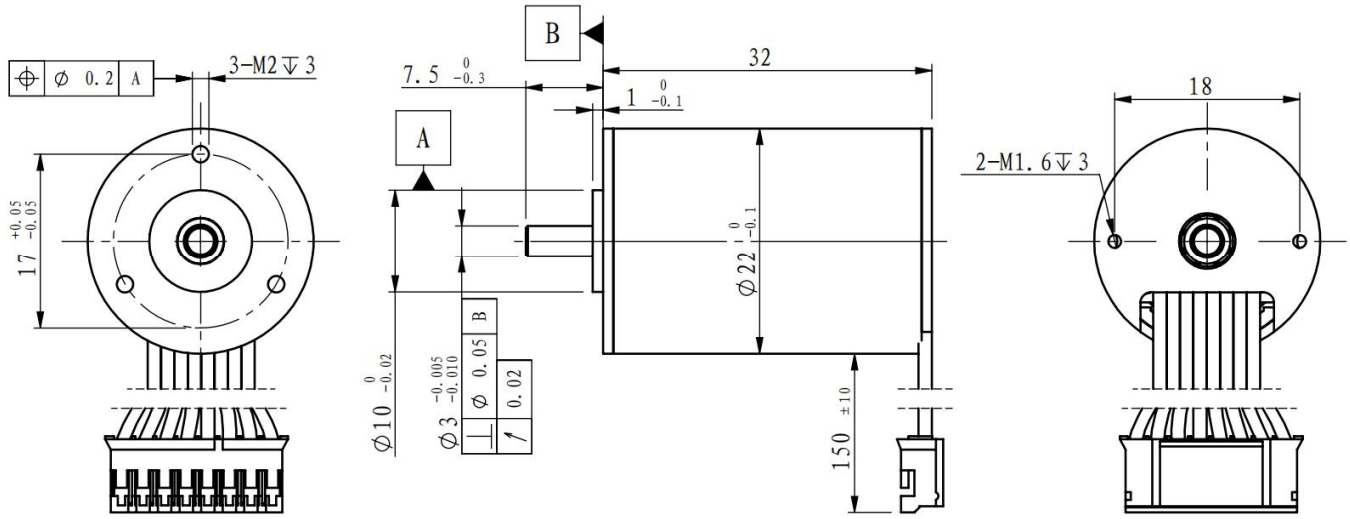
Ø22mm Coreless Brushless motor （Ø22mm L32mm） 10watt

Standard series (high cost performance)



Motor Data

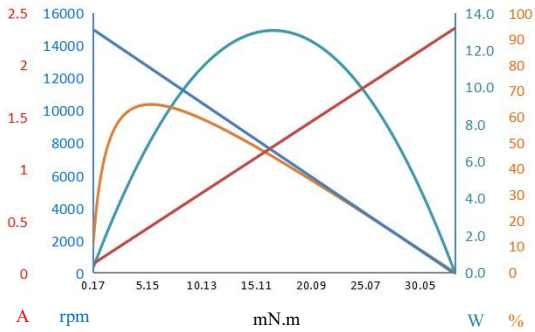
Order number

Values at nominal voltage		22320615	22320915	22321215	22321815	22322415
1 Nominal voltage	V	6	9	12	18	24
2 No-load speed	rpm	15173	15090	15110	15073	15000
3 No-load current	mA	270	190	150	110	90
4 Nominal speed	rpm	11850	11850	11850	11850	11850
5 Nominal torque（Max. continuous torque）	mNm	7.51	7.31	7.23	7.18	6.97
6 Nominal current （Max. continuous current）	A	2.29	1.50	1.13	0.76	0.56
7 Stall torque	mNm	35.78	34.81	34.41	34.19	33.21
8 Stall current	A	9.90	6.45	4.80	3.20	2.35
9 Max. efficiency	%	70	69	68	66	65
Characteristics						
10 Terminal resistance	Ω	0.61	1.40	2.50	5.63	10.21
11 Terminal inductance	mH	0.04	0.10	0.20	0.58	1.50
12 Torque constant	mNm/A	3.72	5.56	7.40	11.07	14.69
13 Speed constant	rpm/V	2500	1667	1250	833	625
14 Speed / torque gradient	rpm/mNm	419	431	436	439	452
15 Mechanical time constant	ms	5.1	5.1	5	5.1	5.1
16 Rotor inertia	gcm²	1.3	1.3	1.3	1.3	1.3

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	〈3.5N 0mm 〉3.5N max 0.2mm
22 Radial clearance	ball bearing preloaded
23 Number of pole pairs	1
24 Number of phases	3
25 Weight	50g

22322415 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