

8GA40-060

Technical data



8GA40-060hh003klmm

8GA40-060hh004klmm

8GA40-060hh005klmm

8GA40-060hh008klmm

8GA40-060hh010klmm

8GA40-060hh009klmm

8GA40-060hh012klmm

8GA40-060hh015klmm

8GA40-060hh016klmm

8GA40-060hh020klmm

8GA40-060hh025klmm

8GA40-060hh032klmm

8GA40-060hh040klmm

8GA40-060hh064klmm

8GA40-060hh100klmm

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⁾	14	19	24	18	15	44					40	44	40	18	15				
Max. output torque T _{2max} [Nm] ¹⁾	22	30	38	29	24	70					64	70	64	29	24				
Emergency stop torque T _{2estop} [Nm] ²⁾	28	38	48	36	30	88					80	88	80	36	30				
No load running torque at 20°C and 3,000 [min ⁻¹] [Nm]	0.2			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		3850	4500												
Max. input speed n _{1max} [min ⁻¹]						13000													
Max. backlash j _{lt} [arcmin]				<18							<21								
Reduced backlash j _{lt} [arcmin]											-								
Torsional rigidity C _{t21} [Nm/arcmin]				1.5							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⁾											70								
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]				1.7							1.9								
Moment of inertia J ₁ [Kgcm ²]	0.25	0.2	0.19	0.18		0.24		0.19	0.2	0.19		0.18							

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

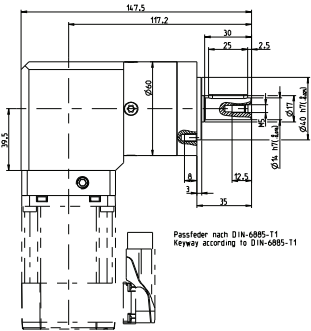
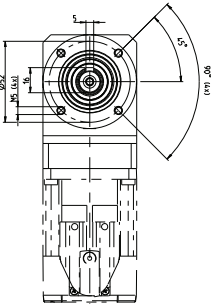
²⁾ Approved for 1000x

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 $T=30^\circ\text{C}$

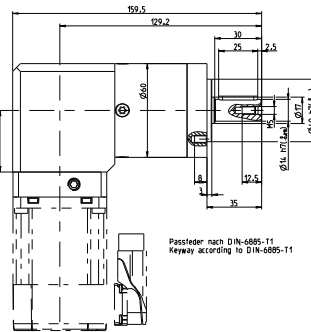
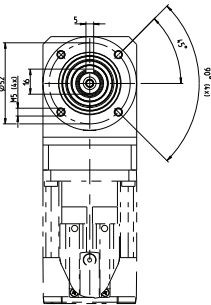
⁴⁾ Noise level at a distance of 1 m; measured at a drive speed of $n_1=3000\text{min}^{-1}$ without a load; $i=5$

⁵⁾ With reference to the middle of the housing surface

1 stage gearboxes

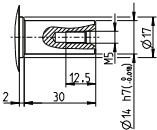


2 stage gearboxes



Alternative output shaft options

Smooth shaft



8GA40-060

Technical data



8GA40-060hh060k1mm

8GA40-060hh080k1mm

8GA40-060hh120k1mm

8GA40-060hh160k1mm

8GA40-060hh200k1mm

8GA40-060hh256k1mm

8GA40-060hh320k1mm

8GA40-060hh512k1mm

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]	<24							
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⁾	70							
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]	2.1							
Moment of inertia J_1 [Kgcmm ²]	0.19				0.18			

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

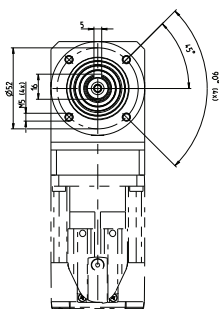
²⁾ Approved for 1000x

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

3 stage gearboxes



Alternative output shaft options

Smooth shaft

