

8GF40-110 standard

Technical data



8GF40-110hh003kimm
 8GF40-110hh004kimm
 8GF40-110hh005kimm
 8GF40-110hh008kimm
 8GF40-110hh010kimm
 8GF40-110hh009kimm
 8GF40-110hh012kimm
 8GF40-110hh015kimm
 8GF40-110hh016kimm
 8GF40-110hh020kimm
 8GF40-110hh025kimm
 8GF40-110hh032kimm
 8GF40-110hh040kimm
 8GF40-110hh064kimm
 8GF40-110hh100kimm

Gearbox

Number of gear stages	1	1	1	1	1	2	2	2	2	2	2	2	2	2	2
Gear ratio i	3	4	5	8	10	9	12	15	16	20	25	32	40	64	100
Nominal output torque T_{2N} [Nm]	115	155	195	120	95	240	260	230	260	260	230	260	230	120	95
Max. output torque T_{2max} [Nm]	184	248	312	192	152	384	416	368	416	416	368	416	368	192	152
E-stop torque T_{2stop} [Nm]	390	520	500	380	480	500	520	500	520	520	500	520	500	380	480
Idle torque [Nm] at 20°C and 3000 rpm	1.3	1.15	0.9	0.6	0.55	0.85	0.85	0.8	0.85	0.65	0.65	0.5	0.5	0.45	0.45
Max. average drive speed $n_{1N50\%}$ [rpm] at 50% T_{2N} and S1	2350	2550	2700	3500	3500	2850	3100	3500	3500	3500	3500	3500	3500	3500	3500
Max. average drive speed $n_{1N100\%}$ [rpm] at 100% T_{2N} and S1	1850	1900	1950	3400	3500	2000	2250	2700	2650	3050	3500	3500	3500	3500	3500
Max. drive speed n_{1max} [rpm]	6500														
Max. backlash J_1 [arcmin]	7	7	7	7	7	9	9	9	9	9	9	9	9	9	9
Reduced backlash J_1 [arcmin] less than	0														
Torsional rigidity C_{t21} [Nm/arcmin]	93	93	93	93	93	68	68	68	68	68	68	68	68	68	68
Tilting rigidity C_{2K} [Nm/arcmin]	0														
Max. breakdown torque M_{2Kmax} [Nm]	0														
Max. radial force F_{rmax} [N] for 30,000 h	2100														
Max. radial force F_{rmax} [N] for 20,000 h	2400														
Max. axial force F_{amax} [N] for 30,000 h	3300														
Max. axial force F_{amax} [N] for 20,000 h	3300														
Operating noise L_{pA} [dB(A)]	65														
Efficiency at full load η [%]	96	96	96	96	96	94	94	94	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	IP54														
Weight m [kg]	7	7	7	7	7	9	9	9	9	9	9	9	9	9	9
Moment of inertia J_1 [kgcm ²]	3.43	2.28	1.84	1.45	1.42	2.87	2.75	2.68	1.96	1.84	1.64	1.42	1.4	1.38	1.35

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

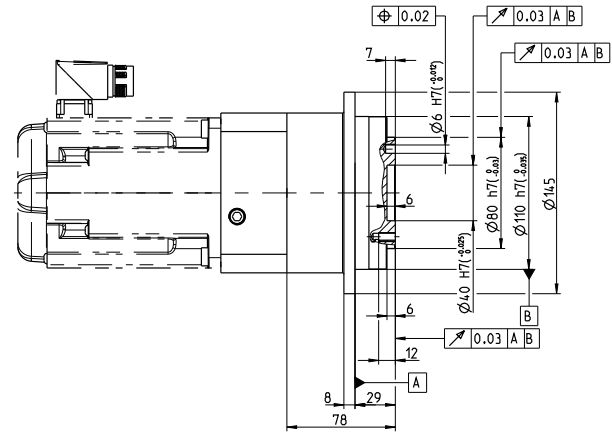
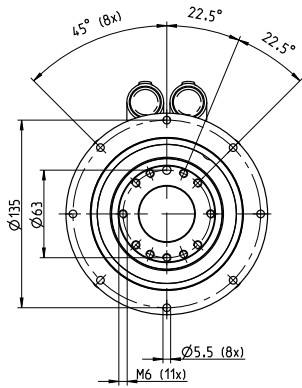
NOTE – Axial / radial force: With reference to the middle of the output shaft; the entries refer to an output shaft speed of $n_2 = 100$ rpm and application factor $K_A = 1$ as well as S1 operating mode for electrical machines and $T = 30^\circ\text{C}$

NOTE – Running noise: Noise level at a distance of 1 m; at an output speed of $n_1 = 3000$ rpm without a load; $i = 5$

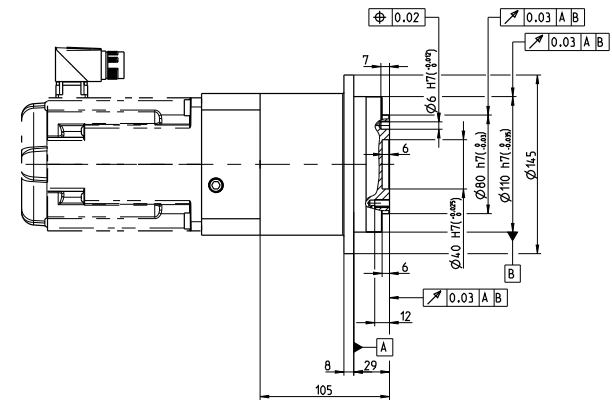
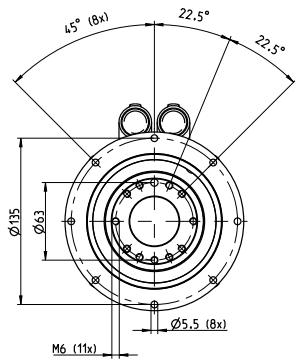
NOTE – Operating temperature: With reference to the middle of the housing surface

NOTE – Weight: Planetary gearbox including universal flange (specific weight upon request)

1-stage gear



2-stage gear



Adapter flange - Overview of dimensions

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

	8LSA3	8LSA/C4	8LSA/C5	8JSA4	8JSA5	8JSA6	8LSN 4	8LSN5	80MPH
Flange length L [mm]	47.4	47.4	57.4	47.4	57.4	73	47.4	57.4	47.5
Flange diameter Q [mm]	115	115	140	115	115	140	115	140	115