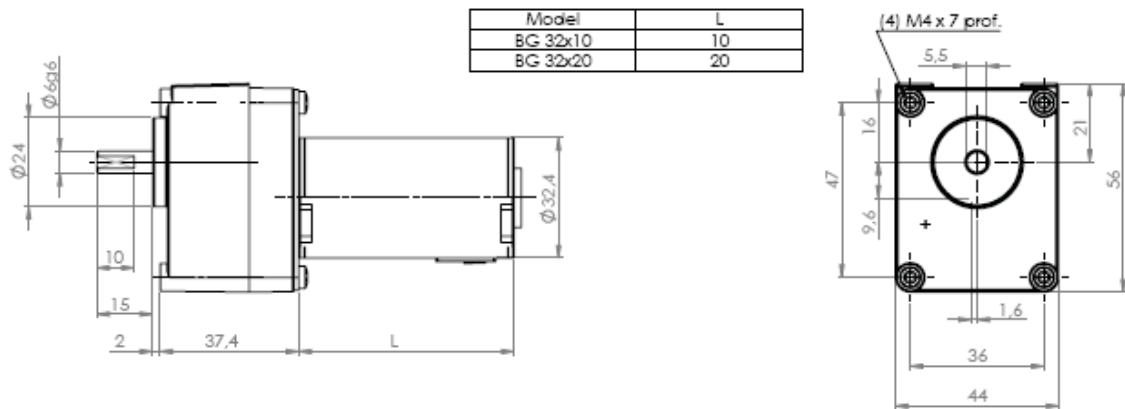


Gearbox + Motor **K30-BG32**



K30

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 3 Nm, steady load.

- **Box.** Made of die-cast Zamak. 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. The intermediate gears turn on rectified hardened steel shafts, which are fixed to the box.
- **Output shaft.** $\varnothing 6$ mm steel shaft, 15 mm usable length, with a flat. Incorporates and turns on ball bearing at the output side and on roller bearing at the back side.
- **Output shaft load:**

Pull axial direction	200 N \approx 20 Kg.
Push axial direction	20 N \approx 2 Kg.
Radial direction, at 8 mm from box	150 N \approx 15 Kg.
- **Lubrication.** Lithium grade 2 grease.
- **Weight.** With maximal number of stages: 0.68 Kg.

MOTOR COUPLING:

- **Direct C.:** Dunker BG32 type, 12 or 24 V.

OPTIONAL:

- $\varnothing 8$ mm output shaft, without flat.
- Vertical mounting by two M4 threaded holes.
- 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 BG32														
			BG32x10 24V			BG32x20 24V			BG32x10KI 12V			BG32x20KI 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)
5,34	2	4,33	1073,03	719,10	0,12	928,84	674,16	0,21	1089,89	734,08	0,11	956,93	720,97	0,19
9,94	2	8,05	576,46	386,32	0,22	498,99	362,17	0,39	585,51	394,37	0,21	514,08	387,32	0,36
17,81	3	12,98	321,73	215,61	0,35	278,50	202,13	0,62	326,78	220,10	0,34	286,92	216,17	0,58
29,78	3	21,71	192,41	128,95	0,59	166,55	120,89	1,04	195,43	131,63	0,56	171,59	129,28	0,98
59,35	4	38,94	96,55	64,70	1,05	83,57	60,66	1,87	98,06	66,05	1,01	86,10	64,87	1,75
85,48	4	56,08	67,03	44,92	1,51	58,03	42,12	2,69	68,09	45,86	1,46	59,78	45,04	2,52
119,1	4	78,14	48,11	32,24	2,11	41,65	30,23	Ex. Torque max. 3 N·m	48,87	32,91	2,03	42,91	32,33	Ex. Torque max. 3 N·m
159,06	4	104,36	36,02	24,14	2,82	31,18	22,63		36,59	24,64	2,71	32,13	24,20	
197,81	5	116,80	28,97	19,41	Ex. Torque max. 3 N·m	25,07	18,20	Ex. Torque max. 3 N·m	29,42	19,82	Ex. Torque max. 3 N·m	25,83	19,46	Ex. Torque max. 3 N·m
284,9	5	168,23	20,11	13,48		17,41	12,64		20,43	13,76		17,94	13,51	
396,97	5	234,41	14,43	9,67	Ex. Torque max. 3 N·m	12,49	9,07	Ex. Torque max. 3 N·m	14,66	9,87	Ex. Torque max. 3 N·m	12,87	9,70	Ex. Torque max. 3 N·m
476,41	5	281,32	12,03	8,06		10,41	7,56		12,22	8,23		10,73	8,08	
636,25	5	375,70	9,01	6,04	Ex. Torque max. 3 N·m	7,80	5,66	Ex. Torque max. 3 N·m	9,15	6,16	Ex. Torque max. 3 N·m	8,03	6,05	Ex. Torque max. 3 N·m

NO LOAD SPEED/NOMINAL TORQUE

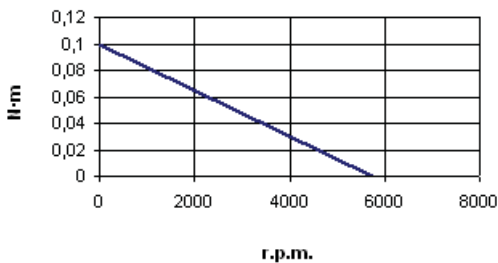
Motor BG 32x10-24V= 5730 r.p.m./0,1Nm.
 Motor BG 32x20-24V= 4960 r.p.m./0,22Nm.
 Motor BG 32x10 KI-12V= 5820 r.p.m./0,099Nm.
 Motor BG 32x20 KI-24V= 5110 r.p.m./0,207Nm.

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

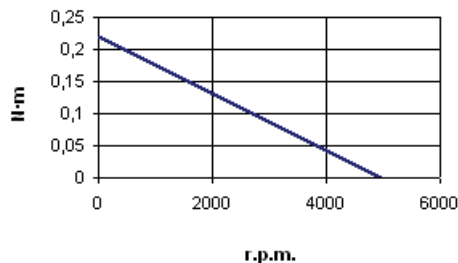
Ex Exceeds maximal admissible torque

CURVES

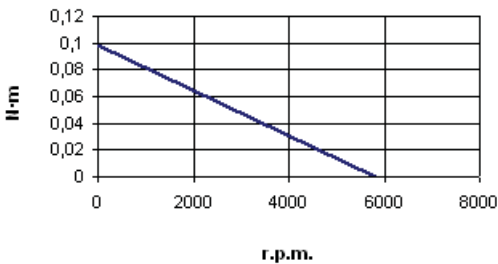
BG32x10 24V



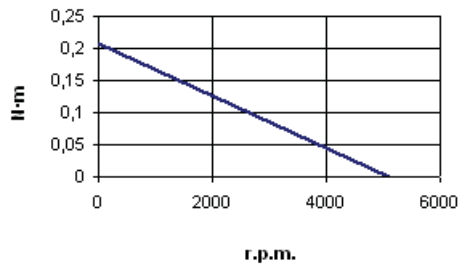
BG32x20 24V



BG32x10KI 12V



BG32x20KI 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.