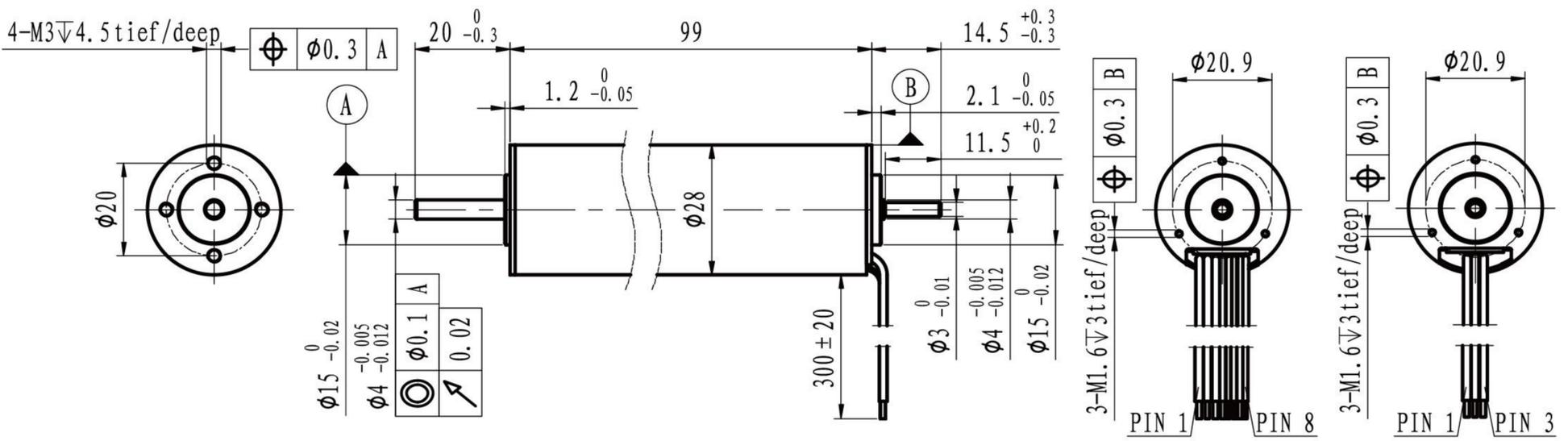


EC-4pole series. Slotless Brushless DC Motor

EC4P2899, $\Phi 28\text{mm} \times 99\text{mm}$

vishan 唯川

A: With Hall Sensors B: Sensorless

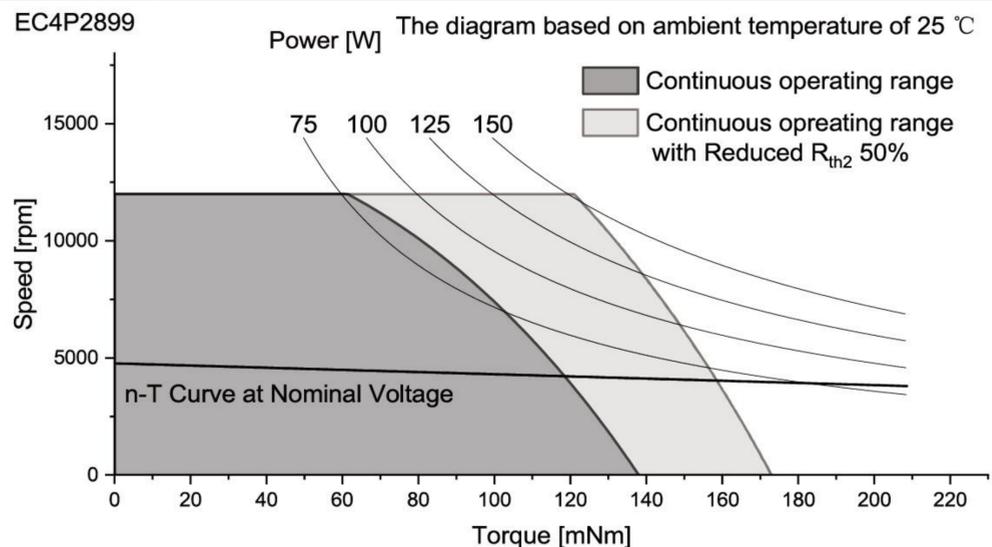


M 1:1.8

	Sensorless	EC4P2899L-...	2404	3604	4804
	With hall sensor	EC4P2899S-...			
Motor data					
Values at nominal voltage					
1	Nominal voltage	V	24	36	48
2	No load speed	rpm	4589	4533	4501
3	No load current	mA	150	110	70
4	Nominal speed	rpm	4111	4051	4027
5	Nominal torque	mNm	110	110	110
6	Nominal current	A	2.37	1.57	1.16
7	Stall torque	mNm	1055.3	1033.4	1043.8
8	Stall current	A	21.43	13.85	10.39
9	Max. efficiency	%	84.0	83.0	84.3
10	Terminal resistance	Ω	1.12	2.6	4.62
11	Terminal inductance	mH	0.15	0.34	0.6
12	Torque constant	mNm/A	49.59	75.24	101.15
13	Speed constant	rpm/V	193	127	94
14	Speed/torque gradient	rpm/mNm	4	4	4
15	Mechanical time constant	ms	1.4	1.4	1.4
16	Rotor inertia	gcm ²	30.1	30.1	30.1

17	Thermal resistance housing-ambient	6.6 K/W
18	Thermal resistance winding-housing	2.5 K/W
19	Thermal time constant winding	33 s
20	Thermal time constant motor	1370 s
21	Ambient temperature	-30...+100°C
22	Max. permissible winding temperature	+150°C
23	Max. permissible speed	12000 rpm
24	Axial play at axial load	<8 N 0 mm >8 N max. 0.3 mm
25	Radial play	preloaded
26	Max. axial load (dynamic)	7.5 N
27	Max. force for press fits (static)	100 N
	(static, shaft supported)	2000 N
28	Max. radial loading, 5mm from flange	25 N
29	Number of pole pairs	1
30	Number of phases	3
31	Weight of motor	389 g

Operating Range



Connection

Connection A (Sensor)		PTFE	
Pin 1	Motor winding MA	AWG20	yellow
Pin 2	Motor winding MB	AWG20	green
Pin 3	Motor winding MC	AWG20	blue
Pin 4	Vhall 3-18 VDC	AWG26	red
Pin 5	GND	AWG26	black
Pin 6	Hall sensor HA	AWG26	white
Pin 7	Hall sensor HB	AWG26	orange
Pin 8	Hall sensor HC	AWG26	gray

Connection B (Sensorless)		PVC	
Pin 1	Motor winding MA	AWG20	yellow
Pin 2	Motor winding MB	AWG20	green
Pin 3	Motor winding MC	AWG20	blue

Configuration

Performance: Customized in the continuous operating range
 Ball bearing: Preload
 Flange: Standard frange front&back/customize the frange
 Shaft: Length/Diameter/Cut face/double shaft/hollow shaft
 Leadwire: PVC/Silicon/Teflon/UL No/Dimension/length
 Connector: JST/MOLEX/TE