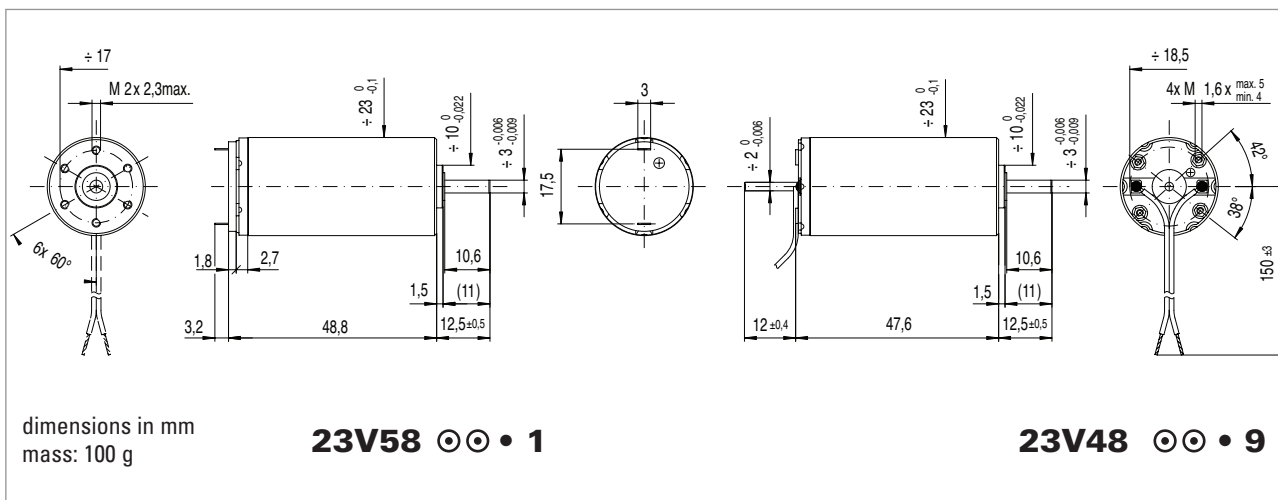


23V58 & 23V48

Precious Metal Commutation System - 9 Segments

6.5 Watt



| Winding Type | ☉☉ | -216P | -216E | -210E |
|-----------------------------------|------------------------------------|------------|-------------|-----------|
| Measured Values | | | | |
| Measuring voltage | V | 6.0 | 12.0 | 24 |
| No-load speed | rpm | 4500 | 4800 | 6400 |
| Stall torque | mNm (oz-in) | 31 (4.4) | 29 (4.1) | 23 (3.3) |
| Average No-load current | mA | 30.8 | 18.7 | 16.5 |
| Typical starting voltage | V | 0.05 | 0.13 | 10.2 |
| Max. Recommended Values | | | | |
| Max. continuous current | A | 1.49 | 0.75 | 0.39 |
| Max. continuous torque | mNm (oz-in) | 18.2 (2.6) | 17.2 (2.4) | 13 (1.84) |
| Max. angular acceleration | 10 ³ rad/s ² | 123 | 116 | 140 |
| Intrinsic Parameters | | | | |
| Back-EMF constant | V/1000 rpm | 1.31 | 2.47 | 3.64 |
| Torque constant | mNm/A (oz-in/A) | 12.5 (1.7) | 23.5 (3.33) | 34.8 |
| Terminal resistance | ohm | 2.45 | 9.7 | 35.77 |
| Motor regulation R/k ² | 10 ³ /Nms | 16 | 17 | 30 |
| Rotor inductance | mH | 0.20 | 0.80 | 1.7 |
| Rotor inertia | kgm ² 10 ⁻⁷ | 5.90 | 5.90 | 3.7 |
| Mechanical time constant | ms | 9 | 10 | 11 |

| Executions | | | |
|------------|------|--------------|--------|
| | | Single Shaft | For E9 |
| Gearbox | Page | 23V58 | 23V48 |
| R22 | 239 | 4 | 11 |
| M22 | 240 | 4 | 11 |
| K24 | 241 | 4 | 11 |
| K27 | 242 | 4 | 11 |
| RG1/8 | 245 | 1 | 9 |
| RG1/9 | 246 | 1 | 9 |
| K38 | 244 | 1 | 9 |

- Thermal resistance: rotor-body 5°C/W, body-ambient 12°C/W
- Thermal time constant - rotor / stator: 10 s / 580 s
- Max. rated coil temperature: 100°C
- Recom. ambient temperature range: -30°C to +85°C (-22°F to +185°F)
- Viscous damping constant: 0.45 x 10⁻⁶ Nms
- Max. axial static force for press-fit: 250 N
- End play: ≤ 150 µm
- Radial play: ≤ 30 µm
- Shaft runout: ≤ 10 µm
- Max. side load at 5 mm from mounting face: sleeve bearings 6 N, ball bearings 8 N
- Motor fitted with sleeve bearings (ball bearings optional)
- With rear output shaft, the N-load current is 50% higher

