

8GP60-142

Technical data



8GP60-142hh003klmm

8GP60-142hh004klmm

8GP60-142hh005klmm

8GP60-142hh008klmm

8GP60-142hh010klmm

8GP60-142hh012klmm

8GP60-142hh015klmm

8GP60-142hh016klmm

8GP60-142hh020klmm

8GP60-142hh025klmm

8GP60-142hh032klmm

8GP60-142hh040klmm

8GP60-142hh064klmm

8GP60-142hh100klmm

Gearboxes

Number of stages	1					2									
Ratio i	3	4	5	8	10	12	15	16	20	25	32	40	64	100	
Nominal output torque T _{2N} [Nm] ¹⁾	450	600	750	450	305	780		1000		900	1000	900	450	305	
Max. output torque T _{2max} [Nm] ¹⁾	720	960	1200	720	488	1248		1600		1440	1600	1440	720	488	
Emergency stop torque T _{2estop} [Nm] ²⁾	900	1200	1500	900	610	1560		2000		1800	2000	1800	900	610	
No load running torque at 20°C and 3,000 [min ⁻¹] [Nm]	2.2	1.7	1.4	1.1	1	1.1	1		0.9		0.8			0.7	
Max. average input speed at 50% T _{2N} and S1 n _{1N50%} [min ⁻¹]	1180	1210	1240	2170	2810	1620	1880	1630	1890	2230	2530	2910	4010	4500	
Max. average input speed at 100% T _{2N} and S1 n _{1N100%} [min ⁻¹]	800	770		1530	2170	1030	1220	1030	1220	1520	1710	2080	3430	4300	
Max. input speed n _{1max} [min ⁻¹]	6500														
Max. backlash j _{lt} [arcmin]	<3					<5									
Reduced backlash j _{rl} [arcmin]	<1														
Torsional rigidity C _{t21} [Nm/arcmin]	44					46									
Tilting rigidity C _{2K} [Nm/arcmin]	-														
Max. tilting moment M _{2KMax} [Nm]	-														
Max. radial force for 30,000 h Fr _{max} [N] ³⁾	11400														
Max. radial force for 20,000 h Fr _{max} [N] ³⁾	12500														
Max. axial force for 30,000 h Fa _{max} [N] ³⁾	13200														
Max. axial force for 20,000 h Fa _{max} [N] ³⁾	15000														
Running noise L _{PA} [dB(A)] ⁴⁾	68														
Efficiency at full load η [%]	98					95									
Min. operating temperature B _{Tempmin} [°C] ⁵⁾	-25														
Max. operating temperature B _{Tempmax} [°C] ⁵⁾	90														
Mounting orientation	Any														
Protection class	IP 65														
Weight m [Kg]	16					20.5									
Moment of inertia J ₁ [Kgcm ²]	16.77	12.16	10.31	8.73	8.35	16.72	15.19	14.52	13.05	11.89	11.94	10.79	9.39	8.76	

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

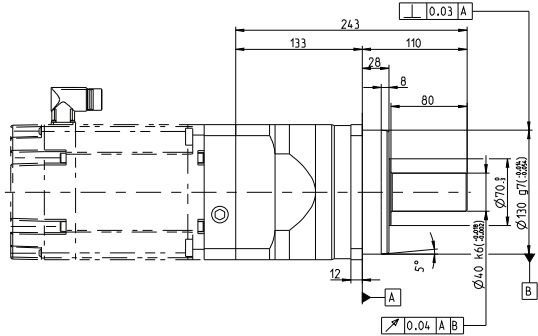
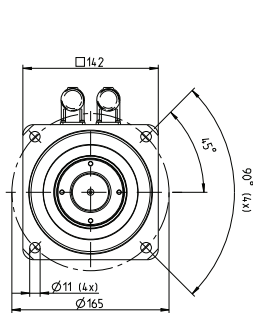
²⁾ Approved for 1000x

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

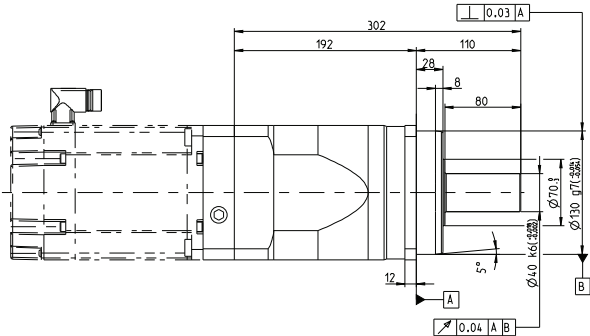
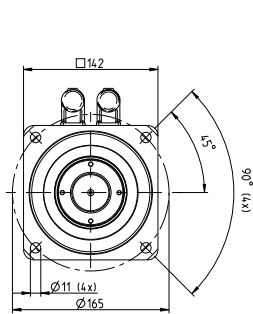
⁴⁾ Noise level at a distance of 1 m; measured at a drive speed of $n_1=3000\text{min}^{-1}$ without a load; $i=5$

⁵⁾ With reference to the middle of the housing surface

1 stage gearboxes

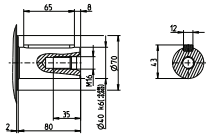


2 stage gearboxes



Alternative output shaft options

Shaft keys according to DIN 6885 form A



Spline shaft according to DIN 5480 - W 40 x 1.25 x 30 x 30 x 7 m

