8GP50-155

Technical data

	8GP50-155hh004klmm	8GP50-155hh005klmm	8GP50-155hh010klmm	8GP50-155hh016klmm	8GP50-155hh020klmm	8GP50-155hh025klmm	8GP50-155hh040klmm	8GP50-155hh050klmm	8GP50-155hh100klmm
Gears									
Number of stages	1	1	1	2	2	2	2	2	2
Gear ratio i	4	5	10	16	20	25	40	50	100
Output torque T_{2N} [Nm][1)]	460	445	210	460	460	445	460	445	210
Max. output torque T_{2max} [Nm][1)]	736	712	336	736	736	712	736	712	336
E-stop torque T_{2estop} [Nm][2)]	920	890	420	920	920	890	920	890	420
Idle torque at 20°C and 3,000 [min^{-1}] [Nm]	1.9	1.4	0.75	1.7	1.2	1.2	0.7	0.65	0.65
Max. average drive speed at 50% T_{2N} and S1 $n_{1N50\%}$ [min^{-1}]	1750	2100	3000	2800	3000	3000	3000	3000	3000
Max. average drive speed at 100% T_{2N} and S1 $n_{1N100\%}$ [min^{-1}]	1100	1350	3000	2000	2400	2750	3000	3000	3000
Max. drive speed n_{1max} [min^{-1}]					5500				
Max. backlash j_t [arcmin]	<8	<8	<8	<12	<12	<12	<12	<12	<12
Reduced backlash j_t [arcmin]					---				
Torsional rigidity C_{t21} [Nm/arcmin]	38	38	38	41	41	41	41	41	41
Tilting rigidity C_{2K} [Nm/arcmin]					---				
Max. tilting moment M_{2KMax} [Nm]					---				
Max. radial force for 30,000 h Fr_{max} [N][3)]					4600				
Max. radial force for 20,000 h Fr_{max} [N][3)]					5200				
Max. axial force for 30,000 h Fa_{max} [N][3)]					6000				
Max. axial force for 20,000 h Fa_{max} [N][3)]					7000				
Operating noise L_{PA} [dB(A)][4)]					70				
Efficiency at full load η [%]	96	96	96	96	94	94	94	94	94
Min. operating temperature $B_{Tempmin}$ [°C][5)]					-25				
Max. operating temperature $B_{Tempmax}$ [°C][5)]					90				
Mounting orientation					Any				
Protection type					IP 54				
Weight m [Kg]	16.5	16.5	16.5	20.5	20.5	20.5	20.5	20.5	20.5

1) Specifications refer to an output shaft speed of n_2=100min^{-1} and application factor K_A=1 as well as S1 operating mode for electrical machines and T=30°C; depends on the respective motor shaft diameter

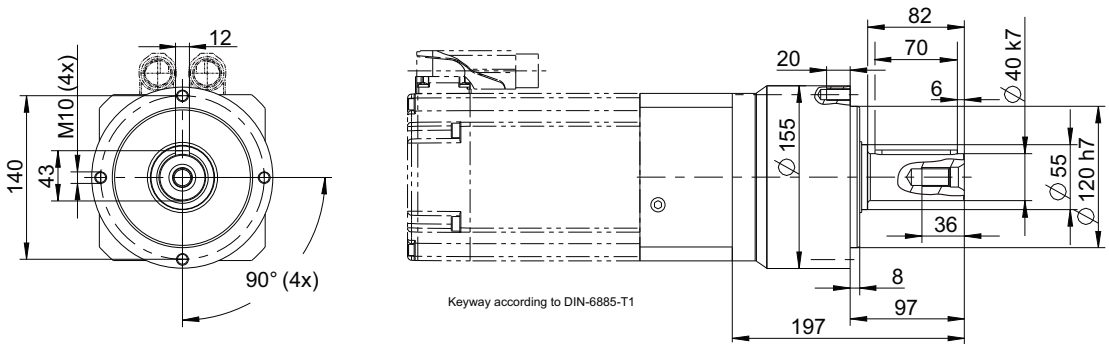
2) Approved for 1000x

3) With reference to the center of the output shaft; specifications refer to an output shaft speed of n_2=100min^{-1} and application factor K_A=1 as well as S1 operating mode for electrical machines and T=30°C

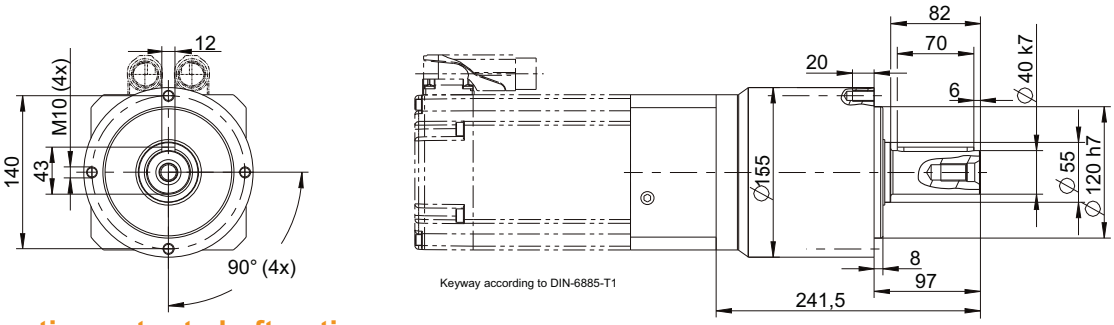
4) Noise level at a distance of 1 m; measured at a drive speed of n_1=3000min^{-1} without a load; i=5

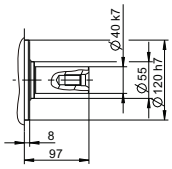
5) With reference to the center of the housing surface

1-stage gearboxes



2-stage gearboxes



Alternative output shaft options

Smooth shaft