

## HT23-398

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






The HT23-398 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

<b>Part Number</b>	HT23-398
<b>Frame Size</b>	NEMA 23
<b>Motor Type</b>	High torque
<b>Part Number w/Double Shaft</b>	NA
<b>Part Number w/Encoder</b>	HT23-398D-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
<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>	2.12 A/phase
<b>Bipolar Series Resistance</b>	1.5 Ohms/phase

<b>Bipolar Series Inductance</b>	4.8 mH/phase
<b>Bipolar Parallel Current</b>	4.24 A/phase
<b>Bipolar Parallel Resistance</b>	0.37 Ohms/phase
<b>Bipolar Parallel Inductance</b>	1.2 mH/phase
<b>Unipolar Current</b>	3.00 A/phase
<b>Unipolar Resistance</b>	0.75 Ohms/phase
<b>Unipolar Inductance</b>	1.2 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>Maximum Radial Load</b>	NA
<b>Maximum Thrust Load</b>	NA
<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>Datasheet</b>	 <a href="#">StepMotorWiring-8-lead-striped.pdf</a>
<b>2D Drawing</b>	 <a href="#">HT23-398_RevE.pdf</a>
<b>3D Drawing</b>	 <a href="#">23HT54D.igs</a>  <a href="#">HT23_57mm_w_ZAA_encoder.igs</a>
<b>Speed-Torque Curves</b>	 <a href="#">ST_speed-torque.pdf</a>
<b>Agency Approvals</b>	There are no related agency approval documents at this time.
<b>Application Notes</b>	There are currently no Application Notes available for this product.