

## K55

### 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 5.5 Nm, steady load.**

- **Box.** Made of die-cast Zamak. Frontal mounting by four M4 threaded holes (the same as K31 gearbox).
- **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.** Ø8 mm. steel shaft, 23 mm usable length, with a flat. Incorporates and turns on ball bearings.
- **Output shaft load:**

Axial direction, pull or push	400 N ≈ 40 Kg.
Radial direction, at 10 mm from box	250 N ≈ 25 Kg.
- **Lubrication.** Lithium grade 2 grease.
- **Weight.** With maximal number of stages: 0.91 Kg

#### MOTOR COUPLING:


- **Direct C.:** Dunker BG42 type, 12 or 24V.

#### ■ OPTIONAL:

- Frontal mounting by three M5 threaded holes (the same as K80 gearbox).
- Ø10 mm output shaft, 32 mm usable length, with a flat.
- **DW 8/10:** Ø8 mm or Ø10 mm shaft with double output (both sides), without flat.
- 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.**

			BRUSHLESS DC MOTORS MODEL: Dunker BG42											
			BG42x30 12V			BG42x30 24V			BG42x30KI 12V			BG42x30KI 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)
10,52	3	7,67	398,29	316,54	1,33	390,68	340,30	1,31	408,75	343,16	0,77	391,63	348,86	1,27
14,89	3	10,85	281,40	223,64	1,88	276,02	240,43	1,86	288,78	242,44	1,10	276,70	246,47	1,80
35,64	3	25,98	117,56	93,43	4,49	115,32	100,45	4,44	120,65	101,29	2,62	115,60	102,97	4,31
57,58	4	37,78	72,77	57,83	Ex. Torque max. 5,5 N·m	71,38	62,17	Ex. Torque max. 5,5 N·m	74,68	62,70	Ex. Torque max. 5,5 N·m	71,55	63,74	Ex. Torque max. 5,5 N·m
99,76	4	65,45	42,00	33,38		41,20	35,89		43,10	36,19		41,30	36,79	
137,82	4	90,42	30,40	24,16		29,82	25,98		31,20	26,19		29,89	26,63	
150,63	4	98,83	27,82	22,11		27,29	23,77		28,55	23,97		27,35	24,36	
186,39	5	110,06	22,48	17,87		22,05	19,21		23,07	19,37		22,10	19,69	
307,59	5	181,63	13,62	10,83	13,36	11,64	13,98	11,74	13,39	11,93				
386	5	227,93	10,85	8,63	10,65	9,27	11,14	9,35	10,67	9,51				
533	5	314,73	7,86	6,25	7,71	6,72	8,07	6,77	7,73	6,89				

**NO LOAD SPEED/NOMINAL TORQUE**

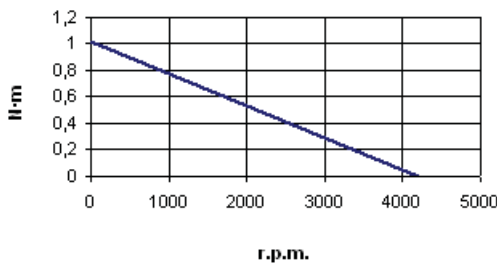
Motor BG 42x30-12V= 4190 r.p.m./1,02Nm.  
 Motor BG 42x30-24V= 4110 r.p.m./1,52Nm.  
 Motor BG 42x30 KI-12V= 4300 r.p.m./0,288Nm.  
 Motor BG 42x30 KI-24V= 4120 r.p.m./0,445Nm.

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

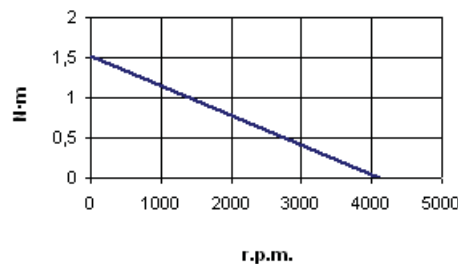
**Ex** Exceeds maximal admissible torque

**CURVES**

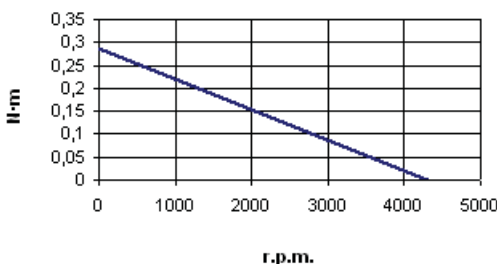
BG42x30 12V



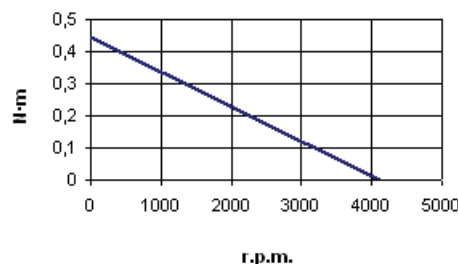
BG42x30 24V



BG42x30KI 12V



BG42x30KI 24V



**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.