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NEMA 23 Step Motor



#### **Product Features**

- Closeout sale in progress (single shaft version only)
- Limited quantity in stock
- 2-phase hybrid step motor
- Standard NEMA 23 dimensions
- 1.8 degree step angle



### Description

#### **Product Description:**

The 5023-124 stepper motor with single shaft (see Note below) is a two-phase hybrid step motor with a NEMA 23 frame size. The motor is no longer in production (and normally listed as archived on our website) but is being offered in a closeout sale to clear our inventory. Once the remaining inventory of this motor is depleted the motor will revert to being listed as archived on our website and will no longer be available for purchase. This makes the motor a good choice for one-time applications, research & development work, and hobbyist projects.

**Note:** Only the single-shaft version of this motor is available for purchase in the closeout sale. The double-shaft version, 5023-124D, is not available. All sales are final.

For long term projects, please consider the <u>HT23-601</u> as a replacement. To view all step motors go to the <u>browse stepper motors</u> page. For additional assistance selecting a step motor <u>contact us</u> or call 1-800-525-1609.

## Specifications

| Part Number:                    | 5023-124                        |
|---------------------------------|---------------------------------|
| Frame Size:                     | NEMA 23                         |
| Motor Type:                     | Standard torque                 |
| Motor Length:                   | 3.99 inches                     |
| Number of Lead<br>Wires:        | 8                               |
| Lead Wire Configuration:        | flying leads, no connector      |
| Lead Wire/Cable<br>Length:      | 18 inches inches                |
| Lead Wire Gauge:                | 22 AWG                          |
| Unipolar Holding<br>Torque:     | 160 oz-in                       |
| Bipolar Holding Torque:         | 226 oz-in                       |
| Step Angle:                     | 1.8 deg                         |
| Bipolar Series<br>Current:      | 1.75 A/phase                    |
|                                 |                                 |
| Bipolar Series<br>Resistance:   | 3.26 Ohms/phase                 |
| Bipolar Series Inductance:      | 16.8 mH/phase                   |
| Bipolar Parallel<br>Current:    | 3.49 A/phase                    |
| Bipolar Parallel<br>Resistance: | 0.815 Ohms/phase                |
| Bipolar Parallel Inductance:    | 4.2 mH/phase                    |
| Unipolar Current:               | 2.47 A/phase                    |
| Unipolar Resistance:            | 1.63 Ohms/phase                 |
| Unipolar Inductance:            | 4.2 mH/phase                    |
| Rotor Inertia:                  | 4.46E-03 oz-in-sec <sup>2</sup> |
| Integral Gearhead:              | No                              |
| Weight:                         | 2.8 lbs                         |
| Storage Temperature:            | -40 to 70 °C                    |
| Operating<br>Temperature:       | -20 to 50 °C                    |
| Insulation Class:               | Class B (130 °C)                |
|                                 |                                 |

| Maximum Radial Load:    | 15 lbs                        |
|-------------------------|-------------------------------|
| Maximum Thrust<br>Load: | 25 lbs                        |
|                         |                               |
| Shaft Run Out:          | 0.001 inch T.I.R. max         |
| Radial Play:            | 0.001 inch max w/ 1.0 lb load |
| End Play:               | 0.001 inch max w/ 9.0 lb load |
| Perpendicularity:       | 0.003 inches                  |
| Concentricity:          | 0.002 inches                  |

### Downloads

| Family Datasheet: | StepMotorWiring-8-lead-striped.pdf |
|-------------------|------------------------------------|
| Datasheet:        |                                    |
| 2D Drawing:       | ₫ 5023-124 revC.pdf                |
| 3D Drawing:       | 2318102.igs                        |

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