

8GF70-064 premium

Technical data



8GF70-064hh004kimm

8GF70-064hh005kimm

8GF70-064hh007kimm

8GF70-064hh010kimm

8GF70-064hh016kimm

8GF70-064hh020kimm

8GF70-064hh025kimm

8GF70-064hh035kimm

8GF70-064hh040kimm

8GF70-064hh050kimm

8GF70-064hh070kimm

8GF70-064hh100kimm

Gearbox

Number of gear stages	1	1	1	1	2	2	2	2	2	2	2	2
Gear ratio i	4	5	7	10	16	20	25	35	40	50	70	100
Nominal output torque T_{2N} [Nm]	39	40	37	28	39	39	40	40	39	40	37	28
Max. output torque T_{2max} [Nm]	62	64	59	45	62	62	64	64	62	64	59	45
E-stop torque T_{2stop} [Nm]	120	130	80	90	150	150	150	150	150	150	80	90
Idle torque [Nm] at 20°C and 3000 rpm	0.65	0.5	0.35	0.25	0.45	0.3	0.3	0.2	0.15	0.15	0.15	0.15
Max. average drive speed $n_{1N50\%}$ [rpm] at 50% T_{2N} and S1	3200	3800	4500	4500	4500	4500	4500	4500	4500	4500	4500	4500
Max. average drive speed $n_{1N100\%}$ [rpm] at 100% T_{2N} and S1	3000	3600	4500	4500	4500	4500	4500	4500	4500	4500	4500	4500
Max. drive speed n_{1max} [rpm]	14000											
Max. backlash J_1 [arcmin]	3	3	3	3	5	5	5	5	5	5	5	5
Reduced backlash J_1 [arcmin] less than	2											
Torsional rigidity C_{t21} [Nm/arcmin]	16	16	16	16	14	14	14	14	14	14	14	14
Tilting rigidity C_{2K} [Nm/arcmin]	117											
Max. breakdown torque M_{2Kmax} [Nm]	148											
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	3800											
Max. axial force F_{amax} [N] for 20,000 h	4300											
Operating noise L_{PA} [dB(A)]	57											
Efficiency at full load η [%]	98	98	98	98	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]	1.5	1.5	1.5	1.5	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2
Moment of inertia J_1 [kgcm ²]	0.192	0.163	0.138	0.125	0.175	0.152	0.151	0.131	0.123	0.122	0.122	0.122

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

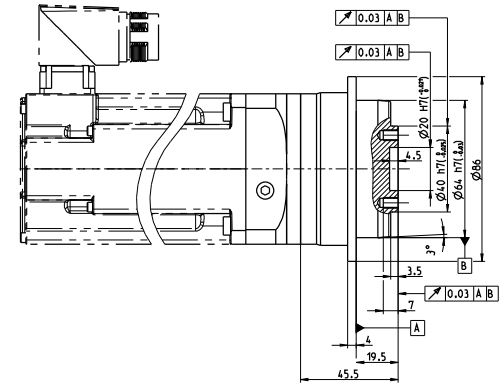
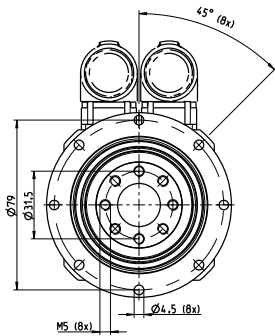
NOTE – Axial / radial force: With reference to the middle of the output shaft; the entries refer to an output shaft speed of $n_2 = 100$ rpm and application factor $K_A = 1$ as well as S1 operating mode for electrical machines and $T = 30^\circ\text{C}$

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

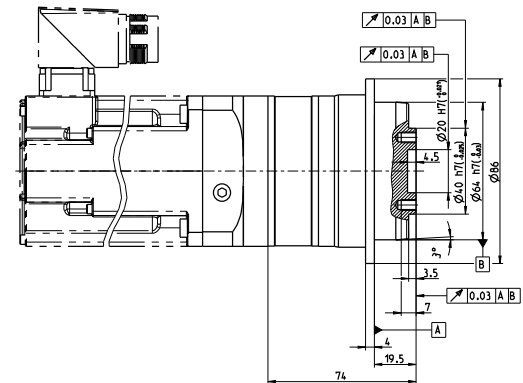
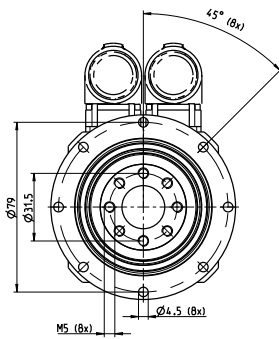
NOTE – Operating temperature: With reference to the middle of the housing surface

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.

8GF70-064	8LSA2	8LSA3	8LVA2	8LVA3	8JSA2	8JSA3	8JSA4	80MPH
One-stage								
Flange length L [mm]	32.5	32.5	32.5	42.8	25.5	32.5	42.8	42.5
Flange diameter Q [mm]	70	90	70	90	70	70	90	90
Two-stage								
Flange length L [mm]	32.5	32.5	32.5	42.8	25.5	32.5	42.8	42.5
Flange diameter Q [mm]	70	90	70	90	70	70	90	90