

HT23-553

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

The HT23-553 two-phase stepper motor is designed for use with the STAC5 and STAC6 series of stepper drives and is suitable for a wide range of motion control applications. The motor is optimized for use with high bus-voltage drives and comes with an integral 10 ft shielded cable.

The motor is terminated with 8 motor leads plus 1 ground lead making it easy to connect the motor to the drive depending on the drive voltage being used. For 120 VAC applications the motor leads must be connected in parallel. For 220 VAC applications the motor leads must be connected in series.







Note: The HT23-553 step motor supersedes the HT23-549 step motor in 120 VAC applications with the STAC6 stepper drives.

Specifications

Part Number	HT23-553
Frame Size	NEMA 23
Motor Type	High torque
Part Number w/Double Shaft	NA
Part Number w/Encoder	HT23-553D-ZAA
Motor Length	2.17 inches
Number of Lead Wires	8
Lead Wire Configuration	shielded cable, no connector
Lead Wire/Cable Length	10 feet
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	0.71 A/phase
Bipolar Series Resistance	14.4 Ohms/phase
Bipolar Series Inductance	51.2 mH/phase
Bipolar Parallel Current	1.41 A/phase
Bipolar Parallel Resistance	3.6 Ohms/phase
Bipolar Parallel Inductance	12.8 mH/phase
Unipolar Current	1.00 A/phase
Unipolar Resistance	7.2 Ohms/phase
Unipolar Inductance	12.8 mH/phase
Rotor Inertia	4.25E-03 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)
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/ 1.0 lb load
End Play	0.003 inch max w/ 2.2 lb load
Perpendicularity	0.004 inches
Concentricity	0.003 inches

Downloads

Datasheet	 StepMotorWiring-8-lead-cabled-solid.pdf
2D Drawing	 HT23-553_RevF.pdf
3D Drawing	 23HT54D.igs  HT23_57mm_w_ZAA_encoder.igs
Speed-Torque Curves	 STAC5_speed-torque.pdf  STAC6_speed-torque.pdf
Agency Approvals	There are no related agency approval documents at this time.
Application Notes	There are currently no Application Notes available for this product.