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

s

ENTER BUS VOLT BELOW(Vdc)

75

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

e

SELECT WINDING FROM DROP DOWN LIST

Ke = U0(Kv = 12.5 Vpk/krpm)

MODEL NUMBER

T0601 **U0(Kv = 12.5 Vpk/krp**

CHECKED:	SD
DRAWN:	AR
APPROVED:	SD

ASHWORTH

STD	CUST
YES	

all values at 25 deg c unless stated otherwise

TORQUE & CURRENT AT 40 Deg C AMBIENT

Symbol		^SPECIFICATIONS Units	NOM	MIN	MAX
Tpk	Torque,peak stall	Lb-in			22.0
Tc	Torque,continuous stall	Lb-in	4.51	4.06	4.96
Ktp	Torque sensitivity (L TO L)	Lb-in/Apeak	0.915	0.82	1.01
Kt	Torque sensitivity (L TO L)	Lb-in/Arms	1.294	1.16	1.42
Ra	Armature resistance (L TO L)	ohms	2.16	1.84	2.48
La	Armature inductance (L TO L)	millihenry	2.8	1.96	3.64
Ip	Amps at Tpk	Apeak	24.0	21.6	26.4
Isp	Amps at Tc stall	Apeak	5.81	5.23	6.39
Is	Amps at Tc stall	Arms	4.11	3.70	4.52
Kep	Back EMF constant	Vpeak/Krpm	**12.50**	11.25	13.75
Ke	Back EMF constant	Vrms/Krpm	8.84	7.96	9.72
Ep	Volts @ Tpk	Vpeak	51.84		
Fi	Viscous friction	Lb-in/Krpm	0.045		
Tf	Static friction torque	Lb-in	0.177		
Ec	volts @ Tc	Vpeak	18.824		
Jm	Moment of inertia	Lb-in sec^2	0.00014		
Tm	Time constant,mechanical	milliseconds	2.36		
Te	Time constant,electrical	milliseconds	1.30		
Rth	Thermal resistance	deg C/watt	1.30		
Tth	Time constant,thermal	minutes	15		
Oa	Max armature temp	deg C			155
Km	Figure of Merit	Lb-in/(amp-oh	0.62		
Nls	Max operating speed	rpmmax			4787
	# of motor poles		8		
Wt	weight	Lbs	2.2		
hp					

TORQUE (Lb-in)

RPM	Trated Lb-in	Peak Voltage	Peak Current
0	4.515	18.8	5.81
239	4.490	21.7	5.77
479	4.463	24.6	5.74
957	4.405	30.3	5.67
1436	4.340	36.0	5.58
1915	4.267	41.7	5.49
2394	4.187	47.4	5.38
2872	4.100	53.0	5.27
3351	4.005	58.6	5.15
3830	3.901	64.1	5.02
4308	3.788	69.6	4.87
4787	3.666	75.1	4.71

Rated Speed	Rated Torque
4787	3.7
Rated H.P.	0.28
Rated watts	208

MOTOR IS MOUNTED ON A 254 mmx254 mmx6.35 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

SINUSOIDAL DRIVE

REV(Dt)	Description
A(11/11/05)	Initial Release
B(2/08/06)	Add RMS Kt and Ke
C(2/24/06)	Add # of poles
D(4/6/06)	Sine SI Ke values corrected
E(2/20/07)	Add B8 winding

MOTOR WINDINGS

F G G H J

A0(Kv = 20	B0(Kv = 30	C0(Kv = 40	D0(Kv = 50	B8(Kv = 22	N0(Kv = 5	P0(Kv = 15	R0(Kv = 25	T0(Kv = 10	U0(Kv = 12	X0(Kv = 7.5 Vpk/krpm)			
20	30	40	50	22	5	15	25	10	12.5	7.50			

Windings
N0(Kv = 5 Vpk/krpm)
X0(Kv = 7.5 Vpk/krpm)
T0(Kv = 10 Vpk/krpm)
U0(Kv = 12.5 Vpk/krpm)
P0(Kv = 15 Vpk/krpm)
A0(Kv = 20 Vpk/krpm)
R0(Kv = 25 Vpk/krpm)
B0(Kv = 30 Vpk/krpm)
B8(Kv = 22 Vpk/krpm)
C0(Kv = 40 Vpk/krpm)
D0(Kv = 50 Vpk/krpm)

RMS Current	Watts			
4.11	82			
4.08	96		17549	
4.06	110	2138		
4.01	137	4216		
3.95	163	6232		
3.88	187	8171		
3.80	209	10024		
3.73	232	11775		
3.64	251	13421		
3.55	269	14941		
3.44	284	16319		
3.33	298	17549		4787

		4787	
		208	
			0.28
		3.7	

	Units	motor #>>	T0601U0(Kv = 12.5 Vpk/krpm)
Rated Speed	rpm	Sr	4787
Rated Power	Watts	Pr	208
Torque,peak stall	Lb-in	Tpk	22
Torque,continuous	Lb-in	Tc	4.51
Torque sensitivity	Lb-in/amp	Kt	0.91480
Armature resistance	ohms	Ra	2.16
Armature inductance	millihenry	La	2.808
Amps at Tpk	amps	Ip	24.05
Amps at Tc stall	amps	Is	4.93
Volts back EMF	volt/Krpm	**Kv**	12.50
Volts @ Tpk	volts	Ep	51.95
Visicous friction	Lb-in/Krpm	Fi	0.04500
Static friction torque	Lb-in	Tf	0.17700
volts @ Tc	volts	Ec	15.973
Cogging torque (0 volts)	Lb-in	Tr	
Moment of inertia	Lb-in sec^2	Jm	0.000138
Time constant,mech	milliseconds	Tm	2.360
Time constant,elect	milliseconds	Te	1.30
Thermal resistance	deg C/watt	Rth	1.30
Time constant,thermal	minutes	Tth	15
Max armature temp	minutes	Oa	155
max voltage rmsX1.414	volts	Vm	350
No load speed	rpm	Nls	4787
merit		Km	**0.62**
Weight	Lbs	Wt	1.05
Horse Power @ rated speed		hp	0.28
Rated Torque	Lb-In	Tr	3.70

Kt (Lb-In)	0.1034	Nm/A		
Ke	0.1034	V/rad s		40.00253
J (Lb-In)	1.56E-05	kg m^2		
Tm	0.00315			
	50.55			
	#NAME?			
	#NAME?			
ENTER ->	9275			
NLS	#NAME?			

K L M

40.00253