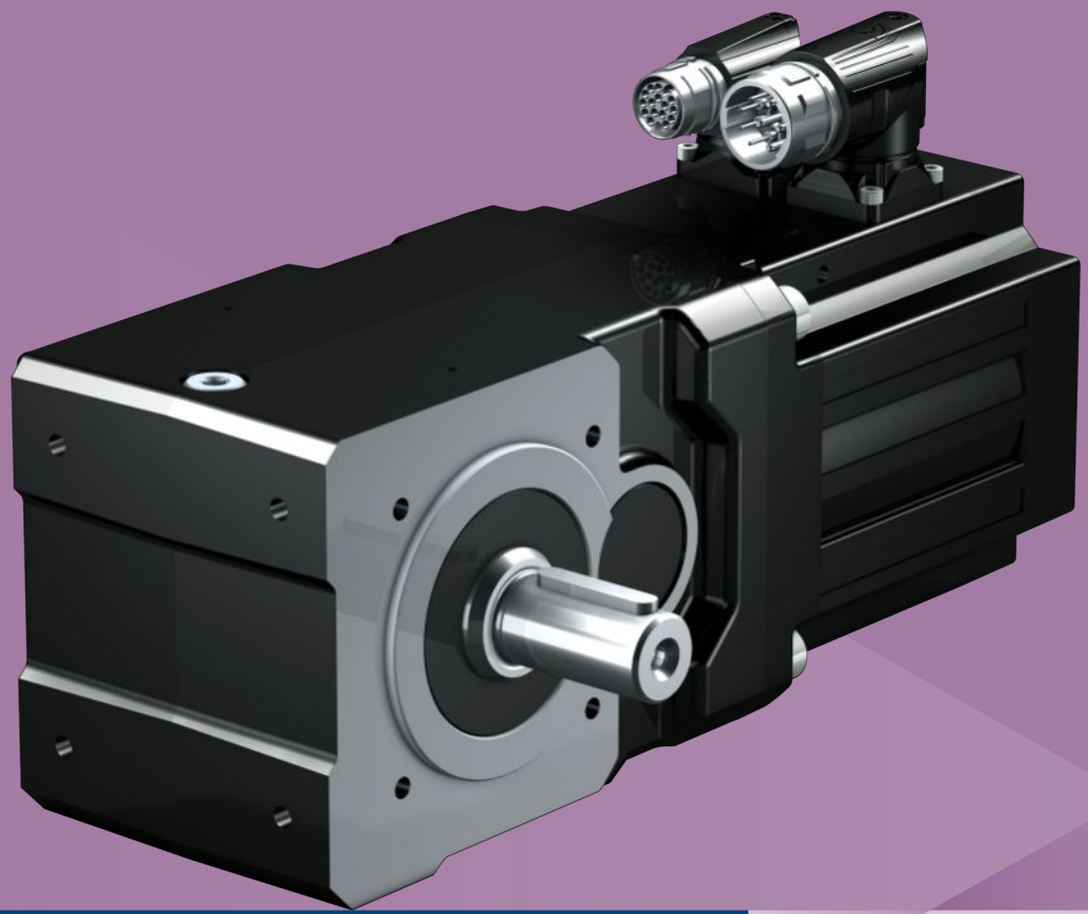

15 Helical bevel geared motors KL

15.1 Overview

Compact helical-geared right-angle geared motors

Features

Power density	★★☆☆☆
Backlash	★☆☆☆☆
Price category	€
Shaft load	★★☆☆☆
Smooth operation	★★☆☆☆
Torsional stiffness	★★☆☆☆
Mass moment of inertia	★★★★★
Helical gearing	✓
Maintenance-free	✓
Any mounting position	✓
Small installation space	✓
FKM seal ring at the input	✓
Compact and highly dynamic due to direct motor attachment	✓

Key ★☆☆☆☆ good | ★★★★★ excellent
€ Economy | €€€€€ Premium

Technical data

i	4 – 32
M_{2acc}	10 – 65 Nm
$\Delta\phi_2$	16 – 25 arcmin
η_{get}	97 %

15.2 Selection tables

The technical data specified in the selection tables applies to:

- Installation altitudes up to 1000 m above sea level
- Surrounding temperatures from 0 °C to 40 °C
- Drives with convection-cooled motors (e.g. EZ401**U**)

For the technical data on drives with forced ventilated motors (e.g. EZ401**B**), refer to https://configurator.stoeber.de/en-US/.

An explanation of the formula symbols can be found in Chapter [▷ 20.1].

n_{2N} [rpm]	M_{2N} [Nm]	$M_{2.0}$ [Nm]	a_{th}	S	Type	M_{2acc} [Nm]	M_{2NOT} [Nm]	i	i_{exakt}	n_{1maxDB} [rpm]	n_{1maxZB} [rpm]	J_1 [kgcm²]	$\Delta\varphi_2$ [arcmin]	C_2 [Nm/ arcmin]	m [kg]
KL1 (n_{1N} = 3000 rpm, $M_{2acc,max}$ = 30 Nm)															
188	14	15	16	1.7	KL102_0160 EZ301U	30	60	16.00	16/1	4000	6000	0.22	20.0	1.8	6.6
188	25	26	28	1.0	KL102_0160 EZ302U	30	60	16.00	16/1	4000	6000	0.32	20.0	1.8	7.2
375	7.2	7.4	17	2.7	KL102_0080 EZ301U	22	59	8.000	8/1	3500	6000	0.28	20.0	1.8	6.6
375	12	13	29	1.6	KL102_0080 EZ302U	30	59	8.000	8/1	3500	6000	0.38	20.0	1.8	7.2
375	16	17	38	1.2	KL102_0080 EZ303U	30	59	8.000	8/1	3500	6000	0.49	20.0	1.8	7.7
750	3.6	3.7	22	3.6	KL102_0040 EZ301U	11	30	4.000	4/1	3500	6000	0.31	25.0	1.3	6.6
750	6.2	6.5	37	2.1	KL102_0040 EZ302U	19	30	4.000	4/1	3500	6000	0.41	25.0	1.3	7.2
750	8.0	8.5	49	1.6	KL102_0040 EZ303U	22	30	4.000	4/1	3500	6000	0.52	25.0	1.3	7.7
KL1 (n_{1N} = 6000 rpm, $M_{2acc,max}$ = 32 Nm)															
188	12	14	11	1.5	KL102_0320 EZ202U	32	64	32.00	32/1	4000	6000	0.15	20.0	1.7	6.5
188	19	21	17	1.0	KL102_0320 EZ203U	32	64	32.00	32/1	4000	6000	0.19	20.0	1.7	6.8
375	6.2	6.8	8.8	3.2	KL102_0160 EZ202U	23	60	16.00	16/1	4000	6000	0.15	20.0	1.8	6.5
375	9.5	11	13	2.1	KL102_0160 EZ203U	30	60	16.00	16/1	4000	6000	0.19	20.0	1.8	6.8
375	14	15	20	1.4	KL102_0160 EZ301U	30	60	16.00	16/1	4000	6000	0.22	20.0	1.8	6.6
750	4.7	5.4	14	3.3	KL102_0080 EZ203U	21	59	8.000	8/1	3500	6000	0.25	20.0	1.8	6.8
750	6.9	7.4	21	2.3	KL102_0080 EZ301U	22	59	8.000	8/1	3500	6000	0.28	20.0	1.8	6.6
750	12	13	35	1.4	KL102_0080 EZ302U	30	59	8.000	8/1	3500	6000	0.38	20.0	1.8	7.2
750	15	17	46	1.0	KL102_0080 EZ303U	30	59	8.000	8/1	3500	6000	0.49	20.0	1.8	7.7
1500	2.4	2.7	18	4.4	KL102_0040 EZ203U	10	30	4.000	4/1	3500	6000	0.29	25.0	1.3	6.8
1500	3.5	3.7	26	3.0	KL102_0040 EZ301U	11	30	4.000	4/1	3500	6000	0.31	25.0	1.3	6.6
1500	5.8	6.5	45	1.8	KL102_0040 EZ302U	19	30	4.000	4/1	3500	6000	0.41	25.0	1.3	7.2
1500	7.6	8.7	58	1.4	KL102_0040 EZ303U	22	30	4.000	4/1	3500	6000	0.52	25.0	1.3	7.7
KL2 (n_{1N} = 3000 rpm, $M_{2acc,max}$ = 65 Nm)															
94	29	29	11	1.6	KL202_0320 EZ301U	65	130	32.00	32/1	4000	6000	0.26	16.0	3.2	9.1
188	14	15	9.0	3.5	KL202_0160 EZ301U	43	118	16.00	16/1	4000	6000	0.28	16.0	4.0	9.1
188	25	26	15	2.0	KL202_0160 EZ302U	60	118	16.00	16/1	4000	6000	0.38	16.0	4.0	9.7
188	32	34	20	1.6	KL202_0160 EZ303U	60	118	16.00	16/1	4000	6000	0.49	16.0	4.0	10
188	43	47	27	1.2	KL202_0160 EZ401U	60	120	16.00	16/1	4000	6000	1.0	16.0	4.0	12
375	7.2	7.4	15	3.5	KL202_0080 EZ301U	22	59	8.000	8/1	4000	6000	0.31	20.0	2.4	9.1
375	12	13	26	2.0	KL202_0080 EZ302U	35	59	8.000	8/1	4000	6000	0.41	20.0	2.4	9.7
375	16	17	33	1.6	KL202_0080 EZ303U	35	59	8.000	8/1	4000	6000	0.52	20.0	2.4	10
375	22	23	29	1.8	KL202_0080 EZ401U	60	120	8.000	8/1	3500	6000	1.2	16.0	4.0	12
375	36	40	48	1.1	KL202_0080 EZ402U	60	120	8.000	8/1	3500	6000	1.9	16.0	4.0	13
750	11	12	34	2.6	KL202_0040 EZ401U	33	108	4.000	4/1	3500	6000	1.4	20.0	2.4	12
750	18	20	57	1.5	KL202_0040 EZ402U	53	108	4.000	4/1	3500	6000	2.1	20.0	2.4	13
750	27	33	84	1.0	KL202_0040 EZ404U	53	108	4.000	4/1	3500	6000	3.4	20.0	2.4	15
KL2 (n_{1N} = 6000 rpm, $M_{2acc,max}$ = 65 Nm)															
188	28	29	14	1.4	KL202_0320 EZ301U	65	130	32.00	32/1	4000	6000	0.26	16.0	3.2	9.1
375	14	15	11	2.9	KL202_0160 EZ301U	43	118	16.00	16/1	4000	6000	0.28	16.0	4.0	9.1
375	23	26	18	1.7	KL202_0160 EZ302U	60	118	16.00	16/1	4000	6000	0.38	16.0	4.0	9.7
375	30	35	24	1.3	KL202_0160 EZ303U	60	118	16.00	16/1	4000	6000	0.49	16.0	4.0	10
375	36	43	28	1.1	KL202_0160 EZ401U	60	120	16.00	16/1	4000	6000	1.0	16.0	4.0	12
750	6.9	7.4	14	3.7	KL202_0080 EZ301U	22	59	8.000	8/1	4000	6000	0.31	20.0	2.4	9.1
750	12	13	24	2.2	KL202_0080 EZ302U	35	59	8.000	8/1	4000	6000	0.41	20.0	2.4	9.7
750	15	17	32	1.7	KL202_0080 EZ303U	35	59	8.000	8/1	4000	6000	0.52	20.0	2.4	10
750	18	22	30	1.8	KL202_0080 EZ401U	60	120	8.000	8/1	3500	6000	1.2	16.0	4.0	12
750	27	38	45	1.2	KL202_0080 EZ402U	60	120	8.000	8/1	3500	6000	1.9	16.0	4.0	13
1500	8.9	11	35	2.5	KL202_0040 EZ401U	33	108	4.000	4/1	3500	6000	1.4	20.0	2.4	12
1500	14	19	54	1.6	KL202_0040 EZ402U	53	108	4.000	4/1	3500	6000	2.1	20.0	2.4	13