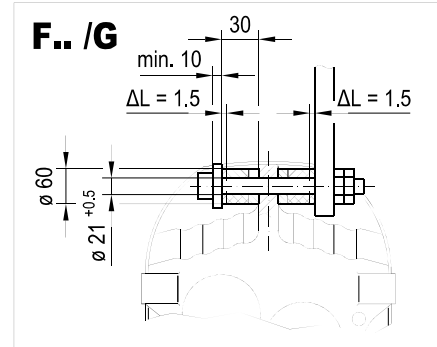
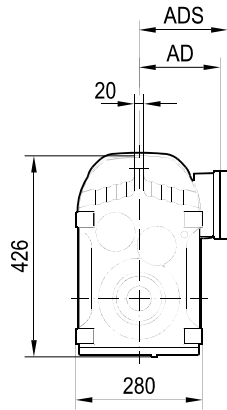
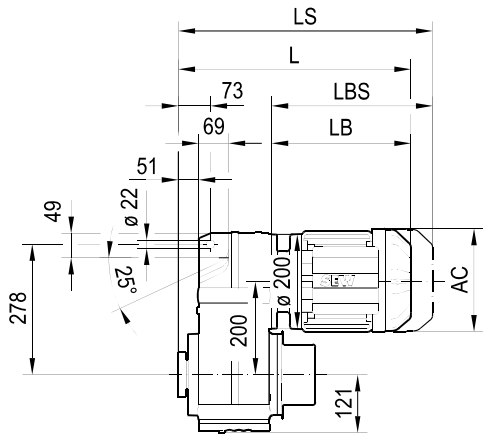


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↳ 7.3)	DRN												
	71MS	71M	80MK	80M	90S	90L	100LS	100L/LM	112M	132S	132M	132L	160..
AC	139	139	156	156	179	179	197	197	221	221	261	261	314
AD	118	118	128	128	140	140	157	157	170	170	228	228	253
ADS	129	129	139	139	150	150	158	158	172	172	228	228	253
L	495	515	526	571	572	604	601	651	682	732	750	775	842
LS	562	582	607	652	666	698	694	744	794	844	887	912	1031
LB	192	212	223	268	270	302	298	348	379	429	447	473	539
LBS	260	280	304	349	363	395	392	442	491	541	585	610	728

42 048 01 14

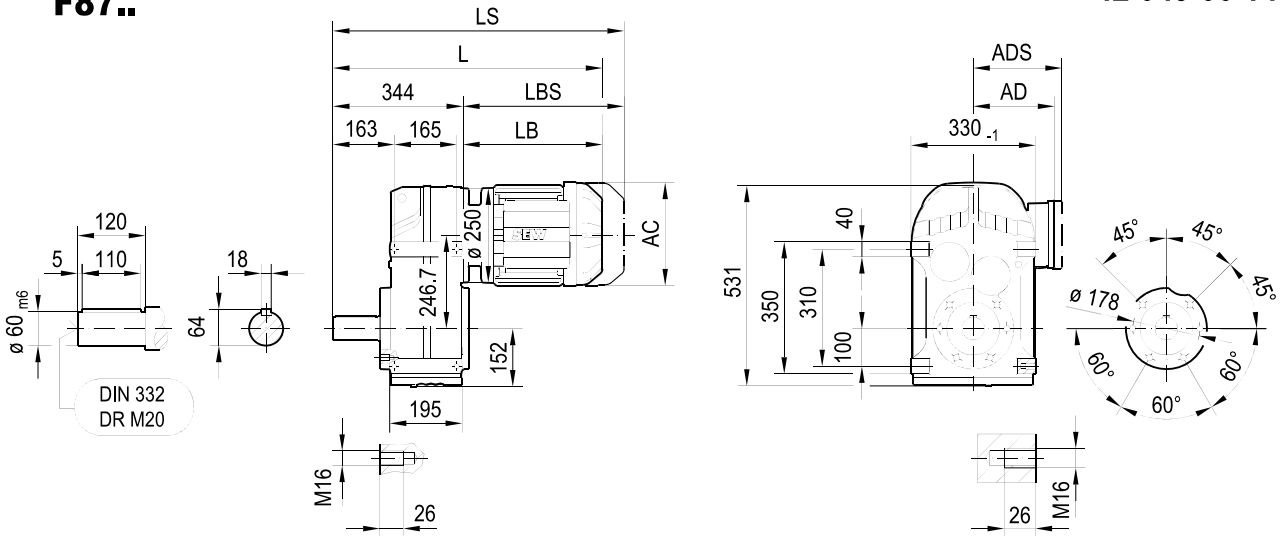
**FT77..**



(- 7.3)	DRN											
	71MS	71M	80MK	80M	90S	90L	100LS	100L/LM	112M	132S	132M	132L
AC	139	139	156	156	179	179	197	197	221	221	261	261
AD	118	118	128	128	140	140	157	157	170	170	228	228
ADS	129	129	139	139	150	150	158	158	172	172	228	228
L	408	428	439	484	486	518	514	564	595	645	663	689
LS	476	496	520	565	579	611	608	658	707	757	801	826
LB	192	212	223	268	270	302	298	348	379	429	447	473
LBS	260	280	304	349	363	395	392	442	491	541	585	610

**F87..**

42 049 00 14

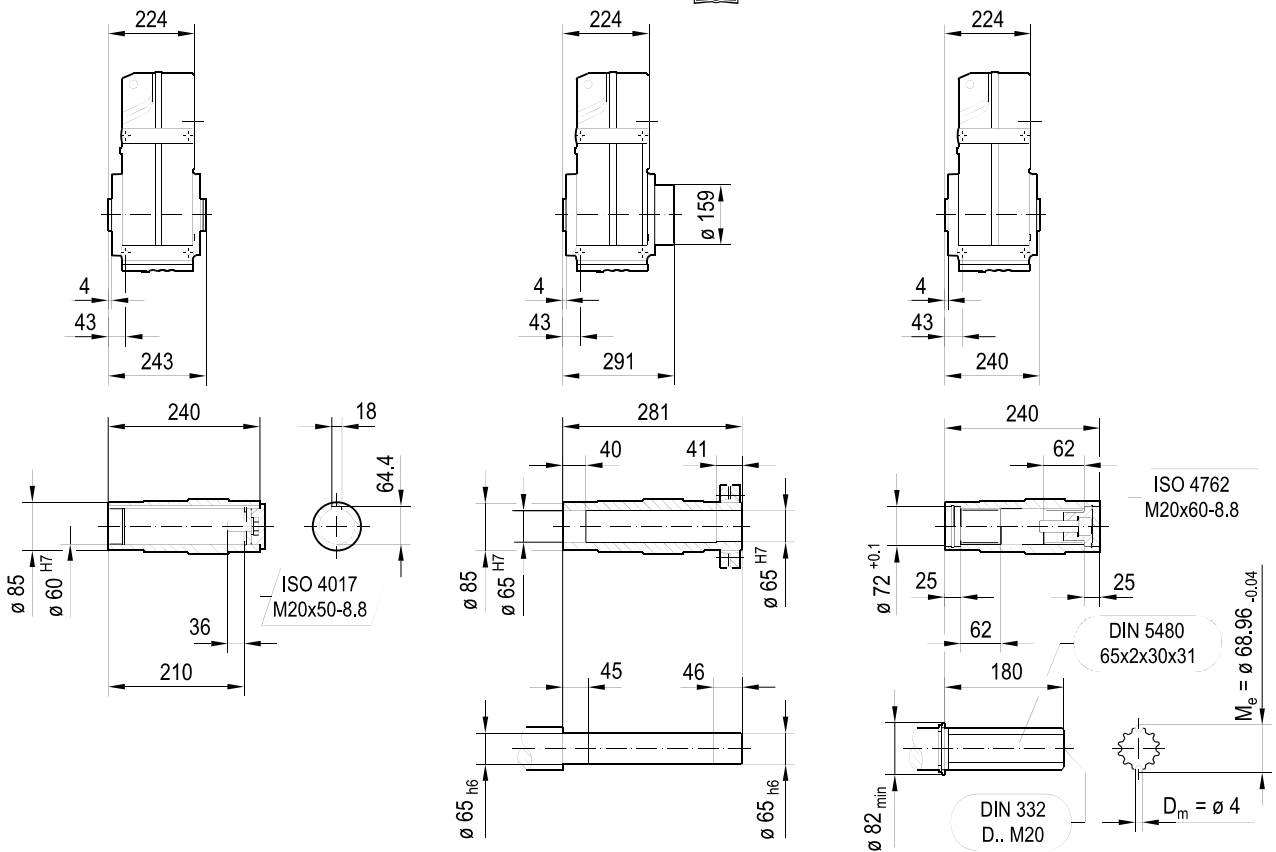


**FA87B..**

**FH87B..**  
**FH87B/R..**

6.3

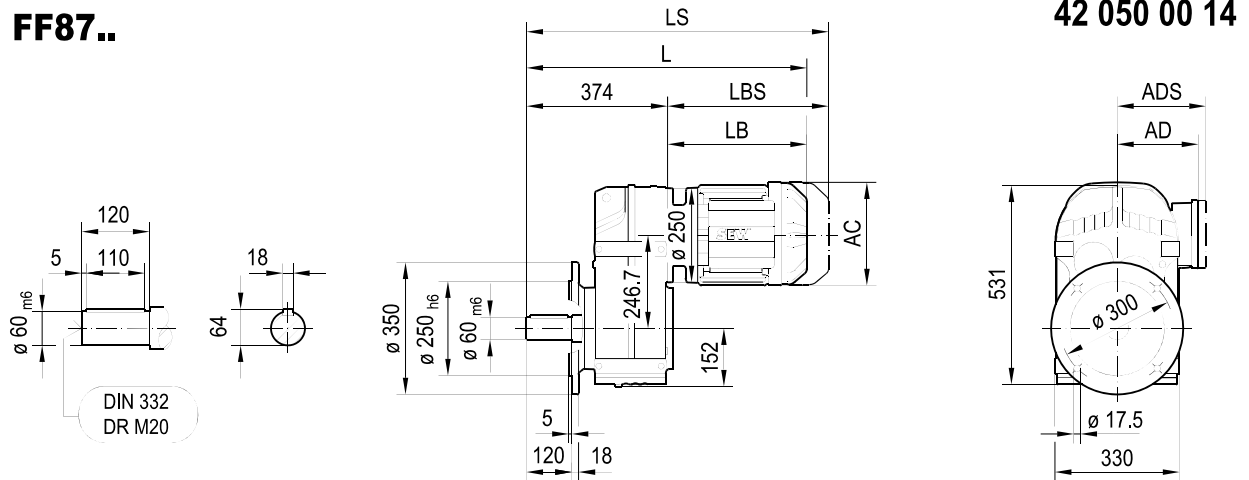
**FV87B..**



↳ 7.3	DRN											
	80MK	80M	90S	90L	100LS	100L/LM	112M	132S	132M	132L	160..	180..
AC	156	156	179	179	197	197	221	221	261	261	314	357
AD	128	128	140	140	157	157	170	170	228	228	253	268
ADS	139	139	150	150	158	158	172	172	228	228	253	268
L	562	607	609	641	637	687	718	768	786	812	878	901
LS	643	688	702	734	731	781	830	880	924	949	1067	1090
LB	218	263	265	297	293	343	374	424	442	468	534	557
LBS	299	344	358	390	387	437	486	536	580	605	723	746

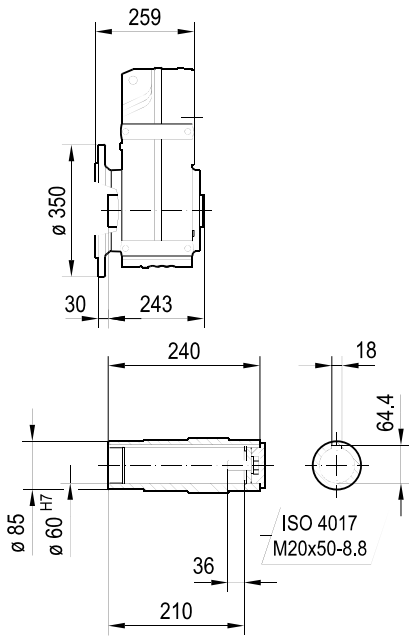
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### FF87..

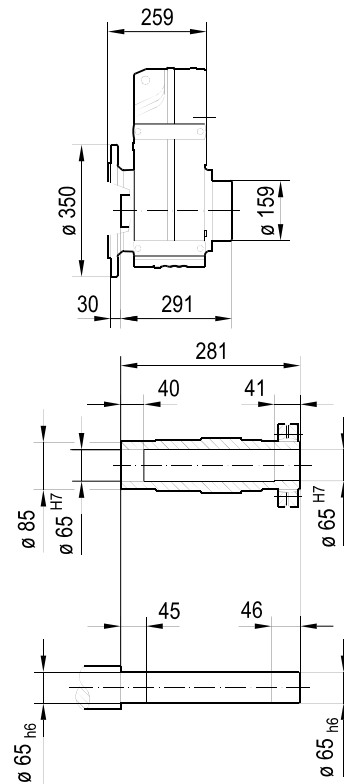


42 050 00 14

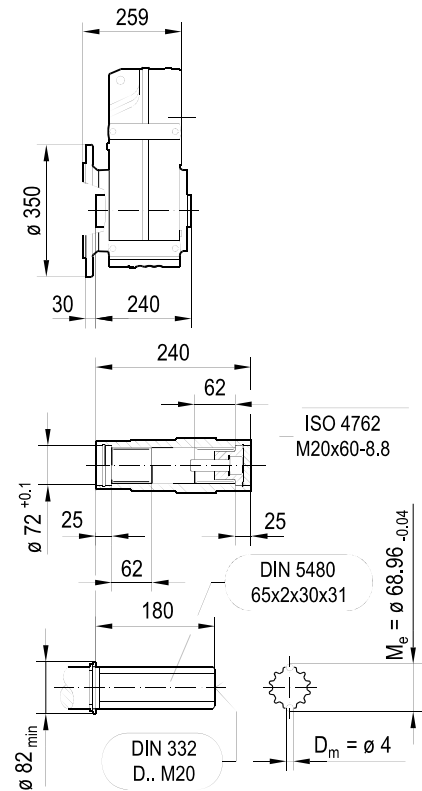
### FAF87..



### FHF87.. FHF87/R..



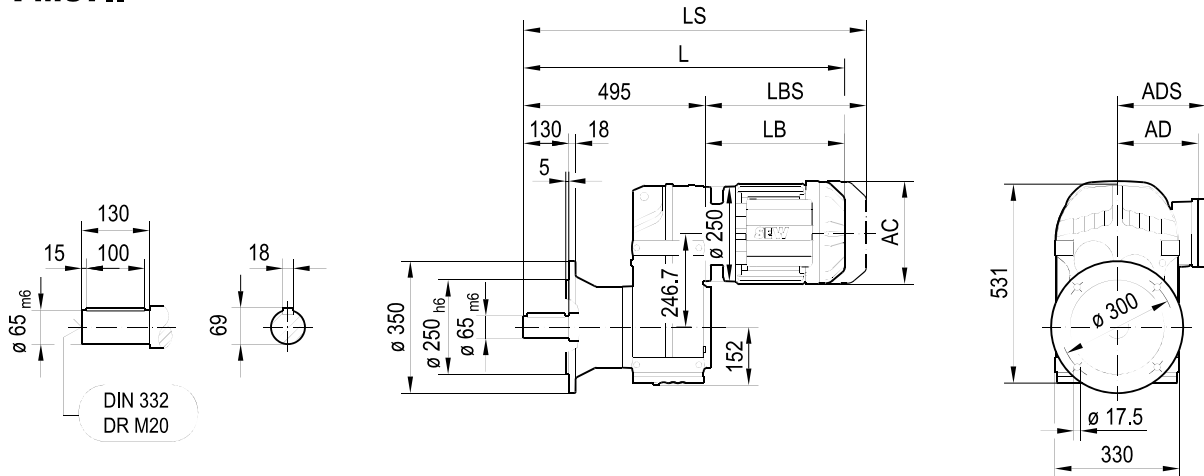
### FVF87..



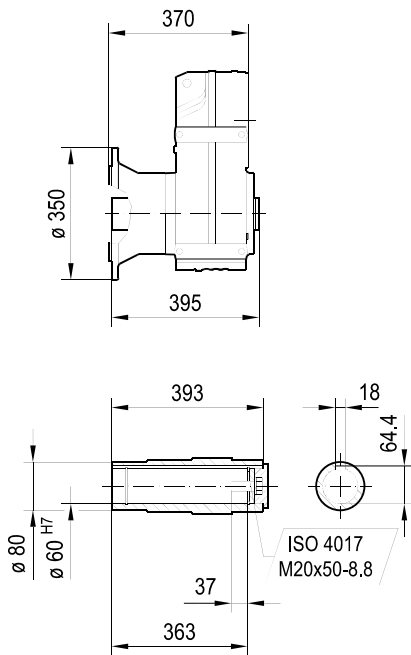
(-> 7.3)	DRN											
	80MK	80M	90S	90L	100LS	100L/LM	112M	132S	132M	132L	160..	180..
AC	156	156	179	179	197	197	221	221	261	261	314	357
AD	128	128	140	140	157	157	170	170	228	228	253	268
ADS	139	139	150	150	158	158	172	172	228	228	253	268
L	592	637	639	671	667	717	748	798	816	842	908	931
LS	673	718	732	764	761	811	860	910	954	979	1097	1120
LB	218	263	265	297	293	343	374	424	442	468	534	557
LBS	299	344	358	390	387	437	486	536	580	605	723	746

**FM87..**

42 114 01 17



**FAM87..**

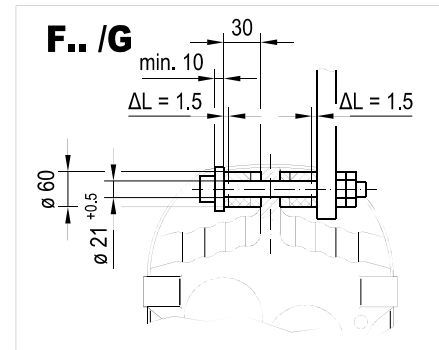
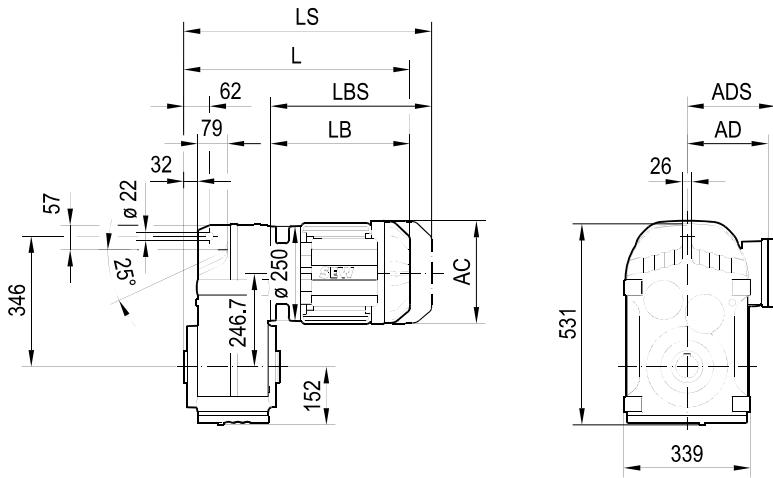


↳ (7.3)	DRN											
	80MK	80M	90S	90L	100LS	100L/LM	112M	132S	132M	132L	160..	180..
AC	156	156	179	179	197	197	221	221	261	261	314	357
AD	128	128	140	140	157	157	170	170	228	228	253	268
ADS	139	139	150	150	158	158	172	172	228	228	253	268
L	713	758	760	792	788	838	869	919	937	963	1029	1052
LS	794	839	853	885	882	932	981	1031	1075	1100	1218	1241
LB	218	263	265	297	293	343	374	424	442	468	534	557
LBS	299	344	358	390	387	437	486	536	580	605	723	746

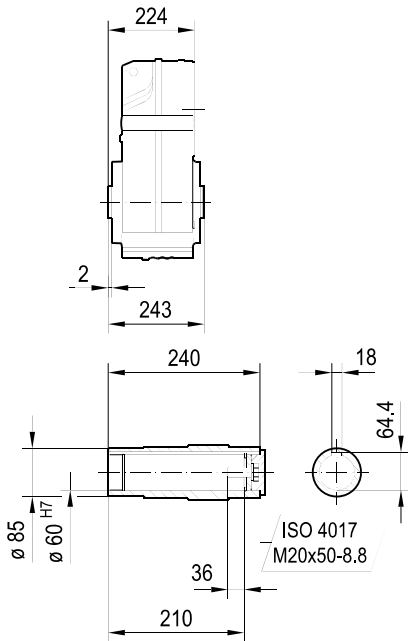
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42 051 00 14

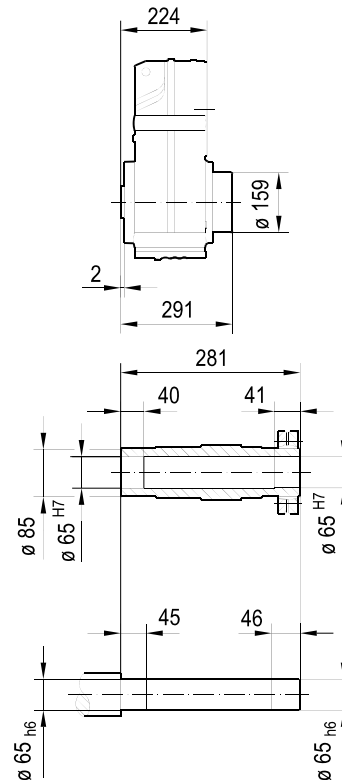
### FA87..



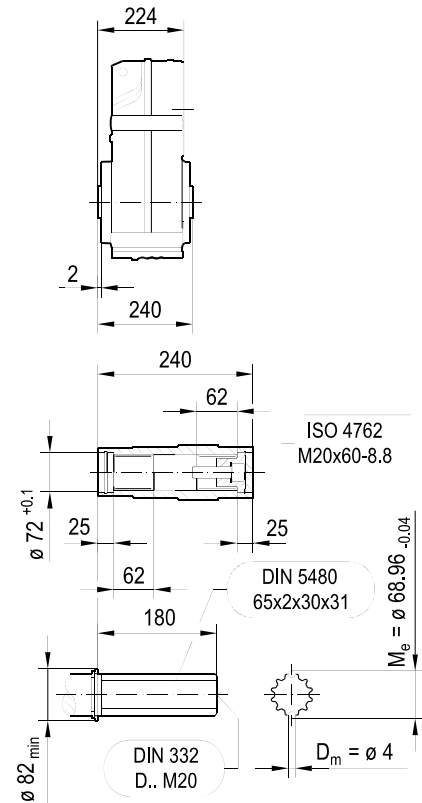
### FA87..



### FH87.. FH87/R..



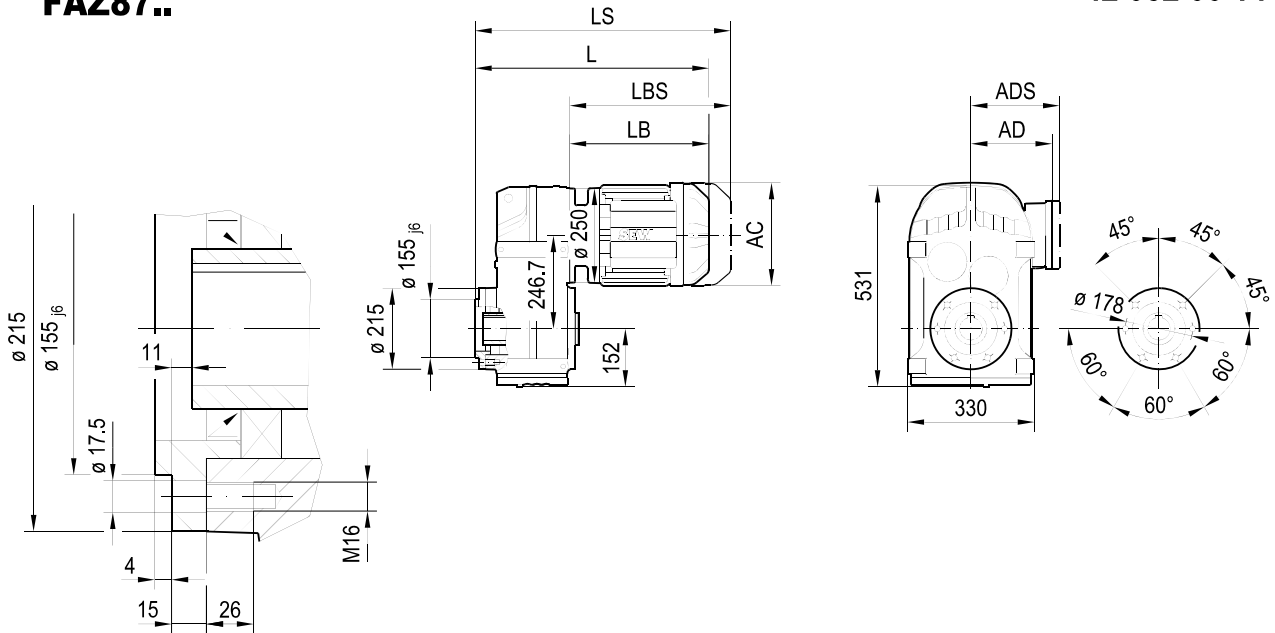
### FV87..



↔ 7.3)	DRN											
	80MK	80M	90S	90L	100LS	100L/LM	112M	132S	132M	132L	160..	180..
AC	156	156	179	179	197	197	221	221	261	261	314	357
AD	128	128	140	140	157	157	170	170	228	228	253	268
ADS	139	139	150	150	158	158	172	172	228	228	253	268
L	442	487	489	521	517	567	598	648	666	692	758	781
LS	523	568	582	614	611	661	710	760	804	829	947	970
LB	218	263	265	297	293	343	374	424	442	468	534	557
LBS	299	344	358	390	387	437	486	536	580	605	723	746

**FAZ87..**

42 052 00 14

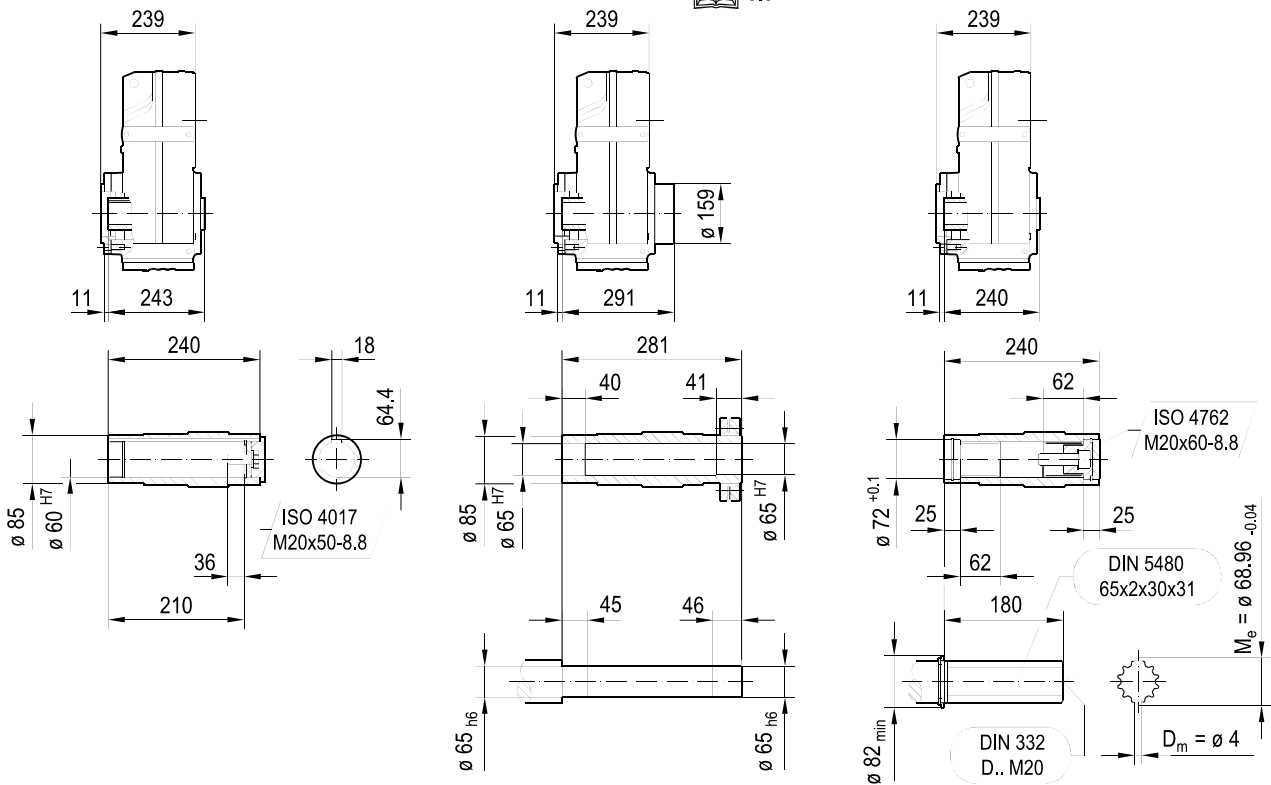


**FAZ87..**

**FHZ87..**  
**FHZ87/R..**



**FVZ87..**

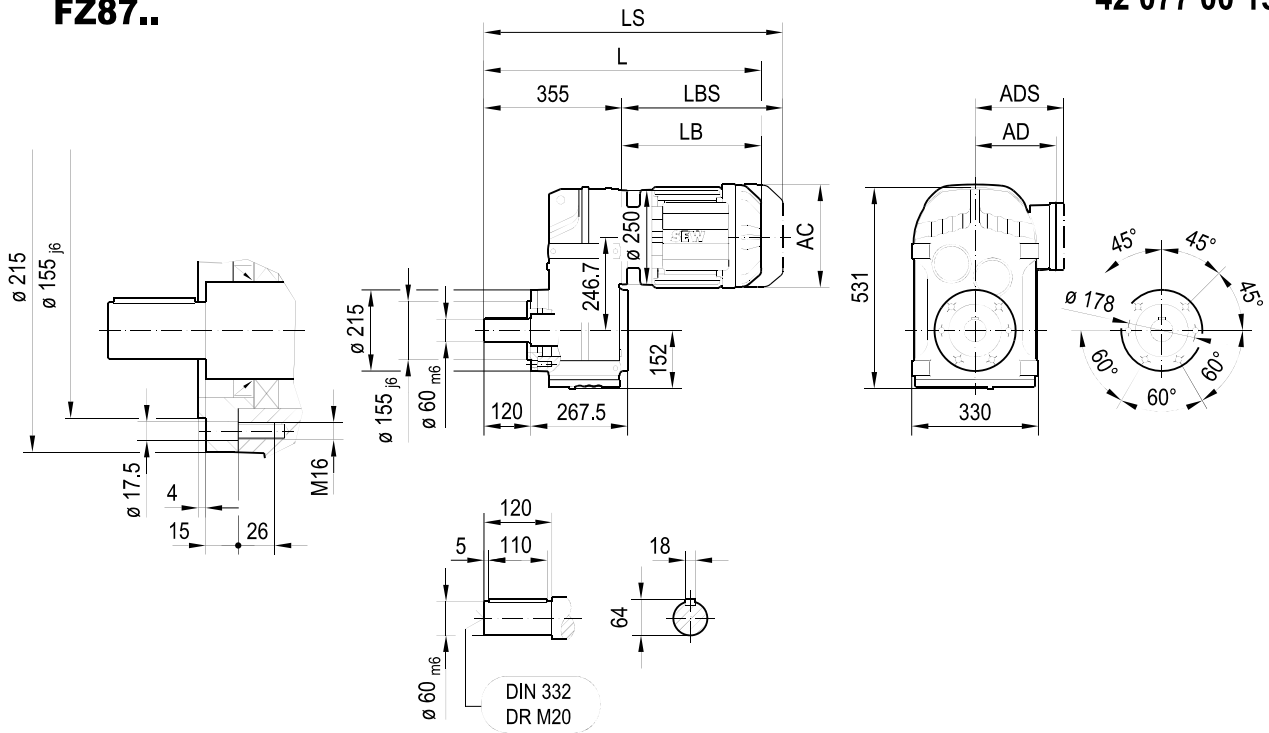


( $\rightarrow$ 7.3)	DRN											
	80MK	80M	90S	90L	100LS	100L/LM	112M	132S	132M	132L	160..	180..
AC	156	156	179	179	197	197	221	221	261	261	314	357
AD	128	128	140	140	157	157	170	170	228	228	253	268
ADS	139	139	150	150	158	158	172	172	228	228	253	268
L	457	502	504	536	532	582	613	663	681	707	773	796
LS	538	583	597	629	626	676	725	775	819	844	962	985
LB	218	263	265	297	293	343	374	424	442	468	534	557
LBS	299	344	358	390	387	437	486	536	580	605	723	746

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### FZ87..

42 077 00 15

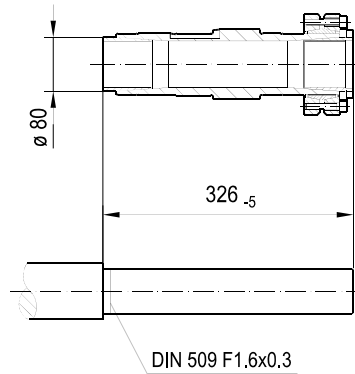
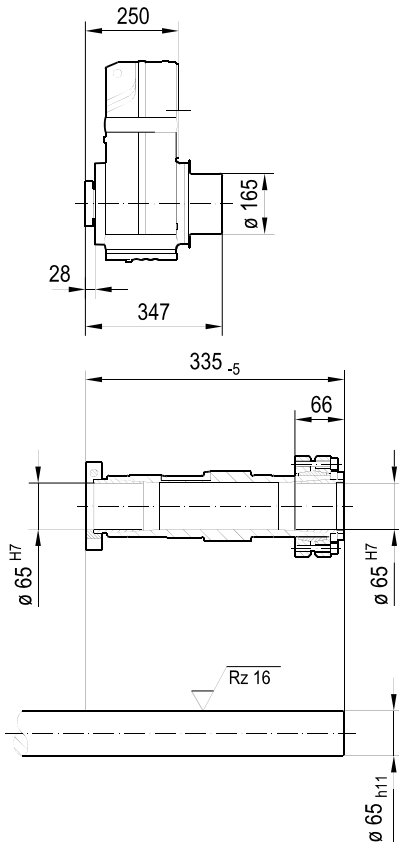
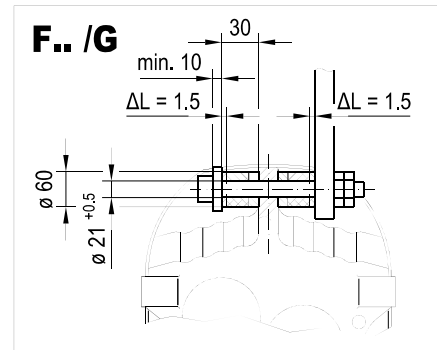
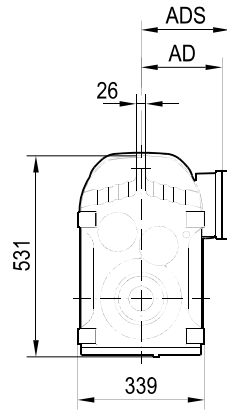
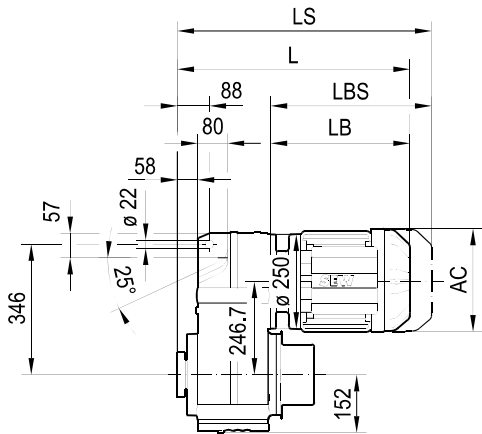


(-> 7.3)	DRN											
	80MK	80M	90S	90L	100LS	100L/LM	112M	132S	132M	132L	160..	180..
AC	156	156	179	179	197	197	221	221	261	261	314	357
AD	128	128	140	140	157	157	170	170	228	228	253	268
ADS	139	139	150	150	158	158	172	172	228	228	253	268
L	573	618	620	652	648	698	729	779	797	823	889	912
LS	654	699	713	745	742	792	841	891	935	960	1078	1101
LB	218	263	265	297	293	343	374	424	442	468	534	557
LBS	299	344	358	390	387	437	486	536	580	605	723	746



**FT87..**

**42 053 01 14**

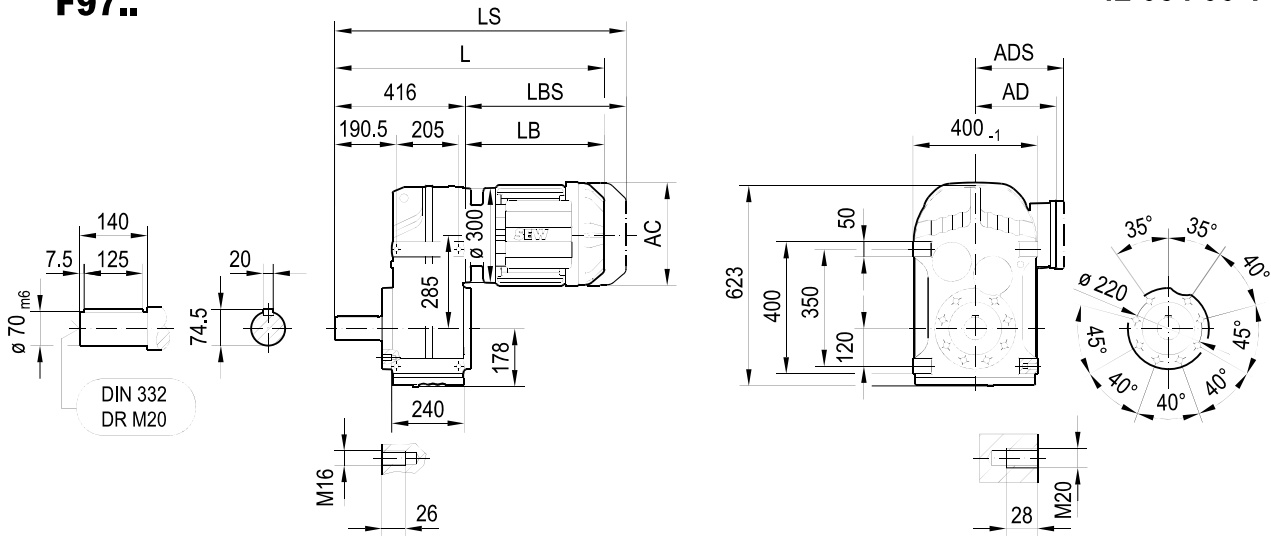


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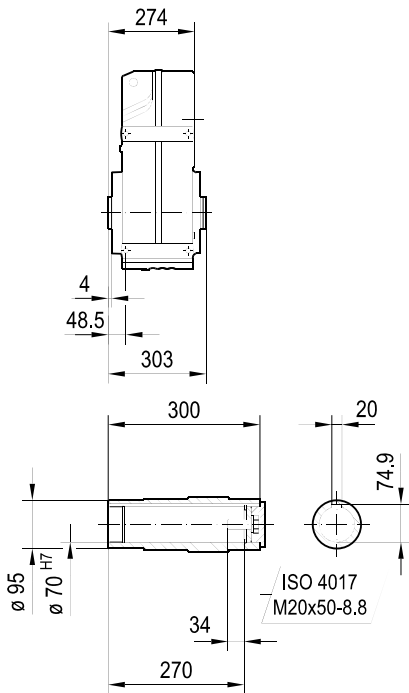
↳ (7.3)	DRN											
	80MK	80M	90S	90L	100LS	100L/LM	112M	132S	132M	132L	160..	180..
AC	156	156	179	179	197	197	221	221	261	261	314	357
AD	128	128	140	140	157	157	170	170	228	228	253	268
ADS	139	139	150	150	158	158	172	172	228	228	253	268
L	468	513	515	547	543	593	624	674	692	718	784	807
LS	549	594	608	640	637	687	736	786	830	855	973	996
LB	218	263	265	297	293	343	374	424	442	468	534	557
LBS	299	344	358	390	387	437	486	536	580	605	723	746

42 054 00 14

### F97..

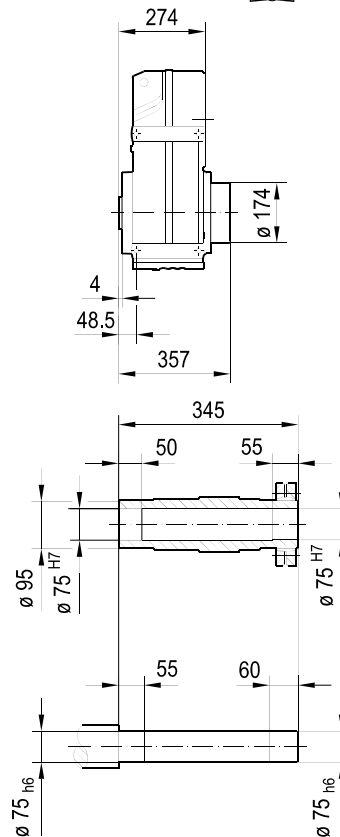


### FA97B..

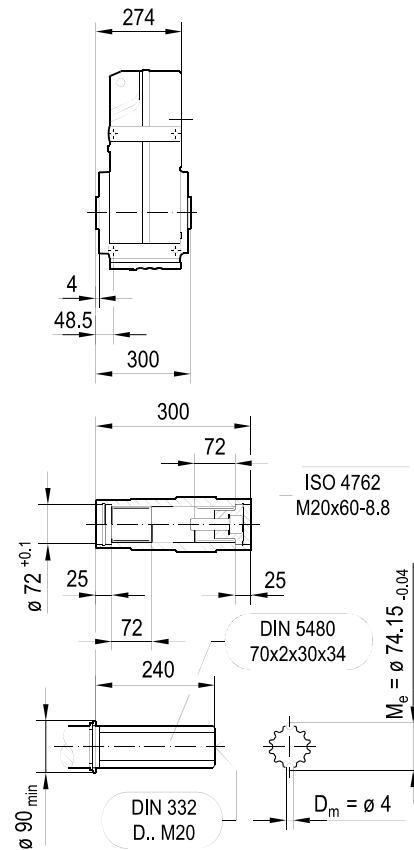


### FH97B..

FH97B/R.. 6.3



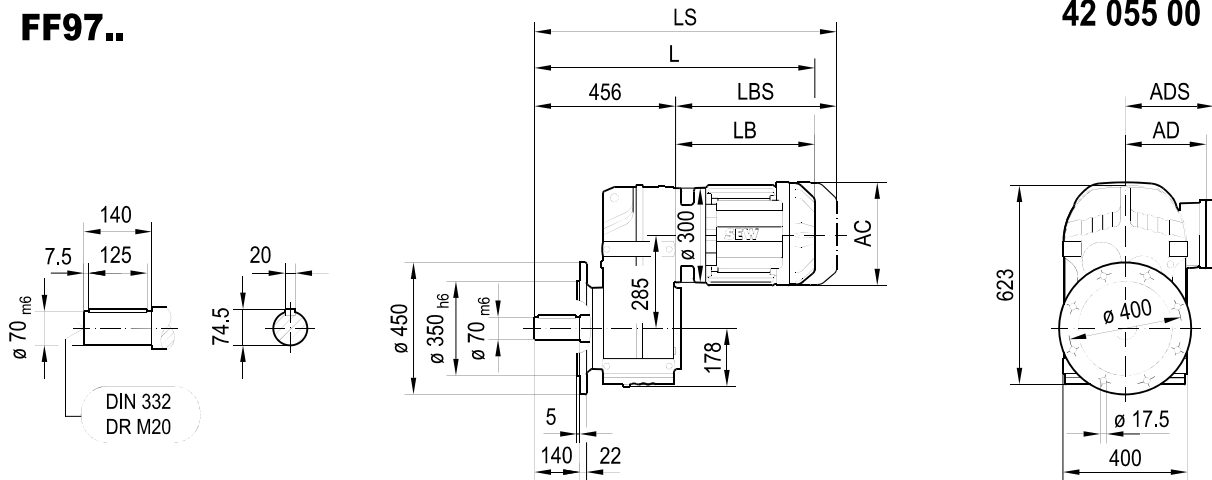
### FV97B..



( $\rightarrow$ 7.3)	DRN										
	90S	90L	100LS	100L/LM	112M	132S	132M	132L	160..	180..	200L
AC	179	179	197	197	221	221	261	261	314	357	394
AD	140	140	157	157	170	170	228	228	253	268	283
ADS	150	150	158	158	172	172	228	228	253	268	283
L	676	708	704	754	785	835	853	879	945	968	1078
LS	769	801	798	848	897	947	991	1016	1134	1157	1283
LB	260	292	288	338	369	419	437	463	529	552	662
LBS	353	385	382	432	481	531	575	600	718	741	867

**FF97..**

42 055 00 14

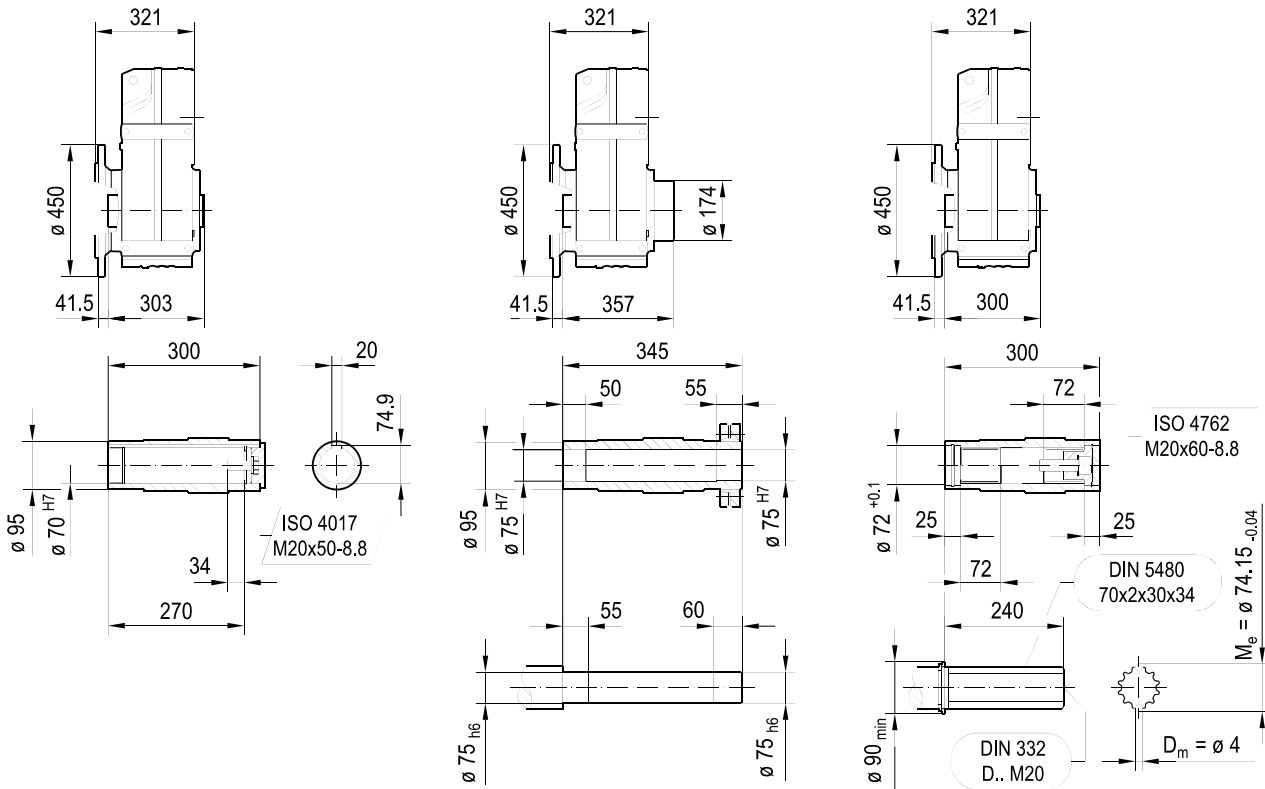


**FAF97..**

**FHF97..**  
**FHF97/R..**



**FVF97..**

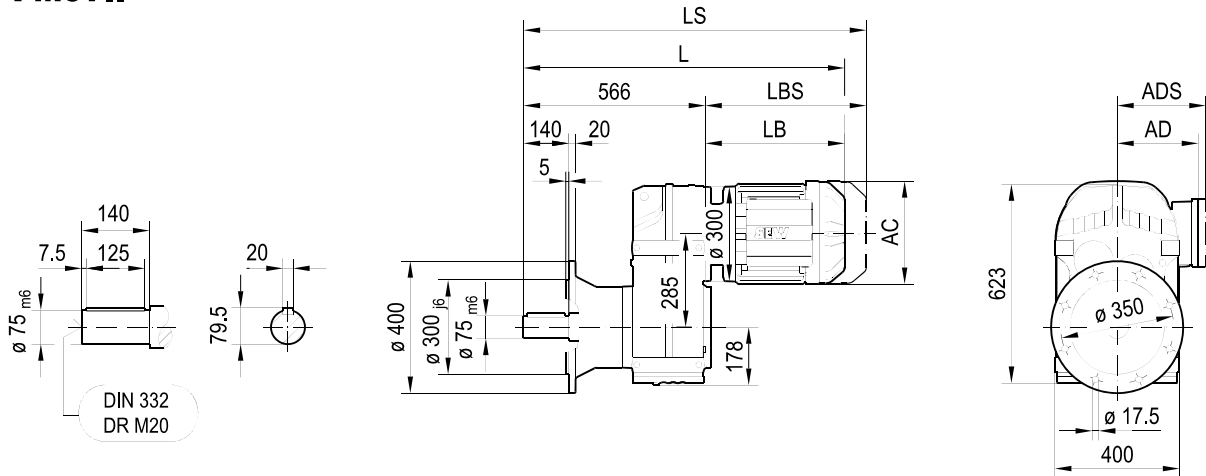


↳ 7.3	DRN										
	90S	90L	100LS	100L/LM	112M	132S	132M	132L	160..	180..	200L
AC	179	179	197	197	221	221	261	261	314	357	394
AD	140	140	157	157	170	170	228	228	253	268	283
ADS	150	150	158	158	172	172	228	228	253	268	283
L	716	748	744	794	825	875	893	919	985	1008	1118
LS	809	841	838	888	937	987	1031	1056	1174	1197	1323
LB	260	292	288	338	369	419	437	463	529	552	662
LBS	353	385	382	432	481	531	575	600	718	741	867

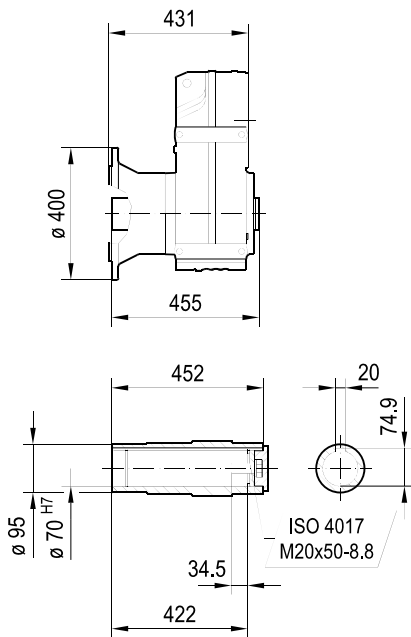
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### FM97..

42 115 00 17



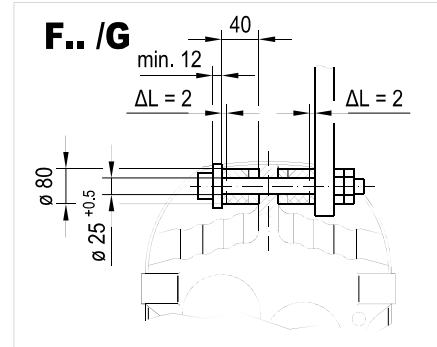
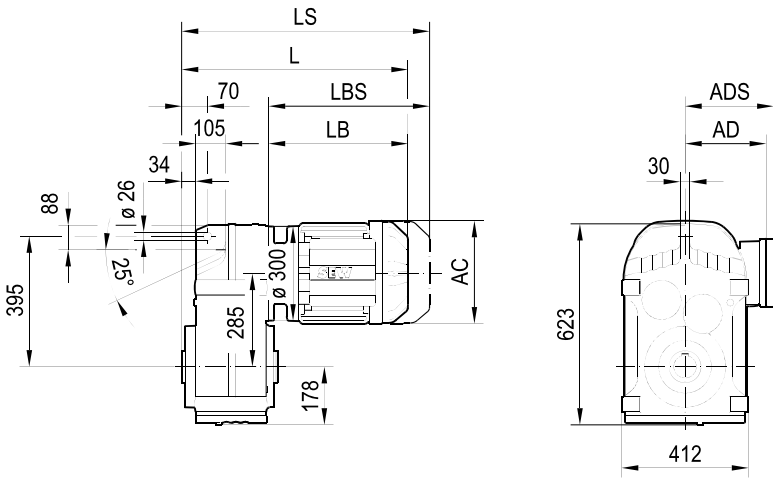
### FAM97..



(-> 7.3)	DRN										
	90S	90L	100LS	100L/LM	112M	132S	132M	132L	160..	180..	200L
AC	179	179	197	197	221	221	261	261	314	357	394
AD	140	140	157	157	170	170	228	228	253	268	283
ADS	150	150	158	158	172	172	228	228	253	268	283
L	826	858	854	904	935	985	1003	1029	1095	1118	1228
LS	919	951	948	998	1047	1097	1141	1166	1284	1307	1433
LB	260	292	288	338	369	419	437	463	529	552	662
LBS	353	385	382	432	481	531	575	600	718	741	867

**FA97..**

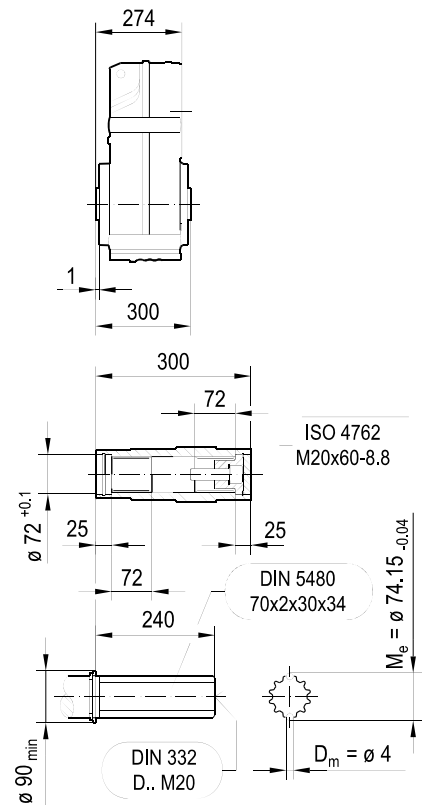
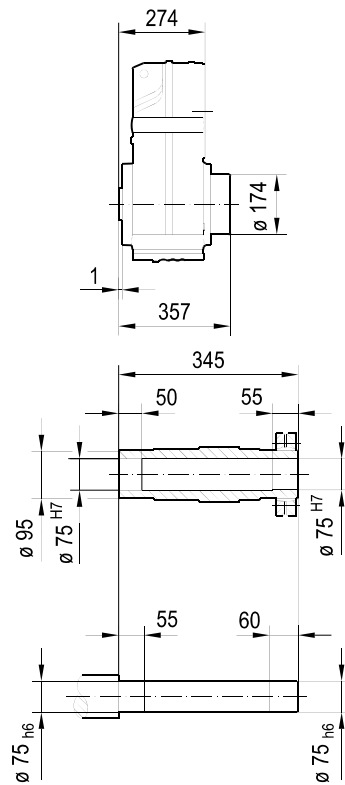
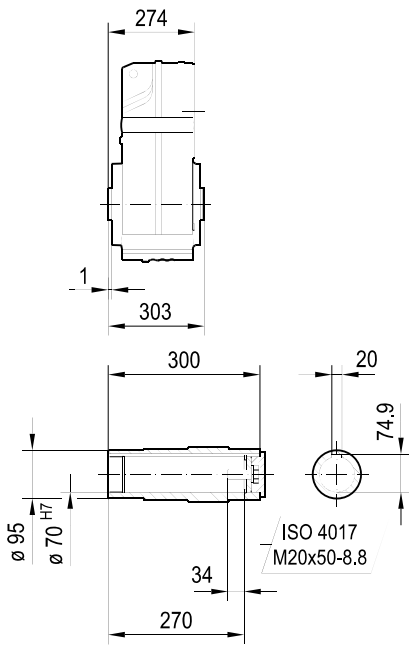
42 056 00 14



**FA97..**

**FH97..**  
**FH97/R..** → 6.3

**FV97..**

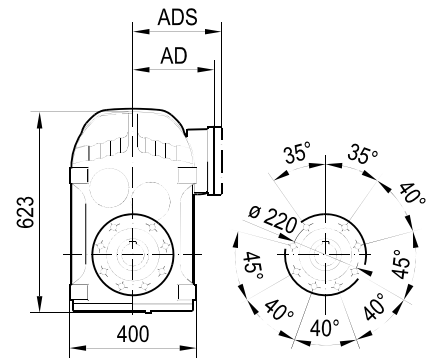
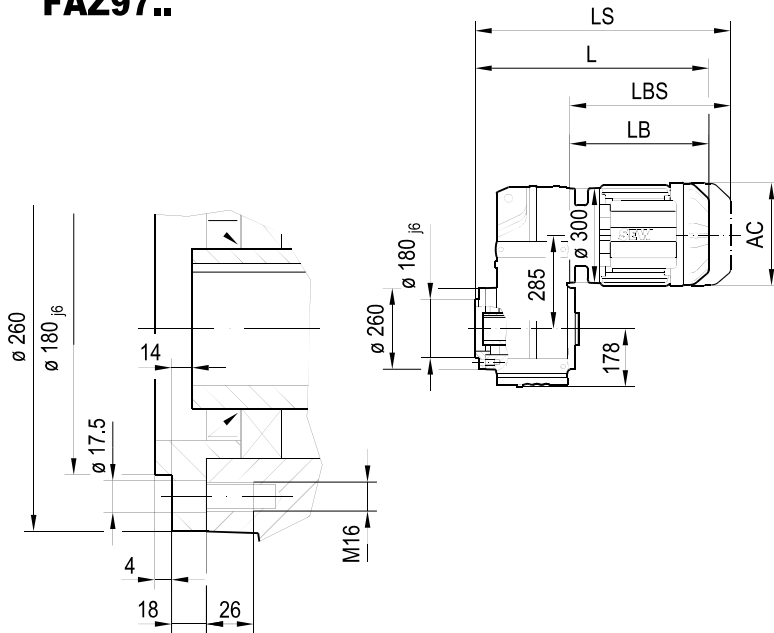


↳ 7.3	DRN										
	90S	90L	100LS	100L/LM	112M	132S	132M	132L	160..	180..	200L
AC	179	179	197	197	221	221	261	261	314	357	394
AD	140	140	157	157	170	170	228	228	253	268	283
ADS	150	150	158	158	172	172	228	228	253	268	283
L	534	566	562	612	643	693	711	737	803	826	936
LS	627	659	656	706	755	805	849	874	992	1015	1141
LB	260	292	288	338	369	419	437	463	529	552	662
LBS	353	385	382	432	481	531	575	600	718	741	867

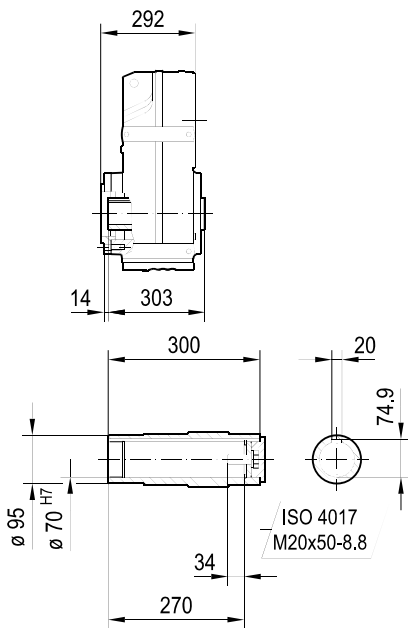
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42 057 00 14

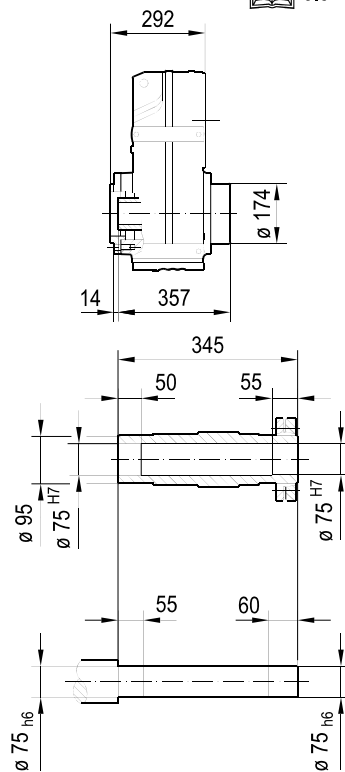
### FAZ97..



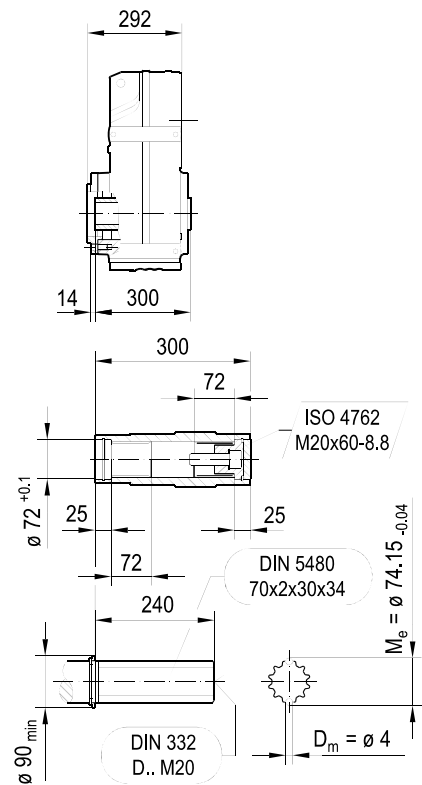
### FAZ97..



### FHZ97.. FHZ97/R..



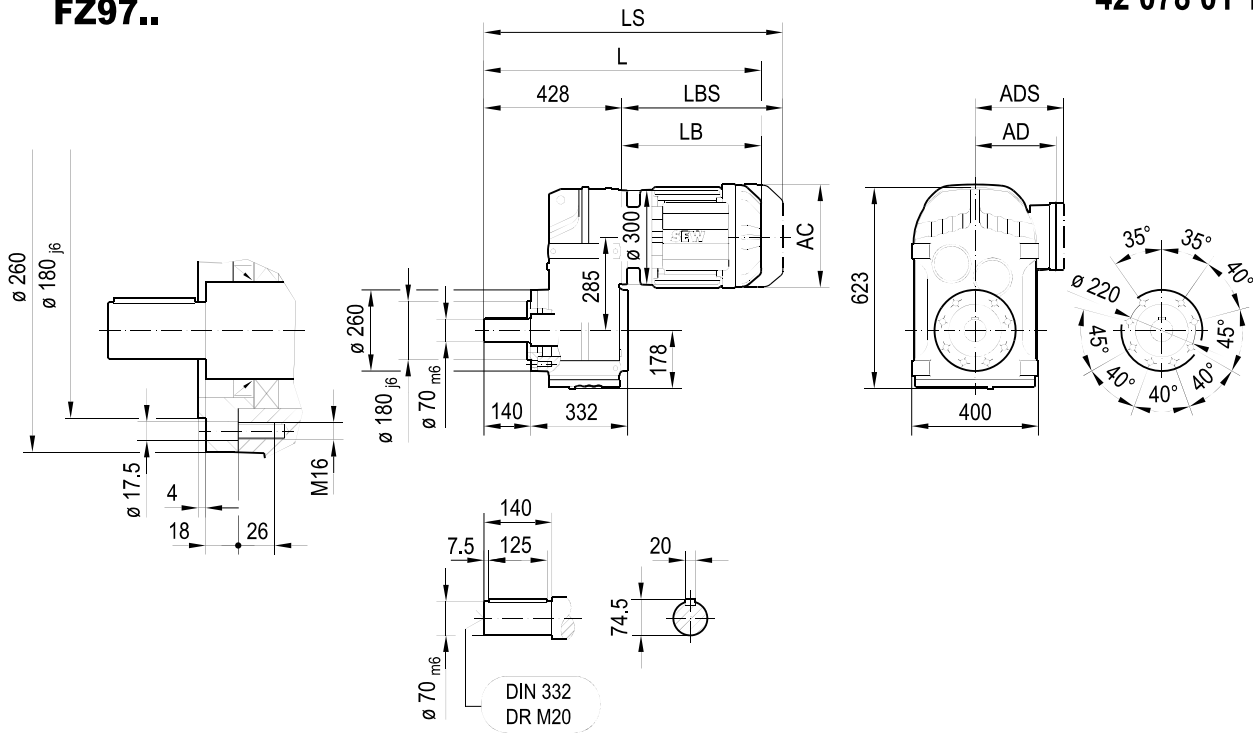
### FVZ97..



→ 7.3	DRN										
	90S	90L	100LS	100L/LM	112M	132S	132M	132L	160..	180..	200L
AC	179	179	197	197	221	221	261	261	314	357	394
AD	140	140	157	157	170	170	228	228	253	268	283
ADS	150	150	158	158	172	172	228	228	253	268	283
L	552	584	580	630	661	711	729	755	821	844	954
LS	645	677	674	724	773	823	867	892	1010	1033	1159
LB	260	292	288	338	369	419	437	463	529	552	662
LBS	353	385	382	432	481	531	575	600	718	741	867

FZ97..

42 078 01 15



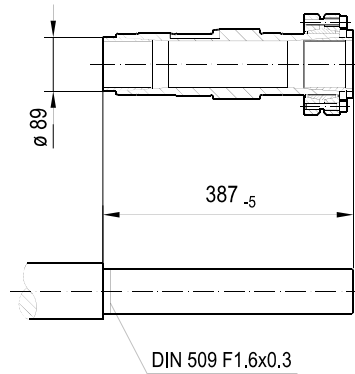
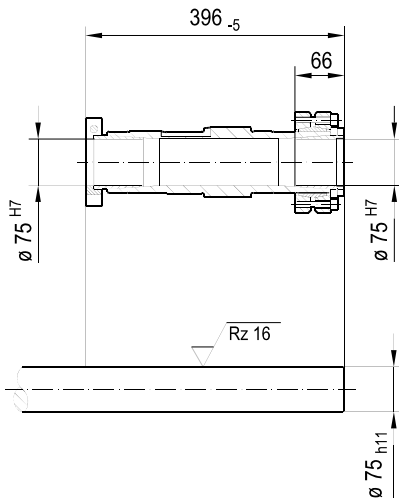
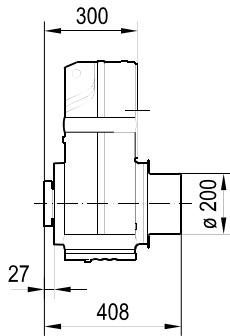
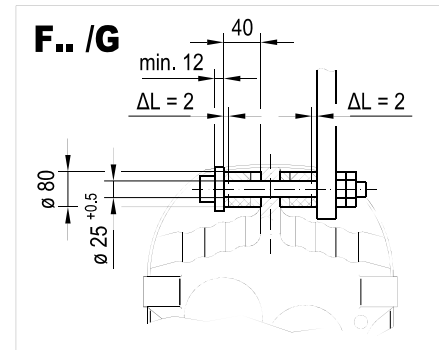
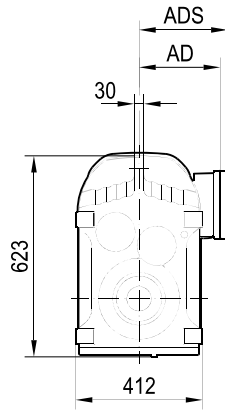
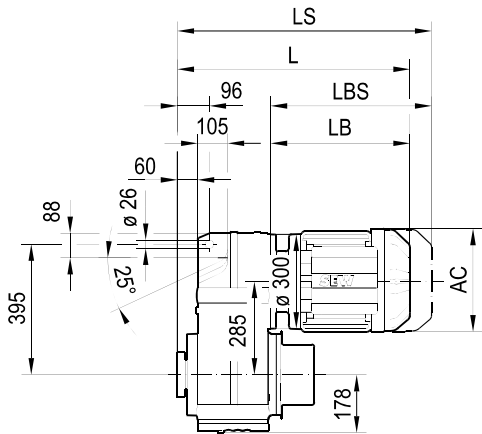
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(-> 7.3)	DRN										
	90S	90L	100LS	100L/LM	112M	132S	132M	132L	160..	180..	200L
AC	179	179	197	197	221	221	261	261	314	357	394
AD	140	140	157	157	170	170	228	228	253	268	283
ADS	150	150	158	158	172	172	228	228	253	268	283
L	688	720	716	766	797	847	865	891	957	980	1090
LS	781	813	810	860	909	959	1003	1028	1146	1169	1295
LB	260	292	288	338	369	419	437	463	529	552	662
LBS	353	385	382	432	481	531	575	600	718	741	867

### FT97..

42 058 01 14

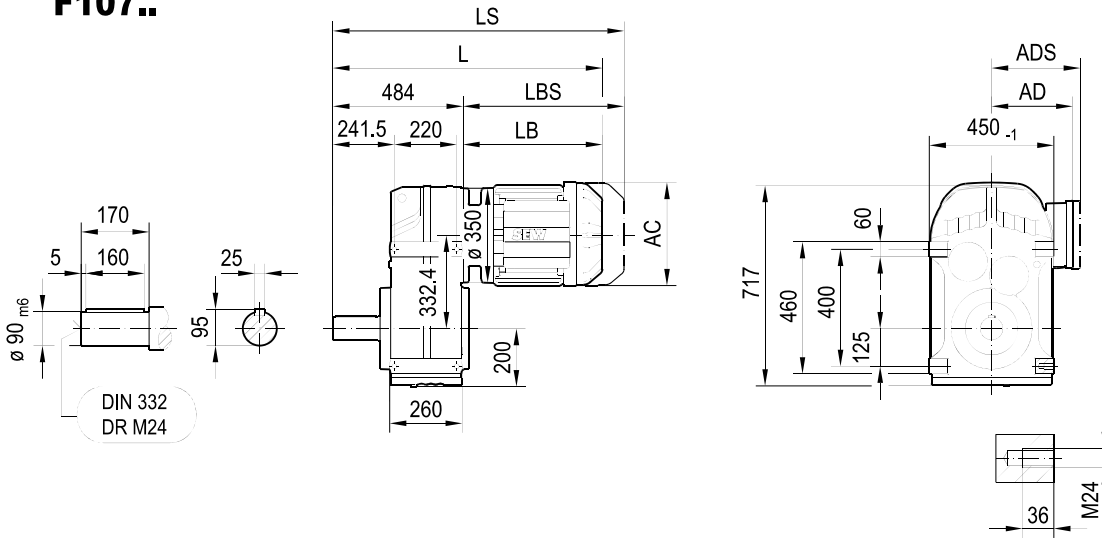


(- 7.3)	DRN									
	90S	90L	100LS	100L/LM	112M	132S	132M	132L	160..	180..
AC	179	179	197	197	221	221	261	261	314	357
AD	140	140	157	157	170	170	228	228	253	268
ADS	150	150	158	158	172	172	228	228	253	268
L	560	592	588	638	669	719	737	763	829	852
LS	653	685	682	732	781	831	875	900	1018	1041
LB	260	292	288	338	369	419	437	463	529	552
LBS	353	385	382	432	481	531	575	600	718	741

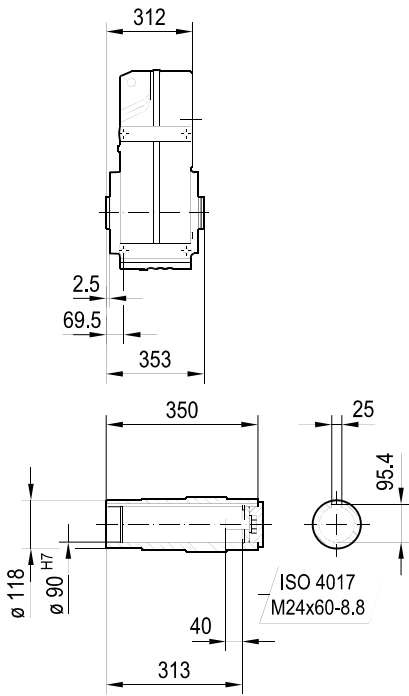


42 059 00 14

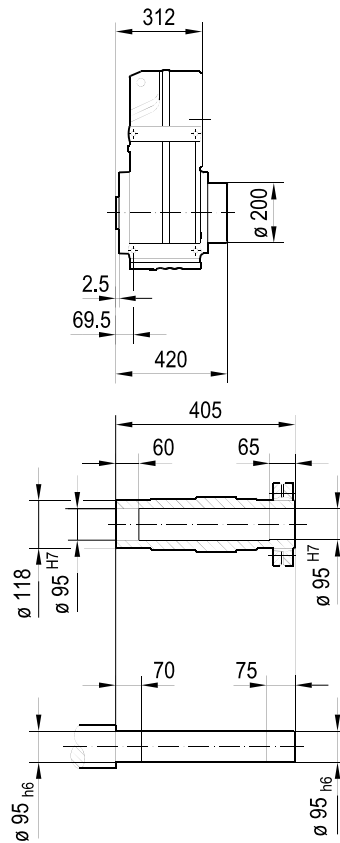
**F107..**



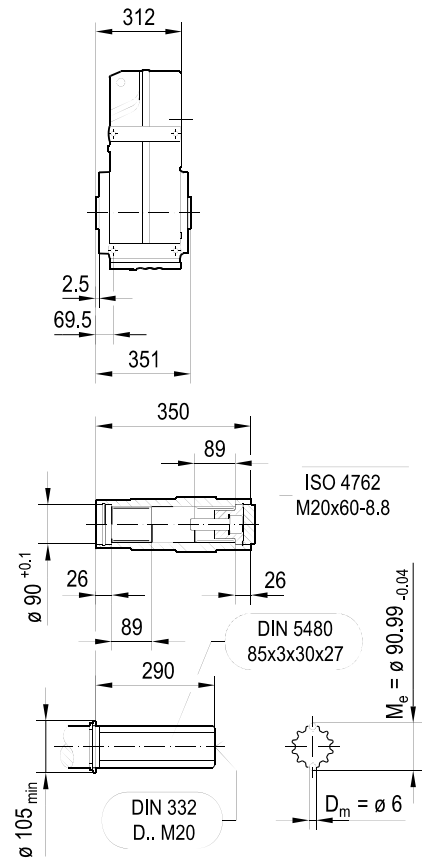
**FA107B..**



**FH107B..**



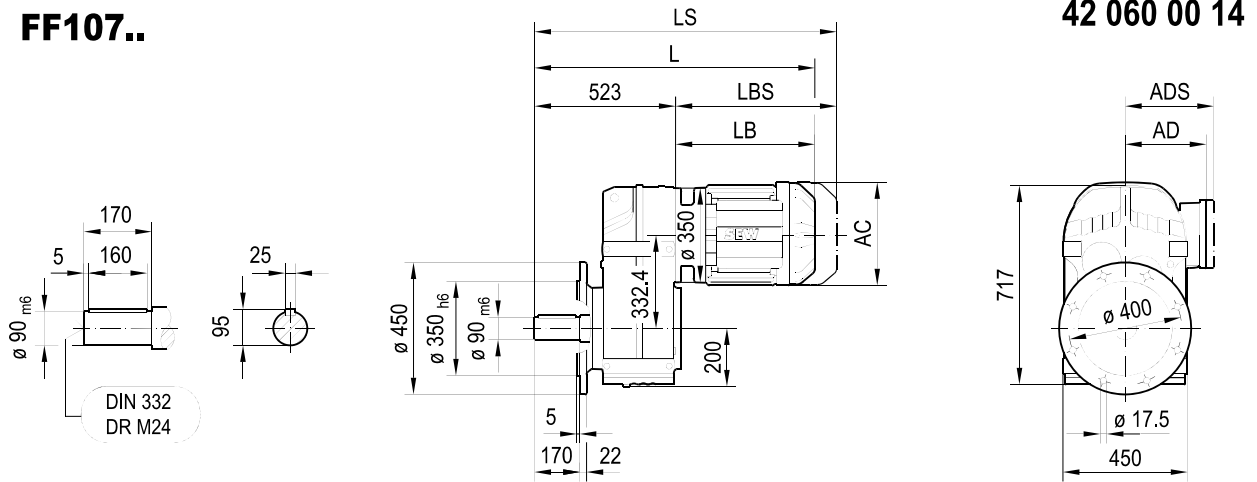
**FV107B..**



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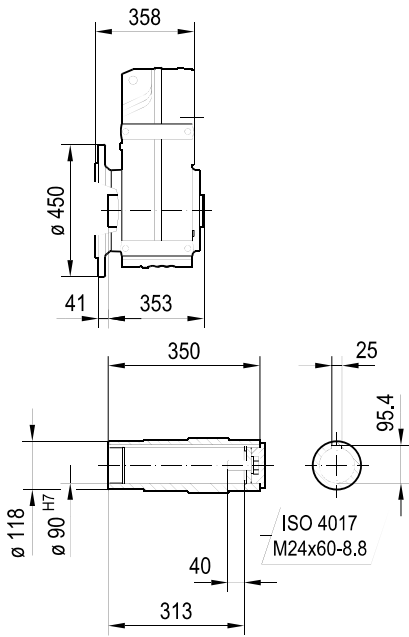
(→ 7.3)	DRN									
	100LS	100L/LM	112M	132S	132M	132L	160..	180..	200L	225..
AC	197	197	221	221	261	261	314	357	394	434
AD	157	157	170	170	228	228	253	268	283	305
ADS	158	158	172	172	228	228	253	268	283	305
L	766	816	847	897	915	941	1007	1030	1140	1114
LS	860	910	959	1009	1053	1078	1196	1219	1345	1319
LB	282	332	363	413	431	457	523	546	656	630
LBS	376	426	475	525	569	594	712	735	861	835

### FF107..

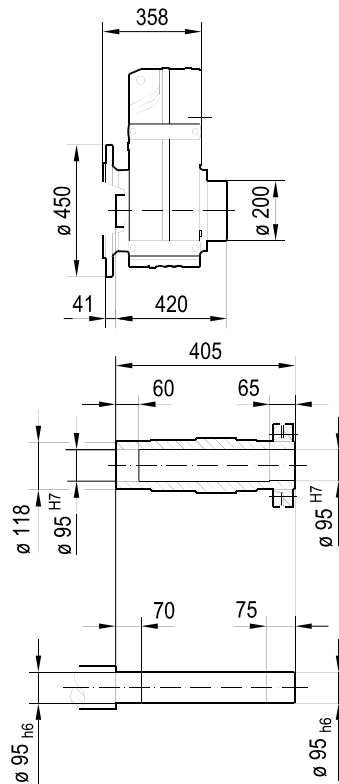


42 060 00 14

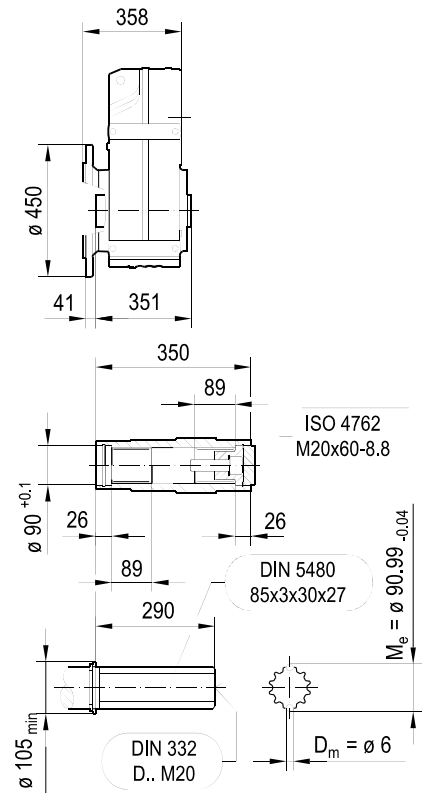
### FAF107..



### FHF107..



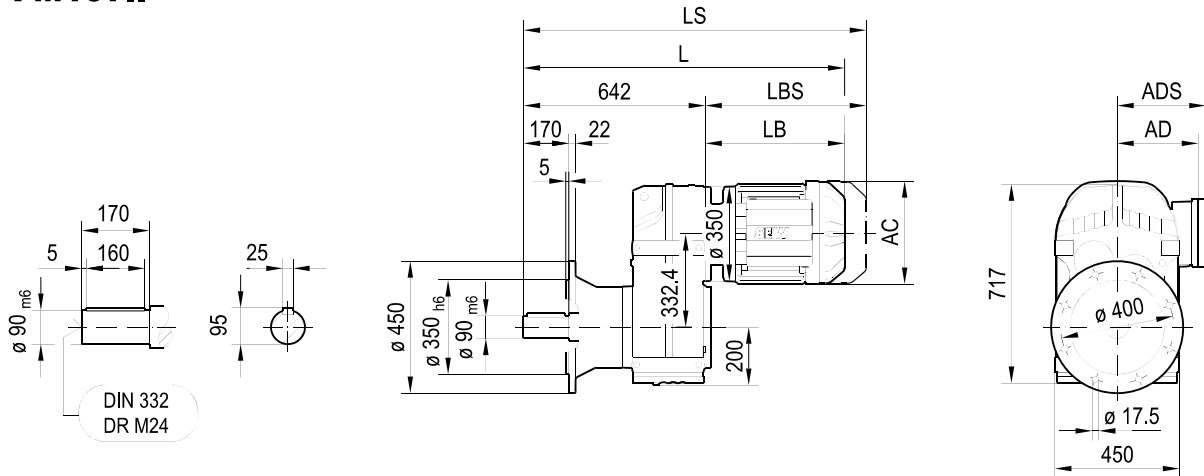
### FVF107..



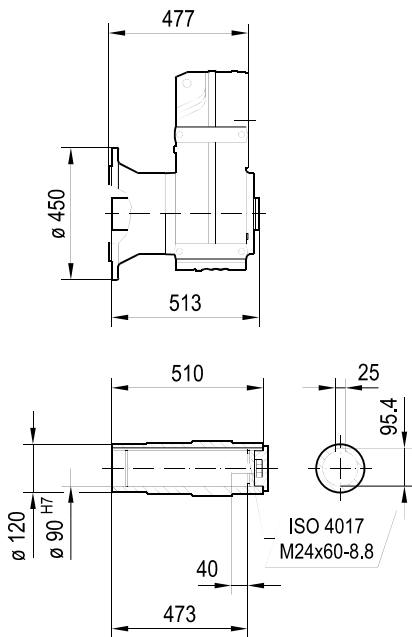
↳ (7.3)	DRN									
	100LS	100L/LM	112M	132S	132M	132L	160..	180..	200L	225..
AC	197	197	221	221	261	261	314	357	394	434
AD	157	157	170	170	228	228	253	268	283	305
ADS	158	158	172	172	228	228	253	268	283	305
L	805	855	886	936	954	980	1046	1069	1179	1153
LS	899	949	998	1048	1092	1117	1235	1258	1384	1358
LB	282	332	363	413	431	457	523	546	656	630
LBS	376	426	475	525	569	594	712	735	861	835

**FM107..**

42 116 00 17



**FAM107..**

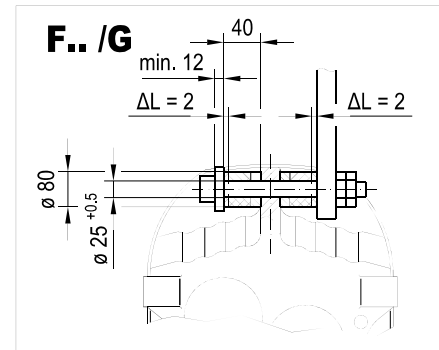
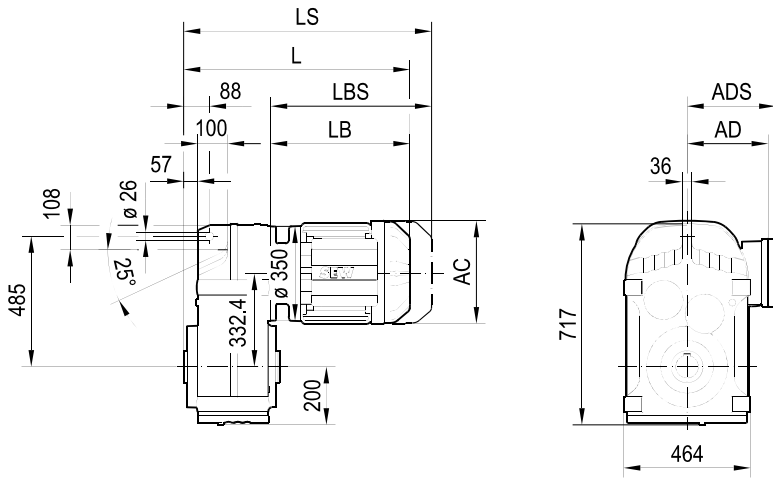


(-> 7.3)	DRN									
	100LS	100L/LM	112M	132S	132M	132L	160..	180..	200L	225..
AC	197	197	221	221	261	261	314	357	394	434
AD	157	157	170	170	228	228	253	268	283	305
ADS	158	158	172	172	228	228	253	268	283	305
L	924	974	1005	1055	1073	1099	1165	1188	1298	1272
LS	1018	1068	1117	1167	1211	1236	1354	1377	1503	1477
LB	282	332	363	413	431	457	523	546	656	630
LBS	376	426	475	525	569	594	712	735	861	835

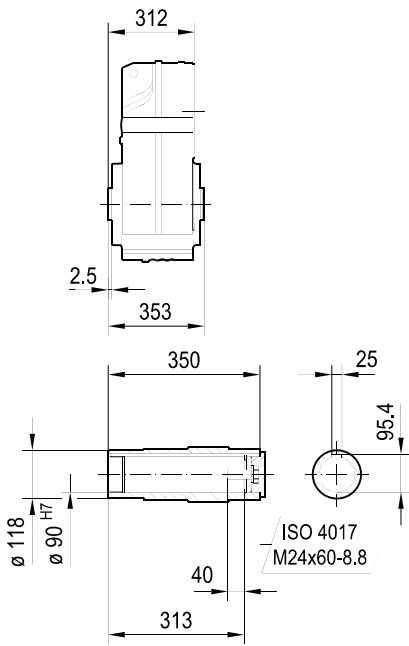
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42 061 00 14

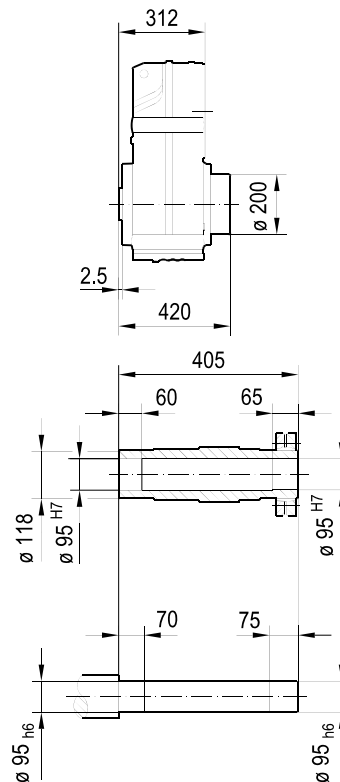
### FA107..



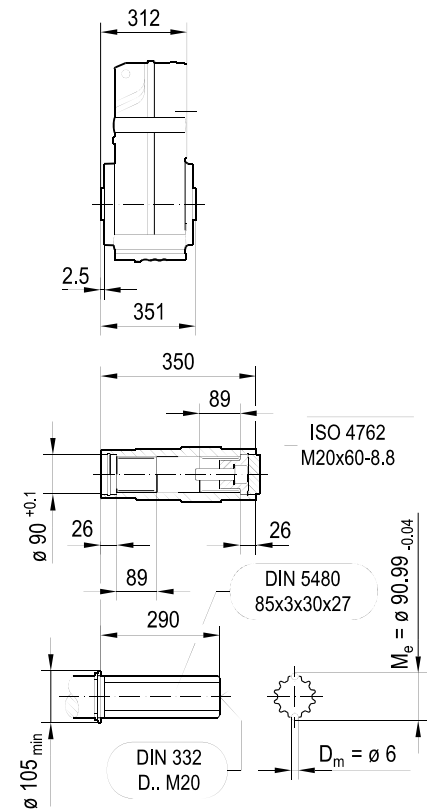
### FA107..



### FH107..



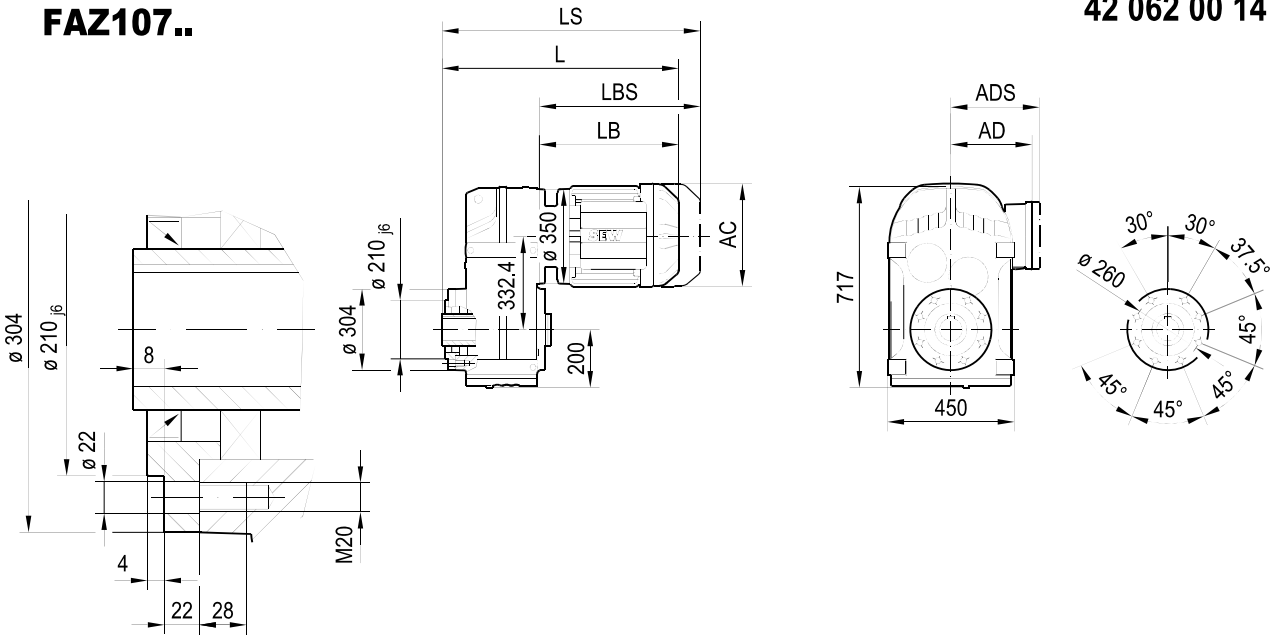
### FV107..



→ (7.3)	DRN									
	100LS	100L/LM	112M	132S	132M	132L	160..	180..	200L	225..
AC	197	197	221	221	261	261	314	357	394	434
AD	157	157	170	170	228	228	253	268	283	305
ADS	158	158	172	172	228	228	253	268	283	305
L	594	644	675	725	743	769	835	858	968	942
LS	688	738	787	837	881	906	1024	1047	1173	1147
LB	282	332	363	413	431	457	523	546	656	630
LBS	376	426	475	525	569	594	712	735	861	835

**FAZ107..**

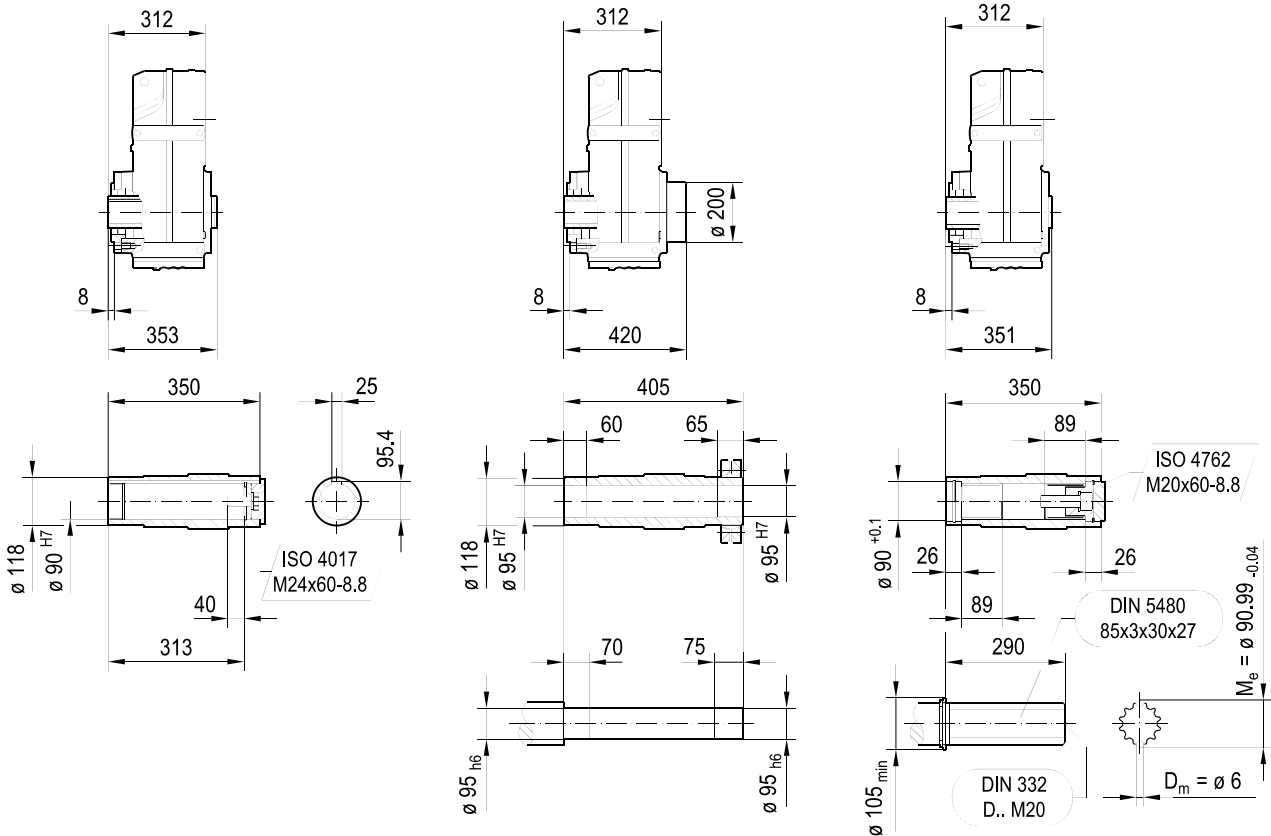
42 062 00 14



**FAZ107..**

**FHZ107..**

**FVZ107..**

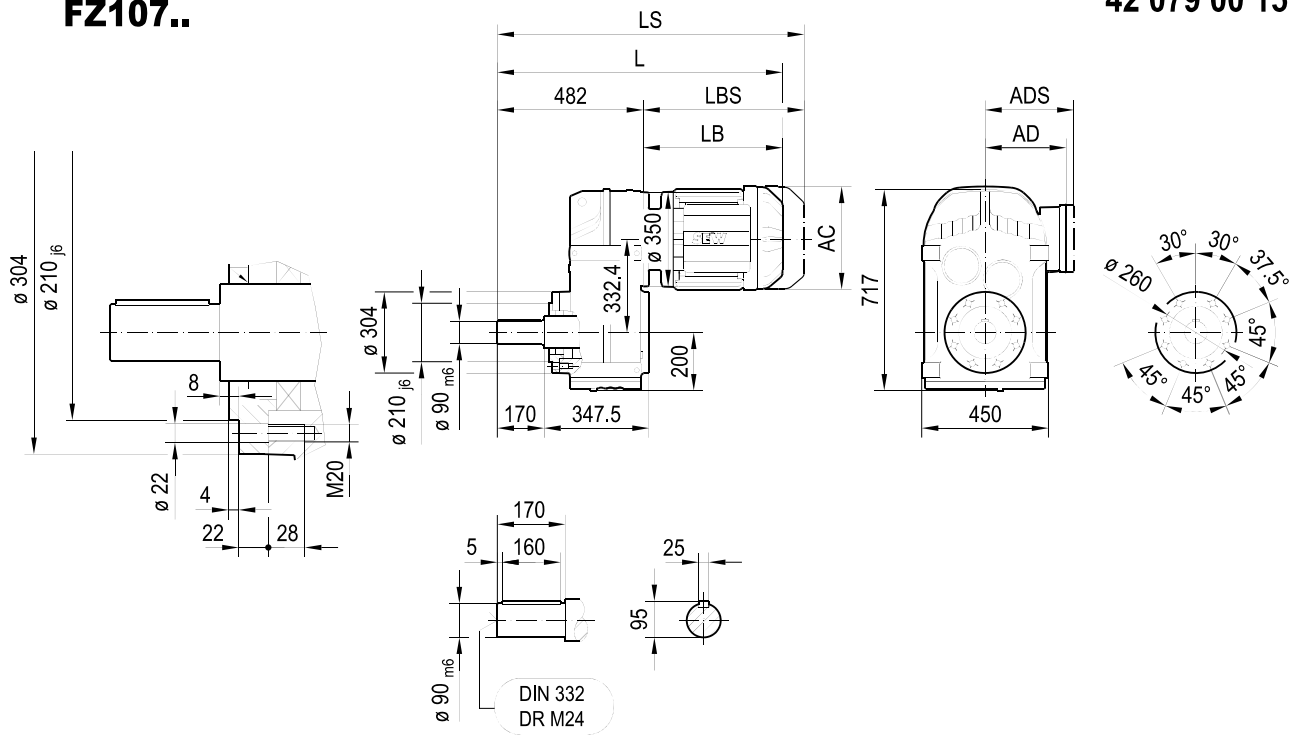


↔ (7.3)	DRN									
	100LS	100L/LM	112M	132S	132M	132L	160..	180..	200L	225..
AC	197	197	221	221	261	261	314	357	394	434
AD	157	157	170	170	228	228	253	268	283	305
ADS	158	158	172	172	228	228	253	268	283	305
L	594	644	675	725	743	769	835	858	968	942
LS	688	738	787	837	881	906	1024	1047	1173	1147
LB	282	332	363	413	431	457	523	546	656	630
LBS	376	426	475	525	569	594	712	735	861	835

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### FZ107..

42 079 00 15

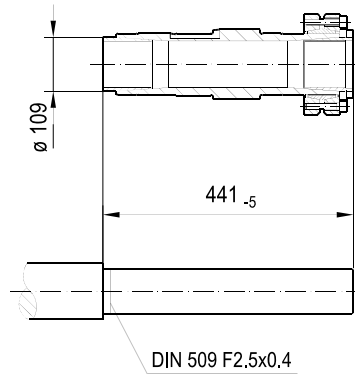
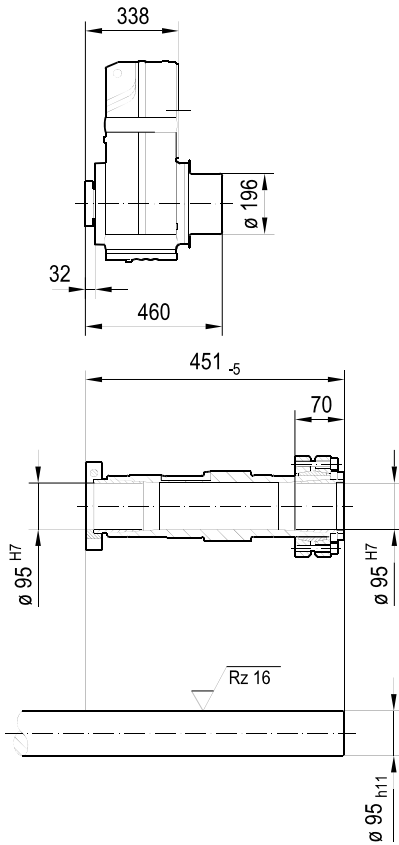
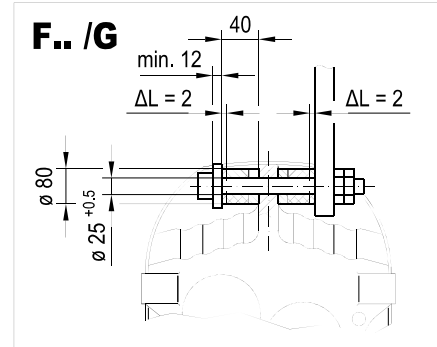
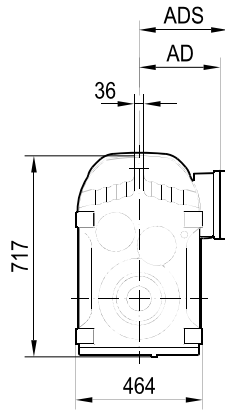
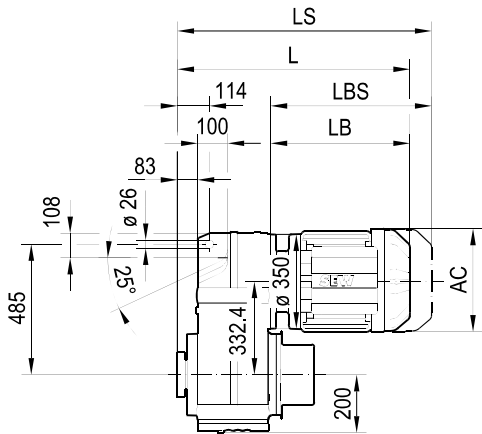


(-> 7.3)	DRN									
	100LS	100L/LM	112M	132S	132M	132L	160..	180..	200L	225..
AC	197	197	221	221	261	261	314	357	394	434
AD	157	157	170	170	228	228	253	268	283	305
ADS	158	158	172	172	228	228	253	268	283	305
L	764	814	845	895	913	939	1005	1028	1138	1112
LS	858	908	957	1007	1051	1076	1194	1217	1343	1317
LB	282	332	363	413	431	457	523	546	656	630
LBS	376	426	475	525	569	594	712	735	861	835

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FT107..

42 063 01 14

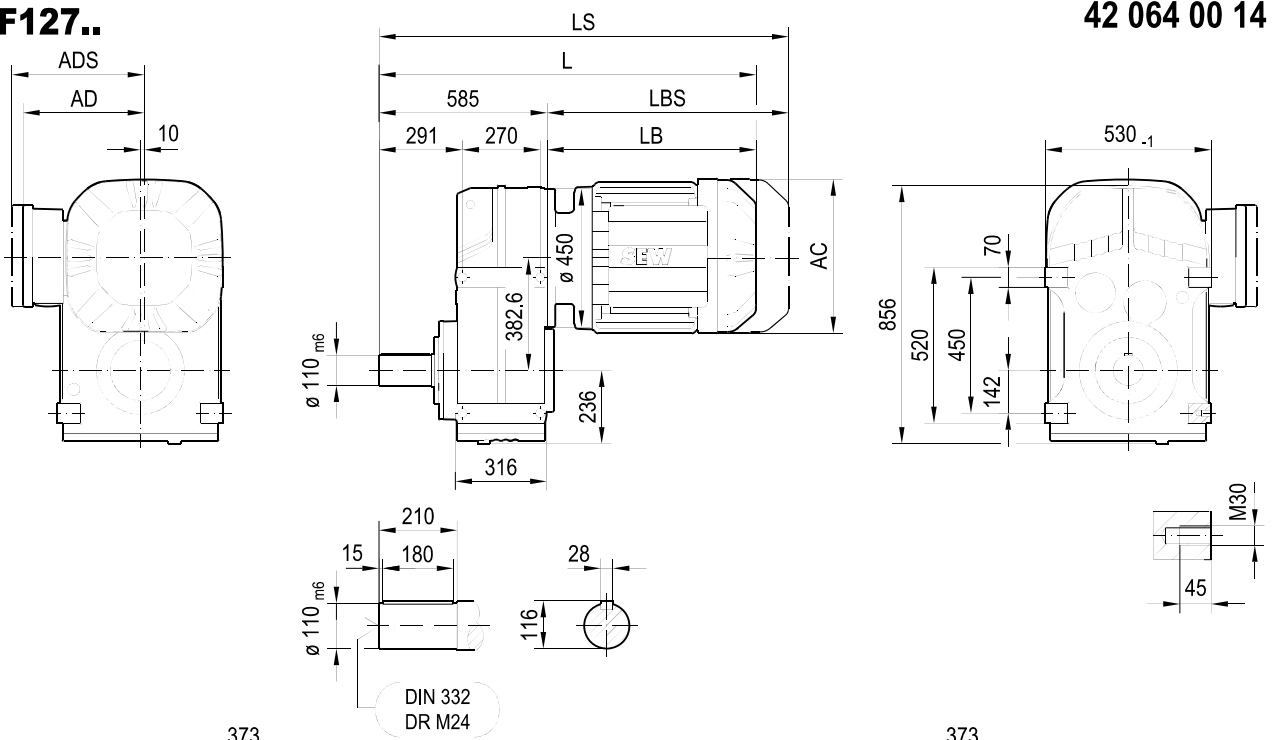


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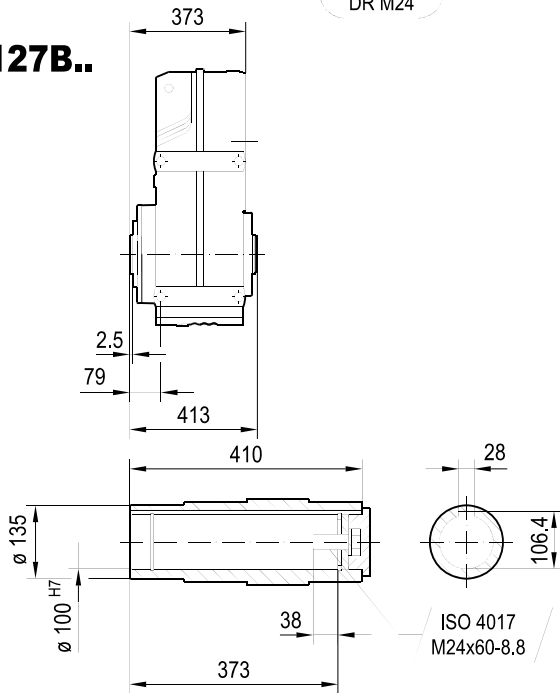
↳ (7.3)	DRN									
	100LS	100L/LM	112M	132S	132M	132L	160..	180..	200L	225..
AC	197	197	221	221	261	261	314	357	394	434
AD	157	157	170	170	228	228	253	268	283	305
ADS	158	158	172	172	228	228	253	268	283	305
L	620	670	701	751	769	795	861	884	994	968
LS	714	764	813	863	907	932	1050	1073	1199	1173
LB	282	332	363	413	431	457	523	546	656	630
LBS	376	426	475	525	569	594	712	735	861	835

### F127..

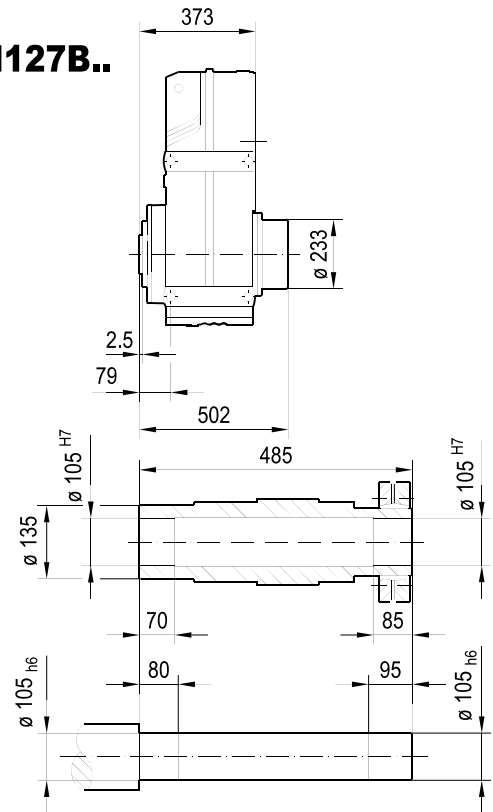


42 064 00 14

### FA127B..



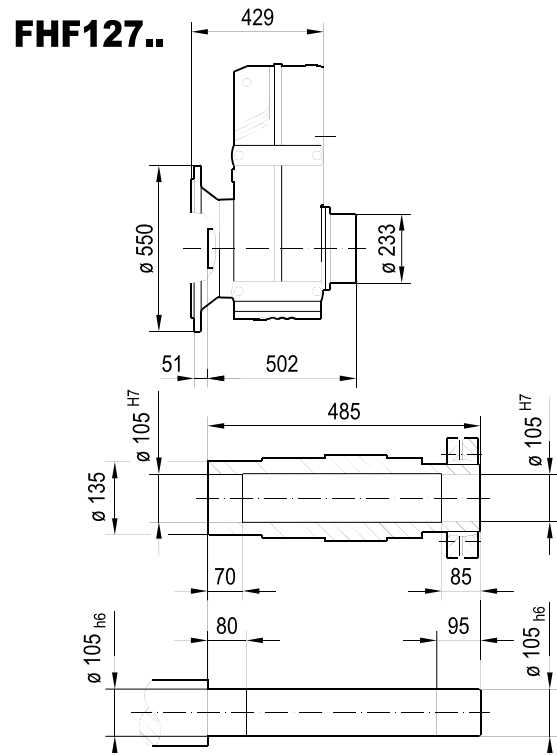
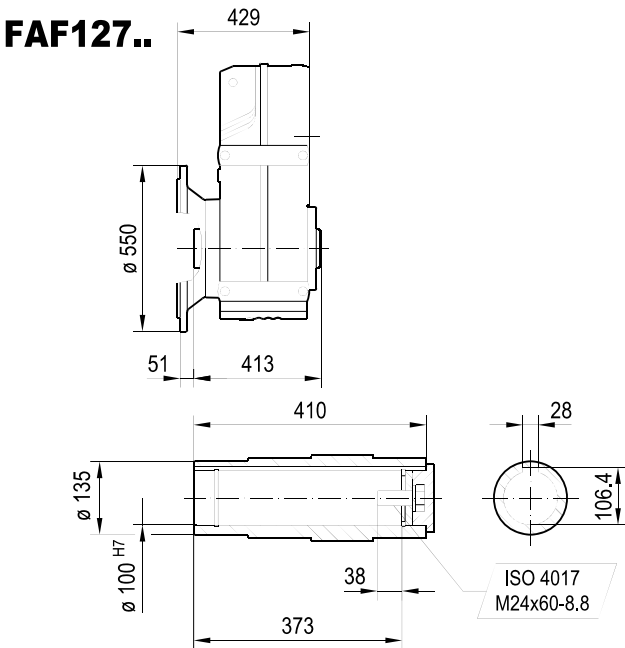
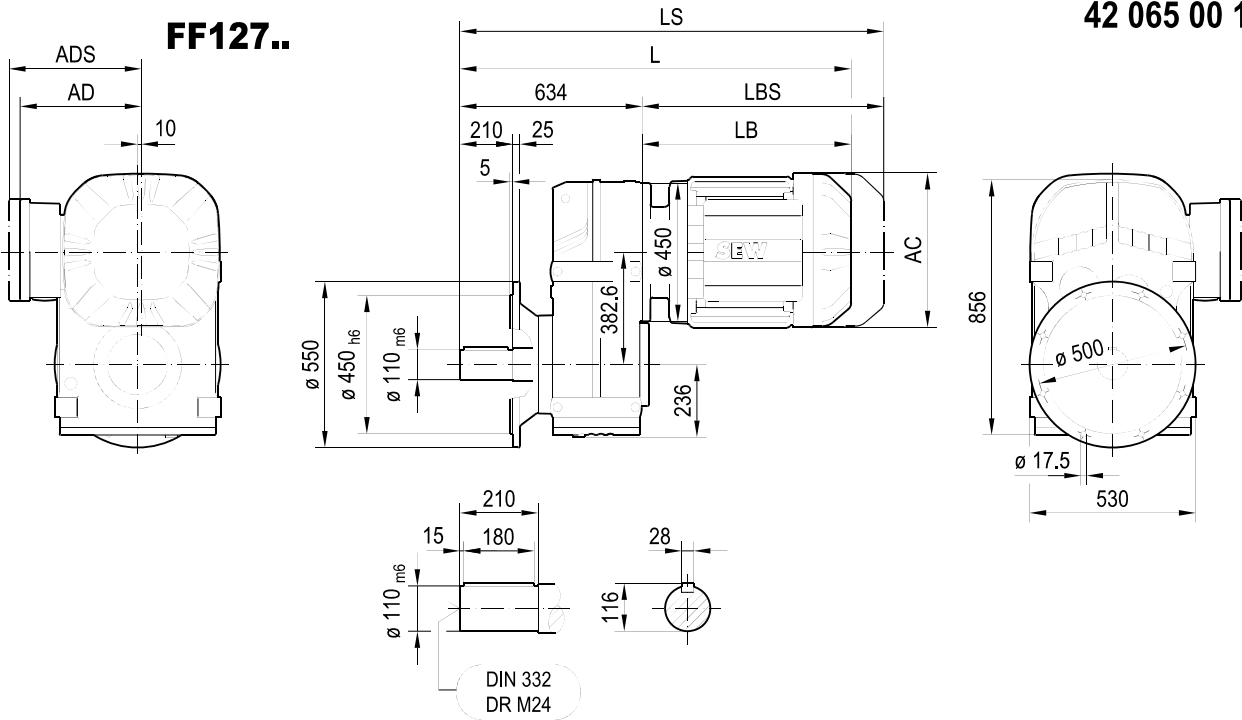
### FH127B..



( $\rightarrow \square 7.3$ )	DRN								
	132M	132L	160..	180..	200L	225..	250M	280S	280M
AC	261	261	314	357	394	434	495	495	495
AD	228	228	253	268	283	305	394	394	394
ADS	228	228	253	268	283	305	394	394	394
L	1001	1027	1093	1116	1226	1200	1337	1337	1432
LS	1139	1164	1282	1305	1431	1405	1577	1577	1672
LB	416	442	508	531	641	615	752	752	847
LBS	554	579	697	720	846	820	992	992	1087



42 065 00 14

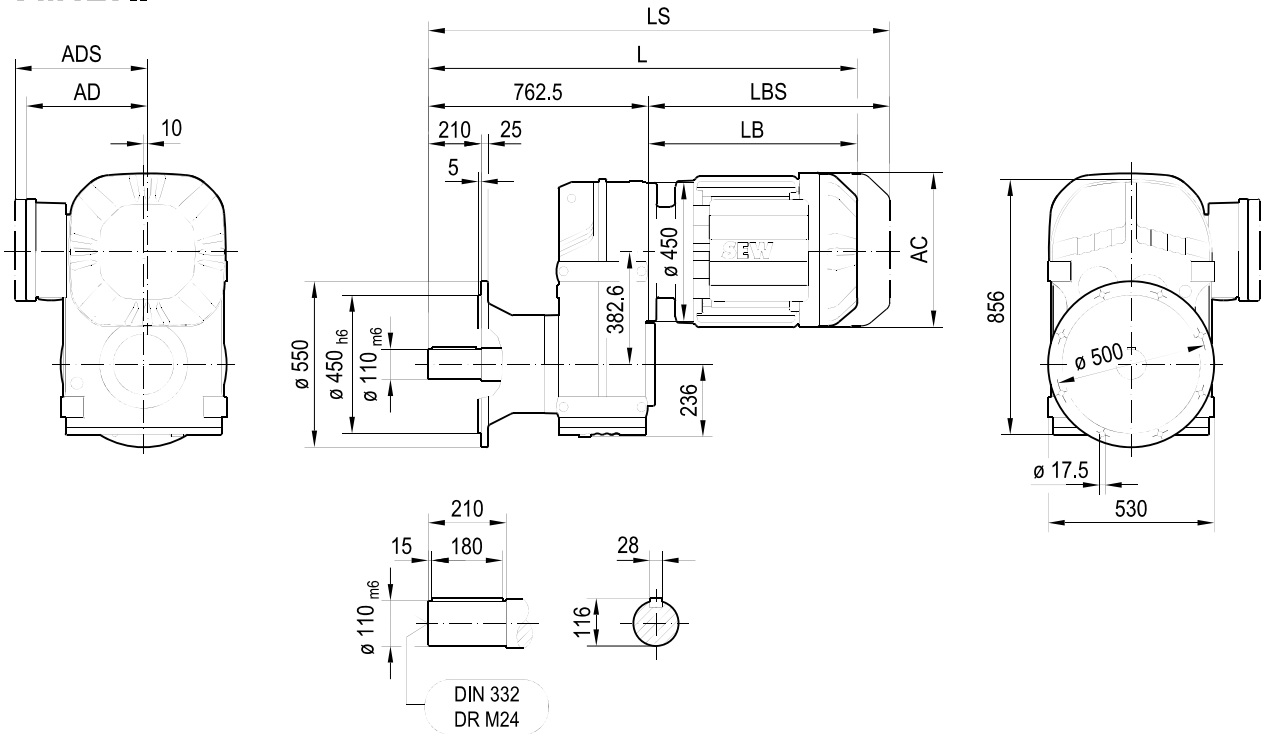


( $\rightarrow$ 7.3)	DRN								
	132M	132L	160..	180..	200L	225..	250M	280S	280M
AC	261	261	314	357	394	434	495	495	495
AD	228	228	253	268	283	305	394	394	394
ADS	228	228	253	268	283	305	394	394	394
L	1050	1076	1142	1165	1275	1249	1386	1386	1481
LS	1188	1213	1331	1354	1480	1454	1626	1626	1721
LB	416	442	508	531	641	615	752	752	847
LBS	554	579	697	720	846	820	992	992	1087

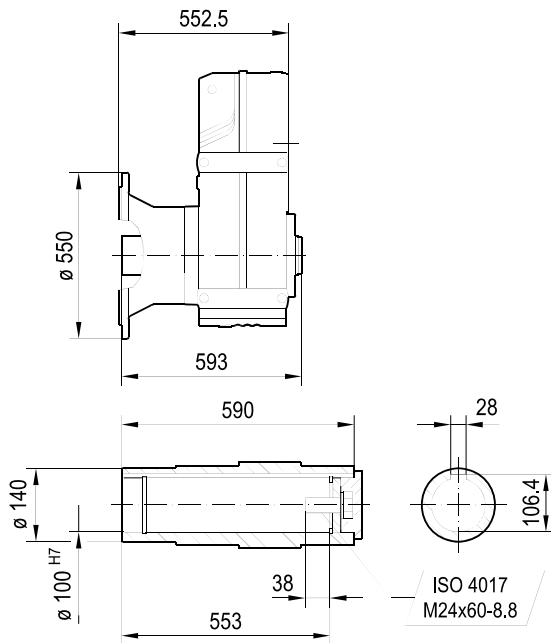
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42 011 00 17

### FM127..



### FAM127..

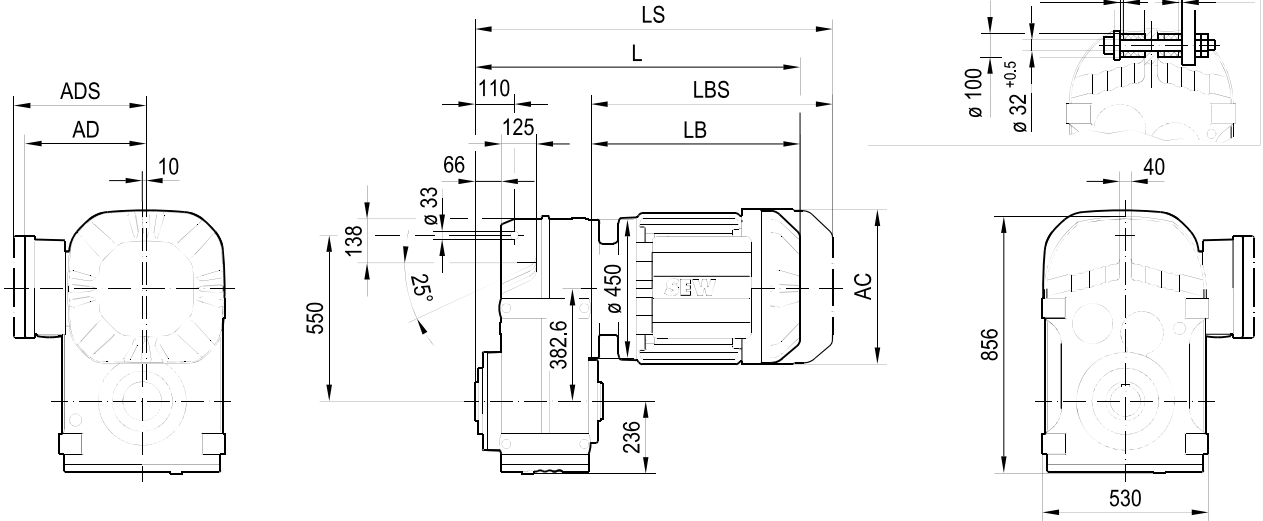


(-> 7.3)	DRN								
	132M	132L	160..	180..	200L	225..	250M	280S	280M
AC	261	261	314	357	394	434	495	495	495
AD	228	228	253	268	283	305	394	394	394
ADS	228	228	253	268	283	305	394	394	394
L	1179	1204	1271	1294	1403	1378	1515	1515	1610
LS	1316	1341	1460	1483	1608	1583	1755	1755	1850
LB	416	442	508	531	641	615	752	752	847
LBS	554	579	697	720	846	820	992	992	1087

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**FA127..**

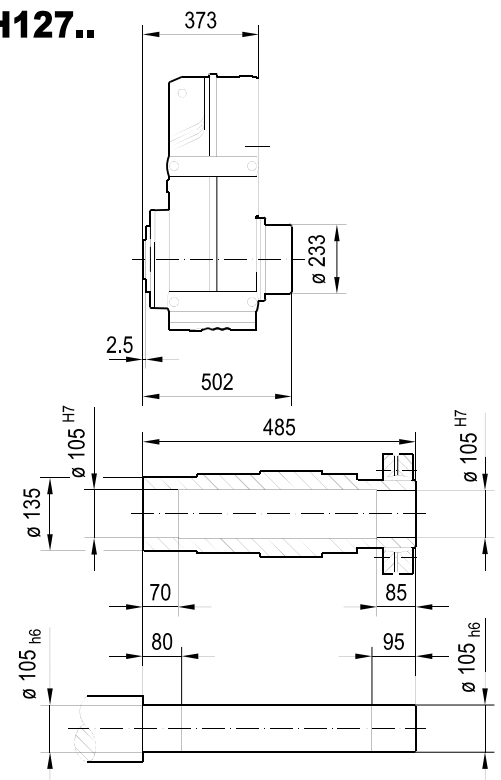
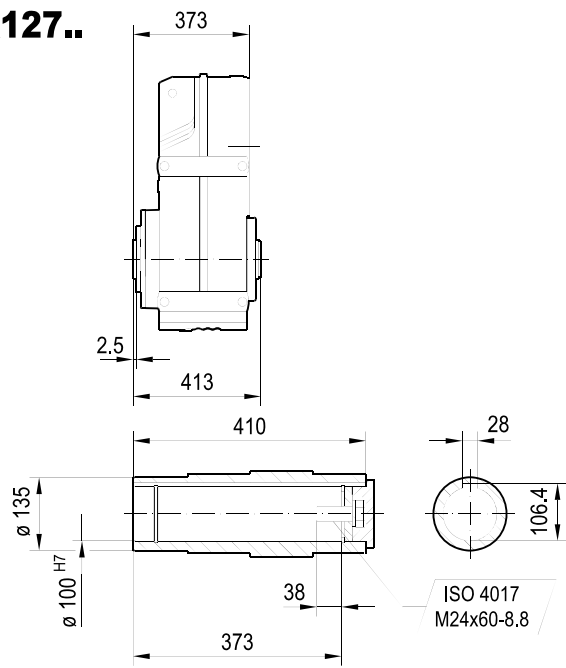
42 066 00 14



9

**FA127..**

**FH127..**

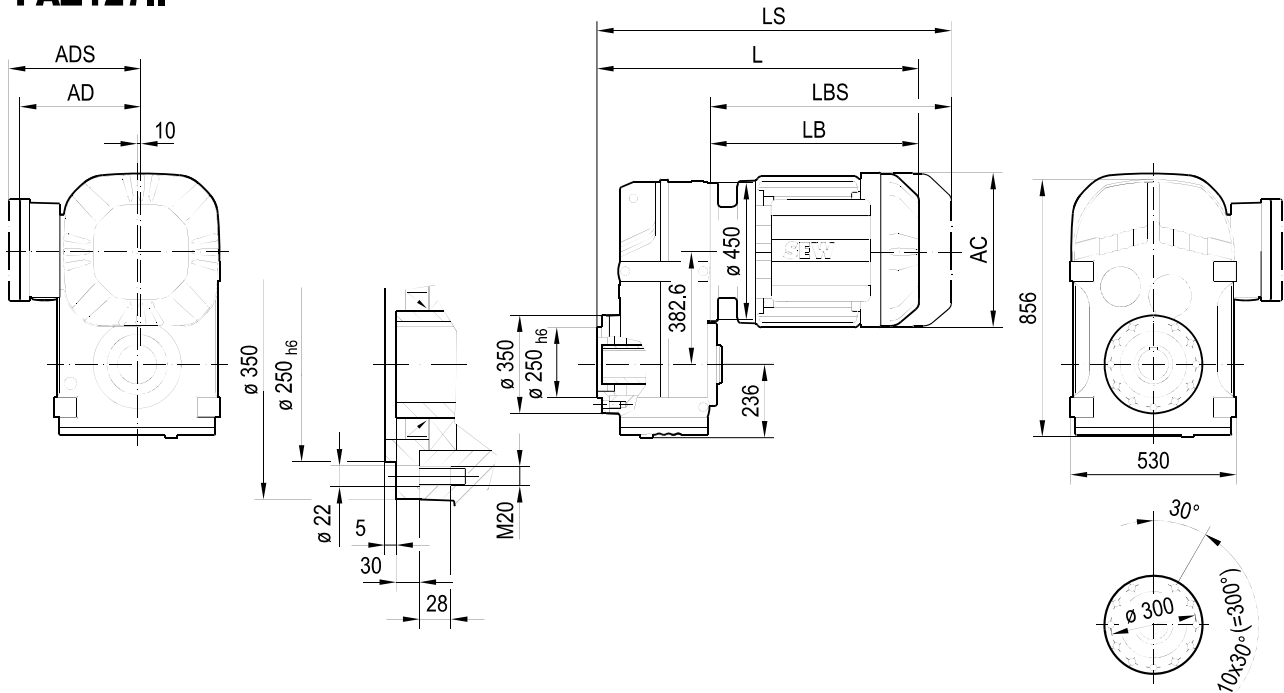


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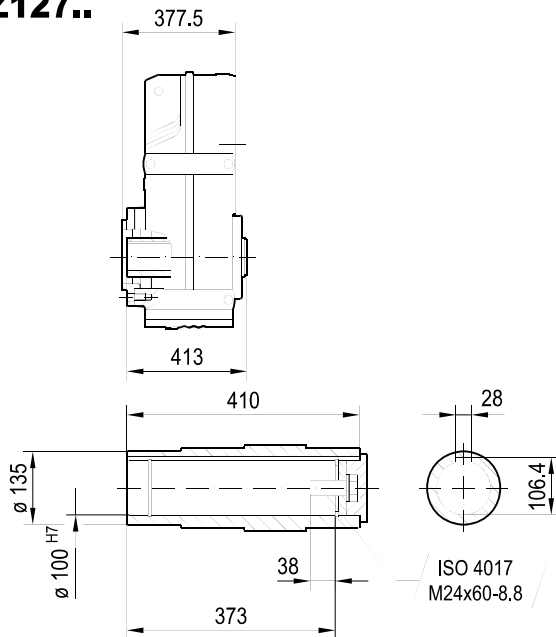
( $\rightarrow \square 7.3$ )	DRN								
	132M	132L	160..	180..	200L	225..	250M	280S	280M
AC	261	261	314	357	394	434	495	495	495
AD	228	228	253	268	283	305	394	394	394
ADS	228	228	253	268	283	305	394	394	394
L	789	815	881	904	1014	988	1125	1125	1220
LS	927	952	1070	1093	1219	1193	1365	1365	1460
LB	416	442	508	531	641	615	752	752	847
LBS	554	579	697	720	846	820	992	992	1087

42 067 00 14

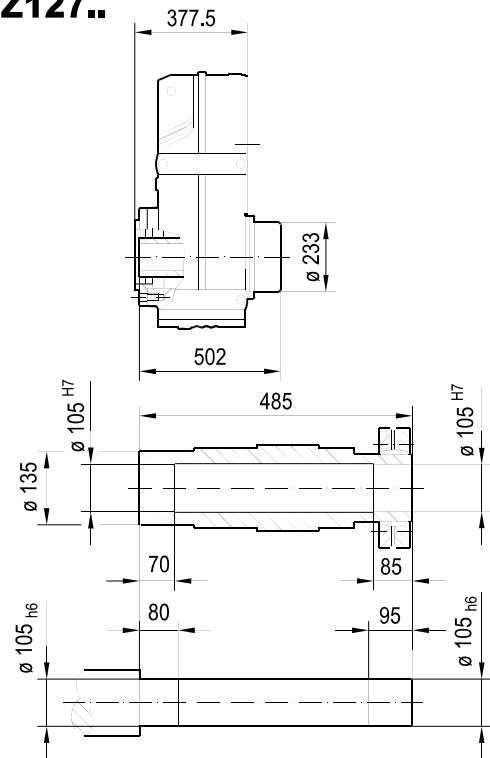
### FAZ127..



### FAZ127..



### FHZ127..

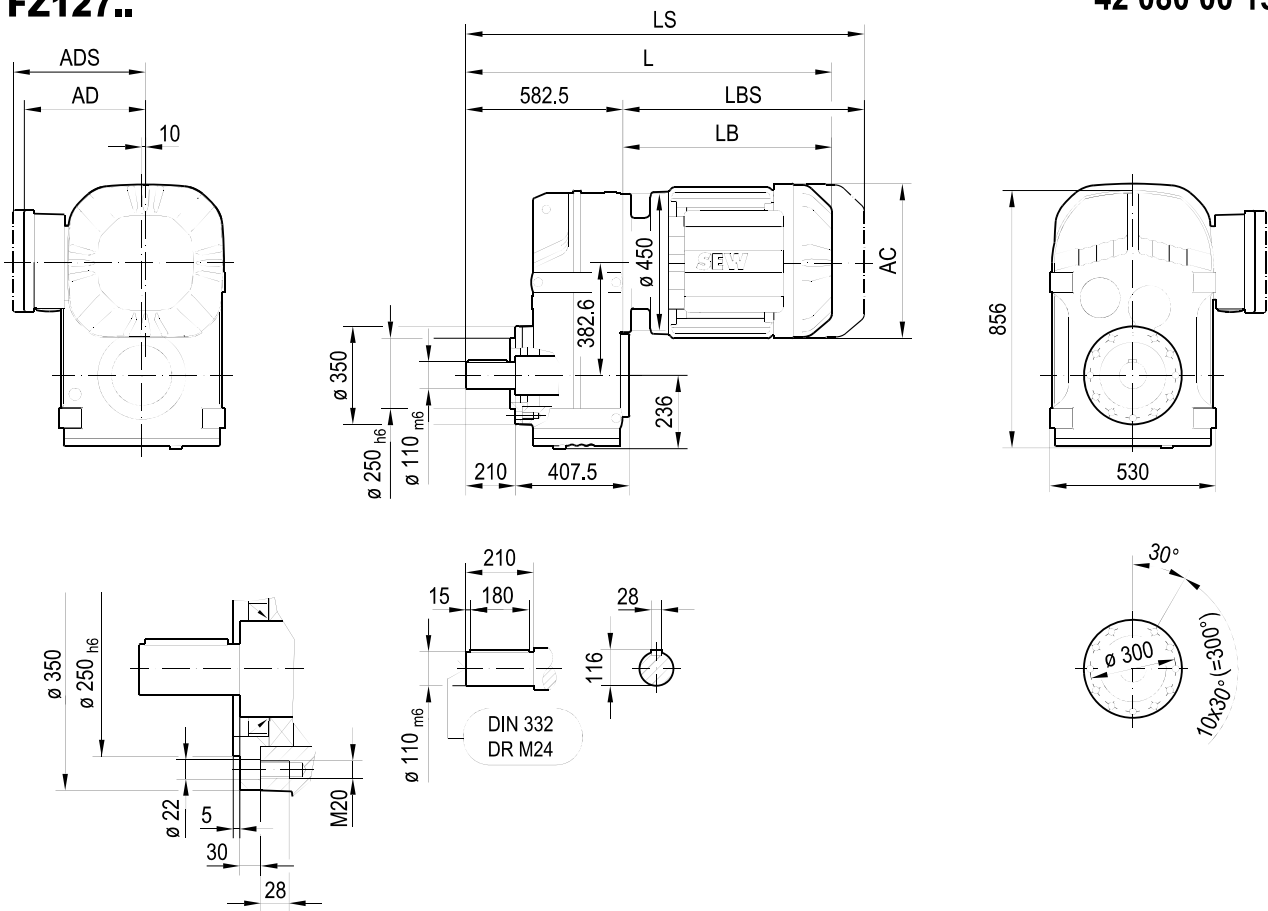


( $\rightarrow \square 7.3$ )	DRN								
	132M	132L	160..	180..	200L	225..	250M	280S	280M
AC	261	261	314	357	394	434	495	495	495
AD	228	228	253	268	283	305	394	394	394
ADS	228	228	253	268	283	305	394	394	394
L	794	819	886	909	1018	993	1130	1130	1225
LS	931	956	1075	1098	1223	1198	1370	1370	1465
LB	416	442	508	531	641	615	752	752	847
LBS	554	579	697	720	846	820	992	992	1087

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**FZ127..**

42 080 00 15



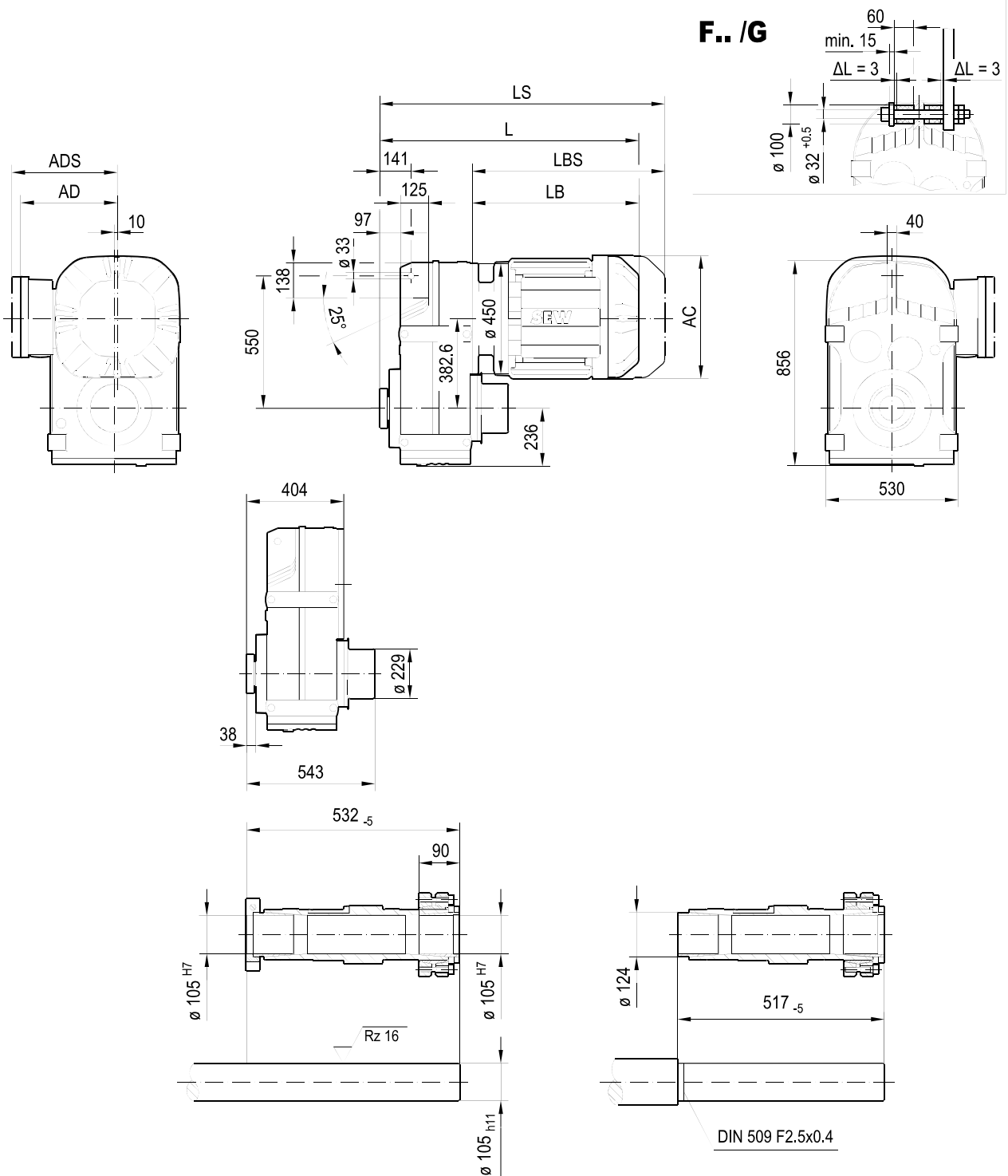
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(-> 7.3)	DRN								
	132M	132L	160..	180..	200L	225..	250M	280S	280M
AC	261	261	314	357	394	434	495	495	495
AD	228	228	253	268	283	305	394	394	394
ADS	228	228	253	268	283	305	394	394	394
L	999	1024	1091	1114	1223	1198	1335	1335	1430
LS	1136	1161	1280	1303	1428	1403	1575	1575	1670
LB	416	442	508	531	641	615	752	752	847
LBS	554	579	697	720	846	820	992	992	1087

### FT127..

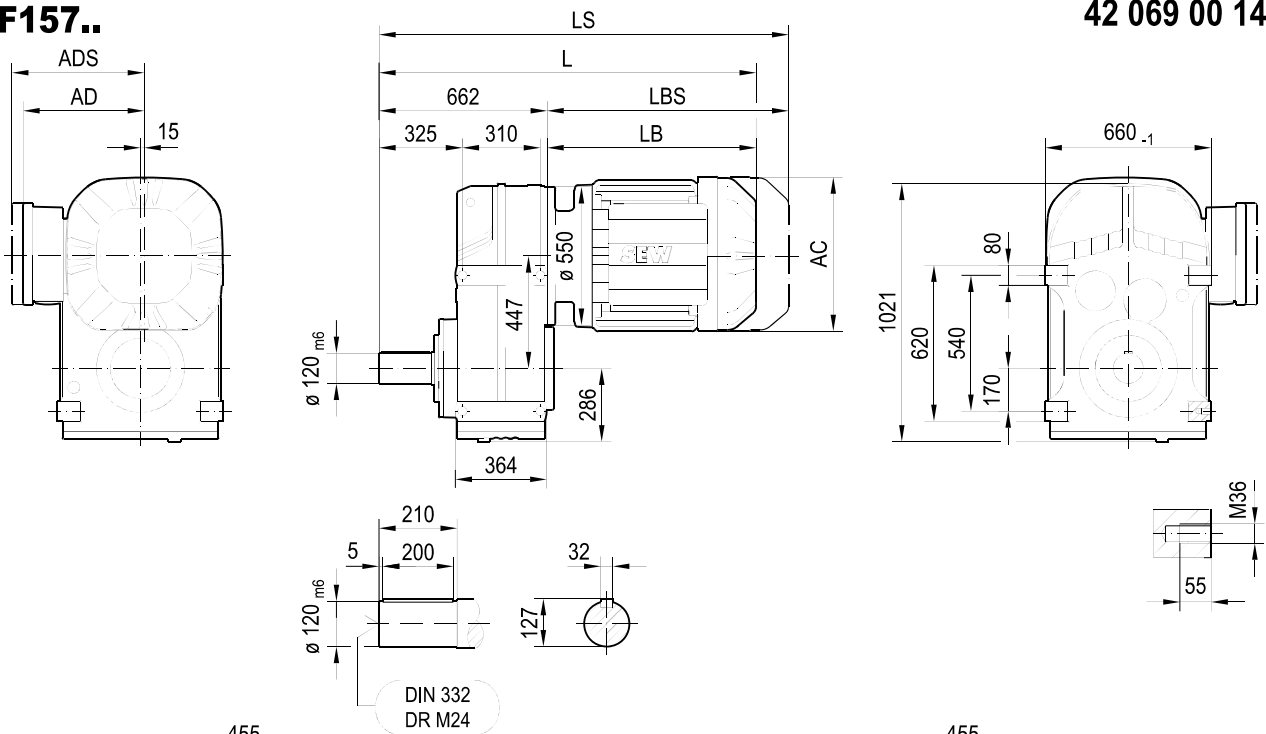
42 068 01 14



(-> 7.3)	DRN								
	132M	132L	160..	180..	200L	225..	250M	280S	280M
AC	261	261	314	357	394	434	495	495	495
AD	228	228	253	268	283	305	394	394	394
ADS	228	228	253	268	283	305	394	394	394
L	820	846	912	935	1045	1019	1156	1156	1251
LS	958	983	1101	1124	1250	1224	1396	1396	1491
LB	416	442	508	531	641	615	752	752	847
LBS	554	579	697	720	846	820	992	992	1087

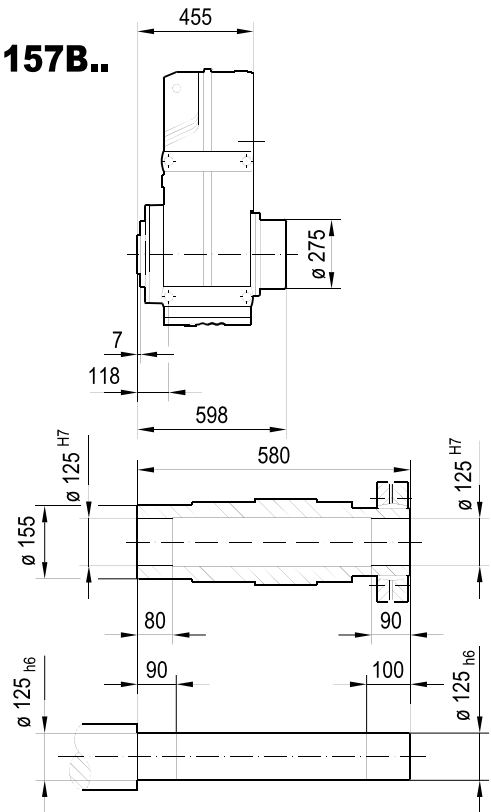
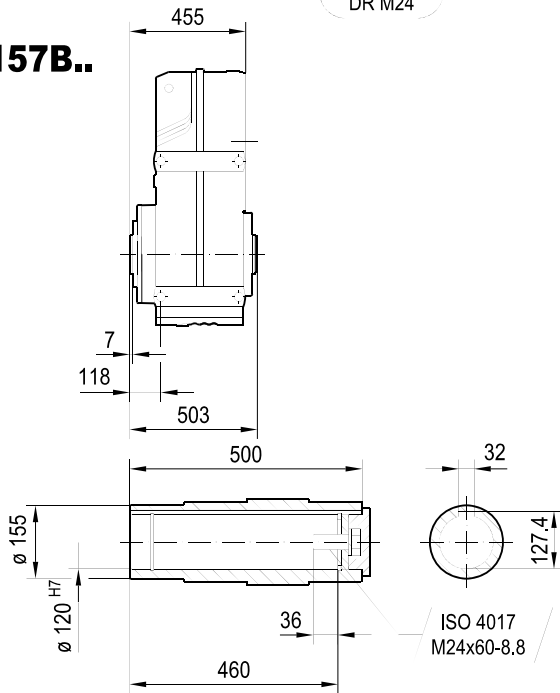
**F157..**

42 069 00 14



**FA157B..**

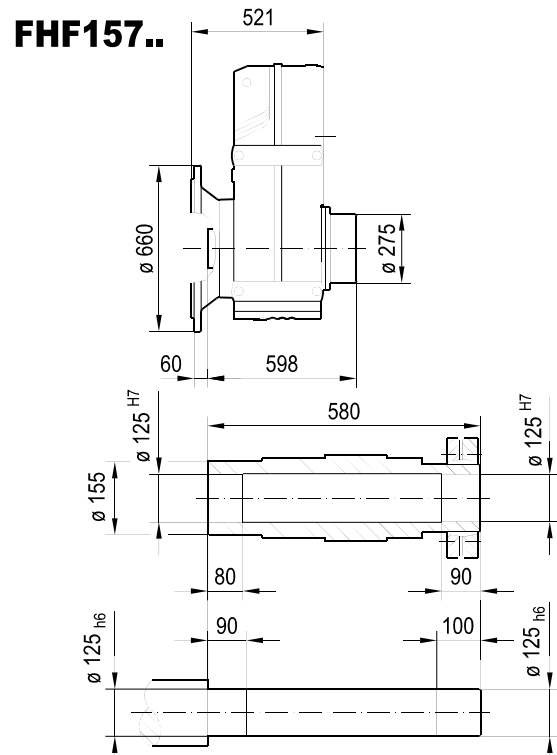
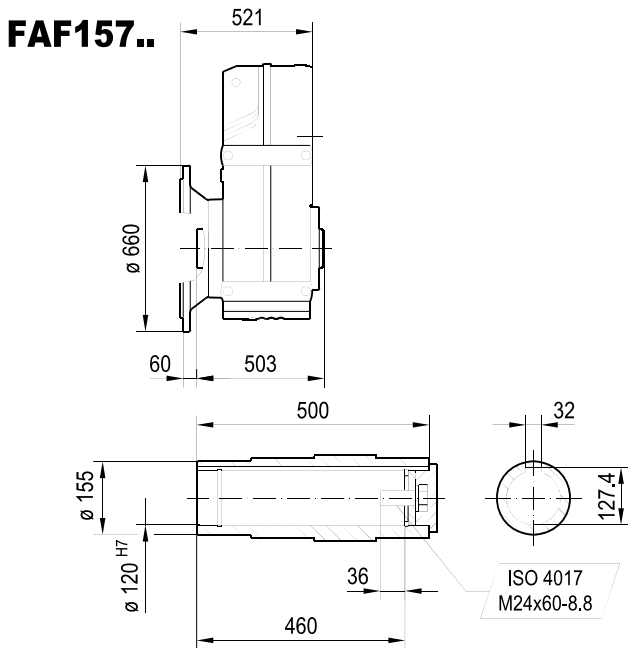
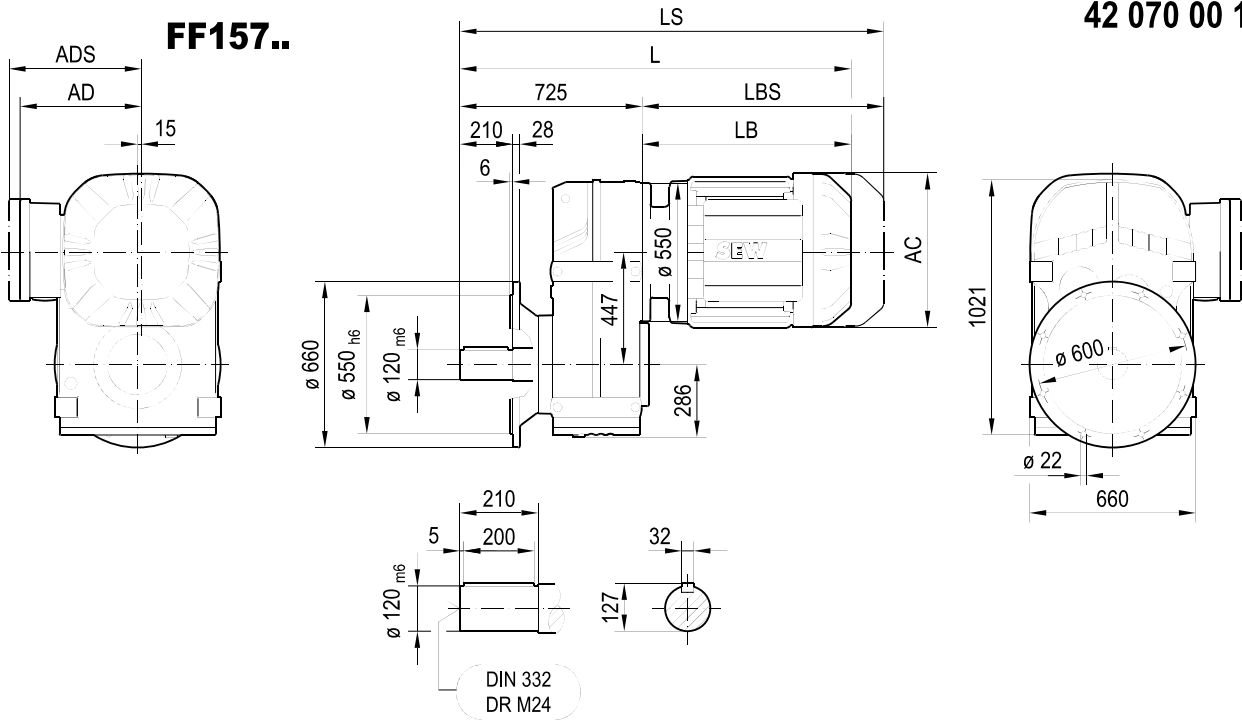
**FH157B..**



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( $\rightarrow \square 7.3$ )	DRN								
	160..	180..	200L	225..	250M	280S	280M	315S-M	315ME-H
AC	314	357	394	434	495	495	495	624	624
AD	253	268	283	305	394	394	394	506	506
ADS	253	268	283	305	394	394	394	506	506
L	1162	1185	1295	1269	1406	1406	1501	1603	1733
LS	1351	1374	1500	1474	1646	1646	1741	1854	1984
LB	500	523	633	607	744	744	839	941	1071
LBS	689	712	838	812	984	984	1079	1192	1322

42 070 00 14

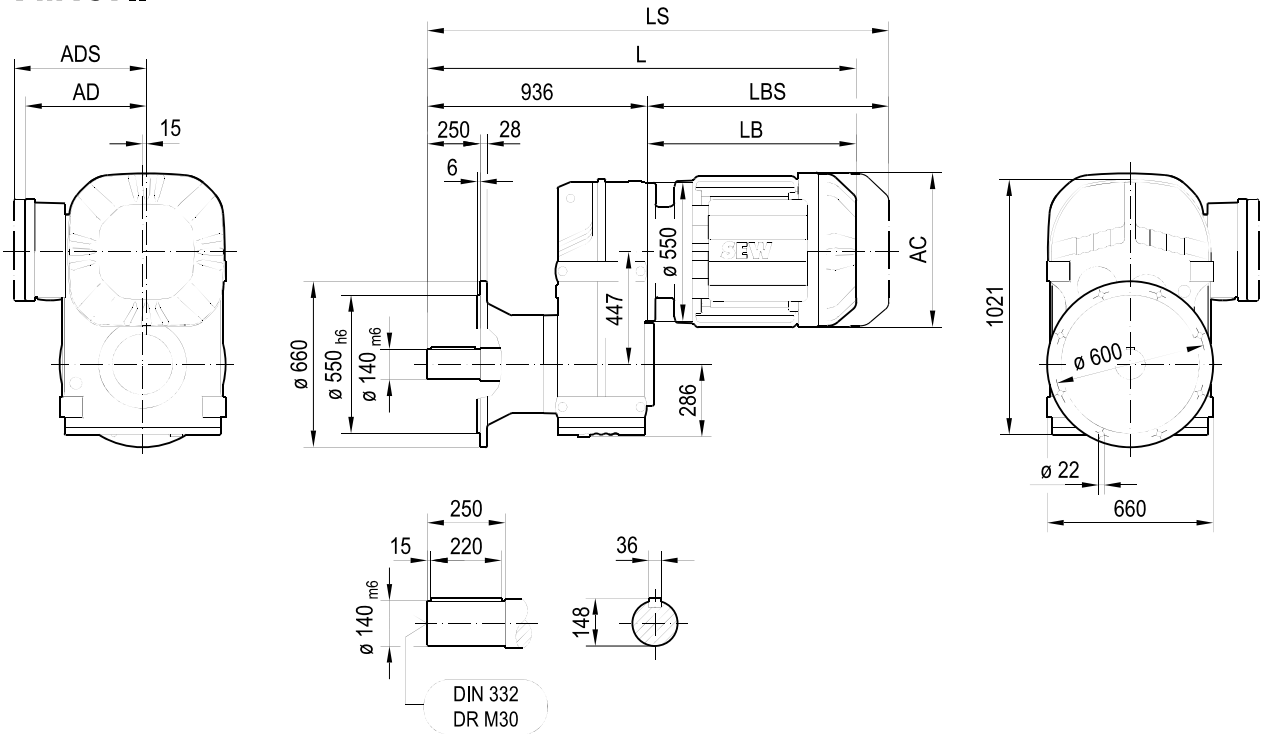


(-> 7.3)	DRN								
	160..	180..	200L	225..	250M	280S	280M	315S-M	315ME-H
AC	314	357	394	434	495	495	495	624	624
AD	253	268	283	305	394	394	394	506	506
ADS	253	268	283	305	394	394	394	506	506
L	1225	1248	1358	1332	1469	1469	1564	1666	1796
LS	1414	1437	1563	1537	1709	1709	1804	1917	2047
LB	500	523	633	607	744	744	839	941	1071
LBS	689	712	838	812	984	984	1079	1192	1322

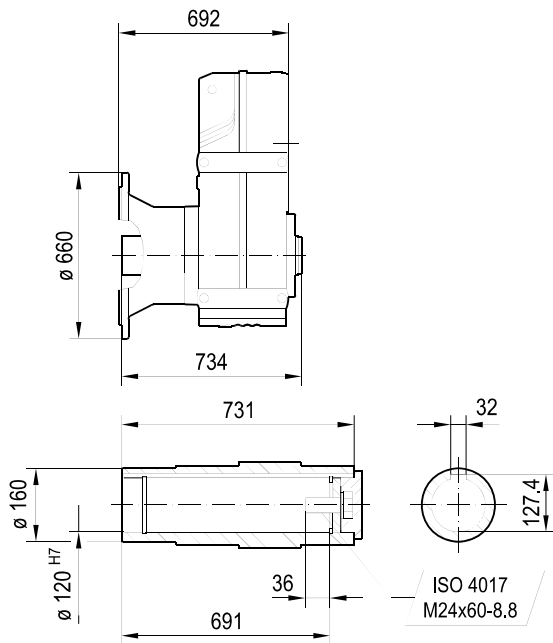


**FM157..**

42 117 00 17



**FAM157..**



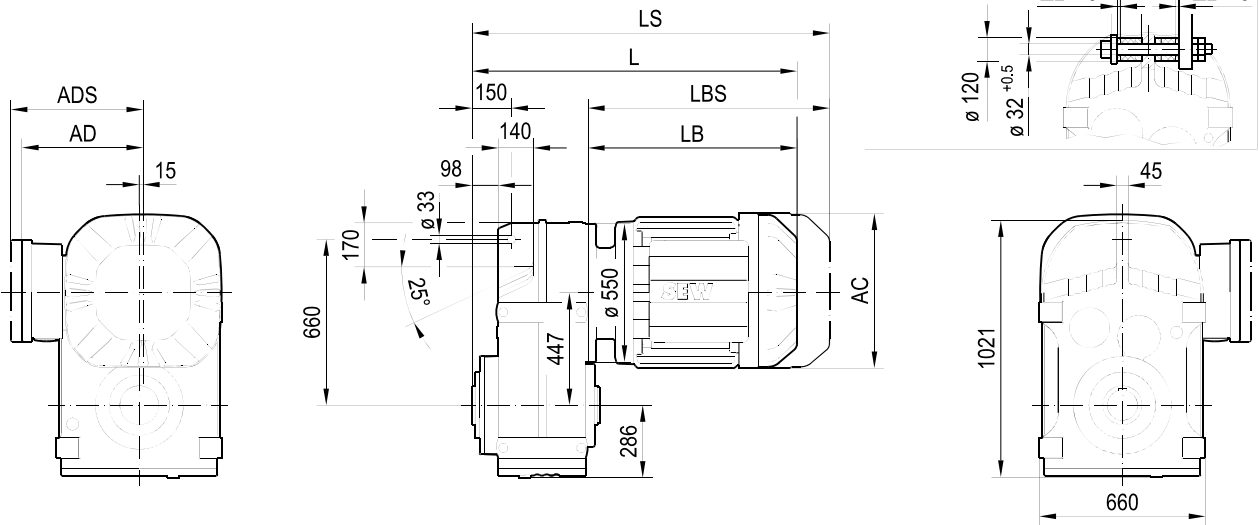
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( $\rightarrow$ 7.3)	DRN								
	160..	180..	200L	225..	250M	280S	280M	315S-M	315ME-H
AC	314	357	394	434	495	495	495	624	624
AD	253	268	283	305	394	394	394	506	506
ADS	253	268	283	305	394	394	394	506	506
L	1436	1459	1569	1543	1680	1680	1775	1877	2007
LS	1625	1648	1774	1748	1920	1920	2015	2128	2258
LB	500	523	633	607	744	744	839	941	1071
LBS	689	712	838	812	984	984	1079	1192	1322

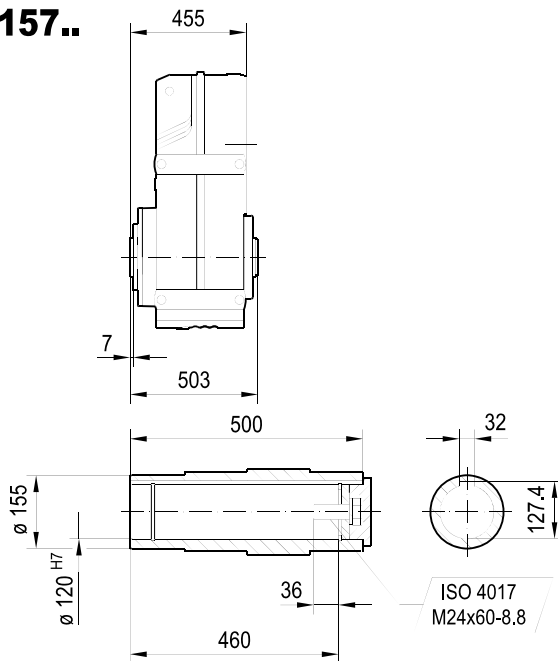
### FA157..

42 071 00 14

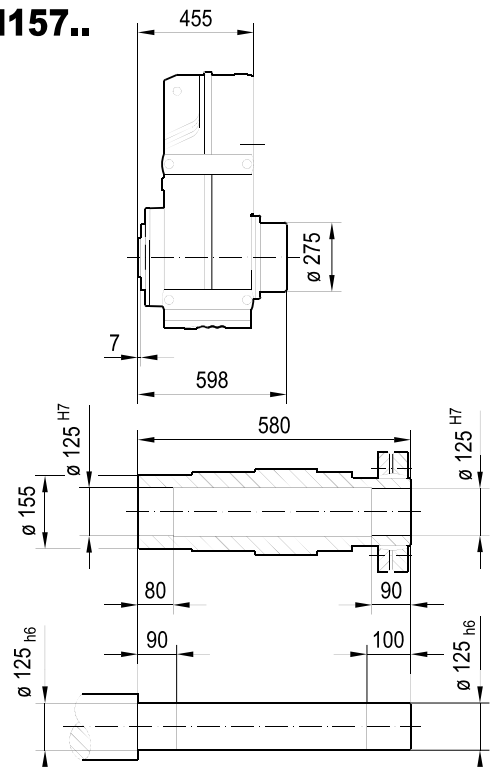
F.. /G



### FA157..



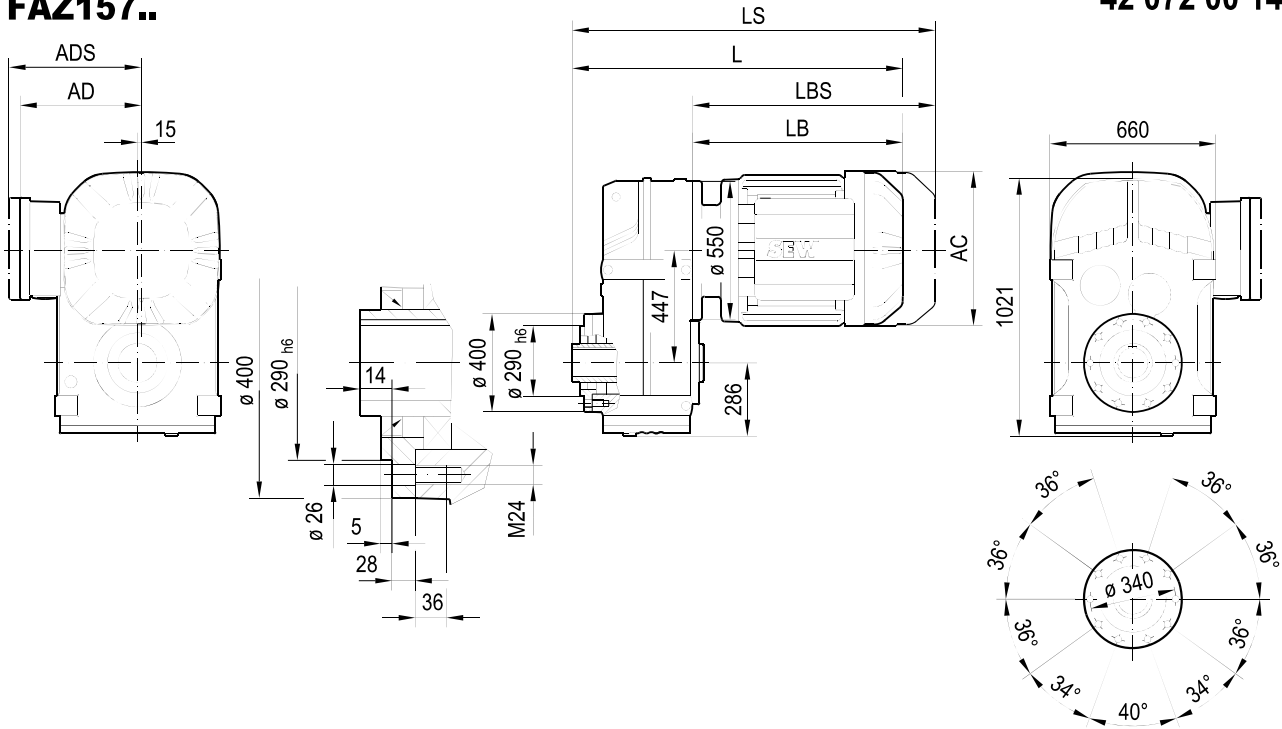
### FH157..



(-> 7.3)	DRN								
	160..	180..	200L	225..	250M	280S	280M	315S-M	315ME-H
AC	314	357	394	434	495	495	495	624	624
AD	253	268	283	305	394	394	394	506	506
ADS	253	268	283	305	394	394	394	506	506
L	955	978	1088	1062	1199	1199	1294	1396	1526
LS	1144	1167	1293	1267	1439	1439	1534	1647	1777
LB	500	523	633	607	744	744	839	941	1071
LBS	689	712	838	812	984	984	1079	1192	1322

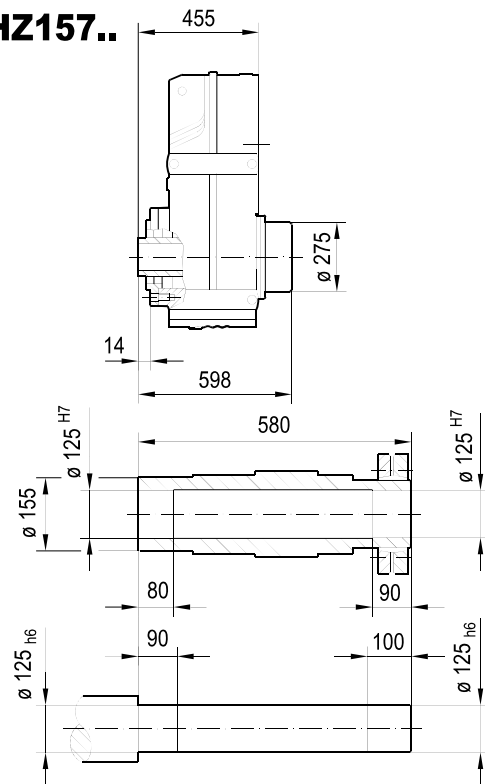
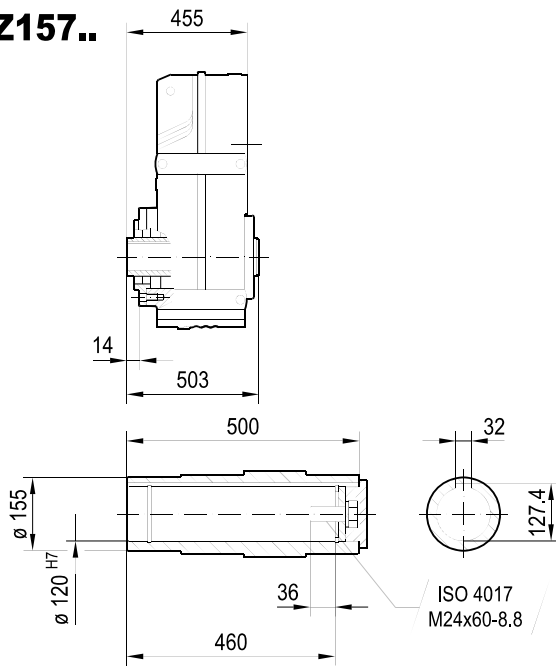
**FAZ157..**

42 072 00 14



**FAZ157..**

**FHZ157..**

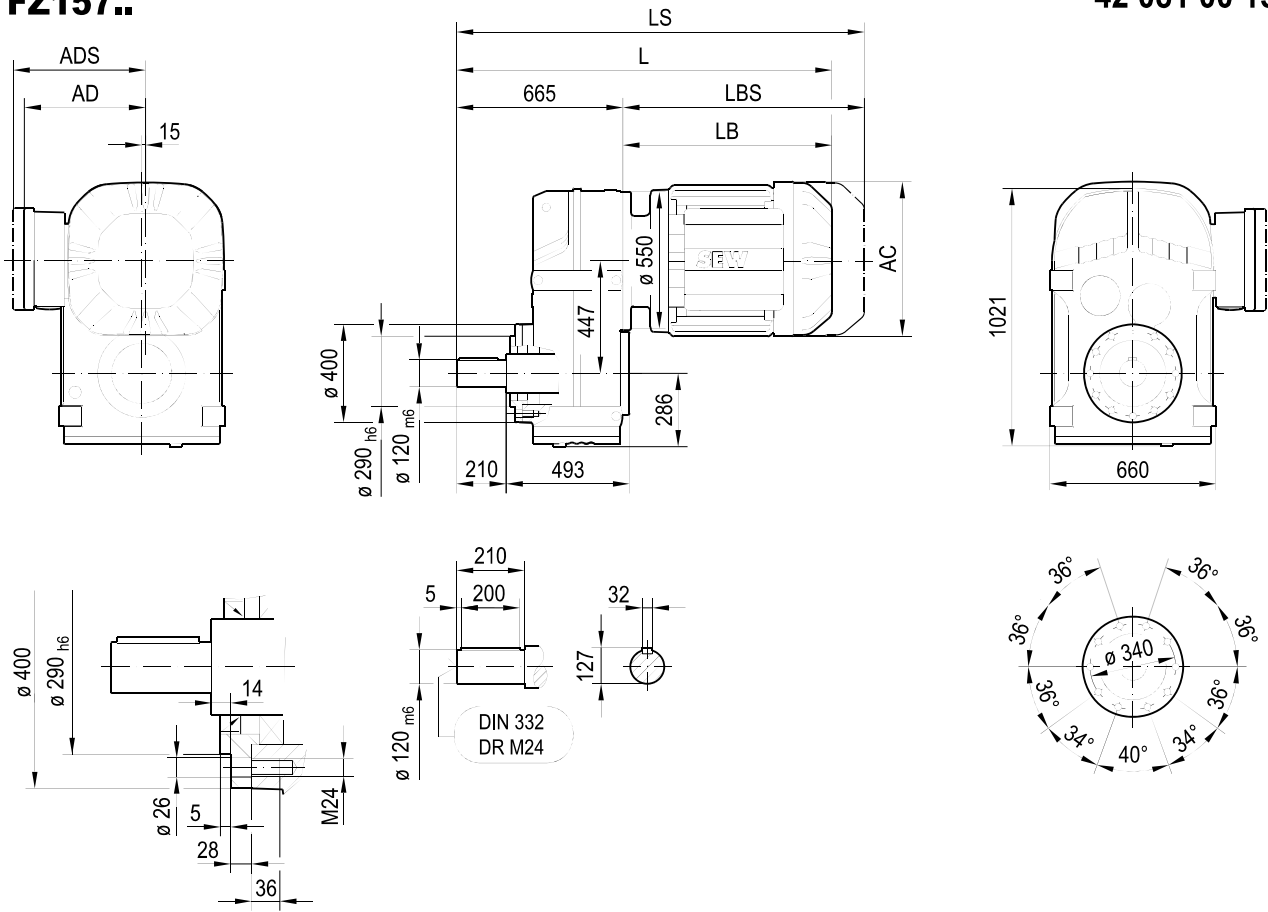


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(→ 7.3)	DRN								
	160..	180..	200L	225..	250M	280S	280M	315S-M	315ME-H
AC	314	357	394	434	495	495	495	624	624
AD	253	268	283	305	394	394	394	506	506
ADS	253	268	283	305	394	394	394	506	506
L	955	978	1088	1062	1199	1199	1294	1396	1526
LS	1144	1167	1293	1267	1439	1439	1534	1647	1777
LB	500	523	633	607	744	744	839	941	1071
LBS	689	712	838	812	984	984	1079	1192	1322

### FZ157..

42 081 00 15

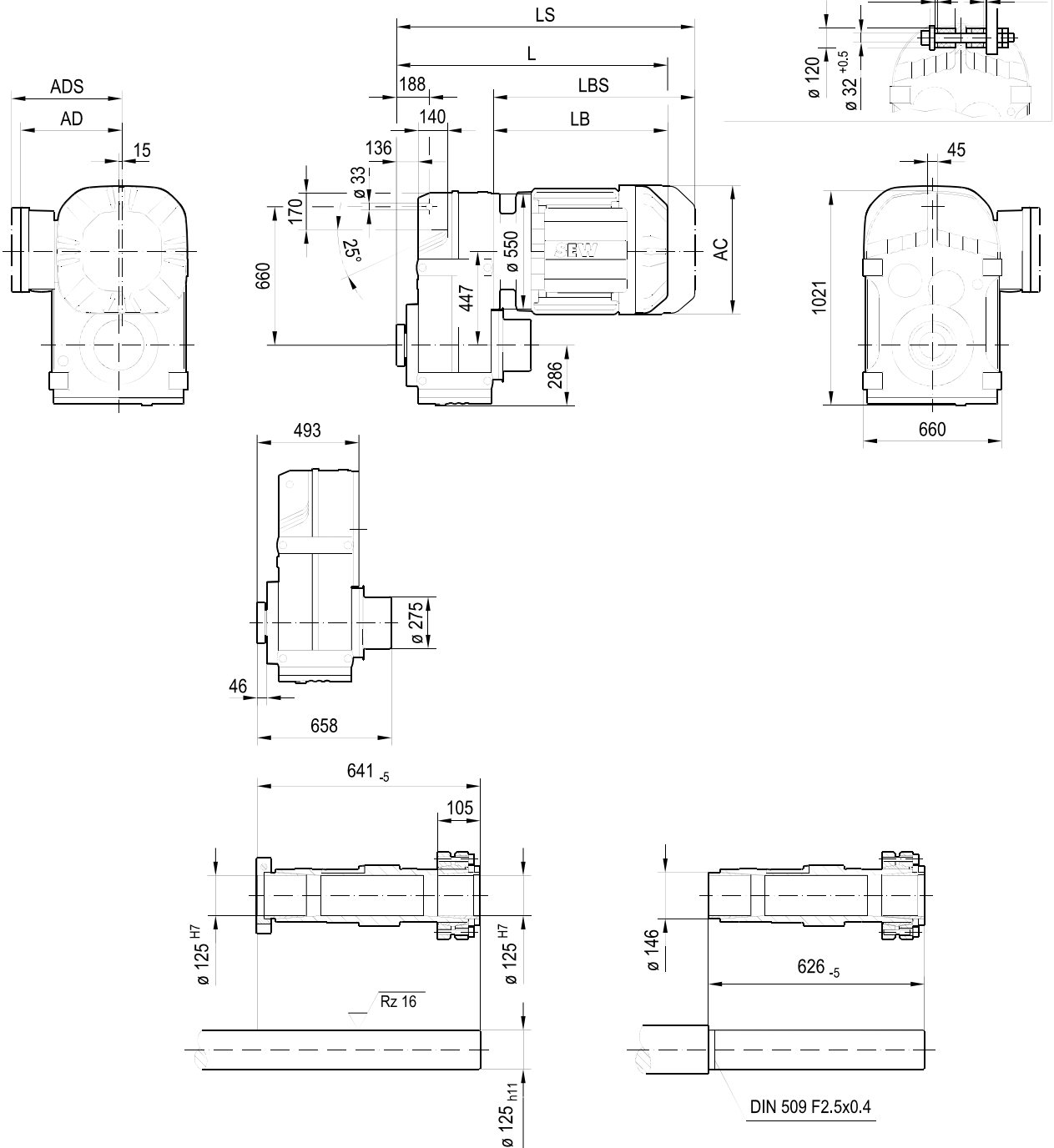


(-> 7.3)	DRN								
	160..	180..	200L	225..	250M	280S	280M	315S-M	315ME-H
AC	314	357	394	434	495	495	495	624	624
AD	253	268	283	305	394	394	394	506	506
ADS	253	268	283	305	394	394	394	506	506
L	1165	1188	1298	1272	1409	1409	1504	1606	1736
LS	1354	1377	1503	1477	1649	1649	1744	1857	1987
LB	500	523	633	607	744	744	839	941	1071
LBS	689	712	838	812	984	984	1079	1192	1322

FT157..

42 073 01 14

F.. /G

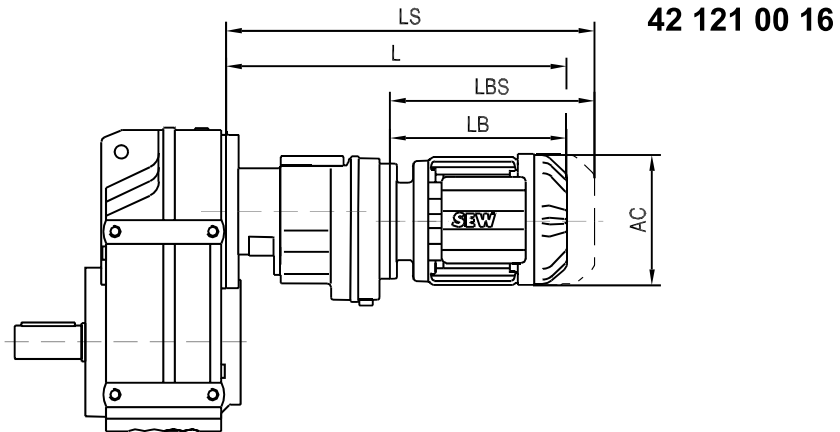


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(-> 7.3)	DRN								
	160..	180..	200L	225..	250M	280S	280M	315S-M	315ME-H
AC	314	357	394	434	495	495	495	624	624
AD	253	268	283	305	394	394	394	506	506
ADS	253	268	283	305	394	394	394	506	506
L	993	1016	1126	1100	1237	1237	1332	1434	1564
LS	1182	1205	1331	1305	1477	1477	1572	1685	1815
LB	500	523	633	607	744	744	839	941	1071
LBS	689	712	838	812	984	984	1079	1192	1322

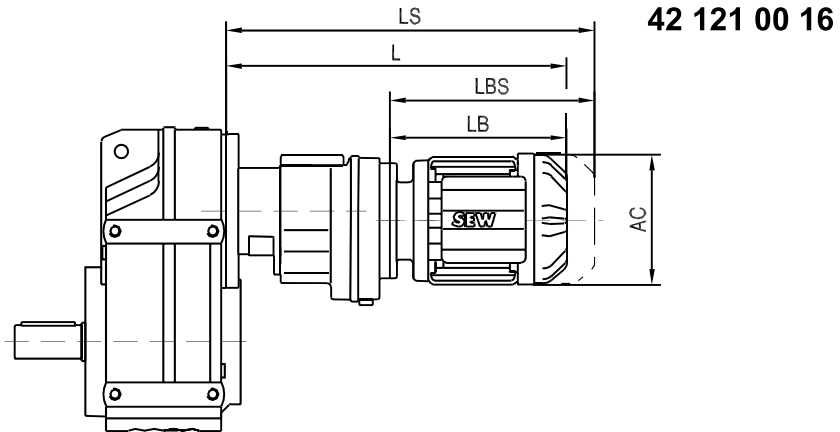
## 9.6 F..R..DRN.. dimension sheets in mm



18014407032230795

(→ 181)		AC	L	LS	LB	LBS
F..27R17	DRN63MS	115	365	421	190	246
	DRN63M	115	379	435	204	260
	DRN71MS	139	381	448	206	273
	DRN80M	156	452	533	277	358
F..37R17	DRN63MS	115	365	421	190	246
	DRN63M	115	379	435	204	260
	DRN71MS	139	381	448	206	273
	DRN71M	139	401	468	226	293
	DRN80M	156	452	533	277	358
F..47R17	DRN63MS	115	365	421	190	246
	DRN63M	115	379	435	204	260
	DRN71MS	139	381	448	206	273
	DRN71M	139	401	468	226	293
	DRN80M	156	452	533	277	358
F..57R37	DRN63MS	115	355	411	190	246
	DRN63M	115	369	425	204	260
	DRN71MS	139	371	438	206	273
	DRN71M	139	391	458	226	293
	DRN80MK	156	402	483	237	318
	DRN80M	156	447	528	282	363
	DRN90S	179	448	542	283	377
F..67R37	DRN63MS	115	355	411	190	246
	DRN63M	115	369	425	204	260
	DRN71MS	139	371	438	206	273
	DRN71M	139	391	458	226	293
	DRN80MK	156	402	483	237	318
	DRN80M	156	447	528	282	363
	DRN90S	179	448	542	283	377
F..77R37	DRN63MS	115	347	403	190	246
	DRN63M	115	361	417	204	260
	DRN71MS	139	363	430	206	273
	DRN71M	139	383	450	226	293
	DRN80MK	156	394	475	237	318
	DRN80M	156	439	520	282	363
	DRN90S	179	440	534	283	377
	DRN90L	179	472	566	315	409
	DRN100L/LM	197	521	615	364	458

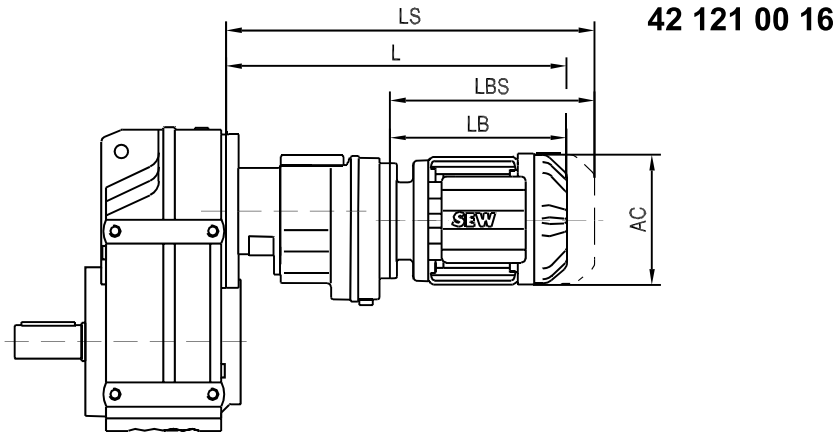
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(→ 181)		AC	L	LS	LB	LBS
F..87R57	DRN63MS	115	411	467	184	240
	DRN63M	115	425	481	198	254
	DRN71MS	139	427	494	199	267
	DRN71M	139	447	514	219	287
	DRN80MK	156	458	539	230	311
	DRN80M	156	503	584	275	356
	DRN90S	179	504	598	277	370
	DRN90L	179	536	630	309	402
	DRN100LS	197	533	626	305	399
	DRN100L/LM	197	583	676	355	449
F..97R57	DRN63MS	115	406	462	184	240
	DRN63M	115	420	476	198	254
	DRN71MS	139	422	489	199	267
	DRN71M	139	442	509	219	287
	DRN80MK	156	453	534	230	311
	DRN80M	156	498	579	275	356
	DRN90S	179	499	593	277	370
	DRN90L	179	531	625	309	402
	DRN100LS	197	528	621	305	399
	DRN100L/LM	197	578	671	355	449
	DRN112M	221	609	721	386	498
	DRN132S	221	663	775	440	552
F..107R77	DRN63MS	115	424	480	177	233
	DRN63M	115	438	494	191	247
	DRN71MS	139	439	507	192	260
	DRN71M	139	459	527	212	280
	DRN80MK	156	470	551	223	304
	DRN80M	156	515	596	268	349
	DRN90S	179	517	610	270	363
	DRN90L	179	549	642	302	395
	DRN100LS	197	545	639	298	392
	DRN100L/LM	197	595	689	348	442
	DRN112M	221	626	738	379	491
	DRN132S	221	676	788	429	541
	DRN132M	261	694	832	447	585
DRN132L	261	720	857	473	610	

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(→ 181)		AC	L	LS	LB	LBS
F..127R77	DRN63MS	115	409	465	177	233
	DRN63M	115	423	479	191	247
	DRN71MS	139	424	492	192	260
	DRN71M	139	444	512	212	280
	DRN80MK	156	455	536	223	304
	DRN80M	156	500	581	268	349
	DRN90S	179	502	595	270	363
	DRN90L	179	534	627	302	395
	DRN100LS	197	530	624	298	392
	DRN100L/LM	197	580	674	348	442
	DRN112M	221	611	723	379	491
	DRN132S	221	661	773	429	541
	DRN132M	261	679	817	447	585
F..127R87	DRN100L/LM	197	623	717	343	437
	DRN112M	221	654	766	374	486
	DRN132S	221	704	816	424	536
	DRN132M	261	722	860	442	580
	DRN132L	261	748	885	468	605
	DRN160..	314	814	1003	534	723
F..157R97	DRN71MS	139	507	575	182	250
	DRN71M	139	527	595	202	270
	DRN80MK	156	538	619	213	294
	DRN80M	156	583	664	258	339
	DRN90S	179	585	678	260	353
	DRN90L	179	617	710	292	385
	DRN100LS	197	613	707	288	382
	DRN100L/LM	197	663	757	338	432
	DRN112M	221	694	806	369	481
	DRN132S	221	744	856	419	531
	DRN132M	261	762	900	437	575
	DRN132L	261	788	925	463	600
	DRN160..	314	854	1043	529	718
DRN180..	357	877	1066	552	741	