

8GA60-115 premium

Technical data



8GA60-115hh004klmm

8GA60-115hh005klmm

8GA60-115hh008klmm

8GA60-115hh010klmm

8GA60-115hh016klmm

8GA60-115hh020klmm

8GA60-115hh025klmm

8GA60-115hh032klmm

8GA60-115hh040klmm

8GA60-115hh064klmm

8GA60-115hh100klmm

Gearbox

Number of gear stages	1	1	1	1	2	2	2	2	2	2	2
Gear ratio i	4	5	8	10	16	20	25	32	40	64	100
Nominal output torque T_{2N} [Nm]	160	140	90	75	300	300	260	200	250	150	125
Max. output torque T_{2max} [Nm]	256	224	144	120	480	480	416	320	400	240	200
E-stop torque T_{2stop} [Nm]	400	400	300	300	650	650	650	600	650	380	480
Idle torque [Nm] at 20°C and 3000 rpm	6.85	6.5	6.1	6	2.05	1.5	1.45	1.95	1.9	1.2	1.15
Max. average drive speed $n_{1N50\%}$ [rpm] at 50% T_{2N} and S1	1150	1250	1450	1500	1650	1950	2150	2200	2250	2850	3050
Max. average drive speed $n_{1N100\%}$ [rpm] at 100% T_{2N} and S1	900	1050	1300	1400	1250	1450	1750	1900	1900	2700	2900
Max. drive speed n_{1max} [rpm]	9500	9500	9500	9500	14000	14000	14000	14000	14000	14000	14000
Max. backlash J_1 [arcmin]	5	5	5	5	7	7	7	7	7	7	7
Reduced backlash J_1 [arcmin] less than							0				
Torsional rigidity C_{t21} [Nm/arcmin]	14.3	14.3	14.3	14.3	34	34	34	34	34	34	34
Tilting rigidity C_{2K} [Nm/arcmin]							0				
Max. breakdown torque M_{2Kmax} [Nm]							0				
Max. radial force F_{rmax} [N] for 30,000 h	6000	6000	6000	6000	5400	5400	5400	5400	5400	5400	5400
Max. radial force F_{rmax} [N] for 20,000 h							6000				
Max. axial force F_{amax} [N] for 30,000 h	6100	6100	6100	6100	7000	7000	7000	7000	7000	7000	7000
Max. axial force F_{amax} [N] for 20,000 h	7000	7000	7000	7000	8000	8000	8000	8000	8000	8000	8000
Operating noise L_{pA} [dB(A)]							68				
Efficiency at full load η [%]	96	96	96	96	94	94	94	94	94	94	94
Min. operating temperature $B_{Tempmin}$ [°C]							-25				
Max. operating temperature $B_{Tempmax}$ [°C]							90				
Mounting orientation							Any				
Protection							IP65				
Weight m [kg]	10.5	10.5	10.5	10.5	9.2	9.2	9.2	9.2	9.2	9.2	9.2
Moment of inertia J_1 [kgcm ²]	5.924	5.441	4.989	4.883	1.366	1.19	1.186	1.013	1.011	1.01	0.97

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

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)

