

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 = D3(Ke = 47 Vpk/krpm)

CHECKED:		SD		
all values at 25 deg c unless stated otherwise				
<b>TORQUE &amp; CURRENT AT 40 Deg C AMBIENT</b>				
^SPECIFICATIONS				
Symbol	Units	NOM	MIN	MAX
Tpk Torque,peak stall	Nm			12.0
Tc Torque,continuous stall	Nm	4.98	4.48	5.48
Ktp Torque sensitivity ( L TO L )	Nm/Apeak	0.389	0.350	0.428
Kt Torque sensitivity ( L TO L )	Nm/Arms	0.550	0.495	0.605
Ra Armature resistance ( L TO L )	ohms	.87	0.74	1.00
La Armature inductance ( L TO L )	millihenry	4.4	3.08	5.72
Ip Amps at Tpk	Apeak	30.8	27.7	33.9
Isp Amps at Tc stall	Apeak	15.08	13.57	16.59
Is Amps at Tc stall	Arms	10.66	9.59	11.73
Ke <sub>p</sub> Back EMF constant	Vpeak/Krpm	<b>47.00</b>	42.30	51.70
Ke <sub>r</sub> Back EMF constant	Vrms/Krpm	<b>33.24</b>	29.92	36.56
Ke <sub>l</sub> Back EMF constant	Vpeak/rad/sec	0.449	0.350	0.428
Ke <sub>r</sub> Back EMF constant	Vrms/rad/sec	0.318	0.286	0.350
Ep Volts @ Tpk	Vpeak	26.80		
Fi Viscous friction	Nm/Krpm	0.031		
Tf Static friction torque	Nm	0.034		
Ec volts @ Tc	Vpeak	19.679		
Jm Moment of inertia	Kg-cm <sup>2</sup>	2.37288		
Tm Time constant,mech	milliseconds	1.02		
Te Time constant,elect	milliseconds	5.06		
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)	0.417		
Nls Max operating speed	rpmmax			6000
# of motor poles		8		
Wt weight	Kg	4.9		

**MODE/NUMBER**

<b>T1101 D3(Ke = 47 Vpk/krpm)</b>	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

RPM	Trated Nm	Peak Voltage	Peak Current	RMS Current	Watts
0	4.981	19.7	15.08	10.66	222
300	4.957	33.7	15.00	10.61	404
600	4.926	47.7	14.91	10.54	581
1200	4.845	75.5	14.66	10.37	927
1800	4.736	103.3	14.33	10.13	1250
2400	4.598	131.0	13.92	9.84	1549
3000	4.430	158.5	13.41	9.48	1813
3600	4.226	185.9	12.79	9.04	2033
4200	3.984	213.1	12.06	8.53	2205
4800	3.696	240.2	11.19	7.91	2308
5400	3.351	267.0	10.14	7.17	2329
6000	2.933	293.6	8.88	6.28	2246

Rated Speed	Rated Torque
5400	3.4
Rated watts 1898	