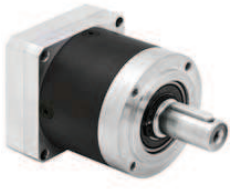
8GP40-080

Technical data



	8GP40-080hh003klmm	8GP40-080hh004klmm	8GP40-080hh005klmm	8GP40-080hh008klmm	8GP40-080hh010klmm	8GP40-080hh009klmm	8GP40-080hh012klmm	8GP40-080hh015klmm	8GP40-080hh016klmm	8GP40-080hh020klmm	8GP40-080hh025klmm	8GP40-080hh032klmm	8GP40-080hh040klmm	8GP40-080hh064klmm	8GP40-080hh100klmm
Gearboxes															
Number of stages			1							2					
Ratio i	3	4	5	8	10	9	12	15	16	20	25	32	40	64	100
Nominal output torque T_{2N} [Nm][1]	85	115	110	50	38	130	120	110	120		110	120	110	50	38
Max. output torque T_{2max} [Nm][1]	136	184	176	80	61	208	192	176	192		176	192	176	80	61
Emergency stop torque T_{2estop} [Nm][2]	170	230	220	100	76	260	240	220	240		220	240	220	100	76
No load running torque at 20°C and 3,000 [min^{-1}] [Nm]	0.3	0.2													
Max. average input speed at 50% T_{2N} and S1 $n_{1N50\%}$ [min^{-1}]	3900	3650	4000												
Max. average input speed at 100% T_{2N} and S1 $n_{1N100\%}$ [min^{-1}]	2400	2150	2650	4000		2700	3450	4000							
Max. input speed n_{1max} [min^{-1}]	7000														
Max. backlash j_t [arcmin]	<8					<12									
Reduced backlash j_t [arcmin]	-														
Torsional rigidity C_{t21} [Nm/arcmin]	6					6.5									
Tilting rigidity C_{2K} [Nm/arcmin]	-														
Max. tilting moment M_{2KMax} [Nm]	-														
Max. radial force for 30,000 h Fr_{max} [N][3]	650														
Max. radial force for 20,000 h Fr_{max} [N][3]	750														
Max. axial force for 30,000 h Fa_{max} [N][3]	900														
Max. axial force for 20,000 h Fa_{max} [N][3]	1000														
Running noise L_{PA} [dB(A)][4]	60														
Efficiency at full load η [%]	96					94									
Min. operating temperature $B_{Tempmin}$ [°C][5]	-25														
Max. operating temperature $B_{Tempmax}$ [°C][5]	90														
Mounting orientation	Any														
Protection class	IP 54														
Weight m [Kg]	2.1					2.6									
Moment of inertia J_1 [$Kgcm^2$]	0.77	0.52	0.45	0.39		0.74	0.72	0.71	0.5	0.44		0.39			

[1] The entries 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; depending on the respective motor shaft diameter

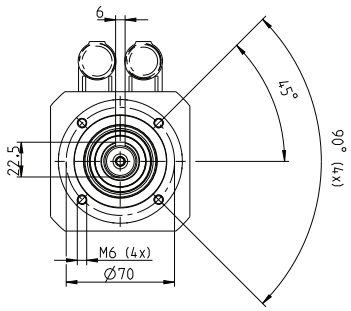
[2] Approved for 1000x

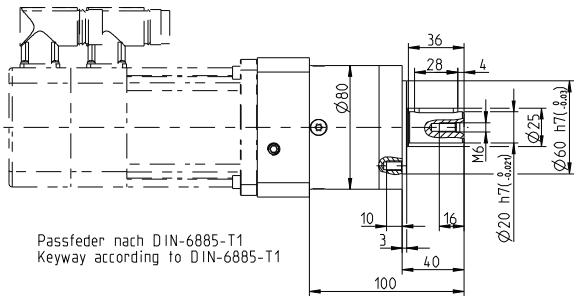
[3] With reference to the middle of the output shaft; the entries refer to an output shaft speed of n_2=100min^{-1} and application factor K_A=1 as well as S1 operating mode for electrical machines and T=30°C

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

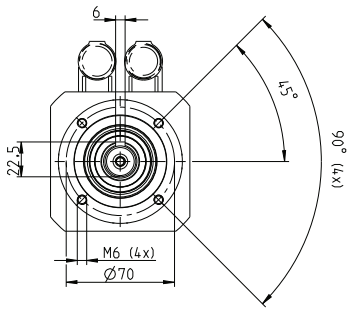
[5] With reference to the middle of the housing surface

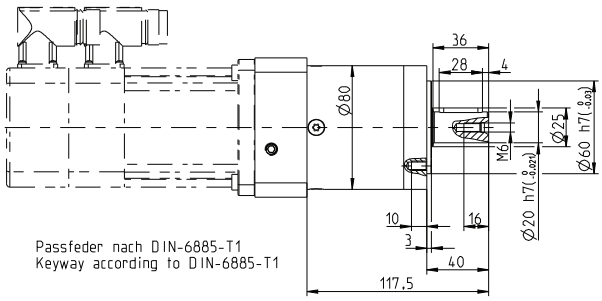
1 stage gearboxes





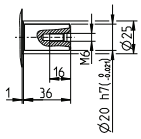
2 stage gearboxes





Alternative output shaft options

Smooth shaft



8GP40-080

Technical data

	8GP40-080hh060klmm	8GP40-080hh080klmm	8GP40-080hh120klmm	8GP40-080hh160klmm	8GP40-080hh200klmm	8GP40-080hh256klmm	8GP40-080hh320klmm	8GP40-080hh512klmm
Gearboxes								
Number of stages	3							
Ratio i	60	80	120	160	200	256	320	512
Nominal output torque T_{2N} [Nm][1)]	110	120	110	120	110	120	110	50
Max. output torque T_{2max} [Nm][1)]	176	192	176	192	176	192	176	80
Emergency stop torque T_{2estop} [Nm][2)]	220	240	220	240	220	240	220	100
No load running torque at 20°C and 3,000 [min^{-1}] [Nm]	0.2							
Max. average input speed at 50% T_{2N} and S1 $n_{1N50\%}$ [min^{-1}]	4000							
Max. average input speed at 100% T_{2N} and S1 $n_{1N100\%}$ [min^{-1}]	4000							
Max. input speed n_{1max} [min^{-1}]	7000							
Max. backlash j_t [arcmin]	<14							
Reduced backlash j_t [arcmin]	-							
Torsional rigidity C_{t21} [Nm/arcmin]	6.3							
Tilting rigidity C_{2K} [Nm/arcmin]	-							
Max. tilting moment M_{2KMax} [Nm]	-							
Max. radial force for 30,000 h Fr_{max} [N][3)]	650							
Max. radial force for 20,000 h Fr_{max} [N][3)]	750							
Max. axial force for 30,000 h Fa_{max} [N][3)]	900							
Max. axial force for 20,000 h Fa_{max} [N][3)]	1000							
Running noise L_{PA} [dB(A)][4)]	60							
Efficiency at full load η [%]	90							
Min. operating temperature $B_{Tempmin}$ [°C][5)]	-25							
Max. operating temperature $B_{Tempmax}$ [°C][5)]	90							
Mounting orientation	Any							
Protection class	IP 54							
Weight m [Kg]	3.1							
Moment of inertia J_1 [$Kgcm^2$]	0.51	0.5	0.7	0.39				

[1)] The entries 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; depending on the respective motor shaft diameter

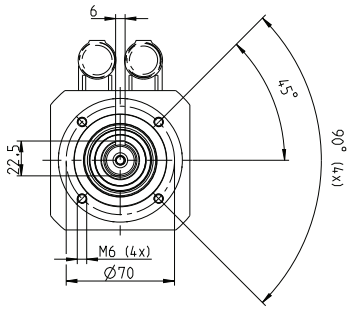
[2)] Approved for 1000x

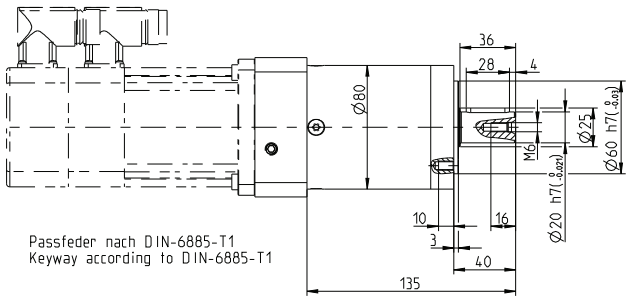
[3)] With reference to the middle of the output shaft; the entries refer to an output shaft speed of n_2=100min^{-1} and application factor K_A=1 as well as S1 operating mode for electrical machines and T=30°C

[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 middle of the housing surface

3 stage gearboxes





Alternative output shaft options

Smooth shaft