8GP60-190 premium

Technical data

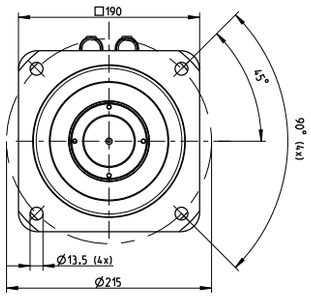
	8GP60-190hh003klmm	8GP60-190hh004klmm	8GP60-190hh005klmm	8GP60-190hh008klmm	8GP60-190hh010klmm	8GP60-190hh012klmm	8GP60-190hh015klmm	8GP60-190hh016klmm	8GP60-190hh020klmm	8GP60-190hh025klmm	8GP60-190hh032klmm	8GP60-190hh040klmm	8GP60-190hh064klmm	8GP60-190hh100klmm
Gearbox														
Number of gear stages	1	1	1	1	1	2	2	2	2	2	2	2	2	2
Gear ratio i	3	4	5	8	10	12	15	16	20	25	32	40	64	100
Nominal output torque T_{2N} [Nm]	1000	1300	1600	1000	630	1500	1500	1800	1800	1800	1800	1800	1000	630
Max. output torque T_{2max} [Nm]	1600	2080	2560	1600	1008	2400	2400	2880	2880	2880	2880	2880	1600	1008
E-stop torque T_{2stop} [Nm]	2000	2700	3200	2600	1350	3000	3000	3600	3600	3600	3600	3600	2600	1350
Idle torque [Nm] at 20°C and 3000 rpm	18.9	15.1	9.85	4.6	3.65	13.9	8.95	13.5	8.65	8.3	3.9	3.75	3.55	2.85
Max. average drive speed $n_{1N50\%}$ [rpm] at 50% T_{2N} and S1	700	750	850	1450	1900	1000	1250	1050	1300	1400	1900	2100	2500	2500
Max. average drive speed $n_{1N100\%}$ [rpm] at 100% T_{2N} and S1	500	550	550	1100	1550	750	950	800	1000	1100	1450	1600	2300	2500
Max. drive speed n_{1max} [rpm]	6000													
Max. backlash J_t [arcmin]	3	3	3	3	3	5	5	5	5	5	5	5	5	5
Reduced backlash J_t [arcmin] less than	1													
Torsional rigidity C_{t21} [Nm/arcmin]	130	130	130	130	130	140	140	140	140	140	140	140	140	140
Tilting rigidity C_{2K} [Nm/arcmin]	0													
Max. breakdown torque M_{2Kmax} [Nm]	0													
Max. radial force Fr_{max} [N] for 30,000 h	18000													
Max. radial force Fr_{max} [N] for 20,000 h	21000													
Max. axial force Fa_{max} [N] for 30,000 h	18500													
Max. axial force Fa_{max} [N] for 20,000 h	21000													
Operating noise L_{PA} [dB(A)]	72													
Efficiency at full load ŋ [%]	98	98	98	98	98	95	95	95	95	95	95	95	95	95
Min. operating temperature $B_{Tempmin}$ [°C]	-25													
Max. operating temperature $B_{Tempmax}$ [°C]	90													
Mounting orientation	Any													
Protection	IP65													
Weight m [kg]	30.5	30.5	30.5	30.5	30.5	45	45	45	45	45	45	45	45	45
Moment of inertia J_1 [kgcm^2]	54.2	39.44	33.38	27.49	25.97	54.3	52.5	49.9	45.03	40.32	40.36	35.68	30.36	27.74

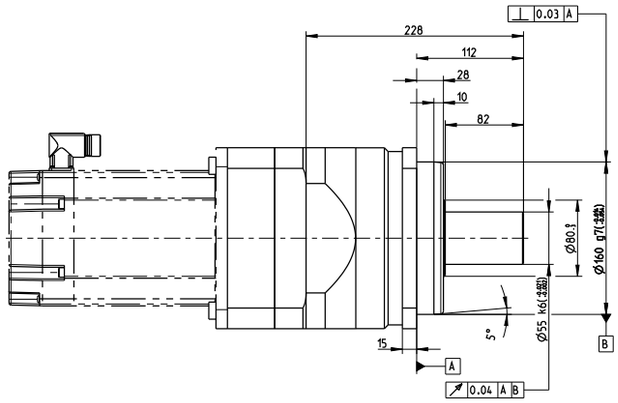
NOTE – Output torque / Max. output torque: This refers to an output shaft speed of n_2 = 100 rpm and application factor K_A = 1 as well as S1 operating mode for electrical machines and T = 30°C, depending on the diameter of the motor shaft. The maximum output torque is only permissible for 30,000 revolutions!
NOTE – E-stop torque: Approved for 1000x

NOTE – Axial / radial force: With reference to the middle of the output shaft; the entries refer to an output shaft speed of n_2 = 100 rpm and application factor K_A = 1 as well as S1 operating mode for electrical machines and T = 30°C

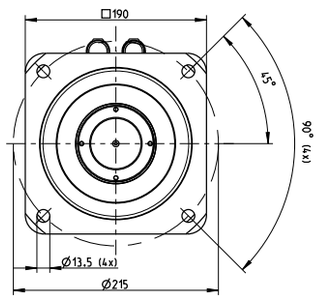
NOTE – Running noise: Noise level at a distance of 1 m; at an output speed of n_1 = 3000 rpm without a load; i = 5
NOTE – Operating temperature: With reference to the middle of the housing surface
NOTE – Weight: Planetary gearbox including universal flange (specific weight upon request)

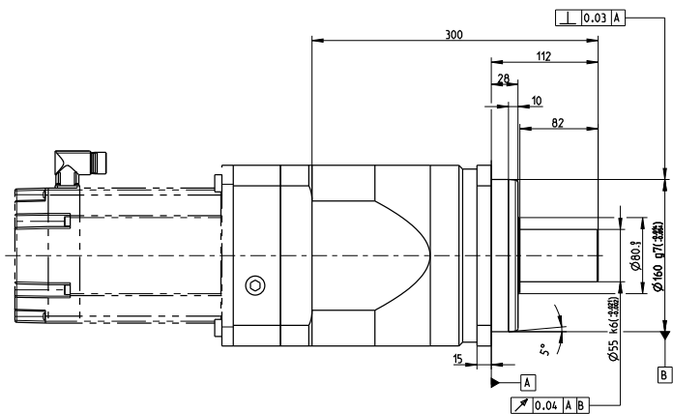
1-stage gear





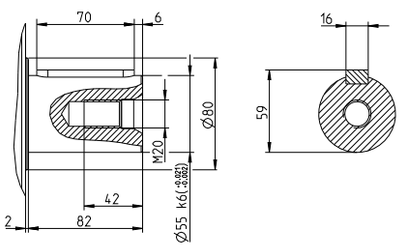
2-stage gear



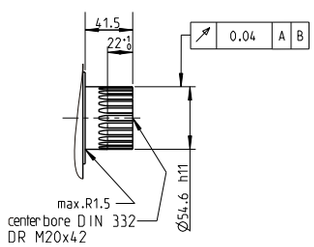


Alternative drive shaft options

Shaft keys according to DIN 6885 form A



Spline shaft according to DIN 5480 - W 55 x 2 x 30 x 26 x 6 m



Adapter flange - Overview of dimensions

The flange length L completes the diagram for determining the gearbox length.

8GP60-190	8LSA/C5	8LSA/C6	8LSA/ C7(3-5)	8LSA/ C7(6-8)	8LSA/ C83/84	8LSA/ C85/86	8JSA5	8JSA6	8JSA7	8LSN5
Flange length L [mm]	82.3	82.3	82.3	102.3	102.3	132.3	82.3	82.3	102.3	82.3
Flange diameter Q [mm]	190	190	190	190	240	240	190	190	190	190