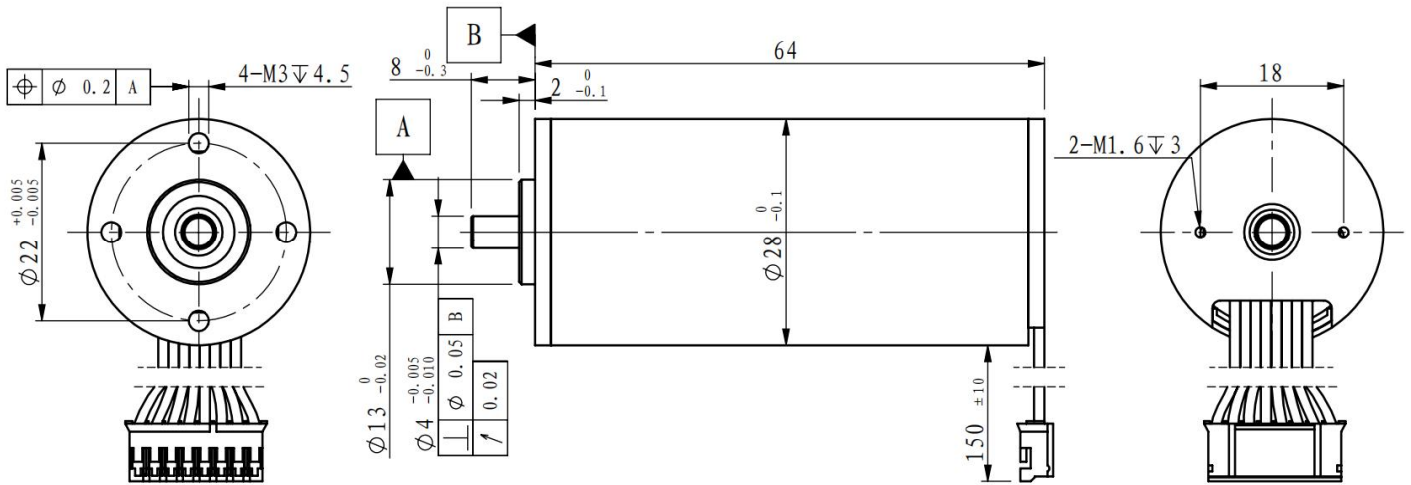


Ø28mm Coreless Brushless motor (Ø28mm L64mm) 50watt

Standard series (high cost performance)



Motor Data

Order number

Values at nominal voltage

		28641209	28641809	28642409	28643609	28644809
1 Nominal voltage	V	12	18	24	36	48
2 No-load speed	rpm	9038	9022	9087	9059	9071
3 No-load current	mA	255	170	140	100	80
4 Nominal speed	rpm	7682	7669	7714	7759	7801
5 Nominal torque (Max. continuous torque)	mNm	54.95	55.33	53.86	52.82	52.99
6 Nominal current (Max. continuous current)	A	4.63	3.10	2.28	1.50	1.14
7 Stall torque	mNm	366.32	368.88	371.42	377.27	378.52
8 Stall current	A	29.40	19.70	14.90	10.10	7.65
9 Max. efficiency	%	82	82	82	81	81

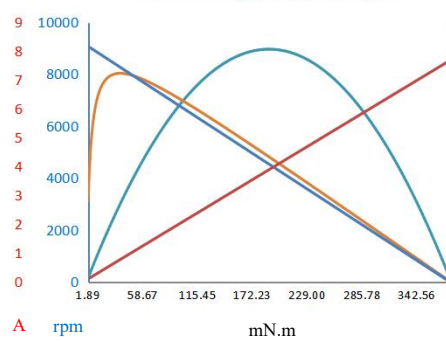
Characteristics

10 Terminal resistance	Ω	0.41	0.91	1.61	3.56	6.27
11 Terminal inductance	mH	0.10	0.27	0.42	0.90	1.72
12 Torque constant	mNm/A	12.57	18.89	25.16	37.73	50.00
13 Speed constant	rpm/V	753	501	376	251	189
14 Speed / torque gradient	rpm/mNm	25	24	24	24	24
15 Mechanical time constant	ms	2.7	2.7	2.7	2.7	2.7
16 Rotor inertia	gcm ²	9.6	9.6	9.6	9.6	9.6

Mechanical data

17 Ambient temperature	-40...+100°C
18 Max. winding temperature	+155°C
19 Bearing type	ball bearing
20 Max. speed	25000rpm
21 Axial clearance under axial load	(8N 0mm)) 8N max 0.2mm
22 Radial clearance	ball bearing preloaded
23 Number of pole pairs	1
24 Number of phases	3
25 Weight	200g

28644809 performance curve



Speed/torque slope N:

- Speed increases with torque, linear ratio decreases

- The higher the motor speed, the lower the torque provided

Torque/current slope T:

- The greater the current, the greater the motor output torque

Output power curve:

- The corresponding output power of the motor at any speed and torque

Efficiency η:

- Describe the energy loss in the mechano-mechanical energy conversion process