

## 5023-123

NEMA 23 Step Motor



### ***Product Features***

- *2-phase hybrid step motor*
- *Standard NEMA 23 dimensions*
- *1.8 degree step angle*



## Description

### **Product Description:**




The 5023-123 two-phase stepper motor is not available for new applications. Please consider the [HT23-597](#) as a replacement. To view all step motors go to the [browse stepper motors](#) page. For additional assistance selecting a step motor [contact us](#) or call 1-800-525-1609.

## Specifications

|                                     |                                 |
|-------------------------------------|---------------------------------|
| <b>Part Number:</b>                 | 5023-123                        |
| <b>Frame Size:</b>                  | NEMA 23                         |
| <b>Motor Type:</b>                  | Standard torque                 |
| <b>Part Number w/Double Shaft:</b>  | 5023-123D                       |
| <b>Motor Length:</b>                | 2.96 inches                     |
| <b>Number of Lead Wires:</b>        | 8                               |
| <b>Lead Wire Configuration:</b>     | flying leads, no connector      |
| <b>Lead Wire/Cable Length:</b>      | 18 inches inches                |
| <b>Lead Wire Gauge:</b>             | 22 AWG                          |
| <b>Unipolar Holding Torque:</b>     | 112 oz-in                       |
| <b>Bipolar Holding Torque:</b>      | 159 oz-in                       |
| <b>Step Angle:</b>                  | 1.8 deg                         |
| <b>Bipolar Series Current:</b>      | 1.26 A/phase                    |
| <b>Bipolar Series Resistance:</b>   | 4.7 Ohms/phase                  |
| <b>Bipolar Series Inductance:</b>   | 18.8 mH/phase                   |
| <b>Bipolar Parallel Current:</b>    | 2.52 A/phase                    |
| <b>Bipolar Parallel Resistance:</b> | 1.175 Ohms/phase                |
| <b>Bipolar Parallel Inductance:</b> | 4.7 mH/phase                    |
| <b>Unipolar Current:</b>            | 1.78 A/phase                    |
| <b>Unipolar Resistance:</b>         | 2.35 Ohms/phase                 |
| <b>Unipolar Inductance:</b>         | 4.7 mH/phase                    |
| <b>Rotor Inertia:</b>               | 2.97E-03 oz-in-sec <sup>2</sup> |
| <b>Integral Gearhead:</b>           | No                              |
| <b>Weight:</b>                      | 2.0 lbs                         |
| <b>Storage Temperature:</b>         | -40 to 70 °C                    |
| <b>Operating Temperature:</b>       | -20 to 50 °C                    |

|                             |                               |
|-----------------------------|-------------------------------|
| <b>Insulation Class:</b>    | Class B (130 °C)              |
| <b>Maximum Radial Load:</b> | 15 lbs                        |
| <b>Maximum Thrust Load:</b> | 25 lbs                        |
| <b>Shaft Run Out:</b>       | 0.001 inch T.I.R. max         |
| <b>Radial Play:</b>         | 0.001 inch max w/ 1.0 lb load |
| <b>End Play:</b>            | 0.001 inch max w/ 9.0 lb load |
| <b>Perpendicularity:</b>    | 0.003 inches                  |
| <b>Concentricity:</b>       | 0.002 inches                  |

## Downloads

|                          |  |
|--------------------------|--|
| <b>Family Datasheet:</b> |  <a href="#">StepMotorWiring-8-lead-striped.pdf</a> |
| <b>Datasheet:</b>        |  |
| <b>2D Drawing:</b>       |  <a href="#">5023-123 rev C.pdf</a>                 |
| <b>3D Drawing:</b>       |  <a href="#">231876.igs</a>                         |

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