



28LT12 **** .49

| Electrical Data | **** | 219 | 416E | |
|---|-----------------------|--------------------------------|-------------|-------------------------|
| 1 Nominal Voltage | V | 18 | 32 | Volt |
| 2 No-Load Speed | n_0 | 7,860 | 7,345 | rpm |
| 3 No-Load Current | I_0 | 65.0 | 35.0 | mA |
| 4 Terminal Resistance | R | 6.2 | 19.9 | Ω |
| 5 Output Power | P_{2max} | 19.0 | 20.0 | W |
| 6 Stall Torque | mNm | 63 (8.93) | 65 (9.21) | mNm (oz-in) |
| 7 Efficiency | η_{max} | 72 | 73 | % |
| 8 Max continuous speed | $n_{e max.}$ | 12,000 | 12,000 | rpm |
| 9 Max continuous torque | $M_{e max.}$ | 23 (3.4) | 24 (3.4) | mNm (oz-in) |
| 10 Max continuous current | $I_{e max.}$ | 1.13 | 0.63 | A |
| 11 Back-EMF Constant | k_E | 2.24 | 4.26 | mV/rpm |
| 12 Torque Constant | k_M | 21.40 | 40.70 | mNm/A |
| 13 Motor Regulation | R/k^2 | 13.0 | 12.0 | $10^3/Nms$ |
| 14 Friction Torque | T_F | 1.39 (0.2) | 1.42 (0.21) | mNm (oz-in) |
| 15 Rotor Inductance | L | 0.50 | 2.40 | mH |
| 16 Mechanical Time Constant | τ_m | 13.9 | 21.4 | ms |
| 17 Rotor Inertia | J | 10.70 | 17.80 | g.cm ² |
| 18 Thermal Resistance (rotor/body) | R_{th1} / R_{th2} | 5 /12 | 5 /12 | $^{\circ}C/W$ |
| 19 Thermal Time Constant (rotor/stator) | τ_{w1}/τ_{w2} | 27/760 | 27/760 | $^{\circ}C/W$ |
| 20 Operating Temperature Range: | motor | -30°C to 85°C (-22°F to 185°F) | | $^{\circ}C (^{\circ}F)$ |
| | rotor | 155°C (311°F) | | $^{\circ}C (^{\circ}F)$ |
| 21 Shaft Load max.: | | With sleeve bearings | | |
| at 3,000 rpm (5mm from bearing) | -radial | 6.0 (21.6) | | N (oz) |
| at 3,000 rpm | -axial | 250 (899.2) | | N (oz) |
| 22 Shaft play: | -radial | <0.018 (0.0007) | | mm (inch) |
| | -axial | 0.15 (0.0059) | | mm (inch) |
| 23 Weight | g | 135 (4.77) | | g (oz) |

| Execution | | | |
|-----------|--------------|---------------------|------------|
| Gearbox | Single Shaft | Double Shaft for E9 | HEDS |
| R22 | 164 | 319 | Contact Us |
| M22 | 164 | - | Contact Us |
| R32 | 49 | 316 | Contact Us |

