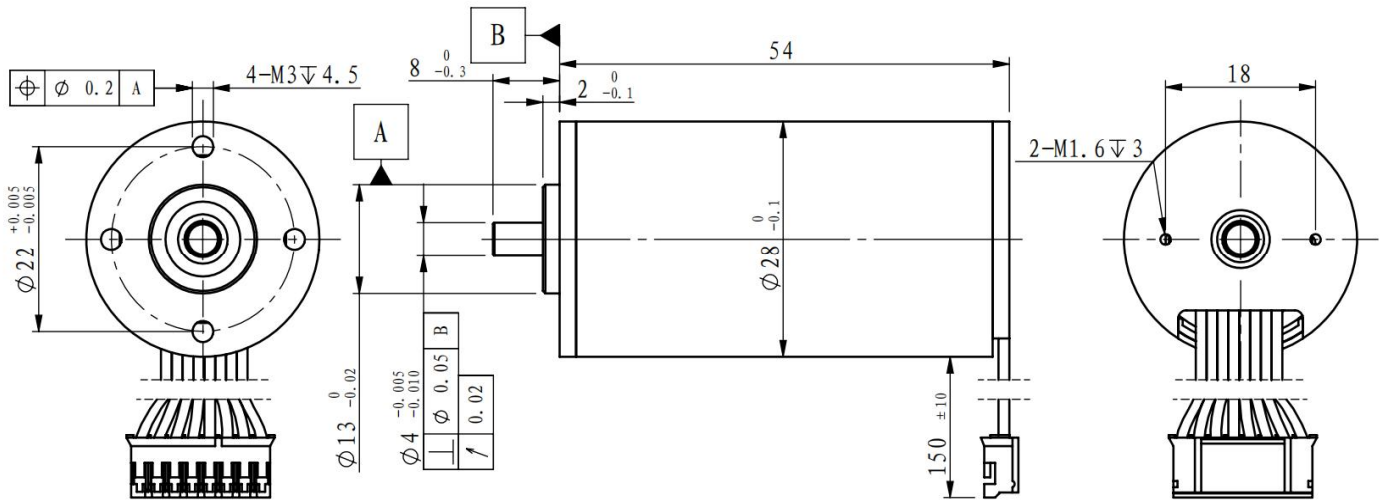




# Ø28mm Coreless Brushless motor (Ø28mm L54mm) 40watt Standard series (high cost performance)



### Motor Data

Values at nominal voltage

		28541209	28541809	28542409	28543609	28544809
1 Nominal voltage	V	12	18	24	36	48
2 No-load speed	rpm	9100	9040	9024	9066	9010
3 No-load current	mA	170	135	100	80	60
4 Nominal speed	rpm	7735	7639	7625	7615	7568
5 Nominal torque (Max. continuous torque)	mNm	36.19	36.90	36.61	36.65	37.29
6 Nominal current (Max. continuous current)	A	3.07	2.07	1.56	1.06	0.80
7 Stall torque	mNm	241.29	238.08	236.22	229.07	233.04
8 Stall current	A	19.50	12.75	9.50	6.20	4.70
9 Max. efficiency	%	82	82	81	79	79

### Order number

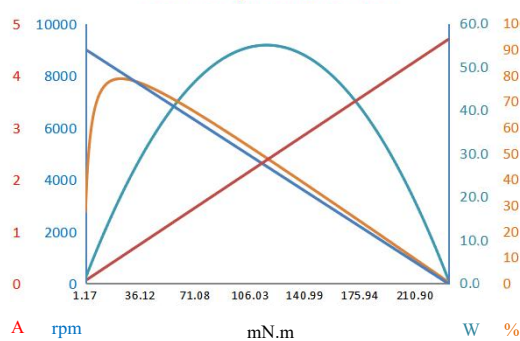
### Characteristics

10 Terminal resistance	Ω	0.62	1.41	2.53	5.81	10.21
11 Terminal inductance	mH	0.13	0.32	0.50	1.20	2.10
12 Torque constant	mNm/A	12.48	18.84	25.13	37.43	50.22
13 Speed constant	rpm/V	758	502	376	252	188
14 Speed / torque gradient	rpm/mNm	38	38	38	40	39
15 Mechanical time constant	ms	3.6	3.6	3.6	3.6	3.6
16 Rotor inertia	gcm <sup>2</sup>	8.6	8.6	8.6	8.6	8.6

### Mechanical data

17 Ambient temperature	-40...+100°C
18 Max. winding temperature	+155°C
19 Bearing type	ball bearing
20 Max. speed	30000rpm
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	160g

28544809 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 I:

- 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