

8GP60-115 premium

Technical data



8GP60-115hh003kimm
 8GP60-115hh004kimm
 8GP60-115hh005kimm
 8GP60-115hh008kimm
 8GP60-115hh010kimm
 8GP60-115hh012kimm
 8GP60-115hh015kimm
 8GP60-115hh016kimm
 8GP60-115hh020kimm
 8GP60-115hh025kimm
 8GP60-115hh032kimm
 8GP60-115hh040kimm
 8GP60-115hh064kimm
 8GP60-115hh100kimm

Gearbox

Number of gear stages	1	1	1	1	1	2	2	2	2	2	2	2	2	2
Gear ratio i	3	4	5	8	10	12	15	16	20	25	32	40	64	100
Nominal output torque T_{2N} [Nm]	230	300	260	150	125	250	250	300	300	260	300	260	150	125
Max. output torque T_{2max} [Nm]	368	480	416	240	200	400	400	480	480	416	480	416	240	200
E-stop torque T_{2stop} [Nm]	490	650	650	380	480	500	500	650	650	650	650	650	380	480
Idle torque [Nm] at 20°C and 3000 rpm	2.3	2.2	1.55	0.95	0.85	1.75	1.25	1.75	1.25	1.2	0.8	0.75	0.75	0.65
Max. average drive speed $n_{1N50\%}$ [rpm] at 50% T_{2N} and S1	1500	1600	2000	3200	3500	2450	3000	2550	3050	3400	3500	3500	3500	3500
Max. average drive speed $n_{1N100\%}$ [rpm] at 100% T_{2N} and S1	1150	1150	1500	2650	3200	1950	2350	2050	2450	2850	3350	3500	3500	3500
Max. drive speed n_{1max} [rpm]	8500													
Max. backlash J_1 [arcmin]	3	3	3	3	3	5	5	5	5	5	5	5	5	5
Reduced backlash J_1 [arcmin] less than	1													
Torsional rigidity C_{t21} [Nm/arcmin]	20	20	20	20	20	22	22	22	22	22	22	22	22	22
Tilting rigidity C_{2K} [Nm/arcmin]	0													
Max. breakdown torque M_{2Kmax} [Nm]	0													
Max. radial force F_{rmax} [N] for 30,000 h	5400													
Max. radial force F_{rmax} [N] for 20,000 h	6000													
Max. axial force F_{amax} [N] for 30,000 h	7000													
Max. axial force F_{amax} [N] for 20,000 h	8000													
Operating noise L_{pA} [dB(A)]	65													
Efficiency at full load η [%]	98	98	98	98	98	95	95	95	95	95	95	95	95	95
Min. operating temperature $B_{Tempmin}$ [°C]	-25													
Max. operating temperature $B_{Tempmax}$ [°C]	90													
Mounting orientation	Any													
Protection	IP65													
Weight m [kg]	6.9	6.9	6.9	6.9	6.9	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5
Moment of inertia J_1 [kgcm ²]	3.14	2.4	2.16	1.93	1.9	3.12	2.95	2.74	2.57	2.38	2.41	2.23	2.03	1.97

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

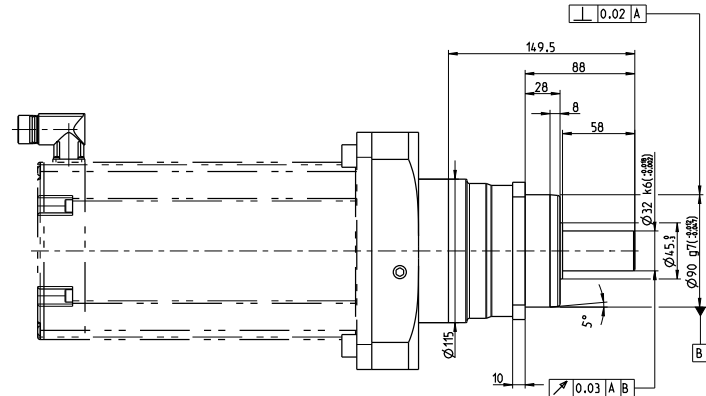
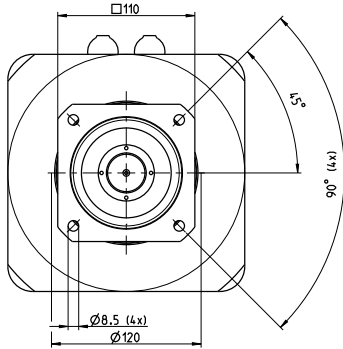
NOTE – Axial / radial force: With reference to the middle of the output shaft; the entries refer to an output shaft speed of $n_2 = 100$ rpm and application factor $K_A = 1$ as well as S1 operating mode for electrical machines and $T = 30^\circ\text{C}$

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

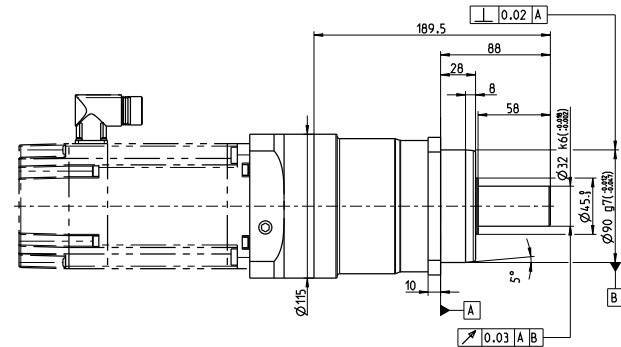
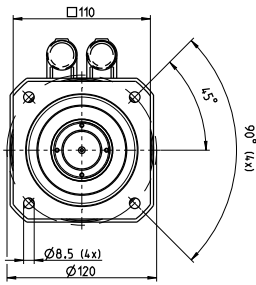
NOTE – Operating temperature: With reference to the middle of the housing surface

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

1-stage gear

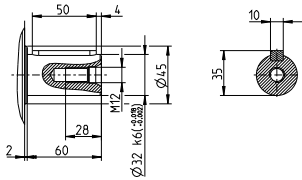


2-stage gear

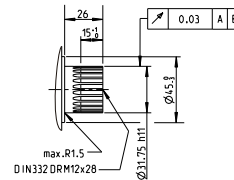


Alternative drive shaft options

Shaft keys according to DIN 6885 form A



Spline shaft according to DIN 5480 - W 32 x 1.25 x 30 x 24 x 6 m



Adapter flange - Overview of dimensions

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

8GP60-120	8LSA3	8LSA/C4	8LSA/C5	8LV3	8JSA4	8JSA5	8JSA6	8LSN4	8LSN5	80MPH
Flange length L [mm]	51.5	51.5	61.5	51.5	51.5	61.5	71.4	51.5	61.5	51.5
Flange diameter Q [mm]	115	115	142	115	115	115	142	120	142	115