

HT23-549

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 HT23-549 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Note: The HT23-549 step motor has been superseded by the [HT23-553](#) step motor for use in all new applications with STAC6 stepper drives.

Specifications

Part Number:	HT23-549
Frame Size:	NEMA 23
Motor Type:	High torque
Part Number w/Double Shaft:	HT23-549D
Part Number w/Encoder:	HT23-549D-ZAA
Motor Length:	2.17 inches
Number of Lead Wires:	8
Lead Wire Configuration:	shielded cable w/ connector
Lead Wire/Cable Length:	10 feet inches
Lead Wire Gauge:	24 AWG
Unipolar Holding Torque:	118 oz-in
Bipolar Holding Torque:	167 oz-in
Step Angle:	1.8 deg
Bipolar Series Current:	1.41 A/phase
Bipolar Series Resistance:	3.6 Ohms/phase
Bipolar Series Inductance:	12.8 mH/phase
Bipolar Parallel Current:	2.83 A/phase
Bipolar Parallel Resistance:	0.9 Ohms/phase
Bipolar Parallel Inductance:	3.2 mH/phase
Unipolar Current:	2.00 A/phase
Unipolar Resistance:	1.8 Ohms/phase
Unipolar Inductance:	3.2 mH/phase
Rotor Inertia:	$3.96E-03 \text{ oz-in-sec}^2$
Integral Gearhead:	No
Weight:	1.5 lbs
Storage Temperature:	-40 to 70 °C

Operating Temperature:	-20 to 50 °C
Insulation Class:	Class B (130 °C)
Shaft Run Out:	0.002 inch T.I.R. max
Radial Play:	0.001 inch max w/ 1.0 lb load
End Play:	0.003 inch max w/ 1.0 lb load
Perpendicularity:	0.004 inches
Concentricity:	0.003 inches

Downloads

Family Datasheet:	 StepMotorWiring-8-lead-cabled-solid.pdf
Datasheet:	http://s3.amazonaws.com/applied-motion-pdf/HT23-549.pdf
2D Drawing:	 HT23-549_revH.pdf  HT23-549D-ZAA_RevA.pdf
3D Drawing:	 23HT54D.igs  HT23_57mm_w_ZAA_encoder.igs
Speed-Torque Curves:	 STAC6_speed-torque.pdf