

# Instructions For 36-series Sensored Brushless Motor For RC Cars



## Disclaimer

First of all, thank you for using XC-ESC product. Please read this statement carefully before use. Once used, you shall be deemed to have agreed all the terms of this statement. Please strictly follow the instructions in the manual when using this product. We shall not assume any responsibility arising from the use of this product, unauthorized modification and improper operation of this product, including but not limited to indirect losses or joint liability. We have the right to change the product design, appearance, performance and use requirements without notice.



## Warnings

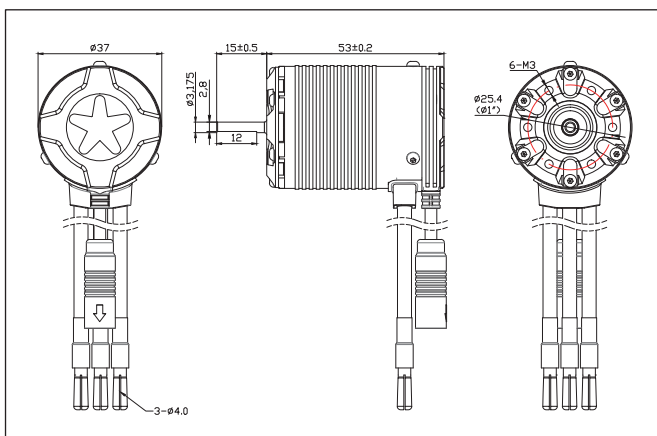
Please refer to the manual of power devices and vehicles to ensure a reasonable power configuration and avoid motor overload and personal injury due to incorrect power configuration. Do not run the motor at high speed without load for a long time, as it may cause damage to motor. Do not keep the temperature of the motor case above 100 degrees Celsius for long periods, as high temperatures may cause rotor demagnetization resulting in irreparable damage to motor.

## 1 . Features

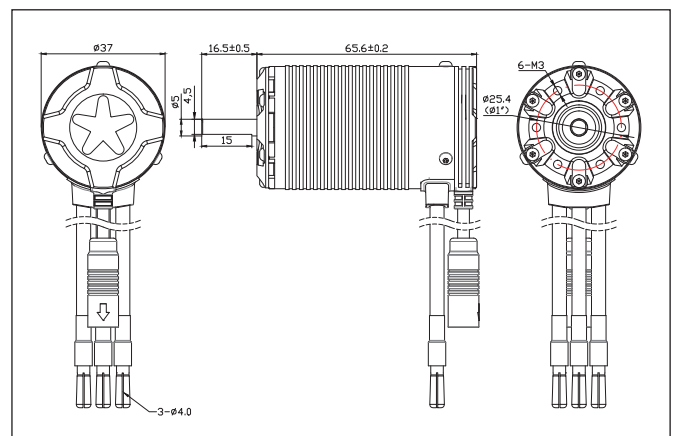
1. Outstanding magnetic circuit combining with ultrathin 0.2mm thick silicon steel and high slot fill factor of high temperature resistant enameled wire winding will effectively reduce losses and improve efficiency and thermal performance.
2. Special rotor winding process with explosion-proof, high precision balance for increasing rotor's service life and high-speed stability
3. High precision bearings, reinforced alloy aluminum shell and high toughness stainless steel shaft improves motor's structural performance.
4. Innovative waterproof design at driving end achieves excellent waterproof and dust-proof performance

## 2 . Specification

Model	E3652			E3665		
KV	5400KV	4100KV	3300KV	4000KV	3300KV	2500KV
Cells	2S	2-3S			2-4S	
No-load Current	≤6.5A	≤5.0A	≤3.9A	≤8.0A	≤7.0A	≤5.0A
Weight	227.0 g	227.5 g	228.1 g	300.5 g	302.3 g	302.5 g
Outer diameter/Length	Ø37mm(1.46in)/L53mm(2.09in)			Ø37mm(1.46in)/L65.6mm(2.58in)		
Shaft diameter/ End length of shaft	Ø3.175mm(0.125in)/L15mm(0.59in)			Ø5mm(0.2in)/L16.5mm(0.65in)		
Bearings	Front(driving end):D13*d5*T4					
	Rear(wire outlet end):D11*d5*T5					
Numbers of Poles	4 Poles					
Applicable to	On-road, Off-road, Short course (light load)			Short course, Trucks, Monster		



E3652



E3665

## 3 . Installation & connection

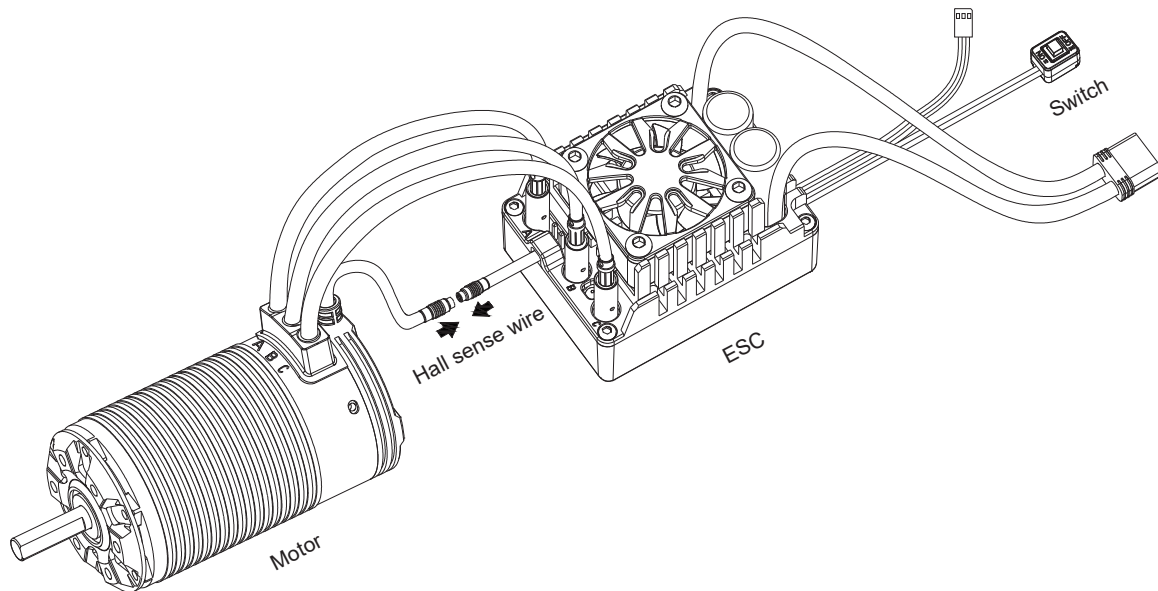
### 1.Install the motor

There are 6 screws in M3 specification, and the mounting holes are 5.5mm in depth. Before installing, please carefully confirm whether the specification of the screws is suitable for the thickness of the motor mounting plate to avoid assembly abnormality or abnormal operation of motor due to overlong screws.

### 2.When connecting the motor and esc

When connecting the motor and esc, please pay attention to the marked three-phase A, B and C to ensure that the three wires of the motor and esc are connected correspondingly. Otherwise, it cannot run normally and even damage the esc and motor.

That is: 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.



## 4 . Gearing

**Reasonable selection of gear ratio is very critical. Improper gear ratio may cause you great loss.**

### 1. The operating temperature of the motor

The motor temperature should be lower than 100 degrees Celsius in operation. Because high temperature may reduce the magnetism of rotor, and cause short circuit due to coil melting partly resulting in ESC damage. A proper gear ratio can effectively prevent the motor from overheating.

### 2. Gear ratio selection

Go through the manual of RC vehicle, and pair the gears according to recommended gear ratio. If the motor and ESC temperature always stay at a low level during the running, you can change a big pinion and monitor the motor and ESC temperature to ensure that the new pairing is suitable for your vehicle.