

HT23-594

NEMA 23 High Torque Step Motor



Product Features

- 2-phase hybrid step motor
- High torque design
- Standard NEMA 23 dimensions
- Series or parallel wiring
- Optimized for microstepping



Description







The HT23-594 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.

Specifications

Part Number	HT23-594
Frame Size	NEMA 23
Motor Type	High torque
Part Number w/Double Shaft	NA
Part Number w/Encoder	HT23-594D-ZAA
Motor Length	1.61 inches
Number of Lead Wires	8
Lead Wire Configuration	flying leads, no connector
Lead Wire/Cable Length	18 inches
Lead Wire Gauge	22 AWG
Unipolar Holding Torque	55.2 oz-in
Bipolar Holding Torque	76.5 oz-in
Step Angle	1.8 deg
Bipolar Series Current	1.41 A/phase
Bipolar Series Resistance	2.8 Ohms/phase

Bipolar Series Inductance	5.6 mH/phase
Bipolar Parallel Current	2.83 A/phase
Bipolar Parallel Resistance	0.7 Ohms/phase
Bipolar Parallel Inductance	1.4 mH/phase
Unipolar Current	2.00 A/phase
Unipolar Resistance	1.4 Ohms/phase
Unipolar Inductance	1.4 mH/phase
Rotor Inertia	1.91E-03 oz-in-sec ²
Integral Gearhead	No
Weight	0.93 lbs
Storage Temperature	-30 to 70 °C
Operating Temperature	-20 to 50 °C
Insulation Class	Class B (130 °C)
Maximum Radial Load	NA
Maximum Thrust Load	NA
Shaft Run Out	0.002 inch T.I.R. max
Radial Play	0.001 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	 StepMotorWiring-8-lead-striped.pdf
2D Drawing	 HT23-594_RevD.pdf
3D Drawing	 23HT39D.igs  HT23_39mm_w_ZAA_encoder.igs
Speed-Torque Curves	 ST_speed-torque.pdf  STR_speed-torque.pdf
Agency Approvals	There are no related agency approval documents at this time.
Application Notes	There are currently no Application Notes available for this product.