

## XERUN USER MANUAL

Sensored Brushless Motor  
XERUN 2848

20231227

HW-SMB571DUL00



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## 01 Warnings

- Please carefully check power devices and manual of car frame to ensure the power pairing is reasonable. Avoid incorrect pairing to overload and damage the motor.
- Always wire up all the parts of the equipment 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) otherwise it may cause the rotor to demagnetize.

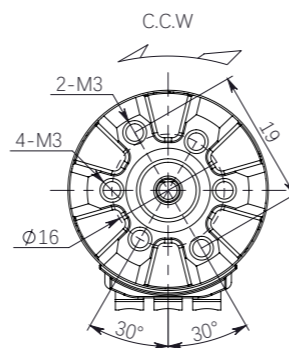
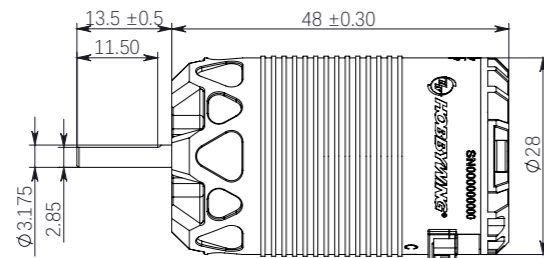
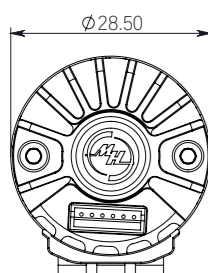
## 02 Features

- High efficiency, low temperature rise, and the motor always in a safe state.
- The mechanical timing of motor can be adjusted from 20-40°, it is convenient for driver to calibrate accurately output power of motor and meet power requirements of various application.
- The motor has low cogging effect and small torque pulse, it is very smooth at low speed and has superb handling performance.
- The protection grade of the motor is IP5X. Its excellent dustproof performance can easily deal with various dusty track environment.

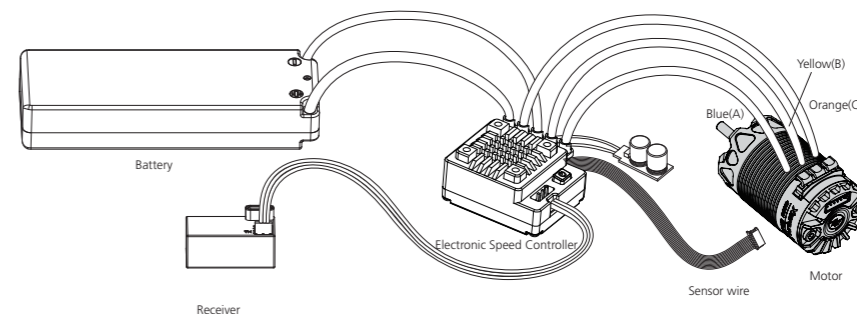
## 03 Specifications

Model	KV	LiPos	No-load Current (A)	Diameter/Length (mm)	Shaft Diameter/Length (mm)	Bearing size (mm)	Poles	Weight (g)	Applications
XERUN 2848SD-2800KV	2800KV	2-3S	1.5A	φ=28.5mm(1.12in) L=48mm(1.89in)	φ=3.175mm(0.13in) L=13.5mm(0.53in)	Front:	4	100g	1/14&1/12 On-road, Off-road
XERUN 2848SD-4000KV	4000KV		2.1A			D9.525*D3.175*T3.9675			
XERUN 2848SD-4600KV	4600KV	2S	2.6A			Rear:			
						D6.35*D3.175*T2.778			

### XERUN 2848



## 04 Installation & Connection



### 1. Installation of the motor

There are 6 motor mounting holes in M3 specification, and the mounting holes are 5mm in depth, before installing the motor on the vehicle, please carefully confirm whether the length of the screws is appropriate, so not to damage the motor due to excessive length.

### 2. How to Connect the Motor to an ESC

When connecting the motor and esc, please pay attention to the marked three-phase position of A, B and C to ensure that the three wires of the motor and esc are connected in the order that, wire A of the esc matches wire A of the motor, wire B of the esc matches wire B of the motor, wire C of the esc matches wire C of the motor. Otherwise, it cannot run and may even damage the esc and motor. And then connect the sensor cable to the motor and ESC.

### 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

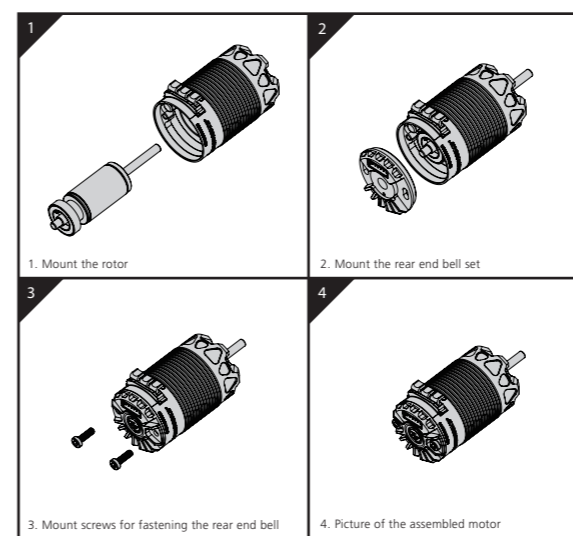
The motor temperature should be lower than 100 degrees Celsius (212 degrees Fahrenheit) in operation. High temperature may cause the magnets to get demagnetized, the coil to melt and short circuit, and the ESC to get damaged. A proper gearing ratio can effectively prevent the motor from overheating.

### 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 stays at a low level during the operation, you can change a larger pinion/a lower FDR and also check the motor temperature regularly to ensure that the new FDR 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.)

## 06 Assembly and Disassembly

In order for the motor have longer service life and higher efficiency, we suggest to regularly check the bearing and clean the dirt in the motor. The specific time depends on the frequency of using the motor and the site conditions. When installing, please follow the steps in the following assembly drawing; when disassembling, follow the reverse steps.



### Parts List

