

## HT23-396

NEMA 23 High Torque Step Motor



### Product Features

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



## Description

### Product Description:

**The HT23-396 stepper motor is no longer available. The recommended replacement motor is the [HT23-596](#).**






The HT23-396 stepper motor is a two-phase hybrid step motor with a NEMA 23 frame size. It is terminated with 8 motor leads, meaning it can be connected in a few different ways including bipolar series and bipolar parallel.

## Specifications

<b>Part Number:</b>	HT23-396
<b>Frame Size:</b>	NEMA 23
<b>Motor Type:</b>	High torque
<b>Part Number w/Double Shaft:</b>	HT23-396D
<b>Part Number w/Encoder:</b>	HT23-396D-ZAA
<b>Motor Length:</b>	2.13 inches
<b>Number of Lead Wires:</b>	8
<b>Lead Wire Configuration:</b>	flying leads, no connector
<b>Lead Wire/Cable Length:</b>	18 inches inches
<b>Lead Wire Gauge:</b>	22 AWG
<b>Unipolar Holding Torque:</b>	125 oz-in
<b>Bipolar Holding Torque:</b>	177 oz-in
<b>Step Angle:</b>	1.8 deg
<b>Bipolar Series Current:</b>	0.71 A/phase
<b>Bipolar Series Resistance:</b>	14.4 Ohms/phase
<b>Bipolar Series Inductance:</b>	44 mH/phase
<b>Bipolar Parallel Current:</b>	1.41 A/phase
<b>Bipolar Parallel Resistance:</b>	3.6 Ohms/phase
<b>Bipolar Parallel Inductance:</b>	11 mH/phase
<b>Unipolar Current:</b>	1.00 A/phase
<b>Unipolar Resistance:</b>	7.2 Ohms/phase
<b>Unipolar Inductance:</b>	11 mH/phase
<b>Rotor Inertia:</b>	4.25E-03 oz-in-sec <sup>2</sup>
<b>Integral Gearhead:</b>	No
<b>Weight:</b>	1.5 lbs
<b>Storage Temperature:</b>	-40 to 70 °C

<b>Operating Temperature:</b>	-20 to 50 °C
<b>Insulation Class:</b>	Class B (130 °C)
<b>Shaft Run Out:</b>	0.002 inch T.I.R. max
<b>Radial Play:</b>	0.001 inch max w/ 1.1 lb load
<b>End Play:</b>	0.003 inch max w/ 2.2 lb load
<b>Perpendicularity:</b>	0.003 inches
<b>Concentricity:</b>	0.003 inches

## Downloads

<b>Family Datasheet:</b>	 <a href="#">StepMotorWiring-8-lead-striped.pdf</a>
<b>Datasheet:</b>	<a href="http://s3.amazonaws.com/applied-motion-pdf/HT23-396.pdf">http://s3.amazonaws.com/applied-motion-pdf/HT23-396.pdf</a>
<b>2D Drawing:</b>	 <a href="#">HT23-396_RevE.pdf</a>  <a href="#">HT23-396D-ZAA_RevA.pdf</a>
<b>3D Drawing:</b>	 <a href="#">23HT54D.igs</a>  <a href="#">HT23_57mm_w_ZAA_encoder.igs</a>