

8GP40-060

Technical data



8GP40-060hh003klmm

8GP40-060hh004klmm

8GP40-060hh005klmm

8GP40-060hh008klmm

8GP40-060hh010klmm

8GP40-060hh009klmm

8GP40-060hh012klmm

8GP40-060hh015klmm

8GP40-060hh016klmm

8GP40-060hh020klmm

8GP40-060hh025klmm

8GP40-060hh032klmm

8GP40-060hh040klmm

8GP40-060hh064klmm

8GP40-060hh100klmm

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⁾	28	38	40	18	15	44					40	44	40	18	15	
Max. output torque T _{2max} [Nm] ¹⁾	45	61	64	29	24	70					64	70	64	29	24	
Emergency stop torque T _{2estop} [Nm] ²⁾	56	76	80	36	30	88					80	88	80	36	30	
No load running torque at 20°C and 3,000 [min ⁻¹] [Nm]								0.1								
Max. average input speed at 50% T _{2N} and S1 n _{1N50%} [min ⁻¹]								4500								
Max. average input speed at 100% T _{2N} and S1 n _{1N100%} [min ⁻¹]	4450	4400	4500													
Max. input speed n _{1max} [min ⁻¹]								13000								
Max. backlash j _{lt} [arcmin]			<12			<15										
Reduced backlash j _{lt} [arcmin]			-													
Torsional rigidity C _{t21} [Nm/arcmin]			2.3			2.5										
Tilting rigidity C _{2K} [Nm/arcmin]			-													
Max. tilting moment M _{2KMax} [Nm]			-													
Max. radial force for 30,000 h Fr _{max} [N] ³⁾			340													
Max. radial force for 20,000 h Fr _{max} [N] ³⁾			400													
Max. axial force for 30,000 h Fa _{max} [N] ³⁾			450													
Max. axial force for 20,000 h Fa _{max} [N] ³⁾			500													
Running noise L _{PA} [dB(A)] ⁴⁾			58													
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]			0.9			1.1										
Moment of inertia J ₁ [Kgcm ²]	0.14	0.09	0.08	0.07	0.06	0.13	0.08	0.09	0.08	0.06						

¹⁾ The entries refer to an output shaft speed of $n_2=100\text{min}^{-1}$ and application factor $K_A=1$ as well as S1 operating mode for electrical machines and $T=30^\circ\text{C}$; depending on the respective motor shaft diameter

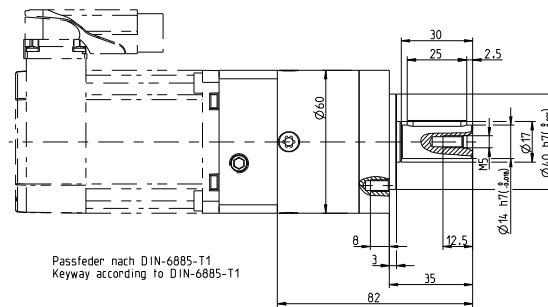
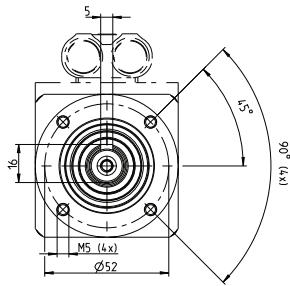
²⁾ Approved for 1000x

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

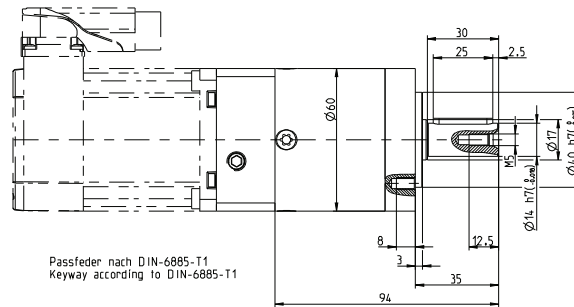
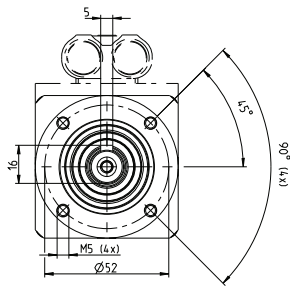
⁴⁾ Noise level at a distance of 1 m; measured at a drive speed of $n_1=3000\text{min}^{-1}$ without a load; $i=5$

⁵⁾ With reference to the middle of the housing surface

1 stage gearboxes

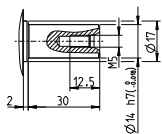


2 stage gearboxes



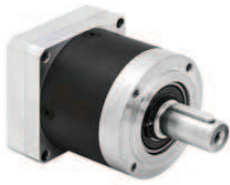
Alternative output shaft options

Smooth shaft



8GP40-060

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8GP40-060hh060k1mm

8GP40-060hh080k1mm

8GP40-060hh120k1mm

8GP40-060hh160k1mm

8GP40-060hh200k1mm

8GP40-060hh256k1mm

8GP40-060hh320k1mm

8GP40-060hh512k1mm

Gearboxes

Number of stages	3							
Ratio i	60	80	120	160	200	256	320	512
Nominal output torque T_{2N} [Nm] ¹⁾		44			40	44	40	18
Max. output torque T_{2max} [Nm] ¹⁾		70			64	70	64	29
Emergency stop torque T_{2estop} [Nm] ²⁾		88			80	88	80	36
No load running torque at 20°C and 3,000 [min ⁻¹] [Nm]	0.1							
Max. average input speed at 50% T_{2N} and S1 $n_{1N50\%}$ [min ⁻¹]	4500							
Max. average input speed at 100% T_{2N} and S1 $n_{1N100\%}$ [min ⁻¹]	4500							
Max. input speed n_{1max} [min ⁻¹]	13000							
Max. backlash j_t [arcmin]	<18							
Reduced backlash j_r [arcmin]	-							
Torsional rigidity C_{t21} [Nm/arcmin]	2.5							
Tilting rigidity C_{2K} [Nm/arcmin]	-							
Max. tilting moment M_{2KMax} [Nm]	-							
Max. radial force for 30,000 h F_{rmax} [N] ³⁾	340							
Max. radial force for 20,000 h F_{rmax} [N] ³⁾	400							
Max. axial force for 30,000 h F_{amax} [N] ³⁾	450							
Max. axial force for 20,000 h F_{amax} [N] ³⁾	500							
Running noise L_{PA} [dB(A)] ⁴⁾	58							
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]	1.3							
Moment of inertia J_1 [Kgcmm ²]	0.08				0.06			

¹⁾ The entries refer to an output shaft speed of $n_2=100\text{min}^{-1}$ and application factor $K_A=1$ as well as S1 operating mode for electrical machines and $T=30^\circ\text{C}$; 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 $n_2=100\text{min}^{-1}$ and application factor $K_A=1$ as well as S1 operating mode for electrical machines and $T=30^\circ\text{C}$

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

⁵⁾ With reference to the middle of the housing surface

