8GP30-120 economy

Technical data

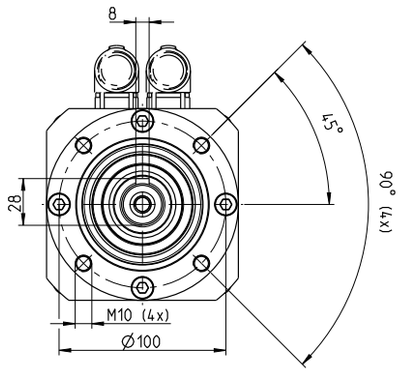
	8GP30-120hh005klmm	8GP30-120hh010klmm	8GP30-120hh025klmm
Gearbox			
Number of gear stages	1	1	2
Gear ratio i	5	10	25
Nominal output torque T_{2N} [Nm]	172	95	172
Max. output torque T_{2max} [Nm]	275	152	275
E-stop torque T_{2stop} [Nm]	344	190	344
Idle torque [Nm] at 20°C and 3000 rpm	0.7	0.5	0.55
Max. average drive speed $n_{1N50\%}$ [rpm] at 50% T_{2N} and S1		3500	
Max. average drive speed $n_{1N100\%}$ [rpm] at 100% T_{2N} and S1	2900	3500	3500
Max. drive speed n_{1max} [rpm]		6500	
Max. backlash J_t [arcmin]	7	7	9
Reduced backlash J_t [arcmin] less than		0	
Torsional rigidity C_{t21} [Nm/arcmin]	12	12	13
Tilting rigidity C_{2K} [Nm/arcmin]		0	
Max. breakdown torque M_{2Kmax} [Nm]		0	
Max. radial force Fr_{max} [N] for 30,000 h		1500	
Max. radial force Fr_{max} [N] for 20,000 h		1750	
Max. axial force Fa_{max} [N] for 30,000 h		2100	
Max. axial force Fa_{max} [N] for 20,000 h		2500	
Operating noise L_{PA} [dB(A)]		65	
Efficiency at full load η [%]	96	96	94
Min. operating temperature $B_{Tempmin}$ [°C]		-25	
Max. operating temperature $B_{Tempmax}$ [°C]		90	
Mounting orientation		Any	
Protection		IP54	
Weight m [kg]	6	6	8
Moment of inertia J_1 [kgcm^2]	3.42	2.85	3.27

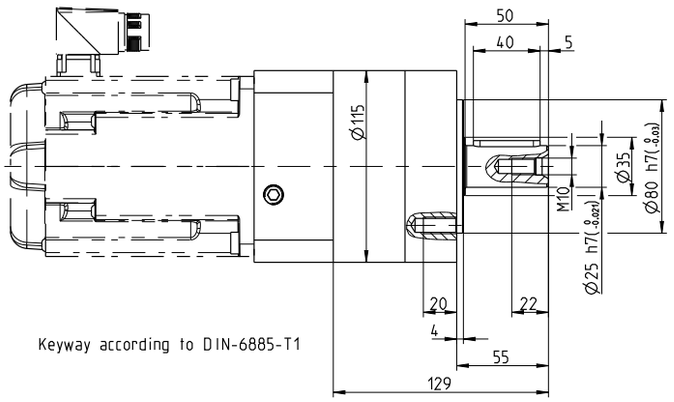
NOTE – Output torque / Max. output torque: This refers to an output shaft speed of n_2 = 100 rpm and application factor K_A = 1 as well as S1 operating mode for electrical machines and T = 30°C, depending on the diameter of the motor shaft. The maximum output torque is only permissible for 30,000 revolutions!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

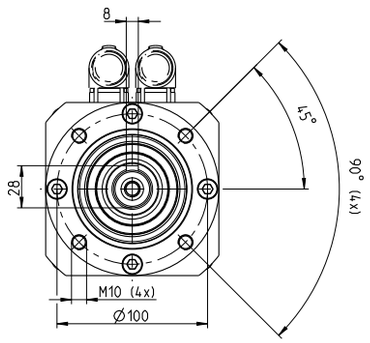
NOTE – Running noise: Noise level at a distance of 1 m; at an output speed of n_1 = 3000 rpm without a load; i = 5
NOTE – Operating temperature: With reference to the middle of the housing surface
NOTE – Weight: Planetary gearbox including universal flange (specific weight upon request)

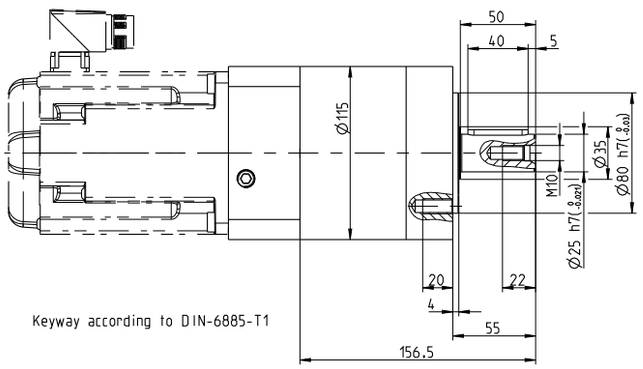
1-stage gear





2-stage gear





Adapter flange - Overview of dimensions

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

8GP30-120	8LSA3	8LSA/C4	8LSA/C5	8JSA4	8JSA5	80MPH
Flange length L [mm]	47.3	47.3	57.3	47.3	57.3	47.3
Flange diameter Q [mm]	116.5	116.5	140	116.5	116.5	116.5