

KF65

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 6.5 Nm, steady load.**

- **Box.** Made of two aluminium plates and an aluminium tubular cover. Frontal mounting by four M4 threaded holes.
- **Gear set.** Hobbed spur gear set with steel pinions and gear wheels, with case superficial heat anti-friction treatment.
- **Output shaft.** Ø8 mm. steel shaft, 25 mm usable length, with a flat. Incorporates and turns on sintered bushings.
- **Output shaft load:**
 - Axial direction, pull or push 60 N ≈ 6 Kg.
 - Radial direction, at 10 mm from box 60 N ≈ 6 Kg.
- **Lubrication.** Lithium grade 2 grease.
- **Weight.** With maximal number of stages: 0.95 Kg

MOTOR COUPLING:

- **Direct C.:** BÜHLER BHL40 type 12 or 24 V

■ OPTIONAL:

- 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)	
4,51	2	3,65	886,92	665,19	0,05	886,92	665,19	0,05	953,44	687,36	0,15	953,44	687,36	0,15	842,57	665,19	0,23	842,57	665,19	0,23	
6,26	2	5,07	638,98	479,23	0,07	638,98	479,23	0,07	686,90	495,21	0,21	686,90	495,21	0,21	607,03	479,23	0,32	607,03	479,23	0,32	
10,85	2	8,79	368,66	276,50	0,12	368,66	276,50	0,12	396,31	285,71	0,37	396,31	285,71	0,37	350,23	276,50	0,56	350,23	276,50	0,56	
15,97	3	11,64	250,47	187,85	0,16	250,47	187,85	0,16	269,25	194,11	0,49	269,25	194,11	0,49	237,95	187,85	0,74	237,95	187,85	0,74	
30,25	3	22,05	132,23	99,17	0,30	132,23	99,17	0,30	142,15	102,48	0,92	142,15	102,48	0,92	125,62	99,17	1,39	125,62	99,17	1,39	
45,87	3	33,44	87,20	65,40	0,46	87,20	65,40	0,46	93,74	67,58	1,40	93,74	67,58	1,40	82,84	65,40	2,11	82,84	65,40	2,11	
61,77	4	40,53	64,76	48,57	0,56	64,76	48,57	0,56	69,61	50,19	1,70	69,61	50,19	1,70	61,52	48,57	2,56	61,52	48,57	2,56	
93,67	4	61,46	42,70	32,03	0,85	42,70	32,03	0,85	45,91	33,09	2,57	45,91	33,09	2,57	40,57	32,03	3,88	40,57	32,03	3,88	
116,98	4	76,75	34,19	25,65	1,06	34,19	25,65	1,06	36,76	26,50	3,21	36,76	26,50	3,21	32,48	25,65	4,85	32,48	25,65	4,85	
148,46	4	97,40	26,94	20,21	1,34	26,94	20,21	1,34	28,96	20,88	4,08	28,96	20,88	4,08	25,60	20,21	6,15	25,60	20,21	6,15	
177,39	4	116,39	22,55	16,91	1,60	22,55	16,91	1,60	24,24	17,48	4,87	24,24	17,48	4,87	21,42	16,91		21,42	16,91		
303,15	5	179,01	13,19	9,90	2,46	13,19	9,90	2,46	14,18	10,23		14,18	10,23		12,54	9,90		12,54	9,90		
480,58	5	283,78	8,32	6,24	3,90	8,32	6,24	3,90	8,95	6,45		8,95	6,45		7,91	6,24		7,91	6,24		
525,24	5	310,15	7,62	5,71	4,26	7,62	5,71	4,26	8,19	5,90		8,19	5,90		7,23	5,71		7,23	5,71		
627,47	5	370,51	6,37	4,78	5,09	6,37	4,78	5,09	6,85	4,94		6,85	4,94		6,06	4,78		6,06	4,78		

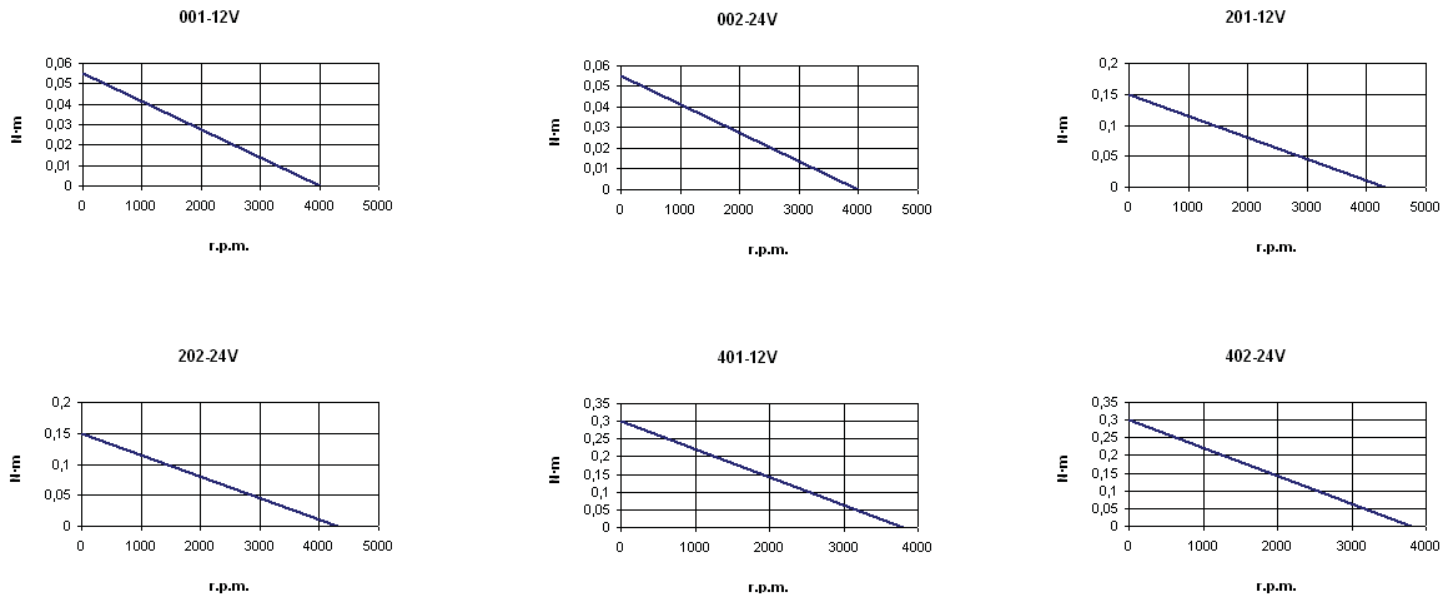
NO LOAD SPEED/NOMINAL TORQUE

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%.

Ex Exceeds maximal admissible torque

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.