8GA60-115 premium

Technical data

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	8GA60-115hh004kli	8GA60-115hh005kli	8GA60-115hh008kli	8GA60-115hh010kli	8GA60-115hh016kli	8GA60-115hh020kli	8GA60-115hh025kli	8GA60-115hh032kli	8GA60-115hh040kli	8GA60-115hh064klı	8GA60-115hh100kli
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 _t [arcmin]	5	5	5	5	7	7	7	7	7	7	7
Reduced backlash J _t [arcmin] less than						0					
Torsional rigidity C ₁₂₁ [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 Fr _{max} [N] for 30,000 h	6000	6000	6000	6000	5400	5400	5400	5400	5400	5400	5400
Max. radial force Fr _{max} [N] for 20,000 h						6000					
Max. axial force Fa _{max} [N] for 30,000 h	6100	6100	6100	6100	7000	7000	7000	7000	7000	7000	7000
Max. axial force Fa _{max} [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

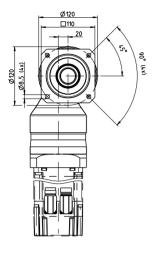
NOTE – Output torque / Max. output torque: This refers to an output shaft speed of $n_2 = 100$ rpm and application factor $K_A = 1$ as well as S1 operating mode for electrical machines and $T = 30^{\circ}$ C, depending on the diameter of the motor shaft. The maximum output torque is only permissible for 30,000 revolutions!

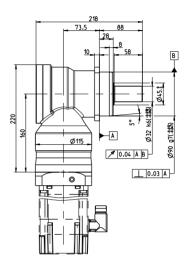
NOTE – E-stop torque: Approved for 1000x

NOTE – Axial / radial force: With reference to the middle of the output shaft; the entries refer to an output shaft speed of n₂ = 100 rpm and application factor K_A = 1 as well as S1 operating mode for electrical machines and T =

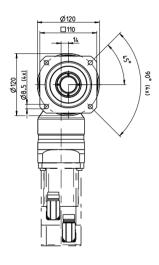
NOTE – Running noise: Noise level at a distance of 1 m; at an output speed of $n_1 = 3000$ rpm without a load; i = 5 **NOTE – Operating temperature:** With reference to the middle of the housing surface **NOTE – Weight:** Planetary gearbox including universal flange (specific weight upon request)

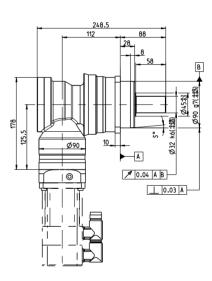
1-stage gear





2-stage gear





Adapter flange - Overview of dimensions

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

8GA60-115	8LSA3	8LSA4	8LSA5	8LVA2	8LVA3	8JSA3	8JSA4	8JSA5	8JSA6	8LSN 4	8LSN5	80MPH
One-stage												
Flange length L [mm]	27.6	27.6	37.6		27.6		27.6	37.6	43	27.6	37.6	27.6
Flange diameter Q [mm]	115	115	142		115		115	115	142	115	142	115
Two-stage		8LSA/C4	8LSA/C5									
Flange length L [mm]	25.5	35.5	37.6	25.5	35.5	25.5	35.5	37.6		35.5	37.6	35.5
Flange diameter Q [mm]	90	115	142	90	90	90	90	115		115	142	90