

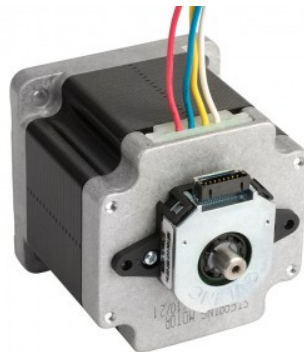
HT24-105

NEMA 24 High Torque Step Motor



Product Features

- 2-phase hybrid step motor
- High torque design
- Modified NEMA 23 dimensions
- 8 mm diameter output shaft
- Double shaft version available
- Motor is UL Recognized
- Encoder options available



Product Description:

The HT24-105 two-phase stepper motor is suitable for a wide range of motion control applications. It is terminated with 4 motor leads for use with bipolar stepper drives.

Available Part Numbers

| Part No. | Details |
|---------------|---|
| HT24-105 | Base, single shaft motor. |
| HT24-105D | Double shaft motor. |
| HT24-105D-CAA | <p>Motor with CAA type capacitive encoder mounted to rear shaft and end bell of motor. Recommended for use with Applied Motion stepper drives to perform Stall Detection and Stall Prevention functions. 2,000 CPR (8,000 counts quadrature); A, B, and Z (index) channels; differential, line driver outputs.</p> <ul style="list-style-type: none"> • Mating cable for use with Applied Motion drives (D-sub connector):3004-329-10 • Mating cable with flying leads:3004-349-03 |
| HT24-105D-BAA | <p>Motor with BAA type capacitive encoder mounted to rear shaft and end bell of motor. Not recommended for use with Applied Motion stepper drives to perform Stall Detection and Stall Prevention functions. Intended for use in applications where single-ended signals are acceptable and ambient electrical noise is well controlled. 2,000 CPR (8,000 counts quadrature); A, B, and Z (index) channels; single-ended outputs. Additional resolutions (CPR) available upon request - use the quote request form below to inquire.</p> |

Please note that a VL series gearhead purchased for this motor will require a special mounting adaptor and 2 weeks lead time. Please contact customer service for the price of this adaptor.

This motor has features which do not conform to standard NEMA for gearhead ordering purposes. Stated lead time for a gearhead ordered with this motor may be longer than shown. Please call for delivery on a gearhead being ordered with this motor.










UL Recognized

The single and double-shaft versions of this motor are UL Recognized in the US and Canada, file no. E472271. The encoder is not included in the listing.

Specifications

| | |
|-------------------------------------|---------------------------------|
| Part Number: | HT24-105 |
| Frame Size: | NEMA 24 |
| Motor Type: | High torque |
| Part Number w/Double Shaft: | HT24-105D |
| Part Number w/Encoder: | HT24-105D-CAA or HT24-105D-BAA |
| Motor Length: | 2.13 inches |
| Number of Lead Wires: | 4 |
| Lead Wire Configuration: | flying leads, no connector |
| Lead Wire/Cable Length: | 12 inches inches |
| Lead Wire Gauge: | 22 AWG |
| Bipolar Holding Torque: | 177 oz-in |
| Step Angle: | 1.8 deg |
| Bipolar Parallel Current: | 4.00 A/phase |
| Bipolar Parallel Resistance: | 0.43 Ohms/phase |
| Bipolar Parallel Inductance: | 1.1 mH/phase |
| Rotor Inertia: | 6.37E-03 oz-in-sec ² |
| Integral Gearhead: | No |
| Weight: | 1.8 lbs |
| Storage Temperature: | -30 to 70 °C |
| Operating Temperature: | -20 to 50 °C |
| Insulation Class: | Class B (130 °C) |
| Shaft Run Out: | 0.001 inch T.I.R. max |
| Radial Play: | 0.001 inch max w/ 1.1 lb load |
| End Play: | 0.003 inch max w/ 1.1 lb load |
| Perpendicularity: | 0.004 inches |
| Concentricity: | 0.002 inches |

Downloads

| | |
|-------------------------------|---|
| Datasheet: |  StepMotorWiring-4-lead.pdf |
| Product PDF - S3 Link: | http://s3.amazonaws.com/applied-motion-pdf/HT24-105.pdf |
| 2D Drawing: |  HT24-105_RevH.pdf  HT24-105D_3D.pdf  HT24-105D-BAA_RevA.pdf  HT24-105D-CAA_RevB.pdf |
| 3D Drawing: |  HT24-105D_54mm.igs  HT24-105D-BAA_STEP_7817.zip  HT24-105D-CAA_STEP_7817.zip |
| Speed-Torque Curves: |  STR4-8 Hardware Manual 920-0030H_TorqueCurves.pdf |

Products in the Series *HT24 Step Motors*

| Part Number | Frame Size | Length | Holding Torque | Series Current | Parallel Current | Rotor Inertia |
|--------------------------|------------|--------|----------------|----------------|------------------|---------------|
| HT24-100 | NEMA 24 | 1.73 | 123 | NA | 2.80 | 3.68E-03 |
| HT24-105 | NEMA 24 | 2.13 | 177 | NA | 4.00 | 6.37E-03 |
| HT24-106 | NEMA 24 | 3.35 | 382 | NA | 2.8 | 1.27E-02 |
| HT24-108 | NEMA 24 | 3.35 | 354 | NA | 4.00 | 1.27E-02 |