



## 110W 48V 3000rpm 86mm Square Brushless DC Motor Big Torque HC86BLF110

### Basic Information

- Place of Origin: Changzhou, China
- Brand Name: Hontru
- Certification: CE ISO RoHS
- Model Number: HC86BLF
- Minimum Order Quantity: 1 set
- Price: Negotiation
- Packaging Details: Foam+Hard Carton or Wooden Case+Waterproof film
- Delivery Time: 5-10 working days
- Payment Terms: T/T, PayPal, Western Union
- Supply Ability: 10000pcs/month



### Product Specification

- Name: 86mm Square Brushless Motor 12 Slots
- Number Of Poles: 8
- Number Of Phases: 3
- Rated Voltage (VDC): 48
- Rated Speed (rpm): 3000
- Winding Method: Y
- Hall Distribution Angle: 120°
- Insulation Level: B
- Insulation Resistance: 100MΩ Min.500VDC
- Dielectric Strength: 600VAC, 1Min.
- Maximum Radial Load: 220N
- Maximum Axial Load: 60N
- Highlight: **3000rpm Brushless Motor, Brushless DC Motor big torque HC86BLF110, 86mm Square Brushless DC Motor**



## Product Description

### 86mm Square Brushless Motor 12 slots

#### Specification

| Item                    | index parameter  |
|-------------------------|------------------|
| Winding method          | Y                |
| Hall distribution angle | 120°             |
| Insulation level        | B                |
| Insulation resistance   | 100MΩ Min.500VDC |
| Dielectric strength     | 600VAC, 1Min.    |
| Maximum radial load     | 220N             |
| Maximum axial load      | 60N              |

| Wiring              |       |              |
|---------------------|-------|--------------|
| Function Definition | Color | Wire Gauge   |
| +5V                 | Red   | AWG26 UL1430 |
| Hu                  | White |              |
| Hv                  | Blue  |              |
| Hw                  | Green |              |
| GND                 | Black |              |
| U                   | White | AWG22 UL1430 |
| V                   | Blue  |              |
| W                   | Green |              |

| Motor model                            | HC86BLF70 | HC86BLF830 | HC86BLF110 | HC86BLF125 | HC86BLF140 |
|----------------------------------------|-----------|------------|------------|------------|------------|
| Number of poles                        | 8         |            |            |            |            |
| Number of phases                       | 3         |            |            |            |            |
| Rated voltage (VDC)                    | 48        |            |            |            |            |
| Rated speed (rpm)                      | 3000      |            |            |            |            |
| Rated torque (N.m)                     | 0.35      | 0.7        | 1.4        | 1.8        | 2.5        |
| Rated current (A)                      | 4         | 7          | 11         | 15         | 19         |
| Rated power (W)                        | 110       | 220        | 440        | 660        | 750        |
| Peak torque (N.m)                      | 1.05      | 2.1        | 4.2        | 6.3        | 7.5        |
| Peak current (A)                       | 12        | 21         | 33         | 57         | 57         |
| Back EMF constant (Vrms/Krpm)          | 10.5      | 11.5       | 13.5       | 11.5       | 12         |
| Torque constant (N.m/A)                | 0.1       | 0.11       | 0.13       | 0.13       | 0.13       |
| Moment of inertia (g.cm <sup>2</sup> ) | 400       | 800        | 1600       | 2400       | 3200       |
| Body length L (mm)                     | 70        | 83         | 110        | 125        | 140        |
| Weight (kg)                            | 1.5       | 1.85       | 2.6        | 3.3        | 4          |

#### Outline:



