8GA40-080

Technical data

	8GA40-080hh003klmm	8GA40-080hh004klmm	8GA40-080hh005klmm	8GA40-080hh008klmm	8GA40-080hh010klmm	8GA40-080hh009klmm	8GA40-080hh012klmm	8GA40-080hh015klmm	8GA40-080hh016klmm	8GA40-080hh020klmm	8GA40-080hh025klmm	8GA40-080hh032klmm	8GA40-080hh040klmm	8GA40-080hh064klmm	8GA40-080hh100klmm
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]	40	53	67	50	38	130	120	110	120		110	120	110	50	38
Max. output torque T_{2max} [Nm][1]	64	85	107	80	61	208	192	176	192		176	192	176	80	61
Emergency stop torque T_{2estop} [Nm][2]	80	106	134	100	76	260	240	220	240		220	240	220	100	76
No load running torque at 20°C and 3,000 [min^{-1}] [Nm]	0.4		0.3												
Max. average input speed at 50% T_{2N} and S1 $n_{1N50\%}$ [min^{-1}]	4000					3600	4000								
Max. average input speed at 100% T_{2N} and S1 $n_{1N100\%}$ [min^{-1}]	2750	2650		4000		2150	2850	3550	3400	4000					
Max. input speed n_{1max} [min^{-1}]	7000														
Max. backlash j_t [arcmin]	<14					<18									
Reduced backlash j_t [arcmin]	-														
Torsional rigidity C_{t21} [Nm/arcmin]	4.5					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]	73														
Efficiency at full load η [%]	94					92									
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]	4.4					5									
Moment of inertia J_1 [$Kgcm^2$]	1.19	0.94	0.87	0.81		1.16	1.14	1.13	0.92	0.86		0.81			

[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

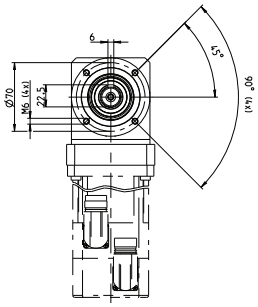
[2] Approved for 1000x

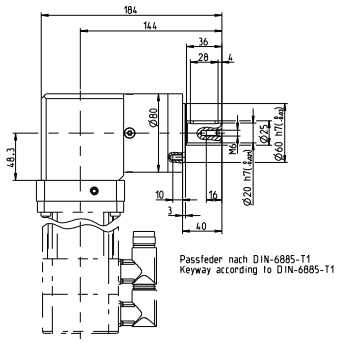
[3] With reference to the middle of the output shaft; the entries refer to an output shaft speed of n_2=100min^{-1} and application factor K_A=1 as well as S1 operating mode for electrical machines and T=30°C

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

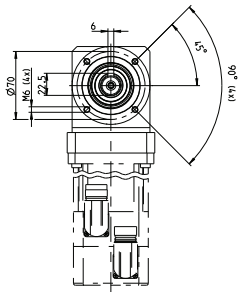
[5] With reference to the middle of the housing surface

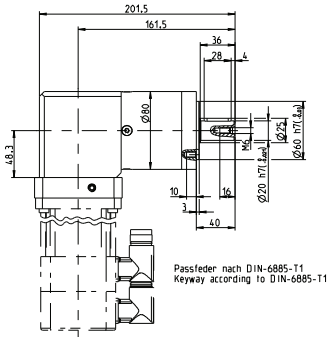
1 stage gearboxes





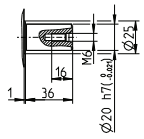
2 stage gearboxes





Alternative output shaft options

Smooth shaft



8GA40-080

Technical data

	8GA40-080hh060klmm	8GA40-080hh080klmm	8GA40-080hh120klmm	8GA40-080hh160klmm	8GA40-080hh200klmm	8GA40-080hh256klmm	8GA40-080hh320klmm	8GA40-080hh512klmm
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]	0.3							
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]	<20							
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)]	73							
Efficiency at full load η [%]	88							
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]	5.5							
Moment of inertia J_1 [$Kgcm^2$]	0.93	0.92	1.12	0.81				

[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

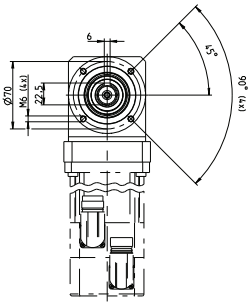
[2)] Approved for 1000x

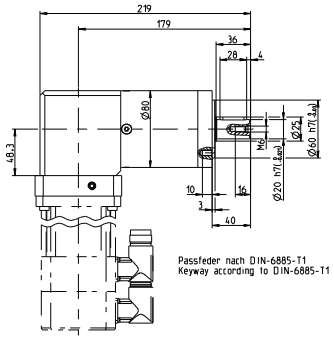
[3)] With reference to the middle of the output shaft; the entries refer to an output shaft speed of n_2=100min^{-1} and application factor K_A=1 as well as S1 operating mode for electrical machines and T=30°C

[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