

HT23-401

NEMA 23 High Torque Step Motor



Product Features

- 2-phase hybrid step motor
- High torque design
- Standard NEMA 23 dimensions
- Series or parallel wiring



Description

Product Description:

The HT23-401 stepper motor is no longer available. The recommended replacement motor is the [HT23-601](#).







The HT23-401 stepper motor is a two-phase hybrid step motor with a NEMA 23 frame size. It is terminated with 8 motor leads, meaning it can be connected in a few different ways including bipolar series and bipolar parallel.

Specifications

Part Number:	HT23-401
Frame Size:	NEMA 23
Motor Type:	High torque
Part Number w/Double Shaft:	HT23-401D
Part Number w/Encoder:	HT23-401D-ZAA
Motor Length:	2.99 inches
Number of Lead Wires:	8
Lead Wire Configuration:	flying leads, no connector
Lead Wire/Cable Length:	18 inches inches
Lead Wire Gauge:	22 AWG
Unipolar Holding Torque:	187 oz-in
Bipolar Holding Torque:	264 oz-in
Step Angle:	1.8 deg
Bipolar Series Current:	2.12 A/phase
Bipolar Series Resistance:	2.0 Ohms/phase
Bipolar Series Inductance:	6.4 mH/phase
Bipolar Parallel Current:	4.24 A/phase
Bipolar Parallel Resistance:	0.5 Ohms/phase
Bipolar Parallel Inductance:	1.6 mH/phase
Unipolar Current:	3.00 A/phase
Unipolar Resistance:	1.0 Ohms/phase
Unipolar Inductance:	1.6 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)
Shaft Run Out:	0.002 inch T.I.R. max
Radial Play:	0.001 inch max w/ 1.1 lb load
End Play:	0.003 inch max w/ 2.2 lb load
Perpendicularity:	0.003 inches
Concentricity:	0.003 inches

Downloads

Family Datasheet:	 StepMotorWiring-8-lead-striped.pdf
Datasheet:	http://s3.amazonaws.com/applied-motion-pdf/HT23-401.pdf
2D Drawing:	 HT23-401_RevF.pdf  HT23-401D-ZAA_RevA.pdf
3D Drawing:	 23HT76D.igs  HT23_76mm_w_ZAA_encoder.igs
Speed-Torque Curves:	 ST_speed-torque.pdf