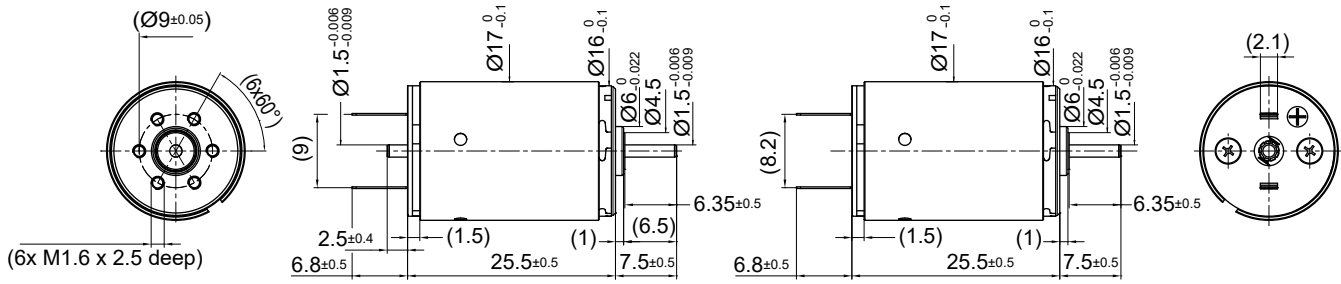


17DCT Athlonix™

Ø 17 mm • Precious metal commutation • 6.14 mNm



17DCT 26P2 2

17DCT 26P1 1

Dimensions in mm.

| Electrical Data | Symbol | 17DCT 26P1/P2 * | | | | | Unit |
|-----------------------------|--------------|----------------------|--------------|--------------|--------------|--------------|-------------------|
| | | 216P | 211P | 209P | 208P | 207P | |
| 1 Nominal Voltage | V | 3 | 6 | 9 | 12 | 15 | Volt |
| 2 No-Load Speed | n_0 | 7838 | 7842 | 7645 | 8158 | 8358 | rpm |
| 3 No-Load Current | I_0 | 24.7 | 12.3 | 8.0 | 6.4 | 5.3 | mA |
| 4 Terminal Resistance | R | 0.9 | 3.3 | 7.7 | 12.1 | 18.6 | Ω |
| 5 Output Power | P_{2max} | 4.6 | 4.7 | 4.8 | 4.7 | 4.7 | W |
| 6 Stall Torque | mNm | 12.31 (1.75) | 13.21 (1.88) | 13.02 (1.85) | 13.79 (1.96) | 13.62 (1.93) | mNm (oz-in) |
| 7 Efficiency | η_{max} | 84 | 84 | 84 | 85 | 84 | % |
| 8 Max Continuous Speed | $n_{e max}$ | 10000 | 10000 | 10000 | 10000 | 10000 | rpm |
| 9 Max Continuous Torque | $M_{e max}$ | 5.81 (0.83) | 6.02 (0.86) | 6.05 (0.86) | 6.03 (0.86) | 5.92 (0.84) | mNm (oz-in) |
| 10 Max Continuous Current | $I_{e max}$ | 1.63 | 0.84 | 0.55 | 0.44 | 0.35 | A |
| 11 Back-EMF Constant | k_E | 0.38 | 0.76 | 1.17 | 1.46 | 1.78 | mV/rpm |
| 12 Torque Constant | k_M | 3.63 | 7.26 | 11.16 | 13.96 | 17.03 | mNm/A |
| 13 Motor Regulation | R/k^2 | 66.64 | 62.15 | 61.45 | 61.92 | 64.25 | $10^3/Nms$ |
| 14 Friction Torque | T_F | 0.08 (0.011) | 0.08 (0.011) | 0.08 (0.011) | 0.08 (0.011) | 0.08 (0.011) | mNm (oz-in) |
| 15 Mechanical Time Constant | τ_m | 7.01 | 6.41 | 6.30 | 6.27 | 6.25 | ms |
| 16 Rotor Inertia | J | 1.05 | 1.03 | 1.02 | 1.01 | 0.97 | g-cm ² |

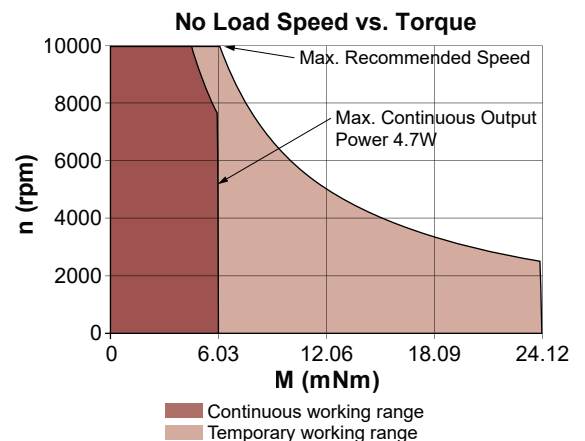
| General Data | | | | |
|---|-------------------|--------------------------------|--|-------------------------|
| 18 Thermal Resistance (rotor/body) | R_{th1}/R_{th2} | 6/25 | | $^{\circ}C/W$ |
| 19 Thermal Time Constant (rotor/stator) | t_{W1}/t_{W2} | 12/250 | | S |
| 20 Operating Temperature Range: | motor | -30°C to 85°C (-22°F to 185°F) | | $^{\circ}C (^{\circ}F)$ |
| | rotor | | | 100°C (212°F) |
| 21 Shaft Load Max.: (5 mm. from bearing) | -radial -axial | With sleeve bearings | | |
| | | 1.5 (5.39) | | N (oz) |
| | | 100 (359.6) | | N (oz) |
| 22 Shaft Play: | -radial -axial | 0.03 (0.0012) | | mm (inch) |
| | | 0.15 (0.0059) | | mm (inch) |
| 23 Weight | g | 27 (0.96) | | g (oz) |

*Also available with ball bearing

Execution Table

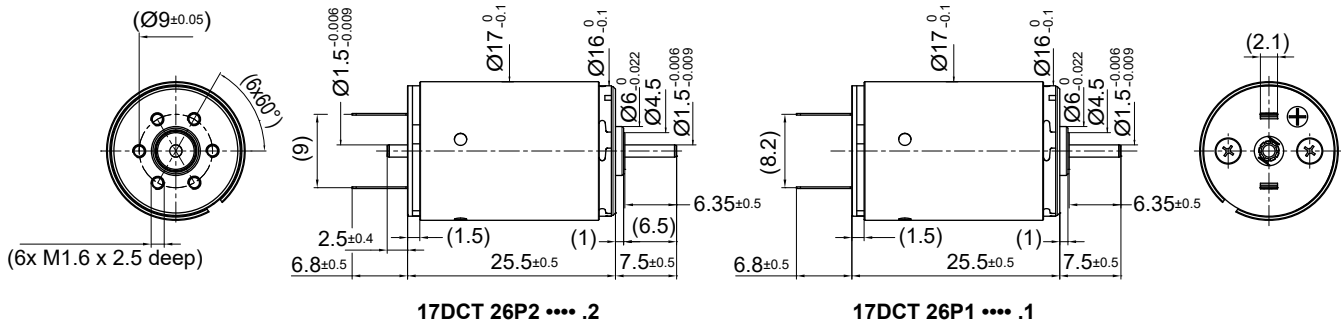
| Gearbox | Single Shaft | MR2 | M Sense B |
|---------|--------------|-----|--------------|
| R16 | 1 | 2 | Upon Request |
| B16 | 3 | 4 | Upon Request |
| BA16 | 3 | 4 | Upon Request |

Note:
P1: standard commutation
P2: special commutation for double shaft version



17DCT Athlonix™

Ø 17 mm • Precious metal commutation • 6.14 mNm



Dimensions in mm.

| Electrical Data | Symbol | 17DCT 26P1/P2 * | | | | Unit |
|-----------------------------|-------------|----------------------|--------------|--------------|--------------|----------------------|
| | | 209E | 205P | 107P | 205E | |
| 1 Nominal Voltage | V | 18 | 24 | 36 | 48 | Volt |
| 2 No-Load Speed | n_0 | 8030 | 7769 | 9800 | 8145 | rpm |
| 3 No-Load Current | I_0 | 4.2 | 3.1 | 2.6 | 1.6 | mA |
| 4 Terminal Resistance | R | 30.7 | 51.4 | 76.0 | 208.1 | Ω |
| 5 Output Power | P_{2max} | 4.5 | 4.8 | 4.7 | 4.6 | W |
| 6 Stall Torque | mNm | 12.36 (1.76) | 13.6 (1.93) | 16.43 (2.33) | 12.8 (1.82) | mNm (oz-in) |
| 7 Efficiency | h_{max} | 84 | 84 | 86 | 84 | % |
| 8 Max Continuous Speed | $n_{e max}$ | 10000 | 10000 | 10000 | 10000 | rpm |
| 9 Max Continuous Torque | $M_{e max}$ | 5.75 (0.82) | 6.14 (0.87) | 6 (0.85) | 5.8 (0.83) | mNm (oz-in) |
| 10 Max Continuous Current | $I_{e max}$ | 0.27 | 0.21 | 0.17 | 0.11 | A |
| 11 Back-EMF Constant | k_E | 2.23 | 3.07 | 3.65 | 5.85 | mV/rpm |
| 12 Torque Constant | k_M | 21.25 | 29.31 | 34.89 | 55.88 | mNm/A |
| 13 Motor Regulation | R/k^2 | 68.01 | 59.79 | 62.45 | 66.62 | 10 ³ /Nms |
| 14 Friction Torque | T_F | 0.08 (0.011) | 0.08 (0.011) | 0.08 (0.011) | 0.08 (0.011) | mNm (oz-in) |
| 15 Mechanical Time Constant | τ_m | 7.06 | 6.23 | 6.22 | 7.04 | ms |
| 16 Rotor Inertia | J | 1.04 | 1.04 | 1.00 | 1.06 | g-cm ² |

| General Data | | | | |
|---|-------------------|--------------------------------|--|-----------|
| 18 Thermal Resistance (rotor/body) | R_{th1}/R_{th2} | 6/25 | | °C/W |
| 19 Thermal Time Constant (rotor/stator) | t_{w1}/t_{w2} | 12/250 | | S |
| 20 Operating Temperature Range: | motor | -30°C to 85°C (-22°F to 185°F) | | °C (°F) |
| | rotor | 100°C (212°F) | | °C (°F) |
| 21 Shaft Load Max.: (5 mm. from bearing) | | With sleeve bearings | | |
| | -radial | 1.5 (5.39) | | N (oz) |
| | -axial | 100 (359.6) | | N (oz) |
| 22 Shaft Play: | -radial | 0.03 (0.0012) | | mm (inch) |
| | -axial | 0.15 (0.0059) | | mm (inch) |
| 23 Weight | g | 27 (0.96) | | g (oz) |

*Also available with ball bearing

Execution Table

| Gearbox | Single Shaft | MR2 | M Sense B |
|---------|--------------|-----|--------------|
| R16 | 1 | 2 | Upon Request |
| B16 | 3 | 4 | Upon Request |
| BA16 | 3 | 4 | Upon Request |

Note:
P1: standard commutation
P2: special commutation for double shaft version

