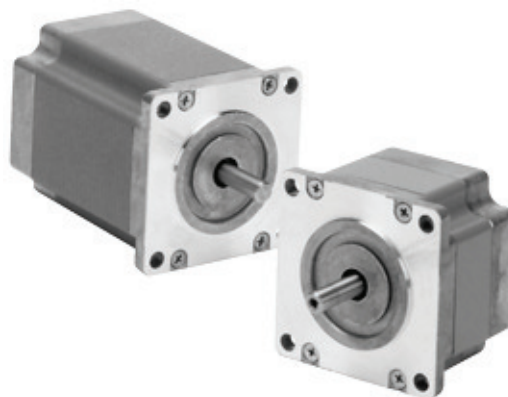


T2 Series Stepper Motors

General Specifications

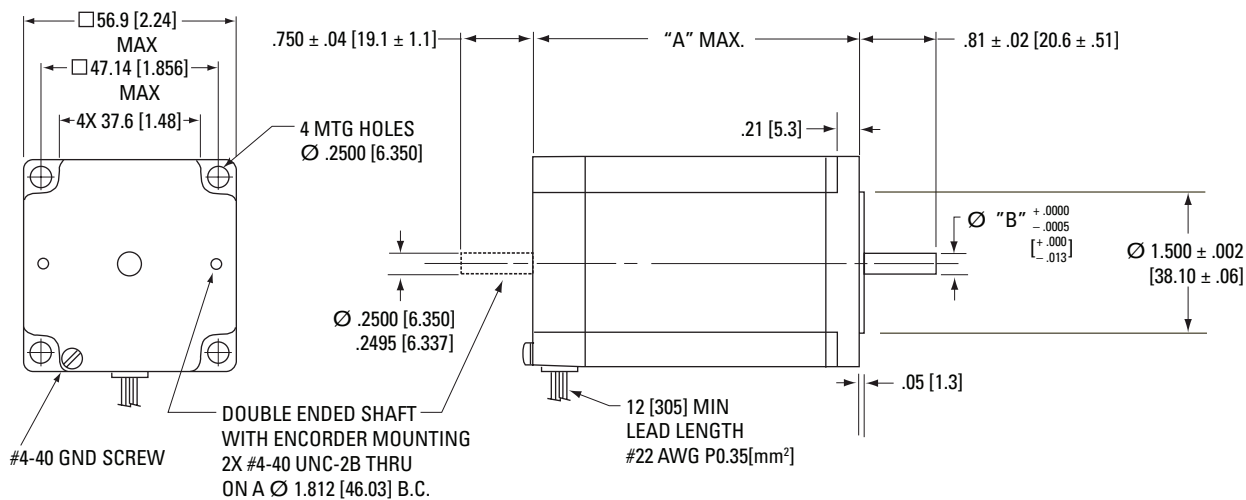
- NEMA Size 23
- High Torque at moderate speeds
- Inch standard mounting
- CE cUR and UR compliant
- Unipolar or Bipolar windings
- Features: leadwire connection, flat or smooth shaft
- Options: MS connector, terminal boxes, encoder mounting provisions, 200 LPR, 400 LPR encoders with line drivers
- Custom Motors



Phases	2
Full Steps per Revolution	200
Step Angle	1.8°
Step Accuracy (of one full step, no load)	± 2 %
Operating Temperature	-20°C to +40°C
Insulation Class	Class B, 130°C
Insulation Voltage Rating	340 Vdc
Insulation Resistance	100 Megohms

T2 Outline Drawings

Leadwire Hookup Models

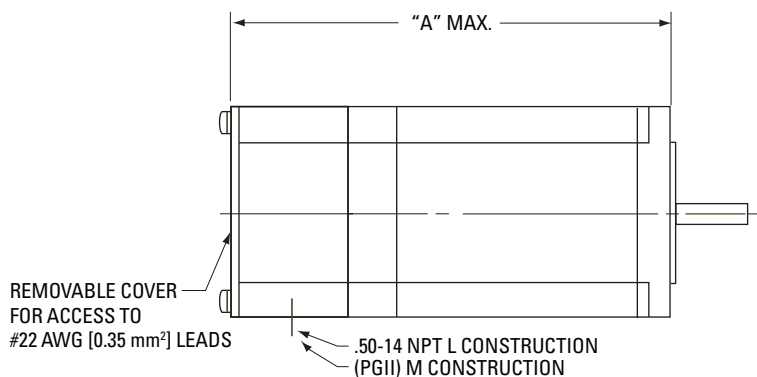


Dimensions in inches [mm]

Model	"A" Max	"B" Max
T2H	1.64 (41.6)	0.2500 (6.35)
T21	2.21 (56.1)	
T22	3.06 (77.7)	
T23	4.06 (103.1)	

Terminal Box Construction

Model	"A" Max
T2H	2.84 (72.1)
T21	3.41 (86.6)
T22	4.26 (108.2)
T23	5.26 (133.6)



Dimensions in inches [mm]

T2 Series Stepper Motors

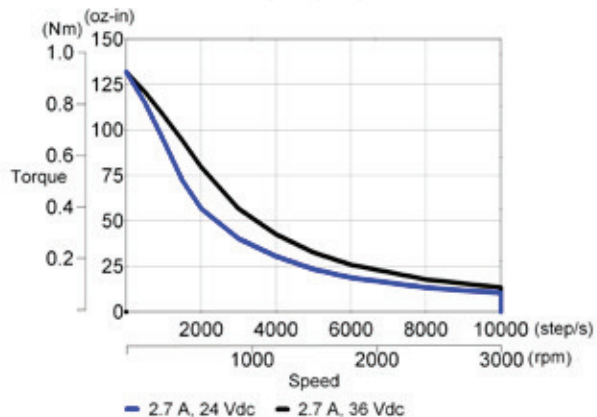
T2 Performance Data

Motor Model Number	Config.		Holding Torque (2 phases on) oz-in (Nm) +/-10%	Rated Current/ Phase Amps DC	Phase Resistance Ohms +/-10%	Phase Inductance mH Typical	Detent Torque oz-in (Nm)	Thermal Resistance Mounted °C/Watt	Rotor Inertia oz-in-s ² (kg-m ² x 10 ⁻³)	Weight lb (kg)	Shaft Loading*	
	Parallel	Series									Radial Force lb (N)	Axial Force lb (N)
Short Stack	T2HxxHK	•	74 (0.52)	5.3	0.19	0.63	2.0 (0.014)	6.14	0.00154 (0.0109)	1.1 (0.50)	15 (67)	25 (111)
	T2HxxHJ	•		4.0	0.28	1.0						
	T2HxxLH	•		2.7	0.64	2.5						
	T2HxxLD	•		1.1	3.6	16						
1 Stack	T21xxHK	•	180 (1.27)	5.4	0.23	1.1	3.0 (0.021)	4.64	0.0034 (0.024)	1.5 (0.68)	15 (67)	25 (111)
	T21xxHJ	•		4.1	0.33	1.8						
	T21xxLC	•		0.4	42.9	209						
	T21xxLH	•		2.7	0.85	4.6						
	T21xxLE	•		1.4	3.0	16						
	T21xxLD	•		1.1	4.9	30						
2 Stack	T22xxHK	•	280 (1.98)	6.6	0.20	0.85	6.0 (0.042)	3.69	0.0056 (0.040)	2.2 (1.0)	15 (67)	25 (111)
	T22xxHJ	•		4.1	0.49	2.5						
	T22xxLC	•		0.46	41.4	209						
	T22xxLH	•		3.3	0.75	3.4						
	T22xxLG	•		2.5	1.3	7.1						
	T22xxLE	•		1.5	2.9	17						
3 Stack	T23xxHK	•	380 (2.68)	6.0	0.28	1.5	7.0 (0.049)	3.04	0.0084 (0.059)	3.3 (1.5)	15 (67)	25 (111)
	T23xxHJ	•		3.8	0.64	3.9						
	T23xxLC	•		0.67	23.5	136						
	T23xxLH	•		3.0	1.0	6.2						
	T23xxLF	•		1.8	2.8	17						
	T23xxLE	•		1.5	4.1	24						

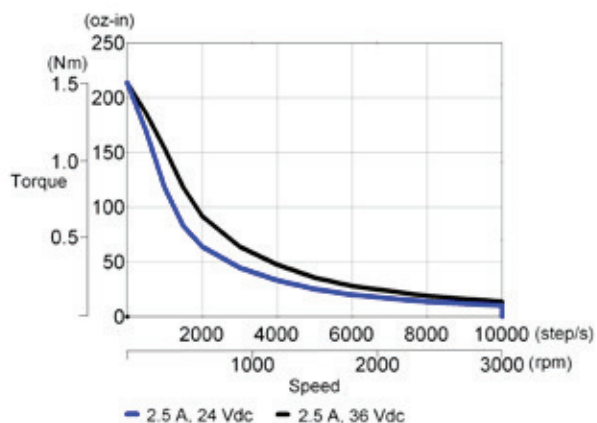
Note: *Maximum shaft loading based on 20,000 hours of operation at 1500 rpm.
See page 88 for T series connector diagrams and switching sequence.

T2 Performance Curves - DC Drive Models

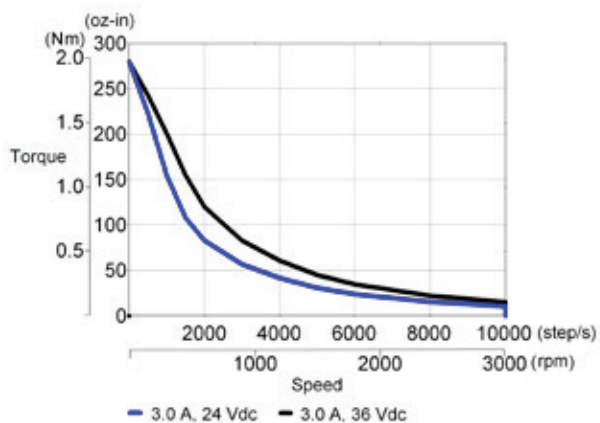
T21xxLH w/ P70530



T22xxLG w/ P70530

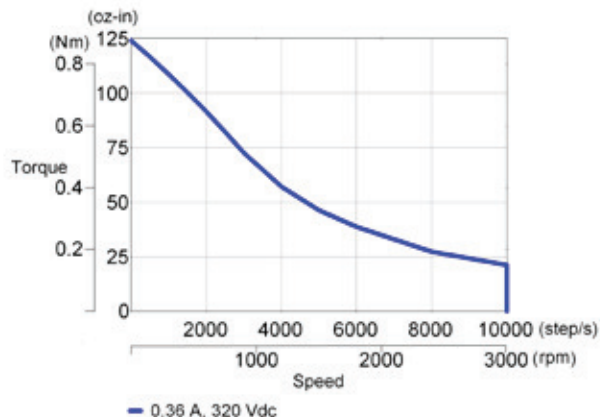


T23xxLH w/ P70530

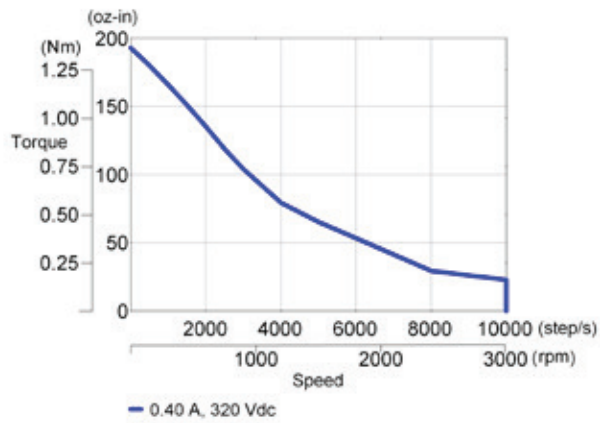


T2 Performance Curves - AC Drive Models

T21xxLC w/ P70360



T22xxLC w/ P70360



T23xxLC w/ P70360

