

HW23-753

IP65 Rated, NEMA 23 High Torque Step Motor



Product Features

- 2-phase hybrid step motor
- Rated IP65 for wet and dusty environments
- High torque design
- Standard NEMA 23 dimensions
- Integral 10 ft shielded cable w/ cable gland
- Sealed laminations
- Front shaft seal
- Single shaft version standard
- Double shaft version with encoder available



Description

The HW23-753 two-phase stepper motor is suitable for a wide range of motion control applications including wet factory environments and outdoor use. The IP65 rating means the motor is dust proof and resistant to lower pressure water jets. Key features of this rating include an integral 10 ft shielded cable, a nickel plated brass cable gland, sealed laminations and a front shaft contact seal. This motor also has an internal corrosion-resistant film coating, further protecting it in wet and humid environments.

A double-shaft version with encoder is available, part number HW23-753D-ZAC.








IP65 specifies a product that is dust tight (no ingress of dust; complete protection against contact) and protected against water jets (water projected by a nozzle from any direction shall have no harmful effects). To see our motor design operating in a rain simulation chamber check out this [video](#).

Specifications

Part Number	HW23-753
Frame Size	NEMA 23
Motor Type	High torque
Part Number w/Double Shaft	NA
Part Number w/Encoder	HW23-753D-ZAC
Motor Length	2.19 inches
Number of Lead Wires	8
Lead Wire Configuration	shielded cable, no connector
Lead Wire/Cable Length	10 ft
Lead Wire Gauge	22 AWG
Unipolar Holding Torque	117 oz-in
Bipolar Holding Torque	153 oz-in
Step Angle	1.8 deg
Bipolar Series Current	0.71 A/phase
Bipolar Series Resistance	14.0 Ohms/phase
Bipolar Series Inductance	51.2 mH/phase
Bipolar Parallel Current	1.41 A/phase
Bipolar Parallel Resistance	3.5 Ohms/phase
Bipolar Parallel Inductance	12.8 mH/phase
Unipolar Current	1.00 A/phase
Unipolar Resistance	7.0 Ohms/phase
Unipolar Inductance	12.8 mH/phase

Rotor Inertia	3.12E-03 oz-in-sec ²
Integral Gearhead	No
Weight	1.21 lbs
Storage Temperature	-30 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	0.0008 inch max w/ 1.1 lb load
End Play	0.003 inch max w/ 2.2 lb load
Perpendicularity	0.004 inches
Concentricity	0.003 inches

Downloads

Datasheet	 HW-099-Errata.pdf  StepMotorWiring-8-lead-cabled-striped.pdf
2D Drawing	 HW23-753_RevF.pdf  HW23-753D-ZAC_RevC.pdf
3D Drawing	 HW23-753.igs  HW23-753D-ZAC.igs
Speed-Torque Curves	 StepMtrAppData_HW23-753_RevA.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.