



Dimensions in mm.

| Electrical Data | Symbol | 10NS61 5 | | | Unit |
|-----------------------------|------------------|---------------|-------------|-------------|----------------------|
| | | 107C | 105C | 104C | |
| 1 Nominal Voltage | V | 3 | 6 | 9 | Volt |
| 2 No-Load Speed | n_0 | 10,100 | 10,400 | 10,700 | rpm |
| 3 No-Load Current | I_0 | 11.0 | 4.2 | 3.6 | mA |
| 4 Terminal Resistance | R | 10.8 | 43.0 | 98.0 | Ω |
| 5 Output Power | $P_{2max.}$ | 0.7 | 0.7 | 0.7 | W |
| 6 Stall Torque | mNm | 0.76 (0.11) | 0.75 (0.11) | 0.71 (0.1) | mNm (oz-in) |
| 7 Efficiency | $h_{max.}$ | 64 | 68 | 64 | % |
| 8 Max Continuous Speed | $n_{e max.}$ | 10,000 | 10,000 | 10,000 | rpm |
| 9 Max Continuous Torque | $M_{e max.}$ | 0.9 (0.13) | 0.9 (0.13) | 0.85 (0.13) | mNm (oz-in) |
| 10 Max Continuous Current | $I_{e max.}$ | 0.34 | 0.17 | 0.12 | A |
| 11 Back-EMF Constant | k_E | 0.29 | 0.57 | 0.81 | mV/rpm |
| 12 Torque Constant | k_M | 2.72 | 5.40 | 7.70 | mNm/A |
| 13 Motor Regulation | R/k ² | 1,500.0 | 1,500.0 | 1,600.0 | 10 ³ /Nms |
| 14 Friction Torque | T_F | 0.02 (0.01) | 0.02 (0.01) | 0.02 (0.01) | mNm (oz-in) |
| 15 Rotor Inductance | L | 0.01 | 0.02 | 0.03 | mH |
| 16 Mechanical Time Constant | τ_m | 7.3 | 7.3 | 8.1 | ms |
| 17 Rotor Inertia | J | 0.05 | 0.05 | 0.05 | g-cm ² |

| General Data | | | | | |
|---|-------------------|---|--|--|-----------|
| 18 Thermal Resistance (rotor/body) | R_{th1}/R_{th2} | 23/48 | | | °C/W |
| 19 Thermal Time Constant (rotor/stator) | t_{W1}/t_{W2} | 5/150 | | | S |
| 20 Operating Temperature Range: | motor | -30°C to 85°C (-22°F to 185°F) 100°C (212°F) | | | °C (°F) |
| | rotor | | | | °C (°F) |
| 21 Shaft Load Max.: (2 mm. from bearing) | -radial -axial | With sleeve bearings | | | |
| | | 0.5 (1.8) | | | N (oz) |
| | | 30 (107.9) | | | N (oz) |
| 22 Shaft Play: | -radial | <0.015 (0.0006) | | | mm (inch) |
| | -axial | 0.100 (0.0039) | | | mm (inch) |
| 23 Weight | g | 7 (0.25) | | | g (oz) |

Execution Table

| Gearbox | Single Shaft |
|---------|--------------|
| R10 | 3 |

