

## **BL100-H03-I**

80mm Brushless DC Motor, 100W, 24V

1pc. - 200.00  
50pc. - 150.00



### **Product Features**

- *Brushless design for long life*
- *Low maintenance*
- *80 mm frame size*
- *Peak torque to 4.24 in-lb*
- *Hall signals for velocity feedback*
- *Compatible with BD5-I6-AH brushless drive*



## Description

The BL100-H03-I is a three-phase brushless DC motor for use in velocity control applications. Paired with a BD5-16-AH brushless DC drive this motor provides excellent performance over a wide speed range.

## Specifications

**Part Number:**

BL100-H03-I

**Rated Torque:**

2.12 in-lb

**Peak Torque:**

4.24 in-lb

**Rated Power:**

100 watts

**Rated Voltage:**

24 volts

**Rated Speed:**

4000 rpm

**Peak Speed:**

4500 rpm

**Rated Current:**

5.0 A rms

**Peak Current:**

10.0 A rms

**Torque Constant:**

0.41 in-lb/A

**Voltage Constant:**

3.44 V/krpm

**Armature Resistance:**

0.18 ohms

**Armature Inductance:**

0.34 mH

**Motor Length:**

1.97 inch

**Rotor Inertia:**

5.38E-03 oz-in-sec<sup>2</sup>

**Weight:**

2.16 lbs

**Storage Temperature:**

-20 to 70 °C

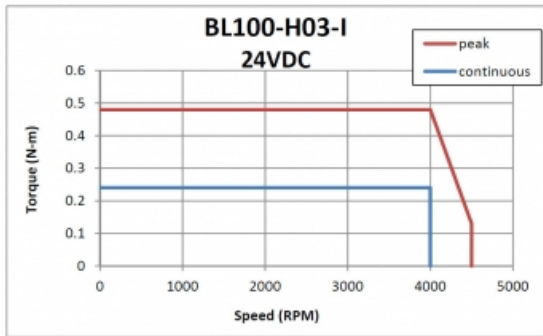
**Operating Temperature:**

0 to 40 °C

**Insulation Class:**

Class E (120 °C)

## Torque Curves



## Downloads


### Datasheet:

<http://s3.amazonaws.com/applied-motion-pdf/BL100-H03-I.pdf>


### Speed-Torque Curves:

 [speed torque curves 80mm BL100-H03-I updated 1-21-14.pdf](#)

### 2D Drawing:

 [BL100-H03-I\\_RevB.pdf](#)

### 3D Drawing:

 [BL100-H03-I.igs](#)

## Pricing

|        | BL100-H03-I<br>Part No. BL100-H03-I                     |
|--------|---------------------------------------------------------|
| 1pc.   | \$200.00                                                |
| 25pc.  | \$172.00                                                |
| 50pc.  | \$150.00                                                |
| 100pc. | <a href="#">Request a Quote</a> for 100+ piece pricing. |

## Products in the Series *Brushless DC Motors and Drives*

| Number    | Frame Size | Continuous Torque | Peak Torque | Motor Length | Rated Power | Rotor Inertia | 1pc./50pc.          |
|-----------|------------|-------------------|-------------|--------------|-------------|---------------|---------------------|
| -255-001  | NA         | NA                | NA          | NA           | NA          | NA            | \$186.00 / \$139.50 |
| -255-002  | NA         | NA                | NA          | NA           | NA          | NA            | \$186.00 / \$139.50 |
| -255-003  | NA         | NA                | NA          | NA           | NA          | NA            | \$186.00 / \$139.50 |
| -255-004  | NA         | NA                | NA          | NA           | NA          | NA            | \$186.00 / \$139.50 |
| -255-005  | NA         | NA                | NA          | NA           | NA          | NA            | \$186.00 / \$139.50 |
| -260-001  | NA         | NA                | NA          | NA           | NA          | NA            | \$223.00 / \$167.25 |
| -260-002  | NA         | NA                | NA          | NA           | NA          | NA            | \$223.00 / \$167.25 |
| -260-003  | NA         | NA                | NA          | NA           | NA          | NA            | \$223.00 / \$167.25 |
| -260-004  | NA         | NA                | NA          | NA           | NA          | NA            | \$223.00 / \$167.25 |
| i0-H03-G  | 42 mm      | 0.58              | 1.15        | 1.81         | 30          | 5.49E-04      | \$120.00 / \$90.00  |
| H03-GP005 | 42 mm      | 2.38              | 4.77        | 4.41         | 30          | 0.00055       | \$269.00 / \$269.00 |
| H03-GP014 | 42 mm      | 5.92              | 11.8        | 4.93         | 30          | 0.00055       | \$296.00 / \$296.00 |
| H03-GP019 | 42 mm      | 8.28              | 16.6        | 4.93         | 30          | 0.00055       | \$296.00 / \$296.00 |
| H03-GP029 | 42 mm      | 12.5              | 25.0        | 4.93         | 30          | 0.00055       | \$296.00 / \$296.00 |
| H03-GP051 | 42 mm      | 20.5              | 41.0        | 5.45         | 30          | 0.00055       | \$324.00 / \$324.00 |
| H03-GP100 | 42 mm      | 40.1              | 80.1        | 5.45         | 30          | 0.00055       | \$324.00 / \$324.00 |
| i0-H03-G  | 42 mm      | 1.15              | 2.30        | 2.76         | 60          | 1.02E-03      | \$160.00 / \$120.00 |
| H03-GP005 | 42 mm      | 4.77              | 9.56        | 5.36         | 60          | 0.001         | \$309.00 / \$309.00 |
| H03-GP014 | 42 mm      | 11.8              | 23.7        | 5.87         | 60          | 0.001         | \$336.00 / \$336.00 |
| H03-GP019 | 42 mm      | 16.6              | 33.1        | 5.87         | 60          | 0.001         | \$336.00 / \$336.00 |
| H03-GP051 | 42 mm      | 41.0              | 82.0        | 6.39         | 60          | 0.001         | \$364.00 / \$364.00 |
| i0-H03-H  | 57 mm      | 1.28              | 2.56        | 2.15         | 60          | 2.09E-03      | \$160.00 / \$120.00 |
| i0-H03-G  | 42 mm      | 1.90              | 3.98        | 3.94         | 90          | 1.61E-03      | \$200.00 / \$150.00 |
| H03-GP005 | 42 mm      | 8.25              | 16.4        | 6.54         | 90          | 0.0016        | \$344.00 / \$344.00 |
| H03-GP014 | 42 mm      | 20.5              | 41.1        | 7.05         | 90          | 0.0016        | \$374.00 / \$374.00 |
| 00-H03-I  | 80 mm      | 2.12              | 4.24        | 1.97         | 100         | 5.38E-03      | \$200.00 / \$150.00 |
| i0-H03-H  | 57 mm      | 2.56              | 5.13        | 3.25         | 120         | 3.95E-03      | \$200.00 / \$150.00 |
| i0-H04-H  | 57 mm      | 3.80              | 7.61        | 4.74         | 180         | 6.46E-03      | \$240.00 / \$180.00 |
| 00-H04-I  | 80 mm      | 4.24              | 8.49        | 2.67         | 200         | 0.74          | \$250.00 / \$187.50 |
| 00-H04-I  | 80 mm      | 6.37              | 12.75       | 3.31         | 300         | 1.53E-02      | \$300.00 / \$225.00 |