

ENTER DRIVE LETTER BELOW(S for Sine, T for Trap)

s

ENTER UNIT LETTER BELOW(M for SI, E for English)

m

SELECT WINDING FROM DROP DOWN LIST

Ke = C6(Ke = 34 Vpk/krpm)

| | | | | |
|---|---------------|--------------|-------|-------|
| CHECKED: | | SD | | |
| all values at 25 deg c unless stated otherwise | | | | |
| TORQUE & CURRENT AT 40 Deg C AMBIENT | | | | |
| ^SPECIFICATIONS | | | | |
| Symbol | Units | NOM | MIN | MAX |
| Tpk Torque,peak stall | Nm | | | 12.0 |
| Tc Torque,continuous stall | Nm | 5.07 | 4.56 | 5.58 |
| Ktp Torque sensitivity (L TO L) | Nm/Apeak | 0.281 | 0.253 | 0.309 |
| Kt Torque sensitivity (L TO L) | Nm/Arms | 0.398 | 0.358 | 0.438 |
| Ra Armature resistance (L TO L) | ohms | .44 | 0.37 | 0.51 |
| La Armature inductance (L TO L) | millihenry | 2.3 | 1.61 | 2.99 |
| Ip Amps at Tpk | Apeak | 42.6 | 38.3 | 46.9 |
| Isp Amps at Tc stall | Apeak | 21.20 | 19.08 | 23.32 |
| Is Amps at Tc stall | Arms | 14.99 | 13.49 | 16.49 |
| Ke _p Back EMF constant | Vpeak/Krpm | 34.00 | 30.60 | 37.40 |
| Ke _r Back EMF constant | Vrms/Krpm | 24.05 | 21.65 | 26.46 |
| Ke _l Back EMF constant | Vpeak/rad/sec | 0.325 | 0.253 | 0.309 |
| Ke _r Back EMF constant | Vrms/rad/sec | 0.230 | 0.207 | 0.253 |
| Ep Volts @ Tpk | Vpeak | 18.74 | | |
| Fi Viscous friction | Nm/Krpm | 0.031 | | |
| Tf Static friction torque | Nm | 0.034 | | |
| Ec volts @ Tc | Vpeak | 13.992 | | |
| Jm Moment of inertia | Kg-cm2 | 2.37288 | | |
| Tm Time constant,mech | milliseconds | 0.99 | | |
| Te Time constant,elect | milliseconds | 5.23 | | |
| Rth Thermal resistance | deg C/watt | 0.51 | | |
| Tth Time constant,thermal | minutes | 25 | | |
| Oa Max armature temp | deg C | | | 155 |
| Km Figure of Merit | Nm/(amp-ohm) | 0.424 | | |
| Nls Max operating speed | rpmmax | | | 6000 |
| # of motor poles | | 8 | | |
| Wt weight | Kg | 4.9 | | |

MODE/NUMBER

| | | | |
|--|------|-------------|-----------------------------|
| T1101 C6(Ke = 34 Vpk/krpm) | | DRAWN: | AR |
| STD | CUST | APPROVED: | |
| YES | | SD | |
| T1101 | | | |
| | | | |
| MOTOR IS MOUNTED ON A 304.8 mmx304.8 mmx12.7 mm ALUMINUM PLATE IN A 40 DEG.C AMBIENT | | | |
| SPEED/ TORQUE CURVE SHOWN IS RATED. TYPICAL VALUES ARE WITH IN +/- 10% OF RATING | | | |
| OTHER SPECIFICATIONS | | | |
| | | REV(Dt) | Description |
| | | A(11/11/05) | Initial Release |
| | | B(2/10/06) | Add RMS Kt and Ke |
| | | C(3/20/06) | Add # of poles |
| | | D(4/6/06) | Sine SI Ke values corrected |
| | | E(2/20/07) | Add C6 and D3 winding |
| | | F(5/07/07) | Reconfigured speed/torque |

SINUSOIDAL DRIVE

| RPM | Trated Nm | Peak Voltage | Peak Current | RMS Current | Watts |
|------|-----------|--------------|--------------|-------------|-------|
| 0 | 5.066 | 14.0 | 21.20 | 14.99 | 222 |
| 300 | 5.042 | 24.1 | 21.10 | 14.92 | 407 |
| 600 | 5.011 | 34.2 | 20.97 | 14.83 | 588 |
| 1200 | 4.928 | 54.4 | 20.62 | 14.58 | 939 |
| 1800 | 4.818 | 74.5 | 20.16 | 14.26 | 1270 |
| 2400 | 4.678 | 94.5 | 19.58 | 13.85 | 1574 |
| 3000 | 4.507 | 114.4 | 18.86 | 13.34 | 1843 |
| 3600 | 4.301 | 134.3 | 18.00 | 12.73 | 2069 |
| 4200 | 4.054 | 154.0 | 16.97 | 12.00 | 2241 |
| 4800 | 3.762 | 173.6 | 15.74 | 11.13 | 2347 |
| 5400 | 3.411 | 193.0 | 14.27 | 10.09 | 2370 |
| 6000 | 2.986 | 212.3 | 12.50 | 8.84 | 2286 |

| | |
|------------------|--------------|
| Rated Speed | Rated Torque |
| 5400 | 3.4 |
| Rated watts 1932 | |