

HT23-597

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 HT23-597 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	HT23-597
Frame Size	NEMA 23
Motor Type	High torque
Part Number w/Double Shaft	NA
Part Number w/Encoder	HT23-597D-ZAA
Motor Length	2.13 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	127 oz-in
Bipolar Holding Torque	177 oz-in
Step Angle	1.8 deg
Bipolar Series Current	1.41 A/phase
Bipolar Series Resistance	3.6 Ohms/phase

Bipolar Series Inductance	10.8 mH/phase
Bipolar Parallel Current	2.83 A/phase
Bipolar Parallel Resistance	0.9 Ohms/phase
Bipolar Parallel Inductance	2.7 mH/phase
Unipolar Current	2.00 A/phase
Unipolar Resistance	1.8 Ohms/phase
Unipolar Inductance	2.7 mH/phase
Rotor Inertia	3.68E-03 oz-in-sec ²
Integral Gearhead	No
Weight	1.32 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	 HT23-597_RevB.pdf
3D Drawing	 23HT54D.igs  HT23_57mm_w_ZAA_encoder.igs
Speed-Torque Curves	There are currently no Speed-Torque Curves documents available for this product.
Agency Approvals	There are no related agency approval documents at this time.
Application Notes	There are currently no Application Notes available for this product.