Technical data

Gearbox	8GA60-142hh016klmm	8GA60-142hh020klmm	8GA60-142hh025klmm	8GA60-142hh032klmm	8GA60-142hh040klmm	8GA60-142hh064klmm	8GA60-142hh100klmm
Number of gear stages				2			
Gear ratio i	16	20	25	32	40	64	100
Nominal output torque T_{2N} [Nm]	640	800	700	360	450	450	305
Max. output torque T_{2max} [Nm]	1024	1280	1120	576	720	720	488
E-stop torque T_{2stop} [Nm]	1600	1600	1600	1200	1500	1000	750
Idle torque [Nm] at 20°C and 3000 rpm	7.7	7.15	6.95	6.4	6.35	4.05	3.95
Max. average drive speed $n_{1N50\%}$ [rpm] at 50% T_{2N} and S1	1000	1050	1150	1400	1450	1750	1900
Max. average drive speed $n_{1N100\%}$ [rpm] at 100% T_{2N} and S1	750	750	900	1250	1250	1600	1800
Max. drive speed n_{1max} [rpm]				9500			
Max. backlash J_t [arcmin]				7			
Reduced backlash J_t [arcmin] less than				0			
Torsional rigidity C_{t21} [Nm/arcmin]				58			
Tilting rigidity C_{2K} [Nm/arcmin]				0			
Max. breakdown torque M_{2Kmax} [Nm]				0			
Max. radial force Fr_{max} [N] for 30,000 h				11400			
Max. radial force Fr_{max} [N] for 20,000 h				12500			
Max. axial force Fa_{max} [N] for 30,000 h				13200			
Max. axial force Fa_{max} [N] for 20,000 h				15000			
Operating noise L_{PA} [dB(A)]				70			
Efficiency at full load η [%]				94			
Min. operating temperature $B_{Tempmin}$ [°C]				-25			
Max. operating temperature $B_{Tempmax}$ [°C]				90			
Mounting orientation				Any			
Protection				IP65			
Weight m [kg]				21.5			
Moment of inertia J_1 [kgcm^2]	6.082	6.016	5.5	5.028	5.012	5.004	4.892

NOTE – **Output torque / Max. output torque:** This refers to an output shaft speed of n_2 = 100 rpm and application factor K_A = 1 as well as S1 operating mode for electrical machines and T = 30°C, depending on the diameter of the motor shaft. The maximum output torque is only permissible for 30,000 revolutions!
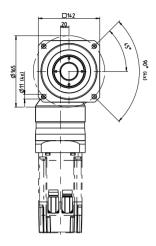NOTE – **E-stop torque:** Approved for 1000x

NOTE – **Axial / radial force:** With reference to the middle of the output shaft; the entries refer to an output shaft speed of n_2 = 100 rpm and application factor K_A = 1 as well as S1 operating mode for electrical machines and T = 30°C
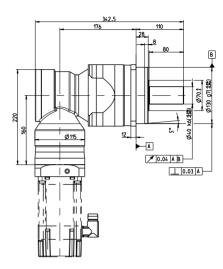
NOTE – **Running noise:** Noise level at a distance of 1 m; at an output speed of n_1 = 3000 rpm without a load; i = 5
NOTE – **Operating temperature:** With reference to the middle of the housing surface
NOTE – **Weight:** Planetary gearbox including universal flange (specific weight upon request)

2-stage gear

Adapter flange - Overview of dimensions

The flange length L completes the diagram for determining the gearbox length.

8GA60-142	8LSA3	8LSA/C4	8LSA/C5	8LSA/C6	8LSA/C7(3-5)	8LSA/C7(6-8)	8LVA3
One-stage							
Flange length L [mm]	---	33	56.5	33	43	69.5	---
Flange diameter Q [mm]	---	142	142	190	190	190	---
Two-stage							
Flange length L [mm]	27.6	27.6	37.6	37.6	43	---	27.6
Flange diameter Q [mm]	115	115	142	190	190	---	115

8GA60-142	8JSA4	8JSA5	8JSA6	8JSA7	8LSN4	8LSN5	80MPH
One-stage							
Flange length L [mm]	---	33	43	69.5	33	33	---
Flange diameter Q [mm]	---	142	142	190	142	142	---
Two-stage							
Flange length L [mm]	27.6	37.6	43	---	27.6	37.6	27.5
Flange diameter Q [mm]	115	115	142	---	115	142	115