

QUICRUN
USER MANUAL
Sensorless Brushless Motor
QUICRUN 2435 G3

20240131

HW-SMB323DUL02-A1



Thank you for purchasing this HOBBYWING product! Any improper use may cause personal injury and damage to the product and related devices. We strongly recommend reading through this user manual before use and strictly abide by the specified operating procedures. We shall not be liable for any liability arising from the use of this product, including but not limited to reimbursement for incidental or indirect losses. Meanwhile, we do not assume any responsibility caused by unauthorized modification of the product. We have the right to change the product design, appearance, performance and use requirements without notice.

01 Warnings

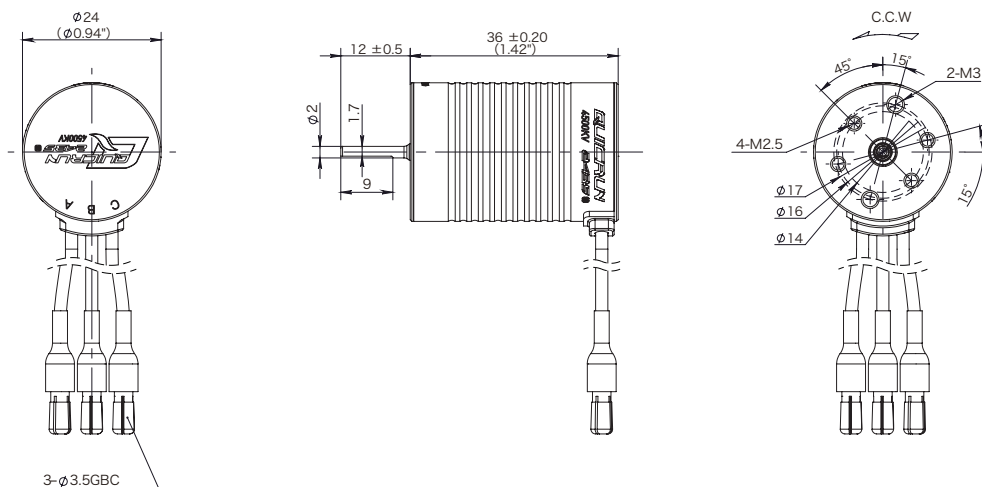
- Please carefully check power devices and manual of car chassis to ensure the power pairing is reasonable. Avoid wrong pairing to overload and damage the motor.
- Always wire up all the parts of the system carefully. If any of the connections come loose as a result of vibration, your model RC may lose control.
- Never apply full throttle if the pinion is not installed. Due to the extremely high RPMs without load, the motor may get damaged.
- Never allow the motor case to get 100 degrees Celsius (212 degrees Fahrenheit) because the magnets maybe demagnetized by high temperature.

02 Features

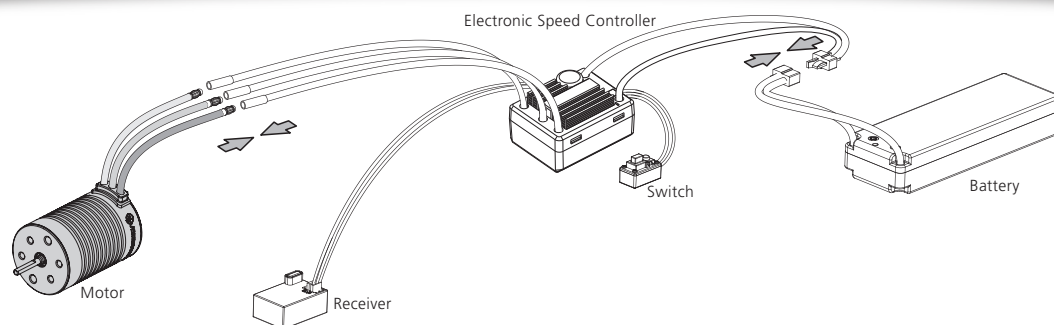
- 4 pole rotor design for more torque.
- Compared with the previous generation of motor, the output power and efficiency have been increased, and the motor temperature is effectively reduced under the same load.
- 0.2mm thick silicon steel laminations, high strength explosion-proof rotor, high-temperature resistant coil, First-line brand high-precision and high-quality bearing make the motor very durable.

03 Specifications

Model	KV	Lipo Cells	No-load Current	Diameter/Length	Shaft Diameter/Length	Bearing size	Poles	Weight	Applications
QUICRUN 2435SL G3-4500KV	4500KV	2-3S	2.1A	φ=24mm(0.94")	φ=2mm(0.08")	D8*D3*T4	4	61.2g	1/16&1/18
QUICRUN 2435SL G3-6500KV	6500KV	2S	3.4A	L=36mm(1.42")	L=12mm(0.47")				On-road, Off-road



04 Installation & Connection



1. Installation of the motor

There are two types of mounting screws for the motor, M2.5 and M3, and the mounting holes are 4mm in depth, before installing the motor on the vehicle, please carefully confirm whether the specifications of the screws are appropriate, as not to damage the motor due to excessive length. There are three types of mounting hole spacing of the motor, one group is 14mm, one group is 16mm, and one group is 17mm. Refer to the motor outline drawing for details.

2. How to Connect the Motor to an ESC

There is no specific wire sequence requirement for the connection between the motor and the esc, the # A/# B/# C three wires of the motor and esc can be connected at will, if the motor rotation in the opposite direction, you can exchange any two wires.

3. Inspection

Before powering on the esc, please check the motor installation and the order of all connections.

05 Gearing

Reasonable selection of gear ratio is very important. Improper gear ratio may cause damage. You can select the gear ratio according to the following points!

1. The operating temperature of the motor

The motor temperature should be lower than 100 degrees Celsius (212 degrees Fahrenheit) in operation. High temperature may cause the magnets to get demagnetized, the coil to melt and short circuit, and the ESC to get damaged. A suitable gearing ratio can effectively prevent the motor from overheating.

2. The principle of selecting gear ratio

To avoid the possible damage to ESC and motor caused by the overheating, please start with a small pinion/a big FDR and check the motor temperature regularly. If the motor and ESC temperature always stays at a low level during the running, you can change a larger pinion/a lower FDR and also check the motor temperature regularly to ensure that the new gearing is suitable for your vehicle, local weather and track condition. (Note: For the safety of electric devices, please check the ESC and motor temperature regularly.)