

8GF40-064 standard

Technical data



8GF40-064hh003kimm
 8GF40-064hh004kimm
 8GF40-064hh005kimm
 8GF40-064hh008kimm
 8GF40-064hh010kimm
 8GF40-064hh009kimm
 8GF40-064hh012kimm
 8GF40-064hh015kimm
 8GF40-064hh016kimm
 8GF40-064hh020kimm
 8GF40-064hh025kimm
 8GF40-064hh032kimm
 8GF40-064hh040kimm
 8GF40-064hh064kimm
 8GF40-064hh100kimm

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] | 28 | 38 | 40 | 18 | 15 | 44 | 44 | 44 | 44 | 44 | 40 | 44 | 40 | 18 | 15 |
| Max. output torque T_{2max} [Nm] | 45 | 61 | 64 | 29 | 24 | 70 | 70 | 70 | 70 | 70 | 64 | 70 | 64 | 29 | 24 |
| E-stop torque T_{2stop} [Nm] | 66 | 88 | 80 | 80 | 80 | 88 | 88 | 88 | 88 | 88 | 80 | 88 | 80 | 80 | 80 |
| Idle torque [Nm] at 20°C and 3000 rpm | 0.3 | 0.2 | 0.2 | 0.15 | 0.1 | 0.15 | 0.15 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 |
| Max. average drive speed $n_{1N50\%}$ [rpm] at 50% T_{2N} and S1 | 3950 | 4500 | 4500 | 4500 | 4500 | 4500 | 4500 | 4500 | 4500 | 4500 | 4500 | 4500 | 4500 | 4500 | 4500 |
| Max. average drive speed $n_{1N100\%}$ [rpm] at 100% T_{2N} and S1 | 3200 | 3450 | 4000 | 4500 | 4500 | 4400 | 4500 | 4500 | 4500 | 4500 | 4500 | 4500 | 4500 | 4500 | 4500 |
| Max. drive speed n_{1max} [rpm] | 13000 | | | | | | | | | | | | | | |
| Max. backlash J_i [arcmin] | 10 | 10 | 10 | 10 | 10 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 |
| Reduced backlash J_i [arcmin] less than | 0 | | | | | | | | | | | | | | |
| Torsional rigidity C_{t21} [Nm/arcmin] | 18 | 18 | 18 | 18 | 18 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 |
| Tilting rigidity C_{2K} [Nm/arcmin] | 0 | | | | | | | | | | | | | | |
| Max. breakdown torque M_{2Kmax} [Nm] | 0 | | | | | | | | | | | | | | |
| Max. radial force F_{rmax} [N] for 30,000 h | 500 | | | | | | | | | | | | | | |
| Max. radial force F_{rmax} [N] for 20,000 h | 550 | | | | | | | | | | | | | | |
| Max. axial force F_{amax} [N] for 30,000 h | 1200 | | | | | | | | | | | | | | |
| Max. axial force F_{amax} [N] for 20,000 h | 1200 | | | | | | | | | | | | | | |
| Operating noise L_{pA} [dB(A)] | 58 | | | | | | | | | | | | | | |
| 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] | 1.1 | 1.1 | 1.1 | 1.1 | 1.1 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 |
| Moment of inertia J_1 [kgcm ²] | 0.183 | 0.123 | 0.097 | 0.071 | 0.071 | 0.145 | 0.134 | 0.087 | 0.101 | 0.084 | 0.084 | 0.074 | 0.073 | 0.071 | 0.07 |

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

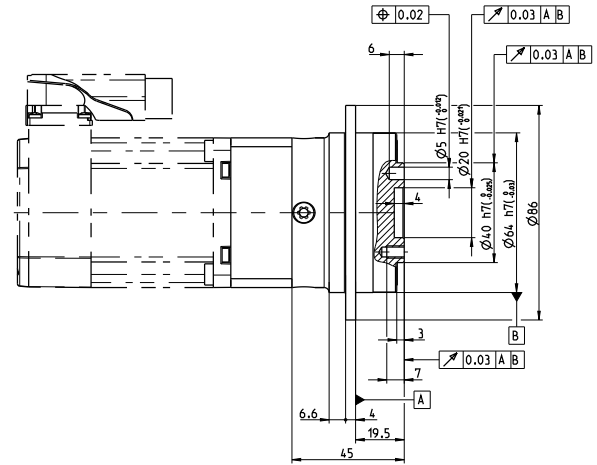
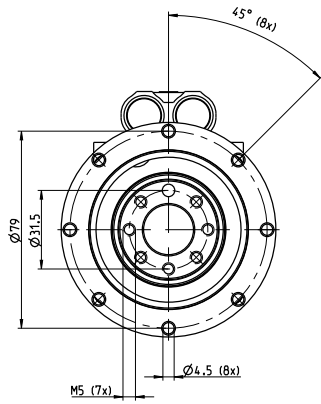
NOTE – Axial / radial force: With reference to the middle of the output shaft; the entries refer to an output shaft speed of $n_2 = 100$ rpm and application factor $K_A = 1$ as well as S1 operating mode for electrical machines and $T = 30^\circ\text{C}$

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

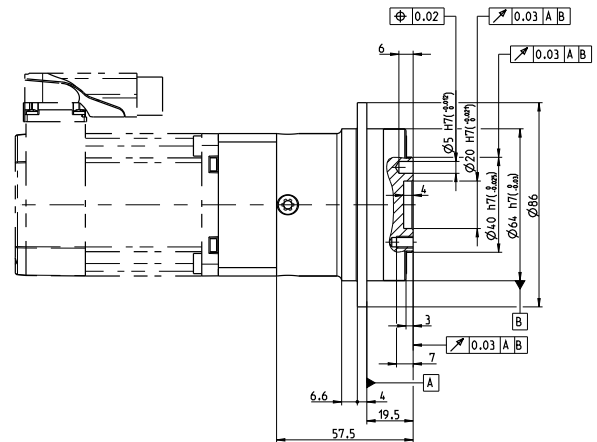
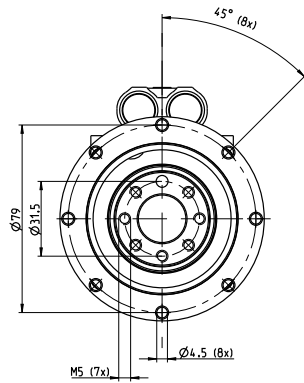
NOTE – Operating temperature: With reference to the middle of the housing surface

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.

| 8GF40-064 | 8LSA2 | 8LSA3 | 8LVA2 | 8LVA3 | 8JSA2 | 8JSA3 | 8JSA4 | 80MPD | 80MPF | 80MPH |
|------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Flange length L [mm] | 25.5 | 31.2 | 31.2 | 41.3 | 24.2 | 31.2 | 41.3 | 24 | 24 | 33.2 |
| Flange diameter Q [mm] | 60 | 90 | 60 | 80 | 60 | 70 | 90 | 60 | 60 | 90 |