

BDCB Series

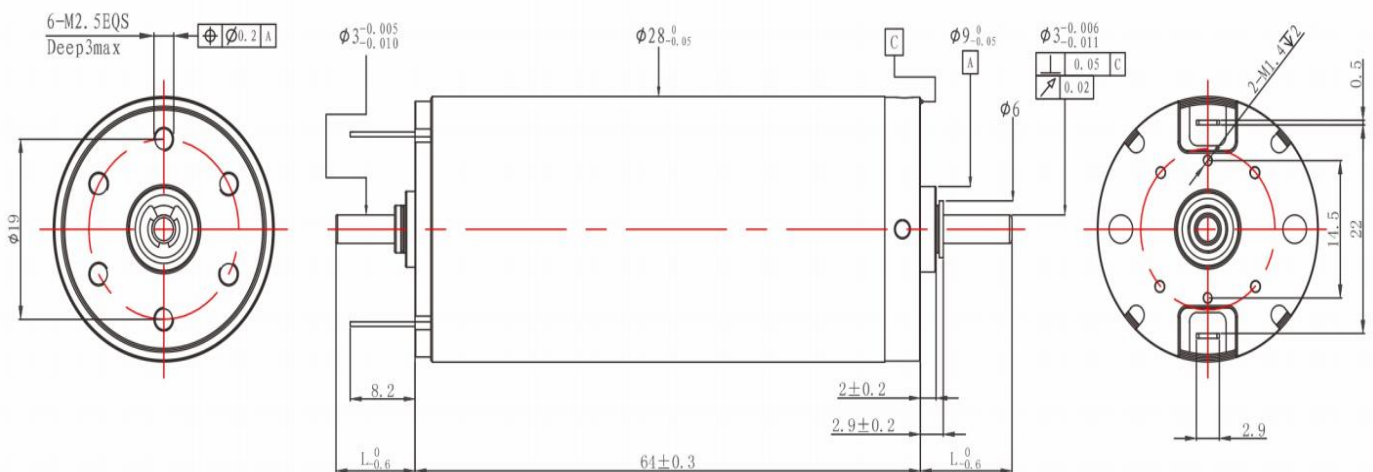
Coreless Graphite Brushed DC Motor



BDCB2864 Motor Data

13-55W

Motor Model	Unit	BDCB2864-01	BDCB2864-02	BDCB2864-03
Value at Rated voltage				
At Nominal				
1. Nominal voltage	V/DC	6	12	24
2. Nominal speed	rpm	6675	6497	6497
3. Nominal current	A	2.92	1.95	1.11
4. Nominal torque	mNm	19.63	26.46	32.71
Free Load				
5. No-load speed	rpm	7500	7300	7300
6. No-load current	mA	320	240	64
At Max. Efficiency				
7. Max. efficiency	%	78.2	76.9	84.3
8. Speed	rpm	6713	6497	6753
9. Current	A	2.806	1.952	0.779
10. Torque	mNm	18.74	26.46	22.30
At Max. Output power				
11. Max.output power	W	35.05	45.97	56.83
12. Speed	rpm	3750	3650	3650
13. Current	A	12.16	8.02	4.83
14. Torque	mNm	89.2	120.3	148.7
At Stall				
15. Stall current	A	24.00	15.80	9.60
16. Stall torque	mNm	178.5	240.5	297.4
Motor Constants				
17. Terminal resistance	Ω	0.25	0.76	2.50
18. Terminal inductance	mH	0.030	0.090	0.280
19. Torque constant	mNm/A	7.54	15.46	31.19
20. Speed constant	rpm/V	1250.0	608.3	304.2
21. Speed/torque constant	rpm/mNm	42.0	30.3	24.5
22. Mechanical time constant	ms	7.02	6.56	4.97
23. Rotor inertia	gcm ²	15.94	20.63	19.32
24. Number of pole pairs		1		
25. Number of phase		7		
26. Weight of motor	g	200		
27. Typical noise level	dB	≤45		

Motor Drawing (mm)**Φ28*L64mm****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): 20 N
3. Radial play: ≤0.015 mm
4. Ambient temperature range: -20 to +80°C
5. Relative humidity range: <90% (25°C)
6. Highest rotor temperature: 125°C

Values listed in the table are nominal.

Motor terminal definition

1. + Vcc
2. - GND

Optional Parts

1. Planetary gearbox
2. Photoelectric encoder
3. Magnetoelectric encoder
4. Brake

