



Home > Products > Motor power-Brushless Motor > 5 HP Brushless DC Motor



## 5500W High Power High RPM BLDC Motors

|               |                    |
|---------------|--------------------|
| Model Number: | BLDC5.5-154        |
| Type:         | Brushless DC Motor |
| Output Power: | 5.5KW              |
| DC Voltage:   | 72V                |
| Speed Range:  | 3680 RPM           |
| Poles:        | 4P, 6P, 8P...      |

### Detailed information

|               |   |                  |                                  |                   |  |
|---------------|---|------------------|----------------------------------|-------------------|--|
| Brand Name:   | Volcano Electric  | Model Number:    | BLDC5.5-154                      | Type:             | BLDC Motor                                 |
| Output Power: | 5500W   | DC Voltage:      | 72V                              | Speed Range:      | 3680 RPM                                   |
| Controller:   | Customized, Optional  | Braker:          | Optional                         | Insulation Class: | Class F                                    |
| Enclosure:    | IP44 / IP54   | Poles:           | 4P, 6P, 8P...                    | Wire:             | 100% copper                                |
| Housing:      | Aluminum  | Efficiency:      | IE 4.0, high efficiency over 90% |                   |  |
| Duty:         | S1 (continuous)   | Place of Origin: | Zhejiang, China (Mainland)       | Standard:         | IEC/NEMA Frame, customized Frame Available |
| Application:  | Boat, Car, Electric Bicycle, Fan, Home Appliance, Traction Motor, Solar Pump DC systems, bus A/C systems ,Other |                  |                                  |                   |  |

### Product Description

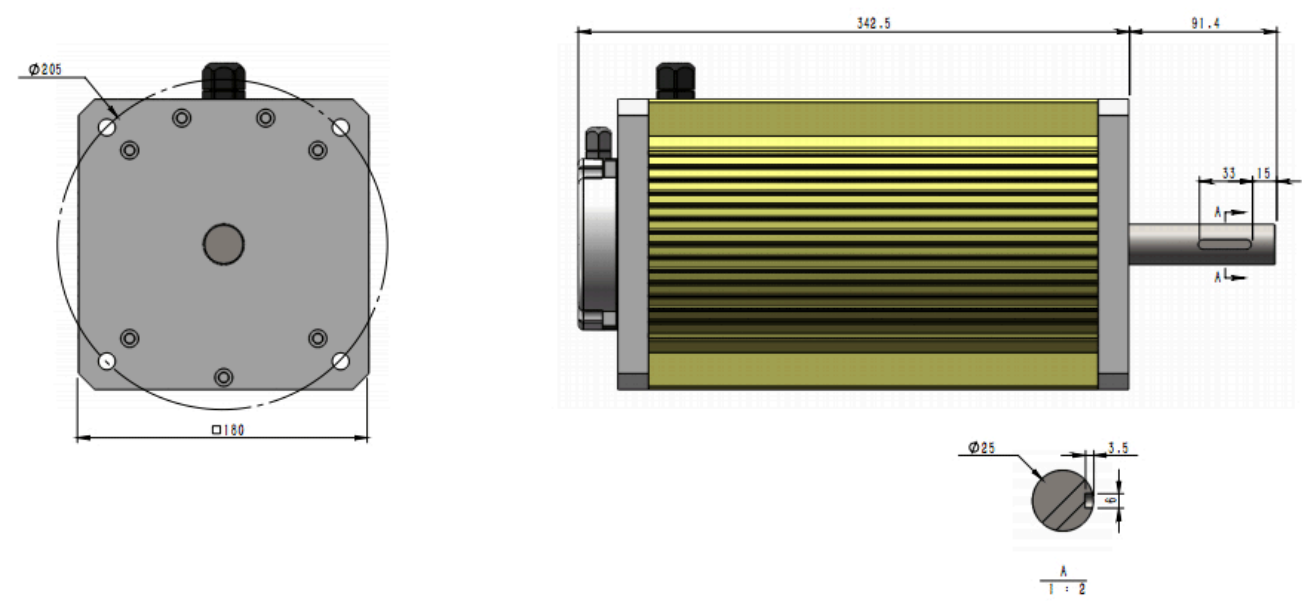
Electric Vehicles make use of permanent magnet synchronous traction motors for their high torque density and efficiency. A comparison between interior permanent magnet (IPM) and surface mounted permanent magnet (SPM) motors is carried out, in terms of performance at given inverter ratings. A simplified analytical approach is proposed and its results are confirmed by actual motor design, validated through FEA. The main result of the proposed analysis is to put in evidence the different behavior of IPM and SPM motors in terms of overload capability: as expected, the overload current results in a power overload of the IPM motor, while in the SPM motor the maximum power is upper limited irrespectively of the current overload.

5500W High Power High RPM BLDC Motors is the IPM Motor, which used in Electric Vehicles. Compared to AC motors, BLDC motors have higher efficiency at variable speed range. Obviously, the application who requires high torque, low speed and Low torque, high speed working condition,

our IPM motor should be better suited.

5500W High Power High RPM BLDC Motors can be designed at voltage range from 24V to 380V DC, cover a output power range from 1.5KW to 10KW, its torque range on continuous duty is 3-20Nm, on intermittent duty up to 7.5-50Nm.

Configuration



\*CAN MAKE ACCORDING TO YOUR REQUIRMENT

Brushless motor list

| Motor type   | Output | Voltage | Load | Speed | Rated Torque | Poles | Efficiency | Noise |
|--------------|--------|---------|------|-------|--------------|-------|------------|-------|
|              | KW     | V       | A    | RPM   | N.m          |       | %          | dB    |
| BLDC1.55-154 | 1.55   | 45      | 40   | 4300  | 3.44         | 8     | 86         | 60    |
| BLDC1.8-154  | 1.8    | 60      | 32.6 | 1100  | 15.6         | 8     | 92         | 61    |
| BLDC1.85-154 | 1.85   | 24      | 81.5 | 2100  | 8.41         | 8     | 92         | 60    |
| BLDC2.7-154  | 2.7    | 60      | 48.9 | 1100  | 23.4         | 8     | 92         | 61.5  |
| BLDC2.8-154  | 2.8    | 60      | 50.8 | 1100  | 24.3         | 8     | 92         | 61.5  |
| BLDC2.8-154  | 2.8    | 48      | 67.8 | 2600  | 10.3         | 8     | 86         | 61    |
| BLDC3.0-154  | 3.0    | 48      | 67.6 | 2650  | 10.81        | 8     | 92.5       | 61    |
| BLDC3.0B-154 | 3.0    | 72      | 46.8 | 1850  | 15.5         | 8     | 89         | 61    |
| BLDC3.5B-154 | 3.5    | 60      | 69.5 | 1680  | 19.9         | 8     | 84         | 61    |
| BLDC4.0-154  | 4.0    | 48      | 90.6 | 2580  | 14.81        | 8     | 92         | 62    |
| BLDC5.5-154  | 5.5    | 72      | 85.6 | 3680  | 14.27        | 8     | 89.2       | 63    |

Advantage of Brushless DC motors

- 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
- Reduction of EMI

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 5.5HP 48V High Power Brushless DC Motors

Next 300V 540W 1200 rpm Brushed DC Motor


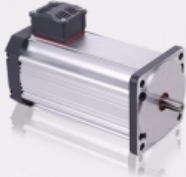
You may like:

|   |   |   |  |   |
|---|---|---|--|---|
|  |  |  |  |  |
| 48v 4.5kw 1500rpm BLDC Motor  | 72V 5500W 3680rpm Brushless Electric Motor With Controller                          | 251mm 72V 4KW Hall Sensor BLDC Motor With Controller                                | 251mm 48V 4000W 2580rpm Hall Sensor With Controller BLDC Motor                       | 48V 4100W High Power NEMA Frame BLDC Motor  |



Customized 4.5kw 72v 1500rpm Brushless Dc

Motor

|  |  |  |
|--|--|--|
| <br> | <br> |  |
| 6hp 3000rpm Powerful<br>Brushless Dc Motor   | 5kw 72v Brushless Dc Motor<br>With Hall Sensor   | 5.5HP 48V High Power<br>Brushless DC Motors  |

DC Motor Manufacturer & Supplier in China  
Email: [info@volcanomotor.com](mailto:info@volcanomotor.com) | Tel: 86-18157453060

[About Us](#) [Products](#) [Solutions](#) [Contact Us](#) [Feedback](#) [Search](#)

Copyright © Ningbo volcanic electric co.,LTD