

## HT23-548

NEMA 23 High Torque Step Motor



### Product Features

- 2-phase hybrid step motor
- High torque design
- Standard NEMA 23 dimensions
- Optimized for high bus voltage



## Description

### Product Description:

The HT23-548 two-phase stepper motor is designed for use with the STAC6 series of stepper drives (120 VAC input versions only) and is suitable for a wide range of motion control applications. The motor comes with an integral 10 ft shielded cable and a preassembled drive connector for easy connection to a STAC6 drive.

When not used with STAC6 drives, the preassembled drive connector can be removed to reveal 8 motor leads plus 1 ground lead. The 8 motor leads can be connected in one of three ways to the step motor drive of your choice: bipolar series (required for STAC6 drives), bipolar parallel, or unipolar.






**Note:** The HT23-548 step motor has been superseded by the [HT23-552](#) step motor for use in all new applications with STAC6 stepper drives.

## Specifications

<b>Part Number:</b>	HT23-548
<b>Frame Size:</b>	NEMA 23
<b>Motor Type:</b>	High torque
<b>Part Number w/Double Shaft:</b>	HT23-548D
<b>Part Number w/Encoder:</b>	HT23-548D-ZAA
<b>Motor Length:</b>	1.71 inches
<b>Number of Lead Wires:</b>	8
<b>Lead Wire Configuration:</b>	shielded cable w/ connector
<b>Lead Wire/Cable Length:</b>	10 feet inches
<b>Lead Wire Gauge:</b>	24 AWG
<b>Unipolar Holding Torque:</b>	59.7 oz-in
<b>Bipolar Holding Torque:</b>	84.4 oz-in
<b>Step Angle:</b>	1.8 deg
<b>Bipolar Series Current:</b>	1.41 A/phase
<b>Bipolar Series Resistance:</b>	2.8 Ohms/phase
<b>Bipolar Series Inductance:</b>	5.6 mH/phase
<b>Bipolar Parallel Current:</b>	2.83 A/phase
<b>Bipolar Parallel Resistance:</b>	0.7 Ohms/phase
<b>Bipolar Parallel Inductance:</b>	1.4 mH/phase
<b>Unipolar Current:</b>	2.00 A/phase
<b>Unipolar Resistance:</b>	1.4 Ohms/phase
<b>Unipolar Inductance:</b>	1.4 mH/phase
<b>Rotor Inertia:</b>	1.70E-03 oz-in-sec <sup>2</sup>
<b>Integral Gearhead:</b>	No
<b>Weight:</b>	1.0 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/ 1.0 lb load
<b>End Play:</b>	0.003 inch max w/ 1.0 lb load
<b>Perpendicularity:</b>	0.004 inches
<b>Concentricity:</b>	0.003 inches

## Downloads

<b>Family Datasheet:</b>	 <a href="#">StepMotorWiring-8-lead-cabled-solid.pdf</a>
<b>Datasheet:</b>	<a href="http://s3.amazonaws.com/applied-motion-pdf/HT23-548.pdf">http://s3.amazonaws.com/applied-motion-pdf/HT23-548.pdf</a>
<b>2D Drawing:</b>	 <a href="#">HT23-548_revH.pdf</a>  <a href="#">HT23-548D-ZAA_RevA.pdf</a>
<b>3D Drawing:</b>	 <a href="#">HT23-548D.igs</a>
<b>Speed-Torque Curves:</b>	 <a href="#">STAC6_speed-torque.pdf</a>