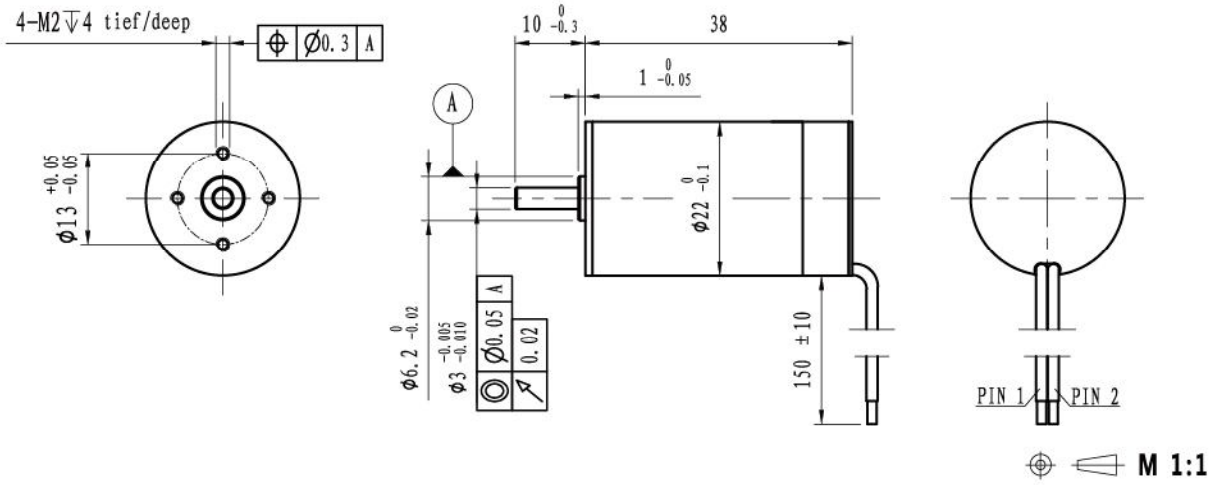
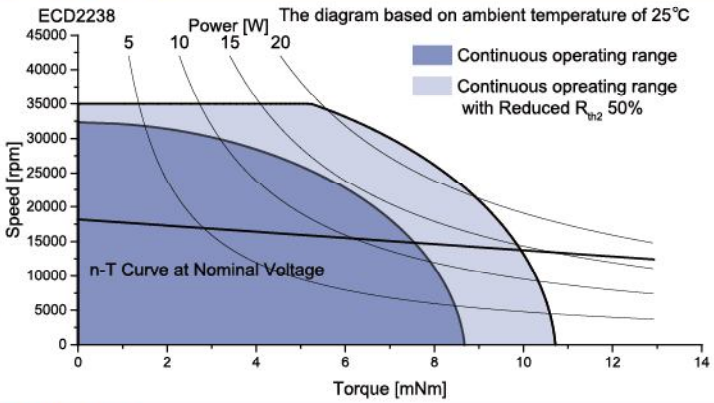



| With hall sensor ECD2238S-... | | | 1218 | 1818 | 2418 |
|---|---|---|---|---|---|
| **Motor data** | | | | | |
| **Values at nominal voltage** | | | | | |
| 1 | Nominal voltage | V | 12 | 18 | 24 |
| 2 | No load speed | rpm | 17445 | 17830 | 17721 |
| 3 | No load current | mA | 220 | 150 | 110 |
| 4 | Nominal speed | rpm | 14292 | 14700 | 14260 |
| 5 | Nominal torque | mNm | 6 | 6 | 6 |
| 6 | Nominal current | A | 1.13 | 0.75 | 0.57 |
| 7 | Stall torque | mNm | 44.8 | 45.3 | 40.7 |
| 8 | Stall current | A | 7.44 | 4.96 | 3.39 |
| 9 | Max. efficiency | % | 70.2 | 70.3 | 67.7 |
| 10 | Supply voltage +Vcc | V | 10..28 | 10..28 | 10..28 |
| 11 | Direction of ratation | | CW | CW | CW |
| 12 | Torque constant | mNm/A | 6.15 | 9.32 | 12.3 |
| 13 | Speed constant | rpm/V | 1553 | 1024 | 777 |
| 14 | Speed/torque gradient | rpm/mNm | 407 | 399 | 447 |
| 15 | Mechanical time constant | ms | 6.4 | 6.2 | 7.0 |
| 16 | Rotor inertia | gcm^2 | 1.5 | 1.5 | 1.5 |
| 17 | Thermal resistance housing-ambient | 15.2 K/W | | | |
| 18 | Thermal resistance winding-housing | 6.0 K/W | | | |
| 19 | Thermal time constant winding | 11 s | | | |
| 20 | Thermal time constant motor | 383 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 | 63 g | | | |

## Operating Range




## Controller features

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

## Connection

**Conection**

| | | | |
|---|---|---|---|
| Pin 1 | +VCC | PTFE 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