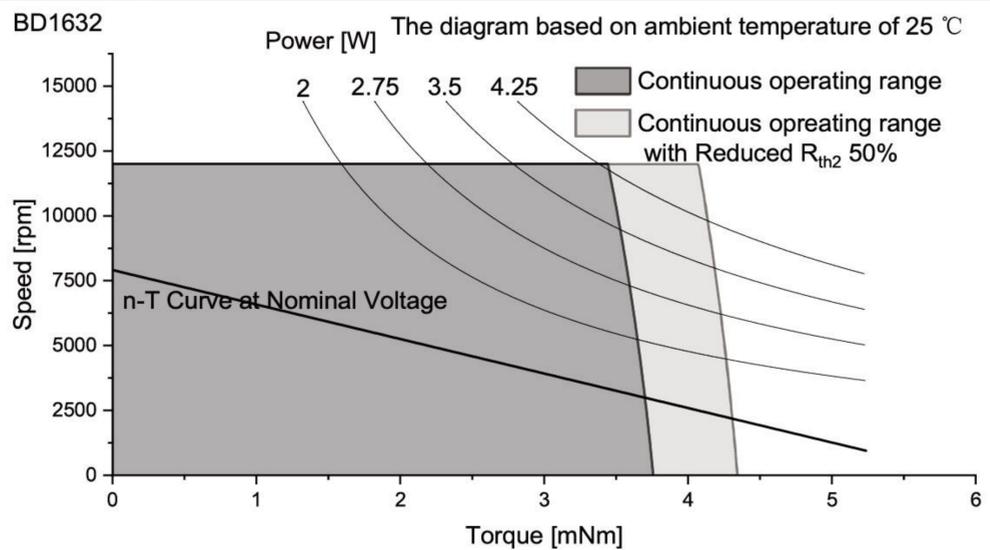


| Motor data | Sensorless | BD1632L-... | 0608 | 1208 | | | | | |
|----------------------------------|--------------------------|------------------|--------|-------|--|--|--|--|--|
| Values at nominal voltage | | | | | | | | | |
| 1 | Nominal voltage | V | 6 | 12 | | | | | |
| 2 | No load speed | rpm | 8032 | 8055 | | | | | |
| 3 | No load current | mA | 80 | 40 | | | | | |
| 4 | Nominal speed | rpm | 5046 | 4865 | | | | | |
| 5 | Nominal torque | mNm | 2.5 | 2.5 | | | | | |
| 6 | Nominal current | A | 0.46 | 0.23 | | | | | |
| 7 | Stall torque | mNm | 6.72 | 6.31 | | | | | |
| 8 | Stall current | A | 1.10 | 0.52 | | | | | |
| 9 | Max. efficiency | % | 53.3 | 52.2 | | | | | |
| 10 | Supply voltage +Vcc | V | 4.5..7 | 8..13 | | | | | |
| 11 | Direction of rotation | | CW | CW | | | | | |
| 12 | Torque constant | mNm/A | 6.61 | 13.13 | | | | | |
| 13 | Speed constant | rpm/V | 1444 | 727 | | | | | |
| 14 | Speed/torque gradient | rpm/mNm | 1194 | 1276 | | | | | |
| 15 | Mechanical time constant | ms | 4.6 | 4.9 | | | | | |
| 16 | Rotor inertia | gcm ² | 0.37 | 0.37 | | | | | |

| | | |
|----|--------------------------------------|-----------------------------------|
| 17 | Thermal resistance housing-ambient | 17.6 K/W |
| 18 | Thermal resistance winding-housing | 17.5 K/W |
| 19 | Thermal time constant winding | 11.4 s |
| 20 | Thermal time constant motor | 301 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 | <1.8 N 0 mm >1.8 N max. 0.3 mm |
| 25 | Radial play | preloaded |
| 26 | Max. axial load (dynamic) | 1.3 N |
| 27 | Max. force for press fits (static) | 15 N |
| | (static, shaft supported) | 350 N |
| 28 | Max. radial loading, 5mm from flange | 5 N |
| 29 | Number of pole pairs | 2 |
| 30 | Number of phases | 3 |
| 31 | Weight of motor | 23 g |

Operating Range



| Controller features | |
|------------------------------------------------|--------|
| Sensorless, Open loop, I _{max} < 0.5A | |
| Overload protection, Stall protection | |
| Max. temperature of electronics | +105°C |

| Connection | | | |
|------------------|-------|-------|--|
| Conection | PVC | | |
| Pin 1 +VCC | AWG28 | red | |
| Pin 2 GND | AWG28 | 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:
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