

BDCB Series

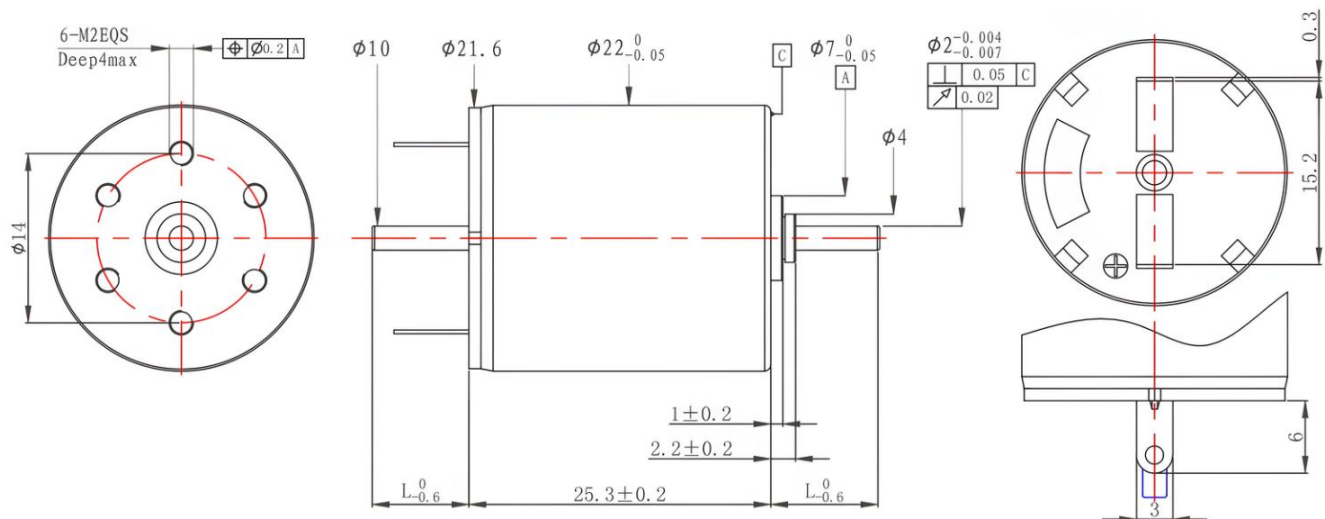
Coreless Graphite Brushed DC Motor



BDCB2225 Motor Data

4-10W

Motor Model	Unit	BDCB2225-01	BDCB2225-02	BDCB2225-03	BDCB2225-04
Value at Rated voltage					
At Nominal					
1. Nominal voltage	V/DC	6	12	18	24
2. Nominal speed	rpm	11340	13272	9676	9960
3. Nominal current	A	0.98	0.81	0.50	0.34
4. Nominal torque	mNm	3.67	5.13	6.24	5.56
Free Load					
5. No-load speed	rpm	13500	15800	11800	12000
6. No-load current	mA	100	90	60	45
At Max. Efficiency					
7. Max. efficiency	%	75.1	74.0	71.4	70.9
8. Speed	rpm	11880	13825	10207	10380
9. Current	A	0.760	0.654	0.389	0.282
10. Torque	mNm	2.8	4.0	4.7	4.4
At Max. Output power					
11. Max.output power	W	8.1	13.3	10.7	10.3
12. Speed	rpm	6750	7900	5900	6000
13. Current	A	2.9	2.3	1.3	0.9
14. Torque	mNm	11.5	16.0	17.3	16.3
At Stall					
15. Stall current	A	5.60	4.60	2.50	1.80
16. Stall torque	mNm	22.9	32.1	34.7	32.7
Motor Constants					
17. Terminal resistance	Ω	1.07	2.61	7.20	13.33
18. Terminal inductance	mH	0.025	0.090	0.265	0.550
19. Torque constant	mNm/A	4.17	7.11	14.22	18.62
20. Speed constant	rpm/V	2250.0	1316.7	655.6	500.0
21. Speed/torque constant	rpm/mNm	588.9	492.7	340.2	367.2
22. Mechanical time constant	ms	18.07	15.12	10.44	11.27
23. Rotor inertia	gcm ²	2.93	2.93	2.97	2.93
24. Number of pole pairs		1			
25. Number of phase		5			
26. Weight of motor	g	48			
27. Typical noise level	dB	≤42			

Motor Drawing (mm)**Φ22*L25mm****Technical Specifications**

1. Axial play: 0-0.1 mm
2. Sintered metal bearing load limits:
 - Max. axial load (dynamic): 2 N
 - Max. radial load (5 mm from flange): 15 N
3. Sintered metal bearing radial play: ≤ 0.03 mm
4. Ball bearing radial play: ≤ 0.015 mm
5. Ambient temperature range: -20 to +80°C
6. Relative humidity: <90% RH at 25°C
7. Highest rotor temperature: 125°C

Motor terminal definition

1. + Vcc
2. - GND

Optional Parts

1. Planetary gearbox
2. Photoelectric encoder/magnetolectric encoder

