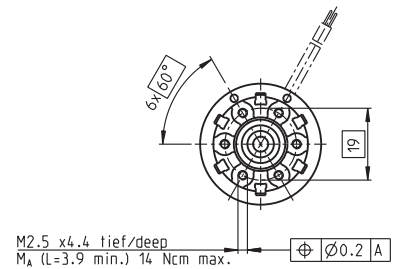
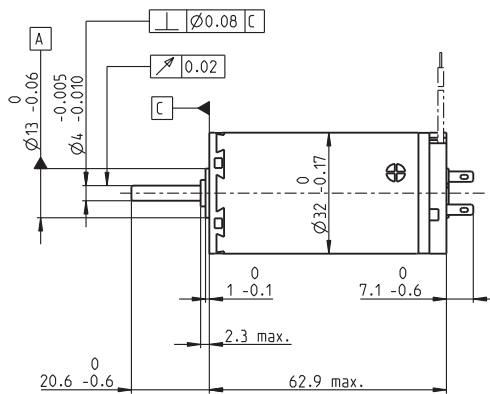
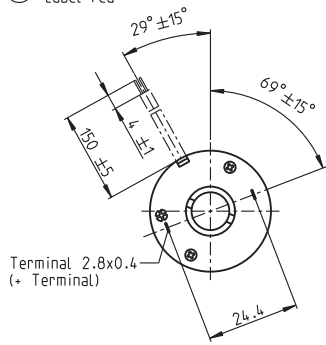


A-max 32 Ø32 mm, Graphite Brushes, 15 Watt

Kabel AWG 22/7
cabel UL Style 1061

⊕ Kabel rot
cabel red



M 1:2

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

Order Number

| | | | | | | | | |
|----------------|---------------|--------|---------------|--------|---------------|--------|--------|--------|
| with terminals | 236643 | 236644 | 236645 | 236646 | 236647 | 236648 | 236649 | 236650 |
| with cables | 353184 | 353185 | 353186 | 353187 | 353188 | 353189 | 353190 | 353191 |

Motor Data

| Values at nominal voltage | | | | | | | | | | |
|---------------------------|---|------------------|--------|-------|-------|-------|-------|-------|-------|-------|
| 1 | Nominal voltage | V | 6.0 | 9.0 | 12.0 | 18.0 | 24.0 | 30.0 | 36.0 | 48.0 |
| 2 | No load speed | rpm | 5830 | 4930 | 4670 | 5270 | 5930 | 5870 | 5830 | 3870 |
| 3 | No load current | mA | 153 | 83.2 | 58.4 | 44.8 | 38.6 | 30.5 | 25.2 | 11.7 |
| 4 | Nominal speed | rpm | 3800 | 2980 | 2860 | 3550 | 4180 | 4140 | 4090 | 2080 |
| 5 | Nominal torque (max. continuous torque) | mNm | 31.4 | 33.1 | 36.0 | 37.5 | 36.7 | 37.1 | 36.8 | 36.9 |
| 6 | Nominal current (max. continuous current) | A | 3.42 | 2.02 | 1.55 | 1.21 | 0.998 | 0.798 | 0.656 | 0.328 |
| 7 | Stall torque | mNm | 99.7 | 87.4 | 95.9 | 118 | 127 | 128 | 125 | 81.3 |
| 8 | Starting current | A | 10.4 | 5.12 | 3.98 | 3.66 | 3.34 | 2.66 | 2.15 | 0.698 |
| 9 | Max. efficiency | % | 75 | 75 | 77 | 79 | 80 | 80 | 80 | 76 |
| Characteristics | | | | | | | | | | |
| 10 | Terminal resistance | Ω | 0.577 | 1.76 | 3.02 | 4.92 | 7.19 | 11.3 | 16.7 | 68.8 |
| 11 | Terminal inductance | mH | 0.0657 | 0.209 | 0.416 | 0.739 | 1.04 | 1.66 | 2.43 | 9.71 |
| 12 | Torque constant | mNm / A | 9.58 | 17.1 | 24.1 | 32.2 | 38.2 | 48.2 | 58.3 | 117 |
| 13 | Speed constant | rpm / V | 996 | 559 | 396 | 297 | 250 | 198 | 164 | 81.9 |
| 14 | Speed / torque gradient | rpm / mNm | 59.9 | 57.6 | 49.5 | 45.5 | 47.1 | 46.3 | 47.1 | 48.4 |
| 15 | Mechanical time constant | ms | 27.6 | 23.5 | 22.4 | 21.8 | 21.7 | 21.5 | 21.5 | 21.5 |
| 16 | Rotor inertia | gcm ² | 43.9 | 39.0 | 43.3 | 45.9 | 44.0 | 44.4 | 43.6 | 42.4 |

Specifications

| Thermal data | | |
|---------------------------------|---------------------------------------|----------------|
| 17 | Thermal resistance housing-ambient | 7.5 K / W |
| 18 | Thermal resistance winding-housing | 2.1 K / W |
| 19 | Thermal time constant winding | 17.7 s |
| 20 | Thermal time constant motor | 791 s |
| 21 | Ambient temperature | -20 ... +85°C |
| 22 | Max. permissible winding temperature | +125°C |
| Mechanical data (ball bearings) | | |
| 23 | Max. permissible speed | 6000 rpm |
| 24 | Axial play | 0.12 - 0.22 mm |
| 25 | Radial play | 0.025 mm |
| 26 | Max. axial load (dynamic) | 7.6 N |
| 27 | Max. force for press fits (static) | 110 N |
| 28 | Max. radial loading, 5 mm from flange | 32 N |

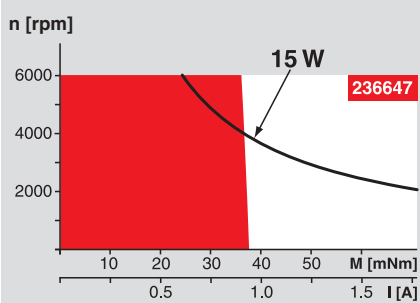
| Mechanical data (sleeve bearings) | | |
|-----------------------------------|---------------------------------------|----------------|
| 23 | Max. permissible speed | 6000 rpm |
| 24 | Axial play | 0.12 - 0.22 mm |
| 25 | Radial play | 0.025 mm |
| 26 | Max. axial load (dynamic) | 5.0 N |
| 27 | Max. force for press fits (static) | 110 N |
| 28 | Max. radial loading, 5 mm from flange | 10.5 N |

| Other specifications | | |
|----------------------|-------------------------------|-------|
| 29 | Number of pole pairs | 1 |
| 30 | Number of commutator segments | 13 |
| 31 | Weight of motor | 211 g |

Values listed in the table are nominal.
Explanation of the figures on page 49.

Option
Sleeve bearings in place of ball bearings

Operating Range



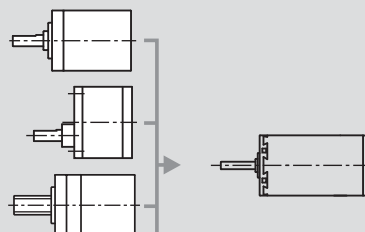
Comments

- Continuous operation**
In observation of above listed thermal resistance (lines 17 and 18) the maximum permissible winding temperature will be reached during continuous operation at 25°C ambient.
= Thermal limit.
- Short term operation**
The motor may be briefly overloaded (recurring).
- Assigned power rating**

maxon Modular System

Overview on page 16 - 21

- Planetary Gearhead**
Ø32 mm
0.75 - 6.0 Nm
Page 229 / 231 / 232
- Spur Gearhead**
Ø38 mm
0.1 - 0.6 Nm
Page 236
- Spindle Drive**
Ø32 mm
Page 249 / 250 / 251



Recommended Electronics:
LSC 30/2 Page 282
ADS 50/5 282
ADS_E 50/5 283
Notes 18