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# 48v 1kw 3000rpm Brushless Dc Motor For Electric Vehicle

| Model Number: | VOL-BL10B48        |
|---------------|--------------------|
| Type:         | Brushless DC Motor |
| Output Power: | 1KW                |
| DC Voltage:   | 48V                |
| Speed Range:  | 3000 RPM           |
| Poles:        | 8P                 |

Detailed information

| Brand Name:   | Volcano Electric            | Model Number:     | VOL-BL10B48                   | Туре:             | Brushless DC Motor |  |
|---------------|-----------------------------|-------------------|-------------------------------|-------------------|--------------------|--|
| Output Power: | 1KW                         | DC Voltage:       | 48V                           | Speed Range:      | 3000 RPM           |  |
| Controller:   | Customized, Optional        | Braker:           | Optional                      | Insulation Class: | Class F            |  |
| Enclosure:    | IP54                        | Poles:            | 8P                            | Wire:             | 100% copper Coil   |  |
| Current:      | 36.76A                      | Sensor:           | Hall sensor/ Magnetic encoder | Certification:    | CE,UL,ROHS         |  |
| Housing:      | Aluminum frame              | Efficiency:       | 90%                           |                   |                    |  |
| Duty:         | S1, S2, S3                  | Place of Origin:  | Zhejiang, China<br>(Mainland) | Standard:         | IEC / Customized   |  |
| Application:  | Boat, Car, Sightseeing cars | Home Appliance, O | oil Pump, Electric Vehicle    | 1                 |                    |  |

# What is BLDC motor

Brushless dc motor also can be known as permanent magnet dc motor, EC motor. It power by DC current. Instead of the brushes and commutator, the BLDC motor through the electric commutator to make it change the direction. It need a driver to drive. The brushless dc motor is designed with high performance. Lots of consumers prefer to use it for electric vehicle because of its high start torque, smooth operation, lightweight.

#### **Structure of BLDC motor**

The brushless dc motor has two basic parts: stator and rotor. Different with the brushes dc motor, its rotor is surrounded by permanent magnet and stator with copper coil windings. But the brushes one with permanent magnet stator and winding rotor. At the same time, the brushless dc

motor can install with the hall sensors, encoders. For our motors, hall sensors are mostly used.

## **Product Description**

The motor, 48V 1KW 3000RPM Brushless dc motor, is mostly used for Electric Vehicle. To replace the gas vehicle, people more like to use the electric vehicle. It's easier to power, higher start torque, much longer working time, less environmental pollution. Meanwhile, we can according to your using when it work at flat road or climbing to design the motor. To provide enough torque and high efficiency when it work.

Not only this specification, also can design the motor as your wish. Accept to customized .

We insist that quality and honesty come first. Waiting for you and feel free to contact our team at info@volcanomotor.com for any technical support.

#### **Specifications**

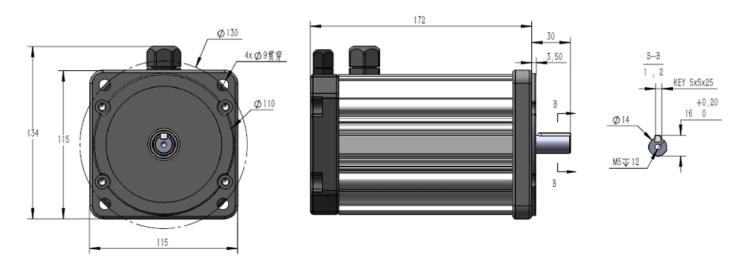
| Motor type       | VOL-BL10B48 |
|------------------|-------------|
| Rated power      | 1KW         |
| Rated speed      | 3000RPM     |
| Rated torque     | 3.18N.m     |
| Current          | 24.5A       |
| Voltage          | 48V         |
| Insulation class | Class F     |
| Frequency        | 50Hz        |

### What can we provide

We promises to provide the most suitable and high efficiency motors for you. The motor efficiency will no less than 80%. To provide the prefect product, we test the motors before ship it out.

For now, we develop the motor to make less heat. Not only by the fan, air cooling and liquid cooling.

# Configuration



#### \*CAN MAKE ACCORDING TO YOUR REQUIRMENT

## **Brushless motor list**

|  | Motor type | Output | Voltage | Load | Speed | Rated Torque | Poles | Efficiency | Noise |
|--|------------|--------|---------|------|-------|--------------|-------|------------|-------|
|--|------------|--------|---------|------|-------|--------------|-------|------------|-------|

|              | KW    | V  | А     | RPM  | N.m  |   | %  | dB |
|--------------|-------|----|-------|------|------|---|----|----|
| VOL-BL03B12  | 0.375 | 12 | 36.76 | 3000 | 1.19 | 2 | 85 | 62 |
| VOL-BL06C12  | 0.6   | 12 | 58.82 | 1800 | 3.18 | 2 | 85 | 62 |
| VOL-BL07B24  | 0.75  | 24 | 36.76 | 3000 | 2.39 | 2 | 85 | 62 |
| VOL-BL09C24  | 0.9   | 24 | 44.6  | 2600 | 3.31 | 8 | 84 | 60 |
| VOL-BL10B48  | 1     | 48 | 24.5  | 3000 | 3.18 | 6 | 85 | 60 |
| VOL-BL12C24  | 1.2   | 24 | 63.3  | 4200 | 2.73 | 8 | 79 | 60 |
| VOL-BL125C24 | 1.25  | 24 | 62    | 3200 | 3.73 | 8 | 84 | 60 |
| VOL-BL13C36  | 1.3   | 36 | 40.12 | 3200 | 3.88 | 8 | 90 | 60 |
| VOL-BL15C24  | 1.5   | 24 | 73.5  | 2590 | 5.53 | 8 | 85 | 61 |

## Advantages of Brushless DC motor:

- Lower Maintainance and longer lifetime no brush and commutator erosion
- Lower noise the elimination of brush contact
- Higher power to weight ratio
- Higher efficiency (in general higher than 90%)
- Lower temperature rise more efficient heat dissipation due to winding construction
- Simple structure
- Higher speed range- no limit of brushes and commutator

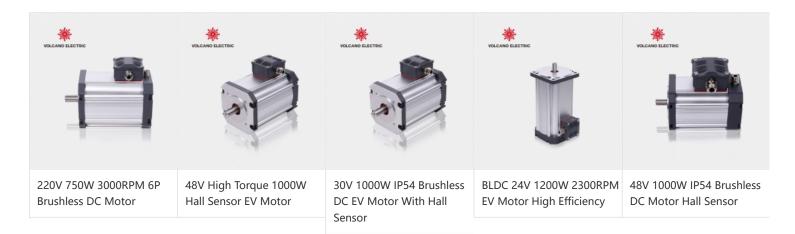
For customized DC Motors, please contact our technician, Ordinary, we have to know the following information to get a professional proposal:

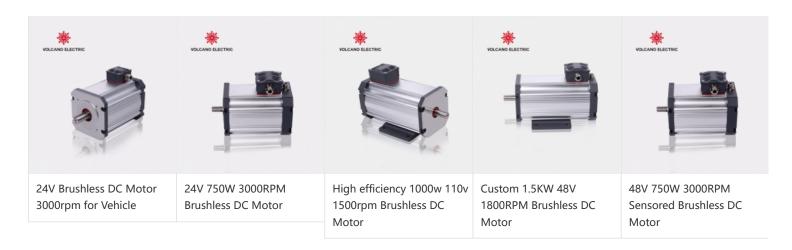
- Brushed or Brushless Customer preference
- Output power (W) Horsepower/watts/torque rated at full load speed
- Voltage (V) i.e 12v DC ...... 220v AC
- Motor speed (RPM) Revolutions per minute of the shaft at full load Voltage
- Application e.g. traction, airconditioning, etc.
- Duty Most motors are rated continuous. Some applications however may use motors designed for intermittent duty
- **Configuration/Frame** Our products are according to IEC standard, we also can customize the flange and shaft according to the customer drawing
- Controller function
   e.g. forward/reverse, variable speed, acceleration profile, etc.

Previous 1HP Output Power Permanent Magnet Motors

Next Super Premium Efficiency Permanent Magnet Motor

# You may like:





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