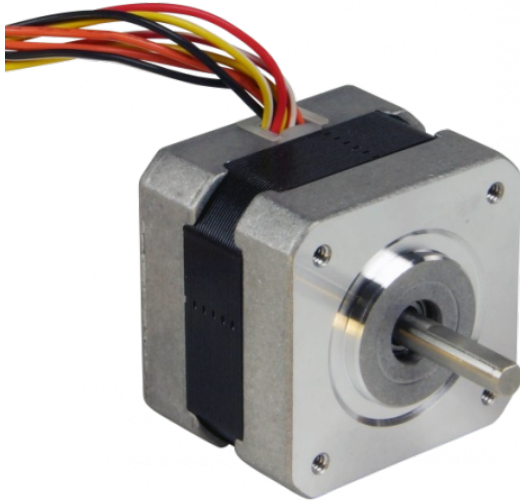


HT17-268

NEMA 17 High Torque Step Motor



Product Features

- 2-phase hybrid step motor
- High torque design
- Standard NEMA 17 dimensions
- Series or parallel wiring
- Double shaft version available
- Motor is UL Recognized
- Encoder options available



Product Description:

The HT17-268 two-phase stepper motor is suitable for a wide range of motion control applications. Terminated with 8 motor leads, the motor can be connected in a few different ways, including bipolar series and bipolar parallel.

Available Part Numbers

Part No.	Details
HT17-268	Base, single shaft motor.
HT17-268D	Double shaft motor.
HT17-268D-WAA	<p>Motor with WAA type optical encoder mounted to rear shaft and end bell of motor. Recommended for use with Applied Motion stepper drives to perform Stall Detection and Stall Prevention functions. 2,000 CPR (8,000 counts quadrature); A, B, and Z (index) channels; differential, line driver outputs.</p> <ul style="list-style-type: none"> • Mating cable for use with Applied Motion drives (D-sub connector):3004-195-10 • Mating cable with flying leads:3004-257
HT17-268D-CAA	<p>Motor with CAA type capacitive encoder mounted to rear shaft and end bell of motor. Recommended for use with Applied Motion stepper drives to perform Stall Detection and Stall Prevention functions. 2,000 CPR (8,000 counts quadrature); A, B, and Z (index) channels; differential, line driver outputs.</p> <ul style="list-style-type: none"> • Mating cable for use with Applied Motion drives (D-sub connector):3004-329-10 • Mating cable with flying leads:3004-349-03
HT17-268D-BAA	<p>Motor with BAA type capacitive encoder mounted to rear shaft and end bell of motor. Not recommended for use with Applied Motion stepper drives to perform Stall Detection and Stall Prevention functions. Intended for use in applications where single-ended signals are acceptable and ambient electrical noise is well controlled. 2,000 CPR (8,000 counts quadrature); A, B, and Z (index) channels; single-ended outputs. Additional resolutions (CPR) available upon request - use the quote request form below to inquire.</p>

UL Recognized












The single and double-shaft versions of this motor are UL Recognized in the US and Canada, file no. E472271. The encoder is not included in the listing.

Specifications

Part Number:	HT17-268
Frame Size:	NEMA 17
Motor Type:	High torque
Part Number w/Double Shaft:	HT17-268D
Part Number w/Encoder:	HT17-268D-WAA or HT17-268D-CAA or HT17-268D-BAA
Motor Length:	1.31 inches
Number of Lead Wires:	8
Lead Wire Configuration:	flying leads, no connector
Lead Wire/Cable Length:	12 inches inches
Lead Wire Gauge:	26 AWG
Unipolar Holding Torque:	22.7 oz-in
Bipolar Holding Torque:	31.2 oz-in
Step Angle:	1.8 deg
Bipolar Series Current:	0.67 A/phase
Bipolar Series Resistance:	8.4 Ohms/phase
Bipolar Series Inductance:	10.0 mH/phase
Bipolar Parallel Current:	1.34 A/phase
Bipolar Parallel Resistance:	2.1 Ohms/phase
Bipolar Parallel Inductance:	2.5 mH/phase
Unipolar Current:	0.95 A/phase
Unipolar Resistance:	4.2 Ohms/phase
Unipolar Inductance:	2.5 mH/phase
Rotor Inertia:	5.38E-04 oz-in-sec ²
Integral Gearhead:	No
Weight:	0.46 lbs
Storage Temperature:	-30 to 70 °C

Operating Temperature:	-20 to 50 °C
Insulation Class:	Class B (130 °C)
Shaft Run Out:	0.001 inch T.I.R. max
Radial Play:	0.0008 inch max w/ 1.1 lb load
End Play:	0.003 inch max w/ 1.1 lb load
Perpendicularity:	0.004 inches
Concentricity:	0.002 inches

Downloads

Datasheet:	 <u>StepMotorWiring-8-lead-striped.pdf</u>  <u>Stepper Motor Life data-110817.pdf</u>
Product PDF - S3 Link:	http://s3.amazonaws.com/applied-motion-pdf/HT17-268.pdf
2D Drawing:	 <u>HT17-268_RevE.pdf</u>  <u>HT17-268D-CAA_RevB.pdf</u>  <u>HT17-268D-BAA_RevA.pdf</u>
3D Drawing:	 <u>17HT33D.igs</u>  <u>HT17-268D-BAA_STEP_7817.zip</u>  <u>HT17-268D-CAA_STEP_7817.zip</u>
Speed-Torque Curves:	 <u>STR_speed-torque.pdf</u>  <u>STR2_speed-torque.pdf</u>  <u>ST_Speed_Torque_revF_Size17.pdf</u>

Products in the Series *CORE Step Motors*

Part Number	Frame Size	Length	Holding Torque	Series Current	Parallel Current	Rotor Inertia
HT08-220	NEMA 8	1.24	2.12	NA	0.35	2.83E-05
HT08-221	NEMA 8	1.85	4.53	NA	0.35	5.95E-05
HT11-020	NEMA 11	1.22	7.08	NA	1.0	1.27E-04
HT11-021	NEMA 11	2.05	14.16	NA	1.0	2.55E-04
HT17-268	NEMA 17	1.31	31.2	0.67	1.34	5.38E-04
HT17-271	NEMA 17	1.57	52.4	0.85	1.70	8.07E-04
HT17-275	NEMA 17	1.90	77.9	0.85	1.70	1.16E-03
HT17-278	NEMA 17	2.47	113	1.0	2.0	1.74E-03
HT23-594	NEMA 23	1.61	76.5	1.41	2.83	1.91E-03
HT23-598	NEMA 23	2.13	158	2.12	4.24	3.68E-03
HT23-601	NEMA 23	2.99	269	2.12	4.24	6.51E-03
HT23-603	NEMA 23	4.37	354	2.5	5.0	1.06E-02
HT34-504	NEMA 34	2.62	397	3.18	6.30	1.56E-02
HT34-505	NEMA 34	3.78	850	3.18	6.30	2.62E-02
HT34-506	NEMA 34	4.94	1260	2.80	5.60	3.89E-02