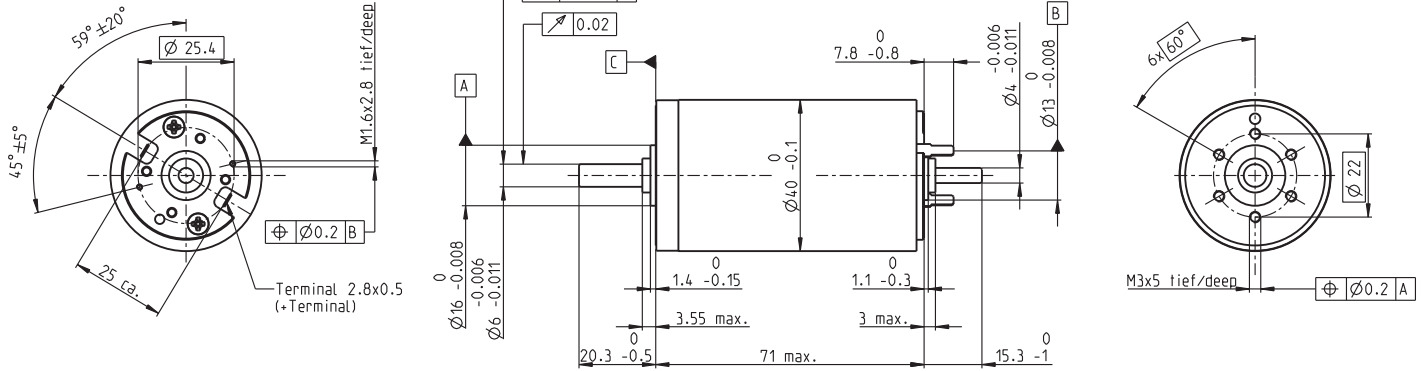


RE 40 Ø40 mm, Precious Metal Brushes, 25 Watt

NEW

maxon DC motor



M 1:2

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

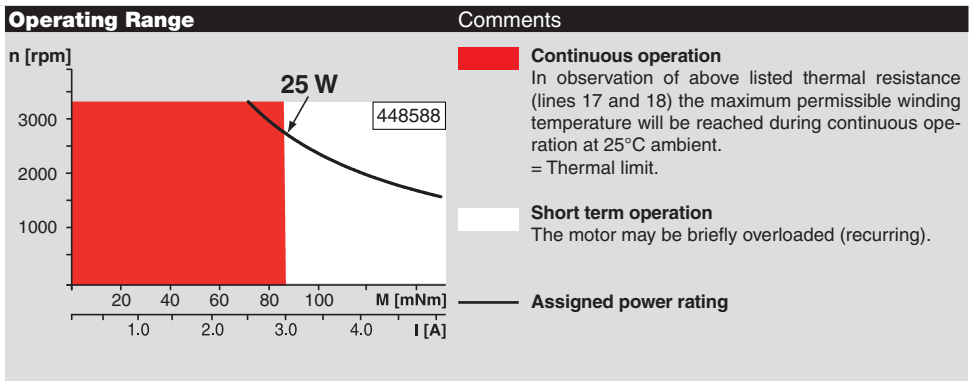
| Part Numbers | | | | | |
|--------------|--|--|--|--|--|
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |

| Motor Data | | | | | |
|---|------------------|--------|------|-------|------|
| Values at nominal voltage | | | | | |
| 1 Nominal voltage | V | 9 | 18 | 24 | 42 |
| 2 No load speed | rpm | 2850 | 2850 | 2780 | 2920 |
| 3 No load current | mA | 49.7 | 24.8 | 18.1 | 11 |
| 4 Nominal speed | rpm | 2610 | 2600 | 2480 | 2640 |
| 5 Nominal torque (max. continuous torque) | mNm | 87.8 | 87.8 | 88.2 | 87.6 |
| 6 Nominal current (max. continuous current) | A | 2.96 | 1.48 | 1.09 | 0.65 |
| 7 Stall torque | mNm | 873 | 956 | 794 | 895 |
| 8 Starting current | A | 29 | 15.9 | 9.66 | 6.53 |
| 9 Max. efficiency | % | 92 | 92 | 92 | 92 |
| Characteristics | | | | | |
| 10 Terminal resistance | Ω | 0.311 | 1.14 | 2.49 | 6.43 |
| 11 Terminal inductance | mH | 0.0824 | 0.33 | 0.613 | 1.7 |
| 12 Torque constant | mNm/A | 30.2 | 60.3 | 82.2 | 137 |
| 13 Speed constant | rpm/V | 317 | 158 | 116 | 69.7 |
| 14 Speed / torque gradient | rpm/mNm | 3.27 | 2.98 | 3.51 | 3.27 |
| 15 Mechanical time constant | ms | 4.85 | 4.29 | 4.36 | 4.14 |
| 16 Rotor inertia | gcm ² | 142 | 137 | 119 | 121 |

| Specifications | |
|--|----------------|
| Thermal data | |
| 17 Thermal resistance housing-ambient | 4.65 K/W |
| 18 Thermal resistance winding-housing | 1.93 K/W |
| 19 Thermal time constant winding | 41.5 s |
| 20 Thermal time constant motor | 809 s |
| 21 Ambient temperature | -20...+85°C |
| 22 Max. permissible winding temperature | +100°C |
| Mechanical data (ball bearings) | |
| 23 Max. permissible speed | 3330 rpm |
| 24 Axial play | 0.05 - 0.15 mm |
| 25 Radial play | 0.025 mm |
| 26 Max. axial load (dynamic) | 5.6 N |
| 27 Max. force for press fits (static) | 110 N |
| (static, shaft supported) | 1200 N |
| 28 Max. radial loading, 5 mm from flange | 28 N |
| Other specifications | |
| 29 Number of pole pairs | 1 |
| 30 Number of commutator segments | 13 |
| 31 Weight of motor | 480 g |

Values listed in the table are nominal.
Explanation of the figures on page 71.

Option
Preloaded ball bearings



maxon Modular System Overview on page 20 - 25

Encoder MR
256 - 1024 CPT,
3 channels
Page 303

Encoder HED_ 5540
500 CPT,
3 channels
Page 305/307

Recommended Electronics:

| | |
|----------------------|----------|
| ESCON 36/2 DC | Page 320 |
| ESCON 50/5 | 321 |
| ESCON Module 50/5 | 321 |
| EPOS2 24/2 | 330 |
| EPOS2 Module 36/2 | 330 |
| EPOS2 24/5 | 331 |
| EPOS2 50/5 | 331 |
| EPOS2 P 24/5 | 334 |
| EPOS3 70/10 EtherCAT | 337 |

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