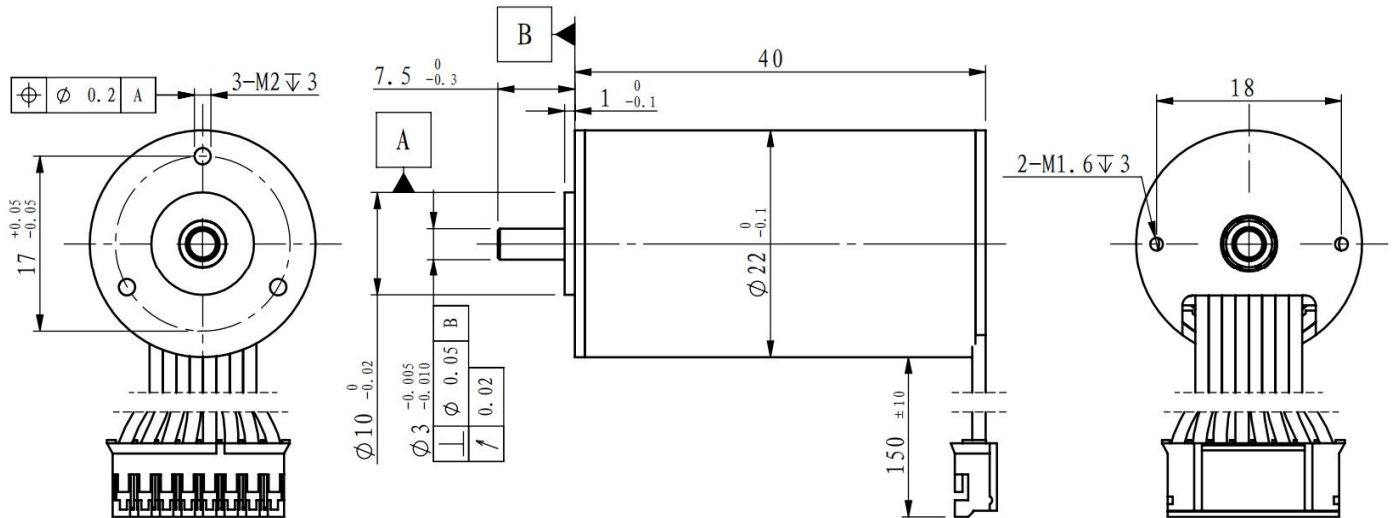


Ø22mm Coreless Brushless motor (Ø22mm L40mm)

Standard series (high cost performance)

15watt



Motor Data

Values at nominal voltage

		22400615	22400915	22401215	22401815	22402415		
1 Nominal voltage	V	6	9	12	18	24		
2 No-load speed	rpm	15033	15008	14997	15120	15000		
3 No-load current	mA	330	230	180	130	110		
4 Nominal speed	rpm	12750	12675	12600	12600	12525		
5 Nominal torque (Max. continuous torque)	mNm	12.57	12.38	12.34	11.81	11.68		
6 Nominal current (Max. continuous current)	A	3.67	2.43	1.82	1.18	0.89		
7 Stall torque	mNm	83.82	79.89	77.11	73.83	70.78		
8 Stall current	A	22.60	14.40	10.45	6.70	4.85		
9 Max. efficiency	%	77	76	75	74	72		

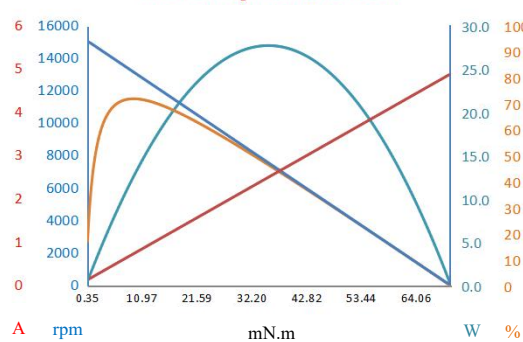
Characteristics

10 Terminal resistance	Ω	0.27	0.63	1.15	2.69	4.95		
11 Terminal inductance	mH	0.03	0.06	0.10	0.25	0.32		
12 Torque constant	mNm/A	3.76	5.64	7.51	11.24	14.93		
13 Speed constant	rpm/V	2500	1667	1250	833	625		
14 Speed / torque gradient	rpm/mNm	179	188	195	203	212		
15 Mechanical time constant	ms	4.5	4.5	4.5	4.5	4.5		
16 Rotor inertia	gcm ²	2.2	2.2	2.2	2.2	2.2		

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	70g

22402415 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