ECD series. Slotless Brushless DC Motor with int. controller
ECD2246. Φ22mmX46mm

vishan 唯川

4-M2∇4.5 tief/deep | ⊕ φ0.3 | A

φ13

10 −0.3/0 | 46
1 −0.05/0

A

φ22

φ6.2 −0.02/0 | φ0.1 | A
φ3 −0.005/−0.012 | 0.02

150 ±10

PIN 1 PIN 2
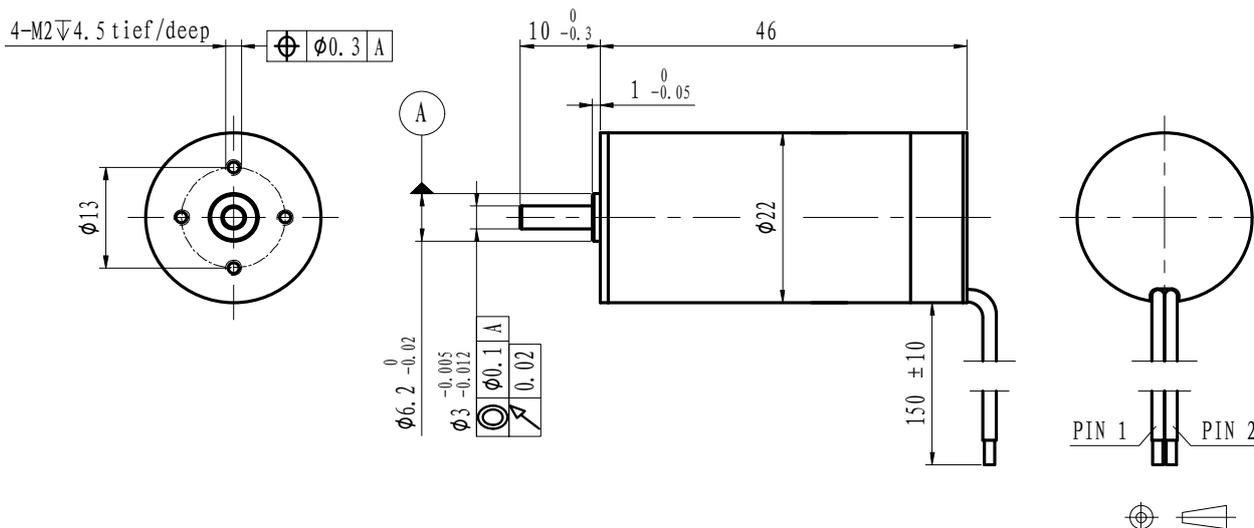
⊕ ◁ **M 1:1**

With hall sensor	**ECD2246S-...**		1212	2416						
Motor data										
Values at nominal voltage										
1	Nominal voltage	V	12	24						
2	No load speed	rpm	11570	15627						
3	No load current	mA	170	140						
4	Nominal speed	rpm	10085	14173						
5	Nominal torque	mNm	8	8						
6	Nominal current	A	1.00	0.70						
7	Stall torque	mNm	62.34	85.96						
8	Stall current	A	6.63	6.14						
9	Max. efficiency	%	70.5	72.1						
10	Supply voltage +Vcc	V	10..28	10..28						
11	Direction of ratation		CW	CW						
12	Torque constant	mNm/A	9.65	14.33						
13	Speed constant	rpm/V	990	666						
14	Speed/torque gradient	rpm/mNm	186	182						
15	Mechanical time constant	ms	4.5	4.4						
16	Rotor inertia	gcm^2	2.3	2.3						

17	Thermal resistance housing-ambient	12.7 K/W
18	Thermal resistance winding-housing	5.0 K/W
19	Thermal time constant winding	12 s
20	Thermal time constant motor	420 s
21	Ambient temprature	-30…+100℃
22	Max. permissible winding temperature	+150℃
23	Max. permissible speed	35000 rpm
24	Axial play at axial load <4 N	0 mm
	>4 N	max. 0.3 mm
25	Radial play	preloaded
26	Max. axial load (dynamic)	3.5 N
27	Max.force for press fits (static)	44 N
	(static, shaft supported)	1200 N
28	Max. radial loading, 5mm from flange	15 N
29	Number of pole pairs	1
30	Number of phases	3
31	Weight of motor	79 g

Operating Range

ECD2246

Power [W]

The diagram based on ambient temperature of 25 ℃

10 15 20 25

■ Continuous operating range

■ Continuous opreating range with Reduced R_{th2} 50%

n-T Curve at Nominal Voltage

Speed [rpm] — Torque [mNm]
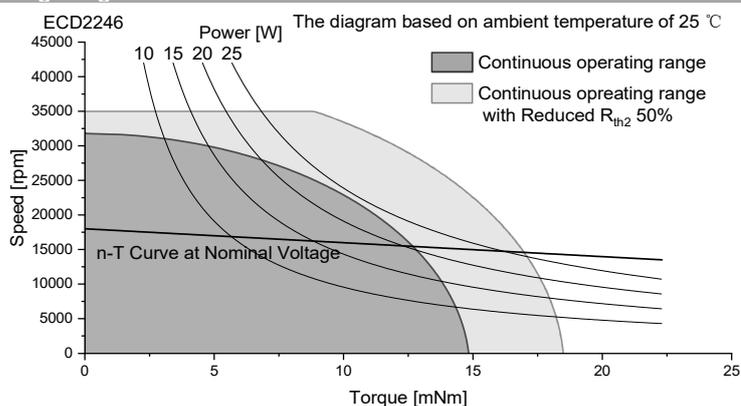
Controller features

Sensor, Open loop, Imax < 1.5A
Overload protection, Stall protection
Max. temperature of electronics   +105℃

Connection

Conection   PTFE
Pin 1 +VCC   AWG24   red
Pin 2 GND   AWG24   black

Caution:
Incorrect lead connection will damage the controller!

Configuration

Function: On&Off/Direction/Speed control/Brake
    Speed closed&open-loop Control/Speed feedback
Performance: Customized in the continuous operating range
Ball bearing: Preload
Flange: Standard frange front&back/customize the frange
Shaft: Length/Diameter/Cut face
Leadwire: PVC/Silicon/Teflon/UL No/Dimension/length
Connector: JST/MOLEX/TE

More：
Please contact our sales engineers