

HYBRID STEPPER MOTOR FAMILY

Series H17ET Hybrid Stepper Motor



Mounting Flange:	NEMA 17
Step angle:	1.8°
Steps per Revolution:	200
Positional Accuracy:	+ 5% max.
Number of Phases:	4 (unipolar)*
Temperature Rise:	70°C max
Insulation Resistance:	100M ohms at 500VDC for 1 minute
Dielectric Strength:	500VAC for 1 minute
Insulation Class:	Class B
Number of lead wires:	6 *
Lead wire:	UL3265 AWG#26
Operation Ambient Temp:	-10°C ~ +50°C
Radial Play:	0.03 mm max at 0.4 kg load
Axial Play:	0.08 mm max at 0.5 kg load
* Contact Hurst for other lead or phase configurations	

Unipolar Drives

Motor phase winding current is switched in only one direction (typically to ground).

- Simple low cost drive circuit
- Requires center tap winding
- Low Output Torque
- 6 & 8 lead motors

Bipolar Drives

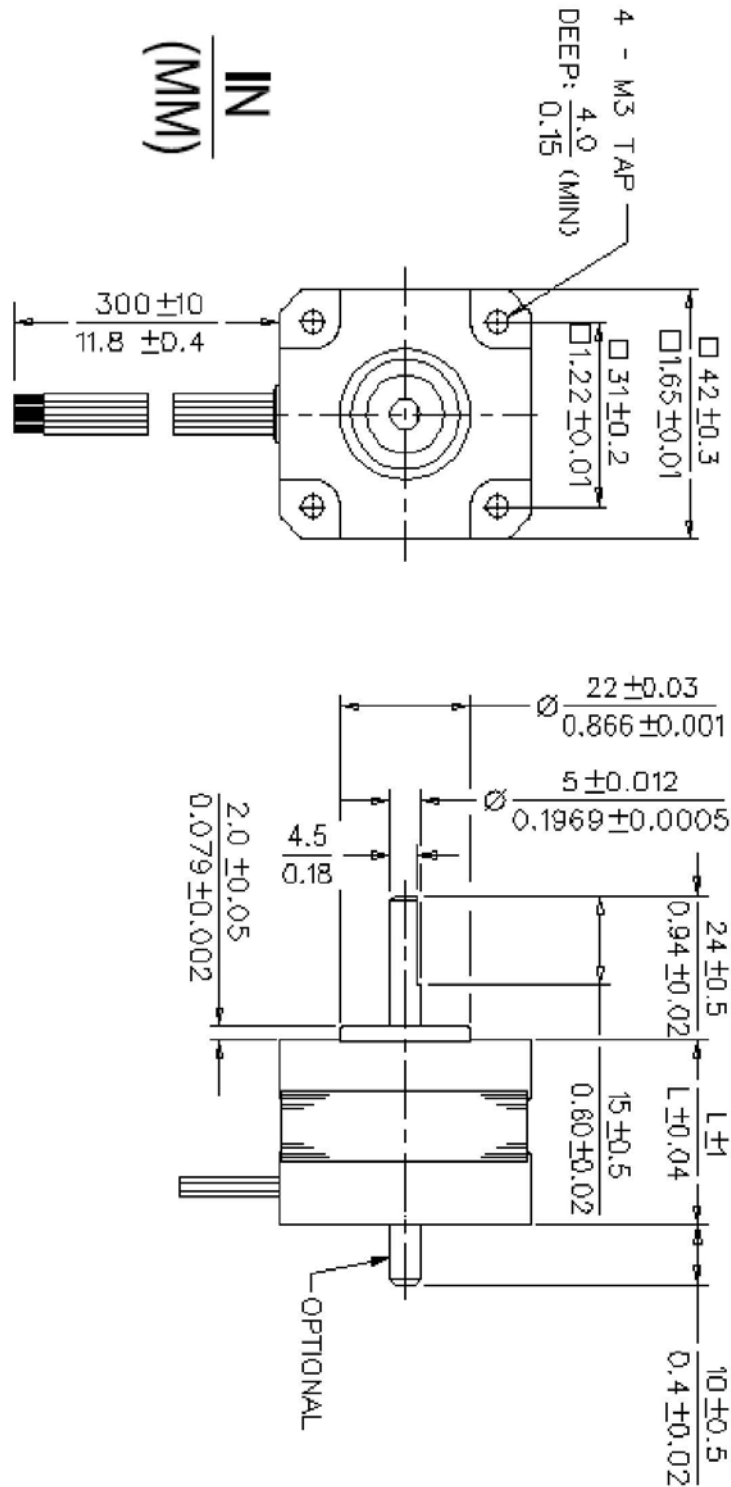
Motor phase winding current is switched in both directions.

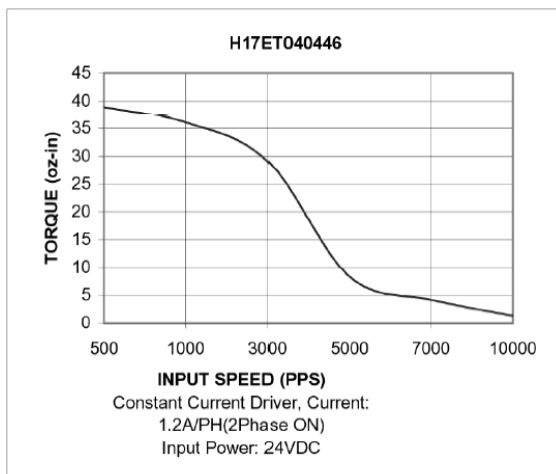
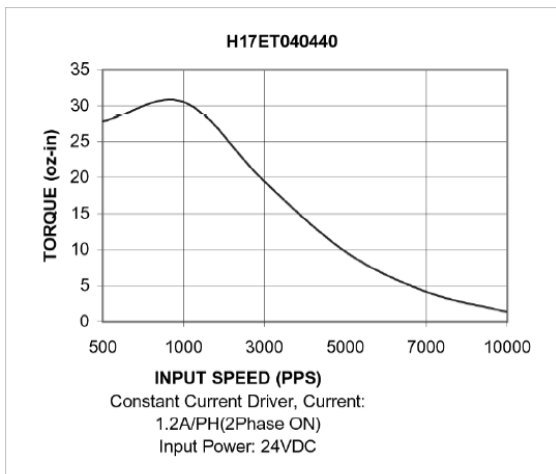
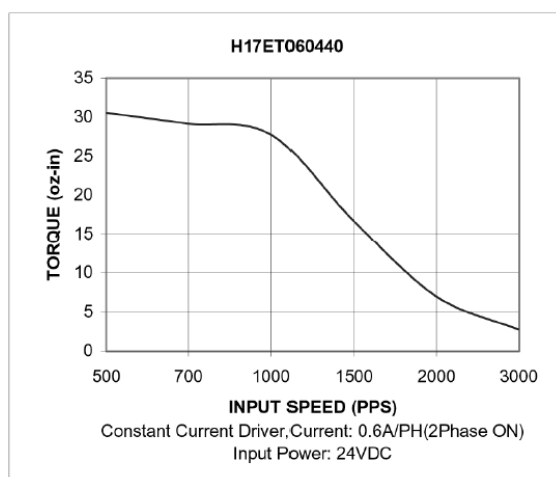
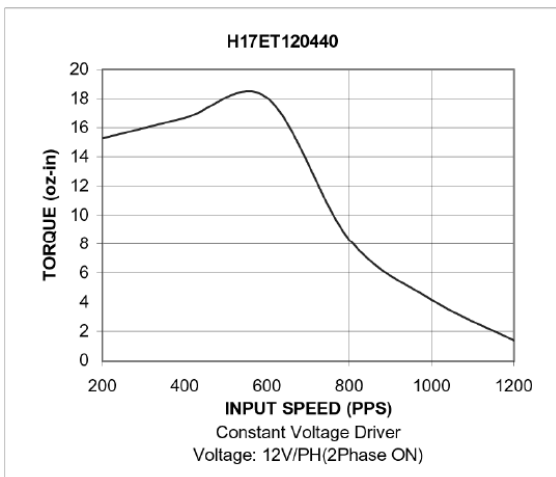
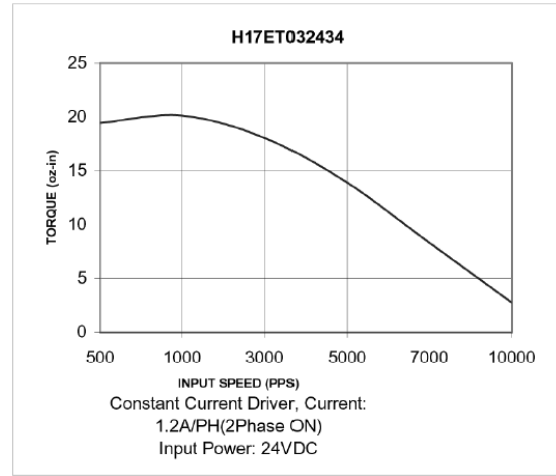
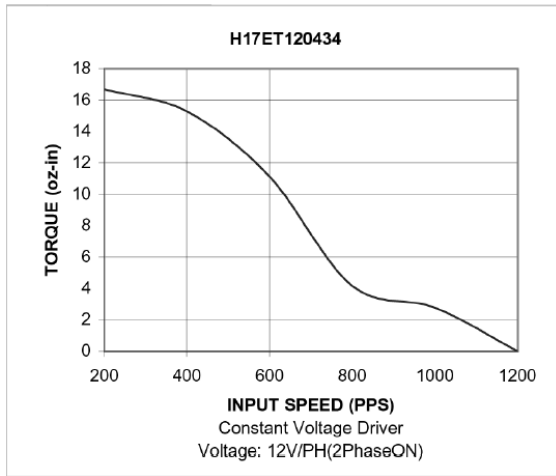
- Higher cost drive circuit
- Higher Output Torque
 - Approximately 1.4 X Unipolar Drive
 - 4, 6, & 8 lead motors
 - 8 Lead Motors are more efficient when used with a bipolar drive.

Example: H 17 032 4 34

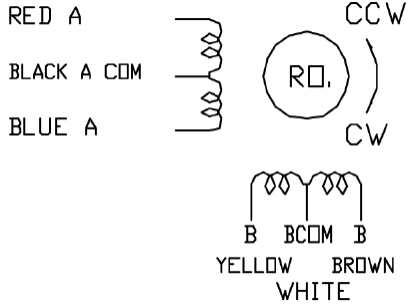
	Motor Family	Frame Size	Phase Voltage	Phase	Length
Options	Hybrid Stepper	17=17mm	032=3.2VDC	4=4 Phase Unipolar	31=31mm
			040=4.0VDC	2=2 Phase Bi-polar	34=34mm
			045=4.5VDC		40=40mm
			120=12.0VDC		

Model	Part Number	Step Angle (deg.)	Holding Torque (oz-in)	Holding Torque (mN-m)	Detent Torque (oz-in)	Detent Torque (mN-m)	Input Power (watts)	Nominal Voltage (VDC)	Winding Res. (ohms)	Rated Ind. (mH)	Rotor Inertia (oz-in ²)	Rotor Inertia (g-cm ²)	Case Length (in)	Case Length (mm)	Weight (oz)	Weight (g)
H17ET	H17ET032434	1.8	22.2	156.8	1.7	12	7.7	3.2	2.7	1.8	0.18	32.9	1.34	34	7	198.4
H17ET	H17ET040440	1.8	34.7	245	1.95	13.8	9.6	4	3.3	3.2	0.29	53	1.58	40	8.8	249.5
H17ET	H17ET040446	1.8	44.5	314.2	2.78	19.6	9.6	4	3.3	3	0.33	60.4	1.81	46	12	340.2
H17ET	H17ET060440	1.8	34.7	245	1.95	13.8	7.2	6	10	9.5	0.29	53	1.58	40	8.8	249.5
H17ET	H17ET120434	1.8	22.2	156.8	1.7	12	7.2	12	40	23	0.18	32.9	1.34	34	7	198.4
H17ET	H17ET120440	1.8	34.7	245	1.95	13.8	9.6	12	30	27	0.29	53	1.58	40	8.8	249.5





*Note: Typical Performance Data generated using full step, uni-polar controller with parallel connector



Full Step (2 Phase)				
CW Rotation viewing Mounting End				
Step	A (Red)	B (Yellow)	/A (Blue)	/B (Brown)
0	On	On		
1		On	On	
2			On	On
3	On			On
4	On	On		