

HT23-550

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 HT23-550 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Note: The HT23-550 step motor has been superseded by the [HT23-554](#) step motor for use in all new applications with STAC6 stepper drives.

Specifications

Part Number	HT23-550
Frame Size	NEMA 23
Motor Type	High torque
Part Number w/Double Shaft	NA
Part Number w/Encoder	HT23-550D-ZAA
Motor Length	3.05 inches
Number of Lead Wires	8
Lead Wire Configuration	shielded cable w/ connector
Lead Wire/Cable Length	10 feet
Lead Wire Gauge	24 AWG
Unipolar Holding Torque	180 oz-in

Bipolar Holding Torque	255 oz-in
Step Angle	1.8 deg
Bipolar Series Current	1.41 A/phase
Bipolar Series Resistance	4.5 Ohms/phase
Bipolar Series Inductance	15.2 mH/phase
Bipolar Parallel Current	2.83 A/phase
Bipolar Parallel Resistance	1.1 Ohms/phase
Bipolar Parallel Inductance	3.8 mH/phase
Unipolar Current	2.00 A/phase
Unipolar Resistance	2.2 Ohms/phase
Unipolar Inductance	3.8 mH/phase
Rotor Inertia	6.80E-03 oz-in-sec ²
Integral Gearhead	No
Weight	2.2 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/ 1.0 lb load
Perpendicularity	0.004 inches
Concentricity	0.003 inches

Downloads

Datasheet	 StepMotorWiring-8-lead-cabled-solid.pdf
2D Drawing	 HT23-550_RevF.pdf
3D Drawing	 23HT76D.igs  HT23_76mm_w_ZAA_encoder.igs
Speed-Torque Curves	 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.