

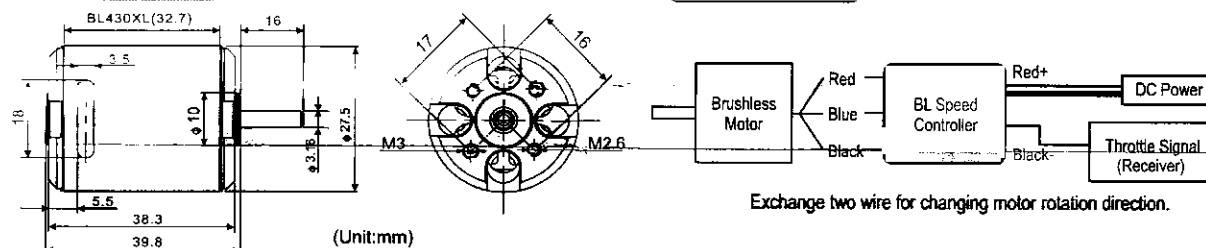
## RCM-BL430XL Brushless Motor



This new Brushless motor developed by the ALIGN POWER R&D TEAM, is packed with the latest, cutting edge technology available today. It features exceptional levels of high-torque power. The 430XL utilizes an 6-pole outrunner stator-rotor and unrivaled Ndfeb extra strong magnets that traditional magnets cannot compare to. Also included is a high temperature, wear-resisting, low friction, double ZZ high efficiency bearing. The 430XL will be the most revolutionary motor operating on low current amperage, and delivering high torque to RC models.

## Specification

## Illustration



| Model       | Input voltage | Dimension              | Weight     | KV     | Max. Output Current |
|-------------|---------------|------------------------|------------|--------|---------------------|
| RCM-BL430XL | DC7.4~14.8V   | Shaft 3.16x27.5x39.8mm | Approx.70g | 3700KV | 350W                |

## Features

- 1.The 430XL is maintenance free, and has a light, compact design . Gilt terminals are included for simple connection with ESC. The motor operates with very high efficiency, and low power consumption. The motors will provide many hours of smooth, reliable, quiet, and efficient flying.
- 2.These new brushless motors are designed with a new radiator system.The motors are built with an integrated cooling fan and has air ingress/egress vents, circulating cool air inside the rotor continuously. The motors efficiently lower operating temperature.
- 3.The motors feature High-speed ball bearings, powerful magnetic outrunner rotor. These high-torque, high-speed, brushless motors, RCM-BL430XL , are suitable for RC electronic products. The features of high efficiency output, low amperage, and light weight are suitable for electronic car airplanes/ helicopters which require high-torque and high-speed power systems. We recommend using one of our perfectly mated Brushless Speed Controllers, such ALIGN or other brushless electronic speed controllers available on the market.

Rotor is constructed with very powerful Ndfef Magnets. The stator is coiled by our NC auto winding machine, formed and protected with high strength resin for heat resistance and low vibration. The spindle is designed with Hardened Stainless Steel and a double ZZ high speed bearing. Additionally, 430 brushless AC motor is custom developed by ALIGN R&D technology specifically for RC model use. These motors provide long lasting, high efficiency, impact-resistance, low magnetic loss.

These new product have passed various thorough inspections made by our technical department, including motive testing, static testing, magnetic field testing, heat resistance and magnetic loss testing, running balance and vibration testing, noise testing, and many hours of actual loading and flying testing, etc. Align is proud to provide the latest innovations in RC Modeling to its consumers. Please enjoy your Align products safely.

#### CONSTANT VOLTAGE TESTING REFERENCE

According to battery characteristic, the current, RPM, thrust are calculated about 90% when actually using lithium battery for a test.

##### RCM-BL430XL BRUSHLESS MOTOR TESTING REFERENCE

| KV     | Voltage | Current | Prop Dimension | Thrust | RPM       | G/W | G/A  |
|--------|---------|---------|----------------|--------|-----------|-----|------|
| 3700KV | 7.4V    | 13.5    | ALIGN 4.2x2    | 350    | 24801 rpm | 3.5 | 25.9 |
|        | 9.6V    | 22.8    | ALIGN 4.2x2    | 580    | 30885 rpm | 2.6 | 25.4 |
|        | 11.1V   | 30.1    | ALIGN 4.2x2    | 750    | 34280 rpm | 2.2 | 24.9 |
|        | 7.4V    | 27.8    | ALIGN 4.7x4.7  | 395    | 21359 rpm | 1.9 | 14.2 |
|        | 7.4V    | 23.7    | APC 4.5x4.1    | 395    | 22707 rpm | 2.3 | 14.2 |
|        | 9.6V    | 34.6    | APC 4.5x4.1    | 556    | 27208 rpm | 1.7 | 16.0 |

##### T-REX 450 POWER COLLOCATION SUGGESTION REFERENCE

| Motor Gear | Main Rotor Blade           | PITCH  |     | Current(A) approx. | Throttle Curve       | RPM approx. |
|------------|----------------------------|--------|-----|--------------------|----------------------|-------------|
| 12T        | 325 Carbon Fiber Blades 3K | Hover  | +5° | 7.4                | 0/50/65/85/100%      | 2193        |
|            |                            | Idle 2 | 0°  | 12.8               | 100/100/100/100/100% | 3280        |
|            |                            |        | ±9° | 31.0               |                      | 2753        |
| 13T        | 325 Carbon Fiber Blades 3K | Hover  | +5° | 7.5                | 0/50/60/85/100%      | 2290        |
|            |                            | Idle 2 | 0°  | 14.1               | 100/100/100/100/100% | 3450        |
|            |                            |        | ±9° | 33.0               |                      | 2850        |

Battery: ALIGN Li-Poly 11.1V 2100mAh 22C

**ALIGN CORPORATION LIMITED**  
http://www.align.com.tw

No.345, SHUI-YUAN ROAD, FENG YUAN, TAIWAN, R.O.C.  
Toll-free line: 0800-000-444

G20240