8GF70-200 premium

Technical data

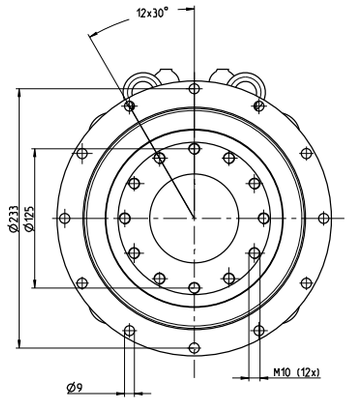
	8GF70-200hh004klmm	8GF70-200hh005klmm	8GF70-200hh007klmm	8GF70-200hh010klmm	8GF70-200hh016klmm	8GF70-200hh020klmm	8GF70-200hh025klmm	8GF70-200hh035klmm	8GF70-200hh040klmm	8GF70-200hh050klmm	8GF70-200hh070klmm	8GF70-200hh100klmm
Gearbox												
Number of gear stages	1	1	1	1	2	2	2	2	2	2	2	2
Gear ratio i	4	5	7	10	16	20	25	35	40	50	70	100
Nominal output torque T_{2N} [Nm]	950	950	900	750	950	950	950	950	950	950	900	750
Max. output torque T_{2max} [Nm]	1520	1520	1440	1200	1520	1520	1520	1520	1520	1520	1440	1200
E-stop torque T_{2stop} [Nm]	3200	3200	3200	1700	3200	3200	3200	3200	3200	3200	3200	1700
Idle torque [Nm] at 20°C and 3000 rpm	26.85	18.05	10.7	6.65	7.95	5.5	4.85	3.05	2.3	2.1	1.9	1.8
Max. average drive speed $n_{1N50\%}$ [rpm] at 50% T_{2N} and S1	750	950	1250	1700	1550	1900	2050	2650	3000	3000	3000	3000
Max. average drive speed $n_{1N100\%}$ [rpm] at 100% T_{2N} and S1	700	850	1150	1550	1400	1700	1900	2450	2800	3000	3000	3000
Max. drive speed n_{1max} [rpm]	6000	6000	6000	6000	6500	6500	6500	6500	6500	6500	6500	6500
Max. backlash J_t [arcmin]	3	3	3	3	5	5	5	5	5	5	5	5
Reduced backlash J_t [arcmin] less than	1											
Torsional rigidity C_{t21} [Nm/arcmin]	650	650	650	650	550	550	550	550	550	550	550	550
Tilting rigidity C_{2K} [Nm/arcmin]	1150											
Max. breakdown torque M_{2Kmax} [Nm]	2475											
Max. radial force Fr_{max} [N] for 30,000 h	21000											
Max. radial force Fr_{max} [N] for 20,000 h	23000											
Max. axial force Fa_{max} [N] for 30,000 h	14000											
Max. axial force Fa_{max} [N] for 20,000 h	16000											
Operating noise L_{PA} [dB(A)]	68											
Efficiency at full load ŋ [%]	98	98	98	98	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]	28.3	28.3	28.3	28.3	32	32	32	32	32	32	32	32
Moment of inertia J_1 [kgcm^2]	45.173	36.268	28.706	24.718	10.876	9.208	8.852	7.652	7.084	6.995	6.922	6.88

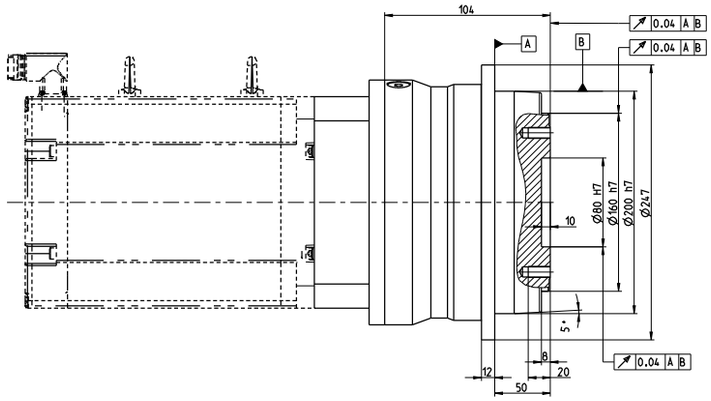
NOTE – Output torque / Max. output torque: This refers to an output shaft speed of n_2 = 100 rpm and application factor K_A = 1 as well as S1 operating mode for electrical machines and T = 30°C, depending on the diameter of the motor shaft. The maximum output torque is only permissible for 30,000 revolutions!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

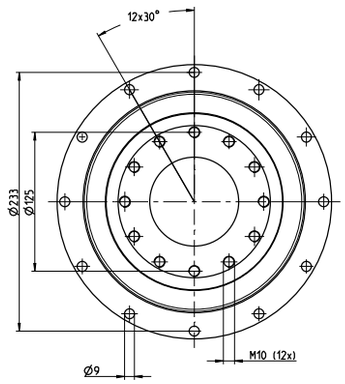
NOTE – Running noise: Noise level at a distance of 1 m; at an output speed of n_1 = 3000 rpm without a load; i = 5
NOTE – Operating temperature: With reference to the middle of the housing surface
NOTE – Weight: Planetary gearbox including universal flange (specific weight upon request)

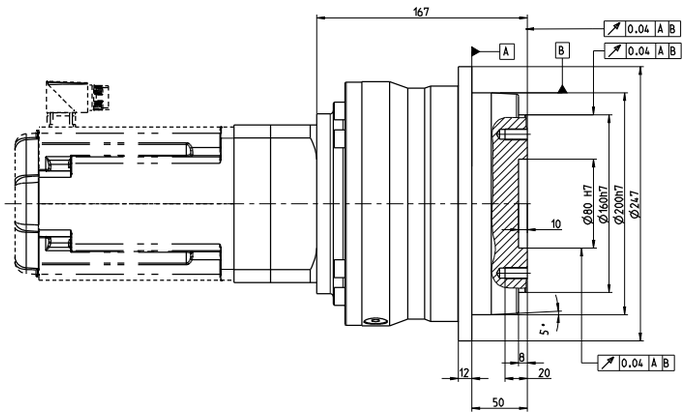
1-stage gear





2-stage gear





Adapter flange - Overview of dimensions

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

8GF70-200	8LSA/C4	8LSA/C5	8LSA/C6	8LSA/ C7(3-5)	8LSA/ C7(6-8)	8LSA/ C83/84	8LSA/ C85/86	8JSA5	8JSA6	8JSA7	8LSN4	8LSN5
One-stage												
Flange length L [mm]	---	68	68	68	88	88	118	68	68	88	---	68
Flange diameter Q [mm]	---	210	210	210	210	240	240	210	210	210	---	210
Two-stage												
Flange length L [mm]	50.5	50.5	50.5	60.5	82	82	112	50.5	60.5	82	50.5	50.5
Flange diameter Q [mm]	152	150	210	210	210	240	240	150	150	210	150	150