

H6

High-voltage Brushless Motor

English technical reference prepared from the Chinese product document. Legacy contact details have been removed. Numeric values marked [verify] require confirmation before ordering or operation.

Product Manual: H6 High-Voltage Brushless Motor

Optional Base

Rotation Direction Switching

Product Model: H6

Series: 6

Weight: 1.6 kg

4. Outline and Installation Structure

This document provides product description and operation guidance.

Applicable Range:

DC motor, suitable for input voltage: 200–400 V

Performance Requirements:

Parameter	Value
Rated Voltage (V)	200–400
Rated Input Current	4 A
No-Load Current (at 2 V)	6 A
Maximum Current (at 500 V)	9 A
Internal Resistance (Ω) (varies with temperature)	0.80 ± 0.10
Total Weight (g)	2750 ± 10

Rotation Direction (viewed from shaft end)	Clockwise / Counterclockwise
Operating Ambient Temperature (°C)	-10 °C to 65 °C
Storage Temperature (°C)	-10 °C to 50 °C
Storage Humidity (%)	85

****Propeller Mount Hole Diagram****

Paddle mount

****Motor Outline Diagram****

Motor figure

Factory Inspection Items

- Factory sampling inspection: dynamometer test
- Factory inspection item: ammeter
- Factory inspection item: tachometer
- Factory inspection item: DC low-resistance sorting instrument
- Factory sampling inspection: electronic counting scale (sampling)

****Fixed Motor Hole Diagram****

Fixed motor hole diagram

Optional Accessories Diagram

****Optional Propeller Mount****

The motor's rotation direction can be freely selected. The motor's rotation direction depends on the propeller's rotation direction. First, determine the propeller's rotation direction. After determining the propeller's rotation direction, do not rush to install the propeller blades. Connect the three sets of motor phase wires to the corresponding ESC output wires. If the motor rotation direction does not match the propeller's rotation direction, swap any two of the three motor phase wires, as shown in the diagram below.

5. Test Data and Test Conditions

****Test Conditions:****

- Test propeller: 36 × 12
- Ambient temperature: 25 ± 5 °C
- Test voltage: 65 °C

****Data Table:****

Parameter	Value 1	Value 2	Value 3	Value 4	Value 5	Value 6	Value 7
Test Current (A)	[verify]	[verify]	[verify]	[verify]	[verify]	[verify]	[verify]
Input Power (W)	384	1152	2304	2841	3724.8	4492	5836.8
Thrust (g)	5110	10710	17550	21050	35740	41620	[verify]
Torque (N·m)	[verify]	[verify]	[verify]	[verify]	[verify]	[verify]	[verify]
Speed (rpm)	51	2211	2612	2812	3012	3124	3215
Motor Efficiency (%)	80.3	72.2	[verify]	[verify]	[verify]	[verify]	[verify]
Overall Efficiency (%)	7.41	6.16	[verify]	[verify]	[verify]	[verify]	[verify]

****Mechanical Vibration:****

When the motor is tested for vibration as required, the vibration velocity measured during no-load operation shall not exceed 1.0 mm/s [verify].

****Insulation Dielectric Strength:****

1. Electrical strength: After insulation treatment, apply [verify] V/5 mA between the rotor winding and the housing; no flashover shall occur.

Motor Usage Precautions

Refer to the table below for motor usage precautions.

****Design and Usage Precautions****

(If any doubt arises regarding the safety of this product, please notify our company for technical inspection.)

- Due to various conditions such as operating voltage, lifespan, and environment, this product may experience short circuits, fire, or smoke. Therefore, please implement appropriate protective measures in your product.
- During motor installation and wiring, be careful not to damage the motor coils, wires, or edges. Failure to do so may cause electric shock, burnout, or fire.
- Do not touch rotating parts with hands or fingers while the motor is running. This may cause injury; installers must exercise caution.

- This product is intended for installation in other equipment. Therefore, no warning labels are provided on this product. If such labels are necessary, please contact us.
- Temperature significantly affects lifespan. When installing in your product, ensure the worst-case condition is below the bearing's allowable temperature (upper limit [verify] °C). If measurement is not possible, confirm the lifespan when installed in your product.
- Do not allow the bearing to remain at high temperature continuously, similar to a locked shaft. Prolonged high temperature (upper limit [verify] °C) will cause bearing degradation, leading to noise, vibration, and reduced lifespan.
- If your company performs speed control in a unique manner, confirm factors such as operating voltage range and load fluctuations to check for abnormal noise, abnormal motor heating, or stalling.
- Always install the motor in your product using the correct installation method. Improper installation is a root cause of noise and vibration and will adversely affect bearing life.
- Never move the motor by holding the wires, shaft, etc.
- If the motor is dropped or subjected to equivalent impact, insulation or bearing damage may occur. Do not use such a motor.
- Never disassemble this product. Unauthorized disassembly will void safety and other performance guarantees.
- Do not use this product in corrosive gas environments (H₂O, SO₂, NO₂, Cl₂) or in places containing harmful substances (especially organic silicon, cyano, phenol series). Also, confirm in advance whether your product contains such substances; if present, they may cause rust and affect lifespan.
- For storage, avoid the above corrosive gases, harmful environments, temperatures outside –10 °C to 50 °C, and humidity above 85%. Pay special attention during long-term storage. Allowable storage conditions: normal temperature and humidity for up to 6 months. Additionally, store in a sealed container.
- Please verify the compatibility of the motor with your equipment's structure, dimensions, lifespan, noise, vibration, and characteristics on your own.
- Use beyond the specifications described in this manual is not guaranteed.
- If specifications of your product change or if the motor is used in other products, please contact us in advance.
- If specifications of this product change, changes will be made according to our specification sheet or documents provided by your company. If performance or characteristics are affected, samples will be re-tested and verified before specification changes.
- Under the conditions described in this specification sheet, components may be changed without notice to improve product performance.
- For matters not described in this specification sheet that require agreement, please contact us in advance.
- If any mismatch occurs, it shall be resolved and implemented through mutual discussion based on the matters described in this specification sheet.
- Do not disclose this specification sheet to third parties.

Business enquiries

Product selection · Project enquiries · Technical support

H6



Zhuhai Shuangjie Technology Co., Ltd.

ADDRESS

35 Jinzhou Road, Jinding, Xiangzhou District, Zhuhai, Guangdong, China

CONTACT

Mr. Liu

PHONE

+86 18688194199

EMAIL

lhc1983@gmail.com

Quality engineering. Service life up to 5000 hours.

Actual life depends on load, temperature, installation and maintenance.