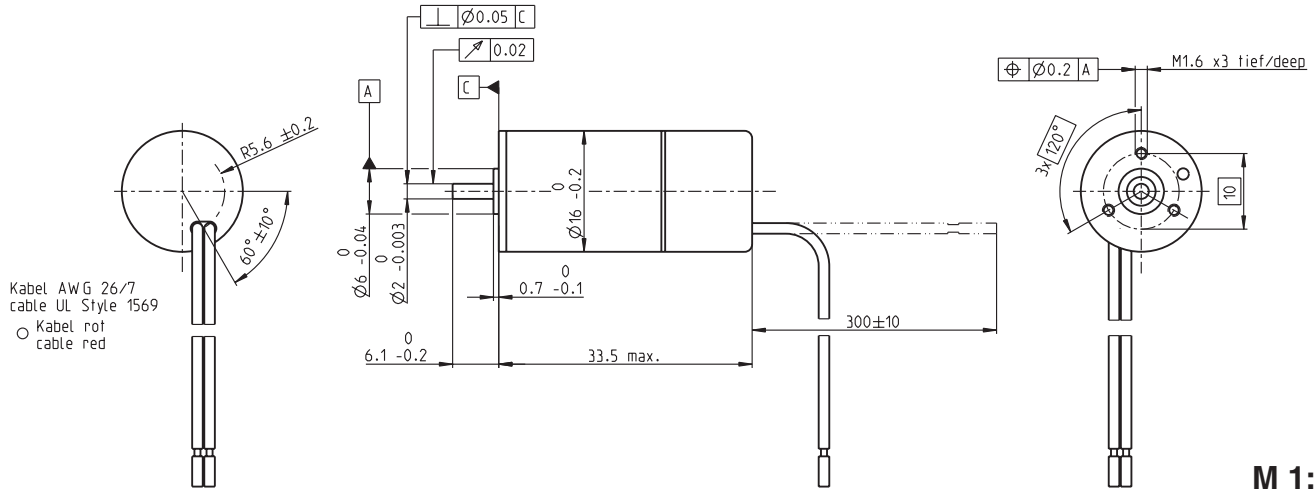


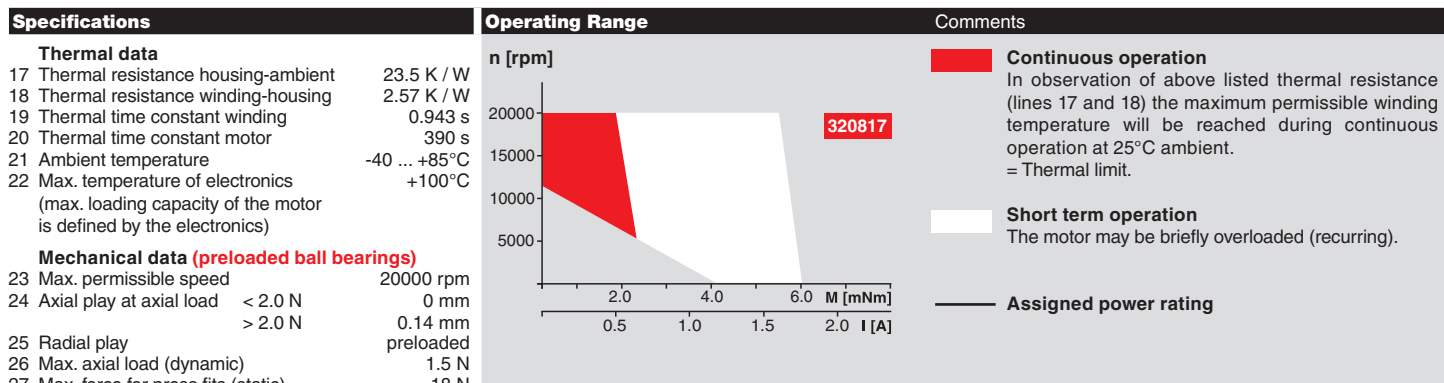
# EC-max 16 2-wire $\varnothing 16$ mm, brushless, 5 Watt, CE approved



- Stock program
- Standard program
- Special program (on request)

| Order Number |        |        |        |  |
|--------------|--------|--------|--------|--|
| 320816       | 320817 | 320818 | 320819 |  |

| Motor Data                                  |                  |             |             |            |            |
|---|------------------|-------------|-------------|------------|------------|
| Values at nominal voltage                   |                  |             |             |            |            |
|   | V                | 5.0         | 6.0         | 9.0        | 12.0       |
| 1 Nominal voltage                           | V                | 5.0         | 6.0         | 9.0        | 12.0       |
| 2 No load speed                             | rpm              | 14600       | 13700       | 12800      | 13700      |
| 3 No load current                           | mA               | 193         | 149         | 90.3       | 74.5       |
| 4 Nominal speed                             | rpm              | 9260        | 8140        | 7230       | 8240       |
| 5 Nominal torque (max. continuous torque)   | mNm              | 2.14        | 2.11        | 2.2        | 2.14       |
| 6 Nominal current (max. continuous current) | A                | 0.927       | 0.722       | 0.463      | 0.365      |
| 7 Stall torque                              | mNm              | 4.47        | 6.31        | 10.1       | 12.6       |
| 8 Starting current                          | A                | 1.68        | 1.7         | 0.93       | 1.7        |
| 9 Max. efficiency                           | %                | 49          | 47          | 46         | 46         |
| Characteristics                             |                  |             |             |            |            |
| 35 Control variable                         |                  | controlled  | controlled  | controlled | controlled |
| 36 Supply voltage + V <sub>CC</sub>         | V                | 5 ... 15    | 5 ... 15    | 5 ... 15   | 5 ... 15   |
| 12 Torque constant                          | mNm / A          | 2.97        | 3.76        | 6.03       | 7.52       |
| 13 Speed constant                           | rpm / V          | 3220        | 2540        | 1580       | 1270       |
| 14 Speed / torque gradient                  | rpm / mNm        | 2580        | 2730        | 2620       | 2660       |
| 15 Mechanical time constant                 | ms               | 11.6        | 12.2        | 11.8       | 11.9       |
| 16 Rotor inertia                            | gcm <sup>2</sup> | 0.428       | 0.428       | 0.428      | 0.428      |
| 39 Speed range                              | rpm              | 14600-20000 | 11300-20000 | 6730-20000 | 5220-17400 |



| Other specifications                             |                  | maxon Modular System   |  |
|--|------------------|--|--|
| 31 Weight of motor                               | 32 g             |  |  |
| Direction of rotation                            | Clockwise (CW)   |  |  |
| Values listed in the table are nominal.          |                  | <p><b>Planetary Gearhead</b></p> <p><math>\varnothing 16</math> mm</p> <p>0.1 - 0.3 Nm</p> <p>Page 216</p> |  |
| <b>Connection</b> (Cable AWG 26/7 UL Style 1569) |                  | Overview on page 16 - 21   |  |
| red  | +V <sub>CC</sub> |  |  |
| black  | GND              |  |  |
| <b>Protective functions</b>                      |                  |  |  |
| Inverse-polarity protection up to max.           | 18 VDC           |  |  |
| Blockage protection at speed                     | < 76 rpm         |  |  |
| Temperature monitoring                           | > 104°C          |  |  |
| Current limitation                               | 1.6 A $\pm$ 15%  |  |  |
| Low voltage monitoring                           | < 4 VDC          |  |  |

**Attention:** Operating voltage V<sub>CC</sub> > 18 VDC will destroy the electronics

**Option:** Sense of rotation: counter-clockwise (CCW)