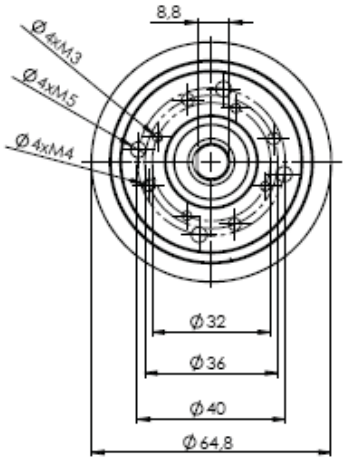
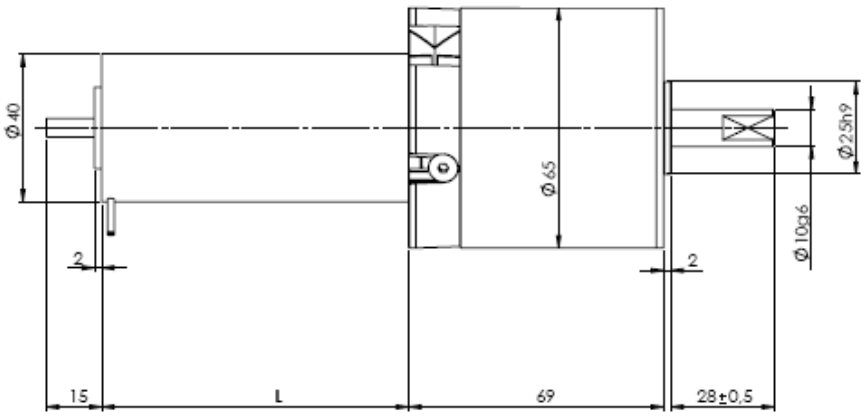
KELVIN
www.kelvingear.com

Gearbox + Motor KT80-BHL 40



Model	L
1.13.049.0xx	52
1.13.049.2xx	61
1.13.049.4xx	83



KT80

TECHNICAL CHARACTERISTICS

High endurance gearbox for heavy duty continuous workload in any position, at room temperature from -15 to 50°C, with **torque load up to 8 Nm, steady load.**

- **Box.** Made of die-cast Zamak with a tubular aluminium cover. Several options for frontal mounting.

- **Gear set.** Hobbed spur gear set with steel pinions and gear wheels, with case superficial heat anti-friction treatment. The intermediate gears turn on rectified hardened steel shafts, which are fixed to the box.

- **Output shaft.** Ø10 mm steel shaft, 30 mm usable length, with a flat. Incorporates and turns on ball bearings.

- **Output shaft load:**

Axial direction, pull or push	500 N ≈ 50 Kg.
Radial direction, at 10 mm from box	350 N ≈ 35 Kg.

- **Lubrication.** Lithium grade 2 grease.

- **Weight.** With maximal number of stages: 1.41 Kg.

MOTOR COUPLING:

- **Direct C.:** Bühler 1.13.049.xxx type, 12 or 24V.

■ **OPTIONAL:**

- Ø8 shaft.
- Speed regulation with electronic controller.

Avoid impacts on the output shaft when assembling or disassembling parts on it, this could damage the gearbox.

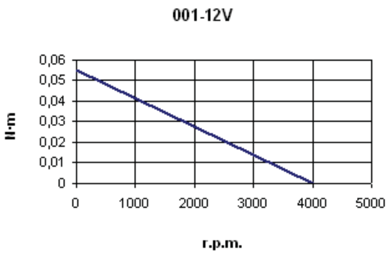
Your special requests are welcome.

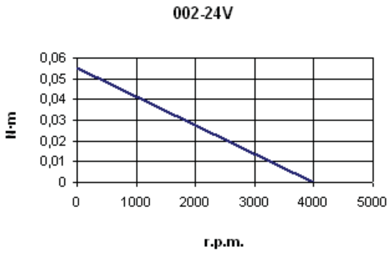
KELVIN			DC MOTORS MODEL:Bühler 40,xx (1,13,049,xxx)																	
			001-12V			002-24V			201-12V			202-24V			401-12V			402-24V		
Reduction ratio i = X:1	Stages	Torque Factor	No load speed n_0 (r.p.m.)	Nominal speed n_N (r.p.m.)	Nominal Torque (N.m)	No load speed n_0 (r.p.m.)	Nominal speed n_N (r.p.m.)	Nominal Torque (N.m)	No load speed n_0 (r.p.m.)	Nominal speed n_N (r.p.m.)	Nominal Torque (N.m)	No load speed n_0 (r.p.m.)	Nominal speed n_N (r.p.m.)	Nominal Torque (N.m)	No load speed n_0 (r.p.m.)	Nominal speed n_N (r.p.m.)	Nominal Torque (N.m)	No load speed n_0 (r.p.m.)	Nominal speed n_N (r.p.m.)	Nominal Torque (N.m)
4,43	2	3,59	902,93	677,20	0,05	902,93	677,20	0,05	970,65	699,77	0,15	970,65	699,77	0,15	857,79	677,20	0,23	857,79	677,20	0,23
6,68	2	5,41	598,80	449,10	0,07	598,80	449,10	0,07	643,71	464,07	0,23	643,71	464,07	0,23	568,86	449,10	0,34	568,86	449,10	0,34
10,65	3	7,76	375,59	281,69	0,11	375,59	281,69	0,11	403,76	291,08	0,32	403,76	291,08	0,32	356,81	281,69	0,49	356,81	281,69	0,49
14,78	3	10,77	270,64	202,98	0,15	270,64	202,98	0,15	290,93	209,74	0,45	290,93	209,74	0,45	257,10	202,98	0,68	257,10	202,98	0,68
28,63	3	20,87	139,71	104,79	0,29	139,71	104,79	0,29	150,19	108,28	0,87	150,19	108,28	0,87	132,73	104,79	1,32	132,73	104,79	1,32
39,71	3	28,95	100,73	75,55	0,40	100,73	75,55	0,40	108,29	78,07	1,21	108,29	78,07	1,21	95,69	75,55	1,83	95,69	75,55	1,83
46,45	4	30,48	86,11	64,59	0,42	86,11	64,59	0,42	92,57	66,74	1,28	92,57	66,74	1,28	81,81	64,59	1,92	81,81	64,59	1,92
60,26	4	39,54	66,38	49,78	0,54	66,38	49,78	0,54	71,36	51,44	1,66	71,36	51,44	1,66	63,06	49,78	2,50	63,06	49,78	2,50
89,98	4	59,04	44,45	33,34	0,81	44,45	33,34	0,81	47,79	34,45	2,47	47,79	34,45	2,47	42,23	33,34	3,73	42,23	33,34	3,73
124,81	4	81,89	32,05	24,04	1,13	32,05	24,04	1,13	34,45	24,84	3,43	34,45	24,84	3,43	30,45	24,04	5,17	30,45	24,04	5,17

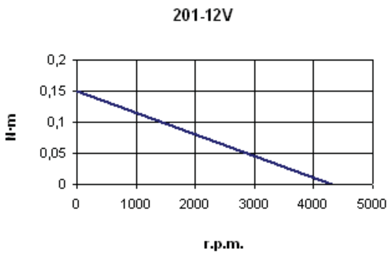
NO LOAD SPEED/NOMINAL TORQUE
Motor BHL 001-12V= 4000 r.p.m./0,055Nm.
Motor BHL 002-24V= 4000 r.p.m./0,055Nm.
Motor BHL 201-12V= 4300 r.p.m./0,15Nm.
Motor BHL 202-24V= 4300 r.p.m./0,15Nm.
Motor BHL 401-12V= 3800 r.p.m./0,3Nm.
Motor BHL 402-24V= 3800 r.p.m./0,3Nm.

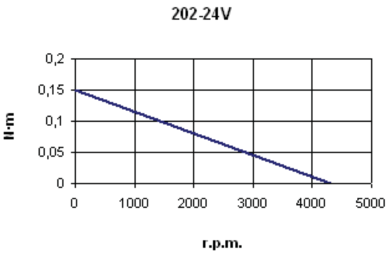
WARNING: The load might reduce final speed up to 40%.

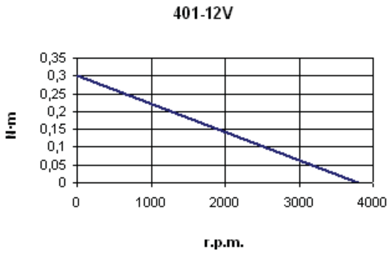
CURVES

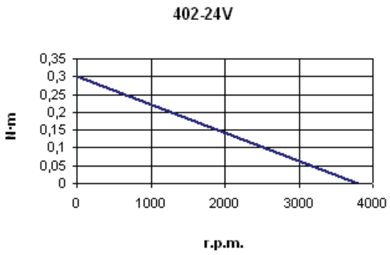












GEARBOX TIPS:
Noise: noise level depends on load symmetry, location (avoid acoustic resonance), and rotation speed; the lower the speed on the input shaft (motor), the lower the noise.